# OFFICAL GAZETTE

# UNITED SIAIES PAIENI OFFICE

## NOV. AND DEC.

## VOL. 712 & 713

## 1956

MICRO PHOTO INC 5
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November 6, 1956 Volume 712 Number 1

# PATENTS

## NOTICES

### Erratum

All references to Patent No. 2,767,779 to Kaare Krogh, for Slipcover, appearing in the OFFICIAL GAZETTE of Oct. 23, 1956, should be deleted as the application was withdrawn from issue and the patent was not issued.

### Adjudicated Patents

(C. A. Pa.) Nachtman Patent No. 2,240,265 (204—28) for a method of continuously tin plating ferrous metal stock. Claims 1 and 2 *Held* invalid. *Nachtman* v. *Jones & Laughlin Steel Corporation*, 235 F.2d 211; 110 USPQ 167.

(D. C. Ill.) Borkland Patent No. 2,357,806 (18—56), for a method of making cupped formations of thermoplastic sheet material, *Held* invalid. *Borkland* v. *Pedersen et al., doing business as Paramount Plastics Co.*, 142 F. Supp. 652; 109 USPQ 481.

(C. A. Pa.) Nachtman Patent No. 2,459,674 (266—3), for continuous tinplate brightening apparatus, *Held* invalid. *Nachtman* v. *Jones & Laughlin Steel Corporation*, 235 F.2d 211; 110 USPQ 167.

(C. A. Pa.) Nachtman Patent No. 2,576,074 (204—28) for method and apparatus for continuous strip metal treatment. Claims 8 and 9 *Held* invalid. *Id.*

(C. A. Pa.) Nachtman Reissue Patent No. 20,788 (204—28), for a method of plating steel, *Held* invalid. *Id.*

(D. C. Ill.) Borkland Reissue Patent No. 23,171 (18—19), for apparatus for and method of forming sheet material, *Held* invalid. *Borkland* v. *Pedersen et al., doing business as Paramount Plastics Co.*, 142 F. Supp. 652; 109 USPQ 481.

### Disclaimers

2,730,143.—*John L. Ryde*, Los Angeles, Calif. POWER SAW CHAIN. Patent dated Jan. 10, 1956. Disclaimer filed Oct. 8, 1956, by the assignee, McCulloch Motors Corporation.

Hereby enters this disclaimer to claims 1 to 6, inclusive, of said patent.

2,733,196.—*Harold Hillier* and *Frank Bruce Ling*, Glasgow, Scotland. TREATMENT OF SEA WATER FOR EVAPORATING PLANTS. Patent dated Jan. 31, 1956. Disclaimer filed Sept. 27, 1956, by the assignees, *G. & J. Weir Limited*.

Hereby enter this disclaimer to claims 1 to 8, inclusive, of said patent.

2,743,059.—*Roy C. Gauger*, Rochester, N. Y. DEVICE FOR MEASURING GAS PRESSURES. Patent dated May 8, 1956. Disclaimer filed Oct. 2, 1956, by the assignee, *Consolidated Electrodynamics Corporation*.

Hereby enters this disclaimer to claims 1 and 2 of said patent.

### Patents Available for Licensing or Sale

2,748,568. Fuel Injection Arrangement in Vortex Air Stream in an Annular Combustion Chamber Surrounding a Gas Turbine. David Dutton Budworth, Altyre House, Great Horkesley, Essex, England. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,760,724. Thermostat Mounting. Anna Swietek, 64 Hope Ave., Passaic, N. J.

2,763,092. Rat Trap. George T. Sheridan, P. O. Box 459, Fort Madison, Iowa.

General Electric Company is prepared to grant nonexclusive licenses on reasonable terms under the following 26 patents to domestic manufacturers.

Applications for licenses under the following 16 patents may be addressed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass., Attention Patent Counsel.

2,246,159. Electrical Coil.
2,263,319. Bushing Terminal Guard.
2,337,872. Protective Device.
2,340,099. Thermal Switch.
2,344,334. High Voltage Winding.
2,374,055. Thermal Responsive Devices for Electrical Coils.
2,435,486. Operating Mechanism.
2,441,457. Bushing Construction.
2,447,883. Electrical Induction Apparatus.
2,458,948. Protective Device.
2,466,448. Combined Core and Coil Clamp.
2,467,377. Electrical Induction Apparatus.
2,490,506. Distribution Transformer Coil Support.
2,547,675. Magnetic Core.
2,554,185. Multisectioned Radiator.
2,698,429. Load Indicator.

Applications for license under the following patent may be addressed to: General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio, Attention Counsel.

2,722,803. Cooling Means for Combustion Chamber Cross Ignition Tubes.

Applications for licenses under the following 3 patents may be addressed to: General Electric Company, Component Products Division, 1635 Broadway, Fort Wayne, Ind., Attention Patent Counsel.

2,750,137. Motor Mounting.
2,751,455. Magnetic Centrifugal Device.
2,752,463. Switch.

Applications for licenses under the following 6 patents may be addressed to: General Electric Company, Patent Counsel, Measurements and Industrial Products Division, 920 Western Ave., West Lynn 3, Mass.

### New Applications Received During September 1956

| | |
|---|---|
| Patents | 5,343 |
| Designs | 336 |
| Plants | 11 |
| Reissues | 10 |
| Total | 5,700 |

### Issue

| | | |
|---|---|---|
| Patents | 805 | No. 2,769,173 to No. 2,769,977, incl. |
| Designs | 71 | No. 179,107 to No. 179,177, incl. |
| Plants | 1 | No. 1,526 |
| Reissues | 2 | No. 24,235 to No. 24,236, incl. |
| Total | 879 | |

2,548,502. Resistance Strain Gauge and Method for Making Same.
2,669,786. Attitude Indicator.
2,730,813. Gyroscope.
2,737,053. Gyro Setting Device.
2,744,218. Sealed Rectifier Unit and Method of Making the Same.
2,751,528. Rectifier Cell Mounting.

# CONDITION OF PATENT APPLICATIONS AS OF SEPTEMBER 28, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217, 262 |
| Total number of pending Design applications | 6, 321 |
| Total number of applications awaiting action (excluding Designs) | 120, 204 |
| Total number of Design applications awaiting action | 2, 772 |
| Date of oldest new application | Apr. 29, 1955 |
| Date of oldest amended application | May 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, I. G., CHEMICAL AND RELATED ARTS | 6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64. |
| II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 16, 23, 26, 37, 42, 44, 48, 51, 54, 69, 70. |
| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 39, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 8, 20, 29, 33, 36, 40, 41, 52, 66. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 5, 9, 10, 18, 22, 28, 45, 47. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 25, 30, 32, 49, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders | 10-21-55 | 11-9-54 |
| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 12-23-55 | 6-7-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 1-23-56 | 11-8-54 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 12-28-55 | 1-28-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates | 12-12-55 | 5-3-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-1-55 | 3-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-9-55 | 1-3-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 7-14-55 | 9-22-54 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 12-30-55 | 12-14-54 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 9-21-55 | 1-17-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cultery; Cleaning and Liquid Treatment of Solids | 2-3-56 | 4-6-55 |
| 12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls | 10-10-55 | 7-12-54 |
| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 12-5-55 | 10-4-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 9-20-55 | 9-17-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 1-3-56 | 9-23-54 |
| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 9-26-55 | 7-30-54 |
| 17. (IV) LEIGHEY, R. A. (HOFFMAN, R. J., acting), Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 11-14-55 | 1-7-55 |
| 18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices | 11-16-55 | 11-30-54 |
| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 12-14-55 | 4-25-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 1-10-56 | 1-3-55 |
| 21. (III) MADER, R. C., Textiles | 12-5-55 | 1-12-55 |
| 22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling | 11-25-55 | 11-9-54 |
| 23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education | 8-8-55 | 5-18-54 |
| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 1-9-56 | 10-14-54 |
| 25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus | 10-27-55 | 1-3-55 |
| 26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants, Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 1-31-56 | 7-26-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 1-9-56 | 3-11-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure-Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-10-55 | 1-10-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 11-23-55 | 2-21-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 4-2-56 | 5-9-55 |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application | |
|---|---|---|
| | New | Amended |
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 9-9-55 | 5-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 1-9-56 | 6-13-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 12-13-55 | 9-14-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 11-22-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Fluent Material Handling, Filling; Toilet, Kitchen and Table Articles | 1-18-56 | 8-16-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 9-26-55 | 9-8-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 10-14-55 | 3-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 1-5-56 | 6-6-55 |
| 39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-3-56 | 10-1-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 1-3-56 | 8-1-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffords | 7-20-55 | 9-3-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 4-29-55 | 10-19-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus) | 9-26-55 | 1-28-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar ;Sonar; Torpedoes | 6-2-55 | 6-18-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 10-26-55 | 2-9-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 7-26-55 | 1-10-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 1-10-56 | 7-20-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 8-12-55 | 8-18-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 9-1-55 | 3-21-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 12-30-55 | 9-7-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 12-29-55 | 8-24-54 |
| 52. (V) NEFF, P. R., Supports Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 10-24-55 | 11-15-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 12-2-55 | 2-30-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 10-24-55 | 10-4-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors | 7-28-55 | 11-15-54 |
| 56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 12-22-55 | 9-13-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driver and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 3-19-56 | 2-2-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittons | 10-17-55 | 11-4-54 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 9-30-55 | 1-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 8-2-55 | 9-30-54 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 12-6-55 | 3-4-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 1-6-56 | 7-5-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbonhydrate Derivatives; Fats and Metal-Containing Carbocyclic or Acyclic Carbon Compounds | 11-28-55 | 12-15-54 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 12-27-55 | 12-20-54 |
| 66. (V) LISANN, L., Geometric Instruments; Automatic Weighing Scales; Acoustics | 10-27-55 | 6-21-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-6-55 | 2-18-55 |
| 69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators | 11-17-55 | 6-15-54 |
| 70. (II) BREWBINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 9-14-55 | 6-8-55 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 1-16-56 | 10-14-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-9-56 | 7-5-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 12-2-55 | 2-14-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 2-6-56 | 3-1-56 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 2-27-56 | 2-27-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 2-2-56 | 2-13-56 |

The following divisions have been abolished: 65 and 68

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during November 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,178,536 to 2,181,857, inclusive
Plant Patent ..... Numbers 346 to 348, inclusive



# DECISIONS IN PATENT AND TRADEMARK CASES

## United States Court of Appeals Third Circuit

### R. M. PALMER COMPANY *v.* LUDEN'S INC.

*No. 11,652. Decided August 22, 1956*

[— F.2d — ; — USPQ —]

1. PATENTABILITY—STANDARDS—NEW PATENT ACT OF 1952.

"It is, perhaps, rather strong language to say that the new Act changed the law of patentability. The choice of language in the Act indicates, as the legislative history discloses, an attempt to state what the law has been. As such, it is a codification. The difficulty always existed in the application of the law, because to a large extent the standards have been indefinite and subjective. And judicial attempts to improvise expressions covering that which had been said many times before account for numerous descriptive phrasings of an elusive concept. The Act was intended to achieve the objective of stabilising the law through legislative expression which becomes the touchstone of the decisions."

2. SAME—SAME—SAME.

"Nor is it likely that a constitutional problem will arise so long as the expected interpretations of the statute come within the boundaries of long standing judicial declarations of the content of patentability. To what extent a change is wrought would seem to depend upon the preexisting views of a tribunal as to the standard upon which it has determined patentability."

3. SAME—SAME—INCREASED FACILITY OF PATENT GRANTS.

*Held* that "despite adherence to the Keystone cases, like *Hotchkiss v. Greenwood*, 11 How. 248, intangible elements have directed judicial attitudes to 'misgiving about the increased facility with which patents were being granted'."

4. SAME—SAME—NEW PATENT ACT OF 1952.

"The Act reaffirms the presumptive validity of patents (35 U. S. C., 1952 ed., Section 282), and specifies patentability in terms with which all in the field are familiar. It would appear that in this context, and by this choice of terms, the intended stabilizing effect is sought to be achieved. Beyond this, the tribunal faced with an issue of validity is left to the struggle to determine upon which side of a vague boundary line it will place the alleged invention. * * *. There is no longer any doubt that the 'flash of genius' has been laid to rest."

5. DESIGNS—PATENTABILITY—REQUIREMENTS UNDER NEW ACT OF 1952.

"The specifications for the granting of a design patent, as set forth in the Act are invention of a new, original and ornamental design non-obvious to a person of ordinary skill in the art."

6. SAME—INVENTION.

*Held* that in determining the validity of a design patent "it is almost unavoidable that the visual sense is the primary testing ground, and that the design must be looked at as a whole."

7. ATTORNEY FEES—TO PREVAILING PARTY IN EXCEPTIONAL CASES UNDER 35 U. S. C. 285.

"The 1952 Patent Act, in Section 285, continues the discretionary power of the District Court to award reasonable counsel fees in exceptional cases. The phrase 'exceptional circumstance' is not contained in the prior law (35 U. S. C. 1946 ed., Sec. 70), but confirms to the interpretation of the prior law by the cases. It is clear that counsel fees should not be awarded as a matter of course, nor as a penalty against the loser who followed conventional procedure."

8. SAME—SAME—BOTTOMED UPON FINDING OF UNFAIRNESS OR BAD FAITH.

"The exercise of discretion in favor of the allowance should be 'bottomed upon a finding of unfairness or bad faith in the conduct of the losing party, or some other equitable consideration of similar force, which makes it grossly unjust that the winner of the particular law suit be left to bear the burden of his own counsel fees which prevailing litigants normally bear'."

9. SAME—SAME—WHERE PLAINTIFF'S DESIGNS COPIED.

*Held* that a defendant's copying of the plaintiff's designs because of their success is remedied by the award of damages for infringement and does not bring the case within the reasons for awarding reasonable attorney fees to the prevailing party in exceptional cases.

10. PARTICULAR PATENTS—PALMER DESIGN PATENTS NOS. 157,621, 161,521, 161,522, 161,865—VALIDITY.

The decree of the District Court holding valid Palmer Design Patents Nos. 157,621, 161,521, 161,522, and 161,865, for various chocolate animals, affirmed.

ON APPEAL from the United States District Court for the Eastern District of Pennsylvania.

AFFIRMED.

*Henry N. Paul, Jr.*, (for R. M. Palmer Company). *Kennard N. Ware* and *Howson & Howson* (for Luden's Inc.).

Before BIGGS, *Chief Judge*, MARIS, GOODRICH, MCLAUGHLIN, KALODNER, STANLEY and HASTIE, *Circuit Judges*

KALODNER, *Circuit Judge*:

The R. M. Palmer Company, a Pennsylvania corporation, brought this action against Luden's Inc., also a Pennsylvania corporation, charging infringement of four design patents covering chocolate novelties in the form of a rabbit, a duck, a squirrel and a lamb,[1] and further charging unfair competition. The defendant denied infringement and unfair competition, and attacked the validity of the design patents. The District Court found the patents valid and infringed, and allowed the recovery of counsel fees, but found against the plaintiff on its charge of unfair competition. 128 F. Supp. 672 (E. D. Pa. 1955). The defendant prosecuted this appeal.

The defendant does not here assert non-infringement, but contends that the District Court erred in sustaining the validity of the four design patents involved and in awarding counsel fees to the plaintiff. The questions are thus confined. It should be noted, too, that on the issue of validity, the defendant relies upon the failure of the designs to evince invention over the prior art, rather than upon anticipation.

The facts are not substantially in dispute. As found by the District Court, they are as follows:

Richard M. Palmer, the patentee and assignor of the plaintiff, started in the candy business on a small scale in 1948, in Reading, Pennsylvania, where the defendant, a large and well-established candy manufacturer has its offices and plant. Prior to 1948, hollow chocolate standard or conventional figures were produced by the defendant, principally from imported German molds known as "Reiche" molds, so-called after the manufacturer. These molds, of animals, were "realistic" in concept, following natural proportions and postures. Because of the war, with limitations on uses of chocolate and impossibility of importation, the industry, at least insofar as we are concerned, endured nonproduction, at least until

[1] Design Patent No. 157,621, March 7, 1950, consisting of a chocolate rabbit; Design Patent No. 161,521, January 2, 1951, consisting of a chocolate duck; Design Patent No. 161,522, January 2, 1951, consisting of a chocolate lamb; Design Patent No. 161,865, February 6, 1951, consisting of a chocolate squirrel.

some time in 1946. After 1946, the former distributor of "Reiche" molds, commenced to manufacture its own molds continuing a selected number of the more popular "Reiche" figures. It is clear that the hollow chocolate candy art was, at the time Palmer entered it, "old-fashioned," "stagnant" and "lagging," to use the defendant's terms.

The figures developed by Palmer are fanciful, decorated productions of the animals involved, cast in hollow chocolate, with exaggerated features. They might be described as ornamented caricatures. The record suggests difficulty of design attributable to the frailty of the medium and to the manufacturing technique. In the Easter season, which is the trade objective of this kind of product, Palmer's figures met with "marked success,"[2] again using the defendant's term. It was for this reason that the defendant included the items in its line of confections.

Unquestionably, Palmer awakened the industry to a new satisfaction of a long felt need. The defendant, whose counsel have demonstrated laudable candor, does not seek to detract from what it calls the good judgment, ability and acumen of Palmer. Nor does it seek to detract from fancifulness, attractiveness and appeal of the designs. Nevertheless, it maintains that there is not such novelty as warrants patent protection, and that the designs evidence only the expected skill of a good craftsman, which does not rise to the dignity of invention.

The District Court found that the designs were new and different; that they were non-obvious at the time they were made; that they were the result of inventive faculty, exhibiting a designing skill beyond the ordinary skill of the art.

The plaintiff came to the District Court with the benefit of the presumption of validity. The defendant did not rely upon prior patents different from those considered by the Patent Office. The defendant comes to this Court with the burden of convincing us that the District Court's findings, to the extent they are findings of fact, are clearly erroneous. *United States v. U. S. Gypsum Co.*, 333 U. S. 364, 395 (1948).

It is our opinion that the judgment of the District Court ought not to be set aside.

In the field of judicial testing of the validity of patents, it is a common observation that the law is settled, the difficulty existing in its application. Here, the plaintiff has introduced an argument as to the effect of the Patent Act of 1952, 35 U. S. C., 1952 ed., Section 1, et seq. The argument presupposes that the courts, as a result of the "flash of genius" expression in *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U. S. 84, 91 (1941), have applied a higher, more rigid standard for determining validity, and that the recent Act, 35 U. S. C., 1952 ed. Section 103,[3] constitutes a congressional change of direction to assertedly more lenient criteria. Notwithstanding that the plaintiff rests upon the conclusion of the District Court that the design patents involved meet the requirements of the new Act, the issue raised merits attention.[4]

The provisions of Section 103, 35 U. S. C., 1952 ed., as set forth in footnote 3, are new. The purpose of the provisions as stated by the Reviser is to achieve a stabilizing effect, and to render immaterial whether the invention resulted from "flash of genius."[5]

[1] It is, perhaps, rather strong language to say that the new Act changed the law of patentability. The choice of language in the Act indicates, as the legislative history discloses, an attempt to state what the law has been. As such, it is a codification. The difficulty always existed in the application of the law, because to a large extent the standards have been indefinite and subjective. And judicial attempts to improvise expressions covering that which had been said many times before account for numerous descriptive phrasings of an elusive concept. The Act was intended to achieve the objective of stabilizing the law through legislative expression which becomes the touchstone of the decisions. [2] Nor is it likely that a constitutional problem will arise so long as the expected interpretations of the statute come within the boundaries of long standing judicial declarations of the content of patentability. To what extent a change is wrought would seem to depend upon the preexisting views of a tribunal as to the standard upon which it has determined patentability.[6] [3] As pointed out by Judge Learned Hand in *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530, 535–536 (2nd Cir. 1955), cert. den. 350 U. S. 911, despite adherence to the keystone cases, like *Hotchkiss v. Greenwood*, 11 How. 248, intangible elements have directed judicial attitudes to "misgiving about the increased facility with which patents were being granted."

We are inclined to accept the sensitive observations of Judge Learned Hand as to the judicial tendency of recent years, even within the language of the older decisions, to expect an indefinite "more" of the proffered invention. [4] The Act reaffirms the presumptive validity of patents (35 U. S. C., 1952 ed., Section 282), and specifies patentability in terms with which all in the field are familiar. It would appear that in this context, and by this choice of terms, the intended stabilizing effect is sought to be achieved. Beyond this, the tribunal faced with an issue of validity is left to the struggle to determine upon which side of a vague boundary line it will place the alleged invention. E. g. *Jungerson v. Ostby & Barton Co.*, 335 U. S. 560 (1949), and dissenting opinions at 568 and 571. There is no longer any doubt that the "flash of genius" has been laid to rest.

[5] The specifications for the granting of a design patent, as set forth in the Act are invention of a new, original and ornamental design non-obvious to a person of ordinary skill in the art. In *Gorham v. White*, 14 Wall. 511, 525 (1872), an infringement case, the Supreme Court emphasized that

> "it is the appearance itself . . . that constitutes mainly, if not entirely, the contribution to the public which the law deems worthy of recompense. The appearance may be the result of peculiarity of configuration or of ornament alone, or of both co-jointly, but in whatever way it is produced, it is the new thing or product which the patent law regards."

And in *Glen Raven Knitting Mills v. Sanson Hosiery Mills*, 189 F.2d 845, 850–852 (4th Cir. 1951), the law was fairly summarized:

> "Later cases developed the standards to be used when the validity of a design patent was at issue. Validity is to be tested by the appearance of the patented design as a whole. *Dobson v. Dornan*, 118 U. S. 10, 15. 6 S. Ct. 946, 30 L. Ed. 63. 'A combination of elements that are old is patentable. If it produces a new and useful result as the product of the combination; and a design which avails itself of suggestions old in art is patentable, if as a whole, it produces a new and pleasing impression on the aesthetic sense.' *Matthews & Willard Mfg. Co. v. American Lamp & Brass Co.*, 3 Cir., 103 F. 634, 639. Nevertheless, there must be an exercise of the inventive faculty, and if the design lacks this quality, it will not suffice to say that it is new, original and ornamental, and has received wide public acceptance. *Smith v. Whitman Saddle Co.*, 148 U. S. 674, 13 S. Ct. 768, 37 L. Ed. 606; *S. Dresner & Son v. Doppelt*, 7 Cir., 120 F.2d 50; . . . 'In short, the test is whether the design involved "a step beyond the prior art requiring what is termed 'inventive genius'". *General Time Instrument Corp. v. U. S. Time Corp.*, 2 Cir., 165 F.2d 853, 854."

The Court further indicated, at page 853, the special importance of commercial success in determining the validity of the design patent. See *Sanson Hosiery Mills, Inc. v. Warren Knitting Mills, Inc.*, 202 F.2d 395, 396 (3rd Cir. 1953); *J. R. Wood & Sons, Inc. v. Abelson's, Inc.*, 74 F.2d 895 (3rd Cir. 1934).

[6] It is almost unavoidable that the visual sense is the primary testing ground, and that the design must be looked at as a whole. We are of the opinion that the designs in this instance disclose artistic treatment in form and configuration, creating a pleasing impression and substantially different aesthetic effect. We are of the opinion, further, that they reflect originality born of inventive faculty. While the defendant offered numerous publications showing a variety of novelty designs, none meet the visual test, to detract from the impressions left by Palmer's designs. What the defendant sought to show was the state of the art, but the difficulty lies in the fact that while arms, legs, and various other parts of the body and ornamentations are necessary parts of the Palmer configurations, it is the whole upon which decision must be based. The defendant insists that the "Walt Disney" forms make Palmer's designs nothing other than the work of a skillful craftsman. In essence, however, the defendant's argument is that the idea of the "Walt Disney" type of product is old, so that any figure or design is merely a variation which does not involve invention. Reliance is placed upon *Knickerbocker Plastic Co. v. Allied Molding Corp.*, 184 F.2d 652 (2d Cir. 1950). But the Court there did not hold that the design involved was unpatentable merely because it was within the field of unnatural, grotesque figures. Rather, it concluded that the features of the design in dispute were "pretty substantially duplicated in one or more of the four Disney ducks. Even if they were not, the Disney product had so popularized the not too unusual idea of a grotesque animal design for this particular fowl that more than this type of change would appear to be needed to show invention." It is apparent that the Court did not consider the whole field of exaggerated animal figures to have been preempted by the idea alone, and that the design in dispute failed of patentability because it did not get out from Disney's shadow, as the Court put it.

We conclude, therefore, that the District Court did not err in holding Palmer's design patents valid. There is no question that they were infringed.

Finally, the defendant disputes the correctness of awarding counsel fees to the plaintiff. [7] The 1952 Patent Act, in Section 285,[7] continues the discretionary power of the District Court to award reasonable counsel fees in exceptional cases. The phrase "exceptional circumstance" is not contained in the prior law (35 U. S. C., 1946 ed., Sec. 70), but confirms to the interpretation of the prior law by the cases. It is clear that counsel fees should not be awarded as a matter of course, nor as a penalty against the loser who followed conventional procedure. *Jacquard*

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[2] In the Easter season of 1949, plaintiff sold 18,233 dozens of the rabbit and 138,280 dozens in 1953; in 1950, it sold 13,000 dozens of the duck, and 29,000 in 1953; in 1951, it sold 14,000 dozens of the lamb and 35,000 dozens of the squirrel, and 36,000 dozens of the lamb and 58,000 dozens of the squirrel in 1953.

[3] Section 103, 35 U. S. C., 1952 ed. is made applicable to design patents by virtue of Section 171, which reads as follows:

"Section 171. Patents for designs.

"Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.

"The provisions of this title relating to patents for inventions shall apply to patents for designs, except as otherwise provided."

This is based upon 35 U. S. C., 1946 ed., Section 73. The law was, and is, that invention is as necessary in design patents as in utility patents. *Smith v. Whitman*, 148 U. S. 674 (1893); *S. Dresner & Sons, Inc. v. Doppelt*, 120 F.2d 50, 52 (7th Cir. 1941).

Section 103, 35 U. S. C., 1952 ed., reads as follows:

"Section 103. Conditions for patentability; non-obvious subject matter.

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

[4] *Wassermen v. Burgess & Blacker Co.*, 217 F.2d 402, 404 (1st Cir. 1954); *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530, 535–536 (2nd Cir. 1955), cert. den. 350 U. S. 911; *Interstate Rubber Products Corp. v. Radiator Specialty Co., Inc.*, 214 F.2d 546, 549 (4th Cir. 1954); *Vincent v. Sun-Citrus Products Co.*, 215 F.2d 305, 315 (5th Cir. 1954); *General Motors Corp. v. Estate Stove Co.*, 203 F.2d 912, 915 (6th Cir. 1953); *Helms Products, Inc. v. Lake Shore Manufacturing Co.*, 227 F.2d 677, 682–683 (7th Cir. 1955); *Pacific Contact Laboratories, Inc. v. Soles Laboratories, Inc.*, 209 F.2d 529, 533 (9th Cir. 1953); *L-O-F Glass Fibers Co. v. Watson*, 228 F.2d 40, 47 (D. C. Cir. 1955); and also our own references to the new Act: *Stanley Works v. Rockwell Mfg. Co.*, 203 F.2d 846, 849 (1953); *Mojonnier Bros. Co., Inc. v. Tolen Machinery Co., Inc.*, 230 F.2d 850, 851 (1956); see also, *Gagnier Fibre Products Co. v. Fourslides, Inc.*, 112 F. Supp. 926 (E. D. Mich. 1953); *Thye Co. v. Oeste*, 111 F. Supp. 665, 673, 674 (N. D. Calif. 1953), aff'd per curiam, 219 F.2d 131 (9th Cir. 1955).

[5] "There is no provision corresponding to the first sentence explicitly stated in the present statutes, but the refusal of patents by the Patent Office, and the holding of patents invalid by the courts, on the ground of lack of invention or lack of patentable novelty has been followed since at least as early as 1850. This paragraph is added with the view that an explicit statement in the statute may have some stabilizing effect, and also to serve as a basis for the addition at a later time of some criteria which may be worked out.

"The second sentence states that patentability as to this requirement is not to be negatived by the manner in which the invention was made, that is, it is immaterial whether it resulted from long toil and experimentation or from a flash of genius."

See also, House Report No. 1923 (May 12, 1952) and Senate Report No. 1979, June 27, 1952 (both 82d Cong. 2d Sess.):

"Section 103, for the first time in our statute, provides a condition which exists in the law and has existed for more than 100 years, but only by reason of decisions of the courts. An invention which has been made, and which is new in the sense that the same thing has not been made before, may still not be patentable if the difference between the new thing and what was known before is not considered sufficiently great to warrant a patent. That has been expressed in a large variety of ways in decisions of the courts and in writing. Section 103 states this requirement in the title. It refers to the difference between the subject matter sought to be patented and the prior art, meaning what was known before as described in Section 102. If this difference is such that the subject matter as a whole would have been obvious at the time to a person skilled in the art, then the subject matter cannot be patented.

"That provision paraphrases language which has often been used in decisions of the courts, and the section is added to the statute for uniformity and definiteness. This section should have a stabilising effect and minimise great departures which have appeared in some cases."

[6] See *Anderson Co. v. Lion Products Co.*, 127 F.2d 454, 457 (1st Cir. 1942); *Bellevance v. Frank Morrow Co.*, 140 F.2d 419, 423 (1st Cir. 1944); *Brown & Sharpe Mfg. Co. v. Ker Engineering Co.*, 154 F.2d 48, 51 (1st Cir. 1946); *Weidhaas v. Loew's, Inc.*, 125 F.2d 544, 545 (2d Cir. 1942); *Fosboro Co. v. Taylor Instrument Co.*, 157 F.2d 226, 234 (2d Cir. 1946); *Robertson Rock Bit Co. v. Hughes Tool Co.*, 176 F.2d 785, 790 (5th Cir. 1949); *Trubon Engineering Corp. v. Dirkes*, 186 F.2d 24, 27 (6th Cir. 1943); *Feilchenberg v. Bernard Edward Co.*, 175 F.2d 427, 428–429 (7th Cir. 1949); *Alemite Co. v. Jiffy Lubricator Co.*, 176 F.2d 444, 448–449 (8th Cir. 1949); *Trico Products Corp. v. Dolman Corp.*, 180 F.2d 529, 533–534 (8th Cir. 1950), and compare with the decisions cited in footnote 4, supra.

[7] "Sec. 285. Attorneys fees. The Court in exceptional cases may award reasonable attorney fees to the prevailing party."

*Knitting Mach. Co.* v. *Ordnance Gauge Co.*, 213 F.2d 508, 508–509 (3rd Cir. 1954); *Pennsylvania Crusher Co.* v. *Bethlehem Steel Co.*, 193 F.2d 445, 450–451 (3rd Cir. 1951); *Park-in-Theatres* v. *Perkins*, 190 F.2d 137, 142–143 (9th Cir. 1951); *Dubil* v. *Rayford Camp & Co.*, 184 F.2d 899, 902–903 (9th Cir. 1950). [8] The exercise of discretion in favor of the allowance should be "bottomed upon a finding of unfairness or bad faith in the conduct of the losing party, or some other equitable consideration of similar force, which makes it grossly unjust that the winner of the particular law suit be left to bear the burden of his own counsel fees which prevailing litigants normally bear." *Park-in-Theatres* v. *Perkins*, supra, at page 142.

[9] Here, as in *Pennsylvania Crusher Co.* v. *Bethlehem Steel Co.*, supra, there is no finding of the District Court which would bring the case within the reasons for granting the award. The District Court did find, generally, that the defendant copied the plaintiff's designs because of their success. But it appears to us that this is remedied by the award of damages for infringement. Otherwise, nothing gives support to any equitable consideration for the allowance of counsel fees, and plaintiff makes no claim.

[10] For the reasons stated, the judgment of the District Court will be affirmed, except insofar as it allows counsel fees to the plaintiff.

AFFIRMED.

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HASTIE, *Circuit Judge* (dissenting):

I think the district court's finding of invention in this case was clearly erroneous. We all agree that, in the language of the majority opinion, "the granting of a design patent . . . [must be based upon] invention of a new, original and ornamental design nonobvious to a person of ordinary skill in the art." My disagreement is based upon the belief that plaintiff's design cannot be reasonably said to meet that standard. The Disney figures and many other prior art caricatures of rabbits, ducks, squirrels and lambs were before the district court and are before us. In one or two cases plaintiff's design approximates earlier figures almost as closely as would a copy. All of plaintiff's designs are so similar to earlier caricatures as to suggest that what plaintiff has done would necessarily be obvious to any draftsman familiar with recent developments in that field; and the record contains no testimony, expert or otherwise, to indicate any distinctive characteristics differentiating plaintiff's designs significantly from other familiar caricatures of the same animals.

In this view of the matter I cannot see how plaintiff's figures can reasonably be said to exhibit inventive variation from what was already familiar. It seems to me—and I think plaintiff's testimony is to the same effect—that what plaintiff contributed here was a very good merchandising idea, namely, that caricatures of animals such as had proved attractive in other fields would also make edible chocolate animals sell better. But the reduction of that idea to practice was not invention.

I would reverse the judgment.

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# PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

**2,208,874.** (See Re. 22,055.)

**2,227,815.** (See Re. 22,055.)

**2,284,580**, E. L. Chott, Mortar and pestle, filed Oct. 22, 1952, D. C., E. D. Pa. (Philadelphia), Doc. 14358, *Crescent Dental Mfg. Co.* v. *The S. S. White Dental Mfg. Co.* Patent held valid as to claims 1, 2, and 3; complaint dismissed Sept. 27, 1956.

**2,322,880**, A. G. Dewees, Process for reconditioning yarn cones, filed June 16, 1954, D. C., W. D. N. C. (Statesville), Doc. 280, *Sterling Cone Supply Co. et al.* v. *Whisenant Cone Co.* Patent held invalid June 28, 1956. Same, appeal filed Sept. 14, 1956, C. C. A., 4th Cir., Doc. 7300, *Alvin G. Dewees* v. *Whisenant Cone Co.*

**2,333,087**, M. F. Bayer, sofa bed; **Re. 24,125** (of **2,252,909**), H. H. Weller, same, filed June 28, 1955, D. C., S. D. Calif. (Los Angeles), Doc. 18360–WM, *Simmons Co.* v. *Riviera Mfg. Co., Inc. et al.* Consent judgment; patent 2,333,087 held valid and infringed as to claims 1, 6, 7, and 8; patent reissue 24,125 held valid and infringed as to claims 3 and 4; defendants enjoined from further infringement (notice Oct. 2, 1956).

**2,339,809.** (See 2,496,194.)

**2,382,660.** (See 2,333,087.)

**2,496,194**, S. Bennett, Powder distributor for preventing offset from freshly printed sheets; **2,339,809**, W. Wilson, Non-offset spraying device, filed Mar. 7, 1950, D. C., S. D. N. Y., Doc. 56/231, *International Dry Spray Corp. et al.* v. *Sullivan Dry Spray Co. Inc. and Frank Sullivan.* Stipulation and order of discontinuance as to defendant Frank Sullivan: Consent judgment; defendant Sullivan Dry Spray Co. Inc. enjoined Sept. 27, 1956.

**2,510,436**, K. M. Tuohy, Contact lens, filed Sept. 19, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20484–T, *Soleo Laboratories, Inc.* v. *M. Lon Kasow.*

**2,595,876**, J. H. Denney, Folding armchair, filed Sept. 28, 1956, D. C., S. D. Fla. (Miami), Doc. 7189–M, *Falcon-Imperial Corp.* v. *Lawnlite Co. of New Jersey, Inc.*

**2,582,450**, S. A. Paoli, Shrimp cleaning implement, filed Oct. 1, 1956, D. C. N. J. (Newark), Doc. 775/56, *Stephen A. Paoli et al.* v. *Plastic Dispensers, Inc.*

**2,589,900.** (See Re. 23,843.)

**2,609,884**, R. E. Ten Eyck, Two-deck trailer, filed Sept. 5, 1956, D. C., N. D. Ind. (South Bend), Doc. 2121, *Lighthouse Corp.* v. *Pacemaker Trailer Co.*

**2,668,695**, Kronhaus and Zollman, Adjustable vehicle seat, filed July 28, 1954, D. C., S. D. Calif. (Los Angeles), Doc. 16968–WB, *Leopold Zollmen et al.* v. *General Motors Corp. et al.* Judgment favor defendant General Motors Corp. (notice Sept. 28, 1956).

**2,623,823**, B. E. Wallace, Winch, filed May 8, 1955, D. C., E. D. Pa. (Philadelphia), Doc. 20,690, *The Log All Co.* v. *H. E. Fortna & Bro.* Consent decree favor plaintiff; injunction granted Sept. 28, 1956.

**2,672,733**, W. O. Hersey, Toy pistol; **2,724,523**, same, Toy gun, filed Oct. 3, 1956, D. C. N. J. (Newark), Doc. 792/56, *Knickerbocker Plastic Co., Inc.* v. *Park Plastics Co. et al.*

**2,714,312**, Leath and Bobo, Method of controlling wildness of twisted yarn during delivery to a knitting operation, filed Feb. 17, 1956, D. C., S. D. N. Y., Doc. 107/135, *Chester H. Roth Co., Inc.* v. *Patentex, Inc.* Stipulation and order of discontinuance Sept. 28, 1956.



**2,724,523.** (See 2,672,733.)

**2,748,675**, N. G. Hovlid, Aquarium device, filed Sept. 26, 1956, D. C., S. D. N. Y., Doc. 113/185, *Super Products Corp.* v. *Miracle Filter Co. et al.*

**Re. 22,055** (of **2,227,815**), P. M. G. Toulon, Synchronization system for television; **2,208,874**, H. M. Lewis, Television receiving system, filed Oct. 17, 1951, D. C., N. D. Ill. (Chicago), Doc. 51c1640, *Haseltine Research, Inc.* v. *Avco Mfg. Corp. et al.* Mandate of C. C. A.: judgment of District Court affirmed Mar. 19, 1956: Claims 5, 6, 7, 9, 10, and 13 of Re. 22,055 held valid and infringed; injunction against infringement waived by plaintiff; defendants' first and second counterclaims dismissed Oct. 1, 1956.

**Re. 23,843** (of **2,589,900**), R. J. Oace et al., Insulating tape, filed Aug. 3, 1954, D. C., M. D. N. C. (Greensboro), Doc. 879–G, *Minnesota Mining & Mfg. Co.* v. *Pine State Electric Supply Co.* Judgment favor plaintiff June 12, 1956. Same, Doc. 878–G, *Minnesota Mining & Mfg. Co.* v. *Sears, Roebuck and Co.* Decree as above. Same, appeal filed Sept. 13, 1956, C. C. A., 4th Cir., Doc. 7298, *Sears, Roebuck and Co. et al.* v. *Minnesota Mining & Mfg. Co.*

**Re. 24,125.** (See 2,333,087.)

# REISSUES

## NOVEMBER 6, 1956

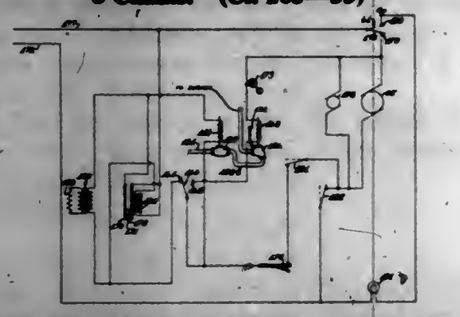
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

### 24,235
### CLOTHES DRIER AND ELECTRICAL CONTROL THEREOF

Peter Edward Goldhof and Harold E. Morrison, Benton Harbor, Mich., assignors, by mesne assignments, to Whirlpool-Seeger Corporation, St. Joseph, Mich., a corporation of Delaware

Original No. 2,678,814, dated May 18, 1954, Serial No. 288,708, January 31, 1951, which is a division of Serial No. 123,018, October 22, 1949. Application for reissue May 17, 1956, Serial No. 585,596

8 Claims. (Cl. 263—33)



2. A clothes drier comprising a cabinet, a rotatable drum within said cabinet, said cabinet having a door opposite one end of said drum, an electric motor connected to drive said drum, electrically controlled heating means, *means* operated by said motor [, means] for circulating heated air through said drum, a door switch movable to a closed position by closure of said door, a timer having two switches closing at different time intervals, said electrically controlled heating means being energized through said second switch and said motor being energized through said door switch through said first switch, said first switch closing prior to said second switch, and said switches opening in a reverse order, whereby said motor and drum continue to rotate after the heat is turned off.

### 24,236
### OIL WELL TESTING TOOL

Sterling P. Bedingfield, Bossier City, La.

Original No. 2,736,383, dated February 28, 1956, Serial No. 218,593, March 31, 1951. Application for reissue June 25, 1956, Serial No. 593,784

9 Claims. (Cl. 166—188)

1. An oil well testing tool comprising a series of threadably joined tubular sleeves, a hollow mandrel having the upper end thereof arranged for threaded attachment to a string of drill pipe or the like, a portion of the lower end of said mandrel being enclosed in the upper end of said joined tubular sleeves, said mandrel being further provided with locking means between the same and the side walls of the sleeve enclosing it, said mandrel being unlocked from said sleeve by lowering the pipe string to which said mandrel is attached to permit both longitudinal and rotative movements of said mandrel independently of said joined tubular sleeves, a



valve for stopping fluid flow upwardly through said tubular sleeves, said valve including a valve stem connectable with said mandrel and movable longitudinally therewith, an annular valve seat formed on an end of one of said sleeves, means for locking said valve stem against rotative movement relative to said sleeves but permitting longitudinal movement thereof with the mandrel to which the same is attached, and means for closing said valve against said valve seat operable upon rotating said mandrel when the same is in an unlocked position to disconnect it from the valve stem.

# PLANT PATENTS

## GRANTED NOVEMBER 6, 1956

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

### 1,526
### ALMOND TREE

Leslie M. Thompson, Clovis, Calif.

Application June 6, 1955, Serial No. 513,623

1 Claim. (Cl. 47—62)

A new and distinct variety of almond tree, substantially as described and illustrated, characterized particularly as to novelty by its late blooming so as to avoid damage by late frost, its blooming period being substantially later than that of the Texas and Nonpareil, by its general similarity to the Nonpareil in tree appearance and growing habits, and by its markedly heavier more regular bearing than the Texas and Nonpareil.



# PATENTS

## GRANTED NOVEMBER 6, 1956

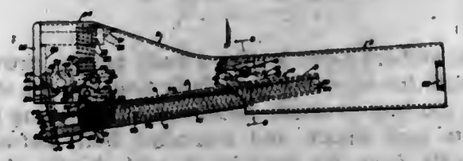
# GENERAL AND MECHANICAL

### 2,769,173
### STAPLE MAGAZINE AND FEED MEANS FOR STAPLING MACHINES

Charles M. Lindstrom, Westerly, R. I., assignor to Bostitch, Inc., Stonington, Conn., a corporation of Rhode Island

Application May 27, 1955, Serial No. 511,650

12 Claims. (Cl. 1—49)



1. In a fastener-applying implement, a supporting member, a magazine for fasteners hinged to said member to pivot relatively thereto, said magazine having an opening in its side for loading fasteners thereinto, a cover having means for slidably mounting it on said magazine for opening and closing said opening in its side, a staple-core extending longitudinally within said cover and fast therewith, means for advancing the fasteners on said core to feed them forwardly in the magazine, a latch, means at the forward end of the magazine for pivotally mounting said latch thereon, detent-means on said cover engageable by said latch for retaining the cover in position to close the opening in the magazine, and resilient means for controlling said latch to hold it in engagement with said detent-means, said resilient means also acting between the supporting member and latch to swing the forward end of said magazine downwardly relatively to said member.

### 2,769,174
### TACKING MACHINE

Norris R. Libert, Waterford, Wis.

Application June 25, 1954, Serial No. 439,257

10 Claims. (Cl. 1—49)



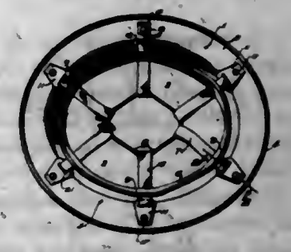
1. In a tacking machine the combination comprising a frame with a head end and a pivot mounting for an operating handle remote from the head end, a reciprocable staple ejecting driver carried by said head end movable toward the bottom of said frame in a staple ejecting stroke, a spring abutment attached to the frame, a main spring captively held between said driver and spring abutment adapted to urge said driver in a staple ejecting stroke, an operating handle pivotally mounted on said pivot mounting of said frame with a manually engageable portion above said frame extending from the pivot mounting toward said head end, and an operating linkage interposed between said handle and said reciprocable driver to move said driver against said spring to compress the same upon pivoting said handle downwardly toward the bottom of said frame, which linkage includes latch and catch members disengageable from one another to break the linkage one of which members is positioned to be struck by said handle upon completion of a downward movement of said handle to release said spring for moving said driver in a staple ejecting stroke.

### 2,769,175
### CRADLE CLIP FOR SAFETY HATS

Luher Paul Berker, Jr., Pacific Palisades, Calif.

Application April 19, 1954, Serial No. 424,084

1 Claim. (Cl. 2—3)



In a safety hat having a crown flaring outwardly to form a rim, a ring of attachment elements secured to and depending from said rim, said elements including stem portions terminating in buttons spaced from said rim, and a cradle including a headband and radiating straps, a cradle clip for connecting each strap to a corresponding button, each cradle clip comprising: a plate member having a larger end and a smaller end, the side margins of said plate member being bent from the plane of said plate member to form stiffening elements, the larger end of said plate being curved in general conformity with the hat in the region of the juncture between the crown and rim, and slotted to receive the end of a radiating strap, a portion of said strap being interposed between the larger end of said plate member and said hat to form a pad spacing the larger end of the plate member from contact with the hat, the smaller end of said plate member being folded under said plate member and bifurcated to form a forked tongue straddling said stem, the normal spacing between said forked tongue and said plate member being less than the thickness of the button, whereby said button is gripped between said tongue and plate member to hold said tongue and plate spaced from said rim, said plate member having a recess therein located to receive the extremity of said button to retain said plate member thereon.

### 2,769,176
### NAPE STRAP

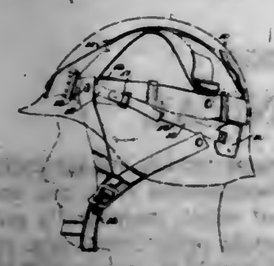
Stephen V. Granacay, Barrytown, N. Y., and Leonard Helmrich, Princeton, N. J., assignors to the United States of America as represented by the Secretary of the Army

Application September 24, 1954, Serial No. 458,297

2 Claims. (Cl. 2—3)

1. In a helmet, the combination with a helmet shell having a helmet suspension which includes a headband disposed in inwardly spaced relation to said shell; of a nape strap comprising two end portions, a nape-engaging center portion between said end portions, means including buckles for adjusting the length of said end portions

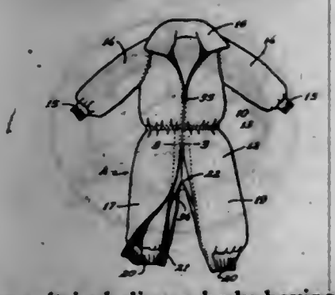
and connecting the same to said shell, and said means including flexible means mounting said buckles between



said headband and shell so as to be inwardly spaced from said shell.

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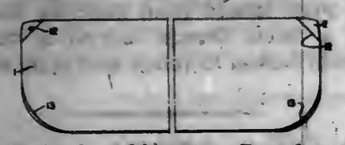
2,769,177
**SNOW SUIT (EASILY DETACHABLE GARMENT)**
Morris Jach Berg, St. Paul, Minn.
Application May 6, 1953, Serial No. 353,302
2 Claims. (Cl. 2—80)



1. A snow suit including a body having a blouse portion and a leg opening pants portion integrally connected together at the waist, the pants portion including a crotch portion and two leg portions joined at the crotch portion, said leg portions having openings throughout their respective length along lines adjacent to and forwardly of the said crotch portion, a pair of separable fasteners extending along the respective lengths of the openings in each leg portion, said fasteners converging at their upper ends, flaps overlying the upper ends of the separable fasteners and extending upwardly to the neck of the garment, and a third fastener connecting said flaps in overlapping relationship with the upper ends of the first named fasteners.

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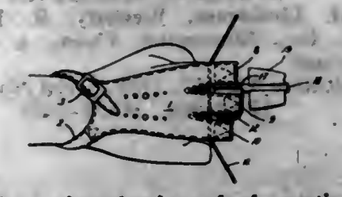
2,769,178
**METHOD OF MAKING A CUFF AND ATTACHMENT OF SAME TO A SLEEVE**
George N. Jeffcock, Cohoes, and Albert E. Wagar, Albany, N. Y., assignors to Cluett, Peabody & Co., Inc., Troy, N. Y., a corporation of New York
Application August 18, 1954, Serial No. 450,667
3 Claims. (Cl. 2—123)



1. The method of making a cuff and attaching it to a garment sleeve, which comprises superposing two face layers and a lining layer in a stack in the order named, with the outside faces of the face layers downward, turning all marginal edges of the superposed layers together inwardly upon the lining layer, removing the lower layer from the bottom of the stack, turning it end for end, and disposing it upon the other layers in the stack, with its inner face abutting the lining layer and its marginal edges aligned with those of the other layers, then stitching together the three layers, so assembled, along the side edges and also the edge which is to be the free end edge of the cuff, to unite all of the layers in this relationship, then inserting the free end of the sleeve between the inturned marginal edges of the face layers at the unstitched end of the cuff, then stitching together said unstitched end of the cuff and the inserted sleeve end.

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2,769,179
**ARCHERY GLOVES**
Albert J. Love, Mathis, Tex.
Application November 2, 1953, Serial No. 389,606
8 Claims. (Cl. 2—161)



1. In an archery glove having a body portion provided with a sheath for receiving the middle finger of the shooting hand, the improvement comprising a stiffening band attached to said sheath and extending both outwardly and inwardly from the portion of said sheath adapted to cover the first joint of the middle finger.

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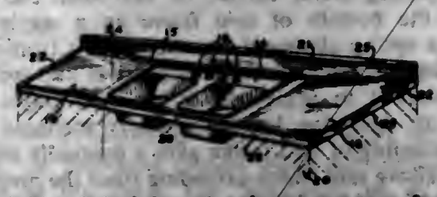
2,769,180
**METAL SUPPORT, MORE PARTICULARLY FOR BRASSIERES AND SIMILAR USES**
Georges Henri Tarene and Lucien Charles Wilhelm, Paris, France
Application April 20, 1954, Serial No. 424,428
Claims priority, application France September 28, 1953
1 Claim. (Cl. 2—264)



A substantially rigid arcuate brassiere frame for insertion into the two cups of a brassiere, said frame being made of a single flat metallic wire of substantially rectangular cross section and comprising two substantially semi-circular sections for extending around the bottom and both side portions of each of said cups and also comprising a spacer section interconnecting said semi-circular sections in spaced and resilient manner to allow resilient bending of said semi-circular sections in a direction toward each other while substantially rigidly supporting said semi-circular sections against bending in a direction perpendicular to said direction, the wider sides of said flat metallic wire forming the front and rear surfaces of said frame, and the narrower sides of said metallic wire of substantially rectangular cross section forming the upper and lower surfaces of said frame.

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2,769,181
**UNITARY SINK, COUNTER TOP AND DRAINBOARD CONSTRUCTION**
George T. Miller, Pittsburgh, Pa.
Application September 17, 1954, Serial No. 456,677
7 Claims. (Cl. 4—187)



3. A sink and drainboard unitary structure for mounting upon a support comprised of a relatively rigid base having a sink opening therein, a sheet of hard flexible protective material secured to and covering the upper surface of said base, a sink bowl mounted at the opening in said base, the base having a relatively narrow flexible section extending transversely thereacross and adjacent to the edge of said opening to permit said base to be flexed upwardly to define a sloping drainboard, a front forming strip and a back splash board secured to the front and back edges respectively of said flexed base and with their upper edges projecting above the upper surface of said drainboard thereby firmly to retain the slope applied to said drainboard.



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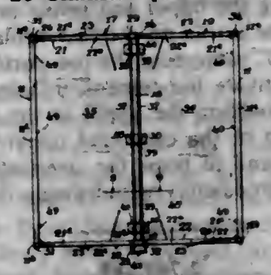
2,769,182
**INFLATABLE MATTRESS LIFTERS**
Erwin J. Nunliet, Mountain View, N. J.
Application April 21, 1954, Serial No. 424,672
4 Claims. (Cl. 5—68)



4. In a mattress lifting device of the character described, the combination of a first comparatively large, inflatable cylindrical container of a length substantially corresponding to the width of the mattress, a second comparatively small inflatable cylindrical container substantially corresponding in length to said first container, a plurality of straps connecting said first and second containers, a belt secured to the underside of each of said straps for adjustably securing said containers to a support under said mattress, a generally rectangular-shaped mattress lifting frame pivoted at one end to said belt between said containers for pivotal movement about an axis extending transversely of said mattress, the upper side of said frame supporting said mattress and the lower side of said frame resting on said first container, said frame being of a width not exceeding the width of said mattress, and means for controllably inflating and deflating said cylinders, whereby said frame and said second container are adapted to independently raise different portions of said mattress when said containers are inflated and to independently lower different portions of said mattress when said containers are deflated.

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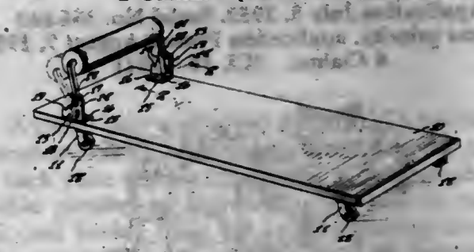
2,769,183
**INFANT'S FOLDING UTILITY STRUCTURE**
George E. Froelich, Two Rivers, Wis., assignor, by mesne assignments, to Henry J. Landry, Ashburnham, Mass.
Application May 18, 1953, Serial No. 355,673
10 Claims. (Cl. 5—99)



1. In an infant's folding utility structure of the class described embodying two end members and corner posts at each end of each end member, in combination, a center beam between and parallel with the end members, a center post fixed to and at each end of the center beam, collapsible side parts between said center posts and each of said end members respectively, a floor section between said center beam and each of said end members hinged to said center beam, whereby said floor sections may be folded upwardly toward each other between the end members when the end members are brought toward each other upon collapse of the side parts, and a foot pedal pivoted on one of said center posts and having a lever arm under each of said floor sections whereby when the pedal is pressed downwardly the floor sections are pivoted upwardly about the center beam, all of said posts extending below the floor sections to support the structure.

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2,769,184
**CREEPER HEADREST**
Victor Collica, Bronx, N. Y.
Application August 17, 1953, Serial No. 374,731
1 Claim. (Cl. 5—327)



A head rest for creepers comprising a pair of adjustable first brackets of substantially L-shaped cross section mounted at each side of the creeper near one end, the vertical portions of said first brackets along the upper edge being provided with a plurality of notches, said vertical portions below said notches being provided with a vertical elongated slot, a substantially U-shaped bar having the ends adapted to fit between the vertical portions of said first brackets, a padded head rest mounted on the central portion of said bar and means for mounting a pair of vertically spaced pins at the end of said bar on the side thereof adjacent the inner faces of the vertical portions of said first brackets, the uppermost of each of said pair of pins being adapted to rest in one of said notches, while the lowermost of said pins rests in the bottom of said vertical slot, the said U-shaped bar being of substantially square cross section, and a pair of second brackets of substantially U-shaped cross section, each of which being adapted to straddle one end of the said U-shaped bar with the central portions of the said second brackets adjacent the inner faces of the said vertical portions, means at one side of the said second brackets for securing the same to the ends of the said bar, the central portions of the said second brackets having a pair of vertically spaced openings and the said pins being located within the said openings and having enlarged heads, disposed intermediate the said bar and the central portion of the said second brackets.

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2,769,185
**MUSCULAR SUPPORT**
William F. Biedermann, Philadelphia, Pa.
Application May 11, 1953, Serial No. 354,249
2 Claims. (Cl. 5—338)

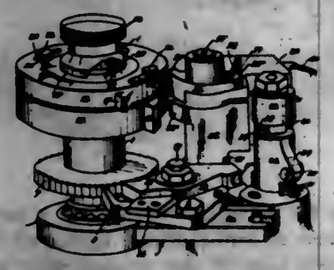


1. A rigid muscular support having a base, a relatively wide and high dome at one end, a relatively narrow ridge extending longitudinally in the middle and a nose portion descending in a curve rearwardly and at the two sides, the dome comprising a mid-portion which extends abruptly upwardly at the end remote from the nose portion, the mid-portion then rising gradually from the front in two saddles and the mid-portion having a depressed por-

tion in between the saddles, and the dome sloping off abruptly transversely at the sides on both sides of the saddles in convex curves, the ridge portion being convexly curved at the top, lower than the dome and descending on both sides in concave curve portions, the ridge portions rising at the sides to the nose portion.

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2,769,186
**CONTROL MEANS FOR CUTTING A THREAD IN PLURAL SUCCESSIVE PASSES**
Pierre Edouard Renaux, Argenteuil, France, assignor to Societe Anonyme dite: Cri-Dan, Paris, France, a French company
Application July 8, 1953, Serial No. 366,663
Claims priority, application France August 7, 1952
6 Claims. (Cl. 10—101)

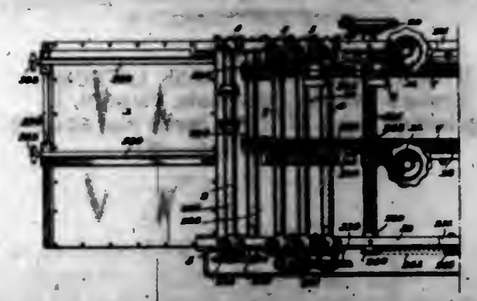


1. In a thread-cutting machine for machining a piece of work, including a tool holder, a cam controlling the transverse movements of the tool holder and a ratchet system controlling the rotation of the cam, the provision of a control mechanism comprising two coaxial superposed plates, a spindle carrying said plates, and controlled by the ratchet system, a first projection rigid with the first plate, an auxiliary spindle, a first lever pivotally mounted on said auxiliary spindle, a spring urging said lever into a predetermined angular setting, said lever being urged away from said setting when engaged by the first projection at a point of the travel of the latter, a second lever pivotally mounted on the same auxiliary spindle and the angular movements of which between inoperative and operative positions are controlled by those of the first lever, a control spindle controlling a function of the machine whereby the tool may be modified, a first member rigid with said control spindle and normally engaged by the second lever, a disconnecting spring urging said first member and control spindle into their operative positions upon release of the first member by the second lever after the first projection has shifted the first lever, a second projection carried by the second plate, angularly shifted with reference to the first projection and also adapted to act at a point of its travel on the first lever in opposition with the corresponding spring, a third lever pivotally mounted on the auxiliary spindle and controlled by the second projection, a spring urging the third lever into its operative position, the second projection being adapted to urge the third lever away from its operative position against the action of the spring, a second member revolubly carried by the control spindle and normally held fast by the third lever when in its operative position, a spring urging said second member into its operative position when released by the third lever, and means whereby the second member, when in its operative position, controls the ratchet system to return same into its starting position.

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2,769,187
**APPARATUS FOR MANUFACTURING BOOK CASES OR COVERS**
Franciscus Pieter D'Huy, Overveen, Netherlands
Application April 26, 1951, Serial No. 222,965
7 Claims. (Cl. 11—2)

1. A machine for manufacturing an integral book case which extends over the front cover, back portion and back cover of the book to be bound comprising in combination operatively associated means for feeding individual sheets of flexible material, means for trimming said sheets to proper size, means for scoring said sheets parallel to the edge thereof, means for applying adhesive adjacent the edges of said sheets, means for controlling the amount of adhesive applied to said edges, means for folding said edges over against the body of said sheets, means for partially drying said adhesive, means for pressing said folded over edges against the body of said



sheets, means for applying decorative scores to said sheets, means for scoring and rounding the back portion of said sheets, means for collecting completed covers, supports extending longitudinally through said machine, means for adjusting said supports in parallel spaced relation to one another, conveyor belts carried by said supports, means operatively associating said individual means, and means for adjusting the elements operating upon said sheets in coordination with the movement of said supports.

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2,769,188
**METHODS OF MAKING SHOES**
Walter H. Wedger, Wellesley, Mass., assignor to B. B. Chemical Co., Boston, Mass., a corporation of Massachusetts
Application January 12, 1955, Serial No. 481,379
4 Claims. (Cl. 12—142)



1. That improvement in methods of making shoes which consists in applying rubber latex-resin cement to the margins of an upper and insole prior to assembling the upper and insole upon a last, allowing the cement to dry, assembling the upper and insole on a last, pulling the upper over the insole on the last while the cement is dry and nontacky, subjecting the toe portion of the shoe to dry heat to activate the cement, utilizing a wiper lasting machine to conform the upper to the toe of the last, to lay the margin of the cemented upper over upon the cemented insole and to press the overlasted upper upon the insole, and immediately withdrawing the wipers.

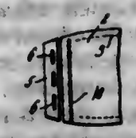
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2,769,189
**METHOD OF MAKING A SHOE**
Fred L. Ayer, Watertown, Mass.
Application October 8, 1953, Serial No. 384,919
1 Claim. (Cl. 12—142)

The method which comprises securing the rearwardly directed rear end portion of a shoe outersole member to the rearward portion of an innersole extending rearwardly from a shoe upper to which said innersole has been secured and lasted, stitching said innersole and outersole together forwardly of said securement, cutting off



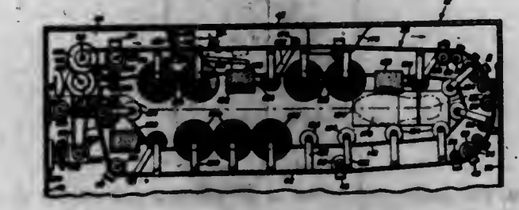
said innersole and outersole between said stitching and securement along a transverse line, and then folding said outersole about the line of cut to enclose the cut rear ends of said inner and outersole and bringing the re-



mainder of said outersole forwardly underlying said member and a reinforcing stiffening heel member applied to the lower face of said innersole at the heel end, and securing said remainder to said innersole and to said reinforcing heel member.

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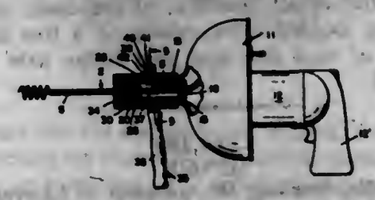
2,769,190
**SHOE POLISHING MACHINE**
Burnis C. Ashley, Houston, Tex.
Application November 4, 1952, Serial No. 318,705
4 Claims. (Cl. 15—31)



1. A shoe polishing machine comprising an endless conveyor, a plurality of shoe engageable brushes, a stationary support for a shoe to be polished, means mounting said endless conveyor for movement about said stationary support, first drive means connected to said conveyor, second drive means connected to said brushes for rotating said brushes, said brushes including a first brush and second brushes, support means mounting said first brush on said conveyor for engagement with a toe only of a shoe, and other support means mounting said second brushes on said conveyor for engagement with sides and the heel only of a shoe.

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2,769,191
**PLUMBER'S TOOL**
Robert G. Hunt and Walter W. Hunt, Los Angeles, Calif., assignors to Marco Products Company, Los Angeles, Calif., a copartnership
Application January 22, 1954, Serial No. 405,592
5 Claims. (Cl. 15—104.3)



1. In a plumber's snake device, a snake housing in which a plumber's snake can be coiled, said housing having an opening at one side for the passage of the snake, a tubular spindle projecting from said housing axially of said opening, a tubular chuck body housing surrounding said spindle, a thrust bearing mounted in the outer end of said chuck body housing beyond the end of said spindle, a collet chuck between said bearing and said spindle, said spindle and collet chuck having interengaging wedge faces whereby to contract said chuck upon relative movement toward each other of said bearing and said spindle, and interengaging means between said chuck body housing and said spindle for moving the same axially relative to each other, said interengaging means including a manually operable member carried by said chuck body housing, said chuck body housing and said spindle being relatively rotatable.

2,769,192
**WIRE BRUSHES**
Gebhard Satzinger, Bad Kissingen, Germany
Application September 8, 1950, Serial No. 183,744
2 Claims. (Cl. 15—169)



1. A heavy duty wire brush comprising a bristle-mounting support and a bristle guide, said support consisting of a back plate and an inner plate; said inner plate being movable parallel to said back plate and to the bristle guide, and having holes for accommodating and holding in place rivet-like bristle-receiving sockets; individual wire bristle tufts rigidly arranged in said sockets; said bristle guide having holes corresponding to the socket-accommodating holes and being spaced therefrom for receiving said bristle tufts near their free ends and being adjustable longitudinally of said tufts; and means in said brush for moving said inner plate and therewith said bristle-receiving sockets with respect to said back plate and to said guide, and means for clamping said inner plate in adjusted position.

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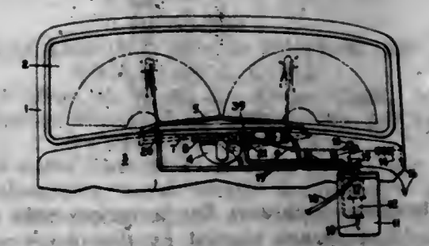
2,769,193
**CLEANING BAG FOR DENTURES**
Forest W. Jackson, Los Angeles, Calif.
Application February 9, 1948, Serial No. 7,843
2 Claims. (Cl. 15—210)



2. A denture cleaning article adapted for a single use before disposal comprising a water absorbent matted fabric envelope having sufficient initial mechanical strength when moistened to withstand manual rubbing manipulation by the fingers to cleanse a denture enclosed therein, the inner surface of said envelope being impregnated with a denture cleaning composition, said envelope being disintegrated to a wadded mass by said manipulation and being thereby limited to a single use.

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2,769,194
**WINDSHIELD CLEARING SYSTEM**
John R. Oishei, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application September 30, 1953, Serial No. 383,155
16 Claims. (Cl. 15—250.4)



1. A windshield clearing system for automotive vehicles comprising, means to deliver washing fluid under pressure

to the windshield, a coordinator unit, means operatively connecting said fluid delivery means and said coordinator unit whereby the commencement of operation of said fluid delivery means automatically actuates said coordinator unit, a motor for driving a wiper to and fro across the windshield, control means for said motor, said coordinator being connected to the control means for starting the motor, and a lost motion connection between said coordinator unit and control means whereby said control means are moved by said lost motion connection a predetermined length of time after the actuation of said coordinator unit.

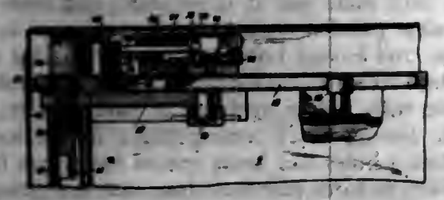
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**2,769,195**

## DOOR CHECK WITH FLUID BUMPER

Petter M. Hannaas, Frewsburg, N. Y., assignor to Ellison Bronze Company, Inc., Falconer, N. Y., a corporation of New York

Application March 25, 1953, Serial No. 344,640
14 Claims. (Cl. 16—82)



1. A check for a door having a frame, comprising fluid cylinder means carried by the frame and having closed ends, piston means slidable within the cylinder means in one direction for door opening movement and in the other direction for door closing movement, the piston means forming a chamber at each end of the cylinder means, means operatively connected with the piston means and adapted to be connected with the door frame to move the piston means in the cylinder means as the door opens and closes; a check connection connecting the chambers including a check valve means therein for unidirectional fluid flow therethrough, and valve means movable with the piston means and closing the check connection on a predetermined extent of movement of the piston means in one direction in the cylinder means; and by-pass means communicating with said chambers and at a point beyond the travel of the piston means in at least one direction and having restricted flow therethrough.

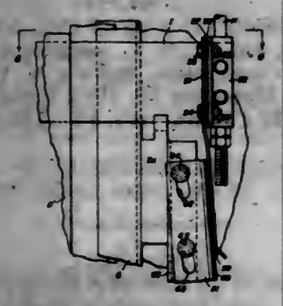
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**2,769,196**

## BRAKING MECHANISM FOR SLIDING DOORS AND THE LIKE

Nicholas R. Guilbert, Jr., Chestnut Hill, and Walter B. Keller, Media, Pa., assignors to Guilbert, Incorporated, Philadelphia, Pa., a corporation of Pennsylvania

Application March 31, 1953, Serial No. 345,936
2 Claims. (Cl. 16—85)



1. In braking apparatus for a reciprocally movable object, yielding means carried by the object providing spaced substantially flat surfaces converging in a plane parallel to the path of movement of the object in the direction away from one end of said path, arresting means disposed adjacent said path adapted for engagement by said surfaces at the approach of the object to said end of its path including friction shoes respectively providing surfaces for such engagement whereby said yielding means will be flexed outwardly and thereby retard the approach of the object toward said end of its path, and means supporting the shoes for movement with the object when it is moved away from its arrested position along paths converging in said plane at an angle greater than the angle of convergence of said substantially flat surfaces.

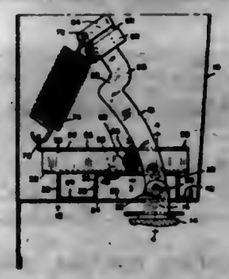
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**2,769,197**

## DOOR CHECK STRUCTURE

Paul H. Travis, Leonard, and David R. Stamy, Huntington Woods, Mich.; said Stamy assignor to said Travis

Application November 6, 1950, Serial No. 194,212
7 Claims. (Cl. 16—85)



6. Door check structure for controlling opening and closing of an outwardly opening hollow door having an inner side and an outer side and hinged at one edge to a frame having corresponding inner and outer sides on a hinge axis adjacent the outer sides of said door and frame, a rigid check arm having an enlarged head at one end, pivot means adapted to mount the other end of said arm on the frame on a pivot axis adjacent the inner side thereof, a roller adapted to be mounted within the door inwardly from its hinged edge beyond a line joining said axes when the door is closed and spaced toward the inner side of the door from said hinge axis and located generally between said axes, a spring support adapted to be mounted within the door at a point adjacent its outer side and spaced substantially from said hinge axis, and a tension spring connecting said spring support and the headed end of said arm urging said arm toward the hinge axis and maintaining a side of said arm in contact with said roller in all positions of the door, said spring support being located substantially on a line joining the headed end of said arm and said hinge axis when the door is closed.

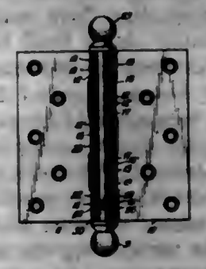
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**2,769,198**

## HINGE

Robert E. Foltz, Sterling, Ill., assignor to Lawrence Bros., Inc., Sterling, Ill., a corporation of Illinois

Application June 24, 1952, Serial No. 295,227
5 Claims. (Cl. 16—169)



3. In a hinge, a pair of hinge leaves, each of said leaves having a plurality of integral knuckles extending along an edge thereof, said knuckles being arranged in interleaved relation and having aligned bore formations, a pin positioned within said bore formations and having at its inner end a peripheral groove, one of said knuckles having an internal wall formation provided with an inwardly opening recess therein and a pin retaining member positioned in said recess, said pin retaining member having a portion provided with a relatively narrow ridge formation extending inwardly into the bore formation of the knuckle and resiliently engaging in said groove, and a tip member having a pin portion extending within the bore formation of said knuckle and overlying portions of said recess to lock therein said pin retaining member.



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**2,769,199**

## ENGRAVING STYLUS

John A. Boyajean, Huntington, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware

Application July 1, 1952, Serial No. 296,593
7 Claims. (Cl. 18—1)



1. A stylus for engraving a half-tone plate for image reproduction comprising: a metallic shaft terminating in a deforming tip consisting of a series of coaxial steps, an axial cross section through said steps having a mean outline of non-linear configuration effective to impart a non-linear penetration-deformed area characteristic to a plate engraved by the stylus.

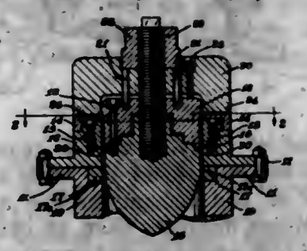
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**2,769,200**

## RADIAL EXTRUSION DIE

Murrey O. Longstreth and James E. Tollar, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application March 7, 1955, Serial No. 492,439
1 Claim. (Cl. 18—12)



A die head for the extrusion of organic thermoplastic sheet comprising an internally cylindrical housing adapted to serve as an extension of a means for supplying fused plastic matter continuously, an internal core coaxial with said housing and fixedly spaced therefrom to provide a passageway therebetween of annular cross-section and to distribute plastic matter substantially uniformly about said passageway, and a centrally rigid and circumferentially yieldable crown member secured to and spanning said core and coaxial therewith, said crown member having a plurality of adjustable pressure and tension means for altering controllably the orifice spacing between any portion of the inner circumferential face of the crown and the proximal opposed face of the housing, at least one of the core and crown members serving to divert the plastic matter from its longitudinal flow through the said annular passageway to a circumferentially radial orifice between a face of said member and the end of the said housing distant from the plastics supply means.

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**2,769,201**

## SCREW EXTRUSION APPARATUS FOR MANUFACTURING ARTICLES OF THERMOPLASTIC AND THERMOSETTING MATERIALS

Zareh Loresian, Milan, Italy

Application June 23, 1949, Serial No. 100,823
Claims priority, application Italy July 1, 1948
9 Claims. (Cl. 18—13)



1. A screw extruder for manufacturing articles from a material formable under heat, comprising in combination, a stationary casing having an inner wall and an inlet opening for the material; a screw rotatably mounted in said casing coaxially thereof, said screw upon rotation conveying the material entering through said inlet opening through the casing; a nozzle head forming the outlet of said casing; heating and cooling means in said casing for keeping the temperature of the material in said casing substantially constant; said casing having straight longitudinal grooves in its inner wall extending in the direction of the axis of said casing up to said nozzle head, said grooves forming interruptions of the surface of the inner wall of said casing, whereby said grooves receive quantities of the material sufficient for preventing a tangential movement and sliding of the material on the inner wall of said casing so as to render impossible a sticking of the warm material to said screw during the conveying of the material through the casing.

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**2,769,202**

## MOLDING APPARATUS

Earl H. Thompson, Port Orchard, Wash.

Application July 10, 1953, Serial No. 367,375
4 Claims. (Cl. 18—34)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. Apparatus for molding flowable material comprising male and female molds adapted when mated to form a mold cavity, a recess provided in one of said molds, a diaphragm covering said recess and forming a part of said mold cavity, pressure reducing means communicating with the interior of said recess beneath said diaphragm, and sprue means communicating with said mold cavity for feeding material into the cavity and over said diaphragm, said pressure-reducing means being operable during said feed for drawing said diaphragm into said recess for forming an expanded mold cavity.

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**2,769,203**

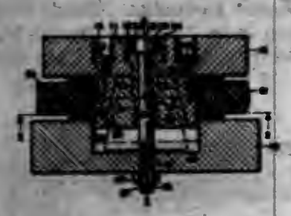
## VULCANIZING MOLD HAVING AN ADJUSTABLE CORE

William M. Wood, San Diego, Calif.

Application March 30, 1953, Serial No. 345,748
8 Claims. (Cl. 18—45)
(Granted under Title 35, U. S. Code (1952), sec. 266)

6. A vulcanizing mold which comprises a support member, a core means formed of a plurality of segments slidably mounted on said support member whereby the effective outer diameter of said core means is variable, means for altering the relative position of said segments

and said support member, means to selectively actuate said altering means, a clamping member positioned adjacent said segments and spaced from said support member thereby providing a space between said members for receiving a body to be vulcanized, and means for moving said members toward one another and clamping said body therebetween.

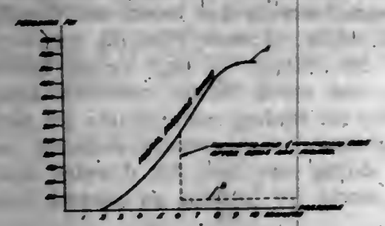


2,769,204
METHOD OF PRODUCING PLASTIC SHROUDED SPOOLS
Louis H. Morin, Bronx, N. Y., assignor to Conts & Clark Inc., a corporation of Delaware
Application July 12, 1951, Serial No. 236,360
12 Claims. (Cl. 18—47.5)



1. The method of making spools each comprising a flanged barrel from paper tubing which comprises continuously extruding plastic upon the outer cylindrical surface of a paper tube to form a plastic shell on the tube, severing the plastic covered tube into lengths to form the barrel of each spool, forming an annular recess at each end portion of each barrel, and forming an annular flange at each said end portion outwardly of said annular recess, said flange being at least partially made of plastic material.

2,769,205
EXPANDED CELLULAR RUBBER WITH ELLIPTICAL CELLS AND METHOD OF MAKING
Hans Pfleumer, New Brunswick, N. J., assignor to Rubatex Products, Inc., New York, N. Y., a corporation of Delaware
Application April 3, 1952, Serial No. 280,284
2 Claims. (Cl. 18—53)

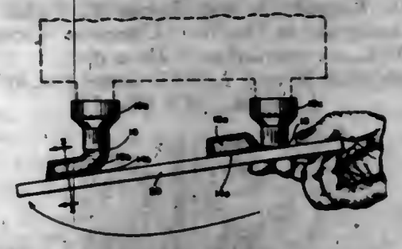


1. The method of making closed cell cellular expanded rubber, comprising the steps of preparing a rubber mix including a finely dispersed material which, on the application of heat, generates a gas, subjecting the rubber mix to a temperature sufficient to generate said gas, partially curing said rubber mix during generation of said gas and confining said rubber mix against expansion under the relatively high pressure of said generated gas, permitting said internally generated gas to expand said rubber mix to a limited extent in one direction thereby reducing said gas pressure from said relatively high value to a substantially reduced, slightly superatmospheric value, and confining the expanded rubber mix against further expansion under said reduced gas pressure while fully curing the same.

2,769,206
METHOD FOR PACKAGING FLUIDS, JELLIES, PASTES AND FLUENT POWDERS
Grant W. Cheney and Arnold L. Stark, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application October 9, 1952, Serial No. 313,908
1 Claim. (Cl. 18—56)

The method which comprises supplying a tube having a wall thickness of from 15 to 40 mils, open at one end and sealed at the other, composed of a normally crystalline vinylidene chloride copolymer in the supercooled condition, placing said tube in a mold whose cavity has the shape of a collapsible dispensing tube and is of from 2.5 to 5 times the length and diameter of the supercooled tube, said mold being gated in one end at a point corresponding to the neck of a collapsible tube; securing the open end of the tube against longitudinal slippage in the gate of the mold, said gate being threaded to imprint threads on the neck of the tube; and applying fluid pressure through the open end of the tube sufficient to distend the tube longitudinally and radially into conformity with the mold and to effect orientation and crystallization of the polymer constituting the body of the so-distended collapsible tube, while warming the mold near the gate area to crystallize the copolymer confined therein.

2,769,207
METHOD FOR DISPENSING AND APPLYING HIGHLY VISCOUS CEMENTS
Frank L. Stevens, Lexington, Mass., assignor to W. F. Webster Cement Company, Cambridge, Mass., a voluntary association of Massachusetts
Application December 24, 1954, Serial No. 477,542
1 Claim. (Cl. 18—59)



The method of applying viscous cement to tiles and similar units which includes the steps of extruding triangular rods of said cement through a multiplicity of nozzles at varying distances from an operator's position, engaging said rods nearer to said operator's position along sides thereof nearest thereto with the top surface of a unit, moving said unit in an arc to deposit therealong said nearer rods on said sides thereof and to similarly engage corresponding sides of rods farther from said operator's position and to deposit along said unit said farther rods on said sides thereof, and cutting off said rods by scraping said unit against a linear edge on each of said nozzles.

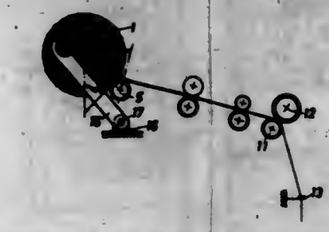
2,769,208
GIN BREAST OPENING MECHANISM
Frank E. Deeme, Birmingham, Ala., assignor to Continental Gin Company, Birmingham, Ala., a corporation of Delaware
Application June 12, 1953, Serial No. 361,189
6 Claims. (Cl. 19—88)

1. A cotton gin comprising a breast member and a frame member, said breast member being movable with respect to said frame member, a leverage system connecting said breast and said frame member and operable to move said breast with respect to said frame member, a motor in driving engagement with said leverage system for operation thereof including a planetary gear mechanism for selecting the direction of movement of said leverage system when driven by said motor.



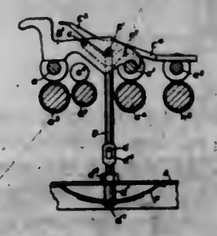


2,769,209
LAP OR BOBBIN FEED SYSTEM FOR SPINNING MACHINES
Johann Jacob Keyser, Aarau, Switzerland, assignor to Schlees Aktiengesellschaft, Duesseldorf-Oberkassel, Germany
Application October 25, 1950, Serial No. 192,134
Claims priority, application Switzerland October 29, 1949
13 Claims. (Cl. 19—130)



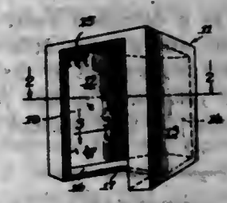
1. In a system for changing the condition of fibrous material for use in connection with textile machines, which includes a plurality of relatively closely spaced lower roller means supporting correspondingly arranged upper roller means, one of said lower roller means being arranged to be motor driven, shaft means, fibrous material wound upon said shaft means and resting on said one roller means so that the vertical plane through said shaft means is located outside the vertical plane through said one roller means, said fibrous material while in wound condition on said shaft means representing one of said upper roller means cooperating with said relatively closely spaced lower roller means and being arranged for passing fibrous material over an arched portion of said one lower roller means, said arched portion automatically increasing with the unwinding of fibrous material from said shaft means.

2,769,210
MECHANISM FOR APPLYING PRESSURE TO THE DRAFTING ROLLERS OF SPINNING AND OTHER TEXTILE PREPARATION MACHINERY
Ramon Balmes Solanas, Barcelona, Spain, assignor to Estirajes Balmes, S. A., Barcelona, Spain, a body corporate of Spain
Application July 8, 1954, Serial No. 442,027
3 Claims. (Cl. 19—135)



1. A saddle weighting mechanism for the top drafting rollers of spinning and other textile preparatory machines having a plurality of consecutive pairs of top and bottom front, second and rear drafting rollers disposed in upper and lower lines, comprising a saddle bearing on the top front roller and on the top second roller, a weight applying lever pivoted to the saddle intermediately of the front and second rollers to rest on the top rear roller, an actuating lever pivoted to the saddle and having a cam surface on one end thereof engaging the weight applying lever, a weight hook rod pivoted to the actuating lever, a leaf spring mounted below the lines of rollers, and a rod connecting the leaf spring to the weight hook rod for applying pressure through the weight applying lever and saddle to the lines of rollers.

2,769,211
DOORLESS TELEPHONE BOOTH
Frederick G. Hewitt, South Bend, Ind., assignor, by mesne assignments, to Burgess-Manning Company, Libertyville, Ill., a corporation of Illinois
Application April 30, 1954, Serial No. 426,817
6 Claims. (Cl. 20—3.5)



1. A doorless telephone booth having a pair of vertical side walls converging from front to rear of said booth at an angle of not less than about 45 degrees and not more than about 60 degrees, said walls comprising sound-absorbing construction whereby sound waves incident to the inner surfaces thereof are largely absorbed, the forward extremities of said side walls being spaced apart a sufficient distance to receive at least the vertical torso of a person therebetween, and a top wall for said booth.

2,769,212
WEATHER PLATE
Andrew B. Hammitt, Trenton, and Herbert L. Birum, Jr., Titusville, N. J.
Application November 9, 1953, Serial No. 390,918
9 Claims. (Cl. 20—4)

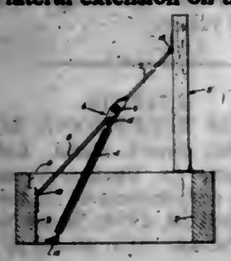


1. A weather plate for use in building constructions wherein a plurality of batten strips abut, said weather plate comprising a generally rectangular cover piece having cover portions thereof bent diagonally inwardly and a flexible sealing sheet having a preformed batten strip engaging face shaped to conform to the outer contour of the batten strips to be sealed, said sheet having thickened edge portions engageable by said inwardly bent portions of said cover plate, said edge portions of said sheet will be urged laterally into sealing engagement with the sides of said batten strip when said cover piece is secured in place.

2,769,213
DOOR AND CLOSER ASSEMBLY
Erskall L. Stetson, Gering, Nebr.
Application November 13, 1953, Serial No. 391,825
1 Claim. (Cl. 20—16)

In combination, a door frame having first and second jambs, said jambs having forward edges, a door having an outer edge and inner edge, said inner edge of the door being hinged on the forward edge of said first jamb, a first straight arm having inner and outer ends, the outer end of the first arm being pivoted to the door at a point

intermediate the edges of the door, a second straight arm having outer and inner ends, the outer end of said second arm being pivoted to said second jamb at a point spaced rearwardly from the forward edge of the second jamb, means pivoting the inner ends of said first and second arms together, a lateral extension on the inner end of said



first arm projecting in a direction away from the door and toward said jambs, and a contractile spring stretched between said extension and a point on the door frame adjacent to said second jamb and spaced rearwardly from the pivoted connection of said second arm with said second jamb.

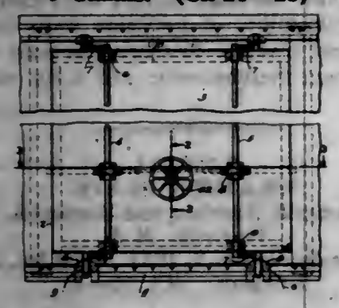
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2,769,214

## RAILWAY REFRIGERATOR CAR DOOR

Edward P. Wright, Glendale, Calif., assignor to Chicago Railway Equipment Company, Chicago, Ill., a corporation of Illinois

Application November 25, 1953, Serial No. 394,417
9 Claims. (Cl. 20—23)



2. In a door construction for a railway car having a wall provided with a door opening, the combination with a door adapted to close said opening, of means for supporting said door and moving same bodily laterally into, and out of, said opening, including a pair of vertically disposed operating crank shafts journaled on the door, a rotatable operating member mounted on said door, a pair of elongated axially aligned horizontal members movable toward and away from each other, a member having threaded engagement with said horizontal members, and axially aligned therewith, gear means engaging said threaded member and operating member, and means engaging each of said horizontal members to one of said shafts for rotation of the latter upon actuation of said operating member.

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2,769,215

## WEATHER STRIP

Lewis T. Neff, Roswell, N. Mex., assignor of one-fourth to Lewis E. Neff, one-fourth to Edsel B. Neff, and one-fourth to George D. Neff

Application January 19, 1954, Serial No. 404,953
1 Claim. (Cl. 20—68)



A weather stripping arrangement comprising a channel-shaped member, means for attaching said channel-shaped member to a supporting structure, a first resilient pad received in said channel-shaped member, a pad supporting element slidably received in said channel-shaped member, said pad supporting element including a pressure plate adapted to engage said first resilient pad, and a supporting plate spaced from said pressure plate, a second resilient pad affixed to said supporting plate outwardly of said channel-shaped member, and means limiting the outward movement of said pad supporting element from said channel-shaped member, said means including flanges attached to said channel-shaped member for retaining said pressure plate within said channel-shaped member.

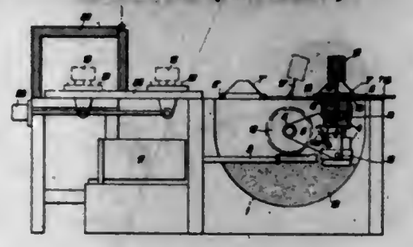
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2,769,216

## METHOD OF AND APPARATUS FOR PRODUCING HOLLOW CORES FOR FOUNDRY PURPOSES

Adolf Dick and Franz Pölzgutter, Bochum, Germany

Application June 29, 1953, Serial No. 364,893
Claims priority, application Germany June 28, 1952
8 Claims. (Cl. 22—10)



1. Apparatus for producing hollow cores of the kind described comprising a container for holding a supply of the sand-synthetic resin mixture under atmospheric pressure, a ladle member carried by a rocker arm in said container, means for rocking said arm so as to enable the ladle to pick-up a charge from the said supply and a blower head member connected to said container and arranged so that said ladle member may be rocked by said means into sealed connection with the said blower head member and means enabling a fluid under pressure to be introduced through said blower head member into the ladle member when the ladle member is in sealed connection with the blower head member so that the mixture can be blown from the ladle member into a core box arranged to receive it.

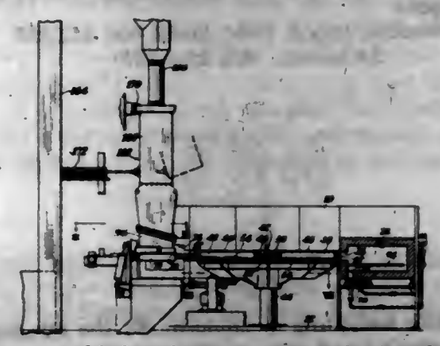
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2,769,217

## MOLD FORMING APPARATUS

Ralph P. Davis, Squantum, Mass., assignor, by mesne assignments, to Link-Belt Company, Chicago, Ill., a corporation of Illinois

Application April 11, 1952, Serial No. 281,766
7 Claims. (Cl. 22—21)



4. In a mold forming apparatus, the combination of a conveyer, a loading station, a plurality of pattern means rotatably mounted on said conveyer for movement therewith, rotatable flask means at said loading station and movable relative to said conveyer for engagement with a selected one of said pattern means, means for inverting said flask means, means for clamping said flask means to said one pattern means, means for loading mold forming material upon said one pattern means for retention by said flask means, and means for actuating said flask inverting means for rotating the assembly of said flask means and one pattern means for dumping excess mold forming material therefrom.



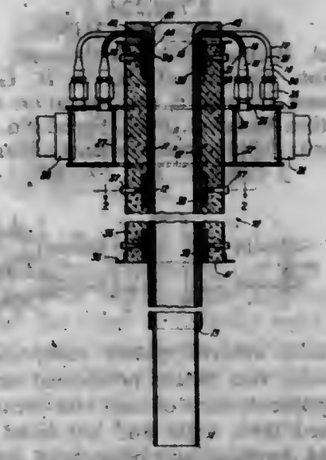
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2,769,218

## CONTINUOUS CASTING MOLD

Isaac Harter, Isaac Harter, Jr., and Temple W. Ratcliffe, Beaver, Pa., and Frank W. Armstrong, Jr., Barberton, Ohio, assignors, by mesne assignments, to The Babcock & Wilcox Company, Jersey City, N. J., a corporation of New Jersey

Application October 25, 1951, Serial No. 253,114
5 Claims. (Cl. 22—57.2)



1. A mold assembly comprising an upright open ended mold liner of substantially uniform cross-sectional shape and area throughout its extent, an inlet manifold for cooling fluid spaced from and encircling said mold liner, a plurality of abutting cooling fluid guide tubes extending throughout the upper portion of the external surface of said mold liner in heat exchange contact therewith to an open discharge position spaced from the lower end of said mold, and an upward extension of each of said tubes above said mold liner and connected with said inlet manifold.

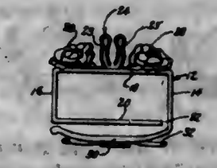
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2,769,219

## HOLDER FOR CIGARETTE PACK AND RELATED ARTICLES

Joseph F. Elkavich, Nashua, N. H.

Application February 25, 1955, Serial No. 490,506
2 Claims. (Cl. 24—81)



1. A holder for a cigarette package of the type having a rectangular cross section, and for an associated match book, comprising: a one-piece band of a resilient material, formed to a width such that it will girdle a cigarette package belt-fashion intermediate opposite ends of the package while leaving said ends exposed, said band including a flat front portion proportioned to extend across the front of said package fully from one side of the package to a location short of but spaced closely from the other side thereof, a flat first side portion integral at one end with one end of the front portion and lying in a plane normal to that of the front portion, a flat back portion integral at one end with the other end of the first side portion and lying in a plane paralleling that of the front portion, said back portion being longer than the front portion to an extent sufficient for extension of the back portion the full distance across the back of the package, a flat second side portion lying in a plane paralleling that of the first side portion and integral at one end with the other end of the back portion, said first and second side portions projecting forwardly from the back portion with the second side portion projecting a greater distance from the back portion than does the first side portion, said second side portion projecting forwardly beyond the plane of the front portion and being spaced at its front end from the other end of the front portion, and a clip element integral at one end with the front end of the second side portion and extending in front of the front portion the full distance between the side portions, the other ends of the front portion and clip element being free with the other end of the front portion being disposed in back of said one end of the clip element and the other end of the clip element being disposed in front of said one end of the front portion, said front portion and clip element being resiliently, yieldably spreadable responsive to the insertion of a book of matches therebetween for gripping of said package between the front and back portions and gripping of said book of matches between the clip element and front portion.

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2,769,220

## RELEASABLE BUCKLES

Frank Bernard Harley, Egham, England

Application July 17, 1950, Serial No. 174,149
Claims priority, application Great Britain February 3, 1950
7 Claims. (Cl. 24—193)



1. A releasable buckle for connecting a strap to another part comprising a body with parallel sides and closed ends affording a main anchorage adjacent one end for connection to the part to be connected to the strap, said body having intermediate its ends a transverse gripping edge having a rounded surface free of projections and provided with subsurface means to increase the frictional grip between it and the strap, said rounded surface being tangent to and defining a primary reference plane passing through said main anchorage, and an auxiliary anchorage about which the free end of the strap is looped in working position, said auxiliary anchorage being supported by said body intermediate its ends and lying parallel to the gripping edge between it and the main anchorage and spaced from said primary reference plane and from said gripping edge, said auxiliary anchorage being on the same side of said primary reference plane as the gripping edge, and said buckle being formed at its end remote from said main anchorage with means offset from said reference plane on the opposite side thereof to said gripping edge for preventing said primary reference plane and gripping edge from alining with the direction of the applied load by more than the thickness of the strap with which the buckle is designed to be used.

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2,769,221

## SEPARABLE FASTENERS

Herbert A. Maimann, Havertown, Pa., assignor of one-half to H. Robert Mandell, New York, N. Y.

Application May 20, 1953, Serial No. 356,126
4 Claims. (Cl. 24—216)

1. In a separable fastener of the stud and socket type, the combination of a socket having a first bore of relatively small diameter terminating in a shoulder, said socket also having a second bore of larger diameter than said first bore beyond said shoulder to provide a relatively thin wall portion on said socket, a stud retaining member

mounted on said shoulder, said stud retaining member having a pair of spaced arms adapted to engage a stud inserted into said socket and a peripheral portion connecting said arms and disposed thereabout, said peripheral portion having parts in a common plane and another part



spaced from said common plane and connecting said common plane parts, and a plurality of circumferentially spaced prongs on said thin wall portion extending over onto those of said stud retaining member peripheral portion parts as are disposed in said common plane and holding said stud retaining member against said shoulder.

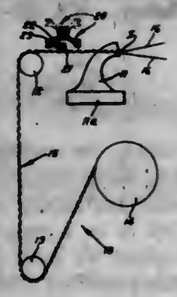
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2,769,222

## FABRIC AND METHOD OF MAKING SAME

Raymond J. Southwell, Nichols, Conn., Mary Elizabeth Southwell, executrix of said Raymond J. Southwell, deceased

Application April 10, 1950, Serial No. 154,905
3 Claims. (Cl. 28—73)



1. The method of making open mesh glass fiber fabric having precoated high temperature and moisture resistant thermoplastic coated glass fiber strands comprising weaving said strands into an open mesh fabric of warp and weft strands and maintaining the warp strands thereof under tension, then while said warp strands are under tension applying sufficient fusing heat in a zone to the woven fabric where the warp strands are under said tension to soften said thermoplastic coatings of the strands to have the coatings of the warp and weft strands of the fabric fuse to one another, and then continuing movement of said fabric from said zone to have said coatings cool and reset at the places of crossing of said warp and weft strands and form bonds securing the warp and weft strands to one another.

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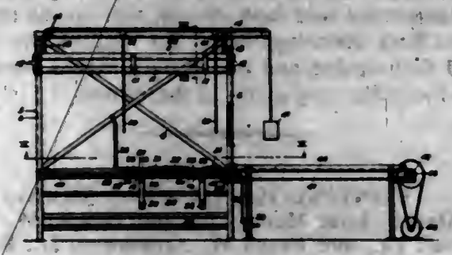
2,769,223

## VENETIAN BLIND ASSEMBLY MACHINE

Harry S. Rosenbaum, Baltimore, Md.

Application July 18, 1951, Serial No. 237,359
8 Claims. (Cl. 29—24.5)

8. A machine for assembling slats and ladder tapes of Venetian blinds comprising a vertically movable carriage to which ladder tapes of the blind being assembled may be secured, a feeding device for each ladder tape having means for alternately engaging and releasing the cross tapes of the ladder tapes to control movement of the tape through the device, means for moving the carriage and the ladder tapes secured thereto, movement of the carriage being controlled by said tape feeding devices, and means positioned at a point adjacent the path of movement of the tapes for feeding slats horizontally between the cross tapes and the side tapes of the ladder tapes as the tapes pass the slat feeding means.



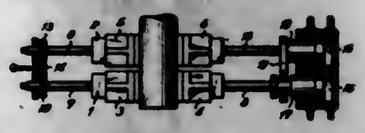
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2,769,224

## SAWING MACHINE

Richard Hake, Remscheid-Vieringhausen, Germany, assignor to Joh. Friedrich Ohler O. H. G., Remscheid-Vieringhausen, Germany, a corporation of Germany

Application March 2, 1954, Serial No. 413,683
Claims priority, application Germany March 11, 1953
2 Claims. (Cl. 29—67)



1. A hydraulic control system comprising a base, a pair of hydraulic vise means positioned on said base in parallel arrangement, each of said vise means including a pair of opposed jaws, right and left hand screw means supporting said opposed jaws of each of said vise means, means for operating selectively one or both said vise means, said operating means for each of said vise means including a hydraulic cylinder, a piston reciprocating in said cylinder and a piston rod connected with the corresponding of said vise means, and means for connecting said piston of one of said cylinders with that of the other of said cylinders, thereby exerting the pressure of both said pistons on one of said vise means.

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2,769,225

## CUTTING AND ABRADING TOOL

Christopher Hodgson Booth, Sheffield, England, assignor to Firth-Brown Tools Limited, Sheffield, England, a British company

Application May 2, 1952, Serial No. 285,673
Claims priority, application Great Britain May 3, 1951
10 Claims. (Cl. 29—78)



1. A cutting tool of the kind comprising a tool body having a multiplicity of successive cutting edges on one surface thereof, the edges having positive rake and clearance angles and all facing in the same general direction for cutting, and at least some of the edges being divided along their length by spaced parts which are staggered in relation to the parts of other edges and which form, non-cutting rubbing surfaces with ramp-like leading portions, which rubbing surfaces lie below the cutting edges by an amount equal to the maximum permissible depth of cut desired and, passageways in front of the cutting edges at a level substantially below the rubbing surfaces, for clearance of chips, said passageways leading to an external surface of the body, whereby when the edges are cutting to the maximum depth the non-cutting surfaces rub on the work and so prevent the edges from



cutting deeper and also prevent the surface of the work from closing the clearance passageways.

8. A tool as claimed in claim 1 in which the body is of circular section and the cutting edges lie on the circumferential surface.

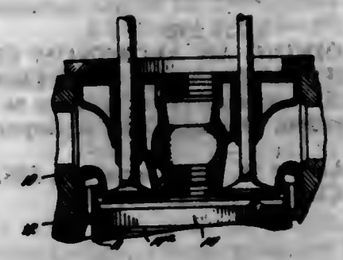
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2,769,226

## METHOD OF WELDING CYLINDER TO HEAD

Ralph E. Van Deventer, Detroit, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan

Original application April 24, 1950, Serial No. 157,762. Divided and this application February 25, 1953, Serial No. 338,691
1 Claim. (Cl. 29—156.4)



The method of fabricating a one piece cylinder assembly defining a closed dome at one end of the combustion chamber for an internal combustion engine, which comprises the steps of forming upon the cylinder head an integral peripheral flange having an annular end surface spaced apart from the inside surface of the dome and having a cylindrical inner face disposed between the two said surfaces, forming a barrel with a cylindrical flange of predetemined length at one end offset inwardly from the inner wall of the body of the barrel and a transversely extending intermediate wall portion joining the barrel body and the cylindrical flange integrally together at that end, the wall portion presenting an annular end surface included between the respective junctures of the wall portion and each of the body of the barrel and the cylindrical flange thereof and maintaining the coaxial stepped relationship whereby the inner wall of the barrel body and the outer wall of the cylindrical flange are substantially longitudinally aligned, said cylindrical flange closely engaging the inwardly facing cylindrical surface of the flange of the head when it is inserted within said encircling flange to establish coaxial relationship between said head and the body of the barrel with the predetemined length to which the cylindrical flange is formed being such that when it is inserted into the encircling peripheral flange of the head it will, by abutting the dome in said head function as a stop limiting the extent of such insertion and accurately locating the mutual facing annular end surfaces of head and barrel in desired spaced relationship, filling the space between said annular end surfaces with weld metal to permanently unite the head and barrel, and thereafter cutting away the said cylindrical flange and the stepped transversely extending wall portion to provide a continuous cylindrical inner surface extending from the body of the barrel beyond the weld.

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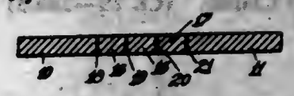
2,769,227

## WELDED JOINT BETWEEN FERRITIC AND AUSTENITIC STEEL MEMBERS

Charles Sykes and Henry William Kirkby, Sheffield, England, assignors to Thos. Firth & John Brown Limited, Sheffield, England, a British company

Application November 28, 1951, Serial No. 258,761
Claims priority, application Great Britain March 6, 1951
7 Claims. (Cl. 29—196.1)

3. A welded joint structure comprising a first structural member of a ferritic steel having a thermal coefficient of expansion of 0.000014, a second structural member of an austenitic steel having a thermal coefficient of expansion of 0.000018 and a plurality of intermediate rigid component layers of austenitic steel directly sandwiched between said first and second structural members and positioned successively from one structural member to the



other with the intermediate layers in direct contact and in welded fixture with the structural members and with each other where they contact, said intermediate layers having thermal coefficients of expansion which increase in successively substantially equal steps from the said coefficient of the first structural member to that of the second structural member.

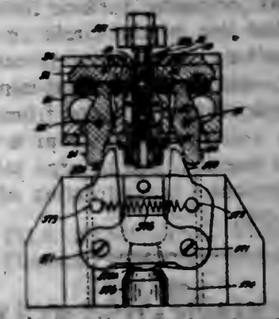
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2,769,228

## ASSEMBLING MACHINE

James S. Burge, Anderson, Hilton J. McKee, Middletown, Ray T. Alexander, Pendleton, and Loris H. Conrad, Warren M. Rider, Gustave H. Neetzel, and James F. Salatin, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 11, 1951, Serial No. 220,482
3 Claims. (Cl. 29—203)



1. In a machine for assembling a push button switch including a nonconducting case having a side opening therein and an eyelet receiving hole, a metal case mounting member having an eyelet receiving hole, a metal eyelet for attaching the case to the member, a push button extending through the eyelet, a contact attached to the button and engaging the eyelet, a spring in the case for urging the contact against the eyelet, a spring retainer in contact with said spring in said case and a terminal providing member attached to the case at said side opening and engaged by the spring retainer, the combination comprising a plurality of work holder supports, a conveyor for moving the supports successively to a plurality of stations, means for indexing the conveyor, each support having a holder which supports a first assembly of eyelet, mounting member and nonconducting case and a second assembly of button and contact when inserted within the case, and a spring supported by the second assembly and a spring retainer therefor, said retainer being adapted to be moved toward the button and away from said side opening for compressing said spring preparatory to assembling the terminal providing member with the case, means at a station for pushing said retainer toward the button and out of register with said opening, means provided by the holder for engaging the retainer to keep said spring in a compressed state, means for advancing the retainer engaging means through said case opening and into engagement with said retainer while the spring is compressed, means for retracting the retainer engaging means, said terminal providing member being adapted to be secured to the case by bending a part thereof into said side opening of the case, and means provided by the retainer engaging means for bending said part when the retainer engaging means is retracted.

2,769,229

## TOOL FOR EXTRACTING WIRE COIL INSERTS

John O. Forster, Harrison, N. Y., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware

Application February 12, 1954, Serial No. 409,930
3 Claims. (Cl. 29—240.5)



1. A tool of the class described comprising a rotatable shaft, a plurality of members spaced circumferentially of the shaft and connected to the shaft for rotation therewith, portions at least of said members extending longitudinally of the shaft and converging in the direction of the axis of rotation thereof to form a cage-like structure tapering axially of and rotating with the shaft, and a lateral extension formed on one of the members having an inner work engaging surface forming an acute angle with a radial line of the circle circumscribed by the members revolving in operative direction about the axis of the shaft, said acute angle opening towards the inside of said circle, thus to engage from the outside a convolution of a coil projecting from a work-piece in which said coil is inserted, and to urge said convolution inwards of said structure upon rotating of the shaft coaxially with the coil.

2,769,230

## METHOD OF FABRICATING RAILWAY CAR LADDERS

Karl F. Nystrom, Chicago, Ill., assignor to International Steel Company, Evansville, Ind., a corporation of Indiana

Original application February 1, 1952, Serial No. 269,384. Divided and this application June 11, 1953, Serial No. 361,045
6 Claims. (Cl. 29—428)



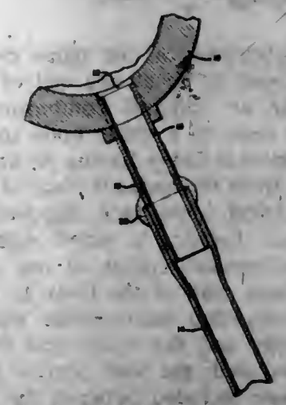
1. The method of fabricating railway car ladders with integral supporting brackets on each end thereof which comprises cutting-out portions of the flanges of angle members in portions spaced from the adjoining webs in shapes constituting pairs of trapezoidal cut-outs having a common hypothetical central boundary with the sides of the trapezoidal cut-outs diverging in opposite directions from said common hypothetical central boundary, with the terminating adjacent edge of one of the trapezoidal cut-outs spaced from the web of the angle member and the opposite side of the other of said trapezoidal cut-outs extending coincident with the longitudinal terminating edge of the first mentioned flange, forming the ends of said angle members into brackets with the first mentioned longitudinal edge of said first mentioned trapezoidal cut-out and the adjacent sides thereof forming an opening constituted by an open segment and chord and the side of the other of said trapezoidal cut-out adjacent the edge coincident with the longitudinal terminating edge of said flange forming abutting edge-to-edge limit stops extending on a line substantially normal to the said chord, and securing treads between the flanges of said angle members.

2,769,231

## METHOD OF JOINING AN ALUMINUM TUBE TO A STEEL REFRIGERATOR COMPRESSOR

Leland H. Grenell, Oakwood, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware

Application August 19, 1952, Serial No. 305,220
3 Claims. (Cl. 29—471.7)



1. The method of joining an aluminum refrigerant line to a steel compressor which comprises first coating one end portion only of a steel tube with aluminum, secondly silver soldering the uncoated end of said steel tube to the body of said compressor and thereafter inert gas welding said aluminum refrigerant line to said aluminum coating.

2,769,232

## SAFETY RAZOR

Albert J. Leonard, Sr., Los Angeles, Calif.

Application November 30, 1953, Serial No. 395,111
10 Claims. (Cl. 30—60.5)



1. A safety razor comprising: a shaving head including a guard element and a cover movably mounted thereon to occupy open and closed positions to accordingly release a blade or clamp same between the cover and guard element with the cutting edge of the blade exposed for shaving; a handle composed of telescopically associated sections, to one of which the guard element is fixed; means operatively connecting the other handle section to said cover for movement of the latter to open or closed position according as the handle sections are relatively moved axially from one extreme position to another; an actuating member; means operatively connecting said actuating member to said one handle section for said axial movement with the latter as a unit and for rotational movement independently of said one handle section; and cam means interposed between the perimeter of said actuating member and the confronting annular surface of said other handle section, co-acting with the latter and and handle in response to relative rotational movement therebetween in one direction, to lock the handle sections against said relative axial movement.

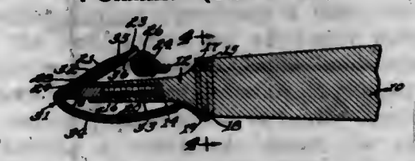


2,769,233

## SAFETY RAZOR

Jeptha Ivey Duke, Miami, Fla.

Application August 12, 1954, Serial No. 449,321
4 Claims. (Cl. 30—69)



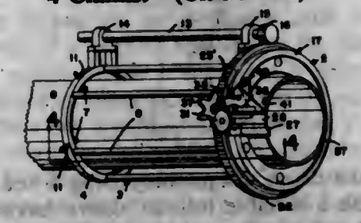
4. In a safety razor, a handle provided with an exteriorly knurled surface, a shank extending from said handle and provided with a threaded socket, there being a groove in said handle, a support member including a collar surrounding said groove, a securing element projecting through said collar into said groove, a bracket extending from said collar, a base arranged angularly with respect to said bracket and extending therefrom, there being an opening in said base, a pair of apertured ears extending from said base, a roller having trunnions journaled between said ears and provided with a plurality of grooves, said roller being spaced from the free edge of said base, a blade arranged contiguous to said base and provided with an opening registering with the opening in said base, a clamp including a stem projecting through the registering openings in said blade and base, said stem engaging the socket in said shank, said clamp including a body portion contiguous to said blade, and a curved portion engaging said bracket.

2,769,234

## PORTABLE PIPE BEVELING APPARATUS

James L. Young, Houston, Tex.

Application December 22, 1954, Serial No. 477,047
4 Claims. (Cl. 30—97)



1. A portable pipe beveling apparatus comprising, a cage surrounding the pipe to be beveled, longitudinally spaced supports on said cage and circumferentially engaging the pipe to be beveled for supporting the cage thereon, a head rotatably supported on said cage for movement about the pipe to be beveled, beveling cutter means mounted on said head and extending inwardly to engage and bevel cut the pipe on which said cage is supported, spring means associated with said head and connected to said cutter means for accommodating movement of said cutter due to irregularities in the pipe, roller means on said cutter means for supporting said cutter on the pipe as said cutter is moved thereabout, means for rotating said head about the pipe and additional means for progressively advancing the cutter inwardly as said head is rotated to progressively bevel cut the pipe.

2,769,235

## PORTABLE PIPE CUTTING MACHINE

Arthur E. Martois, Los Angeles, Calif.

Application March 14, 1955, Serial No. 494,201
2 Claims. (Cl. 30—97)



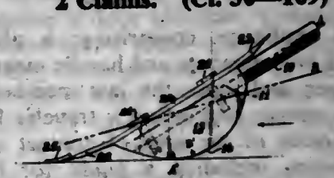
1. A portable pipe cutting machine comprising a frame, one part of said frame being substantially circular in form, a ring shaped chuck, means rotatably mounting said chuck in the circular portion of the frame, a motor, drive means extending from said motor to the chuck, idler rollers mounted on the chuck, a cutter wheel, a holder on which the cutter wheel is journaled, means pivotally mounting said holder on the chuck, a ratchet wheel, a shaft projecting from the ratchet wheel, said shaft being journaled in said chuck and engaging said holder, a cam surface on the ratchet wheel, a pin on the chuck engaging said cam surface to advance said ratchet wheel and shaft against said holder, and means on said frame engageable by said ratchet wheel to rotate said ratchet wheel at each rotation of the chuck.

2,769,236

## TILE REMOVING TOOLS

Andrew Thomas Phillips and Ralph J. Collins, Columbus, Ga.

Application December 17, 1953, Serial No. 398,750
2 Claims. (Cl. 30—169)



1. A tile removing tool comprising a handle, a square shank at one end of said handle and having openings therethrough, a weighted cast iron casting having an open top square slot therein complemental to the shank of said handle and having openings in the bottom of said slot, a double ended reversible scraper blade having openings therethrough, a beveled end for attacking the work surface, and removable attaching means between said casting, shank and blade passing through the openings thereof whereby said blade is held rigidly in place along said shank and casting and backed by the weight mass of said casting to provide a weighted thrust to said blade when the blade is attacking the tile.

2,769,237

## PRUNING SHEARS

Samuel Oxhandler, Hamden, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut

Original application October 29, 1952, Serial No. 317,485, now Patent No. 2,715,270, dated August 16, 1955. Divided and this application June 6, 1955, Serial No. 513,315
2 Claims. (Cl. 30—254)

1. A pruning implement comprising a pair of pivoted, cooperating shearing members, a handle carrying each

of said members, said members extending laterally at an angle to the longitudinal dimension of the handles, and the upper end of one handle lying below a portion of the other handle to contact the latter and limit closing movement of the handles, one of said shearing members being a cutting blade having a shank member to which the upper end of said one handle is secured, and said last-



named handle having a rounded outer face and spaced upper and lower projections on said face formed integrally with the handle to provide a finger seat therebetween, and the upper of said projections being located at the upper end of the handle adjacent the point of contact between the handles to guard against the finger of the operator being pinched between the handles.

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**2,769,238**
**MEANS FOR AND METHOD OF APPLYING A FILLING MATRIX TO A TOOTH**
Angus S. McPhee, Seattle, Wash., assignor of one-third to Duncan S. McPhee, Seattle, Wash., and one-third to Leonard W. Stillfant, Tacoma, Wash.
Application July 6, 1954, Serial No. 441,235
5 Claims. (Cl. 32—63)

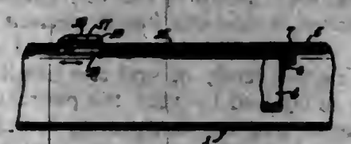


1. A dental appliance, comprising: a plier-like tool having a pair of jaw members and handle means manually operable to open and close the jaw members, the tool having support means supporting a traveler between the jaw members inside of the area of contact of the jaws, the support means including a guide for the traveler guiding the same in movement toward and away from said area of contact of the jaws and including means manually operable to move said traveler along said guide which will hold the traveler in position when not operated, a looped band of malleable metal and the traveler having means fixedly clamping the ends of said looped band which is manually operable to clamp and release the band, the band extending from said traveler through said area of contact of the jaws and forming the loop outside thereof in which a tooth may be positioned, said jaws at the area of contact with the band being beveled so that when closed they are spaced at one side and gradually converge to meet at the other side defining a V-shaped space therebetween.

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**2,769,239**
**OPTIONAL GUN SIGHT RETICULE ENLARGING DEVICE**
Richard L. Oswald, Los Angeles, Calif.
Application November 5, 1953, Serial No. 390,313
6 Claims. (Cl. 33—50)

1. A device for increasing the visibility of a telescopic gun sight reticule center comprising, a support for the reticule cross-strands mounted within the telescope tube, a lever pivotally mounted on the end of the support, a lever operating element mounted on the outer surface of the telescope tube, and connections between said element and the lever, said element being manually operable



to swing the lever inwardly to bring the head thereof into axial alinement with the cross-strand intersection of the reticule.

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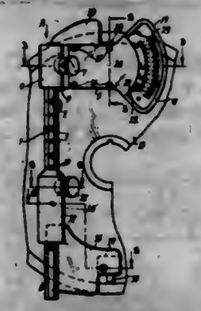
**2,769,240**
**MASON'S CORNER GAUGE**
Stanley V. Wells, Washington, D. C.
Application July 13, 1955, Serial No. 521,820
3 Claims. (Cl. 33—85)



1. An adjustable supporting and tensioning device for a vertical corner gauge-line used in erecting masonry structures, said device comprising a rigid bar-shaped member having its opposite end portions offset to lie in spaced planes and its intermediate portion angularly disposed between said planes, one of said end portions forming a gauge-line supporting arm and the other forming a supporting base for said device, an elongated rod threadedly supported in and substantially normal to the plane of said gauge-line supporting arm, means for threadedly adjusting said rod relative to said arm, and means at one end of said rod for releasably attaching a gauge-line axially thereto.

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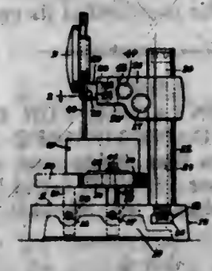
**2,769,241**
**BRAKE DRUM GAUGES**
Harry B. Barrett, St. Louis, Mo.
Application May 22, 1953, Serial No. 356,823
3 Claims. (Cl. 33—147)



1. A brake drum gauge comprising a rod provided on one end with a slidable tubular sleeve having a laterally projecting head member which is offset rearwardly from the rod and is provided with an internal recess, a shiftable contact pin operatively mounted in the recess in laterally spaced parallel relation to the rod, means operably connected to the contact pin for rocking-movement in direct response to the shifting movement of the pin, a needle operably associated with said means, and a second tubular sleeve slidably mounted on the other end of the rod and having a laterally projecting auxiliary member which is rearwardly offset with respect to the rod, said auxiliary member having a reference member disposed in axial alignment with the contact pin, said tubular sleeves both being provided with means for locking them in fixed relative positions on the rod so that the reference member will be positioned at a predetermined distance from the contact pin.



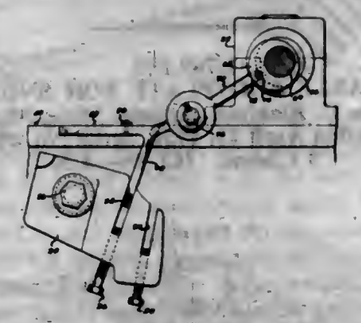
**2,769,242**
**GAUGING DEVICE**
Gottlieb Lienhard, Temple, Pa., assignor to Roco Manser Precision Engineering Corporation, Temple, Pa., a corporation of Pennsylvania
Application June 20, 1955, Serial No. 516,687
13 Claims. (Cl. 33—147)



1. A gauging device comprising a base; an upright carried by the base; means for adjustably mounting a dial indicator on the upright, to enable said indicator to be swung between two positions with its plunger extending either vertically upward or vertically downward; a table for holding a workpiece; means for adjustably mounting the table on the base below the indicator mounting means; and means for adjustably mounting the table on the upright above the indicator mounting means whereby a workpiece carried by the table may be gauged by the indicator for either position of the table.

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**2,769,243**
**SETTING GAUGE FOR MOTE KNIFE BRACKETS**
Charles D. Miller, Chester, S. C., assignor to The Springs Cotton Mills
Application January 11, 1954, Serial No. 403,331
6 Claims. (Cl. 33—181)

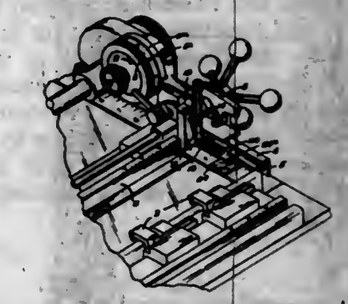


3. A gauge means for setting mote knife brackets at each frame side of a card in relation to the licker-in roll thereof, said gauge means comprising a reference shaft mountable axially in place of said licker-in roll when removed from the card, a gauge bracket having a collar portion disposed rotatably and slidably on said reference shaft and a holder portion extending radially from said shaft, and a gauge arm carried angularly by said holder portion in the relation to said reference shaft desired for a mote knife in relation to said licker-in roll, said gauge arm fitting said brackets in place of a mote knife mountable thereon for setting each of said brackets prior to mounting of the mote knife.

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**2,769,244**
**MATCH PLATE FOR LINE-UP AND REGISTER TABLES**
George H. Charnock, Jr., Newton Center, Mass., assignor to Craftsman Line-Up Table Corporation, Waltham, Mass., a corporation of Massachusetts
Application December 29, 1954, Serial No. 478,417
6 Claims. (Cl. 33—184.5)

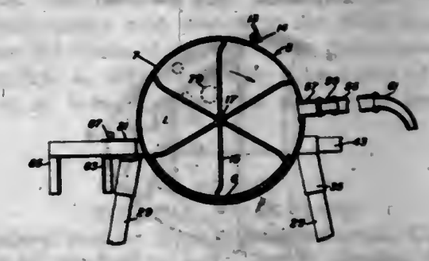
1. An improved match plate construction for use with a straight edge comprising a supporting bracket, means for adjustably securing the bracket to the straight edge, a match plate slide, means for locking the slide in a fixed position on the bracket and a match plate element



supported at one end of said slide and having an indicator line thereon.

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**2,769,245**
**GRAIN DRIER AND CONVEYOR**
Lee E. Kechely, Phillipsburg, Kans., and Will R. Brandon, Republican City, Nebr.
Application April 13, 1954, Serial No. 422,784
1 Claim. (Cl. 34—57)



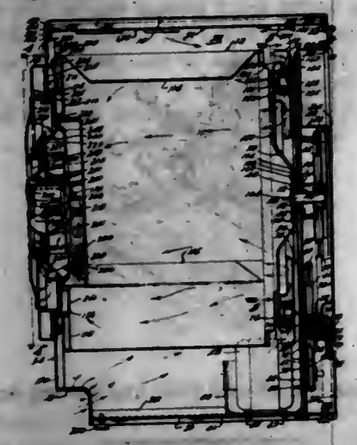
A grain drier and convcyor comprising a frame, supporting means for said frame, a circular fan casing on said frame including fixed sides and a circumferential wall and forming a drier chamber, a suction and blower fan in said chamber, a grain intake suction tube having an end opening through one side of said casing into said chamber for feeding grain into said chamber under suction created by said fan, a grain discharge blower tube having one end attached to and opening through said wall into said chamber for discharge of dried grain out of said chamber by air blast created by said fan, means for introducing heated air into said chamber to dry the grain, means mounting said wall on said sides for adjustment on said sides of the casing circumferentially of said casing to vary the distance between said ends of said tubes to vary the duration of some of the grain in said chamber, and a drive motor operatively connected to said fan, said discharge blower tube being flexible to compensate for adjustment of said wall.

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**2,769,246**
**CLOTHES DRIER**
Robert D. Shapter, Factoryville, Pa., assignor to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware
Application May 6, 1953, Serial No. 353,323
8 Claims. (Cl. 34—82)

1. A clothes drier including, in combination, a casing having an air inlet, a container having front and rear walls and an imperforate peripheral wall mounted for rotation in said casing, said rear wall having apertures annularly disposed therethough, means for rotating said container, the front wall of the container and the adjacent portion of the casing having aligned access openings, a door supported on said casing closing said openings and having a passage therethrough, blower means on

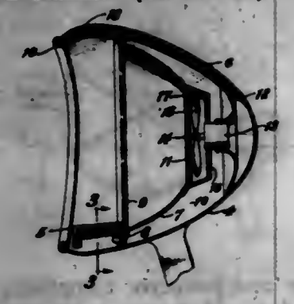
said door for drawing air from the interior of said casing through the apertures in the rear wall and a removable



filter element on said door in the passage of air therethrough.

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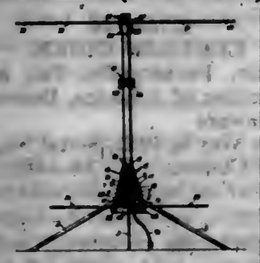
**2,769,247**
**HAIR DRYERS**
**Ruth F. Krueger, Granada Hills, Calif.**
**Application October 15, 1954, Serial No. 462,492**
**2 Claims. (Cl. 34—90)**



1. The combination with a hair dryer having an outer shell, an inner shell having a mouth terminating inwardly from the mouth of the outer shell and forming therebetween a jacket space, and means for circulating air within said shell jacket space, of: a foraminous member conforming in curvature to the outer shell and supported by the outer shell only in the space provided between the mouths of the shells and constructed and arranged to leave the head of the user of said dryer within the outer shell so that air circulation is not impeded within the shell.

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**2,769,248**
**DRIER**
**William J. Ashworth, Memphis, Tenn., assignor to Mechanical Patents, Inc., Memphis, Tenn., a corporation of Tennessee**
**Application November 10, 1954, Serial No. 468,022**
**8 Claims. (Cl. 34—163)**



1. A collapsible and portable drier for clothes and the like comprising a standard, collapsible legs for supporting the standard in vertical position, a hub on the standard adjacent its lower end, a plurality of electrical resistance heating elements pivotally attached to the hub for swinging movement between an operative position extending laterally outward from the standard and a collapsed position extending upward alongside the standard, each heating element being in the form of a loop having inwardly directed end portions received in holes in the hub, and a plurality of arms carried by the standard for movement between a retracted position and a position extending laterally outward from the standard at its upper end.

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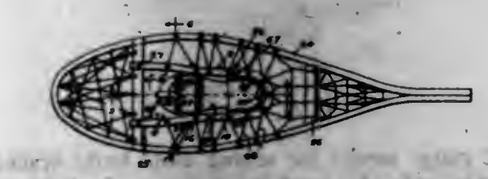
**2,769,249**
**ROSARY WITH CONTAINER FOR CONCEALING PENDANT MEMBER**
**Rosina Anna Illes, Bridgeport, Conn.**
**Application October 15, 1953, Serial No. 386,319**
**3 Claims. (Cl. 35—23)**



1. A rosary comprising a decade portion having the ends thereof connected at spaced points to one edge of a medal, said medal comprising a hollow member having a movable closure, and a pendant portion having one end fixedly connected to said medal at a point opposite from the connection of the decade portions thereto and adapted to be enclosed in said hollow member, said medal having an opening in the edge adjacent the connection of the pendant portion through which the pendant portion can be swung in moving from within the hollow member to depending relation upon movement of the closure to open position.

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**2,769,250**
**ADJUSTABLE FOOTPLATE FOR SNOWSHOE**
**John H. Riskinen, Atlantic Mine, Mich.**
**Application April 23, 1956, Serial No. 580,007**
**9 Claims. (Cl. 36—4.5)**



1. A footplate attachment for a snowshoe comprising, in combination with a snowshoe frame having a front cross brace, an elongated footplate attachment frame having a forward end secured to said cross brace and supported thereby in a plane substantially parallel to the plane of the snowshoe frame and extending rearwardly from said cross brace, said frame combining with the cross brace to define an elongated opening, an elongated footplate disposed in said frame opening and longitudinally thereof, a shaft extending transversely across and journalled in the said frame, said footplate being secured on said shaft for pivotal movement relative to the attachment frame about the axis of the shaft, a toeplate overlying a forward portion of said footplate, means slidably connecting the toeplate to the footplate, a toecap supported by and disposed above the forward portion of the toeplate, spring means carried by the footplate and connected to the toeplate for urging the toeplate to slide rearwardly relative to the footplate, a heel catch disposed above the other rear end of the footplate facing toward the toeplate, and means detachably mounting said heel catch on the footplate.



**2,769,251**
**ORTHOPEDIC SHOE**
**Carroll M. Elsey, Marion, Ohio, assignor of one-third to Philip W. Smith, Marion, Ohio**
**Application October 21, 1955, Serial No. 541,999**
**5 Claims. (Cl. 36—8.5)**



1. A shoe having an upper, an insole, and an outsole, said upper being marginally attached to the insole, and being marginally attached to the outsole except in the medial longitudinal arch area, whereby a pocket is formed between the insole and the outsole; and a resilient member in the pocket being secured over its entire upper surface to the adjacent overlying portions of the upper and insole; and the lower surface of the resilient member being secured to the adjacent upper surface of the outsole, this area of attachment being permitted to vary from the full lower surface of the member to only the lateral peripheral edge thereof; whereby movement of the shoe upper toward and away from the medial portion of the outsole in the longitudinal arch area is permitted.

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**2,769,252**
**SHOE CONSTRUCTION**
**Alice E. Mouler, Ypsilanti, Mich.**
**Application December 2, 1954, Serial No. 472,589**
**4 Claims. (Cl. 36—8.5)**



1. A shoe for use in exercising the muscles of the abdomen comprising an upper and a relatively rigid full sole, flat on its under surface with the heel end of said under surface cut-out for receiving an insert, a rubber-like insert secured to the sole in the cut-out, said insert having a flat surface inclined rearwardly and upwardly away from the plane containing the under surface of said sole so that no portion of said insert projects below said plane, and an elevating member secured to the underside of said sole at the forward end only thereof for maintaining the forward part of the shoe substantially higher than the rear of the shoe, said elevating member having a flat base parallel to said sole and a flat inclined portion sloping from said base upwardly to a position substantially vertically even with the front edge of said sole, said insert being inclined to said sole at the same angle that the elevating member causes the sole to be inclined to a horizontal surface on which the shoe is resting so that the flat surface of said insert will be in the plane of said horizontal surface.

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**2,769,253**
**FOOT CORRECTIVE MEMBER**
**Hyman L. Whitman, deceased, late of East Bridgewater, Mass., by Tina I. Whitman, administratrix, East Bridgewater, Mass., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York**
**Application June 26, 1953, Serial No. 364,239**
**2 Claims. (Cl. 36—71)**

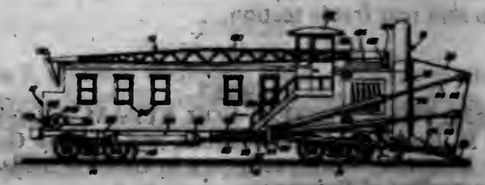
1. A foot-corrective member adapted to underlie the plantar surface of the foot, said foot-corrective member comprising an upwardly-extending supporting element having a flat upper face underlying the area of the plantar surface of the foot extending rearwardly to a region immediately forward of the sustentaculum tali of the foot, forwardly to a region located a distance forward of the articulation of the mesocuneiform bone of the foot with the second metatarsal bone of the foot about one-third the length of the second metatarsal bone of the foot, and transversely to regions immediately adjacent the transverse extremities of the mesocuneiform bone of the foot, said foot-corrective member having its apex at the rearmost edge of said upper face of said supporting element, said upper face of said supporting element sloping gradually downwardly as it extends forwardly from its



said rearmost edge, the upper surface of said foot-corrective member receding from said upper face of said supporting element to a marginal area of relatively thin thickness surrounding said supporting element, said foot-corrective member causing elevation of the mesocuneiform and the ectocuneiform bones and the second and third metatarsal bones of the foot to a position above that which they occupy with respect to the other bones of the foot when the bones of the foot are in their normal articulated position to allow a greater proportion of the body weight to be borne by the first metatarsal bone of the foot.

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**2,769,254**
**ROTARY SNOWPLOW**
**Jacob James Wright, Regina, Saskatchewan, Canada, assignor of one-half to J. D. Aaron, Regina, Saskatchewan, Canada**
**Application July 8, 1952, Serial No. 297,612**
**1 Claim. (Cl. 37—21)**



A rotary snowplow comprising a vehicle having mounted at the forward end thereof snow removal means, mechanism carried by said vehicle for actuating said snow removal means, said vehicle being adapted to be motivated by a conventional pusher vehicle, the pusher vehicle providing energy for operating said mechanism, said snow removal means including a rotary head mounted in a cowl, wings hingedly connected to sides of said cowl for urging the entrance of snow into contact with said rotary head in response to forward movement of said vehicle, said wings being positionable by a plunger carried by the under portion of said vehicle, said plunger being connected to a crosshead, each wing being connected to an associated end of the crosshead by a plurality of struts, said struts being in the form of pressure transmitting elements automatically adjustable in length.

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**2,769,255**
**SNOW THROWER**
**Theodore E. Mead, Wilmette, Ill.**
**Application July 2, 1953, Serial No. 365,689**
**5 Claims. (Cl. 37—43)**

1. A thrower device, comprising a pair of spaced wheels equipped with antifriction bearings, a shaft journaled in said bearings, a worm fixed upon said shaft, a

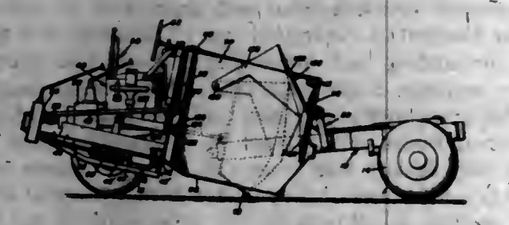
shield suspended upon said shaft and having its forward lower edge at the rear of said shaft, and power means for



rotating said shaft, said shield being pivotal about the longitudinal axis of said shaft.

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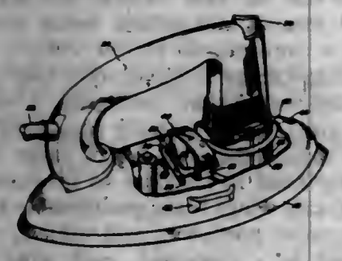
**2,769,256**
**TRUCK SCRAPER**
**John Ose, Granite Falls, Minn.**
**Application November 6, 1953, Serial No. 390,483**
**3 Claims. (Cl. 37—126)**



1. An earth mover comprising a front and a rear section, a front and a rear wheel assembly supporting respectively said front and rear sections, a bowl secured to the forward part of said rear section, said bowl being open at its lower forward portion, a door pivoted within the bowl and movable to a position for closing the bowl opening, said front and rear frame sections being articulately connected, jack means secured on the front section for raising and lowering said bowl, and means for moving said rear wheel assembly to selected longitiudinal positions on said rear frame section.

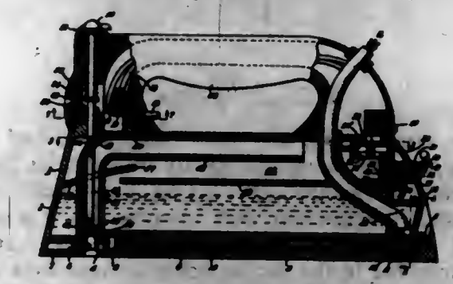
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**2,769,257**
**BREATHER SYSTEM FOR STEAM IRONS**
**Robert H. Duncanson, Minneapolis, and William G. Roll, New Brighton, Minn., assignors to General Mills, Inc., a corporation of Delaware**
**Application August 19, 1954, Serial No. 451,008**
**4 Claims. (Cl. 38—77)**



1. A steam iron comprising a soleplate, a steam generating chamber associated with said soleplate, a reservoir surmounting the soleplate for containing liquid to be fed to said steam generating chamber, and a breather system including means forming a first passage having an open end disposed adjacent a first side of the reservoir and extending to a point adjacent a second side lying opposite said first side, a second passage having an open end disposed adjacent said second side and extending to a point adjacent said first side, and a third passage connecting said first and second passages with atmosphere.

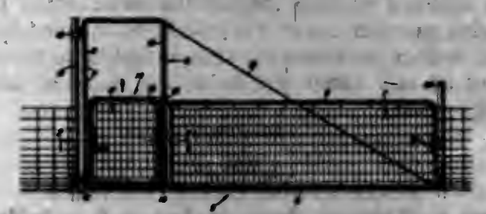
**2,769,258**
**STEAM IRONS**
**Albert C. Hoecker, St. Louis, Mo., assignor, by mesne assignments, to General Electric Company, New York, N. Y., a corporation of New York**
**Application August 31, 1949, Serial No. 113,386**
**4 Claims. (Cl. 38—77)**



1. A dampening iron comprising a pressing surface and a boiler for the reception of steam and water, said boiler having a steam space and a water space, a hollow member communicating with the steam space in said boiler and having its outlet directed towards the work being ironed, said outlet having a valve seat for the reception of a control valve, said valve having a minute opening of less diameter than said outlet, said opening extending longitudinally of the valve with its inlet above the valve seat and its outlet positioned within the valve opening, so that when the valve is seated in said valve seat the steam pressure in said boiler will be greater than when the valve is lifted off its seat, so that low pressure steam may be directed to the material being ironed when the valve is lifted off its seat for steaming the material being ironed, a water inlet communicating with said hollow member adapted to allow a predetermined amount of water into said hollow member to mix the water with the steam, to provide saturated steam in said hollow member, said water inlet extending above the water line in said boiler and up in said steam space so that water will not enter said hollow member when the iron is on even keel as while ironing but water will enter said hollow member through said water inlet when the iron is lifted off the material being ironed and the toe of the iron turned downwardly for dampening the material being ironed, said valve to be seated when dampening the material and said minute opening in said valve being restricted to retain sufficient steam pressure in said boiler to atomize the saturated steam passing through said minute opening, when the valve is seated.

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**2,769,259**
**FARM GATE**
**Arthur O. Gunderson, Gifford, Iowa**
**Application January 17, 1955, Serial No. 482,179**
**2 Claims. (Cl. 39—75)**



1. A multiple closure adapted to be mounted between a first and a second post, said closure comprising a horizontally elongated rectangular frame having upper and lower side members and an end member which is parallel to said first post, a latch for said closure arranged operatively between said end member and said first post, said lower side member being longer than said upper side member and thereby having a part which extends



beyond said upper side member, an auxiliary frame connected with said rectangular frame and comprising a first upright secured to the extremity of said part of said lower side member, a second tubular upright parallel thereto and secured to said part of said lower side member and said upper side member, both of said uprights rising above said upper side member, means interconnecting the upper ends of said uprights, hinges connecting said first upright to said second post and thereby mounting the entire closure for swinging movement, said first upright having a plurality of spaced openings, an auxiliary gate disposed between said uprights, means carried by said auxiliary gate and engageable in one of said openings to hold said auxiliary gate in the closed position and engageable in the other of said openings to hold said auxiliary gate in selected raised positions, and a pair of collars secured to said auxiliary gate both slidably and rotatively mounting said auxiliary gate on said second tubular upright.

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**2,769,260**
**NOVELTY TELEVISION LAMP**
**Louis W. Fenwick, Santa Monica, Calif.**
**Application July 3, 1953, Serial No. 366,083**
**1 Claim. (Cl. 40—77)**

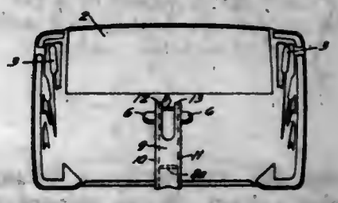


A novelty lamp comprising a cabinet of rectangular shape and having a back wall provided with a light emitting opening and a front wall provided with an opening in the upper portion thereof, a screen of translucent material disposed in the front wall opening and having opening means therein, at least one manually rotatable shaft extending through and disposed substantially perpendicular to said front wall, means mounting said shaft on the cabinet, a knob secured to said shaft at the outer side of said front wall, a disc of translucent material mounted at the rear side of said screen for rotation respectively by said shaft and having a circular series of indications thereon selectively registerable by rotation of said shaft with said opening means in said screen, a lamp bulb socket mounted in the lower portion of said cabinet, a lamp bulb mounted in said socket, and a reflector extending from below said lamp bulb between said lamp bulb and said front wall and to the upper edge of the light emitting opening in said back wall and having an opening therein dimensioned to confine light from said lamp bulb to said screen.

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**2,769,261**
**CALENDAR STAND**
**Clayton A. Laughlin, Minneapolis, Minn., assignor to Northwest Plastics, Inc., St. Paul, Minn., a corporation of Minnesota**
**Application January 20, 1954, Serial No. 405,089**
**1 Claim. (Cl. 40—120)**

A desk calendar stand, including a rigid, planar member and a prop member, said rigid, planar member having a front surface and a back surface, said front surface being adapted to carry a calendar pad, said back surface being provided with a pair of horizontally aligned, spaced apart protuberances, the opposed faces of said protuberances being formed with recesses therein, one end of said prop member being divided into two forks, said forks being flexible toward each other, the outer side edge of one of said forks being provided with a projection, the outer side edge of the other of said forks being provided with a similar, opposed projection, the width of said forked end of said prop member, taken through said projections, being greater than the distance between the opposed faces of said protuberances, said projections being pivotally carried within the recesses of said protuberances to allow movement of said prop member toward and away from said planar member, the back surface of said planar mem-



ber being formed with a rib projecting therefrom, the plane surface of said rib lying horizontally of said planar member, said rib being positioned so as to lie between the inner side edges of said forks when said prop member is in position away from said planar member, the end edges of said rib then butting against the inner side edges of said forks, said rib thereby precluding flexing of said forks toward each other when said prop is in position to hold said planar member in upright position, a corner edge of each of said forks being beveled to provide for clearance of said fork members over said rib when said prop member is moved to position adjacent said planar member, whereby said forks may be flexed toward each other to disengage said projections from said recesses when said prop member lies substantially flat against said planar member.

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**2,769,262**
**DISPLAY STANDS**
**Melvin J. Gordon, Wellesley, Mass., assignor to Melvin J. Gordon, Sadye Z. Gordon and Natalie G. Stone, doing business as Manchester Hosiery Mills, Manchester, N. H.**
**Application November 18, 1952, Serial No. 321,171**
**5 Claims. (Cl. 40—126)**

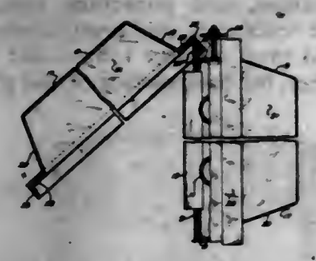


1. An illuminated display form for hosiery comprising a translucent hollow leg form, means supporting the leg form in the foot area, a disk tightly fitting across the inner wall of the leg form in the ankle region, means positioned within the hollow leg form providing a mask resting on the disk surrounding a small area above the ankle region,

an electric light source secured in the hollow form within the mask and an electric cord extending through the form adjacent the support in the foot area.

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**2,769,263**
**ILLUMINATED SIGNS**
**Carl H. Wanner, Milwaukee, Wis., assignor to Everbrite Electric Signs, Inc., Milwaukee, Wis., a corporation of Wisconsin**
Application March 30, 1954, Serial No. 419,710
4 Claims. (Cl. 40—132)



1. In a display sign construction, a rectangular metallic frame forming a drum, the top element of said drum frame having an upwardly projecting flange, a pan-like member for closing a face of said drum frame, said pan-like facing member including a dished sheet of translucent material with a rectangular flanged peripheral portion and metallic collar members carried by the flanged peripheral portion of the sheet material, the collar member along the top edge of the sheet material flange being angled and hookingly engaging the upwardly projecting flange of the top element of the drum frame to provide for hinging movement of the pan-like facing member on the drum, and a plate supported from the top element of said drum frame spacedly over the collar member along the top edge of the sheet material flange to prevent displacement of the latter during hinging movement of said pan-like member.

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**2,769,264**
**PENDANT VIBRATORY DISPLAY DEVICE**
**Walter P. Niblick, Cincinnati, Ohio**
Application September 24, 1953, Serial No. 382,129
14 Claims. (Cl. 46—139)



1. In a device of the class described, resilient suspension means, a vibration generating device suspended thereby, an elongated vibration transmitting element operatively connected to said generating device and depending therefrom, a pair of arms asymmetrically secured to the lower end of said transmitting element, a bracket of U-shaped cross section secured to each of said arms, each said bracket having a lining of material having a unidirectional nap, the lining in said brackets being disposed with the nap extending in the same direction, and a relatively thin annulus supported in said brackets in contact with said lining, whereby upon operation of said vibration generating device, said annulus is caused to revolve.

**2,769,265**
**METAL FOIL APPLIQUES AND METHOD OF MAKING SAME**
**Robert Nelson Page, Seattle, Wash., assignor to Boeing Airplane Company, a corporation of Delaware**
No Drawing. Application June 18, 1947
Serial No. 755,493
9 Claims. (Cl. 41—26)

1. A labelled article bearing a metal applique comprising a piece of aluminum base foil having an aluminum oxide layer on a side thereof and of a thickness, including said aluminum oxide layer, of about .003 inch, bonded to said article sufficiently strongly with respect to the fragility of said foil to prevent said applique being peeled off the article without tearing of the applique, dye impregnating said oxide layer over a portion of the area of such side, and the remainder of such side being of color contrasting with said dye.

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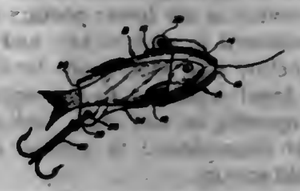
**2,769,266**
**RELIGIOUS SYMBOL**
**Robert S. Feeley, Carmel, N. Y.**
Application April 29, 1954, Serial No. 426,510
3 Claims. (Cl. 41—34)



1. A religious symbol especially adapted as a guide to prayer comprising a base plate having a front face provided with a recessed portion of a configuration corresponding to that of the cross, a crucifix positioned on the front face of the base plate and comprising a cross with a symbol of Christ thereon and removably positioned in said recessed portion, representations of the respective fourteen stations of the cross positioned about the crucifix and secured to the front face of the base plate and spaced protrusions positioned along the edges of the cross at points adjacent to and corresponding to the positions of the respective stations of the cross and identifiable by touch.

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**2,769,267**
**TRANSPARENT FISH LURE**
**Clifford V. Ansley, Syracuse, N. Y.**
Application March 21, 1952, Serial No. 277,868
1 Claim. (Cl. 43—41)



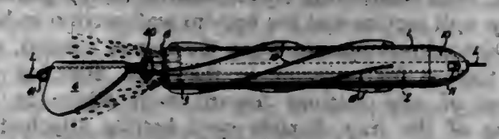
A fish lure comprising a hollow body including a first section of resilient material having openings provided in both ends with the forward end opening smaller than the rearward end opening, the first section being further provided with an aperture in the surface thereof intermediate the openings adapted to receive a fish line, and slotted extensions integrally connected to and extending rearwardly from the first section, a second section of resilient material having openings in both ends with the forward opening thereof being larger than the rearward



opening thereof and of the same order as the rearward opening in the first section, an apertured vertical lug on the surface of the second section adjacent the forward opening of said second section for attachment thereto of a fish line, a protuberance on the surface of the second section, said second section being provided with recesses communicating with the forward opening thereof, said sections being adapted to be assembled in axial register with the edge of the rearward opening in the first section contiguous to and abutting the edge of the forward opening in the second section, portions of the edge of the rearward opening of said first section together with the edges of said recesses defining apertures in the walls of said hollow body communicating with the interior thereof.

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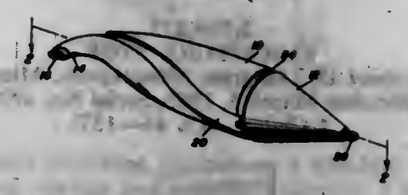
**2,769,268**
**FISH LURES**
**Myron C. Miller, Seattle, Wash., assignor to Herring Magic, Inc., Seattle, Wash., a corporation of Washington**
Application May 17, 1954, Serial No. 430,320
4 Claims. (Cl. 43—42.06)



1. A fish lure, for dispensing a trail of scales, comprising an elongated hollow container having water inlet apertures at its front end and exit apertures at its rear end, a spindle disposed axially within the container about which the container may revolve, water-reaction vanes on the exterior of said container to effect its revolution when drawn through the water, means to support the container from a line for drawing it through the water for entrance of water through its front end apertures and for exit of the water and scales from within the container through its rear end apertures, and generally radially directed stirrer arms on the spindle, within the container and adjacent the rear end apertures.

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**2,769,269**
**FISH LURE**
**Rex K. Martin and John S. Bartlett, Ovid, Mich.**
Application June 28, 1954, Serial No. 439,572
1 Claim. (Cl. 43—42.46)

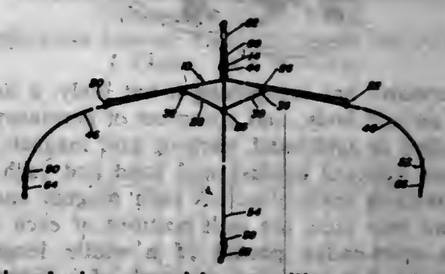


A self-rotating fish lure which has a spinning as well as a wobbly motion when drawn through a body of water comprising, in combination, an elongated rearwardly tapering body including a substantially flat anterior end, a posterior end appreciably reduced in cross-section and gradually and laterally curved relative to the longitudinal axis of said body, said body being circular in cross-section from end to end and having a spiral water channeling groove formed in its peripheral surface extending lengthwise from the anterior end to and opening through the posterior end of said body, a substantially conical head detachably mounted on the anterior end of said body, said body being beveled at the periphery of the flat anterior end, said head including a generally flat base and being beveled at the periphery of said base, said bevels being aligned, united and cooperating and thus providing an endless annular V-shaped groove at the junction of said body and said head, respectively, said body having an axially positioned substantially rectangular socket in the central portion of said anterior end, the base of said head having a corresponding axially disposed rectangular extension constituting a key and telescoping into and being thus removably keyed in said socket, said body also having a transverse bore extending through said socket with one end terminating in said groove, said extension having a bore aligned with the bore in said body, and a readily insertable and removable assembling and retaining pin extending through the aligned bores and thus detachably connecting said head to said body.



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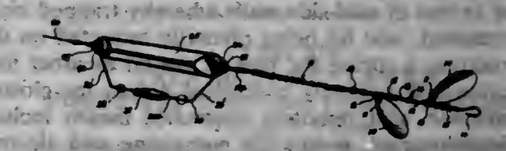
**2,769,270**
**SPREADER FOR FISHHOOKS**
**Ivy L. Williams, Ty Ty, Ga.**
Application July 16, 1954, Serial No. 443,914
1 Claim. (Cl. 43—42.74)



A fishing device comprising a resilient spreader member, an eye formed substantially centrally of said spreader member, said spreader member including arms diverging from said eye, and eyes disposed adjacent the outer ends of said diverging arms, a guide loop on each arm and disposed intermediate the end eye and said central eye, a leader including a substantially centrally disposed eye, and having portions on opposite sides of said central eye extending along the arms of said spreader member and extending through the respective guide loops and end eyes of said spreader member, said portions terminating in means adapted for connection thereto of fish hooks the central eyes of said spreader member and said leader being positionable in overlying relation and adapted for connection to a fish line, an angulated resilient brace connected between the guide loops and the divergent arms, said brace having a guide loop disposed substantially centrally thereof in substantially vertical alignment with said central eye, a leader extending through the guide loop of said brace, said last mentioned leader having an eye positionable adjacent said central eyes adapted to be connected to said fish line.

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**2,769,271**
**COMBINED ANTI-TWIST RUDDER AND FLOAT FOR USE WITH FISHING LURES**
**Eric M. Smith, Seattle, Wash.**
Application February 8, 1954, Serial No. 408,709
6 Claims. (Cl. 43—43.13)



6. In combination, a fish line, a fish lure of spinner type, and a combined anti-twist float and keel joining said line and lure; said float comprising an elongated, buoyant body, formed with an eyelet in its forward end portion through which a line connector is applied, and with an eyelet in its rearward end through which a lure connector is applied, and a keel secured to the float and substantially spaced therefrom; said keel comprising a base portion extending parallel with the float, and having upwardly directed legs at its ends affixed at their ends

to the opposite end portions of the float, a weight applied to the said base member to establish a moment of resistance to rotation of the lure as drawn through the water and said weight being of sufficient size to control the depth of the float in the water.

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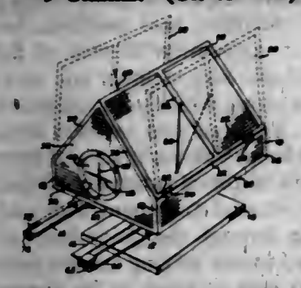
2,769,272
FISHERMAN'S HAT
Louis Goldman, Framingham, Mass., assignor to Bancroft Cap Company, Framingham, Mass., a corporation of Massachusetts
Application September 8, 1953, Serial No. 378,954
1 Claim. (Cl. 43—57.5)



A fisherman's hat comprising a hat body, a hat band mounted on said body, and a number of permanent magnets attached to said band, each of said magnets having a rear face disposed against said band and each having a slot extending entirely across each magnet and opening on said rear face, the wall portions of each slot defining an open-ended pocket of a width, length, and depth suitable for receiving the barb of a fishhook for enclosing the same between the magnet and said hat band, and each magnet being separately attached to said hat band.

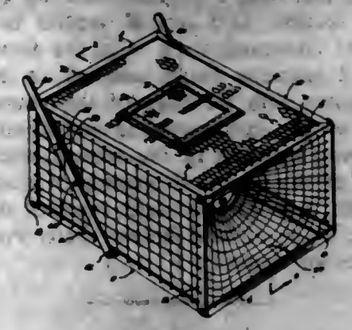
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2,769,273
TRAP
Raymond F. Martin, Fairborn, Ohio
Application February 28, 1952, Serial No. 273,789
9 Claims. (Cl. 43—61)



1. A remotely controlled trap including a base, a U-shaped standard mounted on said base, the upper ends of the legs of the U-shaped standard terminating in reentrant flanges, a frame structure mounted upon the reentrant flanges, said frame structure including a pair of angle irons, a floor mounted upon the angle irons, side and end walls projecting upwardly from the floor, and a lid for covering the top of the side and end walls, means positioned in one of said side walls whereby trapped birds may be removed, said lid being pivotally mounted on the frame structure, a spring for biasing the lid member into open position and remotely controlled means for closing the lid member, said remotely controlled means including an electromagnet, means for energizing said electromagnet, a movably mounted bar, a spring for urging said movably mounted bar in one direction, means for locking the movably mounted bar with the spring in tension, connecting means for connecting the locking means and the electromagnet so that as the electromagnet is energized the locking means releases the movably mounted bar, and means for connecting the movably mounted bar to the lid so that the spring of the movably mounted bar closes the lid against the force of the spring holding the lid open.

2,769,274
CRAB TRAPS
Nels Martin Ouglund, Bellingham, Wash.
Application February 4, 1952, Serial No. 269,697
1 Claim. (Cl. 43—105)



A crab trap of rectangular box-like form comprising a top wall section having oppositely disposed side rails and oppositely disposed end rails defining said top wall, a bottom wall section having oppositely disposed side rails and oppositely disposed end rails defining said bottom wall, links connecting corresponding corner portions of the top wall section and the bottom wall section to hold them in spaced relationship when the trap is erected, and pivoted thereto for swinging in the same direction for movement of said sections toward each other for the collapsing of the trap, flexible cord netting attached to the side rails of the top and bottom sections and to the links to form the side walls of the trap, woven cord tunnels applied to the opposite ends of the trap, each tunnel having its larger end attached to the links and end rails of the top and bottom sections at the corresponding end of the trap, thus to partially close the ends of the trap, said tunnels terminating in spaced relationship at their inner ends, and each having a rigid ring defining the open inner end of said tunnel, coiled springs extended between and attached under tension to said rings to draw the tunnels taut and retain them open when the trap is erected, and diagonally directed toggle linkage joining the side rails of top and bottom wall sections and adapted, in one position of adjustment to retain the trap in its erected position and manually movable to another position of adjustment to cause the trap to be collapsed; and one link of said toggle linkage being extended as an actuating handle for the adjustment of the linkage from one position to another.

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2,769,275
FURNITURE STOP
Robert D. Lindgren, Minneapolis, Minn.
Application March 3, 1955, Serial No. 492,011
1 Claim. (Cl. 45—137)



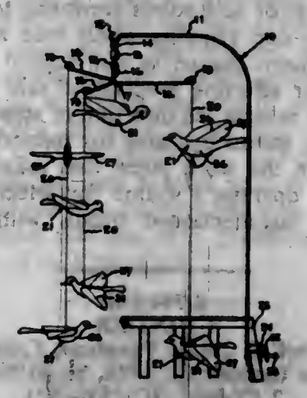
A furniture stop comprising an L-shaped bracket consisting of a normally generally horizontal flange portion and a normally generally vertical flange portion, said bracket being adapted to be rigidly detachably secured to the frame of a seat-forming piece of furniture with said generally vertical flange portion engaging the laterally outwardly facing back-side of said frame and said generally horizontally disposed flange portion engaging the underside of said frame, a pair of oppositely disposed spaced parallel ears rigidly anchored to said horizontal flange in depending relationship and disposed in laterally



inwardly spaced relationship with said vertical flange each disposed in a plane generally normal to said vertical flange, an expandable and contractible longitudinally extending arm comprising telescoping front and rear sections, means for adjustably securing said sections together, the forward end of the front section of said arm being disposed between said ears, means pivotally anchoring the forward end of the front section of said arm to said ears for pivotal swinging movements of said arm about a generally horizontal axis parallel to said vertical flange portion through an angle of approximately 180° wherein said arm is pivotally swingable from a generally horizontal position extending in one direction to a generally horizontal position extending in the opposite direction, said arm being pivotally swingable between an elevated rearwardly extending cleanup position and a rearwardly and downwardly extending operative position and a generally horizontally disposed forwardly extending storage position, said arm at its forwardly extending storage position being adapted to be disposed beneath said furniture laterally inwardly of the back thereof whereby to be attached to said piece of furniture and maintained ready for immediate use but disposed completely unobtrusively and without detracting from the original appearance of the piece of furniture, and a laterally inwardly projecting nub formed in one of said ears and adapted to engage said arm adjacent its pivotal connection to said ears for releasably holding said arm at its cleanup position and at its storage position until released.

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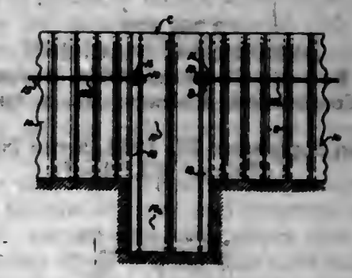
2,769,276
INFANT'S PLAYTHING
Robert L. Steiner, Cincinnati, Ohio, assignor to The Bromo-Mint Company, a corporation of Ohio
Application October 19, 1953, Serial No. 386,764
1 Claim. (Cl. 46—32)



An infant's plaything comprising a standard including a horizontal portion and a vertical portion, a bracket at the lower end of said vertical portion adapted to be secured to the top rail of an infant's crib or the like, said vertical portion being substantially long whereby the horizontal portion overhangs the crib at a substantial height above an infant in the crib, a spider having a plurality of horizontal arms, means to freely rotatably suspend said spider from the outer end of said horizontal portion of the standard, a thread secured to the outer end of each arm of the spider and hanging freely therefrom, an additional thread secured to the center of the spider below the suspension means thereof and hanging freely therefrom, a plurality of light-weight, artificial birds, one of said birds being fastened to the thread hanging from the center of said spider, at least two artificial birds fastened onto each of the other threads, the birds being disposed at different elevations on the respective threads, each thread extending downwardly through the center of gravity of the birds upon it and the birds being distributed on the respective threads hanging from the arms of the spider such that the spider is in horizontal balance on the suspension means, and each bird having substantially large laterally extending wings made in each instance of a continuous sheet of thin plastic material, the plastic material straddling the top of the bird and being bent along a lateral line to rigidify the wing and to provide an airfoil-like wing section highly responsive to air currents, whereby air currents cause movements of the individual birds about the axes of the threads to which they are fastened and cause the assembly of birds to turn about the means freely rotatably suspending the spider from said standard to create a moving display interesting to infants.

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2,769,277
TERRACE BARRIER OR CURBING
William B. Keelor, Plymouth Township, Hennepin County, Minn.
Application January 15, 1953, Serial No. 331,450
1 Claim. (Cl. 47—33)



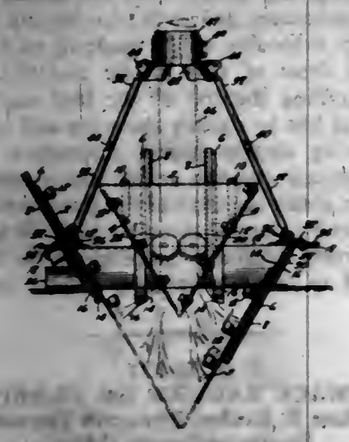
In a terrace barrier, transversely bowed barrier bands of sheet metal transversely corrugated and arranged edgewise upright in endwise succession, in scalloped fashion, the adjacent end portions of adjacent bands converging and terminating short of each other with their ends in relatively spaced relation, a coupling post in the form of a panel of sheet metal spanning the space between adjacent ends of adjacent barrier bands, the upright edge portion of the post at either side thereof having a vertically extending corrugation therein overlapped by and nesting in the terminal corrugation of its respective barrier band, fastening means securing such bands to the post at the nested overlaps between bands and post, said post having a pair of apertures therein, one at either side of the post adjacent to the corrugation therein, a trussing member of wire for each such band, the same extending along the outer convex face of its respective band and having a terminal portion extending through its corresponding aperture in the post, the ends of said terminal portions of said trussing members having a tensioning twist therebetween located at the inner side of the post, said tensioning twist uniting the said terminal portions of said trussing members at said inner side of said post.

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2,769,278
TREE BALLING DEVICE
Frank Lloyd Wassell and George W. Wassell, Westport, Conn.
Application May 16, 1952, Serial No. 288,176
10 Claims. (Cl. 47—37)

1. An excavating device comprising a plurality of plates adapted to be driven into the earth at angles to the vertical to meet at a common point below the surface of the earth, and means for locking said plates together including cooperative, separable locking means carried by adjacent portions of adjacent plates and adapted to be driven with said plates to points below the surface of the earth before being joined, the cooperative locking means of adjacent plates being offset along a vertical axis

to permit successive plates to be driven into the earth without interference by the locking means, said cooperative locking means coming into alignment when the plates meet at said common point.



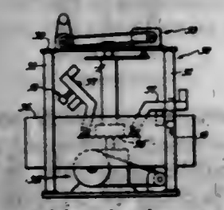
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2,769,279

## DEBURRING MACHINE

Kenneth J. Powers, Cleveland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application September 27, 1954, Serial No. 458,530
4 Claims. (Cl. 51—7)



1. A deburring machine having a carriage rotatably mounted about a vertical axis with a plurality of spindle units hingedly attached thereto for raising and lowering a work piece while spinning into and out of a liquid mass of abrasive material, a spindle chuck assembly for each spindle unit including a substantially cylindrical spindle sleeve means, a draw bar received in said spindle sleeve means and actuated by said spindle unit, and a work holder head means adapted to receive a work piece when said draw bar is in one position and to chuck said work piece by cooperation between said spindle sleeve means and said work holder head means when said draw bar is in a second postion.

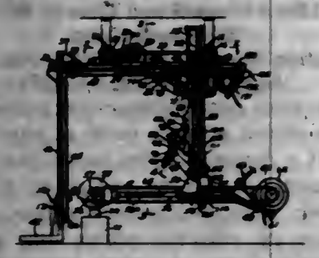
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2,769,280

## GRINDING APPARATUS, PARTICULARLY FOR GRINDING BILLETS AND THE LIKE

George E. Comstock, 3d, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application July 22, 1953, Serial No. 369,616
27 Claims. (Cl. 51—34)



1. In grinding apparatus, in combination, means forming a support for a long work-piece such as a billet, overhead guide rails extending lengthwise of the support, a carriage adapted to travel therealong with reversible motor means therefor and a variable resistance device responsive to carirage travel to measure the latter, said carriage having an operator's station depending therefrom and in front of the work-piece support and having movably depending therefrom, to the rear of said support, a frame for movement toward and away from the operator's station with reversible drive means for so moving it and with a variable resistance device responsive to its movement to measure the latter, said frame supporting a sub-assembly comprising a driven grinding wheel overlying said work-support and movable relative thereto, variable resistance means at said operator's station with two manual controls therefor and having circuit-connections to said first variable resistance and forming therewith a multiple electrical bridge having two balance points settable by said two manual controls with means responsive to electrical change in relation to either of said points according to the direction of carriage travel and resultant change thereby in said first resistance device for effecting reversal of said carriage-driving motor means whereby said carriage with the grinding wheel and operator's station travels along said overhead rails lengthwise of the work-piece in reversing grinding traverses relative to the workpiece that are of a length as determined by the setting of said two manual controls, means adapted to operate in timed relation to said reversing grinding traverses for actuating said frame-moving reversible drive means unidirectionally in successive relatively small increments to thereby give the grinding wheel step-by-step feed in direction from one longitudinal edge of the work-piece to the other, a second variable resistance means at said operator's station with two hand controls therefor and having circuit-connections to said second variable resistance device and forming therewith a multiple electrical bridge having two balance points settable by said hand controls, control means operating in response to electrical changes in the second bridge relative to either of said points according to the direction of said step-by-step grinding wheel feed movement and resultant resistance change in said second resistance device, means for effecting reversal of said frame-moving drive means to reverse the direction of step-by-step grinding wheel feed, means operable for retracting said grinding wheel from the work piece, and manually operable means at said operator's station for selectively associating said two last-mentioned means with said control means.

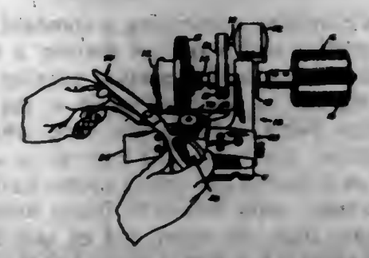
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2,769,281

## GRINDER

Cecil B. Jones, Pasadena, Calif.

Application October 11, 1954, Serial No. 461,487
2 Claims. (Cl. 51—91)



1. In a grinder having a rotary grinding wheel journaled in a stationary base, means for grinding pinking shears across the surface of said grinding wheel comprising a track with a pair of curved concentric edges, a link pivotally mounted to the base, and the track being pivotally mounted to the link, whereby the track's bevel angle and distance from the grinding wheel can be independently adjusted, a carriage mounted on said track, arms on said carriage for engaging with the curved concentric edges of the track, said arms being spaced by a distance greater than the spacing of the curved edges from each other, whereby the carriage can be made both to slide along the track and to yaw on said track, means for holding a blade to be sharpened to the carriage, whereby a blade held to the carriage is moved across the grinding wheel at a bevel and distance relative thereto which is determined by the setting of the track and by movement of the carriage along the track, and in which a forked guard is provided comprising a body and two spaced tines projecting from said body, said body being flexibly mounted to the base, and the tines straddling the grinding wheel, whereby the radial placement of the tines relative to the grinding wheel may be varied so as to limit the impingement of the blade being ground against the grinding wheel.



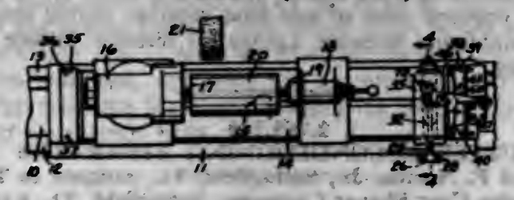
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2,769,282

## GRINDING MACHINE-TAPER CONTROL

Wallace H. Wood, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application June 20, 1955, Serial No. 516,681
7 Claims. (Cl. 51—95)



1. In a machine tool having a base, a longitudinally movable table thereon, a swivel table on said longitudinally movable table, a fixed pivot stud which mates with an aperture in said swivel table, means including a nut and screw mechanism spaced from said pivot stud operatively connected to effect a swivelling adjustment of said swivel table, and a sine-bar attachment including a bracket adjustably clamped on said swivel table, a rock arm pivotally mounted on said bracket, a dial indicator adjustably mounted on said bracket having its actuating plunger arranged to engage one end of said rock arm, a vertical pin on the other end of said rock arm, a fixed locating surface which is engaged by said pin, and means precisely to position said bracket relative to said swivel table when said pin is in engagement with said surface to facilitate locating said pin in a predetermined distance from the axis of said pivot stud.

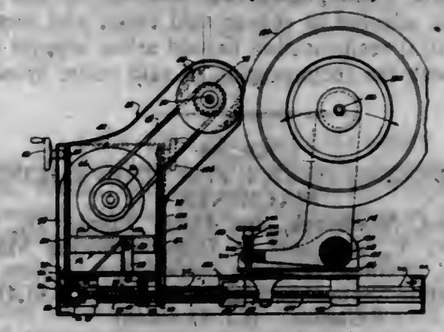
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2,769,283

## ABRADING MACHINE FOR TIRE TREAD SURFACES

Charles R. Brown, Santa Cruz, Calif.

Application April 13, 1954, Serial No. 422,828
2 Claims. (Cl. 51—97)



1. An abrading machine for tire tread surfaces comprising a horizontally disposed elongated base, having parallel upstanding side walls and parallel upstanding end walls extending between said side walls at opposite ends thereof, a pair of guide rails arranged in parallel relation longitudinally of said base between said side walls and secured at opposite ends to said end walls, transversely spaced pairs of longitudinally spaced bearings defining a carriage with one pair of said bearings slidable on one of said rails and the other pair of said bearing slidable upon the other of said rails, an upstanding support structure carried on said carriage for movement therewith longitudinally of said base from adjacent one end of said base toward and away from the other thereof, an abrading wheel rotatably mounted on said structure, other transversely spaced pairs of longitudinally spaced bearings defining another carriage with one pair of said other pairs of bearings slidably mounted on said one rail and the other pair of said another pair of bearings slidable on the other of said rails longitudinally thereof, a support plate carried by said another carriage in spaced relation to said structure for movement in a rectilinear path longitudinally of the base, a platform carried by said plate for movement in an arcuate horizontal path above and parallel to said plate, a standard carried by said platform for movement in a vertical arcuate path about a horizontal axis, means on said standard adapted to rotatably mount a tire thereon, a first adjusting screw journaled at its opposite ends in said end walls to extend longitudinally in said base and operatively connected to said structure and upon rotation of said screw causing movement of said structure longitudinally of said base on said rails toward and away from said standard, means carried by said structure and operatively connected to said adjusting screw for selectively imparting rotation thereto whereby said structure can be selectively moved toward and away from said standard, a second adjusting screw journaled in said base to extend longitudinally thereof and operatively connected to said support plate and upon rotation of said second adjusting screw causing movement of said structure longitudinally nally of said rails, means on said structure operatively connected to said second adjusting screw for selectively imparting rotation thereto whereby said standard can be selectively moved toward and away from said structure.

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2,769,284

## COATED ABRASIVE WHEEL MANUFACTURE

Joseph K. McLaughlin, Latham Heights, and Nicholas E. Oglesby, Troy, N. Y., assignors to Norton Company, Troy, N. Y., a corporation of Massachusetts

Application April 25, 1956, Serial No. 580,590
Claims priority, application Canada May 20, 1955
11 Claims. (Cl. 51—193.5)



1. A coated abrasive wheel element comprising a woven backing member bearing on at least one side thereof a layer of abrasive grain adhesively secured to the backing member, the threads comprising said woven backing member being so disposed and arranged that when said element is positioned in a coated abrasive wheel a plurality of said threads extend at an angle greater than 0° and less than about 30° to the axis of rotation of said wheel.

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2,769,285

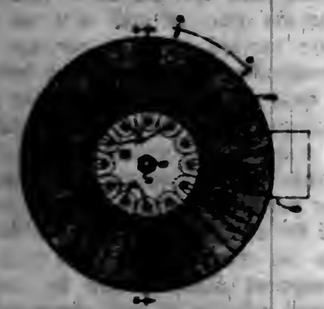
## ABRASIVE POLISHING WHEEL AND ELEMENT

Fritz E. Hendrickson, South Elgin, Ill., assignor to Norton Company, Troy, N. Y., a corporation of Massachusetts

Application October 26, 1953, Serial No. 388,308
4 Claims. (Cl. 51—193.5)

1. A coated abrasive element adapted for use in an abrasive wheel which comprises: a flexible backing mem-

ber; an abrasive coating bonded to and substantially uniformly covering at least one side of said backing member; and a plurality of relatively rigid pleats in said backing member, said pleats at least partially overlapping



one another and having the outer edges only thereof adapted to be bent angularly with respect to the pleat to provide a plurality of narrow abrading surfaces when said element is positioned in an abrasive wheel and contacts a work piece.

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2,769,286
PULPSTONE
Walter F. Bath, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application September 30, 1955, Serial No. 537,641
10 Claims. (Cl. 51—206.4)



1. A pulpstone comprising a hollow cylindrical metallic drum having holes therethrough located in a regular pattern, metal bolts extending through said holes and projecting therebeyond into the inside of said drum and from the outside of said drum, the bolts having threaded ends where they project inside of said drum and the bolts having convoluted heads where they project outside of said drum and having base portions under said convoluted heads which contact the exterior of said drum and hold the heads free of tension, nuts on the threaded ends of said bolts said nuts being tightened to produce a tension of at least 3,000 pounds on said bolts, pulpstone blocks having holes into which said convoluted heads project said pulpstone blocks being made of bonded abrasive material and having holes to receive the convoluted heads, and room temperature set cement between the blocks and the outer surface of said drum and in the holes in the blocks and on the convoluted heads said cement securing said blocks in place on the convoluted heads and on the outside of the drum.

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2,769,287
VALVE SEAT GRINDER
Ewald A. Arp, Minneapolis, Minn., assignor to Tobin-Arp Manufacturing Company, Minneapolis, Minn., a corporation of Minnesota
Application August 31, 1955, Serial No. 531,792
13 Claims. (Cl. 51—241)

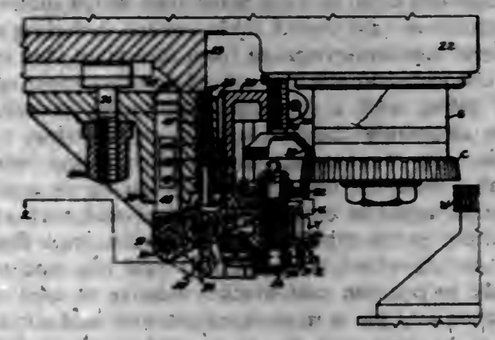
1. In a grinder to be applied to a centering arbor when grinding a valve seat or the like, coaxial with the arbor, the combination with a sleeve having a bore fitting freely over said arbor and a rotary grinder mounted for rotation on said sleeve, of a lifter device received within the bore of said sleeve comprising a base member adapted to rest against said arbor, a spring on said base member and a head member including a surface against which said



spring thrusts and spaced limbs rigid with said surface and at opposed sides of said base member having means for maintaining pressure against an internal surface of said bore.

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2,769,288
CUTTER RECONDITIONING APPARATUS
Wendell P. Norton, Jr., Springfield, Vt., assignor to The Fellows Gear Shaper Company, Springfield, Vt., a corporation of Vermont
Application August 4, 1955, Serial No. 526,361
12 Claims. (Cl. 51—241)



1. In a machine of the character described having a cutter saddle, a cutter spindle mounted for rotation and reciprocation in said cutter saddle, and a rotatable work spindle adjacent to said cutter spindle, a means for sharpening a cutter mounted on said cutter spindle comprising a base member fixed to said machine, an arbor support member mounted on said base member, said arbor support being mounted for vertical movement with said cutter spindle, a sharpening tool mounted on said arbor support and adapted to engage said cutter and means to impart vertical reciprocation to said arbor support in accordance with the reciprocation of said cutter spindle.

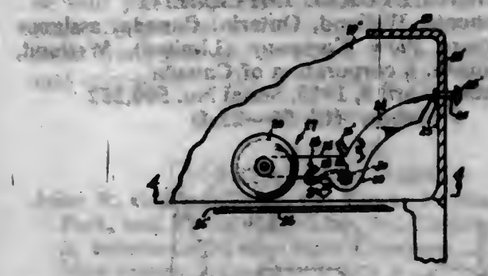
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2,769,289
SHARPENING DEVICE FOR FOOD SLICING MACHINES
Jack Gilbert, Newburgh, and Harry Prable, Jr., Cross River, N. Y., assignors to General Slicing Machine Co., Inc., Walden, N. Y., a corporation of New York
Application September 9, 1955, Serial No. 533,416
4 Claims. (Cl. 51—248)

1. In a sharpening device for the cutting edge of a blade which is movably mounted on a frame, an axis pin extending from the frame, a wire spring anchored on said pin and extending therefrom; the free end of said spring being in the form of a hook, an arm pivotally mounted on said pin and being capable of sliding on and off said pin,



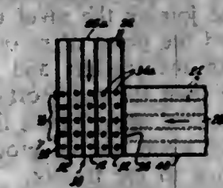
a blade-sharpening element carried on said arm away from said pin; said hook extending away from said pin in the direction of the sharpening element and engaging said arm; said spring being biased whereby it presses the arm towards the part of the frame said pin extends from and urges said arm and sharpening element away from the blade, means on the frame, acting as a stop to limit the movement of the arm away from the blade and an operat-



ing member associated with said arm to shift same so that the sharpening member is brought into contact with the blade; the locus of movement of the cutting edge of the blade being intersected by the locus of movement of the sharpening element; said spring being biased whereby when said arm is removed from the pin and disengaged from said hook, said hook will assume a position further away from the blade and towards the part of the frame said pin extends from.

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2,769,290
METHOD AND APPARATUS FOR MAKING TEA BAGS OR THE LIKE
Arthur J. Horsman, Glen Ridge, N. J., assignor to Thomas J. Lipton Inc., Hoboken, N. J.
Application November 7, 1952, Serial No. 319,281
4 Claims. (Cl. 53—29)

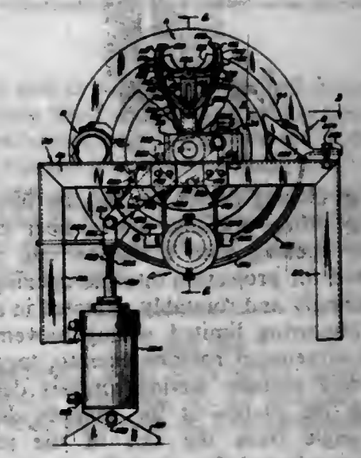


1. The method of making a tea bag or the like comprising, forming a first elongated web of bag forming material with a plurality of spaced stripes of thermoplastic adhesive extending lengthwise only of said web, forming a second elongated web of bag forming material with a plurality of spaced stripes of thermoplastic adhesive extending lengthwise only of said web, advancing said second web over said first at about a right angle thereto so said stripes of adhesive intersect at right angles, introducing a plurality of doses of the tea or the like between the stripes on said webs and heat sealing said webs together along said adhesive stripes to form a plurality of compartments, and severing said compartments into individual bags.

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2,769,291
CAN FILLING MECHANISM
Carsten O. Christensen and George H. Vanlaan, Bellingham, Wash., assignors to Bellingham Chain & Forge Company, Seattle, Wash., a corporation of Washington
Application November 26, 1952, Serial No. 322,733
16 Claims. (Cl. 53—123)

4. In a container filling device, a frame; hanger means rotatably mounted on said frame; a plurality of equally spaced closure elements mounted on said hanger means adapted to successively receive and grip predetermined quantities of foodstuff at a first position; a plurality of spaced container carriers operatively connected to said hanger means adapted to receive and hold containers in alignment with respective closure elements; means mounted on said frame operatively engaging said closure elements for successively opening and closing consecutive closure elements; actuating means operatively connected to said hanger means for simultaneously intermittently rotating and indexing said closure elements and carriers at successive positions; a plurality of cutters mounted on said frame at a second position to sever foodstuff delivered to said second position by successive closure elements; a selectively operable ejector mounted on said frame in a third position in alignment with successive



closure elements and containers indexed to said third position adapted to eject said foodstuff from said elements into said containers; a support stationarily mounted on said shaft in spaced relation to said carriers for supporting the containers in said carriers; and a cam on said support having a maximum rise at said third position extending toward said elements whereby said carriers move said containers to said maximum rise in contiguous relation with the side of said elements when indexed to said third position.

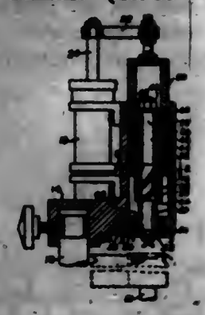
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2,769,292
CONTAINER CLOSING MECHANISM
Stewart T. Day, Azle, Tex., assignor of fifty-one percent to William E. Shields, Jr., Azle, Tex.
Application January 18, 1954, Serial No. 404,678
9 Claims. (Cl. 53—314)



1. A container closing mechanism including a cap feeding element having means for suspending a cap for engagement by and loose application to a container, an elongated stationary guide member adjacent the cap feeding element for receiving and supporting the loosely applied cap, means for advancing a container beneath said element and guide member whereby the cap is engaged by and loosely applied to the container and carried through the guide member, and means for lifting the container relative to the cap and guide member and moving the container upwardly without rotation into sealing engagement with the cap, said guide member confining the loosely applied cap against lateral and vertical displacement during advancement of the cap with the container.

2,769,293
**DEVICE FOR EXPANDING SHALLOW CUP PLUGS IN FIBER CONTAINER OPENINGS**
Herbert F. Cox, Jr., Syracuse, N. Y.
Original application December 10, 1951, Serial No. 260,873. Divided and this application February 23, 1954, Serial No. 411,818
3 Claims. (Cl. 53—330)



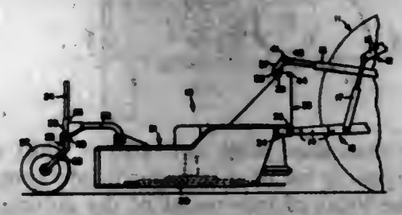
1. In a cap closing device for flat-top fiber containers having a top filling opening, and a fiber cap mounted adjacent said opening with a shallow cup plug formed therein aligned for projection into the opening, a bracket, a plunger slidingly and rotatably mounted in said bracket, means for imparting limited sliding movement to said plunger and subsequent rotation thereto, toggle members carried by said plunger having tongues depending oppositely with the planes of the tongues disposed at a substantial angle from the axis of the plunger, said tongues being adapted for spreading upon engagement with the bottom of a cup plug with said tongues extending oppositely and lying in a common plane transverse of the axis of said plunger, said tongues having diametrically opposed surfaces adapted to engage the side wall of a shallow cup plug when expanded, and adapted upon rotation of said plunger to expand the side wall of the plug beneath and beyond the marginal edge of a filling opening through which the plug is projected.

2,769,294
**PEA HARVESTER**
William L. Goodlad, New Richmond, Wis.
Application July 10, 1952, Serial No. 298,063
12 Claims. (Cl. 56—21)



1. An apparatus for harvesting peas and the like having a wheeled frame, a cutting means on said frame and positioned to engage vines substantially close to the surface of the ground for the cutting thereof, an endless conveyor positioned adjacent said cutting means for elevating said vines, said endless conveyor having a terminal end positioned to discharge said vines into a threshing apparatus comprising in combination a second endless conveyor, said second endless conveyor having a plurality of depressions forming apertures therethrough, a plurality of linear projections extending at inclined angles adjacent said apertures, a plurality of spaced reciprocatory rake members located above said second endless conveyor for compacting the vines and peas between said members and said endless conveyor, a trough located beneath said second endless conveyor having a discharge end for discharge into a second trough, said second trough having a discharge end, guide means positioned above said second trough and adjacent the discharge end of said second conveyor for guiding vines and pods thereover, said guide means having a plurality of apertures therethrough, a hopper for collecting said vines and pods from said second endless conveyor, and motor means for driving said first and second conveyors, said cutter, said rakes, said reciprocatory members simultaneously.

2,769,295
**HITCH DEVICE FOR TRACTOR DRAWN AGRICULTURAL IMPLEMENT**
John A. Northcote, Welland, Ontario, Canada, assignor to John Deere Plow Company (Limited), Welland, Ontario, Canada, a corporation of Canada
Application April 8, 1955, Serial No. 500,252
5 Claims. (Cl. 56—25.4)



5. An agricultural implement adapted to be connected with a tractor having a pair of lower laterally spaced apart draft links and a centrally disposed upper thrust link, said implement comprising frame means, a pair of lower laterally spaced apart draft link-receiving means carried by said frame means above said lower link-receiving means thrust link-receiving means carried by said frame means, comprising a freely swingable connecting arm pivoted to said frame means above said lower link-receiving means and extending generally downwardly from said frame means, pivot means at the lower end of said arm to receive the rear end of said upper thrust link, stop means acting between said arm and said hitch structure so as to prevent upward swinging of said link beyond a point below a straight line joining the pivot of said arm with the frame means and the point of pivotal connection of said thrust link with the tractor, and ground-engaging means supporting at least the rear portion of the weight of said frame means, said upper thrust link and said arm buckling downwardly when uneven ground acts to raise the implement relative to the tractor.

2,769,296
**BALANCED DOUBLE KNIFE MOWER**
Ernest C. Carlson, Wheaton, and Edwin F. Huddle, Elmwood Park, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application October 9, 1953, Serial No. 385,217
3 Claims. (Cl. 56—297)



1. In a mowing device, a mower support frame comprising a laterally extending coupling member terminating in an outer end, a yoke housing connected to said outer end of said coupling member, a carrier structure pivotally connected to said yoke housing on a fore and aft axis for vertical pivotal movement, a pair of reciprocating members slidably mounted upon said carrier structure for longitudinal reciprocal movement and including at least one sickle, a crankshaft journalled on said yoke housing on a fore and aft axis and having a pair of diametrically opposed throws, pitmans rotatably connected to said throws and respective members and enclosed in said yoke housing, and driving means connected to said crankshaft and including driving and driven pulleys mounted respectively on said frame and crankshaft and a belt trained thereabout, and said driving means disposed in an upright plane extending lengthwise medially of said members, and said driven pulley being disposed in close proximity to the ground in the operating position of the mowing device, and said driving pulley disposed at a level of a power take-off of an associated tractor, and tension spring means connected at one end to said yoke adjacent to said crankshaft and extending generally parallel to said plane diagonally upwardly away from the yoke, and a standard connected to the frame and connected to the other end of the spring means.



2,769,297
**BALANCED MOWER**
John R. Orelind, Wilmette, Edwin F. Huddle, Elmwood Park, and Ernest Scott Ulm, Jr., Chicago, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application August 13, 1953, Serial No. 373,948
1 Claim. (Cl. 56—306)



In a harvester of the type comprising a support frame having means for mounting on a tractor, a mower assembly including a mower bar and a sickle reciprocal thereon, a coupling member pivotally carried on said support frame on a generally horizontal axis for vertical swinging movement and said coupling member pivotally connected to said mower bar on a generally horizontal axis whereby said mower assembly is pivotal upwardly and downwardly about said coupling member and swingable vertically with said coupling member, a driving shaft journalled on the support frame on a fore and aft extending axis, a sheave connected to the driving shaft, a belt trained about the sheave, a pitman connected at one end to the sickle, the improvement comprising: driving means for the sickle including a casing having means for attachment to said support frame, a shaft member journalled on the casing and extending outwardly of the casing, a sheave element connected to said shaft member outwardly of said casing, a counterweight and a wristpin connected to said sheave element at diametrically opposite sides of said shaft member, a first bevel gear within said casing connected to said shaft member, a second bevel gear within said casing journalled on said shaft member and having a counterweight at one side thereof, bevel gear means between and meshing with said bevel gears and journalled on the casing, said wristpin adapted to be journalled to the other end of said pitman, and said casing and frame having means for the mounting of said casing with the axis of said shaft member below and generally parallel to said driving shaft and said sheave and element vertically aligned with said belt trained thereabout whereby said bevel gears and sheave and element are adapted to operate in vertical planes and the gyroscopic effect of said driving means is entirely imposed upon said support frame.

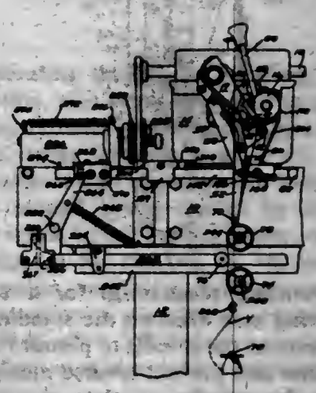
2,769,298
**TREE SHAKERS**
John P. Jones, Portland, Oreg.
Application May 11, 1955, Serial No. 507,657
3 Claims. (Cl. 56—328)

1. The combination with a tractor, of an air operated, electrically controlled tree shaking structure, attached to and extending forwardly of said tractor, comprising a frame, a socket attached to one end of said frame, a hollow boom connecting said socket and frame with the tractor for the purpose of supporting the frame, a cylinder having one integral head and one detachable head extending forwardly from said frame, means to affix said cylinder to the frame, a reciprocable piston



operable in said cylinder, a piston rod integral with said piston, a cross head attached to said piston rod without the cylinder, a magnetic valve mounted within the frame and coupled to the detachable cylinder head, an air supply tank mounted on the tractor, hose connections leading from said tank to the hollow boom, another hose passing through the frame to deliver air from the hollow boom to the magnetic valve.

2,769,299
**TWISTING AND WINDING MACHINE**
John V. Keith, Warwick, R. I., assignor to Universal Winding Co., Cranston, R. I., a corporation of Massachusetts
Application April 25, 1951, Serial No. 222,887
24 Claims. (Cl. 57—62)



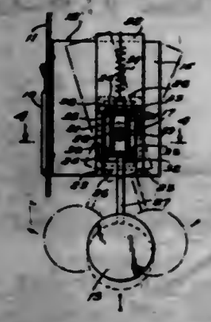
20. In a machine for twisting and winding yarn the combination comprising a twisting spindle, a motor for rotating said twisting spindle, a winding spindle, a motor for rotating said winding spindle to wind a strand of yarn twisted by said twisting spindle on a core carried by said winding spindle to form a package of yarn thereon, a yarn guide for traversing a strand of yarn twisted by said twisting spindle lengthwise of said core, said winding spindle and said yarn guide being mounted on said machine for movement relative to each other so as to be capable of separating as the package being wound increases in diameter, means to positively separate said winding spindle and said yarn guide at a rate substantially equal to the increase in the radius of the package being wound, means actuated by said separating means for controlling said second mentioned motor to decrease the speed of rotation of said winding spindle to cause said twisted strand of yarn to be wound at a substantially constant yarn speed, tension control means engageable by said strand of yarn and operable by said separating means to reduce the tension in the twisted strand of yarn being wound, means to start said first mentioned motor, and means actuated by said last mentioned means for starting said second mentioned motor a predetermined time interval after said twisting spindle starts to rotate.

2,769,300
COMPOSITE TEXTILE YARN
William G. Lattge, Brooklyn, N. Y., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware
Application April 3, 1953, Serial No. 346,790
10 Claims. (Cl. 57—140)



8. A composite yarn for barrier-type textile materials comprising a hydroscopic core of continuous filament viscose rayon and a hydrophobic wrapping portion of staple fibers formed from a copolymer containing at least 80% by weight in the polymer molecule of acrylonitrile and at least one percent of another mono-olefinic monomer copolymerizable therewith.

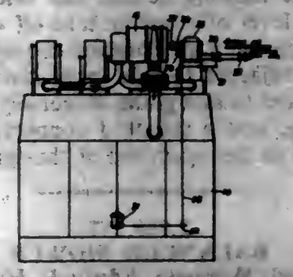
2,769,301
SELF-WINDING MECHANISM FOR VEHICLE CLOCK
Joseph N. Lieberman, North Miami Beach, Fla.
Application April 22, 1954, Serial No. 424,884
3 Claims. (Cl. 58—46)



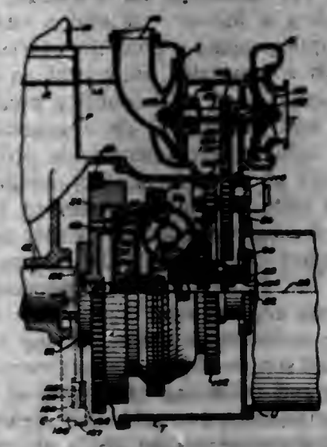
1. In a self-winding mechanism for a vehicle clock, a spindle, a driving gear fixed on the spindle, a pawl and ratchet appurtenant to the spindle to permit rotation thereof in one direction and prevent reverse motion, a toothed wheel fixed to the spindle, a plate supported on the spindle for swinging movement in a plane perpendicular to the axis of the spindle, a frame carried on the plate for limited up and down movements, resilient means normally holding the frame in its center position, a pendulum weight attached to the frame to cause oscillatory movement of the frame together with the plate and upward and downward movements of the frame independently of oscillatory movement of the plate, means carried by the frame to engage the toothed wheel to cause rotation thereof in winding direction upon swinging movement of the plate in one direction and upon upward and downward movements of the frame.

2,769,302
MEANS FOR SUPPLYING COMBUSTION AIR TO INTERNAL COMBUSTION ENGINES
William Hamilton Purdie and Percy Jackson, Sunderland, England, assignors to William Doxford & Sons Limited, Sunderland, England, a British company
Application January 22, 1952, Serial No. 267,525
Claims priority, application Great Britain January 24, 1951
8 Claims. (Cl. 60—13)

1. An internal combustion engine having a manually operable control for the quantity of fuel supplied to the engine, a blower for supplying combustion air to the engine, a turbine wheel driven by the engine exhaust gases and coupled to the blower to effect operation thereof, additional power-producing driving means for the blower supplied from a source independent of the operation of the engine, a control for the power produced by said additional driving means and a coupling between the fuel control and the control for the additional power operative progressively to reduce the power produced with increase in the supply of fuel to the engine and progressively to increase the power produced when the fuel control is moved to decrease the supply of fuel to the engine.



2,769,303
SPLIT PATH TRANSMISSION AND SUPERCHARGER DRIVE
Carroll J. Lucia, Birmingham, and Julius E. Witzky, Royal Oak, Mich.; said Lucia assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application May 14, 1953, Serial No. 355,086
17 Claims. (Cl. 60—13)



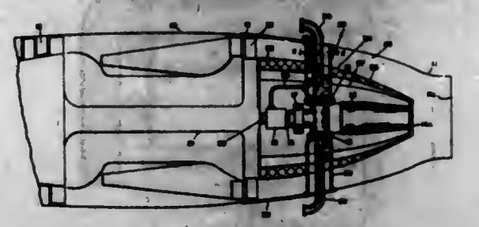
1. For use with a supercharged engine source of prime power, the combination of a drive shaft, a load-connected driven shaft, means for providing parallel power paths between said shafts constituted by a primarily speed reducing train having a secondary speed increasing portion, said means comprising a planetary differential gear component having a driving portion connected to said drive shaft and provided with a main output portion driven at a varying reduction ratio between stall and 1:1 and connected to said driven shaft and a reaction member having a speed varying above 1:1 in an inverse ratio with respect to the speed of said main output portion and constituting said secondary speed increasing portion of said train, and a torque-multiplying hydrodynamic slip drive component for coupling together said reaction member and said driven shaft in slip-drive-transmitting relationship so as to slip progressively more under increasing load, and an engine supercharger having a step-up gear train for driving the same at a proportional greater speed than the speed of said reaction member whereby, under conditions of drastic speed decrease of the driven shaft due to load and a consequent increase of slip in the torque multiplying slip drive component, the compensating inverse speed effect of the reaction member causes a relative increase in the overall speed increasing ratio through said differential gear component and said step-up gear train to said supercharger.



2,769,304
HYPERGOLIC FUEL AND THE METHOD OF USING IT
Joe M. Burton, Waco, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application July 6, 1954, Serial No. 441,625
4 Claims. (Cl. 60—35.4)

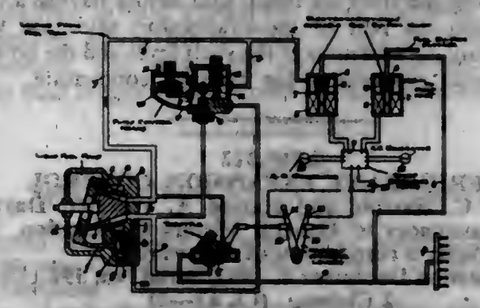
4. In the method for developing thrust by the combustion of bipropellant components in a combustion chamber of a reaction motor the steps comprising separately and simultaneously injecting a stream of a fuel component and an oxidant component into contact with each other in the combustion chamber of said motor, in such proportions as to produce spontaneous ignition, said fuel component consisting essentially of between 10 and 87 percent by volume of pyrrole and between 90 and 13 percent by volume of ethylenimine.

2,769,305
POWER PLANTS COMPRISING MAIN AND AUXILIARY ENGINES
George Chernowitz, Caldwell, N. J.
Application January 6, 1949, Serial No. 69,570
7 Claims. (Cl. 60—35.6)



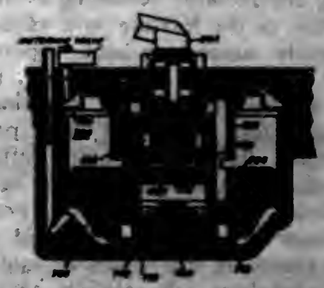
1. A power plant comprising a jet engine having an exhaust exit, and a rocket engine mounted within the jet engine and short of said exhaust exit, and constructed and arranged within the jet engine so as to provide between the rocket engine and the exhaust exit of the jet engine a mixing zone for the exhaust gases of both engines whereby the exhaust gases of the rocket engine will discharge into the exhaust gases of the jet engine to exercise an ejector action on the exhaust gases of the jet engine.

2,769,306
MEANS FOR SYNCHRONIZING THE SPEEDS OF A PAIR OF AIRCRAFT ENGINES TO WHICH FUEL IS SUPPLIED BY PUMPS AND AIR BY BLOWERS
Thomas Alfred Harris, Edgbaston, Birmingham, England, assignor to Joseph Lucas Limited, Birmingham, England
Application November 16, 1950, Serial No. 195,960
4 Claims. (Cl. 60—39.15)



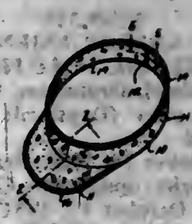
1. Means for synchronising the speeds of a pair of aircraft engines to which liquid fuel is supplied by pumps and air by blowers, the pumps and blowers being driven by the engines supplied thereby, comprising in combination with a pair of systems for supplying fuel to the engines respectively, a pair of automatic fuel-controlling devices respectively connected to the fuel supply systems and responsive to the pressure of at least one of the fluid mediums supplied by the pumps and blowers, a pair of normally closed valves arranged to serve, when opened, as by-passes for one of the said fluid mediums, and thereby enable the rates of fuel supply from the pumps to the engines to be varied, a pair of electromagnets for opening the valves, and electrical controlling means responsive to differences in the speeds of the engines for selectively energizing the electromagnets.

2,769,307
HYDRAULICALLY OPERATED SERVO-MOTOR
Forest R. McFarland, Huntington Woods, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan
Application July 14, 1950, Serial No. 173,789
4 Claims. (Cl. 60—97)



1. An operating device for effecting an engaging or releasing action, said device comprising a cylinder, a first piston in the cylinder which is connected on one side to receive fluid under pressure to drive the piston in an engaging direction and on the other side to receive a cushioning fluid, a second piston carried by the first piston, a vent valve carried by the second piston, means for supplying fluid pressure for moving the second piston relative to the first piston, said valve and first and second pistons having interconnected passageways connected to vent the cushioning fluid when full engaging pressure is developed upon movement in said engaging direction.

2,769,308
THERMAL APPLICATOR FOR HEAD
Louis R. Krasno, Pensacola, Fla.
Application September 22, 1954, Serial No. 457,768
1 Claim. (Cl. 62—1)



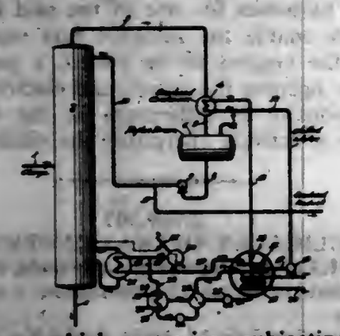
As a new article of manufacture, a headpiece formed from sponge material and adapted to be initially saturated with water, including, a headband completely encircling the head, and an outwardly and downwardly projecting flexible visor secured thereto, the circumferential edges of said band and the outer edge of said visor being compressed and whipped with stitching to add rigidity to the headpiece and to confine the moisture to the larger surfaces and main portions of the article.

2,769,309

## PROCESS AND APPARATUS FOR SEPARATING FLUID MIXTURES

Robert L. Irvine, Belle Fons Farm, Pa., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application August 7, 1952, Serial No. 303,184
4 Claims. (Cl. 62—2)



1. The process which comprises subjecting a narrow boiling range fluid mixture to fractionation in a fractionating column, continuously removing overhead the more volatile fraction of the mixture as a vapor, cooling and at least partially condensing such vapors by heat exchange with a stream of chilled liquid refrigerant delivered from an evaporation zone, imposing a pressure in said evaporation zone below the vapor pressure of said liquid refrigerant, chilling said liquid refrigerant stream by partial evaporation of the liquid in said evaporation zone, maintaining the pressure in said evaporation zone below the vapor pressure of the liquid refrigerant by continuously absorbing the vapors of said refrigerant in a stream of absorbent salt solution, thus diluting said solution, passing said stream of diluted absorbent salt solution from the zone of absorption to a generating zone, heating the diluted absorbent salt solution in said generating zone to generate refrigerant vapor and reconcentrate said solution, returning the reconcentrated solution to the zone of absorption, exchanging heat between at least a portion of said refrigerant vapor and the bottom liquid of said fractionating column whereby to condense said refrigerant and reboil said column, passing another portion of said refrigerant vapor into heat exchange with a coolant in a separate heat exchanging zone, controlling the rate of flow of coolant to said separate heat exchanging zone in accordance with pressure variations within said fractionating column whereby to increase the rate of flow of coolant to said separate heat exchanging zone when the pressure in said fractionating column tends to rise above a predetermined pressure level, and returning the condensed refrigerant to the zone of evaporation.

2,769,310

## COOLING ARRANGEMENTS USING EUTECTIC SOLUTIONS

Frank Samuel Stickland, Orpington, England, assignor to J. Stone & Company (Deptford) Limited, Deptford, London, England

Application October 14, 1952, Serial No. 314,723
Claims priority, application Great Britain October 18, 1951
1 Claim. (Cl. 62—2)



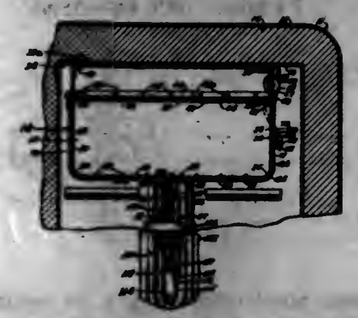
In refrigerating arrangements, a tank for containing a eutectic solution serving as a cold-storing medium, said tank having walls through which heat passes by conduction to the eutectic solution for effecting the cooling, a cooling coil extending within said tank for flow of a fluid refrigerating medium for cooling and freezing said eutectic solution, means for withdrawing said eutectic solution from said tank when in the liquid state and agitating said withdrawn solution to reduce precipitation and settling out of the solute of said eutectic solution, said withdrawing and agitating means comprising a system of piping connected with said tank, a pump connected in said system, an electric motor connected for driving said pump, said motor having an electric current supply circuit connected thereto, a current connecting and interrupting device connected in said circuit, thermostatic means responsive solely to the temperature of the eutectic solution for controlling said current connecting and interrupting device to close said circuit and supply current to said motor only when said solution is at a temperature substantially above its freezing point.

2,769,311

## DEFROSTING EVAPORATORS

Thomas W. Duncan, Bedford, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware

Application July 2, 1953, Serial No. 365,694
6 Claims. (Cl. 62—3)



2. In a defrosting system for a household refrigerator, the combination of an insulated cabinet, comprising an outer metal shell, an inner liner, and insulation between them, said cabinet having a door opening, and an insulated door, an evaporator comprising a substantially U-shaped metal casing provided with a transverse freezing shelf, said evaporator being supported from the top of the liner, below freezing coils on the bottom of the shelf for producing an ultra-below freezing zone above the shelf, below freezing coils on the sides and bottom of said casing for cooling the space outside said evaporator to an above-freezing temperature, and the space inside the evaporator, below the shelf, to a below-freezing temperature, and a depending U-shaped leg of tubing connected to said coils, and having an electric heater applied to one of the branches of said U-shaped leg, for heating the refrigerant and causing it to circulate upward in the heated branch and downward in the other branch, the hot refrigerant heating all the evaporator coils and casing and melting the frost on them, said casing having a rear wall closing the rear of the evaporator, said rear wall having drainage apertures at the shelf level and the bottom level of said evaporator, for draining condensate.

2,769,312

## REFRIGERANT EXPANSION CONTROL

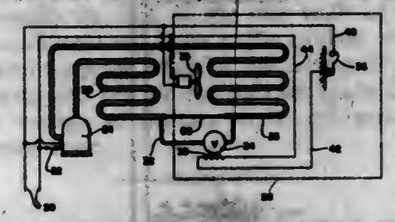
Marshall C. Harrold and Harold A. Wheeler, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 4, 1953, Serial No. 396,158
2 Claims. (Cl. 62—3)

1. In combination, a refrigerating apparatus including a closed refrigerating circuit having a motor compressor unit and a condenser and a flow control means



and a single evaporator connected in circuit in the order named, said evaporator being located in heat exchange relation with a medium to be cooled, a manual control switch for continuously connecting said motor compressor unit to a power source for continuous operation, said flow control means including a restrictor and a valve means connected in series, said valve means having a



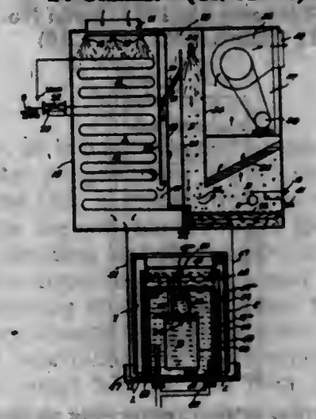
heat motor for moving said valve means from one position to another, a control circuit including a heating means for said heat motor and a temperature responsive switch means located in heat transfer relationship with and responsive to said medium to be cooled for controlling said system to regulate the temperature of said medium.

2,769,313

## HYGROSCOPIC AIR CONDITIONER

Michael Bernard Goetz, Philadelphia, Pa.

Application April 23, 1954, Serial No. 425,249
14 Claims. (Cl. 62—6)



1. An air conditioning system of the class described comprising a dehumidifier, an evaporative cooler communicating with said dehumidifier, a regenerator and thermal re-circulator unit, said unit having a plurality of fluid evaporating chambers, a floating element in said unit above said chambers subjected to atmospheric pressure and defining an expansible vapor receiving chamber, means for delivering vapor from said first mentioned fluid evaporating chambers to said expansible vapor receiving chamber, said last mentioned means also providing a fluid passage from said expansible vapor receiving chamber into said fluid evaporating chambers, means for conveying cold dilute sorbent from said dehumidifier to said expansible vapor receiving chamber, a heating means for the fluid in said fluid evaporating chambers, and means for conveying concentrate from said fluid evaporating chambers to said dehumidifier.

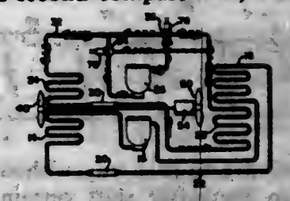
2,769,314

## WINDOW MOUNTED REFRIGERATING APPARATUS

Harold A. Wheeler, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 1, 1955, Serial No. 498,552
4 Claims. (Cl. 62—6)

4. In an air conditioning unit of the type adapted to be mounted in a window with one portion of the unit projecting into the room and another portion projecting into the outside atmosphere, a housing, means separating said housing into first compartment for conditioning air for said room and a second compartment arranged in thermal exchange relationship with the outside air, a first refrigerating system including an evaporator located in said first compartment and refrigerant liquefying means located in said second compartment, a second refrigerat-



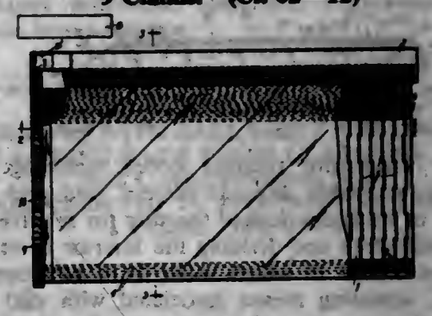
ing system of the reverse cycle type having a first heat exchange coil in said first compartment and a second heat exchange coil in said second compartment, means for selectively absorbing heat from air in one of said heat exchange coils and for dissipating the heat in the other of said heat exchange coils, means responsive to the temperature of the air to be conditioned for controlling the operation of said second refrigerating system.

2,769,315

## ARTIFICIAL ICE RINK

Clifford A. Meadows, Toronto, Ontario, Canada

Application April 14, 1954, Serial No. 423,107
9 Claims. (Cl. 62—12)



3. In a pick-up artificial ice rink provided with a basic refrigerating apparatus including feed and return headers; a knock-down construction of an absorbing heat exchange assembled upon a supporting surface of a predetermined area having a retaining curbing for confining a shallow body of water for conversion into an ice rink; said absorbing heat exchanger comprising thin-walled refrigerating tubing of pliant material laid in a general uniform manner upon said supporting surface with suitably spaced parallel reaches and having ingress and egress couplings connected to said headers, and a distributed arrangement of spacing devices for maintaining the several reaches of the tubing in their spaced disposition, said spacing devices comprising plate-like strips of rigid material for extending across a plurality of the reaches, and elements on said strips for flanking the reaches which are crossed by the individual strips.

2,769,316

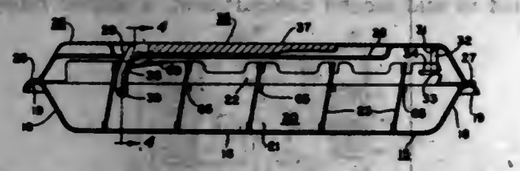
## FREEZING DEVICE

Robert R. Candor, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 13, 1954, Serial No. 429,591
2 Claims. (Cl. 62—108.5)

1. A freezing device comprising in combination, an ice tray, a grid within said tray, said grid including a plurality of walls interlocked together for relative movement therebetween and dividing the interior of said tray into compartments in which water is to be frozen into ice blocks, force multiplying means on said device, a substantially inflexible one-piece cover separate and dis-

tinct from said grid walls and from said force multiplying means, said cover being unattached to said tray and extending continuously thereover in engagement with all four upright sides thereof to provide a closure for the compartments in said device, said force multiplying means being operable to initially bear against said separate one-piece cover for loosening the same from



and moving it relative to said tray without moving said grid walls and to thereafter shift certain of said grid walls with respect to others thereof to break an ice bond between ice blocks and said tray and said grid, and said grid, said cover and said force multiplying means being interlocked together as a unit whereby said unattachment of the cover and tray serves to provide for removal of said unit upwardly out of said tray.

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**2,769,317**
**FREEZING DEVICE**

George H. Strickland, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 13, 1954, Serial No. 429,502
2 Claims. (Cl. 62—108.5)



1. In a refrigerator freezing device including a tray and a grid removably disposed therein, said grid having a plurality of walls interlocked together for relative movement therebetween and dividing the interior of said tray into compartments in which water is to be frozen into ice blocks, actuating means associated with said device and adapted to engage and move some of said grid walls relative to others thereof, a rigid cover separate from said grid walls and movable with respect thereto independently thereof, a connection between said cover and said grid wall actuating means at one end of said device, said cover comprising a main body portion extending continuously over said tray with its peripheral edges engaging opposed upright sides thereof to close all of said compartments and an integral handle portion projecting outwardly beyond the side of said tray at the end of said device opposite its said one end thereof, the handle end of said cover being movable upwardly of said tray and said grid, means associated with said connection preventing initial upward movement of said cover from moving said grid walls whereby said initial movement of the cover is utilized solely for breaking a bond between said cover and sides of said tray, and further movement of said handle end of said cover beyond said initial movement thereof operating said actuating means through said connection to move said grid walls with respect to one another and loosen ice blocks from said tray and from said grid.

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**2,769,318**
**REFRIGERATING APPARATUS OF DISSIMILAR METALS**

Leland H. Gremell, Oakwood, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware

Application August 19, 1952, Serial No. 305,219
4 Claims. (Cl. 62—115)

2. In a refrigerating system, a compressor unit having steel inlet and outlet lines connected thereto, refrigerant condensing and evaporating means joined to said inlet and outlet lines, at least a portion of said means including an aluminum element, means for joining said aluminum element to one of said steel lines comprising an aluminum coating provided on said one steel line and a weld between said aluminum element and said coating.

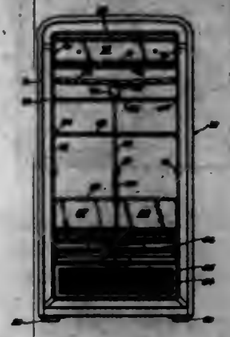


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**2,769,319**
**TWO TEMPERATURE HOUSEHOLD REFRIGERATORS**

Carl F. Alsing, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, St. Joseph, Mich., a corporation of Delaware

Application February 18, 1952, Serial No. 272,175
11 Claims. (Cl. 62—116)



1. A refrigeration system comprising an insulated cabinet having a below-freezing zone cooled by first below-freezing coils and a food storage zone cooled by second coils communicating without restriction with said first coils in series, to cool said second coils only with refrigerant from said first coils, a motor compressor comprising a motor, a compressor and a housing enclosing the motor and compressor, a condenser and a restrictor connected in this order to said first coils, said second coils communicating with the suction inlet of said compressor and said compressor having an oil sump, a charge of oil in said sump and a charge of refrigerant of a type miscible with and absorbed by said oil in said system, a portion of said refrigerant being absorbed in said oil at ordinary ambient temperatures, a larger portion being absorbed at lower ambient temperatures, and a lesser portion absorbed higher ambient temperatures, the volumes of said coils, said oil charge and said refrigerant charge being proportioned so that the amount of refrigerant not absorbed and available for cooling said first coils is sufficient to maintain a below-freezing temperature in the below-freezing zone at the highest ambient contemplated, and the amount of refrigerant available for said second coils is sufficient for cooling the food storage zone at a suitable above-freezing temperature at ordinary ambients, and is sufficient for increasing proportionately the cooling effect of said second coils at higher ambients due to the release of absorbed refrigerant from the oil at higher ambients, but decreasing the cooling effect of said second coils proportionately at lower ambients, due to greater absorption of refrigerant at the lower ambients, to avoid overcooling or undercooling the food storage space while maintaining below-freezing temperatures in the freezing zone, the said second coils being mounted on the outside of a substantially rectangular sheet metal member of sufficient length to extend from side to side inside the cabinet at the top of the cabinet, and to extend forwardly on each of the side walls of the cabinet to a point adjacent the front of the cabinet, said member being spaced from the inside of the cabinet by said second coils, leaving the rest of the cabinet space substantially open for storage of articles to be refrigerated in said food storage zone.

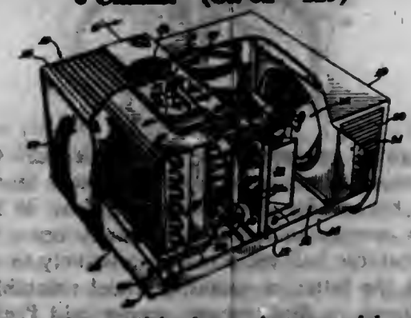


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**2,769,320**
**DAMPER CONTROL MECHANISM FOR AIR CONDITIONING APPARATUS**

Donald Kuhlenschmidt, Newburgh, and Curtis O. Fowler, Spurgeon, Ind., assignors, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware

Application March 30, 1954, Serial No. 419,862
6 Claims. (Cl. 62—129)



1. A room air conditioning unit, comprising: a cooling element; means providing flow of a stream of air from the room in to the unit, in contact with said cooling element, and then from the unit into the room; the unit having an air inlet for admitting air from outdoors to said air stream, an outlet for exhausting air from said stream, and an inlet for admitting air from the room; first, second and third dampers actuated to closed position by spring biased hinges, and controlling the said outdoor air inlet, the said exhaust outlet, and the said room air inlet, respectively; said first and second dampers being biased to closed position and said third damper to open position; means operatively connecting said third damper to said second damper for conjoint movement therewith; means for actuating said first and second dampers including, a crank member having a portion thereon which upon rotation of the crank in one direction engages said second damper in an operative relationship, and motion-transmitting linkage operatively connecting said first damper to said crank member; said actuating means being fashioned and arranged so as to permit said crank to be rotated in one direction to engage and open said second damper without opening said first damper, and to be rotated in an opposite direction to open said first damper and simultaneously effect the disengagement of said portion of said crank from its operating relationship with said second damper so as to permit said latter damper to return to a biased closed position conjointly with the opening of said third damper.

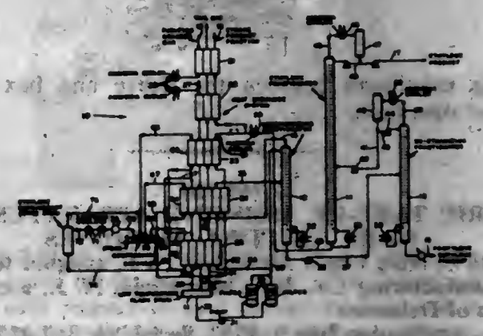
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**2,769,321**
**SEPARATION OF ETHYLENE FROM A GASEOUS MIXTURE**

Samuel Robert Silas, Crookill, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application August 7, 1952, Serial No. 303,114
10 Claims. (Cl. 62—175.5)

1. In a process for recovering ethylene from a mixture of low boiling gases, in which said low boiling mixture is cooled to partial liquefaction and is then fractionated to separate said gaseous mixture into several components, a method for recovering ethylene from a low boiling fraction which includes the steps of: separating said partially liquefied gaseous mixture subsequent to said cooling step, and at the coldest point in said process into liquid and vapor; removing said vapor from further contact with any process stream from which ethylene product is



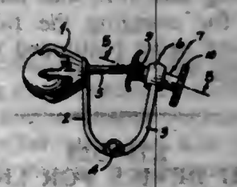
derived; introducing said liquid into a first fractionating zone and fractionating said liquid therein into a relatively heavy fraction containing most of the ethylene and a relatively light fraction containing most of the relatively lighter gases and some ethylene; recycling said light fraction to said inflowing gaseous mixture as it flows to said liquid-vapor separation step; and recovering ethylene from said heavy fraction.

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**2,769,322**
**EAR RING WITH BALL JOINT FOR SPACING CLAMPING FACE FROM CLAMPING ARM**

Jack Czach, Brooklyn, N. Y.

Application July 26, 1955, Serial No. 524,423
2 Claims. (Cl. 63—12)



1. An ear ring comprising two arms hinged together at their lower ends for movement in a common plane, a setting mounted on the movable end of one of said arms and facing outwardly, a threaded post fixedly mounted on said movable end and extending inwardly and laterally of the arm and lying in the same plane as said arms, a link pivotally mounted on the movable end of the second of said arms by means of a ball and socket and extending inwardly and outwardly therefrom, the free inward end of said link terminating in a nut threaded for engagement with said post, and the free outward end of said link terminating in a finger-piece, the nut and finger-piece being held spaced from said second arm by said ball and socket.

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**2,769,323**
**COUPLING**

Joseph M. O'Malley, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts

Application October 25, 1954, Serial No. 464,202
10 Claims. (Cl. 64—8)

1. A coupling comprising a coupling box for attachment to a driving shaft, a head for attachment to a driven shaft, a sleeve supported for sliding motion on occasion

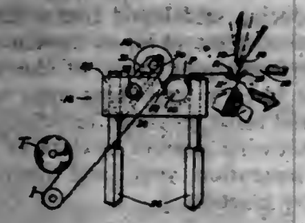
within the said box, the said head being mounted in driving relation within the sleeve, and means for preventing



sliding movement between the sleeve and box during normal operation.

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2,769,324
**FABRIC TAKE-UP ASSISTING APPARATUS FOR WARP KNITTING MACHINES**
Harold C. Noe, Upper Montclair, N. J., assignor to Kidde Manufacturing Co., Inc., Bloomfield, N. J., a corporation of Delaware
Application July 9, 1953, Serial No. 367,017
7 Claims. (Cl. 66—149)



1. In a warp knitting machine, the combination of knitting elements providing a knitting line, an elongate fabric supporting roll adjacent and parallel to the knitting line of said elements over which the fabric passes, said roll having a section at each end extending beyond an end of the knitting line, said sections increasing in diameter from adjacent the selvages towards the respective end of the roll where such section is located, means for rotatably supporting said roll, and means at only each of said sections for engaging the fabric adjacent the selvages thereof and being positioned to hold the fabric against said sections.

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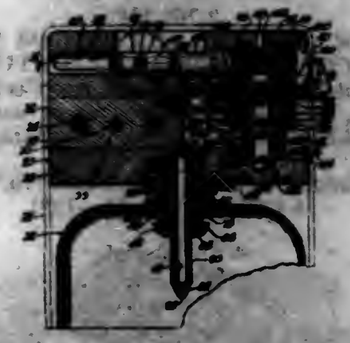
2,769,325
**FUELING DEVICE FOR LIGHTERS**
Clifford Storch, Great Neck, N. Y., assignor to Astorloid Manufacturing Company, Inc., Bronx, N. Y., a corporation of New York
Application July 20, 1955, Serial No. 523,192
3 Claims. (Cl. 67—7.1)



1. In a fueling device for a lighter mechanism having a wick chamber, a housing including a sleeve portion and a seat portion having a seat, a plug freely slidable in said housing and radially spaced therefrom to define an air exhaust space therebetween, said sleeve portion having an air aperture defined therein to provide communication between said chamber and said exhaust space, said plug having a normally open fueling inlet and an outlet spaced from said inlet, a conduit in said plug interconnecting said inlet and outlet, and means tensioned between said housing and plug normally operative to freely urge the latter into seating cooperation with said seat portion and to close said fueling outlet, said plug being operable in opposition to the normal urging of said means to further tension the same to open said fueling outlet and unseat said plug to define an air exhaust passageway between said seat and plug communicating with said wick chamber by way of said air exhaust space.

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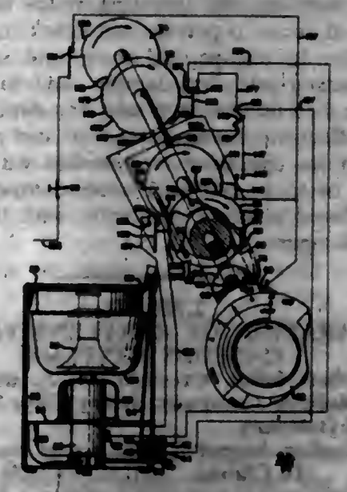
2,769,326
**SMOKERS' LIGHTERS**
Fred Berlin, Oconomowoc, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application June 22, 1953, Serial No. 363,265
11 Claims. (Cl. 67—7.1)



1. A lighter comprising a chassis, a fuel tank connected to said chassis, a fuel outlet passage leading from said tank, means for controlling the flow of fuel from said outlet passage including a normally open valve and a freely rotatable ball reciprocable relatively to said valve for closing the latter, a sparking wheel rotatably carried by said chassis, a flint, means urging said flint into engagement with said sparking wheel, a drive element pivotally carried by said chassis for movement between two limit positions and having a portion movable over and into rolling contact with said ball when said drive element is moved into one said limit position for depressing said ball to close said valve, a one-way drive connection between said drive element and said sparking wheel for rotating the latter when said drive element is moved from its said one limit position to the other, and spring means resiliently urging said drive element toward its said one position.

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2,769,327
**DOMESTIC APPLIANCE**
William Smith, Jr., Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 20, 1952, Serial No. 310,716
10 Claims. (Cl. 68—12)

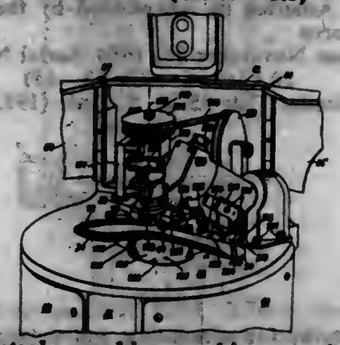


1. A washing machine including a clothes washing receptacle, a hot water supply and a cold water supply for said clothes washing receptacle, agitating means for agitating the contents of said receptacle, a timing means having means for alternately opening said cold and hot water supplies during one continuous timed filling period and having means for operating said agitating means during a period of time.



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2,769,328
**OUTSOLE ROUGHING MACHINES**
Robert F. Lane, Beverly, and Fred L. Mooney, Lynn, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application December 3, 1954, Serial No. 472,934
16 Claims. (Cl. 69—6.5)

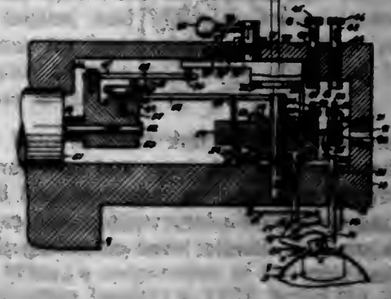


1. In an outsole roughing machine, a pair of supports which have circular work supporting faces and are rotatable about a common axis, a cutter which comprises a plurality of cutting blades each having an inner straight cutting edge portion and an outer toothed portion, said portions being rotatable about a common axis and during their rotation lying in different portions of a substantially frusto-conical surface, an edge gage which has a top face and a cylindrical peripheral face and which is rotatable with said supports about the first-named axis, means for yieldingly forcing the work supports toward the cutter and lengthwise of their common axis of rotation, a part of the portion of the substantially frusto-conical surface in which the straight cutting edge portions of the blades lie being arranged in close proximity and in opposed relation to said top face of the gage and another part of said substantially frusto-conical surface in which the straight cutting edge portions of the blades lie projecting beyond said peripheral face of the gage and forming with the portion of the substantially frusto-conical surface in which the outer toothed portions of the blades lie and with the work supporting faces of the sleeves and the peripheral face of the edge gage, a notch through which the margin of an outsole may be moved with an edge thereof in engagement with said peripheral face, and means for moving and guiding through said notch the outsole lengthwise of its edge with said edge in engagement with the face of the edge gage whereby to form on the margin of a face of the outsole a roughened band which is of uniform width and is spaced from the edge of the outsole by a smooth band, said cutter being bodily movable into different operating positions at right angles to the axis of rotation of the supports to vary the position of the substantially frusto-conical surface with relation to the edge gage and the work supporting faces of the supports whereby to vary the position of the roughened band and the width of the smooth band on the outsole.

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2,769,329
**MACHINE FOR CUTTING SHEET MATERIAL**
Dieter Braun, Stuttgart-Hausen-Ost, and Kurt Hacker, Stuttgart, Germany, assignors to Fortuna-Werke Spezialmaschinenfabrik A.-G., Stuttgart-Bad Cannstatt, Germany
Application February 14, 1955, Serial No. 487,924
19 Claims. (Cl. 69—9.5)

1. A machine for cutting sheet material such as leather and the like, comprising, in combination, support means; cutting means carried by said support means for cutting the sheet material; guide means located adjacent said cutting means for guiding material to be cut by said cutting means; first adjusting means operatively connected to said guide means for adjusting the distance between the same and said cutting means; second adjusting means operative-



ly connected to said guide means for adjusting the angle of said guide means independently of said first adjusting means with respect to said cutting means; and moving means operatively connected to said first and second adjusting means for actuating the same to set said guide means successively at a plurality of different elevational and angular positions with respect to said cutting means.

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2,769,330
**LOCK HAVING A SLIDING LATCH BOLT**
John J. O'Connell, Sandy Hook, Conn.
Application January 24, 1955, Serial No. 483,459
5 Claims. (Cl. 70—97)



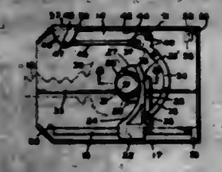
3. A lock for detachably securing together two structures and including a latch section adapted to be mounted in one structure and a keeper section adapted to be mounted in the other structure and provided with a wedge-shaped block having a downwardly and inwardly inclined upper surface and a generally horizontal lower surface, the latch section including a housing having a front opening which receives the block when the structures are moved into abutting relationship, said opening having an inclined upper wall and a horizontal lower wall which substantially abuts the lower wall of the block, a spring-actuated latch-bolt slidably mounted in the housing for movement parallel with the inclined upper surface of the block and whose lower surface contacts said inclined upper surface when the latch-bolt is in extended position and prevents withdrawal of the block from the opening, a manually operated lever for retracting the latch-bolt, and a manually operated dogging cam for restraining movement of the lever.

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2,769,331
**KEY CASE**
Max Ellenbogen, Silver Spring, Md.
Application April 7, 1954, Serial No. 421,616
15 Claims. (Cl. 70—456)

2. A key case having an open end through which a key is longitudinally reciprocable, a track extending longitudinally of said case adjacent one side thereof, a carriage slidable on said track, a bracket extending laterally from said carriage having a slot therein extending laterally to said track, a keyholder mounted on said bracket; a link

lever having a carriage actuating pin at one end thereof extending within said carriage bracket slot, means for pivotally mounting the other end of said link lever within said case, said link lever pin moving from end to end of said carriage bracket slot, a handle lever having a con-



nection at one end to said link lever pivoted end, said connection between said link lever and said handle lever being eccentric to said pivoting means of said link lever, means pivoting said handle lever within said case, and a handle knob on said handle lever extending through a slot in one case side.

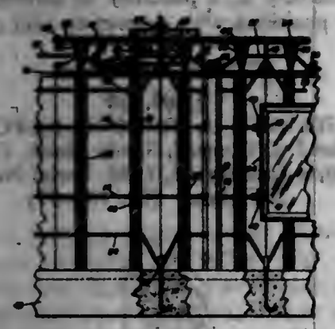
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2,769,332

**PREFORMED SLAB AND SHELL CONSTRUCTION**

Charles Kepler Brown, Jr., Fairmont, W. Va.

Application December 18, 1950, Serial No. 201,466
1 Claim. (Cl. 72—1)



A building structure comprising a ceiling portion and a wall portion, each of said portions comprising parallel oppositely disposed panels, said panels having integrally formed therewith spaced lugs and partitions protruding alternately from one panel towards its opposing panel, with the lugs spaced from and the partitions contacting and spacing the panel opposite thereof, a plurality of aligned openings in each of said lugs and partitions, flexible cables extending through said openings and securing said opposing panels to each other, an anchor member having an aperture therein secured to the ceiling portion and extending downwardly towards the wall portion and one of the flexible cables securing the wall panels to each other extending through the anchor aperture to secure the ceiling portion to said wall portion, said wall portion supported on a floor and an anchor member extending from the said floor into the space between opposing wall panels and another of said flexible cable securing opposite wall panels to each and to the floor anchor to secure said wall portion to the floor.

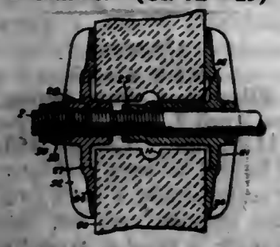
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2,769,333

**WALL FACING**

George P. Reintjes, Kansas City, Mo.

Application December 15, 1952, Serial No. 326,037
5 Claims. (Cl. 72—19)



2. The combination with a supporting wall, a series of bolts carried by the wall and arranged in two series of rows in right angular relation, outer and inner clamping flanges longitudinally adjustable on the bolts, the outer and inner flanges of each bolt having supporting flanges projecting toward each other, a plurality of courses of tile, the tile of each course being clamped between the outer end inner clamping flanges with the lower edge of each tile supported by the supporting flanges, and means applying clamping pressure on the clamping flanges.

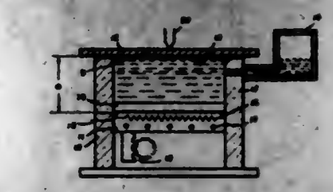
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2,769,334

**SIMULATOR FOR TRANSIENT CONVECTIVE HEAT TRANSFER PHENOMENA**

Erich Soehngen, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force

Application November 15, 1954, Serial No. 469,066
10 Claims. (Cl. 73—15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



10. Apparatus for simulating and measuring transient convective aerodynamic heat exchange between an aerodynamic heat source and heat sink comprising first means to simulate said aerodynamic heat source, second means to simulate said aerodynamic heat sink, a conductive thermal resistor interposed between said first and second means, means to vary the conductive heat transfer coefficient of said thermal resistor, and means to measure the temperature of said heat sink.

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2,769,335

**MOUNTING OIL WELL CORES**

William K. Moesnig and Orrin C. Holbrook, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application March 20, 1953, Serial No. 343,708
1 Claim. (Cl. 73—38)



In a method for determining the fluid flow characteristics of a lithological sample the improvement comprising positioning said sample within a tubular member, introducing a low melting alloy in molten form into the void between said sample and said tubular member, said alloy consisting of 50 percent bismuth, 26.7 percent lead, 13.3 percent tin and 10 percent cadmium and having the characteristic of expanding on solidification, cooling said molten alloy to solidify same, and passing fluid through said sample to measure the fluid flow characteristics thereof.

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2,769,336

**CAPILLARY ASSEMBLIES FOR FLOW MEASUREMENTS**

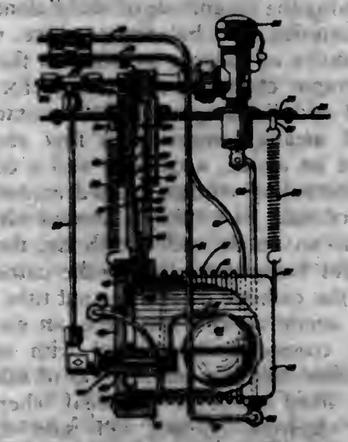
John P. Segers, Crete, and Joseph C. Rhodes, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application September 29, 1954, Serial No. 459,142
7 Claims. (Cl. 73—53)

1. An improved capillary assembly adapted for use in making flow measurements while maintained within a controlled temperature bath which comprises an elongated body externally threaded at both ends, an elongated internally threaded cap disposed about the upper



threaded end of said elongated body, a well fixed to the upper end of said elongated body below the point of engagement by said elongated cap and extending axially upward of said body to surround said cap in spaced relation, said cap having a portion extending beyond the open end of said well thereby the cap may be removed from said body without withdrawing the assembly from



the controlled temperature bath, channel means extending through said body and through said cap, resilient grommet means interposed said cap and the upper end of said body, a capillary mounted in said grommet and extending axially thereof into said channel means, and a vent duct in said cap above the upper end of said capillary means providing free flow from said channel means to the atmosphere.

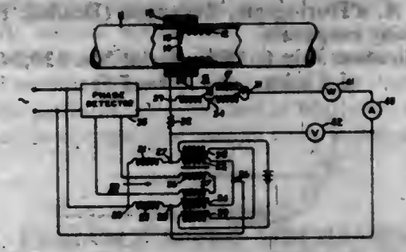
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2,769,337

**REBALANCE TYPE FLOW METER**

Theodore A. Rich, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application November 12, 1952, Serial No. 320,059
7 Claims. (Cl. 73—206)



1. A meter for measuring the flow of highly corrosive electrically non-conductive fluids through a section of conduit constructed of a non-magnetic material, said meter including a flexible bellows having one of the ends thereof secured to the inner surface of said section of conduit, a magnetizable plate having an orifice therein secured to the remaining free end of said bellows, said bellows and said orificed plate being disposed in said conduit in flow constricting relation whereby the flow of fluid past said plate produces a displacing movement thereof which is a function of the rate of flow, solenoid means surrounding said conduit and including said plate in the magnetic circuit thereof for applying a magnetic force acting thereon due to the flow of fluid, circuit means for sensing the displacement of said plate, said circuit means including a first bridge network having said solenoid means included in one arm thereof, circuit means connected to said solenoid means for automatically maintaining sufficient current flow through said solenoid means to retain said plate in the zero flow position thereof, said circuit means comprising said first bridge network, a second bridge network having one set of terminals thereof coupled across a source of electric energy and the remaining set of terminals coupled across said first bridge network to energize the same, and an error signal detector circuit having an input coupled to said first bridge network and its output operatively coupled to said second bridge network, and indicator means coupled in circuit relationship with said circuit means for deriving an indication of the current supplied to said solenoid means, said indicator means including instrument means for integrating the fluid flow rate over desired periods of time to thereby obtain an indication of the volume of flow.

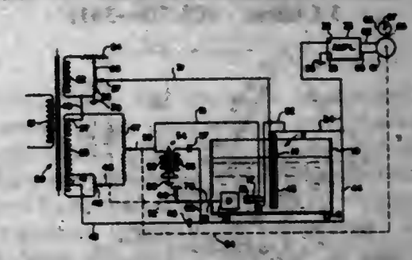
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2,769,338

**FUEL GAGE APPARATUS**

Harry M. Hermanson, Golden Valley, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application January 4, 1952, Serial No. 265,010
8 Claims. (Cl. 73—304)



1. Fluid quantity measuring apparatus comprising in combination: a source of voltage; fluid quantity measuring capacitive means connected across a portion of said voltage source and inserted in a container of fluid and providing a signal indicative of the height and dielectric constant of the fluid; compensator capacitive means variably connected across a portion of said voltage source and inserted in the container of fluid and providing a signal opposite to the signal from said measuring capacitive means and of a magnitude indicative of the dielectric constant of the fluid; density responsive means; means variably connecting said density responsive means to said voltage source and controlling the potential of the portion of the voltage source across which said compensator capacitive means is connected; and means adding the two signals together and providing an indication of the weight of the fluid in the container.

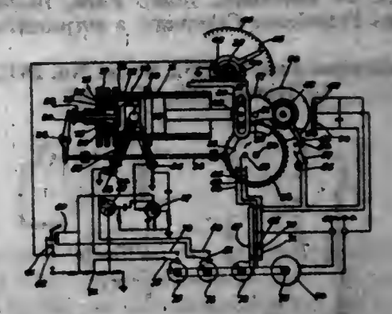
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2,769,339

**RELATIVE HUMIDITY INDICATING AND RECORDING APPARATUS**

Harrison D. Brailsford, Rye, N. Y.

Application April 24, 1953, Serial No. 350,854
12 Claims. (Cl. 73—335)



1. In a device for automatically indicating the relative humidity of a gaseous atmosphere, the combination comprising a compression cylinder having a light transmitting aperture in its wall, a piston reciprocable in said cylinder, a mirror mounted in said cylinder in alignment with said aperture, means for maintaining said mirror at ambient air temperature, an intake and exhaust

valve for said cylinder, automatic means for reciprocating said piston in said cylinder through a predetermined cycle of intake, compression and exhaust strokes, means actuated by said automatic means to hold said valve open and to close it upon the commencement of the last compression stroke of said cycle, indicating means, means for coupling said indicating means with said piston for actuation therewith, and photoelectric control means responsive to light reflected from said mirror through said aperture for deactivating said coupling means upon the formation of moisture upon said mirror.

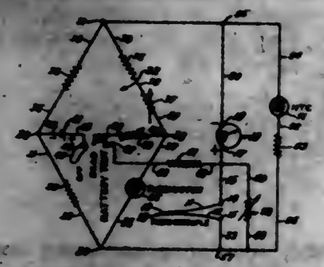
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2,769,340

## ROOM TEMPERATURE COMPENSATING CIRCUITS FOR PYROMETERS

Herbert A. Bannister, Elmwood Park, and Leonard E. Carlson, Chicago, Ill., assignors to American Gage & Machine Company, Chicago, Ill., a corporation of Illinois

Application April 12, 1954, Serial No. 422,388
3 Claims. (Cl. 73—361)



1. In a pyrometer, the combination of a thermocouple with a circuit having four resistances in series with each other forming a bridge having two pairs of opposite terminals, said thermocouple being connected to the first pair of opposite terminals, an energizing circuit including a standard cell and a variable resistor connected in series to the second pair of terminals, one of said resistances being subject to room temperature and having a negative temperature resistance coefficient to compensate for changes in the cold junction temperature, the other three resistances being constant, a meter having meter coils connected in series with said thermocouple across the first pair of terminals of said bridge, said latter terminals being shunted by a variable resistance and so connected that the polarity of the bridge output E. M. F. opposes that of the thermocouple, said variable resistance having a negative temperature coefficient adapted to compensate for variations in the resistance of the meter coils with changes in room temperature.

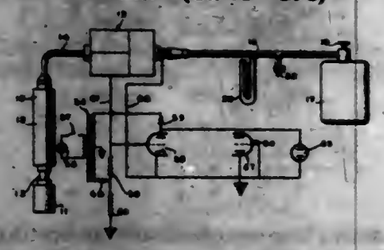
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2,769,341

## PRESSURE BALANCE INDICATOR

Desiondo R. de Boisblanc, Idaho Falls, Idaho, assignor to Phillips Petroleum Company, a corporation of Delaware

Application June 2, 1952, Serial No. 291,218
5 Claims. (Cl. 73—398)



1. Apparatus for determining the pressure of fluids comprising, in combination, a pressure balance indicator including a casing defining a diaphragm chamber, a diaphragm mounted in said chamber, first and second apertured plate mounted in said diaphragm chamber on opposite sides of said diaphragm, a contact arm insulatedly mounted in said casing, one end of said contact arm extending through the aperture of one of said plates into a closely spaced position with respect to said diaphragm whereby flexure of said diaphragm results in engagement of said diaphragm with said contact arm, means adapted to connect a source of fluid to be measured to one side of said diaphragm chamber, a source of balance pressure, means for varying the magnitude of said balance pressure, means for measuring said balance pressure, means connecting said source of balance pressure to the other side of said diaphragm chamber, and means for indicating engagement of said diaphragm with said contact arm, said last-mentioned means comprising a first electron tube having at least an anode, a cathode and a control grid, a source of alternating voltage applied across the anode and cathode of said first tube, a second electron tube having at least an anode and a cathode, the anode of said second tube being connected to the cathode of said first tube and the cathode of said second tube being connected to the anode of said first tube, an electrical discharge device connected in parallel with said second tube, means connecting the control grid of said first tube to a point of fixed reference potential when said diaphragm is in electrical contact with said contact arm whereby said first tube is conductive during a preselected period of the first half cycles of said applied voltage, said second tube being conductive during a preselected period of the second half cycles of said applied voltage, a voltage dividing network connected in circuit with said voltage source, means connecting the control grid of said first tube to a point on said voltage dividing network when said diaphragm is not in electrical contact with said contact arm whereby said first tube is non-conductive during both half cycles of applied voltage and said discharge device is actuated during a preselected period of said first half cycles of applied voltage.

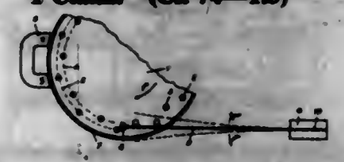
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2,769,342

## ESCAPEMENT MECHANISM

Germaine Dronhot, La Fare-les-Oliviers, France, assignor to Lip S. A. d'Horlogerie, Besançon (Doubs), France, a French body corporate

Application July 6, 1955, Serial No. 520,341
1 Claim. (Cl. 74—1.5)



A clockwork or like precision mechanism containing a continuously rotatable member, an electro-magnetic device for damping gross irregularities of rotation of said rotatable member in order to prevent an untimely rotation or galloping thereof and an oscillating element having a stable frequency comprising a relatively long resilient member securely held at one end, impact means on the other free end of said resilient member and two circumferentially arranged series of protruding stud means in staggered relationship on said rotatable member to exert impulses directly on said impact means for creating a reaction between said oscillating element and said rotatable member to ensure a positive and precise regulation of said member.

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2,769,343

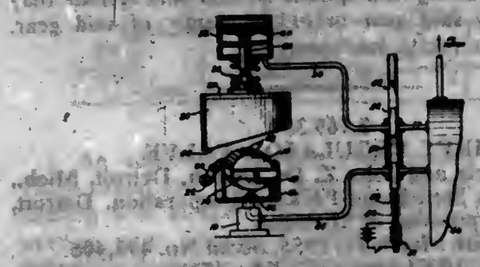
## CAGING MECHANISM FOR GYROS

James C. Gongwer, Los Angeles, Calif.

Application July 23, 1953, Serial No. 369,973
2 Claims. (Cl. 74—5.12)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a gyroscope having a first gimbal mounted for rotation on a first axis, a second gimbal mounted in the first gimbal for rotation on a second axis normal to the first axis, and a rotor mounted in the second gimbal for spinning on an axis normal to said second axis, caging and releasing mechanism comprising a crank fixed to the second gimbal and normally extending parallel to and spaced





from said first axis, and a cam in the form of a truncated hollow cylinder movable generally along said first axis with its truncated edge movable into contact with said crank to exert rotative and camming torques upon said gimbals.

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2,769,344

## REMOTE CONTROL MECHANISM FOR TELEVISION RECEIVERS

Aleck Block and Albert Mansbeimer, Los Angeles, Calif.

Application April 27, 1953, Serial No. 351,372
10 Claims. (Cl. 74—10.15)



1. A remote control mechanism for the station selector shaft of a television receiver, comprising: a fixed member surrounding said shaft and restrained against rotation; a rotatable member mounted on said shaft outwardly of said fixed member and defining therewith a housing, said rotatable member being manually engageable to operate said shaft; means within said housing operate to turn said rotatable member predetermined amount relative to said fixed member, thereby to advance said station selector shaft from station-to-station; and a pull cord attached to said means to operate said means from a remote point.

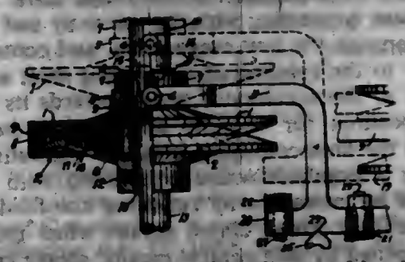
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2,769,345

## VARIABLE SPEED MECHANISM

George H. Bussenbaugen, Minot, N. Dak.

Application April 10, 1953, Serial No. 347,985
4 Claims. (Cl. 74—230.17)



1. In a variable speed drive the combination which comprises spaced apart opposed pulleys, each of said pulleys having a fixed half and a movable half with a movable half of one pulley opposite the fixed half of the other pulley, annular grooves and fins carried by the inner faces of each pulley with the fins adapted to mate with the grooves carried by the opposed pulley faces, a yoke member connecting the movable halves of the two pulleys adapted to urge the movable faces toward and away from the fixed pulley faces, a control arm pivotally mounted on the yoke member adapted to control the position of the yoke, and belt tension control springs mounted on the control arm on each side of the pivot point and connected to the yoke member so as to apply pressure to the movable pulley faces through the yoke.

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2,769,346

## DRIVE CHAIN

Alexander Flocke, Solingen, Germany

Application November 16, 1953, Serial No. 392,431
Claims priority, application Germany November 17, 1952
2 Claims. (Cl. 74—250)



1. A drive chain for operative engagement with a sprocket wheel, which comprises in combination: a plurality of arch-shaped chain links, each of said chain links having enlarged-end portions with a bore therethrough so as to form a front eye and a rear eye, a plurality of connecting members respectively extending alternately through a front eye and a rear eye of said links for hingedly interconnecting the same, segmental sleeves respectively embracing the alternate front and rear eyes hingedly interconnected by the respective connecting member, said segmental sleeves being designed for engagement with the bottom portion of the tooth spaces of said sprocket wheel, and cap means arranged at each end of said sleeves and interconnected by said connecting members, the arch of each arch-shaped chain link being curved so as to be spaced at all times from the respective tip of the sprocket wheel tooth whose adjacent tooth spaces are engaged by the segmental sleeve embracing the eyes interconnected by the respective arch.

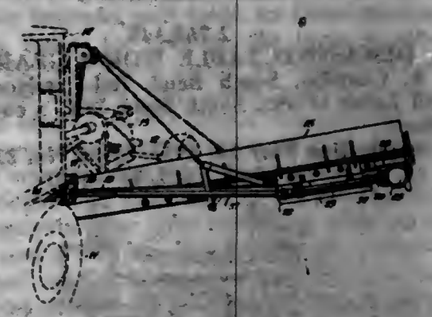
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2,769,347

## TRANSMISSION GEAR UNIT MOUNTING

Raymond M. Ulrich, Roanoke, Ill., assignor to Ulrich Foundation, Inc., a corporation of Delaware

Original application May 17, 1951, Serial No. 226,839. Divided and this application August 18, 1955, Serial No. 529,276
3 Claims. (Cl. 74—385)



1. The combination of two power transmitting shafts arranged at right angles to each other at all times, one of said shafts having its axis stationary, the other shaft having its axis movable through an angle in an axial plane normal to the axis of said first shaft, a bevel gear transmission unit interconnecting said shafts, said unit having a housing movable about the axis of one of said shafts, a support for said unit comprising a horizontal plate having an aperture adjacent each end, a depending U-shaped

member secured to said plate at each end by a bolt passing through one of said apertures, said U-shaped member supporting a bearing for the stationary axis shaft, each bearing being pivotally supported between the sides of its U-shaped member transverse to the axis of the bearing.

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2,769,348

## MANUAL AND POWER ACTUATED STEERING MECHANISM FOR MOTOR VEHICLES

Charles F. Hammond, Grosse Pointe, Mich., assignor to Gemmer Manufacturing Company, Detroit, Mich., a corporation of Michigan

Application July 7, 1954, Serial No. 441,747
4 Claims. (Cl. 74—388)



1. In a manually and power actuated mechanism including a fluid operated motor for the power actuation; a manually rotatable member, a torque transmission between said member and the remainder of the steering mechanism including an internally tooth gear wheel and externally tooth gear wheel of smaller diameter within and in mesh with the aforesaid gear wheel, the axis of the said gear wheels being normally parallel and offset from each other only sufficiently for free rotation of one gear wheel on the other, valve means actuated by a limited planetary movement in response to torque reaction of one of said gear wheels with respect of the other to energize the motor, a floating shaft on which the planetarily movable gear wheel is mounted, a universal pivotal support for the latter shaft between its ends, and means directed in the normal common plane of said axes and transverse thereto for yieldably bearing against said floating shaft to hold said tooth gears in mesh while permitting limited planetary movement.

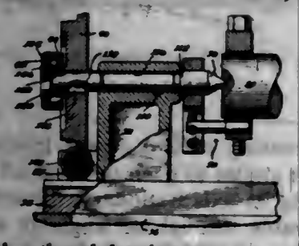
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2,769,349

## DISCONNECTABLE WORM GEARING

Otto A. Costello, South Bend, Ind., assignor to South Bend Lathe Works, South Bend, Ind., a corporation of Indiana

Application May 24, 1951, Serial No. 228,100
7 Claims. (Cl. 74—405)



1. In an index head having a support and a spindle rotatably mounted on said support, the improvement comprising a worm wheel keyed to said spindle and slidable axially thereof, a lock nut threaded on said wheel, a lock pin carried on said wheel, said lock nut jamming said pin against said spindle to lock said wheel to said spindle when turned in one direction and releasing said pin when turned in the other direction, a gear carried by said support, said wheel being moved into meshing or non-meshing relationship with said gear by moving said wheel axially along said spindle so that said spindle may be rotated by said gear or independently of said gear, and means to rotate said gear.

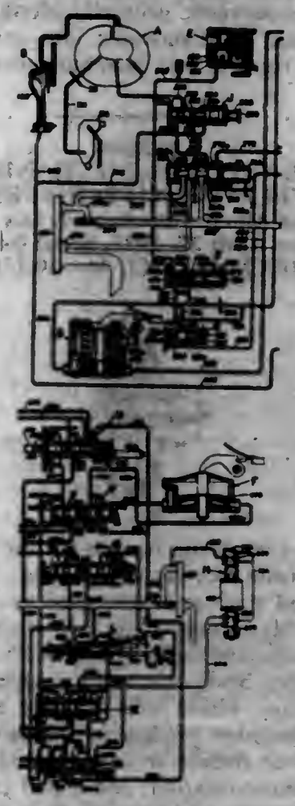
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2,769,350

## SHIFT REGULATOR VALVE

Carroll J. Lucia and John Z. De Lorean, Detroit, Mich., assignors to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan

Application March 31, 1955, Serial No. 498,406
10 Claims. (Cl. 74—472)



1. In a transmission control system for a transmission adapted for use with an accelerator controlled engine including a transmission output shaft, hydraulic operated clutch to engage the high range drive, hydraulic operated brake means to engage and disengage the low range drive, a fluid pressure reservoir, conduit means connecting with the reservoir and the high range engaging means and the brake means to disengage the low range drive, fluid conveying means connecting with the reservoir and the brake means to engage the low range drive, and control means responsive to the rotation of the output shaft and to the movement of the accelerator pedal towards its speed increasing position for opening and closing the conduit means and the fluid conveying means, a regulating system comprising a regulator valve connecting with the conduit means for momentarily retarding the fluid pressure flow to the high range clutch means when the conduit means is opened by said control means, means connecting with the conduit means for retarding the fluid pressure flow to the low range disengaging brake means when the conduit means is opened by said control means, and valve means connecting with the conduit means on opposite sides of said retarding means which is operatively responsive to the movement of the accelerator pedal for bypassing the retarding means when the accelerator pedal is moved a predetermined distance towards its maximum speed increasing position.



2,769,351

## ADJUSTABLE STEERING POST

Byron A. Serfling, Gardiner, and Omer K. McCaleb, Portland, Oreg.

Application June 13, 1955, Serial No. 515,001
3 Claims. (Cl. 74—493)



1. An adjustable steering post assembly for vehicles which comprises a first steering post section, a second steering post section substantially co-axial with the first steering post section, a hollow first sleeve extending outwardly from one of the steering post sections co-axial therewith, a motor secured to and contained within the first sleeve, screw means connected to and driven by the motor, a second sleeve attached to the other steering post section and co-axial therewith, the second sleeve being splined within the first sleeve and receiving the screw means in threaded engagement, mounting means for mounting the steering post sections and sleeves on the vehicle for longitudinal movement upon actuation of the screw means, and motor control means positioned remotely from the motor for controlling the operation of the latter.

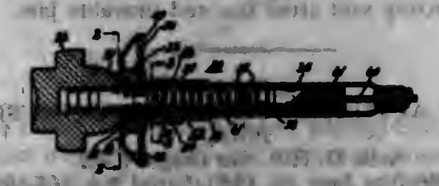
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2,769,352

## ROD CONTROLLING MECHANISM

Harold V. Elliott, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 26, 1952, Serial No. 301,057
4 Claims. (Cl. 74—503)



1. A control device comprising a tubular fitting, a nylon tube supported within the fitting, having a collar at one end thereof adapted to engage one end of the fitting and having a portion projecting beyond the collar thereof and extending into the fitting, said projecting portion having a slot therein to provide a yieldable portion, a detent on said yieldable portion, a longitudinally extending key on an internal portion of said tubular insert, an operating rod provided with annular grooves and a longitudinal groove extending through said tube, said longitudinal groove receiving the key whereby the rod is prevented from rotating relative to said tube and said detent cooperating with said annular grooves that retain yieldably the rod in a longitudinal adjusting position, and means for holding the collar of said tube and the said end of the said fitting in engagement.

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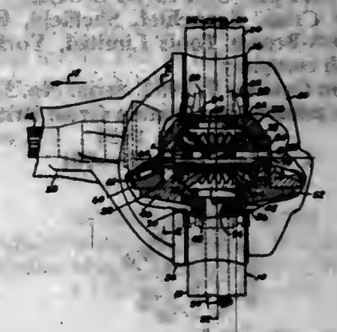
2,769,353

## DIFFERENTIAL GEARING

Edward L. Nash, Ferndale, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan

Application July 12, 1954, Serial No. 442,587
5 Claims. (Cl. 74—711)

1. In a differential mechanism having a power rotable differential case containing two axle connected relatively rotatable side gears and an inter-connecting set of pin carried pinions disposed therebetween and revolvable with the case, the combination comprising opposite end portions of said pinion carrying pin each having a pair of flats formed in parallel planes in the outer surface thereof and each coinciding with the plane of the corresponding flat on the other end portion, cam slot guide forming means in the differential case receiving the opposite end portions of the pin so as to continually engage the flats thereof and being diagonally elongated for causing and accommodating limited load impressed tilting travel of the pin and pinions diagonally out of their neutral plane of revolution and about their common



geometric mid-center in a direction tending to spread apart the side gears, and means forming separate pairs of friction engaging surfaces between the differential case and each of said side gears and engageable to establish a reluctant slip drive from the differential case to the individual axles when the pin and pinions are load impressed into either of opposite directions from their neutral plane of revolution.

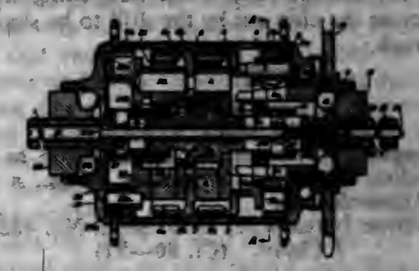
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2,769,354

## EPICYCLIC CHANGE SPEED GEARS

William Brown, Nottingham, England, assignor to Sturmey Archer Gears Limited, Nottingham, England, a British company

Application September 29, 1955, Serial No. 537,498
5 Claims. (Cl. 74—767)



1. An epicyclic change-speed gear for the wheel hub of a bicycle of the kind having primary and secondary epicyclic gear trains coupled together, the primary gear train comprising a fixed sun wheel, an annulus and planet wheels supported by a planet carrier and together forming a primary epicyclic gear train, an input member, input coupling means for coupling the input member selectively to the said planet carrier or annulus, an output member, a first unidirectional output coupling means for coupling the annulus to the output member, said output coupling means being adapted to be rendered inoperative by the input coupling means in one position thereof while the latter couples the input member to the annulus, the secondary epicyclic gear train consisting of a sun wheel, an annulus and planet wheels supported by a planet carrier, a second unidirectional output coupling means for connecting the planet carrier of the secondary gear train to the output member when the first output coupling member is rendered inoperative, characterised in that the planet carrier of the primary gear train is coupled to the annulus of the secondary gear train, and further characterised by selector coupling means for the secondary gear train alternatively adapted for locking the sun pinion of the secondary gear train to a stationary part of the gear or for freeing the said sun pinion and simultaneously locking together two of the aforesaid elements of the sec-

ondary gear train whereby while the first unidirectional output coupling is held inoperative the selector coupling means of the secondary gear train may be operated to provide alternative reduction ratios.

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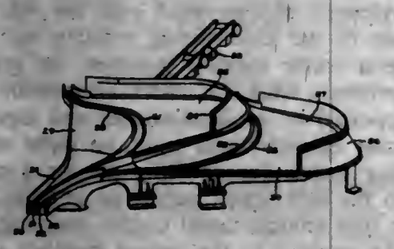
2,769,355
FLUTED CUTTING TOOLS
William Henry Crisp, Rosechief, Sheffield, England, assignor to Firth-Brown Tools Limited, Yorkshire, England, a British company
Application October 7, 1952, Serial No. 313,571
Claims priority, application Great Britain October 12, 1951
1 Claim. (Cl. 77—70)



A cutting tool having a plurality of concave helical flutes extending longitudinally along the surface of the tool and having an upstanding rib of constant height throughout its length extending longitudinally along the trailing face of each flute, considered in relation to the direction of rotation of the tool, said rib being spaced away from the root of the flute by a small uniform distance throughout its length and the surface of each flute between the root thereof and the top of the rib being continuously smoothly concave, and having a radius of curvature substantially smaller than that of the surface of each flute between the top of the rib and the heel of the flute, the height of the rib and the curvature of the concave portion of the surface of the flute between the top of the rib and the root of the flute being selected so that they cause the chip cut by the drill to be sharply bent so as to break.

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2,769,356
ROLLING MILL REPEATER
Myles Morgan, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts
Application January 31, 1955, Serial No. 485,037
1 Claim. (Cl. 80—51)



A repeater for receiving a plurality of rods or the like and separating said rods into diverse paths comprising a first level repeater section and a second level repeater section joined together in side by side relation, each repeater section having a looping table and guard fence, said repeater sections being disposed at different inclinations, an insert at the common entrance of said repeater sections having rod grooves leading from one end to each of said repeater sections at the other end thereof, said insert being inclined with said one end higher than the said other end, mating with said repeater sections, and being removable so that rods may bypass the repeater by passing underneath the same when the insert is removed, and exit guides for each of said repeater sections to provide diverse separate exit paths.

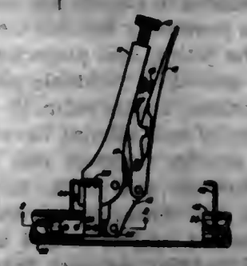
2,769,357
CONNECTOR CRIMPING TOOL WITH PIVOTED AND FIXED JAWS
Wallace A. Moriarty, Overland, Mo., assignor to James R. Kearney Corporation, St. Louis, Mo., a corporation of Missouri
Application April 27, 1954, Serial No. 425,844
4 Claims. (Cl. 81—15)



1. A crimping tool comprising an elongated pole, a bifurcated head mounted fixedly at one end of said pole, a first jaw secured in fixed relation with respect to said head, a second jaw supported for pivotal movement by said first jaw and with respect to said first jaw, said jaws being extended outwardly relative to said head at a substantial angle, and means for moving said movable jaw relative to said fixed jaw, said means comprising a movable arm structure, a pivoted handle, and a link for connecting said arm structure to said handle, and adjusting means for adjusting the initial relative positions of said jaws, said adjusting means comprising a member secured to said arm structure, a cross bar pivotally mounted on said arm structure, adjusting elements supported by said member and contacting said cross bar and link means interconnecting said cross bar and movable jaw.

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2,769,358
HAND ACTUATED PIPE WALL EXTRUSION TOOL
Arlie D. Hill, San Diego, Calif.
Application June 30, 1953, Serial No. 365,300
8 Claims. (Cl. 81—15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



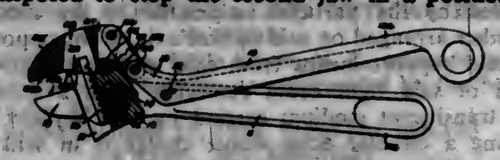
1. An extrusion tool comprising a pair of relatively movable jaws, a pair of spaced outwardly extending protrusions on the opposed outer surfaces of each of said jaws, said jaws having opposed inclined surfaces on the inner portions thereof, a wedge-shaped element slidably mounted between said surfaces, a stationary handle, a movable handle, a bell crank pivotally connected to said stationary handle and said movable handle and to said wedge-shaped element for moving said jaws outwardly with respect to each other when said handles are squeezed together.

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2,769,359
TOGGLE WRENCH
James W. Healy, Medford, Mass.
Application January 20, 1955, Serial No. 483,076
1 Claim. (Cl. 81—64)

A wrench comprising a first handle and a second handle connected together for relative rotation about a common fulcrum, a jaw base fixed to said first handle, a first jaw slidably mounted on said base, a second jaw connected to said base and rotatable thereon toward and away from said first jaw, the latter being slidable toward and away from said second jaw, a stop member disposed to limit the travel of said second jaw toward the first, said jaws having opposed faces and said stop member being disposed to stop the second jaw in a position in

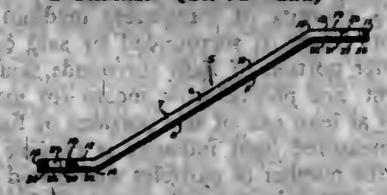




which the jaw faces are substantially parallel, and an arm attached to said second handle, a link having a first swivel connection with said arm and a second swivel connection with said second jaw, said arm and link being disposed to rotate said second jaw toward the first when the handles are pressed together, and said swivel connections and said fulcrum lying substantially in a straight line when said jaws are parallel.

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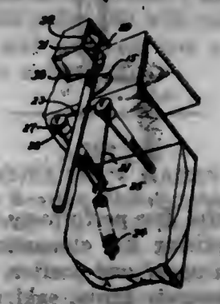
2,769,360
ANGULAR WRENCH HEAD HAVING UPWARDLY OPENING SOCKET
Wayne Woodford Cottrell, Terrance, and Edwin E. James, Wilmington, Calif.
Application September 10, 1954, Serial No. 455,228
2 Claims. (Cl. 81—121)



1. In a wrench, a straight handle portion having parallel side edges and upper and lower sides, an elongated socket head on an end of said handle portion, said head being a continuation of said handle portion and being of similar external size and dimensions as said handle portion, said head being angulated relative to said handle portion away from the lower side of the handle portion, said head having an upper side, a nut socket in said head having an open end opening through the upper side of the head, said head having an underside, and a retaining wall partly closing the other end of the socket.

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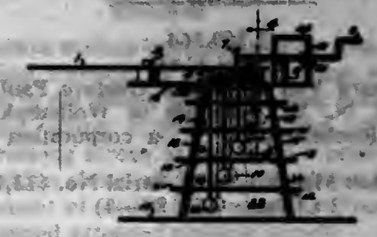
2,769,361
RIGID VIBRATOR MUSICAL INSTRUMENT
Jacob T. Kunz, North Hills, Pa., assignor to Schulmerich Electronics, Incorporated, Carillon Hill, Sellersville, Pa.
Application August 6, 1952, Serial No. 302,958
2 Claims. (Cl. 84—1.15)



1. In an electric musical instrument having frame means, mechanical-electrical pick-up means, an amplifier and a loud-speaker connected to the amplifier, the combination including a free-free rod having an aperture extending therethrough transverse to the longitudinal axis of said rod at the node of a desired partial; thread suspending means passing through said aperture; supports mounted on said frame means on either side of said aperture around which said thread means passes in a loop arrangement, said rod being supported such that the thread means, aperture and supports are substantially aligned; and spring means connected at one end thereof to said frame means and at the other end thereof to said thread means opposite the point of support of said rod such that said thread means is maintained at a predetermined tension.

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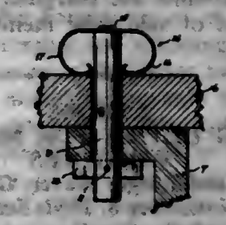
2,769,362
MUSICAL DEVICES
Albert Weinstein, Wilton Woods, Va.
Application March 29, 1954, Serial No. 419,143
1 Claim. (Cl. 84—97)



A musical unit comprising a xylophone with vertically stacked music bars, a leaf spring unit consisting of a plurality of leaf spring fingers stamped from a single piece of spring material, said leaf spring unit being fixed at one end and said leaf spring fingers having vertical projections at the opposite end free to be vertically deflected independently of each other, vertical suspension wires freely hung on each of said leaf spring fingers and supporting a bead under each of said music bars, a removable record disk with radially spaced holes that form a musical pattern, said record disk being mounted on a spindle at its center and being supported along its radius by said leaf spring fingers' vertical projections, said record disk depressing and placing in tension said leaf spring fingers, a hand crank that is pivoted at one end and has a rubber wheel at the other end, said rubber wheel frictionally engaging the periphery of said record disk, a spiral spring that engages the shaft of said hand crank and holds said rubber wheel down on said record disk thus depressing said leaf spring fingers, whereby rotation of said hand crank rotates said record disk around its spindle causing said holes to become successively aligned with said leaf spring fingers' vertical projections permitting said leaf spring fingers to flip said beads up and against said music bars in appropriate sequence to play a musical tune.

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2,769,363
PIVOTED LOCKING BAR FASTENER HAVING C-SHAPED SPRING HEAD
Alonzo B. Kight, Evanston, Ill.
Application November 7, 1951, Serial No. 255,151
3 Claims. (Cl. 85—3)

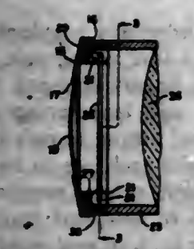


3. A fastener comprising an elongated threadless bolt, the lower portion of said bolt being bifurcated to form two legs projecting axially of said bolt and defining therebetween a slot, a pivot pin in transverse relation to the

axis of said bolt with the end portions thereof being carried by said legs and the intermediate portion thereof exposed in said slot, a locking bar pivotally mounted on said pin and confined within said slot and adapted to lock said bolt in place when desired, said locking bar when in transverse relation to the axis of said bolt, forming projections beyond the circumference of the bolt, a leaf spring fixedly secured to the end of said bolt opposite to the bifurcated end, and said leaf spring forming a convolution at each side of said bolt with the curved portions extending axially of said bolt toward the locking bar and toward the central regions of said bolt, the spring being compressible a distance at least as great as the difference in proximity between the nearest surface of said locking bar and the end of the bolt to which said spring is attached when said locking bar is in locking position and when said locking bar is pivoted from said locking position.

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**2,769,364**
**LENS CAP**
**Clarence Richard Van Horn and Gustave Paul Pirwitz, Irondequoit, N. Y., assignors to Wollensak Optical Company, Rochester, N. Y., a corporation of New York**
Application March 1, 1954, Serial No. 413,142
2 Claims. (Cl. 88—1)

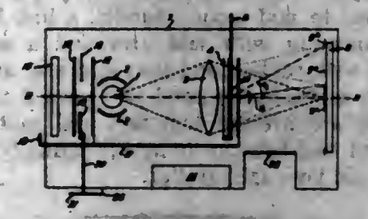


1. A lens cap for use on the end of an optical tube member having a circumferential V-shaped groove along its internal surface and adjacent its outer end, said lens cap comprising an approximately circular body member having an approximately frusto-conical front face and flat marginal portion on its rear face and a central opening extending therethrough, a disk disposed within said central opening and secured to said body member, a cylindrical flange having one edge secured to said body member in coaxial relationship therewith and a free edge extending rearwardly from said body member, said flange having a diameter less than that of the body member and slightly less than the optical tube member opening, a circumferential groove along the inner periphery of said flange located in a plane spaced from and parallel to said flange free edge, a pair of diametrically opposed radial slots disposed through said flange and extending from said free edge to said body member, and a resilient axle located within said groove and having a rotatable roller adjacent each of its ends, said rollers extending through said slots, said rollers being spaced from said body member marginal portions so as to enable said rollers to engage an outermost portion of a tube member V-shaped groove while the marginal portion is engaged by the outer end of said tube member when said lens cap is positioned.

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**2,769,365**
**COUNTING DEVICE FOR MICROSCOPIC PARTICLES**
**Hans Loeschcke and Rütger Wever, Gottingen, Germany**
Application November 8, 1951, Serial No. 255,506
Claims priority, application Germany August 22, 1949
6 Claims. (Cl. 88—14)

1. Apparatus for determining the number of microscopic particles, within a given range of sizes, suspended in a translucent medium, comprising, in combination, optical means, including a source of light of a predetermined wave length, for directing a beam of said light along the optical axis of said optical means; support means for supporting a quantity of the translucent medium, with microscopic particles within said range of sizes suspended therein, at a predetermined point along said optical axis in the path of said beam of light so that the latter passes through said medium and is partly diffracted by the particles suspended in the medium; a member arranged on said optical axis on the opposite side of said support means from said source of light in the path of said light beam emerging from a quantity of the translucent medium carried by said support means, having a circular edge whose center is in said optical axis, said last-mentioned member being located from said



support means at an optic axis distance which forms with a straight line extending from said predetermined point to a point on said circular edge an angle within and outside of which the intensity of said light beam is independent of the size of the particles within said given range of sizes while being dependent on the quantity of the particles, whereby an inner portion of the light emerging from a quantity of translucent medium carried by said support means is surrounded by said circular edge and an outer portion of light surrounds said inner portion of light; and photoelectric means for measuring the intensity of at least one of said portions of light, whereby the thus measured light intensity is capable of directly indicating the number of particles within said given range of sizes suspended in the translucent medium.

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**2,769,366**
**APPARATUS FOR SPECTROGRAPHIC ANALYSIS**
**Minora Hozumi, Iowa City, Iowa, assignor to The State of Iowa, for the benefit of the State University of Iowa, Iowa City, Iowa, an educational institution of Iowa**
Application April 1, 1952, Serial No. 279,791
8 Claims. (Cl. 88—14)

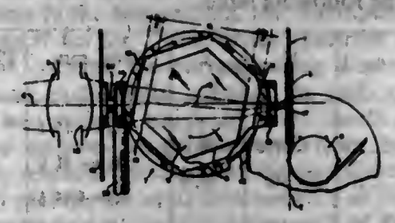


7. A burner useful for performing analysis by flame spectroscopy comprising an elongated tubular mixing chamber having an upper end portion defining a tapered outlet slot which extends across said upper end portion at an inclined angle with respect to the longitudinal axis of said tubular mixing chamber, said outlet slot having an upper end and a lower end, the upper end of said outlet slot being wider than the lower end of said outlet slot, means connected to said mixing chamber to admit material to be analyzed to said mixing chamber below the upper end portion of said mixing chamber, and a housing surrounding said outlet slot, said housing including means to view flame from said outlet slot.



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**2,769,367**
**DEVICE FOR COMPENSATING OPTICAL IMAGE MOTION**
**Gerhard Schwesinger, Little Silver, N. J., assignor to the United States of America as represented by the Secretary of the Army**
Application June 27, 1952, Serial No. 296,103
2 Claims. (Cl. 88—16.8)
(Granted under Title 35, U. S. Code (1952), sec. 266)

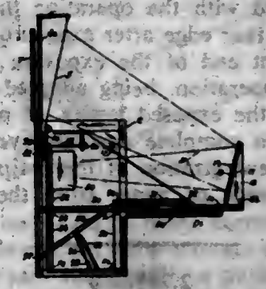


1. An image motion compensator for eliminating optical aberrations comprising at least two plane-parallel refracting elements of two different refractive indices, said elements being arranged in abutting relationship along the optical axis of the compensator and being rotatable as a unit about an axis perpendicular to and lying on the optical axis of the compensator to provide a two-element rotating refractor for refracting an image forming light beam, a two-element variable optical wedge disposed on each opposite side of said rotating refractor along said optical axis in position to pass said image forming light beam, each of said wedges comprising a movable plano convex lens, the convex surface of which lies on a circle having its center on the axis of rotation of said tilting refractor, each of said wedges further comprising a fixed plano concave lens, the concave surface of which lies on a circle whose radius is substantially equal to the radius of said first-mentioned circle and whose center coincides with the center of said first-mentioned circle, the refractive index of each of said lenses being the same but different from the refractive indices of said rotating refractor, the refractive index of one element of said two-element refractor being substantially greater than the refractive index of said lenses and the refractive index of the other element of said refractor being less than the refractive index of said lenses, means for rotating said refractor and said movable lenses in synchronism, said variable optical wedges refracting said image beam in opposite directions whereby the result of refraction by said wedges and by said refractor is a lateral displacement of said image beam, said wedges further providing a medium embracing said tiltable refractor having a refractive index with respect to which one element of said refractor has a relative index of refraction greater than unity and with respect to which the other element of said refractor has a relative index of refraction less than unity.

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**2,769,368**
**PROJECTION CABINET**
**Alvin Bourist, Philadelphia, Pa.**
Application May 18, 1953, Serial No. 355,692
2 Claims. (Cl. 88—24)

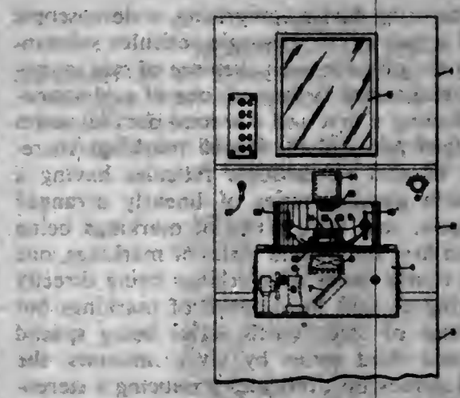
1. A projected picture viewing cabinet containing a picture projecting means, a reflective surface, and a rolled opaque viewing screen, said reflective surface being movably attached to and supported by said cabinet to provide horizontal movement of said reflective surface from and to a position within said cabinet to and from a predetermined position in front of said cabinet, said opaque viewing screen having one edge supported to permit vertical movement of said opaque viewing screen to and from an unrolled extended viewing position above said cabinet, means for attaching said picture projecting means within said cabinet to project a light beam therefrom upon said reflective surface, whereby the light beam is reflected from said reflective surface upon said opaque viewing screen,



said reflective surface having means thereon for extending longitudinal traverse of said light beam to provide enlargement of the image, interconnecting positioning means within said cabinet to provide vertical unrolling of said opaque viewing screen to and from a predetermined elevated position above said viewing cabinet when horizontal movement of said reflective surface from and to said predetermined extended position occurs.

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**2,769,369**
**MICROFILM PRINTER**
**Frank E. Oller, Cleveland, Ohio, assignor to Oscar Smith, Cleveland, Ohio**
Application November 16, 1953, Serial No. 392,147
5 Claims. (Cl. 88—24)



1. A combined photographic film projector and printer of sensitized paper exposed to the projected image of the film comprising a housing, a light source, an optical system including lenses and mirrors, a film carrier having means for feeding film through the optical system to intercept light beams from the light source, a translucent screen constituting a part of one wall of the housing, the mirrors of the optical system including a pair of angularly disposed stationary mirrors for projecting an enlarged image of said film on the screen to be viewed from the exterior of the housing, the film carrier being mounted on the housing so as to be adjustable in three planes of movement for adjusting and positioning the image on the screen, a stationary table for receiving sensitized paper, a manually movable mirror adjustable into and out of, a position to intercept the light beam from one of the stationary mirrors to the screen so as to project the image of the film toward the exposure table, a dark box and a reel therein for supporting a roll of sensitized paper, a main motor and gear operated feed roll means driven thereby for positively drawing the paper from the roll across the exposure table in predetermined lengths per cycle of operation of the main motor under switch control, automatic time delay switch

means in circuit with the main motor for interrupting the operation of the paper feeding means for a predetermined time interval for exposure to the film image, the paper feed roll means including rolls at the forward and rear ends of the exposure table in the path of travel of the paper, paper severing knife arranged at the rear end of the exposure table adjacent the paper reel in the dark box and driven by the gear train for feeding the paper and so correlated with the operation thereof as to cut the paper at the rear edge after exposure, the paper feed rolls at the front end of the exposure table, after the paper severing operation, being adapted in sequence to positively draw the exposed length of paper off of the exposure table to complete a single cycle of operation initiated by the energization of the main motor without the further advance of paper from the reel onto the exposure table.

2,769,370

## STEREOSCOPIC MICROSCOPE FOR MEASURING DEPTHS

Russell E. Tompkins, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application December 15, 1954, Serial No. 475,483
2 Claims. (Cl. 88—39)



1. A depth measuring device comprising, a stereoscopic microscope, and a pair of stereoscopic reticules substantially disposed in the plane in each eyepiece of said microscope where the real image is formed, one of said stereoscopic reticules having a first and a second parallel series of linearly arranged and equally spaced markings thereupon, the other of said stereoscopic reticules having a third and a fourth parallel series of linearly arranged markings thereupon, said third series of markings being identical with said first and second series of markings, one marking of said fourth series of markings being directly under one marking of said third series of markings but the other markings of said fourth series being spaced from those of said third series by given amounts, the markings on said stereoscopic reticules producing a stereoscopic image of two substantially linear reference scales lying in different but intersecting planes and having corresponding points thereon, one reference scale being formed by said first and third series of markings on said reticules and the other reference scale being formed by said second and fourth series of markings, said other reference scale intersecting a plane passing through the top and a plane passing through the bottom of an object whose depth is to be measured, the differing spacings of said fourth series of markings on said other stereoscopic reticule being chosen such that corresponding points on said two reference scales appear displaced from one another by known depths.

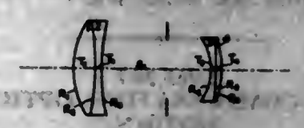
2,769,371

## TELEPHOTO OBJECTIVE LENS COMPRISING FOUR ELEMENTS

David C. Gilkeson, Irondequoit, N. Y., assignor to Wollensak Optical Company, Rochester, N. Y., a corporation of New York

Application July 25, 1955, Serial No. 523,995
1 Claim. (Cl. 88—57)

A telephoto objective consisting of four lens elements grouped to form a positive meniscus doublet with its concave side toward the rear and a negative meniscus doublet with its concave side toward the front and arranged behind and axially alined with said positive doublet, the two lens elements of the positive doublet being cemented



to each other, the two lens elements of the negative doublet being cemented to each other, the characteristics of the respective lens elements and their spatial relationship to each other being substantially in accordance with the data in the following table:

| Lens | N | V | Radii, mm. | Thicknesses, mm. |
|---|---|---|---|---|
| | | | $R_1$=+18.1 | |
| 1 | 1.5725 | 56.8 | | $T_1$=4.2 |
| | | | $R_2$=−51.0 | |
| 2 | 1.649 | 33.8 | | $T_2$=1.6 |
| | | | $R_3$=+44.5 | |
| | | | | $S_1$=21.7 |
| | | | $R_4$=−11.3 | |
| 3 | 1.800 | 67.0 | | $T_3$=1.1 |
| | | | $R_5$=−58.3 | |
| 4 | 1.605 | 43.6 | | $T_4$=1.1 |
| | | | $R_6$=−19.5 | |

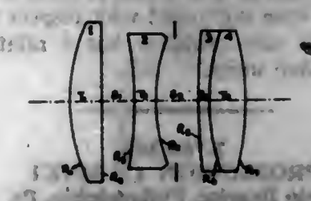
wherein the lens elements are numbered in order from front to rear in the first column, the corresponding refractive indices N for the D line of the spectrum are given in the second column, the corresponding dispersive indices V are given in the third column, the radii of curvature R of the lens surfaces are given in the fourth column, the respective surfaces being numbered from front to rear and being respectively identified by the subscript numeral used with each R, the axial thicknesses T of the respective lens elements and the axial thicknesses S of the air spaces between lens elements being given in the fifth column, the respective lens elements and air spaces to which the values of T and S apply being numbered from front to rear and being respectively identified by numerical subscripts used with T and S, the values of R, T, and S all being expressed proportionately in millimeters per 100 millimeters of equivalent focal length of the entire lens, the plus and minus values of R indicating curved surfaces which are respectively convex and concave toward the front of the lens.

2,769,372

## THREE COMPONENT OBJECTIVES FOR PHOTOGRAPHIC AND PROJECTION PURPOSES

Alan A. Cook, Rochester, and David C. Gilkeson, Irondequoit, N. Y., assignors to Wollensak Optical Company, Rochester, N. Y., a corporation of New York

Application July 25, 1955, Serial No. 523,994
2 Claims. (Cl. 88—57)



1. An objective lens comprising three components in axial alinement with each other, the front and middle components each being simple lens elements air spaced from each other and the rear component consisting of two lens elements cemented to each other to form a cemented doublet, the lens elements and their spatial relationship to each other being substantially in accordance with the data in the following table:

| Lens | N | V | Radii | Thicknesses |
|---|---|---|---|---|
| | | | $R_1$=+ 38.0 | |
| 1 | 1.638 | 55.0 | | $T_1$=6.6 |
| | | | $R_2$=∞ | |
| | | | | $S_1$=6.9 |
| | | | $R_3$=− 75.0 | |
| 2 | 1.620 | 36.0 | | $T_2$=4.2 |
| | | | $R_4$=+ 36.0 | |
| | | | | $S_2$=8.7 |
| | | | $R_5$=+344.0 | |
| 3 | 1.605 | 38.0 | | $T_3$=2.2 |
| | | | $R_6$=+ 44.0 | |
| 4 | 1.700 | 48.0 | | $T_4$=7.2 |
| | | | $R_7$=− 55.1 | |

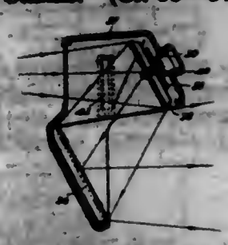
wherein the lens elements are numbered in order from front to rear in the first column, the corresponding refractive indices N for the D line of the spectrum are given in the second column, the corresponding dispersive indices V are given in the third column, the radii of curvature R of the lens surfaces are given in the fourth column, the respective surfaces being numbered from front to rear and being respectively identified by the subscript numeral used with each R, the axial thicknesses T of the respective lens elements and the axial thicknesses S of the air spaces between lens elements being given in the fifth column, the respective lens elements and air spaces to which the values of T and S apply being numbered from front to rear and being respectively identified by numerical subscripts used with T and S, the values of R, T, and S all being expressed proportionately in millimeters per 100 millimeters of equivalent focal length of the entire lens, the plus and minus values of R indicating curved surfaces which are respectively convex and concave toward the front of the lens.

2,769,373

## OPTICAL REFLECTING ANAMORPHOTIC DEVICE FOR USE WITH OBJECTIVE LENS SYSTEMS

Albert Bouwers, The Hague, Netherlands, assignor to N. V. Optische Industrie "de Oude Delft," Delft, Netherlands

Application January 22, 1954, Serial No. 405,550
Claims priority, application Netherlands June 10, 1953
29 Claims. (Cl. 88—57)



1. An optical reflecting anamorphosing device for use with an objective lens system and comprising a housing, means supporting a plurality of reflecting surfaces by said housing in operative alignment, at least one pair of said surfaces comprising a convex and a concave reflecting mirror surface with substantially parallel axes and being so positioned and dimensioned that a beam of light of circular cross-section incident on one of said surfaces is reflected to the other of said surfaces as a substantially parallel emergent beam of elliptical cross-section before leaving the device, said surfaces being positioned to have the shortest distance between their surfaces approximately equal to half the difference between the radii of the surfaces, and with the focal lines of the two surfaces approximately coincident and including at least one curved surface and with the axes of generation of said surfaces being substantially parallel to each other, entrance aperture means in said housing for admitting the light beam to said surfaces, whereby an object on one conjugate is compressed in a desired order on the other conjugate.

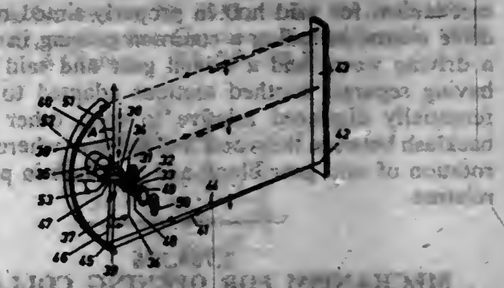


2,769,374

## ELECTRICAL LIGHT SCREEN

Erwin Sick, Vaterstetten, near Munich, Germany

Application October 18, 1952, Serial No. 315,460
Claims priority, application Germany October 19, 1951
3 Claims. (Cl. 88—74)



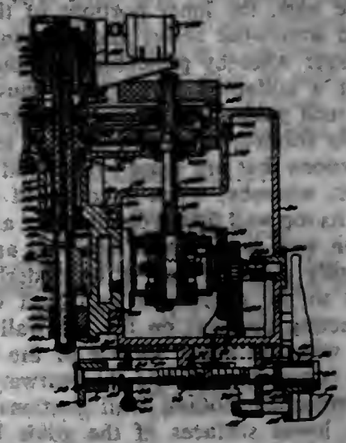
1. An electrical light screen, comprising a sender emitting a bundle of light rays, a rotary polygonal mirror prism receiving said ray bundle, a parabolic cylindrical mirror limiting said screen on one side, said rotary polygonal mirror prism being rotated about an axis which is substantially parallel to the focal line of the parabolic mirror and is located at such distance therefrom that the edges of the mirror prism in the course of its rotation at least substantially coincide with said focal line, said mirror prism transmitting light to said parabolic mirror, a mirror limiting said screen on the other side and receiving light from said parabolic mirror, the last-mentioned mirror reflecting said light back to the parabolic mirror and the parabolic mirror reflecting the last-mentioned light back to the mirror prism, and a light receiving releasing device, said device receiving light reflected from said parabolic mirror upon said mirror prism.

2,769,375

## HOBBING MACHINE

Alexander D. F. Moncrieff, Detroit, Mich., assignor to Michigan Tool Company, Detroit, Mich., a corporation of Delaware

Application March 28, 1951, Serial No. 217,999
4 Claims. (Cl. 90—4)



1. A gear-hobbing machine comprising a base, means for mounting and rotatably supporting a gear blank on said base, a slide on the base movable to and from said gear blank, a hob carrier mounted on the slide movable therewith and rotatably adjustable about a fixed axis to position the hob in accordance with the lead of the teeth on said gear blank, a rotary-drive mechanism for said gear blank, a rotary-drive mechanism for said hob including a first worm, and a first worm gear driven by said first worm, said first worm being carried by the slide and located on the same axis as the hob carrier, said first worm gear being carried by and movable with said hob carrier and constantly engaging said first worm in all rotatably adjusted positions of the hob carrier, means for varying the angular

position of said carrier including a second worm gear fixed to said carrier and mounted for rotation coaxially with said first worm, and a second worm carried by said slide and actuable to drive said second worm gear and a single drive means for rotatably operating the rotary drive mechanism for said gear element and the rotary-drive mechanism for said hob in properly timed relation, said drive means including a common gearing in the form of a driving worm and a driven gear and said driven gear having separate toothed sections adapted to be circumferentially displaced relative to each other to take up backlash between the worm and the gear whereby to assure rotation of said gear blank and said hob in proper timed relation.

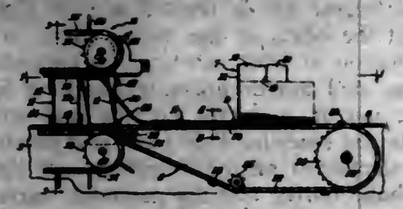
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2,769,376

## MECHANISM FOR OPENING COLLAPSED TUBULAR CARTONS

Francis A. Childrey, Jr., and Joseph H. Walter, Wayne, Pa., assignors to Container Corporation of America, Chicago, Ill., a corporation of Delaware

Application May 31, 1955, Serial No. 512,084
9 Claims. (Cl. 93—53)



1. Mechanism for opening or expanding collapsed, tubular cartons of the type having interconnected top, bottom and side walls in which the top and bottom walls have outwardly projecting portions, such mechanism comprising in combination, a conveyer member including an element adapted to engage and advance a collapsed carton and move it along a predetermined path, and spaced guide bars disposed along the conveyer, the spacing of the guide bars being such that the outwardly projecting portions on the top wall of a collapsed carton can be supported upon and move along the respective spaced guide bars, the inner portions of the guide bars being spaced somewhat above and substantially parallel to the conveyer whereby projecting portions on the bottom wall of a collapsed carton may move along said path below such guide bars, such guide bars each having symmetrically formed, upwardly inclined sections joined with the portions that are spaced from and parallel with the conveyer, whereby, when a collapsed carton is advanced with its top wall forwardly disposed and in an overlying position with respect to a side wall and its bottom wall rearwardly disposed and in an underlying position with respect to the other side wall, and with the outwardly projecting portions on the top wall coming into engagement with the upper surface of the upwardly inclined guide bar sections, while the rearwardly disposed, outwardly projecting bottom wall portions are moving between the lower surfaces of the guide bars and the conveyer, the carton will move toward expanded condition.

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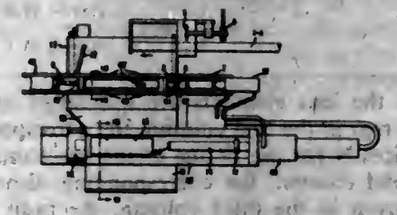
2,769,377

## EXPLOSIVE CARTRIDGE END CLOSURE APPARATUS

Uel P. Jennings, Wilmington, Del., and Edward F. Lewis, Martinsburg, W. Va., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application December 13, 1955, Serial No. 552,851
4 Claims. (Cl. 93—55.1)

1. In an apparatus for producing tubular explosive cartridge shells by closing one end of a tube, the combination comprising a continuous inclined support structure for pre-cut lengths of tube, said support structure being disposed from beginning to end at an acute angle to the horizontal whereby said pre-cut lengths of tube may roll downward along the length of the upper side of said support structure, a mechanical disc inserting mechanism at one side of said support structure adapted to insert a disc into one end of a length of tube while said tube is momentarily held stationary, a glue distributing mechanism opposite said disc inserting mechanism adapted to apply glue on the inside edge of the other end of said tube during the disc insertion, movable stop means for intermit-



tently arresting the downward roll of said lengths of tube to momentarily hold them stationary while the disc is being inserted in and the glue is being applied to the ends of the tube, a horizontally reciprocatable mandrel adjacent to said disc inserting mechanism adapted to press said inserted disc to the glue containing end of the tube after the tube has rolled down the inclined support structure past the disc inserting and glue applying mechanisms, a crimping head opposite said mandrel and mating therewith when the mandrel is at its innermost position, and motive means for operating said disc inserting mechanism, said glue distributing mechanism, and said mandrel.

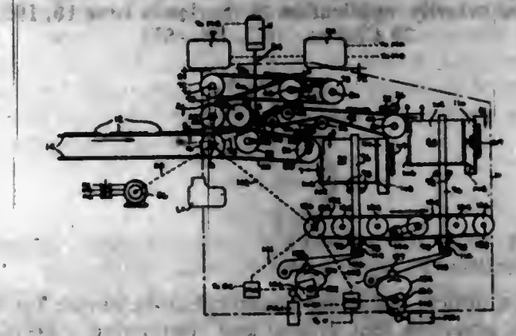
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2,769,378

## MECHANISM FOR COUNTING AND STACKING MAGAZINES AND THE LIKE

Theodore B. Jochem, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application January 2, 1953, Serial No. 329,486
17 Claims. (Cl. 93—93)



1. A device for counting, stacking in bundles, and delivering bundles of flat articles received continuously comprising, means for counting the articles as received, means for conveying said articles selectively to a plurality of collecting baskets, said collecting baskets being vertically movable from article receiving positions to delivery positions, a bundle delivery conveyor alined with said baskets and disposed below their article receiving positions for removing bundles from said baskets in said delivery positions, separate means for moving said collecting baskets from said article receiving positions to said delivery positions, and selecting means controlled by said counting means for causing one of said basket moving means to move one basket to its delivery position and back to its article receiving position while the other basket moving means holds its basket in article receiving position.

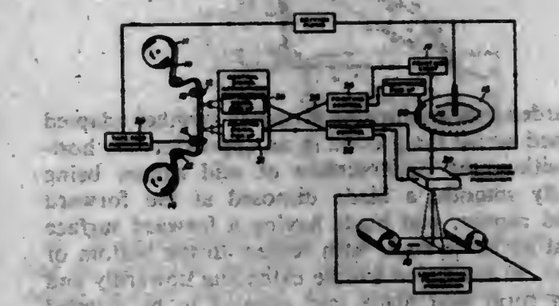


2,769,379

## CHARACTER POSITIONING MECHANISM

Walter E. Peury, Pottsville, N. J., assignor to Time, Incorporated, New York, N. Y., a corporation of New York

Application May 22, 1952, Serial No. 289,411
21 Claims. (Cl. 95—4.5)



1. In justifying apparatus, the combination of a first pair of log tape wheels carried, respectively, by one and another shafts and coupled together to provide a logarithmic motion transmission ratio from the former to the latter shaft, means normally maintaining said shafts in an initial position corresponding to the length of a line of characters, a second pair of log tape wheels carried, respectively, by one and another shafts and coupled together to provide a logarithmic motion transmission ratio from the former to the latter shaft, means for coupling and uncoupling said other shaft of said first pair and said other shaft of said second pair of log tape wheels, means operable when said other shafts are uncoupled for moving said shafts of said first pair of log tape wheels from said initial position as a function of the widths of the characters to be printed in a line, and means operable when said other shafts are uncoupled for moving said shafts of said second pair of log tape wheels as a function of the number of word spaces in said line of characters said movements when completed and said other shafts thereafter coupled together providing therethrough and between said one shafts a motion transmission ratio representing the size of justified word spaces along said line.

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2,769,380

## CAMERA SHUTTER AND FILM RELEASE

Myron S. Rapaport, New Rochelle, N. Y.

Application December 21, 1955, Serial No. 554,432
8 Claims. (Cl. 95—31)



1. A removable attachment for cameras comprising a plate, means at one end of said plate for attaching the same to a side of said camera, said side having thereon a rotatable member for advancing film in said camera and a central pin for releasing a shutter when said pin is depressed, a band for embracing said rotatable member, a coil spring having the outer end thereof attached to said band, the inner end of said spring being attached to a central stop, a ratchet fixed to said stop and a pawl on said plate cooperating with said ratchet, a central plunger mounted on said plate in longitudinal alinement with said pin and adapted to be moved transversely of said plate to depress said pin.

2,769,381

## APPARATUS FOR DAYLIGHT DEVELOPING, FIXING AND WASHING OF LIGHT SENSITIVE STRIPS

Michael Lezjak, deceased, late of Goeppingen, Germany, by Babette Viktoria Lezjak, executrix, Goeppingen, Germany

Application November 19, 1951, Serial No. 257,167
Claims priority, application Germany November 25, 1950
4 Claims. (Cl. 95—90.5)



1. A daylight developing tank for roll film strips comprising a horizontal preliminary roll film chamber, an adjacent horizontal cylindrical developing chamber for containing a treating solution, a partition between said chambers over whose upper edge the film passes during its transfer from said preliminary to said developing chamber, a light-tight cover for said tank covering both said chambers, a reversibly rotatable axle horizontally mounted in the circular side walls of said horizontal cylindrical developing chamber, said axle including a centrally located groove of a width along said axle at least equal to the width of said film strip, said groove providing a substantially flat clamping surface in a plane parallel to the axes of said axle, a clamping means mounted upon said flat clamping surface for securing the leading end of a film strip to said surface, a holding device mounted through said cover adjacent the upper edge of said partition for securing the trailing end of said film strip to said upper edge of said partition, the distance between the circumference of said axle and the surrounding inner walls and cover of said developing chamber being substantially equal to the diameter of said axle to insure consistent formation of a wandering bow upon reversed rotations of the axle, and external winding means connected to said axle for rotating said axle to draw the film strip from said preliminary chamber over said partition through said treating solution and when said trailing end of said film strip is secured between said holding device and said upper edge of said partition to form said wandering bow upon reversed rotations of said axle whereby said film strip is agitated through said treating solution.

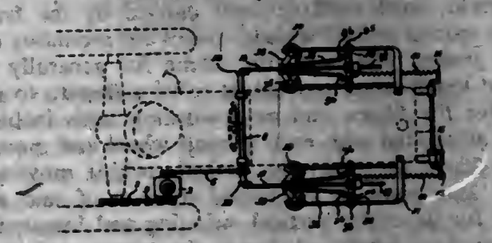
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2,769,382

## CHOPPING DEVICE

George J. Vacek, Richmond, Tex.

Application June 26, 1953, Serial No. 364,314
4 Claims. (Cl. 97—10)

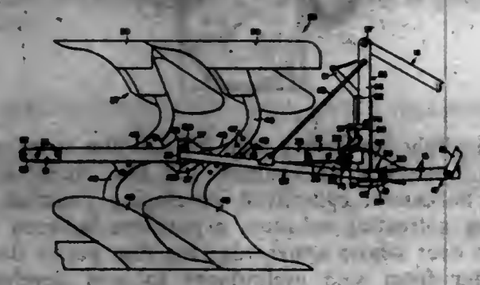


3. In a cotton chopper, a wheeled vehicle, a reciprocating beam mounted on said vehicle, a means for imparting movement to said beam, a bell crank pivotally secured to said vehicle, means for constantly urging said bell crank into one position and means on said beam for contacting said bell crank and moving same in the other direction, a pair of cutting blades mounted on said vehicle and a connecting rod between said bell crank and said cutting blades for oscillating said cutting blades and

means for selctively moving said bell crank into and out of operative connection with said beam while the chopper is in operation.

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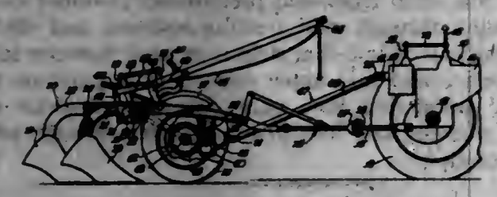
2,769,383
TWO-WAY PLOW WITH DRAFT TRANSMITTING LATCH
Herman E. Altgelt, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application June 29, 1953, Serial No. 364,787
13 Claims. (Cl. 97—24.5)



11. A two-way plow comprising the combination of a main frame, a set of right- and left-hand plows including a plow frame rotatably mounted on said main frame about a generally transverse axis, and draft-transmitting means carried by the forward part of said main frame and releasably engageable with the forward portion of said plow frame in either position of the latter in said main frame, said draft-transmitting means including hook means having a portion which is releasably engageable behind a generally vertically disposed surface on the forward portion of the plow frame for transmitting draft pull to the latter.

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2,769,384
PLOW
John Selzer, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application November 16, 1953, Serial No. 392,297
4 Claims. (Cl. 97—46.21)



1. The combination with a tractive vehicle having drive wheels and a power take-off, of a trail-bound implement having a supporting frame connected to the vehicle for lateral and vertical swinging movement relative thereto; earth-working tools carried by the frame; laterally spaced ground wheels; means for mounting each of said ground wheels on the frame for generally vertical and longitudinal movement relative thereto to raise and lower the frame and earth-working tools including an arm associated with each ground wheel and mounted on said frame for generally vertical rocking movement, a crank axle pivotally connected to each of said arms adapted for generally vertical swinging and longitudinal movement as a whole relative to the frame, said implement wheels being mounted on the crank axles, and link means interconnecting said crank axles and said frame; and means for driving said implement wheels at the same peripheral speed as the vehicle drive wheels in all positions of the implement frame relative to the vehicle comprising drive means on said implement wheels, transmission means on the frame engageable with the wheel drive means, and a driving connection between the power take-off and said transmission means.

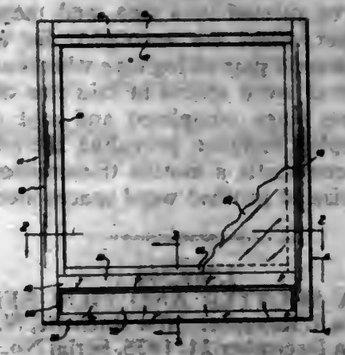
2,769,385
GARDEN TOOL
Joel A. E. Holm, Beatrice, Nebr.
Application October 19, 1953, Serial No. 386,921
3 Claims. (Cl. 97—58)



1. A garden tool comprising a runner member adapted to be pushed across the ground in an approximately horizontal position, the undersurface of said runner being substantially smooth, a blade disposed at the forward end of said runner, said blade having a forward surface disposed at an acute angle with respect to the bottom of said runner, an elongated handle extending upwardly and rearwardly form said blade and adapted to be gripped by an operator at its upper end, a resilient member attached to the upper side of said runner and curving first forwardly and upwardly and then rearwardly and upwardly therefrom, the upper end of said resilient member being attached to said handle, and in which adjustable means is provided for connecting the rearward end of said runner with said handle for adjusting the angular relationship of said handle with respect to the bottom of said runner, means securing said blade to said handle.

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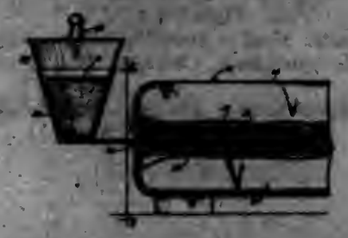
2,769,386
WINDOW VENTILATOR
George Silversmith, St. Petersburg, Fla.
Application May 11, 1954, Serial No. 428,883
13 Claims. (Cl. 98—38)



1. A window ventilator comprising an elongated hollow box positioned within the lower end of a window frame, said box consisting of an upright front wall having an upright enlarged air inlet aperture therethrough, a horizontal flange projecting inwardly from said front wall above said aperture, an upright rear wall of less height than said front wall, an upwardly and rearwardly extending bottom wall interconnecting said front wall at the bottom of its aperture with said rear wall, a horizontal top wall extending rearwardly of said front wall forming a window sill and with its rear longitudinal edge parallel to the plane of said frame being spaced forwardly of said rear wall defining an elongated air inlet opening, spaced upright supporting walls at opposite ends of said front, rear, top and bottom walls completing the box construction, a rectangularly shaped screen within said box supported at its front longitudinal edge upon said flange and secured along its rear longitudinal edge to said rear wall adjacent its lower end, and a closure plate positioned within said box slidably supported upon said side walls adjacent said top wall and movable thereunder normally closing said air inlet opening and slidable towards and away from the front wall for controlling the flow of air through said inlet opening.



2,769,387
BUTTER MELTING ATTACHMENT FOR WAFFLE IRONS AND LIKE APPLIANCES
Archie V. Panich, Lawton, Okla.
Application June 12, 1953, Serial No. 361,183
3 Claims. (Cl. 99—339)



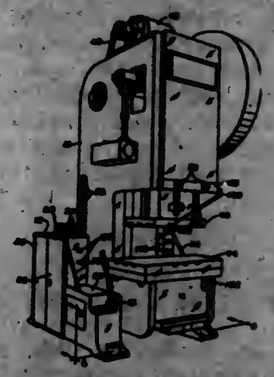
1. In an electrical waffle iron, a lower section containing an electrical heating element, a lower grid on said lower section overlying and spaced above said heating element, a flat heat conductive plate overlying said heating element and positioned between the heating element and said grid, said plate having an outer end, a heat conductive extension on said outer end projecting laterally outwardly from said lower section, said extension having an outer end, and a heat conductive outer cup mounted on and in heat conductive relation to the outer end of the extension and in laterally spaced relation to said lower section.

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2,769,388
WITHDRAWN

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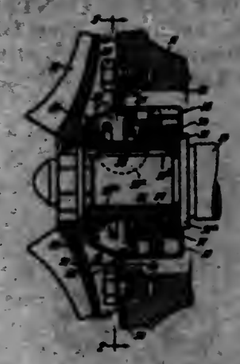
2,769,389
CABINET TYPE PRESS LEG
Reuben E. Wiseman, Minster, Ohio, assignor to The Minster Machine Company, Minster, Ohio, a corporation of Ohio
Application August 18, 1954, Serial No. 450,728
9 Claims. (Cl. 100—231)



1. A base arrangement for an inclinable press having a press frame and operating systems with components thereof on said press frame and comprising spaced leg members having means pivotally supporting the press frame therebetween, each leg member being formed to define a compartment of substantial size opening outwardly thereof to house control units of said systems mounted therein, door means hinged to said leg members for closing said compartments, flexible connecting means between said compartments, control units and components on said press frame, a tubular brace member extending transversely between said leg members and rigidly connected therewith, and the inner walls of said compartments being provided with apertures registering with the ends of said tubular brace member with said flexible connections passing therethrough and housed in said tubular brace.



2,769,390
WATER COOLED ANNULAR SEAL
Elmer F. Helmbrecht, Chicago Heights, Ill., assignor to Brunswick Seal Co., Chicago, Ill., a corporation of Illinois
Application June 2, 1954, Serial No. 433,900
2 Claims. (Cl. 103—111)



1. In a water pump seal arrangement, in combination, a pump impeller, a shaft arranged to rotate in a predetermined direction, said impeller having a hub keyed to rotate with the shaft, a sleeve of elastomeric material encircling said shaft spaced therefrom, a cover plate having a conoidal wall sealingly secured at its larger end to one end of the sleeve and at its smaller end telescoping over the hub with a clear running fit, a plurality of more than three peripheral perforations in said conoidal wall spaced circumferentially thereabout, each perforation being formed by a struck-out portion of said wall bent to provide an upstanding baffle for said perforation, said baffles being jointly disposed in a common radial plane intersecting said conoidal wall and each said baffle being disposed with its two greater dimensions lying substantially in an axial plane relative to said shaft and being on the far side of its perforation looking in the direction of rotation of the shaft, whereby, upon actuation of said impeller by said shaft, water activated thereby is circulated annularly in said direction about said conoidal wall and is directed by said baffles through said perforations into the space within said sleeve, and means at the other end of the sleeve providing a rotary running sealing engagement between said sleeve and said shaft.

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2,769,391
METHOD OF MANUFACTURING IMAGED HECTOGRAPH SPIRIT MASTER
Allan I. Roshkind, Glenview, Ill., assignor to A. B. Dick Company, Niles, Ill., a corporation of Illinois
Application November 14, 1951, Serial No. 256,250
2 Claims. (Cl. 101—149.4)

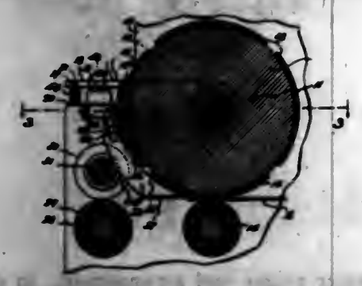


1. In the method of producing an imaged hectograph spirit master directly from an original having the reproducible portion in the form of a black letter outline containing infra red absorbing-heat generating material, the steps of positioning the original, the hectograph master sheet and a transfer sheet having a non-infra-red absorbing composition which is solid at room temperature and which is reducible to flowable condition at elevated temperatures and containing a hectograph dye in surface contact with each other with the transfer sheet adjacent the hectograph master at about ambient temperature without preheating, directing a sufficient quantity of radiations rich in infra-red onto the original substantially instantaneously to generate a temperature rise above 150° F. in the black letter outlines which reduces the composition in corresponding areas of the transfer sheet to flow-

able condition whereby the flowable material transfers to the hectograph master to provide an image thereon corresponding to the original.

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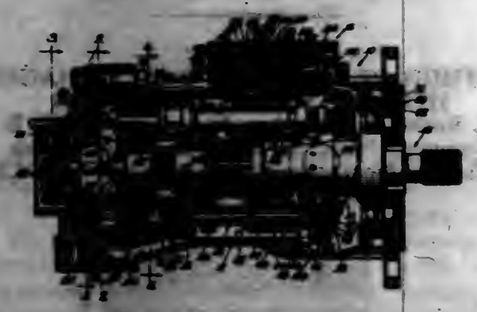
2,769,392
**PRINTING CYLINDER STRIPPING MEANS WITH STOP PRESS CONTROL**
William B. Leavens, Jr., West Orange, N. J.
Application February 15, 1955, Serial No. 488,271
10 Claims. (Cl. 101—232)



1. In a printing press the combination with a printing cylinder thereof of stripping means adjacent the discharge side of the printing cylinder including peeler blade means to engage the leading end of printed material issuing from said printing cylinder, whereby to inhibit adherence of said material to the latter and thus normally compelling said material to advance along the plane of the paper line of the press, and means to pivotally support said stripping means for movement in a path substantially concentric to the axis of said printing cylinder, whereby the same will yield to upthrusting pressure of printed material abnormally discharged from the printing cylinder with jamming effect, and whereby said stripping means can be manually displaced to give access to jamming material for removal thereof.

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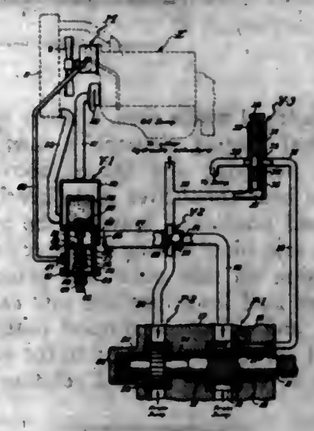
2,769,393
**HYDRAULIC PUMP AND CONTROL**
Joseph S. Carrillo and Melvin M. Hann, Rockford, Ill., assignors to Sundstrand Machine Tool Co., a corporation of Illinois
Application March 23, 1951, Serial No. 217,258
11 Claims. (Cl. 103—5)



1. In a hydraulic pump or motor having a cylinder block, a plurality of parallel cylinders annularly arranged in the block, a piston reciprocable in each cylinder, a swash plate positioned to contact the ends of the pistons for moving the pistons in the cylinders and angularly movable to vary the stroke of the pistons, and a drive shaft operatively connected to rotate the block relative to the swash plate, spring return means for the pistons comprising a semi-spherical recess formed in the end of the block adjacent the swash plate, a spring supporting member having an annular flange rockably received in the recess and a second annular flange extending substantially at right angles to the first flange, a plurality of semi-spherical openings in the second flange each surrounding a different one of the pistons, a spring seat having a semi-spherical base positioned in each opening, and a plurality of compression springs each encircling a different one of the pistons and having one end seated in a spring seat and having its other end secured to the piston for urging the piston in the direction of the swash plate.

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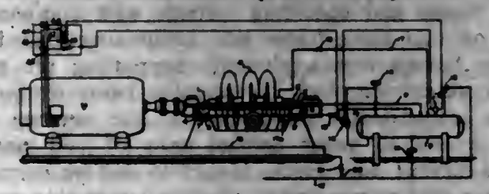
2,769,394
**POWER UNIT**
John A. Lauck, Shaker Heights, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application October 21, 1949, Serial No. 122,787
3 Claims. (Cl. 103—11)



1. In a fluid pressure system subject to variable pressure and temperature conditions, a pair of parallel connected pumps, one of which has a fixed displacement and the second of which is provided with an axially movable pressure loadable bushing, means to pressure load said bushing, said pumps having interconnected outlets, means to prevent the flow of fluid from said fixed displacement pump to said second pump, means connected in said system beyond said flow preventing means and to said second pump operable to cause an unloading of said bushing at and above a predetermined system pressure, and means connected in said system beyond said flow preventing means responsive to temperature and/or pressure providing a pressure drop in said system and thereby affecting said system connected means, said last-two-named means controlling the output of said second pump, said fixed displacement pump normally supplying the pressure requirements of said system and said second pump assisting said fixed displacement pump at requirements above normal.

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2,769,395
**LEAK DETECTOR AND PUMP CONTROL SYSTEM**
Frank W. Olson, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application April 2, 1954, Serial No. 420,725
2 Claims. (Cl. 103—12)



1. In combination with a shut-down device for a fluid moving means moving a fluid, and from which leakage of said fluid can occur, a vessel to collect fluid leaking from said moving means; means for conveying leaked fluid from said fluid moving means to said vessel; said vessel having a fluid discharge means adapted to discharge fluid therefrom at a predetermined rate to remove from said vessel fluid resulting from normal leakage; said vessel having also means responsive to the accumulation of said fluid operatively connected to said shut-down device so as to operate said device whenever the fluid in said vessel exceeds a predetermined quantity; said means responsive to the accumulation of said fluid being a pressure-actuated control upon a power source supplying power to said fluid moving means; said vessel also having a vapor vent allowing flow of atmosphere outside of said vessel into said vessel but being so constructed and arranged as to prevent outward flow of vapors, from within said vessel, above a predetermined vapor flow rate therethrough.

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2,769,396
**PRESSURE LOADED GEAR PUMP**
Francis E. Norlin, Chesterland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application September 28, 1953, Serial No. 382,682
17 Claims. (Cl. 103—126)



1. A pressure loaded type intermeshing gear pump including a housing having a pumping chamber formed therein and an inlet port formed on one side of the housing and an outlet port formed on the opposite side of the housing, said ports communicating with said pumping chamber, intermeshing pumping gears disposed in said chamber, bushings operatively associated with each of said pumping gears, at least one of said bushings being axially movable in response to application of discharge pressure to the rear surface thereof to engage the operatively associated gear side face in sealing relation, and resilient means operatively associated with said axially movable bushing for urging said bushing in a direction substantially normal to the axis of rotation of said pumping gears and towards the inlet side of said pump, said resilient means comprising a ring segment.

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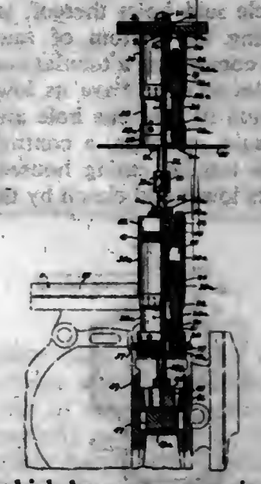
2,769,397
**COLLAPSIBLE CHAMBER FLUID HANDLING DEVICE**
William R. Bolger, Cleveland, Ohio
Application December 22, 1950, Serial No. 202,377
4 Claims. (Cl. 103—148)



2. A device for the purposes described comprising a housing, an elongated resilient normally open sleeve in the housing and spaced from opposite walls thereof, connecting means spaced apart endwise of the sleeve and supporting and holding the sleeve under tension endwise, a plurality of pairs of inflatable tubes arranged in the housing, the tubes of each pair being on opposite sides of the sleeve between the sleeve and the adjacent ones of said side walls, respectively, each pair being disposed at a different position lengthwise of the sleeve than the other pairs, and means for inflating and deflating the tubes of each pair in a predetermined timed relation to those of the other pairs.

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2,769,398
**PUMP DEVICE**
William E. Buckley, Huntington, N. Y., assignor to The Cornell Machine Company, New York, N. Y., a corporation of Ohio
Original application November 16, 1950, Serial No. 195,965. Divided and this application February 15, 1952, Serial No. 271,671
2 Claims. (Cl. 103—160)



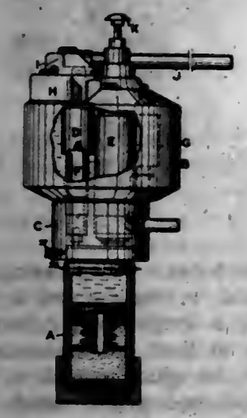
1. A pump which has a pump casing in which a rotor is turnably located to rotate about a longitudinal axis, said rotor having a longitudinal cylindrical face which is interrupted by at least one transverse port and also by a longitudinal slot which extends to the front of said rotor, a channel-shaped piston which has longitudinal arms and which is open at its front edge and which is transversely slidable in said slot of said rotor, a shuttle which fits longitudinally slidably between said arms, said casing having an internal longitudinal cylindrical face in which said rotor fits save where said rotor is thus interrupted, said shuttle having a median longitudinal recess in its front face, a front plate fixed to said casing, a lever located in front of said front plate and pivoted to and turnable relative to said front plate, a rear shuttle pin connected to said lever and extending rearwardly through an oversized hole of said front plate into said recess, said front plate being closed save where the pivot of said lever is located and save for said oversized hole, a front longitudinal pin connected to said lever and extending forwardly from said lever, an additional cover plate for said casing located in front of said lever, said additional plate being fixed to said casing, a guide fixed to said additional plate, a plunger located in said guide, said plunger having a cross-pin which has a longitudinal opening into which said front longitudinal pin extends, the turning of said lever relative to said casing determining the offset of said shuttle pin from the axis of rotation of said rotor, spring means which bias said lever to turn to a position in which said offset is a maximum, and adjusting means operative to adjust said plunger in said guide and thereby to adjust said lever against the force of said spring to a selected offset, said guide being sealed from said additional cover plate, said additional cover plate being free from ports, the offset of said shuttle pin from the axis of rotation of said rotor being regulated solely by the position of said plunger in said guide, and actuating means for moving said plunger in said guide in a selected direction, said actuating means being solely manually operated.

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2,769,399
**HYDRAULIC FEEDING UNIT**
Jean Louis Gratzmuller, Paris, France
Application October 4, 1951, Serial No. 249,748
Claims priority, application France October 9, 1950
2 Claims. (Cl. 103—223)

1. A hydraulic energy storage unit comprising, in combination with a plurality of cooperating elements

adapted to store liquid pressure and to deliver said stored liquid pressure, an assembling block for said elements having a lower end portion recessed to receive one of said elements and an upper horizontal surface provided with at least two vertical holes each adapted to receive one of two others of said elements, said elements including a liquid storage reservoir having a cylindrical side wall the lower end portion of which is joined to said upper surface so as to encircle said holes thereof, said upper surface thus constituting the bottom of said reservoir, a reciprocating pump comprising a tubular casing housed in one of said two holes so as to have its lower end closed by the bottom portion of said one hole and having inlet means opening in said reservoir, a control valve mechanism comprising a tubular casing housed in the other hole so as to have its lower end closed by the bottom por-



tion of said other hole, and a hydro-pneumatic accumulator comprising a pressure vessel having a movable partition therein dividing the vessel into a closed gas pressure chamber and an open ended liquid pressure chamber inserted in said recessed lower end portion of the assembling block so as to be tightly closed thereby, said assembling block further being provided with passageways interconnecting said lower end portion with each of said holes to conduct the liquid drawn by said pump from said reservoir to the liquid pressure chamber of said accumulator and the liquid stored by the latter at a predetermined pressure to said control valve mechanism, respectively, and an outlet duct leading from said other hole to the outside of said block, said valve mechanism being adapted to control the delivery of stored pressure liquid from said accumulator to said outlet duct.

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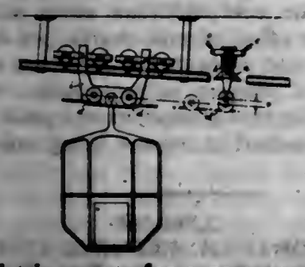
2,769,400

**ELECTRICAL TRIP MEANS FOR STOPPING PASSENGER CABLE RAILWAYS**

Georg Wallmannsberger, Munich, Germany

Original application November 28, 1947, Serial No. 788,758, now Patent No. 2,688,161, dated August 26, 1952. Divided and this application August 25, 1952, Serial No. 306,267

6 Claims. (Cl. 104—202)



1. Electrical trip means for a passenger cable railway including at least two stations comprising a cable car, a carrying cable for supporting the same between the stations, an endless traction cable for moving the car between the stations, drive means for driving the traction cable including an electric motor, said car including a running gear frame, rollers on the frame engaging the carrying cable, clamping means carried by the car for clamping the traction cable including at least one pair of jaws including a fixed jaw and a movable jaw extending laterally of the frame and operable to grip the traction cable from above and below the same, means for applying clamping force to the jaws, an arm extending from the movable jaw in a direction transverse of the line of movement of the car, a roller on said arm, a coupling-in point at the station, a lever means in the line of movement of the roller and located beyond the coupling-in point, said lever being engageable by the roller when the traction cable has not been clamped by the jaws at the coupling-in point and electrical switch means including said lever means in operative circuit relationship with said drive means for stopping the railway when the traction cable has not been clamped and the roller has engaged and moved said lever means.

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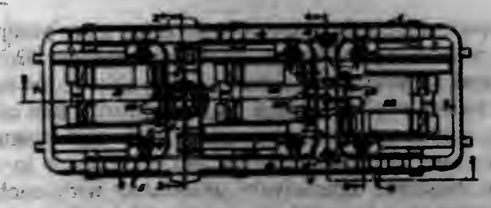
2,769,401

**RAILWAY TRUCK**

Adelbert C. Wintemberg, Drexel Hill, Pa., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware

Application January 24, 1952, Serial No. 268,834

6 Claims. (Cl. 105—59)



1. In a railway truck, three wheel and axle assemblies, a motor on each assembly, a truck frame mounted on said assemblies and having three points of support for a vehicle body, one of said supports being on the longitudinal center line of the truck and forming a center bearing support about which the truck may swivel and the other two supports being spaced apart transversely of the truck and spaced from said center plate longitudinally of the truck and over which the vehicle body may slide as it swivels about said center bearing, the truck frame forming air conduits leading to the motors, there being an axial opening through said center bearing to admit air to one of said conduits, and there being an opening through the top of the frame between the other two supports to admit air to the other of said conduits.

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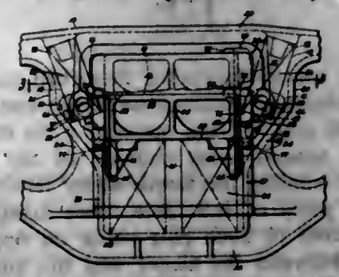
2,769,402

**CAR TRUCK**

James A. Shafer, East Cleveland, Ohio, assignor to National Malleable and Steel Castings Company, Cleveland, Ohio, a corporation of Ohio

Application April 16, 1953, Serial No. 349,198

6 Claims. (Cl. 105—197)



5. In a car truck, a side frame having a bolster-receiving opening, a bolster extending into said opening and resiliently supported on said frame, said bolster having abutment means for preventing separation of said



bolster and frame except when said bolster is in a predetermined tilted position about its longitudinal center line, said means comprising a lug extending above the top surface of said bolster.

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2,769,403

**VALVE ASSEMBLY FOR HOPPER-TYPE VEHICLES**

Joe L. Cox, Pomona, Calif., assignor to Brogdex Company, Pomona, Calif., a corporation of California

Application November 3, 1952, Serial No. 318,404

11 Claims. (Cl. 105—288)



1. In a valve assembly for discharge of flowable bulk material from a hopper-type vehicle, the combination of: a hollow valve throat member having a discharge opening; a pair of valve closure elements pivotally carried in the throat member for closing said opening and means for supporting said valve elements in closed position and operable to selectively move one valve element to open position while the other element remains closed, said supporting means including a plurality of transversely disposed spaced rollers bearing against bottom surfaces on said valve elements and movable about an axis centrally disposed between the valve elements, and said bottom surfaces including curved edge faces extending laterally inwardly from each valve closure element and cooperable with said rollers.

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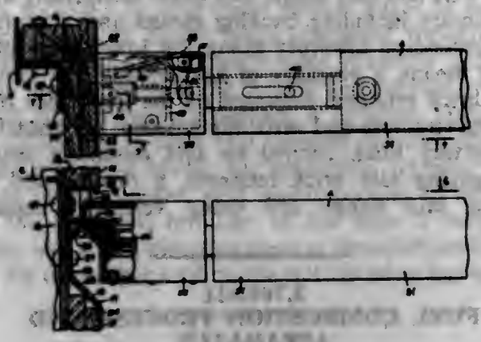
2,769,404

**ANCHORING MEANS FOR VEHICLE CARGO**

William F. Dietrichson, Garden City, N. Y., assignor to ACF Industries, Incorporated, a corporation of New Jersey

Application March 6, 1952, Serial No. 275,161

1 Claim. (Cl. 105—369)



Cargo bracing means comprising a body, hollow heads carried by and projecting from the ends of the body, anchor means on the under face of said heads, slidable locking members carried by said heads below said anchor means, spring means in said heads normally urging said locking means in a direction away from the ends of the heads, and bell-cranks pivoted in said heads, said bell-cranks operatively engaging said locking members and being accessible from the exterior of the heads for operation to retract said locking members.

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2,769,405

**DOOR OR FRAMING POST FOR FREIGHT CARS INCLUDING LADING STRAP ANCHOR**

Karl F. Nystrom, Chicago, Ill., assignor to International Steel Company, Evansville, Ind., a corporation of Indiana

Application January 7, 1952, Serial No. 265,245

2 Claims. (Cl. 105—369)



1. A composite door post and a lading strap anchor member comprising a vertically extending metallic member having a pair of substantially parallel side walls and an end wall angularly mitered at one corner thereof and a lading strap anchor member attached to the mitered corner of said metallic member and having bodily displaced portions disposed at spaced intervals along the length of said anchor member, said displaced portions being directed away from the surface of the corner of said metallic member for providing spaced openings for the passage of a lading strap between said anchor member and the mitered corner of said metallic member, said lading strap anchor member being of substantially circular section with the bodily displaced portions transversely enlarged at said spaced openings and formed on curves with which planes contiguous with the end and the side wall immediately adjacent the mitered corner of said metallic member are substantially tangent.

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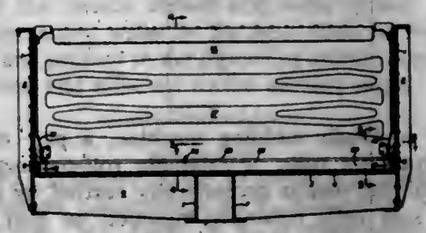
2,769,406

**COUNTERBALANCED END DOORS FOR DROP END GONDOLA CARS**

Ernest G. Goodwin, Toledo, Ohio, assignor to Unitcast Corporation, Toledo, Ohio, a corporation of Ohio

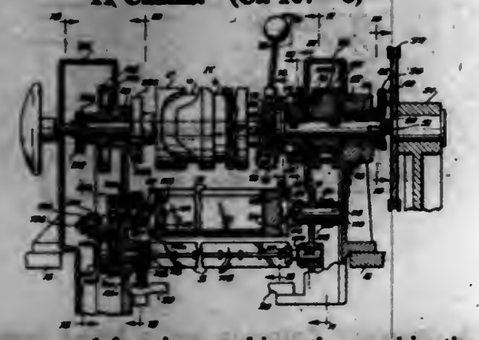
Application September 25, 1951, Serial No. 248,227

11 Claims. (Cl. 105—406)



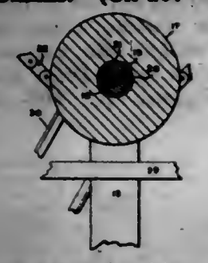
6. In a drop end door for a gondola car, said door being formed with a slot, door hinge members carried by said door, and cooperating car hinge members to be secured in position to the side walls of the car after the door has been dropped down in final mounting position in the car, the combination of a torsion bar disposed in said door and extending outwardly beyond a portion thereof, a spool disposed for partial rotation in said door and having an angular recess to receive the inner portion of said torsion rod and having a lug rigid with it and extending in said slot and movable therein in an arc and adapted to be secured in a fixed position therein incident to the final adjustment of the torque load on said torque bar.

2,769,407
**PRETZEL MACHINE**
Howard G. Allen, Niagara Falls, and Owen M. Hudson, Kenmore, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey
Original application December 29, 1945, Serial No. 638,230, now Patent No. 2,629,340, dated February 24, 1953. Divided and this application February 16, 1953, Serial No. 337,962
11 Claims. (Cl. 107—8)



1. In a pretzel forming machine, the combination with a device for delivering an elongated dough stick to a predetermined position, means for transferring elongated dough sticks transversely to said device, a driven shaft connected to and driving said means and device, a driving shaft, a driving overload, throw-out clutch connection between said driving and driven shafts constructed and arranged to throw out when an overload is placed on the driven shaft, and thereby interrupt the operation of said means and device, and a deflector member movable to a deflecting position between said means and device and operatively connected to said driving clutch connection to be moved to said deflecting position when said clutch connection yields upon an overload on said driven shaft, said deflector member being operable to divert away from said device dough sticks delivered from said means.

2,769,408
**DOUGH MOLDING APPARATUS**
Herbert C. Rhodes, Portland, Oreg.
Application October 9, 1953, Serial No. 385,042
2 Claims. (Cl. 107—12)



1. In a dough molding machine, a pair of rotating dough molding rolls, a rotatable roll-supporting shaft, roll mounting means eccentrically carried by said shaft, one of said rolls rotatably mounted on said mounting means, means for rotating said rolls towards each other at the same peripheral speed, and means for rapidly rotating said shaft and said eccentrically-carried roll mounting means independently of the rotation of said rolls, whereby the spacing between said rolls can be rapidly varied and thereby cause the dough to be subjected to rapid variations in spreading pressure during the passage of the dough between the rolls.

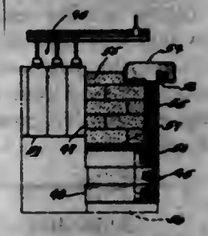
2,769,409
**CONSTRUCTION OF DOME-SHAPED ROOFS**
Walter Rutten, Plainfield, Ill.
Application June 19, 1952, Serial No. 294,380
6 Claims. (Cl. 108—32)

1. The combination with a dome-shaped silo roof of the type made up of a plurality of arcuate sector shaped roof segments having interlocking flanges, an L-shaped ring member attached to the upper end of each segment and a hoop surrounding a silo to which said dome-shaped roof is anchored about its top, of a sector-shaped door for said roof, said door pivoted at its upper end about a bolt on said ring member, a track connected to



said silo hoop adjacent the lower end of said door, said track spaced away from and generally concentric to said hoop and inclining upwardly from said hoop and means associated with said door for guiding the lower end thereof on said track, said means including a pair of brackets attached to the lower end of said door, each bracket having a loop portion encircling said track.

2,769,410
**FURNACE CONSTRUCTION, INCLUDING PORTABLE WALL PANEL**
Raymond E. Over, Mokena, Ill., assignor to M. H. Detrick Company, Chicago, Ill., a corporation of Delaware
Application December 13, 1954, Serial No. 474,809
2 Claims. (Cl. 110—1)



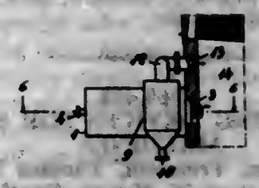
1. In a furnace having an arch and a wall adjacent one marginal edge thereof, said arch terminating in general alignment with the inner face of said wall and said wall terminating below the plane of the inner face of said arch, the combination therewith of a portable wall panel disposed in part in the wall space between the top of said wall and said plane, said panel comprising mounting structure including backing means and a horizontal flange extending inwardly along the lower edge of said backing means, a plurality of horizontally and vertically spaced brick retainers mounted on the inner face of said mounting structure and vertically adjacent horizontal rows of refractory brick carried by said mounting structure and engaging said brick retainers, a row of said brick engaging said flange and being vertically supported thereby.

2,769,411
**FUEL COMBUSTION PROCESS AND APPARATUS**
Torsten Magnus Georg Simmons, Norrkoping, Sweden, assignor, by mesne assignments, to Rosenblad Corporation, New York, N. Y., a corporation of New York
Application November 6, 1951, Serial No. 255,097
2 Claims. (Cl. 110—28)

1. In a combustion process for using fuel which yields solid components of combustion, the steps of passing the fuel and air into one end of a whirl type combustion chamber having an axial main exhaust at its other end, causing the fuel to ignite and the ignited fuel, air and combustion products to flow in a helical path toward the main exhaust, thereby causing the peripheral layer of



gas nearest the interior surface of the chamber to become enriched, under the influence of centrifugal force, with solid components, tangentially withdrawing the enriched gases from the periphery of the helical flow path in the vicinity of and in advance of the main exhaust, separating the solid components from the withdrawn en-



riched gases externally of the combustion chamber for removal from the combustion process, and passing the remaining combustion gases in the combustion chamber through the main exhaust for heating purposes, and passing the gases from which the solids components have been separated into the same heat consuming contrivance.

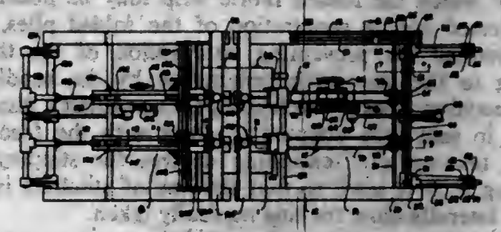
2,769,412
**PLANTER SHOE**
Otto E. Holle, Fort Wayne, Ind.
Application January 16, 1953, Serial No. 331,595
7 Claims. (Cl. 111—73)



1. A planter shoe comprising an elongated structure having front and rear ends and vertically parallel longitudinally extending sides, a forwardly projecting runner plate secured between said sides and extending rearwardly a distance short of said rear end, said sides converging forwardly inwardly and secured to opposite sides respectively of said runner plate whereby the sides will have a tapered configuration in transverse longitudinal section, said sides having upper and lower bottom edges, the lower bottom edges being disposed forwardly of the upper bottom edges, the forward portion of the shoe which includes said lower bottom edges providing a furrow-forming portion having vertically arranged outer surfaces offset inwardly from the respective sides, two depending deflecting blades provided on said upper bottom edges of said sides respectively, said blades being staggered forwardly and rearwardly and angling rearwardly inwardly and downwardly into the path of the furrow wall formed in the soil by said furrow-forming portion, a fertilizer feeding passage between said sides and opening downwardly ahead of said deflecting blades for depositing fertilizer on the bottom of the furrow, said blades serving to throw soil over the deposited fertilizer as the shoe is moved forwardly, and a seed directing passage provided between said sides for depositing seed on the soil covering the fertilizer.

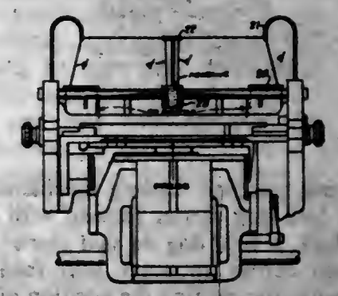
2,769,413
**CORD INSERTION APPARATUS**
Eugene Thomas Bodard, Nelson, British Columbia, Canada
Application May 4, 1953, Serial No. 352,936
19 Claims. (Cl. 112—2)

1. In apparatus for inserting cord through a cardboard blank from edge to edge thereof; a cord inserting mechanism comprising supporting means for holding a cardboard blank in a given plane, a tube slidably supported to one side of the supporting means in said plane, said tube being long enough to extend through a blank, means connected to one end of the tube for moving it forward and back past the supporting means through the blank plane, a needle extending through the tube and projecting from the free end thereof, hook means on the end of the needle protruding from the tube, said needle moving with



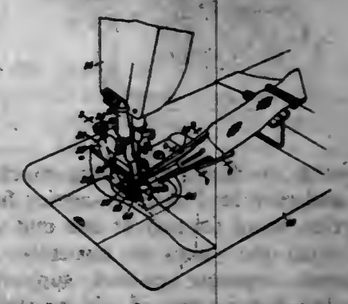
the tube, means for moving the hook relative to the adjacent end of the tube at opposite ends of each stroke thereof, and cutters on the free end of the tube projecting outwardly therefrom in the blank plane.

2,769,414
**BOOKBINDING METHOD AND MEANS**
Hugo Kalmbacher, Toledo, and Heinz Kalmbacher, Maumee, Ohio
Application October 5, 1955, Serial No. 538,655
3 Claims. (Cl. 112—21)



2. In a bookbinding machine in which successive book sections are bound together and in which a plurality of needle thread loops are forced in a row through each book section when placed in position in the machine and each of such thread loops is provided with a side loop adjacent to the outer end of its needle, and a shuttle thread loop is fed transversely through said side loops and pressed therewith against the book section being bound, the improvement comprising the provision of means for saturating the shuttle thread with an adhesive before engagement by the shuttle and squeezing some, at least, of the adhesive from the shuttle thread over the adjacent surface of the needle thread and book section by said pressing operation, whereby the next book section when placed on and pressed to the preceding section is cemented thereto along and adjacent to the binding edge.

2,769,415
**ATTACHMENT FOR BLINDSTITCHING**
Victor J. Sigoda, Great Neck, N. Y., assignor to Man-Sew Corporation, New York, N. Y., a corporation of New York
Application August 27, 1952, Serial No. 306,631
13 Claims. (Cl. 112—140)



1. In an attachment, for the production of blindstitching in conjunction with the stitchforming, thread take-

up and tensioning and feed mechanisms of a sewing machine, said attachment being provided with means for folding and guiding a fabric strip to be blindstitched, and adjacent thereto, a presser shoe having a nose over the edge of which the folded fabric strip may be positioned for selected needle penetration of the folded plies, that improvement for preventing interception of the thread leading to the last stitch penetration by the needle on its descending stroke which comprises angularly disposed means in said shoe adapted to coact with the feed and thread take-up and tensioning devices for slipping the stitching as it is sewn so that the line of stitching is displaced laterally from the line normally taken.

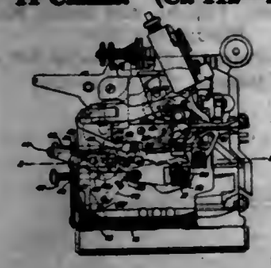
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2,769,416

## FEED CONTROL FOR SHIRRING MECHANISM

Bernard N. Pierce, West Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a corporation of Connecticut

Application November 19, 1953, Serial No. 393,203
11 Claims. (Cl. 112—209)



1. In a sewing machine feeding mechanism having a guide block, a feed dog carrier formed with a yoke slidable on said block, a feed dog on said carrier, and means for moving said carrier to move said feed dog in an orbital path, means for shifting the position of said orbital path relative to said frame comprising a rock shaft journaled in the frame of the machine, a collar on the end of said rock shaft, an eccentric stub shaft extending axially from said collar beyond the end of said rock shaft and forming a pivotal support for said guide block, and an actuating lever extending radially from said collar for turning said rock shaft to shift said stub shaft and thereby change the position of the orbital path in which said feed dog is moved.

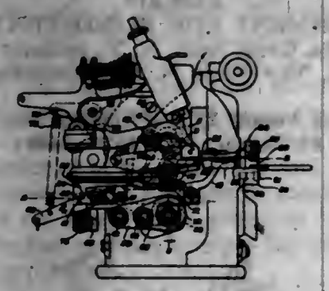
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2,769,417

## FEED CONTROL FOR SHIRRING MECHANISM

Edward R. Lamoureux, Bloomfield, and Bernard N. Pierce, West Hartford, Conn., assignors to The Merrow Machine Company, Hartford, Conn., a corporation of Connecticut

Application July 29, 1952, Serial No. 301,426
15 Claims. (Cl. 112—209)



1. In a sewing machine, a feeding mechanism comprising front and rear feed dogs, a carrier for each feed dog, each carrier being formed at one end with a yoke, blocks with which the yokes of respective carriers are slidably engaged, separate pivotal supports for said blocks, means for shifting one of said pivotal supports to change the position of its axis with respect to the axis of the other of said pivotal supports, means for independently moving said carriers to impart four-motion feeding movements to said feed dogs, the respective positions of the paths of movement of said feed dogs being determined by the relative positions of said axes, and adjustable stop means limiting the shifting movement of said one pivotal support to determine the relative positions of said orbital paths.

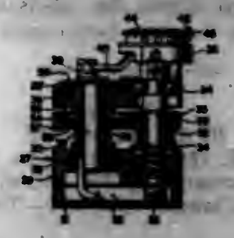
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2,769,418

## LUBRICATING DEVICES FOR SEWING MACHINES

Edwin W. Johnson, Trumbull, Thomas M. Donaldson, Fairfield, and Robert W. Hewey, Stratford, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application March 8, 1954, Serial No. 414,666
4 Claims. (Cl. 112—256)



1. In a sewing machine, a loop-taker supporting saddle, an actuating shaft journaled for rotation in said machine, a driven shaft journaled for rotation in said saddle, a train of gears connecting said actuating shaft to said driven shaft, at least one of said gears being rotatable about a substantially vertical axis and being formed of a porous material capable of conducting lubricant therethrough, an upwardly open lubricant containing recess formed in said porous gear, and means in said saddle for delivering lubricant into said recess.

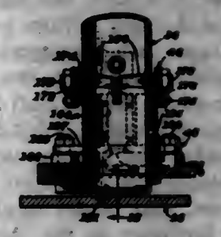
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2,769,419

## GLOSURE CAP ELEMENT FEEDING APPARATUS

Elbe A. Wilchens, Baltimore, Md., assignor to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York

Application January 6, 1949, Serial No. 69,516
12 Claims. (Cl. 113—114)



1. In a cap assembling apparatus, a base, a vertical guideway fixed to said base, a dial rotatable with respect to said base and including a circumferential series of pockets, a cap element supply tube positioned above said dial and supported on said guideway for vertical movement, a circumferential series of strikers rotatable with said dial, a cam supported by said base for rotation about a horizontal axis and including a rise and a dwell, a cam follower fixed to said supply tube and engaging said cam, a cam actuator rotatable with respect to said cam and including two circumferential series of trips, the two series of trips being spaced axially of said actuator and the trips of the respective series being circumferentially staggered, said cam actuator being movable axially of said cam so that said series of trips will be selectively positionable in the path of movement of said strikers, and means to control the position of said cam actuator with respect to said strikers.

8. In combination, a base, a cap element supply tube carried by said base, a cap element conveying means supported and movable on said base below said tube to receive cap elements therefrom, a tapping element pivoted on said base on an axis parallel with the axis of said tube, said tapping element including a pair of striker arms extending on opposite sides of said tube, and means operatively engaging said tapping element and movable with said cap conveying means to oscillate said tapping element and move said striker arms alternately toward and away from said tube to strike the latter and thereby agitate the stack of cap elements in said tube.



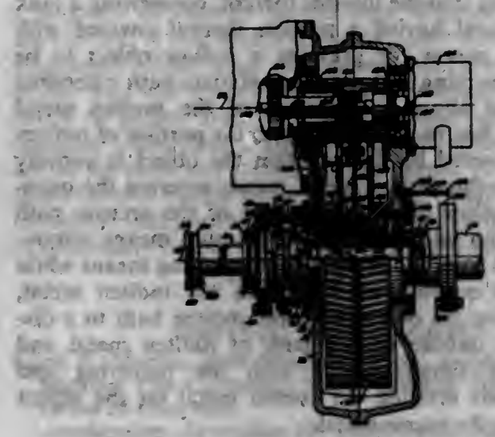
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2,769,420

## MARINE PROPULSION MECHANISM

Winthrop S. Horton, Farmington, and Carroll J. Lucia, Birmingham, Mich., assignors to Studebaker-Packard Corporation, a corporation of Michigan

Application August 31, 1953, Serial No. 377,418
17 Claims. (Cl. 115—34)



2. For use with a torque-producing source of prime power, a transmission aligned with and drivable by the prime power source and having a case provided with a transversely offset gear reduction portion, a centrally-open pinion-driven gear mounted in said offset case portion for rotation therein, a first shaft and a second propeller-connected shaft substantially coaxial therewith, said shafts extending in opposite directions from said case portion and disposed with their inner ends in spaced apart registry with respect to the central opening in the gear, a hollow box detachably carried by the inner end of said first shaft, a bed for supporting the source of prime power having a depending portion fixedly supporting the first shaft, stub shaft structure comprising a pair of detachably telescopically engaged shaft members extending into the central opening of said gear from the opposite sides thereof, torque-transmitting means supporting said stub shaft structure concentrically within such opening comprising a hub assembly splined thereto and a flexible coupling element having a portion fastened to the gear and another portion fastened to the hub assembly, the distal end of one shaft member of said pair being drivingly connected to the propeller-connected second shaft and the distal end of the other shaft member being received in said bearing box, and means in said bearing box restraining said other shaft member from appreciable movement in an axial direction relative to the first shaft so as to oppose propeller thrust reaction in the second shaft and permitting limited transverse movement of the said other shaft member within said bearing box so as to accommodate flexure-reaction-induced tilting movement of the stub shaft structure with respect to the central opening in the gear as a center.



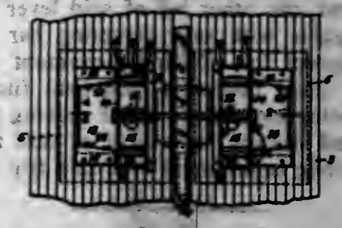
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2,769,421

## INBOARD DRIVE FOR WATER CRAFT

John Grieve, Paris, Ontario, Canada, assignor of one-half to Charles Harper, Brantford, Ontario, Canada

Application May 10, 1954, Serial No. 428,751
2 Claims. (Cl. 115—53)



1. An inboard drive for water craft comprising a base-plate provided with a central opening therethrough and adapted to be fastened to the upper side of the bottom of a boat over a like opening therethrough; a wall-provided housing forming part of said base-plate and extending thereabove and having a bottom opening in alignment with said central opening; an inner end wall of said housing; a propeller wheel journalled in and adjacent said inner end wall and operating through said base-plate, the open bottom of said housing and said boat-bottom; aligned parts at opposite sides of said base-plate, and the adjoining side walls of the housing, offset upwardly wholly in alignment with said propeller wheel thus forming an outwardly-downwardly sloping surface having at the outer side thereof a wall formed from said base-plate and said housing, the offset structure thus forming portion of the mouth of a channel; another channel comprising a bottom plate; a vertical wall at each side of said bottom of greater length than said bottom plate and extending above said bottom plate into contact with said base-plate; means whereby said wall-provided channel is attached to said base-plate over said propeller wheel and above said sloping surface to provide therewith a mouth at each end of said bottom plate through which a stream of water is forced by said propeller wheel and a channel tapered longitudinally and provided with an open under side, located in said housing laterally of said propeller wheel with its wider end at the adjacent side of said wheel to positively direct water to said wheel for the diameter thereof.

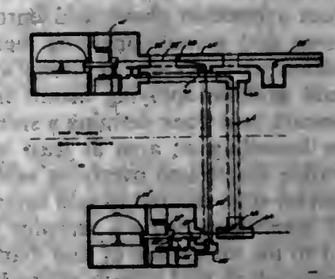
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2,769,422

## SPRING MOTOR-OPERATED FIRE ALARM

Raymond L. Jenks, Chester, Calif.

Application November 12, 1954, Serial No. 468,353
4 Claims. (Cl. 116—101)



1. In a fire alarm system, a spring wound motor, a dome-shaped bell mounted in cooperating relation with respect to said motor, a trip release operatively connected to said motor for movement from a cocked position to prevent operation of said motor to an uncocked position to permit operation of said motor and having a portion extending into said bell, a reciprocating actuating bar having one end contacting said trip release to hold it in its cocked position, spring means operatively connected to said bar for urging said bar to its contacting position to

hold said trip release in its cocked position, an L-shaped lever positioned adjacent to said bar intermediate its ends and connected at the juncture point of its legs for rocking movement about a vertical axis, and a spring biased plunger normally held under tension by a fixed connection of a heat fusible material and engaging one leg of said L-shaped lever, the other leg of said lever being operatively engageable with said actuating bar adjacent the other end thereof for effecting movement of the latter, said plunger upon fusion of said heat fusible material connection being movable to effect rocking movement of said lever and shifting movement of said actuating bar out of contacting engagement with said trip release.

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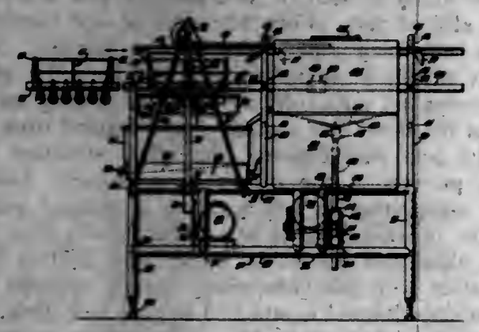
2,769,423

## CONFECTION COATING APPARATUS

Fred A. Landgraber, Sr., Fort Newark, N. J., assignor to Drumstick, Inc., Fort Worth, Tex., a corporation of Texas

Original application November 6, 1951, Serial No. 255,115, now Patent No. 2,670,897, dated March 2, 1954. Divided and this application December 23, 1953, Serial No. 399,898

10 Claims. (Cl. 118—2)



4. Confection coating apparatus for applying successive coatings of edible material to a frozen confection of the type consisting of an ice cream cone filled with hard frozen mix which protrudes beyond the cone, the protruding part being enrobed with a coating having edible granules dispersed thereupon and adhering thereto, said apparatus including a frame, and in juxtaposition upon said frame, means for enrobing the protruding fillings of such cones and means for applying edible granules to said enrobed fillings, a track extending through said frame over said enrobing means and granule applying means, a basket slidable on said track, said basket being of the cone type which suspends the filled cones in inverted position in rows from its bottom, means for moving a basket of cones from a position above said enrobing means to a position over said granule applying means, stopping it in each position to effect the enrobing and granule application, said granule applying means including frame members beneath said track defining a surround in a horizontal plane bounding an area at least as large as said basket, a flexible diaphragm overlying said surround having its peripheral edge secured to said surround, the upper face of said diaphragm being a receptor for granules, a stem secured to the under side of said diaphragm for flexing it, guides in which said stem is vertically reciprocable, a spring surrounding said stem and upwardly bearing against an abutment on said stem to resiliently bias said diaphragm upwardly, a motor, a cam rotated by said motor, said cam having a long throw followed by an abrupt descent, an arm pivoted to said frame at one end and at the other connected to said stem, said arm having means engaged by said cam for oscillating said arm to alternately compress and release said spring for dashing granules against the enrobed surface of said cones through the release pressure of said spring.

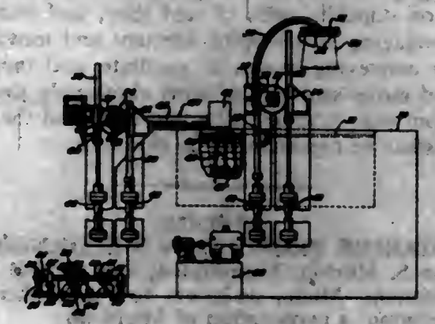
2,769,424

## APPARATUS FOR COATING METAL ARTICLES

Leslie O. Stanley, St. Clairsville, Ohio, assignor to Wheeling Steel Corporation, Wheeling, W. Va., a corporation of Delaware

Application January 31, 1952, Serial No. 269,211

34 Claims. (Cl. 118—56)



1. An apparatus for coating hollow metal objects having an opening into the interior thereof, comprising a tank of molten metal having a portion thereof covered with molten flux, means for grasping a hollow object to be coated and carrying it through an arcuate path extending from a point above the portion of the molten metal covered with flux to a point beneath the portion of molten metal not covered by flux wherein the object is entirely submerged in the molten metal, means entering the opening in the hollow object at the end of the arcuate path of the grasping and carrying means, said means removing the object from the grasping and carrying means while the object is entirely submerged in the molten metal, means carrying the object from the molten bath to a discharge point outside of the tank of molten metal and means acting simultaneously with the removing and carrying means leveling the coated metal on the object and removing the excess metal.

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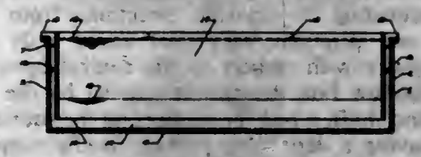
2,769,425

## LIQUID BATH ARTICLE TREATING FURNACE

Oscar R. Olson, Pittsburgh, Pa.

Application November 16, 1953, Serial No. 392,204

1 Claim. (Cl. 118—429)



A kettle structure for a bath type heating furnace comprising an outer kettle having bottom and side and end walls defining a chamber to contain heated liquid, an inner structure in said kettle having side and end walls spaced respectively from the corresponding walls of said outer kettle and defining an inner enclosure for retaining heated liquid separated from said outer chamber, a plurality of bridge members secured to the outer side of said inner wall in spaced relation to each other, each bridge member in the form of a right angle bracket having a wide horizontal leg section and a wide vertical leg section both of which stand vertically in a single plane medial to the plane of said enclosure wall to which it is attached, the width of each of the vertical leg sections correspond to the desired spacing of the inner wall from the corresponding outer kettle wall and each of said horizontal leg sections bearing on said kettle rim to hold said inner wall raised above said kettle rim.



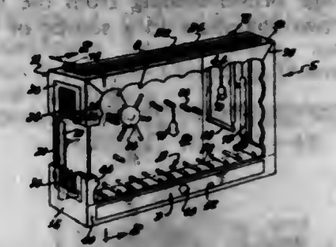
2,769,426

## PARAKEET SHELTER

Russell W. Bromley, Long Beach, Calif.

Application June 13, 1955, Serial No. 515,670

6 Claims. (Cl. 119—17)



1. A bird shelter adapted to be removably affixed to a vertical wall surface, including: a drawer adapted to receive excrement of birds disposed in said shelter; an elongate rectangular frame defined by two vertical end pieces that are rigidly connected by a horizontal top piece and a horizontal lower portion in which said drawer is slidably mounted; means disposed in the forward portion of said frame that permit the interior of said frame to be viewed but prevent the escape of said birds therefrom; a plurality of parallel spaced pegs disposed above said drawer that divide said frame into upper and lower compartments, which pegs are spaced sufficiently close together that said birds cannot move downwardly therebetween to escape from said shelter when said drawer is removed therefrom; a rigid rectangular panel extending across the rearward portion of said frame, to which panel said frame is rigidly affixed, with said panel also serving to support said pegs in said spaced relationship; and means to removably support said panel from said wall surface.

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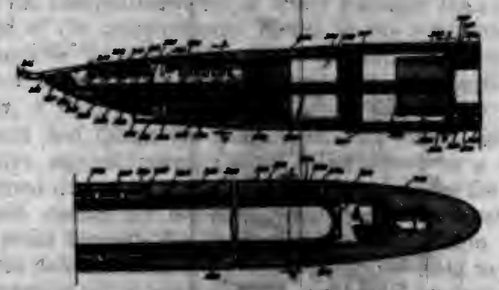
2,769,427

## WRITING IMPLEMENTS

Lynn P. Martin, Fort Madison, Iowa, assignor to W. A. Sheaffer Pen Company, Fort Madison, Iowa, a corporation of Delaware

Application November 17, 1951, Serial No. 256,897

10 Claims. (Cl. 120—47)



10. A fountain pen comprising a casing, a feed bar mounted forwardly of said casing having a longitudinal bore extending therethrough, a writing nib mounted on said feed bar, said feed bar having a transverse capillary path connecting said bore and said nib, a cartridge unit supported for longitudinal reciprocation within said casing including a reservoir section and a substantially straight filling tube rigidly secured to said section projecting forwardly thereof and extending through said bore, the forward end of said tube being movable to positions forwardly and rearwardly of the forward end of said writing nib upon reciprocation of said unit, said filling tube having a longitudinal passageway with an open forward end providing an unobstructed vent extending therethrough and having a transverse opening in the forward end thereof providing communication between the interior of said reservoir section and said transverse capillary path when said unit and the forward end of said tube are moved to a rearward position, and means for reciprocably moving said reservoir and filling tube as a unit within said casing between said forward and rearward positions.

2,769,428

## PENCIL SHARPENERS

Richard A. Ossanian, Arlington, Mass.

Application July 12, 1955, Serial No. 521,445

13 Claims. (Cl. 120—96)



1. A pencil sharpener comprising a hollow, cylindrical outer casing, a first hollow, cylindrical sleeve axially slidable within said casing, a coil compression spring in said casing resiliently urging said first sleeve toward one end of said casing, sharpening means mounted on the end of said first sleeve adjacent said one end of said casing, and a filings collector comprising a second hollow, cylindrical sleeve mounted on the other end of said casing and extending concentrically into said first sleeve and concentric with but spaced inwardly from the interior wall of said casing, said first sleeve being slidable in the space between said casing and said second sleeve and said spring being disposed in said space and acting between said other end of said casing and the other end of said first sleeve.

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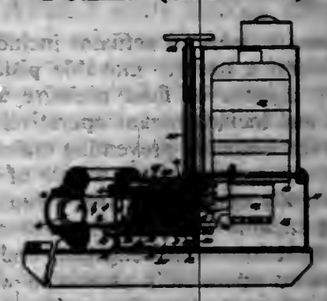
2,769,429

## HYDRAULIC DEVICE AND TRAVEL LIMIT VALVE

Louis J. Leuciani, Menlo Park, Calif., assignor to Lawrence H. Cook, doing business as Cook Research Laboratories, Menlo Park, Calif.

Application July 10, 1953, Serial No. 367,257

1 Claim. (Cl. 121—38)



In combination with a single, stationary cylinder having a first head at one end thereof and a plunger reciprocable within said cylinder with a space between said head and said plunger for liquid under pressure; a second head at the end of said cylinder opposite to said first head and said plunger having an extension of reduced diameter rigid therewith slidably extending through said second head, a spring around said extension reacting between said plunger and said second head for yieldably urging said plunger toward said first head and said second head including a portion in opposed relation axially of said cylinder to said plunger for holding said plunger in said cylinder, an outlet in said first head coaxial with said plunger and a valve element supported on said plunger in axial alignment with said outlet for movement relative thereto, a spring reacting between a portion of said

plunger and said element for yieldably urging said element to a position closing said outlet during movement of said plunger to a predetermined point away from said first head, an inlet in said first head for admitting liquid under pressure into said space, means respectively on said plunger and on said element movable into engaging relation upon movement of said plunger to and past said point for moving said element away from said outlet upon movement of said plunger past said point thereby opening said outlet, an outer wall enclosing said cylinder spaced therearound and connected with said first head and with said second head to provide a closed chamber for liquid around said cylinder, a conduit for oil communicating between said cylinder and said inlet and outlet a portion of which conduit comprises said chamber and said inlet and said outlet, an opening formed in said cylinder adjacent to said head communicating with said chamber, a valve element carried by said outer wall movable into and out of position closing said last mentioned opening for admitting liquid from said cylinder into said chamber and conduit upon actuation of said last mentioned element for movement to open position and means connected with said last mentioned element accessible from outside said wall for manual manipulation thereof, said inlet and said outlet being a common opening and said first mentioned valve element being a check valve in said conduit adapted to be intermittently opened upon liquid pressure in said conduit being greater than liquid pressure in said cylinder.

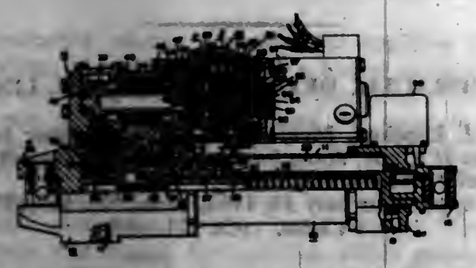
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**2,769,430**

**ACTUATOR WITH DUAL LOCKING MEANS**

Howard M. Geyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 31, 1953, Serial No. 377,534
20 Claims. (Cl. 121—40)



1. A fluid pressure operated actuator including in combination, a cylinder, a lineally movable piston disposed in said cylinder capable of fluid pressure actuation in either direction, and locking means operatively connected with said piston for normally preventing movement thereof, said locking means comprising a pair of tandem arranged, independently operable locking means, each locking means being capable of preventing movement of the piston in both directions when engaged, and fluid pressure actuated means operatively associated with each of said pair of locking means for releasing the same.

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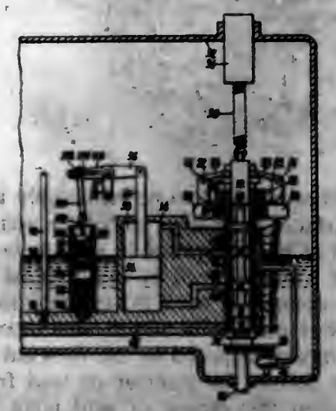
**2,769,431**

**HYDRAULIC GOVERNOR COMPENSATION SYSTEM**

Albert G. Massey, Watertown, N. Y., assignor, by mesne assignments, to Curtiss-Wright Corporation, New York, N. Y., a corporation of Delaware

Application September 27, 1955, Serial No. 536,931
15 Claims. (Cl. 121—42)

1. A hydraulic governor comprising a hydraulic pressure operated regulator member, a source of operating fluid pressure therefor, a pilot valve movable in opposite directions to connect said fluid pressure source to move said regulator member in opposite directions, a fluid pressure chamber and a piston movable directly with said pilot valve for compressing and expanding said chamber upon movement of the pilot valve in opposite directions, a compensating chamber and a piston therein movable to compress and expand said compensating chamber, said two chambers being in continuous fluid communication, an adjustable leakage orifice leading from the fluid system including said two chambers to a source of fluid under



substantially no pressure, resilient means acting on said compensating piston for yieldably tending to retain the same in a neutral position, and means movable by and with the regulator member and acting upon said resilient means to vary the neutral position of said compensating piston in response to movement of said regulator member.

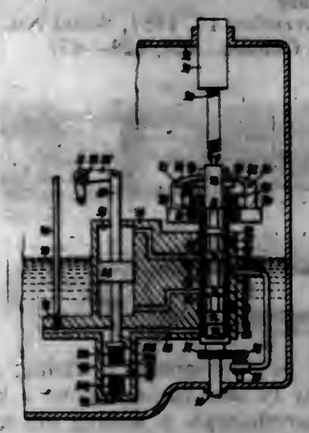
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**2,769,432**

**HYDRAULIC GOVERNOR COMPENSATION SYSTEM**

Albert G. Massey, Watertown, N. Y., assignor, by mesne assignments, to Curtiss-Wright Corporation, New York, N. Y., a corporation of Delaware

Application September 27, 1955, Serial No. 536,932
4 Claims. (Cl. 121—42)



1. A hydraulic governor comprising a hydraulic pressure regulator cylinder and a piston movable therein, a source of operating fluid pressure therefor, a pilot valve movable in opposite directions to connect said fluid pressure source to move said regulator piston in opposite directions, a fluid pressure chamber and a piston movable directly with said pilot valve for compressing and expanding said chamber upon movement of the pilot valve in opposite directions, a compensating cylinder coaxial with said regulator cylinder and a piston therein movable to compress and expand said compensating cylinder chamber, said two chambers being in continuous fluid communication, an adjustable leakage orifice leading from the fluid system comprising said two chambers to a source of fluid under substantially no pressure, normally balanced opposed springs acting against opposite sides of said compensating piston for yieldably tending to retain the same in a neutral position, a connecting rod extending from said regulator piston into said compensating cylinder and having means acting against one of said springs to vary the neutral position of said compensating piston upon movement of said regulator piston.



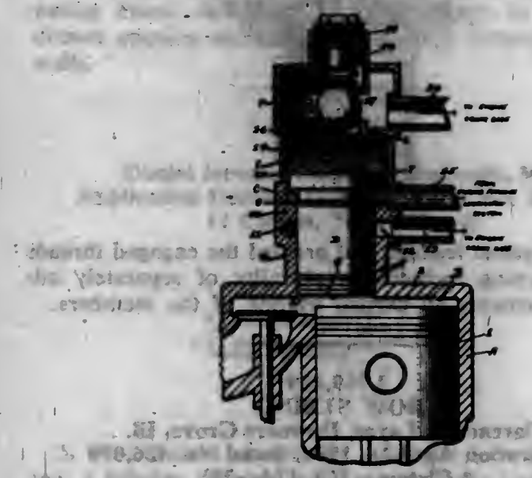
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**2,769,433**

**INTERNAL COMBUSTION ENGINE**

Ira B. Humphreys, Denver, Colo., assignor to The Humphreys Investment Company, Denver, Colo., a corporation of Colorado

Application May 11, 1949, Serial No. 92,710
8 Claims. (Cl. 123—48)



1. In an internal combustion-type engine having a combustion chamber, means for automatically increasing and decreasing the volume of the combustion space within the chamber said means comprising, a compartment having an open lower end communicating with the combustion chamber, a control piston closing the lower end of the compartment and movable therein toward and away from the combustion chamber, the upper end of said compartment being provided with an outlet opening, a valve normally closing said opening, the control piston provided with a head disposed in the upper end of the compartment but of lesser diameter than the upper end of the compartment, means in the compartment engageable by said piston head to limit the travel of the control piston in a direction toward the combustion chamber, a fluid confined in the upper end of the compartment and filling the same, yieldable means holding the valve against opening only in response to a predetermined degree of pressure exerted upon it by the confined fluid, means for delivering fluid to the compartment at a point beneath the head of the control piston, and said fluid delivery means operating to deliver fluid to the compartment at a pressure less than the highest pressure obtained in the combustion chamber.

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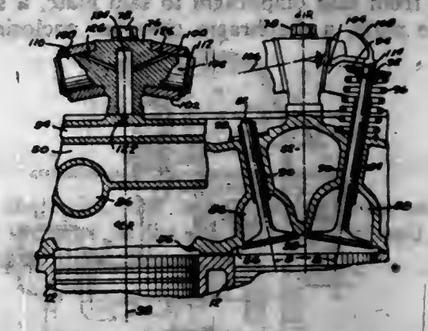
**2,769,434**

**OVERHEAD VALVE ARRANGEMENT FOR ENGINES**

Julius E. Witzky, Royal Oak, Mich., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan

Application November 4, 1953, Serial No. 390,190
15 Claims. (Cl. 123—59)

1. In an inline portion of an overhead valve engine provided with pluralities of cylinders and a cylinder head for the individual pluralities of cylinders, a cylinder included in said inline portion of one of said pluralities having a pair of valve actuating rocker arms, and having valve means individual to said rocker arms and rocker pedestal means in common to said rocker arms, stub shafts carried at the sides of said pedestal means and affixed thereto for journalling said rocker arms for oscillatory movement, said valve means and stub shafts each being of a number corresponding to said rocker arms with the axes of the former means being diagonally related



to one another and disposed substantially in the plane of the cylinders of said one plurality and the axes of the latter being diagonally related to one another.

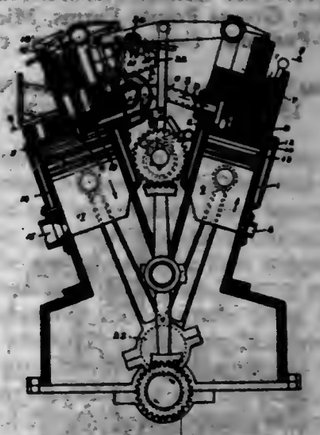
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**2,769,435**

**TWO STROKE CYCLE INTERNAL COMBUSTION ENGINE WITH PUMP COMPRESSION**

Charles E. Cass, Roseburg, Oreg.

Application February 28, 1951, Serial No. 213,109
9 Claims. (Cl. 123—68)



1. In an internal combustion engine, a power cylinder having a piston reciprocatively operative therein, an air compression cylinder having a piston reciprocatively operative therein, means providing a passage directly connecting the cylinders solely through their heads for a direct delivery of compressed air from the compression cylinder to the power cylinder, a normally closed spring-loaded pressure-controlled check valve operative in the inlet end of said passage, a normally closed spring-loaded poppet valve operative at the discharge end of said passage, an inlet port for fuel under pressure at the head of the power cylinder, a normally closed spring-loaded poppet valve operative at said fuel inlet port, and means arranged for actuation in cyclic synchronism with the movement of the piston of the power cylinder to successively open the fuel inlet valve and the air inlet valve when and after the piston has reached the limit of its stroke adjacent the head.

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**2,769,436**

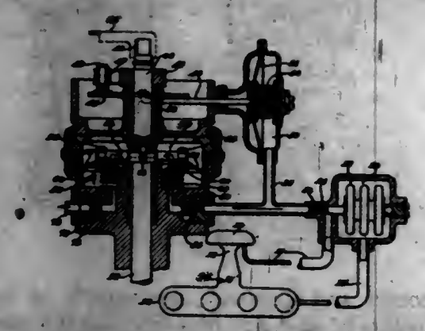
**IGNITION DEVICE**

Melvin F. Sterner, Royal Oak, Mich., assignor to Holley Carburetor Company, Detroit, Mich., a corporation of Michigan

Application October 9, 1953, Serial No. 385,177
2 Claims. (Cl. 123—117)

1. In an ignition system for an internal combustion engine, a drive shaft driven by said engine, vacuum air pump operated thereby having an air entrance and a restriction in said air entrance through which atmospheric air is admitted to said pump, a circuit breaker, a plate

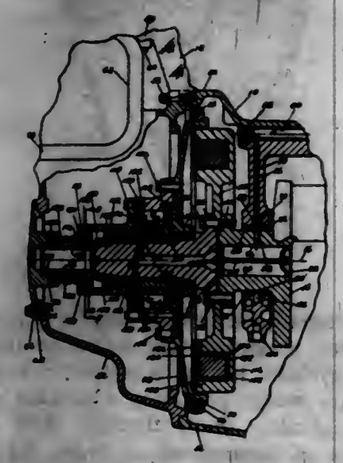
supporting said circuit breaker, a cam driven by said engine and engaging said circuit breaker, a diaphragm, a link from said diaphragm to said plate, a spring rotating the plate, a diaphragm chamber enclosing said dia-



phragm, a passage from said chamber to the suction side of said pump connected to the downstream of said restriction so that the pressure in said diaphragm chamber falls as the speed of the engine increases and the spark is advanced.

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2,769,437
STARTER GEAR MECHANISM
Ross E. Taylor, Grosse Pointe Farms, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan
Application September 1, 1954, Serial No. 453,658
15 Claims. (Cl. 123—179)

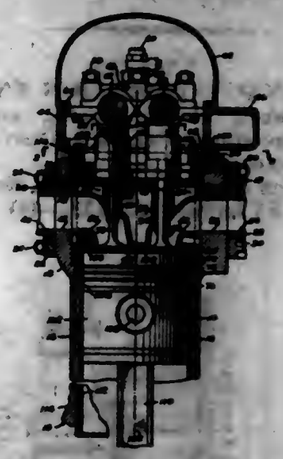


1. In combination, a starter ring gear, an engine crankshaft to be started in motion thereby and concentric therewith, and one-way means for drivingly connecting the crankshaft for rotation in one direction conjointly with the starter ring gear at all speeds of the latter tending to exceed the speed of the crankshaft comprising friction engaging elements carried by a portion of the ring gear engageable to couple together the starter ring gear and the crankshaft in non-return drive.

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2,769,438
CYLINDER HEAD RETAINER
Julius E. Witzky, Royal Oak, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan
Application December 2, 1953, Serial No. 395,734
10 Claims. (Cl. 123—193)

1. In a multi-cylinder engine each cylinder of which is adapted to receive a central liner and is provided with spaced apart shoulder and threaded portions inside one end of the cylinder, means individual to said cylinders and each including a first member internally received in the one end of one cylinder, said first member being disposed adjacent said shoulder portion and having a seal clamped therebetween, a second member in threaded engagement with said threaded portion in closely spaced adjacency to the first member, and means for separating said members under prestressed conditions so as to crush



said seal against leakage and preload the engaged threads against turning including a plurality of separately adjustable elements all carried by one of the members.

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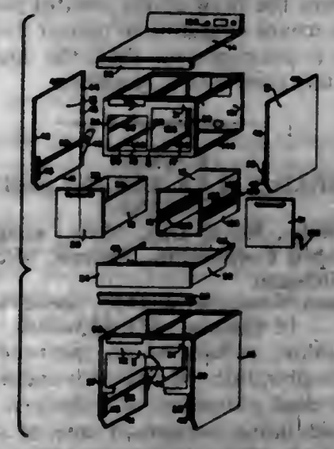
2,769,439
BOW STRING
Clarence L. Layer, Downers Grove, Ill.
Application April 28, 1954, Serial No. 426,090
4 Claims. (Cl. 124—30)



1. An archery bow string having a multistrand endless string body with a portion of the body subjected to abrasion in use and having a reinforcing tubular structure encasing the same without interference with the relative longitudinal movement of the strands to equally distribute stresses to which the bow string is subjected in use.

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2,769,440
DOMESTIC APPLIANCE
George C. Pearce, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware
Original application September 1, 1945, Serial No. 613,982. Divided and application April 27, 1951, Serial No. 223,191, now Patent No. 2,632,434, dated March 24, 1953. Again divided and this application October 21, 1952, Serial No. 315,901
2 Claims. (Cl. 126—39)

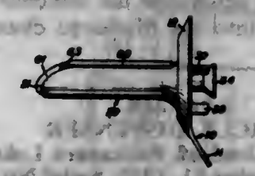


1. A range including a box shaped generally rectangular frame provided with a substantially vertical dividing wall extending substantially from top to bottom intermediate its ends to divide the interior of the frame into two compartments, support means at the ends of said frame extending to the floor, two doors located side by side closing the fronts of said two compartments and having their edges overlying front portions of said frame, a single bottom drawer extending entirely beneath said frame and said dividing wall between said support means and provided with a front having its end edges overlying said support means and having its upper edge extending substantially to but just out of contact with the lower edges of said two doors, and a range top extending over said frame, said frame extending across and being suspended by said side panels above said single bottom drawer and having the lowest portion of its center terminating above said single bottom drawer to provide a drawer opening extending continuously between said side walls.



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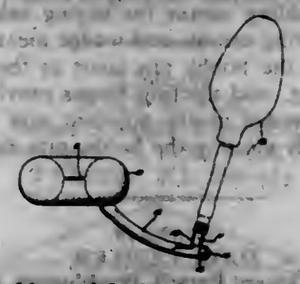
2,769,441
SPECULUM
Daniel Jerome Abramson, Bethesda, Md.
Application October 22, 1954, Serial No. 463,990
11 Claims. (Cl. 128—4)



5. A speculum comprising a handle having an opening, a tubular viewing member rotatively seated in said opening, and a deformable resilient ring pressed into said opening against said viewing member to releasably hold the handle and viewing member together while permitting rotation of the viewing member.

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2,769,442
VALVE FOR INFLATABLE PESSARIES AND THE LIKE
George Stubbs, Los Angeles, Calif.
Application May 27, 1955, Serial No. 511,592
2 Claims. (Cl. 128—127)



2. An inflatable article having a tubular rubber stem connected thereto and in communication with the interior of the article, said stem having a closed end adjacent which there is a laterally extending inlet, and a ball adapted to occupy the closed end of the stem on one side of the inlet to enable the article to be inflated through the inlet, said ball being capable of being forced across the entrance to the inlet and to occupy a frictionally held position in the stem on the other side of the inlet so as to retain the article in inflated condition.

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2,769,443
HYPODERMIC DEVICES
Russell P. Dunsmire, Cheerio Falls, Ohio
Application September 29, 1954, Serial No. 459,188
12 Claims. (Cl. 128—216)

1. A hypodermic device comprising a shell having a relatively thick, rigid, end wall and relatively thin, flexible, side walls defining a fluid reservoir, and an integrally formed annular flange on the inner surface of the end wall; a hypodermic needle having a head portion and a shank portion with a hollow bore, the head portion being secured to said end wall by said annular flange for



movement therewith, and a passageway from said reservoir into the bore of the shank portion of said needle adjacent the butt end thereof.

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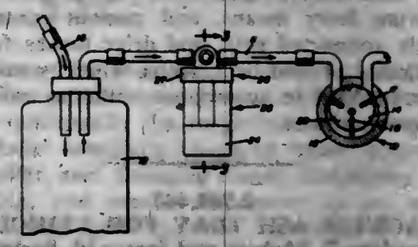
2,769,444
HYPODERMIC SYRINGE UNIT
Edward Henderson, Montclair, N. J.
Application May 17, 1952, Serial No. 288,422
11 Claims. (Cl. 128—216)



1. A hypodermic syringe unit comprising: a compressible barrel member formed with a chamber having an ingredient therein and with a dispensing aperture communicating with the chamber; a capsule containing a second ingredient to be mixed with the first ingredient disposed in said chamber and occupying only a portion of the space of the chamber, said capsule being impervious to either of the aforesaid ingredients but being frangible under manual pressure whereby the capsule can be broken to mix the ingredients; and a filter positioned between the capsule and the dispensing outlet to protect the outlet from broken fragments of the capsule.

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2,769,445
OIL MIST LUBRICATOR FOR SUCTION DEVICES
Gaetano A. Morgavi, Jr., New Orleans, La., assignor of one-half to Edward J. Hamback, New Orleans, La.
Application December 14, 1953, Serial No. 398,033
6 Claims. (Cl. 128—278)

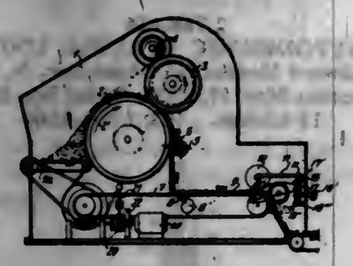


1. An automatic lubrication system comprising a suction line, a compressor connected with its suction side to the said suction line, a surgical apparatus for evacuating substances from the human body connected with the said suction line, a lubricant container filled with a lubricant, having a top portion divided into two separate compartments, one of said compartments being connected with the atmosphere by means of a restricted connection and being further connected with the bottom of the container, the other compartment being connected with the top of the container, on one side and with the suction line on the other side, air being sucked into the suction line to the last named compartment connected with the top of the container and through the first named compartment

having a restricted connection with the atmosphere through its connection with the bottom of the container, the air entering through the lubricant filling the container containing particles of the lubricant and forming a mist while drawn into the suction line.

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2,769,446
**TOBACCO OPENERS FOR CIGARETTE MAKING MACHINES**
Hans Deak, Vienna, Austria
Application May 21, 1953, Serial No. 356,392
Claims priority, application Germany June 14, 1952
3 Claims. (Cl. 131—110)

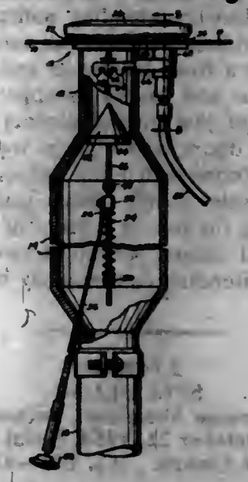


1. In a tobacco opener for producing a tobacco sliver and feeding it to a cigarette forming device, an endless sifter belt means, drive means, means operatively connecting said drive means with said belt means for driving said belt means continuously in one direction, supply means associated with said belt means for delivering a stream of tobacco to the top side of said belt means for transport by said belt means in the form of a sliver towards a discharge place, suction cup means adjacent said belt means at the underside thereof in the vicinity of the supply place of said belt means, means for creating suction in said suction cup means to act on said sliver through said belt means, a series of rollers arranged coaxially and extending transversely above said belt means, pivoted levers for each of said series of rollers adapted to support the same so that the rollers will rest on said sliver, sliver thickness indicator means, fulcrum lever means operatively connecting the levers of said rollers resting on the sliver with said indicator means to cause said indicator means to move in one direction when the thickness of the sliver passing beneath said series of rollers resting thereon increases and in the opposite direction when said thickness decreases, said fulcrum lever means being fulcrumed intermediate its ends and the levers of said rollers operatively engaging the ends of said fulcrum lever means, and manual control means operatively connected with said drive means for control of the velocity of said belt means, whereby said velocity may be controlled in accordance with the indication on said indicator means.

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2,769,447
**VACUUM ASH TRAY FOR VEHICLES**
Theodore E. Moberg and James M. Seckman, Tacoma, Wash.
Application January 21, 1955, Serial No. 483,235
3 Claims. (Cl. 131—256)

1. A vacuum receiver for smokers' material comprising an extinguishing chamber having a mouth for the reception of the material, a substantially air-tight cover superimposed over the mouth, hinge means for attaching the cover to the chamber, conduit means communicating with the chamber and adapted for attachment to a source of vacuum, valve means in the conduit means operable by movement of the lid, a discharge chamber below and communicating with the extinguishing chamber, and discharge valve means releasably sealing the extinguishing chamber from the discharge chamber and operable in one position to seal the discharge chamber from the extinguishing chamber for evacuating the latter and in



a second position to discharge the contents of the extinguishing chamber into the discharge chamber.

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2,769,448
**ARTICLE DISPENSER**
Raymond A. Uhlendorf, Pachaquack Lake, N. J.
Application December 11, 1953, Serial No. 397,699
11 Claims. (Cl. 132—1)



1. In a bobby pin dispenser of the class described, a housing for receiving a supply of bobby pins and comprising a plurality of bounding walls one of which is resilient, a track in said housing for receiving the bobby pins, ejecting means for dispensing the bobby pins from the housing, yielding means for urging said bobby pins toward said ejecting means, and wedge means for spreading the tines of the bobby pin apart as they are ejected from the housing, said ejecting means moving the bobby pins past said wedge means adjacent said resilient wall and automatically ejecting the bobby pins from the housing.

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2,769,449
**HAIR CURLER**
James Vincent Portell, Washington, D. C.
Application August 18, 1953, Serial No. 374,982
6 Claims. (Cl. 132—42)

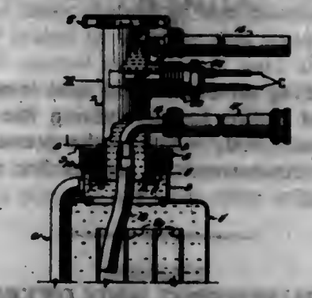


1. A curler comprising a substantially circular base having a generally flat lower surface and a generally concave upper surface with the medial point of said upper surface being closer to the lower surface than the outer perimeter thereof, a central column positioned on said upper surface and extending upwardly therefrom, said column having a longitudinal central chamber open at both ends, opposed slots extending through said column from the outside to said chamber, said base having a central opening extending therethrough in alignment with one open end of said chamber, said base having slots formed in the outer perimeter each of the latter slots being in substantial alignment with one of the first mentioned slots, means forming spaced upstanding projecting elements adjacent the outer perimeter of said base intermediate the slots thereon, a clamping device removably in clamping engagement with said base intermediate said column and at least two of said projections, and a resilient tensionable element removably retained in said column and extending downwardly through said base and being capable of being positioned in said slots in said base and having frictional engagement with said slots in said column.



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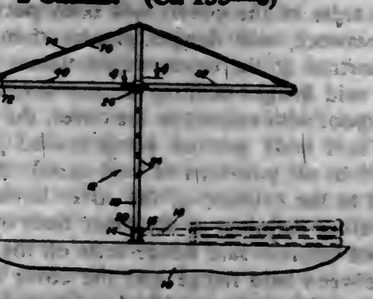
2,769,450
**ENGINE COOLING SYSTEM CLEANER**
Harold T. Colby, Cudahy, Wis.
Application September 10, 1951, Serial No. 245,775
1 Claim. (Cl. 134—57)



A cleaning device for attachment to the filling neck of a radiator in the cooling system of an internal combustion engine provided with a fluid circulating pump, said device comprising a tubular fitting, a removable cap for the upper end of said fitting, means for attaching the lower end of said tubular fitting on the filling neck of said radiator, ducts at the upper and lower ends of said fitting for introduction and discharge of a flushing liquid into the radiator, one of said ducts adapted to extend down into the body of the radiator, a thermostatic switch extending into said tubular fitting, and means operatively connected to the thermostatic switch and operative in response to the operation thereof to interrupt the ignition system of the engine to prevent overheating of said cleaning fluid.

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2,769,451
**BOAT SHADE**
James O. Edgin, Edna, Tex.
Application August 19, 1954, Serial No. 451,002
2 Claims. (Cl. 135—6)



1. A boat shade comprising a substantially U-shaped support member including a pair of spaced legs interconnected by an upper cross member, a pair of brackets slidably adjustably mounted on said legs, a pair of U-shaped arms, each of said arms being pivotally attached to said brackets, and a covering secured to said arms and overlying said upper cross member, and means for locking said brackets in a selected position relative to said legs, said means for locking each bracket including an actuation member threadedly secured in said bracket, a latch pivotally mounted in said bracket engaged by said actuation member, and a plurality of spaced apertures in said legs, said actuation member urging said latch into a selected one of the apertures in said legs, and a spring attached to said latch for retracting said latch from said selected one of said apertures, each of said brackets including pairs of spaced ears, said arms being received between said spaced ears.

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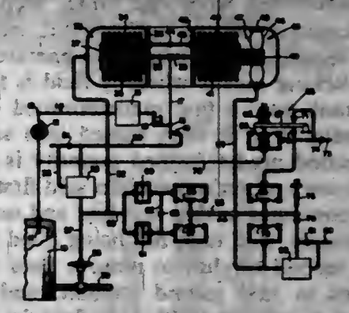
2,769,452
**WEIGHT AND VALVE STEM ASSEMBLIES**
Walter L. Gill, Redlands, Calif.
Application June 1, 1953, Serial No. 512,530
5 Claims. (Cl. 137—39)



1. In combination a valve stem of the character described comprising a rubber body portion and a lower acid resistant metal portion, said metal portion comprising a valve head upon its lower end, a protuberant head upon its upper end and an intermediate abutment, the upper portion of the rubber body portion being solid and provided with spaced upper and lower laterally protuberant integral abutments, the metal portion above its abutment, entering and lying axially within the rubber portion with the lower end of the rubber portion in contact with the upper face of the abutment of the metal portion of the stem.

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2,769,453
**SELF ADJUSTING PNEUMATIC CONTROL APPARATUS**
Robert C. Du Bois, Fairfield, Conn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 8, 1954, Serial No. 461,102
15 Claims. (Cl. 137—86)



1. Apparatus for regulating a variable comprising a controller for producing an output control action which follows proportionally the magnitude of an input variable, controller sensitivity changing means connected to said controller, said changing means comprising a pneumatic spring, and means responsive to an aperiodic variation of the input variable connected to supply a pneumatic pressure to said fluid spring to increase the sensitivity of said controller.

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2,769,454
**PRESSURE CONTROL FITTINGS**
Ralph E. Bletcher and Irving A. Ward, Los Angeles, Calif., assignors to Modern Faucet Mfg. Co., Los Angeles, Calif., a corporation of California
Application January 13, 1954, Serial No. 403,762
3 Claims. (Cl. 137—119)

1. A pressure control fitting for use in a chamber having a pair of opposed outlets and an inlet comprising: a shoulder formed in the first outlet, a carrier projecting from the second outlet and terminating short of said

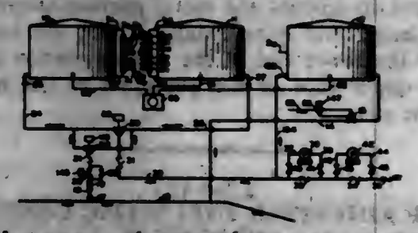
shoulder, a wafer having a surface bearing against said shoulder and spaced legs engaging the upper extremity of said carrier whereby flow is permitted from outside



said carrier to the interior thereof, means forming a bore in said wafer communicating said first and second outlets and valve means responsive to flow through said second outlet for closing off said bore.

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2,769,455
TANK SWITCHING SYSTEM
Phillip S. Massey, Dewey, Okla., and Robert C. Reilly, La Junta, Colo., assignors to Phillips Petroleum Company, a corporation of Delaware
Application December 21, 1953, Serial No. 399,341
11 Claims. (Cl. 137—122)

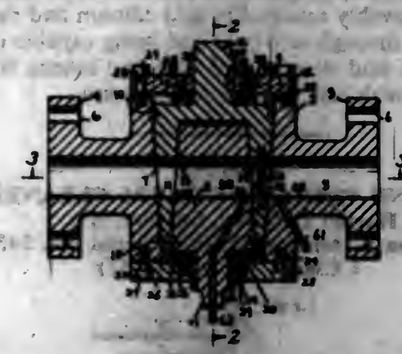


1. Fluid storage and removal apparatus comprising, in combination; first and second storage tanks; a first conduit adapted to pass fluid to be stored into said tanks; first switching means to connect said first conduit selectively to said first and second tanks; a second conduit adapted to remove fluid from said tanks; second switching means to connect said second conduit selectively to said first and second tanks; means to operate said first and second switching means whereby fluid is first passed into said first tank until a first predetermined quantity is positioned therein, fluid is then passed into said second tank until a second predetermined quantity is positioned therein, fluid is once again passed into said first tank, and said switching continues so that said first and second tanks are filled alternately, said tank not being filled being connected to said second conduit to remove fluid therefrom; pumping means in said second conduit; and switching means actuated by the quantities of fluid in said tanks whereby said pumping means is actuated when the fluid in said tank to which said second conduit is connected exceeds a predetermined quantity.

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2,769,456
COMBINATION PLUG VALVE AND ORIFICE HOUSING
Roy L. Atkinson, Pasadena, Tex.
Application July 12, 1955, Serial No. 521,480
5 Claims. (Cl. 137—268)

1. A combination valve and orifice support including a body having an aperture extending longitudinally therethrough, means on each end of said body for securing it in a flow line to communicate the aperture with the flow line for flow through said body, said body having an opening extending laterally thereof and intersecting said aperture substantially mid-way between the ends thereof, inner and outer concentrically arranged plugs fitting within said opening, each of said plugs having a stem whereby they may be rotated relative to each other and relative to said body, said plugs each having openings therethrough of substantially the same size as the aperture in said body, said outer plug having orifices mounted therein for directing fluid from said aperture therethrough, there being an opening through said valve body for conducting the fluid pressure upstream of said orifice exteriorly of said



body, there being an opening in said inner plug downstream of said orifice for conducting the fluid pressure exteriorly of said body whereby the pressure differential upstream and downstream of said orifice may be instrumentally noted.

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2,769,457
COMBINED VENTING AND OVERPRESSURE RELEASE VALVE
Edward H. Wittenberg, La Crosse, Wis., assignor to National Presto Industries Inc., Eau Claire, Wis., a corporation of Wisconsin
Application June 1, 1953, Serial No. 358,811
7 Claims. (Cl. 137—512)



2. A combined venting and over-pressure release valve for pressure cookers having an aperture in the cover thereof, comprising a resilient spool including a body portion of a size smaller than the aperture to be movably received in the aperture and a pair of flanges of a size larger than the aperture extending outwardly from the opposite ends of said body portion to be disposed to the opposite sides of the cover, said body portion being of a length between said flanges greater than the thickness of the portion of the cover within which the aperture is formed, said flanges defining normal limits of movement of said spool with respect to the cover, the peripheral surface of said body portion being spaced from the aperture wall in all positions of said spool, the flange to be disposed to the exterior of the cover having an irregular inner surface defining, at the inner limit of movement of said spool wherein said flange rests on the cover, air passages between said flange and the cover communicating with the space between said body portion and the aperture wall, the flange to be disposed to the interior of the cover being spaced from the inner surface of the cover at the inner limit of movement of said spool, the last-named flange being flexible and responsive to a predetermined range of pressures in the cooker to move said spool to its normal outer limit of movement and to force the inner surface of said flange into sealing engagement with the inner surface of the cover, said last-named flange being flexible and responsive to pressures in the cooker in excess of a predetermined maximum to be flexed and ejected from the cooker cover, the spacing of the peripheral surface of said body portion from the aperture wall accommodating said flexing.



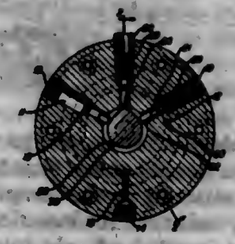
2,769,458
PUMP CHECK VALVE
Herbert L. Misch, Royal Oak, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan
Application October 28, 1952, Serial No. 317,285
5 Claims. (Cl. 137—512)



5. A valve device comprising a housing having two spaced apart inlets and an outlet communicating with the interior thereof, said outlet including a slot formed annularly about the inner surface of said housing, a U-shaped valve member seated in said slot and comprising one flat portion seated against one side of said slot and a bow shaped portion engaging in part with said other side of said slot whereby the flat portion of the valve can interrupt the communicating relation from one inlet to the outlet and the bow shaped portion can permit continuous communicating relation from the other inlet to the outlet.

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2,769,459
MULTIPLE SELECTOR VALVE
Harold A. Birkness, Homewood, and John P. Segers, Riverdale, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application March 2, 1953, Serial No. 339,647
3 Claims. (Cl. 137—607)



1. A multiple selector valve comprising a valve body of the disc type, a central hub on one face of said body, a central recess in said body below said hub, an axial bore through said hub communicating with said recess, a plurality of radially extending bores radiating from said central recess, a shoulder in each of said bores intermediate the ends thereof, a valve seat on each of said shoulders, a fluid distribution channel on the rear face of the valve body concentric with said central recess and communicating with all of said radial bores, an outlet channel means in said body communicating with said distribution channel, a backing plate for said valve body enclosing said annular channel and said central recess, gasket means between said backing plate and said valve body arranged concentrically with and radially beyond said distribution channel, a valve plug in each of said radial bores comprising a valve rod extending radially inward of said valve seat and into said central recess, a valve ring on said valve rod adjacent one end thereof and adapted to be seated on said valve seat, a flanged head on said valve rod on the outer end thereof adjacent said valve ring, a compression spring means acting on said head normally to retain said valve ring in contact with said valve seat, a cam means operating within said central recess, and a cam shaft means for rotating said cam to radially extend said valve rod whereby said valve ring is lifted from said valve seat against the action of said spring.

2,769,460
PIVOTED GATE VALVE
Frank H. Richterkessing, near Louisville, Ky., assignor to W. M. Cissell Manufacturing Company, Incorporated, Louisville, Ky., a corporation of Kentucky
Original application March 6, 1950, Serial No. 147,943. Divided and this application September 8, 1952, Serial No. 308,492
3 Claims. (Cl. 137—625.4)



1. In a vacuum spotting board, a suction control valve comprising a pair of oppositely ported valve plates having relatively spaced opposed parallel surfaces, and a movable valve element having the external surfaces thereof exposed to atmospheric pressure and including a first valve section pivoted to one of said plates for swinging movement between both of said plates and across the ports thereof, said valve section having a bore therethrough for registry with the port in said one plate in one position of said valve element and being closed by said one plate in a second position of said valve element, a second valve section having a bore therethrough for registry with the port in the other of said plates in said one position of said valve element, a sleeve connected to one of said sections in communication with the bore therein and slidably disposed in the bore of said other section, and an annular gasket of resiliently axially compressible material disposed about said sleeve between said respective valve sections urging said sections into resilient engagement with said respective plates while also providing a fluid seal between said respective sections.

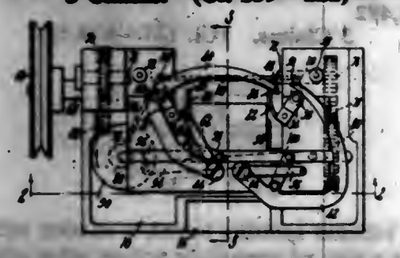
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2,769,461
LOOM HARNESS
Frank H. Kaufmann, Huntingdon Valley, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
Application July 28, 1955, Serial No. 524,953
5 Claims. (Cl. 139—92)



1. In loom harness including a heddle frame having top and bottom rails and heddle supporting rods comprising thin flat metallic strips mounted in said frame, said rods being insertable therein and removable therefrom by sliding lengthwise, the means for supporting said rods intermediate the ends thereof comprising the provision, at each location, of a member secured to the rod, and a separate bolt member adjustably mounted in one of the rails of the frame; one of said members having a substantially U-shaped slot therein and the other of said members having a part extending into said slot to secure said members to each other, said members being separable upon sliding the rod lengthwise, and means for normally maintaining said members in locked engagement, the U-shape of the slot providing a spring tongue having a portion resiliently engaging the part which extends into the slot and maintains a constant pressure thereon when the parts are in their operative positions.

**2,769,462**
**NARROW WEB LOOM**
Carl F. Libby, Stoughton, Mass., assignor to John D. Riordan, Hopkinton, and Gertrude C. Libby, Stoughton, Mass.
Application July 27, 1955, Serial No. 524,667
3 Claims. (Cl. 139—122)



1. In a narrow web loom having shed-forming means, a needle on each side of the shed reciprocable a short distance forward and rearward, each said needle having an eye near its free end for a weft yarn, a weft-projecting finger at each side of the shed, each said finger having a forked end adapted to pick up a loop of weft yarn from the needle on the same side and to project said loop through the shed to the needle at the other side of the shed, and means for operating said needles and fingers in timed relation so that said needle at the other side of the shed is moved to project its loop through the loop brought through the shed by said finger just before said finger is retracted from the shed.

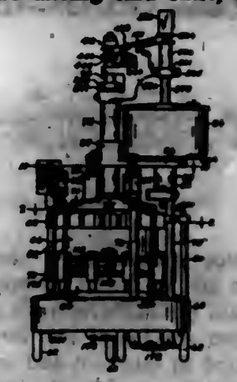
**2,769,463**
**LOOM STOP DEVICE**
Robert Blaise Delaney, Darien, Conn., assignor to Bates Manufacturing Company, a corporation of Maine
Application July 17, 1953, Serial No. 368,743
15 Claims. (Cl. 139—228)



1. In a loom for interposing a filling between selected warp ends and including an actuatable filling change mechanism and an actuatable loom stopping mechanism, a device comprising a filling detecting means movable when a filling is missed, a dog adjustable to either of two positions and movable bodily in response to the movement of said detecting means, said dog actuating said loom stopping mechanism when disposed in one position and actuating said filling change mechanism when in another position, means to detect the approaching exhaustion of the filling and then to actuate said filling change mechanism, and means responsive to said means when the latter actuates said filling change mechanism to move the dog temporarily from said one position to said other position.

**2,769,464**
**CONTAINER FILLING APPARATUS**
Herbert F. Cox, Jr., Syracuse, N. Y.
Application December 10, 1951, Serial No. 260,873
46 Claims. (Cl. 141—86)

1. A container filling apparatus, comprising a base having an upstanding circular housing, a circular skirt arranged around the upper portion of said housing, an annular thrust bearing coacting between said skirt and housing for supporting the skirt for rotation around the housing on a vertical axis, a central hollow column mounted on said housing and projecting upwardly beyond the housing and skirt, a reciprocating actuating bar slidably mounted in said column and projecting beyond the upper end thereof, drive means within said housing for periodically angularly advancing said skirt, and actuating said



bar, means carried by said skirt for supporting a plurality of containers to move said containers in a circular path about said column, and means mounted on said column and overhanging said skirt and having mechanism actuated by said bar for filling containers carried by said skirt one at a time between periodical advancing of said skirt.

**2,769,465**
**STORAGE BATTERY WATERING DEVICE**
Gerald E. Maybach, Bowmansville, N. Y., assignor to Gould-National Batteries, Inc., St. Paul, Minn.
Application November 22, 1954, Serial No. 470,366
5 Claims. (Cl. 141—96)



5. A watering device for a storage battery having a filler opening and a hinged cover therefor formed with a horn portion, said watering device comprising a filler tube, a nozzle carried by said tube for insertion into the battery filler opening, said nozzle and said tube being arranged at substantially a right angle to each other, means providing an enlarged abutment adjacent the juncture of said nozzle with said tube for engaging the battery adjacent the filler opening when said nozzle is inserted therein, and means providing a socket portion at the outer end of said nozzle for engagement with the cover horn portion to tilt the cover to open position, said nozzle being provided with an angularly arranged slot in its side wall intermediate the opposite ends thereof, whereby said device will direct water into the battery so as to cause distinguishable audible signals under battery liquid low-level and high-level conditions.

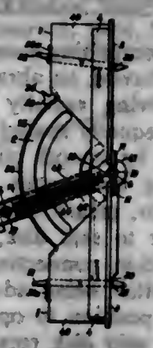
**2,769,466**
**LATHE ATTACHMENT**
Frank J. Brunsch, West Camp, N. Y.
Application July 8, 1954, Serial No. 442,830
6 Claims. (Cl. 142—7)



1. An attachment for a lathe having work supporting and rotating centers comprising a base slidably mounted on the lathe ways, a tool carrier slidably mounted on said base, a tool post mounted on said carrier for supporting a tool, a longitudinal bar secured to the lathe ways in spaced parallel relation thereto for supporting one end of said base, a longitudinal guide means mounted in spaced relation to the lathe ways, and follower means on said carrier and engaging said guide means for moving said carrier in transverse relation to the lathe ways thereby moving the tool post and tool in relation to the work positioned over the lathe ways upon longitudinal movement of the tool carrier.

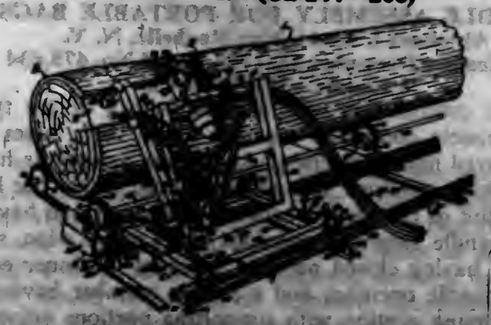


**2,769,467**
**MITER BOX WITH SWINGING SAW GUIDE**
Walter Wehrmann, Zurich, Switzerland
Application October 15, 1952, Serial No. 314,765
Claims priority, application Switzerland October 17, 1951
3 Claims. (Cl. 143—89)



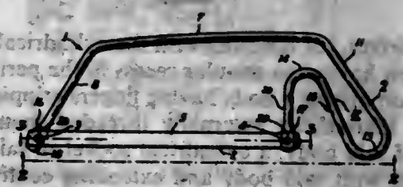
1. A mitre box for adjusting a saw-blade at different angles to a work piece, comprising a base plate, a stop and guiding plate for the work piece, a graduated disc, a saw-blade adjusting lever rockable over said graduated disc, two guiding members fixed on said adjusting lever, one of said guiding members having its axis of rotation in the plane of said stop and guiding plate, said adjusting lever having a four-link hinged frame arranged beneath the base plate, for fixing said adjusting lever at any desired angle to said stop and guiding plate, the frame links being connected by a front pivot, a back pivot and two lateral pivots, a sliding device connecting the front pivot with said adjusting lever, the back pivot being rigid with said one of said guiding members, the two frame links connected to said back pivot having grippers at their respective ends, and two spring-influenced lockable setting levers rockably fixed beneath said base plate, said grippers being adapted to engage said setting levers respectively.

**2,769,468**
**LOG BARKER HAVING FLOP-OVER CUTTERHEAD**
Willis R. Swanson, Wichita, Kans., assignor to The Rennels & Porter Lumber Company, Inc., Wichita, Kans., a corporation of Kansas
Application January 13, 1953, Serial No. 330,946
17 Claims. (Cl. 144—208)



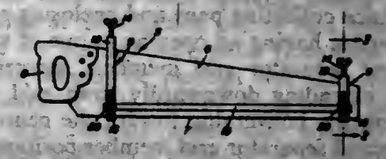
1. In a log barker, a frame, a debarking head rotatably mounted thereon, said head having a cylindrical casing equipped with a plurality of knives extending radially therefrom and oriented in spaced circumferential rows, said knives also being staggered and angularly disposed relative to said head so that the cutting edges of said knives, when a profile is taken thereof along a longitudinal line on said casing substantially parallel to the rotational axis of said head with a knife in each row assumed to be positioned on said line, form a generally arcuate configuration, whereby upon operation of said log barker, a swath of bark is chipped from a log, and means for adjustably controlling the angular position of said frame for setting the depth of cut made by said knives.

**2,769,469**
**RESILIENT ROD SAW FRAME**
John A. Budnick, Cleveland, Ohio
Application February 7, 1955, Serial No. 486,500
3 Claims. (Cl. 145—33)



1. An integral one-piece saw frame for a longitudinal hack saw blade having an attaching hole at each end thereof and having flat side faces located in parallel planes, said frame comprising a single relatively stiff resilient metal rod of substantially uniform cross-sectional area throughout its length forming a longitudinally-extending back member that is curved at each end to form a leg at one end thereof and a handle and leg at the opposite end thereof, said legs being aligned so that the axes thereof are located substantially in a single plane and extend generally transversely to said back member, each of the ends of said legs remote from said back member being provided with a blade-attaching lug projecting outwardly in a direction substantially perpendicular to said single plane and a substantially flat surface around said lug adjacent to and substantially parallel to said single plane for engaging one of said flat side faces of said blade around the margin of one of said holes therein, the lugs on the ends of said legs extending in opposite directions away from said single plane and being constructed to fit in said holes and to hold the opposite side faces of said blade against the flat surfaces of said legs, said lugs being spaced apart longitudinally of said back member a distance greater than the distance between said holes when said frame is in the normal unstressed condition so that a substantial tension will be applied to said blade when it is mounted on said frame.

**2,769,470**
**HAND SAW DEPTH GAUGE**
Roy J. Akers, Portsmouth, Ohio
Application March 8, 1955, Serial No. 492,865
4 Claims. (Cl. 145—35)



1. A hand saw depth gauge comprising: a pair of clamps adapted to be mounted on the end portions of a saw blade, said clamps including tubes adapted to be slipped longitudinally on the blade and having slots therein for the passage of said blade, hand screws threadedly mounted on one end of the tubes and engageable with the blade for securing the tubes thereon, a depth bar

having its end portions secured to the tubes, said depth bar substantially paralleling the cutting edge of the blade and being engageable with the work, and means for adjusting said depth bar on the tubes.

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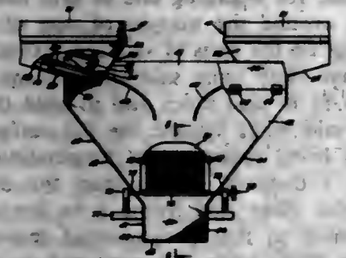
2,769,471
HAND TOOLS FOR OPERATING WORM GEARED BAND CLIPS
Charles William Cheney, Hockley, Birmingham, England
Application March 9, 1953, Serial No. 341,003
Claims priority, application Great Britain March 15, 1952
1 Claim. (Cl. 145—50)



A screw-driver, for coacting with the cylindrical head of a worm screw having an annular recess in the periphery of said head, comprising a body having fingers gripping wings at one end thereof, an externally threaded shank at the other end of said body, a cylindrical socket in said shank, a tooth rigid with said body and extending centrally into the rear part of said socket, an internally threaded nozzle engaging said threaded shank and having a shoulder located in the rear of the forward end part of said nozzle, and a split expansible ring arranged coaxially in said nozzle and located between said shoulder and the forward end of said threaded shank, said ring being arranged in advance of the said tooth.

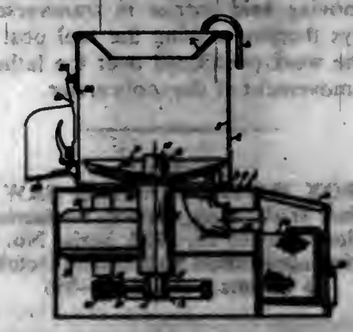
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2,769,472
CITRUS JUICE EXTRACTOR HAVING PEEL SEPARATOR
Frank M. Alexander and Robert W. Bruns, Winter Haven, Fla., assignors to Brown Citrus Machinery Corporation, Whittier, Calif., a corporation of California
Application June 5, 1953, Serial No. 359,785
7 Claims. (Cl. 146—3)



1. In a citrus juice extracting machine of the type having a pair of extracting mechanisms for simultaneously extracting citrus juice and pulp from fruit halves, the combination with said mechanisms of a casing enclosing each of said mechanisms, each casing including a juice collecting pan and each pan having an opening in the lower portion thereof, walls forming a housing connecting the juice collecting pans and enclosing said openings, said housing having an opening in one of said walls, a pair of first separator grid members secured to said housing and extending downwardly from said openings, said grid members converging toward the center of said housing, a second separator grid member positioned below said pair of first grid members to receive peel and pulp falling therefrom, said second grid member being secured to another wall of said housing and extending downwardly and outwardly through the opening in the first-mentioned wall of said housing, and means for returning pulp particles from the lower end of said second grid member to the interior of said housing.

2,769,473
VEGETABLE PEELER HAVING A REVERSING SWITCH
William R. Comber, Erie, Pa., assignor to Champion Dish Washing Machine Company, Erie, Pa., a corporation of Pennsylvania
Application May 17, 1954, Serial No. 430,014
1 Claim. (Cl. 146—49)



A vegetable peeler comprising a container, a rotatable disk in said container having an abradant upper surface, said rotatable disk having radially extending rounded elevations and valleys equally spaced around the surface of said disk connected by smooth curves at the merging points thereof defining continuous rounded curves, a reversible electric motor, means for transferring rotative force from said motor to said disk, a reversing switch having a neutral position connecting said motor to a power supply, said switch being adapted to be thrown from an off to a first position to operate said motor in one direction whereby said disk rotates in one direction and said rounded elevations wear on one edge, said switch being movable from said first position through an off position to a second position whereby said motor drives said disk in another direction whereby said elevations wear on another edge, said switch comprising a switch body having a movable contact, spaced first and second fixed contacts, means to connect a power supply to said movable contact, lever means associated with said movable contact to move said movable contact into engagement with said first fixed contacts, an axle carried by said movable contact, said lever means having an arcuate portion to move said axle out of a notch in said body, a slide member slidably supported on said switch and having a cam member thereon for guiding said axle into said notch in said switch body when said lever means moves said movable contact out of engagement with said first fixed contacts, a cam on said switch body on each side of said notch whereby said axle and said movable contact are caused to pause before moving into engagement with said second fixed contacts whereby said motor is allowed time to slow down before said switch is moved to said second position, said switch adapted to be moved from said off to said second position whereby said motor is reversed on alternate operations of said switch.

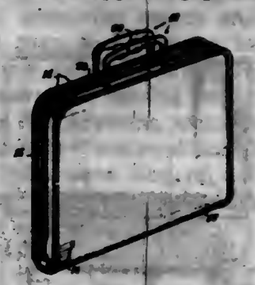
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2,769,474
HANDLE ASSEMBLY FOR PORTABLE BAGS
Abraham I. Klotz, New Rochelle, N. Y.
Application December 16, 1954, Serial No. 475,634
4 Claims. (Cl. 190—12)

1. The combination with a portable bag of the type having panels connected together along their edges of an improved handle assembly comprising a separate handle retaining envelope swingingly secured inside the bag at the point of connection between the panels and having spaced handle receiving openings at its upper edge, said envelope having closed portions adjacent the inner ends of said handle openings and a handle member having a hand gripping portion with supporting portions adjacent the opposite ends of the gripping portion and extending downwardly through the handle openings in the envelope,



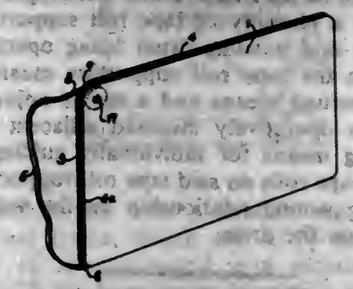
and retaining portions projecting angularly with respect to and secured to said supporting portions and disposed



inside the envelope beneath the aforesaid closed portions of the envelope.

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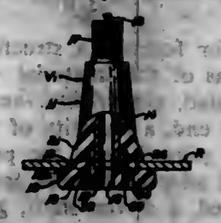
2,769,475
CARRYING CASE
Douglas A. Fisher, New York, N. Y.
Application February 8, 1954, Serial No. 408,846
3 Claims. (Cl. 150—33)



1. A carrying case including a casing, a carrying strap having one end connected to said casing, and a reel connected to said casing, the other end of said strap being connected to said reel and the latter being adapted to wind and unwind a portion of said strap, the first-named end of said strap and said reel being positioned at interspaced locations and said casing forming a substantially flat surface extending between said locations and against which said strap locates flatly when its said portion is wound on said reel so as to tauten the portion of said strap extending between said locations, said reel being located inside of said casing below the level of said surface and said casing having an opening formed therethrough and said strap extending through said opening.

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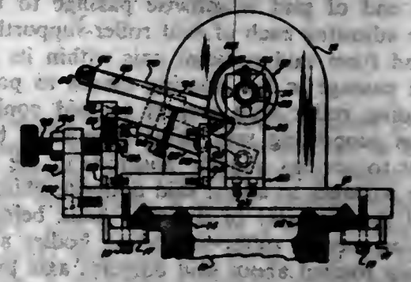
2,769,476
RUBBER TIRE VALVE ASSEMBLY
Frank Herzegh, Cleveland, Albert P. Wachter, Akron, and Walter J. Strong, Cuyahoga Falls, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application March 26, 1953, Serial No. 344,794
7 Claims. (Cl. 152—427)



7. A valve stem construction for a tubeless pneumatic tire rim comprising a rubber body portion adapted to project through and a distance radially outwardly of a rim valve hole and to fit against both sides of the edge thereof, a longitudinal air passageway through the stem, groove means in said body disposed circumferentially about and spaced radially from one end portion of said passageway and opening on the end of the body which projects radially outwardly of said rim valve hole, said groove means communicating with tire inflationary air when said rim and valve are in service with an inflated tubeless tire mounted on said rim, said groove means extending in depth axially of said body a distance beyond the portion thereof that fits against the sides of said valve hole.

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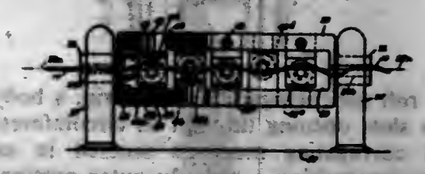
2,769,477
BENDING APPARATUS
Kenneth R. Neer, San Diego, Calif., assignor to Solar Aircraft Company, San Diego, Calif., a corporation of California
Application April 17, 1952, Serial No. 282,861
7 Claims. (Cl. 153—54)



1. A mechanism for forming bendable material comprising a movable element having a deformable portion, a relatively stationary member having a rigid forming edge disposed in deforming pressure contact with said deformable portion, and means movably mounted on said member and movable with and to facilitate passage of a sheet of said bendable material between said element and said forming edge of said relatively stationary member to deform said material into an arcuate shape.

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2,769,478
MACHINE FOR FORMING WIRE INTO A HELIX
Edward H. Schaus, Lakewood, Ohio, assignor to Famair Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Original application November 29, 1945, Serial No. 631,605, now Patent No. 2,588,663, dated March 11, 1952. Divided and this application August 10, 1951, Serial No. 241,298
1 Claim. (Cl. 153—66)



A forming machine for forming a wire into a helix of predetermined pitch and diameter comprising housing means having a lengthwise passage therethrough, means at the wire inlet end of the housing means defining a restricted inlet opening communicating with said lengthwise passage for the entry of the wire into said lengthwise passage, said lengthwise passage throughout its length being substantially larger in cross-section in all directions than said inlet opening, means defining an outlet opening at the opposite end of said housing means for passing the formed wire helix from said lengthwise passage, said lengthwise passage and said inlet opening having a conjoint axis, means supporting said housing means for free rotation about said conjoint axis, said housing means defining a plurality of transverse passages which intersect said lengthwise passage at axially spaced locations along said lengthwise passage, a corresponding plurality of roller-supporting bodies received individually in said transverse passages, a corresponding plurality of rotatable rollers individually supported in said lengthwise passage by said bodies and each having a peripheral

wire-engaging groove which encircles the axis of rotation of the roller, the width of the groove of each roller being substantially smaller than the width of said lengthwise passage in the housing means, each of said roller grooves presenting a wire-receiving peripheral portion which is offset transversely from said conjoint axis, with successive rollers along said lengthwise passage presenting said wire-receiving offset peripheral portions located respectively on opposite sides of said conjoint axis and with the respective axes of rotation of successive rollers along said lengthwise passage extending at opposite oblique angles to said conjoint axis to impart a helical twist to the wire as it engages said wire-receiving offset peripheral portions of the successive rollers in its travel from one end of said lengthwise passage to the other, means for adjusting each of said roller-supporting bodies toward and from said conjoint axis within its respective transverse passage in the housing means to position the corresponding roller with respect to said conjoint axis, and means supporting said roller-supporting bodies for adjustment to various angular positions in the respective transverse passages to adjust said opposite oblique angles to control the diameter of the wire helix being formed, said housing means, roller-supporting bodies and rollers being freely rotated about said conjoint axis by the feed of the wire being formed into said helix.

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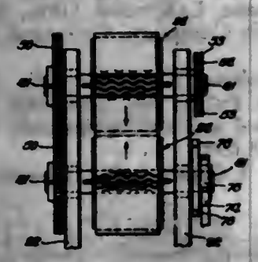
2,769,479

## ROLLS FOR CORRUGATING METAL STRIPS

Armstead G. Getz, Lakewood, Ohio, assignor to The Bishop and Babcock Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Original application March 23, 1951, Serial No. 217,228, now Patent No. 2,684,707, dated July 27, 1954. Divided and this application October 13, 1953, Serial No. 385,835

5 Claims. (Cl. 153—77)



1. In a roll for corrugating metal strip, a body having lengthwise slots opening through its circumferential surface, and corrugating members secured in said slots respectively comprising a radially outer portion providing a rib of undulatory formation lengthwise projecting radially outward beyond said roll body and radially inner positioning means substantially straight lengthwise of said rib and seating in the corresponding one of said slots.

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2,769,480

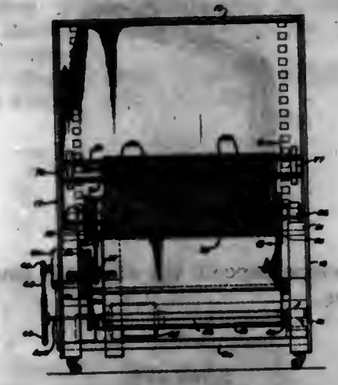
## METHOD AND APPARATUS FOR FORMING ASSEMBLIES OF CODED MARKERS ON PANELS

Norman Frank Diederich, Cleveland, Ohio

Application August 25, 1953, Serial No. 376,435

6 Claims. (Cl. 154—1.6)

1. The method of forming an article of manufacture comprising a panel of wire identifying tape consisting of arranging series of rolls of adhesive tape having non-adhesively coated surfaces of different appearances in pairs of common appearance, applying in a simultaneous and continuous manner the strips of tape to a supporting membrane in marginal abutment with the distinctive appearing surfaces thereof exposed and in pairs of common appearance and severing the assembled strips and membrane transversely of the direction of extension of the strip edges thereby to produce panels of pairs of strips, each pair being distinctive from all other pairs of assembled strips.



2. In an apparatus for winding adhesively coated tape upon a web of supporting material, the combination of a machine frame, a power driven winding drum rotatively supported on the frame, a web roll supporting means on the frame, a plurality of tape roll supporting means on the frame, said winding drum being operatively disposed between the tape roll supporting means and the web roll supporting means and a set of adjustable tape guiding means operatively disposed adjacent each tape roll supporting means for individually guiding tape extending from tape rolls on said tape roll supporting means to an abutting wound relationship on the web material being wound on the drum.

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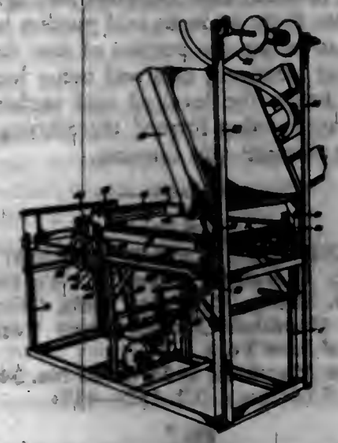
2,769,481

## MACHINE FOR FORMING STRUCTURAL MATERIAL

Doyle W. Meaner and Glenn G. Havens, San Diego, Calif., assignors to Narmco, Inc., San Diego, Calif., a corporation of California

Application October 2, 1952, Serial No. 312,830

18 Claims. (Cl. 154—1.8)



1. A machine for forming a structural material of a plurality of ribbons of thin material with alternate ribbons being undulated, comprising: an oven bed having an inlet and outlet end, a plurality of forming bars having a plurality of pins thereon for projecting into said structural material adapted to rest upon and be moved along said oven bed, a driven shaft, guide rails beneath said oven bed adapted to support forming bars, a forming bar engaging member, a parallelogram the upper side of which supports said forming bar engaging member beneath said guide rails, motion transmitting means transmitting rotary movement of said driven shaft into longitudinal oscillatory movement of the upper side of said parallelogram, thereby raising said forming bar engaging member into engagement with forming bars supported by said guide rails then advancing said forming bars along said guide rails, elevating means adjacent the inlet end of said oven bed receiving forming bars from said forming bar advancing means and raising same to the level of said oven bed, forming bar moving means driven by said drive means receiving forming bars from said elevating means and moving same across said oven bed, and forming bar lowering means withdrawing said pins from said structural material actuated by said drive means adjacent the output end of said oven receiving forming bars from said oven bed and lowering same to said forming bar advancing means.



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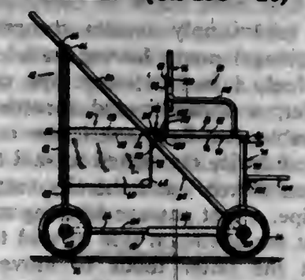
2,769,482

## AUXILIARY SEATS FOR STROLLERS

Harry O. Carlson, Great Neck, N. Y.

Application March 16, 1953, Serial No. 342,383

4 Claims. (Cl. 155—10)



1. In combination with a stroller, the stroller comprising a base frame, wheels carried by the base frame, a plurality of interconnected strut members extending from and with the base frame forming a carriage frame and a handle for the stroller, substantially horizontal stay members carried by certain of the strut members, a main seat for the stroller carried by the stay members; of a pair of auxiliary seat frame members for association with the carriage frame, each auxiliary seat frame member comprising a pair of links, the links being pivotally connected to each other, an auxiliary seat carried by the links on each side of the carriage, one of these links anchoring it to a stay member, and the other of these links having means at its end for separably anchoring it to the base frame, the pivotal connection between the links providing means for accommodating the auxiliary seat positively to different distances between the stay members and the base frame.

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2,769,483

## UNIVERSALLY ADJUSTABLE INVALID CHAIR

Marjorie A. Peterson, Fairfield, Calif.

Application April 25, 1953, Serial No. 503,529

14 Claims. (Cl. 155—28)



1. A universally adjustable chair comprising a back, a seat, and a leg drop, each formed of telescopic sections extendable longitudinally and laterally to conform to the width and height of a person to be seated therein, with said back and said leg drop hingedly connected to the respective back and front of the seat, and means for securing said back and leg drop in perpendicular or inclinably adjusted position relative to the said seat, at will; said means for securing comprising two telescopic struts for each side of the chair and connected at their respective ends to the back, and, to the seat and to the leg drop, and means for securing said struts in adjusted position.

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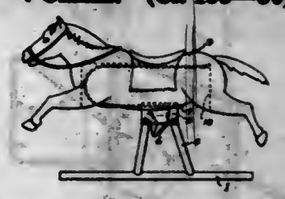
2,769,484

## RESILIENTLY MOUNTED HOBBY HORSE

Howard G. Kalrath, Howard Beach, N. Y.

Application June 25, 1954, Serial No. 439,256

4 Claims. (Cl. 155—30)



4. In a seesaw, a pair of laterally spaced ground engaging runners, a pair of supports secured to and rising from the runners, said supports having upper end portions having outer sides, a saddle embracing said upper end portions, said saddle having a web portion and depending flanges engaging the outer sides of said upper end portions, a reclining U-shaped spring having upper and lower legs, said lower leg having a free end portion engaged between the web portion of the saddle and the upper end portions of the supports, means securing said free end portion in place, and a ridable body mounted on the upper leg of the spring, said supports each comprising an inverted U-shaped member having a bight portion and legs having lower ends, the lower ends of the legs being fixed to a related one of the runners, the bight portions of the U-shaped members constituting said upper end portions of the supports, said U-shaped members converging upwardly toward each other crosswise of the runners.

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2,769,485

## BACK REST

Jacob Shapiro, Baltimore, Md.

Application August 28, 1951, Serial No. 243,981

1 Claim. (Cl. 155—182)



A back rest comprising a base plate having a vertical portion and a horizontal portion, an elastic block superimposed on the horizontal portion of the base plate, an elastic cushion mounted on said block and secured to the vertical portion of the base plate, and a plate embedded in said cushion the margins of said plate being spaced from the margins of the cushion.

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2,769,486

## BODY SUPPORTING DEVICE

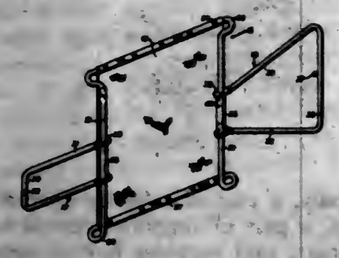
Benjamin Rabinovitch, Bronx, and Albert Rothgart, Brooklyn, N. Y.; said Rabinovitch assignor to Henry L. Sobel, Hewlett, N. Y.

Application March 29, 1955, Serial No. 497,526

4 Claims. (Cl. 155—182)

1. A body supporting device comprising a generally polygonal open frame having one pair of opposed frame sides disposed in a plane spaced from the plane of the re-

maining frame sides, and a pervious flexible sheet extending tautly between an opposed pair of said remaining frame sides in the plane of the latter, whereby said frame is adapted to rest with said first named pair of frame sides against an appropriate surface and said sheet spaced from said surface to support the person of a user spaced from said surface, a first brace member having one end connected to one frame side of said first pair of frame sides for rotation thereabout toward and away from said sheet, and a second brace member of shorter length than



said first brace member and having one end connected to the other frame side of said first named pair for rotation thereabout toward and away from said sheet, and releasable interengaging means on the other ends of said first and second brace members for connecting the latter together in angular relation with respect to each other and said sheet, said device thus being adapted for selective disposition with one of said brace members adjacent to a supporting surface to maintain said sheet at a desired angle with respect to said supporting surface.

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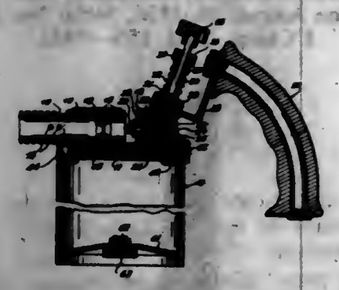
2,769,487

**BLOW TORCH**

Fritz L. Schweitzer, Aurora, Ohio

Continuation of application Serial No. 143,066, February 8, 1950. This application January 5, 1953, Serial No. 329,490

5 Claims. (Cl. 158—33)



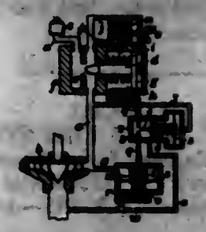
5. A self-generating blow torch comprising in combination a hollow tank for the direct reception of liquid volatile inflammable fuel, said tank having a wall of highly heat conductive material, a burner nozzle disposed longitudinally along said wall in intimate heat exchange contact therewith whereby heat from said nozzle may be conducted to the interior of said tank to volatilize said fuel, a fuel passageway communicating with the interior of said tank and leading to said nozzle, said passageway including a highly elongated restricted tortuous chamber positioned in intimate heat exchange relation with said nozzle, and valve means in said passageway for controlling the flow of fuel to said nozzle, said heat conductive wall having a portion of substantial thickness immediately adjacent said nozzle and in intimate heat exchange relation therewith, said chamber being contained wholly within said thickened portion and comprising an elongated bore therein disposed generally parallel to said nozzle and means in said bore forming in cooperation with the walls thereof an elongated restricted spiral passage.

2,769,488

**LIQUID FUEL CONTROL MEANS**

Thomas Alfred Harris, Edgbaston, Birmingham, Owen Napier Lawrence, Dorridge, and Eugene Harold Warne, Otton, Birmingham, England, assignors to Joseph Lucas (Industries) Limited, Birmingham, England

Application July 22, 1952, Serial No. 300,176
Claims priority, application Great Britain July 31, 1951
4 Claims. (Cl. 158—36.4)



1. A liquid fuel supply system comprising in combination a centrifugal pump having an inlet and an outlet for liquid fuel, a fuel delivery pipe communicating with said outlet, a spring-loaded throttle arranged to provide a variable fuel-flow restriction in said pipe, a liquid-operated device connected to said throttle for effecting actuation thereof, and thereby varying fuel flow through said pipe, a first passage forming means connecting said pipe at the upstream side of said throttle to said device so that the latter tends to move said throttle against its spring loading towards a closed position in response to the delivery pressure of said pump, a second passage forming means connected to said device so that pressure liquid admitted to said device through said second passage forming means opposes the effect of the pump delivery pressure on said device, a valve arranged in association with said second passage forming means to control the pressure of the liquid admitted to said device through said second passage forming means, a governor responsive to the speed of said pump also arranged in association with said second passage forming means to control the pressure of the last mentioned liquid after said valve has assumed a predetermined position, and means responsive to the delivery pressure of said pump for moving said valve to said predetermined position before said governor becomes effective.

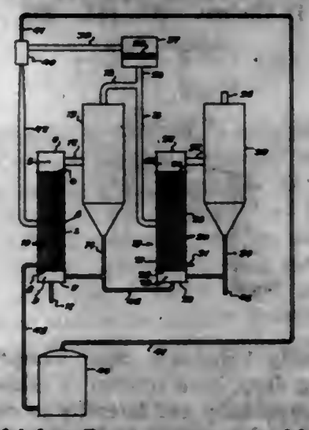
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2,769,489

**MULTIPLE EFFECT EVAPORATOR**

Albert W. Eckstrom, Buffalo, N. Y., assignor to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware

Application September 16, 1954, Serial No. 456,030
3 Claims. (Cl. 159—24)



1. In a multiple effect evaporator with a first and a second effect each having a steam chest with heat transfer surfaces also forming a wall of the liquid space for the liquid to be concentrated, a condensate outlet line from each said steam chest, means for separating entrained



liquid from the vapor generated from said liquid by the heat from said first effect steam chest, and a vapor outlet from said separating means, the combination therewith of means for supplying high pressure steam to said first effect steam chest, comprising a boiler supplied with condensate from said condensate outlet line of said first effect, a pair of branches in said vapor outlet of said first effect, means connecting one of said branches to discharge vapor into the steam chest of said second effect, an enlarged separating chamber into which the other of said branches discharges vapor, a pad of closely intertwined thin elongated flexible pieces across said separating chamber and arranged to catch the mist-like droplets carried into said separating chamber by said vapor, said separating chamber having an outlet on the side of said pad remote from said other of said branches, a steam jet compresser having a vapor inlet, a steam pressure inlet and an outlet for the vapor compressed by steam from said steam pressure inlet, a conduit connecting said outlet for said separating chamber with said vapor inlet to said compresser, a steam line connecting said boiler with said steam pressure inlet of said compresser, and a conduit connecting said compressed vapor outlet of said steam jet compresser with said steam chest of said first effect, and means arranged to conduct said liquid from said first effect to said liquid space of said second effect.

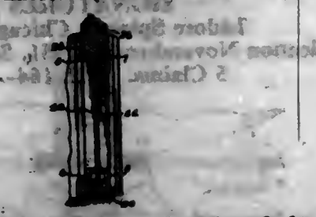
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2,769,490

**ADJUSTABLE WINDOW SCREEN**

Salomon Kaziel Mahleoff, Montreal, Quebec, Canada, assignor of twenty-five percent to Frank C. Tanzer, Ste. Agathe des Monts, Quebec, Canada

Application January 7, 1952, Serial No. 265,263
15 Claims. (Cl. 160—21)



1. A screen construction for sash type windows, comprising a pair of upper frame members arranged in opposed side by side relation and united along their adjacent side edges for sliding endwise adjustment relative to one another, a pair of screen housing members arranged in opposed side by side relation and united along their adjacent side edges for sliding endwise adjustment relative to one another in cooptration with the corresponding upper frame members, a screening strip secured at one end to one of said upper frame members and at its other end to the corresponding housing member and a second screening strip normally disposed in overlapping relation with said first strip and secured at one end to the remaining upper frame member and at its other end to the remaining corresponding housing member, and roller means mounted in said housings for separately reeling and unreeling said screening strips to facilitate adjustment as to height of said screening strips.

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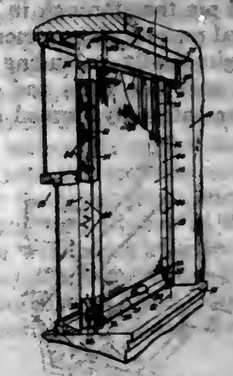
2,769,491

**RETRACTABLE WINDOW ENCLOSURE**

Robert Pitcoff, New York, N. Y., assignor to Epoch Products Corporation, New York, N. Y., a corporation of New York

Application June 17, 1952, Serial No. 293,926
11 Claims. (Cl. 160—23)

1. A latching mechanism for a retractable window screen comprising, in combination, an elongated latch bar for a spring roller screen, a plurality of tabs pivotally attached to said latch bar in spaced relationship to one another, means for pivotally attaching each of said tabs to the side of a window casing at a point removed from its point of attachment to said latch bar, said latch bar counterweighing said tabs, and means at the bottom of said latch bar for releasably engaging the free lower end



of the extended upwardly-urged screen whereby said latch bar is lifted and automatically swings said tabs into pinching engagement with the longitudinal edge of said screen.

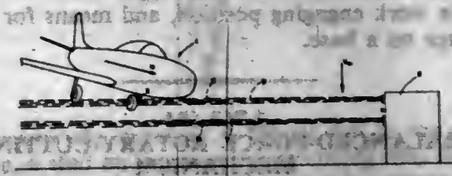
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2,769,492

**VELOCITY METER**

Ralph H. Ostergren, Fullerton, Sydney J. Goldberg, Los Angeles, and Robert R. Horstall, Jr., and John M. Wuerth, Whittier, Calif., assignors to North American Aviation, Inc.

Application July 21, 1952, Serial No. 299,982
14 Claims. (Cl. 161—18)



1. Means for measuring a velocity component of a moving object, comprising a retroflective element upon said object; a first and second optical system spaced apart a predetermined distance, each said optical system having a field of view which has negligible thickness in the direction of said velocity component and extending transversely to said component; a stationary light source; a light-projecting system adapted to project light along the optical axes of said first and second optical systems; photosensitive devices associated with each said optical system respectively; a timer; and electrical means connected between said timer and said photosensitive devices for starting and stopping said timer whereby light projected from said light-projecting system is intercepted by said retroflective element and is reflected into said first and second optical systems energizing said first and second photosensitive devices consecutively whereby said timer is started by the signal from said first photosensitive device and stopped by the signal from said second photosensitive device, the measured component of velocity of said object being reciprocally related to the time registered by said timer.

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2,769,493

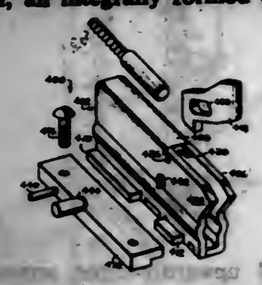
**STOP MECHANISM FOR PUNCH PRESSES**

Willard A. Kaysse, Flint, Mich.

Application April 7, 1955, Serial No. 500,009
3 Claims. (Cl. 164—69)

1. A material stop mechanism comprising a gage having a housing formed of a single sheet of material, said housing comprising a pair of oppositely disposed spaced and substantially parallel side walls having an integrally formed bight connecting the upper ends of said side walls and extending from one end thereof to a centrally disposed point, a pin extending between and supported on said side walls forwardly of and proximate to the terminal

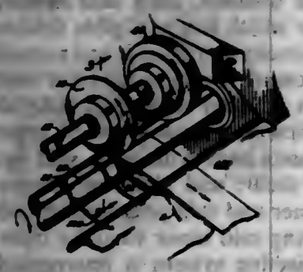
inner end of said bight, a second pin extending between and supported on said side walls below said first pin, a polygonal plate having an elongated slot formed therein, said plate being disposed between said side walls and receiving said second pin therethrough in said slot for pivotal and longitudinal reciprocal movement relative to said side walls, a longitudinally extending arcuate groove formed in each of said side walls and disposed in confronting relation, an integrally formed end wall extend-



ing from one of said side walls across said one end thereof, a cylindrical member having a closed end disposed in said grooves for reciprocation therein, a resilient member having an end thereof engaging against said end wall and said closed end of said cylindrical member, said closed end of said cylindrical member constantly engaging against a side of said plate to urge said plate for longitudinal and pivotal movement, said second pin being disposed in the path of movement of said plate to engage and thus limit its movement in one direction, said plate having an end thereof normally extending above the upper ends of said side walls in work engaging position, and means for securing said gage on a base.

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2,769,494
**BALANCED-FORCE ROTARY-CUTTING MECHANISM**
William A. Spurrier and Russell K. Regier, Los Angeles, Calif.
Application June 24, 1954, Serial No. 438,908
4 Claims. (Cl. 164—61)



1. In a rotary cutting mechanism for trimming paper or other similar material, wherein a double-edged rotatable cutting device is operated cooperatively with a rotatable cutting roller, said roller including a cutting groove having two edges cooperatively associated with the edges of said rotary cutting device, the material to be trimmed being passed through the rotatable cutting device to a receiving surface; a device for removing scrap material from said cutting groove, said device comprising: a spring wire including first and second portions having opposite curvatures, said first portion being of substantially the same circular curvature as the inner edge of said cutting groove, including an opening allowing the entry of said cutting groove therein, and having a spring constant such that the insertion of said first portion around said cutting groove causes a frictional engagement therewith; and said second portion being arranged to engage said surface whereby the insertion of said first portion around said cutting groove, and the rotation of said roller causes said spring wire to engage said surface and to provide a scrap removable path for said material.

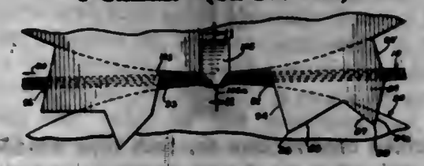
2,769,495
**WEB CUTTING AND SHEET DELIVERY AND STACKING MECHANISM**
Anthony W. Fenner, Piscataway Township, Middlesex County, and Charles J. Waechter, New Brunswick, N. J., assignors to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey
Application July 1, 1953, Serial No. 365,376
6 Claims. (Cl. 164—68)



1. In mechanism of the type described, in combination, a ledger plate, a rotatable cylinder having a knife blade projecting therefrom to cooperate with said ledger plate when substantially midway between the horizontal and bottom positions, means to deliver a web horizontally over said ledger plate, pull rolls spaced from the ledger plate a distance less than the length of a cut sheet, an imperforate metal plate fixed and extending from the edge of the ledger plate to a position just in advance of the nip of said rolls, said metal plate being curved to parallel the knife movement from the ledger plate to a position directly below the cylinder axis and horizontal from there to the said position adjacent said nip.

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2,769,496
**ROTARY CUTTING DIE FOR PERFORATING SIGNATURES**
Isidore Spinner, Chicago, Ill.
Application November 23, 1951, Serial No. 257,700
5 Claims. (Cl. 164—99)



1. A rotary cutting die for forming a linear series of perforations in a stack of sheets of paper that are to constitute a signature, said die having a series of radially projecting punching teeth extending outwardly from the periphery thereof, the overall radial extent of each tooth being of sufficient length to project well beyond the signature and to eject the severed chips of the various paper layers from the formed perforation, and said die having sheet perforating projections between certain teeth, each having a substantially smaller corresponding transverse cross-sectional dimension and radial extent relative to said teeth, the teeth and the projections being in a common plane which passes through the centers of the teeth and the centers of the projections so that said projections produce cuts in the sheet substantially smaller than the blanks cut by the teeth and centered along the central plane of said teeth.

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2,769,497
**METHOD FOR TREATING HYDROCARBON PRODUCING FORMATIONS**
Carl E. Reistle, Jr., Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application January 6, 1953, Serial No. 330,269
4 Claims. (Cl. 166—42)

1. A method for selectively increasing the permeability of a plurality of hydrocarbon productive intervals penetrated by a well bore having a tubing arranged therein



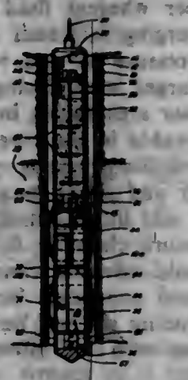
which comprises perforating a first hydrocarbon productive interval, sealing off the annulus between said tubing and said well bore below said productive interval, imposing fluid pressure on said perforated first interval sufficient to fracture said first interval perforating a second



hydrocarbon productive interval, sealing off the annulus between said tubing and said well bore below said second productive interval and then imposing fluid pressure on said second perforated interval sufficient to fracture said second interval.

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2,769,498
**APPARATUS FOR SQUEEZE CEMENTING WELL PERFORATIONS**
Theodore A. Huber, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application July 26, 1954, Serial No. 445,556
9 Claims. (Cl. 166—48)

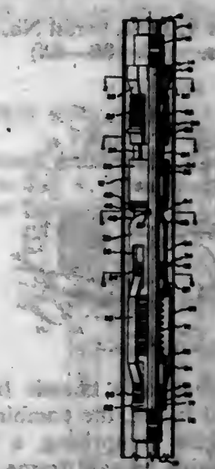


1. Apparatus for sealing off a selected interval in a perforated casing which comprises a body member adapted to be lowered on a wireline in the casing provided with a first chamber containing a releasable slurry of fluid cementitious material and a second chamber containing a releasable body of fluid, spaced apart packing members arranged on said body to isolate when inflated at least one selected perforation in said perforated casing, means fluidly communicating said first chamber with the outer surface of said body member between said spaced apart packing members, means fluidly communicating said second chamber with the interior of said packing members, and separate means for introducing said fluid cement between said packing members and introducing said fluid into said packing members to inflate said packing members and isolate a selected interval in said perforated casing.

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2,769,499
**TUBING ANCHOR**
William H. McKissick and Jessee E. Pate, Jr., Tulsa, Okla.
Application April 30, 1951, Serial No. 223,759
7 Claims. (Cl. 166—209)

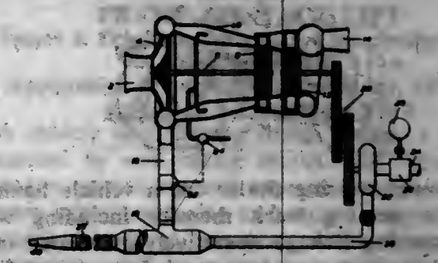
A tubing anchor for anchoring a string of tubing in the casing of an oil well, comprising a tubular mandrel interposed in the string of tubing, an actuating sleeve loosely disposed on the mandrel and having slots therein, a lower sleeve member on the lower end of the mandrel, stop means on the mandrel limiting downward movement of the lower sleeve, a plurality of friction springs disposed around the mandrel and radially spaced therefrom in engagement with the well casing, said friction springs having one end thereof slidably disposed in the slots of the actuating sleeve in a manner to provide limited longitudinal movement of the sleeve relative to the friction springs, and the opposite end of each friction spring secured to the lower sleeve member, whereby the friction springs preclude rotation of the actuating sleeve with respect to the well casing when the mandrel is rotated relative to the actuating sleeve, a helical spring around the mandrel anchored at its lower end to said lower sleeve member and continually urging the actuating sleeve



upwardly over the mandrel, a helical slot in the actuating sleeve, a stud on the mandrel extending into the helical slot and operable to move the actuating sleeve downwardly upon rotation of the mandrel in one direction against the action of the helical spring and adapted to release the actuating sleeve for upward actuation by the helical spring upon rotation of the mandrel in an opposite direction, a retaining ring loosely disposed on the mandrel above the actuating sleeve and adapted to be moved upward by the actuating sleeve upon upward actuation thereof by the helical spring, and a plurality of slips carried by the retaining ring adapted to engage the well casing upon upward movement of the retaining ring and adapted to become disengaged from the well casing when the retaining ring is released by the actuating sleeve upon downward movement of said actuating sleeve by said stud as the mandrel is rotated.

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2,769,500
**FOAM-PRODUCING APPARATUS**
Wilfred James Clifford, Brentford, England, assignor, by mesne assignments, to The Fyr-Fyter Company, Dayton, Ohio, a corporation of Ohio
Application July 9, 1952, Serial No. 297,846
Claims priority, application Great Britain July 11, 1951
6 Claims. (Cl. 169—15)



1. A self-contained apparatus for producing foam comprising an internal-combustion gas-turbine engine

including an air compressor, connections for delivering air from said compressor to a combustion chamber of said engine, means defining a foam-mixing space, means for conducting air from the high pressure side of said compressor to said foam-mixing space, a pump driven by said engine, means for storing a limited amount of liquid under low head, connections from said pump to said liquid storing means whereby said liquid is withdrawn by said pump from said storing means, and means for conducting liquid under relatively high pressure from the discharge side of said pump to said foam-mixing space.

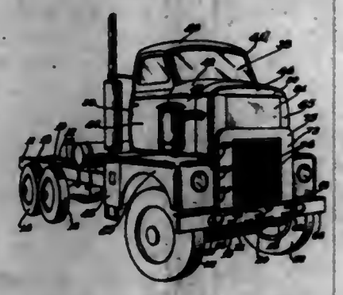
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2,769,501

## BUMPER, RADIATOR, AND GRILLE ASSEMBLY FOR SECTIONAL VEHICLE CAB

John C. Wagner, Berkeley, Calif., assignor to International Harvester Company, a corporation of New Jersey

Application October 9, 1952, Serial No. 313,832
7 Claims. (Cl. 180—68)



6. In a motor truck having a chassis frame and an engine supported by said frame, the combination including said frame and engine comprising, a vehicle body supported above said engine by said frame and partially defining an enclosure for said engine, said body having a forwardly facing, inverted U-shaped opening in one end thereof; a movable door for closing a portion of said opening; a sub-assembly including radiator means for said engine and a bumper supporting said radiator means; and means for attaching said sub-assembly to said frame whereby said radiator means partially extends within said opening formed in said body and partially defines a wall of said engine enclosure, said means for attaching said sub-assembly to said frame affording quick detachment of said sub-assembly to gain access to one end portion of said engine and including a plurality of elements having portions thereof disposed forwardly and on the exteriorly facing side of said bumper, said door when in its closed position and said radiator means extends into said opening being adapted to close said opening.

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2,769,502

## HYDRAULIC POWER STEERING MECHANISM FOR VEHICLES

Joseph F. Zinkal, Brookfield, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application December 10, 1953, Serial No. 397,427
11 Claims. (Cl. 180—79.2)



1. In a power steering device for a vehicle having a frame and a steering truck therefor including wheel means and steering linkage operatively associated therewith, manual steering apparatus carried upon said frame and including an output shaft rotatable pursuant to manipulation of said steering apparatus, a lever pivoted upon said shaft and having an operative connection to said linkage, an hydraulic motor reactively connected between said frame and said lever, said motor comprising a cylinder, a ram having a rod extending from one end of said cylinder and having a piston slidably mounted within said cylinder and dividing the same into advance and return chambers, valve means carried upon the opposite end of said cylinder and comprising a body with a longitudinal bore therein substantially coaxial with said cylinder, said body pivoted to said lever at an end remote from said cylinder, a valve spool within said bore and having a land in fluid tight engagement with said bore, guide collars at opposite sides of said land on said spool and spaced axially thereof and defining intake and outlet chambers with said land, respectively, a fluid reservoir, a pump having a suction side connected to said reservoir and a discharge side connected to said intake chamber, said outlet chamber connected to said reservoir, a by-pass passage in said valve body communicating with said intake and outlet chambers in the neutral position of said spool whereat said land is axially centered with respect to said passage, conduit means affording communication between said intake and return chambers, conduit means communicating with said advance chamber, a utilization port in said valve body connected to said last mentioned conduit means and communicating with said bore through a port chamber therein centered with respect to said land in said neutral position whereat said port chamber communicates with said intake and outlet chambers, said spool movable longitudinally of said bore in one direction from the neutral to close said by-pass passage and said port chamber to said outlet chamber and to simultaneously open said utilization port to communication with said intake chamber whereat fluid is ported into said advance chamber urging said ram to extended position against the back-pressure in said return chamber, said piston having a larger area facing into said advance chamber and a lesser area facing into said return chamber, said spool movable in the reverse direction to said first mentioned direction whereby opening said port to said outlet chamber and simultaneously closing said by-pass passage from said intake chamber whereby fluid is ported into said return chamber for retracting the ram while exhausting said advance chamber, and operating means for said spool connected between the same and said shaft and including shifting linkage for moving the spool in accordance with the movement of said shaft.

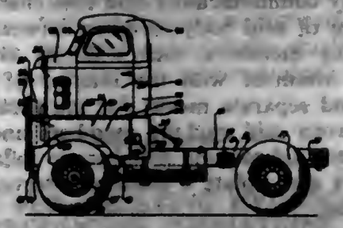
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2,769,503

## PIVOTALLY MOUNTED FENDER FOR CAB-OVER-ENGINE VEHICLES

John C. Wagner, Berkeley, Calif., assignor to International Harvester Company, a corporation of New Jersey

Application October 9, 1952, Serial No. 313,831
6 Claims. (Cl. 180—89)



5. In a cab-over-engine type motor truck having an engine, an enclosure for said engine, and a vehicle cab having a doorway formed in the wall thereof for entering and leaving the vehicle cab, the lower marginal edge of said doorway being defined by a door sill, the combination including, a vehicle fender forming a side wall portion of said engine enclosure and comprising a stationary section and a movable section normally positioned in alignment with said stationary section, said movable section being pivotally supported by said motor truck for horizontal swinging movement with respect to said stationary section about a vertical axis spaced forwardly of said stationary section whereby outward horizontal swinging of said movable section with respect to said stationary section permits direct access to said engine; and lock means for maintaining said movable section in the normal, aligned position including a vehicle cab door pivotally mounted adjacent said doorway swingable between open and closed positions about an axis spaced from and substantially parallel to the pivotal axis of said movable fender section, the lower marginal edge of said door overlying and being transversely spaced from said door sill when said door is in its closed position, said movable fender section having a member fixed to and extending vertically from said movable fender section adjacent the free end thereof and disposed adjacent said door sill when said movable fender section is in its normal position, said member having a shoulder formed thereon adapted to be confined between the lower edge of said door and said door sill when said door is in its closed position and said movable fender section is in its normal position to prevent outward swinging of said movable section.



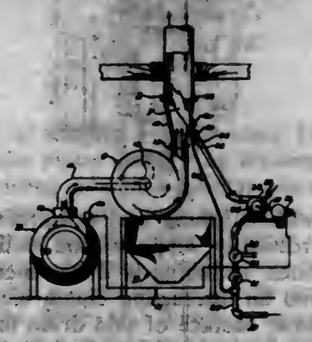
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2,769,504

## METHOD AND APPARATUS FOR TREATING COFFEE ROASTER EXHAUST GAS

Earl M. Miller, Euclid, Ohio, assignor, by mesne assignments, to Cook Coffee Company, a corporation of Ohio

Application December 31, 1952, Serial No. 329,069
8 Claims. (Cl. 183—6)



2. A method for removal of combustible constituents from the exhaust gas stream of a coffee roaster oven comprising the steps of centrifugally separating entrained solid particles from the exhaust gas stream, thereafter burning combustibles in the gas stream by subjecting the exhaust gas stream while in flow through a discharge conduit to the action of flame injected into the conduit and controlling the flame action in relation to the prevailing temperature of the oven thereby to increase the burner flame upon increased content of combustibles in the exhaust stream attending increased oven temperature.

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2,769,505

## ELECTRICAL PRECIPITATION APPARATUS FOR PROTECTIVE RESPIRATORS

Friedrich Julius Maas, Zurich, Switzerland, assignor to Société Financière d'Expansion Commerciale et Industrielle S. A. "Sinter," Sarnen, Switzerland, a company of Switzerland

Application March 29, 1952, Serial No. 281,404
Claims priority, application Switzerland April 26, 1951
16 Claims. (Cl. 183—7)

1. Electrical precipitation apparatus for protective respirators having a radioactive ionizer and electrostatic separator for particles contained in an air stream, the apparatus comprising means forming an ionizer chamber, said chamber having at least one axially extending inner wall portion, a coating of radioactive material arranged on said wall portion and emitting ionizing rays consisting of predominantly alpha and beta radiation and only a negligibly small amount of gamma radiation, electrode means creating in the region of said ionizing rays an electrical field in said chamber with its flux lines directed predominantly transversally to the direction of the air stream in said chamber, said electrode means being positioned down-stream of the ionizer chamber and a cylindrical electrode supporting member forming with the electrode means an exchangeable filter cartridge.



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2,769,506

## APPARATUS FOR SEPARATING AEROSOLS FROM GASES

Harry I. Abbood, Ville Platte, La., assignor of one-half to Joe A. Izen, Houston, Tex.

Application January 18, 1952, Serial No. 267,065
4 Claims. (Cl. 183—58)



1. In a device for separating aerosols from gases, the combination of a casing structure having a first compartment and a second compartment, a porous filter bag positioned in said second compartment, a support member secured to the casing structure for dividing same into said first compartment and said second compartment and for supporting said filter bag within said second compartment, said bag having an open top, means for passing the gases through the compartments in a direction so they will pass from externally of the bag through the bag and out of the top of the bag opening whereby the aerosols will collect externally upon the bag, and a sound generator positioned in said first compartment for directing the waves therefrom in a direction towards and into the interior of said filter bag to subject the aerosols on the external surface of the bag to the action of the waves to cause the aerosols to drop by gravity from the external surface of the bag without causing appreciable visible vibration of the bag.

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2,769,507

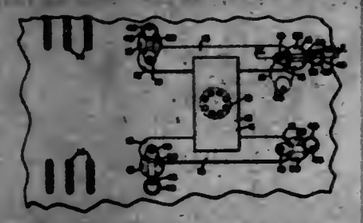
## FRAME CONTACT LIFT

James J. Pelouch, Cleveland, Ohio, assignor to Farm Tools, Inc.

Application July 10, 1953, Serial No. 367,199
6 Claims. (Cl. 187—8.75)

1. A vehicle hoist having lifting means, a superstructure carried by said lifting means, and variable extension means carried by said superstructure and including a primary vehicle engaging and supporting pad connected on a vertical axis at one end portion thereof to said superstructure, and a secondary vehicle engaging and supporting structure connected on a pivot shaft to said

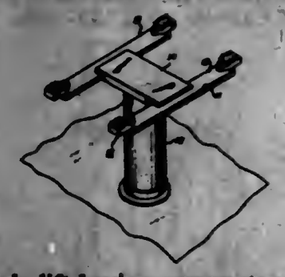
primary pad at another end portion thereof and having a horizontal vehicle engaging and supporting pad mounted at one end on said pivot shaft and extendable beyond said primary vehicle engaging and supporting pad,



and means including said pivot shaft for varying the vertical distance between said primary and secondary vehicle engaging and supporting structures, and for adjustably securing the second pad in different angular positions.

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2,769,508
FRAME CONTACT LIFT
James J. Pulcrano, Cleveland, Ohio, assignor to Forn Tools, Inc., a corporation of Ohio
Application May 29, 1952, Serial No. 290,829
4 Claims. (Cl. 187—8.75)

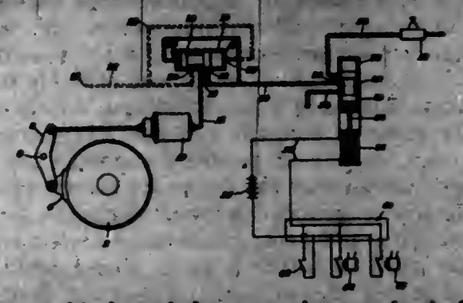


1. In a vehicle lift having a superstructure, said superstructure including a body member, said body member having a socket provided with a top wall and a support member spaced from said top wall, a vehicle support including an arm with a supporting pad on a first end thereof, a shoulder element and a hook element, means mounting one of said elements facing downwardly from said top wall, means mounting the other of said elements projecting upwardly on the second end of said arm, said arm extending into said socket and residing within said socket with an intermediate portion engaging said support member and said arm and top wall elements interengaging, said support member constituting a fulcrum for said vehicle support whereby a downward force on said supporting pad is resisted by the arm element engaging said top wall element, and surfaces in said socket defining sufficient space vertically below said top wall element to accommodate the maximum vertical dimension of said arm element whereby removal of said vehicle support is effected by lowering said arm element away from said top wall element and pulling said arm from said socket.

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2,769,509
ANTI WHEEL SLIP DEVICE
Raymond Wehr, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application October 30, 1953, Serial No. 389,193
6 Claims. (Cl. 188—1)

1. In a railway braking arrangement having means for increasing adhesion between a wheel tread and a rail, a wheel having a tread engageable with the rail, a brake lever having a shoe thereon engageable with the tread of said wheel, a fluid actuated brake cylinder operatively connected to the lever, a conduit carrying actuating fluid to the cylinder, and means in said conduit to control the pressure of said actuating fluid, said means comprising a two way pressure actuated valve connected to said conduit, a pressure actuated piston in the valve, a relatively high pressure line communicating with said valve and with one side of said piston, a relatively low pressure line communicating with the valve and with the other side of



said piston, said piston being operative to selectively connect one of said lines with said conduit, a solenoid controlled valve in said low pressure line operative to control the flow of pressure fluid therein, and electrical means to control the action of said solenoid controlled valve.

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2,769,510
OVERRUNNING CLUTCH AND ONE WAY BRAKE WITH DISABLER FOR FISHING REEL
James H. Hayes, Yonkers, N. Y.
Original application May 1, 1946, Serial No. 666,396, now Patent No. 2,694,273, dated July 22, 1952. Divided and this application April 23, 1952, Serial No. 283,959
8 Claims. (Cl. 188—82.3)



1. For use with a fishing reel comprising a housing, a spool shaft rotatably supported on said housing, an overrunning clutch including a drum member secured to said shaft and an interacting clutch element engageable with the inner surface of said drum member, a rod mounted in said housing, a first braking element rigid with said rod and with said clutch element, a second braking element supported by said housing for movement toward and away from said first braking element and nonrotatable in respect thereto, a plate longitudinally movable on said rod and nonrotatable in respect to said second braking element, springs interposed between said plate and said housing normally urging said second braking element away from said first braking element, a spring member interposed between said plate and a wall of said housing to move said second braking element into engagement with said first braking element against the action of said first mentioned springs.

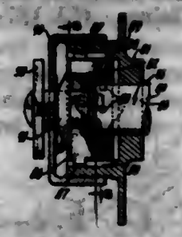
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2,769,511
ONE WAY BRAKE
James H. Hayes, Yonkers, N. Y.
Original application May 1, 1946, Serial No. 666,396, now Patent No. 2,694,273, dated July 22, 1952. Divided and this application April 23, 1952, Serial No. 283,960
2 Claims. (Cl. 188—82.9)

1. A one way brake comprising a housing having a cup-shaped body portion and a cup-shaped head in screw threaded adjustable engagement with said body portion, a spool shaft rotatably mounted in said body portion, a rod mounted in said head in coaxial relation to said shaft, a first braking element mounted on said shaft,



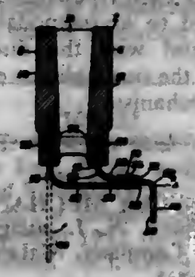
rotatable therewith and movable longitudinally thereon, a second braking element on said rod, movable longitudinally thereon and nonrotatable with respect thereto, a spring interposed between said second braking element



and said adjustable head whereby said second braking element will be maintained resiliently in contact with said first braking element and means for moving said first braking element into contact with said second braking element when said shaft rotates in one direction.

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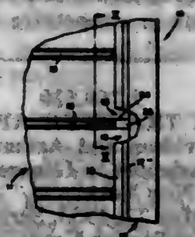
2,769,512
BRAKE ROTOR
Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application November 2, 1951, Serial No. 254,601
1 Claim. (Cl. 188—218)



A method of making a brake rotor having a pair of annular friction plates comprising forming a sheet metal support consisting of a flat annular plate having a plurality of notches in its inner perimeter defining spaced spokes projecting radially inwardly from the inner perimeter of the plate, forming another support consisting of a cylinder with a radially outwardly projecting flange, positioning the plate and flange in spaced relationship to each other in a mold, casting said friction plates respectively integral with the plate and the flange and spaced from the spokes and cylinder, removing the rotor from the mold, bending the spokes into radially overlapping relationship with the inner perimeter of the cylinder and securing said spokes to said cylinder internally thereof.

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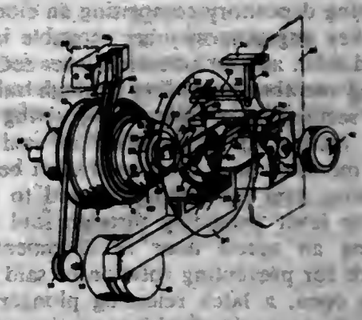
2,769,513
EDGE STRUCTURE FOR A CLOSURE DEVICE
Wesley A. Smith, Ferndale, Mich., assignor to The-A-Door Corporation, Detroit, Mich., a corporation of Michigan
Application August 8, 1955, Serial No. 526,940
5 Claims. (Cl. 189—46)



1. An edge structure for a closure device, comprising: a panel having a plurality of integral, offset channels arranged crosswise of one edge thereof, the ends of said channels adjacent to said one edge being aligned with, and spaced inwardly from, said one edge; an edge element having first and second, connected flanges, portions of said flanges near their free edges being urged toward each other and said one edge of said panel being disposed between said portions; a side plate integral along one edge with the free edge of said first flange, said plate extending away from the first flange on the opposite side from the second flange, and said ends of said channels being adjacent to said plate; and a clip having a substantially L-shaped portion, one part thereof being disposed between said first and second flanges, and another part thereof extending into an adjacent channel and substantially transverse thereof.

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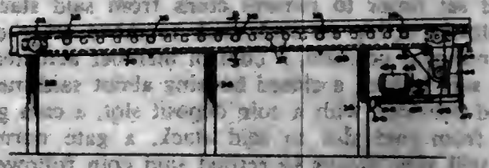
2,769,514
FREQUENCY SELECTOR DEVICE
Henry Clinton De Witt, New Providence, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application May 3, 1951, Serial No. 224,380
4 Claims. (Cl. 192—.02)



1. A clutch assembly comprising a rotatably driven first member and a rotatable second member adapted to engage said first member, said first member comprising a cylindrical cup-shaped housing having a solid base, a diametral channel disposed within said base, a slideable cam follower member superimposed in said channel, means for maintaining said slideable member in sliding contact with the surface of said channel, an elongated pawl pivotally mounted on said base, linkage means connecting said pawl and one end of said slideable member whereby rectilinear movement of said slideable member affects angular movement of said pawl, a rectangular aperture in the other end of said slideable member, a cam disposed within said aperture and adapted to abut the edges thereof to actuate said slideable member, and a pivotally mounted centrifugally responsive lever arm superimposed on said slideable member and affixed to said cam for actuating said cam to disengage said clutch members when said first member is rotatably driven.

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2,769,515
CONTROLLED GRAVITY CONVEYER
Theron H. Thomas, Arcadia, and John W. Huggins, Palo Alto, Calif., assignors to Mathews Conveyer Company, Ellwood City, Pa., a corporation of Pennsylvania
Application February 18, 1953, Serial No. 337,472
12 Claims. (Cl. 193—35)



1. In a controlled gravity conveyer having means for conveying articles by gravity in one direction, a control device comprising a rotatable element mounted on

the conveyer and arranged to engage articles moving along said means, a driven element, and clutch means coupling said elements in a manner permitting relative rotation of said rotatable element with respect to said driven element thereof in a direction opposite to said one direction.

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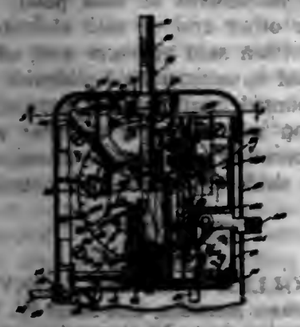
2,769,516
CLEANING DEPOSITORY
Robert K. Hensley, Jr., Silver Spring, Md.
Application January 16, 1953, Serial No. 331,564
9 Claims. (Cl. 194—4)



1. A cleaning depository comprising an elongated arcuate tube, a key engaging member movable in said tube, a slot in said tube, and an actuation lever secured to said key engaging member extending through said slot, said lever being secured to a rotatable receiving drum, said drum being rotated upon actuation of said lever, said drum being mounted on a shaft, said shaft being journalled in a casing, said tube being secured to said casing, said actuation lever extending through said casing, said casing having an access door in alignment with said drum, a latch for preventing rotation of said drum when said door is open, a latch releasing plunger secured to said door, a stop cam for limiting rotation of said drum without a key, said key engaging said stop cam upon movement of said actuation lever, said key engaging member moving said key in said tube against said stop cam to move the stop cam from operative position.

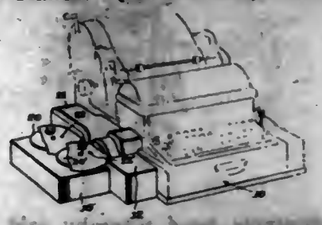
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2,769,517
PERIODIC COIN COLLECTOR
William L. Hudson, Fort Wayne, Ind.
Application April 27, 1951, Serial No. 223,190
10 Claims. (Cl. 194—9)



1. A periodic coin collector, comprising a coin stack holder adapted to hold a plurality of coins flatwise in a stack, time-responsive mechanism operative at predetermined set times to remove coins from said stack, a coin follower acting on said stack to move other coins toward removal position, a control member actuated by coins in said holder, a closed housing about said mechanism and provided with a coin deposit slot, a cam guide leading from said slot to said stack, a gate normally closing said slot, means to retract said coin follower to permit addition of coins to replenish said stack, and means actuated with the retraction of said coin follower to move said gate to open position.

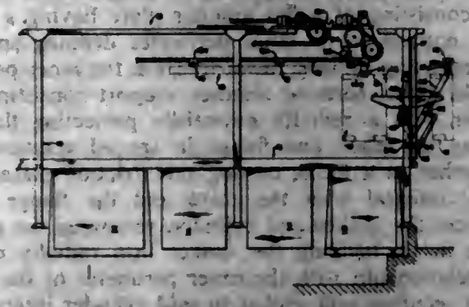
2,769,518
RECORD DISC FOR STORING INFORMATION AND SYSTEM USING SUCH RECORD
Charles E. Faulkner and Ralph R. Brewer, Chicago, Ill., assignors to Spiegel, Inc., a corporation of Delaware
Application June 22, 1954, Serial No. 438,439
6 Claims. (Cl. 197—20)



1. For use with a typewriter or similar machine having punching and reading stations with heads for normal cooperation with perforated tape, an attachment comprising two turntables in horizontal planes but at different levels, said punching and reading station heads also being at different levels and having slots at different levels for accommodating the record, said attachment being disposed so that the two turntables are substantially level with the slots in the two typewriter stations, and means coupling said turntables and said typewriter station mechanism for turning said two turntables through a predetermined angle for each typewriter actuation, each turntable being adapted to accommodate a disc record of perforatable material with the disc record extending beyond the edge of the turntable for entry into the slot of the station head mechanism.

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2,769,519
TRANSFER MECHANISMS
Paul A. Hauck, Union, N. J., assignor to Hanson-Van Winkle-Munning Company, Matawan, N. J., a corporation of New Jersey
Application July 14, 1954, Serial No. 443,193
11 Claims. (Cl. 198—31)



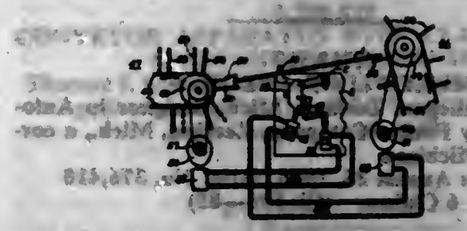
1. A mechanism for transferring article carriers between stations, which comprises spaced vertical columns, a track mounted for movement on each column and extending transverse thereto, a pair of arms each connected at its lower end with one of the columns for swinging and vertical movement and having a roller movable along the track on said column, means on the arms for supporting a carrier, means for rocking the arms, means for raising and lowering the tracks, and control means for causing the rocking means and the raising and lowering means to operate in a repetitive transfer cycle.

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2,769,520
ARTICLE TRANSFER APPARATUS
Thomas R. N. Davidson and Arthur H. Scruton, Wembley, England, assignors to General Electric Company, a corporation of New York
Application May 22, 1953, Serial No. 356,794
Claims priority, application Great Britain June 5, 1952
3 Claims. (Cl. 198—26)

1. In combination, a first conveyor for receiving articles from a machine and a second conveyor for delivering the articles to another machine and having relative rates of operation such that the second conveyor is ready to receive articles at a rate which is greater than the maximum delivery rate of the articles from the first conveyor, and a transfer apparatus comprising a delivery channel for said articles interconnecting said conveyors, stopping means in said channel normally arresting the passage of said articles at a predetermined point, a first actuating means operable intermittantly in direct synchronism with the first conveyor to normally positively

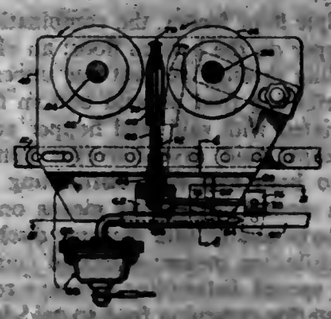




withdraw said stopping means and release said articles at predetermined time intervals, locking means normally positioned to block withdrawal of said stopping means, and a second actuating means operable intermittently and independently of said first actuating means and in direct synchronism with the second conveyor to positively move said locking means to unblocking position and permit release of the articles at predetermined time intervals corresponding to the rate of operation of said second conveyor.

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2,769,521
FRUIT INSPECTING AND REJECTING MEANS
James M. Hait, San Jose, Calif., assignor, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 5, 1952, Serial No. 274,917
5 Claims. (Cl. 198—33)



5. In a continuously moving fruit orienting device, the combination of a plurality of rollers forming a pocket therebetween adapted to receive an indented fruit, means for driving said rollers thereby rotating said fruit, a finder positioned in said pocket to engage the surface of the fruit, means for supporting said finder to permit the same to rotate through an arc when said finder locates and passes into said calyx indent, stop means limiting rotation of said finder to a substantially vertical position when the calyx indent is located, a switch, a switch actuating arm adjacent the path of said orienting device, and a contact arm carried by said finder to contact said actuating arm and close said switch when the finder has failed to locate said calyx indent and failed to rotate to said substantially vertical position.

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2,769,522
CONVEYOR AND STRETCHING MEANS
Fred B. Pfeiffer, Akron, Ohio
Application February 3, 1954, Serial No. 407,900
4 Claims. (Cl. 198—34)

1. A conveyor belt adapted to gradually decrease its initial speed comprising, a plurality of driven pulley drums having parallel axes and being spaced at predetermined intervals along said belt, a series of endless narrow stretchable elastic V belts mounted on and extending from each said drum to the next successive drum only, the drums which are intermediate the end drums of said plurality of drums being common to belts of the next successive series of endless belts, said endless belts being closely spaced laterally of said conveyor, said endless



belts of adjacent said series being disposed on their common drums in alternate relation so as to provide a continuous conveying surface, means for driving each successive drum at a decreased surface speed whereby each series of endless belts gradually decreases its speed from one drum to another and the endless belts have the same speed on their common drums.

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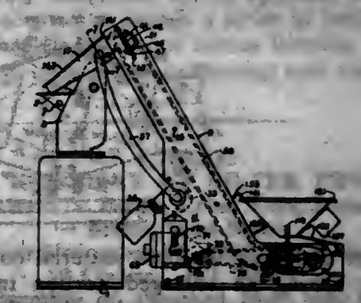
2,769,523
ARTICLE CONVEYOR
Joseph F. Ochwat, Garfield Heights, Ohio, assignor to General Electric Company, a corporation of New York
Application April 16, 1953, Serial No. 349,195
5 Claims. (Cl. 198—34)



1. An article feeding device comprising a pair of horizontally extending side-by-side parallel endless conveyor belts for supporting the articles in a row therebetween, means connected with said belts for continuously moving them linearly to advance the articles therealong, article lift means comprising a pair of spaced parallel lift bars extending approximately parallel to and alongside respective ones of said conveyor belts, said bars being normally located in a lowered inoperative position disengaged from the articles on the conveyor belts, and means for moving said bars upwardly and rearwardly, while held in a rearwardly inclined position, so as to progressively engage and lift off the conveyor belts and also separate all the articles thereon beginning with the rearmost article and excepting the forwardmost article.

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2,769,524
COIN HANDLING MACHINE
Clarence F. Regler, Chicago, Thomas E. Kale, Glenview, and Joseph Singer, Chicago, Ill., assignors to Johnson Fare Box Company, Chicago, Ill., a corporation of Delaware
Application April 18, 1952, Serial No. 282,966
9 Claims. (Cl. 198—37)



1. In a coin handling machine, a bucket type conveyor, means supporting said conveyor for lifting coins from

one level to a higher level, a hopper, having a discharge opening disposed at the bottom end of the conveyor, a platform disposed beneath the opening and adjacent the conveyor and having a discharge edge, and pusher means for moving coins from said platform, over said edge, into the conveyor buckets, said pusher means comprising a pair of pusher bars, means for guiding the bars on the platform for reciprocation thereon between the hopper discharge opening and the platform, means for reciprocating said bars in opposite directions, said means serving to move said bars between a position uncovering said platform to said opening and a position covering said platform and extending beyond the discharge edge thereof.

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2,769,525
CONVEYORS OR ELEVATORS FOR BULK MATERIAL
William Horsevitch, Melbourne, Victoria, Australia
Application August 4, 1953, Serial No. 372,280
4 Claims. (Cl. 198—75)

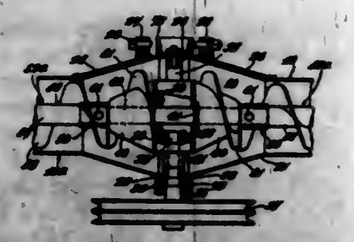


1. In combination with an auger conveyor, an endless conveyor attachment comprising a frame having upper and lower runners and a plurality of V-shaped leg members symmetrically mounting said runners in the region of the wider ends of said leg members, an endless conveyor means having upper and lower runs supported on said upper and lower runners respectively, and means at the apices of said leg members for detachably securing the frame to the tube of the auger conveyor to extend parallel with said tube.

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2,769,526
CONVEYORS
William Horsevitch, Mont Albert, Victoria, Australia
Application September 13, 1954, Serial No. 455,561
6 Claims. (Cl. 198—75)

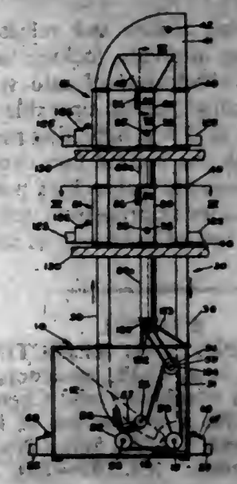




1. An auger conveyor for bulk material comprising a straight tube having an enlarged portion intermediate in its length, a gear box mounted within the enlarged tube portion to allow passage of material in said tube portion past the gear box and having an input shaft extending to the exterior of the tube and an output shaft aligned with the tube, and a pair of augers together extending the greater length of the tube and located one upstream and one downstream of the gear box and operatively connected to the gear box output shaft, wherein the tube is formed in two parts having symmetrically flared adjacent ends and said gear box is carried by struts projecting radially inwardly of a ring receiving the extremities of said flared ends and forming therewith said enlarged portion of the tube.

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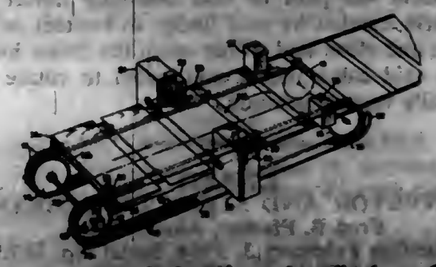
2,769,527
MULTIFLOOR FEEDERS
Marvin L. Smallegan, Zeeland, Mich., assignor to Automatic Poultry Feeder Company, Zeeland, Mich., a corporation of Michigan
Application August 25, 1953, Serial No. 376,410
6 Claims. (Cl. 198—85)



1. In a multiple floor feeder, the combination comprising: a feed hopper on the bottom floor; an elevator, said elevator extending through at least one upper floor; first means for distributing feed on said bottom floor; a first conveyor associated with said feed hopper and first said distributing means; said first conveyor simultaneously discharging into both said first distributing means and said elevator; a second distributing means on said upper floor; the discharge end of said elevator discharging into said second distributing means; a second conveyor associated with said second distributing means; a return means including a chute for returning feed to said feed hopper; said second conveyor discharging into said chute.

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2,769,528
CONVEYOR MEANS HAVING PUSHER FINGERS RAISABLE AT SELECTABLE INTERVALS
John J. Goodrich and Richard C. Bentzen, Pensacola, Fla., assignors to St. Regis Paper Company, New York, N. Y., a corporation of New York
Application March 19, 1954, Serial No. 417,353
9 Claims. (Cl. 198—170)

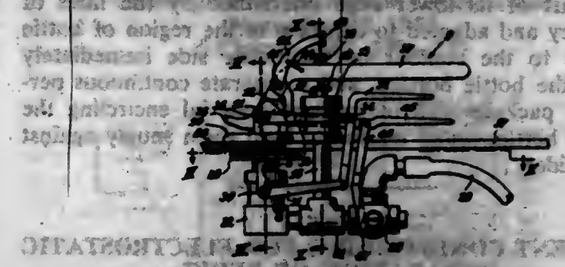


1. In apparatus of the class described, endless belt means; a pair of series of pusher fingers mounted upon said belt means; each of such series comprising a plurality of pusher fingers, each finger being shiftable from a normal position wherein it is out of the path of workpieces to be pushed, into a pusher position, wherein it protrudes into the path of such workpieces, finger-raising means for urging into pusher positions pairs of such fingers, each pair comprising one finger in one such series and another finger in the other series; and means for actuating said finger-raising means at a preselected interval in response to the moving of a raised finger past a preselected norm station.



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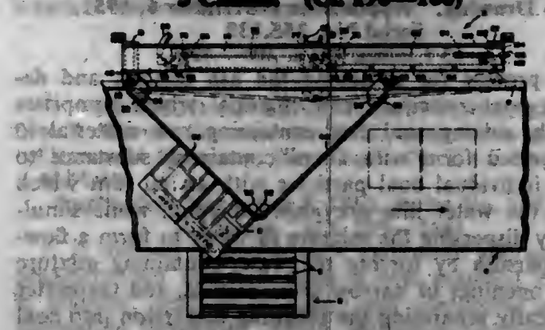
2,769,529
CONVEYOR APPARATUS WITH CLAMPING AND STRETCHING MECHANISM
Thomas J. Sortino and James D. Abondo, Newark, N. J.
Application October 12, 1954, Serial No. 461,892
16 Claims. (198—179)



5. Apparatus of the class described comprising a plurality of supports connected together in single file, means for driving said single file of supports in a predetermined closed path, with each of said supports being in combination with a plurality of clamping devices carried by said support, with at least one of said devices located on one side of said support and at least one clamping device located on the other side of said support, each of said clamping devices including a pair of fluid actuable jaws and a third jaw between said fluid actuable jaws, said fluid actuable jaws being movable towards said third jaw to clamp an element between one of said pair and said third jaw and to clamp said support between said other of said pair and said third jaw, and means for supplying fluid pressure to actuate each jaw of said pair independently of the other and in the course of travel of said support maintaining said pair in clamping condition.

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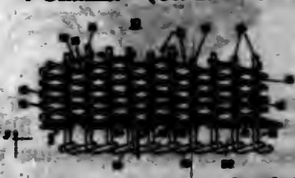
2,769,530
DEFLECTOR FOR USE WITH CONVEYOR
Richard Powers, Bucknell, Pa., assignor to Bulletin Company, Philadelphia, Pa., a corporation of Pennsylvania
Application October 11, 1955, Serial No. 539,740
5 Claims. (Cl. 198—186)



1. A deflector for use with a conveyor comprising: a deflector arm pivotally mounted at its outer end on an axis substantially perpendicular to the plane of the conveyor, a slide, a second deflector arm pivotally secured to said slide on an axis substantially perpendicular to the plane of the conveyor, the inner ends of said arms being pivotally secured together on an axis substantially perpendicular to the plane of the conveyor, means connected to said slide to advance and retract the slide to, in turn, advance and retract the deflector arms over the conveyor.

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2,769,531
WOVEN WIRE CONVEYER BELT
Raymond J. Gabe, Rydal, Pa., assignor to Audubon Wire Cloth Corporation of New Jersey
Application May 5, 1953, Serial No. 353,213
4 Claims. (Cl. 198—203)



1. A conveyor belt constructed of helical coils arranged side by side with the turns of each overlapping and having uniform rods extending transversely of the belt through the aligned openings formed by the overlapping turns, with the least dimension of the openings, measured in a plane perpendicular to the rods, appreciably exceeding the rod diameter the improvement in driving means therefor which comprises integral driving extensions on the ends of each rod, including an integral angular portion on the outer end of each extension, and an eye spaced from the ends of the helical coils overlapping the rod and located at the free end of each angular portion and snugly encircling the extension at the end of an adjacent rod to provide a hinge connection therewith, thereby spacing adjacent rods uniformly from one another lengthwise of the belt and ensuring adequate clearance longitudinally of the belt between the individual rods and the surrounding helical coils of the belt.

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2,769,532
CONTROL FOR MECHANISMS
Charlie H. Witt, Fort Worth, Tex.
Application July 22, 1952, Serial No. 300,271
5 Claims. (Cl. 198—232)



1. In a monitor device for bottle crowning machines having a crown carriage and an automatic stopping mechanism therefor, in combination with an air valve for said stopping mechanism having a stem and connected in an air line, a mounting bracket supporting said valve, a tensioned actuating rod engageable with said stem in axial alignment therewith, a yieldable arm pivoted at its inner end to said mounting bracket and having a disk rotatively supported on its opposite end, the said disk being adapted to engage a series of bottle crowns in said crowning machine, and means forming a portion of the inner end of said arm restraining said valve actuating rod.

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2,769,533
ASSEMBLY OF FILTER TIPS
Richard N. Booth, Cross Keys, Jamaica, British West Indies
Application November 21, 1950, Serial No. 546,178
10 Claims. (Cl. 206—56)

1. An assembly of sheathed filter tips for use with hand-rolled cigarets, each filter tip being strongly secured by adhesive to and across one side or face of a flexible

backing strip which is wound into scroll form so that each filter tip is held between an outer and an inner coil of said strip, said filter tips being also less strongly secured by adhesive to an adjacent coil of said strip but



on the other face of said strip, so that by a pull on the free end of said strip, the outermost filter tip can be automatically freed from one connection whilst remaining held by the other.

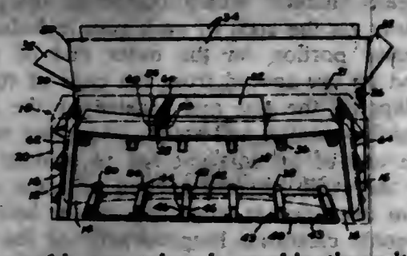
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2,769,534

## PACKING CONTAINER FOR CURVED GLASS

Edward J. Lidgard, Royal Oak, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan

Application July 12, 1954, Serial No. 442,586
13 Claims. (Cl. 206—62)



1. In a packing container in combination with a curved frangible sheet or the like, a substantially rectangular carton having top and bottom and side and end walls receiving the frangible sheet therewithin, bipartite end packs arranged between the top, bottom and end walls of the carton and engaging opposite ends of the frangible sheet throughout the entire length thereof, each of said bipartite end packs comprising an inner paperboard part having a main flat panel portion and an indented and folded sheet engaging saddle portion integral therewith and defined between a pair of spaced apart paperboard tunnels inwardly offset from the plane of the main panel portion, and an outer paperboard part stitched back to back respectively to the main panel portion and to a flap on one tunnel of the inner part and indented and folded to define a plurality of spaced apart yieldable tunnels each engaging the adjacent end of the carton, the axes of the tunnels of each part extending transversely to the axes of the other for cooperatively establishing a two-way rigidity against collapse of the pack, and bipartite edge spacer members arranged between the top, bottom and side walls of the carton and engaging the curved edges of the frangible sheet, each of said bipartite edge spacer members comprising an outer paperboard flat panel part and an inner paperboard part stitched back to back to the panel part and scored and folded to define a plurality of spaced apart tunnels extending transversely with respect to the length of and being inwardly off set from the plane of the panel part, said last named tunnels being of rectangular cross section and having the parallel walls and inner ends thereof provided with diagonally transverse slots disposed in staggered realtionship to receive and conform to the curvature of the curved edges of the frangible sheet.

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2,769,535

## PACKAGE

John K. Bruce, South Pasadena, Calif., assignor to Bruce Engineering Corporation, Menlo Park, Calif., a corporation of California

Application September 18, 1952, Serial No. 310,293
11 Claims. (Cl. 206—65)

5. A package consisting of a plurality of bottles arranged in rows symmetrically about an intervening semirigid divider member, the divider member including a longitudinal member disposed between adjoining rows and extending from adjacent the bottom of the several bottles upwardly between adjoining sides thereof with the bottles contacting the longitudinal member along lines of tangency and transverse members disposed between constituent bottles of each row, the longitudinal divider member having an enlarged bead extending along at least



that part of its lower edge intersected by the lines of tangency and adapted to conform in the region of bottle contact to the contour of the bottle side immediately above the bottle bottom, and a separate continuous perimetral package wall of resilient material encircling the several bottles under tension to hold them snugly against the divider.

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2,769,536

## REAGENT CONDITIONING FOR ELECTROSTATIC SEPARATION OF BERYL

Foster Frans, Hyattsville, Md., assignor to the United States of America as represented by the Solicitor of the Department of the Interior

No Drawing. Application January 21, 1953, Serial No. 332,578
4 Claims. (Cl. 209—9)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for conditioning beryllliferous ore for electrostatic separation of beryl from associated minerals comprising treating said ore in a first stage of a multistage conditioning operation with a dilute aqueous solution of an alkali, treating the ore in a further stage with a dilute aqueous solution of hydrofluoric acid and washing the ore between said stages.

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2,769,537

## PRODUCTION OF HIGH-GRADE PRODUCTS, ESPECIALLY FUELS, FROM RAW MATERIAL CONTAINING PIT COAL OR BROWN COAL

Wilhelm Roerlak, Essen-Bredeney, Walter Mischenborn, Essen, and Erich Nötzold, Essen-Haarhoef, Germany, assignors to Bergwerksverband Zur Verwertung Von Schutzrechten der Kohlentechnik G. m. b. H., Dortmund-Eving, Germany, a German company

No Drawing. Application November 6, 1951, Serial No. 255,132
13 Claims. (Cl. 209—49)

1. A process for removing the ash content and dewatering coal-containing raw material which comprises intimately mixing said coal-containing raw material in finely divided form with an oil-containing substance to wet the individual coal particles with an oil film which replaces the water film previously thereon, while simultaneously dispersing the mixture in water to form a flowable dispersion by forcing the water-containing mixture through openings of narrow cross section, and thereafter mechanically separating the resulting dispersion into coal concentrate and waste water containing the ash in finely divided form.

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2,769,538

## PROCESS FOR FROTH FLOTATION DRESSING

Wilhelm Roerlak, Essen-Bredeney, Walter Mischenborn, Essen, and Erich Nötzold, Essen-Haarhoef, Germany

No Drawing. Application October 30, 1952, Serial No. 317,826
8 Claims. (Cl. 209—49)

1. A process for the froth flotation dressing of solid materials containing components of varying wettability, which comprises mixing said materials with water and a flotation agent to produce a flowable mixture, subjecting the mixture to a forcing treatment by pressing through narrow cross-sections such as slits and nozzles to produce an essential unaerated mixture of flotation agent wetted components and water wetted components, and thereafter separating the respective components by aeration in a froth flotation zone.



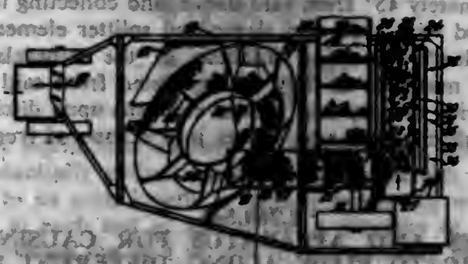
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2,769,539

## SEPARATING APPARATUS

Percival James Packman, Twyford, England, assignor to Packman Harvester Developments Limited, London, England, a British company

Application November 17, 1952, Serial No. 320,869
Claims priority, application Great Britain
November 20, 1951
5 Claims. (Cl. 209—78)



1. A separating apparatus for the removal from root crops of foreign bodies, such as stones and clods raised with the crops during harvesting, comprising in combination an endless band conveyor, a multiplicity of upstanding fingers on said endless band, which fingers are spaced apart by distances corresponding approximately to the maximum dimensions of foreign bodies to be removed from the crops, are stiff enough to remain erect under the load of mixed crops and foreign bodies passed on to said endless band for separation, and have resilient tips and walls of rubber or rubberlike material, support means to support said endless band so as to provide a separator length which is canted to the horizontal transversely of its length and is substantially horizontal in the direction of its length, feeder means a one side of and spaced from one end of said separator length through which a mixture of crops and foreign bodies can be fed onto said fingers in said separator length, crop discharge means at the other side of said separator length through which crops are discharged, and means to move said endless band longitudinally of itself so that its movement in its separator length is towards said one end thereof.

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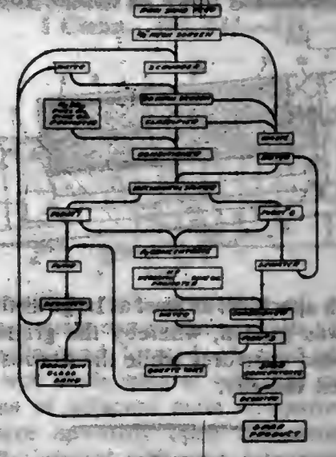
2,769,540

## METHOD OF BENEFICIATING SAND

Otto R. Brown, Sacramento, Calif., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application November 8, 1952, Serial No. 319,510
4 Claims. (Cl. 209—166)

1. A method of preparing a glass sand approaching a predetermined analysis, from a raw material excessive in feldspar, deficient in quartz and containing iron-contaminating impurities, which comprises: subjecting said raw material to attrition scrubbing and desliming; conditioning in an acid circuit with a promoter and frother; floating to produce a concentrate rich in iron and a tailing substantially iron-free; effecting the removal of the feldspar content from a portion of said tailing by conditioning said portion with hydrofluoric acid, a frother and promoter, and separating by flotation said conditioned tailing into a fraction containing the removed feldspar and a quartz fraction; and intimately mixing said quartz fraction with the remainder of said tailing to obtain said glass sand; the part of said tailing conditioned being selected so as to remove an amount of feldspar equal to the excess thereof in the original material, there being no



separation of said tailing into feldspar and quartz fractions except by said conditioning operation.

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2,769,541

## BENEFICIATION OF IRON ORES

Richmond E. Perry, Tuscaloosa, Ala., assignor to United States Pipe and Foundry Company, Burlington, N. J., a corporation of New Jersey

No Drawing. Application April 9, 1953, Serial No. 347,831
17 Claims. (Cl. 209—166)

1. A method of beneficiating siliceous oxidized iron ores which comprises, first activating an aqueous pulp of such ores with a water-soluble compound of an inorganic anion and an alkaline earth metal and conditioning the pulp with a water-soluble inorganic alkali metal compound, then treating the so-activated and conditioned pulp with a petroleum oil in the presence of an anion-active collecting agent selected from the group consisting of fatty acids, rosin acids, and soaps thereof, and subjecting the treated pulp to a gravitational separation whereby a concentrate relatively rich in iron minerals and a tailing containing a major proportion of siliceous material are produced.

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2,769,542

## BENEFICIATION OF BAUXITE

John Congdon Russell, Kitwe, Northern Rhodesia, and James Stephen Kennedy, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 3, 1953, Serial No. 346,777
9 Claims. (Cl. 209—166)

1. A method of beneficiating bauxite-containing ores which comprises conditioning in an acid circuit with a petroleum sulfonate a deslimed ore ground to about 35 mesh; and floating to recover a flotation concentrate rich in $Al_2O_3$ and low in silica.

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2,769,543

## SEPARATION OF COMMINUTED CELLULOSE ACETATE

Stanley Bird and Albert Robinson, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain

Application January 5, 1954, Serial No. 402,344
Claims priority, application Great Britain
January 6, 1953
3 Claims. (Cl. 209—235)

1. A method of separating particles of fibrous character from particles of granular character in a comminuted cellulose acetate material containing both kinds of parti-

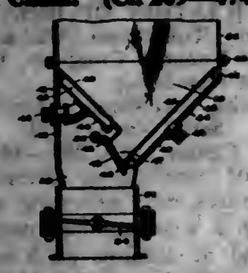
cles, said method comprising grading the material to a size such that all its particles can pass through apertures of a given size and then causing the graded material to slide and roll unidirectionally down an oblique rotating surface



perforated with apertures at least as large as those to which the material was graded, whereby the granular particles pass through said apertures while the fibrous particles remain supported thereby.

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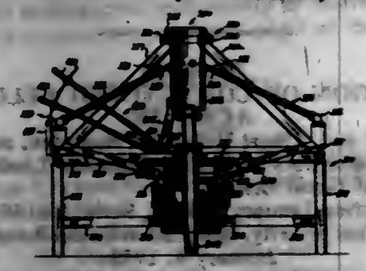
2,769,544
MATERIAL TRAP
Joseph H. Morrow, Hokendauqua, Pa., assignor to Fuller Company
Application December 15, 1951, Serial No. 261,874
1 Claim. (Cl. 209—474)



In an apparatus for separating foreign material from a stream of material moving through a conveyor trough, a container disposed beneath the trough and in communication with the interior thereof, a pair of aeration units within the container, each unit including a plenum chamber closed at its top by a flat gas-permeable wall and the units being disposed at opposite sides of the container with their top walls lying at opposite angles to the vertical and defining a wedge-shaped bottom for the container, one unit being longer than the second and having its lower end beneath and spaced from the lower end of the second unit, a discharge port between the lower ends of the units, a gate operable to open and close the port, and means for supplying a gas under pressure to the plenum chambers for diffusion through the gas-permeable walls into the contents of the container.

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2,769,545
APPARATUS FOR SEPARATING AND CONCENTRATING GRANULAR MIXTURES
Harry B. Cannon, Lakeland, Fla.
Application November 17, 1954, Serial No. 469,414
8 Claims. (Cl. 209—493)



1. In a separating unit for separating valuable minerals from a slurry containing mineral-bearing ores including gangue materials, the combination of a vertically extending conduit for delivering a slurry vertically upwardly, a separating battery including a plurality of pinched-slice type troughs arranged in an annular array about said conduit and each having raised converging sidewalls and a sloping floor surface to thereby provide the separating battery with the shape of an inverted frustrum of a cone said separating unit having supporting means for mounting the said battery and said conduit in an upright position, distributing means connected to said conduit and positioned to cooperate with the said separating battery for delivering the slurry thereto, a plurality of concentric slurry-splitting members surrounding said conduit, each member including a tubular depending sleeve portion concentrically mounted about said tubular conduit and including at its vertical edge a circular slurry splitter element formed of rubber and having converging wall surfaces defining a splitter edge directed radially outwardly and upwardly at an angle of approximately 45° from said sleeve, and collecting means associated with each said sleeve and splitter element for independently receiving fractions of the minerals and gangued materials as they are separated from said mineral-bearing ores by said splitter elements upon discharge of said slurry from said sluices into a zone of free fall.

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2,769,546
PROCESS AND APPARATUS FOR CAUSING A LIQUID TO FLOW ALONG DIFFERENT CONDUITS DEPENDING ON THE VISCOSITY OF THE LIQUID CONCERNED
Frank J. Fontein, Heerlen, Netherlands, assignor to Staatsmijnen N. V., Heerlen, Netherlands
Application October 13, 1952, Serial No. 314,586
Claims priority, application Netherlands October 17, 1951
15 Claims. (Cl. 210—1)



1. Apparatus for causing a liquid to flow along different conduits according to the viscosity of said liquid comprising a closed radially symmetrical chamber, a circular axial discharge aperture in said chamber, a feed passage discharging into said chamber on a radius exceeding that of said discharge aperture, whereby said chamber is adapted to form a liquid vortex therein discharging through said discharge aperture in the form of a hollow diverging cone, a discharge receiving device positioned opposite said discharge aperture, said device including an annular discharge intercepting edge of greater diameter than said discharge aperture, axially spaced from and axially aligned with said discharge aperture, and means for separately receiving liquid passing outside and inside said discharge intercepting edge.

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2,769,547
ARTICULATED SURFACE WASHING DEVICE WITH OSCILLATORY NOZZLES FOR FILTER BEDS
Abraham Adler Hirsch, New Orleans, La.
Application June 25, 1951, Serial No. 233,378
9 Claims. (Cl. 210—120)



1. A reactively driven rotary filter sweep having radial conduits on either side of a central suspension,



nozzles flexibly attached to said conduit, the flexible connection therefor being elastic and having a minimum section modulus of the area of wall thickness thereof arranged parallel to the axis of said radial conduit, said nozzles being adapted to flex by hydraulic reaction in a plane inclusive of said conduit and inclined about 15 degrees downwardly below the horizontal.

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2,769,548
LIQUID FILTER
Ernst Max Tischer, Augsburg, Germany
Application April 29, 1952, Serial No. 284,942
Claims priority, application Germany March 3, 1952
7 Claims. (Cl. 210—164)



1. A liquid filter element for fine filtering, comprising a substantially cylindrical drum of a diameter at least equal to its axial length, a radially outwardly extending flange at each end of said drum, a plurality of annular gaps through the wall of said drum providing bands adjacent each flange and between the gaps, the width of gaps and bands being such that the area of the bands at least equals the gaps, a sieve strip woven of liquid-impervious filments, said strip being of a width equal to the distance between said flanges and having one end secured to said drum, said strip being wound a plurality of times about said drum under such tension as to create a substantial radial pressure in said strip against the drum, whereby the layers of said strip tightly engage against each other and against said bands with a substantial and uniform radial pressure at all points.

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2,769,549
SWIMMING POOL CLEANING TOOL
Suzanne G. Bixby, Northridge, Calif.
Application February 23, 1954, Serial No. 411,898
3 Claims. (Cl. 210—236)



1. A swimming pool cleaning tool comprising a body member having a depending flange around the periphery thereof, bristles secured to said flange about a portion of the periphery of the body member, and an elongated handle secured to said body member, said body member being hollow and provided with apertures in the upper surface thereby permitting circulation of fluid, the body member being generally polygonal with the bristles being disposed on the sides and rear thereof, the flange on the front of said body member terminating above the lower end of said bristles thereby forming an entrance for permitting water to flow into the interior of said body member, a trap door pivotally suspended from the front of said body member and forming a portion of said flange, a stop on said body to preclude forward swinging movement of the door beyond a vertical position thereby providing a check valve for fluid passing through the body member.



2,769,550
NOVELTY UTILITY ARTICLE
Katherine Beck Rollins and Mark L. Rollins, Valley Stream, N. Y.
Application March 31, 1952, Serial No. 279,564
1 Claim. (Cl. 211—11)



A novelty utility rack consisting of a plurality of mutually spaced main compartment walls all of which are mutually parallel and formed of rigid sheet material, curved floor web walls integral with and interconnecting lower portions of adjacent main compartment walls to form successive upwardly open compartments, curved top web walls integral with and interconnecting upper portions of adjacent main compartment walls of successive compartments to form an undulating upwardly open serially successive plurality of spaced compartments integral with each other, a pair of hollow tubular support runners disposed in mutually parallel array below said floor web walls and secured thereto for supporting the same, a first integral shallow rack lip trough carried by one of said main compartment walls at its upper end for supporting articles, a second integral shallow rack lip trough carried by another of said main compartment walls at its upper end for supporting articles, said first and second rack lip troughs being carried by main compartment walls at opposite ends of said utility rack so as to extend in opposite directions outwardly therefrom, and an upstanding stub wall integral with said second rack lip trough with a socket formed in said stub wall and adapted for supporting articles seated in said socket.

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2,769,551
DISPLAY AND DELIVERY STAND
George A. Just, Scarsdale, N. Y., assignor to The Grand Union Company, East Paterson, N. J., a corporation of Delaware
Application January 26, 1953, Serial No. 333,037
3 Claims. (Cl. 211—49)

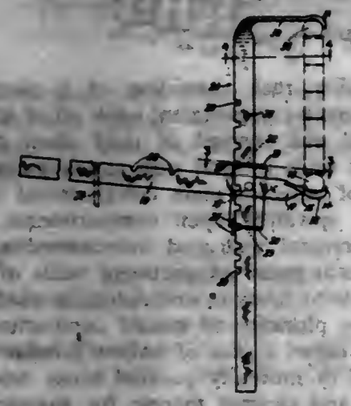


1. A display and delivery stand comprising supports, a plurality of vertically spaced shelves mounted on said supports and arranged one above another in inclined positions sloping from the rear to the front of the stand at an angle sufficient to cause articles placed on the shelves to move forward by gravity on removal of articles from the front of the shelves, each shelf including a carriage in the form of a frame, parallel article supporting and guiding means mounted on said frame and extending from the front to the rear thereof for guiding articles in their movement on said shelves under the action of gravity, tracks mounted on the supports along which said carriage is movable from a retracted display and delivery position to an extended loading position, cooperating means on said supports and tracks adjustable to vary the angular inclination of said tracks and shelves with respect to said supports, and manually operable

latch means releasably retaining said carriage in said retracted position, said latch means being mounted on the carriage near the front thereof and in position to be operated by a person grasping the front of the carriage and controlling its forward movement on release of the latch means.

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2,769,552
GARMENT HANGER
Irving Goldman, New York, N. Y.
Application May 19, 1953, Serial No. 355,989
3 Claims. (Cl. 211—86)



1. A clothes hanger of the character described for removably mounting upon door hinges having hinge-pins of varying lengths and extending hinge-pin knuckles, a main hanger bar for horizontal extension endwise from a door hinge, means at the inner end of said main bar for releasably engaging the lower end of a hinge-pin knuckle, said means comprising a depression facing upwardly, a pair of upstanding opposed lugs adjacent said depression at the extreme end, and a pair of opposed shoulder lugs at the inner end adjacent said depression, spaced notches along the upper edge of said main bar for receiving the wire hooks of garment hangers, an auxiliary hanger link bar for positioning vertically adjacent the hinge and across the inner end of said main hanger bar, said auxiliary hanger link bar having an upper horizontal short arm and a vertical long arm bent at a right angle thereto, means at the inner end of said short arm for releasably engaging the upper end of said hinge-pin knuckle, said last-named means comprising a depression facing downwardly and a pair of opposed lugs adjacent said last-named depression at the extreme end, notches in the outer edge of said long arm, a substantially U-shaped member including a vertical plate and top and bottom arms extending at right angles to the vertical plate, said last mentioned arms having registering elongated slots through which the vertical long arm of the auxiliary hanger link bar extends, said vertical plate being pivotally mounted on said main bar adjacent the inner end thereof, the outer edge of the slot in the top arm of the U-shaped member selectively engaging the notches in the outer edge of said long arm for adjustably connecting the main and auxiliary bars in clamping engagement with the hinge pin.

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2,769,553
DISPLAY AND LIKE DEVICES
William Gray Horton, Northampton, England
Application February 19, 1953, Serial No. 337,846
1 Claim. (Cl. 211—87)

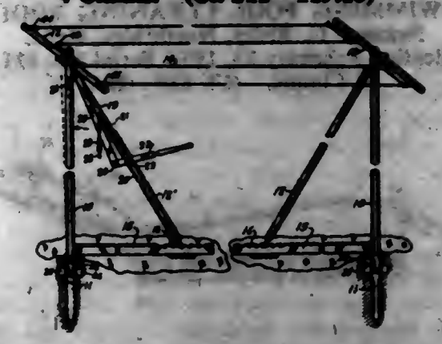
In a display device of the type including a series of rectangular plates supported on spaced parallel flanged bars, a construction in which each plate is formed from a single sheet metal blank with a central rectangular area and four rectangular extensions thereto based on its four sides, the smaller sides of all the rectangular extensions being of the same length, the central rectangular area having a plurality of spaced rows of elongated slit perforations parallel to two of its sides, and a further plurality of parallel spaced rows of elongated slit perforations at right angles to the said first mentioned rows and parallel to its other two sides, whereby the perforations as a whole define a plurality of adjoining squares of unit area, and in which the last rows of slit perforations adjacent the sides of said rectangular area are spaced from said sides at a distance equal to half the side of such square, slit perforations of half the length of the other perforations continuing the spaced rows of parallel slit perforations and terminating at the sides of the rectangular area and there opening into rows of similarly spaced



rectangular holes coming beyond and bounding the rectangular area and located in the four rectangular extensions, each of the said rectangular extensions at its outer corners having similar rectangular portions cut away to leave its outer longer side with a central outer projecting portion, the rectangular extensions being bent at right angles along the sides of the rectangular area to constitute main flanges, and said central outer projecting portions of the rectangular extensions being bent along median lines parallel to the sides of the rectangular area to form auxiliary flanges on the main flanges and to provide four hooks bounding four channel-like spaces so that any two parallel hooks may engage said spaced parallel bars.

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2,769,554
REMOVABLE CLOTHESLINE SUPPORT AND TENSIONING DEVICE
William L. Bodine, Elyria, Ohio
Application September 26, 1951, Serial No. 248,400
4 Claims. (Cl. 211—119.15)



1. A removable clothesline pole and tensioning mechanism, including an anchoring socket adapted to be positioned in the ground and extending to the surface thereof; an upright clothesline supporting post adapted to be inserted and removed from said socket, said post extending below the surface of the ground into said socket; a laterally extending base connected to said post and interconnected with said socket; said base having a plurality of notches along the upper surface thereof; an adjustable diagonally arranged brace member pivoted to said post adjacent the upper portion thereof, the lower end of said brace fitting into one of said notches on said base member; said diagonal brace member including two telescopic sections; means to extend or retract said sections including a hand operated toggle mechanism interconnected between said sections forming means to tension the clothesline; and means to lock said brace in said adjusted position.



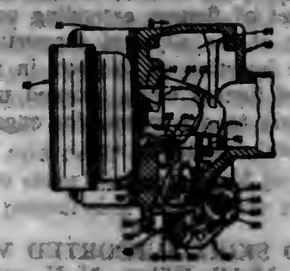
2,769,555
RAILWAY FRONT END STRUCTURES
Ewing L. Johnson, Yonkers, N. Y.
Continuation of abandoned application Serial No. 26,554, May 13, 1948. This application August 19, 1953, Serial No. 375,136
16 Claims. (Cl. 213—6)



1. In a railway locomotive front end construction unit, main longitudinal framing elements forming an elongated pocket for receiving a draft gear and an associated coupler, a front structure depending from said framing members and including parts projecting forwardly and laterally outwardly therefrom, and constituting an obstacle-deflecting pilot member, said front end structure including elements extending from the outer lower portions of said obstacle-deflecting pilot member generally diagonally rearwardly, upwardly and inwardly to said main framing elements at points on the latter rearwardly of said coupler and draft gear-receiving pocket, whereby said obstacle-deflecting pilot member is braced from said main framing members at points rearwardly of draft gear which may be mounted in the pocket.

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2,769,556
CAR COUPLER
William J. Metzger, East Cleveland, Ohio, assignor to National Malleable and Steel Castings Company, Cleveland, Ohio, a corporation of Ohio
Original application November 3, 1949, Serial No. 125,323, now Patent No. 2,709,007, dated May 24, 1955. Divided and this application January 4, 1954, Serial No. 401,895
8 Claims. (Cl. 213—127)



1. In a car coupler having a head, a pivoted knuckle, a knuckle thrower for opening said knuckle, a lock having a leg extending downwardly into an opening in said head, and means for actuating said lock to unlock the coupler, the rear wall of said opening having a forwardly extending abutment portion for engaging said lock leg when said lock is in locking position, said leg having a rearward projection spaced from said rear wall when said lock is in said last mentioned position, said projection being adapted for engagement with said thrower to actuate the latter during unlocking of the coupler.

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2,769,557
SKID INVERTER
Norman T. Olz, Glen Rock, N. J., assignor to Rutherford Press, Inc., Rutherford, N. J., a corporation of New Jersey
Application February 11, 1953, Serial No. 336,328
2 Claims. (Cl. 214—1)

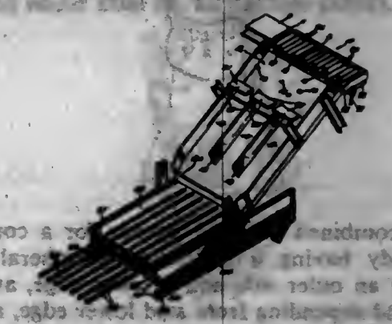
1. A device for inverting sheets of material stacked on a skid comprising a rigid hoop of circular unobstructed outline, at least two substantially perpendicular chord sections on said hoop adapted to receive adjacent sides of a stack of sheets, another chord section opposite one of said perpendicular chord sections, said last-mentioned chord section having clamping screws extending there-



from to clamp said stack of sheet material in said chord sections, whereby said hoop may invert said stack of sheets while maintaining alignment thereof.

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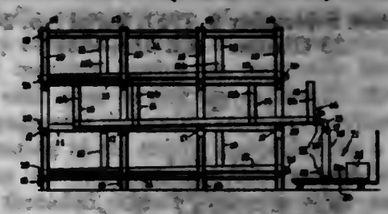
2,769,558
APPARATUS FOR PRODUCING A GLUED UNIT LOAD
Otto William Ehlers, Hermosa Beach, Calif., assignor to Unitbinder, Inc., Los Angeles, Calif., a corporation of California
Application July 20, 1953, Serial No. 369,119
13 Claims. (Cl. 214—6)



1. In a device for receiving cartons from a conveyor and assembling them into a unit load, the combination of: a terminal conveyor section for receiving cartons in single file order, means for moving a group of cartons laterally from said conveyor section toward a stacking location, selectively operable orienting means for turning cartons at right angles during the course of such lateral movement, a retractable member at said stacking location adapted to receive a plurality of groups of cartons, and means for retracting said member from below said groups of cartons to form a layer of a unit load.

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2,769,559
STALL TYPE RACK
George Robert Johnson, Milford, Conn.
Application August 13, 1952, Serial No. 304,095
1 Claim. (Cl. 214—16.4)



In a stall type rack having vertical and transverse members interconnected to provide a plurality of superposed horizontally disposed open-ended stalls for storing heavy objects movable by article lifting means, the improvement which comprises providing a slidable section in each stall, said section including a base and side members with the side members having spaces therein forming an open-top unit adapted when in receiving position to receive the object to be stored and the spaces in the sides permitting the lifting means to deposit the object on the base without interference; stop means at the rear of each stall to en-

gage the section and prevent movement of the section therethrough; means mounting said slidable sections for movement through the front open end of the stall for substantially the full length of the section to present the open top of a selected slidable section to receive heavy objects deposited directly by article lifting means, said means including a plurality of longitudinally spaced, transversely extending, elongate, ball bearing supported rollers in each stall extending thereacross and having their axes lying in a rearwardly inclined plane whereby the sections are urged rearwardly to said stop means and against unintentional movement through the front of the stall; and a movable carriage having a vertically extensible support post thereon, said post having means at the upper end to interlock with the selected section and support the front end of the slidable section in all projected positions.

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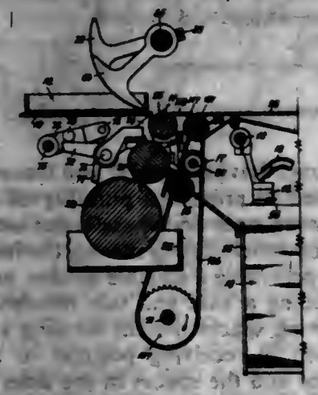
2,769,560
**BOTTLE CAP AND OPENER**
Robert F. Lee, Houston, Tex.
Application December 10, 1954, Serial No. 474,682
4 Claims. (Cl. 215—46)



4. In a combined cap and opener for a container, a circular body having a depending peripheral crimped skirt having an outer side and a lower edge, an integral sleeve on and depending from said lower edge, an opener member comprising a pair of elongated legs in lateral contact with each other and securably engaged lengthwise through said sleeve, said legs having upper ends projecting above said sleeve and bearing against said outer side of the skirt, and a head on the upper ends of and connecting the upper ends of the legs and overlying the circular cap body, said head being triangular and comprising laterally oppositely extending base portions on the upper ends of the legs, said base portions terminating in convergent side portions having terminal ends connected together, said base and said side portions being in contact with the circular cap body.

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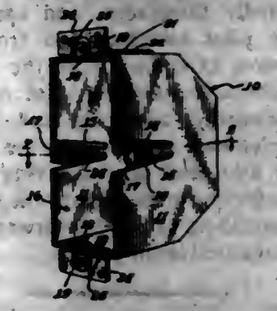
2,769,561
**BOX MAKING MACHINES**
George W. von Hofe, Bound Brook, and Edwin K. Wolff, Palisades Park, N. J., assignors to New Jersey Machine Corporation, Hoboken, N. J., a corporation of New Jersey
Application September 5, 1951, Serial No. 245,194
23 Claims. (Cl. 216—55)



1. In a machine for applying sheets to articles, means for supporting a stack of sheets with their leading edges in a fixed position in the stack, means for feeding successive sheets from the stack so that their leading edges will arrive at a place of registry in a fixed, predetermined interval of time irrespective of the lengths of such sheets, and means for successively feeding articles to such place of registry to progressively attach a surface thereof to such sheets, and including means for varying the approaching relation of an article to a sheet so as to vary the position of initial engagement of such article surface with the surface of such sheet at said place of registry.

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2,769,562
**ELECTRICAL BOX**
Nathan H. Randolph, Aurora, Ill., assignor to All-Steel Equipment Inc., Aurora, Ill.
Application October 13, 1955, Serial No. 540,434
10 Claims. (Cl. 220—3.4)



1. For mounting within an opening in a supporting wall, an electrical box having two sets of mounting flanges spaced apart a distance substantially corresponding to the thickness of said supporting wall, the first of said sets extending outwardly from said electrical box for engagement with the front face of said wall, and the second of said sets being carried by deformable tongue means anchored to side wall portions of said box and extending forwardly and inwardly across openings therein, said second set of flanges extending outwardly and terminating short of the adjacent supporting wall portions to facilitate insertion of the box in said opening, said second set of flanges being adapted upon outward deformation of said tongue means for engagement with the rear face of said supporting wall.

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2,769,563
**INSULATED SKIRT SUPPORTED VESSELS**
Nicholas A. Weil, Middle Village, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application June 22, 1955, Serial No. 517,231
8 Claims. (Cl. 220—9)



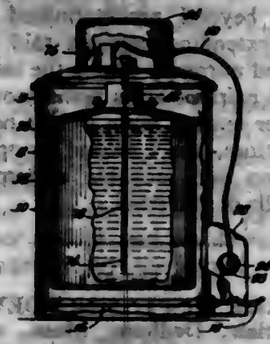
1. A vessel adapted in use to be subjected to elevated temperatures comprising a shell having a bottom section of diminishing diameter, a supporting skirt member having an end positioned on said vessel in the region of said bottom section, a weld metal deposit at said end uniting said skirt member to said vessel, and a depth of insulation forming a heat barrier between said vessel and the atmosphere and said skirt member and the atmosphere, said skirt member and said vessel providing a crotch formation at their juncture of increasing area in the direction



of the bottom of the vessel, said insulation applied to substantially the whole internal surface of said skirt below a level below said juncture at least approximately 10 times the thickness of said skirt member, said insulation applied to substantially the whole external surface of said bottom section inward of said skirt member to said level to provide an annular space at said crotch formation in part defined by exposed surface of said vessel and said skirt for heat flow by radiation and convection from one to the other of said vessel and said skirt members.

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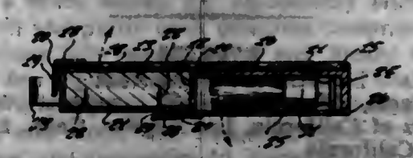
2,769,564
**PORTABLE MILK PASTEURIZER**
Oscar C. Hoppens, Chicago, Ill.
Application January 13, 1954, Serial No. 403,793
1 Claim. (Cl. 220—13)



A portable pasteurizer comprising an outer container for accommodating a liquid heating medium, an inner container disposed within said outer container, a cover means for said inner container, means for securing said cover means on said inner container in a liquid-tight manner, a laterally and outwardly extending shoulder formed on said inner container, a laterally extending bracket mounted on the inner vertical surface of said outer container and positioned to receive and support said shoulder, and restraining means mounted on the inner vertical surface of said outer container, said restraining means being adapted to engage said securing means and thereby hold said inner container against said bracket whereby positively to prevent vertical displacement of said inner container within said outer container and thereby to insure that the entire outer surface of said cover means is subjected to the pasteurizing temperature of the liquid heating medium.

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2,769,565
**COMPACT SHAVING KIT**
John Scalia, Manhasset Harbor, N. Y.
Application October 18, 1953, Serial No. 386,191
1 Claim. (Cl. 220—20)



A compact shaving kit comprising a substantially flat rectangular casing, a first compartment at a first longitudinal end of said casing opening to the top of said casing, a second compartment at a second longitudinal end of said casing opening to the bottom of said casing, said first and second compartments lying between common parallel horizontal planes and being separated from each other by a transversely extending vertical wall disposed midway between said longitudinal ends of said casing, a first horizontal wall extending longitudinally from the lower edge of said vertical wall and forming a floor for said first compartment, a second longitudinal horizontal wall extending from the upper edge of said vertical wall in a direction opposite to said first horizontal wall and forming a floor for said second compartment, said vertical wall being of a height corresponding to the depth of each said compartment, a carrying handle disposed at said first longitudinal end of said casing, a first cover having vent openings hingedly connected to the top of said second longitudinal end adapted to overlie said first compartment, a second cover hingedly connected at the bottom of said second longitudinal end of said casing adapted to overlie said second compartment, said first cover extending between said second end and said first end of said casing and said second cover extending between said second end and said vertical wall of said casing, and releasable means for securing each of said covers in closed position.

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2,769,566
**FILLING PLUG FOR FUEL AND PRESSURE CONTAINERS**
Morris Thompson, Baltimore, Md., assignor to the United States of America as represented by the Secretary of the Army
Application October 23, 1953, Serial No. 388,077
1 Claim. (Cl. 220—44)
(Granted under Title 35, U. S. Code (1952), sec. 266)

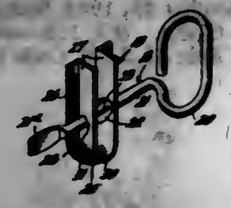


A vented plug closure for metallic receptacles comprising a plug body member including an externally threaded outer cylindrical wall member provided with external threads to engage said receptacle, an inner cylindrical member positioned within said outer cylindrical wall member and a flange joining an axially inner portion of said outer cylindrical member with the axially outer portion of said inner cylindrical member thereby forming a cup-shaped inclosure; a vent member comprising a cup member positioned within said cup-shaped enclosure and a nose portion extending axially inwardly from said cup member and in engagement with the interior of said inner cylindrical member, said cup member extending axially outwardly past said cup-shaped inclosure, hand grip means on the axially outer portion of said cup member; a vent plug mounted within said nose portion and extending axially outwardly for a substantial distance within said cup means, coupling means on the axially outer portion of said vent plug, a central passageway extending axially of said vent plug; said inner cylindrical member having an internally threaded portion, and said nose having an externally threaded portion in engagement therewith; said inner cylindrical member terminating at its axially inner end in a valve seat, and having an enlarged internal section between said internally threaded portion and said valve seat, said enlarged internal section having an internal diameter at least as great as the maximum diameter of the externally threaded portion of said nose member; said nose member carrying at its axially inner end a valve disk, said valve disk having a frustoconical surface radially within and extending past said valve seat, said seat and disk being formed so as to make substantially line contact; a central bore in said nose member in alignment and communication with said central passageway, at least one radial bore extending from said central bore to said externally threaded portion; said parts being so proper-

tioned that when said cup member is turned in one direction said nose member may be screwed inwardly to a point where said valve disk is disengaged from said valve seat and the outer ends of said radial bores are positioned within said enlarged internal section, while when it is turned in the other direction the said nose portion may be screwed outwardly until said valve disk contacts said valve seat and the outer ends of said radial bores are positioned within said internally threaded portion, said handgrip means including a wheel portion extending outwardly from said cup member and a lever pivotally mounted on said wheel portion in such a manner that when swung into one position it extends across the end of said vent plug and said cup member and when in another position it extends outwardly from said cup member.

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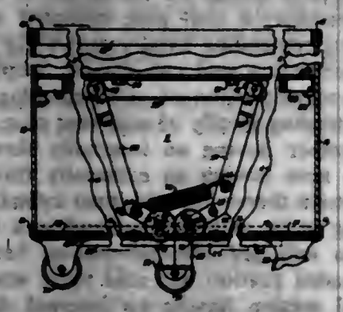
2,769,567
**CAN OPENER KEY AND STRIP GUIDE**
Clyde H. Turbett, Harrisburg, Pa.
Application April 23, 1953, Serial No. 350,611
1 Claim. (Cl. 220—52)



A strip guide permanently rotatably mounted on a slotted can opening key comprising a strip of sheet metal bent into U-shape to provide elongated substantially parallel leg portions and a connecting bight portion, said leg portions having opposed openings therein intermediate the ends and edges thereof rotatably receiving the shaft portion of the can opening key, and a planar flange integrally connected to adjacent edges of said leg portions and to the adjacent edge of said bight portion, said flange extending laterally outward from said leg and bight portions substantially at right angles thereto the flange and the web of the metal strip jointly having an L-shaped cross-section, the flange providing bearing engagement with the surface of a can.

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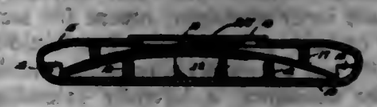
2,769,568
**TRUCK WITH FALSE MOVABLE BOTTOM**
Noah W. Estes, Lincolnton, N. C., assignor to Excel Textile Supply Company, a partnership
Application April 6, 1953, Serial No. 347,097
7 Claims. (Cl. 220—93)



4. In a bobbin truck having a wheeled frame, side walls and a vertically movable false bottom, the combination of means for maintaining said false bottom in a constant predetermined attitude relative to said side walls and for causing vertical movement of said bottom in response to variation in the amount of weight placed thereon, said means comprising a pair of transverse parallel shafts rotatably mounted on said frame intermediate the ends thereof, means connecting said shafts causing simultaneous rotation of the same in opposite directions, a first pair of transversely spaced rigid parallel arms fixed at their lower ends to one of said shafts in perpendicular relation thereto and extending upwardly and outwardly at an angle from said shaft, a second pair of transversely spaced rigid parallel arms fixed at their lower ends to the other of said shafts in perpendicular relation thereto and extending upwardly and outwardly from said shaft, said first and second pairs of arms diverging upwardly and outwardly at equal angles away from a vertical plane parallel to and between the two shafts, a first group of rollers rotatably mounted on the upper ends of said arms, a pair of spaced parallel longitudinally extending trackways on the under surface of said movable bottom, means for permitting longitudinal movement of said rollers along said trackways and otherwise preventing relative movement between said rollers and said trackways, stops limiting longitudinal movement of said rollers relative to said trackways beyond predetermined points, resilient tension means extending between said first and second pairs of arms and normally urging the same together, said first and second pairs of arms being movable apart from each other under tension upon weight being placed upon the movable bottom, and a second group of rollers rotatably mounted on said movable bottom in engagement with the side walls of said truck.

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2,769,569
**BLADE DISPENSING DEVICE**
Robert L. Sinclair, Dedham, Mass., assignor to The Gillette Company, a corporation of Delaware
Application September 16, 1950, Serial No. 185,188
5 Claims. (Cl. 221—37)



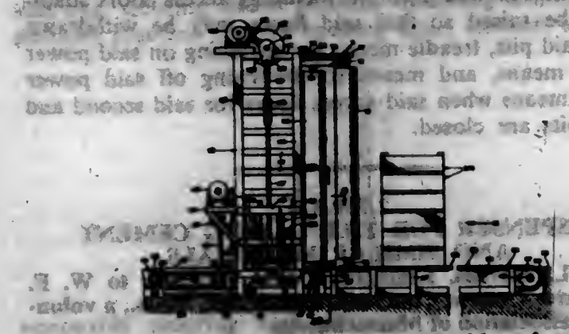
1. A blade-dispensing device comprising a casing having a top opening, a stack of flexible and resilient blades disposed in said casing in alternately staggered and overlapped relation, means for bowing the central portion of said stack of blades towards said top opening to urge an end of the uppermost blade into said top opening, and a slide mounted for reciprocable movement relative to said casing and closing said top opening, said slide having a window wider than the width of the blades, said slide normally restraining the uppermost blade end and being reciprocable between alternate positions in which its window is in register with successive restrained blade ends to permit said successive blade ends to extend through said top opening and said window and beyond the dispensing device for manual removal of the blades therefrom.

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2,769,570
**BOX UNSTACKER**
Loyd Adams, Maywood, Calif., assignor to Calavo Growers of California, Los Angeles, Calif., a corporation of California
Application June 13, 1952, Serial No. 293,361
3 Claims. (Cl. 221—225)

2. In a machine for handling boxes, the combination of a frame, a feeder conveyor supported by said frame and adapted to convey a stack of boxes, said feeder conveyor including a pair of spaced endless members, an unstacker assembly intermediate the ends of said frame in a position to operate upon a stack of boxes on said feeder conveyor, said unstacker assembly including means for simultaneously lifting all but the lowermost of the boxes in a stack, said means including a vertically reciprocable carriage, a bracket member on said carriage, said bracket member being provided with an aperture, a discharge conveyor having a receiving end and a delivery end and including a pair of spaced endless members, the delivery end of said discharge conveyor being pivotally connected to said frame and the receiving end thereof extending into nested relation between the endless members of said feeder conveyor, and means operably connecting the receiving end of said discharge conveyor with said carriage for moving said receiving end in timed relation with

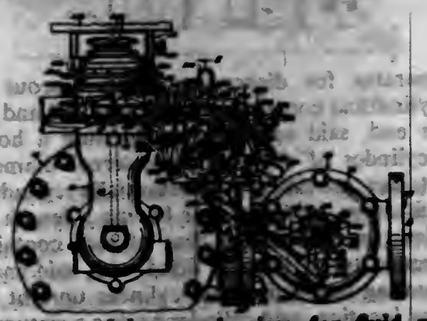




the operation of said unstacker assembly whereby the lowermost box is transferred from said feeder conveyor to said discharge conveyor, said last means including a rod extending upwardly from the receiving end of said discharge conveyor and through said apertured bracket member, the upper end of said rod being provided with stop means engageable by the upper surface of said bracket member.

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2,769,571
**REGISTER COORDINATED CONTROL MECHANISM FOR CLOSING A METER VALVE**
Elmer Thereson, Pittsburgh, Pa., assignor to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 13, 1951, Serial No. 261,448
28 Claims. (Cl. 222—29)

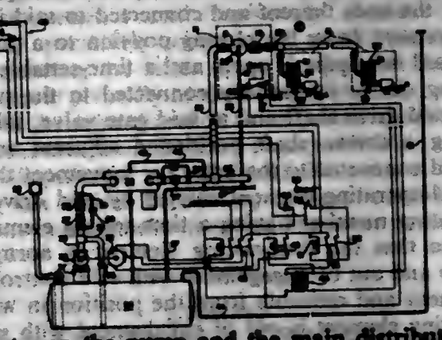


1. In predetermining mechanism for fluid meters, a fluid flow control valve, actuating means operatively connected with said valve manually operable to open the valve, a valve closing spring connected with said valve energized by opening of said valve, said actuating means including a shaft, means for successively latching said valve in full and partly open positions comprising a pair of circumferentially spaced stops and means mounting said stops for angular movement with said shaft, a pivoted latch lever spring biased toward latching engagement with said stops, and means operable at predetermined times and responsive to increments of fluid flow through the meter to trip said latch lever out of engagement with the respective stops and permit staged closure of said valve by said spring.

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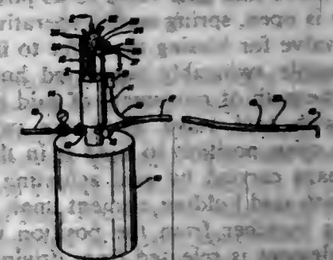
2,769,572
**MULTIPLE REFUELING SYSTEM**
Gerald J. Harmon, Beverly Hills, Harwood D. Hooker, Sunland, and Robert T. Rommel, Burbank, Calif., assignors to Lockheed Air Terminal, Inc., Burbank, Calif.
Application November 15, 1952, Serial No. 320,726
8 Claims. (Cl. 222—26)

1. A multiple station refueling system comprising a fuel storage tank, a pump drawing fuel from the tank, a main distribution line connected to the pump to directly receive fuel therefrom and having the individual stations connected thereto, a master fuel-water separator interposed between the pump and the main distribution line, pump starting and stopping controls at each refueling station, and a master pump control arranged to stop the pump and deactivate the station controls.



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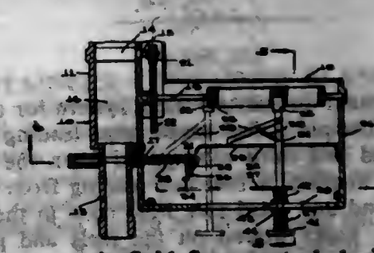
2,769,573
**MOLD FILLING APPARATUS**
Theodore A. Miller, Cuyahoga Falls, Ohio
Application September 22, 1954, Serial No. 457,685
3 Claims. (Cl. 222—43)



1. Mold filling apparatus, comprising a storage tank for containing a liquid molding material, a measuring cylinder having an inlet communicating with the liquid in the tank, means for applying fluid pressure to the liquid in said tank to force it into said cylinder, a piston in said cylinder and having a piston rod and adjustable stop means limiting movement of said piston rod under pressure of the liquid, said stop means comprising a turret having a plurality of projecting stops engageable with said piston rod, means mounting said turret on said measuring cylinder with the turret axis lying in, but perpendicular to, the path of said piston rod, and power means for moving said piston from said stop means against pressure of the fluid, to deliver a measured charge from said cylinder.

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2,769,574
**AUTOMATIC FLUID FLOW CONTROL DEVICE**
Paul J. Algiers, Stoneham, and John O. Kercheval, Woburn, Mass.
Application August 26, 1955, Serial No. 530,751
4 Claims. (Cl. 222—59)



4. An automatic fluid flow control device comprising a cylindrical housing having oppositely-disposed outlet and inlet pipes projecting from the periphery thereof, a horizontally-disposed drive shaft rotatably supported in said housing and having one end projecting therefrom, a

paddle wheel positioned within said housing and carried by said shaft for rotation therewith in response to the flow of fluid admitted through said inlet pipe, a gate valve arranged transversely of and closing said inlet pipe intermediate the ends thereof and connected to said inlet pipe for movement from the closing position to a position in which said inlet pipe is open, and a time-settable control-operating device operatively connected to the projecting end of said drive shaft and to said gate valve, said device including a driven shaft positioned adjacent said drive shaft and connected to the latter for movement therewith, a control-operating element carried by said driven shaft, an actuating member having a time-setting element positioned so that the time-setting element is normally adjacent to and out of engagement with said control-operating element and movable from the position in which the time-setting element is out of engagement with said control-operating element to any selected position of driving engagement with said control-operating element, a latching element pivotally carried by said actuating member and engageable with means on said gate valve when the latter is in its closing position and releasable from said means upon initiation of the movement of said actuating member from the position in which the time-setting element is shifted from its position of out of engagement with said control-operating element to any selective position of driving engagement with said control-operating element and move said gate valve to its position in which the inlet pipe is open, spring means operatively connected to said gate valve for biasing the latter to its closed position, a releasable swingably supported holding element arranged in the path of movement of said gate valve and engageable with said valve when the valve has been moved to its open position to hold it in the latter position, and means carried by said actuating member and engageable with said holding element upon movement of said actuating member from the position in which said time-setting element is released from driving engagement with said control-operating element to release said holding element from engagement with said gate valve and permit said gate valve to return to its closing position under the action of said spring means.

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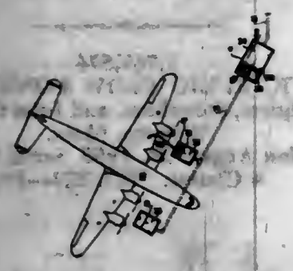
2,769,575

**AIRPLANE REFUELING SYSTEM WITH RATE OF FLOW METERING**

Gerald Jerome Herman, Beverly Hills, Harwood D. Hosher, Sunland, and Robert T. Rummel, Burbank, Calif., assignors to Lockheed Air Terminal, Inc., Burbank, Calif.

Application December 6, 1952, Serial No. 324,582

1 Claim. (Cl. 222—71)



An underground aircraft refueling system for airplanes comprising a first pit, a fuel supply pipe leading into the first pit, second and third pits spaced from the first pit and from one another, a fuel line leading from the first pit to the second and third pits, hose reels in the second and third pits, hoses wound on the reels and provided with valved fuel dispensing nozzles, the hoses being adapted to be unreeled for extension from the second and third pits so as to supply fuel to the aircraft, meters in the first pit manifolded in parallel relation between said fuel supply pipe and said fuel line, power driven means in the second and third pits for rotating their respective reels to receive the respective hoses, cover means for the pits, the cover means for the first pit including an access door adapted to be raised, a self closing valve in the first pit for controlling the flow of fuel through said supply pipe, means actuated by the door upon moving the same to the closed position for closing said valve, the cover means for the second and third pits including access doors adapted to be raised so that said hoses may be withdrawn from said pits, treadle means for switching on said power driven means, and means for switching off said power driven means when said access doors for said second and third pits are closed.

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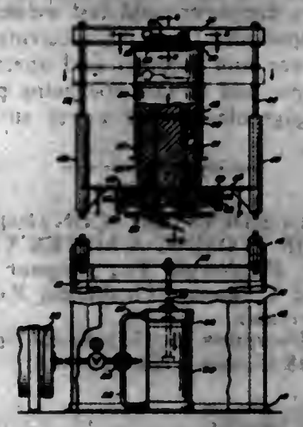
2,769,576

**DISPENSER FOR TILE LAYING CEMENT AND SIMILAR MATERIALS**

Frank L. Stevens, Lexington, Mass., assignor to W. F. Webster Cement Company, Cambridge, Mass., a voluntary association of Massachusetts

Application September 25, 1953, Serial No. 382,283

5 Claims. (Cl. 222—80)



1. Apparatus for dispensing highly viscous material from a cylindrical container open at one end and closed at the other end, said apparatus comprising a hollow dispensing cylinder of slightly less external diameter than said container providing a substantially cylindrical dispensing chamber, said chamber having a length and volume at least approximating that of said container, and being adapted to be initially filled with said material, a fixed mounting supporting said cylinder upright at a predetermined location, said cylinder having a circumferential opening into said chamber at its upper end and a plurality of relatively short dispensing nozzles mutually spaced from each other by predetermined intervals opening directly from said chamber at its lower end, said cylinder further having a circumferential circular external sealing flange about said circumferential opening adapted to enter said container and to fit the internal wall thereof with a sealing fit, a forcing member mounted above said circumferential opening, said member being adapted to engage the closed end of said container, mechanism for forcing said member downwardly toward said cylinder thereby to force the wall of said container over said flange and to discharge material from said container through said circumferential opening into said chamber while simultaneously extruding material from said chamber through said nozzles.

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2,769,577

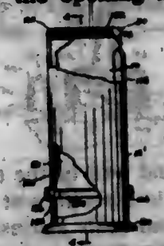
**BAG CONTENT DISPENSER**

Bernhardt Stallman, Omaha, Nebr.

Application April 21, 1950, Serial No. 157,209

7 Claims. (Cl. 222—399)

1. A device for dispensing the contents of a flexible bag having an opening therein comprising: an outer housing having two hollow portions disposed opposite each other for receiving said bag therein, at least one of said portions having a rough surface disposed opposite the other of said portions for receiving against said rough surface one end of said bag, one of said housing portions having another rough surface disposed spaced apart from said first rough surface and opposite the other portion of said housing for receiving therebetween the other end of said bag, securing means pivotally attaching said housing portions together for the opening apart thereof; a clasp



removably securing said portions in closed position; means attached to said housing for holding and supporting said bag at one of its ends; a member slidably secured to said housing for movement between said rough surfaces, said member having a slot for receiving the other end of said bag, said member having a knob disposed extending outwardly of said housing; and means attached to said housing for maintaining the walls of said bag opening in closed position.

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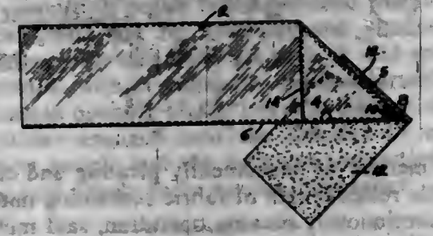
2,769,578

**PLASTIC CEMENT APPLICATOR**

John Johnson, San Francisco, Calif.

Application December 12, 1955, Serial No. 552,351

3 Claims. (Cl. 222—107)



3. In a new article of manufacture, a plastic cement applicator comprising a rectangular envelope of flexible plastic material having an open end folded diagonally upon itself from one corner thereof, with said open end matching an adjacent side edge of said envelope and forming a pointed spout aligned with said side edge; a plurality of slanted and graduated indicia on the apex of said pointed spout; and a transparent adhesive strip mounted around said pointed spout, and around said folded corner and sealing said folded corner flatly against said envelope.

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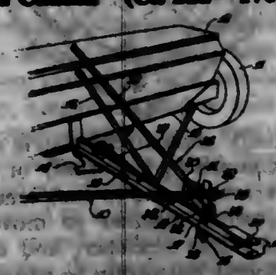
2,769,579

**IMPLEMENT ADJUSTING DEVICE**

David M. Morris, Richmond, Ind., assignor to International Harvester Company, a corporation of New Jersey

Application March 30, 1954, Serial No. 419,782

12 Claims. (Cl. 222—176)



1. In agricultural distributors and the like having a supporting frame including a hitch frame for connection to a tractive vehicle, and a hopper extending upwardly from the frame having discharge openings therein and closure means for regulating the flow of material, an actuating member associated with the hopper for operating the closure means, a rocker pivotally mounted on the hitch frame operatively connected to said actuating member for operating the latter upon rocking the rocker, an elongated lever pivotally mounted on said hitch frame for swinging in the same direction as and relative to the rocker, abutment means on the lever engageable with the rocker in one direction of movement of the lever, and means providing lost motion connecting the lever to said rocker to limit the relative movement of the lever in the other direction.

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2,769,580

**COMPRESSION SPRAYER**

Robert C. Hudson, Glencoe, Ill., and August H. Plake, Hastings, Minn., assignors to H. D. Hudson Manufacturing Company, Chicago, Ill., a corporation of Minnesota

Application June 19, 1953, Serial No. 362,914

6 Claims. (Cl. 222—397)



3. In a compression sprayer having a tank for a spray solution and provided with a constricted filler opening and an enlargement at the top providing a funnel for facilitating supplying the tank with the solution to be sprayed, a pump having a barrel adapted to be detachably mounted in the filler opening for supplying the tank with sufficient air pressure to permit continuous spraying over an extended period of time, said enlargement having spaced inturned flanges providing inclined camming surfaces and said pump having a cover provided with spaced arms each having an inclined camming surface adapted to be received beneath the camming surfaces on said enlargement and when rotated in one direction locating the pump barrel in the filler opening and sealing the interior of the tank to permit the pump to build up air pressure in the tank, and when moved in the opposite direction disengaging the camming surfaces and permitting removal of the pump and its barrel from the tank, said barrel having an external flange and sealing means carried by the flange at the upper open end of the barrel, the barrel being of maximum diameter below said flange and thereat conformably received within the filler opening and provided with a tapered constriction beneath said portion of maximum diameter for relieving entrapped pressure in the tank about said constriction as the barrel is elevated by the entrapped pressure in the tank and before the camming surfaces are disengaged, and an abutment on one or more of said camming surfaces for preventing disengagement of the camming surfaces until pressure is relieved in the tank.

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2,769,581

**CONTAINERS, CONTAINER BLANKS AND METHOD OF MAKING SAME**

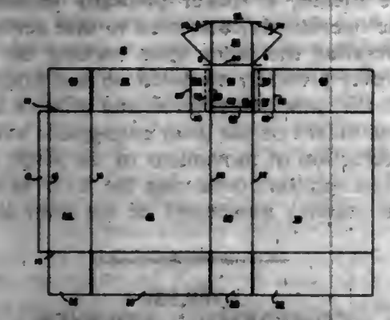
George H. Lagemann, Mundelein, Ill., assignor, by direct and mesne assignments, of nine-tenths to Custom Designers, Mundelein, Ill., a partnership, and one-tenth to Arthur James Wagner

Application March 20, 1953, Serial No. 343,543

9 Claims. (Cl. 222—455)

1. In a container, a pocket member formed from a vertically an extended portion of an end wall and disposed within said container, said pocket member having an open side positioned in acute angular relation with an inner wall of said container so as to provide direct communica-

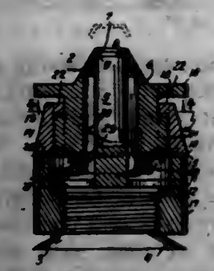
tion of the pocket with the interior of said container, and aperture forming means for placing an aperture in said wall above said pocket opening comprising spaced slit lines extending along three sides of a given section of said



wall and a creased line extending along the fourth side thereof to permit depression of the section about the creased line into said pocket opening to divide same into two communicating compartments.

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2,769,582
CLOSURE MECHANISM FOR CONTAINERS
Theodore F. Schlichtapp, Long Island City, N. Y.
Application September 14, 1953, Serial No. 379,860
6 Claims. (Cl. 222—513)

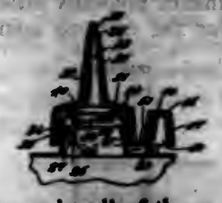


6. In a discharge mechanism for containers, a body member constructed to be attached to the container, a post-like member fixed at its inner end to said body member, a manually movable spout member projecting from a bore in said body member, said spout member surrounding said post and forming therewith an annular passage for the material to be discharged, cooperating valve and valve seat members on said respective post and spout members arranged to control a discharge aperture at the outer end of said spout member, spring means arranged to urge said spout member to open position, cooperating cam formations on said spout and body members respectively to effect axial shifting of said spout member to an inner position to close said discharge aperture and to an outer position to open said discharge aperture when said spout member is manually rotated, an annular diaphragm fixed at its outer periphery to said body member, and means including said spring means for maintaining the inner margin of said diaphragm in sealing engagement with said spout member, so as to prevent the escape of vaporized material from the interior of the container.

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2,769,583
CLOSURE
Henry S. Darlington, Jr., Media, Pa., assignor to A. H. Wirz, Inc., Chester, Pa., a corporation of Pennsylvania
Application May 12, 1954, Serial No. 429,251
4 Claims. (Cl. 222—541)

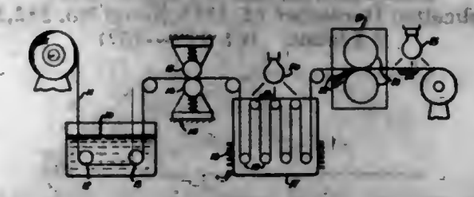
1. In a container including a neck provided with an external annular neck bead, an external annular recess behind the neck bead, an end opening in the neck and an end wall on the neck beyond the neck bead, the invention which comprises an integral elastomer closure comprising an end wall positioned beyond and in spaced relation to the end wall of the neck and adapted to close the opening in the neck, an annular flange extending around the outside of the neck, having an internal annular rib on the flange which engages firmly immediately behind the external bead on the neck, and having an integral elastic diaphragm extending from the inside of the end wall in a direction diagonal to the axis of the flange in repose of the closure, occupying the space between the end wall of



the closure and the end wall of the neck, displaced by the end wall of the neck to a position at which the diaphragm engages diagonally and seals against the end wall of the neck, the angle of the diaphragm to the axis in sealing position being between 75 and 90 degrees, the diaphragm being compressed against the end wall of the neck when the rib on the inside of the flange engages immediately behind the bead on the neck ring.

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2,769,584
METHOD OF PERMANENTLY PLEATING FABRICS
Martin Zinamon, Jackson Heights, Edward F. Semlitz, Fresh Meadows, and Jordan Levin, Brooklyn, N. Y.
Application February 9, 1954, Serial No. 409,162
6 Claims. (Cl. 223—30)



1. A method of permanently pleating and creasing an indivisible rolled length of fabric containing natural fibres in one continuously moving operation, said method comprising subjecting a soft starchless and creaseless fabric to a hot aqueous solution of a formaldehyde resin containing a catalyst, mangling the fabric, heating the fabric, forming permanent pleats in the fabric after heating and while it retains about 5 to 10% moisture, and then curing the fabric.

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2,769,585
COLLAR STRETCHER
Abraham Goldstein, Brooklyn, N. Y.
Application January 4, 1955, Serial No. 479,767
6 Claims. (Cl. 223—52.1)



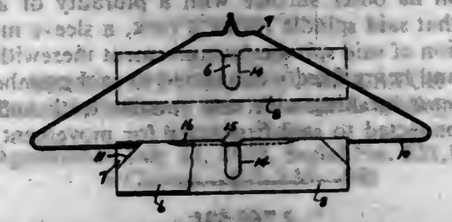
1. A substantially annular expansible and contractible collar stretcher comprising a plurality of substantially arcuate segments arranged end-to-end, tension spring connecting said segments together to move the same inwardly to contract said stretcher, and cams means for moving said segments outwardly to expand the stretcher comprising a rotary plate within the confines of said segments, internal slots in said segments in which said



plate is rotatable, peripheral cams on said plate rotatable in said slots by said plate, and means in said slots engaged by said cams to cam said segments outwardly in opposition to said springs.

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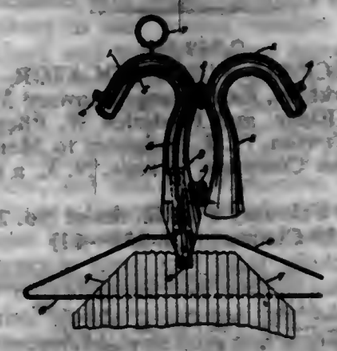
2,769,586
HANGERS FOR TROUSERS
John D. Lee, Freeport, Pa.
Application May 5, 1954, Serial No. 427,751
1 Claim. (Cl. 223—95)



An attachment for a garment hanger having a horizontally extending portion to receive the attachment, comprising a trousers suspension member constructed of an integral sheet of tough stiff material, said member folded along three parallel lines extending in the longitudinal direction to form a pair of downwardly disposed supporting panels and a pair of upwardly disposed attaching panels, said panels being oblong rectangularly-shaped and uniform in length and width, said supporting panels positioned flatly against each other and joined together at the tops thereof along the center fold line, said attaching panels positioned flatly against the outer face of respective supporting panels and having the bottoms thereof joined with the bottoms of respective supporting panels, the joined top of the supporting panels being provided with a longitudinally extending slot for receiving and attaching the garment hanger with said member, each of said attaching panels provided with a centrally disposed transversely extending recess opening at the free top thereof, and reinforcing means engaged near the juncture of each of said attaching panels and the adjacent supporting panel for holding said panels flatly against each other.

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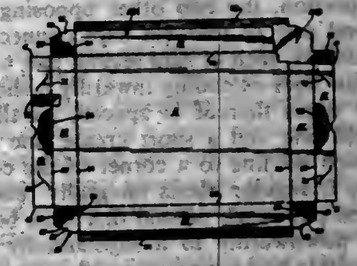
2,769,587
CASE TYPE HOOK FOR SUIT HANGERS
Clay La Fayette Thrasher, Atlanta, Ga.
Application December 15, 1954, Serial No. 475,506
1 Claim. (Cl. 224—45)



A case-type hook of the character described comprising two similar parts shaped as a hook, each part having a curved bill portion extending in a substantially straight elongated portion, hinges attached to said parts for holding them swingably together, each part being round in cross section and being hollow when they are folded together with the edges of the parts in register with each other, a ring attached in fixed condition in one of the case parts in its upper curved portion, said ring being adapted for use in supporting the hook portions of a plurality of wire type suit hangers with the case hook when it is in its closed condition with the shanks of the suit hangers encased within the substantially straight portion of the case hook; a second ring attached swingably to the outer top face of the case part having the other ring therein; a latch in two parts with one part thereof mounted on each case part, said latch being adapted to hold the case hook in closed condition; a spring type clip attached to the case part having the ring therein, said clip being adapted for supporting the upper edge portion of a suit carrying bag when it encloses suits on suit hangers supported by the ring in the case part.

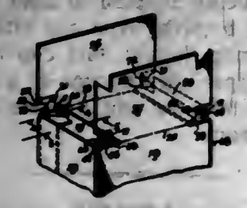
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2,769,588
ORNAMENTAL BOX
Anita E. Beck, Minneapolis, Minn.
Application September 15, 1952, Serial No. 309,690
3 Claims. (Cl. 229—31)



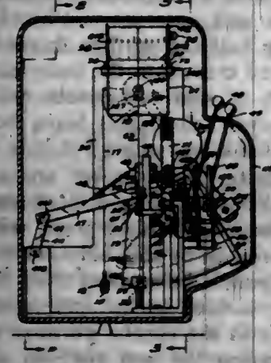
1. An article of merchandise comprising members adapted to be folded to form one part of a bipartite telescoping box having in combination, a blank of rather stiff sheet material, a loose cover of lighter sheet material therefor, said blank comprising a rectangular main body panel having end panels disposed at opposite ends thereof, score lines at the junction of said body panels and end panels, said body panel having side panels disposed at opposite sides thereof, score lines at the junction of said body panel and side panels, a pair of gores joining each end of said end panels to the end of adjacent side panels and disposed between the ends of said side and end panels, said gores having incisions therein extending from the corners of said main body panel outwardly to substantially the center of said gores and creases extending from said incisions outwardly to the outer edge of said gores, said end panels having extension panels contiguous therewith, said cover overlying said blank and having a central body panel coextensive with said body panel of said blank and having end panels and extension panels coincident with the end panels, gores and extension panels of said blank, said cover having side panels of the same length as the side panels of said blank and extending a short distance beyond said latter side panels, the extension panels of said blank and cover having their adjacent surfaces secured together, said extension panels of said blank having areas of adhesive thereon at the side opposite said cover and disposed adjacent the center of said side panels, said gores on said blank having adhesive on substantially half the surface thereof extending from said incisions and creases to the outer edges of said gores and to the ends of said end panels, said projecting portions of said cover side panels being bent over the side panels of said blank and secured thereto by said adhesive, said side panels of said member and cover being bent over the central portion of said blank and the end panels thereon, the portions of said gores with said adhesive thereon being secured by said adhesive to said end panels, said extension panels being bent over the end panels of said blank and secured to the end panels of said blank by said adhesive at the central portions of said extension panels, thus leaving the end portions of said extension panels free, whereby a collapsed container is formed the sides and the ends of which can be lifted to form a rectangular box.

2,769,589
**CLOSURE CONSTRUCTION FOR CONTAINERS**
George Arlington Moore, New York, N. Y.
Application May 12, 1954, Serial No. 429,232
3 Claims. (Cl. 229—37)



1. A closure for rectangular containers having four side walls arranged in opposing pairs, two opposing side walls having a first pair of substantially like, foldable flaps, each of said flaps being divided along a hinge line into two foldable marginal portions with an inner portion hinged to the outer portion, the two other opposing side walls having a second pair of foldable flaps connected thereto along flap fold lines, each of said second pair of flaps having a pair of slit lines extending inwardly a short distance from the side edges thereof in spaced, parallel relation to the flap fold line and a short crease line connecting each end of each slit line to a corner of the container to define foldable triangular pleats integrally related with a flap of said first pair, each of said first flaps being folded inwardly and downwardly to a substantially horizontal position, said pleats being superimposed upon said second flaps, each of the outer-most marginal portions of said first flaps being provided with a pair of opposed open notches cut inwardly of the side edges thereof with an edge of each notch being parallel to and spaced outwardly of the dividing line of said first flaps, each said outer-most marginal portion being folded upwardly, outwardly and downwardly in self-superimposing relationship upon the inner-most marginal portion, the free side edge portions of each marginal portion being disposed in abutment upon an adjacent side wall of the container, said parallel edge of each notch being positioned in the same plane as the slit edge of a pleat, each of said second flaps being folded inwardly and downwardly in overlapping container closing relationship, the outer edge of the first folded of said second flaps being provided with a pair of open notches having edges that coincide with one notch in each of said outer-most marginal portions and the pair of pleats in the other of said second flaps being morticed into said pair of coinciding notches.

2,769,590
**ADJUSTING MECHANISM FOR WEIGHING SCALES**
Ernst Kubale, Balingen, Germany
Application December 12, 1951, Serial No. 261,215
Claims priority, application Germany December 18, 1950
4 Claims. (Cl. 235—61)



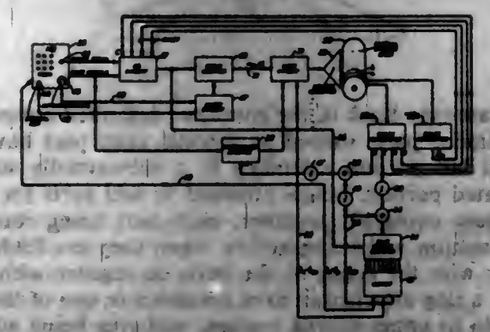
1. Apparatus for adjusting the location of a price indicating means for weighing scales, comprising, in combination, a member adapted to be connected to the price indicating means so as to move with the same; first and second levers; first moving means interconnecting said first lever and said member for moving the latter a predetermined distance for a given movement of said first lever; and second moving means interconnecting said second lever and said member for moving the latter a fraction of said predetermined distance for a movement of said second lever of the same magnitude as said given movement, said first moving means comprising a stationary cylindrical bar, a hollow cylindrical spindle mounted on said bar for sliding movement therealong and being formed on its outer surface with a plurality of annular teeth so that said spindle forms a rack, a sleeve mounted on a portion of said spindle for movement therewith along said bar and being fixedly connected to said member, and a gear sector meshing with said annular teeth and being fixedly connected to said first lever for movement therewith.

2,769,591
**INTEGRATING MECHANISM**
Paul Zamboni, Zurich, Switzerland, assignor to Landis & Gyr A. G., Zug, Switzerland, a body cooperate of Switzerland
Application September 23, 1954, Serial No. 457,847
7 Claims. (Cl. 235—61)



1. In a mechanical integrating instrument the combination of a pawl carrier rotating at a constant velocity, a movable pawl on the carrier, an adjustable disk, means for adjusting said disk in accordance with the instantaneous value of the quantity to be measured, a ratchet rotatably secured to a counter, and adjustable stop members for moving the pawl into and out of engagement with the ratchet, one of said stop members being movable with the adjustable disk so as to vary the period of engagement between the pawl and ratchet, and means for pivoting said one stop member to a non-engaging position through a portion of the disk's travel whereby engagement between the pawl and ratchet is avoided.

2,769,592
**DECIMAL POINT LOCATOR**
William H. Burkhart, East Orange, Howard M. Fleming, Jr., Basking Ridge, and Frederick W. Pfleger, Pahlisakill Lake, Newton, N. J., assignors to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application February 9 1952, Serial No. 270,876
29 Claims. (Cl. 235—61)

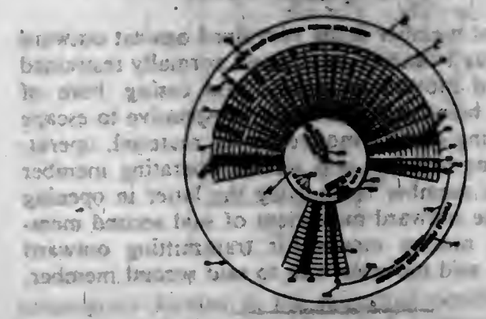


14. In a decimal point aligning arrangement for a computer or the like, the combination of a storage device in which digit signals are recorded seriatim, normally



disabled means for precessing recorded digits a predetermined amount, enabled in conjunction with each new digit signal recording, a counter arranged to count through a predetermined number of counts, said counter being advanced one step for each digit on one side of the decimal point of the number of which the digits are a part, and means for advancing said counter through the remainder of said predetermined number of counts after the last digit on said one side of the decimal point has been entered and for precessing digit recordings one digit space for each step of said advance.

2,769,593
**FERTILITY PERIOD INDICATOR**
Louis L. Safranek and Kenneth A. Ohlinger, Omaha, Nebr.
Application July 11, 1955, Serial No. 521,125
3 Claims. (Cl. 235—88)



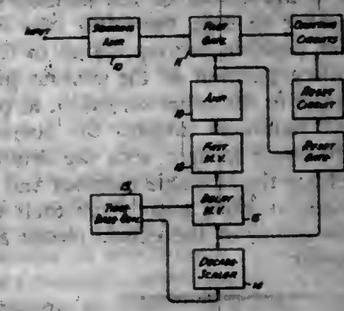
1. A fertility period indicator comprising: a low member having a pivot point, approximately adjacent an area-center of said lower member, said lower member having the day numbers of the days of a year on an upper side thereof and arranged in radially extending columns and also arranged in rows concentric with and extending various distances outwardly from said pivot point, a center member disposed above said lower member and having a first window therethrough disposed above and for exposing certain ones of said day numbers on said lower member, said center member having a pivot-point above the pivot point of said lower member, said center member having month markings thereon adjacent said first window and respectively arranged in positions opposite corresponding ones of said concentric rows, said center member having a second window therethrough and of a shape for exposing one of said columns, said second window being adjacent said month markings for the reading of day numbers in said second window opposite said month markings, said second window being in a position for indicating the first date of a period in which the days of actual fertility lie, said center member having a third window therethrough of a shape for exposing another of said columns different from that column exposed by said second window, and said center member having month markings thereon adjacent said third window and respectively arranged in positions opposite corresponding ones of said concentric rows, said third window being in a position for indicating the last date of said period, said center member having a circular row of day numbers thereon for indicating cycle days and arranged concentric with said pivot-point, and a top member disposed above and having a smaller size than said center member for not unduly overlaying said windows, said top member having a pivot-point above the pivot-points of said lower and center members, said top member having a window therethrough for exposing and indicating one of the days in said circular row of cycle days, said top member also having an indicia thereon adjacent an edge thereof and disposable opposite said columns and for indicating one of said columns of day numbers on said lower member, and means for pivotally securing said members together at their pivot points for independent rotation.

2,769,594
**DUAL SELECTIVE REGISTERS**
James Edward Dimmett, Pittsburgh, Pa., assignor to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 17, 1952, Serial No. 310,023
21 Claims. (Cl. 235—91)



1. In an indicating mechanism including a flow meter through which fluid is continuously passed, a meter housing and a drive shaft extending through said housing; the combination comprising a drive selector housing mounted on said meter housing and surrounding said drive shaft, a pair of spaced apart alternately selectively driven members mounted in said selector housing extending exteriorly of said selector housing at one side, a ring adapter removably secured upon and upstanding from said selector housing surrounding one of said driven members, a first indicator mounted on said ring adapter and operatively connected to said one of said driven members whereby motion of the driven member is transmitted to said indicator, an elongated extension mounted at one end on said selector housing, a second indicator mounted on the other end of said extension and operatively connected to the other of said driven members through said extension whereby said second indicator is at a greater elevation than the first indicator to permit unobstructed reading and servicing of both of said indicators from the same side and movable selector means in said housing for optionally engaging said drive shaft with a selected indicator through a respective driven member.

2,769,595
**FREQUENCY COUNTER**
Alan S. Bagley, Los Altos, Calif., assignor to Hewlett-Packard Company, Palo Alto, Calif., a corporation of California
Application July 23, 1952, Serial No. 300,447
9 Claims. (Cl. 235—92)



1. A frequency counter comprising pulse counting means, an electronic gate serving to control application of pulses to the counting means, means for supplying pulses to the gate at a frequency corresponding to the unknown frequency, a time base generator for generating at least two first and second timing pulses separated by a predetermined period, said period corresponding to a desired counting time, and means responsive to said pulses serving to cause opening and closing of said gate and resetting of the counting means, said last means including means for imposing a predetermined time delay

between resetting of said counting means and the opening of said gate responsive to the first pulse and for imposing a like time delay between the second pulse and closing of said gate.

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2,769,596
REGISTER RESETTING MEANS
Paul Locoli, Geneva, Switzerland, assignor to Sodeco, Societe des Compteurs de Geneve, Geneva, Switzerland, a firm of Switzerland
Application February 18, 1955, Serial No. 489,191
Claims priority, application Switzerland December 30, 1954
3 Claims. (Cl. 235—144)

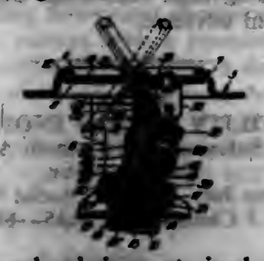


1. An impulse meter comprising a casing, a system of coaxial digit-carrying drums revolubly carried inside the casing, a gear system including coaxial pinions adapted for a predetermined position of their axis with reference to the axis of the drums to control the relative rotary movement of the drums for the transfer of digit values between the successive drums, a common rockable member adapted to pivot round an axis parallel with the axis of the drums and revolubly carrying the different coaxial pinions along an axis parallel with the pivotal axis of the rockable member, said rockable member being adapted for a predetermined angular position round its pivotal axis to set the transfer pinions in their operative drum-controlling position, elastic means urging said rockable member away from said predetermined angular position, means controlling the rotation of the input unit drum of the drum system, a return-to-zero cam coaxially rigid with each drum, a support adapted to rock round an axis parallel with that of the drums, a plurality of hammers corresponding to the different cams, carried by said support and the outer ends of which project each between the corresponding cam and the rockable member, and means adapted to shift the support into opposite directions of rotation to produce, when the support is shifted in one direction, a movement of the hammers towards the rockable member to urge the latter into the above mentioned angular position corresponding to the operative drum-controlling position of the pinions and, when the support is shifted in the other direction, to produce a movement of said hammers towards the corresponding cams to return the latter to zero with the drums and to simultaneously release the rockable member and to thereby allow the pinions to move away from their operative position under the action of the elastic means acting on the rockable member.

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2,769,597
THERMOSTATIC VALVE WITH SOLID ACTUATOR MEMBER
Edward L. Mayo, Cleveland, Ohio, assignor to The Bishop & Babcock Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application June 27, 1955, Serial No. 518,129
14 Claims. (Cl. 236—34)

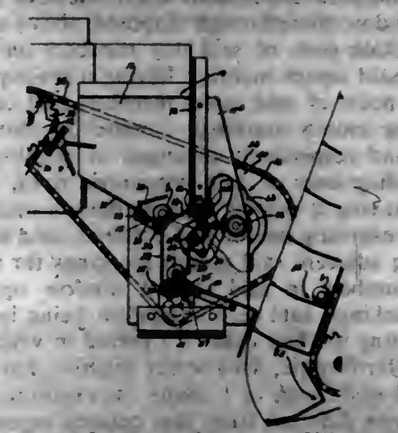
1. In thermostatic valve means, a valve seat member, a valve member cooperating with said seat member movable in one direction to a first and normal open position and in the opposite direction to a closed position, said valve member also being movable in said opposite direction beyond said closed position to a second and abnormal open position upon failure of said valve means, means yieldingly urging said valve member in said opposite direction, a sealed casing carried by said valve seat member and having a movable wall, a body of motive power material in said casing expansible and contractible responsive to variations in temperature, a first operating member and a second operating member slidably connected and having limited movement one toward the



other, said first member being restrained against outward movement away from said casing and normally restrained against inward movement toward said casing, both of said members being movable inward responsive to escape from said casing of said motive power material, operating connections between said second operating member and said valve member for moving the latter in opening direction in the outward movement of said second member, and lost motion means for transmitting outward pressure from said movable wall to said second member.

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2,769,598
MACHINE FOR OPERATING UPON BOBBINS
Russell P. Drake, Caledonia, Robert E. Borchardt, Rockford, and Charles R. Crandall, Loves Park, Ill., assignors to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Application September 11, 1952, Serial No. 309,122
11 Claims. (Cl. 242—35.5)

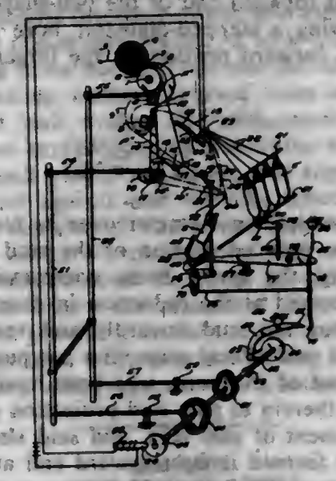


1. An apparatus for operating upon filling wound bobbins comprising, in combination, means for rotating a bobbin in a direction to unwrap a strand of yarn wound upon its butt end, a pair of rolls disposed below said bobbin rotating means and having intermeshing teeth, and continuously operating means to exert a force other than gravity on the unwrapping strand to draw the same away from the bobbin and present it to said rolls to cut or break off the strand from the bobbin.

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2,769,599
THREAD TRANSPORTING MECHANISM
Stefan First, M. Gladbach, Rhineland, Germany, assignor to Walter Reiners, Waldniel, Lower Rhine, Germany
Application September 5, 1952, Serial No. 308,833
Claims priority, application Germany September 7, 1951
11 Claims. (Cl. 242—35.6)

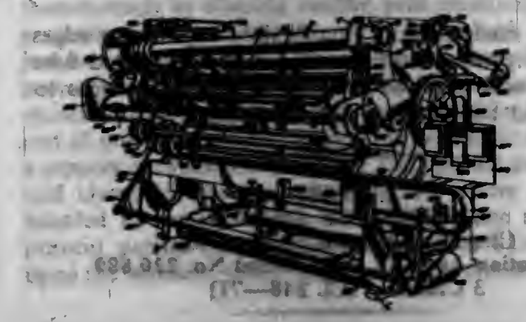
1. A thread transporting mechanism comprising, in combination, guide means for guiding thread from a supply spool along a predetermined course; a support; first suction means turnably mounted on said support for turning movement along a predetermined path from a rest position to a pick-up position adjacent said course for sucking at the latter position and end portion of a broken thread and bringing the same to said rest position; an automatic knotting mechanism located adjacent to said rest position of said first suction means to knot a thread end portion picked up thereby to an end portion of another thread; second suction means for holding the thread end portions of a plurality of supply spools adapted to be



successively located in the operating position of an exhausted supply spool, said second suction means being located with respect to said operating position along a line which intersects said path of movement of said first suction means so that a thread end portion of a supply spool newly located in said operating position crosses said path of movement of said first suction means; and an extension mounted on said first suction means for hooking an end portion of the thread of a supply spool newly located at said operating position to move said thread end portion from said second suction means and supply spool to said knotting mechanism.

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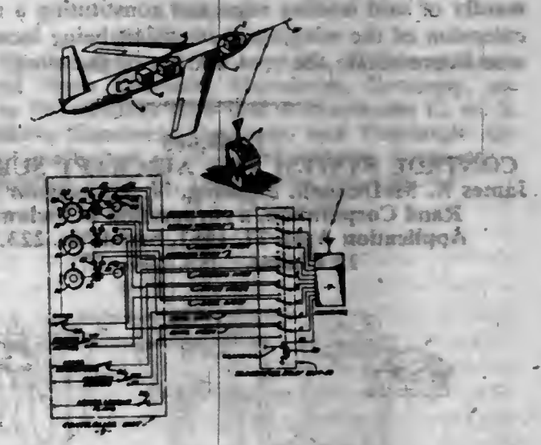
2,769,600
WEB WINDING MACHINE
Edwin M. Kwitek and Ernst Daniel Nystrand, Green Bay, Wis., assignors to Paper Converting Machine Co., Inc., Green Bay, Wis., a corporation of Wisconsin
Application July 16, 1952, Serial No. 299,108
10 Claims. (Cl. 242—56)



1. In a web winding machine, a frame, a turret rotatably mounted within said frame adjacent one end thereof, driving means continuously driven and adapted to rotate said turret intermittently, a plurality of elongated core shafts fixed at one end to said turret at points equally spaced about an arc having its center on the rotational axis of said turret and having free ends projecting inwardly from said turret in substantially parallel relation, each of said core shafts being adapted to receive at one position of the turret an elongated tubular core, support means carried by said frame and movable into engagement with the free end of a core shaft at selected positions thereof to support the same, locking fingers carried by each core shaft for gripping a core positioned thereon to prevent rotational movement thereof relative thereto and being actuated by said last-mentioned means, means for winding a web upon the core of a core shaft while the free end thereof is supported, means for withdrawing said support member from the free end of the core shaft, and automatic means for removing the wound core from the core shaft including a continuous conveyor and a laterally-extending lug carried thereby, said lug being movable into engagement with a full core by the movement of said conveyor to move a full core from the core shaft while the core shaft remains fixed to said turret.

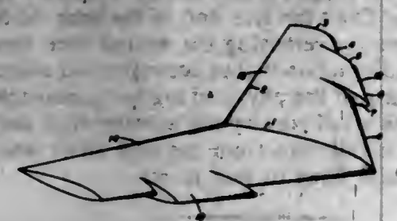
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2,769,601
AUTOMATIC RADIO CONTROL SYSTEM
Jacob J. Hagopian, Los Angeles, and Stuart R. Hennies, Manhattan Beach, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application August 18, 1950, Serial No. 180,367
25 Claims. (Cl. 244—14)



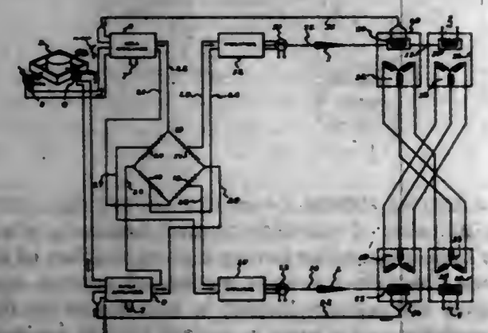
1. In a remote control system for controlling a device having a plurality of movable control members, wherein a remote radio transmitter having a given number of fixed modulation channels transmits modulated control signals to a receiver and selector located in said device for filtering and applying said signals to control circuits connected to operate said control members; means for individually controlling more control circuits than available channels, which comprise transfer means connected to be momentarily energized by a signal in a first one of said channels, a first group of said control circuits connected respectively to the outputs of the remainder of said channels by said transfer means when said transfer means is de-energized, a second group of said control circuits connected respectively to the outputs of said remainder of channels by said transfer means when said transfer means is energized, a plurality of primary manual control members respectively connected to switch on and off any of said remainder of modulation channels only, a plurality of auxiliary manual control members, each having means for completing an electrical circuit, and automatically timed actuating means connected to operate in response to completion of each of said electrical circuits, each of said actuating means comprising means for switching on said first channel to energize said transfer means, means for switching on a corresponding one of said remainder of channels while said first channel is still on, means for switching off said corresponding one of said remainder of channels after a predetermined time interval and while said first channel is still on, and means for switching off said first channel after a second predetermined time interval, to de-energize said transfer means.

2,769,602
**AIRPLANE WING WITH STABILIZING LEADING-EDGE CHORD-EXTENSIONS**
George Chester Furlong, Newport News, Va.
Application July 24, 1952, Serial No. 300,791
9 Claims. (Cl. 244—40)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A wing having upper and lower surfaces together with a trailing and a leading edge, the wing being of swept formation which in flight exhibits a vortex type of flow separation producing large shifts in aerodynamic center well below maximum lift, and means connected with the wing for diffusing said vortex flow thereby preventing the large shifts in aerodynamic center, including a continuous partial span leading edge extension projecting forwardly of said leading edge and constituting a chordwise extension of the wing, said extension being located spanwise intermediate the root and tip of the wing.

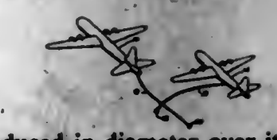
2,769,603
**CONTROL SYSTEM FOR AIRCRAFT SURFACES**
James A. McDonnell, Flushing, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application April 27, 1951, Serial No. 223,353
10 Claims. (Cl. 244—77)



2. In a control system for aircraft having a pair of control surfaces adapted to move said aircraft about two craft axes, the combination therewith of a first servo mechanism for operating the first of said surfaces, a second servo mechanism for operating the second of said surfaces, first and second sources of control signal for controlling both servo mechanisms in the same and opposite senses respectively, signal generators having their outputs connected in feedback fashion to oppose respectively the signals supplied by said first and second sources and means responsive to the outputs of both servo mechanisms for controlling the signal output from each of said generators.

2,769,604
**AIRCRAFT FLIGHT REFUELING APPARATUS**
Verne L. Hudson, Wichita, Kans., and James M. Wickham, Seattle, Wash.; said Hudson assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware
Application April 3, 1950, Serial No. 153,533
1 Claim. (Cl. 244—135)

In aircraft interconnecting apparatus, a dragline adapted to trail from one aircraft for contact by another aircraft, a dragline stabilizer element comprising a rearwardly divergent generally bell-shaped member on the trailing end of said dragline and having an axis of symmetry substantially coincident with the adjacent portion of the dragline, and coupling means carried by the trailing end of the dragline, forming a quickly disengageable connection between the dragline and the stabilizer element, and comprising stud means projecting rearwardly of the dragline and having a reduced-diameter elongated end portion carrying a lateral projection near its terminus, a helical spring encircling said reduced end portion between said lateral projection and the shoulder of the stud at its change of cross-section, a central sleeve carried by the smaller and forward end of the bell-shaped member, said sleeve having a stepped-diameter bore slidably engageable in its forward portion by the larger portion of



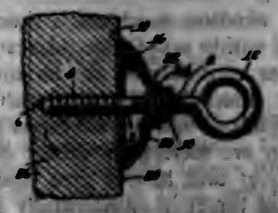
the stud, and reduced in diameter over its rearward portion to pass the reduced portion of the stud while stopping said spring, the spring being compressible against the shoulder formed at the reduction in diameter of the bore by inserting the stud inwardly and rearwardly in said sleeve until said lateral projection has passed beyond the rearward end of the bore, said bore having a longitudinal groove therein to pass said projection during such insertion movement of said stud, and said sleeve further having a notch formed in its rearward end at a location offset circumferentially from said groove end to receive said lateral projection when rotated by the stud out of circumferential registry with the groove, reaction of the spring forcing the stud forwardly in relation to the sleeve and thereby holding said projection in said notch.

2,769,605
**STICKLESS, COLLAPSIBLE KITE**
Dorothy J. Sparkman, Cedar Rapids, Iowa
Application May 6, 1955, Serial No. 506,609
6 Claims. (Cl. 244—153)



1. A kite comprising, a thin flexible bag having edges forming the general contours of a kite, an inflated tube disposed in said bag and pressing against said edges to maintain said bag in semi-rigid condition.

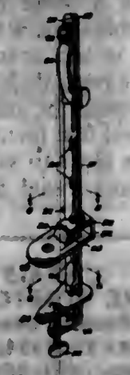
2,769,606
**ANCHORAGE DEVICE**
Charles O. Larson, Sterling, Ill.
Application April 13, 1951, Serial No. 220,880
3 Claims. (Cl. 248—71)



3. An anchorage device adapted to be installed on a wood-like support having a substantially smooth support surface comprising a lag screw, one end of said lag screw having formed thereon a wood screw portion adapted to be screwed into the wood-like support with the axis thereof substantially perpendicular to the support surface, the other end of said lag screw having an attachment member formed thereon and spaced from said wood screw portion, machine threads formed on said lag screw between said wood screw portion and said attachment member, a cup-shaped washer having an aperture in the center thereof receiving said lag screw, the free edge of said cup-shaped washer being directed toward said wood screw portion and the associated support surface, a nut threaded upon said machine threads between said attachment member and said cup-shaped washer, a lock washer mounted upon said lag screw between said nut and said cup-shaped washer, a sealing washer mounted upon said lag screw between said lock washer and said cup-shaped washer, said nut when turned upon said machine threads toward said cup-shaped washer urging the free edge of said cup-shaped washer against and into the associated support surface, said cup-shaped washer and nut and lock washer and sealing washer in cooperation with said lag screw providing a seal around the point at which said wood screw portion enters the associated support, said cup-shaped washer providing lateral support for said lag screw and in cooperation with said nut locking said lag screw against turning with respect to the associated support.



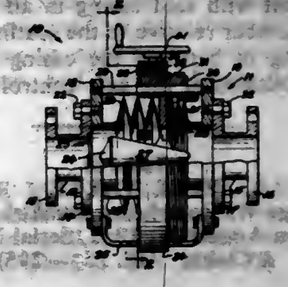
2,769,607
**FLY-TYING VISE**
Herbert L. Thompson, Elgin, Ill.
Application November 12, 1952, Serial No. 319,813
2 Claims. (Cl. 248—226)



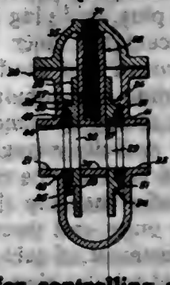
2. A standard for a vise, said standard being generally V-shaped in cross-section and having a bottom end turned at right angles thereto, a clamp jaw having an opening therethrough to slidably receive said standard, a row of projections on the front side of said standard, said clamp jaw having a tongue adapted to engage beneath a desired projection, a flat pad member slidably mounted on said standard and a clamping screw mounted in the bottom end of said standard and adapted to fasten the standard to a support between the clamp jaw and said flat pad member, said clamp jaw having a pair of ears above the tongue adapted to loosely engage the edges of the standard to prevent partial rotation on a horizontal axis cramping upon the standard when urged in one direction.

2,769,608
**BELLOWS VALVES**
Henry J. Reisig, Bergenfield, N. J., assignor, by mesne assignments, to Hagenauer & Breyer, Inc., New York, N. Y., a corporation of New York
Application July 31, 1953, Serial No. 371,480
10 Claims. (Cl. 251—31)

1. A fluid control valve comprising rigid end sections spaced apart and forming valve ports, fluid tight flexible bellows sealed at opposite ends thereof to said end sections and forming a tubular valve body for conducting the controlled fluid between said ports, a fixed valve member on one of said end sections, a complementary movable valve member within said bellows, and positioning means located exteriorly of said bellows and having an extension extending to said movable member through and in sealed relation to walls of said bellows, said movable valve member being supported by said positioning means and being movable thereby to and from said fixed valve member to close and open the valve, said bellows being displaced with movements of said positioning means but keeping said valve body completely sealed at all times.



2,769,609
**GATE VALVE**
Heinrich Blankenagel and Peter Abis, Duisburg-Hamborn, and Hugo Eberwald, Mannheim, Germany, assignors to Thyssensche Gas- und Wasserwerke G. m. b. H., Duisburg-Hamborn, Germany, and Vereinigte Armaturen-Gesellschaft m. b. H., Mannheim, Germany
Application April 13, 1951, Serial No. 220,744
3 Claims. (Cl. 251—196)



1. A gate valve for controlling a fluid flow having a casing forming therein a valve chamber provided with two aligned conduit ports and opposed parallel valve seats, and a valve gate assemblage, this said assemblage comprising a pair of seating plates each including a flow opening and facing with one face a casing wall portion defining a respective one of the conduit ports, the opposite faces of the plates forming a guide channel therebetween extending parallel to the planes of the conduit ports, a gate control member fitted axially slidable in said channel and including a flow opening, actuating means operatively coupled with the gate control member for selective axial displacement of the latter in said channel between a position in which said flow opening is in alignment with the conduit ports and a position in which the gate control member blocks a flow of fluid through the conduit ports, the said seating plates being loosely fitted in the casing for a limited plane-parallel movement relative to the respective casing wall portions and the gate control member and guiding said control member throughout the entire axial displacement thereof, and a pair of resilient rings of substantially rectangular cross-section, each abutting with its two face-sides against the respective seating plate and the respective casing wall portion, the inner diameter of said rings defining a flow opening in alignment with the aforesaid flow openings and the seating plates and the respective casing wall portion defining therebetween an annular space of greater diameter than said rings encompassing the outer diameter of said rings to provide for an unimpeded radially inward and outward barrel-like deformation of the rings, each of said rings before assembly having a substantially greater transverse dimension than the trans-

verse dimension of said associated annular space between said seating plate and said casing wall, whereby in assembled relationship with said associated respective casing wall portions and said seating plates each said sealing ring is adapted to urge said respective seating plate into pressure engagement with said casing in all positions of the gate control member relative to the seating plates for providing a sealing fit between the casing and the seating plates in all positions of the gate control member.

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**2,769,610**
**FUEL VALVE**
George W. Fraushaim, Dunkirk, N. Y.
Application August 31, 1951, Serial No. 244,487
1 Claim. (Cl. 251—205)



In a fuel valve, a T-shaped body formed with a tubular head and a threaded stem, external threads on one end of said head, a closure plug threaded into the opposite end of said head, an elongated tubular plug slidable in said head and having an intake port between the ends thereof adapted to communicate with said stem, an end wall on one end of said tubular plug, a jet member threaded in the other end of said plug, said plug having a longitudinal channel therein adjacent the inner or rear end thereof, a screw threaded through said head loosely engaging in said channel for holding said tubular plug against rotation while permitting sliding movement thereof, a headed plug adjusting screw swivelly engaging said end wall, a nut fixed in said head between the ends thereof, said adjusting screw threadedly engaging through said nut and having a kerf in the outer end thereof, removal of said closure plug and adjustment of said screw effecting endwise movement of said tubular plug to open or closed position.

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**2,769,611**
**GAS TURBINE ROTORS AND THEIR PRODUCTION**
Paul Schwarzkopf, New York, N. Y., assignor to Schwarzkopf Development Corporation, a corporation of Maryland
Application August 15, 1951, Serial No. 242,023
2 Claims. (Cl. 253—39)



1. In an elastic fluid turbine for operation with hot combustion gases, a rotatable turbine rotor comprising a generally circular mounting member of sintered refractory particle material arranged to transmit rotary driving torque along its axis, and an array of fluid guiding members of sintered refractory particle material projecting generally radially from the periphery of said mounting member for guiding and being driven by hot gases streaming between adjacent guiding members; said mounting member having a peripheral mounting region provided with an array of junction grooves separating integral junction projections of said mounting member; each of said guiding members having a junction root fitting into one of said junction grooves; said mounting member being produced out of sintered hard powder particles to provide its said mounting region with a certain porosity and each guiding member having been produced out of sintered powder particles to provide a root with a smaller porosity than said certain porosity; said mounting member having been subjected in assembled condition to a sintering treatment wherein said mounting region has undergone a higher rate of shrinkage than said roots, and thereby causing the junction projections of said mounting region to be forced by said higher rate of shrinkage of said mounting member into clamping engagement with the roots of the guide members held between them.

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**2,769,612**
**SHOVEL WITH LIFTING MEANS**
Charles Wehbeh, Northfield, Minn.
Application October 16, 1953, Serial No. 386,424
8 Claims. (Cl. 254—131.5)



1. A shovel having a blade portion, a shank and a handle, having in combination, a member having its upper end pivotally secured to said shank a substantial distance from said blade and having its lower portion adapted to engage a floor, pavement or other surface, a resilient member connecting said first mentioned member and said shank at a point quite close to said blade and means for limiting the movement of said first mentioned member toward said blade.

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**2,769,613**
**WIRE STRETCHER**
Thomas J. Blodick, Beaverton, Oreg.
Application January 13, 1954, Serial No. 403,694
1 Claim. (Cl. 254—163)



A stretching device comprising a yoke adapted for adjustable mounting on a support, said yoke including a pair of spaced apart parallel arms, a driven shaft rotatably extending transversely through the arms, a winding drum mounted on the shaft between the arms, a driven gear secured to said shaft, a drive shaft rotatably mounted through the arms and spaced apart from and disposed parallel with the driven shaft, a driving gear secured to the drive shaft and meshed with the driven gear, operating means secured to the drive shaft, a two-part unidirectional clutch carried by the drive shaft between said arms, one of said clutch parts being fixedly circumposed on the drive shaft for rotation therewith, the other of said clutch parts being rotatably circumposed on the drive shaft alongside the first part, a locking member carried by the arms and positioned across said arms adjacent said other clutch part, interconnecting means between said other clutch part and the locking member for holding the other clutch part against rotation and locking it to the arms, said interconnecting means including a



tongue on the other clutch parts fitted in a slot in the locking member, means mounting said locking member on the arms for releasable fixed relationship therewith, said mounting means for the locking member including a hinged connection between one end of the locking member and one of the arms so that the locking member is swingable away from the clutch to disengage said interconnecting means and a tongue on the other of the arms fitting in a slot in the other end of the locking member for locking the member in relation to the clutch so that the interconnecting means is operative, said other clutch part being internally bored and embracing said one part, said one part having a plurality of pockets formed in its peripheral surface and cam surfaces extending tangentially from said pockets, ball elements disposed in said pockets and operable by the cam surfaces into engagement with said internal bore of the other of said clutch parts to lock said one part and the shaft against retrograde movement.

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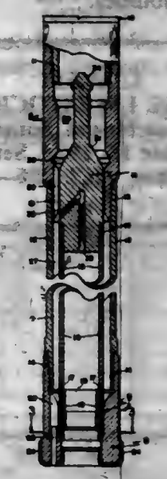
**2,769,614**
**SHAFT SINKING MACHINE**
Victor Zeni, Morgantown, W. Va.
Application August 12, 1953, Serial No. 373,727
1 Claim. (Cl. 255—4.8)



In a shaft sinking machine, a circular plate providing an operating head, a cylindrical casing extending downwardly from the peripheral edge of said plate, a plurality of rotary toothed inclined cutters journaled on the lower edge of said casing, a first platform arranged in spaced parallel relation above said plate, U-shaped clips extending between said plate and platform, a second platform arranged in spaced parallel relation above said first platform, a disc supported above said second platform, a horizontally disposed screen positioned above said disc, anti-torque vises including threaded studs, sleeves engaging said studs, a plurality of hydraulic cylinders pivotally mounted on said first platform, a plurality of motors mounted on said first platform, a vertically disposed anti-torque shaft having a flange on its lower end secured to said disc, a head on the upper end of said shaft having an eye extending therefrom, struts connecting said disc to said first platform, said first platform being stationary and said plate being mounted for rotary motion about a vertical axis, a horizontally disposed partition arranged adjacent the upper end of said casing providing an open chip collecting area, nozzles arranged adjacent said rotary toothed cutters for directing air against said cutters, conduits for conveying compressed air to said nozzles, ducts for conveying cuttings upwardly and into said chip collecting area, a vacuum pump connected to said ducts, reduction gear units connected to said motors, pinions extending from said reduction gear units, a gear extending upwardly from said plate and meshing with said pinions, a hydraulic pump for supplying fluid to said cylinders, valves for controlling flow of hydraulic fluid to said cylinders, pistons reciprocally arranged in said cylinders and having rods extending upwardly therefrom, levers pivotally connected to said rods, rollers mounted on the ends of said levers, anti-torque shoes engaging said rollers and said shoes being provided with projecting teeth, pins pivotally connecting said shoes to said studs, a frame extending upwardly from said sleeves for supporting said screen, nuts adjustably mounted on said studs for centering said shaft, there being an opening in said casing for the removal of cuttings, and a control unit positioned above said screen.

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**2,769,615**
**CORE RECOVERY APPARATUS**
Gerald Burgess, Casper, Wyo.
Application April 6, 1953, Serial No. 346,840
4 Claims. (Cl. 255—72)



2. In core drilling apparatus, including an outer tube, a hollow bit at the lower end of said tube, and a hollow core barrel open at its lower end and disposed within said tube and movable upwardly and downwardly within said tube, the improvement wherein said outer tube is provided with a wall defining a fluid passage having a section of restricted cross-sectional area above a section of greater cross-sectional area, said wall being provided with a plurality of inwardly extending wings below said section of greater cross-sectional area, said wings having a greater longitudinal extent than said section of greater cross sectional area, said bit also having inwardly extending wings and the diameter at the inner edges of said wings corresponding to the diameter at said restricted area, and said core barrel having an outer diameter corresponding to said restricted area and being normally disposed below said restricted area but movable upwardly by the core to said restricted area to reduce the cross-sectional area available for flow of fluid downwardly past said core barrel.

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**2,769,616**
**PREVENTION OF MUD CUTTING IN EARTH BORING DRILLS**
Erwin A. Morlan and Henry B. Woods, Houston, Tex., assignors to Hughes Tool Company, Houston, Tex., a corporation of Delaware
Continuation of application Serial No. 174,024, July 15, 1950. This application February 9, 1953, Serial No. 335,758
6 Claims. (Cl. 255—306)

5. In a well drill, a head, a downwardly extending leg thereon, a shaft integral with and extending inwardly from said leg, there being a shoulder at the juncture of said leg and shaft, a cutter rotatively mounted on said shaft and having a portion in confronting spaced relation with said shoulder, a recess in said shoulder extending outwardly from the shaft, forwardly in the direction of rotation of the cutter on the shaft and terminating at its

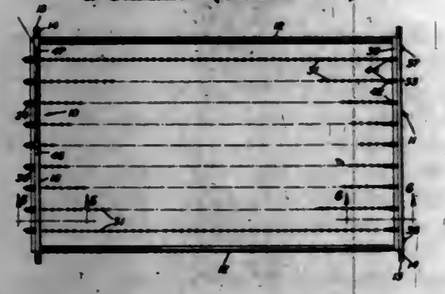
outer end in the peripheral surface of the leg, and a quantity of wear resistant material bonded to the side walls and bottom of the recess so that said wear resistant



material effects progressive disintegration of abrasive material that builds up on the cutter and tends to effect mud cutting of the shoulder.

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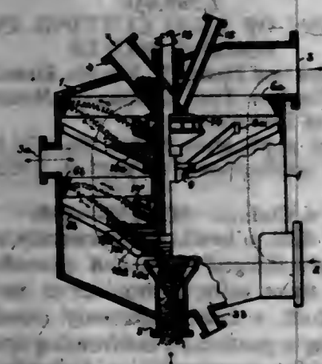
2,769,617
ELECTRIC LIVESTOCK GATE
Floyd K. Hutchinson, Somonauk, Ill.
Application October 18, 1955, Serial No. 541,239
2 Claims. (Cl. 256—10)



1. An electric livestock gate of the character described comprising: a pair of spaced, opposed, upstanding end frames, means connecting said end frames, a plurality of spaced, parallel flexible conductor members having one end anchored to one of the frames and insulated therefrom, a conductor bar mounted on the other frame, and means for detachably electrically connecting the conductor members to said conductor bar, the last-named means including levers pivotally mounted at an intermediate point on said other frame, contacts on one end portion of said levers connected to the conductor members and engageable with the bar, and coil springs connected to the other end portions of said levers for yieldingly urging same in a direction to engage the contacts with the bar.

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2,769,618
APPARATUS FOR PROCESSING OF AIR, GAS, VAPORS OR LIQUIDS
Frederick Nettel, Manhasset, N. Y.
Application December 17, 1953, Serial No. 398,696
7 Claims. (Cl. 257—1)



1. An apparatus for processing a medium such as air, gas or vapor using granular material for said processing, said apparatus comprising a closed shell having a substantially vertical axis, said shell having an inlet opening near the bottom and an outlet opening at the top for the medium, an inlet conduit at the top and an outlet conduit at the bottom of said shell for said granular material, a multiplicity of vertically stacked thrower wheel means mounted to rotate about a common vertical axis within and centrally of said shell, the uppermost thrower wheel means being disposed to receive said granular material from said inlet conduit, said thrower wheel means being arranged to throw said granular material upwardly and outwardly from the center part of said shell in free flight streams to its circumference, means to rotate said thrower wheel means, a multiplicity of stationary, slanted catcher means, each catcher means being located beneath a different thrower wheel means and being disposed to receive granular material after it has been thrown by the thrower wheel means directly above it in a free flight stream to the circumference of the shell and has rebounded therefrom in another free flight stream toward said catcher means so that the catcher means will guide said granular material back toward the center part of said shell below said thrower wheel means by gravity, the peripheries of said catcher means and the peripheries of said thrower wheel means being remote from the shell, each said catcher means including a center portion, the center portions of all said catcher means except the lowest, collecting the granular material and guiding it to the next lower thrower means, the central portion of the lowermost catcher means collecting the granular material and guiding it to said outlet conduit, the outlet opening for the medium being disposed above and at least in part radially inwardly of the part of the shell struck by the granular material flung from the uppermost thrower wheel means, said shell, thrower wheel means and catcher means providing in the shell a vertical annular passageway of substantial cross-sectional area for the medium, said passageway extending upwardly through the radially flowing free flight outward and return streams of the granular material and being located radially outwardly of the thrower wheel means and catcher means, the flow of said granular material and of the medium being substantially in counter-flow.

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2,769,619
PARALLEL AND COUNTERFLOW OF AIR IN PREHEATER
Stephen Juhasz, San Antonio, Tex., assignor to The Air Preheater Corporation, New York, N. Y., a corporation of New York
Application February 19, 1952, Serial No. 272,317
5 Claims. (Cl. 257—6)

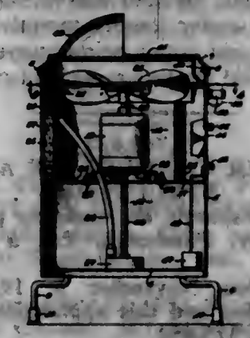


1. In an air preheater or the like having metallic surfaces for the transfer of heat to relatively cool air from hot corrosive gases whose temperature in the transfer of heat is reduced to a point approaching the dew point of the gases and subjects the metallic heat transfer surface to the deleterious effects of said substances in the presence of condensation; separate inlet and outlet ducts connected to the air preheater so as to direct a stream of gases therethrough in one direction in contact with said heat transfer surfaces; inlet and outlet ducts means for directing portion of the total volume of air to be heated in contact with the heat transfer surface in counterflow with respect to the direction of flow of the stream of gases from which said portion of the total air volume absorbs heat; another air inlet duct connected to said preheater at its air inlet end so as to direct another portion of the total volume of air through the air preheater in a direction parallel to the flow through the preheater of the stream of gases from which said second portion of the total volume of air absorbs heat; means for apportioning the total volume of air between the inlet duct connected for the flow of air in parallel and the inlet duct connected for directing the stream of air in counterflow; and an air outlet duct so connected as to conduct said parallel flowing stream of air away from the preheater.



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2,769,620
AIR CONDITIONER
Frank D. Davison, Pasadena, Calif., assignor to Irl R. Godshaw, Beverly Hills, Calif.
Application May 24, 1954, Serial No. 431,808
2 Claims. (Cl. 257—9)



1. A portable air cooler comprising a substantially uniform diameter casing having a normally vertical axis, an upper compartment, a lower compartment of substantially the same size as said upper compartment, a partition between said compartments having openings therein to permit a fluid in said upper compartment to flow into said lower compartment, said lower compartment serving as a fluid reservoir, a platform on said partition, a motor on said platform in said upper compartment, said motor having a vertical shaft, a fan mounted on the upper end of said shaft, a water pump positioned at the bottom of said lower compartment and mounted on the lower end of said shaft, fluid dividing material positioned along the inner surface of the wall of said upper compartment, the wall of said upper compartment having openings therein to pass air to said fluid dividing material when said fan is rotated, means for conducting fluid from said pump to the upper surface of said fluid dividing material, and a semi-hemispherical air deflector rotatable above said upper compartment, said deflector covering substantially one-half of said upper compartment, the position of said deflector determining the substantially horizontal direction of the air deflected thereby during the rotation of said fan.

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2,769,621
DEVICE FOR CHARGING LUBRICANTS
Theodore E. Nubbon, New York, N. Y.
Original application October 30, 1951, Serial No. 253,915. Divided and this application June 17, 1952, Serial No. 293,891
5 Claims. (Cl. 259—7)

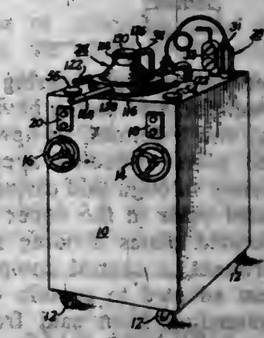
1. In a device for charging the molecules of a lubricant, a casing, a hollow shaft rotatably carried in said casing and insulated therefrom, said shaft having a flange on the lower end thereof, a disc within said casing fixed in a predetermined spaced relation with respect to said flange, an insulating disc positioned on said first-mentioned disc, means to impress a high direct current potential across said shaft and said casing, and means to pass said lubricant



through said hollow shaft, between said flange and said insulating disc and then out from said casing.

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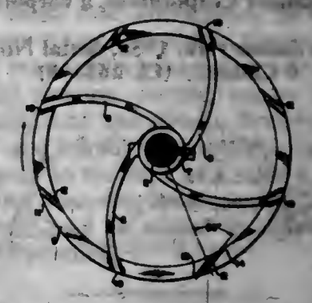
2,769,622
MIXER
Thorneel Jensen, Lawrence, N. Y., assignor to American Machine and Foundry Company, a corporation of New Jersey
Application August 20, 1952, Serial No. 305,333
11 Claims. (Cl. 259—8)



1. In a mixing device of the character described, the combination of a stator presenting a stationary annular frusto-conical confining wall, and a rotor presenting an annular confining wall mating with said stationary confining wall and forming therewith a generally frusto-conical space, said rotor having a plurality of mixing elements thereon formed by coil springs, each of which is an annulus and presents a substantially arcuate mixing portion extending radially toward said annular confining wall.

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2,769,623
TURBINE MIXER
Richard L. Cawood, East Liverpool, Ohio, assignor to The Patterson Foundry & Machine Co., East Liverpool, Ohio, a corporation of Ohio
Application March 8, 1955, Serial No. 492,999
3 Claims. (Cl. 259—124)

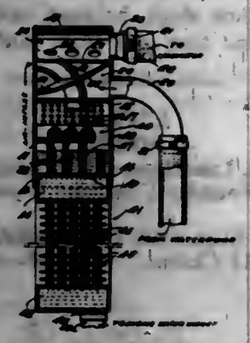


1. A turbine mixer for mixing liquids which comprises a plurality of curved agitating blades attached to and extending outwardly from a centrally disposed hub and uniformly spaced circumferentially, the leading faces of said agitating blades being convex to impart a centrifugal action to the liquid, a supporting member provided at the outer extremities of the agitating blades and concentric with the hub, and a plurality of sheer blades mounted on the supporting member intermediate the agitating blades

and having sharply formed leading and trailing edges, said shear blades being mounted on the supporting member so as to extend in the direction of the adjacent rearward agitating blades and being in the plane of rotation of the agitating blades.

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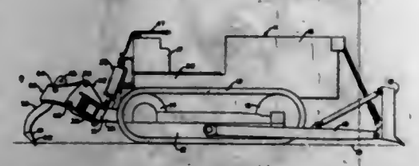
2,769,624
AIR CLEANER AND MOISTENER FOR CARBURETORS
Okey S. Burnside, Middlesborough, Ky.
Application July 16, 1953, Serial No. 368,265
4 Claims. (Cl. 261—23)



1. A humidifier comprising a casing adapted to be mounted atop a radiator, said casing having a front wall, a rear wall, a top, and a bottom, an upwardly extending arcuate perforated plate extending approximately centrally and transversely through said casing, a downwardly extending perforated plate in the upper portion of said casing, said perforated plates dividing said casing into an upper compartment, a central compartment, and a lower compartment adapted to contain water, a pair of air inlet pipes extending from said front wall downwardly and rearwardly to said lower compartment, an air and water fitting in said rear wall communicating with said central compartment and adapted to connect with a pump, a moist air outlet fitting in said rear wall communicating with said upper compartment and adapted to connect with a carburetor, means in said lower compartment for mixing air and water, outlet means for delivering mixed air and water from said lower compartment to the pump, said pump adapted to recirculate the water between the outlet means and the air and water fitting and means in the central compartment for separating the major portion of water from the air and water mixture whereby moist air may pass to said upper compartment.

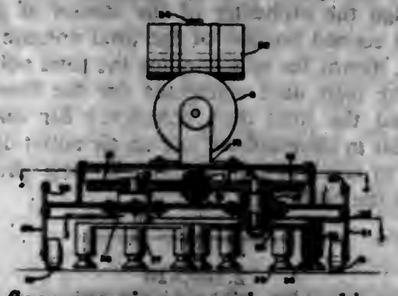
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2,769,625
SWINGABLE MOUNT FOR RIPPER BLADE
Mack Wooldridge, Oakland, Calif., assignor to American Tractor Equipment Corporation, a corporation of California
Application January 18, 1955, Serial No. 482,492
6 Claims. (Cl. 262—8)



1. In a tool of the character described, a horizontal beam, a plurality of spaced bearings disposed vertically along a forward face of said beam and each providing a separate mounting for a ripper blade, a plurality of U-shaped brackets extended about said beam, each bracket having its end hingedly supported by one of said bearings, and a ripper blade supported by each bracket and freely movable about a vertical axis with respect to said beam.

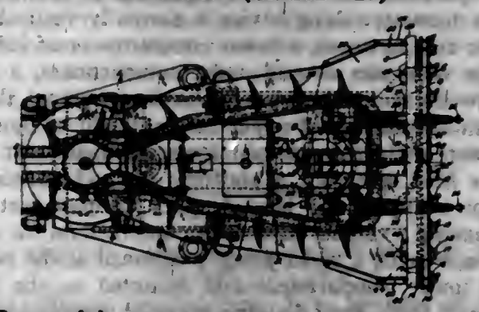
2,769,626
FLOOR COVERING REMOVING MACHINE HAVING YIELDABLE FLARED CUTTERS
Anthony F. Becker, Houston, Tex., assignor to The American Floor Surfacing Machine Company, Toledo, Ohio, a corporation of Ohio
Application August 30, 1954, Serial No. 453,084
6 Claims. (Cl. 262—19)



6. In a floor covering removing machine, a framework, wheels mounted on and supporting said framework, a rotatable head on said framework and means for imparting rotation thereto, a depending sleeve on said head, an axial shaft in said sleeve vertically movable therein, a tubular cutter loosely mounted on said shaft, the lower end of said cutter being outwardly flared, and spring means in said sleeve urging said cutter outwardly.

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2,769,627
LOOP CUTTER CHAIN GUIDE AND DRIVE STRUCTURE
Joseph F. Joy, Pittsburgh, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Original application November 6, 1950, Serial No. 194,259. Divided and this application December 12, 1952, Serial No. 325,652
2 Claims. (Cl. 262—29)



1. In a mining apparatus, a support having an open-centered rectangular guide frame mounted in a transverse upright position on the forward portion of said support, said upright frame having a guideway about its margin, and an endless loop cutter chain guided for orbital circulation along said guideway, said chain having forwardly located cutters arranged to cut a kerf of such width as to receive said guide frame, said guide frame being laterally elongated and comprising upright side frame members and top and bottom cross frame members, said frame members having rearwardly located lugs near their adjacent joining ends and detachable securing elements engaging said lugs for securing said frame members together, said securing elements arranged in longitudinal parallelism with and rearwardly of said cross frame members close to the latter.

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2,769,628
MINING MACHINE CUTTER BIT
Joseph F. Joy, Pittsburgh, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 28, 1948, Serial No. 57,846
4 Claims. (Cl. 262—33)

1. A cutter bit comprising a bit body having a shank and an integral outer end portion providing a plane front face disposed at a substantial angle with respect to the longitudinal axis of the shank and a receding outer surface, said front face and said receding outer surface converging forwardly at the bit point, said end portion having a hole of uniform circular cross section formed therein close to and in parallelism with said front face with the forward side of said hole opening outwardly through said plane front face to provide a narrow slot extending to the

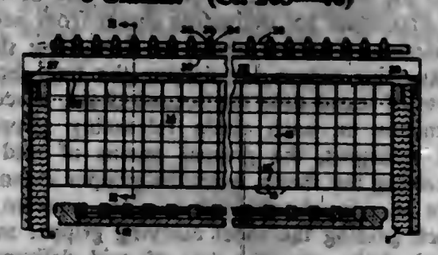




bit point, said hole opening outwardly through said receding outer surface, a hard metallic insert of generally cylindrical pluglike form received and secured by bonding in said hole, said slot being of less width than the diameter of said insert and said insert having a flattened front surface coextensive with said slot, said flattened surface lying flush with said front face and extending to the bit point to provide a wear-resisting cutting tip.

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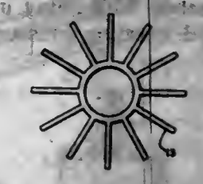
2,769,629
BAFFLE WALL CONSTRUCTION, PARTICULARLY FOR ROTARY HEARTH FURNACES
Robert E. Buckholdt, Salem, Ohio, assignor, by mesne assignments, to Salem-Brosius, Inc., a corporation of Pennsylvania
Application December 13, 1951, Serial No. 261,410
6 Claims. (Cl. 263—46)



1. A baffle wall structure for heating furnaces and the like comprising a plurality of vertical wall sections disposed in side-by-side relation to form a wall expanse; each of said vertical wall sections comprising in combination a first vertically disposed pipe member secured at its upper portion and depending downwardly into a heating chamber, an end cap member secured to and closing off the lower end of said first pipe member, said end cap member extending radially outward from said first pipe member, a plurality of generally single rectangular refractory blocks having centrally located vertically disposed apertures therein transfixed in superimposed relation on said first pipe member, the lowermost of said refractory blocks being supported by the radially extending portion of said end cap member, said radially extending portion being generally narrower than said blocks, said refractory blocks having interlocking annular tongue and groove portions in their top and bottom surfaces disposed substantially circumferentially about said first pipe member, the arrangement being such that the tongue portions of certain of said blocks interlock with the groove portions of vertically adjacent blocks, a second pipe member of lesser outside diameter than the inside diameter of said first pipe member positioned within said first pipe member substantially in concentricity therewith, the lower end extremity of said second pipe member being positioned a predetermined distance above said end cap member, cap means positioned around said second pipe member and secured to the upper end portions of said first and second pipe members to close off the annular opening therebetween, and conduit means communicating with said first pipe member near the upper portion thereof and adapted to be connected to a source of air under pressure whereby air may be caused to flow downwardly through the annular space between said first and second pipe members and upwardly through said second pipe member.

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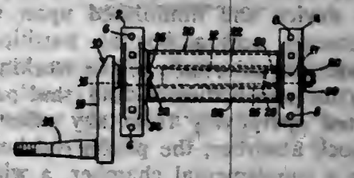
2,769,630
METHOD FOR ANNEALING TIGHTLY WOUND FLAT ROLLED METAL STOCK
John D. Keller, Pittsburgh, Pa.
Application March 19, 1954, Serial No. 417,423
6 Claims. (Cl. 263—52)



1. The process of annealing sheet metal strip, said process including the steps of assembling the strip by spirally winding the same under tension to form a compact coil between 93 and 97½% solid, charging a gas of at least twice the thermal conductivity of air between the convolutions of the wound strip under pressure sufficient to displace the atmosphere normally present, and subjecting the charged coil to annealing temperature for a period to uniformly anneal said strip.

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2,769,631
AXLE ASSEMBLY
Raymond C. Pierce, Chicago, Ill.
Application April 8, 1952, Serial No. 281,182
9 Claims. (Cl. 267—57.1)



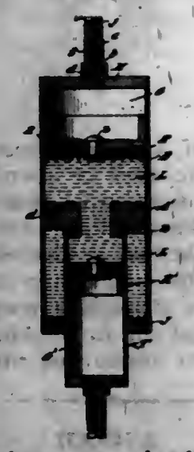
1. In a supporting assembly for a related vehicle body, spaced bearing blocks connected to said body, a shaft journaled in said bearing blocks, a throw connected to one end of said shaft and extending transversely thereof, a spindle extending outboardly of said body and connected to the throw at a point spaced from the connection to said shaft, a metal tube having splined engagement with said shaft, only adjacent an end of the tube and an end of the shaft, another metal tube surrounding the first mentioned tube and without direct connection thereto, lugs disposed on one of said bearing blocks engaging said other tube and restricting axial rotation thereof, means interconnecting both of said tubes and operative to flexibly resist rotation of said shaft, and readily demountable retaining means connected directly to the shaft at a readily available point externally thereof whereby, upon removal of said retaining means, said shaft may be moved axially thereof and removed from the assembly.

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2,769,632
DAMPED PNEUMATIC SPRING
Christian Marie Lucien Louis Bourcier de Carbon, Neuilly-sur-Seine, France
Application October 14, 1952, Serial No. 314,715
Claims priority, application France August 13, 1952
4 Claims. (Cl. 267—64)

1. A combined damped pneumatic spring and hydraulic braking device adapted to function as a suspension spring

and shock absorber between two relatively movable members, said device comprising, in combination, an air-tight and liquid-tight casing adapted to be connected to one of said members and containing a substantially cylindrical working chamber, a piston disposed in said chamber and adapted to reciprocate therein upon relative movement of the members, a piston rod of enlarged diameter having an end fixed to said piston and its opposite end secured to the other of said members, said rod passing through a packed opening in one end wall of said casing; a body of working liquid in said working chamber within which said piston moves, and means for bypassing liquid in restricted flow past said piston in either direction as the piston moves in the chamber; a body of gaseous fluid within said casing at the opposite end thereof, said gaseous fluid being under a permanent high compression and exerting pressure upon the body



of working liquid, the pressure in the body of gaseous fluid being increased by the displacement of the working liquid upon entrance of successive increments of the enlarged piston rod into the casing upon the compression stroke of the device and diminished upon withdrawal of such increments, and a floating partition element fitted snugly with the side walls of the working chamber and separating the two bodies of fluid, said partition being disassociated operatively from any other operating part of the shock absorber, the piston rod being hollow thus providing a supplemental chamber, a wide opening through the piston to afford substantially unrestricted flow of working liquid into the supplemental chamber, a floating partition disposed in said supplemental chamber and bounding the body of liquid therein, and a body of gaseous fluid in the remote end portion of said supplemental chamber.

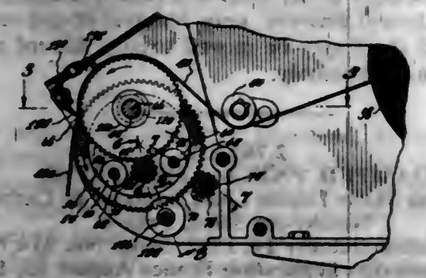
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2,769,633

## DISPENSER FOR PRESSURE SENSITIVE ADHESIVE TAPE

Theodore H. Krueger, Stratford, Conn., assignor to Better Packages Incorporated, a corporation of New York

Application May 11, 1951, Serial No. 225,815
10 Claims. (Cl. 271—2.4)



1. A dispenser for pressure sensitive adhesive tape comprising a support for a roll of tape, a series of spaced feed discs to which the tape is adhered for feeding the tape from the roll, a series of spaced peeler discs mounted alternately with the feed discs, means for rotating said feed discs in tape feeding direction, means for rotating said peeler discs in the same direction as the feed discs but at a higher rate of speed, one set of said discs being mounted for rotation upon an axle and the other set of discs being in ring form and enclosing and bearing upon the axle supporting the first set of discs, and a second support for said ring-form discs passing through the rings outside of the peripheries of the axle supported discs.

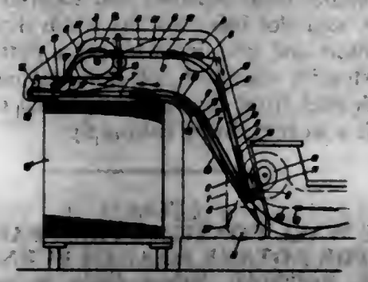
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2,769,634

## SHEET TRANSPORTING AND STACKING DEVICE FOR PRINTING MACHINES

Werner Koch, Offenbach (Main), Germany, assignor to Faber & Schleicher Aktiengesellschaft, Offenbach (Main), Germany, a body corporate of Germany

Application January 30, 1953, Serial No. 334,292
Claims priority, application Germany February 6, 1952
7 Claims. (Cl. 271—79)



1. In a printing machine for printing sheets, a device for transporting the sheets from a printing mechanism to a delivery stack at a decreasing rate of travel to effect overlap of the sheets while in transport, said device comprising a first chain for delivering sheets from said printing mechanism, a second chain for depositing sheets on said stack, drive means for driving the first chain at a higher rate of speed than the second chain, spaced apart gripper means on each chain releasably gripping the sheets in transport, the gripper means of said second chain receiving the sheets from the gripper means of the first chain in a predetermined transfer position, a first guide track guiding the sheet carrying gripper means of the second chain over the top of said delivery stack, means releasing the sheet from the gripper means of the second chain when above the delivery stack thereby depositing sucessive sheets thereon, a second guide track returning the gripper means of the second chain into said transfer position, the ends of said guide tracks joining at a sharp angle at which the gripper means reverse their travel, and a change-over switch at each of the joined ends of said guide tracks guiding the gripper means of the second chain from one track into the other, said change-over switches being controlled in their movement from the mechanism of the printing machine.

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2,769,635

## REVOLVING TEETER-TOTTER

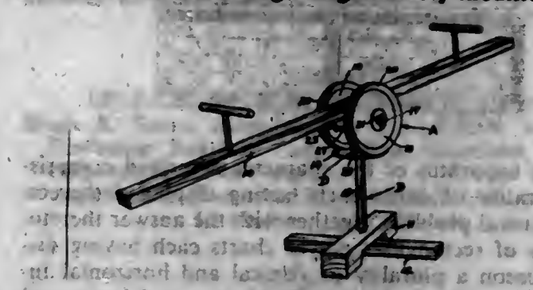
Melford H. Dockus, Northfield, Minn.

Application August 14, 1953, Serial No. 374,314
4 Claims. (Cl. 272—30)

1. In a self-turning teeter-totter, a carriage consisting of an axle shaft and a pair of supporting wheels revolubly mounted thereon, said wheels having treads of rubber, a fulcrum mounting fulcrumed on said axle shaft between said wheels, said mounting oppositely abutting said wheels and spacing them apart on said axle shaft, a teeter board intermediately supported on said fulcrum mounting, a platform member upon which the wheels of said carriage ride, carriage grid means guiding the carriage swivelly relative to said platform member and directing the wheels thereof in a circular path on said platform member, said



guide means comprising a vertical spindle revoluble in said platform member and a sleeve on said carriage shaft secured to the upper end of said spindle, the ends of said sleeve oppositely abutting said mounting, a pair of similar crank-shaped dogs, one for each wheel, each dog including a shaft portion, an arm thereon and a terminal lug on said arm, the shaft portion of one dog being mounted on the fulcrum mounting to one side of said axle shaft a lesser distance than the radius of its respective wheel, the shaft portion of the other dog being similarly mounted on said



fulcrum mounting to the opposite side of said axle shaft, the shaft portion of each dog pivotally supporting its respective arm pendulously with the lug on said arm underreaching the lower rear quarter of its respective carriage wheel transversely of its tread in near proximity thereto, such lug being adapted to engage frictionally the periphery of the rubber tread of such wheel and cause the turning of such wheel a step forward upon tilting movement of said fulcrum mounting in direction elevating the dog.

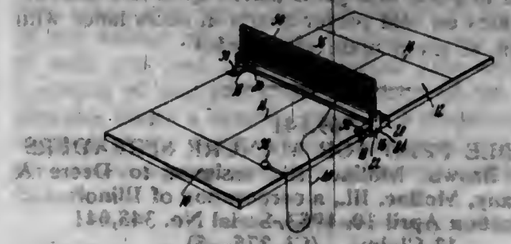
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2,769,636

## TABLE TENNIS BOARD

Harry Z. Finestone, Revere, Mass., assignor to Jacob S. Cohen, doing business as American Toy Products Co., Beverly, Mass.

Application March 25, 1954, Serial No. 418,635
1 Claim. (Cl. 273—30)



A game board comprising two rectangular sections, two hinge devices connecting said sections at mutually adjacent corners thereof, each said hinge device consisting of an upright plate with a pair of struck-up loops arranged one over the other and two channel members pivotally attached to the lower corners of the plate, means securing said channel members respectively to corner margins of said board sections, a net frame consisting of a heavy wire having a horizontal portion extending across said board and a vertical portion at each end engaged in and supported by the struck-up loops of the corresponding hinge device, and a net attached to said net frame.

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2,769,637

## DISTRIBUTOR MECHANISM FOR BOWLING PIN SPOTTING MACHINES

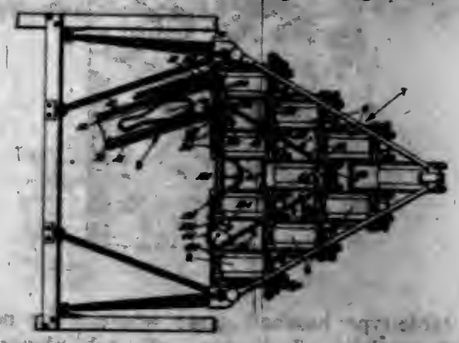
John Zuercher, Buffalo, N. Y., assignor to American Machine & Foundry Company, a corporation of New Jersey

Application April 5, 1952, Serial No. 280,697
6 Claims. (Cl. 273—43)

1. Pin distributing mechanism for a bowling pin spotting machine comprising a support, a pin scatter provided with a plurality of [illegible] mounting said support for movement in a horizontal plane,



a pin receiving pan mounted on said support, an elongated generally U-shaped channel having one end thereof pivotally attached to said support beneath said pan for movement in substantially a vertical plane, an endless pin conveying belt located in said channel and running along said channel, means driving said belt to travel pins delivered onto said belt by said pan to a point of discharge at the free end of said channel into a selected pin receptacle, and means for locating said channel adjacent each receptacle into which a pin is to be discharged, a stop pin movably mounted on said free end of said channel, a stop adjacent each of said receptacles, said stops being mounted along



the path of travel of said free end of said channel and in position to be engaged in succession by said stop pin to hold said free end of said channel stationary adjacent an empty receptacle for delivery of a bowling pin thereinto, trigger means mounted on the free end of said channel and connected to said stop pin, said trigger means being operative by a bowling pin in response to its discharge from the free end of said channel into an empty receptacle for moving said stop pin out of engagement with a stop and permitting said locating means to move said channel and locate said free end of said channel at the next empty receptacle to be filled.

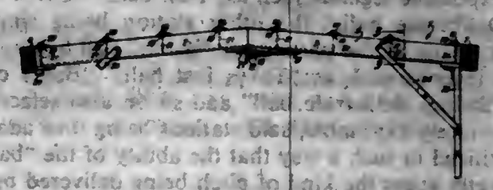
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2,769,638

## SIMULATED HOCKEY GAME BOARD

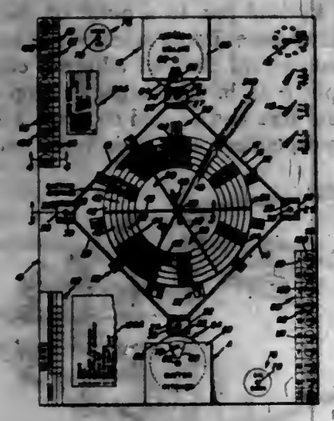
Lester H. Knapp, Albany, N. Y.

Application May 21, 1954, Serial No. 431,465
3 Claims. (Cl. 273—85)



1. A hockey game board comprising an elongated, generally rectangular structure having a playing field comprising two plane surfaces; means forming a centrally disposed goal at each end of said field; upstanding sides on said structure converging toward said goals from zones adjacent thereto; a plurality of longitudinally spaced pairs of oppositely disposed bearings on each side of the center of said field carried by said upstanding sides and adapted to receive cylindrical playing sticks both rotatable and longitudinally slidable therein and having at least one ball-hitting element thereon disposed over said playing field; at least one of the bearings of each pair thereof intermediate the center of said field and the pairs immediately adjacent said goals having the upper half thereof hingedly secured to the side wall carrying said bearing; whereby the number of playing sticks available for use during a game may be readily adjusted to conform to the number of players; and said plane surfaces sloping downwardly from the center of said field to said goals; whereby, a free ball on said field will roll into one of said goals unless intercepted by a player guarding that goal with one of said sticks.

2,769,639
## SIMULATED BASEBALL GAME
Frank E. Seale, Lexington, Ky.
Application June 8, 1953, Serial No. 359,998
9 Claims. (Cl. 273—93)



1. A table-type baseball game wherein the performance and resultful effectiveness of each player, while batting, is predicated on and proportional to his known batting average comprising: a game board, a baseball diamond delineated for use on the surface of said game board, a plurality of manually maneuverable playing pieces representing the aforementioned players and sufficient in number to provide at least two full opposing teams, the players of one team being markedly different from the players of the other team to differentiate the players of the home team from those of the visiting team, each player carrying a permanently displayed number, 200, 250 or 400, for example, indicative of his known batting average, sequentially numbered lineup boxes provided on the surface of said board and having spaces for placement of the players of the respective teams, concealable pitcher-batter incident stations cooperable with said baseball diamond and players and usable by the participants, one of said stations being usable by the participant "pitcher" and having selectively and separately exposable legends such as "Fast ball," "Curve ball" and "Deliberate ball," the other station being simultaneously usable by the participant "batter" and having prescribed legends such as "Takes fast ball," "Bunts curve ball," "Swings deliberate ball" and so on also selectively and separately exposable, said stations being thus adapted to be utilized in such a way that the ability of the "batter" to correctly guess the kind of pitch being delivered by the "pitcher" increases the expectancy of a favorable play result for the "batter," and vice versa, if the "pitcher" outwits the "batter," the legend selected by the "pitcher" and legend selected by the "batter" serving, when they are both brought to light, to define the combined incident, for example, "Pitcher throws a fast ball—batter bunts fast ball," a pitcher-batter incident chart having corresponding combined incidents thereon, for example, "Pitcher throws fast ball—batter bunts fast ball," each incident having a key number, 4 for example, dialing means including a stationary statistical data dial made up of rated numbers based on known batting averages or percentage statistics, key numbers corresponding to like key numbers on said pitcher-batter incident chart arranged around the margin of said stationary dial, a manually rotatable percentage finder dial mounted for rotation on and above said stationary data dial and having peepholes therein registrable with said rated numbers and also having a fixed indicating arrow registrable with the marginal key numbers and serving to direct the "batter" to an intended self-explanatory directive on a final tell-tale chart.

2,769,640
## EDUCATIONAL MATHEMATICAL GAME APPARATUS
Ruth B. Elder, Flint, Mich.
Application May 4, 1953, Serial No. 352,821
1 Claim. (Cl. 273—135)



A game apparatus of the character described comprising a plurality of cards each having displayed thereon a mathematical problem together with the answer thereto, a plurality of rectangular player charts each having displayed thereon a plurality of vertical and horizontal intersecting lines forming vertical columns and horizontal rows of squares, numerical indicia representing problem components in the squares in a marginal row of squares, numerical indicia representing other problem components in the squares in a marginal column of squares, other numerical indicia in certain other squares each indicating the answer to a mathematical problem involving the components in the marginal squares of the row and columns of squares intersecting in said certain other squares, the remaining squares of said charts being blank, said charts each differing in the position of said answer-bearing squares and said blank squares, a master chart also having a marginal row and a marginal column of squares bearing indicia representing problem components and having answer-bearing indicia in all of its remaining squares, both similar to those of the player charts, and game pieces positionable upon the answer-bearing squares of said player charts whereby players are required to place said game pieces upon said answer-bearing squares on said player charts in accordance with the problems as given upon said cards.

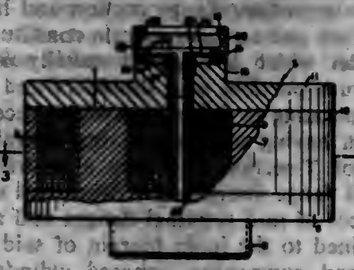
2,769,641
## REVERSIBLE FEED FOR MANURE SPREADERS
Theophilus Brown, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application April 10, 1953, Serial No. 348,641
13 Claims. (Cl. 275—5)



1. In a manure spreader: a longitudinal body having a discharge end and including a floor along which manure is fed to said discharge end; an endless-belt type feeder apron running lengthwise of the body with its upper run overlying the floor; reversible drive means supported by the spreader body and engaging the apron and including an input shaft; first and second coaxial toothed ratchet wheels keyed to the input shaft and respectively having their teeth pointing in circumferentially opposite directions; a pawl carrier supported by the spreader body for reciprocation adjacent to the ratchet wheels and in a path transverse to the axis of the ratchet wheels; means connected to and for reciprocating the pawl carrier; first and second axially offset pawls pivotally carried by the pawl carrier and extending respectively in circumferentially opposite directions and respectively biased to engage the teeth of the first and second ratchet wheels; a first pawl-lifting member shiftably mounted on the spreader body and operatively connected to the first pawl to selectively effect engagement and disengagement of said first pawl and first ratchet wheel; a second pawl-lifting member shiftably mounted on the spreader body and operatively connected to the second pawl to selectively effect engagement and disengagement of said second pawl and second ratchet wheel; and means interconnecting the pawl-lifting members for simultaneously shifting either pawl-lifting member to pawl-disengaging position and the other pawl-lifting member to pawl-disengaging position.



2,769,642
## SELF-CENTERING MAGNETIC CHUCK
Hugh E. Berry, Scarsdale, N. Y., assignor to Norma-Hoffmann Bearings Corporation, Stamford, Conn., a corporation of New York
Application December 31, 1954, Serial No. 479,049
10 Claims. (Cl. 279—1)



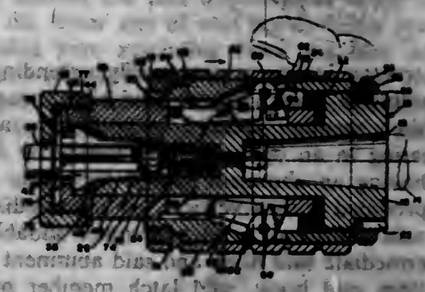
1. A chuck for supporting a work piece while an operation is performed thereon, said chuck having a face forming a seat for the work piece and principal work holding means wherein the major holding force is essentially normal to said face, a plurality of contact blocks arranged to contact the edges of the work piece at a plurality of spaced points to aid in properly positioning the work piece and to secure it against sidewise movement while the operation is being performed thereon, and bendable arms supported at one end thereof by the chuck, one of the contact blocks being secured at the opposite end of each arm and having a beveled face which contacts a section of said edges, the free ends of the arms being movable under a bending stress in a direction normal to the face of the chuck when the edges of the work piece are moved against and are contacted by said beveled faces.

2,769,643
## COLLET CHUCKS
Berthold Demmler, Chicago, Ill., assignor to Davos Products Co., Chicago, Ill., a partnership
Application April 26, 1954, Serial No. 425,385
6 Claims. (Cl. 279—50)



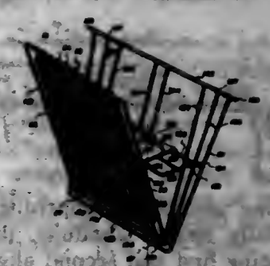
1. A collet chuck comprising a body having a cylindrical slotted stem, said slotted stem having a bore forming a collet receiving socket, a ring member secured to said body and pivotally supporting a plurality of levers, a slotted sleeve axially slidable on said stem with the slots thereof cooperating with said levers, means secured to the front of said slotted sleeve engageable with the nose of said stem, a manually engageable clutch sleeve freely rotatable on said ring and said slotted sleeve and movable axially thereof and adapted when moved forwardly to engage the means on the front of said slotted sleeve and move same away from the nose of said stem to permit expansion of same, and said clutch sleeve when moved rearwardly adapted to pivot said levers to move said slotted sleeve rearwardly and cause the means on the front of the slotted sleeve to contract said slotted stem.

2,769,644
## CHUCKS
Berthold Demmler, Chicago, Ill., assignor to Davos Products Co., Chicago, Ill., a partnership
Application November 6, 1952, Serial No. 318,975
4 Claims. (Cl. 279—51)



1. A collet chuck comprising a body having a cylindrical stem, said stem having a bore forming a collet receiving socket, an expandable and contractible collet extending thereinto, a spring member normally urging said collet forwardly out of said socket, a ring member secured to said body and pivotally supporting a plurality of levers, a draw sleeve axially slidable on said stem and engaging the forward end of said collet to retain same in said socket, said draw sleeve having slots cooperating with said levers, a hand engageable sleeve freely rotatable on said said ring and draw sleeve and movable axially thereof and adapted when moved forwardly to permit said spring to urge said collet and said draw sleeve forwardly to position said collet in said socket to expand said collet and when said hand engageable sleeve is moved rearwardly to move said draw sleeve and said collet in said socket to contract same.

2,769,645
## COLLAPSING SEAT FOR NESTING CARRIERS
Fred W. Young, Oklahoma City, Okla., assignor to Sylvan N. Goldman, Oklahoma City, Okla.
Application May 18, 1954, Serial No. 430,567
6 Claims. (Cl. 280—33.99)



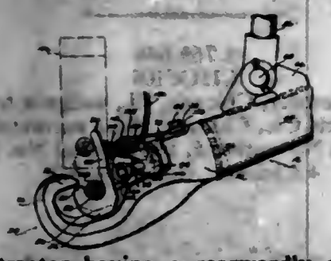
1. In a folding seat structure for use in a nesting carrier, said seat structure including in combination with a swinging gate, a panel structure forming a seat back swingably hinged to the base portion of the gate, a seat hinged to a medial portion of the gate structure for movement from an upper position against the gate to a horizontal seating position, a stop member fixed to the panel structure for supporting the seat when in horizontal seating position, and hinged link means pivotally connected to the under side of the seat and pivotally connected to the panel structure at a point below the stop member for moving said seat on its hinges.

2,769,646

## TRACTOR IMPLEMENT HITCH HAVING A POSITIVE LOCKING LATCH

Gene L. Omen, Milwaukee, and Earl C. Thayer, Racine, Wis., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application January 26, 1953, Serial No. 333,068
3 Claims. (Cl. 280—504)



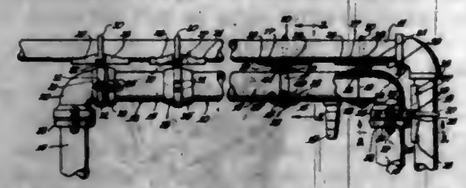
1. In a tractor having a rearwardly extending draft arm terminating in a hitch means, said hitch means comprising a hitch member secured integrally to said arm and terminating in an upwardly and forwardly directed hook and having an abutment spaced forwardly of said hook and provided with a vertical lug intermediate said hook and said abutment, a latch member slidable fore-and-aft intermediate said hook and said abutment from a position within said hook, said latch member provided with a transverse saddle and a pair of forwardly-directed bifurcations adapted to receive said lug therebetween in slidable relation, said bifurcations provided with fore-and-aft extending longitudinal slots, a transverse pin fixed in said lug and cooperating with said slots to limit sliding of said latch member to a fore-and-aft direction, a latch lock having a transverse body portion and spaced arms, said arms positioned to receive said forwardly-directed bifurcations therebetween, said spaced arms pivoted on said transverse pin to allow said transverse body portion to be positioned intermediate said abutment and said forwardly-directed bifurcations to prevent said latch member from being displaced forwardly out of said hook, said latch lock rotatable about said pin to permit said latch member to slide forwardly and out of said hook.

2,769,647

## PIPE-LINE ASSEMBLY AND COUPLING MEANS THEREFOR

William H. Harnisch, Oak Park, Floyd G. Hodsdon, La Grange, and Harold W. Hein, Chicago, Ill., assignors to International Harvester Company, a corporation of New Jersey

Application April 14, 1954, Serial No. 423,832
10 Claims. (Cl. 285—31)



9. A pipe-line assembly comprising first and second relatively radially spaced conduits, the second of said conduits including first and second aligned sections, each section having first and second oppositely disposed ends, a first end of one section being positioned adjacent the second end of a second section, means connecting one of said sections to said first conduit against relative longitudinal displacement, a coupling member disposed between adjacent ends of said sections, said coupling member including a flexible sleeve having an open-end bore receiving said adjacent ends in telescoping relation, a flexible abutment projecting radially inwardly within said bore, said abutment being engaged by said adjacent ends in sealing relation, a bracket connected to said sleeve, and means adjustably connecting said bracket to said first conduit.

2,769,648

## REINFORCED T SHAPED SEAL FOR FLANGED PIPE COUPLING

Albert Dale Herman, Racine, Calif., assignor, by mesne assignments, to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan

Application April 21, 1953, Serial No. 350,126
4 Claims. (Cl. 285—110)



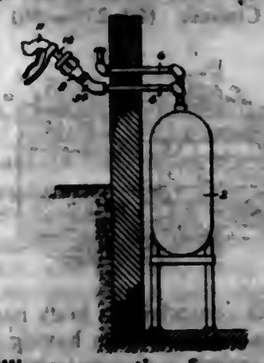
1. A coupling for joining the ends of the sections in a fluid line, comprising: a pair of tube flange units, each including a collar portion, a bell mouth portion flaring outwardly therefrom, an intermediate flange portion extending radially outwardly from said bell mouth portion, and a terminal flange folded inwardly from the periphery of the said intermediate flange portion and having a flat radial inner face and an inner margin constituting a cylindrical shoulder which is disposed radially outwardly of said bell mouth portion, said shoulders and bell mouth portions cooperating to define an annular recess of trapezoidal section having inwardly flaring lateral walls; and a seal ring of T-section including a central leg in the form of a flat flange interposed between and sealed to the flat inner faces of said terminal flanges and a cross-head integrally joined to the inner margin of said central leg, said cross-head comprising opposed cylindrical flanges projecting axially from opposite sides of said central leg, and reinforcing rings encircling said cross-head flanges adjacent the respective sides of said central leg, fitted within said cylindrical shoulders of the terminal flanges with a piloting action and supporting said cross-head flanges against radial expansion under the fluid pressure in said line, said central leg and cross-head being of soft, flexible, yieldable material and said reinforcing rings being of rigid non-yielding material, said cross-head flanges having marginal portions projecting axially beyond the outer sides of said reinforcing rings and in sealing engagement with flaring inner walls of said bell mouth portions to provide a seal that is made more fluid tight by yielding of said projecting marginal portions of the cross-head flanges under the fluid pressure in said line.

2,769,649

## PORTABLE FILLING CONNECTION

Frank P. Scully, Belmont, and Alcide Edward Mathey, Boston, Mass., assignors to Scully Signal Company, Cambridge, Mass., a corporation of Massachusetts

Application July 30, 1952, Serial No. 301,624
5 Claims. (Cl. 285—175)



2. A tight filling connection for use with a tank having a fill pipe with an internal standard pipe thread on its outer end, comprising a tubular casing threaded externally at its upper end, an apertured disk for receiving a spout of larger diameter than said aperture resting on the upper end of said casing, a washer resting on said disk having an aperture therethrough larger than the aperture through said disk but smaller than the internal diameter of the upper end of said casing, a screw cap having an inturned flange screwed on the upper end of said casing with said flange holding said washer and disk firmly against the upper end of said casing, said casing threaded externally at its lower end, said last thread being of the same pitch as said standard pipe thread of said fill pipe and of less than standard diameter, an undercut shoulder above said threads, a sealing ring positioned against said undercut shoulder adapted to engage the end of a pipe to which said connection may be screwed and a plurality of webs spaced about the interior of said casing adapted to prevent the spout regardless of its diameter when positioned within said casing from causing sealing engagement with the interior wall of said casing.



2,769,650

## TABLE LEG MOUNTING BRACKET AND LATCH STRUCTURE THEREFOR

Charles O. Larson, Sterling, Ill.

Application February 18, 1953, Serial No. 337,589
6 Claims. (Cl. 287—14)



1. In combination a bracket having a pair of spaced side plates adapted to be attached to a planar support to extend normally thereto, means for securing said side plates to the under surface of said support, a leg having an upper end portion shaped to be slidably disposed between said spaced side plates, each of said side plates having vertically disposed elongated closed slots formed therein and disposed normal to the plane of said support, said closed slots being formed centrally of the lateral marginal edges of each of said plates, each plate having an additional elongated open slot spaced from and disposed in line with the closed slot of each of said plates, said open slots of each plate having the outer ends opening onto the lower marginal edge of each of said plates, a pair of spaced bolts normally disposed in said aligned closed and open slots, said bolts passing through the upper central portion of said leg and being spaced apart such that when the upper bolt is at the upper end of the upper closed slot the lower bolt will be at the upper end of the lower open slot and when the upper bolt is at the lower end of its slot, the lower bolt will be disposed wholly beyond the open end of the lower open slot, and the lower walls of each plate beginning with the outer open end of said open slots curving arcuately outwardly in opposite directions from each adjacent wall of said open end of said open slot and then extending substantially parallel to and directed away from said open slot toward the opposite end of said plate and forming on opposite marginal sides of said plate in equally spaced relation from the walls of said closed slots a pair of notches spaced laterally and equally from and in line with the upper end of said closed slots, said notches being open at their bottom portions and in position to receive the lower bolt therein.

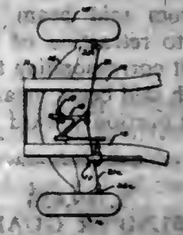
2,769,651

## ADJUSTABLE IDLER ARM SUPPORT

Paul C. Cain, Kosciusko, Miss.

Application January 9, 1953, Serial No. 330,527
2 Claims. (Cl. 287—100)

1. For use with a vehicle chassis having a transverse frame member supported by a pair of front wheels, an idler arm positioned adjacent said frame member, a steering gear connected to said idler arm, and steering linkages operatively connected to said wheels and each pivotally connected to said idler arm; a device for connecting said idler arm to said cross member for oscillatory movement, said device comprising an upstanding bracket, a pair of bosses arranged in superimposed spaced axially aligned relation carried by said bracket, the upper one of said bosses being provided with a smooth bore, a bushing in the smooth bore of the upper one of said bosses, said bushing having a bore tapering inwardly from the face adjacent the lower one of said bosses and terminating at a point spaced from the other face remote from the lower one of said bosses, a flange on said bushing and bearing against the face adjacent the lower one of said bosses, the lower one of said bosses being provided with a threaded bore extending from the face adjacent the upper one of said bosses to the other face remote from the upper one of said bosses, an externally threaded bushing in threaded engagement with the threaded bore



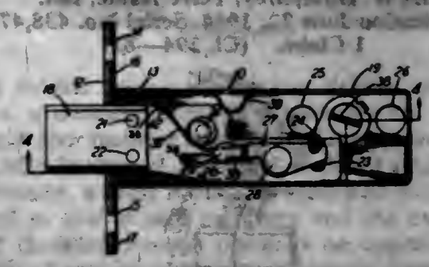
of said lower one of said bosses, said threaded bushing having a bore extending inwardly from the face adjacent the upper one of said bosses and terminating at a point spaced from the other face remote from the upper one of said bosses, a pin having tapered end portions positioned between said bosses and having each of the tapered end portions engaging the tapering bore of the adjacent bushings, means on the intermediate portion of said pin for attachment of said idler arm thereto, there being a slot in said lower one of said bosses extending from said face to the other said face thereof, cooperating fastening means on said lower one of said bosses for releasably clamping the latter to said threaded bushing to prevent rotation of the threaded bushing in said lower one of said bosses, each of said bushings having a peripheral annular groove and a transversely extending passage in communication with said groove and the tapering bore of the adjacent bushing and also in communication with a lubricant passage formed in the adjacent boss, and means on said bracket for attaching the latter to said frame member.

2,769,652

## DEADLOCKING MECHANISM FOR AUXILIARY DOOR LOCKS

Orville C. Maurits and Paul H. Grevengood, Grand Rapids, Mich., assignors to Dexter Industries, Inc., Grand Rapids, Mich., a corporation of Michigan

Application March 28, 1955, Serial No. 497,258
2 Claims. (Cl. 292—169)

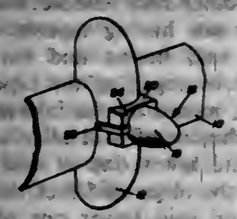


2. A lock, comprising: a housing; a front aperture; a bolt slideably received in said aperture; a retractor member connected adjacent its forward end to said bolt, and

having a slot at the rearward end formed by opposite walls spaced from each other in the direction of sliding movement of said bolt, and also having a central slot having axially opposite surfaces spaced apart by an amount at least equal to the distance of sliding movement of said bolt; a radius arm rotatably mounted in said housing on an axis transverse to the path of sliding movement of said bolt, said radius arm having a member slideably engaging said slot; a deadlocking lever pivotally mounted at the central portion thereof on said retractor member, said lever having a rearward portion extending beside and across said slot, and a locking portion provided with a hook extending forwardly, whereby transverse movement of said radius arm member along said slot causes said radius arm member to position said lever about its pivot mounting; transverse beam means received within said central slot and fixed with respect to said housing, and disposed for engagement with said locking portion with said bolt in fully projected position, said retractor member slot and rearward portion of the lever being formed to cause disengagement of said locking portion from said beam, on rotation of said radius arm, prior to retraction of said bolt beyond the position of said bolt corresponding to engagement of said locking portion with said beam means; and biasing means urging said locking portion toward said beam means.

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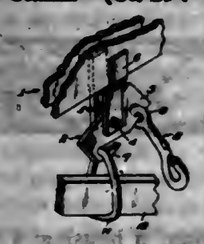
2,769,653
**BUMPER GUARD**
Frank Lazan, Jr., Morgantown, W. Va., assignor of fifty percent to Aldo Giancola, Morgantown, W. Va.
Application February 16, 1953, Serial No. 337,073
1 Claim. (Cl. 293—71)



A protective device for use in combination with a bumper guard on a vehicle bumper, said device comprising a body of resilient flexible material, said body including a base having a concave inner surface and a substantially flat outer surface, said body further including a substantially conical section integrally formed with said base, said body having an aperture therethrough in the plane of the flat outer surface of said base, and a strap extending through said aperture in said body with a midportion of said strap being retained in said body, the end portions of said strap being received between said bumper guard and said bumper, and a fastener securing said bumper guard to said bumper urging said bumper guard toward said bumper clampingly holding said end portions of said strap between said bumper guard and said bumper.

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2,769,654
**AUTOMATICALLY RELEASING SHACKLE**
Irl W. Humphrey, Terre Haute, Ind.
Application June 22, 1954, Serial No. 438,477
1 Claim. (Cl. 294—83)



In combination with a hoisting block provided with the usual open clevis having a pair of spaced depending arms, a shackle bar of substantially rectangular shape and of rectangular cross section throughout its length, a bolt adapted pivotally to attach said shackle bar between the depending arms of said clevis, said bolt passing through a hole bored substantially centrally in said shackle bar and through holes provided in the lower ends of the depending arms of said clevis, a diagonal open slot forming a hook located at one end of said shackle bar, said slot having an opening pointing upwardly when the shackle bar is in its load-carrying position and downwardly when the shackle bar is in its load-releasing position, a snap hook pivotally mounted at the opposite end of said shackle bar with its pivot point off-set from the central axis of the shackle bar so that the weight of the snap hook is attached on the same side of said central axis as the slot opening and so the weight of the snap hook tends to rotate the shackle bar to its load-releasing position, said snap hook being attached to the shackle bar by a link which is larger than the space between the depending arms of the clevis so that the shackle bar cannot be rotated beyond its load-carrying position in one direction.

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2,769,655
**INTERNAL PIPE GRIPPING TOOL**
Lloyd R. Holmes, Vermillion, S. Dak.
Application April 10, 1953, Serial No. 348,029
10 Claims. (Cl. 294—94)



1. In combination, a pipe buried in the ground and a tool for engaging and gripping the interior surface of said pipe at a point remote from and intermediate of its ends; said tool comprising, a hollow internally tapered and threaded partially split sleeve, a tapered threaded core threadably engaging said hollow internally tapered and threaded partially split sleeve for expanding the same into gripping engagement with the interior surface of the pipe, a plurality of stiff bristles secured to said sleeve and extending beyond its periphery, means secured to said core to limit movement of said core relative to said sleeve in one direction, and means secured to the top of said core for securing it to a well drilling rig; said bristles describing a circle larger than the internal diameter of said pipe and frictionally engageable therewith to limit rotation of the sleeve relative to said pipe.

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2,769,656
**VEHICLE CAB AND FRONT END MOUNTING**
Fred A. Lee, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application July 31, 1953, Serial No. 371,567
7 Claims. (Cl. 296—35)

1. In a motor vehicle having a longitudinal frame comprising a pair of longitudinally extending, transversely spaced side sill members; a vehicle body including an operator's compartment, a hood structure extending forwardly from said operator's compartment and secured thereto, and a vertically disposed, transversely extending grille radiator panel secured to said hood structure and defining the forward extremity of said body, said body further including a first transversely extending cross member secured to the lower edge of said radiator grille panel, a second transversely extending cross member secured to the underside of the rearward end of said operator's compartment, and a transversely extending channel-shaped member secured to the underside of said body and being longitudinally spaced between said first and second cross members; means for supporting said body above said frame including a pair of transversely spaced links, each of said links having one end pivotally connected to a respective sill member and its opposite end pivotally connected to a respective end portion of said first cross member, a second pair of transversely spaced links, each of said links having one end pivotally connected to a respective sill member and its opposite end pivotally connected to a respective end portion of said second cross member, and a pair of transversely spaced, resilient mounting connections between respective opposite ends of said channel-shaped member and said sill members, said resilient mounting connections being longitudinally spaced between said first and second pairs of links.





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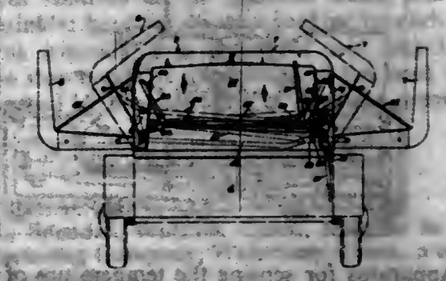
2,769,657
**MOTOR VEHICLE WINDOW MOUNTING WITH DRAINAGE TROUGH**
George R. Frie, Fort Wayne, Ind., Richard E. McGonigal, Springfield, Ohio, and Louis M. Reukert, Birmingham, Mich., assignors to International Harvester Company, a corporation of New Jersey
Application November 4, 1953, Serial No. 390,126
10 Claims. (Cl. 296—67)



1. In a vehicle body, a body panel having a window opening defined by an inwardly projecting flange; a window frame including top, bottom, and side members secured to said body panel, said bottom member being substantially U-shaped in section and having one leg thereof abutting and secured to said flange, said frame further including an elongated, perforated element having an inverted channel shape in section supported on the web of said bottom member whereby the webs of said member and element are vertically spaced from each other and define the lower and upper walls, respectively, of a trough; a resilient sealing strip seated in said window frame having an outwardly facing groove for receiving said flange, a section of the outer peripheral surface of said strip being adapted to abut the upper wall of said trough, said strip section being confined by and between the legs of said bottom member, said sealing strip further having a pair of inwardly facing grooves formed in the inner periphery thereof arranged in spaced parallel planes for supporting a pair of relatively slidable window panes, said strip section having a plurality of passages formed therein extending from one of said inwardly facing grooves to the outer peripheral surface of said strip section, said passages being registerable with perforations in said top wall of said trough; and conduit means leading from said trough to a point exteriorly of the vehicle body.

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2,769,658
**COMBINATION CONVERTIBLE TOP AND EXPANSIBLE VEHICLE BODY**
Harry G. Edmonds, Sr., Oregon City, Oreg., assignor to National Weather-Top Corporation, Tacoma, Wash.
Application September 8, 1953, Serial No. 379,626
3 Claims. (Cl. 296—100)



2. A body of the character described comprising in combination two sections of inverted L-shape in cross-section hingedly attached at their sides to a support along lines diverging toward one end of the body, a wall carried by the support at said one end of the body and embraced by said sections when in a closed position, actuating mechanism for opening and closing said sections, said mechanism comprising in combination, a unitary lever and crank arm pivotally attached to one of said sections, a link pivotally attached at one of its ends to one end of said crank arm above, and curved beneath, said pivotal attachment of the lever and crank arm and pivotally attached at its opposite end to the other of said sections, a second link pivotally attached at one of its ends to said crank arm and at its opposite end to said wall whereby movement of the lever and crank arm in one direction through the medium of the first mentioned link will swing said sections from a closed to an open position and in symmetrical relationship to each other through the medium of said second link, and whereby movement of the lever and crank arm in an opposite direction will similarly swing the sections together into sprung engagement with each other into a closed position and lock them in a closed position by the over center tension of the first mentioned link.

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2,769,659
**STABILIZER FOR TAIL GATE DOORS MOUNTED ON LATERALLY SPACED HINGES**
Thomas W. Perry and Lawrence P. Schubert, South Bend, Ind., assignors, by mesne assignments, to Studebaker-Packard Corporation, a corporation of Michigan
Application January 7, 1954, Serial No. 402,790
7 Claims. (Cl. 296—106)

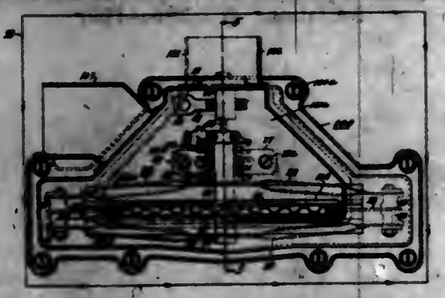


7. A vehicle having a doorway defined by a frame member, a complementary door member for said doorway, said door member being hinged for movement about a generally horizontal axis from a closed position to an open position, a cable having a midportion thereof fixedly attached to one of said members and the end portions thereof threaded through openings on opposite sides of the other of said members, and abutment means attached to each end of said cable to limit and prevent the withdrawal of the ends of said cable through said openings,

said abutment means being positioned to effect tensioning of said cable when said door member is moved to a predetermined open position.

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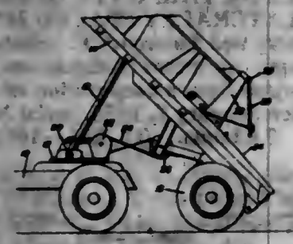
2,769,660
THERMOSTAT
John Dolza, Davisburg, and William K. Steinhagen, and Ralph S. Johnson, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 15, 1951, Serial No. 246,852
2 Claims. (Cl. 297—12)



1. Apparatus for sensing the temperature of a gaseous medium comprising a thermostat including spaced, parallel strips of metal having relatively high temperature coefficient of expansion, and said strips being movable in response to variations in temperature of the gaseous medium, plates parallel to the strips and spaced therefrom, a moveable member and means for causing movement of the member in accordance with changes in length of the strips, a housing enclosing the thermostat having a chamber into which the gaseous medium is introduced and a second chamber through which the gaseous medium flows after passing the thermostat, a partition separating said chambers and supporting said plates, said partition having an opening communicating with the space between said plates in which the thermostatic strips are positioned, a conduit supplying the gaseous medium to said first chamber so that said medium can flow into the space between said plates and into the second chamber, a conduit for conducting the gaseous medium away from said second chamber after it has passed between said plates, and a motion transmitting mechanism operatively connected with the movable member.

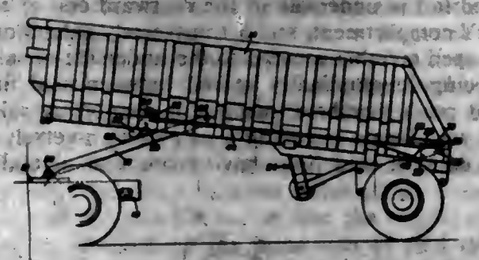
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2,769,661
TAIL GATE, APRON AND AXLE PLACEMENT CONSTRUCTION FOR DUMP TRAILERS
Edwin A. Schoenrock, San Angelo, Tex.
Application June 29, 1953, Serial No. 364,788
5 Claims. (Cl. 298—20)



1. A dump trailer comprising a chassis and a rear axle assembly therefor, a body on said chassis, a tail gate assembly for said body, said body and said tail gate assembly being each disposed forwardly of said rear axle assembly whereby to locate the entire load of the body forwardly of the rear axle assembly, said chassis being mounted upon said rear axle assembly for vertical tilting movement thereabout between a substantially horizontal load carrying position and a sharply inclined dumping position, said chassis having an apron extending from the tail gate assembly rearwardly of the rear axle assembly.

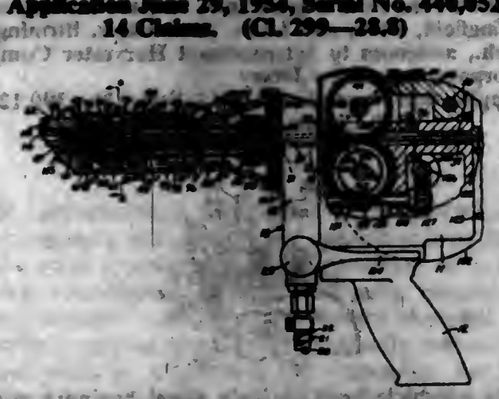
2,769,662
TAIL GATE AND OPERATING DEVICE FOR DUMP OR TRAILER TRUCKS
Edwin A. Schoenrock, San Angelo, Tex.
Application August 21, 1952, Serial No. 305,573
10 Claims. (Cl. 298—23)



1. A truck trailer having a dump body, means for tilting said body into dumping position, a tail gate hinged to the rear end of said body and movable between an upwardly and rearwardly inclined load supporting closed position and a lowered dumping position, means actuated by said tilting means for positively moving said tailgate into closed position when said dump body has moved to a predetermined lowered position, said last means comprising a bell crank pivoted to said dump body intermediate its ends, means connecting one end of said bell crank to said tail gate and means connecting the other end of said bell crank to said tilting means, said tilting means including a lift arm pivotally connected to said dump body.

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2,769,663
APPARATUS FOR COATING ARTICLES WITH REFRACTORY OXIDES AND THE LIKE
Louis Peter Jensen, Worcester, and William Maxwell Wheildon, Jr., Framingham Center, Mass., assignors to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application June 29, 1954, Serial No. 440,852
14 Claims. (Cl. 299—28.8)



14. Apparatus for fusing and atomizing relatively inflexible oxide rods comprising a casing, rod feeding means in the casing, a nozzle, a tube like barrel to conduct air under pressure to the nozzle to produce a blast, a deflector in the nozzle to deflect the air, said barrel having channels to conduct gases of combustion to said nozzle, said barrel having a channel for the rods, and a rod gripper to restrain the rods which have been advanced out of contact with the feeding means from ejection by the blast, the barrel connecting the casing and the rod gripper which is adjacent the nozzle.

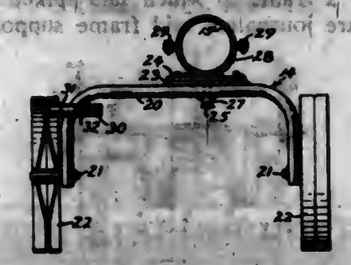
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2,769,664
APPARATUS TO AID THE MOVING OF PIPE LINES
Gail Cornelius, Portland, Oreg., assignor to R. M. Wade & Co., Portland, Oreg., a corporation of Oregon
Application August 31, 1953, Serial No. 377,415
4 Claims. (Cl. 299—47)

1. A caster for supporting a moveable pipe line which comprises a frame with ground engaging wheels adja-



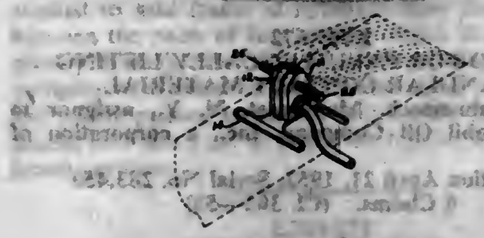
cent its opposite ends, a pivotal support on the frame for a pipe line to be moved, and frictional brake means tending to retard the rolling of one wheel more than the



other whereby upon movement of the pipe the frame will pivot relative to the pipe and assume a diagonal position with respect thereto.

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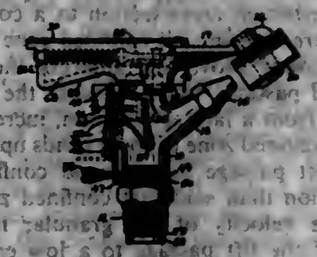
2,769,665
OSCILLATING SPRINKLER
Donald L. Spender, Wolcott, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application February 15, 1954, Serial No. 410,217
3 Claims. (Cl. 299—67)



1. A sprinkler comprising a hollow casing, a hollow shaft journaled in and extending through opposite walls of said casing, said shaft having an opening leading to the interior of the casing, a discharge nozzle on one end of said shaft, an impeller wheel within the casing, means directing a stream of water against the impeller wheel to rotate the same, a gear rack member attached to said shaft within said casing and transversely of the axis of said nozzle, and a gear train connecting said impeller wheel to said rack member including a gear meshing with the rack, said rack member being of such shape that upon rotation of said impeller wheel an oscillating movement of uniform rate throughout is imparted to said nozzle.

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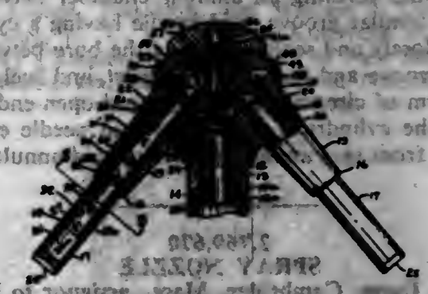
2,769,666
IMPULSE OPERATED SPRINKLER
Donald L. Spender, Wolcott, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application February 1, 1954, Serial No. 407,233
4 Claims. (Cl. 299—69)



1. A sprinkler of the intermittent reversible rotary type comprising a support, a sprinkler head rotatably mounted on said support, a discharge nozzle projecting upwardly and laterally from said head, an impulse arm pivoted coaxially on said sprinkler head, a water deflector vane mounted on the end of the arm in line with the stream issuing from said nozzle and serving to swing said arm alternately to opposite sides of said stream, spring means for returning said arm to neutral position in line with said nozzle after each oscillating movement, a yoke pivotally mounted on the side of said sprinkler head on an axis perpendicular to the axis of the head and having stop means projecting therefrom on opposite sides of said head, one of said stop means being located in the path of a portion of said impulse arm when said yoke is in one position while the other of said stop means is out of the path of said arm, and means for moving said yoke at a predetermined point in the rotation of the sprinkler head to its opposite position where the position of the respective stop means is reversed to effect a change in the direction of rotation of the sprinkler head, and means on said sprinkler head for directly backing up each of said stop means whereby any impact of said impulse arm against the stop means is transmitted to the head without being absorbed by the mounting of the yoke member.

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2,769,667
REACTION TYPE SPRINKLERS
Donald L. Spender, Wolcott, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application July 22, 1954, Serial No. 445,100
7 Claims. (Cl. 299—69)



1. A sprinkler having a head mounted to rotate about a vertical axis, tubular nozzles fixedly mounted on the head at opposite sides of said axis, each nozzle arranged so that its longitudinal axis is in acute angle relation to said vertical axis, a series of orifices of different size in each nozzle spaced lengthwise of the nozzle and arranged in differing angular relation about the nozzle axis, the angle of elevation of the larger of said orifices being such as to provide a maximum range of jet delivery, while the angle of elevation of the other orifices is progressively smaller to provide progressively lower ranges of jet delivery, the larger of said orifices being in substantially a vertical plane passing through the axes of the head and nozzle and the others of said orifices being arranged at progressively larger angles about the nozzle axis to one side of said plane as they diminish in size, and control means inside said tubular nozzle for progressively opening or closing said orifices to control the range of water distribution.

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2,769,668
IRRIGATION TUBES
Lorenzo A. Richards, Riverside, Calif.
Application October 11, 1954, Serial No. 461,383
4 Claims. (Cl. 299—104)



2. An irrigation tube comprising: a length of rubber-like tubing; and multiple fiber yarn strands threaded transversely through the walls of the tubing to form water seepage passages therethrough.

2,769,669
NEEDLE NOZZLE FOR INTERNAL COMBUSTION ENGINES
Rudolf L'Orange, Gisslon, near Frauendenstadt, Germany
Original application October 29, 1951, Serial No. 253,656, now Patent No. 2,743,961, dated May 1, 1956. Divided and this application July 5, 1955, Serial No. 520,010
3 Claims. (Cl. 299—107.6)



1. A fuel injection nozzle for internal combustion engines, comprising a guide having a cylindrical bore communicating at one end with a fuel atomizing port and having a fuel intake port in the form of an annular groove in and surrounding said bore in spaced relationship to the atomizing port axially of said bore, a needle having a sliding fit in said bore, a reduced part on said needle engageable with an annular seat surrounding the atomizing port and forming an annular chamber between said seat and annular groove, said needle having a cylindrical portion closely and sealingly fitting the bore between said annular groove and fuel atomizing port, and fuel passages in the form of circumferentially spaced open-ended bores through the cylindrical portion of said needle extending obliquely from said annular groove to said annular chamber.

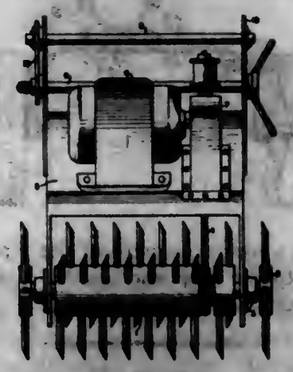
2,769,670
SPRAY NOZZLE
Byron B. Dunn, Cambridge, Mass., assignor to National Gunite Corporation, Boston, Mass., a corporation of Massachusetts
Application September 3, 1953, Serial No. 378,199
1 Claim. (Cl. 299—140)



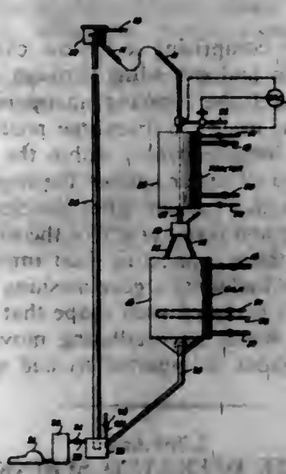
A spray nozzle for viscous, semi-liquid and aggregate-containing materials, comprising an inner air conducting pipe of uniform bore throughout and having an open nozzle end, a larger outer pipe concentrically surrounding the inner pipe and providing a material feeding chamber therebetween, the outer pipe having an open nozzle end disposed rearwardly of the nozzle end of the inner pipe, and a nozzle having a rear cylindrical portion larger than and threaded to the nozzle end of the outer pipe and a conical portion tapered inwardly-forwardly therefrom about the nozzle end of the inner pipe to a bore diameter approximating that of the inner pipe, the nozzle end of the inner pipe terminating in a rim having an outer annular edge making an angle directed toward said conical portion of the nozzle and adapted to make annular line contact therewith and tightly close the nozzle end of said chamber when the nozzle is threaded rearwardly on the outer pipe into contact with the inner pipe.

2,769,671
MECHANICAL BAGASSE LOOSENER AND PNEUMATIC PICKER
Francisco Lucas Muñiz, San Juan, Puerto Rico
Application January 15, 1954, Serial No. 404,288
2 Claims. (Cl. 302—38)

1. In a pneumatic conveying system, a machine for loosening and picking up hard packed bagasse or any other light material, comprising a revolving spiked tooth drum with outboard side clearing wheels, means for driving said spiked tooth drum and side wheels backward and forward, a frame to which said spiked tooth drum and wheels are journaled, said frame supporting a hollow portion having inlet means positioned to pick up material loosened by the said spiked tooth drum, said hollow portion serving as a pneumatic box, means to connect a flexible suction pipe to the hollow portion, and means for attaching the machine to a crane's boom.



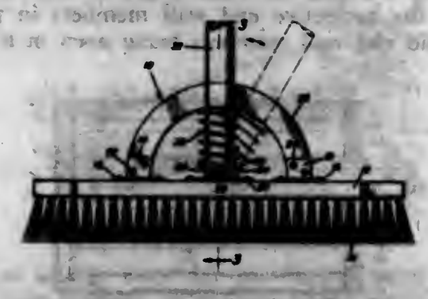
2,769,672
METHOD FOR PNEUMATICALLY LIFTING GRANULAR CONTACT MATERIAL
Frank C. Fahnestock, Manhasset, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application April 21, 1952, Serial No. 283,453
6 Claims. (Cl. 302—53)



1. An improved method of lifting granular contact material which comprises: gravitating contact material downwardly as a substantially compact gravitating mass in a supply zone, withdrawing contact material downwardly from the bottom of the supply zone through an elongated passage of restricted cross-section to a confined zone, as long as the pressure in said confined zone is low, baffling the flow of solids above and adjacent the upper end of the elongated passage, so as to cause the solids to enter said passage from a lateral direction, increasing the pressure in said confined zone to force solids upwardly through a confined lift passage to a second confined zone at a higher elevation than said first confined zone, restricting the discharge velocity of the granular material at the upper end of the lift passage to a low enough value to maintain the material in compact flowing condition, reducing the pressure in said first confined zone before the first zone is entirely empty, whereby the lift passage remains filled with a substantially compact column of granular material and the first confined zone is refilled, and transferring solids from said second confined zone to provide space for the next slug of contact material.



2,769,673
WALL AND CEILING CLEANER
Patricio Valverde, Sr., Albuquerque, N. Mex.
Application January 19, 1954, Serial No. 404,966
1 Claim. (Cl. 306—11)



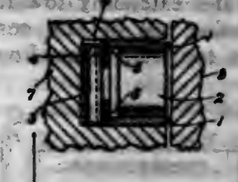
In a wall and ceiling cleaner, an elongated oval body member forming an open frame adapted to form a brush back, pairs of right angled lugs fixed to opposite sides of the frame at opposite sides of its transverse center, a semi-circular quadrant upstanding from said frame and having its ends fixed between the lugs of the pairs, a handle having a longitudinal slot through which said quadrant extends and also having an inner end provided with a transverse pivot pin fixed thereto, a pair of strap members secured to said frame at opposite sides thereof midway between the pairs of lugs and in which the ends of the pivot pin are journaled in the axis of said quadrant for swinging adjustment of said handle along said quadrant, and spring pressed means on said handle frictionally engaging said quadrant to retain the handle in different adjusted positions.

2,769,674
ROLLER BEARINGS
Karl Neuffer, Kouts, Ind.
Application August 29, 1952, Serial No. 307,046
2 Claims. (Cl. 308—183)



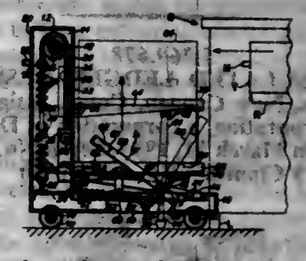
1. In combination: a support provided with an opening defining an interaal raceway having an axially extending cylindrical surface, an outer race ring disposed within the confines of the opening, said ring comprising a one-piece body provided with an external raceway defined by an annular axially extending base portion and a pair of substantially parallel outwardly extending radial side walls, the outer free marginal edge portions of the side walls having inturned corresponding flanges, roller bearings seated in and secured in said external raceway by said inturned flanges and engaging the cylindrical surface of said support, the inner side of the base portion of said ring being provided with a pair of corresponding parallel grooves, a one-piece inner race ring disposed within the confines of the outer race ring, the outer side of said inner race ring being provided with a pair of grooves substantially corresponding to the first mentioned pair of grooves, ball bearings seated in the pairs of grooves, and inwardly extending radial means carried by the support located on opposite sides of the side walls of the outer ring for limiting axial movement of the latter in the opening.

2,769,675
PISTON RING OIL SEALING STRUCTURE
Douglas W. Hansen, Muskegon, Mich., assignor to Muskegon Piston Ring Company, Muskegon, Mich., a corporation of Michigan
Application November 26, 1954, Serial No. 471,241
3 Claims. (Cl. 309—44)



1. A piston ring comprising a circular expander, a circular parted thin shim located around said expander and pressed outwardly thereby, horizontal upper and lower thin, circular, parted rails around said shim, a spacer between the rails around said shim, said shim at its outer side having upper and lower oppositely inclined continuous annular surfaces, located in planes at acute angles to the vertical plane of said shim, against which surfaces the inner edges of said rails bear.

2,769,676
ELEVATING AND LOWERING DEVICE
Carl H. Larsen, Brooklyn, and William J. Gibbs, East Rockaway, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey
Application December 21, 1951, Serial No. 262,726
9 Claims. (Cl. 312—306)

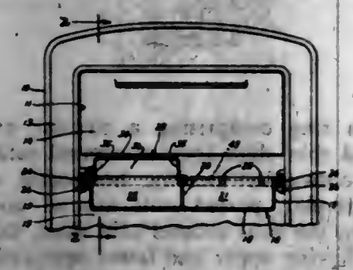


1. A two-level storing and dispensing apparatus comprising, a base, an upright extending upwardly from said base, a cantilever material supporting platform mounted for up and down movement on said upright, calibrated tension springs secured to said base for counterbalancing said material supporting platform and the material supported thereon, means interconnecting the other end of said calibrated tension springs with said carrier platform to effect said counterbalancing action, a lever arm pivoted on said base for engaging with the bottom portion of said material supporting platform to positively change the height of said platform above said base, manual means for swinging said lever arm about said pivot to change the position of said material supporting platform, an extension extending from said lever arm and engaging with the floor when said lever arm is in substantially vertical position to provide a rigid support extending from the bottom of said platform to the floor to lock said platform in elevated position, and a calibrated spring for urging a portion of said lever arm against said platform to exert an upward force thereon.

2,769,677
SLIDING MEAT KEEPER
Iber C. Courson, Glendale, and Raymond A. Mason and Harold C. Grunditch, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 10, 1954, Serial No. 415,382
3 Claims. (Cl. 312—306)

1. A chiller-drawer for refrigerator cabinets, said drawer comprising; a tray having a bottom wall, up-

standing side walls, and an intermediate wall, defining a two compartment open-topped tray, said tray also including a pair of upper and lower channel forming flanges, extending inwardly from adjacent the top edge of one of said side walls, the upper flange being shorter at the front than the lower flange, and a second and similar pair of flanges positioned adjacent the top edge of said intermediate wall and extending toward said first pair; and a cover enclosing one of said compartments, said cover comprising a top wall, depending side walls, and



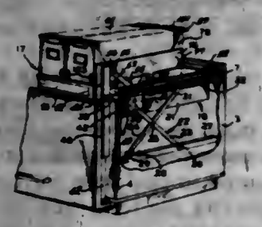
a discontinuous flange extending outwardly from each of opposing side walls thereof, the front portion of each of said cover flanges being lower than the remaining portion, its lower flange portions, when said cover is assembled with said tray, resting upon the lower tray flanges and its upper flange portions resting upon the upper tray flanges, thereby slidably supporting said cover over said one compartment in a manner whereby the lower portion of said cover flange passes between said tray flanges to retain said cover engaged with said tray when said cover is moved rearwardly relative to said tray.

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**2,769,678**

## INSULATED LEDGER DESK

**Carl F. Wolters, New Canaan, Conn., assignor to Sperry Rand Corporation, a corporation of Delaware**
**Application March 31, 1953, Serial No. 345,928**
**3 Claims. (Cl. 312—310)**



3. A file, comprising a cabinet formed to provide a compartment open at the upper end, a tray mounted for movement in said compartment to and from said open upper end, a closure for the open upper end of said compartment, means for supporting said cover for movement between closed and an open position adjacent the front wall of said cabinet having a supporting member attached to each side of said cabinet, a pivoted member on the front end of each supporting member attached to said cover and lever means connected at opposite ends to said supporting member and pivoted member respectively, and means connecting an intermediate portion of said lever means to said tray, whereby movement of said cover to open position will operate said lever means to move said tray to the upper end of said cabinet.

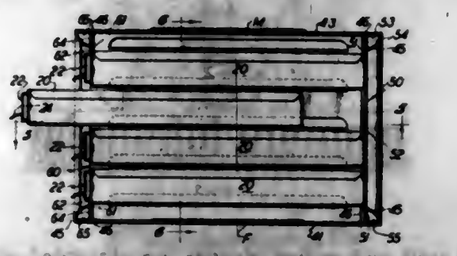
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**2,769,679**

## FILE CABINETS

**Joseph H. Wineman, Los Angeles, Calif.**
**Application October 19, 1951, Serial No. 252,039**
**6 Claims. (Cl. 312—350)**

1. In a file cabinet, a rectangular case comprising four walls arranged to embrace a central space and molding strips extending into said space from the open ends of the case, the inner edges of the molding strips projecting axially inwardly, a pair of unitary rectangular end wall members arranged at opposite ends of said central space, both end wall members having inwardly stepped offset portions at positions spaced inwardly from the edges thereof for abutting the inner edges of said strips for retaining the respective end wall members in position, one of said end wall members being open in the space



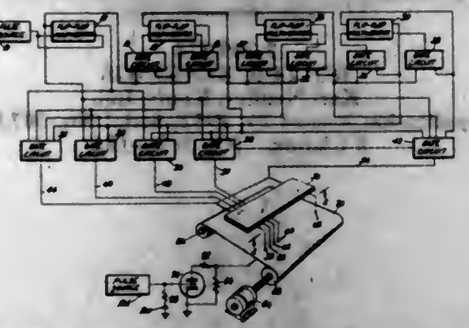
between said offset portions to provide a drawer-receiving mouth at one end of the cabinet, and a pair of side-wall members, mounted on opposite sides of said central space, said side-wall members being secured to said end wall members, said side-wall members having inwardly projecting shelf-support strips formed integrally therewith.

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**2,769,680**

## GRAPH PLOTTER

**Robert M. Beck, Inglewood, Calif., assignor to Northrop Aircraft, Incorporated, Hawthorne, Calif., a corporation of California**
**Application June 11, 1953, Serial No. 361,027**
**8 Claims. (Cl. 346—49)**



1. A graph plotter, including, means for providing digital increments in a first quantity, means for providing a count of digital increments in a second quantity related to the first quantity, an electrosensitive paper, a plurality of terminals disposed in contiguous relationship to the paper, each of the terminals being connected to the counting means to become energized upon a count representing a different integer so as to produce a mark upon the paper, and means for producing a change in the intensity of the marks provided by the terminals upon each digital increment in the first quantity.

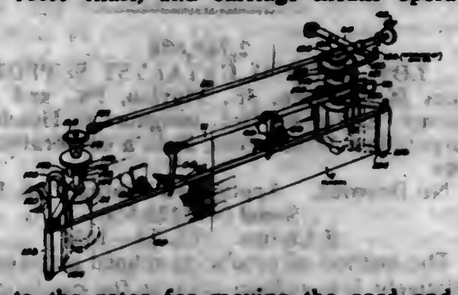
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**2,769,681**

## RECORDING AND MEASURING INSTRUMENT

**James E. Bevins, Ramsey, and Robert W. Hyde, Englewood, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware**
**Original application April 16, 1945, Serial No. 588,600. Divided and this application October 27, 1951, Serial No. 254,136**
**3 Claims. (Cl. 346—78)**

1. In a recording machine of the character described including a continuously vertically moving tape, a print ribbon continuously moving laterally over the face of the tape and in close spaced relation thereto, a print element, a platen continuously operating at close intervals to push the moving tape and print ribbon momentarily into contact with the print element to produce a visible impression on the tape, a pair of electrical synchros connected in an electrical circuit as a transmitter and a receiver of the transmitted signals, a cord carrying the print element fixed thereto, the receiving synchro including a rotor shaft, and carriage means operatively



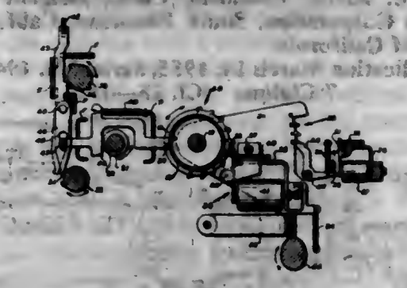
connected to the rotor for moving the cord and connected print element to various lateral positions across the face of the tape in response to signals received from the transmitter.

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**2,769,682**

## CONTROL MECHANISMS FOR PRINTING MACHINES

**Alexander A. Solla, Queens Village, N. Y., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan**
**Application September 16, 1953, Serial No. 380,462**
**6 Claims. (Cl. 346—98)**



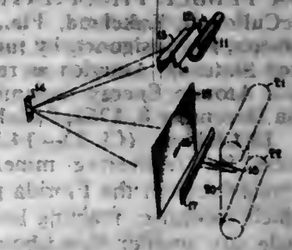
4. In a recording machine including a plurality of recording elements operable in selected combinations to record various characters, a device for selecting said combinations of recording elements comprising a drive shaft, means to rotate said drive shaft, a rotatable member resiliently connected to said drive shaft and rotatable thereon, said rotatable member having engageable means effective in various positions of said rotatable member to select for recording different combinations of said recording elements, stop means on said rotatable member having a series of stop elements arranged in a given position with respect to said engageable means, a second member rotatable about the axis of said drive shaft and having an engageable sector with a series of stop elements arranged in a given position thereon, arresting means on said second member for selectively engaging said stop elements on said rotatable member, means for causing said second member to rotate, second arresting means for selectively engaging said stop elements on said engageable sector thereby to position said second member, selecting members connected respectively to said recording elements and adapted for engagement with said engageable means on said rotatable member, and means for bringing said selecting members into and out of engagement with said engageable means on said rotatable member.

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**2,769,683**

## VARIABLE DENSITY RECORDING OF GALVANOMETER MOTION

**Jesse D. Skelton, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware**
**Application November 1, 1951, Serial No. 254,331**
**6 Claims. (Cl. 346—109)**



1. An apparatus for making a photographic record of an electrical transient which comprises in combination a line source of light; a reflecting mirror galvanometer with its mirror rotationally responsive to said transient; a light barrier provided with an aperture adapted to pass light through the barrier; said source, said reflecting mirror and said barrier being spaced from one another and arranged such that a substantially line-shaped image of the light source is reflected by the mirror to the barrier and such that rotational movements of the mirror cause different portions of the reflected image to pass through the aperture; a light filter having a progressively different light transmission along its length; said filter being positioned in the light path from the light source to the mirror and arranged such that the image on the barrier varies progressively in light intensity along its length; a photosensitive medium positioned adjacent said barrier such that light passing through the aperture in the barrier impinges upon said medium; and means for moving said medium relative to said aperture.



# CHEMICAL

**2,769,684**

## PROCESS FOR STRIPPING AND LIGHTENING WOOL DYEINGS

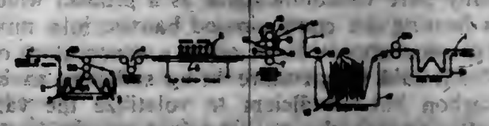
**Wilhelm Geigy, Binningen, Otto Albrecht, Neuewelt, near Basel, and Jules Meyer, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm**
**No Drawing. Application February 24, 1953, Serial No. 338,625**
**Claims priority, application Switzerland December 10, 1952**
**11 Claims. (Cl. 8—102)**

1. A process for lightening and stripping dyeings of wool dyestuffs on basic nitrogenous fibers, which consists in contacting the dyed material with a condensation product selected from the group consisting of condensation products of at least 4 mols of an $\alpha,\beta$-alkylene oxide and one mol of a primary amine which contains a hydrocarbon radical with at least 10 carbon atoms and water-soluble salts of such condensation products.

**2,769,685**

## TREATMENT OF COTTON FABRICS TO INCREASE THEIR LUSTRE BY APPLYING MERCERIZING CAUSTIC SODA AND HEAVY PRESSURE

**Roderick J. Cowles, Needham, Mass., and Nicholas A. Clemmamos, Troy, N. Y., assignors to Cluett, Peabody & Co., Inc., New York, N. Y., a corporation of New York**
**Application May 10, 1952, Serial No. 287,084**
**4 Claims. (Cl. 8—125)**



1. The method of treating a fabric containing largely cotton textile fibers to impart thereto an increased lustre that is permanent to multiple washes, which method comprises wetting said fabric with an aqueous solution of

caustic soda of mercerizing strength until the cotton fibers thereof are plastic and swelled, holding said treated fabric under the tension commonly used in mercerization to resist shrinkage, rinsing the held fabric with water at a temperature below about 105° F. until said fabric largely relaxes its tension and the caustic soda content of the cotton fibers is reduced below about 3½ percent and not fully removed and cellulose hydrate II is produced, immediately thereafter permanently flattening the swelled cotton fibers by heavy pressure thereon in a direction approximately normal to the faces of said fabric, immediately after the flattening step setting the cotton fibers in flattened condition by changing said cellulose hydrate II to cellulose hydrate I, immediately after changing cellulose hydrate II to cellulose hydrate I removing all of the remaining caustic soda from the flattened fibers.

2,769,686

**RECOVERY OF MINERAL VALUES FROM LEACHED ZONE MATERIAL OVERLYING FLORIDA PEBBLE PHOSPHATE DEPOSITS**

Robert F. McCullough, Lakeland, Fla., and Ira M. Le Baron, Evanston, Ill., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application December 8, 1952, Serial No. 324,632
13 Claims. (Cl. 23—14.5)

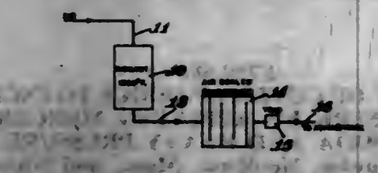
13. A process for recovering mineral values from leached zone material from the Florida pebble phosphate overburden which comprises reacting leached zone material of a particle size smaller than about 150 mesh with sulfuric acid of a concentration between about 20% and about 55% sulfuric acid in an amount of between about 55% and about 105% of the amount required to react with all of the constituents capable of reacting with sulfuric acid, separating insoluble material from aqueous solution of reaction products, treating the aqueous solution with an amount of sulfate of ammonia sufficient to crystallize a major portion of the aluminum as ammonium alum, separating the alum crystals from the aqueous medium and separately recovering from the resultant aqueous solution uranium and phosphorus values.

2,769,687

**PROCESS FOR THE RECOVERY OF VANADIUM FROM CARBON- AND VANADIUM-CONTAMINATED CATALYSTS**

Frederick William Bertram Porter and Roy Purdy Northcott, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

Application December 24, 1952, Serial No. 327,802
Claims priority, application Great Britain January 1, 1952
1 Claim. (Cl. 23—140)



A process for regenerating bauxite contaminated with carbon and vanadium to restore its activity for use in the removal of vanadium from petroleum products and to recover the vanadium contaminant in the form of substantially pure vanadium oxide as a product which comprises heating the contaminated bauxite in a mixture of inert gas and about 5% of air at a temperature of about 1000° F., said temperature being sufficient to burn off the carbon but insufficient to volatilize the vanadium, thereafter heating the de-carbonized bauxite in the presence of air alone at a temperature of about 1300° F. to volatilize the vanadium in the form of its oxide and obtain re-activated bauxite as a desired product, and cooling the resulting vanadium oxide-containing air out of contact with the re-activated bauxite to recover the vanadium oxide in a substantially pure form as an additional desired product.

2,769,688

**LOW SODIUM CATALYST SUPPORT**

Thomas H. Milliken, Jr., Moylan, Pa., and David W. Koester, Claymont, Del., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 26, 1952, Serial No. 273,558
5 Claims. (Cl. 23—143)

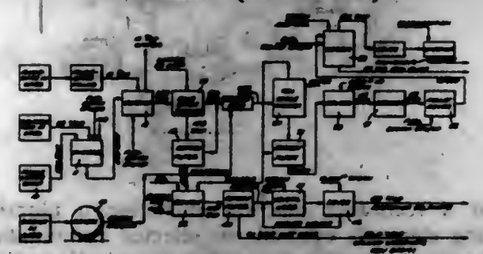
1. The method of producing refined activated alumina of relatively low sodium content for catalytic purposes which comprises calcining aluminum trihydrate at a temperature in the range of about 800 to 1050° F., leaching the calcined alumina with a dilute solution of a mild acidic agent vaporizable at moderate temperatures, separating the acid solution from the leached alumina, drying and heat-treating the dried alumina at a temperature in the range of about 900 to 1400° F.

2,769,689

**PROCESS FOR TREATMENT OF WASTE PICKLE LIQUOR**

Gustave E. Kidde, Pasadena, Calif., assignor to Kidde Process Corporation, South Pasadena, Calif., a corporation of California

Application March 14, 1955, Serial No. 494,015
7 Claims. (Cl. 23—153)



1. In a process for the production of valuable products from waste pickle liquor containing ferrous sulfate, the steps comprising oxidizing said ferrous sulfate to form ferric sulfate, reacting the ferric sulfate thus produced with fluorspar to form a mixture of a soluble complex of iron, fluorine and sulfate, and a precipitate of calcium sulfate, separating the calcium sulfate from the mixture, neutralizing said calcium sulfate-free mixture to produce a mixture of an insoluble ferric fluohydroxide, insoluble ferric hydroxide and a solution of a sulfate compound, separating said ferric compounds from said mixture, and subjecting said ferric compounds to a temperature in excess of about 700° C. to produce hydrogen fluoride gas and iron oxide.

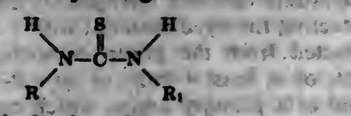
2,769,690

**INHIBITING CORROSION OF FERROUS METALS**

John E. Mahan, Bartlesville, Okla., and Robert A. Stahl, Kansas City, Kans., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 23, 1952, Serial No. 295,118
10 Claims. (Cl. 23—157)

1. A process for reducing the corrosion of ferrous metals by a dilute aqueous nitric acid solution, which comprises incorporating in said acid solution both a compound represented by the general formula



wherein R in a radical selected from the group consisting of hydrogen and alkyl groups containing not to exceed four carbon atoms, and wherein $R_1$ is a radical selected from the group consisting of hydrogen, alkyl groups containing not to exceed four carbon atoms, and a thioamide radical, and wherein R and $R_1$ together form heterocylic ring structures containing up to five members consisting of carbon and nitrogen, said compound containing not more than seven carbon atoms per molecule, and an arsenite selected from the group consisting of sodium arsenite, potassium arsenite, lithium arsenite and ammonium arsenite, in amounts sufficient to decrease the rate of corrosion of a ferrous metal by said acid solution.

9. As a new composition of matter, a dilute aqueous acid solution containing about 15 weight percent nitric acid and thiourea and sodium arsenite in amounts sufficient to decrease the rate of corrosion of a ferrous metal by said solution.



2,769,691

**PROCESS FOR THE PRODUCTION OF SULPHUR AND HYDROGEN SULPHIDE FROM IRON SULPHIDES**

Pietro Achille, Milan, Italy

No Drawing. Application November 19, 1953, Serial No. 393,227
Claims priority, application Italy September 22, 1953
4 Claims. (Cl. 23—181)

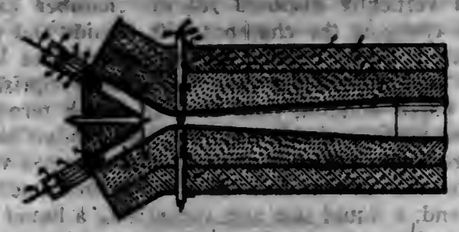
1. A process adapted for the production at room temperature of hydrogen sulphide and sulphur from pyrite which comprises reacting finely ground pyrite suspended in water with chlorine with a molecular ratio of two parts of pyrite to 15 parts of chlorine to form a solution of ferric sulphate, sulphuric acid and hydrochloric acid, the amount of water being insufficient for the complete solubilization of the products obtained, reacting the solution thus obtained with ferrous sulphide to produce hydrogen sulphide and a suspension of sulphur in a solution of ferrous sulphate and ferrous chloride, recovering hydrogen sulphide and separating and recovering sulphur from said suspension.

2,769,692

**CARBON BLACK PROCESS AND APPARATUS**

George L. Heller, Monroe, La., assignor to Columbian Carbon Company, New York, N. Y., a corporation of Delaware

Application May 6, 1952, Serial No. 286,370
10 Claims. (Cl. 23—209.4)



1. In the process for producing carbon black by the thermal decomposition of hydrocarbons wherein the hydrocarbon is separately injected into and is rapidly and uniformly mixed with a turbulent stream of hot flame gases passing through an elongated reaction chamber and decomposed by heat absorbed from the hot gases to form carbon black in suspension, the resultant suspension being withdrawn from the downstream end of the reaction chamber, cooled and the carbon black collected, the steps comprising supplying the hot blast flame gases to the reaction chamber as from without the chamber as a plurality of separate high velocity streams, the longitudinal axis of each stream lying in the plane of the longitudinal axis of the chamber and said streams converging toward each other and toward the longitudinal axis of the chamber in a generally downstream direction, the angle of convergence of said separate streams toward each other being within the range of 60° to 120°, and thereby impinging each of said streams upon a like stream as they enter the chamber to form within the chamber a zone of impact and increased turbulence and injecting the hydrocarbon to be decomposed into the said zone to effect rapid and uniform mixing of the hydrocarbon make with the hot gases and passing the resultant mixture in a state of violent turbulence through the elongated reaction chamber.

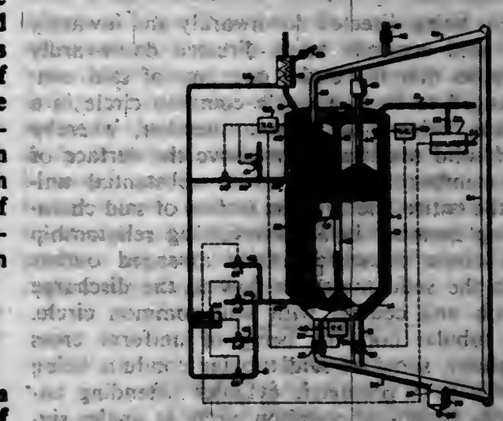
7. Apparatus for the production of furnace carbons comprising an elongated heat insulated reaction chamber, a plurality of combustion chambers leading into the upstream end of the reaction chamber from opposite sides of said chamber, the longitudinal axis of each of the respective combustion chambers lying in the plane of the longitudinal axis of the reaction chamber and forming an angle of at least 30° but not exceeding 60° with the upstream extension of the longitudinal axis of the reaction chamber, and means for separately injecting hydrocarbon to be decomposed into the upstream end of the reaction chamber at a point near the entrance of the combustion chambers.

2,769,693

**PEBBLE HEAT EXCHANGER**

Louis C. Bearer, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 21, 1951, Serial No. 262,757
18 Claims. (Cl. 23—284)



1. Improved pebble heater apparatus comprising in combination a closed, upright, elongated shell; an upright partition within and extending from the bottom to the top of said shell so as to divide the space within said shell into a first chamber on one side of said partition and a second chamber on the other side; gaseous material conduits intermediate the ends of said partition and extending between the two chambers; separate pebble inlet conduit means in the upper end of each chamber, the delivery end of the conduit in said second chamber being at a lower level than the delivery end of the conduit in said first chamber; pebble outlet means in the bottom of each chamber; elevator means connected at its lower end to said pebble outlet means and at its upper end to said pebble inlet means; gaseous material inlet means in the lower end of said first chamber formed within said shell; separate gaseous effluent conduit means extending from the upper end portion of each chamber; and gaseous material inlet means in said first chamber above the level of said gaseous material conduits in said partition.

2,769,694

**SOLIDS WITHDRAWAL UNIT**

Hubert A. Shabaker, Media, Pa., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application October 1, 1951, Serial No. 249,187
1 Claim. (Cl. 23—284)

Apparatus characterized by substantially uniform flow of solid granular material throughout a zone of large

cross-sectional area and into a small discharge conduit therebeneath, the granular material being metered through tubular conduit outlets circumferentially arranged about a single common circle above said discharge conduit, and said uniform flow being transmitted from said circumferentially arranged outlets through tubular conduits to said large cross-sectional area, said apparatus being adapted for contacting freely flowable solid materials with gaseous fluids and comprising an upright treating chamber having a vertical wall laterally enclosing said chamber, a top closure for said chamber open to the introduction of solid materials therethrough and into said chamber for gravitation of said solid materials through said chamber, a bottom member in said chamber, the upper surface of which forms a temporary support for a bed of solid materials in said chamber, said bottom member having a plurality of downwardly directed tubular conduits associated therewith through which solid materials can be withdrawn from above the surface of said bottom member, said conduits being positioned so that their inlet openings are at the upper surface of said bottom member and are arranged in a plurality of patterns, some



of said conduits being directed downwardly and inwardly and other of said conduits being directed downwardly and outwardly so that the outlet openings of said conduits are arranged to form a single common circle in a horizontal plane below said bottom member, whereby withdrawal of solid material from above the surface of said bottom member is effected with substantial uniformity over the entire lateral cross section of said chamber, a confining member in solids-receiving relationship to the single circle circumferentially arranged outlets through which the solid materials flow to the discharge conduit beneath and coaxial with said common circle, each of said tubular conduits being of uniform cross section throughout, some of said tubular conduits being disposed relative to a geometric cylinder extending coaxially upwardly from said common circle at angles significantly different from the angles of other conduits, baffle means within said collecting means arranged to form barriers which laterally confine the solids discharging from said conduits into separate expanded relatively-shallow compact moving masses, said baffle means directing the flow of said separate masses downwardly into the peripheral region of said collecting means.

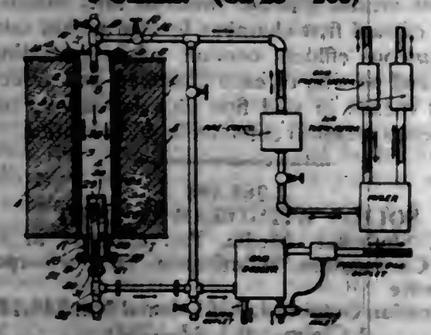
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**2,769,695**

**ENDOTHERMIC GENERATOR RETORT**

Arthur W. Frank, Delafield, Wis., assignor to Hevi Duty Electric Company, Milwaukee, Wis., a corporation of Wisconsin

Application June 4, 1953, Serial No. 359,571
5 Claims. (Cl. 23—288)



1. In a gas retort a casing, a longitudinally extending cylindrical internal housing within said casing, a retort having a flange on one end thereof, said retort being slidable through said longitudinally extending internal housing with said flange abutting against the end of said casing, an end plate secured over said flange, means securing said end plate and said flange to said casing, an intake pipe extending through said end plate, said retort carrying a cylindrical sleeve at the other end thereof having a diameter less than the internal diameter of said retort, said sleeve projecting downwardly from said retort and terminating in an annular flange at the terminating end thereof, a removable end plate carried by said last-mentioned flange, an outlet pipe mounted centrally of said last-mentioned removable plate, said outlet pipe extending interiorly within the last-mentioned end of said retort in spatial relation to both said sleeve and said retort and a protective baffle support mounted within said sleeve and extending adjacent the internal end of said outlet pipe in spatial relation thereto, a flat protective plate carried by said protective baffle support for restricting the passage of carbon through said outlet pipe, said baffle support providing means for mounting a catalyst intermediate said inlet and outlet pipes.

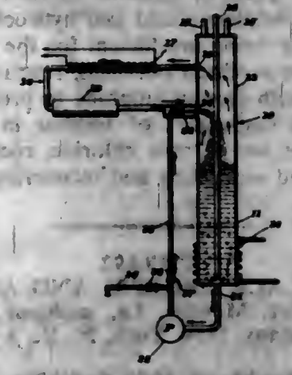
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**2,769,696**

**REACTOR**

Edward E. Littenhous, Nashville, Tenn., assignor to Tennessee Products & Chemical Corporation, Nashville, Tenn., a corporation of Tennessee

Application October 20, 1952, Serial No. 315,740
11 Claims. (Cl. 23—288)



1. An apparatus for reacting liquids with gases comprising: a vertically disposed reactor chamber having means for charging the chamber with liquids and gases to be reacted; liquid heating means adjacent the lower portion of said chamber; a vapor side arm comprising a U-shaped vapor conduit, both ends of which terminate in the upper portion of said chamber, said conduit having a vapor pre-heater adjacent one end, and a heated vapor catalyst chamber intermediate said vapor pre-heater and the other end; a liquid side arm comprising a liquid conduit, one end terminating in the lower portion of said chamber and the opposite end terminating in said vapor side arm intermediate said catalyst chamber and said reactor chamber, said opposite end having a jet nozzle directed toward said reactor chamber; and means for recirculating liquid through said liquid side arm.

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**2,769,697**

**THICKENER FOR HYDROCARBON FUELS**

Jerome Goldenson and Leonard Cohen, Baltimore, Md., assignors to the United States of America as represented by the Secretary of the Army

No Drawing. Application April 29, 1953, Serial No. 352,065
10 Claims. (Cl. 44—7)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In the production of an incendiary liquid hydrocarbon fuel gel thickened with an aluminum soap thickener, the improvement which comprises the inclusion therein of alumina aerogel in the proportion of 0.5 to 25 parts by weight of alumina gel, to 99.5 to 75 parts by weight of the soap thickener to stabilize the thickened fuel gel toward the deleterious action of chemical reagents.



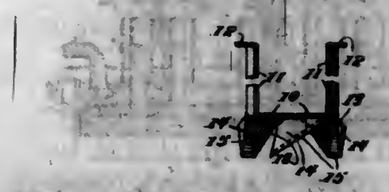
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**2,769,698**

**FUEL MIXER INSERT**

Edwin F. Pauli, Delphos, Kans.

Application May 20, 1952, Serial No. 288,879
3 Claims. (Cl. 48—180)



1. A fuel mixer for use in an inlet passage of the intake of an internal combustion engine comprising radially disposed ribs with arms extended at right angles from extended ends thereof and with flanges extended at right angles from the extended ends of the arms, the ribs and flanges being positioned in spaced parallel planes and vanes substantially triangular shape in elevation and U-shape in cross section extended from edges of the ribs and positioned with one side of each of said vanes secured to one of said ribs providing L-shaped supporting elements, the bottom portions of said vanes being extended at right angles from lower edges of said sides and the opposite sides of the vanes being extended at right angles to extended edges of the bottom portions and positioned in planes spaced from and parallel to the sides secured to the ribs.

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**2,769,699**

**GRINDING WHEELS**

Frank J. Polch, Princeton, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

No Drawing. Application June 2, 1951, Serial No. 229,647
6 Claims. (Cl. 51—298)

1. A solid abrasive body comprising abrasive grains of grit size from No. 8 to No. 220 of crystalline fused zirconia bonded with thermo-irreversible organic bond selected from the group consisting of phenolic resin, aniline formaldehyde resin, natural rubber vulcanized with at least one third of its weight of sulphur, butadiene-styrene copolymer vulcanized with at least one third of its weight of sulphur, and butadiene-acrylonitrile copolymer vulcanized with at least one third of its weight of sulphur, and mixtures thereof.

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**2,769,700**

**ONE-STAGE RESIN BONDED DIAMOND ABRASIVE WHEEL**

George J. Goepfert, St. Marys, Pa., assignor to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware

No Drawing. Application January 21, 1953, Serial No. 332,499
6 Claims. (Cl. 51—298)

1. The method of making a resin-bonded diamond grinding wheel which comprises making a solid one-step "A" stage resin by reacting phenol and formaldehyde in the proportion of 1 mol phenol to about 1–1.7 mols formaldehyde in the presence of a nitrogen-containing base as a catalyst until a solid resin is formed; grinding the resin to a fine powder; preparing a moldable mixture comprising essentially the resin powder, granular filling material, diamonds, and an alkaline earth oxide catalyst for the powdered resin; forming an article from the mix thus prepared; and heating the article to convert the resin substantially to the "C" stage.

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**2,769,701**

**COMPOSITIONS FOR USE IN RE-UTILISABLE BLASTING APPARATUS**

John Frederick Williamson, Ardrossan, Scotland, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

Application October 28, 1953, Serial No. 388,841
Claims priority, application Great Britain December 5, 1952
6 Claims. (Cl. 52—14)



1. A gas-producing charge suitable for use in association with an electrically actuable chemical heating element in a blasting device of the kind in which a gas-producing charge is confined within a pressure resisting shell having a member adapted to permit escape of the gases at a predetermined pressure and an electrically actuable chemical heating element capable of ignition and of generating a gas pressure in the free space in said container comprising a pulverulent intimate admixture comprising ammonium nitrate, at least one of the hydrated nitrates of metals of low atomic weight of the group magnesium nitrate hexahydrate and aluminum nitrate nonahydrate, and a non-explosive organic fuel consisting substantially of a dried vegetable carbohydrate material, wherein the number of moles of combined water in the metal nitrate per mole of ammonium nitrate lies between 1 and 3 and wherein the proportion of the organic fuel in the pulverulent mixture is such that the gases from the charge and said heating element consist at the bursting pressure of said blasting device substantially of steam, carbon dioxide and nitrogen.

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**2,769,702**

**HERBICIDAL COMPOSITION**

Frank J. Sowa, Cranford, N. J.

No Drawing. Application February 9, 1952, Serial No. 270,901
14 Claims. (Cl. 71—2.2)

1. An herbicidal composition comprising a compound selected from the group consisting of the ammonium and amine salts of fluosilicic acid in phytotoxic concentration, said composition containing sufficient non-ionic wetting agent to impart to an aqueous solution of the composition containing from 3 to 15% of said compound a surface tension below about 50 dynes per centimeter at 23° C.

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**2,769,703**

**METHOD OF PRODUCING PHOSPHATE FERTILIZERS**

Louis E. Andrès, Saint Gratien, and Yves J. Berquin, Paris, France, assignors to Potasse & Engrais Chimiques, Paris, France, a société anonyme of France

No Drawing. Application January 18, 1956, Serial No. 559,789
Claims priority, application France August 31, 1951
11 Claims. (Cl. 71—39)

1. In a process of manufacturing a phosphate fertilizer in which natural phosphate rock containing calcium phosphate is reacted with nitric acid and there is added a neutralizing agent to the mixture of said phosphate rock and nitric acid, the method of completely neutralizing the mixture and preventing the formation in the reaction product of said phosphate rock, nitric acid and neutralizing agent of calcium phosphate in a form which is insoluble in ammonium citrate which comprises the

steps of adding the neutralizing agent to said mixture of phosphate rock and nitric acid in sufficient amount to completely neutralize it and a compound of aluminum in an amount to insure the presence of at least 20 mols of Al to each 100 mols of $P_2O_5$ present in the mixture and adding to said mixture a compound containing sulphate ions to insure the presence of sulphate ions in an amount to convert all calcium nitrate present into calcium sulphate, said aluminum compound being added after said rock phosphate is reacted with said acid and prior to the addition of said neutralizing agent.

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2,769,704

## METHOD OF PRODUCING PHOSPHATE FERTILIZERS

Louis E. Andrés, Saint Gratien, and Pierre G. Pagny, Paris, France, assignors to Potasse & Engrais Chimiques, Paris, France, a société anonyme of France

No Drawing. Application September 24, 1952, Serial No. 311,326
Claims priority, application France October 5, 1951
4 Claims. (Cl. 71—43)

1. In a process for the manufacture of a phosphate fertilizer in which natural phosphate rock is reacted with a mineral acid and there is added a neutralizing agent to the mixture of said phosphate rock and mineral acid the method of preventing the formation in the reaction product of said phosphate rock, mineral acid and neutralizing agent of calcium phosphate in a form which is insoluble in ammonium citrate which comprises the step of adding to the mixture of phosphate rock and mineral acid a compound of iron in an amount to insure the presence of at least 20 mols of Fe to each 100 mols of $P_2O_5$ present in the mixture.

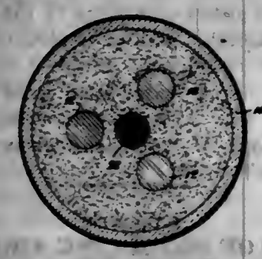
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2,769,705

## PROCESS OF CHARGING FINE MATERIALS

Mathias Övrom Sem, Smestad, Oslo, Norway, assignor to Elektrokemisk A/S, Oslo, Norway, a corporation of Norway

Application January 9, 1952, Serial No. 265,716
Claims priority, application Norway January 15, 1951
2 Claims. (Cl. 75—10)



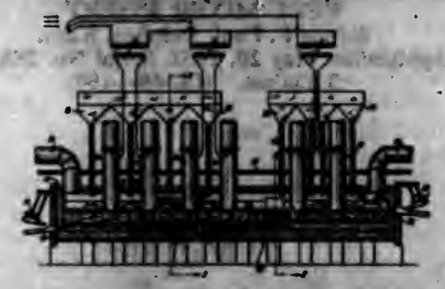
1. The method of operating a closed electric smelting furnace for smelting materials of the type illustrated by carbide, ferro-alloys, pig iron and the like, said furnace being of the type in which the electrodes are arranged in a triangle, which comprises screening material to be treated to remove material having a diameter smaller than about 4 mm., charging the material from which such finer material has been removed continuously around the electrodes and charging such finer material into the central zone of the triangle defined by the electrodes so that it is introduced relatively far from the electrodes but spaced from the cooling action of the side walls and melting such finer material relatively slowly in such zone whereby gases are caused to evolve relatively slowly from such finer material to reduce the tendency of such gases to cause eruptions.

2,769,706

## SMELTING SULFIDE ORES

Fritz O. Hernqvist, Allan F. Nouré, and Erik O. A. Sundström, Skellefteåhamn, Sweden, assignors to Boliden Gruvaktiebolag, Skellefteåhamn, Sweden, a Swedish joint-stock company

Application September 29, 1952, Serial No. 312,092
Claims priority, application Sweden June 4, 1948
5 Claims. (Cl. 75—10)



1. In smelting sulphide ores containing at least one metal of the group consisting of copper, gold, silver, nickel and lead for producing a matte; the steps of charging and smelting by means of electrodes in a first zone of an electrode furnace, said sulphide ore containing material producing a matte having a relatively high content of said metal and charging and smelting in a second zone of the same furnace by means of at least one further electrode a material producing a matte having a lower content of the said metal than the matte of the first mentioned zone, the first mentioned zone being established and maintained at a greater distance from the slag discharge point of the furnace than the second zone, and the second zone being established and maintained at a greater distance from the matte discharge point than the first mentioned zone; discharging slag from the furnace at the slag discharge point to cause the slag produced in the first mentioned zone to flow by gravity through the second zone to the slag discharge point, while immersing the said further electrode into the slag in said second zone to a depth such as to cause a violent agitation around said further electrode of substantially all the slag entering the second zone and of matte of said second zone, said agitation causing mixing of said slag and said matte in the form of prills around said further electrode; correlating the distance between the electrode nearest the slag discharge point and said slag discharge point and the rate of flow at which the slag leaves the furnace at said slag discharge point, such as to cause substantially all the matte prills in suspension in the slag to settle at least to a level lower than the slag discharge point before the slag reaches said point; discharging matte from the first mentioned zone from the furnace at the matte discharge point, said matte discharge point being at a lower level than said slag discharge point and therefore causing the matte produced in the second zone to flow by gravity into the matte in the first mentioned zone, thereby substantially preventing the matte produced in the first mentioned zone from enriching the matte produced and present in the second zone.

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2,769,707

## THERMALLY STABLE BETA ALLOYS OF TITANIUM-TIN ALLOYS

Milton B. Vordahl, Beaver, Pa., assignor to Rem-Cru Titanium, Inc., Midland, Pa., a corporation of Pennsylvania

No Drawing. Application November 1, 1952, Serial No. 318,309
6 Claims. (Cl. 75—175.5)

1. A titanium-base alloy consisting essentially of: about 10 to 20% of at least one beta-promoting element, about 2 to 10% tin, and the balance substantially titanium, characterized by high thermal stability and retention of ductility on aging in the temperature range of about 400 to 800° F.

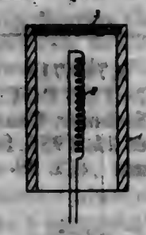


2,769,708

## THERMIONIC CATHODE AND METHOD OF MAKING THE SAME

Patrick P. Coppola, Dobbs Ferry, Ray C. Hughes, Ardsley, and Otto G. Koppius, White Plains, N. Y., assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 11, 1953, Serial No. 361,854
4 Claims. (Cl. 75—206)



1. A method of making a thermionic dispenser cathode comprising the steps, mixing about 90% by weight of a powdered refractory metal and about 10% by weight of a powdered fused mixture of at least 60% by weight of an alkaline earth metal oxide and the remainder principally aluminum oxide, pressing said mixture into a body, and firing said body at a temperature of about 1650° to 1750° C. for about one-half minute to form a coherent composite mass of the refractory metal and said fused mixture free of entrained gas.

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2,769,709

## SINTERED METAL ARTICLE AND METHOD OF IMPROVING ITS FATIGUE RESISTANCE BY SHOT PEENING

Charles Robert Talmage, New Canaan, Conn.

Application January 7, 1953, Serial No. 329,983
2 Claims. (Cl. 75—221)



1. In the process of forming a part of substantially finished shape from powdered metal comprising metal selected from the group consisting of iron, copper and bronze by compressing the metal powder to desired form and then heating it to cause the particles to sinter together, the steps of shot peening the surface of such part and thereby pushing together edges of pores on the surface of such part and thereafter without substantially changing the shape of the part again heating such part to the sintering temperature and sintering together pore edges brought together by the shot peening step whereby a part is produced substantially ready for use in its finished desired form and characterized by its high resistance to fatigue.

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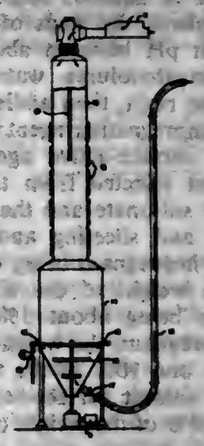
2,769,710

## PROCESS FOR THE CONTINUOUS TREATMENT OF VEGETABLE FIBERS

Frederick George Lucas Rocher, deceased, late of Hatch End, Middlesex, England, by Edward Goulding and Dorothy John, executors, London, England, assignors to Cellulose Development Corporation Limited, Hatch End, Middlesex, England, a British company

Continuation of application Serial No. 119,699, October 5, 1949. This application January 12, 1954, Serial No. 403,518
2 Claims. (Cl. 92—7)

1. A method of continuously digesting vegetable fibrous material with a treating solution which consists in causing the vegetable fibers mixed with a suitable reagent under elevated temperature to continuously descend under gravity through an upright tower thereby rendering the impurities in the fibers separable, continuously agitating the mixture near the bottom of the tower at a pressure which is at least equal to the vapor pressure of the treating liquid at the elevated temperature and



which is solely provided by the height of the material in the tower and continuously introducing diluting liquid at the top of the zone of agitation and varying the rate of introduction of diluting liquid in accordance with the consistency of the mixture.

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2,769,711

## DEPOSITION OF TACKY IMPREGNATING AGENTS ON CELLULOSIC FIBERS

Lucius H. Wilson, Riverside, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 14, 1952, Serial No. 287,801
12 Claims. (Cl. 92—21)

1. In a method for making an impregnated cellulosic product wherein an aqueous suspension of fibrous cellulosic material is prepared, a hydrophilic cationic resin is added to said suspension, said suspension is aged until adsorption of said resin by said fibers is substantially complete, an aqueous dispersion of a water-insoluble hydrophobic organic impregnating agent in a tacky stage containing a water-soluble soap as principal dispersing agent is added to said suspension, the weight of impregnating agent in said dispersion being 25% to 100% of the weight of said fibrous material, and particles of said impregnating agent are deposited from said dispersion uniformly on said fibers by the action of said adsorbed cationic resin: the steps of adding to said dispersion of said impregnating agent sufficient of a stabilizing mixture containing about 55% to 80% by weight of a non-ionic dispersing agent and 20% to 45% by weight of an anionic dispersing agent selected from the group consisting of the alum-stable sulfonate and the alum-stable sulfate dispersing agents to render said emulsion stable in the presence of about 5% of alum, based on the weight of impregnant in said dispersion, and then depositing particles of said impregnating agent on said fibers in the presence of at least about ⅛ mol of alum based on the mols of the soap in said dispersion.

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2,769,712

## MANUFACTURE OF LEATHER SHEETS CONTAINING NORMALLY TACKY IMPREGNATING AGENTS

Lucius H. Wilson, Riverside, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 28, 1952, Serial No. 317,358
6 Claims. (Cl. 92—21)

1. In a method for making an impregnated leather sheet by the steps of preparing an aqueous stock of

leather fibers, adding an aqueous colloidal dispersion of a normally tacky, water-insoluble hydrophobic organic impregnating agent containing a soap as principal dispersing agent therefor, depositing said impregnating agent on the fibers while in aqueous suspension, and forming the fibers into a sheet, the steps of first adding to the fiber suspension at pH between about 3 and 7 a colloidal cationic dimethylolurea water-soluble polyfunctional nitrogen base resin, then adding said aqueous dispersion of tacky impregnating agent containing, in addition, a non-ionic surface-active agent and an anionic surface-active agent selected from the group consisting of the alum-stable sulfonate and the alum-stable sulfate dispersing agents, and sheeting and drying the fibers; the weight of said impregnant being between about 15% and 100% of the weight of the fibers; the weight of said cationic resin being about 5% and 15% of the weight of said impregnant, the weight of non-ionic agent being between 1% and 10% of the weight of the fibers, and the weight of anionic surface-active agent being between 25% and 100% of the weight of non-ionic surface-active agent.

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2,769,713

**METHOD OF MAKING ASBESTOS PAPER CONTAINING A TACKY BONDING AGENT**

Lucius H. Wilson, Riverside, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 27, 1953, Serial No. 345,242

8 Claims. (Cl. 92—21)

1. A method for manufacturing asbestos paper of improved strength, pliability and elasticity from alkaline-reacting asbestos fibers in aqueous suspension and an anionic normally alum-unstable latex of a normally tacky bonding agent for said fibers without causing said fibers to clot, which comprises forming a stock of papermaking asbestos fibers, adding to an aqueous anionic alum-unstable latex of a tacky organic hydrophobic bonding agent sufficient of a nonionic dispersing agent and sufficient of an anionic dispersing agent selected from the group consisting of the alum-stable sulfate and alum-stable sulfonate dispersing agents to render said latex alum-stable, the weight of said added alum-stable anionic dispersing agent being between 25% and 100% of the weight of said added nonionic dispersing agent, adding said thus stabilized latex to said suspension of asbestos fibers, the weight of bonding agent in said latex being between about 5% and 50% of the dry weight of the fibers, thereby flocculating and irreversibly precipitating at least a major proportion of said bonding agent on said fibers; forming said fibers into paper, and drying said paper.

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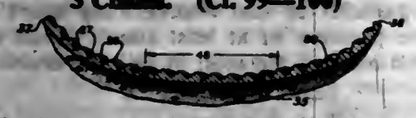
2,769,714

**SLICED POTATO PRODUCT**

Bernhardt Stahmer, Omaha, Nebr.

Application April 12, 1955, Serial No. 500,840

3 Claims. (Cl. 99—100)



1. A sliced potato product comprising, first and second oppositely disposed faces, said first face having a plurality of alternately spaced ridges and grooves, said ridges and grooves having a radius of curvature in the range of from three inches to nine inches, said second face of said sliced potato product having a substantially smooth surface, said sliced potato product having a maximum thickness from the top of said ridges to said second face, the thickness from the bottom of said grooves to said second face of said sliced potato product being approximately in the range of from one-fourth to one-half of said maximum thickness, said ridges having an amplitude of a value which is greater than said thickness from the bottom of said grooves to said second face, said ridges having a pitch in a range of from at least three per inch to twenty-five per inch, the length of the pitch between each of the peaks of each of said ridges being greater than one-half of said thickness from the bottom of said grooves to said second face, said sliced potato product having a series of spaced perforations extending from one face to the other face thereof.

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2,769,715

**SLICED CORRUGATED POTATO PRODUCTS**

Bernhardt Stahmer, Omaha, Nebr.

Application October 21, 1955, Serial No. 542,021

3 Claims. (Cl. 99—100)



1. A sliced potato product having a centrally disposed web with first and second opposed faces, a first set of ridges extending across said first face of said web in substantially parallel arcuate paths, a second set of ridges extending across said second face of said web in substantially parallel arcuate paths, said first set of ridges having divergingly disposed side walls having an angle therebetween lying in a range from 30 to 90 degrees, said side walls terminating in a widened base at said first face of the web with said side walls of the first set of ridges defining a first set of grooves having bottom surfaces meeting with the first face of said centrally disposed web, said second set of ridges having divergingly disposed side walls having an angle therebetween lying in a range from 30 to 90 degrees, said side walls terminating in a widened base at said second face of the web with said side walls of the second set of ridges defining a second set of grooves having bottom surfaces meeting with the second face of said centrally disposed web, the thickness of the web lying in a range between .002 to .060 inch, the number of ridges lying in a range from 5 to 12 per inch, the height of the ridges from the top thereof to the bottom of the valleys lying in a range from .020 to .080 inch.

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2,769,716

**FUNGISTATIC PIGMENT AND COATING COMPOSITION**

James J. Rankin, Beaver, Pa., assignor to St. Joseph Lead Company, New York, N. Y., a corporation of New York

No Drawing. Application January 16, 1953, Serial No. 331,748

12 Claims. (Cl. 106—15)

5. A composition for coating and the like comprising a vehicle and at least ten percent by weight of a fungistatic zinc oxide pigment having incorporated therein a zinc oxyhalide compound in amount equivalent to from about 0.1 to about 1.0 percent halogen content.

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2,769,717

**DENTAL IMPRESSION MATERIAL**

James Creavey, Milford, Del., assignor to The L. D. Caulk Company, Milford, Del., a corporation of Delaware

No Drawing. Application November 25, 1953, Serial No. 394,477

14 Claims. (Cl. 106—38.35)

1. A composition for taking dental impressions consisting essentially of an alkali metal alginate, calcium sulphate and an alkali metal zinc fluoride, said fluoride being adapted to eliminate fixing of said composition while maintaining the shelf life and proper setting time thereof.

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2,769,718

**ZIRCONIA CEMENT**

Neil N. Ault, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

No Drawing. Application October 12, 1954, Serial No. 461,935

2 Claims. (Cl. 106—35)

1. A chemical setting cement mixture as yet unset essentially consisting of from 90% to 99% of zirconia of which at least 80% is stabilized zirconia containing from 3% to 6% by weight of lime, CaO, on the amount of $ZrO_2$ thereof, the remainder aluminum phosphate having a pH at least as high as 3 numerically.

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2,769,719

**CEMENT MANUFACTURE**

Fred D. De Vaney, Hibbing, Minn., assignor to Erie Mining Company, Hibbing, Minn., a corporation of Minnesota

Application January 13, 1953, Serial No. 331,027

1 Claim. (Cl. 106—89)

Portland cement clinker in the form of discrete small spheroids composed of alkaline earth metal silicates and aluminates the outer surface layers of the spheroids being composed of essentially unfused particles of alkaline earth metal silicates and aluminates and the interiors of the spheroids comprising glassy phase fused alkaline earth metal silicates and aluminates of essentially the same chemical composition as are the particles constituting the outer surface layers.

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2,769,720

**FORMULA FOR CEMENTITIOUS COMPOSITION**

Albert L. Talone, Philadelphia, Pa.

No Drawing. Application December 15, 1954, Serial No. 475,576

1 Claim. (Cl. 106—97)

A cementitious aggregate for a slow-setting, non-shrinking, thixotropic, water retaining, whitish cohesive cementitious composition capable of use on highly porous surfaces which consists of a mixture in parts by weight of 100 parts Portland cement, 5–25 parts kaolin, 10–50 parts pumice, and .62–6.2 parts of a salt selected from the group consisting of sodium chloride and potassium bitartrate.

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2,769,721

**PIGMENT COMPOSITIONS**

Egon Frankl, Rochester, N. Y., assignor to Rochester Button Company, Rochester, N. Y., a corporation of New York

No Drawing. Application September 29, 1952, Serial No. 312,178

15 Claims. (Cl. 106—308)

1. A method of making readily dispersible dry lamellar pearlescent pigment compositions which comprises adding a Werner type complex compound of trivalent chromium with an aliphatic carboxylic acid of the group consisting of alpha, beta unsaturated aliphatic carboxylic acids containing from 2 to 6 carbon atoms in the aliphatic chain and long chain fatty acids containing from 10 to 20 carbon atoms to an aqueous dispersion of a lamellar pearlescent pigment selected from the group consisting of acid lead phosphate and acid lead arsenate and thereafter separating the pigment from the dispersion and drying the pigment.

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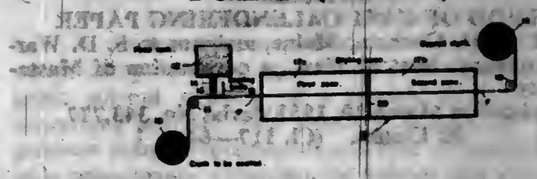
2,769,722

**PROCESS FOR PREPARING A HEAT INSULATED FABRIC**

Sherman Converse, Aiken, S. C., assignor to Graniteville Company, Graniteville, S. C., a corporation of South Carolina

Application April 8, 1954, Serial No. 421,889

2 Claims. (Cl. 117—6)



2. A process for preparing a heat-insulated fabric suitable for use in wearing apparel which comprises coating an initially uncoated base fabric with a first organosol containing from about 5% to about 20% aluminum powder, heating the coated fabric at a temperature of about 250° F. for about 1¼ minutes to drive off the volatile liquid from the organosol and leave a heat-insulating coating on the fabric, coating said insulating coating with a second organosol containing from about 10 to about 20% non-metallic coloring pigments, and then heating the thus coated fabric in two stages, one at about 290° F. for about 35 seconds and the other at about 400° F. for about 35 seconds first to drive off the volatile liquid from the second organosol and then to interfuse the resin and plasticizer in both organosols, and finally embossing the top coating to the desired design.

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2,769,723

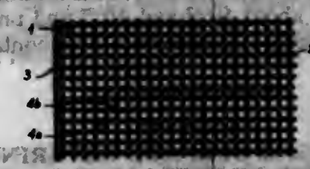
**NEEDLEWORK CANVAS CARRYING A STITCHWORK PATTERN AND METHOD OF STENCILLING SAID PATTERN THEREON**

Louis Bailly, Vevey, Switzerland

Application March 20, 1953, Serial No. 343,662

Claims priority, application Germany April 21, 1952

4 Claims. (Cl. 117—38)



1. A coarse needlework canvas carrying a pattern for carpets, tapestries, embroideries and the like stitchwork, said canvas having a system of spaced weft threads, a system of spaced warp threads and a pattern of marks applied only to apparent sections of only one of said system of threads in colors and locations corresponding to the colors and locations of the stitches to be executed, said apparent sections being situated exclusively between the threads of the other system.

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2,769,724

**WAX IMPREGNATED LEATHER AND METHOD OF MAKING SAME**

Alfred Studenic, Gloversville, and Anthony Studenic, Johnstown, N. Y.

No Drawing. Application November 21, 1952, Serial No. 321,954

3 Claims. (Cl. 117—55)

1. In making leather from skins that have been tanned and fat-liquored, the process which comprises applying to the skins, at a pH of about 4–6, an aqueous emulsion consisting essentially of a dispersion of a surface active, non-cationic penetrating agent in a volatile solvent that is immiscible with water, subjecting the thus treated skins to an elevated temperature to remove water and solvent by evaporation thereof, and then applying thereover an emulsified mixture of a water insoluble wax, an emulsify-

ing agent, and a zirconium salt in water, removing the excess of unabsorbed emulsified mixture from the skins, and drying the resulting product, this method giving a vapor permeable, water repellent, and soil and stain resistant product.

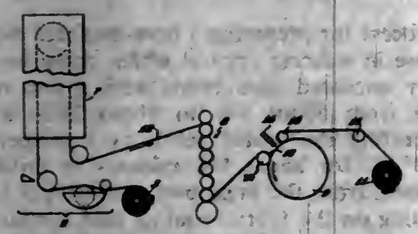
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2,769,725

## METHOD OF CAST CALENDERING PAPER

Robert T. Hart, Gorham, Maine, assignor to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts

Application March 20, 1953, Serial No. 343,777
32 Claims. (Cl. 117—64)



1. In a process for producing a coated paper having a level surface, comprising applying aqueous liquid to a dry coating surface of a coated paper, the coating of such paper comprising a hydrophilic swellable protein, to wet said dry coating surface and immediately thereafter pressing said wetted coating surface against a highly polished, smooth, finishing surface with which said wetted coating surface is kept in contact while moisture is evaporated therefrom and thereafter removed, the improvement comprising contacting said wetted coating surface, before it is pressed against said finishing surface, with formaldehyde, and maintaining the surface of the coating in contact with the finishing surface while the pH of the surface of the coating is maintained between 7.3 and 9 by the presence of a member of the group consisting of amines and quaternary ammonium hydroxides having a boiling point above about 125° C. and a basic ionization constant between about $10^{-9}$ and $10^{-7}$ and until the time when the coated surface is removed from contact with the finishing surface.

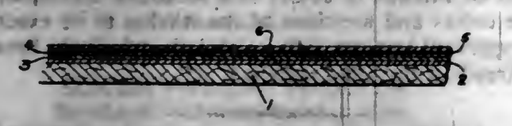
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2,769,726

## FLEXIBLE HARD SURFACE COVERING AND PROCESS OF PREPARING SAME

Paul C. Wetterau, Mountain Lakes, John Bishop, Chatham, and Spencer Johnson, Pompton Plains, N. J., assignors to Congoleum-Nairn Inc., a corporation of New York

Application September 28, 1953, Serial No. 382,572
9 Claims. (Cl. 117—76)



1. A flexible hard surface covering which comprises a bitumen-impregnated felt base sheet, a vinyl composition top layer and in combination for bonding said top layer to said base sheet and for providing a seal therebetween a seal coat of paint consisting essentially of oleoresinous binder material and filler applied to and formed on said base sheet, the said binder material being comprised in said seal paint so as to constitute from about 50% to about 135% of the oil absorption value of said filler; a first primer coat applied to and formed on said seal coat and characterized by binder material consisting essentially of butadiene-acrylonitrile copolymer rubber and vinyl polymer resin selected from the group consisting of polymerized vinyl chloride, polymerized vinylidene chloride and copolymers thereof in the relative proportion by dry weight of about 20 to about 70 parts by weight of said butadiene-acrylonitrile copolymer rubber and about 80 to about 30 parts of said vinyl polymer resin, any filler contained in said first primer coat being less than about 80% by weight of said coat; and a second primer coat applied to and formed on said first primer coat and characterized by binder consisting essentially of butadiene-acrylonitrile copolymer rubber, vinyl polymer resin selected from the group consisting of polymerized vinyl chloride, polymerized vinylidene chloride and copolymers thereof and plasticizer for said vinyl polymer resin, said butadiene-acrylonitrile rubber and vinyl polymer being present in the relative proportions in parts by weight of about 20 to about 70 parts of the former and about 80 to about 30 parts of the latter, there being about 5 to about 300 parts by weight of plasticizer per 100 parts by weight of vinyl resin and any filler contained in said second primer coating being less than about 80% by weight of said second primer coat; said vinyl composition top layer being applied to and formed on said second primer coat.

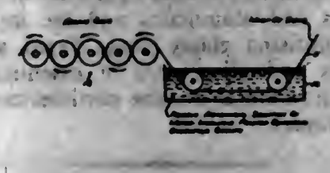
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2,769,727

## SIZING AND DRYING OF FILAMENTARY MATERIAL

Seth T. Bowen, Union, and Fred Fortess, Somerville, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application May 1, 1953, Serial No. 352,590
1 Claim. (Cl. 117—103)



Process for the production of sized filamentary material, which comprises applying to filamentary material comprising pigmented cellulose acetate yarns an aqueous ammoniacal solution of a water-insoluble copolymer of vinyl acetate and an ethylenically unsaturated carboxylic acid, said copolymer having a carboxyl content of 2 to 5% by weight, and drying the filamentary material carrying said solution by passing said filamentary material at the rate of about 25 to 35 yards per minute over a plurality of drying cans having smooth stainless steel surfaces, the first two heated cans engaged by said filamentary material being at temperatures of 205° F. to 230° F. and the succeeding cans being at temperatures of 180° F. to 200° F.

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2,769,728

## APPARATUS FOR AND METHOD OF CONVEYING ARTICLES

James W. Juvinall, Indianapolis, Ind., assignor to Ransburg Electro-Coating Corp., Indianapolis, Ind., a corporation of Indiana

Application May 22, 1952, Serial No. 289,333
11 Claims. (Cl. 117—104)



1. A method of coating the sides of a plurality of generally cubically shaped articles as the articles move along a predetermined path comprising supporting the articles in seriatim along a track with adjacent outwardly facing sides of adjacent articles positioned in common planes, said outwardly facing sides of said adjacent articles forming two substantially continuous surfaces to be coated, moving said articles through a first coating zone, spray coating the outwardly facing opposite sides of said articles, uniformly increasing the spacing between adjacent articles, indexing each article approximately 90°, uniformly decreasing the spacing between articles until adjacent outwardly facing sides of the articles form two substantially continuous surfaces to be coated, moving said articles through a second coating zone, and spray coating the outwardly facing opposite sides of said articles.



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2,769,729

## PROCESS FOR FIREPROOFING POROUS MATERIALS

Lodewijk J. C. Van de Zande, Schoten-Antwerp, Belgium

No Drawing. Application December 3, 1954, Serial No. 473,826
Claims priority, application Belgium December 5, 1953
2 Claims. (Cl. 117—137)

1. A process for fireproofing fabrics, paper, and porous material in general, which comprises impregnating the material to be fireproofed with a solution of ammonium sulfate, ammonium phosphate, boric acid, sodium tetraborate, 1 to 5% by weight of glycerine, and 1 to 5% by weight of Turkey red oil.

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2,769,730

## METHOD OF TREATING CELLULOSIC MATERIALS

Songe S. Sakornbut, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 21, 1954, Serial No. 438,343
19 Claims. (Cl. 117—137)

1. The method of treating porous cellulosic materials which comprises applying to the porous materials an aqueous ammoniacal solution of a zinc compound, drying the said material and then treating the material with a composition comprising a hydrocarbon oil boiling between 110° C. and 220° C., from 3 to 8 percent by weight of a chlorinated phenol, from 8 to 20 percent of a chlorinated hydrocarbon containing at least 40 percent chlorine, from 3 to 10 percent of an ester of phosphoric acid and from 0.1 to 2 percent of petroleum wax, all percentages of the components of said composition being based on the weight of the resulting solution.

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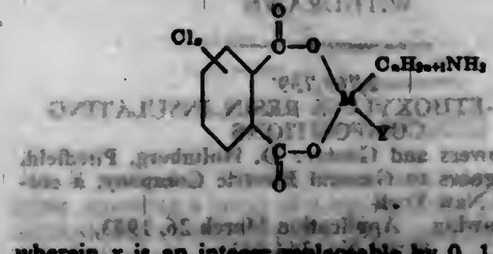
2,769,731

## FUNGICIDAL METAL SALTS OF PHTHALIC ACID

Alfred F. Schneid, New Milford, N. J., and Paul Resnick, Brooklyn, and Roy A. Pinnarello, Mount Vernon, N. Y., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application July 30, 1953, Serial No. 371,402
13 Claims. (Cl. 117—138.5)

1. A fungicidal composition having the following generic formula:



wherein $x$ is an integer replaceable by 0, 1, 2 and 4, M is a metal of the group consisting of copper and zinc, n in an integer not smaller than 8, and Y is a member of the group consisting of $H_2O$ and $C_nH_{2n+1}NH_2$.

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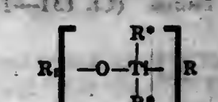
2,769,732

## PROCESS FOR PREPARING WATER-REPELLENT FABRIC AND RESULTING PRODUCT

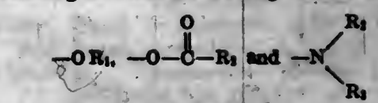
Thomas Boyd, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 13, 1953, Serial No. 354,091
22 Claims. (Cl. 117—161)

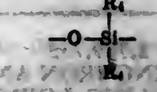
1. A process for preparing a water-repellent fabric which comprises treating a fabric with an anhydrous organic solvent solution of a straight-chain, titanium-containing polymer, said solution of titanium-containing polymer being homogeneous and free of suspended insoluble constituents, removing the solvent and exposing the treated fabric to an atmosphere containing moisture, said titanium-containing polymer consisting essentially of a compound taken from the group consisting of homopolymers of tetraorgano derivatives of orthotitanic acid, interpolymers of a plurality of said tetraorgano derivatives and copolymers of said tetraorgano derivatives with organo silanes, said homopolymers and said interpolymers of said tetraorgano derivatives having the formula:



wherein $n$ is an integer greater than 1, $R_1$ is taken from the group consisting of alkyl, aryl, aralkyl, alkenyl, and aralkenyl radicals, and R and R* are taken from the group consisting of radicals having the formula:



$R_1$ having the significance given above, $R_2$ being taken from the group consisting of alkyl and aryl radicals and $R_3$ being taken from the group consisting of hydrogen and $R_2$, said copolymers of said tetraorgano derivatives with said organo silanes having the general formula given above and containing, additionally, in the polymer chain, at least one radical having the formula:



wherein $R_4$ is a radical taken from the group consisting of $R_5$ and —$OR_5$, $R_5$ being a hydrocarbon radical, said straight-chain, titanium-containing polymers having been prepared by dissolving 1 molar proportion of the corresponding monomer in at least 3 molar proportions of anhydrous organic solvent, dissolving 0.7 to 1 molar proportion of water in an organic solvent compatible with the monomer solution and slowly adding the water solution to the monomer solution with constant agitation.

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2,769,733

## METHOD OF DEPOSITING PARTICLES ON A CATHODE RAY TUBE SCREEN STRUCTURE

Charles H. Pool, North Wales, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application January 28, 1953, Serial No. 333,726
6 Claims. (Cl. 117—211)



1. The method of forming a layer of secondary electron emissive material in intimate contact with a sub-

strate constituted by the previously formed portions of a cathode ray tube screen structure, said method comprising the steps of depositing on the surface of said substrate particles of said material dispersed in a material which is water soluble at deposition and which is responsive to a stimulus to become insoluble, washing said surface with water to remove all but those of said particles which are in intimate contact with said surface, depositing on said surface additional particles of the same material, also dispersed in a fluid material which is water soluble at deposition and which is responsive to a stimulus to become insoluble, and subjecting said deposited material to said stimulus.

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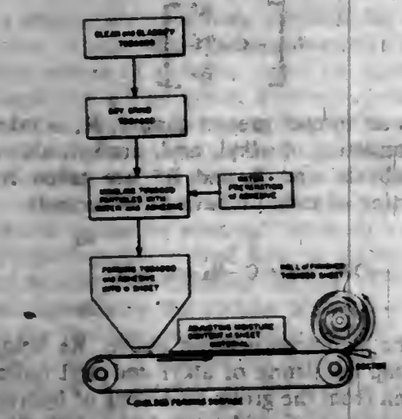
2,769,734

## TOBACCO SHEET MATERIAL AND METHOD OF FORMING

David Bandel, Stamford, Conn., assignor to International Cigar Machinery Company, a corporation of New Jersey

Application July 14, 1955, Serial No. 522,162

24 Claims. (Cl. 131—15)



1. Tobacco sheet material comprising finely divided tobacco, at least a portion of which is entirely dry ground, within a matrix of an initially water insoluble polysaccharide adhesive.

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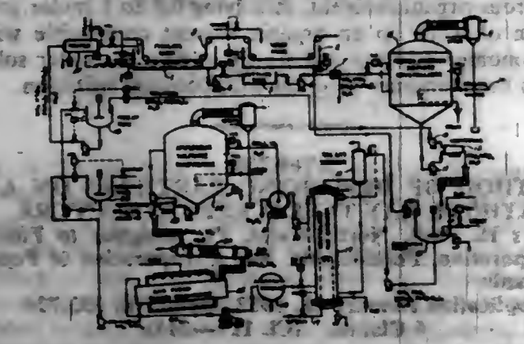
2,769,735

## METHOD OF PICKLING IRON AND RECOVERING PICKLING AGENT

Clark O. Miller, Cleveland, Ohio, assignor to Cleveland Industrial Research, Inc., Cleveland, Ohio, a corporation of Ohio

Application September 29, 1954, Serial No. 459,101

7 Claims. (Cl. 134—13)



1. In a process for pickling ferrous metal including the steps of immersing said metal in an aqueous pickling bath of ammonium acid sulphate to yield ferrous ammonium sulphate in aqueous solution, then by a process including the steps of oxidation and raising the pH to at least 7 with an ammonia-containing fluid, thereby converting said ferrous ammonium sulphate to oxide of iron and di-ammonium sulphate, recovering di-ammonium sulphate from the resulting solution, heating said di-ammonium sulphate to convert it to ammonium acid sulphate and returning said ammonium acid sulphate to the pickling operation, the improvement which comprises separating ferrous ammonium sulphate from the spent aqueous pickling solution containing said ferrous ammonium sulphate and any unreacted ammonium acid sulphate, and subjecting a water solution of the ferrous ammonium sulphate thus recovered to said process including the steps of oxidation and raising the pH to at least 7 and the steps following said latter process as aforesaid.

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2,769,736

## PROCESS OF IMPROVING THE PROPERTIES OF HEAT RESISTANT ALLOYS

William H. Zisell, Passaic, and Henry J. Forrest, Morris Plains, N. J., assignors to Fothell Corporation, Teaneck, N. J., a corporation of New Jersey

No Drawing. Application April 13, 1955, Serial No. 501,192

2 Claims. (Cl. 148—3)

1. A process for improving the physical properties of a high-temperature cobalt-base alloy which comprises remelting the alloy at a temperature from 3100 to 3600° F. stirring into the molten alloy from 15 to 25% of powdered calcium carbonate, pouring the alloy into a mold preheated to at least 1500° F. and slowly cooling the cast alloy.

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2,769,737

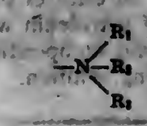
## AMINE PHOSPHATE COATING SOLUTIONS AND METHOD OF COATING

William S. Russell, Royal Oak, Mich., assignor to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application March 26, 1952, Serial No. 278,743

11 Claims. (Cl. 148—6.15)

1. A method for cleaning and producing a metallic phosphate coating on a metal of the class consisting of mild steel, zinc and aluminum which comprises the step of contacting the surface of the metal with an acidic aqueous solution consisting essentially of phosphoric acid, water and a substituted amine phosphate having the structure:



wherein $R_1$ and $R_2$ are each a member of the class consisting of hydrogen and hydrocarbon radicals having less than 7 carbon atoms and of the group consisting of alkyl, aryl and cycloalkyl, and $R_3$ is a member of the class consisting of hydrocarbon radicals having less than 7 carbon atoms and of the group consisting of alkyl, aryl and cycloalkyl, said phosphate yielding at least about .01% of a phosphate ion in the solution, the pH of the solution being between 3 and 6.

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2,769,738

WITHDRAWN

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2,769,739

## SHELLAC-ETHOXYLINE RESIN INSULATING COMPOSITIONS

Ralph G. Flowers and Gustave D. Holmberg, Pittsfield, Mass., assignors to General Electric Company, a corporation of New York

No Drawing. Application March 26, 1953, Serial No. 344,892

13 Claims. (Cl. 154—43)

1. A composition of matter consisting essentially of the product obtained by reacting (1) an ethoxyline resin comprising the reaction product of a polyhydric phenol and an epihalogenohydrin and (2) at least 10% by weight of shellac based on the weight of the combined resins.



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2,769,740

## NYLON TRIMMING WITH A SECURING MEMBER THEREON IMPREGNATED WITH A POLYVINYL RESIN COUPLED TO AN ACID RADICAL

Richard A. Gessler, Brooklyn, N. Y.

Application November 9, 1953, Serial No. 391,106

2 Claims. (Cl. 154—46)



1. A nylon trimming formed with a plurality of pleats, a securing member disposed across the edge portions of said pleats securing said pleats to one another, said securing member being impregnated with a water dispersion of polyvinyl chloride.

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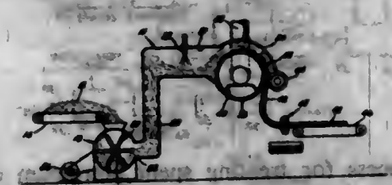
2,769,741

## METHOD OF MAKING A FIBROUS ARTICLE

Ralph E. Schwartz, Saukland, Calif., assignor to The Mallorca Corporation, Los Angeles, Calif., a corporation of California

Application January 19, 1953, Serial No. 331,778

4 Claims. (Cl. 154—101)



3. The method of making an article of manufacture which includes the steps of applying a controlled amount of resin solution to a plurality of fibers to form a wet, fibrous resin mat, squeezing a controlled amount of said resin solution out of said wet resin mat, curing said resin then remaining in said wet resin mat, cutting said article out of said cured resin mat, applying a controlled amount of elastomer solution to said cut article, squeezing a controlled amount of said elastomer solution out of said wet article, and setting the elastomer then remaining in said wet article.

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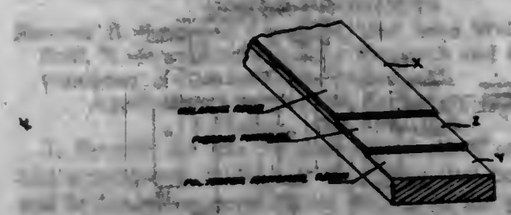
2,769,742

## SURFACING RESIN BODIES

Clarence H. Holbing, Milwaukee, Wis., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

Application April 29, 1952, Serial No. 285,945

8 Claims. (Cl. 154—129)



1. A method of forming a laminated body which comprises spreading a syrup of a condensation product of an aldehyde and a compound of a class consisting of a triazine and urea upon a smooth impermeable supporting surface, drying the syrup to a solid state, applying a layer of a polymerizable mixture of a compound containing the group >C=CH₂ and a polyester of an alpha-beta dicarboxylic ethylenically unsaturated acid, and curing the sandwich upon the surface to a hard, coherent state and stripping off the laminate.

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2,769,743

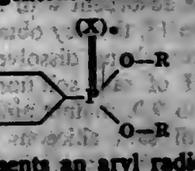
## PEST CONTROL UTILIZING PESTICIDAL COMPOSITIONS OF PHOSPHORUS

Raymond W. Mathews, Yorba Linda, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application April 18, 1952, Serial No. 283,135

13 Claims. (Cl. 167—30)

1. The method of protecting living plants from attack by pest organisms which comprises applying to the surface of said plant a toxic amount of a pest control composition containing as an essential active ingredient a compound having the general formula



wherein each R represents an aryl radical, X represents a substituent selected from the class consisting of oxygen and sulfur and *n* represents an integer not greater than 1.

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2,769,744

## INSECT REPELLENT COMPOSITION AND METHOD

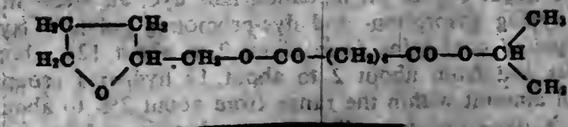
Edmund Ueteri, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 5, 1951, Serial No. 209,515

Claims priority, application Switzerland February 16, 1950

3 Claims. (Cl. 167—33)

2. A process of repelling insects, which comprises applying to the region from which the insects are to be repelled, a repellent composition of matter, which contains as an insect repellent active substance the ester of the formula



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2,769,745

## VINYL BENZENE COMPOUND COMPOSITION AND METHOD FOR THE TREATMENT OF SOIL

John L. Hardy, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 18, 1954, Serial No. 404,771

7 Claims. (Cl. 167—39)

6. A concentrate composition comprising at least 5 percent by weight of an active ingredient in intimate association with a surface active dispersing agent, the active ingredient being at least one member of the group consisting of divinyl benzene and ethyl vinyl benzene.

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2,769,746

## MONO-HYDROXYCYCLOALKANE AND ORTHO BORIC ACID MIXTURE OINTMENT-LIKE COMPOSITION

Margaret M. Clark, Mountain Lakes, N. J., assignor of one-half to Arthur R. Clark, Mountain Lakes, N. J.

No Drawing. Application February 29, 1952, Serial No. 274,297

6 Claims. (Cl. 167—63)

1. A new composition of matter, which composition is an intimate admixture of about 25 to 55 parts of a mono-

hydroxycycloalkane having 4 to 10 carbon atoms, ortho boric acid in amount ranging from about 50 to about 112 mole per cent based on the mono-hydroxycycloalkane, about 1 to about 6 parts of a suspension stabilizing agent and water q. s. 100.

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2,769,747

## PROCESS OF SEPARATION OF SILICEOUS IMPURITIES FROM INSULIN SOLUTIONS

Lorne G. Sampson, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application February 18, 1953, Serial No. 337,690

4 Claims. (Cl. 167—75)

1. In a process for recovering insulin from pancreas glands wherein the extracted insulin is adsorbed on a clay adsorbent, the steps of eluting the adsorbed insulin by contacting the adsorbent with an aqueous eluant at a pH of from 9.5 to 13, thereby obtaining an aqueous solution of insulin containing dissolved siliceous impurities, adjusting the pH of said solution to a pH within the range from 6.5 to 9.0, maintaining said solution at said adjusted pH until said siliceous impurities have been formed into a flocculent precipitate, and separating said precipitate from said solution.

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2,769,748

## THICKENED HAIR DYEING COMPOSITION COMPRISING POLYHYDROXYL COMPOUND AND ALKANOLAMINE

Wolfgang Max Josef Eckardt and Siegfried Roland Preisinger, Bad Segeberg, Holstein, Germany, assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 25, 1952, Serial No. 273,352

Claims priority, application Germany February 26, 1951

11 Claims. (Cl. 167—85)

1. A hair dyeing composition comprising an amount up to about 5% of an oxidation hair dye; an alcoholic, non-dyeing absorption- and dye-promoting polyhydroxyl compound containing from about 2 to about 12 carbon atoms and from about 2 to about 12 hydroxyl groups in an amount within the range from about 2% to about 6%; a dye-equalizing alkanolamine having at least one alkylol chain of low molecular weight up to about 12 carbon atoms and from 6 to 9 hydroxyl groups in an amount within the range from about 3% to about 15%; and a compound capable of supplying ammonium ions in an amount within the range from about 3% to about 5%; the said composition having a pH from 7 to 9.

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2,769,749

## METHOD OF EXTRACTING AND PURIFYING ACYLASE

William M. Thompson and Leonard A. Graham, Chicago, and Roland J. Seidel, Des Plaines, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application February 24, 1953, Serial No. 338,612

10 Claims. (Cl. 195—66)

1. In a method of preparing acylase, the steps of contacting acylase-bearing kidney tissue with a mixture of water and from 10 to 20% by volume of a monohydroxy alkane having less than 4 carbon atoms at a pH of from 5.1 to 7.0 and a temperature of less than 10° C. to obtain an extract of acylase, and separating the acylase extract from the tissue residue.

2,769,750

## PROCESSES EMPLOYING HOMOGENOUS MIXTURE OF INERT ADSORBENT AND SUBSTRATE

Rhett G. Harris, Falsbur, Va., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 20, 1953, Serial No. 343,997

18 Claims. (Cl. 195—116)

1. A process for improving processes involving the action of hydrocarbon-consuming microorganisms on substrates selected from the group consisting of hydrocarbons, oxygenated hydrocarbons and mixtures thereof which comprises adding sufficient anhydrous inert adsorbent in solid particle form to said substrate to form a thoroughly homogenous mixture, mixing the resulting homogenous mixture with a nutrient medium and subjecting the resulting mixture to the action of said hydrocarbon-consuming microorganisms.

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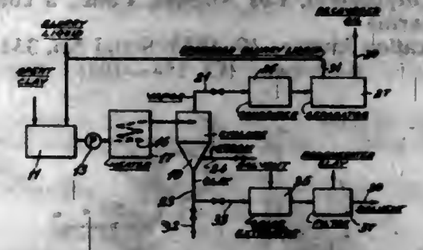
2,769,751

## PROCESS FOR TREATING SPENT OIL REFINERY CLAY

Peter L. Pauli, Norwalk, Conn., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware

Application April 30, 1953, Serial No. 352,240

9 Claims. (Cl. 196—14)



1. A process for treating spent petroleum clay containing color impurities and residual oil, comprising forming a flowable mixture of such spent clay in at least one vaporizable liquid selected from the group consisting of water, solvents for said residual oil, and solvents for said color impurities; passing said mixture into an initial part of a tubular heating zone; heating said mixture in said tubular zone to a temperature sufficient to vaporize both said vaporizable liquid and residual oil, thereby forming a flowing dispersion of clay particles in vapor; passing said dispersion as a flowing stream through a succeeding zone; and then separating said vapor from said clay particles.

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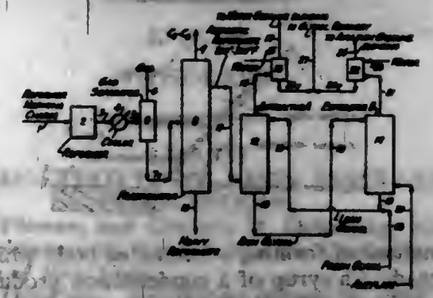
2,769,752

## GASOLINE PREPARATION

Louis P. Evans, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application May 29, 1953, Serial No. 358,392

8 Claims. (Cl. 196—14.17)



1. The process for preparing a gasoline blending stock having an octane value above about 80, which comprises: contacting a hydrocarbon fraction containing at least about 22% by volume of aromatic hydrocarbons, which



boil predominantly in the range of about 170° F. to about 400° F., and containing other hydrocarbon types, with a selective non-aqueous solvent having a preferential selectivity for aromatic hydrocarbons, whereupon an extract phase comprising solvent and aromatic hydrocarbons and a raffinate phase comprising said other hydrocarbons and solvent are formed; separating said extract and raffinate phases; contacting said extract phase with a paraffinic alkylate having a boiling range from about 170° F. to about 400° F., whereby said aromatic hydrocarbons are disassociated from said extract phase and associate with said paraffinic alkylate to form said gasoline blending stock.

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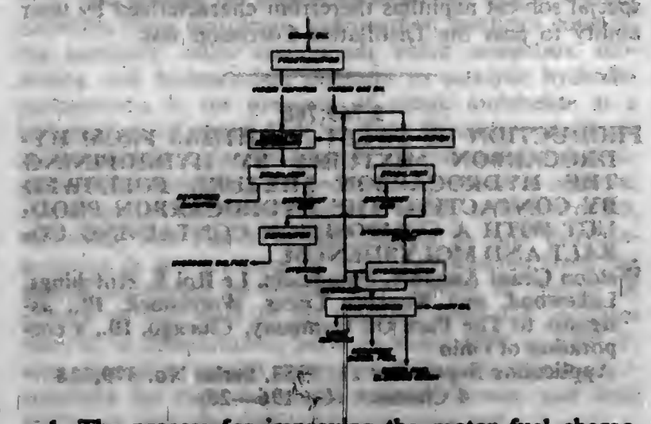
2,769,753

## COMBINATION PROCESS FOR CATALYTIC HYDRODESULFURIZATION AND REFORMING OF HIGH SULFUR HYDROCARBON MIXTURES

Le Roi E. Hutchings, Crystal Lake, and Milton M. Mariale, Elgin, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application June 3, 1953, Serial No. 359,268

9 Claims. (Cl. 196—24)



1. The process for improving the motor fuel characteristics and decreasing the sulfur content and aromaticity of fractions obtained from high sulfur content hydrocarbon mixtures which comprises separating said hydrocarbon mixtures into a light fraction having an initial boiling point of about 200° F. and a heavy fraction having an initial boiling point of about 350° F., subjecting said light fraction to catalytic reforming and separating a reformed naphtha blending stock, subjecting said heavy fraction to hydrodesulfurization to produce a hydrodesulfurized product, subjecting said hydrodesulfurized product to hydrogenation at about 300° to 700° F. under conditions to dearomatize same and fractionating the hydrogenated product so produced to yield fractions of improved cetane number and low aromatic content.

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2,769,754

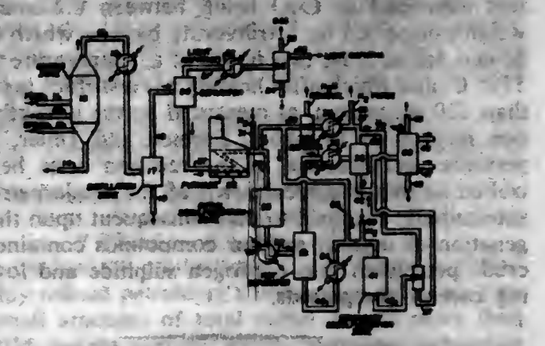
## PROCESS FOR HYDRODESULFURIZATION OF COKER PRODUCTS

Sumner B. Sweetser, Cranford, and John Weikart, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 3, 1954, Serial No. 427,281

3 Claims. (Cl. 196—24)

1. Process for the hydrodesulfurization of hydrocarbon constituents boiling in the motor fuel boiling range and hydrocarbon constituents boiling in the gas oil boiling range, both of which are derived by the coking of heavy residual petroleum fractions, which comprises passing a combined stream of these constituents and added hydrogen through an initial hydrodesulfurization zone in a mixed liquid-gas phase operation, maintaining said initial zone at a temperature in the range of from about 650° to 700° F., withdrawing the product from said initial zone and passing the same to a hot separation zone wherein hydrocarbon constituents boiling below about 400° to 750° F. are segregated as a vapor phase, passing said vapor phase to a separator and removing hydrogen therefrom, removing from said hot separation zone a liquid phase comprising hydrocarbon constituents boiling above about 400° to 750° F., and passing said liquid phase by itself, together with added hydrogen,



through a secondary hydrodesulfurization zone, maintaining said secondary zone at a temperature in the range of from about 700° to 750° F., removing the product from said secondary hydrodesulfurization zone, separating hydrogen therefrom, combining the respective hydrodesulfurized streams and segregating a fraction boiling in the motor fuel boiling range and a fraction boiling in the gas oil boiling range.

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2,769,755

## HYDRODESULFURIZING PETROLEUM WITH DESULPHURISATION CATALYSTS ON CALCINED TRIHYDRATE BAUXITE

Frederick William Bertram Porter and John Norman Haresnape, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

No Drawing. Application February 20, 1952, Serial No. 272,702

Claims priority, application Great Britain February 23, 1951

2 Claims. (Cl. 196—28)

1. A process for the hydrocatalytic desulphurization of petroleum hydrocarbons under autofining conditions which comprises passing the hydrocarbon to a reacting zone where it is contacted in the presence of hydrogen and at a temperature within the range of 650–800° F. and at a pressure within the range of 25–500 p. s. i./gs. with a catalytic agent selected from the class consisting of mixtures of oxides of cobalt and molybdenum and chemical compounds of cobalt molybdenum and oxygen, the molybdenum content of the catalyst expressed as $MoO_3$ being between 1 and 15% by weight, and the cobalt content expressed as CoO being between 0.2 and 3% by weight, dispersed on a trihydrate bauxite which has been heated for at least two hours at a temperature of about 550° C., and which after heating has a surface area greater than 120 sq. m./gm. as measured by the nitrogen adsorption method of Brunauer, Emmett and Teller.

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2,769,756

## HYDRODESULFURIZING CRUDE PETROLEUM WITH A DESULFURIZING CATALYST ON TRIHYDRATE BAUXITE

Frederick William Bertram Porter and John Shute Iditt, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

No Drawing. Application April 2, 1952, Serial No. 280,186

Claims priority, application Great Britain April 6, 1951

2 Claims. (Cl. 196—28)

1. A process for the hydrocatalytic desulphurization of crude petroleum which comprises passing the crude petroleum to a reacting zone wherein it is contacted in

the presence of hydrogen and at a temperature within the range of 750 to 850° F. and at a pressure within the range of 500 to 1500 p. s. i. ga. with a catalytic agent selected from the class consisting of mixtures of the oxide and cobalt and molybdenum in chemical compounds of cobalt and molybdenum and oxygen, the molybdenum content of the catalyst expressed as $MoO_3$ being between 1 and 15% by weight, and the cobalt content expressed as CoO being between 0.2 and 3% by weight, dispersed on a trihydrate bauxite which has been heated for at least two hours at a temperature of about 550° C. and which after heating has a surface area greater than 120 sq. m./gm. as measured by the nitrogen adsorption method of Brunauer, Emmett and Teller, the temperature and pressure in the reaction zone being controlled so that the breakdown of the crude petroleum is substantially confined to that consequent upon the hydrogenation of organic sulphur compounds contained in the crude petroleum into hydrogen sulphide and lower boiling carbon compounds.

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2,769,757

**PREPARATION OF NON-CORROSIVE NAPHTHAS BY REACTING REFINED NAPHTHA WITH BARIUM MOLYBDATE OR ZINC MOLYBDATE**

Weldon G. Annable, Mundelein, and Robert M. Haines, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application July 26, 1954, Serial No. 445,929
4 Claims. (Cl. 196—28)

1. The method of producing special solvent naphthas of petroleum origin from highly refined hydrocarbon mixtures containing small amounts of total sulfur of not more than about 0.16 weight percent which comprises subjecting said hydrocarbon mixtures to contact with at least one reagent selected from the group consisting of zinc molybdate and barium molybdate at a temperature of about 400 to 500° F. and separating special solvent naphthas therefrom characterized by their ability to pass the distillation-corrosion test.

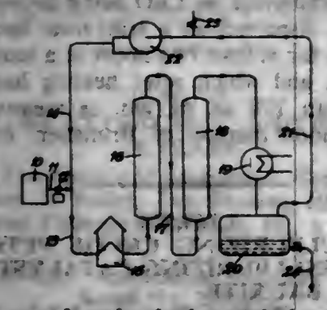
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2,769,758

**REMOVAL OF SODIUM AND VANADIUM FROM PETROLEUM HYDROCARBONS FOLLOWED BY CATALYTIC DESULPHURISATION OF SAID PETROLEUM HYDROCARBONS**

Frederick William Bertram Porter and John Skeete Isitt, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

Application March 13, 1952, Serial No. 276,256
Claims priority, application Great Britain March 20, 1951
2 Claims. (Cl. 196—28)



1. A process for the hydrocatalytic desulphurisation of a petroleum feedstock containing vanadium and sodium and selected from the class consisting of crude oils and crude oil residues, which comprises passing the feedstock in admixture with hydrogen to a zone where it is contacted with a catalyst consisting essentially of bauxite at a temperature between 700 and 850° F. and a pressure between 80 and 1000 p. s. i. ga., whereby a considerable proportion of the vanadium and sodium contained in the feedstock is retained by the bauxite, passing the products from the bauxite-contacting zone to a hydrofining zone wherein said products are contacted at elevated temperature and pressure with a sulphur-resistant hydrogenation catalyst, separating hydrogen sulphide from the products from the hydrofining zone, and recovering a product having a substantially reduced sulphur content.

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2,769,759

**PRODUCTION OF NON-CORROSIVE NAPHTHAS BY REACTING REFINED NAPHTHA WITH MOLYBDATE**

Weldon G. Annable, Mundelein, and Robert M. Haines, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application July 26, 1954, Serial No. 445,928
6 Claims. (Cl. 196—28)

1. The method of producing special solvent naphthas from highly refined petroleum hydrocarbon mixtures containing small amounts of total sulfur of not more than about 0.16% by weight which comprises subjecting said hydrocarbon mixtures to contact with nickel molybdate at a temperature of about 400 to 500° F. and separating special solvent naphthas therefrom characterized by their ability to pass the Distillation-Corrosion test.

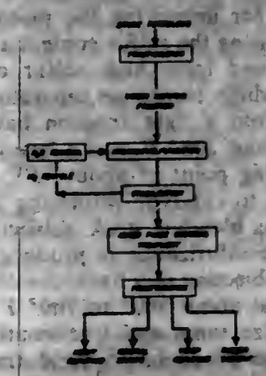
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2,769,760

**PRODUCTION OF SWEET NAPHTHAS FROM HYDROCARBON MIXTURES BY HYDROFINING THE HYDROCARBON MIXTURE FOLLOWED BY CONTACTING THE HYDROCARBON PRODUCT WITH A COMPOSITION CONTAINING COBALT AND MOLYBDENUM**

Weldon Grant Annable, Mundelein, Le Roi E. Hutchings, Lakewood, and Kenneth Lucas, Woodstock, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application September 11, 1953, Serial No. 379,528
4 Claims. (Cl. 196—28)



1. The process for producing special solvent naphthas from petroleum hydrocarbon mixtures containing at least about 1.0 weight percent total sulfur which comprises separating a virgin naphtha fraction having an end boiling point of about 425° F. from said mixtures subjecting said fraction to catalytic hydrodesulfurization in the presence of a catalyst selected from the group consisting of cobalt molybdate, cobalt oxide-molybdena-alumina and chromia-molybdena-alumina at temperatures of about 500 to 800° F. under conditions whereby said sulfur compounds are converted to hydrogen sulfide, separating hydrogen sulfide therefrom to produce a hydrodesulfurized product, subjecting said hydrodesulfurized product to chemical treatment by contact in the absence of hydrogen at temperatures of about 400 to 500° F. in the presence of a contact material selected from the group consisting of cobalt molybdate, cobalt oxide-molybdena-alumina and chromia-molybdena-alumina, and separating an odor-free product characterized by its ability to pass the Distillation-Corrosion test.

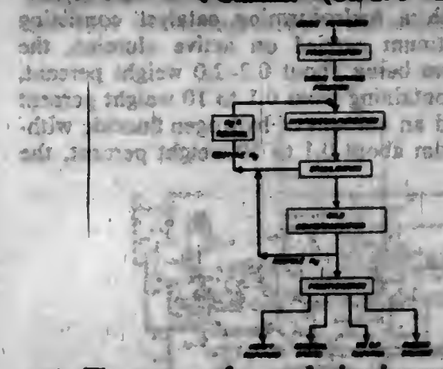


2,769,761

**COMBINATION PROCESS FOR CATALYTIC HYDRODESULFURIZATION AND MILD DEHYDROGENATION OF HIGH SULFUR HYDROCARBON MIXTURES**

Weldon Grant Annable, Mundelein, Le Roi E. Hutchings, Crystal Lake, and Kenneth Lucas, Woodstock, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application September 10, 1953, Serial No. 379,392
4 Claims. (Cl. 196—28)



1. The process for producing improved special solvent naphthas from petroleum hydrocarbon mixtures containing corrosive sulfur compounds which comprises, subjecting said hydrocarbon mixtures to catalytic hydrodesulfurization in the presence of cobalt molybdate at a temperature of about 500° to 800° F. under conditions such that said sulfur compounds are converted to hydrogen sulfide, stabilizing the products therefrom to separate said hydrogen sulfide to produce a highly refined product, subjecting said highly refined product to mild dehydrogenation in the presence of a catalyst selected from the groups consisting of oxides and sulfides of metals of groups VI and VIII of the periodic table and mixtures thereof, at temperatures between about 820° to 880° F. and separating special solvent naphthas therefrom characterized by their increased solvency power and their ability to pass the distillation-corrosion test.

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2,769,762

**PRODUCTION OF NAPHTHAS OF IMPROVED CHARACTERISTICS BY TREATING WITH BAUXITE**

Weldon Grant Annable, Mundelein, Le Roi E. Hutchings, Crystal Lake, and Kenneth Lucas, Woodstock, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application August 31, 1953, Serial No. 377,672
4 Claims. (Cl. 196—28)

1. The process for producing non-corrosive special solvent naphthas from petroleum hydrocarbon mixtures containing corrosive sulfur compounds which comprises subjecting said hydrocarbons to contact with bauxite at a temperature of 600° and 900° F., terminating said contact before hydrogen sulfide appears in the effluent therefrom, and fractionating the products to produce special solvent naphthas characterized by their ability to pass the distillation-corrosion test.

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2,769,763

**METHOD FOR PRODUCING SPECIAL NAPHTHAS OF IMPROVED CHARACTERISTICS BY CONTACTING A REFINED NAPHTHA WITH SILVER MOLYBDATE AT ELEVATED TEMPERATURE**

Weldon Grant Annable, Mundelein, and Robert M. Haines, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application July 26, 1954, Serial No. 445,930
6 Claims. (Cl. 196—28)

1. The method of producing special solvent naphthas from highly refined petroleum hydrocarbon mixtures containing small amounts of total sulfur of not more than about 0.16% by weight which comprises subjecting said hydrocarbon mixtures to contact with silver molybdate at a temperature of about 400 to 500° F. and separating special solvent naphthas therefrom characterized by their ability to pass the distillation-corrosion test.

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2,769,764

**METHOD FOR PRODUCING NAPTHAS OF IMPROVED CHARACTERISTICS FROM HIGHLY REFINED NAPHTHAS BY TREATING THE HIGHLY REFINED NAPHTHAS WITH A COPPER ACETATE**

Weldon Grant Annable, Mundelein, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application April 1, 1954, Serial No. 420,462
7 Claims. (Cl. 196—28)

1. The method of producing special solvent naphthas from highly refined petroleum hydrocarbon mixtures containing small amounts of total sulfur of not more than about 0.025 weight percent which comprises subjecting said hydrocarbon mixtures to contact with a material selected from the group consisting of cuprie acetate and basic cupric acetate and their mixtures at temperatures of about 400 to 500° F. and separating special solvent naphthas therefrom characterized by their ability to pass the distillation-corrosion test.

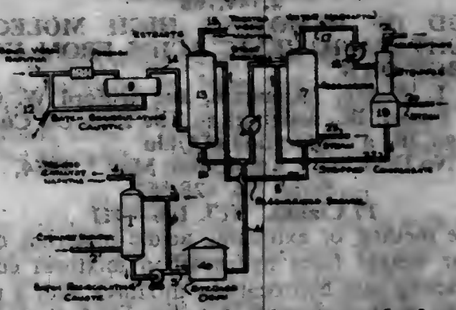
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2,769,765

**SWEETENING PROCESS**

Raymond L. Betts, Westfield, Horace F. Corning, Elizabeth, and Harold A. Ricards, Westfield, N. J., and James W. Ryder, North Reading, Mass., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application November 19, 1952, Serial No. 321,486
2 Claims. (Cl. 196—32)



1. An improved process for the removal of mercaptan compounds from catalytic cracked oils and from virgin oils which comprises in combination washing in a washing zone said catalytic oil with an alkali metal hydroxide solution containing no more than about 30% by weight of alkali metal hydroxide, withdrawing spent hydroxide solution comprising mercaptides from said washing zone, passing said solution to a concentration zone, concentrating said solution to a strength corresponding to a hydroxide equivalent from about 40 to about 60%, thereafter contacting in a treating zone said virgin oil with said concentrated mercaptide-containing solution and maintaining a single phase operation in said last-named zone.

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2,769,766

**IMPROVING MOTOR FUELS BY REFINING THEM WITH MALEIC ANHYDRIDE**

Hillis O. Folkins and Adolph Kempf, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application July 16, 1953, Serial No. 368,517
2 Claims. (Cl. 196—39)

1. A method for improving the detonation characteristics of a petroleum derived, spark-ignited internal com-

bustion engine fuel which comprises thermally decomposing a gas oil in a fluid catalytic cracking process operated at a conversion of not less than about 55% to produce a catalytically cracked gasoline having a boiling range of from about 100° F. to about 400° F., separating said gasoline into a low boiling range fraction having the same initial boiling point as said gasoline and an end boiling point of about 300° F. and a high boiling range fraction having an end boiling point the same as said gasoline, said fractions having continuous boiling ranges, contacting said low boiling range fraction with 0.1–10% by weight of maleic anhydride to enhance the detonation characteristics of said low boiling range fraction, purifying said low boiling range fraction with an aqueous caustic solution followed thereafter by water washing, and reblending the thus treated low boiling range fraction with said higher boiling fraction to produce a full boiling range gasoline.

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2,769,767

## METHOD OF SEPARATING ORGANIC ACIDS FROM PETROLEUM OILS BY EXTRACTING THE OIL WITH AN AQUEOUS MIXTURE OF AN AMINE AND AN ALCOHOL

William L. Fierce, Algonquin, and Gifford W. Crosby, River Forest, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application July 3, 1953, Serial No. 365,814
10 Claims. (Cl. 196—41)

1. The process of separating organic acids from heavy petroleum fractions comprising contacting said fraction with a mixture of 10 to 15 percent of an aliphatic organic amine, 10 to 20 percent by volume of water, and 65 to 80 percent by volume of an alcohol having less than 7 carbon atoms per molecule.

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2,769,768

## METHOD OF REMOVING HIGH MOLECULAR WEIGHT NAPHTHENIC ACIDS FROM HYDROCARBON OILS

William L. Fierce, Algonquin, and Gifford W. Crosby, River Forest, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application May 7, 1954, Serial No. 428,362
17 Claims. (Cl. 196—41)

1. The method of extracting acidic materials of high molecular weight from hydrocarbon mixtures comprising contacting said hydrocarbon mixtures with a solvent comprising methyl alcohol, at least one alcohol selected from the group consisting of straight chain monohydric primary alcohols having 4 to 7 carbon atoms per molecule and branched chain monohydric primary alcohols having 5 to 7 carbon atoms per molecule and mixtures thereof, and a sufficient amount of a basic agent to substantially neutralize the acid materials and recovering as the raffinate a hydrocarbon mixture substantially reduced in its content of acidic materials.

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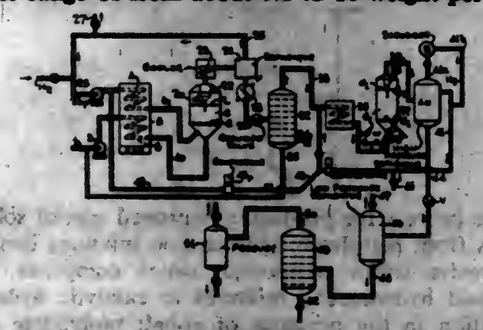
2,769,769

## TWO STAGE HIGH OCTANE GASOLINE PRODUCT

Charles W. Tyson, Summit, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 12, 1951, Serial No. 220,556
3 Claims. (Cl. 196—49)

1. The method of producing high octane gasoline in a system comprising a hydrocracking zone and a hydroforming zone which comprises feeding gas oil to the hydrocracking zone containing a bed of hydrocracking catalyst consisting essentially of nickel sulfide and tungsten sulfide, in which the weight ratio of nickel sulfide to tungsten sulfide is 2:1, which sulfides are carried on a silica-alumina gel and which sulfides constitute about 10 weight percent of the said gel, simultaneously feeding to said reactor a hydrogen-containing gas produced in the system, maintaining the hydrocracking zone at a temperature from about 800°–950° F., a pressure of from about 2,000–3,000 p. s. i. g., and a feed rate of from about 0.2–2 lbs. of feed oil per lb. of catalyst in the reactor per hour, withdrawing a crude product from the hydrocracking zone, separating a fraction boiling up to about 400° F., charging the separated fraction to the hydroforming zone, contacting said fraction in said hydroforming zone with a hydroforming catalyst consisting essentially of platinum carried on active alumina, the amount of platinum being about 0.2–2.0 weight percent, the catalyst also containing from 0.1 to 10 weight percent of boron oxide and an amount of hydrogen fluoride within the range of from about 0.1 to 10 weight percent, the



foregoing percentages being based on the total weight of the catalyst, and feeding a hydrogen-containing gas to said hydroforming zone in an amount of from about 1,000–6,000 s. c. f. of hydrogen per barrel of oil feed, maintaining said hydroforming zone under a temperature of from about 875–975° F., a pressure of from about 100–500 p. s. i. g. and an oil feed rate of from about 0.2–5.0 lbs. of feed oil per hour per lb. of catalyst in the reactor, maintaining boron oxide and hydrogen fluoride on the catalyst in the said hydroforming zone by adding boron oxide and hydrogen fluoride to the catalyst in amounts required to replace these materials lost by volatilization, withdrawing crude product from the said hydroforming zone, recovering hydrogen from the crude product in a separation zone and recycling the latter to the hydrocracking zone and recovering a gasoline product of high octane value from said hydroforming zone.

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2,769,770

## REMOVING ARSENIC FROM A NAPHTHA, WHICH IS REFORMED WITH A NOBLE METAL CATALYST COMPOSITE

Edward J. Bleek, La Grange, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application June 14, 1952, Serial No. 293,647
10 Claims. (Cl. 196—50)

1. The method of converting an arsenic-containing hydrocarbon charge which comprises irradiating the charge with ultra-violet light, separating therefrom a charge fraction having an arsenic content of less than about 0.05 parts per million and less than that of said charge, and subjecting said charge fraction to conversion in the presence of a catalyst comprising alumina and a noble metal.

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2,769,771

## CONTACTING OF GASES WITH FLUIDIZED SOLIDS WITH THE USE OF CHAINS IN THE FLUIDIZED BED

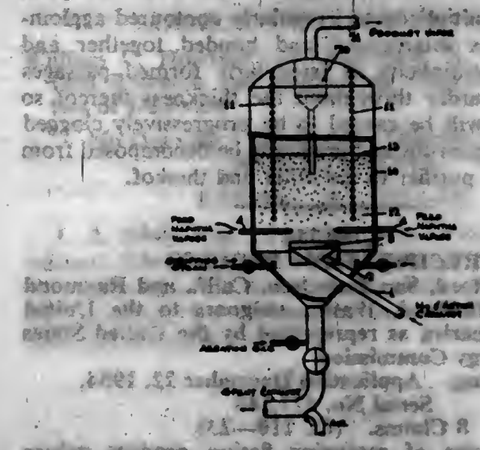
Lindsay L. Griffin, Jr., Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 10, 1952, Serial No. 325,269
1 Claim. (Cl. 196—52)

In a process for converting hydrocarbons at conversion conditions wherein gasiform hydrocarbons are contacted



with finely divided solids by introducing finely divided solids into the lower portion of a conversion zone and by introducing a gasiform hydrocarbon into the lower portion of said conversion zone at a fluidizing velocity to maintain a dense turbulent fluidized bed of solids having a disperse phase of solids thereabove and gasiform hydrocarbons after contacting is withdrawn from said dilute phase and solids after contacting are withdrawn from said conversion zone and large gas bubbles are formed in said dense fluidized turbulent bed of solids to give uneven and poor contacting between the solids and gasiform hy-



drocarbon, the improvement which comprises contacting the dense fluidized bed of solids with a plurality of spaced dangling and movable chains fixedly attached at one end and extending downwardly in spaced parallel relation a substantial distance below the level of the dense fluidized bed of solids to break up large gas bubbles as they pass upwardly within said dense fluidized bed of solids into smaller gas bubbles to improve contacting between said solids and gasiform hydrocarbon and causing movement of said chains within said dense fluidized bed of solids solely by the turbulent motion of the turbulent dense fluidized bed of solids.

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2,769,772

## PROCESS AND APPARATUS FOR HANDLING OF CARBONACEOUS OR REACTANT MATERIALS

Paul L. Gomory, Bethesda, Md., assignor to Phillips Petroleum Company, a corporation of Delaware

Application April 16, 1952, Serial No. 282,725
17 Claims. (Cl. 196—53)



1. In a process in which a stream of carbonaceous reactant is passed through a heating zone heated by radiant heating, the steps of surrounding said stream with a heat-carrying medium over a substantial length of passage of said stream through said zone, imparting heat to said medium in said zone over a substantial length of said stream and simultaneously causing the heated medium to pass into said stream, also over a substantial length thereof.

9. Heating apparatus comprising in combination: a furnace comprising a radiant heating zone and a convection zone; an impervious soaking coil in said convection zone; an impervious preheat coil in said radiant heating zone; a pervious conduit between said soaking coil and said preheating coil and connecting the interiors of said coils with each other; a tube enclosing said conduit and forming an annular space around said conduit; a conduit communicating with said annular space; means for supplying reactant to said preheat coil; means for supplying a fluid heat carrier to said tube enclosing said pervious conduit; means, independent of said furnace, for supplying heat to said heat carrier; means for withdrawing reacted material from said soaking coil; and means for returning heat carrier from said tube to said means for supplying heat to said heat carrier.

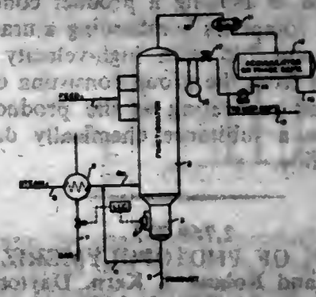
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2,769,773

## METHYLETHYLPYRIDINE-METHYLVINYLPYRIDINE FRACTIONATION

William E. Burns, Pasadena, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application August 21, 1953, Serial No. 375,633
17 Claims. (Cl. 202—46)



1. In a process for the fractional distillation of a mixture of organic compounds wherein heat is supplied to the distillation zone by injection of a superheated steam, the improvement comprising maintaining the liquid level substantially constant in the distillation zone by adjusting the temperature of the injected superheated steam in response to variations in said liquid level.

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2,769,774

## ELECTRODEPOSITION METHOD

Theron A. Loveland, Jr., Niles, and Alvin F. Prust, Warren, Ohio, assignors to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey

No Drawing. Application August 5, 1952, Serial No. 302,814
12 Claims. (Cl. 204—56)

1. The method of covering a metal article with a corrosion-resistant coating which comprises the steps of contacting the metal article with a liquid body consisting essentially of water and between about 10% and about 35% chromic acid and between about 3% and about 12% phosphoric acid in the ratio range to each other about two parts and about three parts of chromic acid per part of phosphoric acid, contacting a lead body with said liquid body at a point spaced from said metal article, electrically connecting said lead body and said article in an electric circuit as an anode and a cathode respectively, and passing an electric current of density between about 75 amperes and about 500 amperes per square foot of cathode surface through said electric circuit and through said liquid body as an electrolyte for between about one and about 20 seconds.

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2,769,775

## ELECTROLYTE FOR COPPER REFINING, INCLUDING POLYVINYL ALCOHOL

John H. Schloen, Eugene M. Ellis, and Kurt Ekler, Montreal, Quebec, Canada, assignors to Canadian Copper Refiners Limited, Montreal, East Quebec, Canada, a corporation of Canada

No Drawing. Application December 1, 1953, Serial No. 395,622
8 Claims. (Cl. 204—108)

2. In the electrolytic refining of copper, involving passing an electric current between anodes of copper to be

refined and cathodes of pure copper immersed in an electrolyte comprising an aqueous solution of cupric sulphate and sulphuric acid, the improvement which comprises adding to said electrolyte from about 0.025 to about 0.08 pound of glue and from about 0.02 to about 0.14 pound of polyvinyl alcohol for each ton of copper deposited on the cathodes.

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2,769,776

## METHOD OF MAKING A PRODUCT CONTAINING URANIUM 237

Allen F. Reid, New York, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application February 7, 1946, Serial No. 646,201
7 Claims. (Cl. 204—154)

1. The method of making a product containing uranium 237 which comprises bombarding a uranium halide containing uranium 238 with high-velocity sub-atomic particles selected from the group consisting of deuterons and neutrons and recovering as the product from the bombarded mass a substance chemically distinct from said uranium halide.

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2,769,777

## INITIATION OF PHOTOPOLYMERIZATION

Gail H. Birum and Roland J. Kern, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application January 4, 1954, Serial No. 402,153
17 Claims. (Cl. 204—158)

1. In the photopolymerization of an ethylenically unsaturated monomer, the improvement which comprises employing a small amount of a compound, effective to photosensitize said polymerization, having the formula

R—O—S—R'

wherein R and R' are organic radicals each of which is attached to the —O—S— group through a carbon atom.

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2,769,778

## METHOD OF MAKING TRANSPARENT CONDUCTING FILMS BY CATHODE SPUTTERING

John Silvey Preston, Teddington, England, assignor to National Research Development Corporation, London, England, a corporation of Great Britain

No Drawing. Application September 2, 1952, Serial No. 307,561
Claims priority, application Great Britain September 5, 1951
7 Claims. (Cl. 204—192)

1. The method of providing a surface of an article of heat resisting material with a thin electrically conductive film which comprises depositing on the surface by cathode sputtering, in the presence of oxygen insufficient in concentration to oxidise the metal completely, a thin yellow-to-brown coating, as uniform as may be, derived from a metal selected from the group consisting of metallic tin and metallic indium, and thereafter heating the coated surface under oxidising conditions until it becomes substantially transparent.

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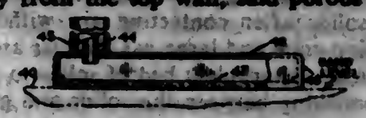
2,769,779

## WATER PURIFIER FOR AQUARIUMS

Mary Louise Mathilde Vanbeneden and Alfred Vanbeneden, Mouscron, France

Application August 27, 1953, Serial No. 376,857
1 Claim. (Cl. 210—16)

A water purifier for aquarium water containing microorganisms comprising a non-porous hollow vessel having top and depending side walls and a bottom opening, a porous flat purifier plate extending over the bottom opening in tight fitting engagement with the side walls and adapted to have contact over its full bottom face with the sand in the bottom of an aquarium when the purifier is rested thereupon, said hollow vessel having a water suction hole in the top wall thereof adjacent to one end of the purifier and a vertically-extending non-porous water pump chamber surrounding the suction hole and extending upwardly away from the top wall, said porous plate being



formed of a multiplicity of irregularly contoured agglomerated particles interrelated and bonded together and providing a multiplicity of irregularly formed passages extending upwardly throughout the thickness thereof so that the plate will be caused to be progressively clogged by the microorganisms and gradually be decomposed from one end of the purifier to the other end thereof.

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2,769,780

## PRECIPITATION PROCESS

Warren E. Clifford, San Francisco, Calif., and Raymond E. Burns, Richland, Wash., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 22, 1954, Serial No. 477,144
8 Claims. (Cl. 210—23)

6. The process of removing fission product values selected from the group consisting of cesium values and strontium values from aqueous solutions comprising adjusting the pH to a value between 8 and 11, adding alkali ferrocyanide to said solution, adding a water-soluble metal salt selected from the group consisting of cobalt salt and nickel salt to said solution whereby a precipitate forms and fission product values are carried on said precipitate, and separating the precipitate from the solution.

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2,769,781

## KETTLE-COOLED LITHIUM STEARATE GREASE CONTAINING AN ALIPHATIC MONOHYDRIC ALCOHOL

Richard A. Babcock, East Hempstead, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application September 19, 1951, Serial No. 247,568
4 Claims. (Cl. 252—40)

4. A kettle-cooled, smooth-textured, lithium stearate grease comprising:

| | Percent by weight |
|---|---|
| Stearic acid | 5 to 20 |
| Hydroxy stearic acid | 0.5 to 5 |
| Sodium hydroxide | 0.1 to 1.0 |
| Lithium hydroxide monohydrate | 0.65 to 2.6 |
| Lime flour | 0.15 to 1.0 |
| Mineral oil 60 seconds to 3000 seconds, S. U. V. at 100° F | 93.5 to 68.4 |
| Oxidation inhibitor | 0.1 to 2.0 |
| Aliphatic monohydric alcohol having from 16 to 34 carbon atoms per molecule, the said alcohol constituting the sole gel stabilizer present in said grease | 0.1 to 0.5 |

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2,769,783

## LUBRICATING OIL ADDITIVE HAVING IMPROVED COPPER CORROSION PROPERTIES

Julius P. Recon and Albert C. Haas, Linden, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application October 26, 1953, Serial No. 388,640
6 Claims. (Cl. 252—42.7)

1. In the process in which an oil-soluble sulfur and phosphorus-containing product having antioxidant properties in the presence of organic materials is formed by reacting together a metal alkyl phenol sulfide and $P_2S_5$ at a temperature in the range of about 100° to 200° C., the improvement for reducing the tendency of the product to corrode metals which comprises utilizing a metal phenol sulfide which contains less than about 0.3 weight percent water and a mol ratio of $P_2S_5$ to said metal phenol sulfide below 0.25:1.0.



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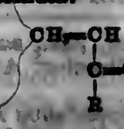
2,769,783

## LUBRICATING COMPOSITIONS

William C. Holliday, Jr., Fanwood, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application October 15, 1952, Serial No. 314,943
6 Claims. (Cl. 252—45)

1. A lubricating oil composition which comprises a mineral lubricating oil containing from 0.005% to 60% by weight based on the total composition, of a condensation product of a polymer prepared by polymerizing a material having the formula:



wherein R is selected from the class consisting of hydrogen and methyl groups, at a temperature of from about 15° C. to 125° C. for from about 1 to 50 hours in the presence of from about 0.1% to 5% by weight, based on the weight of the polymerizable material, of a peroxide type catalyst, and reacting the polymer so formed with about 50% to 150% of the theoretical amount needed to react with the polymer, of an aliphatic material selected from the class consisting of primary and secondary amines, mercaptans and alcohols containing from 8 to 18 carbon atoms.

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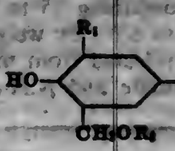
2,769,784

## ALKYLATED PHENOLS AND STABILIZED COMPOSITIONS COMPRISING SAME

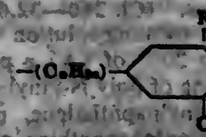
David W. Young, Westfield, and Delmer L. Cottle, Highland Park, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application July 23, 1954, Serial No. 445,675
10 Claims. (Cl. 252—52)

1. A phenolic anti-oxidant having the formula



wherein $R_1$ is selected from the group consisting of hydrogen and $-CH_2OR_3$ radicals, $R_2$ is a branched-chain alkyl radical of 8 to 15 carbon atoms, and $R_3$ is selected from the group consisting of alkyl radicals of 1 to 4 carbon atoms, alkoxy radicals of 1 to 4 carbon atoms, and alkyl phenol radicals represented by the structure



where $x$ is an integer ranging from 1 to 4 and $R_2$ is an alkyl radical of 8 to 15 carbon atoms.



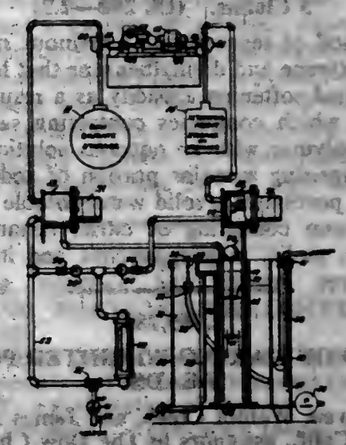
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2,769,785

## CONTINUOUS SILICA SOL APPARATUS

James D. Walker, Aurora, Ill., assignor to B-I-F Industries, Inc., Providence, R. I., a corporation of Rhode Island

Application September 2, 1950, Serial No. 182,951
5 Claims. (Cl. 252—359)



1. Apparatus for continuously producing aged ungelled silica sol, including tank means forming a mixing chamber, an aging chamber communicating therewith, and a makeup chamber, means for supplying raw sodium silicate at a known rate, means for mixing the sodium silicate with water supplied at a known rate, and delivering the mixture to the mixing chamber, means for supplying activating agent at a known rate, means for mixing it with water supplied at a known rate, and delivering the activating mixture to the mixing chamber, means for violently agitating the contents of the mixing chamber, means for supplying additional water to the makeup chamber to dilute the aged mixture flowing to it from the aging chamber, means to maintain the liquid level therein substantially below the liquid level in the mixing chamber, and draw-off means in the aging tank adjustable in height to control the liquid level therein and discharging into said makeup tank.

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2,769,786

## PRODUCTION OF POLYMERS FROM AROMATIC AND THE LIKE COMPOUNDS

Michael Mojzesz Suware, Syracuse, N. Y., and Alec Norman Roper and Herbert Max Emil Stelmer, Manchester, England, assignors, by mesne assignments, to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application August 28, 1952, Serial No. 306,939
Claims priority, application Great Britain August 29, 1951
10 Claims. (Cl. 260—2)

9. In the production of polymeric products in the form of flakes, the process which comprises pyrolyzing the vapors of a polymethyl benzene having two methyl substituents in the para positions and at least one additional methyl substituent in the ring, by heating said vapors in admixture with steam in molecular proportions ranging from about 10 to 100 moles of steam to 1 mole of the polymethyl benzene vapors to a temperature of from about 700° to 1000° C. for a time ranging from about 1 second to 0.02 second and under a total pressure of steam and polymethyl benzene vapors not exceeding 200 mm. mercury absolute, cooling the pyrolyzed vapors to a temperature of from about 50° to 0° C. to precipitate the resulting polymer, washing and drying to recover the polymer in flake form.

2,769,787

## METHOD FOR REGENERATION OF CATION EXCHANGERS

Horace W. Diamond, Chicago, Ill., assignor to Morton Salt Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application June 4, 1954, Serial No. 434,645

3 Claims. (Cl. 260—2.2)

1. A method of regenerating a resinous sulfonated copolymer of styrene and divinylbenzene that has a substantially exhausted softening capacity as a result of treating hard water, which comprises contacting said exhausted resinous copolymer with an aqueous solution of a composition comprising a major portion of sodium chloride and a minor portion of a solid water-soluble acid selected from the group consisting of citric, tartaric, sulfamic, sulfosalicylic, malic, maleic, succinic and itaconic acids.

2,769,788

## METHOD OF MAKING WEIGHTED POLYMER BEADS

Paul M. Craven, Walnut Creek, and James A. Patterson, Concord, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 1, 1952, Serial No. 312,668

6 Claims. (Cl. 260—17)

1. A method which comprises treating a finely divided solid material, which has an absolute density of at least 2.5 and is of not larger than 80 mesh particle size and which is insoluble in and chemically inert to vinyl aromatic compounds and their polymers, with an agent which, when applied to water-wettable solid material, renders the latter repellent to water and wettable by organic liquids, admixing the thus-treated solid material with at least one liquid vinyl aromatic hydrocarbon to form a slurry of the solid particles and the liquid vinyl aromatic hydrocarbon, agitating the slurry together with a larger volume of an aqueous salt solution that is non-solvent for said slurry and has at least 0.5 percent by weight of a strongly ionized inorganic salt dissolved therein, to form a suspension of droplets of said slurry in the aqueous salt solution while heating the agitated mixture to cause polymerization of the vinyl aromatic hydrocarbon, whereby there are formed substantially spherical solid beads of the polymerized vinyl aromatic hydrocarbon having the finely divided solid starting material embedded therein.

2,769,789

## RUBBER REINFORCING AGENTS AND COMPOSITIONS CONTAINING SUCH AGENTS

Evelyn William Madge, Sutton Coldfield, Wyndham Mobberley, Bournville, and Frederick Joseph Tilcaham, Castle Bromwich, England, assignors to Dunlop Tire and Rubber Corporation, Buffalo, N. Y., a corporation of New York

No Drawing. Application January 7, 1953, Serial No. 330,164

Claims priority, application Great Britain January 15, 1952

8 Claims. (Cl. 260—17.5)

1. A reinforced rubber composition comprising rubber and a compound incorporated therein said compound being a hydrophilic lignin compound having its base exchanged with the cationic component of an organic compound containing a cationic radical having a chain of at least ten carbon atoms to form a direct union of the lignin radical and the cationic radical.

2,769,790

## BLENDED ASPHALTIC COMPOSITIONS

Murray H. Eilers, Railway, and Thomas B. Tutwiler, Watchung, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 23, 1952, Serial No. 283,969

3 Claims. (Cl. 260—28.5)

1. An asphalt composition having a ductility of at least 3.5 and consisting of an asphalt containing about 0.1 to 20% by weight of a polymeric vinyl ether compound, said polymeric ether being a polymer of a polymerizable mixture consisting of at least one ether having the formula:

$$R-O-C=CH_2$$
$$\quad\quad H$$

in which R is selected from the group consisting of alkyl and alkoxy-alkyl radicals having about 1 to 20 carbon atoms, and said polymer having a Staudinger molecular weight of about 2,000 to 100,000.

2,769,791

## COMPOSITION COMPRISING N-NITROSOPIPERIDINE AND A COPOLYMER OF ACRYLONITRILE

George E. Hass, Decatur, Ala., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Application June 10, 1953, Serial No. 360,828

12 Claims. (Cl. 260—30.2)

8. A new composition of matter, comprising a homogeneous miscible mixture of 65 to 95 percent by weight of N-nitrosopiperidine and from five to 35 percent of a copolymer of from 70 to 98 percent by weight of acrylonitrile and from two to 30 percent of methacrylonitrile.

2,769,792

## FIBER-FORMING VINYL CHLORIDE COPOLYMER BLENDS WITH ACRYLONITRILE POLYMERS

George E. Hass, Dayton, Ohio, assignor, by mesne assignments, to The Chemstrand Corporation, a corporation of Delaware

No Drawing. Application November 5, 1951, Serial No. 254,977

5 Claims. (Cl. 260—32.6)

1. A new composition of matter capable of being formed into heat-stable fibers and filaments comprising a homogeneous solution containing a polymeric blend of 5 to 25 parts by weight of (A) a polymer containing at least 85% by weight of acrylonitrile and up to 15% of another polymerizable mono-olefinic monomer copolymerizable therewith, and 75 to 95 parts by weight of (B) a copolymer containing 35 to 70% by weight of vinyl chloride and 30 to 65% by weight of acrylonitrile, dissolved in a solvent selected from the group consisting of N,N-dimethylformamide and N,N-dimethylacetamide.

2,769,793

## FIBER-FORMING ACRYLONITRILE POLYMER BLENDS

George E. Hass, Dayton, Ohio, assignor, by mesne assignments, to The Chemstrand Corporation, a corporation of Delaware

No Drawing. Application May 24, 1951, Serial No. 228,130

11 Claims. (Cl. 260—32.6)

1. A heat-stable fiber-forming solution which comprises a blend of from 0.1 to 20% of (A) a polymer selected from the group consisting of poly N-vinyl-carbazole, polyvinylanthracene, polyvinylnaphthalene, polyvinylpyrene, polyvinylfluorene, polyvinylphenoxthine, polyacenaphthylene, polyvinylbiphenyl, polyisopropenylbiphenyl and polyvinylacenaphthene, and from 80 to 99.9% of (B) a polymer selected from the group consisting of polyacrylonitrile, copolymers of at least 85% acrylonitrile and not more than 15% of another polymerizable mono-olefinic monomer copolymerizable therewith, and blends of said acrylonitrile polymer and co-polymers containing at least 85% of acrylonitrile with a polymer of at least 30% of a vinylpyridine and up to 70% of another polymerizable mono-olefinic monomer copolymerizable therewith, both (A) and (B) being dissolved in N,N-dimethylacetamide.



2,769,794

## WATER VAPOR IMPERVIOUS SYNTHETIC RESIN COMPOSITION

Myron A. Coler, New York, N. Y., and Herbert A. Gottschall, Clifton, N. J., assignors to Myron A. Coler, New York, N. Y.

No Drawing. Application March 4, 1953, Serial No. 340,394

6 Claims. (Cl. 260—41)

1. A composition comprising a resinous synthetic material selected from the group consisting of polyethylene, polymethyl-methacrylate and polystyrene and between 1% and 20% by weight of an agent selected from the group consisting of plaster of Paris and Portland cement.

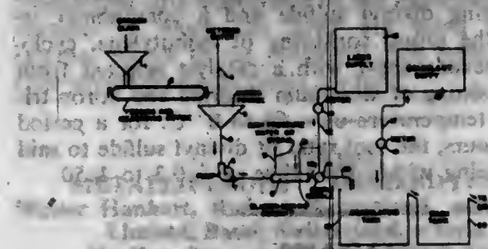
2,769,795

## METHOD OF COMPOUNDING CARBON BLACK AND RUBBER

Harold A. Brasselle, Garden City, N. Y., assignor to Columbian Carbon Company, New York, N. Y., a corporation of New York

Application February 1, 1956, Serial No. 562,900

13 Claims. (Cl. 260—41.5)



1. In the process of producing dispersions of carbon black in rubber in which the black is mixed with the rubber while in latex form and the carbon black-latex mixture thereafter coagulated, the steps of continuously mixing the carbon black in a uniform, predetermined proportion with a flowing stream of water under conditions of violent hydraulic turbulence and impact, and thereby forming a continuously flowing, confined stream of an aqueous carbon black slurry of uniform composition, immediately, and substantially instantaneously, uniformly mixing a stream of the latex in uniform, predetermined proportions with the resultant stream of slurry under conditions of violent hydraulic turbulence and impact and, immediately following the mixing, coagulating the resultant mixture by adding a coagulating agent thereto with agitation.

2,769,796

## MELAMINE-FORMALDEHYDE-POLYAMINE CONDENSATION PRODUCT

Tsung Jiaoq Soon, New Canaan, and Yun Jen, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 20, 1953, Serial No. 343,792

21 Claims. (Cl. 260—45.2)

2. The process of preparing a water-soluble resinous material which comprises reacting melamine, formaldehyde and a polyfunctional aliphatic polyamine condensation product selected from the group consisting of (1) ammonia and a difunctional halohydrin, (2) a polyalkylene polyamine and a difunctional halohydrin and (3) a polyalkylene polyamine and a dihaloalkane at a temperature between about 20° C. and about 100° C. until a viscosity of between about 20 centipoises and about 800 centipoises measured at 35% solids and 25° C. is obtained, thereafter neutralizing said resinous material, wherein the formaldehyde is present in an amount greater than 6 mols per mol of melamine, wherein said polyamine has a carbon to nitrogen ratio not greater than 4:1, respectively, and the polyfunctional aliphatic polyamine condensation product is present in an amount to yield between about 0.5 and about 10 atoms of nitrogen per mol of melamine and wherein the product produced is infinitely dilutable in neutralized water at a temperature between about 25° C. and 30° C.

2,769,797

## MELAMINE RESINS MODIFIED WITH POLYALKYLENE POLYAMINE-HALOHYDRIN CONDENSATES

Tsung Jiaoq Soon, New Canaan, and Yun Jen, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 6, 1955, Serial No. 520,359

12 Claims. (Cl. 260—45.2)

1. The process of preparing a water soluble resinous composition comprising the reaction product of melamine, formaldehyde and a polyfunctional aliphatic polyamine condensation product selected from the group consisting of (1) ammonia and a difunctional halohydrin, (2) a polyalkylene polyamine and a difunctional halohydrin and (3) a polyalkylene polyamine and a dihaloalkane wherein the formaldehyde is present in a total amount of at least 8 moles per mole of melamine which comprises reacting a partially polymerized melamine-formaldehyde condensation product having a melamine to formaldehyde mole ratio of from about 1:1.5 to 1:5 respectively, which has been reacted to a point beyond the methylol stage, but short of the gel stage, at a temperature of between about 20° C. and 100° C. with a polyfunctional aliphatic polyamine condensation product providing a carbon to nitrogen ratio not greater than 4:1 respectively, in an amount sufficient to yield between about 0.3 and 10 atoms of nitrogen per mole of melamine; introducing additional amounts of formaldehyde until there is present a mole ratio of melamine to formaldehyde within the range of 1:6 to about 1:14 respectively, continuing the reaction until a viscosity of about 20 centipoises and 800 centipoises measured at 35% solids and 25° C. is obtained; inhibiting further reaction by substantially neutralizing the reaction product, and adding thereto formaldehyde in an amount sufficient to bring the mole ratio of the melamine to total formaldehyde charged to at least 1:8 respectively.

2,769,798

## AMINOPLAST RESINS AND AMINOPLAST RESIN COMPOSITIONS STABILIZED WITH OXIRANE COMPOUNDS AND PROCESS OF PREPARING SAME

Helmut Meis, Walter Scheib, and Karl-Heinz Decker, Lotmathe in Westphalia, Germany, assignors to Ruhrgerwerke-Aktiengesellschaft, Frankfurt am Main, Germany

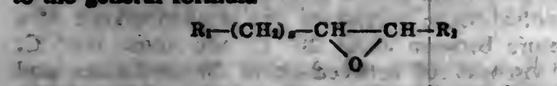
No Drawing. Application June 26, 1953, Serial No. 364,482

Claims priority, application Germany July 7, 1952

6 Claims. (Cl. 260—45.8)

1. A composition comprising a heat-hardenable amine-formaldehyde resin selected from the group consisting of urea-, thiourea-, imino-urea-, and melamine-formal-

dehyde resins and a stabilizing compound corresponding to the general formula



wherein $R_1$ stands for an organic radical selected from a first group consisting of acyl, carboxyl, alkoxy, cycloalkoxy, aroxy, alkaroxy, aralkoxy, alkyl, cycloalkyl, aryl, and aralkyl radicals, a second group consisting of radicals of said first group substituted by a hydroxy radical, a third group consisting of radicals of said first group substituted by a primary amino radical and a fourth group consisting of radicals of said first group substituted by a secondary amine radical; $R_2$ stands for a radical selected from the group consisting of H and a radical of said first, second, third and fourth groups, and $x$ is an integer having a value in the range of 1–10.

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**2,769,799**
**POLYAMINE MODIFIED MELAMINE RESINS**
Tzeng Jiuey Suen, New Canaan, and Yun Jen, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application March 20, 1953, Serial No. 343,791
18 Claims. (Cl. 260—67.6)

1. The process of preparing a water-soluble resinous material which comprises reacting melamine, formaldehyde and a polyfunctional aliphatic polyamine at a temperature between about 20° C. and about 100° C. until a viscosity of between about 20 centipoises and about 800 centipoises measured at 35% solids and 25° C. is obtained, thereafter neutralizing said resinous material, wherein the formaldehyde is present in an amount greater than 6 mols per mol of melamine, wherein said polyamine has a carbon to nitrogen ratio not greater than 4:1, respectively, and the polyfunctional aliphatic polyamine is present in an amount to yield between about 0.5 and about 10 atoms of nitrogen per mol of melamine, and wherein the product produced is infinitely dilutable in neutralized water at a temperature between about 25° C. and 30° C.

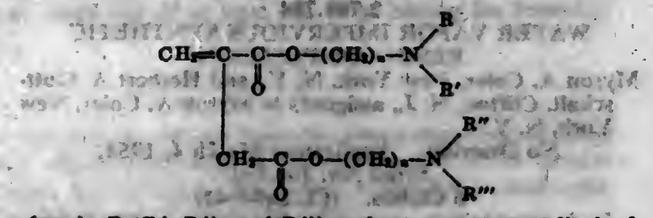
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**2,769,800**
**POLYAMINE MODIFIED MELAMINE-FORMALDEHYDE RESINS**
Tzeng Jiuey Suen, New Canaan, and Yun Jen, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application July 6, 1955, Serial No. 520,358
12 Claims. (Cl. 260—67.6)

1. The process of preparing a water-soluble resinous material comprising the reaction product of melamine, formaldehyde and a polyfunctional aliphatic polyamine wherein the formaldehyde is present in a total amount of at least 8 mols per mol of melamine which comprises treating a partially polymerized melamine-formaldehyde condensation product having a melamine to formaldehyde mol ratio of from about 1:1.5 to 1:5, respectively, at a temperature between about 20° C. and 100° C. with a polyfunctional aliphatic polyamine providing a carbon to nitrogen ratio not greater than 4:1, respectively, in an amount sufficient to yield between about 0.5–10 atoms of nitrogen per mol of melamine; introducing formaldehyde until the mol ratio of melamine to formaldehyde lies within the range of from 1:6 to 1:15, respectively; reacting the mixture until an end point viscosity of between about 20 centipoises and 800 centipoises measured at 35% solids and 25° C. is obtained; inhibiting further reaction by substantially neutralizing the polymerized product and adding to the reaction product additional formaldehyde in an amount sufficient to bring the mol ratio of the melamine to total formaldehyde charged to at least 1:8, respectively.

**2,769,801**
**DYEABLE COPOLYMERS OF ACRYLONITRILE AND AMINOESTERS OF ITACONIC ACID**
George E. Ham, Decatur, Ala., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware
No Drawing. Application March 16, 1953, Serial No. 342,720
7 Claims. (Cl. 260—78.5)

1. A copolymer of from 80 percent to 99.5 percent by weight of acrylonitrile and from 0.5 percent to 20 percent by weight of a compound having the formula:



wherein R, R′, R″, and R‴ each represents a radical of the group consisting of alkyl radicals having no more than four carbon atoms, and $n$ represents a whole number from two to four inclusive.

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**2,769,802**
**POLYMERS OF DIVINYL SULFIDE AND METHODS FOR THEIR PRODUCTION**
James E. Pritchard, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application December 8, 1952, Serial No. 324,825
4 Claims. (Cl. 260—79.7)

1. A process for producing a copolymer which comprises contacting divinyl sulfide and a comonomer selected from the group consisting of isobutylene, cyclohexene and hexadecene-1 with a catalyst selected from the group consisting of aluminum chloride and boron trifluoride, at a temperature of −60 to 0° C. for a period of 0.5 to 20 hours, the mol ratio of divinyl sulfide to said comonomer being within the range of 1:0.3 to 1:50.

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**2,769,803**
**COPOLYMERS OF VINYL CHLORIDE AND 1,1-DICHLORO-ETHENE**
Wilhelm Becker, Leverkusen-Bayerwerk, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application March 31, 1953, Serial No. 346,021
Claims priority, application Germany April 17, 1952
4 Claims. (Cl. 260—80.5)

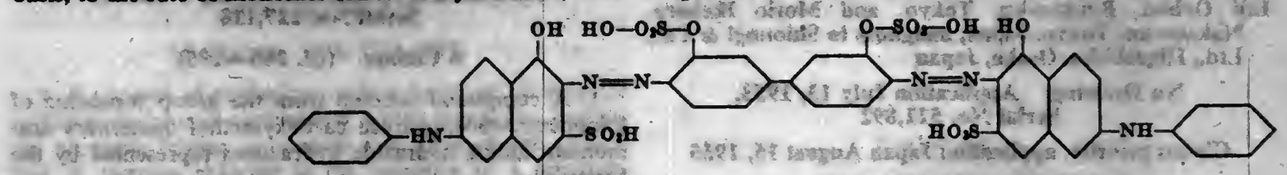
4. A liquid coating composition comprising, as a film forming agent, a copolymer prepared by a process which comprises emulsifying at least 15% vinylchloride, at least 15% 1,1-dichloroethene and 1–25% styrene, said percentages being calculated on a total weight of said monomers, in an aqueous medium and copolymerizing said monomers in a single step in the presence of about 0.05 to about 0.5% of a regulating agent; and a solvent for said film forming agent.

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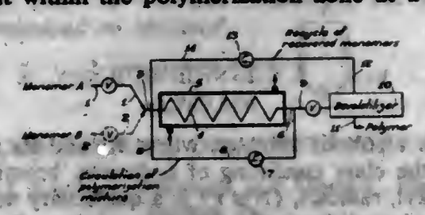
**2,769,804**
**CONTINUOUS METHOD FOR MAKING SOLID POLYMERIC MATERIALS**
Alden W. Hanson, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application September 10, 1951, Serial No. 245,234
13 Claims. (Cl. 260—86.7)

1. A method for the copolymerization of vinylidene compounds in a continuous manner which comprises feeding at least two copolymerizable liquid monomeric vinylidene compounds to a polymerization zone where the resulting mixture is agitated at a polymerization temperature with resultant formation of a mixture of copolymeric material and unreacted monomeric material, withdrawing a stream of the incompletely polymerized mixture from said zone, vaporizing the unreacted monomeric material from the stream and returning it, within the polymerization system, to the polymerization zone, and discharging the residual copolymeric material from the polymerization system at a rate corresponding approximately, on a weight basis, to the rate of monomer fed to the system and, while





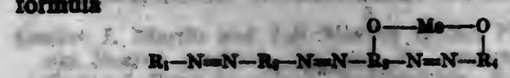
continuing said operations, maintaining the mixture at each point within the polymerization zone at a substantially constant temperature and feeding monomeric material to the mixture at a rate sufficient to prevent the mixture from becoming completely polymerized, the ratio of one monomer to another in the feed to the polymerization system being maintained substantially constant, whereby the copolymer being formed in early stages of the process is caused, by the above-stated operations, to vary and approach that of a copolymer of the monomers in the proportions in which the latter are being fed from an external source to the polymerization system and thereafter to remain substantially constant.



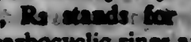
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**2,769,805**
**METALLIFEROUS TRISAZO-DYESTUFFS**
Walter Hunbart, Richen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application March 23, 1953, Serial No. 344,283
Claims priority, application Switzerland March 31, 1952
10 Claims. (Cl. 260—145)

1. A metalliferous trisazo dyestuff of the general formula



wherein $R_1$ stands for the radical of a diazo component containing at least one sulfonic acid group and selected from the group consisting of aminobenzenes, aminonaphthalenes, aminodiphenyls and 2-(4′-aminophenyl)-benzthiazoles, $R_3$ stands for an aromatic radical containing only carbocyclic rings and at most 10 aromatically bound carbon atoms carrying both azo groups attached thereto in para positions to one another, $R_3$ stands for a benzene radical carrying both azo groups in para positions to one another, $R_4$ stands for the radical of a member selected from the group consisting of hydroxynaphthalenes free from amino groups and coupling in ortho position to a hydroxyl group and 1-phenyl-3-methyl-5-pyrazolones, and Me stands for a member selected from the group consisting of the metals nickel and copper, the whole azo dyestuff containing at least three and at most six sulfonic acid groups, the metallized hydroxyl group indicated in the formula being the sole hydroxyl group bound to $R_1$, $R_2$ and $R_3$, and the group



being bound to vicinal positions with respect to the azo group.

**2,769,806**
**DISAZO-DYESTUFFS**
Oscar Weber, Reinach, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application April 6, 1953, Serial No. 347,147
Claims priority, application Switzerland April 10, 1952
6 Claims. (Cl. 260—182)

2. A disazo-dyestuff which in its free acid form corresponds to the formula



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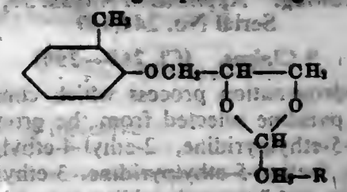
**2,769,807**
**PRODUCTION OF CAPROLACTAM**
Lorraine Guy Donaruma, Woodbury, N. J., and David C. England, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 21, 1954, Serial No. 431,597
8 Claims. (Cl. 260—239.3)

1. A process for the preparation of lactams which comprises reacting an aqueous solution of a water-soluble salt of a nitro cycloalkane with a sulfuric acid solution of a primary nitro alkane, said sulfuric acid being present throughout the reaction in an amount by weight at least equal to the amount of water and the temperature during said reaction being maintained between 100 and 170° C.

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**2,769,808**
**DIOXOLANE COMPOUNDS**
Leon E. Tenenbaum, Brooklyn, N. Y., assignor to Nepera Chemical Co., Inc., Yonkers, N. Y., a corporation of New York
No Drawing. Application August 13, 1953, Serial No. 374,161
5 Claims. (Cl. 260—247.7)

1. Compounds of the group consisting of

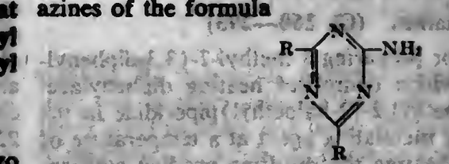


wherein R is a substituted amino group linked through nitrogen to the methylene group and is selected from the group consisting of lower alkylamino and di-lower-alkylamino groups wherein the alkyl group contains from one to four carbon atoms, piperidino, morpholino and pyrrolidino, groups, and their water-soluble salts.

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**2,769,809**
**TRIAZINE COMPOUNDS AND METHOD**
George H. Hitchings, Tuckahoe, and Peter Byrom Russell, Crestwood, N. Y., assignors to Burroughs Wellcome Co. (U. S. A.) Inc., Tuckahoe, N. Y., a corporation of New York
No Drawing. Application November 6, 1951, Serial No. 255,136
Claims priority, application Great Britain November 10, 1950
4 Claims. (Cl. 260—249.5)

1. A method of preparing 2-amino-4,6-diaryl-1,3,5-triazines of the formula



wherein R is selected from the class consisting of the

phenyl, pyridyl and pyrimidyl radicals attached to a carbon atom of the triazine by a —C—C— bond, which comprises reacting a nitrile of the formula RCN with guanidine.

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2,769,810

## PROCESS FOR PREPARING HYDROXY-N-METHYLMORPHINAN

Eiji Ochiai, Bunkyo-ku, Tokyo, and Morio Ikehara, Nakano-ku, Tokyo, Japan, assignors to Shionogi & Co., Ltd., Higashi-ku, Osaka, Japan

No Drawing. Application July 13, 1955, Serial No. 521,892

Claims priority, application Japan August 15, 1955

4 Claims. (Cl. 260—285)

1. A process for preparing hydroxy-N-methylmorphinan which comprises condensing 1-chloro-5,6,7,8-tetrahydroisoquinoline with lower alkoxybenzyl cyanide which has no alkoxy radical at least on one side of the ortho positions in the presence of a condensing agent selected from the group consisting of alkali metal amide and alkaline earth metal amide, reacting 1-(α-carbamoyl)alkoxybenzyl-5,6,7,8-tetrahydroisoquinoline obtained by the hydrolysis of the resulting 1-(α-cyano)alkoxybenzyl-5,6,7,8-tetrahydroisoquinoline with methyl iodide to methiodide thereof, reducing the methiodide by means of platinum catalyst to 1-(α-carbamoyl-alkoxybenzyl - N - methyl-1,2,3,4,5,6,7,8-octahydroisoquinoline, and then treating the latter with a strong acidic condensing agent selected from the group consisting of concentrated phosphoric acid and concentrated hydrohalogenic acid to produce the object.

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2,769,811

## PRODUCTION OF ALKENYL PYRIDINES

John E. Mahan, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application August 30, 1951, Serial No. 244,469

9 Claims. (Cl. 260—290)

1. A dehydrogenation process which comprises passing an alkyl pyridine selected from the group consisting of 2-methyl-5-ethylpyridine, 2-ethyl-4-ethylpyridine, 2-ethylpyridine, 2-ethyl-5-ethylpyridine, 3-ethylpyridine, 3-propylpyridine, and 2-n-amylpyridine over a catalyst comprising a major proportion by weight of iron oxide, a minor proportion by weight of chromium oxide, and a minor proportion by weight of a compound selected from the group consisting of alkali metal oxides, hydroxides, and carbonates at a temperature in the range from 1000° to 1300° F. to thereby produce an alkenyl pyridine corresponding to said alkyl pyridine.

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2,769,812

## 1-METHYL-2-(3,3-DIPHENYLPROPYL)PIPERIDINE AND PREPARATION THEREOF

Arlo Wayne Ruddy, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application August 15, 1950, Serial No. 179,641

2 Claims. (Cl. 260—293)

1. The process for preparing 1-methyl-2-(3,3-diphenylpropyl)piperidine which comprises heating diphenylacetonitrile with a 1-methyl-2-(2-haloethyl)piperidine in the presence of a strong metalating agent at a temperature of about 50° C., and heating the resulting product with sodium amide at a temperature of at least about 80° C.

2,769,813

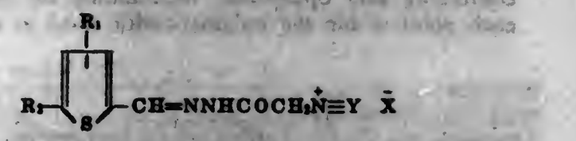
## CARBOXYMETHYL QUATERNARY AMMONIUM HALIDES, HYDRAZIDES AND HYDRAZONES WITH THIOPHENECARBOXALDEHYDES

Edward C. Hermann, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 18, 1951, Serial No. 227,118

6 Claims. (Cl. 260—295)

1. A compound selected from the group consisting of thiophenecarboxaldehyde carboxymethyl quaternary ammonium halide hydrazide hydrazones represented by the formula



and their alcoholic solvates, where $R_1$ and $R_2$ are members of the class consisting of hydrogen, bromine, nitro, lower alkyl, radicals, (N≡Y) is a quaternary ammonium radical selected from the group consisting of trimethylammonium, triethylammonium, phenyldimethylammonium, dimethylallylammonium, morpholinium and pyridinium and X is a member of the group consisting of chlorine and bromine.

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2,769,814

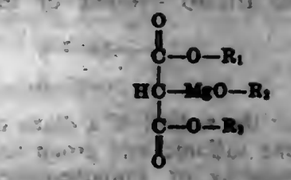
## PROCESS FOR MAKING DIALKYL (3-INDOLYLMETHYL) MALONATES

Ethan C. Galloway, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

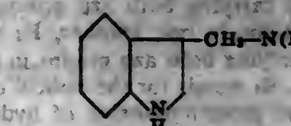
No Drawing. Application March 1, 1956, Serial No. 568,713

8 Claims. (Cl. 260—319)

1. A process for making a dialkyl-(3-indolylmethyl) malonate which comprises reacting a dialkyl-(alkoxymagnesium) malonate having the general formula:



wherein $R_1$, $R_2$ and $R_3$ each represents an alkyl radical containing from 1 to 3 carbon atoms and a 3-dialkylaminomethylindole having the general formula:



wherein R represents an alkyl radical containing from 1 to 3 carbon atoms, by heating a mixture of the reactants in proportions corresponding to from 1 to 2 gram molecular proportions of the dialkyl-(alkoxymagnesium) malonate per gram molecular proportion of the 3-dialkylaminomethylindole at temperatures between 110° and 225° C. in admixture with an inert liquid organic compound boiling at temperatures between 110° and 225° C. at 760 millimeters absolute pressure as a reaction medium and distilling by-product dialkylamine from the reaction at substantially the rate at which it is formed.



2,769,815

## REPLACEMENT OF BROMINE BY CHLORINE IN AROMATIC COMPOUNDS

William B. Hardy, Bound Brook, and Robert B. Fortenbaugh, Gladstone, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 14, 1953, Serial No. 348,834

19 Claims. (Cl. 260—325)

1. A process of replacing nuclear bromine by chlorine in aromatic bromo compounds which comprises heating the aromatic bromo compound with at least one equivalent of cuprous chloride in the presence of a nitrogen-containing cuprous ion complexing agent to a temperature of at least 75° C. and recovering the aromatic chloro compound so obtained.

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2,769,816

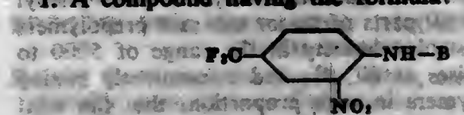
## TRIFLUOROMETHYL DIPHENYLAMINE DYES

Nicholas J. Karlson, Nazareth, and Albert C. Starke, Jr., Easton, Pa.

No Drawing. Application October 24, 1950, Serial No. 191,916

6 Claims. (Cl. 260—340.3)

1. A compound having the formula:



wherein B represents a benzene ring containing 1–2 nuclear substituent chains of interconnected methylene groups and oxygen atoms containing up to five carbon atoms and not more than one hydroxyl group, of the class consisting of hydroxy-mono- and -polyethenoxy groups, hydroxy-mono- and -polyethenoxy methyl groups, and a fused, otherwise unsubstituted 1,3-dioxane ring.

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2,769,817

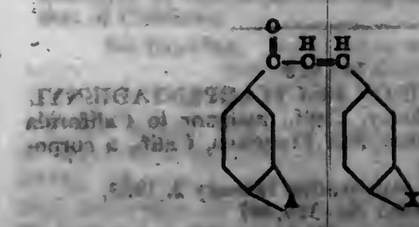
## THERAPEUTIC SUBSTITUTED CHALCONES

Gustav J. Martin and Jay Morton Beiler, Philadelphia, and Souren Avakian, Oreland, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 7, 1951, Serial No. 230,438

5 Claims. (Cl. 260—340.5)

1. A therapeutic chalcone having the formula



in which A represents substitution of the class consisting of two hydroxyl groups, two methoxy groups and one methylene dioxy group, X represents substitution of the class consisting of two hydrogen groups, two hydroxyl groups, two methoxy groups and one methylene dioxy group, and at least one of the substituents A and X is two hydroxyl groups.

2,769,818

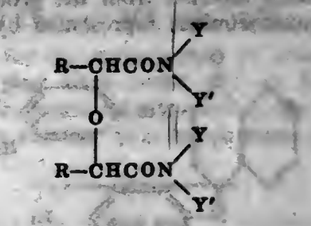
## OXYBIS (PHENYLACETAMIDES)

Arthur H. Schlesinger, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 7, 1954, Serial No. 473,723

12 Claims. (Cl. 260—347.3)

1. An amido ether having the formula



in which R is selected from the class consisting of the phenyl group and a phenyl group having from 1 to 2 substituents selected from the class consisting of alkyl radicals of from 1 to 5 carbon atoms, the nitro radical, and chlorine, Y taken separately represents a substituent selected from the class consisting of hydrocarbon radicals of from 1 to 12 carbon atoms, alkoxyalkyl radicals of from 2 to 12 carbon atoms, dialkylaminoalkyl radicals of from 4 to 12 carbon atoms, and the furfuryl radical, Y′ taken separately is selected from the class consisting of hydrogen and Y, and Y and Y′ taken together with N form a heterocyclic ring structure of from 4 to 5 carbon atoms which ring structure is attached through said N to the remainder of the molecule of which it forms a part.

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2,769,819

## ALKYLENE-DIAZIDES

Armiger H. Sommers and James D. Barnes, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application February 9, 1955, Serial No. 487,220

8 Claims. (Cl. 260—349)

1. An azide having the formula



where $n$ is 5–10 inclusive.

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2,769,820

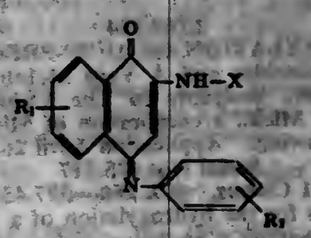
## CERTAIN NEW 1,4-NAPHTHOQUINONEIMINES AND METHODS OF PREPARING THE SAME

Jackson P. English, Stamford, and Richard C. Clapp, Old Greenwich, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 21, 1953, Serial No. 356,685

14 Claims. (Cl. 260—396)

1. Compounds selected from the group consisting of 1,4-naphthoquononeimines represented by the formula:



wherein $R_1$ represents hydrogen and $R_2$ represents at least one member selected from the group consisting of lower alkyl radicals, and lower dialkylamino radicals, and X represents a cyclohexyl nucleus; and acid addition salts thereof.

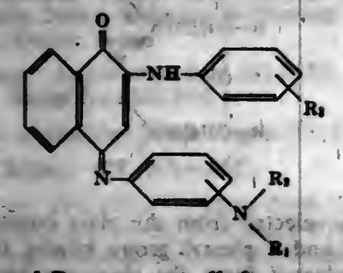
2,769,821

## 1,4-NAPHTHOQUINONEIMINE COMPOUNDS AND METHODS OF PREPARING THE SAME

Joe H. Clark, Darien, and Jackson P. English, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 21, 1953, Serial No. 356,588
9 Claims. (Cl. 260—396)

1. Compounds selected from the group consisting of 1,4-naphthoquinoneimines represented by the formula:



wherein $R_1$ and $R_2$ represent alkyl groups and $R_3$ represents a member selected from the group consisting of alkyl and dihydroxyalkylamino radicals; and acid addition salts thereof.

2,769,822

## PREPARING $\Delta^4$-3-KETO-ETIENIC ACIDS

Virgil W. Gash, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 26, 1954, Serial No. 432,591
8 Claims. (Cl. 260—397.1)

1. A method of preparing a $\Delta^4$-3-keto-etienic acid which comprises reacting a steroid selected from the group consisting of $\Delta^4$-pregnene-3,20-dione compounds and $\Delta^4$-pregnene-3-one-20-ol compounds with a hypohalite selected from the group consisting of hypobromites and hypoiodities resulting in degradation of the $C_{17}$ side chain to form the corresponding $\Delta^4$-3-keto-etienic acid.

2,769,823

## PREPARATION OF 17α-HYDROXY-20-KETO-PREGNENES

William P. Schneider, Kalamazoo, and Arthur R. Hanze, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application April 23, 1954, Serial No. 425,315
20 Claims. (Cl. 260—397.45)

1. A process for the production of a 17-hydroxy-20-keto-21-acyloxy steroid of the pregnane series which comprises oxygenating a $\Delta^{17(20)}$-21-acyloxy steroid of the pregnane series having a 20-hydrogen atom with osmium tetroxide and a tertiary amine oxide peroxide to produce the corresponding 17-hydroxy-20-keto-21-acyloxy steroid.

2,769,824

## HYDROXYLATION OF $\Delta^{17(20)}$-PREGNENES

William P. Schneider and A Vern McIntosh, Jr., Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application April 26, 1954, Serial No. 425,717
11 Claims. (Cl. 260—397.45)

1. A process for the hydroxylation of a 3-oxygynated-$\Delta^{17(20)}$-steroid having a pregnane carbon skeleton which comprises reacting the steroid with at least one equivalent each of water and a tertiary predominantly non-aromatic amine oxide and less than a molar equivalent of osmium tetroxide to produce the corresponding 17α,20-dihydroxy steroid.

2,769,825

## PREPARATION OF 17α-HYDROXY-20-KETO-PREGNENES FROM $\Delta^{16}$-PREGNENES

William P. Schneider, Kalamazoo, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application April 26, 1954, Serial No. 425,718
13 Claims. (Cl. 260—397.45)

1. A process for the production of a 17α-hydroxy-20-keto-21-acyloxy steroid which comprises: oxygenating a 3-oxygenated-$\Delta^{17(20)}$-21-acyloxy steroid having a pregnane carbon skeleton and wherein the acyl radical is that of an organic carboxylic acid of from one to eight carbon atoms, inclusive, with osmium tetroxide and hydrogen peroxide in the presence of an aromatic tertiary-N-heterocyclic amine.

2,769,826

## ISOCYANATE-CASTOR OIL METAL CEMENT

Clayton W. Yohe, Pittsburgh, Pa., assignor to Stoner-Mudge, Inc., Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application September 28, 1953, Serial No. 382,573
4 Claims. (Cl. 260—407)

1. A process of preparing a polymeric cement of suitable viscosity, comprising the steps of preparing a first prepolymer in which the reactants consist of 5.5 to 11 parts of methylene bis-(4-phenyl isocyanate) and 72 parts of castor oil, and a second prepolymer in which the reactants consist of 10 to 28 parts of methylene bis-(4-phenyl isocyanate) and 10 parts of castor oil, said prepolymers each having a stable viscosity in the range of 5000 to 100,000 centipoises at 80° F., and subsequently mixing the said prepolymers in such proportions that the total mixture has a methylene bis-(4-phenyl isocyanate) and castor oil content in substantially stoichiometric proportions.

2,769,827

## PURIFICATION OF GLYCERIDE OILS

Benjamin Clayton, Houston, Tex.

Application May 1, 1951, Serial No. 223,956
6 Claims. (Cl. 260—425)

1. The process of purification of crude glyceride oils containing gums and free fatty acids, which comprises, admixing with said oil an amount of aqueous ammonia ranging between 1 and 3.5% by weight of the oil and having a concentration between 1.5 and 29%, continuously centrifugally separating the resulting mixture at a temperature between 140 and 175° F. into an aqueous effluent containing gums having a reduced content of glyceride oil and an oil effluent substantially free from gums, diluting said aqueous effluent with an amount of water ranging from 1 to 3 times the weight of said aqueous effluent, and vaporizing water and ammonia from the diluted effluent to provide a product substantially free of ammonia.

2,769,828

## PRODUCTION OF IRON BISCYCLOPENTADIENYL

Robert P. Sieg, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application January 2, 1953, Serial No. 329,467
12 Claims. (Cl. 260—439)

1. A cyclic process for the production of iron biscyclopentadienyl which comprises reacting a cyclopentadiene with an iron reactant possessing a surface of elemental iron at a temperature in the range of 400 to 800° F., contacting the reaction spent iron reactant with an oxidizing gas selected from the group consisting of steam and carbon dioxide at a temperature in the range of 600 to 1600° F. to produce a surface of equilibrium iron oxide on said iron reactant, reducing the resulting oxidized iron reactant with a reducing agent to produce a reactive surface of elemental iron and thereafter contacting the resulting reactive elemental iron reactant with the cyclopentadiene charge.



2,769,829

## PROCESS FOR PREPARING OCTAETHYLCYCLOTETRASILOXANE

Donald G. Debay, Brecksville, Ohio, assignor to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application December 29, 1953, Serial No. 401,852
8 Claims. (Cl. 260—448.2)

1. An improved process of preparing octaethylcyclotetrasiloxane by the hydrolysis of diethyldichlorosilane which comprises mixing diethyldichlorosilane, substantially free of other hydrolyzable silanes, with water and an aliphatic alcohol as the hydrolysis medium, said aliphatic alcohol being completely water soluble and containing only hydrogen, oxygen and carbon atoms and having only a single hydroxyl group therein, said alcohol being present in said medium in an amount by volume of from about 3 parts of alcohol to about 6 parts of alcohol per part of water.

2,769,830

## PROCESS FOR PREPARING HEXAETHYLCYCLOTRISILOXANE

Donald G. Debay, Brecksville, Ohio, assignor to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application December 29, 1953, Serial No. 401,851
6 Claims. (Cl. 260—448.2)

1. An improved process for preparing hexaethylcyclotrisiloxane by the hydrolysis of diethyldichlorosilane which comprises mixing diethyldichlorosilane, substantially free of other hydrolyzable silanes, with water and an aliphatic alcohol as the hydrolysis medium, said aliphatic alcohol being completely water soluble and containing only hydrogen, oxygen and carbon atoms and having only a single hydroxyl group therein, said water being present in said medium in an amount by volume of from about 3 parts of water to about 9 parts of water per part of alcohol.

2,769,831

## PREPARATION OF UNSYMMETRICAL TRIALKYL-TETRATHIO-ORTHO-PHOSPHATES

Carleton B. Scott, Pomona, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application May 2, 1955, Serial No. 505,544
11 Claims. (Cl. 260—461)

3. The process which comprises heating a mixture of an alkyl-trithio-metaphosphate of the general formula RSPS$_2$, wherein R represents an alkyl group, and an alkyl mercaptan of the general formula R'SH, wherein R' represents an alkyl group different from R, at a reaction temperature to form a dialkyl-tetrathio-ortho-phosphate of the general formula (RS)(R'S)P(S)SH; and thereafter heating a mixture of said dialkyl-tetrathio-ortho-phosphate and an olefine at a reaction temperature to form a trialkyl-tetrathio-ortho-phosphate of the general formula (RS)(R'S)(R''S)PS, wherein R'' represents the alkyl group corresponding to said olefine.



2,769,832

## MANUFACTURE OF AROMATIC NITRILES

Edward L. Kelly, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 26, 1954, Serial No. 412,957
7 Claims. (Cl. 260—465)

1. A process for the manufacture of aromatic nitriles comprising bringing nitric oxide and an N-methyl-substituted aromatic amine into contact in the presence of a silver-on-silica catalyst at a temperature of from 450 to 550° C.

2,769,833

## PRODUCTION OF PHENOXY ACID ESTERS THROUGH THE POTASSIUM PHENOLATE

Ira Weil, New York, N. Y., assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application November 2, 1953, Serial No. 389,893
10 Claims. (Cl. 260—473)

1. A process for the production of phenoxy acid esters which comprises reacting a phenol with substantially anhydrous potassium hydroxide thereby producing potassium phenolate, removing the water product of reaction, condensing with said phenolate under substantially anhydrous conditions, an ester having a functional group reactive with the potassium of the said phenolate, said group being attached to a carbon atom of the acid portion of said ester, and recovering the phenoxy acid ester so formed as the product of the reaction.

2,769,834

## ADDUCTS OF MONOALKENYLSUCCINATES WITH FUMARATES

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 12, 1953, Serial No. 342,031
4 Claims. (Cl. 260—485)

1. An addition product in which there is combined 1 mole of a dialkyl monoalkenylsuccinate in which the alkyl radical has from 1 to 6 carbon atoms and the alkenyl radical has from 5 to 18 carbon atoms with 1 mole of a dialkyl fumarate of from 6 to 16 carbon atoms.

2,769,835

## PROCESS OF PRODUCING ALKYL ACRYLATES BY DEHYDROHALOGENATION USING AN ANHYDROUS CALCIUM SULFATE CATALYST

Milton Kosmin and Samuel Allen Heininger, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 9, 1953, Serial No. 397,258
6 Claims. (Cl. 260—486)

1. The method which comprises contacting an alkyl β-chloropropionate having from 1 to 18 carbon atoms in the alkyl radical with anhydrous calcium sulfate at a temperature of from 150° C. to 375° C. and recovering from the resulting reaction product an alkyl acrylate having from 1 to 18 carbon atoms in the alkyl radical.

2,769,836
**PROCESS FOR PREPARING OIL-SOLUBLE SULFONIC ACIDS**
Everett E. Gilbert, Flushing, and Benjamin Veliković, Albertson, N. Y., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application March 18, 1953, Serial No. 343,228
9 Claims. (Cl. 260—504)

1. A process for preparing oil-soluble sulfonic acids which comprises contacting with sulfur trioxide gas, in a single step, at temperatures between about 10° C. and about 70° C., an aromatic petroleum extract having a Saybolt Universal viscosity at 210° F. of at least about 100 seconds, in the presence of at least about 25% by weight of an inert liquid selected from the group consisting of chloroalkanes, chlorofluoroalkanes, chlorinated mononuclear and binuclear aromatic hydrocarbons, and nitromononuclear aromatic hydrocarbons whereby a sulfonation product free from troublesome sludge is obtained.

2,769,837
**3,5-DIISOPROPYLSALICYLAMIDE**
Melville Sahyun and John A. Faust, Santa Barbara, Calif., assignors to Sahyun Laboratories, Santa Barbara, Calif., a corporation of California
No Drawing. Application December 8, 1952, Serial No. 324,832
1 Claim. (Cl. 260—559)

3,5-diisopropylsalicylamide.

2,769,838
**POLYGLYCOL ETHER ACID ANILIDES**
Max Matter, Werk, near Bern, Alberto Rossi, Bern, and Hans von Sprecher, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.
No Drawing. Application November 16, 1954, Serial No. 469,296
Claims priority, application Switzerland November 20, 1953
4 Claims. (Cl. 260—562)

4. Poly-1:2-glycol ethers of the formula:

$$R-(OCH_2CH_2)_n-O-CH_2-CO-N-Z$$
$$\qquad\qquad\qquad\qquad\qquad\qquad\quad |$$
$$\qquad\qquad\qquad\qquad\qquad\qquad\quad Y$$

wherein $n$ represents a whole number from 2 to 20 inclusive, R represents a member selected from the group consisting of hydrogen and alkyl radicals containing at most 7 carbon atoms, Y represents a member of the group consisting of hydrogen and an alkyl radical containing at most 7 carbon atoms, and Z represents a member selected from the group consisting of 2,6-dimethylphenyl and 2,6-dimethyl-4-lower-alkoxyphenyl radicals.

2,769,839
**PREPARATION OF MERCAPTO AMINES**
John K. Fiscke, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application June 23, 1950, Serial No. 170,039
5 Claims. (Cl. 260—570.5)

1. The process of preparing compounds having the general formula

$$R-S-\underset{\displaystyle Z}{\underset{|}{C}}HCHNH_2$$

in which R is a member of the group consisting of alkyl, aryl, aralkyl and alicyclic radicals of from 1 to 18 carbon atoms, and Z is a member of the group consisting of hydrogen and the methyl radical which comprises treating with ammonia, mercapto halides having the general formula

$$R-S-\underset{\displaystyle Z}{\underset{|}{C}}HCHX$$

in which R is a member of the group consisting of alkyl, aryl, aralkyl and alicyclic radicals of from 1 to 18 carbon atoms, Z is a member of the group consisting of hydrogen and the methyl radical and X is a member of the group consisting of chlorine and bromine at superatmospheric pressure of up to 4000 pounds per square inch and at temperatures of from 60° C. to 150° C.

2,769,840
**COMPLEXES OF HIGHER ALKANOL AMINES AND BORON TRIFLUORIDE**
Frank J. Sowa, Cranford, N. J.
No Drawing. Application December 29, 1951, Serial No. 264,279
18 Claims. (Cl. 260—584)

1. A compound having the composition indicated by the formula

$$\left(\begin{array}{l} R^1 \\ R^2\!-\!N \\ R^3 \end{array}\right)_n \cdot BF_3$$

wherein $R^1$ is a monohydroxy alkyl radical containing at least two carbon atoms, $R^2$ is selected from the alkyl and alkenyl radicals having from 10 to 18 carbon atoms in a straight chain with a terminal carbon atom of the chain connected to the nitrogen atom of the amine, $R^3$ is selected from the group consisting of hydrogen, monohydroxy alkyl radicals containing at least two carbon atoms and alkyl radicals, and $n$ is a whole number from 1 to 3.

2,769,841
**PRODUCTION OF ETHYLENE POLYAMINES**
Stanley W. Dylewski, Harvey G. Dubois, and Glenn W. Warren, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application December 23, 1953, Serial No. 400,102
5 Claims. (Cl. 260—585)

1. In a process for making an ethylene polyamine wherein a liquid mixture of ethylene dichloride and an aqueous solution of ammonia is reacted by heating the same to a reaction temperature under pressure, the step which consists in feeding to the reaction at least 0.05 mole of diethylenetriamine per mole of the ethylene dichloride starting material.

2,769,842
**PREPARATION OF DYPNONE**
Alfred R. Bader, Milwaukee, Wis., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
No Drawing. Application September 21, 1953, Serial No. 381,510
4 Claims. (Cl. 260—590)

1. The method which comprises bringing together acetophenone and polyphosphoric acid, thereby to obtain dypnone.

2,769,843
**TRICYCLODECANE-(5,2,1,$0^{2,6}$)-TRIOL-(3,4(8—9))**
Hans Feichtinger, Duisburg-Hoerk, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany
No Drawing. Application December 30, 1953, Serial No. 401,423
Claims priority, application Germany January 17, 1953
9 Claims. (Cl. 260—617)

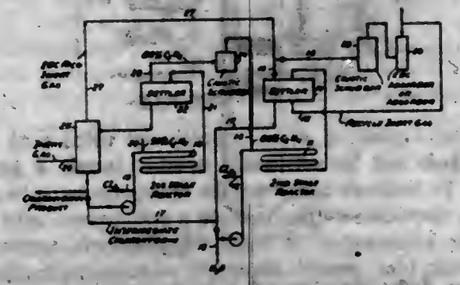
1. As a new chemical compound tricyclodecane-(5,2,1,$0^{2,6}$)-triol-(3,4,(8—9)).



2,769,844
**PROCESS FOR PREPARATION OF PARA-ALPHA-CUMYL PHENOL**
George G. Joris, Madison, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application June 5, 1952, Serial No. 291,979
1 Claim. (Cl. 260—619)

Process for production of para-alpha-alpha-dimethyl benzyl phenol which comprises forming a liquid reaction mixture by introducing gradually, into a phenol-containing reaction zone, dimethyl phenyl carbinol and cumene hydroperoxide, said starting materials being diluted by not more than about 9-fold their weight of cumene, with cumene hydroperoxide therein being in about 1:1 mol ratio with dimethyl phenyl carbinol therein; maintaining in said reaction mixture mol ratios of input cumene hydroperoxide together with phenol present in the reaction zone:input dimethyl phenyl carbinol in the range between about 2:1 and about 3:1, employing as catalyst sulfuric acid dissolved in the reaction mixtures in amounts above about 0.01% and below about 2% by weight; maintaining temperatures in the range between about 120° C. and about 150° C.; and recovering para-alpha, alpha-dimethyl benzyl phenol.

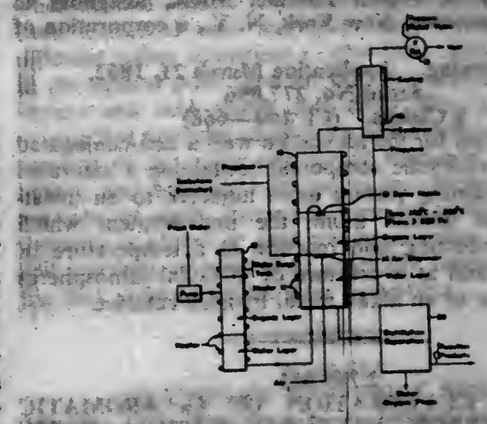
2,769,845
**PRODUCTION OF OLEFIN CHLOROHYDRINS**
Rudolph Kunz, Niagara Falls, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application April 16, 1953, Serial No. 349,177
4 Claims. (Cl. 260—634)



1. In the production of olefin chlorohydrins by chlorohydrination of an olefin rich gas with dilute aqueous hypochlorous acid formed from the reaction of chlorine and water, the method which comprises conducting the chlorohydrination reaction in a plurality of serially connected gas-liquid reaction stages wherein the olefin rich gas and liquid flow countercurrently between the stages, separating gas and reaction liquor between stages and scrubbing the reaction liquor with an inert gas stream to remove ethylene dichloride.

2,769,846
**PRODUCTION OF CHEMICALS**
Albert Di Nardo, Jamaica Plain, and James H. Gardner and Nat C. Robertson, Cambridge, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application May 4, 1953, Serial No. 352,696
4 Claims. (Cl. 260—635)

1. A method of producing oxygenated hydrocarbons which comprises the steps of passing an elemental-oxygen-containing gas upwardly through a liquid hydrocarbon which can be oxidized to water-soluble oxygenated products, maintaining said liquid hydrocarbon under pressure and at a temperature above about 140° C. while said gas passes therethrough to oxidize said liquid hydrocarbon to primary oxidation products, passing water droplets downwardly through the major portion of said liquid hydrocarbon to extract the water-soluble oxidation products therefrom, and collecting the water-soluble oxidation products as an aqueous phase below the point of introduction of the elemental-oxygen-containing gas.



2,769,847
**CATALYSTS FOR THE HYDRATION OF OLEFINES AND DEHYDRATION OF ALCOHOLS**
Ralph Leslie Robinson, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain
No Drawing. Application September 22, 1952, Serial No. 310,923
Claims priority, application Great Britain October 3, 1951
9 Claims. (Cl. 260—641)

1. A catalyst suitable for the hydration of olefines, the catalyst consisting essentially of an intimate admixture of titania and ferric oxide, the proportion of ferric oxide being between 1 and 90 moles per 100 moles of admixture.

2,769,848
**SYNTHESIS OF 3,3-DIMETHYL-1,5-DICHLOROPENTANE**
Arthur William Anderson, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application December 10, 1954, Serial No. 474,599
3 Claims. (Cl. 260—658)

2. A process for preparing 3,3-dimethyl-1,5-dichloropentane which comprises reacting ethylene with 2,2-dichloropropane in the presence of anhydrous aluminum chloride at a temperature within the range of —40° C. to +10° C. at a pressure of from 1 to 800 pounds per square inch whereby 3,3-dimethyl-1,5-dichloropentane is produced and thereafter separating the said 3,3-dimethyl-1,5-dichloropentane from the resulting mixture.

2,769,849
**PRODUCTION OF ALKYLCYCLOPARAFFINS**
Louis Schmerling, Riverside, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware
No Drawing. Application October 26, 1950, Serial No. 192,370
8 Claims. (Cl. 260—666)

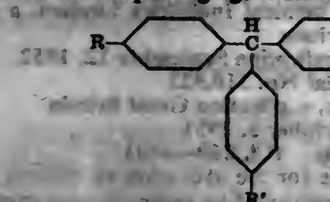
1. A process for producing alkylcycloparaffins which comprises forming a mixture consisting of ethylene, a cycloparaffin and an organic peroxide catalyst, reacting the ethylene with the cycloparaffin by heating said mixture at a pressure above about 15 atmospheres to a temperature at least as high as the initial decomposition temperature of said catalyst, and recovering the resultant ethylene-cycloparaffin reaction product.

2,769,850
ALKYLATION REACTIONS
Rex D. Closson, Detroit, Alfred J. Kolka, Birmingham, and Waldo E. Ligett, Pontiac, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application March 21, 1952, Serial No. 277,896
8 Claims. (Cl. 260—668)

1. In a process for the alkylation with a non-conjugated olefin of a carbocyclic compound containing a saturated hydrogen-containing carbon atom adjacent to an unsaturated nuclear carbon atom, the improvement which comprises conducting said reaction at a temperature of 200–375° C. and at a pressure of 20–3000 atmospheres in the presence of an alkali metal hydride catalyst.

2,769,851
SELECTIVE CLATHRATION OF $C_8$ AROMATIC HYDROCARBON MIXTURES WITH A PARA-AMINO SUBSTITUTED TRIPHENYLMETHANE
William D. Schaeffer, Berkeley, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application February 18, 1955, Serial No. 489,276
7 Claims. (Cl. 260—674)

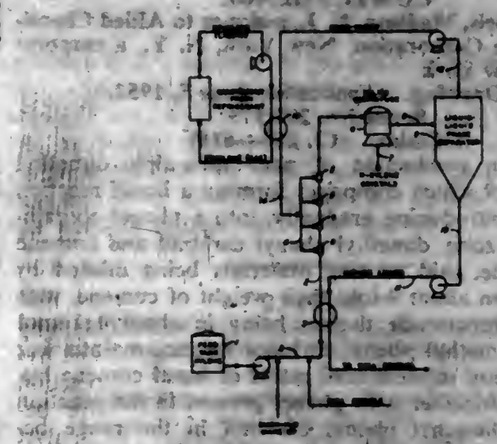
1. A process for resolving a mixture of C–8 aromatic hydrocarbons which comprises contacting said mixture with a solid complexing agent having the general formula:



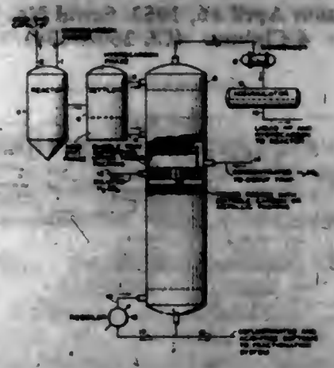

wherein R and R' are selected from the group consisting of —H, —$NH_2$ and —OH, whereby one hydrocarbon in said mixture is selectively absorbed in preference to another, separating a solid complex from said contacting step, and recovering a raffinate hydrocarbon phase relatively enriched in the less readily absorbable components of said mixture.

2,769,852
SEPARATION OF XYLENE ISOMERS BY FRACTIONAL CRYSTALLIZATION
Marvin H. Paulson, El Cerrito, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application April 1, 1953, Serial No. 346,159
6 Claims. (Cl. 260—674)

1. In a process for recovering xylenes from hydrocarbon liquids containing xylenes by fractional crystallization, the improved method which comprises cooling a mixture of methanol and water, containing 2 to 6 parts of water to 10 parts of methanol to a temperature below —100° F. by indirect heat exchange in a cooling zone, directly contacting sufficient cooled methanol-water mixture with said hydrocarbon liquid in a crystallization zone to cause formation of solid xylene crystals, separating a solid xylene phase from a mother liquor phase, settling the mother liquor phase to separate a hydrocarbon phase and a methanol-water phase, and returning the methanol-water phase to the cooling zone.



2,769,853
CATALYTIC DEFLUORINATION PROCESS
George Riley Hattick, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application September 21, 1951, Serial No. 247,735
12 Claims. (Cl. 260—653.4)

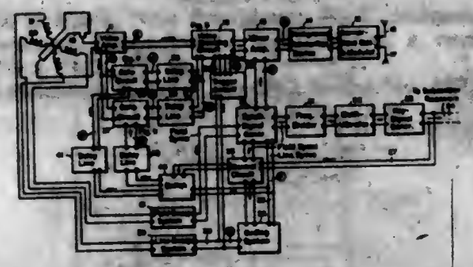


1. In the defluorination of organic materials containing combined fluorine and hydrocarbons which comprises contacting said materials with a solid defluorinating catalyst selected from the group consisting of bauxite, carbon, and metallic packing at a temperature in the range of 150 to 300° F., and at a pressure in the range of atmospheric to 500 p. s. i., the improvement which comprises introducing to said catalyst, hydrogen fluoride resulting from a hydrocarbon conversion operation in which said hydrogen fluoride has been used as a hydrocarbon conversion catalyst and as a result of which use said hydrogen fluoride now contains hydrogen fluoride soluble oils and water as the sole step of separating hydrogen fluoride from hydrogen fluoride-soluble oils.

# ELECTRICAL

2,769,854
SUBSCRIPTION TELEVISION SYSTEM
Jack E. Bridges, Chicago, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application December 8, 1951, Serial No. 260,641
5 Claims. (Cl. 178—5.1)

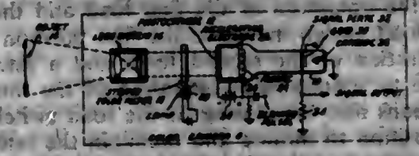
1. A subscription television transmitter comprising: a source of video signals representing image intelligence during recurrent line-trace intervals; a source of synchronizing signals during recurrent retrace intervals interposed between said trace intervals; coding means coupled to at least one of said sources for altering the time relation between said video and synchronizing signals in accordance with a predetermined coding schedule; a mixer circuit, coupled to said sources, for producing a television signal including said video and synchronizing signals; a blanking circuit responsive to an applied signal for suppressing said video signals; means, comprising means for supplying a signal to said blanking circuit during a selected portion of each of said line-trace intervals to effect actuation of said blanking circuit, for equalizing the video content represented by said video signals during said line-trace intervals irrespective of the time relation between said video and synchronizing signals; means for establishing said television signal at a predetermined signal level during said selected portion



of each of said line-trace intervals; at least one sampling circuit for selecting a portion of said video signals during each of said line-trace intervals; and means, comprising means coupled between said sampling circuit and said signal level establishing means, for superimposing said selected portions of said video signals on said signal level.



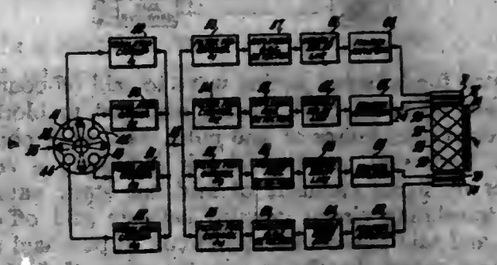
2,769,855
COLOR TELEVISION CAMERA TUBE WITH INDEXING STRUCTURE
Wilson P. Boodeyd, Huntingdon Valley, Abington Township, and Edgar M. Creamer, Jr., Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application December 29, 1950, Serial No. 203,248
6 Claims. (Cl. 178—5.4)



1. In a color television camera, a camera tube for producing a signal voltage indicative of the magnitudes of the color components of the color content of an object, said tube comprising a photosensitive electrode system and an output electrode arranged in cooperative relationship to said photosensitive electrode system, said photosensitive electrode system including an image surface to be scanned in successive line scannings, each line section of said surface comprising successive elemental areas each including a plurality of first portions and at least one second portion, means for directing light from said object onto said photosensitive electrode system, means for rendering each of said first portions responsive to light of a different color derived from said object than the other first portions to cause such portions to assume respectively charges of different intensities not exceeding a predetermined maximum value of intensity, said color responsive portions occuring in the same sequence in the successive elemental areas, means for causing said second portion of each elemental area to assume a charge of intensity in excess of said maximum value independently of light derived from said object, the second portions occupying the same position in each elemental area, scanning means for analyzing the charge intensities of the successive elemental areas in each line section of said surface, and means comprising said output electrode for deriving from the analyzed consecutive elemental areas a signal having a recurring time-spaced first components and having time-spaced second components occurring between said first components, said first components having amplitude values not exceeding a given maximum value and determined by the charge intensities of said first portions of said elemental areas, and said second components having an amplitude greater than the amplitude values of said first components and determined by the charge intensity of said second portions of said elemental areas.

3. A color television camera according to claim 1, wherein said means for rendering said first portions of each elemental area responsive respectively to light of different colors compriaes a color filter assembly arranged in the optical path between said photosensitive electrode system and said object, said color filter assembly comprising first portions adapted to derive different color components of the color content of elemental areas of said object, and wherein said means for causing said second portions of each elemental area to assume charges of intensity in excess of said maximum value comprises second portions of said filter assembly interposed between the first portions of the filter assembly.

2,769,856
MULTIPLEX FACSIMILE SYSTEM
Maurice Artzt, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 13, 1950, Serial No. 161,887
4 Claims. (Cl. 178—6.6)

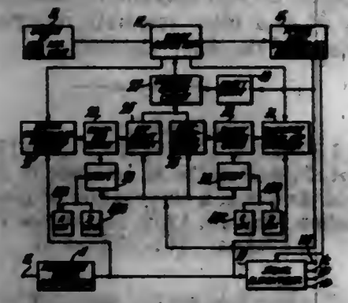


1. A multiplex facsimile system comprising a scanner having a copy holder and a plurality of spaced facsimile signal pick-up devices cooperating with said copy holder, a plurality of modulators, one for each signal pick-up device, the output of each modulator being a modulated carrier for transmission over a channel of a communication medium, each modulated carrier having a different frequency, intercoupling means to combine the outputs of said modulators for transmission over a single communication link, a filter for each channel, each filter selecting a signal modulated carrier, an amplifier connected to each filter, a detector connected to each channel amplifier, a variable delay line connected to each detector to compensate for mismatching in said system resulting from different delays in the several channels, a printer amplifier connected to each variable delay line, a recorder having a separate recording element for each channel, said elements being spaced in accordance with the spacing of said pick-up devices, means for connecting each element to its respective printer amplifier, and a common recording element cooperating with said separate recording elements.

2,769,857
AUTOMATIC PHASING OF SYNCHRONOUS MULTIPLEX TELEGRAPH SYSTEMS
Anthony Lignori, Hackensack, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application February 1, 1954, Serial No. 407,198
20 Claims. (Cl. 178—50)

1. An electronic circuit arrangement for automatically phasing a received polystatic aggregate signal wave, comprising individual signal elements expressing a plurality of intelligence characters wherein each character is constituted by a predetermined number of signal elements and there is a prearranged ratio of signal elements of at least one static nature to the number of signal elements of the character as a whole and wherein said ratio of at least one of said characters is different than said ratio of the other characters, with a fundamental timing wave locally generated in a system of the type including a phase ad-

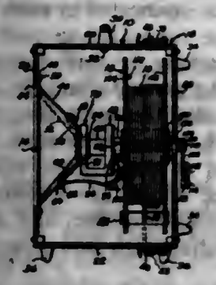
justing circuit to which a standard frequency wave is applied and from which said locally generated wave is obtained, including a signal repeating circuit to which said aggregate signal is applied to assign the signal elements of each character into an individual channel, a counting circuit coupled to said repeating circuit to count the signal elements of one static nature of the character assigned to the counting circuit under consideration and to produce an output indicating the count, an off-count circuit coupled to said counting circuit, means to apply a phase correcting pulse wave harmonically related to said locally



generated fundamental timing wave to said off-count circuit, said off-count circuit being arranged to block the phase correcting pulses of said pulse wave in response to output from said counting circuit indicating a correct number of signal elements of said one static nature, a pulse translating circuit coupled between said off-count circuit and said phase adjusting circuit to pass said phase correcting pulses, thereby to vary the phase of the locally generated timing wave with respect to the standard frequency wave and into a predetermined phase relationship with said received wave.

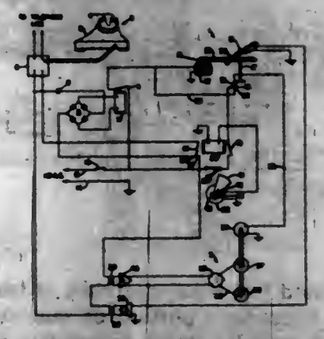
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2,769,858
PORTABLE REAR SEAT SPEAKER
Alvin H. Stoffen, Detroit, Mich.
Application March 29, 1955, Serial No. 497,657
4 Claims. (Cl. 179—1)



1. A portable rear seat speaker for use in automobiles comprising a housing, means on said housing adapted to releaseably mount said housing on a portion of an automobile at the rear of a seat, a generally conical speaker, electric motor means operable to drive said speaker, support means mounting said motor means generally coaxially with and in operative relation to said speaker, a reel, bearing means on said support means and said housing rotatably supporting said reel, an electrical conductor wound on said reel, means electrically connecting one end of said conductor to said motor means, the other end of said conductor extending outwardly of said housing and being adapted to be connected to an amplifier of the type used in automobile radio receivers, and means operable to turn said reel for paying out said conductor and reeling said conductor in so that said speaker can be operated inside or outside of an automobile with which it is adapted to be used.

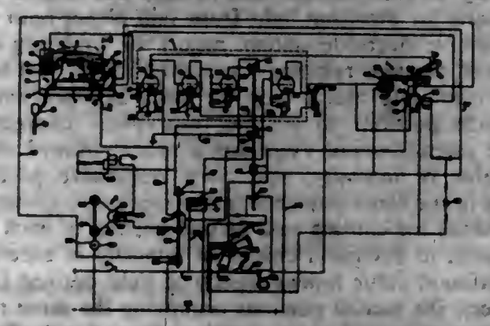
2,769,859
POWER SUPPLY SWITCHING CIRCUIT
Joseph J. Zimmermann, Milwaukee, Wis., assignor to The Electronic Secretary, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application October 22, 1954, Serial No. 463,850
7 Claims. (Cl. 179—6)



1. In a power supply circuit for sequentially supplying power to a first load and a second load, an intermittent switch means connected in series with the first load and a source of power to periodically energize the first load, a load switch means having a first position connected to the second load and a second position connected to the first load to supply power to the respective loads, a latch switch connected between the load switch means and the source of power to maintain the load switch normally disconnected from the source of power, means responsive to the operation of the first load to move the load switch means from said first position to said second position and maintain the load switch in the second position for the duration of the first load operation, timing means to discontinue the operation of the first load and thereby return the load switch means to the first position to effect an energization of the second load, and a latch means responsive to simultaneous operation of the intermittent switch means and the closing of the load switch to said second position to initiate and maintain the latch switch in an actuated position to effect the connection of the load switch to the source of power.

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2,769,860
TIMING AND HOLDING APPARATUS
Joseph J. Zimmermann, Milwaukee, Wis., assignor to The Electronic Secretary, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application October 22, 1954, Serial No. 463,977
10 Claims. (Cl. 179—6)

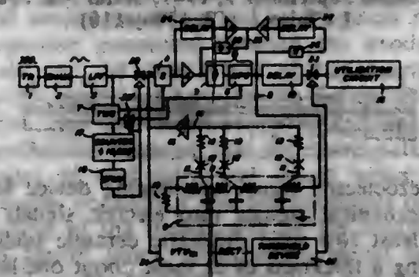


1. In a timing and holding control apparatus, a driven member, means biasing said driven member to an initial position, an alternating current motor, a source of alternating current connected in an energization circuit with said motor, a magnetic clutch connecting said motor and said driven member to effect movement of said driven member against said biasing means, said magnetic clutch being energized by a current flow in said motor, a direct current source connected in an energization circuit with said motor, and a timer switch adapted to disconnect said alternating current from said motor and to connect said direct current source to said motor after a predetermined period of operation of the motor and thereby hold said driven member in position against said biasing means.



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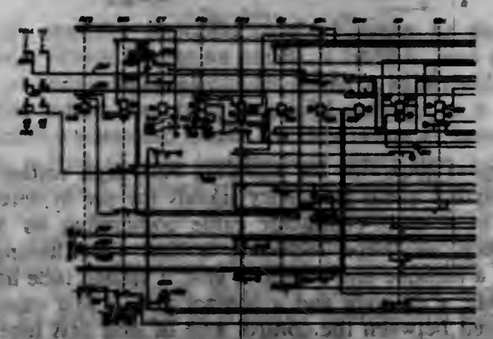
2,769,861
REDUCTION OF INTERFERENCE IN PULSE RECEPTION
Harold S. Black, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, a corporation of New York
Application October 21, 1953, Serial No. 387,485
20 Claims. (Cl. 179—15.6)



1. In combination with a source of a train of pulses which are quantized in amplitude and a transmission medium through which they are transmitted, said medium having a distorting transmission frequency characteristic such as to prolong the pulse sent in any pulse interval into adjacent pulse intervals and thus to cause interference between neighboring ones of said pulses, means for reducing said interpulse interference which comprises means for regenerating pulses in amplitude and in time of occurrence, means for deriving from said regenerated pulses a medium-distortion-correction wave, said correction wave deriving means comprising an elongated propagation device having an input terminal, means for applying each said regenerated pulse to said input terminal, a plurality of output terminals spaced along its length, means for adjusting the relative amplitudes of signals derived from said several output terminals, means for combining said amplitude-adjusted signals to provide said correction wave, means for differentially combining said correction wave with said incoming train to provide a difference signal, and means for applying said difference signal to said regenerating means.

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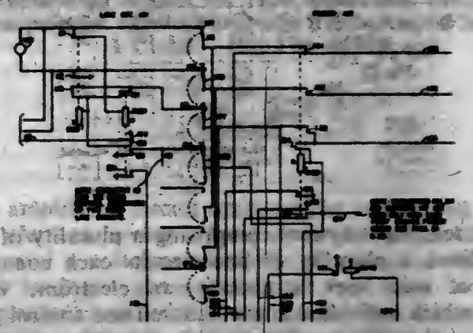
2,769,862
CONVERTIBLE INTEROFFICE TRUNK
James D. Canfield, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application February 6, 1953, Serial No. 335,445
10 Claims. (Cl. 179—18)



1. In a telecommunication system, a trunk line having a termination circuit at each end thereof, digit discrimination means in each said termination circuit for altering the circuit arrangement thereof, said digit discrimination means in said termination circuits being independent of each other but concurrently responsive to trains of digital impulses transmitted over said trunk line, said digit discrimination means responding in one manner to a single train of digital impulses and responding in another manner to any additional number of trains of digital impulses.

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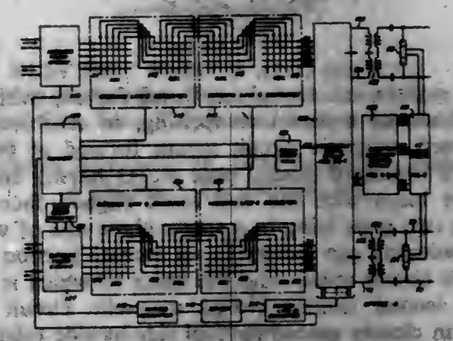
2,769,863
ROTARY FINDER WITH GRADED MULTIPLE
Kenneth W. Graybill, Elmhurst, and Clarence E. Lemax, Chicago, Ill., assignors to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application March 27, 1953, Serial No. 345,628
28 Claims. (Cl. 179—18)



1. In a telephone system having a plurality of allotters of the non-homing type, a plurality of groups of finders available to each allotter in a definite order of priority, certain finders accessible to one allotter being multipled with finders available to other allotters, means in said one allotter for selecting an idle one of the finders accessible thereto, a calling line accessible to said one finder, means whereby said first means is operated in response to a call initiated over said calling line, means in each allotter for preventing the selection of all finders in a group available thereto other than that group having first priority, and means whereby said last means is operated and effective if a finder in a group of preceding priority and all finders multipled therewith are idle.

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2,769,864
TIME AND TRAFFIC CONTROLLED TRUNKING SYSTEM
Charles O. Parks, East Norwalk, Conn., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 8, 1954, Serial No. 402,963
9 Claims. (Cl. 179—18)



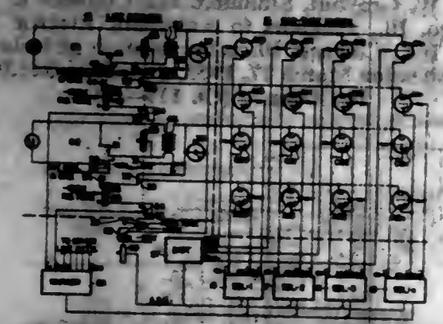
1. In a communication system comprising a group of interoffice trunks, each trunk adapted for use on a call in either direction, a trunk circuit at each end of said trunk arranged for use either as an incoming trunk circuit or as an outgoing trunk circuit, relay means in each trunk circuit for marking the trunk circuit unavailable for use as an outgoing trunk circuit, means in each office determining at intervals the number of trunk circuits in the office to be marked unavailable for use as outgoing trunk circuits, and means in each office for selectively operating or releasing said relay means of one or more trunk circuits in succession to effect the marking of a different number of trunk circuits as unavailable for use as outgoing trunk circuits.

2,769,865

## ELECTRONIC TELEPHONE SYSTEMS

Alfred H. Faulkner, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware

Application February 20, 1951, Serial No. 211,950
40 Claims. (Cl. 179—18)



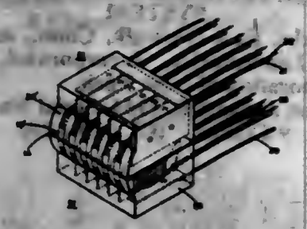
37. A telephone system comprising a plurality of subscriber lines, a plurality of line circuits each connected to one of said lines, a plurality of electronic valves through which individual conversational and control paths are extended on the conditioning of said valves, a number storage device, means responsive to the conditioning of one of said valves for connecting one of said line circuits to said device through said valve, means responsive to the transmission of impulses representing a number over the subscriber line connected to said line circuit for causing said storage device to store said number, and means thereafter effective for completing a conversational path from said one line circuit through said one valve to the line circuit of a called line.

2,769,866

## MAGNETIC TRANSDUCER HEAD

Otto Kornei, Cleveland Heights, Ohio, assignor, by mesne assignments, to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio

Application June 8, 1951, Serial No. 230,455
7 Claims. (Cl. 179—100.2)



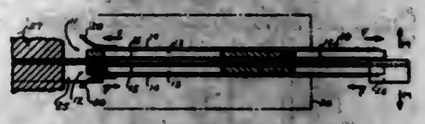
4. A multi-track transducer head for use with a flat strip of record material comprising, in combination: a first closed magnetic circuit means formed of two substantially similar C-shaped pole pieces having end faces and side faces with the end faces aligned face-to-face defining two gaps lying in a single plane one of which is the transducing gap located in an arcuate portion of said magnetic circuit means and the other of which is a back gap, a second similar closed magnetic circuit means aligned in closely spaced parallel side-by-side relationship to said first closed magnetic circuit means with the transducing and the back gaps of both said magnetic circuit means lying in the same plane, first and second coil means respectively about said first and second closed magnetic circuit means, and hardened casting material substantially entirely surrounding said coil means and said closed magnetic circuit means and also lying within the space defined by said closed magnetic circuit means to prevent movement of any of said C-shaped pole pieces with respect to said other pole pieces thereby permanently securing said two closed magnetic circuit means in closely spaced parallel side-by-side relationship to each other, said transducing gaps of said first and second closed magnetic circuit means and said arcuate portions thereof extending to an arcuate surface of said hardened casting material together forming an unbroken arcuate surface for supporting said flat strip of record material.

2,769,867

## DIELECTROSTRICTIVE SIGNAL AND ENERGY TRANSDUCERS

Joseph W. Crownover, Hartsdale, and Helmuth W. Koren, New York, N. Y., assignors to Sonotone Corporation, Elmsford, N. Y., a corporation of New York

Application September 9, 1947, Serial No. 772,934
1 Claim. (Cl. 179—110)



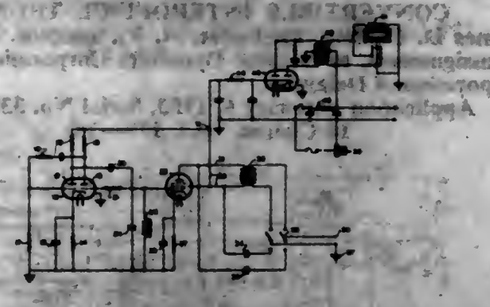
In a piezoelectric signal transducing device for transducing mechanical signals into electric signals or vice versa; at least two solid dielectric ceramic bodies, each body having a thickness of at most about one-hundredth of an inch and being composed essentially of ceramically joined titanate particles consisting predominantly of barium titanate, two metallic surface electrodes fused at elevated temperature to opposite surfaces of each body, a strong flexible elastic sheet metal member having opposite surfaces facing body surfaces of said two bodies, and means including a junction stratum of solidified solder having a melting temperature above normal temperature uniting the facing surfaces of said metal member to the facing surfaces of said two bodies, and causing at least the adjacent surface strata of said two bodies to be maintained by said metal member under compressive strain, said two bodies being electrically unidirectionally permanently polarized to near piezoelectric saturation, said two bodies being polarized in opposite directions for causing said two bodies to conjointly transduce in aiding relation upon deflection thereof.

2,769,868

## LINE FAULT DETECTOR

Cecil L. Brownlow, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application February 18, 1952, Serial No. 272,034
1 Claim. (Cl. 179—171)



A signal generator for privading both high voltage and high current audio frequency signals for use in detecting faults in a multi-conductor cable comprising an audio frequency oscillator including a first tube having an anode, a cathode and a control grid, a second tube having an anode, a cathode and a control grid, a first capacitor connected between the control grid of said first tube and a point of reference potential, a first resistor connected in parallel with said first capacitor, a second resistor connected between the cathode of said first tube and said reference potential, a third resistor connected between the cathode of said second tube and said reference potential, a source of potential which is positive with respect to said reference potential, a fourth resistor connected between the anode of said first tube and said source of positive potential, a fifth resistor connected between the anode of said second tube and said source of positive potential, a sixth resistor connected between the control grid of said second tube and said reference potential, a second capacitor and a seventh resistor connected in series between the anode of said first tube and the control grid of said second tube, and an eighth resistor and a third capacitor connected in series between the anode of said second tube and the control grid of said first tube; an amplifier comprising third and fourth tubes each having an anode, a cathode and a control grid, means connecting the control grid of said third tube to the junction between said second capacitor and said seventh resistor, a fourth capacitor connected between the anode of said second tube and the control grid of said fourth tube, a ninth resistor connected between the control grid of said fourth tube and said reference potential, and a tenth resistor connected between said reference potential and the cathodes of said third and fourth tubes; a transformer; means connecting the end terminals of the primary winding of the transformer to the anodes of said third and fourth tubes, respectively; means connecting a center tap on the primary winding of said transformer to said source of positive potential; a fifth capacitor having one terminal connected to the anode of said third tube; a sixth capacitor having one terminal connected to the anode of said fourth tube; first and second output terminals connected to respective end terminals of the secondary winding of said transformer; third and fourth output terminals connected to corresponding second terminals of said fifth and sixth capacitors, respectively; first and second switches adapted to engage said first and second terminals, respectively, in a first position and to engage said third and fourth terminals, respectively, in a second position; a fifth output terminal connected to said first switch; and a sixth output terminal connected to said second switch.

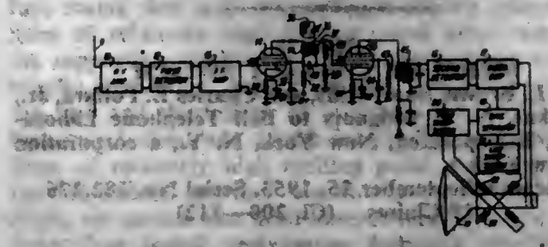


2,769,869

## NEUTRALIZED AMPLIFIER

Lawrence J. Mattingly, Lombard, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application December 2, 1954, Serial No. 472,599
4 Claims. (Cl. 179—171)



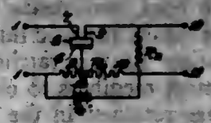
1. An amplifier including in combination an electron discharge device having an anode, a cathode, and a plurality of intermediate electrodes between said anode and cathode; means for connecting said cathode to a point of reference potential; means for impressing an input signal on a first of said intermediate electrodes; a transformer having a primary winding connected between said anode and a second of said intermediate electrodes and further having a secondary winding; means connecting said second intermediate electrode to the positive terminal of a unidirectional potential source; first capacitor means connected from said second intermediate electrode to said point of reference potential for neutralizing and by-passing purposes; a load circuit coupled between one side of said secondary winding and said point of reference potential; impedance means connecting the other side of said secondary winding to said point of reference potential; and second capacitor means coupling said other side of said secondary winding to said second intermediate electrode so that the output signal from the amplifier which tends to produce feedback appears effectively across said primary winding, and said first capacitor means having a selected value so as to neutralize the effect of such output signal.

2,769,870

## TRANSISTOR AMPLIFIER CIRCUIT

Johannes Meyer Claver, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application August 19, 1950, Serial No. 180,390
Claims priority, application Netherlands August 30, 1949
1 Claim. (Cl. 179—171)



An amplifying circuit arrangement comprising a transistor element having a base electrode, an emitter electrode, and a collector electrode, a source of signal potential having a given impedance, an input circuit of said transistor connected between said base electrode and said emitter electrode, said input circuit being connected to said source, an output circuit connected between said collector and said base electrode, said output circuit having an output impedance including a dominant element $R_{22}$ having a value which is equal to $b(R_{21}-R_{12})$ in which

$$R_{21}=\frac{e_2}{i_1}$$

when $i_2=0$ and

$$R_{22}=\frac{e_2}{i_2}$$

when $i_1=0$, $e_2$ being the variation in voltage between the collector and the base electrode, $i_1$ being the variation in current of the input circuit, $i_2$ being the variation in current in the output circuit, and $b$ being a constant having a value between 0.5 and 1.2, a base impedance $R_0$ having two series-connected portions connected at their junction to said base electrode and being common to both the input and output circuits, said base impedance having a value at which the input impedance of said arrangement matches the impedance of said source, and a single source of potential for said transistor connected in parallel with said entire base impedance.

2,769,871

## ELECTRIC SWITCH AND SOCKET

Rudolf Popp, Valparaiso, Ind., assignor to McGill Manufacturing Co., Inc., Valparaiso, Ind., a corporation of Indiana

Application November 10, 1954, Serial No. 468,057
4 Claims. (Cl. 200—51.06)

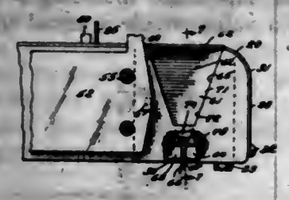


1. In a three-way electric switch and lamp socket device for supporting and energizing a dual filament lamp bulb which has contacts on the base thereof, and which socket device includes shell socket means for retaining and electrically contacting a lamp bulb base, a pair of spaced insulating plates secured to the socket means, and rotatable ratchet means disposed between the insulating plates and including actuation and electrical contact cogs therewith, the improvement in such a device comprising the combination of first, second and third electrically conductive separating members disposed in spaced re-

lation between the insulating plates, slidable actuation means supported by the insulating plates and including an arm portion retractably engageable with the actuating cog to cause rotation of the ratchet means, said first separating member having a contact portion extending centrally of and into the socket means for engaging a first contact of a lamp bulb base, a contact member associated with each separating member and engaging the electrical contact cog of the ratchet means, a connector strip disposed on one of the insulating plates and having a portion in engagement with said second separating member and a further portion extending into the socket means adjacent said contact portion for engaging a second contact of a lamp bulb base, and means to supply electrical energy to the socket means and said third separating member, whereby rotation of the ratchet means connects various of said contact members to electrify the contacts of a lamp bulb base retained in the socket means.

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2,769,872
RAIN DETECTOR ELEMENT
William J. Clark, Jeannestown, Pa.
Original application December 1, 1951, Serial No. 259,460. Divided and this application December 21, 1953, Serial No. 406,530
3 Claims. (Cl. 200—61.05)



2. In a window closer, a generally vertical forwardly inclined electrically insulating rear wall, downwardly converging V-shaped end walls engaging the rear wall and continuing in spaced relation below the bottom of the V to form a drainage opening, electrodes extending through the end wall and toward one another adjacent the bottom of the V, terminating in spaced relation near the bottom of the V, and a generally vertical downwardly extending front wall extending across between the end walls at a position slightly above the bottom of the V and leaving a truncated V-shaped opening above the front wall.

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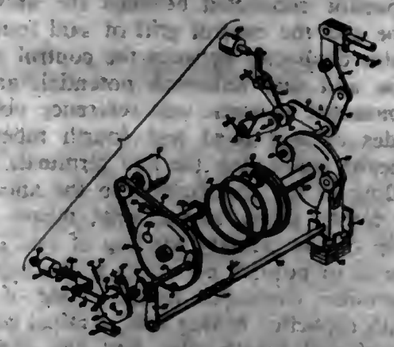
2,769,873
KEY OPERATED MULTIPLE ELECTRIC CIRCUIT SWITCH
Maurice J. Norregaard, Burbank, Calif.
Application December 6, 1952, Serial No. 324,452
12 Claims. (Cl. 200—87)



1. An electric switch comprising, in combination, a locking pin section, a pair of electrical contacts adapted for connection to an electric circuit, locking members in the locking pin section having a cooperating pair of openings arranged therein adjacent said pair of contacts, a locking pin member reciprocative longitudinally with respect to the locking members, a locking pin magnet disposed for transverse movement in the locking pin member and arranged for registration with the openings in the locking members, said magnet being normally inserted within one of said openings, and actuator means extending from one contact of said pair of contacts into the one of the pair of openings normally unoccupied by the locking pin magnet, the locking pin magnet registering with the openings being adapted upon activation by a magnetic force to be drawn into engagement with the actuator means whereby to move the latter and actuate the contacts as the locking pin member is moved.

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2,769,874
CLOSING MECHANISM FOR AN ELECTRIC CIRCUIT BREAKER
Thaliwell R. Coppeskall, Cynwyd, and Ugo R. Tognella, Philadelphia, Pa., assignors to General Electric Company, a corporation of New York
Application June 2, 1955, Serial No. 512,638
17 Claims. (Cl. 200—89)



4. In an electric circuit breaker, motive means operable to effect closing thereof, a rotatable control member having an initial position, means for initiating operation of said motive means in response to rotation of said control member from its initial position through a fraction of a revolution, said initiating means being ineffective to initiate another operation of said motive means until said control member is returned to said initial position, a selectively-operable actuating member movable out of a normal position to rotate said control member through said fraction of a revolution thereby to initiate operation of said motive means, and resetting means operable in response to said initiation for further rotating and returning said control member to its initial position, said actuating member when displaced from its normal position being arranged to block the return of said rotatable control member to its initial position.

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2,769,875
MERCURY CONTACT SWITCH
John T. L. Brown, Short Hills, and Charles E. Pollard, Jr., Hoboken, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 25, 1953, Serial No. 382,276
19 Claims. (Cl. 200—112)



1. A mercury contact switch comprising mercury wettable contacts, a capillary reservoir having constant bore capillaries, an armature mating with said contacts and providing a mercury path from said reservoir to said contacts, and a drain element for returning displaced mercury from said contacts to said reservoir upon the operation of said armature.

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2,769,876
ELECTRIC SWITCHING DEVICE
Herbert J. Mansmann, Bridgeport, Conn., and William T. Passy, Buffalo, N. Y., assignors to General Electric Company, a corporation of New York
Application September 6, 1951, Serial No. 245,334
12 Claims. (Cl. 200—113)

1. In an electric switching device for controlling an electric circuit, a stationary solid contact adapted for being electrically connected to one side of the circuit to be controlled, means mounting said stationary contact, a bimetallic element supported at one end, a movable solid contact mounted on a free portion of said bimetallic element and adapted for being electrically connected to the other side of said circuit, said movable solid contact being positioned to engage said stationary solid contact at a predetermined temperature of said bimetallic element thereby to complete said circuit, a pool of mercury spaced from said contacts, and means for wetting said contacts with mercury from said pool.



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2,769,877
TIME DELAY FUSE
Edward V. Sundt, Wilmette, Ill., assignor to Sundt Engineering Company, Des Plaines, Ill., a corporation of Illinois
Application December 24, 1954, Serial No. 477,543
10 Claims. (Cl. 200—131)



1. A time delay fuse for protecting an electric circuit comprising, an elongated supporting member formed of electrical insulating material resistant to high temperatures, a first film of relatively low melting point fuse metal carried by the supporting member intermediate the ends thereof and in intimate contact therewith, second and third films of relatively low melting point fuse metal carried by the supporting member in intimate contact therewith and in longitudinally spaced relation from each end of the first film of relatively low melting point fuse metal, first and second longitudinally spaced apart films of relatively high melting point metal carried by the supporting member and extending between and electrically connecting, respectively, the first and second and the first and third films of relatively low melting point fuse metal, third and fourth longitudinally spaced apart films of relatively high melting point metal carried by the supporting member electrically contacting, respectively, the second and third films of relatively low melting point fuse metal, and means including electrical terminals connected to the third and fourth films of relatively high melting point metal for connecting the same into the electric circuit to be protected, a sustained overload in the electric circuit causing the first of relatively low melting point fuse metal to heat to the melting point thereof for breaking the electric circuit with the rate of heating thereof being delayed by the supporting member in intimate contact therewith, and a sudden short in the electric circuit promptly heating the first, second and third films of low melting point fuse metal to their melting points for promptly breaking the electric circuit.

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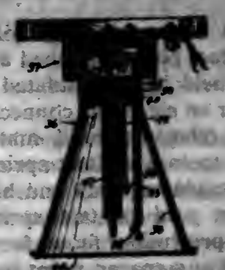
2,769,878
DEEP FAT FRYER
Carl V. Krichten, Geneva, Ill., assignor to McGraw Electric Company, Elgin, Ill., a corporation of Delaware
Application October 14, 1953, Serial No. 385,924
9 Claims. (Cl. 200—137)

7. A combined thermostat and safety switch structure for use with a heating unit adapted to be removably placed in a heating position on a support in which position the unit is located to act upon a substance to be heated, comprising base means, a pair of arms pivotally mounted on said base means, an electrical contact element fixed on each of said arms, heat responsive means for repeatedly actuating one of said arms toward and away from the other of said arms, and push button means slidably mounted on said base means and connected with said other arm, said push button means extending beyond said base means for engagement with said support when the heating unit is in said heating position so that the push button means is actuated to support said other arm in an operative position, and said push button means being operable upon removal of the heating unit from said heating position to permit said other arm to move to an inoperative position.



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2,769,879
BIMETALLIC ELECTRICAL SWITCH MECHANISM, FOR FIRE DETECTING APPARATUS
Rudolf Steiner, Tullytown Township, Bucks County, Pa.
Application September 23, 1953, Serial No. 382,019
10 Claims. (Cl. 200—138)
(Granted under Title 35, U. S. Code (1952), sec. 266)



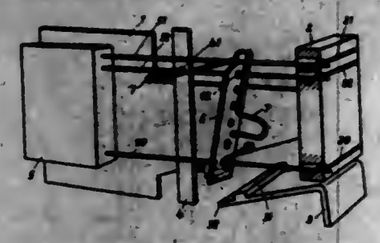
1. In a thermal-responsive device for a fire-protection system, at least two bimetallic elements flexible thermal-responsively for a given operation involving two way movement, a mount for the elements holding them for thermal-responsive flexing each alternatively in opposite directions for respective opposite movements of operation, the mount holding the several elements oriented to flex respectively oppositely for operation movements under a given temperature change, an envelope containing one only of the two bimetallic elements and comprising heat-insulating material resisting thermal response in the element to atmospheric temperature changes, the second of the two bimetallic elements being open to the atmosphere.

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2,769,880
CONTACT DEVICE FOR CROSS BAR SWITCHES
Gert Erik Olof Holmqvist, Stockholm, Bengt Erik Björkland, Hägersten, and Arne Kurt Dittrich, Enskede, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application June 14, 1955, Serial No. 515,982
Claims priority, application Sweden July 9, 1954
2 Claims. (Cl. 200—166)

1. A contact device for cross bar switches comprising a number of parallel contact springs situated in the same

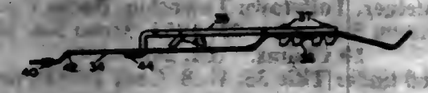
plane and rigid contacts corresponding to said contact springs, a lifting bar which is lifted by a movable actuating means and puts said contact springs in contact with the rigid contacts, and a movable selecting bar, which must be in a determined position so that the movement of the actuating means is transmitted to the lifting bar, characterized by the lifting bar being movable in relation



to the contact springs and by an elastic lever, which is rigidly fixed on the lifting bar and arranged mainly in parallel with the contact springs and the free end of which is moved by said selecting bar in a direction which is perpendicular to the contact springs and parallel with the plane of the contact springs, the lifting bar being swung in the plane of the contact springs.

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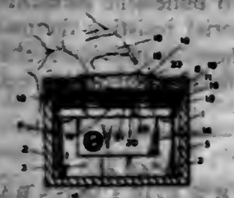
2,769,881
**CONTACT ASSEMBLY FOR ELECTROMAGNETIC RELAYS**
William D. Halles, Rochester, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application March 15, 1954, Serial No. 416,373
10 Claims. (Cl. 200—166)



1. In a contact finger assembly for relays, a contact spring having contact points attached at one end and having its other end held by an insulated block with a portion protruding for an electrical connection, a single backstop member of relatively rigid material located substantially parallel to said contact spring and having one end held by said insulated block and having its other end extending adjacent said contact spring, said backstop member having a protruding finger for hooking into said contact spring and at a spaced point having an extending detent, said detent and finger acting to hold said contact spring relatively stable.

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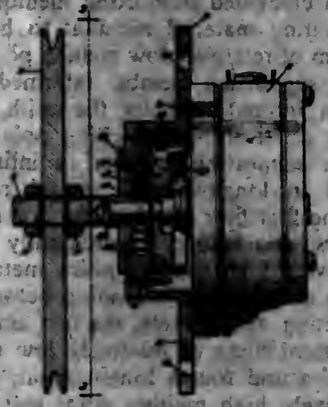
2,769,882
**ELECTRIC SWITCHES**
Maurice B. Vitus, Maurice B. Vitus, Jr., and Carlton J. Vitus, Eugene, Oreg.
Application November 10, 1952, Serial No. 319,722
1 Claim. (Cl. 200—168)



An electric switch assembly comprising a casing having an open top, a rigid cover closing said open top, a flexible diaphragm disposed between said cover and said open top and constituting a sealing gasket preventing fluid leakage into and from the interior of said casing around said cover, a switch housed within said casing underneath said diaphragm and cover, means fastening said switch to said cover, means disposed between said switch and said diaphragm and spacing said switch from said diaphragm and pressing said diaphragm into continuous engagement with the undersurface of said cover, said cover having an opening therethrough whereby a portion of the diaphragm surface is exposed to serve as a switch actuator, said switch having a push button in registry with the exposed portion of the diaphragm surface for operating said switch in response to depression of the exposed portion of said diaphragm, said spacing means maintaining the exposed portion of said diaphragm in abutting relation with the undersurface of said cover around said cover opening and defining a restricted passage between said diaphragm and said switch coincident with said cover opening and enclosing said push button, a flat rigid disc within said passage underlying the exposed surface of said diaphragm and having a downturned peripheral flange, and a coil spring disposed around said push button and seating within the periphery of said disc flange and reacting between said disc and said switch for forcing said disc into abutment with said diaphragm to assist in maintaining a fluid-tight seal between said diaphragm and said cover and inhibiting stretching of said diaphragm and accidental actuation of said push button.

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2,769,883
**SPRING-LOADED ROTARY TYPE TRANSDUCER**
Francis M. Eckert, Arlington, Richard J. MacDonnell, Dallas, and Paul H. Villars, Grand Prairie, Tex., assignors to Chance Vought Aircraft, Incorporated, Dallas, Tex., a corporation of Delaware
Application October 14, 1954, Serial No. 462,301
10 Claims. (Cl. 201—48)



1. A convertible spring-loaded rotary type electrical position transmitter for receiving rotary motion from a movable element and transmitting it in the form of an electrical signal to an oscillograph comprising, a potentiometer adapted to contain a wiper arm, a rotatable shaft means secured in said potentiometer for connection to the wiper arm and rotatable therewith, said potentiometer supported by a housing means, said housing means having a large opening therein, said shaft protruding through said large opening, removable cooperating stop means internally of said housing means and mounted on both of said housing means and said shaft means for limiting the amount of rotation of said shaft relative to said potentiometer to substantially one turn whereby said stop means is easily removable for converting the single-turn transmitter to a multi-turn transmitter, and a flat spiral spring in said opening around said shaft, one end of said spring secured to said shaft and the other end of said spring secured to the edge of said large opening in the housing whereby the potentiometer wiper is always biased towards a constant and fixed point of origin, said flat spiral spring maintaining a uniform and constant torque throughout the range of operation of said potentiometer.



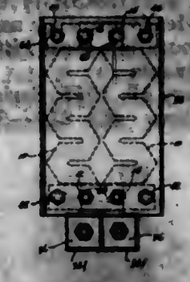
2,769,884
**BOLOMETER**
Maxie G. Jacobson, Penn Township, Allegheny County, Pa., James C. Gillett, Columbus, Ohio, and Frank J. De Luca, Pittsburgh, and Walter F. Mrak, McKees Rocks, Pa., assignors to Mine Safety Appliances Co., Pittsburgh, Pa., a corporation of Pennsylvania
Application April 10, 1952, Serial No. 281,632
9 Claims. (Cl. 201—63)



1. A sensitive element for the measurement of heat exchange with a surrounding medium comprising: a flexible member with a high temperature coefficient of electrical resistance, two terminals electroconductively joined to the ends of said member for leading electric current to and from said member, a flexible member of high thermal conductivity, a thin layer of electric insulation on one of said members, one of said members being tightly coiled around the other member to form a substantially solid composite element of high thermal and relatively low electrical conductivity and said composite element being wound in the shape of a conical coil.

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2,769,885
**RESISTOR UNITS**
Allan P. Charbonneau, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application April 26, 1954, Serial No. 425,627
10 Claims. (Cl. 201—69)

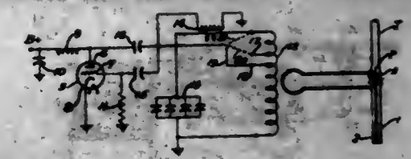


1. In a resistor unit, in combination, a plurality of resistor grids each having a pair of end lugs, each of said lugs having formed therein a pair of spaced cutouts, each of said grids further having a body portion bridging its pair of lugs and lying wholly on one side of a line extending from a point midway between the cutouts of one lug to a point midway between the cutouts of the other lug, said grids being stacked with the body portions of successive grids reversed, a first pair of supporting rods each being disposed in an associated cutout of one lug of each of said grids, a second pair of support rods each being disposed in an associated cutout of the other lug of each of said grids.

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2,769,886
**INDUCTION HEATING AND WELDING**
Thomas J. Crawford, Berkley, Mich.
Application April 24, 1954, Serial No. 424,577
5 Claims. (Cl. 219—8.5)

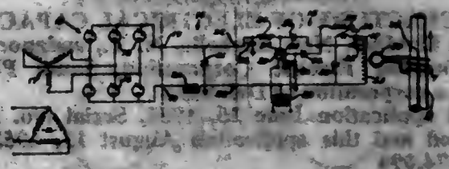
1. In apparatus for the production of welded tubing from a tubular blank having an open longitudinal seam, which apparatus includes a heating coil adapted to have such blank moved therethrough and means adapted to force the opposed edges of such seam together at a point spaced beyond but adjacent the effective field of the coil, the improvement comprising a radio-frequency transformer having a primary inductance of a predetermined number of turns and a single turn secondary in the form of a closely coupled split metal cylinder, means connecting said coil to such single turn secondary so as to be supplied energy by said transformer, a plurality of taps respectively on separate turns of such inductance intermediate the ends thereof, a capacitance connected across the predetermined number of turns of such inductance to form a tuned circuit therewith, a tube oscillator, and



means connecting such tuned circuit in the anode circuit of said oscillator including a connection through a blocking condenser between the oscillator anode and one of said taps on the inductance, the voltage across the tuned circuit thereby being greater than the normal oscillator anode voltage due to step-up auto-transformer effect in such inductance, whereby the energy supplied to the coil is greater than that normally obtainable from the tuned circuit when an end of the inductance is connected through the blocking condenser directly to the oscillator anode.

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2,769,887
**HIGH SPEED INDUCTION WELDING**
Thomas J. Crawford, Berkley, Mich.
Application May 17, 1954, Serial No. 430,086
5 Claims. (Cl. 219—8.5)

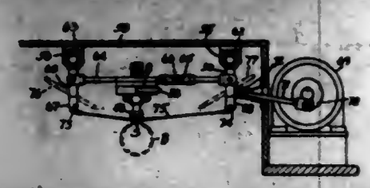


1. In apparatus for high speed continuous production of welded tubing from metal strip, including a mill for forming such strip into a tubular blank having an open longitudinal seam, in combination, an induction heating coil through which such tubular blank is adapted to pass, a high-frequency generator operative to supply energy to said heating coil so that the coil induces high-frequency current flow in the tubular blank as the latter is passed therethrough, said generator comprising a tube oscillator having a tuned plate circuit the inductance of which is coupled to said heating coil, a rectifier adapted to be connected to a conventional source of alternating current and to provide an output voltage for the plate supply of the oscillator tube, such rectifier output voltage normally including an alternating voltage component in addition to the desired direct current voltage, a filter connected between said rectifier and oscillator operative substantially to remove such alternating component of the rectifier output voltage and deliver to the oscillator plate a voltage of substantially constant magnitude, thereby substantially to eliminate the amplitude variation of the high-frequency output oscillations of the oscillator and the consequent fluctuation of the heat level produced in the tubular blank by the induced current flow therein which would result if the rectifier output alternating component is not thus substantially removed, and pressure means spaced from and following said heating coil operative to force the opposed edges of such seam together at a point beyond but adjacent the effective field of the coil, the induced current flow thereby being concentrated in the opposed seam edges and at their point of juncture, the concentration of current and the substan-

tially constant heat level produced thereby in the blank permitting welding of the seam edges at high speed without stitching thereof.

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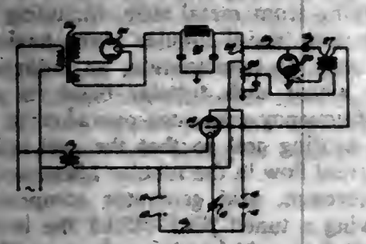
2,769,888
INDUCTION MEANS
Paul J. Abel, Cleveland, Ohio, assignor to The Yoder Company, Cleveland, Ohio, a corporation of Ohio
Application May 25, 1954, Serial No. 432,290
25 Claims. (Cl. 219—8.5)



1. In apparatus for the continuous manufacture of welded tubing including forming means operative to form a continuous metal strip to generally tubular form with the edges of such strip closely opposed in a continuous longitudinal seam, and means operative continuously axially to advance the same; electric induction means operative to induce heating current in the tubular blank thus formed in the region of such seam only to heat the opposed seam edge portions to welding temperature, pressure means at a closely following station adapted to force such heated opposed seam edges together in welding engagement, and a web of non-magnetic, electrically non-conductive, heat resistant material interposed between such tubular blank and said induction means.

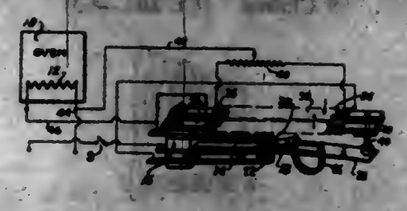
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2,769,889
MANUFACTURE OF ELECTRICAL CAPACITORS
William Dubilier, New Rochelle, N. Y., assignor to Cornell-Dubilier Electric Corporation, South Plainfield, N. J., a corporation of Delaware
Original application June 25, 1951, Serial No. 233,315. Divided and this application August 13, 1953, Serial No. 374,094
4 Claims. (Cl. 219—19)



3. Apparatus for clearing short circuits and faults in electrical capacitors comprising a storage capacitor, a charging circuit connected across said storage capacitor including a source of direct current voltage in series with a high-ohmic charging resistor, a gaseous discharge tube having a pair of main electrodes and a discharge initiating control electrode, a discharging circuit also connected across said storage capacitor including the main discharge path of said tube in series with a capacitor to be cleared, means for applying a steady bias potential to said control electrode close to and below the breakdown potential of said tube, and a relaxation oscillator comprising a further resistor in series with a further capacitor shunted by a gaseous discharge tube to produce a periodic control potential, means to apply said control potential to said control electrode superimposed upon said bias potential to periodically raise said bias potential above the breakdown potential of said tube, the time constant of said further capacitor and resistor being in excess of the time constant of said storage capacitor and charging resistor.

2,769,890
HEAT CONTROLLER
Theodore W. Hallerberg, Los Angeles, and Jacob L. Pauly, Inglewood, Calif., said Pauly assignor to said Hallerberg
Application May 25, 1954, Serial No. 432,284
1 Claim. (Cl. 219—20)



Control apparatus for an electric heating circuit comprising a power source, a load coil, a double-throw switch to connect said load coil to said power source periodically, means to actuate said switch comprising, a bimetallic element (30) tending when heated to move said switch to closed position, a first heating coil (34) associated with said bimetallic element, a second bimetallic element (32) tending when heated to move said switch to open position, a second heating coil (36) associated with said second bimetallic element, connections to establish a circuit from said power source through said second heating coil and said load coil in parallel when said switch is in one position, connections to establish a circuit only through said first heating coil when said switch is in its other position, and means to vary the resistance of at least one of said heating coil circuits and thereby vary the relative duration of the cycle of operation of said double-throw switch.

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2,769,891
ELECTRIC IMMERSION HEATER
John W. Harrison, Meadville, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 10, 1955, Serial No. 480,641
4 Claims. (Cl. 219—38)



1. An immersion heater for mounting in the wall of a liquid containing receptacle comprising a sheath having an electrical resistance element therein, said sheath having adjacent, generally parallel end portions, a corrosion resistant sheet, said end portions extending through said sheet with a fluid-tight seal therebetween, a clamping plate having a central opening and a flat surface abutting said sheet, an insulating block abutting said plate and having a recess therein aligned with the opening in said plate, said recess and central opening defining a cavity within which the ends of said sheath terminate, said block having a passage therethrough providing access to said cavity, an electrical terminal connected to said element and extending from within each end of said sheath, through said passage and exteriorly of said block, and a settable electrically insulating sealing material disposed in said cavity, said material being in a set condition and providing a hermetic seal between said terminals and said sheath, said passage being of sufficient size to readily permit pouring of said insulating material into the cavity prior to the setting of the material.



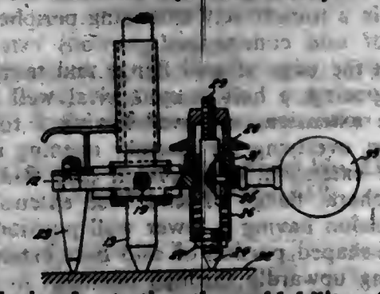
2,769,892
ELECTRICAL HEATING DEVICE
Donald F. Collins, Grand Rapids, Minn.
Application May 4, 1953, Serial No. 352,718
1 Claim. (Cl. 219—46)



A therapeutic heating device comprising an electrically heated unitary insulating pad having overlapping opposed surfaces with an electrical heating element therebetween for supplying warmth outwardly through the surfaces, said pad constituting a pair of general L-shaped areas each having an upright portion and a base portion extending laterally therefrom, said upright portions being connected at their back edges in a fold line and with the respective base portions extending outwardly in opposed directions, and cooperating zipper closures extending from adjacent said fold line along the lower peripheral margin of said base portions, then extending upwardly and inwardly along the upper peripheral margin of said base portions then upwardly along the adjoining edge of said upright portions to terminate at the upper edge thereof, whereby the device may be folded along said fold line with said L-shaped areas in overlapping relation and said zipper closure fastened to form an encasing boot for warming the hands or feet and when the device is unfolded forms a flat pad for use as a conventional warming pad.

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2,769,893
ELECTRICAL DEVICE FOR TESTING THE WELDABILITY OF METALLIC MATERIALS
Josef Müller, Duisseldorf, Germany
Application July 8, 1952, Serial No. 297,708
Claims priority, application Germany July 12, 1951
4 Claims. (Cl. 219—109)



4. In a device for testing the weldability of a metallic specimen, means for holding an electrode adjacent said specimen, said means including a clamp for said electrode, a plurality of pins supporting said clamp and engageable with the specimen, one of said pins being resiliently mounted whereby its effective length may be varied, and a stop for predetermining the extended length of said resiliently mounted pin, said clamp being movable between a first position in which said resiliently mounted pin is retracted and said electrode contacts said specimen, and a second position in which said resiliently mounted pin is extended and said electrode is held a predetermined distance from said specimen.

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2,769,894
RARE GAS WELDING TORCH
Walter L. Hyer, Jacksonville, Fla.
Application January 27, 1953, Serial No. 334,359
7 Claims. (Cl. 219—139)

1. In a gas-blanketed arc welding apparatus comprising a torch having an electrode and a nozzle, an electrical circuit for passing welding current through said electrode and the work, a conduit for delivering gas to said nozzle, and a valve for controlling the supply of gas to said conduit, means extending above said torch and carried thereon for controlling said valve during shielding of the electrode prior to striking the arc and during cooling of the electrode comprising an exposed contact member movable in accordance with pressure exerted thereon upon engaging said contact member with a grounded object, variable electric resistance means electrically connected between said contact member and said electrode



and associated with said contact member to vary the electrical resistance of said resistance means in response to pressure variations on said contact member, and time delay valve control means responsive to current variations in said electrical circuit caused by variation in the resistance of said resistance means for opening said valve immediately following elevation of the current in said circuit above a preselected minimum current value and maintaining said valve open continuously until a preselected time following reduction of the current in said circuit below said minimum current value.

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2,769,895
FLASHLIGHT SUPPORT FOR FIREARMS
Charles William Boord, Martin, Pa.
Application January 10, 1956, Serial No. 558,383
2 Claims. (Cl. 240—6.41)



1. For use with a rifle barrel, a device for supporting a flashlight comprising an inverted U-shaped member adapted to be arranged so that the bight thereof overlies the barrel with the legs exteriorly of the side portions of the barrel, a horizontally disposed flange projecting from the free end of each of the legs of said member, said flanges facing in opposite directions, a first horizontally disposed plate positioned below said flanges and extending from one flange to the other of the flanges, an inverted semicircular hood projecting transversely of said plate at each end of the latter, a second horizontally disposed plate arranged below and in parallel relation with respect to said first plate, an upstanding semicircular saddle projecting transversely of said second plate at each end of the latter, the hoods of said first plate being in registry with the saddles of said second plate and forming with the saddles of said second plate a pair of clamps for embracingly supporting the intermediate portions of flashlights, and means extending through said flanges and said first and second plates for attaching said plates to said member.

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2,769,896
FLASHLIGHT SWITCH
Reuben B. Lambert, New Haven, Conn.
Application January 7, 1953, Serial No. 329,967
8 Claims. (Cl. 240—10.6)

3. In a flashlight, an elongated hollow metallic casing containing an electric battery therewithin and having a reflector head at its forward end, a lamp bulb located

within said reflector head and engaging said battery, a conductor element electrically connected with said lamp bulb and having a portion projecting outwardly through said casing and insulated therefrom, a separate metallic ring switch member mounted for longitudinal sliding on the exterior of said casing and having an inner surface



for electrically engaging said outwardly projecting portion, means to limit the slidable movement of said switch member with respect to said casing in both directions, said outwardly projecting portion lying within said ring out of contact with said switch member in "off" position, and contacting with said switch member in "on" position.

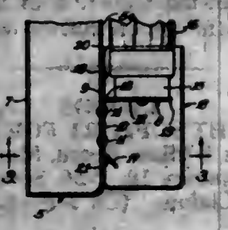
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2,769,897

**FLUORESCENT LIGHT FIXTURE**

Stanley J. Rzeznicki, Chicago, Ill., assignor to The Hess Company, a corporation of Illinois

Application December 21, 1954, Serial No. 476,622
7 Claims. (Cl. 240—51.11)



1. in a fluorescent light fixture: a hollow, generally rectangular body member adapted to be secured to a base; a pair of aligned, parallel bracket members fixedly secured in outwardly extending perpendicular relationship to said body member adjacent its ends to receive sockets for a fluorescent tube; a lug secured to the body member between each of said brackets and the adjacent end of the body member, each said lug having a portion extending longitudinally away from the bracket in spaced relationship to the body member to form a recess which opens toward the adjacent end of the body member; and a pair of cuplike friction caps to conceal the brackets and the sockets thereon, each of said caps having a longitudinal slot the side margins of which flank one of said lugs and are frictionally engaged adjacent their forward ends with the bracket and having its wall at the base margin of said slot frictionally gripped in the recess between the lug and the body member.

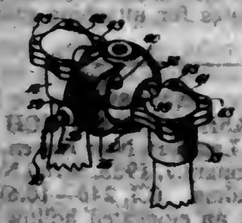
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2,769,898

**ELECTRICAL RECEPTACLES**

Rudolph Popp, Valparaiso, Ind., assignor to McGill Manufacturing Company, Inc., Valparaiso, Ind., a corporation of Indiana

Application June 26, 1953, Serial No. 364,462
6 Claims. (Cl. 240—81)



1. An electric lamp cluster including in combination a disk-shaped hollow body having a switch receiving recess formed in one side thereof and protruding radially outwardly therefrom and further having an edge with at least one semi-circular opening formed therein, at least one lamp socket having a swivel joint disposed in the aforesaid opening, and a disk-shaped cover member having an edge with a semi-circular opening formed therein to cooperate with said opening in said body and constitute therewith a socket for the aforesaid lamp socket, and said cover having a portion extending radially outwardly to enclose said switch receiving recess.

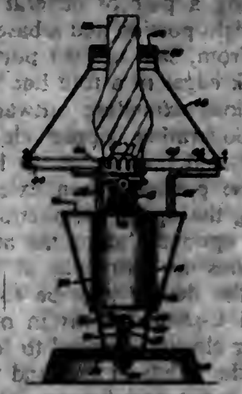
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2,769,899

**TABLE LAMP CONSTRUCTION**

Joseph S. Mclnnis, Chicago, Ill., assignor to Arnold A. Schwartz, doing business as Metallic Arts, not inc., Chicago, Ill.

Application June 13, 1955, Serial No. 515,063
3 Claims. (Cl. 240—83)



1. A lamp construction comprising a base in the form of an inverted shallow cone-shaped dish having an axially located tapped bore therethrough, a bolt positioned in said bore and extending upwardly therefrom, a base extension positioned on said base, said base extension in the form of hollow double tapered cone-shaped portions, the smaller of said cone-shaped portions having a bottom wall disposed on the top of said base and the upper end terminating in a transversely extending peripheral flange, the larger of said cone-shaped portions extending upwardly from the edge of said flange and terminating in a circular opening, a hollow cylindrical well positioned in said base extension, said well having a top circular cover portion overlying the circular opening in the top of said base extension, a peripheral base flange resting on the peripheral flange of said base extension and a tapered extension having a lower wall positioned in the smaller cone-shaped portion of said base extension, said bolt extending upwardly through openings in both said base extension and said well to fasten the same rigidly to said base, a cylindrical fuel container positioned in said well, a lamp on said fuel container.

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2,769,900

**TRAIN CONTROL APPARATUS**

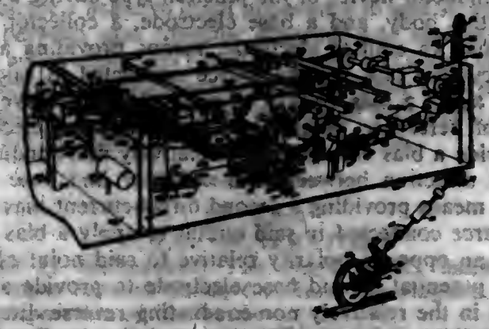
Evangeline Mello, Philadelphia, Pa.

Application May 26, 1951, Serial No. 228,493
12 Claims. (Cl. 246—182)

1. In a train control apparatus, the combination with a vehicle having a brake system provided with the usual manually operated control mechanism, of an electric circuit including a visible clear signal, a second electric circuit including visible and audible preliminary warning signals, means to close either of said circuits and simultaneously open the other of said circuits, electro-magnetic means for operating the circuit closing means to normally maintain the clear signal circuit closed and the preliminary warning signal circuit open, a valve for initially causing a limited application of the brake system inde-



pendently of the manually operated mechanism, a secondary audible warning signal connected with and actuated by the operation of said valve, means to normally urge said valve towards the inoperative position, a second valve for gradually completely operating said brake system also independently of the manually operated mechanism, electro magnetic means normally maintaining said second valve in the inoperative position, separate operating hooks for respectively engaging each of the valve operating means and the signal circuit closing means independently of one another, a supporting bar disposed beneath the forward ends of all of said operating hooks, means to raise and lower said supporting bar, said means including a fluid tight cylinder with a piston slidably mounted therein



and provided with a shank connected to said supporting bar, a fluid inlet and outlet for the cylinder both above and below the piston, a fluid control valve connected with said inlets and outlets to simultaneously open one inlet and one outlet on one side of the piston and close one inlet and one outlet on the other side of said piston, mechanism to intermittently operate said fluid control valve to lower the supporting bar, electro-magnetic means to operate the fluid control valve to elevate the supporting bar, means to reciprocate the operating hooks longitudinally, means to oscillate the rear ends of operating hooks perpendicularly, a secondary electric circuit including the several electro-magnet means in series and a relay contact, and a primary electric circuit connected with track circuits and including a relay to control the relay contact.

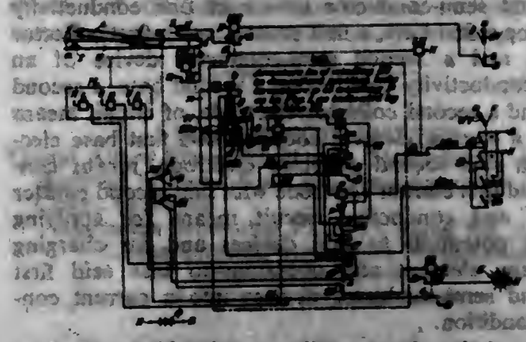
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2,769,901

**RAILWAY SWITCH CONTROLLING APPARATUS**

Arthur E. Dodd, Edgewood, Pa., assignor to Westinghouse Air Brake Company, a corporation of Pennsylvania

Application June 16, 1951, Serial No. 231,977
5 Claims. (Cl. 246—219)



3. In combination, a railway track switch, a polarized switch control relay mounted in a given location and embodying a polar armature and a neutral armature, pole-changing means operable to a normal and a reverse position, traffic responsive means normally energized but becoming deenergized in response to a train adjacent said switch on a route in which said switch is included, means controlled by said pole-changing means in its normal and reverse positions for operating said polar armature to its normal and reverse positions respectively and operating said neutral armature to an energized position only if said traffic responsive means is energized, retaining means for keeping said neutral armature in its energized position after said switch control relay becomes deenergized, means rendering said retaining means ineffective to keep said neutral armature in the energized position if said switch control relay is removed from said given location, and means controlled by said neutral armature in the energized position and by said polar armature in its normal and reverse positions for effecting operation of said switch to normal and reverse positions respectively.

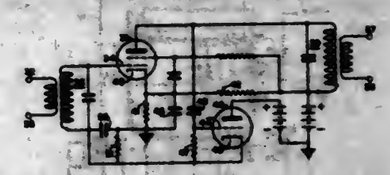
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2,769,902

**RECEIVER FOR PULSE SIGNALING SYSTEM**

Irving H. Page, Washington, D. C.

Application October 11, 1945, Serial No. 621,670
5 Claims. (Cl. 250—20)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An echo ranging system comprising means for receiving an echo signal consisting of a wave train, amplifier means for the received signal, said amplifier means comprising an electron tube having at least an anode, a cathode and a control element, means for applying a negative bias voltage to the control element with respect to the cathode, means for superimposing the signal on the bias voltage, means for deriving from the signal output of the amplifier a uni-directional voltage substantially equal to the peak amplitude of the signal, a delay circuit having a time constant of the order of the echo signal duration, means for transmitting the uni-directional voltage through the delay circuit to progressively increase the bias voltage in a negative direction, and means for reducing the time constant of the delay network upon termination of the echo signal.

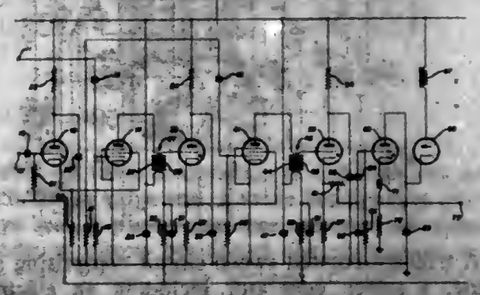
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2,769,903

**PULSE FORMING NETWORK**

Gordon Donald Pearce, El Cerrito, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application June 23, 1953, Serial No. 363,601
5 Claims. (Cl. 250—27)

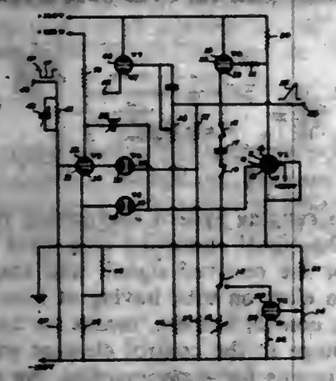


1. In a pulse forming network, the combination comprising a first coincidence circuit having a pair of inputs and an output, one of said inputs adapted to be connected to a source of radio-frequency signal voltage, the other of said inputs adapted to be connected to a source of synchronizing voltage, said first coincidence circuit including peaking means forming pulses at peak values of said signal voltage, a second coincidence circuit having a pair of inputs and an output, one of said inputs adapted to be connected to said source of radio-frequency signal voltage, the other of said inputs being connected to the output of said first coincidence circuit, said sec-

cod coincidence circuit also including peaking means forming pulses at peak values of said signal voltage, a triode gaseous discharge tube having a control grid coupled to the output of said second coincidence circuit and adapted to develop a rectangular voltage in a cathode circuit of such tube in response to the output of said second coincidence circuit, a resonant charging output circuit, and a variable resistance-capacitance network connected between the cathode of said triode tube and said resonant charging circuit.

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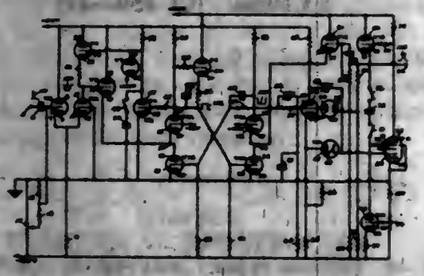
2,769,904
GATED SWEEP GENERATOR
Richard L. Rapicavoli, Portland, Oreg., assignor to Tektronix, Inc., Portland, Oreg., a corporation of Oregon
Application August 18, 1953, Serial No. 374,958
14 Claims. (Cl. 250—27)



1. A sweep generator adapted to be actuated by a gate source and comprising an electron discharge device having a grid and a plate, a capacitor connected between said grid and plate, resistance means connecting the grid to a source of potential, degenerative direct current feed back means connected between the grid and plate and including a pair of series-connected diodes, and means for connecting a gate source between said diodes.

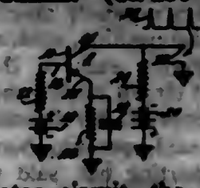
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2,769,905
SWEEP CIRCUIT
Richard L. Rapicavoli, Portland, Oreg., assignor to Tektronix, Inc., Portland, Oreg., a corporation of Oregon
Application August 18, 1953, Serial No. 374,957
12 Claims. (Cl. 250—27)



1. A trigger-actuated sweep circuit comprising a multivibrator, a sweep generator including an electron discharge device having a grid and a plate, a capacitance, means connecting the capacitance between said grid and plate, means connecting said grid to a source of potential, degenerative direct current feedback means connected between said grid and plate and including a pair of series connected diodes, means connecting the multivibrator between said diodes, means connecting the sweep generator electron discharge device output to the multivibrator, a resistance-capacitance network, means connecting said network to the multivibrator, and signal mixing means connecting said network and a trigger source to the multivibrator.

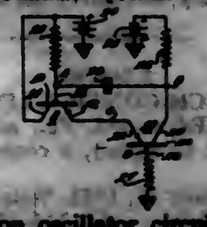
2,769,906
JUNCTION TRANSISTOR OSCILLATOR CIRCUITS
Marshall C. Eldd, Haddon Heights, and Werner Hasenberg, Camden, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application April 14, 1954, Serial No. 423,126
9 Claims. (Cl. 250—36)



1. In an oscillator circuit, the combination with a semi-conductor device of the junction type having a semi-conductive body, and a base electrode, a collector electrode and an emitter electrode, means providing a first direct current bias voltage source connected in said circuit to apply a bias voltage of one polarity relative to a point of reference potential to said collector electrode to provide a bias voltage in the relatively non-conducting reverse direction between said collector and base electrodes, means providing a second direct-current bias voltage source connected in said circuit to apply a bias voltage of an opposite polarity relative to said point of reference potential to said base electrode to provide a bias voltage in the relatively non-conducting reverse direction between said emitter and base electrodes to provide a negative resistance characteristic over a portion of the operating range of the oscillator circuit, and a frequency determining circuit connected with one of said emitter and collector electrodes and operative to control the frequency of oscillation of said circuit.

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2,769,907
SEMI-CONDUCTOR RELAXATION OSCILLATOR CIRCUITS
Robert D. Lohman, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 29, 1954, Serial No. 440,041
12 Claims. (Cl. 250—36)



1. In a relaxation oscillator circuit, the combination with a first semi-conductor device of one conductivity type having a first base, a first emitter and a first collector electrode, and a second semi-conductor device of an opposite conductivity type having a second base, a second emitter and a second collector electrode, of circuit means including a storage element coupling said first base electrode with said second collector electrode, means connecting said first emitter electrode with said second emitter electrode, and conductive circuit means for applying energizing potentials to said devices and for charging said storage element and operative to bias said first and second semi-conductor devices into a current conducting condition.

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2,769,908
NEGATIVE IMPEDANCE TRANSISTOR CIRCUITS
Frank R. Stansel, Millburn, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 22, 1952, Serial No. 322,169
14 Claims. (Cl. 250—36)

1. In combination, a transistor having emitter, collector, and base electrodes and a current amplification factor less



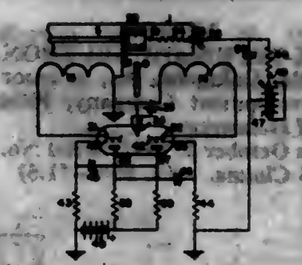
than unity, at least one source of direct voltage connected to supply operating potentials to said electrodes, a signal input path for said transistor coupled between said collector electrode and a first of the other of said electrodes, a signal output path for said transistor coupled between said collector electrode and the second of the other of said electrodes, said collector electrode being



common to said signal input and output paths, and means to produce a negative input impedance in said signal input path between said collector electrode and said first electrode which comprises a load resistance and a load capacity connected in parallel between said collector electrode and said second electrode in the portion of said signal output path not common to said signal input path.

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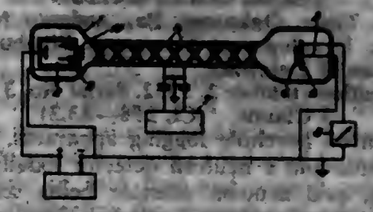
2,769,909
PULSE GENERATORS
Donald S. Rakemacher, Van Nuys, Calif., assignor to Stoddart Aircraft Radio Co., Inc., Los Angeles, Calif., a corporation of California
Application February 3, 1954, Serial No. 407,890
19 Claims. (Cl. 250—37)



1. An electrical pulse oscillator comprising a single movable plunger, a conductive sheath enclosing said plunger, said sheath electrically insulated from said plunger, means to electrically charge said plunger, other means to move said plunger to accept a charge from said means to charge, further means to discharge said plunger, means to move said plunger for the discharge thereof to said means to discharge, the energy of said discharge electrically exciting the recited structure of plunger and sheath at radio frequency by current flow over the outer surface of said plunger adjacent the inner surface of said sheath and still further means to move said plunger back to said charge means to again accept a charge.

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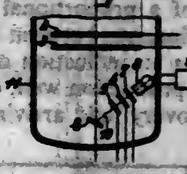
2,769,910
MASS SPECTROMETER
Gerrit Allard Klinge, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application September 17, 1953, Serial No. 380,813
Claims priority, application Netherlands September 20, 1952
5 Claims. (Cl. 250—41.9)



1. A mass spectrometer comprising an ion gun, a collecting electrode, a pair of conductors shaped in the form of a double helix disposed between said gun and said collecting electrode and coaxially arranged therewith, and means for applying an alternating voltage between said conductors, whereby ions of a given mass corresponding to a particular frequency of said alternating voltage are deflected away from the axis of the helix.

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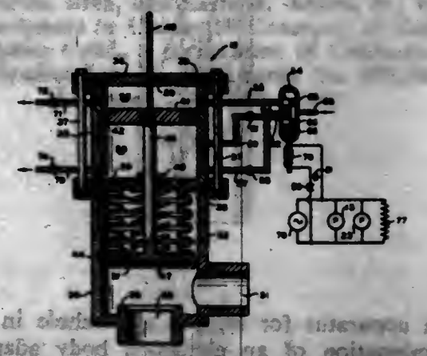
2,769,911
MASS SPECTROMETER FOR ANALYSING SUBSTANCES OR INDICATING A SMALL AMOUNT OF A DETERMINED SUBSTANCE
Nicolaas Warnoltz, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application April 23, 1953, Serial No. 350,577
Claims priority, application Netherlands May 6, 1952
8 Claims. (Cl. 250—41.9)



1. In a mass spectrometer having means producing a beam of ions, a collector in the path of said beam adapted to produce electrons when struck by said beam, electrostatic accelerating means disposed in the vicinity of said collector for accelerating said electrons, radiation detecting and counting means responsive to incident electrons for detecting the same and disposed to receive said accelerated electrons, and indicating means coupled to said detecting means.

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2,769,912
SHUT-OFF VALVE
Dale E. Lupfer and Arthur B. Broerman, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application April 12, 1954, Serial No. 422,586
12 Claims. (Cl. 250—41.9)



1. A shut-off valve comprising, in combination, a valve body including a valve seat, a valve head engageable with said valve seat, a piston chamber mounted adjacent said valve body, a piston positioned for movement in said chamber, said piston being secured to said valve head, first conduit means communicating with said chamber on the first side of said piston whereby said valve is closed when said piston is moved away from the opening of said first conduit means into said chamber, second conduit means communicating with said chamber at a position on the second side of said piston when said valve is in a fully open position, a source of fluid under pressure, and an electrically operated valve connecting said source of fluid to said second conduit means, when current is supplied to said electrically operated valve, said electrically operated valve connecting said source of fluid to said first conduit means in the absence of current being supplied to said electrically operated valve.

2,769,913

## DISPLACEMENT FLUID IN SECONDARY PETROLEUM RECOVERY

Roy P. Mennenguth, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 23, 1952, Serial No. 327,689
6 Claims. (Cl. 250—43.5)

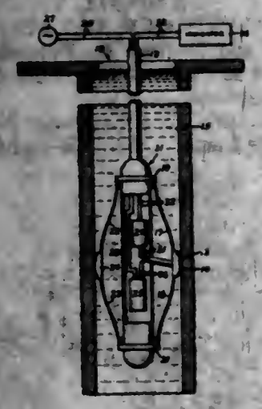
1. In the secondary recovery of petroleum from a subsurface, oil bearing formation by injecting a secondary oil displacing, recovery fluid into said formation at a plurality of injection points to promote flow of said oil toward at least one producing well, the improvement which comprises adding to the recovery fluid at at least one injection point a detectable amount of the beta-active, isotopic element $C^{14}$, adding to the recovery fluid supplied at other of said injection points tritium in a detectable amount, testing the fluids withdrawn from said producing well by means of a proportional radioactivity counter effective to discriminate between the electron energy of tritium and $C^{14}$ as an indication of the arrival of the recovery fluid in the production well, effective to establish the origin of the recovery fluid arriving at the production well.

2,769,914

## APPARATUS FOR LOGGING THE FLUORESCENCE AND PHOSPHORESCENCE OF EARTH FORMATIONS TRAVERSED BY A BOREHOLE

Clark Goodman, Boston, Mass., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware

Application November 8, 1951, Serial No. 255,482
5 Claims. (Cl. 250—71)



1. In apparatus for logging a borehole in the earth, the combination of an elongated body adapted to be moved through the borehole, a borehole wall engaging member, means connecting said wall engaging member with said body for support thereby and for urging one surface of said wall engaging member against the borehole wall, a natural source of radioactivity embedded in said surface and providing radiation that is readily absorbed by materials in the vicinity of said source, whereby when said surface is against the wall of the borehole, said radiations will excite light in a highly localized area of the material comprising the borehole wall in the vicinity of said source, a window in said surface in the vicinity of said source and adapted to be transparent to said light, photoelectric means in said wall engaging member and disposed to receive the excited light through said window from said localized area on the borehole wall, and means for exhibiting a function of the response of said photoelectric means to said light as said body is moved through the borehole.

2,769,915

## EPITHERMAL NEUTRON DETECTOR

Charles W. Tittle, Oakmont, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application October 2, 1952, Serial No. 312,680
3 Claims. (Cl. 250—71.5)



1. In an epithermal-neutron detecting device, a neutron-gamma reactive material that includes nuclei of an element having a resonance peak for such reaction with neutrons of epithermal energy selected from the group consisting of indium, silver, rhodium and gold, a gamma-ray-responsive scintillation phosphor adjacent said material, a photomultiplier tube optically coupled to the phosphor, and a gamma-ray shield surrounding the material, the phosphor, and the photomultiplier tube, to attenuate background gamma-rays.

2,769,916

## COINCIDENCE-TYPE SLOW NEUTRON DETECTOR

Charles W. Tittle, Oakmont, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application October 2, 1952, Serial No. 312,679
8 Claims. (Cl. 250—71.5)



1. In a neutron detecting apparatus, a neutron-gamma reactive substance, a pair of gamma-ray-responsive scintillation phosphors disposed on opposite sides of said substance, material opaque to scintillations disposed between the phosphors, a pair of photomultiplier tubes optically coupled individually to said pair of phosphors, and a coincidence circuit coupled to the outputs of said photomultiplier tubes.

2,769,917

WITHDRAWN

2,769,918

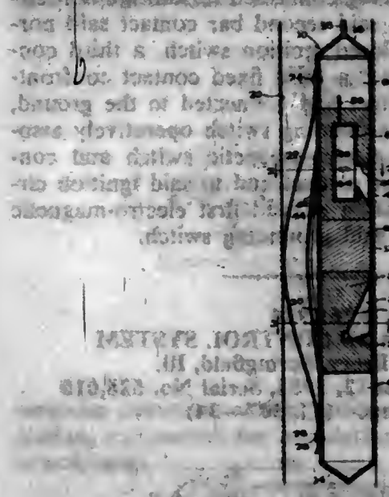
## EPITHERMAL NEUTRON LOGGING METHOD USING COLLIMATION

Charles W. Tittle, Oakmont, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application October 2, 1952, Serial No. 312,678
3 Claims. (Cl. 250—83.3)

1. In neutron borehole logging apparatus, a casing, a neutron source and a neutron detector axially spaced in such casing, said neutron detector being sensitive substantially solely to neutrons having energies of about 0.2 to about 200 electron volts, neutron-collimating means for directing neutrons emanating from said source through one side of the casing, and further neutron-collimating means for directing solely those neutrons entering the





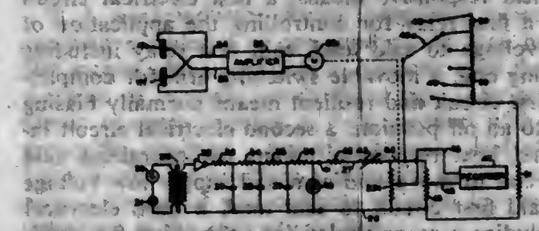
casing through said one side thereof to the neutron detector.

2,769,919

## RECORDER CIRCUIT

Francis W. Crawford, Idaho Falls, Idaho, assignor to Phillips Petroleum Company, a corporation of Delaware

Original application September 29, 1950, Serial No. 187,600, now Patent No. 2,724,307, dated November 22, 1955. Divided and this application May 28, 1953, Serial No. 358,107
11 Claims. (Cl. 250—83.3)



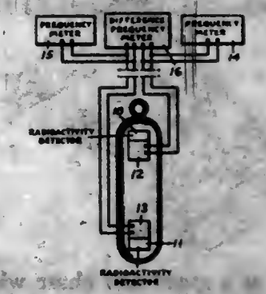
9. An electrical circuit for recording the differential intensity of two beams of radiation comprising, in combination, a recorder, a pair of radiation sensitive detectors, an amplifier, means connecting said detectors in opposition to the input terminals of said amplifier whereby the signal applied to said amplifier is representative of the difference in intensity of radiation impinging upon said pair of detectors, a servo-motor connected to the output terminals of said amplifier, a voltage source, a resistance of high ohmic value having one terminal thereof connected to the first output terminal of said voltage source whereby substantially a constant current flows through said resistance element, a first potentiometer having one end terminal thereof connected to the second terminal of said resistance element and having the second end terminal thereof connected to the second output terminal of said voltage source, a second potentiometer having one end terminal thereof connected to the second terminal of said resistance element and having the second end terminal thereof connected to the second output terminal of said voltage source, the contactors of said first and second potentiometers being connected to the respective terminals of the input circuit of said recorder, a variable resistance of low ohmic value as compared to the ohmic value of said first-mentioned resistance, said variable resistance being connected in shunt with the end terminals of said first and second potentiometers, and means connecting the contactor of said first potentiometer to said servo-motor whereby rotation of said motor varies the setting of the contactor of said first potentiometer in accordance with the difference in intensity of radiation impinging upon said pair of detectors, the setting of the contactor of said second potentiometer determining the zero level of signals fed to said recorder.

2,769,920

## RADIOACTIVITY RESPONSIVE SYSTEMS FOR USE IN BOREHOLES

Shelley Kramow, Fairfax County, Va., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware

Original application July 24, 1942, Serial No. 452,228, now Patent No. 2,590,874, dated April 1, 1952. Divided and this application February 27, 1952, Serial No. 273,751
13 Claims. (Cl. 250—83.6)



1. In a method of investigating radioactivity in a bore hole drilled into the earth, the steps of simultaneously lowering into the bore hole a plurality of longitudinally spaced apart radioactivity responsive devices having substantially the same radioactivity response characteristics and each manifesting its radioactivity response in the form of an electric signal, exposing said devices to radioactivity in the bore hole so as to cause them to respond significantly thereto, combining together the electric signals manifested by said devices as results of said responses and registering said combined signals in a mode exhibiting a function of a combination of the responses of said devices.

2,769,921

## PREVENTION OF WELL CASING CORROSION

Paul G. Nahin, Brea, and Earle R. Atkins, Jr., Whittier, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application July 31, 1952, Serial No. 301,901
4 Claims. (Cl. 250—106)



1. The method of preventing bacterially-induced corrosion of well casings which comprises traversing the cased-in well bore with a source of gamma radiation having a radiation intensity of at least about one curie per foot of source.

2,769,922

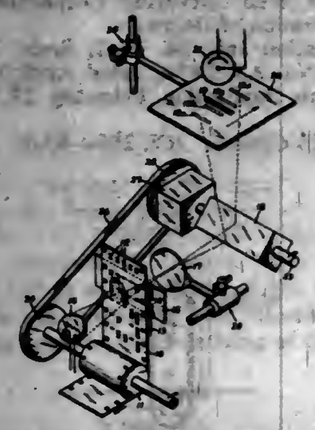
## TAPE READING MECHANISM

Walter E. Peery, Pottersville, N. J., assignor to Time, Incorporated, New York, N. Y., a corporation of New York

Application February 6, 1952, Serial No. 270,214
9 Claims. (Cl. 250—219)

7. Mechanism for converting into a time sequence of electric signals the intelligence distributed over the length

of each signal module in a plurality of modules disposed along a control member, said mechanism comprising, feed means for advancing said control member to pass said modules lengthwise through a zone representing the point of origin for images of modules therein, photoelectric means, rotatable light deflecting means disposed in an optical path between said zone and photoelectric means and adapted upon rotation to scan along the line of travel of said modules, drive means for rotating said



deflecting means at a speed and phase which synchronize the appearance of each module in said zone with deflection of the image thereof by said deflecting means towards said photoelectric means and in a direction productive of a sweep of the length of said image past said photoelectric means during said synchronous rotation, and optical means for limiting the subject seen by said photoelectric means at any instant of said sweep to an image portion having a fraction of the length of the whole swept image.

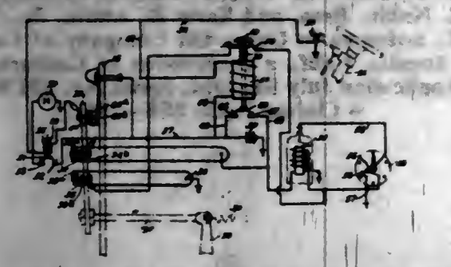
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2,769,923

**AUTOMATIC IGNITION CONTROL SWITCH**

Paul J. Vesco, Lovelock, Nev.

Application November 5, 1954, Serial No. 467,110
1 Claim. (Cl. 290—38)



In an internal combustion engine, an ignition circuit embodying a battery, a coil, a distributor, and a ground, a normally open vacuum closed ignition switch in said circuit, a starter circuit including said battery, a starter motor in said starter circuit, a normally open manual switch, an electromagnetic switch interposed in said ignition circuit, shunting said normally open vacuum closed ignition switch, and connected between said starter circuit and said battery, an operating coil for said electromagnetic switch connected through said manual switch to said battery, a movable contact bar, a vacuum operator for moving said bar in one direction when the engine starts, a spring for moving said bar in the opposite direction when the engine stops, a contact carried by said bar connected to a second electro-magnetic switch interposed in said starter circuit and including a second operating coil, a stationary contact confronting and normally engaging said first named contact for normally closing a circuit from said battery to said second operating coil through said normally open manual switch, a second contact carried by said bar and conected to said battery, a second fixed contact connected to one side of said ignition circuit and confronting said second bar contact and normally disengaged therefrom, said second fixed contact being connected to said ignition circuit and forming with said second bar contact said normally open vacuum closed ignition switch, a third contact carried by said bar, a third fixed contact confronting said third bar contact and connected to the ground, and a normally open grounding switch operatively associated with said first electro-magnetic switch and connected to said third bar contact and to said ignition circuit, whereby energization of said first electro-magnetic switch will also close said grounding switch.

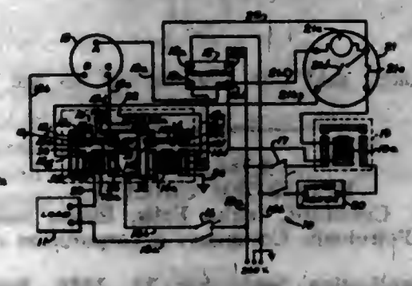
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2,769,924

**DUAL VOLTAGE CONTROL SYSTEM**

Virgil R. Beery, Springfield, Ill.

Application August 12, 1955, Serial No. 528,018
6 Claims. (Cl. 307—34)



6. An electrical circuit for controlling the application of relatively high and relatively low voltages to a load; comprising a source of high voltage; a source of low voltage; heat responsive means; a first electrical circuit including a first relay for controlling the application of said low voltage to said load, said first relay including an operating coil, a movable switching arm for completing said first circuit and resilient means normally biasing said arm to an off position; a second electrical circuit including said heat responsive means for energizing said operating coil to move said arm and supply low voltage through said first circuit to said load, a third electrical circuit including a second relay for controlling the application of said high voltage to said load, said second relay including a solenoid, a movable switching arm for completing said third circuit, and resilient means normally biasing the last mentioned arm to a low voltage position; a fourth electrical circuit including said heat responsive means for energizing said solenoid to move said last mentioned arm and apply high voltage through said third circuit to said load; and interlocking means associated with said first and second relays, said interlocking means including a switch connected in said second electrical circuit and operable by said last-mentioned arm upon energization of said solenoid, thereby to deenergize said operating coil and to disconnect said low voltage from said load in time correlation with the application of said high voltage to said load.

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2,769,925

**MAGNETIC STEPPING SWITCHES**

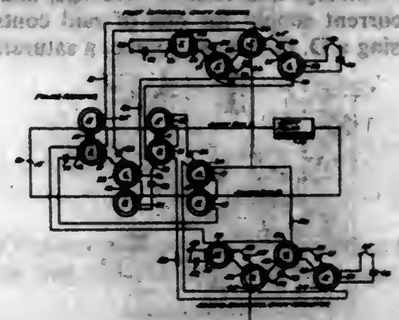
Norman B. Saunders, Weston, Mass., assignor to American Machine & Foundry Company, a corporation of New Jersey

Application March 2, 1953, Serial No. 339,883
20 Claims. (Cl. 307—88)

20. A magnetic stepping switch comprising a plurality of magnetic cores having output and shift windings thereon, a shift pulse generator connected to said shift windings for shifting said cores in one direction, said cores having input windings thereon for receiving pulses for shifting said cores in the opposite direction, a plurality of electrical loads, at least one of said loads comprising a



plurality of serially connected shift windings for shifting a second plurality of magnetic cores in one direction, said second named cores having input windings thereon for



receiving pulses for shifting said cores in the opposite direction, and means for connecting said output windings to said loads.

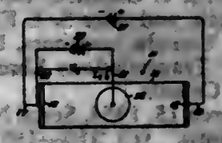
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2,769,926

**NON-LINEAR RESISTANCE DEVICE**

Israel A. Lesk, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application March 9, 1953, Serial No. 341,164
9 Claims. (Cl. 307—88.5)



9. A semiconductor device comprising a bar of semiconductive material of one conductivity type having first and second ohmic contacts at opposite ends thereof, and a region of opposite conductivity type intermediate said ohmic contacts forming a P-N junction with said bar, means for applying a potential between said ohmic contacts, means for applying a potential to said region with respect to one of said contacts which is intermediate the potentials at the ends of said bar.

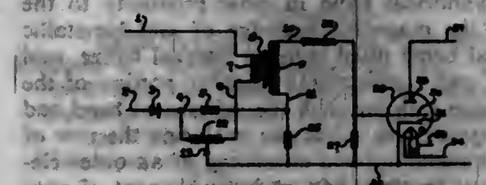
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2,769,927

**APPARATUS FOR GENERATING A PULSE VOLTAGE AND BIAS**

Rufus L. Briggs, Melrose, Mass., assignor to Ira A. Campbell, New York, N. Y.

Application October 10, 1951, Serial No. 250,763
7 Claims. (Cl. 307—106)



7. The combination of a transformer having a high ratio of turns between its primary and secondary windings, a capacitor whose charging current is capable of sufficiently exciting the transformer, means connecting the primary of the transformer and the capacitor in series across a rectified A. C. power source, and the secondary of the transformer being in an output circuit, in which by sending through the primary of said transformer a current from the rectified A. C. power source for the purpose of charging the capacitor there is produced a voltage pulse in the secondary of the transformer, and means to obtain a variation in the time relationship between the generation of the pulse and some given reference time such as the occurrence of zero voltage in a phase of said rectified A. C. power source from which flows the current charging the said capacitor, said latter means consisting of a variable resistor connected in parallel with said capacitor and causing said capacitor to be discharged during the period when said current is not flowing.

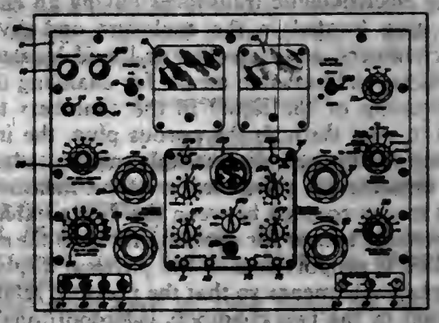
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2,769,928

**ELECTRICAL CALIBRATING AND TEST APPARATUS**

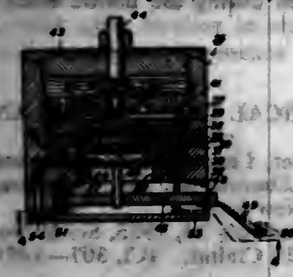
Henry H. Ensker, Lincoln Park, N. J., assignor to Radio Frequency Laboratories, Inc., Boonton, N. J., a corporation of New Jersey

Application July 14, 1955, Serial No. 521,948
13 Claims. (Cl. 307—149)



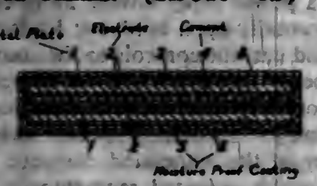
12. In calibrating apparatus of the class adapted to be energized by a source of alternating current energy to provide selected magnitudes of A.-C. and D.-C. voltages and currents to a test device connected to the apparatus output terminals, the combination of a multi-contact rotary output selector switch manually settable to condition the apparatus circuitry for delivering either A.-C. or D.-C. voltages and currents to the test device; a multi-point rotary range-selector switch manually settable to condition the circuitry of the apparatus for the current or voltage to the test device; a multi-point rotary voltage selector switch manually settable to condition the apparatus circuitry a selected range of current and voltage magnitudes to the test device, an adjustable voltage control and adjustable current control, each such control having a movable member settable to a zero voltage output position; a power relay having an operating coil and two sets of normally-open contacts; leads connecting the said voltage and current controls to the source of alternating current energy through a first set of power relay contacts; a first normally-closed switch actuated momentarily to open position as the output selector switch is set from one to another of the associated contacts; a second normally-closed switch actuated momentarily to open position as the range-selector switch is set from one to another of the associated contacts; a third normally-closed switch actuated momentarily to open position as the voltage selector switch is set from one to another of the associated contacts; a source of energizing voltage; leads connecting the said three normally-closed switches in series between one side of the power relay operating coil and one side of said energizing voltage; a first normally-open switch actuated to closed position when the adjustable member of the voltage control is set to the zero voltage output position; a second normally-open switch actuated to closed position when the adjustable member of the current control is set to the zero voltage output position; leads connecting the said two normally-open switches in series between the other side of the power relay operating coil and the other side of the said energizing voltage; and leads connecting the second set of said relay contacts between the said other side of the power relay operating coil and the said other side of the energizing voltage.

2,769,929
ELECTROKINETIC TRANSDUCERS
Edward V. Hardway, Jr., Richmond, Va., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif.
Application April 15, 1953, Serial No. 348,975
4 Claims. (Cl. 310—2)



1. In an electrokinetic transducer having an enclosure, a porous plug located in the enclosure and dividing it into two chambers, an electrokinetic liquid located in the two chambers, and movable means for changing the pressure relationship of the liquid in the chambers to cause the liquid to pass through the porous plug, the improvement which comprises displaceable means adapted to move in response to phenomenon to be measured, and compliant means coupled between the displaceable means and the movable means for applying force to the movable means which is proportional to the physical displacement of the displaceable means so that the pressure relationship of the liquid in the two chambers is proportional to the physical displacement of the displaceable means, with the combined stiffness of the movable means and of the compliant means being less than the resistance of the porous plug to the passage of the electrokinetic liquid to cause movement of the liquid through the porous plug to be small with respect to the movement of the displaceable means, so that the potential which is caused by movement of the liquid through the porous plug is proportional to the physical displacement of said displaceable means.

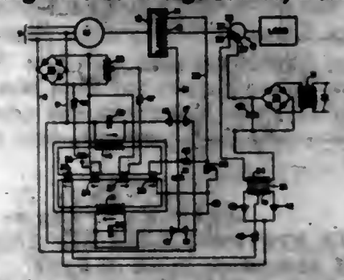
2,769,930
PIEZO-ELECTRIC DEVICES
Robert Heinrich Sturm, Enfield, England
Application October 13, 1952, Serial No. 314,563
Claims priority, application Great Britain October 15, 1951
12 Claims. (Cl. 310—8.9)




1. The method of producing a moisture proof piezo-electric transducer assembly comprising a pair of plates of piezo-electric material joined together in face to face relation which comprises the steps of applying an electrode to one face of each plate, then applying a coating of moisture-proofing material to all surfaces of said electroded plates, and then cementing the moisture proofed electroded faces of said plates together.

2,769,931
MAGNETIC AMPLIFIER CONTROL DEVICE FOR AN ELECTROMAGNETIC CLUTCH
George W. Allen, Flanders, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application March 16, 1953, Serial No. 342,663
8 Claims. (Cl. 310—95)

1. In a motor speed control system, an electric motor, and electric slip clutch driven by said motor, a variable load driven by said clutch, an excitation winding for said clutch, means for controlling the current supplied to the excitation winding including a magnetic amplifier having load windings and control windings, and a speed-responsive current supply for one of said control windings comprising a D. C. voltage source, a saturating transformer, a circuit interrupter driven by said clutch for supplying current from the D. C. voltage source to the primary of said transformer at a pulse repetition rate determined by the output speed of said clutch and of a value sufficient to saturate the transformer, and a rectifier connected between the secondary of the saturating transformer and the control winding.



2,769,932
MAGNETIC COUPLINGS
Igor V. Zozulin, George J. Okulitch, George M. Volkoff, Vladimir J. Okulitch, and Alec S. J. Elliott, Vancouver, British Columbia, Canada, assignors, by mesne assignments, to Tornaag Transmissions Limited, Vancouver, British Columbia, Canada
Application March 15, 1954, Serial No. 416,324
5 Claims. (Cl. 310—105)



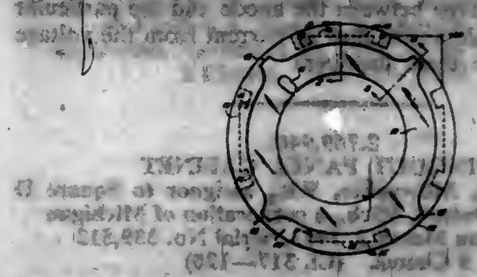
1. A slip torque coupling comprising a unit having a drive rotor and a driven rotor, said drive rotor having a hub projecting to one side of said unit and adapted to be fitted to the shaft of a motor, a hub sleeve journalled on said hub, an annular rim supported in widely spaced relation from said hub sleeve, said rim being fitted with a row of circumferentially spaced magnets, a flange supported from the outer end of said hub, said flange having a bimetallic cylindrical band in close proximity to the pole pieces of the magnets, one edge of said bimetallic cylindrical band being fitted with an internal flange, said internal flange and a substantially similar portion of the first named flange forming with the cylindrical band and the magnet carrying rim a housing enclosing the row of magnets, said bimetallic band consisting of an outer element of magnetic material and an inner element of non-magnetic material, said inner element being attached to the outer element by a zig zag row of rivets, all of said rivets being a substantial distance from the edges of the band.

2,769,933
STATOR CONSTRUCTION
Edwin C. Ballman, St. Louis, Mo., assignor to Ballman Engineering Company, St. Louis, Mo., a corporation of Missouri
Application September 4, 1953, Serial No. 378,543
4 Claims. (Cl. 310—217)

1. A substantially cylindrical core having a series of axially extending slots circumferentially spaced about 45°



and with generally radial side walls constituting the side walls of dovetail anchors, the alternate dovetails being



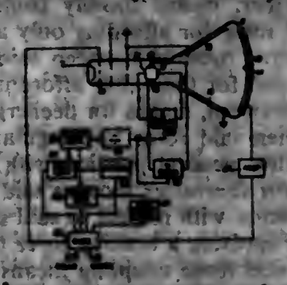
truncated to provide a space to accommodate a cylindrical segment of cast material connected by a pair of slots.

2,769,934
ROTOR CONSTRUCTION, PARTICULARLY FOR USE IN ELECTRIC MOTORS
Thomas W. Stone and James W. Tweedy, Owosso, Mich., assignors to Redmond Company, Inc., Owosso, Mich., a corporation of Michigan
Application August 16, 1955, Serial No. 528,714
16 Claims. (Cl. 310—261)



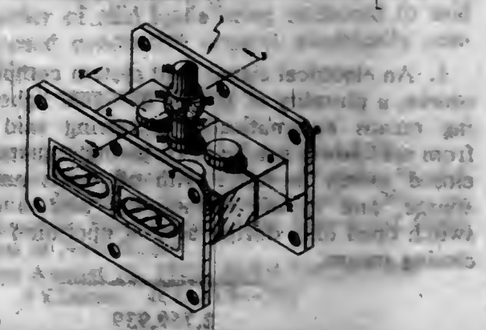
1. In combination, a shaft, a member on said shaft and having a portion radially spaced from said shaft to define a space therebetween having an axially outwardly oriented opening, and an element slidable over said shaft and having a radially collapsible part telescopable within the space between said shaft and said member portion via said opening, the normal outer diameter of said element part being greater than the inner diameter of said member portion, whereby telescoping of said element within said member causes said element to contract radially and grip said shaft and causes said member to be connected to said element, said member comprising an inner wall substantially perpendicular to and slidable over said shaft, a side wall of appreciable length extending axially outwardly from said inner wall substantially parallel to and spaced from said shaft to define said member portion, and an outer wall flaring radially outwardly from the outer end of said side wall, said outer wall permitting said member to function as an oil slinger.

2,769,935
ELECTRONIC DIGITAL COMPUTERS
Frederic C. Williams, Timperley, and Tom Kilburn, Northfield, Dewsbury, England, assignors to National Research Development Corporation, London, England
Application May 31, 1950, Serial No. 165,262
Claims priority, application Great Britain June 7, 1949
3 Claims. (Cl. 315—20)



1. In a digital computer, a storage device comprising an electric charge-retaining element, electron gun means including control means directing a beam of charged particles on said element to develop electrostatic charges on said element, deflecting means causing said beam to scan said element, means for generating and applying to said deflecting means a voltage having a waveform including progressively changing portions separated by portions of constant value whereby the beam is caused to pause for recurrent intervals of time during said scan, a pick-up plate adjacent said element to detect changes in said electrostatic charges, a dot pulse generator coupled to said control means to increase the intensity of said beam during a portion of said intervals, a dash pulse generator for generating pulses of greater duration than said dot pulses, means coupled to said control means and responsive to certain detections of said pick-up plate to extend the effect of any of said dot pulses to maintain the beam at said increased intensity for the period of a dash pulse in order to regenerate said charges, and a further pulse generator coupled to said control means for reducing the intensity of said beam during a predetermined portion of each of said intervals of time.

2,769,936
ELECTRODE STRUCTURE FOR MULTIPLE SECTION BROAD-BAND TRANSMIT RECEIVE TUBES
Henry J. McCarthy, Danvers, Mass., assignor to Bomac Laboratories Inc., Beverly, Mass., a corporation of Massachusetts
Application April 15, 1954, Serial No. 423,498
1 Claim. (Cl. 315—39)

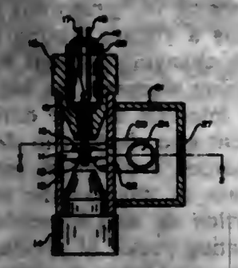


A broad-band transmit-receive tube for use in a balanced duplexer system, said tube comprising a plurality of mutually parallel wave guide envelope sections of rectangular cross section having broad and narrow walls, said wave guide sections being joined together with each section sharing a common narrow wall throughout its length with an adjacent section, said common narrow wall having an indentation at an intermediate point of one edge thereof defining with the upper broad walls a passage for a gaseous atmosphere introduced into said wave guide sections, a laterally glass-sheathed and bare-ended ignitor electrode extending into said passage with the bare-end of said electrode spaced from bottom edge of said indentation to define therewith a discharge gap.

2,769,937
TUNABLE STABILIZED MAGNETRON
Franklin Hutchinson, New Haven, Conn., and Melvin A. Herlin, Cambridge, Mass., assignors to the United States of America as represented by the Secretary of the Navy
Application May 10, 1946, Serial No. 668,782
10 Claims. (Cl. 315—39.77)

8. A combined tuning, frequency stabilizing and output coupling device adapted for external attachment to a plural cavity magnetron, said device including a cavity resonator having an input coupling aperture adapted to electrically couple said resonator to the magnetron, power output coupling means adapted to couple radio frequency energy out of said resonator, said power output coupling

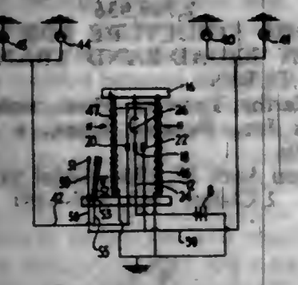
means being a substantially circular aperture in the wall of said cavity resonator opposite the input coupling aper-



ture, and tuning means coupled to said resonator for varying the resonant frequency of said resonator.

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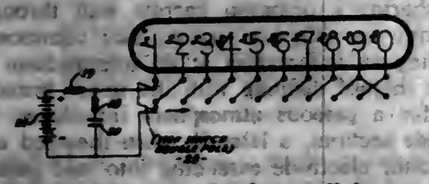
2,769,938
**MEANS FOR FLASHING SIGNAL LIGHTS**
Jacob L. Pauly, Inglewood, Calif., assignor to Theodore W. Hallerberg, Los Angeles, Calif.
Application March 11, 1955, Serial No. 493,719
3 Claims. (Cl. 315—210)



1. An electrical signal light system comprising a power source, a plurality of groups of signal lights, circuit closing means automatically energizing said signal lights from said power source in recurring sequence, a normally closed switch in series with all lights and said power source, and means maintaining said normally closed switch open only during normal operation of said circuit closing means.

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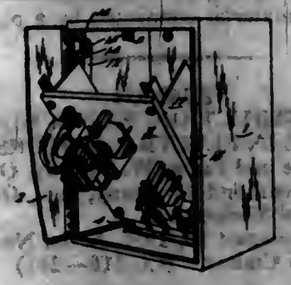
2,769,939
**READ-OUT TUBE CIRCUIT**
Charles R. Williams, Hawthorne, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application June 12, 1950, Serial No. 167,571
1 Claim. (Cl. 315—233)



In combination, a tube having a light transmitting portion, an ionizable gas disposed in the tube at a pressure for producing a glow discharge upon ionization, a plurality of cathodes disposed within the tube, the cathodes being shaped to represent different symbols and being superimposed in substantially parallel relationship to one another adjacent to the light transmitting portion of the tube, an anode disposed in the tube, a plurality of switches each associated with a different cathode, a source of direct voltage, a resistance, and a capacitance, the voltage source, the resistance and the switches being connected in series with the capacitance to provide for a charging of the capacitance upon the closure of one of the switches, the voltage source, the resistance and the switches also being connected in series with the anode and cathodes to provide for an initial flow of current from the voltage source through the anode and a particular one of the cathodes dependent upon the operation of the associated switches, the capacitance being connected across the anode and cathodes to provide at least one discharge between the anode and the particular cathode upon the initial flow of current from the voltage source through these members.

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2,769,940
**SWINGOUT PANEL CABINET**
Dorn L. Pettit, Milwaukee, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan
Application March 2, 1953, Serial No. 339,512
9 Claims. (Cl. 317—120)



1. In a panel cabinet, an enclosure having an openable door, a panel within said enclosure, circuit controlling means mounted on said panel and including manipulable elements at the back of the panel, means rigidly mounting said panel within the enclosure, means providing a rotatable axis transversely of said panel intermediate the top and bottom thereof, and means for automatically moving said axis providing means forwardly of the normal plane of the panel when the mounting means is released whereby to provide for rotation of said panel adjacent to the entrance to the enclosure.

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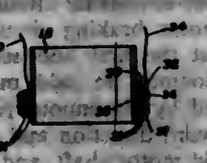
2,769,941
**ROTARY COAXIAL SWITCH ACTUATING MECHANISM**
William R. Elliott, Mayfield Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application December 5, 1951, Serial No. 259,979
12 Claims. (Cl. 317—157)



1. Indexing mechanism for selectively positioning a rotor with respect to a plurality of surrounding stations comprising a rotatable drive member, means for actuating said drive member, means loosely coupling said drive member to said rotor for affording only a predetermined amount of relative rotation between said drive member and said rotor and for thereafter affording a direct positive drive therebetween, means for deenergizing said actuating means when said rotor has angularly moved to a preselected relative general position with respect to said station, means for thereafter moving said rotor to a precise relative position with respect to said station, and separate means for applying a braking force to said rotatable drive member, said loose coupling means affording sufficient relative rotation between said braking means and said rotor to accommodate positioning of said rotor independent of the action of said braking means.



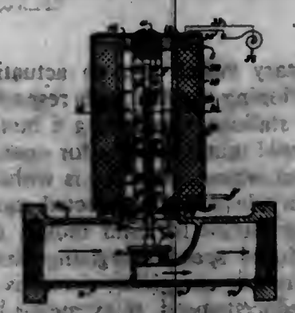
2,769,942
**VOICE COIL FOR LOUD SPEAKERS**
Joseph A. Hanson, Weymouth, Mass., assignor of one-half to Fredbal A. Hanson, Weymouth, Mass.
Application November 26, 1954, Serial No. 471,282
2 Claims. (Cl. 317—158)



1. A voice coil comprising a non-magnetic form having a split therein extending the length thereof, and a coil winding embodying wire extending around said form in two layers, said coil winding having a free end extending from an inner said layer and another free end extending from the second of said layers, a separate wire, providing a third layer, outside said second layer embodying a free end extending between two portions of said form opposite said split and beyond, and electricity conducting means uniting both said latter free ends, said wire forming said three layers being substantially circular in cross section, said separate wire lying partly in the dips between two portions of wire that are alongside of and in contact with each other and that form said first two layers.

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2,769,943
**ELECTROMAGNETIC CONTROL DEVICE**
Russell B. Matthews, Milwaukee, Wis., assignor to Milwaukee Gas Specialty Company, Milwaukee, Wis., a corporation of Wisconsin
Application April 28, 1953, Serial No. 349,667
12 Claims. (Cl. 317—168)



1. In an electromagnetic control device: annular magnetic field producing means; an elongated magnetically permeable core extending coaxially within said field producing means and providing an inner flux path therethrough; a magnetically permeable frame with respect to which said annular field producing means is fixed, said frame being connected to spaced portions of said core in flux conducting relation thereto and providing an outer flux path extending about the exterior of said annular field producing means, said core and frame forming a closed flux path; a magnetically permeable sleeve connected to said frame in flux conducting relation thereto and coaxially surrounding said core in spaced relationship to provide an annular air gap between said core and sleeve; flux diverting means for selectively shunting flux established by said field producing means radially across said annular air gap; and movable field producing means normally disposed in a predetermined position in said air gap, the fields of said fixed and movable field producing means being mutually repellent when said flux is shunted across said air gap, to thereby cause movement of said movable field producing means away from its normal position.

2,769,944
**CAPACITOR**
Sidney J. Stein, Philadelphia, and Alexander L. Pugh, Jr., Bala-Cynwyd, Pa., assignors to International Resistance Company, Philadelphia, Pa., a corporation of Delaware
Application August 18, 1953, Serial No. 375,004
4 Claims. (Cl. 317—242)

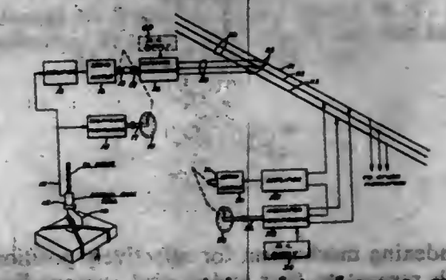


1. A capacitor comprising, in combination, a tube of dielectric material, a conductor in the form of a film of conductive material on the outer surface of said tube, and a pair of substantially like terminal leads having axially spaced extensions projecting into opposite ends of said tube and lateral flanges juxtaposed to the opposite ends of said tube, the surfaces of said flanges which face the ends of said tube tapering away from the tube from a point adjacent their inner edges toward their outer edge.

4. A capacitor comprising in combination a tube of dielectric material, a conductor in the form of a film of conductive material on the outer surface of said tube and extending from end-to-end thereof, a pair of substantially like terminal leads having axially spaced extensions projecting into opposite ends of said tube and lateral flanges juxtaposed to the opposite ends of said tube, and dielectric cement interposed between the flange of one of said leads and the adjacent end of the tube anchoring said flange to the tube and insulating said flange from said film, the flange of the other of said leads being anchored to said tube by interposed conductive cement electrically connected to said film.

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2,769,945
**ELECTRIC CRANE SCALE REPEATER**
Leonard R. Stone, Cleveland, Robert G. Watson, Euclid, and Richard J. Carleton, Jr., Chagrin Falls, Ohio, assignors to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey
Application August 12, 1952, Serial No. 304,032
4 Claims. (Cl. 318—29)



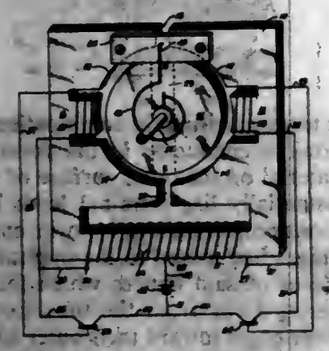
2. Apparatus for transmitting data from a movable carrier to a fixed position comprising three conductor rails and three movable contactors on the carrier engaged with the rails, a Wheatstone bridge follow-up system including a potentiometer on the carrier connected to the movable contactors and a potentiometer and servomotor connected to the rails at the fixed position, a first electrical supply for the follow-up system connected across the potentiometer on the carrier and a second electrical supply for the follow-up system connected across the potentiometer at the fixed position and in opposite polarity to the electrical supply on the carrier.

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2,769,946
**OSCILLATING COMMUTATORLESS DIRECT CURRENT MOTOR**
Harrison D. Bradford, Rye, N. Y.
Application February 16, 1955, Serial No. 488,525
14 Claims. (Cl. 318—128)

1. An oscillating commutatorless D. C. motor comprising, an electromagnetic field structure, a rotor com-

prising a permanently magnetized bar mounted for rotation with respect to said field structure, at least one driving winding on said field structure, at least one control winding on said field structure, at least one transistor, means connecting each said transistor to one of said control windings to bias said transistor to conduction when said rotor rotates, means connected to said transistor and said



driving winding to produce a flow of current in said driving windings when said transistor is conductive and means to urge said rotor to a normal position with respect to said field structure and to resist movement from said normal position, said means serving to limit the movement of said rotor under urge of said driving winding to thereby cause said rotor to oscillate about said normal position under control of said windings and said transistors.

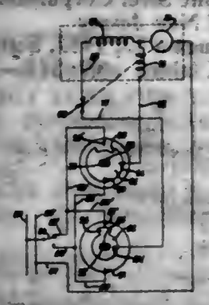
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2,769,947

**CONTROL CIRCUIT AND ACTUATING MECHANISM FOR A COAXIAL SWITCH**

William R. Elliott, Bellevue, Wash., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application January 26, 1953, Serial No. 333,106
9 Claims. (Cl. 318—267)



6. Indexing mechanism for selectively positioning a rotor with respect to first and second surrounding stations of a coaxial switch, comprising a rotor shaft in driving connection with said rotor, a motor shaft in driving connection with said rotor shaft, a motor in driving connection with said motor shaft, indexing switch means including an indexing member on said rotor shaft and rotatable therewith and a pair of arcuately spaced stationary indexing contacts disposed about said rotor shaft and cooperating with said indexing member, said indexing member having a non-conducting portion for successively isolating said first and second stationary contacts as said rotor shaft is rotated, braking switch means including a braking member on said rotor shaft and rotatable therewith and first and second braking contacts disposed arcuately about said rotor shaft and cooperating with said braking member, said braking member being operative to successively make contact with said first and second contacts as said rotor shaft is rotated, first and second motor energizing circuits including respectively said first and second indexing contacts and said indexing member for energizing said motor to drive said rotor in the forward direction, first and second motor braking circuits including respectively said first and second braking contacts and said braking member for applying a braking force to said motor shaft, the respective stationary indexing and braking contacts being arranged with respect to said rotor shaft to contemporaneously deenergize the selected motor-energizing circuit and to energize the corresponding motor braking circuit to selectively position the rotor at the first and second stations, switch means having contacts in said motor braking circuits maintained closed by continuous rotation of said motor shaft in the forward direction and opening upon reverse movement of said motor shaft, and selector means selectively accommodating energization of said first motor energizing and motor braking circuits and said second motor energizing and motor braking circuits.

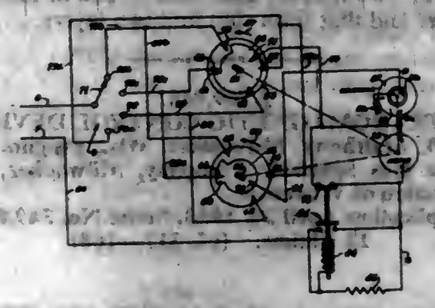
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2,769,948

**CONTROL CIRCUIT AND ACTUATING MECHANISM FOR A COAXIAL SWITCH**

William R. Elliott, Mayfield Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application January 27, 1953, Serial No. 333,482
15 Claims. (Cl. 318—275)



8. In the rotary switch art, an actuating system for selectively positioning a rotor with respect to a plurality of surrounding stations, comprising a motor, an energizing circuit for said motor, means for opening said motor energizing circuit when said rotor is within a preselected angular range in advance of a selected station, a reduced speed energizing circuit for said motor, and means for closing said reduced speed energizing circuit when said first-mentioned motor energizing circuit is opened to run said motor at reduced speed, relay means in said reduced speed energizing circuit for actuation upon opening of said reduced speed energizing circuit, a dynamic braking circuit connected across said motor and controlled by said relay means, means for opening said reduced speed energizing circuit when said rotor is in proximity to said selected station to actuate said relay means and thus close said dynamic braking circuit to stop the motor, a resistor in said first-mentioned motor energizing circuit, and short circuit conductor means shunting said resistor, said relay means controlling said short circuit conductor means and being actuated by closure of said first-mentioned motor energizing circuit to close said short circuit conductor means.

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2,769,949

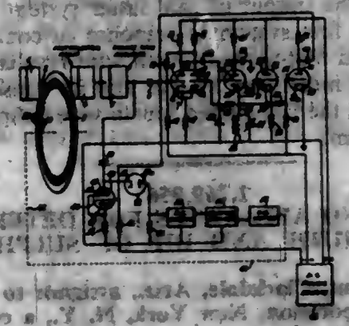
**METHOD AND APPARATUS FOR MOTOR SPEED REGULATION**

Jerry L. Stratton, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application March 23, 1954, Serial No. 418,111
5 Claims. (Cl. 318—312)

1. A speed regulating system for a D. C. motor comprising an intermittently slotted scanning disk adapted to be driven by said motor, a light source adapted to pass light rays through the slots in said scanning disk, a photoelectric pickup device positioned to receive light rays from said light source through said slots and adapted to generate a voltage when said light rays are interrupted, means to amplify said voltage, an oscillating circuit adapted to be energized by said voltage, differentiating means to provide a voltage spike at the end of each cycle of said oscillating circuit, means to apply said voltage





spike to the grid of a thyratron type tube, means to apply the amplified voltage from the photoelectric pickup to the plate of said thyratron type tube whereby when the motor varies from its normal speed a differential current is produced in said thyratron tube, and means to utilize said differential current to control the voltage in the armature of said motor and return its speed to normal.

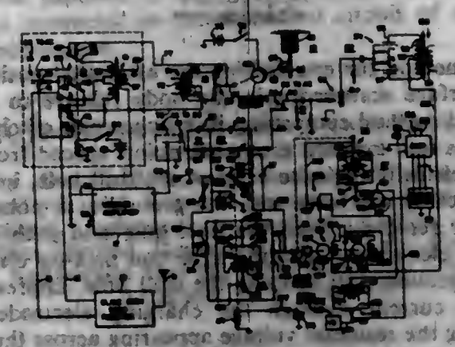
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2,769,950

**AUTOMATIC PILOTS**

Willis H. Gille, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application April 12, 1952, Serial No. 281,964
6 Claims. (Cl. 318—489)



4. Control apparatus for an aircraft having a control surface for controlling its position about an axis thereof, said apparatus comprising: position responsive means for deriving a first control signal proportional to change in position of said aircraft from a predetermined datum; a servomotor adapted to control the positioning of said surface; operating means including an amplifier reversibly controlling said servomotor; a variable magnitude direct voltage source having a pair of output terminals and adjusted from said servomotor; a first condenser having a low impedance and a first and second resistor all connected in series in the order stated and the free end of the condenser and second resistor connected to said voltage source output terminals; a second condenser having a high impedance connected across said first condenser and first resistor whereby upon continuous adjustment of said direct voltage source a second control signal having components proportional to the rate of operation of said servomotor is provided across said second resistance; and means for applying both first and second control signals to said amplifier.

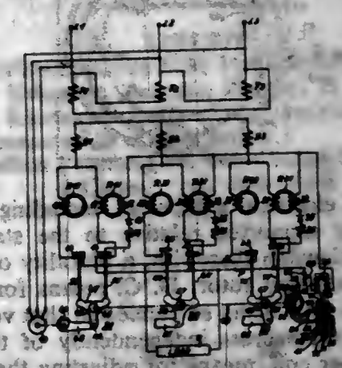
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2,769,951

**MEASURING AND REGULATING APPARATUS FOR ELECTRIC CONTACT CONVERTERS**

Hans-Joachim Klaiber-gen, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application December 21, 1951, Serial No. 262,855
Claims priority, application Germany January 11, 1951
3 Claims. (Cl. 321—45)



1. In a multi-phase commutating contact rectifier, the combination comprising a saturable switching reactor in each phase of the rectifier, a periodically opening commutation switch series-connected with said reactor, said switch comprising a pair of fixed contacts and a movable contact-bridging member, regulating means for controlling the commutation overlap of said commutation switches, said regulating means having an electro-responsive control coil, a control circuit having branches connected sequentially through the bridging member and a fixed contact of respective ones of said commutation switches, said control circuit comprising in each of said branches an auxiliary winding on the pertaining one of said reactors, and diode rectifier means series-connected with said control coil in said circuit.

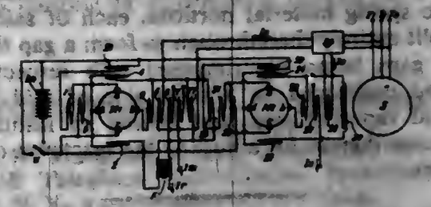
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2,769,952

**EXCITATION SYSTEM AND CONTROL THEREFOR**

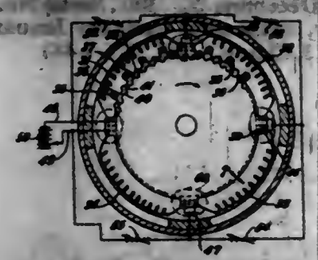
Joseph M. Pestarini, Staten Island, N. Y.

Application June 30, 1953, Serial No. 365,169
10 Claims. (Cl. 322—24)



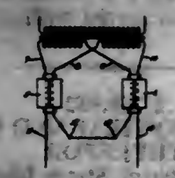
1. An excitation system for an electrical machine having an excitation winding, comprising a main exciter metadyne having a pair of primary brushes, a pair of secondary brushes displaced from said primary brushes and providing an output excitation current, and a plurality of control windings, circuit means connecting said secondary brushes with said excitation winding, and a pilot exciter metadyne for controlling the output current of said main exciter metadyne, said pilot exciter metadyne having a pair of primary brushes, a pair of secondary brushes displaced relative to said primary brushes, and a plurality of control windings, circuit means connecting said last mentioned secondary brushes to one control winding of the main exciter metadyne, means for sensing the output of said electrical machine to provide a control current proportional to an electrical characteristic of said output, and circuit means connecting said sensing means and one of the control windings of said pilot exciter metadyne.

2,769,953
**FIELD COIL BALANCING ARRANGEMENT**
Clarence F. Schwan, Cleveland, Ohio, assignor to The Ohio Crankshaft Company, Cleveland, Ohio, a corporation of Ohio
Application July 27, 1951, Serial No. 238,077
14 Claims. (Cl. 322—58)



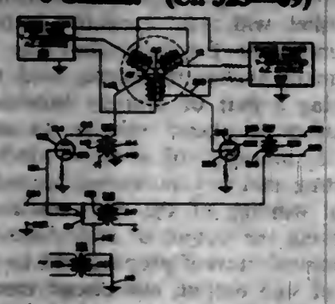
1. Rotating electrical equipment, including a stator, a rotor rotatably supported relative to the stator and in operative relationship therewith, a plurality of field coils positioned about said rotor, D. C. means for energizing said coils, said coils being so connected that voltages may be developed thereacross independently of the voltages across any other coil, means for adjusting the energizing current in each field coil relative to the other field coil or coils and other means for flowing an alternating current in said coils superimposed on the D. C. current of a magnitude and phase such as to offset the tendency of the flux of any one coil to vary due to dynamic unbalance of the rotor.

2,769,954
**REACTORS AND REACTOR CONNECTIONS**
Thomas M. Evans, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application March 9, 1953, Serial No. 341,095
6 Claims. (Cl. 323—61)



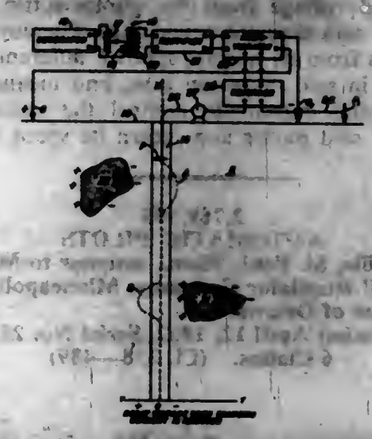
1. A laminated reactor core comprising an insulating tube snugly surrounded by a plurality of annular metallic magnetic spring material portions, each of said portions being split entirely therethrough to form a gap therein, all of said gaps being superimposed with respect to each other and positioned on a same side of said insulating tube, said superimposed gaps having an insulating material wedge therein for adjusting the reactance of said reactor core.

2,769,955
**THERMAL TIME DELAY CIRCUIT**
John Jarvis, Dumont, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application December 4, 1952, Serial No. 324,000
6 Claims. (Cl. 323—69)



1. An electrical control device comprising a heating system including a normally balanced three-phase, four-wire resistive network, a three-phase power source for said network, a source of control energy for said fourth wire, whereby control energy supplied to said fourth wire unbalances said resistive network resulting in a heating of selected resistances, a system in heat exchange relationship with said heating system including a second normally balanced three-phase, four-wire resistive network, and a three-phase power source for said network, the fourth wire defining the output of said latter system whereby a heating of the first system in response to control energy supplied to said first-named fourth wire results in a heating of the last-mentioned system and its consequent unbalance so that the last-named fourth wire defines the output of the system.

2,769,956
**METHOD AND APPARATUS FOR DETERMINING THE AZIMUTH AND DIP OF SULPHIDE DEPOSITS**
Arthur A. Brant, Clarkdale, Ariz., assignor to Newmont Mining Corporation, New York, N. Y., a corporation of Delaware
Application October 4, 1954, Serial No. 460,214
11 Claims. (Cl. 324—1)

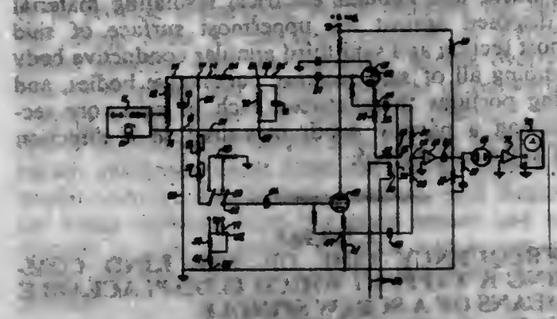


1. A method for establishing the azimuthal position of a sub-surface scattered sulphide body relative to a drill hole, said method comprising inserting a pair of charging electrodes into exposed ground at points spaced from and on diametrically opposite sides of the drill hole, inserting a first pick-up electrode into the ground at a point relatively far removed from the drill hole and each of the charging electrodes, inserting a second pick-up electrode into the ground wall defining the drill hole, impressing a pulse of current through the charging electrodes and measuring the resultant voltage appearing across the pick-up electrodes immediately after the termination of the current pulse, moving the second pick-up electrode in discrete steps along the drill hole, and measuring the resultant voltage appearing across the pick-up electrodes immediately upon termination of a current pulse through the charging electrodes for each new position of the second pick-up electrode, the polarities of the said resultant voltages being indicative of the location of the sulphide body relative to the drill hole and either of the charging electrodes.

2,769,957
**COMPARATOR**
Ralph Zito, Jr., Mount Vernon, and Frederick S. Dellenbaugh III, Chappaqua, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application July 31, 1953, Serial No. 371,612
6 Claims. (Cl. 324—57)

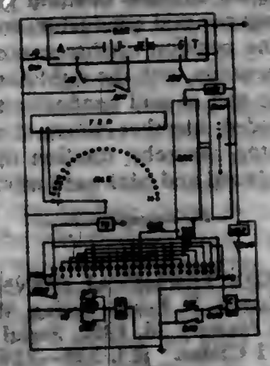
4. A device for determining the Q of a coil comprising, an adjustable frequency alternating current signal generator, an output circuit therefor, said coil being connected in shunt with said output circuit, a triode having its grid connected to one terminal of said coil and its cathode connected through an unbypassed resistor to the remaining terminal of said coil, a calibrating circuit connected in shunt with said output circuit consisting solely of resistive elements and including an adjustable resistor and a potential dividing resistor connected in series, said potential dividing resistor having an intermediate terminal so positioned that the resistance included between said intermediate terminal and one end of the resistor is .707 of the total resistance of said potential dividing resistor, a triode having its cathode connected through an unbypassed resistor to one end terminal of said potential dividing resistor, switch means selectively connecting the grid of said triode to the other end terminal





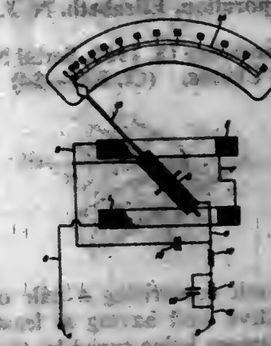
and the intermediate terminal of said potential dividing resistor, a pair of resistors connected in series between intermediate terminals of said cathode resistors, a vibrator having a pair of fixed contacts each connected to respective opposed end terminals of said pair of series resistors and an armature connected in common to the ends of said cathode resistors remote from the respective cathodes, means for operating said armature at a frequency not exceeding one-half of the frequency of the signal produced by said alternating current signal generator, an amplifier having its input connected to the common junction of said pair of series resistors and its output connected to the deflection circuit of a cathode ray oscilloscope.

2,769,958
**AUTOMATIC MEASURING AND PRINTING APPARATUS**
Stanley George Meadows, Hemelhempstead, Lister Hollas, Romford, and Edward Searles, Plumstead, London, England, assignors to Southern United Telephone Cables Limited, Dagenham Dock, Essex, England
Application May 25, 1953, Serial No. 356,972
8 Claims. (Cl. 324—73)



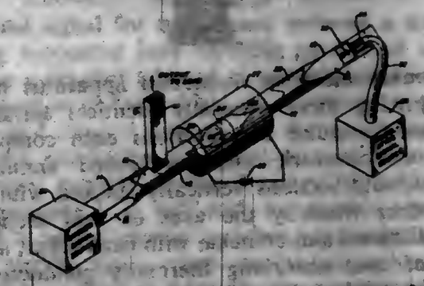
1. Apparatus for automatically obtaining and printing the reading of an instrument or a group of instruments and for printing successive readings as columns of figures on a record sheet, comprising a record sheet carrier, means for producing relative step-by-step movement between the carrier and a printing position, a number of type-actuating electro-magnets, a cascade of relays for selecting circuits through the electro-magnets, means responsive to each instrument reading for actuating the relays to prepare the circuits to the type-actuating electro-magnets appropriate for that reading, a position switch operatively connected with and actuated by the relative step-by-step movement of the carrier, circuits to the electro-magnets for selection by the position switch according to the position of the carrier, and means for interrelating the circuits established by the cascade of relays with the circuits established in an associated position of the position switch to actuate the appropriate electro-magnets to print a part of the reading.

2,769,959
**DYNAMOMETER INSTRUMENT**
Royden F. Estoppey, Berkeley Heights, N. J., assignor to Weston Electrical Instrument Corporation, Newark, N. J., a corporation of New Jersey
Application February 24, 1953, Serial No. 338,665
1 Claim. (Cl. 324—144)



A frequency compensated dynamometer voltmeter comprising a field coil and a movable coil connected in series, said movable coil being pivotally mounted for rotation to either side of the position of zero mutual inductance with respect to the field coil upon connection of the field and movable coils to a source of alternating current; a pointer carried by the field coil and cooperating with a scale calibrated in volts; and a capacitor connected directly across the movable coil, said capacitor having a value such that the circulating current flowing in the movable coil and capacitor as a result of the voltage induced in the movable coil will produce a coil rotation torque that is opposite to that brought about by a corresponding change in the mutual inductance between the field coil and movable coil as the latter is displaced from the position of zero mutual inductance.

2,769,960
**NON-RECIPROCAL WAVE TRANSMISSION NETWORKS**
William W. Mumford, Atlantic Highlands, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 27, 1951, Serial No. 263,656
3 Claims. (Cl. 332—52)



1. Modulating apparatus comprising a section of wave guide adapted to support electromagnetic wave energy in a plurality of linear polarizations, a pair of polarization-selective connections at one location along said guide each coupled to an orthogonal polarization of linearly polarized wave energy at said location, a source of linearly polar-

and carrier energy connected to one of said connections, a load circuit connected to the other of said connections, a polarization-selective connection at another location along said guide coupled to a polarization of linearly polarized wave energy therein related by an angle to the polarization of said one connection at said one location, a source of modulating energy, a non-linear impedance coupling said modulating source exclusively to said linearly polarized energy in said connection at said other location, and a ferromagnetic element producing a Faraday-effect rotation of polarization of said energy interposed in said guide between said locations and having an angle of rotation equal to said angle.

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2,769,961

**HIGH FREQUENCY INTERSTAGE COUPLING**

John Chesney, Roselle Park, N. J., assignor to General Instrument Corporation, Elizabeth, N. J., a corporation of New Jersey

Application December 18, 1953, Serial No. 398,940
10 Claims. (Cl. 333—24)



1. In a tuning unit comprising a pair of stages separated by a conductive wall having at least one opening therethrough, said stages being tuned by the simultaneous rotation of tuning elements for each stage, said elements being mounted on a common shaft passing through an opening in and spaced from said wall; a combined coupling and shaft-contacting element comprising a pair of wiper segments, one on each side of said wall, one end of each of the said segments being conductively secured to said wall, the other ends of said segments being conductively connected by a member separate from said shaft which passes through and is spaced from an opening in said wall, said segments engaging said shaft and wiping thereover as said shaft is rotated.

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2,769,962

**COOLING MEANS FOR LAMINATED MAGNETIC CORES**

William S. Melville, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company

Application July 1, 1953, Serial No. 365,508
Claims priority, application Great Britain August 22, 1952
1 Claim. (Cl. 336—61)



A stationary electrical induction apparatus magnetic core comprising three generally identical spirally strip wound closed annular core sections each comprising a plurality of concentric and superposed annular turn laminations, said sections vertically stacked with respect to each other whereby the axes of said sections are vertically disposed and coincide with each other, an annular body of heat absorbing thermally conductive nonmagnetic material positioned between the uppermost and central sections and making contact with all of the bottom side edges of all of the turn laminations of said uppermost section, an annular portion of electrical insulating material disposed between said conductive body and central section making contact with said conductive body and the upper side edges of all of the turn laminations of said central section, another annular conductive body and insulating portion identical to said first mentioned annular conductive body and insulating portion identically disposed with respect to said central section and the lowermost of said sections as said first mentioned annular conductive body and insulating portion are disposed with respect to said uppermost and central sections, a third annular conductive body identical to said first mentioned conductive body identically disposed with respect to said lowermost section as said first mentioned conductive body is disposed with respect to said uppermost section, each of said conductive bodies having an annular cooling duct formed therein, a cooling fluid circulated through said cooling ducts, and annular electrical insulating material plates disposed against the uppermost surface of said uppermost section and said third annular conductive body for clamping all of said sections, conductive bodies, and insulating portions therebetween each of said core sections having a narrow depth measured in a direction parallel to the axis thereof.

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2,769,963

**HIGH-FREQUENCY COIL OF THE KIND COMPRISING A TAPPING WHICH IS DISPLACEABLE BY MEANS OF A SCREW SPINDLE**

Geerwijn Van Gelder and Wilhelmus Lambertus Yervaat, Hilversum, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application October 29, 1952, Serial No. 317,412
Claims priority, application Netherlands October 30, 1951
11 Claims. (Cl. 336—139)



1. A high frequency coil comprising a support, a spindle having a right and a left handed screw thread, said spindle having a given longitudinal axis and being mounted on said support, a contact carrier displaceable along said longitudinal axis, a right hand threaded member supported by and freely rotatable within the contact carrier, a left hand threaded member also supported by and freely rotatable within the contact carrier, both of said threaded members being mounted in engagement with the threaded spindle, a spiral shaped conductor, a contact member mounted on said carrier, said contact member having an engaged position in which said contact member engages said conductor, and coupling means responsive to the position of the carrier to link the contact carrier alternately with the right hand threaded member when at one end of said conductor and then with the left hand threaded member when at the opposite end of said conductor, whereby rotation in only one direction causes a forward and backward motion of the carrier.

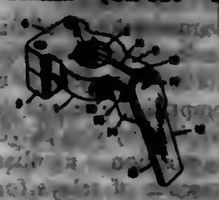
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2,769,964

**BATTERY TERMINAL CONNECTOR**

George F. Lantz, Sterling, Wis.

Application January 30, 1952, Serial No. 269,043
1 Claim. (Cl. 339—226)



In a battery terminal connector having a clamp with a pair of arms in spaced relation with each other and



forming an opening therebetween for receiving a battery terminal, an integral lever member for clamping the arms together about the battery terminal and for spreading the arms to release the terminal, said lever member being of uniform thickness and comprising an elongated handle, two side ears at one end portion of the handle and on opposite sides thereof, pivot means mounting said side ears near the respective outer upper corners of the clamp arms of the connector with the clamp arms being disposed between the ears, said side ears having opposed inner surfaces which diverge outwardly from the handle at an acute angle, the dimension between the side ears at the pivot means being greater than the dimension between the upper parts thereof to provide a clamping action between the ears upon the clamp arms as the lever member is pivoted to a closed position with the elongated handle overlying the battery terminal, and a finger member of outwardly converging wedge form and depending centrally from the end of the elongated handle adjacent the pivot mounting means positioned apart from the clamp arms when the handle overlies the battery terminal, said finger member being separate from the pivot means and movable through a path to wedge between and to separate the clamp arms as the lever member is pivoted to an open position.

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2,769,965

**NYLON-JACKETED CONNECTOR**

John Nelson Frey, Moorestown, N. J., assignor to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey

Continuation of application Serial No. 233,662, June 26, 1951. This application March 7, 1956, Serial No. 570,975
11 Claims. (Cl. 339—276)



1. In the art of crimping an electric connector onto a conductor therein, wherein the connector comprises three preformed members in telescopic relation, the inner member being a sleeve of highly conductive malleable metal fashioned to form mechanical and electrical engagement with a conductor therein, the intermediate member being a sleeve of thin malleable metal and the outer member being a sleeve formed of insulating material having plastic memory said capable of automatically distending outwardly towards its original configuration when free of inwardly deforming forces, and wherein the outer sleeve initially has an internal diameter slightly less than the external diameter of the intermediate sleeve, the method which consists in momentarily stretching the outer sleeve, drawing the outer sleeve while so stretched over the intermediate sleeve to cause the outer sleeve to engage the intermediate sleeve frictionally but otherwise free to creep thereon, subjecting the connector so assembled for a limited length thereof to a crimping squeeze force applied from the outside through all three sleeves, with a force sufficient to bend inwardly both the inner sleeve and the intermediate sleeve beyond their respective elastic limits and thus permanently deform the inner sleeve into a crimped engagement with conductors therein and to deform both the inner and intermediate sleeves into an interlocking relation, and finally releasing the connector from all deforming forces acting thereon and thus to permit the outer sleeve in the area so squeezed to recede outwardly by virtue of its plastic memory from the inwardly deformed portion of the intermediate sleeve, thereby to form an air space between the outer and intermediate sleeves at the place so deformed while permitting readjustment to take place automatically between the outer and intermediate sleeves.

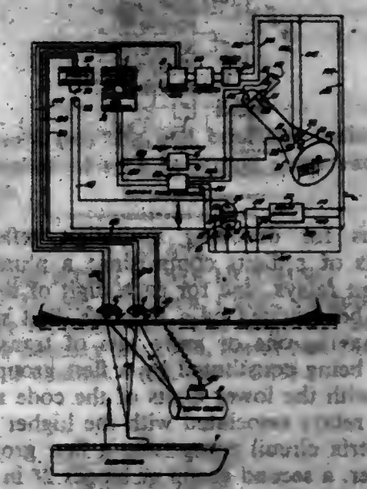
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2,769,966

**SOUND SYSTEM**

Robert H. Rines, Brookline, Mass.

Original application October 29, 1945, Serial No. 625,162. Divided and this application July 24, 1947, Serial No. 763,390
9 Claims. (Cl. 340—3)



2. An electric system having, in combination, sound-locating means for detecting an object provided with explodable means, voltage-producing means for continuously selecting a future position of the explodable object, and sound-controlled means separate from the sound-locating means responsive to the voltage of the selecting means and to the sound-locating means for automatically energizing the explodable means to explode the object when it reaches the future position during the continued detecting of the object by the sound-locating means.

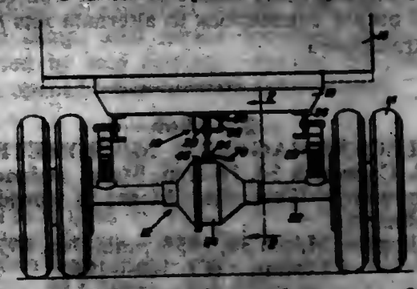
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2,769,967

**LOAD SIGNAL FOR VEHICLES**

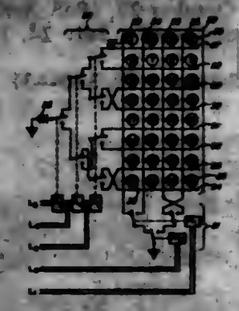
Josef S. Lukocevich, Tallmadge, Ohio

Application December 7, 1954, Serial No. 473,567
3 Claims. (Cl. 340—52)



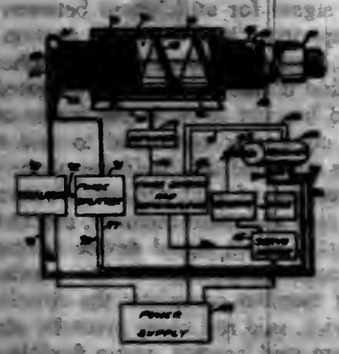
2. A load signal for attachment between a frame and the spring supported load carrying portion of a vehicle comprising a bracket adapted to be attached to the load carrying portion of the vehicle, an elongated rod projecting from said bracket towards the frame of the vehicle, an electrical conductor connected to said rod, an abutment member mounted on the frame of the vehicle in the path of movement of said rod, an electrical conductor connected to said abutment member, means for supplying electrical energy, and a signal device interconnecting the ends of the conductors whereby the contact of the rod and abutment member completes the circuit and actuates the signal device, said rod being pivotally attached to and depending from said bracket, and a flexible control cable attached to said rod for pivoting the rod to an inoperative position, said control cable terminating remotely from the rod adjacent the vehicle controls.

2,769,968
MATRIX TYPE DECODING CIRCUIT FOR BINARY CODE SIGNALS
Henry R. Schuchleiz, Jr., Reseda, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application July 13, 1953, Serial No. 367,554
1 Claim. (Cl. 340—166)



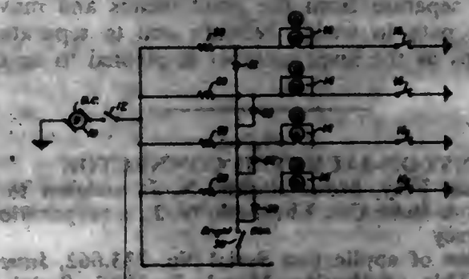
Apparatus for decoding multidigit reflected binary code signals of $z$ digits comprising: a plurality of two-position digit relays, one for each digit of the code, each adapted to be actuated by a separate digit signal of said code and having one or more sets of transfer contacts, said relays being constituted by a first group of $x$ relays associated with the lower digits of the code and a second group of $y$ relays associated with the higher digits of the code; a matrix circuit comprising a first group of busses $2^x$ in number, a second group of busses $2^y$ in number and $2^x2^y$ electrical indicators each responsive to potential between a different pair of first and second group busses; a source of potential; means connecting the contacts of said first group of $x$ relays in a first tree circuit between one terminal of said source and all the busses of said first group; means connecting the contacts of said second group of $y$ relays in a tree circuit between the other terminal of said source and all the busses of said second group; each tree circuit having as many tiers as tere are relays in its associated group and the lowest tier relay in each group having one transfer contact set, and each other relay having twice as many independent transfer contact sets as the next lower tier relay; the lowest digit relay in each group being in the highest tier in the associated tree circuit and successively higher digit relays being in successively lower tiers of the tree circuit, and each tier of said tree circuits containing more than one set of transfer contacts having its output connections to alternate sets of transfer contacts transposed.

2,769,969
ELECTROMAGNETIC MICROMETER
George E. Comstock 3d, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application March 30, 1955, Serial No. 497,940
6 Claims. (Cl. 340—196)



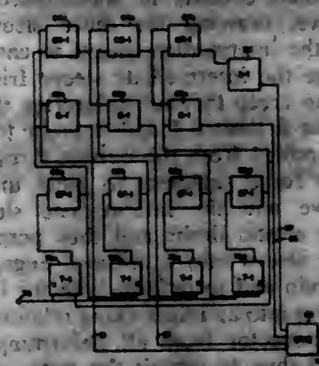
1. In apparatus of the class described, means for producing two phase alternating current voltage, a transformer primary connected to said means for producing two phase voltage, said primary comprising a pair of bifilar windings, said bifilar windings being helical of equal lead and arranged in overlapping relation, a transformer secondary the turns of which are helical and spaced by a uniform distance from said primary bifilar windings and said turns having the same lead as the turns of the said primary bifilar windings, a pair of rectilinearly movable machine elements, said primary being secured to one of said pair of elements and said secondary being secured to the other of said pair of elements, electrical means connected to the transformer secondary giving an output responsive to the relative position of said primary with respect to said secondary, and means responsive to said output to indicate said relative position of the machine elements.

2,769,970
INDICATOR LAMP DIMMING CIRCUIT
Robert E. Kentville, Torrance, Calif., assignor to Theodore W. Hallerberg, Los Angeles, Calif.
Application February 9, 1956, Serial No. 564,556
2 Claims. (Cl. 340—213)



1. In a warning system or the like comprising a power source, a plurality of parallel indicating circuits connected to said power source, each parallel circuit including a resistor, an indicating device and a function switch in series, the improvement comprising means to shunt the resistor in each of said parallel circuits including a diode connected between the resistor and indicating device and conducting in the direction of or away from said indicating device, depending on circuit polarity, and a single switch connected between said power source and all of said diodes in parallel, whereby closure of a function switch will cause only its associated indicating device to be connected to said power source through its connected diode and around its associated resistor when said single switch is closed.

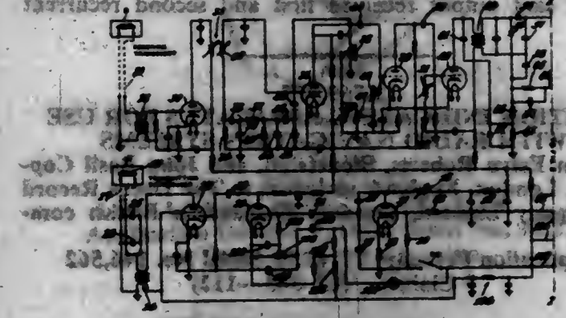
2,769,971
RING CHECKING CIRCUIT
Charles J. Bashe, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application October 4, 1954, Serial No. 460,690
7 Claims. (Cl. 340—213)



1. A storage checking circuit for a plurality of electronic bistable devices each of which has an "on" and "off" condition comprising sensing means associated with said plurality of electronic bistable devices for sensing the storage condition of said plurality of electronic bistable devices and indicator means responsive to said sensing means for producing an error indication whenever none or more than one of said plurality of electronic bistable devices is in an "on" condition.



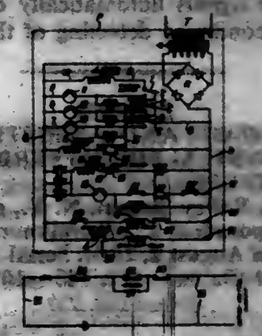
2,769,972
METHOD AND APPARATUS FOR DETECTING MOTION
Leslie A. MacDonald, New Hyde Park, N. Y., assignor to American District Telegraph Company, Jersey City, N. J., a corporation of New Jersey
Application March 18, 1954, Serial No. 416,350
24 Claims. (Cl. 340—258)



1. A motion detection system, comprising an oscillator for producing a first alternating current having a given frequency, transmitting means coupled to said oscillator and arranged to convert said alternating current into radiant energy, receiving means arranged to receive radiant energy transmitted by said transmitting means and to convert said received radiant energy into a second alternating current, alarm indicating means, means responsive to modulation components in said second alternating current to produce an alarm signal, means to apply said alarm signal to said alarm indicating means in a sense to cause the latter to produce an alarm indication, means to derive from said second alternating current a supervisory signal proportional in amplitude to the strength of the received radiant energy, means to apply said supervisory signal to said oscillator in a sense to change the frequency of the first alternating current in response to changes in strength of the received radiant energy, and means to apply said supervisory signal to said alarm indicating means in a sense to cause the latter to produce an alarm indication in response to a drop in received radiant energy below a predetermined level.

2,769,973
MEANS FOR INDICATING FAULTS ON ELECTRICALLY DRIVEN CONVEYOR SYSTEMS
George Denholm and Leonard Archer Nordmann, Gateshead-on-Tyne, England, assignors to Hugh Wood & Company Limited, Gateshead-on-Tyne, England, a British company
Application September 23, 1953, Serial No. 381,911
Claims priority, application Great Britain December 17, 1952
6 Claims. (Cl. 340—267)

1. In an electrical belt conveyor system comprising a belt conveyor fitted with a set of protective devices including one appertaining to belt slip and breakage and including another protective device appertaining to a condition other than belt slip and breakage, a set of electrically operated fault-indicating devices appertaining to the respective said protective devices, means operative on the functioning of said other protective device to energise the respective fault-indicating device, while at that time preventing energization of the belt slip and breakage indicating device, and means operative at starting of said conveyor to prevent energisation of the belt slip and breakage indicating device during a time-delay period and at the expiration of that period automatically to set



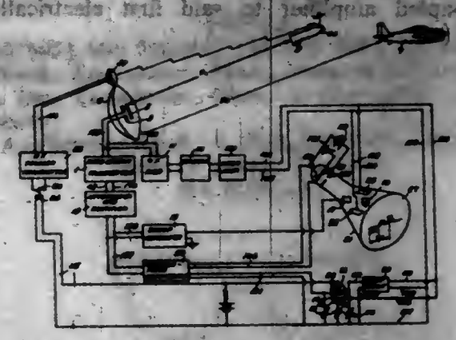
the circuit of said belt slip and breakage indicating device for energisation of such device on occurrence of belt slip or breakage.

2,769,974
INDICATOR LAMP HOUSING
Marvin F. Hayes, Compton, Calif., assignor to Theodore W. Hallerberg, Los Angeles, Calif.
Application January 24, 1956, Serial No. 561,170
3 Claims. (Cl. 340—366)



1. A lamp container for an illuminatable warning device comprising an outer housing, a hollow lamp-carrying block mounted for rotation within said housing, said block having a portion thereof constituting a translucent indicia bearing face, at least one lamp having its bulb portion extending into said hollow block and having its base portion extending outwardly thereof, a stationary electrical contact carried within said housing and registering with said lamp base contact when said block is in a predetermined position, said lamp base contacts being movable out of registry with said stationary contacts by partial rotation of said block, and means carried by said block to establish an electrical contact with the shell portion of said lamp, said means including a stationary contact carried by said housing whereby the circuit to said lamp is opened when said block is rotated.

2,769,975
ELECTROMAGNETIC OBJECT-TRACKING-AND-DESTROYING METHOD AND SYSTEM
Robert Harvey Rines, Brookline, Mass.
Application October 29, 1945, Serial No. 625,162
44 Claims. (Cl. 343—7)

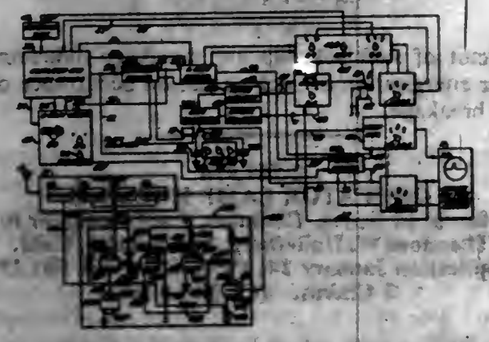


1. An electric system having, in combination, means for detecting an explodable object and producing a voltage signal corresponding to the same, means for produc-

ing a voltage signal indicative of the occupation by the object of a predetermined position, and means separate from the detecting means for thereupon in response to the said voltage signals automatically exploding the object during the continued detecting of the object.

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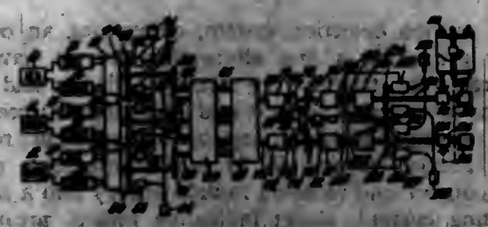
2,769,976
**AUTOMATIC GAIN AND AMPLITUDE BALANCE CONTROL SYSTEM FOR HYPERBOLIC NAVIGATION RECEIVERS**
Edward Durbin, Valley Stream, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application August 2, 1954, Serial No. 446,999
9 Claims. (Cl. 343—103)



1. In a radio navigation receiver responsive to recurrent pulses including a first pulse received during a first time interval and a second pulse received during a second time interval wherein the strength of the received first pulses may be different from the strength of the received second pulses, said receiver including first and second electrically controllable variable gain amplifiers; means for producing a voltage whose phase is determined by the strength of the received first pulses relative to the strength of the received second pulses and whose amplitude is determined by the difference in strengths between the received first and second pulses, comprising in combination, first and second condensers, switching means coupled to said first and second condensers, means energizing said switching means for coupling said first condenser across the output of said navigation receiver during said first time interval and for coupling said second condenser across the output of said navigation receiver during said second time interval, said first condenser being responsive to said first pulse for producing a first direct potential varying according to the strength of said first pulse, said second condenser being responsive to said second pulse for producing a second direct potential varying according to the strength of said second pulse, the voltage across the output of said receiver alternating between said first direct potential and said second direct potential, direct-coupled amplifier means coupled to the output of said navigation receiver for amplifying said voltage alternating between said first and second direct potentials, means coupling said amplified voltage from the output of said direct-coupled amplifier to said first electrically controllable variable gain amplifier for varying the gain of said receiver during one of said time intervals, integrating means coupled to the output of said direct-coupled amplifier, said integrating means including a series resistor and a shunt condenser, said shunt condenser being charged by the amplified voltage alternating between said first and second direct potentials, rectifier means coupled across said series resistor, said rectifier means partially discharging said shunt condenser when the voltage across said shunt condenser increases above the value of one of the amplified first and second direct potentials, and means coupling the voltage across said shunt condenser varying substantially according to the magnitude of one of the amplified first and second direct potentials to said second electrically controllable variable gain amplifier for substantially suppressing variations in the magnitude of one of said output received first and second recurrent pulses.

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2,769,977
**POSITION INDICATING APPARATUS FOR USE WITH RADIO NAVIGATION SYSTEMS**
Graham Estyn Roberts, Stanleigh, and John Basil Copping, London, England, assignors to The Decca Record Company Limited, London, England, a British company
Application February 27, 1950, Serial No. 146,562
9 Claims. (Cl. 343—112)



1. For use with a radio navigation system having means on a vehicle for producing at least two sets of electrical signals providing positional information from which the chart position of the vehicle can be determined, a chart position indicating apparatus comprising: a chart movable to and fro in one direction; an index movable to and fro over the chart in a transverse direction; electro-mechanical means responsive to one of said sets of signals for moving the chart in said one direction in accordance with changes in said signals; electro-mechanical means responsive to another of said sets of signals for moving the index over the chart in said transverse direction in accordance with changes in said signals; a stylus carried by said index and arranged to mark the chart so that the movements of the index relative to the chart are recorded thereon; shifting means operable upon periodic actuation to displace and return the stylus relative to the chart, whereby marks may be made on the recorded track of the vehicle at successive periodically occurring instants; and actuating means coupled to said shifting means and responsive to periodic modification of one of said sets of signals for actuating said shifting means.

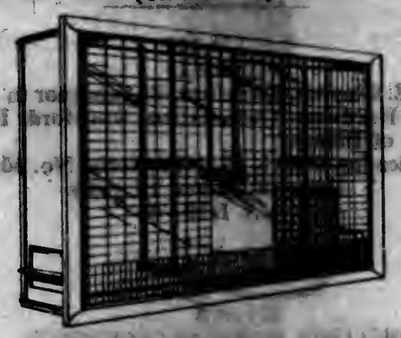
# DESIGNS

## NOVEMBER 6, 1956

179,107
**PIG CREEP FEEDER**
John Quincy Adams, Clark, Mo.
Application June 2, 1955, Serial No. 36,335
Term of patent 14 years
(Cl. D12—2)



179,108
**BIRD CAGE**
Adolph Adamson, Lomita, Calif.
Application October 7, 1955, Serial No. 38,275
Term of patent 14 years
(Cl. D31—2)



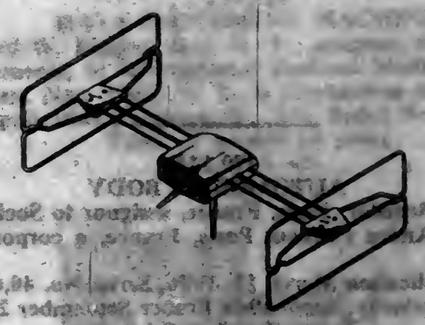
179,109
**RUBBER BABY PANTS**
Paul E. Ambrose, Dover, Del., assignor to International Latex Corporation, Dover, Del., a corporation of Delaware
Application January 11, 1955, Serial No. 33,928
Term of patent 14 years
(Cl. D3—17)



179,110
**FLEXIBLE DIATHERMY ELECTRODE**
Fritz A. Anderson, Milton, and Sherrill K. Rasmussen, Milton Junction, Wis., assignors to The Burdick Corporation, Milton, Wis., a corporation of Delaware
Application April 7, 1954, Serial No. 29,888
Term of patent 14 years
(Cl. D26—1)



179,111
**TELEVISION ANTENNA**
Alex M. Ballan, Wawarsing, Albert Sokol, Ellenville, and Thomas Arlan Richmond, Middletown, N. Y., assignors to Channel Master Corporation, Ellenville, N. N. Y., a corporation of New York
Application May 17, 1956, Serial No. 41,523
Term of patent 14 years
(Cl. D26—14)



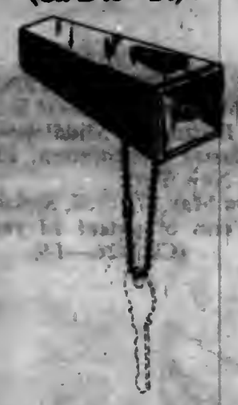
179,112
**LUBRICATOR, FILTER AND REGULATOR UNIT**
Robert E. Becher, Logansport, Ind., assignor to Logansport Machine Company, Inc., a corporation of Indiana
Application February 14, 1956, Serial No. 40,164
Term of patent 14 years
(Cl. D52—1)



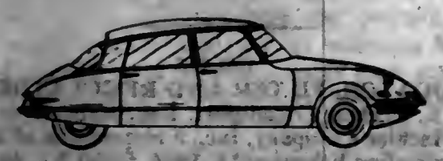
179,113
**SUNGLASS FRAME FRONT OR THE LIKE**
Jack Bloch, Leominster, Mass., assignor to Foster Grant Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application April 10, 1956, Serial No. 41,009
Term of patent 14 years
(Cl. D57—1)



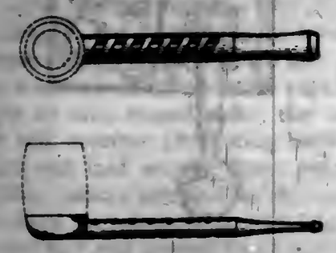
179,114
COMBINED FLASHLIGHT AND KEY CHAIN
Richard Brody, Sunnyside, N. Y.
Application July 11, 1956, Serial No. 42,215
Term of patent 14 years
(Cl. D48—24)



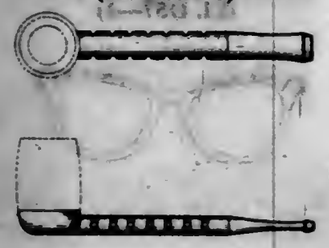
179,115
AUTOMOBILE BODY
Antoine Brueder, Paris, France, assignor to Societe Anonyme Andre Citroen, Paris, France, a corporation of France
Application March 19, 1956, Serial No. 40,663
Claims priority, application France September 22, 1955
Term of patent 14 years
(Cl. D14—3)



179,116
TOBACCO PIPE
Kenly C. Bagg, Fort Wayne, Ind., assignor to Falcon Industries, Inc., Fort Wayne, Ind., a corporation of Indiana
Application January 6, 1955, Serial No. 33,858
Term of patent 14 years
(Cl. D85—8)



179,117
SMOKER'S PIPE
Kenly C. Bagg, Fort Wayne, Ind., assignor to Falcon Industries, Inc., Fort Wayne, Ind., a corporation of Indiana
Application January 6, 1955, Serial No. 33,859
Term of patent 14 years
(Cl. D85—8)



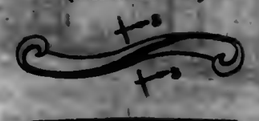
179,118
FISHING LURE
Frank P. Caldwell, Sr., St. Petersburg, Fla.
Application September 13, 1955, Serial No. 37,896
Term of patent 14 years
(Cl. D31—4)



179,119
HOUSING FOR A SLIDE PROJECTOR OR THE LIKE
Dave Chapman, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Application April 27, 1956, Serial No. 41,245
Term of patent 14 years
(Cl. D61—1)



179,120
PULL
La Verne E. Clayton, Rockford, Ill., assignor to American Cabinet Hardware Corporation, Rockford, Ill., a corporation of Illinois
Application March 30, 1956, Serial No. 40,842
Term of patent 14 years
(Cl. D10—8)



179,121
DRESS
Irving Cohen, New York, N. Y.
Application July 19, 1956, Serial No. 42,299
Term of patent 3½ years
(Cl. D3—26)

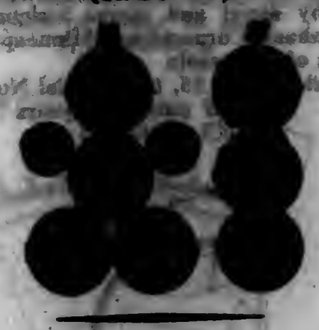


179,122
DRESS
Irving Cohen, New York, N. Y.
Application July 19, 1956, Serial No. 42,300
Term of patent 3½ years
(Cl. D3—26)

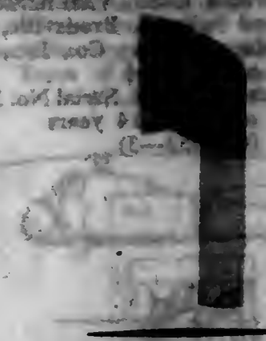




179,123
DOLL OR SIMILAR ARTICLE
Lillian de Rosbo, Ridgewood, N. J.
Application July 29, 1955, Serial No. 37,289
Term of patent 14 years
(Cl. D34—4)



179,124
PHOTOGRAPHIC FLASH UNIT
Henry Dreyfuss, South Pasadena, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application September 15, 1955, Serial No. 37,947
Term of patent 7 years
(Cl. D61—1)



179,125
COMBINED BUMPER AND GRILLE
Harley J. Earl, Grosse Pointe Farms, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 22, 1955, Serial No. 39,454
Term of patent 7 years
(Cl. D14—6)



179,126
FOLDING GOLF CART
Henry B. Epley, Kirkland, Ohio
Application January 30, 1956, Serial No. 39,965
Term of patent 14 years
(Cl. D14—3)



179,127
JOINTER FOR CIRCULAR SAW BLADES
John B. Engle, Los Angeles, Calif.
Application March 18, 1955, Serial No. 35,185
Term of patent 14 years
(Cl. D37—1)



179,128
DATA PROCESSING MACHINE
Richard W. Flagler, Rye, N. Y., assignor, by mesne assignments, to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application February 29, 1956, Serial No. 40,403
Term of patent 14 years
(Cl. D26—1)



179,129
POPCORN DISPLAY STAND
Harold J. Fitzgerald, Milwaukee, Wis., assignor to Superdisplay, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application August 15, 1956, Serial No. 37,462
Term of patent 14 years
(Cl. D60—11)



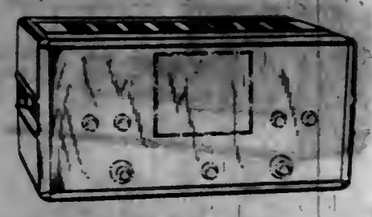
179,130
DRESS
Josephine Franzia, New York, N. Y.
Application July 30, 1956, Serial No. 42,454
Term of patent 3½ years
(Cl. D3—26)



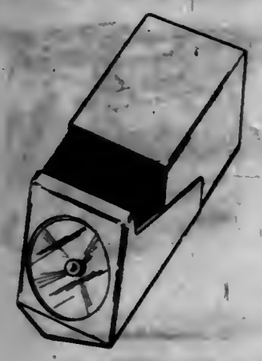
179,131
**PASTRY CUTTER AND CRIMPER**
Walter L. Frey, Oakland, Calif.
Application April 10, 1956, Serial No. 40,993
Term of patent 7 years
(Cl. D44—1)



179,132
**VIDEO PHASE METER CABINET OR SIMILAR ARTICLE**
John W. Forrest, West Acton, Mass., assignor to Acton Laboratories, Acton, Mass.
Application July 7, 1954, Serial No. 31,306
Term of patent 14 years
(Cl. D26—5)



179,133
**BURGLAR ALARM OR SIMILAR ARTICLE**
Richard A. Gordon, Freeport, N. Y.
Application May 17, 1956, Serial No. 41,524
Term of patent 14 years
(Cl. D72—1)



179,134
**COMBINED ASH TRAY AND HOLDER**
Harold C. Grabfelder, Hollywood, Calif.
Application July 22, 1955, Serial No. 37,694
Term of patent 7 years
(Cl. D85—2)



179,135
**TEA MAKER**
Maurice H. Graham, deceased, late of Minneapolis, Minn., by Maurice W. Graham, Minneapolis, Minn., and Northwestern National Bank, Minneapolis, Minn., executors, and John N. Pehrkon, Minneapolis, Minn., assignors, by direct and mesne assignments, to The M. H. Graham Corporation, Minneapolis, Minn., a corporation of Minnesota
Application April 25, 1956, Serial No. 41,269
Term of patent 14 years
(Cl. D44—36)



179,136
**MERCHANDISING MACHINE DISPLAY PANEL**
Robert Z. Greene, Norwalk, Conn., Yaul Benson, Newark, N. J., and Raymond Spilman, Bronxville, N. Y., assignors to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Application October 25, 1954, Serial No. 32,820
Term of patent 14 years
(Cl. D52—3)

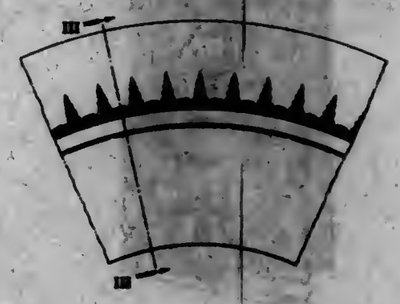


179,137
**DISPLAY DEVICE FOR CIGARETTE MERCHANDISING MACHINES**
Robert Z. Greene, Norwalk, Conn., Yaul Benson, Newark, N. J., and Raymond Spilman, Bronxville, N. Y., assignors to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Application October 25, 1954, Serial No. 32,822
Term of patent 14 years
(Cl. D52—3)





179,138
**TIRE**
Frederick Walter Hertzler, Detroit, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application May 10, 1954, Serial No. 30,396
Term of patent 14 years
(Cl. D90—20)



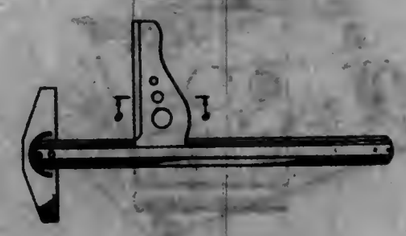
179,139
**HELICOPTER**
Edward F. Katzenberger, Bridgeport, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application February 23, 1955, Serial No. 34,645
Term of patent 14 years
(Cl. D71—1)



179,140
**AIR DIFFUSING REGISTER**
Frank C. Kiesner, St. Paul, Minn., assignor to Midco Register Corporation, St. Paul, Minn.
Application February 16, 1956, Serial No. 40,176
Term of patent 14 years
(Cl. D62—4)



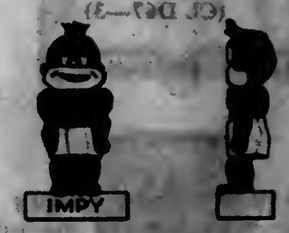
179,141
**DRAFTING DEVICE**
Byron D. MacPherson, Seattle, Wash.
Application January 21, 1955, Serial No. 34,114
Term of patent 3½ years
(Cl. D52—1)



179,142
**PIANO CASE**
William Millington, Grand Rapids, Mich., and Wilbur M. Day, Kenwood, Ohio, assignors to The Baldwin Piano Company, Cincinnati, Ohio, a corporation of Ohio
Application February 10, 1955, Serial No. 34,460
Term of patent 14 years
(Cl. D46—9)



179,143
**CAKE OF SOAP**
Gladys A. Mitchell and Robert Reed Thomas, McFarland, Calif.
Application June 18, 1953, Serial No. 25,510
Term of patent 14 years
(Cl. D72—1)




179,144
**STAPLING MACHINE**
Erwin Mueller, Lingen (Ems), Germany
Application July 14, 1953, Serial No. 25,940
Claims priority, application Germany May 8, 1953
Term of patent 7 years
(Cl. D74—1)



179,145
**SERVICE T**
Frank H. Mueller, Decatur, Ill., assignor to Mueller Co., Decatur, Ill., a corporation of Illinois
Application February 1, 1955, Serial No. 34,312
Term of patent 14 years
(Cl. D91—3)



179,146
WALL MOUNTED REFRIGERATOR
Robert E. Mauz, Jeffersontown, and William F. Seeger, Louisville, Ky., assignors to General Electric Company, a corporation of New York
Application November 29, 1955, Serial No. 39,084
Term of patent 14 years
(Cl. D67—3)



179,147
REFRIGERATOR CABINET
Robert E. Mauz, Jeffersontown, and William F. Seeger, Louisville, Ky., assignors to General Electric Company, a corporation of New York
Application November 29, 1955, Serial No. 39,085
Term of patent 14 years
(Cl. D67—3)



179,148
TOY TARGET
Clair Omar Musser, Studio City, Calif., assignor to Knickerbocker Plastic Company, Inc., North Hollywood, Calif., a corporation of California
Application October 20, 1955, Serial No. 38,496
Term of patent 14 years
(Cl. D34—5)



179,149
TOY TARGET
Clair Omar Musser, Studio City, Calif., assignor to Knickerbocker Plastic Company, Inc., North Hollywood, Calif., a corporation of California
Application October 20, 1955, Serial No. 38,497
Term of patent 14 years
(Cl. 34—5)



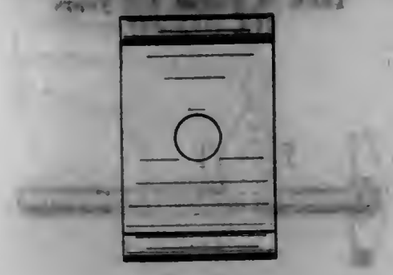
179,150
EAR RADIO
John R. Norris, Phoenix, Ariz.
Application March 1, 1956, Serial No. 40,429
Term of patent 14 years
(Cl. D56—4)



179,151
EAR RADIO
John R. Norris, Phoenix, Ariz.
Application March 1, 1956, Serial No. 40,432
Term of patent 14 years
(Cl. D56—4)



179,152
DOOR KNOB ESCUTCHEON PLATE
Richard J. Ohno, Branford, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application April 6, 1954, Serial No. 29,919
Term of patent 7 years
(Cl. D30—6)





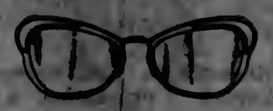
179,153
TABLECLOTH
Ferdinand P. Otto, Philadelphia, Pa., assignor to Mayfair Mills, Inc., Philadelphia, Pa.
Application January 26, 1956, Serial No. 39,921
Term of patent 7 years
(Cl. D92—26)



179,154
TABLECLOTH
Ferdinand P. Otto, Philadelphia, Pa., assignor to Mayfair Mills, Inc., Philadelphia, Pa.
Application March 13, 1956, Serial No. 40,580
Term of patent 7 years
(Cl. D92—26)



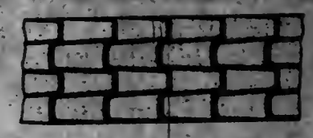
179,155
SPECTACLE FRONT
Robert Pasnet, Vincennes, France, assignor to Societe Industrielle de Lunetterie, Paris, France, a French company
Application April 19, 1955, Serial No. 35,578
Term of patent 14 years
(Cl. D57—1)



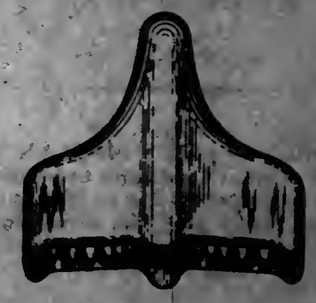
179,156
TOY ROCKET CONTROL PANEL
Anthony J. Palma, Oneida County, N. Y.
Application November 18, 1954, Serial No. 33,151
Term of patent 7 years
(Cl. D34—15)



179,157
SPONGE UNDERLAY FOR CARPETS
William Perlman, Los Angeles, Calif.
Application December 13, 1955, Serial No. 39,313
Term of patent 14 years
(Cl. D92—4)



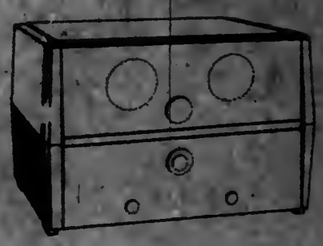
179,158
SEAT FOR A VELOCIPEDE
Roy A. Perlowski, Orland Park, Ill., assignor to Junior Toy Corporation, a corporation of Delaware
Application May 21, 1956, Serial No. 41,577
Term of patent 14 years
(Cl. D90—16)



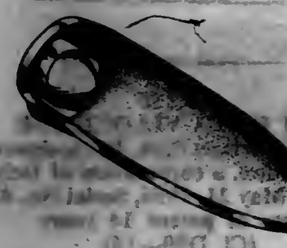
179,159
LIQUID DISPENSING UNIT
Phillip D. Seubert, Charlton, Ohio, assignor to National Laboratories, Inc., Toledo, Ohio, a corporation of Ohio
Application January 24, 1956, Serial No. 39,894
Term of patent 14 years
(Cl. D62—2)



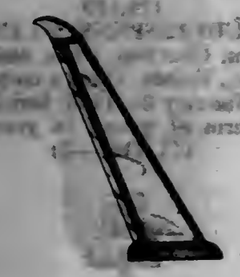
179,160
CABINET FOR ELECTRICAL APPARATUS OR SIMILAR ARTICLE
John A. Sandor, Stamford, Conn., assignor to Sarmoon and Company, a corporation of Connecticut
Application April 24, 1956, Serial No. 41,190
Term of patent 14 years
(Cl. D26—5)



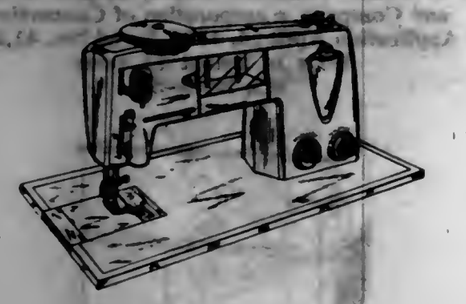
179,161
**COMBINED LENS AND REFLECTOR FOR AUTOMOBILE LAMPS**
Joseph R. Schoonmaker, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 21, 1956, Serial No. 40,712
Term of patent 7 years
(Cl. D48—32)



179,162
**AUTOMOBILE LAMP OR SIMILAR ARTICLE**
John Shake, Oak Park, Ill., assignor to Shake Mfg. & Tool Co., a corporation of Illinois
Application March 30, 1956, Serial No. 40,856
Term of patent 14 years
(Cl. D48—32)



179,163
**SEWING MACHINE**
French Eugene Smith, Akron, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Application October 20, 1955, Serial No. 38,490
Term of patent 14 years
(Cl. D70—1)



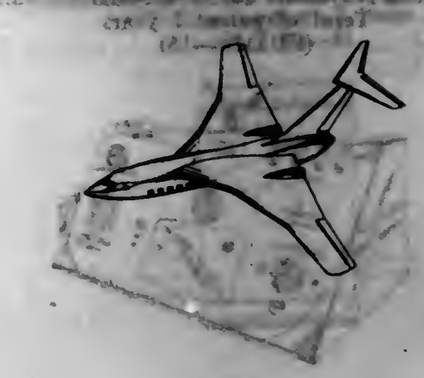
179,164
**COOKIE JAR**
Walter D. Starnes, Los Angeles, Calif., assignor to Walter Starnes, Inc., Los Angeles, Calif., a corporation of California
Application January 9, 1956, Serial No. 39,681
Term of patent 3½ years
(Cl. D58—25)



179,165
**CONTAINER FOR PLURAL CELL STORAGE BATTERY OR THE LIKE**
Charles A. Tocc, Sunland, and Robert Broussard, Glendale, Calif., assignors to Electro-Acid Corporation, Sunland, Calif., a corporation of Texas
Application May 2, 1955, Serial No. 35,767
Term of patent 14 years
(Cl. D26—5)

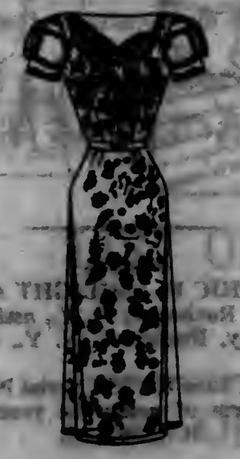


179,166
**AIRPLANE**
Walter Tydon, Hagerstown, Md., assignor to Fairchild Engine and Airplane Corporation, a corporation of Maryland
Application November 12, 1954, Serial No. 33,859
Term of patent 14 years
(Cl. D71—1)

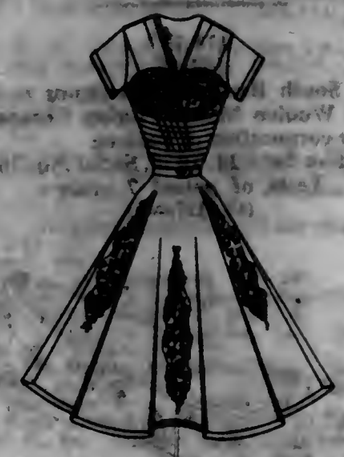




179,167
**DRESS**
Mamie Vermeil, New York, N. Y.
Application July 19, 1956, Serial No. 42,301
Term of patent 3½ years
(Cl. D3—26)



179,168
**DRESS**
Mamie Vermeil, New York, N. Y.
Application July 19, 1956, Serial No. 42,302
Term of patent 3½ years
(Cl. D3—26)



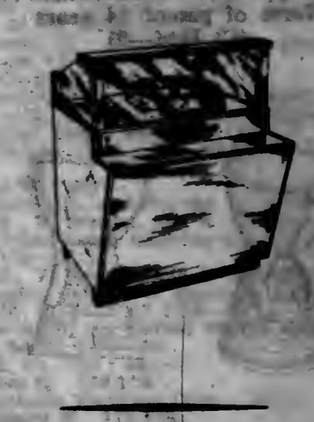
179,169
**MEDALLION**
Theodore Vladoff, Detroit, Mich.
Application August 1, 1955, Serial No. 37,253
Term of patent 14 years
(Cl. D14—6)



179,170
**AUTOMATIC POPCORN MACHINE**
Samuel M. Wenz, Kansas City, Mo., assignor to Manley, Inc., Kansas City, Mo., a corporation of Missouri
Application March 26, 1956, Serial No. 40,700
Term of patent 14 years
(Cl. D61—10)



179,171
**HOT DOG GRILLING MACHINE**
Samuel M. Wenz, Kansas City, Mo., assignor to Manley, Inc., Kansas City, Mo., a corporation of Missouri
Application May 7, 1956, Serial No. 41,369
Term of patent 14 years
(Cl. D61—10)



179,172
**AIR OPERABLE WIRE OR STRIP FEEDER FOR POWER PRESSES AND SPECIAL MACHINES**
George J. Weymouth, Fairfield, Conn., assignor to Cooper Weymouth, Incorporated, Bridgeport, Conn., a corporation of Connecticut
Application April 7, 1955, Serial No. 35,409
Term of patent 14 years
(Cl. D63—1)



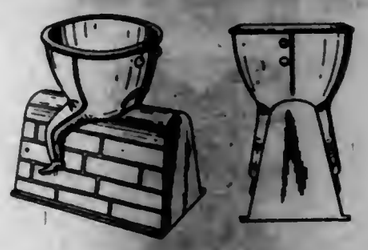
179,173
BOTTLE OR SIMILAR ARTICLE
James H. Wilson, Broadway, Pa., assignor to The Charles E. Hires Company, Philadelphia, Pa., a corporation of Delaware
Application May 17, 1955, Serial No. 36,057
Term of patent 14 years
(Cl. D58—8)



179,174
EGG-CUP
Alexander Yelin, Brussels, Belgium
Application October 6, 1955, Serial No. 38,271
Claims priority, application Great Britain April 7, 1955
Term of patent 14 years
(Cl. D44—9)



179,175
EGG-CUP
Alexander Yelin, Brussels, Belgium
Application November 30, 1955, Serial No. 39,091
Term of patent 14 years
(Cl. D44—9)



179,176
PHOTOGRAPHIC FLASHLIGHT APPARATUS
Frank A. Zagara, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application June 8, 1956, Serial No. 41,816
Term of patent 14 years
(Cl. D61—1)



179,177
SHOE
Harold Zisla, South Bend, Ind., assignor to Mishawaka Rubber and Woolen Manufacturing Company, Mishawaka, Ind., a corporation of Indiana
Application June 24, 1955, Serial No. 36,683
Term of patent 7 years
(Cl. D7—7)



# LIST OF REISSUE PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 6TH DAY OF NOVEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Bedingfield, Sterling P. Oil well testing tool. Re. 24,236, 11-6-56, Cl. 166—188.
Geldhof, Peter E., and H. R. Morrison, to Whirlpool-Seeger Corp. Clothes drier and electrical control thereof. Re. 24,235, 11-6-56, Cl. 263—32.
Morrison, Harold R.: *See*—
Geldhof, Peter E., and Morrison. Re. 24,235.
Whirlpool-Seeger Corp.: *See*—
Geldhof, Peter E., and Morrison. Re. 24,235.

# LIST OF PLANT PATENTEES

Thompson, Leslie M. Almond tree. 1,526, 11-6-56, Cl. 47—82.

# LIST OF DESIGN PATENTEES

Acton Laboratories: *See*—
Forrest, John W. 179,132.
Adams, John Q. Pig creep feeder. 179,107, 11-6-56, Cl. D12—2.
Adamson, Adolph. Bird cage. 179,108, 11-6-56, Cl. D31—2.
Ambrose, Paul E., to International Latex Corp. Rubber baby pants. 179,109, 11-6-56, Cl. D8—17.
American Cabinet Hardware Corp.: *See*—
Clayton, La Verne B. 179,120.
Anderson, Fritz A., and S. K. Rasmussen, to The Burdick Corp. Flexible diathermy electrode. 179,110, 11-6-56, Cl. D26—1.
Baldwin Piano Co., The: *See*—
Millington, William, and Day. 179,142.
Ballan, Alex M., A. Sokol, and T. A. Richmond, to Channel Master Corp. Television antenna. 179,111, 11-6-56, Cl. D26—14.
Becker, Robert E., to Logansport Machine Co., Inc. Lubricator, filter and regulator unit. 179,112, 11-6-56, Cl. D52—1.
Bell & Howell Co.: *See*—
Chapman, Dave. 179,119.
Benson, Vaul: *See*—
Greene, Robert Z., Benson, and Spilman. 179,136.
Greene, Robert Z., Benson, and Spilman. 179,137.
Bloch, Jack, to Foster Grant Co., Inc. Sunglass frame front or the like. 179,113, 11-6-56, Cl. D57—1.
Brody, Richard. Combined flashlight and key chain. 179,114, 11-6-56, Cl. D48—24.
Broussard, Robert: *See*—
Toce, Charles A., and Broussard. 179,165.
Brueder, Antoine, to Societe Anonyme Andre Citroen. Automobile body. 179,115, 11-6-56, Cl. D14—3.
Bugg, Kenly C., to Falcon Industries, Inc. Tobacco pipe. 179,116, 11-6-56, Cl. D35—3.
Bugg, Kenly C., to Falcon Industries, Inc. Smoker's pipe. 179,117, 11-6-56, Cl. D35—3.
Burdick Corp., The: *See*—
Anderson, Fritz A., and Rasmussen. 179,110.
Caldwell, Frank P., Sr. Fishing lure. 179,118, 11-6-56, Cl. D31—4.
Channel Master Corp.: *See*—
Ballan, Alex M., Sokol, and Richmond. 179,111.
Chapman, Dave, to Bell & Howell Co. Housing for a slide projector or the like. 179,119, 11-6-56, Cl. D61—1.
Clayton, La Verne B., to American Cabinet Hardware Corp. Pull. 179,120, 11-6-56, Cl. D10—8.
Cohen, Irving. Dress. 179,121, 11-6-56, Cl. D3—26.
Cohen, Irving. Dress. 179,122, 11-6-56, Cl. D3—26.
Cooper Weymouth, Inc.: *See*—
Weymouth, George J. 179,172.
Day, Wilbur M.: *See*—
Millington, William, and Day. 179,142.
De Rocha, Lillian. Doll or similar article. 179,123, 11-6-56, Cl. D34—4.
Dreyfuss, Henry, to Minneapolis-Honeywell Regulator Co. Photographic flash unit. 179,124, 11-6-56, Cl. D61—1.
Earl, Harley J., to General Motors Corp. Combined bumper and grille. 179,125, 11-6-56, Cl. D14—6.
Eastman Kodak Co.: *See*—
Zagara, Frank A. 179,176.
Eding, Henry B. Folding golf cart. 179,126, 11-6-56, Cl. D17—3.
Electro-Acid Corp.: *See*—
Toce, Charles A., and Broussard. 179,165.
Eagle, John B. Jointer for circular saw blades. 179,127, 11-6-56, Cl. D27—1.
Fairchild Engine and Airplane Corp.: *See*—
Tydeman, Walter. 179,166.
Falcon Industries, Inc.: *See*—
Bugg, Kenly C. 179,116.
Bugg, Kenly C. 179,117.
Figgins, Richard W., to International Business Machines Corp. Data processing machine. 179,128, 11-6-56, Cl. D26—1.
Fitzgerald, Harold J., to Supurdisplay, Inc. Popcorn display stand. 179,129, 11-6-56, Cl. D60—11.
Forrest, John W., to Acton Laboratories. Video phone meter cabinet or similar article. 179,132, 11-6-56, Cl. D26—5.
Foster Grant Co., Inc.: *See*—
Bloch, Jack. 179,113.
Franits, Josephine. Dress. 179,130, 11-6-56, Cl. D3—26.
Frey, Walter L. Pastry cutter and crimper. 179,131, 11-6-56, Cl. D44—1.
General Electric Co.: *See*—
Munz, Robert E., and Saenger. 179,146.
Munz, Robert E., and Saenger. 179,147.
General Motors Corp.: *See*—
Earl, Harley J. 179,125.
Schemansky, Joseph R. 179,161.
Gordon, Richard A. Burglar alarm or similar article. 179,133, 11-6-56, Cl. D72—1.
Grabfelder, Harold C. Combined ash tray and holder. 179,134, 11-6-56, Cl. D85—2.
Graham, M. H., Corp., The: *See*—
Graham, Maurice H., and Polivka. 179,135.
Graham, Maurice H., deceased, by M. W. Graham and Northwestern National Bank, executors, and J. N. Polivka, to The M. H. Graham Corp. Tea maker. 179,135, 11-6-56, Cl. D44—26.
Graham, Maurice W.: *See*—
Graham, Maurice H., and Polivka. 179,135.
Greene, Robert Z., V. Benson, and R. Spilman, to Rowe Mfg. Co., Inc. Merchandising machine display panel. 179,136, 11-6-56, Cl. D52—3.
Greene, Robert Z., V. Benson, and R. Spilman, to Rowe Mfg. Co., Inc. Display device for cigarette merchandising machines. 179,137, 11-6-56, Cl. D52—3.
Hertzler, Frederick W., to United States Rubber Co. Tire. 179,138, 11-6-56, Cl. D90—20.
Hires, Charles E., Co., The: *See*—
Wilson, James H. 179,173.
International Business Machines Corp.: *See*—
Figgins, Richard W. 179,128.
International Latex Corp.: *See*—
Ambrose, Paul E. 179,109.
Junior Toy Corp.: *See*—
Perlowski, Roy A. 179,158.
Katzenberger, Edward F., to United Aircraft Corp. Helicopter. 179,139, 11-6-56, Cl. D71—1.
Kiesmer, Frank C., to Midco Register Corp. Air diffusing register. 179,140, 11-6-56, Cl. D62—4.
Knickerbocker Plastic Co., Inc.: *See*—
Musser, Clair O. 179,148.
Musser, Clair O. 179,149.
Logansport Machine Co., Inc.: *See*—
Becker, Robert E. 179,112.
MacPherson, Byron D. Drafting device. 179,141, 11-6-56, Cl. D52—1.
Manley, Inc.: *See*—
Waas, Samuel M. 179,170.
Waas, Samuel M. 179,171.
Mayfair Mills, Inc.: *See*—
Otto, Ferdinand P. 179,153.
Otto, Ferdinand P. 179,154.
Midco Register Corp.: *See*—
Kiesmer, Frank C. 179,140.
Millington, William, and W. M. Day, to The Baldwin Piano Co. Piano case. 179,142, 11-6-56, Cl. D56—9.
Minneapolis-Honeywell Regulator Co.: *See*—
Dreyfuss, Henry. 179,124.
Mishawaka Rubber and Woolen Mfg. Co.: *See*—
Zisla, Harold. 179,177.
Mitchell, Gladys A., and R. R. Thomas. Cake of soap. 179,143, 11-6-56, Cl. D73—1.

Mueller Co.: *See*—
Mueller, Frank H. 179,145.
Mueller, Irwin. Stapling machine. 179,144, 11–6–56, Cl. D74—1.
Mueller, Frank H., to Mueller Co. Service tee. 179,145, 11–6–56, Cl. D61—3.
Muns, Robert E., and W. F. Saenger, to General Electric Co. Wall mounted refrigerator. 179,146, 11–6–56, Cl. D67—3.
Muns, Robert E., and W. F. Saenger, to General Electric Co. Refrigerator cabinet. 179,147, 11–6–56, Cl. D67—3.
Musser, Clair O., to Knickerbocker Plastic Co., Inc. Toy target. 179,148, 11–6–56, Cl. D34—5.
Musser, Clair O., to Knickerbocker Plastic Co., Inc. Toy target. 179,149, 11–6–56, Cl. D34—5.
National Laboratories, Inc.: *See*—
Sanborn, Phillip D. 179,159.
Norris, John R. Ear radio. 179,150, 11–6–56, Cl. D56—4.
Norris, John R. Ear radio. 179,151, 11–6–56, Cl. D56—4.
Northwestern National Bank: *See*—
Graham, Maurice H., and Polivka. 179,135.
Ohno, Richard J., to Sargent & Co. Door knob escutcheon plate. 179,152, 11–6–56, Cl. D50—6.
Otto, Ferdinand P., to Mayfair Mills, Inc. Tablecloth. 179,153, 11–6–56, Cl. D02—26.
Otto, Ferdinand P., to Mayfair Mills, Inc. Tablecloth. 179,154, 11–6–56, Cl. D02—26.
Passet, Robert, to Societe Industrielle de Lunettterie. Spectacle front. 179,155, 11–6–56, Cl. D57—1.
Patane, Anthony J. Toy rocket control panel. 179,156, 11–6–56, Cl. D34—15.
Perlman, William. Sponge underlay for carpets. 179,157, 11–6–56, Cl. D02—4.
Perlowski, Roy A., to Junior Toy Corp. Seat for a velocipede. 179,158, 11–6–56, Cl. D00—16.
Polivka, John N.: *See*—
Graham, Maurice H., and Polivka. 179,135.
Rasmussen, Sherrill K.: *See*—
Anderson, Fritz A., and Rasmussen. 179,110.
Richmond, Thomas A.: *See*—
Ballan, Alex M., Sokol, and Richmond. 179,111.
Rowe Mfg. Co., Inc.: *See*—
Greene, Robert Z., Benson, and Spilman. 179,136.
Greene, Robert Z., Benson, and Spilman. 179,137.
Saenger, William F.: *See*—
Muns, Robert E., and Saenger. 179,146.
Muns, Robert E., and Saenger. 179,147.
Sanborn, Phillip D., to National Laboratories, Inc. Liquid dispensing unit. 179,159, 11–6–56, Cl. D62—2.
Sandor, John A., to Sorensen and Co. Cabinet for electrical apparatus or similar article. 179,160, 11–6–56, Cl. D26—5.
Sargent & Co.: *See*—
Ohno, Richard J. 179,152.
Schemansky, Joseph R., to General Motors Corp. Combined lens and reflector for automobile lamps. 179,161, 11–6–56, Cl. D48—32.
Sinko, John, to Sinko Mfg. & Tool Co. Automobile lamp or similar article. 179,162, 11–6–56, Cl. D48—32.
Sinko Mfg. & Tool Co.: *See*—
Sinko, John. 179,162.
Smith, French E., White Sewing Machine Corp. Sewing machine. 179,163, 11–6–56, Cl. D70—1.
Societe Anonyme Andre Citroen: *See*—
Breeder, Antoine. 179,115.
Societe Industrielle de Lunettterie: *See*—
Passet, Robert. 179,155.
Sokol, Albert: *See*—
Ballan, Alex M., Sokol, and Richmond. 179,111.
Sorensen and Co.: *See*—
Sandor, John A. 179,160.
Spilman, Raymond: *See*—
Greene, Robert Z., Benson, and Spilman. 179,136.
Greene, Robert Z., Benson, and Spilman. 179,137.
Starnes, Walter D., to Walter Starnes, Inc. Cookie jar. 179,164, 11–6–56, Cl. D32—29.
Starnes, Walter, Inc.: *See*—
Starnes, Walter D. 179,164.
Superdisplay, Inc.: *See*—
Fitzgerald, Harold J. 179,129.
Thomas, Robert E.: *See*—
Mitchell, Gladys A., and Thomas. 179,143.
Toce, Charles A., and E. Broussard, to Electro-Acid Corp. Container for plural cell storage battery or the like. 179,165, 11–6–56, Cl. D29—3.
Tydlan, Walter, to Fairchild Engine and Airplane Corp. Airplane. 179,166, 11–6–56, Cl. D71—1.
United Aircraft Corp.: *See*—
Katzenberger, Edward F. 179,139.
United States Rubber Co. *See*—
Hertzler, Frederick W. 179,138.
Verrand, Mamie, Dress. 179,167, 11–6–56, Cl. D3—26.
Verrand, Mamie, Dress. 179,168, 11–6–56, Cl. D3—26.
Vladeff, Theodore, Medallion. 179,169, 11–6–56, Cl. D14—6.
Waas, Samuel M., to Manley, Inc. Automatic popcorn machine. 179,170, 11–6–56, Cl. D61—10.
Waas, Samuel M., to Manley, Inc. Hot dog grilling machine. 179,171, 11–6–56, Cl. D61—10.
Weymouth, George J., to Cooper Weymouth, Inc. Air operable wire or strip feeder for power presses and special machines. 179,172, 11–6–56, Cl. D83—1.
White Sewing Machine Corp.: *See*—
Smith, French E. 179,163.
Wilson, James H., to The Charles E. Hires Co. Bottle or similar article. 179,173, 11–6–56, Cl. D56—6.
Yelin, Alexander. Egg-cup. 179,174, 11–6–56, Cl. D44—9.
Yelin, Alexander. Egg-cup. 179,175, 11–6–56, Cl. D44—9.
Zagara, Frank A., to Eastman Kodak Co. Photographic flash-light apparatus. 179,176, 11–6–56, Cl. D61—1.
Zisla, Harold, to Mishawaka Rubber and Woolen Mfg. Co. Shoe. 179,177, 11–6–56, Cl. D7—7.


# LIST OF PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 6TH DAY OF NOVEMBER, 1956

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ACF Industries, Inc.: *See*—
Pletcher, William F. 2,769,404.
Aaron, J. D.: *See*—
Wright, Jacob J. 2,769,254.
Abbott Laboratories: *See*—
Sommers, Armiger H., and Barnes. 2,769,819.
Abbond, Harry L., ½ to J. A. Isen. Apparatus for separating aerosols from gases. 2,769,506, 11–6–56, Cl. 183—58.
Abel, Paul J., to The Yoder Co. Induction means. 2,769,085, 11–6–56, Cl. 219—6.5.
Abramson, Daniel J. Speculum. 2,769,441, 11–6–56, Cl. 128—4.
Achille, Pietro. Process for the production of sulphur and hydrogen sulphide from iron sulphides. 2,769,091, 11–6–56, Cl. 23—181.
Adams, Loyd, to Calavo Growers of California. Box unstacker. 2,769,570, 11–6–56, Cl. 221—225.
Aeroquip Corp.: *See*—
Herman, Albert D. 2,769,648.
Ahls, Peter: *See*—
Blankenagel, Heinrich, Ahls, and Ebersold. 2,769,609.
Air Force, United States of America as represented by the Secretary of the: *See*—
Soehngen, Erich. 2,769,334.
Air Preheater Corp., The: *See*—
Juhasz, Stephen. 2,769,619.
Akers, Roy J. Hand saw depth gauge. 2,769,470, 11–6–56, Cl. 145—55.
Albrecht, Otto: *See*—
Gaisy, Wilhelm, Albrecht, and Meyer. 2,769,684.
Alessio, James D.: *See*—
Soriano, Thomas J., and Alessio. 2,769,529.
Alexander, Frank M., and R. W. Bruso, to Brown Citrus Machinery Corp. Citrus juice extractor having peel separator. 2,769,472, 11–6–56, Cl. 146—3.
Alexander, Roy T.: *See*—
Burge, James S., McKee, Alexander, Conrad, Rider, Noetzel, and Salatin. 2,769,228.
Algiers, Paul J., and J. O. Kerstetval. Automatic fluid flow control device. 2,769,574, 11–6–56, Cl. 222—59.
Allen, George W., to The Singer Mfg. Co. Magnetic amplifier control device for an electromagnetic clutch. 2,769,931, 11–6–56, Cl. 310—85.
Allen, Howard G., and O. M. Hudson, to American Machine & Foundry Co. Pretzel machine. 2,769,407, 11–6–56, Cl. 107—8.
Allied Chemical & Dye Corp.: *See*—
Gilbert, Everett E., and Veldhuis. 2,769,836.
Joris, George G. 2,769,244.
All-Steel Equipment Inc.: *See*—
Rudolph, Nathan H. 2,769,562.
Alsing, Carl F., to Whirlpool-Seeger Corp. Two temperature household refrigerators. 2,769,319, 11–6–56, Cl. 62—116.
Altgelt, Herman E., to Deere & Co. Two-way plow with draft transmitting latch. 2,769,283, 11–6–56, Cl. 97—34.5.
American Cyanamid Co.: *See*—
Brown, Otto R. 2,769,540.
Clark, Joe H., and Magliah. 2,769,821.
English, Jackson P., and Clapp. 2,769,820.
Hardy, William E., and Fortenbaugh. 2,769,815.
Russell, John C., and Kennedy. 2,769,542.
Suen, Tsang J., and Jen. 2,769,796.
Suen, Tsang J., and Jen. 2,769,797.
Suen, Tsang J., and Jen. 2,769,799.
Suen, Tsang J., and Jen. 2,769,800.
Wilcox, Lucius H. 2,769,711.
Wilcox, Lucius H. 2,769,712.
Wilcox, Lucius H. 2,769,713.
American District Telegraph Co.: *See*—
MacDonald, Leslie A. 2,769,972.
American Floor Surfacing Machine Co., The: *See*—
Bocher, Anthony F. 2,769,626.
American Gage & Machine Co.: *See*—
Berreuter, Herbert A., and Carlson. 2,769,340.
American Machine & Foundry Co.: *See*—
Allen, Howard G., and Hudson. 2,769,407.
Jonsen, Thormod. 2,769,632.
Larsen, Carl H., and Gilbert. 2,769,676.
Saunders, Norman R. 2,769,920.
Zoercher, John. 2,769,597.
American Steel Foundries: *See*—
Tack, Carl R. 2,769,813.
Watts, Raymond. 2,769,[illegible].
American Toy Products Co.: *See*—
Finestone, Harry E. 2,[illegible].
American Tractor [illegible]: *See*—
Weeldreyer. [illegible].
Andersen, Arthur W. [illegible]
Co., Brattleboro, et al. [illegible]
2,769,845, 11–6–56, Cl. [illegible].
Andres, Louis E., and Y. J. Berquin, to Potasse & Engrais Chimiques. Method of producing phosphate fertilizers. 2,769,703, 11–6–56, Cl. 71—39.
Andres, Louis E., and P. G. Pagny, to Potasse & Engrais Chimiques. Method of producing phosphate fertilizers. 2,769,704, 11–6–56, Cl. 71—48.
Annable, Weldon G., to The Pure Oil Co. Method for producing naphthas of improved characteristics from highly refined naphthas by treating the highly refined naphthas with a copper acetate. 2,769,704, 11–6–56, Cl. 196—28.
Annable, Weldon G., and R. M. Haines, to The Pure Oil Co. Preparation of non-corrosive naphthas by reacting refined naphtha with barium molybdate or zinc molybdate. 2,769,757, 11–6–56, Cl. 196—28.
Annable, Weldon G., and R. M. Haines, to The Pure Oil Co. Preparation of non-corrosive naphthas by reacting refined naphtha with molybdate. 2,769,759, 11–6–56, Cl. 196—28.
Annable, Weldon G., L. E. Hutchings, and K. Lucas, to The Pure Oil Co. Production of sweet naphthas from hydrocarbon mixtures by hydrofining the hydrocarbon mixture followed by contacting the hydrocarbon product with a composition containing cobalt and molybdenum. 2,769,760, 11–6–56, Cl. 196—28.
Annable, Weldon G., L. E. Hutchings, and K. Lucas, to The Pure Oil Co. Combination process for catalytic hydrodesulfurization and mild dehydrogenation of high sulfur hydrocarbon mixtures. 2,769,761, 11–6–56, Cl. 196—28.
Annable, Weldon G., L. E. Hutchings, and K. Lucas, to The Pure Oil Co. Production of naphthas of improved characteristics by treating with bauxite. 2,769,762, 11–6–56, Cl. 196—28.
Annable, Weldon G., and R. M. Haines, to The Pure Oil Co. Method for producing special naphthas of improved characteristics by contacting a refined naphtha with silver molybdate at elevated temperature. 2,769,763, 11–6–56, Cl. 196—28.
Ansley, Clifford V. Transparent fish lure. 2,769,267, 11–6–56, Cl. 43—41.
Armour and Co.: *See*—
Sampson, Lorne G. 2,769,747.
Thompson, William M., Graham, and Seidel. 2,769,749.
Armstrong, Frank W., Jr.: *See*—
Harter, Isaac and I., Jr., Ratcliffe, and Armstrong. 2,769,218.
Army, United States of America as represented by the Secretary of the: *See*—
De Witt, Henry C. 2,769,514.
Goldenson, Jerome, and Cohen. 2,769,697.
Graucsay, Stephen V., and Heinrich. 2,769,176.
Schwesinger, Gerhard. 2,769,367.
Thompson, Morris. 2,769,544.
Arp, Ewald A., to Tobin-Arp Mfg. Co. Valve seat grinder. 2,769,287, 11–6–56, Cl. 51—241.
Artzt, Maurice, to Radio Corp. of America. Multiplex facsimile system. 2,769,856, 11–6–56, Cl. 178—6.6.
Ashley, Burnie C. Shoe polishing machine. 2,769,190, 11–6–56, Cl. 15—31.
Ashworth, William J., to Mechanical Patents, Inc. Drier. 2,769,248 11–6–56, Cl. 34—165.
Astorfield Mfg. Co., Inc.: *See*—
Storch, Clifford. 2,769,328.
Atkins, Earle R., Jr.: *See*—
Nahin, Paul G., and Atkins. 2,769,921.
Atkinson, Roy L. Combination plug valve and orifice housing. 2,769,454, 11–6–56, Cl. 137—268.
Audubon Wire Cloth Corp. of New Jersey: *See*—
Guba, Raymond J. 2,769,531.
Ault, Neil N., to Norton Co. Zirconia cement. 2,769,718, 11–6–56, Cl. 106—65.
Automatic Electric Laboratories, Inc.: *See*—
Faulkner, Alfred H. 2,769,865.
Gravbill, Kenneth W., and Lomax. 2,769,863.
Automatic Poultry Feeder Co.: *See*—
Smallegan, Marvin L. 2,769,527.
Avakian, Souren: *See*—
Martin, Gustav J., Beller, and Avakian. 2,769,817.
Ayers, Fred L.: Method of making a shoe. 2,769,189, 11–6–56, Cl. 12—142.
B. B. Chemical Co.: *See*—
Wedeen, Walter H. 2,769,168.
B-I-F Industries, Inc.: *See*—
Walker, James D. 2,769,785.
Babcock & Wilcox Co., The: *See*—
Harter, Isaac, I. Harter, Jr., Ratcliffe, and Armstrong. 2,769,218.
Bader, Alfred R., to Pittsburgh Plate Glass Co. Preparation of dyestuffs. 2,769,842, 11–6–56, Cl. 260—590.
Barley, Alan R., to Hewlett-Packard Co. Frequency counter. 2,769,593, 11–6–56, Cl. 235—92.
Bailey, Reuben. Needlework canvas carrying a stitchwork pattern and method of stencilling said pattern thereon. 2,769,988, 11–6–56, Cl. 117—58.

Ballman, Edwin C., to Ballman Engineering Co. Stator construction. 2,769,933, 11–6–56, Cl. 310—217.

Ballman Engineering Co.: *See*—
Ballman, Edwin C. 2,769,933.

Balmes, Estirajes S. A.: *See*—
Balmes Solanas, Ramon. 2,769,210.

Balmes Solanas, Ramon, to Estirajes Balmes, S. A. Mechanism for applying pressure to the drafting rollers of spinning and other textile preparation machinery. 2,769,210, 11–6–56, Cl. 19—135.

Bancroft Cap Co.: *See*—
Goldman, Louis. 2,769,272.

Bandel, David, to International Cigar Machinery Co. Tobacco sheet material and method of forming. 2,769,734, 11–6–56, Cl. 131—15.

Barber-Colman Co.: *See*—
Drake, Russell P., and Borchardt, and Crandall. 2,769,598.

Barker, Luther P., Jr. Cradle clip for safety hats. 2,769,175, 11–6–56, Cl. 2—3.

Barnes, James D.: *See*—
Sommers, Armiger H., and Barnes. 2,769,819.

Barrett, Harry B. Brake drum gauges. 2,769,241, 11–6–56, Cl. 33—147.

Bartlett, John S.: *See*—
Martin, Rex K., and Bartlett. 2,769,269.

Basbe, Charles J., to International Business Machines Corp. Ring checking circuit. 2,769,971, 11–6–56, Cl. 340—213.

Bates Mfg. Co.: *See*—
Delaney, Robert B. 2,769,463.

Bearer, Louis C., to Phillips Petroleum Co. Pebble heat exchanger. 2,769,693, 11–6–56, Cl. 23—284.

Bearint, Alvin. Projection cabinet. 2,769,588, 11–6–56, Cl. 88—24.

Beck, Anita E. Ornamental box. 2,769,586, 11–6–56, Cl. 229—31.

Beck, Robert M., to Northrop Aircraft, Inc. Graph plotter. 2,769,680, 11–6–56, Cl. 346—49.

Becker, Anthony F., to The American Floor Surfacing Machine Co. Floor covering removing machine having yieldable flared cutters. 2,769,626, 11–6–56, Cl. 262—19.

Becker, Frederick G. L., deceased, by E. Goulding and D. John, executors, to Cellulose Development Corp. Ltd. Process for the continuous treatment of vegetable fibers. 2,769,710, 11–6–56, Cl. 92—7.

Becker, Wilhelm, to Farbenfabriken Bayer Aktiengesellschaft. Copolymers of vinyl chloride and 1,1-dichloro-ethene. 2,769,803, 11–6–56, Cl. 260—80.5.

Beery, Virgil R. Dual voltage control system. 2,769,924, 11–6–56, Cl. 307—84.

Beiler, Jay M.: *See*—
Martin, Gustav J., Beiler, and Avakian. 2,769,817.

Bell Telephone Laboratories, Inc.: *See*—
Black, Harold S. 2,769,861.
Brown, John T. L., and Pollard. 2,769,875.
Mumford, William W. 2,769,960.
Parks, Charles O. 2,769,864.
Stansel, Frank R. 2,769,908.

Bellingham Chain & Forge Co.: *See*—
Christensen, Carsten O., and Vaniman. 2,769,291.

Bendix Aviation Corp.: *See*—
Bevins, James E., and Hyde. 2,769,681.
Jarvis, John. 2,769,955.
Schultheis, Harry B., Jr. 2,769,968.

Benkert, Louis M.: *See*—
Frie, George R., McGonigal, and Benkert. 2,769,657.

Berg, Morris J. Snow suit (easily detachable garment). 2,769,177, 11–6–56, Cl. 2—80.

Bergwerksverband Zur Verwertung Von Schutzrechten der Kohlentechnik G. m. b. H.: *See*—
Reerink, Wilhelm, Mischenborn, and Nötzold. 2,769,537.

Bernreuter, Herbert A., and L. E. Carlson, to American Gage & Machine Co. Room temperature compensating circuits for pyrometers. 2,769,340, 11–6–56, Cl. 73—361.

Berquin, Yves J.: *See*—
Andrés, Louis E., and Berquin. 2,769,703.

Berry, Hugh E., to Norma-Hoffmann Bearings Corp. Self-centering magnetic chuck. 2,769,642, 11–6–56, Cl. 279—1.

Beth, Walter F., to Norton Co. Pulpstone. 2,769,286, 11–6–56, Cl. 51—206.4.

Better Packages Inc.: *See*—
Krueger, Theodore H. 2,769,633.

Betts, Raymond L., H. F. Corning, H. A. Ricards, and J. W. Ryder, to Esso Research and Engineering Co. Sweetening process. 2,769,765, 11–6–56, Cl. 196—32.

Bevins, James E., and R. W. Hyde, to Bendix Aviation Corp. Recording and measuring instrument. 2,769,681, 11–6–56, Cl. 346—78.

Bicek, Edward J., to Universal Oil Products Co. Removing arsenic from a naphtha, which is reformed with a noble metal catalyst composite. 2,769,770, 11–6–56, Cl. 196—50.

Biederman, William F. Muscular support. 2,769,185, 11–6–56, Cl. 5—338.

Bird, Stanley, and A. Robinson, to British Celanese Ltd. Separation of comminuted cellulose acetate. 2,769,543, 11–6–56, Cl. 209—235.

Birkness, Harald A., and J. P. Segers, to Standard Oil Co. Multiple selector valve. 2,769,459, 11–6–56, Cl. 137—607.

Birum, Gail H., and R. J. Kern, to Monsanto Chemical Co. Initiation of photopolymerisation. 2,769,777, 11–6–56, Cl. 204—158.

Birum, Herbert L., Jr.: *See*—
Hammitt, Andrew B., and Birum. 2,769,212.

Bishop and Babcock Mfg. Co., The: *See*—
Getz, Arastead G. 2,769,479.
Mayo, Edward L. 2,769,597.

Biskup, John: *See*—
Wetterau, Paul C., Biskup, and Johnson. 2,769,726.

Bixby, Susanne G. Swimming pool cleaning tool. 2,769,549, 11–6–56, Cl. 210—206.

Björklund, Bengt R.: *See*—
Holmqvist, Gert E. O., Björklund, and Dietsch. 2,769,860.

Black, Harold S., to Bell Telephone Laboratories, Inc. Reduction of interference in pulse reception. 2,769,861, 11–6–56, Cl. 178—15.6.

Blankenagel, Heinrich, P. Ahls, and H. Ebersold, to Thyssensche Gas- und Wasserwerke G. m. b. H., and Vereinigte Armaturen-Gesellschaft m. b. H. Gate valve. 2,769,609, 11–6–56, Cl. 251—196.

Blaw-Knox Co.: *See*—
Bekstrom, Albert W. 2,769,469.

Bletcher, Ralph B., and I. A. Ward, to Modern Faucet Mfg. Co. Pressure control fittings. 2,769,464, 11–6–56, Cl. 137—119.

Block, Aleck, and A. Mannheimer. Remote control mechanism for television receivers. 2,769,344, 11–6–56, Cl. 74—10.15.

Blosick, Thomas J. Wire stretcher. 2,769,613, 11–6–56, Cl. 254—163.

Bodard, Eugene T. Cord insertion apparatus. 2,769,413, 11–6–56, Cl. 112—2.

Bodine, William L. Removable clothesline support and tensioning device. 2,769,554, 11–6–56, Cl. 211—119.15.

Boeing Airplane Co.: *See*—
Hudson, Verne L., and Wickham. 2,769,604.
Page, Robert N. 2,769,265.

Bolger, William B. Collapsible chamber fluid handling device. 2,769,307, 11–6–56, Cl. 103—148.

Bolidens Gruvaktiebolag: *See*—
Hernerÿd, Frits O., Norrö, and Sundström. 2,769,706.

Bomac Laboratories Inc.: *See*—
McCarthy, Henry J. 2,769,936.

Boord, Charles W. Flashlight support for firearms. 2,769,895, 11–6–56, Cl. 240—6.41.

Booth, Christopher H., to Firth-Brown Tools Ltd. Cutting and abrading tool. 2,769,228, 11–6–56, Cl. 29—78.

Booth, Richard N. Assembly of filter tips. 2,769,533, 11–6–56, Cl. 206—56.

Boothroyd, Wilson P., and B. M. Creamer, Jr., to Philco Corp. Color television camera tube with indexing structure. 2,769,855, 11–6–56, Cl. 178—5.4.

Borchardt, Robert E.: *See*—
Drake, Russell P., Borchardt, and Crandall. 2,769,598.

Borg-Warner Corp.: *See*—
Lauck, John A. 2,769,294.
Norlin, Francis E. 2,769,396.
Powers, Kenneth J. 2,769,279.

Bostitch, Inc.: *See*—
Lindstrom, Charles M. 2,769,173.

Bourcier de Carbon, Christian M. L. L., Damped pneumatic spring. 2,769,632, 11–6–56, Cl. 267—64.

Bouwers, Albert, to N. V. Optische Industrie "de Oude Delft". Optical reflecting anamorphotic device for use with objective lens systems. 2,769,373, 11–6–56, Cl. 88—57.

Bowen, Seth T., and F. Fortess, to Calanese Corp. of America. Sizing and drying of filamentary material. 2,769,727, 11–6–56, Cl. 117—105.

Boyajean, John A., to Fairchild Camera and Instrument Corp. Engraving stylus. 2,769,199, 11–6–56, Cl. 18—1.

Boyd, Thomas, to Monsanto Chemical Co. Process for preparing water-repellent fabric and resulting product. 2,769,732, 11–6–56, Cl. 117—161.

Braendle, Harold A., to Columbian Carbon Co. Method of compounding carbon black and rubber. 2,769,795, 11–6–56, Cl. 260—41.5.

Brailsford, Harrison D. Relative humidity indicating and recording apparatus. 2,769,339, 11–6–56, Cl. 73—335.

Brailsford, Harrison D. Oscillating commutatorless direct current motor. 2,769,946, 11–6–56, Cl. 318—128.

Brandon, Will R.: *See*—
Kechely, Lee E., and Brandon. 2,769,245.

Brant, Arthur A., to Newmont Mining Corp. Method and apparatus for determining the azimuth and dip of sulphide deposits. 2,769,956, 11–6–56, Cl. 324—1.

Braun, Dieter, and K. Hacker, to Fortuna-Werke Spezialmaschinenfabrik A.-G. Machine for cutting sheet material. 2,769,329, 11–6–56, Cl. 83—9.5.

Braunels, Frank J. Lathe attachment. 2,769,486, 11–6–56, Cl. 142—7.

Bridges, Jack E., to Zenith Radio Corp. Subscription television system. 2,769,854, 11–6–56, Cl. 178—5.1.

Briggs, Rufus L., to L. A. Campbell. Apparatus for generating a pulse voltage and bias. 2,769,927, 11–6–56, Cl. 307—106.

British Celanese Ltd.: *See*—
Bird, Stanley, and Robinson. 2,769,543.

British Petroleum Co. Ltd., The: *See*—
Porter, Frederick W. B., and Haresnape. 2,769,755.
Porter, Frederick W. B., and Isitt. 2,769,756.
Porter, Frederick W. B., and Isitt. 2,769,758.
Porter, Frederick W. B., and Northcott. 2,769,687.

British Thomson-Houston Co. Ltd., The: *See*—
Melville, William S. 2,769,962.

Brodex Co.: *See*—
Cox, Joe L. 2,769,403.

Broerman, Arthur B.: *See*—
Lupfer, Dale, and Broerman. 2,769,912.

Bromley, Russell W. Parakeet shelter. 2,769,426, 11–6–56, Cl. 119—17.

Bromo-Ment Co., The: *See*—
Steiner, Robert L. 2,769,276.

Brouwer, Ralph R.: *See*—
Faulkner, Charles E., and Brouwer. 2,769,518.

Brown Charles K., Jr. Preformed slab and shell construction. 2,769,342, 11–6–56, Cl. 72—1.

Brown, Charles R. Abrading machine for tire tread surfaces. 2,769,283, 11–6–56, Cl. 51—97.

Brown Citrus Machinery Corp.: *See*—
Alexander, Frank M., and Bruce. 2,769,472.





Brown, John T. L., and C. R. Pollard, Jr., to Bell Telephone Laboratories, Inc. Mercury contact switch. 2,769,875, 11–6–56, Cl. 200—112.

Brown, Otto R., to American Cyanamid Co. Method of beneficiating sand. 2,769,549, 11–6–56, Cl. 209—166.

Brown, Theophilus, to Dorr & Co. Conversion feed for manure spreaders. 2,769,403, 11–6–56, Cl. 275—6.

Browne, William: *See*—
Stapenhorst, Walter, and Green Ltd. Epicyclic change speed gears. 2,769,344, 11–6–56, Cl. 74—767.

Brownlow, Cecil L., to Phillips Petroleum Co. Line fault detector. 2,769,968, 11–6–56, Cl. 179—171.

Bruce Engineering Corp.: *See*—
Bruce, John K. 2,769,538.

Bruce, John K., to Bruce Engineering Corp. Package. 2,769,538, 11–6–56, Cl. 206—65.

Brummer Seal Co.: *See*—
Holmbuch, Elmer F. 2,769,290.

Bruso, Robert W.: *See*—
Alexander, Frank M., and Bruso. 2,769,472.

Buchholdt, Robert R., to Salem-Brosius, Inc. Baffle wall construction, particularly for rotary hearth furnaces. 2,769,629, 11–6–56, Cl. 263—46.

Buckley, William E., to The Cornell Machine Co. Pump device. 2,769,398, 11–6–56, Cl. 103—160.

Budniak, John A. Resilient rod saw frame. 2,769,469, 11–6–56, Cl. 145—23.

Bugenhagen, George H. Variable speed mechanism. 2,769,345, 11–6–56, Cl. 74—230.17.

Bulletin Co.: *See*—
Powers, Richard. 2,769,530.

Burge, James S., H. J. McKee, E. T. Alexander, L. H. Conrad, W. M. Rider, G. H. Neetzel, and J. F. Salatin, to General Motors Corp. Assembling machine. 2,769,228, 11–6–56, Cl. 29—203.

Burgess, Gerald. Core recovery apparatus. 2,769,616, 11–6–56, Cl. 255—72.

Burgess-Manning Co.: *See*—
Hewitt, Frederick G. 2,769,211.

Burkhart, William H., H. M. Fleming, Jr., and F. W. Pfleger, to Monroe Calculating Machine Co. Decimal point locator. 2,769,592, 11–6–56, Cl. 235—61.

Burns, Raymond R.: *See*—
Clifford, Warren E., and Burns. 2,769,780.

Burns, William E., to Phillips Petroleum Co. Methylethylpyridine-methylvinylpyridine fractionation. 2,769,773, 11–6–56, Cl. 202—46.

Burnside, Okey S. Air cleaner and moistener for carburetors. 2,769,624, 11–6–56, Cl. 261—23.

Burroughs Corp.: *See*—
Solla, Alexander A. 2,769,682.

Burroughs Wellcome and Co. (U. S. A.) Inc.: *See*—
Hitchings, George H., and Russell. 2,769,809.

Burton, Joe M., to Phillips Petroleum Co. Hypergolic fuel and the method of using it. 2,769,304, 11–6–56, Cl. 60—35.4.

Butcosk, Richard A., to Socony Mobil Oil Co., Inc. Kettle-cooled lithium stearate grease containing an aliphatic monohydric alcohol. 2,769,781, 11–6–56, Cl. 252—40.

Cain, Paul C. Adjustable idler arm support. 2,769,651, 11–6–56, Cl. 287—100.

Calavo Growers of California: *See*—
Adams, Loyd. 2,769,570.

California Research Corp.: *See*—
Paulson, Marvin H. 2,769,852.
Sieg, Robert P. 2,769,528.

Campbell, Ira A.: *See*—
Briggs, Rufus L. 2,769,927.

Canadian Copper Refiners Ltd.: *See*—
Schloen, John H., Elkin, and Ekler. 2,769,775.

Candor, Robert R., to General Motors Corp. Freezing device. 2,769,316, 11–6–56, Cl. 62—108.5.

Cannon, Harry B. Apparatus for separating and concentrating granular mixtures. 2,769,545, 11–6–56, Cl. 209—493.

Carborundum Co., The: *See*—
Goepfert, George J. 2,769,706.

Cardillo, Joseph S., and M. M. Haan, to Sundstrand Machine Tool Co. Hydraulic pump and control. 2,769,393, 11–6–56, Cl. 103—5.

Carleton, Richard J., Jr.: *See*—
Stone, Leonard R., Watson, and Carleton. 2,769,945.

Carlson, Ernest C., and E. F. Huddle, to International Harvester Co. Balanced double knife mower. 2,769,296, 11–6–56, Cl. 56—297.

Carlson, Harry O. Auxiliary seats for strollers. 2,769,482, 11–6–56, Cl. 155—10.

Carlson, Leonard E.: *See*—
Bernreuter, Herbert A., and Carlson. 2,769,340.

Case, J. I., Co.: *See*—
Omana, Gene L., and Thayer. 2,769,646.

Cass, Charles E. Two stroke cycle internal combustion engine with pump compression. 2,769,435, 11–6–56, Cl. 123—68.

Caulk, L. D., Co., The: *See*—
Crenshaw, James. 2,769,717.

Cawood, Richard L., to The Patterson Foundry & Machine Co. Turbine mixer. 2,769,623, 11–6–56, Cl. 259—134.

Celanese Corp. of America: *See*—
Bowen, Seth T., and Fortess. 2,769,727.

Cellulose Development Corp. Ltd.: *See*—
Becker, Frederick G. L. 2,769,710.

Champion Dish Washing Machine Co.: *See*—
Comber, William R. 2,769,472.

Chance Vought Aircraft, Inc.: *See*—
Hebert, Francis M., MacDonnell, and Villars. 2,769,883.

Charbonneau, Allan P., to Cutler-Hammer, Inc. Resistor units. 2,769,885, 11–6–56, Cl. 201—60.

Charnock, George R., Jr., to Craftsman Line-Up Table Corp. Match plate for line-up and register tables. 2,769,344, 11–6–56, Cl. 33—184.5.

Chemstrand Corp., The: *See*—
Ham, George E. 2,769,791.
Ham, George E. 2,769,792.
Ham, George E. 2,769,793.
Ham, George E. 2,769,801.
Lattge, William G. 2,769,800.

Cheney, Charles W. Hand tools for operating worm geared band clips. 2,769,471, 11–6–56, Cl. 145—29.

Cheney, Grant W., and A. L. Smith, to The Dow Chemical Co. Method for packaging finely divided, pulverulent and finest powders. 2,769,306, 11–6–56, Cl. 18—53.

Chernowitz, George. Power plants comprising main and auxiliary engines. 2,769,305, 11–6–56, Cl. 60—56.6.

Chesney, John, to General Instrument Corp. High frequency interstage coupling. 2,769,961, 11–6–56, Cl. 333—24.

Chicago Railway Equipment Co.: *See*—
Wright, Edward P. 2,769,214.

Childsey, Francis A., Jr., and J. H. Walter, to Container Corp. of America. Mechanism for opening collapsed tubular cartons. 2,769,376, 11–6–56, Cl. 93—53.

Christensen, Carsten O., and G. H. Vaniman, to Bellingham Chain & Forge Co. Can filling mechanism. 2,769,291, 11–6–56, Cl. 53—123.

Ciannamea, Nicholas A.: *See*—
Cowles, Roderick J., and Ciannamea. 2,769,685.

Ciba Ltd.: *See*—
Geigy, Wilhelm, Albrecht, and Meyer. 2,769,664.
Hanhart, Walter. 2,769,805.
Usteri, Eduard. 2,769,744.
Weber, Oscar. 2,769,806.

Ciba Pharmaceutical Products, Inc.: *See*—
Matter, Max, Rossi, and von Sprecher. 2,769,538.

Clasell, W. M., Mfg. Co., Inc.: *See*—
Richterbessing, Frank H. 2,769,460.

Clapp, Richard C.: *See*—
English, Jackson P., and Clapp. 2,769,820.

Clark, Arthur R.: *See*—
Clark, Margaret M. 2,769,746.

Clark, Joe H., and J. P. Englisa, to American Cyanamid Co. 1,4-naphthoquinoneimine compounds and methods of preparing the same. 2,769,821, 11–6–56, Cl. 260—396.

Clark, Margaret M., ½ to A. E. Clark. Mono-hydroxycycloalkane and ortho boric acid mixture ointment-like composition. 2,769,746, 11–6–56, Cl. 167—63.

Clark, William J. Rain detector element. 2,769,873, 11–6–56, Cl. 200—61.05.

Clayton, Benjamin. Purification of glyceride oils. 2,769,827, 11–6–56, Cl. 260—425.

Cleveland Industrial Research, Inc.: *See*—
Miller, Clark O. 2,769,735.

Clevite Corp.: *See*—
Kornel, Otto. 2,769,866.

Clifford, Warren E., and R. R. Burns, to the United States of America as represented by the United States Atomic Energy Commission. Precipitation process. 2,769,780, 11–6–56, Cl. 210—23.

Clifford, Wilfred J., to The Pyr-Fyter Co. Foam-producing apparatus. 2,769,500, 11–6–56, Cl. 169—15.

Cleaver, Rex D., A. J. Kalka, and W. B. Ligett, to Ethyl Corp. Alkylation reactions. 2,769,850, 11–6–56, Cl. 260—668.

Cluett, Peabody & Co., Inc.: *See*—
Cowles, Roderick J., and Ciannamea. 2,769,685.
Jedcock, George N., and Wagar. 2,769,178.

Clauwen, Johannes M., to Hartford National Bank and Trust Co., as trustee. Transistor amplifier circuit. 2,769,870, 11–6–56, Cl. 179—171.

Coats & Clark Inc.: *See*—
Morin, Louis E. 2,769,204.

Coggeshall, Thelwell T., and U. R. Tognella, to General Electric Co. Closing mechanism for an electric circuit breaker. 2,769,874, 11–6–56, Cl. 200—89.

Cohen, Jacob S.: *See*—
Finestone, Harry S. 2,769,884.

Cohen, Leonard: *See*—
Goldenson, Jerome, and Cohen. 2,769,697.

Colby, Harold T. Engine cooling system cleaner. 2,769,450, 11–6–56, Cl. 134—57.

Coler, Myron A., and H. A. Gottschall, to M. A. Coler. Water vapor impervious synthetic resin composition. 2,769,794, 11–6–56, Cl. 260—41.

Collica, Victor. Creeper headrest. 2,769,184, 11–6–56, Cl. 5—327.

Collins, Donald F. Electrical heating device. 2,769,892, 11–6–56, Cl. 219—46.

Collins, Ralph J.: *See*—
Phillips, Andrew T., and Collins. 2,769,286.

Columbian Carbon Co.: *See*—
Braendle, Harold A. 2,769,795.
Heller, George L. 2,769,692.

Comber, William R., to Champion Dish Washing Machine Co. Vegetable peeler having a reversing switch. 2,769,473, 11–6–56, Cl. 146—49.

Comstock, George E., 2d, to Norton Co. Grinding apparatus, particularly for grinding billets and the like. 2,769,290, 11–6–56, Cl. 51—34.

Comstock, George E., 2d, to Norton Co. Electromagnetic micrometer. 2,769,969, 11–6–56, Cl. 340—196.

Confeld, James D., to General Dynamics Corp. Convertible interoffice trunk. 2,769,862, 11–6–56, Cl. 179—18.

Congoleum-Nairn Inc.: *See*—
Wetterau, Paul C., Biskup, and Johnson. 2,769,726.

Conrad, Loris H.: *See*—
Burge, James S., McKee, Alexander, Conrad, Rider, Neetzel, and Salatin. 2,769,228.

Consolidated Electrodynamics Corp.: *See*—
Hardway, Edward V., Jr. 2,769,929.

Container Corp. of America: *See*—
Childsey, Francis A., Jr., and Walter. 2,769,376.

Continental Gin Co.: *See*—
Deeme, Frank E. 2,769,206.

Converse, Benjamin, to Gratiaville Co. Process for preparing a fluid laminated fabric. 2,769,723. 11-6-56. Cl. 117—5.

Cook, Alva A., and D. C. Gilmore, to Wedgwood Optical Co. Treatment of lenses for ophthalmic and projection purposes. 2,769,313. 11-6-56. Cl. 88—57.

Cook Chem. Co. : See—

Cook, Lawrence M. : See—

Cook Research Laboratories : See—

Cooke, Thomas J. Hide speed indection welding circuit. 2,769,919. 11-6-56. Cl. 250—83.5.

Crawford, Thomas J. Induction heating and welding apparatus. 2,769,844. 11-6-56. Cl. 219—8.5.

Crawford, Thomas J. Hide speed induction welding machine. 2,769,845. 11-6-56. Cl. 219—8.5.

Crawford, Walter F., and Cooper, Edgar M., Jr. : See—

Crockford, Wilson F., and Creamer, 2,769,855. Creeson, James L. to The L. D. Caulk Co. Dental impression material. 2,769,717. 11-6-56. Cl. 106—38.53.

Cress, William H. to Brin-Brown Tools Ltd. Fluted cutting tool. 2,769,355. 11-6-56. Cl. 77—10.

Creasy, Gilbert W. : See—

Pierce, William L., and Creasy, 2,769,761

Pierce, William L., and Creasy, 2,769,762

Crews, William, Jr., and H. W. Koren, to Bonotone Corp. 2,769,419.

Crews Cash & Lock Co., Inc. : See—

Crittenden, Alma P. 2,769,451.

Crittenden, Alma P. 2,769,886.

Crittenden, George H. 2,769,581.

Crocker Electronics Inc. : See—

Crocker Hardware Co. : See—

Crosby, Albert G. 2,769,422.

Crosby, Albert G. 2,769,451.

Crosby, Albert G. 2,769,452.

Crosby, William H. 2,769,586.

Crosley, Andrew W., and Crosley, 2,769,762

Crosley, Gilbert W. : See—

Crosley, William L., and Crosley, 2,769,762

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Crowell Corp. & Inc. : See—

Crowson, Edgar W., and H. W. Koren, to Bonotone Corp. 2,769,867.

Cruickshank, Alfred and energy transducers. 2,769,867.

Cutler-Wright Corp. : See—

Czech, Jack. Bar rise with ball joint for spacing clamping face from clamping arm. 2,769,522. 11-6-56. Cl. 42—12

Dahl, Hans. Tobacco opener for cigarette making machines. 2,769,446. 11-6-56. Cl. 131—110.

Dallmeyer, Harry S., Jr., to A. H. Wirz, Inc. Closure. 2,769,582. 11-6-56. Cl. 222—541

Davidson, Thomas R. N., and A. H. Bertram to General Electric Co. Article transfer apparatus. 2,769,520. 11-6-56. Cl. 198—23

Davis, Ralph P., to Lok-Belt Co. Mold forming apparatus. 2,769,217. 11-6-56. Cl. 22—21.

Davison, Frank D. to I. R. Gonsalves. Air conditioner. 2,769,620. 11-6-56. Cl. 237—9.

Dawes Chemicals Co. : See—

Dearnley, Bertold. 2,769,642

Dearnley, Bertold. 2,769,644

Day, Stewart F. 8,156 to W. M. Scholle, Jr. Container closing machine. 2,769,282. 11-6-56. Cl. 53—314.

Dazal, Joachim, to Monsanto Chemical Co. Adducts of monoalkenylmaleates with enamarate. 2,769,824. 11-6-56. Cl. 260—465.

De Bolster Container Co. : See—

De Bolster Container Co. : See—

De Bolster, Benjamin F. to Phillips Petroleum Co. Process for polymerizing ethylene. 2,769,841. 11-6-56. Cl. 13—598.

Decca Records Co. Ltd. The : See—

Decker, Grahame M., and Coppini. 2,769,917.

Decker, Karl-Heinz : See—

Decker, Helmut, Schelb, and Decker. 2,769,786.

Dehn, Russell P., Borchardt, and Crandall. 2,769,088.

Dehn, Russell P., Borchardt, and Crandall. 2,769,089.

Dehn, Russell P., Borchardt, and Crandall. 2,769,090.

Dehnert, Gert K. O. Bjerkaas, and Dietrich. 2,769,850.

Delano, Frank E. to Continental Gin Co. Gin breast apparatus. 2,769,229. 11-6-56. Cl. 19—55.

Delco & Co. : See—

Delmore, James R., to Eastwood Mfg. Co. Dual selective reception. 2,769,061. 11-6-56. Cl. 325—17.

Delmont Engineering & Mfg. Co. : See—

Del Nardo, Albert J., H. Gardner, and W. C. Robertson, to Motional Research Corp. Procedure and apparatus for testing means for vehicle carrier. 2,769,604. 11-6-56. Cl. 104—599.

Delta Products Corp. : See—

Delta Tube Corp. : See—

Delzer, Donald G. to Union Carbide and Carbon Corp. Process for preparing acetoxybicycloheptadienes. 2,769,829. 11-6-56. Cl. 260—488.2

Delzer, Donald G. to Union Carbide and Carbon Corp. Process for preparing acetoxybicycloheptadienes. 2,769,830. 11-6-56. Cl. 260—488.2

Demarest, Elmer M., Jr. : See—

Dempsey, Thomas J. Hide speed induction welding machine. 2,769,847. 11-6-56. Cl. 219—8.5

Dempsey, Thomas J. Hide speed induction welding machine. 2,769,848. 11-6-56. Cl. 219—8.5

Dennison, Robert H., and W. G. Koh, to General Mills, Inc. Apparatus for cooking dough pieces. 2,769,402. 11-6-56. Cl. 99—237.

Dentschel, Harold V., to General Motors Corp. Rod centering mechanism. 2,769,282.

Denver Equipment Co. : See—

Derbyshire, Gert K. O. Bjerkaas, and Dietrich. 2,769,850.

Dermott, James R., to Eastwood Mfg. Co. Dual selective reception. 2,769,061. 11-6-56. Cl. 325—17.

Desmarais, Arno K. : See—

Desmarais, Arno K. : See—

Desmarais, Arno K. : See—

Galloway, Ethan C., to The Dow Chemical Co. Process for making dialkyl (3-indolylmethyl) malonates. 2,769,814, 11-6-56, Cl. 260—319.

Gardner, James H.: *See*—
Di Nardo, Albert, Gardner, and Robertson.

Gash, Virgil W., to Monsanto Chemical Co. Preparing Δ⁴-3-keto-etienic acids. 2,769,822, 11-6-56, Cl. 260—397.1.

Geigy, Wilhelm, O. Albrecht, and J. Meyer, to Ciba Ltd. Process for stripping and lightening wool dyeings. 2,769,684, 11-6-56, Cl. 8—102.

Gemmer Mfg. Co.: *See*—
Hammond, Charles F.

General Dynamics Corp.: *See*—
Caufield, James D.

General Electric Co.: *See*—
Coggeshall, Theilwell R., and Tognella.
Davidson, Thomas R. N., and Scrutton.
Evans, Thomas M.
Flowers, Ralph C., and Holmberg.
Hoecker, Albert C.
Leak, Israel A.
Macemon, Herbert J., and Posey.
Ochwat, Joseph F.
Rich, Theodore A.
Stratton, Jerry L.
Tompkins, Russell E.

General Instrument Corp.: *See*—
Chenney, John.

General Mills, Inc.: *See*—
Duncanson, Robert H., and Roll.

General Motors Corp.: *See*—
Burge, James S., McKee, Alexander, Conrad, Rider, Noetzel, and Salatin.
Candor, Robert R.
Deiss, John, Steinhagen, and Johnson.
Elliott, Harold V.
Geyer, Howard M.
Grenell, Leland H.
Grenell, Leland H.
Harrold, Marshall C., and Wheeler.
Pearce, George C.
Smith, William, Jr.
Strickland, George H.
Wheeler, Harold A.

General Precision Laboratory Inc.: *See*—
Zito, Ralph, Jr., and Dellenbaugh.

General Railway Signal Co.: *See*—
Hallen, William D.

General Slicing Machine Co., Inc.: *See*—
Gilbert, Jack, and Preble.

General Steel Castings Corp.: *See*—
Wintemberg, Adelbert C.

Getz, Arnstead G., to The Bishop and Babcock Mfg. Co. Rolls for corrugating metal strips. 2,769,479, 11-6-56, Cl. 153—77.

Geyer, Howard M., to General Motors Corp. Actuator with dual locking means. 2,769,480, 11-6-56, Cl. 121—40.

Gianola, Aldo: *See*—
Lazan, Frank, Jr.

Gibbs, William J.: *See*—
Larsen, Carl H., and Gibbs.

Gilbert, Everett B., and B. Veldhuis, to Allied Chemical & Dye Corp. Process for preparing oil-soluble sulfonic acids. 2,769,838, 11-6-56, Cl. 260—504.

Gilbert, Jack, and H. Preble, Jr., to General Slicing Machine Co., Inc. Sharpening device for food slicing machines. 2,769,289, 11-6-56, Cl. 51—248.

Gilfert, James C.: *See*—
Jacobson, Moses G., Gilfert, De Luca, and Mruk.

Gilkeson, David C.: *See*—
Cook, Alan A., and Gilkeson.

Gilkeson, David C., to Wollensak Optical Co. Telephoto objective lens comprising four elements. 2,769,371, 11-6-56, Cl. 88—57.

Gill, Walter L. Weight and valve stem assemblies. 2,769,452, 11-6-56, Cl. 137—38.

Gille, Willis H., to Minneapolis-Honeywell Regulator Co. Automatic pilots. 2,769,950, 11-6-56, Cl. 318—489.

Gillette Co., The: *See*—
Sinclair, Robert L.

Goepfert, George J., to The Carborundum Co. One-stage resin bonded diamond abrasive wheel. 2,769,700, 11-6-56, Cl. 51—295.

Goetz, Michael B. Hygroscopic air conditioner. 2,769,313, 11-6-56, Cl. 62—6.

Goldberg, Sydney J.: *See*—
Ostergren, Ralph H., Goldberg, Horsfall, and Wuerth.

Goldenson, Jerome, and L. Cohen, to the United States of America as represented by the Secretary of the Army. Thickener for hydrocarbon fuels. 2,769,697, 11-6-56, Cl. 44—7.

Goldman, Louis, to Bancroft Cap Co. Flaherman's hat. 2,769,272, 11-6-56, Cl. 42—57.5.

Goldman, Sylvan N.: *See*—
Young, Fred W.

Goldstein, Abraham. Collar stretcher. 2,769,585, 11-6-56, Cl. 223—52.1.

Gomory, Paul L., to Phillips Petroleum Co. Process and apparatus for handling of carbonaceous or reactant materials. 2,769,772, 11-6-56, Cl. 196—63.

Gongwer, James C. Caging mechanism for gyros. 2,769,343, 11-6-56, Cl. 74—5.12.

Goodlad, William L. Pea harvester. 2,769,284, 11-6-56, Cl. 56—21.

Goodman, Clark, to Schlumberger Well Surveying Corp. Apparatus for logging the fluorescence and phosphorescence of earth formations traversed by a borehole. 2,769,914, 11-6-56, Cl. 250—71.

Goodrich, B. F., Co., The: *See*—
Hernagh, Frank, Wuchter, and Strong.
Whitman, Hyman L.

Goodrich, John J., and R. C. Roetger, to St. Regis Paper Co. Conveyor means having pusher fingers raisable at selectable intervals. 2,769,528, 11-6-56, Cl. 198—176.

Goodwin, Ernest G., to Unitcast Corp. Counterbalanced end doors for drop end gondola cars. 2,769,406, 11-6-56, Cl. 105—406.

Gordon, Melvin J., to M. J. and S. Z. Gordon and N. G. Stone, d. b. a. Manchester Hosiery Mills. Display stands. 2,769,262, 11-6-56, Cl. 40—124.

Gordon, Richard A. Nylon trimming with a securing member thereon impregnated with a polyvinyl resin coupled to an acid radical. 2,769,740, 11-6-56, Cl. 154—46.

Gordon, Sadye Z.: *See*—
Gordon, Melvin J.

Gorham, Irl R.: *See*—
Davison, Frank D.

Gottschall, Herbert A.: *See*—
Coler, Myron A., and Gottschall.

Gould-National Batteries, Inc.: *See*—
Maybach, Gerald E.

Goulding, Edward: *See*—
Becker, Frederick G. L.

Graham, Leonard A.: *See*—
Thompson, William M., Graham, and Seidel.

Gramlich, Harold C.: *See*—
Courson, Iber C., Mann, and Gramlich.

Granesay, Stephen V., and L. Heinrich, to the United States of America as represented by the Secretary of the Army. Nape strap.

Grand Union Co., The: *See*—
Just, George A.

Graniteville Co.: *See*—
Converse, Sherman.

Gratmuller, Jean L. Hydraulic feeding unit. 2,769,390, 11-6-56, Cl. 103—223.

Graybill, Kenneth W., and C. E. Lomax, to Automatic Electric Laboratories, Inc. Rotary finder with graded multiple.

Grenell, Leland H., to General Motors Corp. Method of joining an aluminum tube to a steel refrigerator compressor.

Grenell, Leland H., to General Motors Corp. Refrigerating apparatus of dissimilar metals.

Grieve, John, ½ to C. Harper. Inboard drive for water craft.

Griffin, Lindsay L., Jr., to Esso Research and Engineering Co. Contacting of gases with fluidized solids with the use of chains in the fluidized bed.

Guba, Raymond J., to Audubon Wire Cloth Corp. of New Jersey. Woven wire conveyor belt.

Guilbert, Inc.: *See*—
Guilbert, Nicholas R., and Keller.

Guilbert, Nicholas R., Jr., and W. R. Keller, to Guilbert, Inc. Braking mechanism for sliding doors and the like.

Gulf Oil Corp.: *See*—
Irvine, Robert L.

Gulf Research & Development Co.: *See*—
Tittle, Charles W.
Tittle, Charles W.
Tittle, Charles W.

Gunderson, Arthur O. Farm gate.

Hacker, Kurt: *See*—
Braun, Dieter, and Hacker.

Hagopian, Jacob J., and S. R. Hounsfield, to Northrop Aircraft, Inc. Automatic radio control system.

Hahn, Joel A. R. Garden tool.

Hailes, William D., to General Railway Signal Co. Contact assembly for electromagnetic relays.

Haines, Robert M.: *See*—
Annable, Weldon G., and Haines.
Annable, Weldon G., and Haines.
Annable, Weldon G., and Haines.

Hait, James M., to Food Machinery and Chemical Corp. Fruit inspecting and rejecting means.

Hake, Richard, to Joh. Friedrich Ohler O. H. G. Sawing machine.

Hallas, Lister: *See*—
Meadows, Stanley G., Hallas, and Searles.

Hallerberg, Theodore W.: *See*—
Hayes, Marvin F.
Kratville, Robert H.
Pauly, Jacob L.

Hallerberg, Theodore W., and J. L. Pauly; said Pauly assor. to said Hallerberg. Heat controller.

Ham, George E., to The Chemstrand Corp. Composition comprising n-nitrosopiperidine and a copolymer of acrylonitrile.

Ham, George E., to The Chemstrand Corp. Fiber-forming vinyl chloride copolymer blends with acrylonitrile polymers.

Ham, George E., to The Chemstrand Corp. Fiber-forming acrylonitrile polymer blends.

Ham, George E., to The Chemstrand Corp. Dyeable copolymers of acrylonitrile and aminoesters of ilacoic acid.

Hambach, Edward J.: *See*—
Morgavi, Gaetano A.





Hamm, Douglas W., to Muskegon Piston Ring Co. Piston ring oil sealing structure.

Hammitt, Andrew E., and H. L. Birum, Jr. Weather plate.

Hammond, Charles F., to Gemmer Mfg. Co. Manual and power actuated steering mechanism for motor vehicles.

Hanhart, Walter, to Ciba Ltd. Metalliferous trisazo-dyestuffs.

Hann, Melvin M.: *See*—
Cardillo, Joseph S., and Hann.

Hansen, Alden W., to The Dow Chemical Co. Continuous method for making solid polymeric materials.

Hansen-Van Winkle-Munning Co.: *See*—
Hauck, Paul A.

Hansen, Petter M., to Ellisen Bronze Co., Inc. Door check with fluid bumper.

Hanse, Arthur R.: *See*—
Schneider, William P., and Hanse.

Hardway, Edward V., Jr., to Consolidated Electrodynamics Corp. Electrokinetic transducers.

Hardy, John L., to The Dow Chemical Co. Vinyl benzene compound composition and method for the treatment of soil.

Hardy, William B., and R. B. Fortenbaugh, to American Cyanamid Co. Replacement of bromine by chlorine in aromatic compounds.

Harenape, John N.: *See*—
Porter, Frederick W. B., and Harenape.

Harley, Frank B. Releasable buckles.

Harman, Gerald J., H. D. Hooker, and R. T. Rummel, to Lockheed Air Terminal, Inc. Multiple refueling system.

Harman, Gerald J., H. D. Hooker, and R. T. Rummel, to Lockheed Air Terminal, Inc. Airplane refueling system with rate of flow metering.

Harper, Charles: *See*—
Grieve, John.

Harrjman, Arthur J., to Thomas J. Lipton Inc. Method and apparatus for making tea bags or the like.

Harris, Rhett G., to Texaco Development Corp. Processes employing homogeneous mixture of inert adsorbent and substrate.

Harris, Thomas A., to Joseph Lucas Ltd. Means for synchronising the speeds of a pair of aircraft engines to which fuel is supplied by pumps and air by blowers.

Harris, Thomas A., O. N. Lawrence, and R. H. Warne, to Joseph Lucas (Industries) Ltd. Liquid fuel control means.

Harrison, John W., to Westinghouse Electric Corp. Electric immersion heater.

Harrold, Marshall C., and H. A. Wheeler, to General Motors Corp. Refrigerant expansion control.

Harstick, William H., F. G. Hododon, and H. W. Hein, to International Harvester Co. Pipe-line assembly and coupling means therefor.

Hart, Robert T., to R. D. Warren Co. Method of cast calendering paper.

Harter, Isaac, I. Harter, Jr., T. W. Ratcliffe, and F. W. Armstrong, Jr., to The Babcock & Wilcox Co. Continuous casting mold.

Harter, Isaac, Jr.: *See*—
Harter, Isaac, I. Harter, Jr., Ratcliffe, and Armstrong.

Hartford National Bank and Trust Co.: *See*—
Cluwen, Johannes M.
Mings, Garmt A.
Van Gelder, Geeswijn, and Vervest.
Warmolts, Nicolaas.

Hasenberg, Werner: *See*—
Kidd, Marshall C., and Hasenberg.

Hassan, Fauthal A.: *See*—
Hassan, Joseph A.

Hassan, Joseph A., ½ to F. A. Hassan. Voice coil for loud speakers.

Hauck, Paul A., to Hansen-Van Winkle-Munning Co. Transfer mechanisms.

Havens, Glenn G.: *See*—
Meanor, Doyle W., and Havens.

Hayes, James H. Overrunning clutch and one way brake with disabler for fishing reel.

Hayes, James H. One way brake.

Hayes, Marvin F., to T. W. Hallerberg. Indicator lamp housing.

Healy, James W. Toggle wrench.

Heimbuch, Elmer F., to Brummer Seal Co. Water cooled annular seal.

Hein, Harold W.: *See*—
Harstick, William H., Hododon, and Hein.

Heininger, Samuel A.: *See*—
Kosmin, Milton, and Heininger.

Heinrich, Leonard: *See*—
Granesay, Stephen V., and Heinrich.

Helbing, Clarence H., to Pittsburgh Plate Glass Co. Surfacing resin bodies.

Heil-Coil Corp.: *See*—
Forster, John O.

Heller, George L., to Columbian Carbon Co. Carbon black process and apparatus.

Henderson, Edward. Hypodermic syringe unit.

Hendrickson, Fritz E., to Norton Co. Abrasive polishing wheel and element.

Henn, Albert C.: *See*—
Rocca, Julius P., and Henn.

Hennies, Stuart R.: *See*—
Hagopian, Jacob J., and Hennies.

Hensley, Robert K., Jr. Cleaning depository.

Herlin, Melvin A.: *See*—
Hutchinson, Franklin, and Herlin.

Herman, Albert D., to Aeroquip Corp. Reinforced T shaped seal for flanged pipe coupling.

Hermann, Edward C., to E. I. du Pont de Nemours and Co. Carboxymethyl quaternary ammonium halides, hydrazides and hydrazones with thiophenecarbaxaldehydes.

Hermanson, Harry M., to Minneapolis-Honeywell Regulator Co. Fuel gage apparatus.

Hermeryd, Fritz O., A. F. Nord, and E. O. A. Sundström, to Boliidens Gruvaktiebolag. Smelting sulfide ores.

Herring Magic, Inc.: *See*—
Miller, Myron C.

Herscovitch, William. Conveyors or elevators for bulk material.

Herscovitch, William. Conveyors.

Hernagh, Frank, A. P. Wuchter, and W. J. Strong, to The B. F. Goodrich Co. Rubber tire valve assembly.

Hess Co., The: *See*—
Rzeszutko, Stanley J.

Hettick, George R., to Phillips Petroleum Co. Catalytic defluorination process.

Hevi Duty Electric Co.: *See*—
Frank, Arthur W.

Hewey, Robert W.: *See*—
Johnson, Edwin W., Donaldson, and Hewey.

Hewitt, Frederick G., to Burgess-Manning Co. Doorless telephone booth.

Hewlett-Packard Co.: *See*—
Bagley, Alan S.

Hill, Arlie D. Hand actuated pipe wall extrusion tool.

Hirsch, Abraham A. Articulated surface washing device with oscillatory nozzles for filter beds.

Hitchings, George H., and P. B. Russell, to Burroughs Wellcome & Co. (U. S. A.) Inc. Triazine compounds and method.

Hododon, Floyd G.: *See*—
Harstick, William H., Hododon, and Hein.

Hoecker, Albert C., to General Electric Co. Steam irons.

Hogg, John A.: *See*—
Schneider, William P., and Hogg.

Hoggren, Oscar C. Portable milk pasteurizer.

Holbrook, Orrin C.: *See*—
Moenning, William K., and Holbrook.

Holle, Otto E. Planter shoe.

Holley Carburetor Co.: *See*—
Sterner, Melvin F.

Hollyday, William C., Jr., to Esso Research and Engineering Co. Lubricating compositions.

Holmberg, Gustave D.: *See*—
Flowers, Ralph C., and Holmberg.

Holmes, Lloyd E. Internal pipe gripping tool.

Holmqvist, Gert E. O., B. E. Björklund, and A. K. Dietsch, to Telefonaktiebolaget L M Ericsson. Contact device for cross bar switches.

Honma, Minoru, to The State of Iowa, for the benefit of the State University of Iowa. Apparatus for spectrographic analysis.

Hooker, Harwood D.: *See*—
Harman, Gerald J., Hooker, and Rummel.
Harman, Gerald J., Hooker, and Rummel.

Horsfall, Robert B., Jr.: *See*—
Ostergren, Ralph H., Goldberg, Horsfall, and Wuerth.

Horton, William G. Display and like devices.

Horton, Winthrop S., and C. J. Lucia, to Studebaker-Packard Corp. Marine propulsion mechanism.

Houdry Process Corp.: *See*—
Milliken, Thomas H., Jr., and Koester.
Shabaker, Hubert A.

Huber, Theodore A., to Esso Research and Engineering Co. Apparatus for squeeze cementing well perforations.

Huddle, Edwin P.: *See*—
Carlson, Ernest C., and Huddle.
Oreling, John E., Huddle, and Uhm.

Hudson, H. D., Mfg. Co.: *See*—
Hudson, Robert C., and Pinks.

Hudson, Owen M.: *See*—
Allen, Howard G., and Hudson.

Hudson, Robert C. and A. H. Pinks, to H. D. Hudson Mfg. Co. Compression sprayer.

Hudson, Verne L., and J. M. Wickham, said Hudson assor. to Boeing Airplane Co. Aircraft flight refueling apparatus.

Hudson, William L. Periodic coin collector.

Huggins, John W.: *See*—
Thomas, Theron H., and Huggins.

Hughes, Ray C.: *See*—
Coppola, Patrick P., Hughes, and Koppius. 2,769,706.

Hughes Tool Co.: *See*—
Morlan, Erwin A., and Woods. 2,769,616.

Humphrey, Irl W. Automatically releasing shackle. 2,769,654, 11–6–56, Cl. 294—83.

Humphreys Investment Co., The: *See*—
Humphreys, Ira B. 2,769,433.

Humphreys, Ira B., to The Humphreys Investment Co. Internal combustion engine. 2,769,432, 11–6–56, Cl. 123—48.

Hunt, Robert G., and W. W. Hunt, to Marco Products Co. Plumber's tool. 2,769,191, 11–6–56, Cl. 15—104.3.

Hunt, Walter W.: *See*—
Hunt, Robert G. and W. W. 2,769,191.

Hutchings, Le Roi E.: *See*—
Annable, Weldon G., Hutchings, and Lucas. 2,769,760.
Annable, Weldon G., Hutchings, and Lucas. 2,769,761.
Annable, Weldon G., Hutchings, and Lucas. 2,769,762.

Hutchings, Le Roi E., and M. M. Marisic, to The Pure Oil Co. Combination process for catalytic hydrodesulfurination and reforming of high sulfur hydrocarbon mixtures. 2,769,763, 11–6–56, Cl. 196—24.

Hutchinson, Floyd K. Electric livestock gate. 2,769,617, 11–6–56, Cl. 256—10.

Hutchinson, Franklin, and M. A. Herlin, to the United States of America as represented by the Secretary of the Navy. Tunable stabilized magnetron. 2,769,937, 11–6–56, Cl. 315—39.77.

Hyde, Robert W.: *See*—
Bevins, James E., and Hyde. 2,769,681.

Ikehara, Morio: *See*—
Ochiai, Eiji, and Ikehara. 2,769,810.

Illes, Rosina A. Rosary with container for concealing pendant member. 2,769,240, 11–6–56, Cl. 35—23.

Imperial Chemical Industries Ltd.: *See*—
Robinson, Ralph L. 2,769,847.
Williamson, John F. 2,769,701.

Interchemical Corp.: *See*—
Schneid, Alfred F., Resnick, and Pizzarello. 2,769,731.

Interior, United States of America as represented by the Solicitor of the Department of the: *See*—
Fraas, Foster. 2,769,536.

International Business Machines Corp.: *See*—
Basbe, Charles J. 2,769,971.

International Cigar Machinery Co.: *See*—
Bandel, David. 2,769,734.

International Harvester Co.: *See*—
Carlson, Ernest C., and Huddle. 2,769,296.
Frie, George R., McGonigal, and Benkert. 2,769,657.
Harstick, William H., Hodsdon, and Hein. 2,769,647.
Lee, Fred A. 2,769,656.
Morris, David M. 2,769,579.
Orelind, John R., Huddle, and Ulm. 2,769,297.
Selser, John. 2,769,284.
Wagner, John C. 2,769,501.
Wagner, John C. 2,769,503.
Zikal, Joseph F. 2,769,502.

International Resistance Co.: *See*—
Stein, Sidney J., and Pugh. 2,769,944.

International Steel Co.: *See*—
Nystrom, Karl F. 2,769,230.
Nystrom, Karl F. 2,769,405.

Irvine, Robert L., to Gulf Oil Corp. Process and apparatus for separating fluid mixtures. 2,769,309, 11–6–56, Cl. 62—2.

Isitt, John S.: *See*—
Porter, Frederick W. B., and Isitt. 2,769,756.
Porter, Frederick W. B., and Isitt. 2,769,758.

Isen, Joe A.: *See*—
Abboud, Harry I. 2,769,506.

Jackson, Forest W. Cleaning bag for dentures. 2,769,193, 11–6–56, Cl. 15—210.

Jackson, Percy: *See*—
Purdie, William H., and Jackson. 2,769,302.

Jacobson, Moses G., J. C. Gilfert, F. J. De Luca, and W. F. Mruk, to Mine Safety Appliances Co. Bolometer. 2,769,884, 11–6–56, Cl. 201—63.

James, Edwin E.: *See*—
Cottrell, Wayne W., and James. 2,769,360.

Jarvis, John, to Bendix Aviation Corp. Thermal time delay circuit. 2,769,955, 11–6–56, Cl. 323—69.

Jeffcock, George N., and A. E. Wagar, to Cluett, Peabody & Co., Inc. Method of making a cuff and attachment of same to a sleeve. 2,769,178, 11–6–56, Cl. 2—123.

Jen, Yun: *See*—
Suen, Tzeng J., and Jen. 2,769,796.
Suen, Tzeng J., and Jen. 2,769,797.
Suen, Tzeng J., and Jen. 2,769,799.
Suen, Tzeng J., and Jen. 2,769,800.

Jenks, Raymond L. Spring motor-operated fire alarm. 2,769,422, 11–6–56, Cl. 116—101.

Jennings, Uel P., and E. F. Lewis, to E. I. du Pont de Nemours and Co. Explosive cartridge end closure apparatus. 2,769,377, 11–6–56, Cl. 92—55.1.

Jensen, Louis P., and W. M. Wheildon, Jr., to Norton Co. Apparatus for coating articles with refractory oxides and the like. 2,769,663, 11–6–56, Cl. 299—22.5.

Jensen, Thormod, to American Machine and Foundry Co. Mixer. 2,769,622, 11–6–56, Cl. 259—8.

Jeoheem, Theodore B., to Cutler-Hammer, Inc. Mechanism for counting and stacking magazines and the like. 2,769,378, 11–6–56, Cl. 93—93.

John, Dorothy: *See*—
Becher, Frederick G. L. 2,769,710.

Johnson, Edwin W. T. M. Donaldson, and R. W. Hewey, to The Singer Mfg. Co. Lubricating devices for sewing machines. 2,769,418, 11–6–56, Cl. 112—256.

Johnson, Ewing L. Railway front end structures. 2,769,555, 11–6–56, Cl. 213—6.

Johnson Fare Box Co.: *See*—
Regler, Clarence F., Kulo, and Singer. 2,769,524.

Johnson, George R. Stall type rack. 2,769,559, 11–6–56, Cl. 214—16.1.

Johnson, John. Plastic cement applicator. 2,769,578, 11–6–56, Cl. 222—107.

Johnson, Ralph S.: *See*—
Dolan, John, Steinhagen, and Johnson. 2,769,660.

Johnson, Spencer: *See*—
Wetterau, Paul C., Bishop, and Johnson. 2,769,724.

Jones, Cecil B. Grinder. 2,769,281, 11–6–56, Cl. 51—91.

Jones, John P. Tree shakers. 2,769,298, 11–6–56, Cl. 56—328.

Joris, George G. to Allied Chemical & Dye Corp. Process for preparation of para-alpha-cumyl phenol. 2,769,844, 11–6–56, Cl. 260—619.

Joy, Joseph F., to Joy Mfg. Co. Loop cutter chain guide and drive structure. 2,769,627, 11–6–56, Cl. 262—33.

Joy, Joseph F., to Joy Mfg. Co. Mining machine cutter bit. 2,769,628, 11–6–56, Cl. 262—33.

Joy Mfg. Co.: *See*—
Joy, Joseph F. 2,769,627.
Joy, Joseph F. 2,769,628.

Juhasz, Stephen, to The Air Preheater Corp. Parallel and counterflow of air in preheater. 2,769,619, 11–6–56, Cl. 257—4.

Just, George A., to The Grand Union Co. Display and delivery stand. 2,769,551, 11–6–56, Cl. 211—49.

Juvinall, James W., to Rapaport Electro-Coating Corp. Apparatus for and method of conveying articles. 2,769,725, 11–6–56, Cl. 117—104.

Kairath, Howard G. Resiliently mounted hobby horse. 2,769,484, 11–6–56, Cl. 155—50.

Kalmbacher, Heinz: *See*—
Kalmbacher, Hugo and Heinz. 2,769,414.

Kalmbacher, Hugo and Heinz. Bookbinding method and means. 2,769,414, 11–6–56, Cl. 112—21.

Karsee, Willart A. Stop mechanism for punch presses. 2,769,498, 11–6–56, Cl. 164—59.

Kartinos, Nicholas J., and A. C. Starke, Jr., Trifluoromethyl diphenylamine dyes. 2,769,816, 11–6–56, Cl. 260—240.2.

Kaufmann, Frank H., to Steel Heddle Mfg. Co. Loom harness. 2,769,461, 11–6–56, Cl. 139—92.

Kearney, James R., Corp.: *See*—
Moriarty, Wallace A. 2,769,257.

Kechely, Lee E., and W. R. Brandon. Grain drier and conveyor. 2,769,245, 11–6–56, Cl. 34—57.

Keeler, William B. Terrace barrier or curbing. 2,769,277, 11–6–56, Cl. 47—33.

Keith, John V., to Universal Winding Co. Twisting and winding machine. 2,769,290, 11–6–56, Cl. 57—62.

Keller, John D. Method for annealing tightly wound flat rolled metal stock. 2,769,630, 11–6–56, Cl. 269—52.

Keller, Walter B.: *See*—
Guilbert, Nicholas R., and Keller. 2,769,196.

Kellogg, M. W., Co., The: *See*—
Stiles, Samuel B. 2,769,521.
Szwarc, Michael M., Roper, and Steiner. 2,769,786.
Weil, Nicholas A. 2,769,585.

Kempf, Adolph: *See*—
Folkins, Hillis O., and Kempf. 2,769,766.

Kennedy, James S.: *See*—
Russell, John C., and Kennedy. 2,769,542.

Kercheval, John O.: *See*—
Algiers, Paul J., and Kercheval. 2,769,574.

Kern, Roland J.: *See*—
Birum, Gail H., and Kern. 2,769,777.

Keyser, Johann J., to Schloss Aktiengesellschaft. Lap or bobbin feed system for spinning machines. 2,769,209, 11–6–56, Cl. 19—130.

Kidd, Marshall C., and W. Hasenberg, to Radio Corp. of America. Junction transistor oscillator circuits. 2,769,906, 11–6–56, Cl. 250—36.

Kidde, Gustave E., to Kidde Process Corp. Process for treatment of waste pickle liquor. 2,769,689, 11–6–56, Cl. 23—153.

Kidde Mfg. Co., Inc.: *See*—
Noe, Harold C. 2,769,524.

Kidde Process Corp.: *See*—
Kidde, Gustave E. 2,769,689.

Kight, Alonzo B. Pivoted locking bar fastener having C-shaped spring head. 2,769,363, 11–6–56, Cl. 85—3.

Kilburn, Tom: *See*—
Williams, Frederic C., and Kilburn. 2,769,935.

Kirtby, Henry W.: *See*—
Sykes, Charles, and Kirkby. 2,769,227.

Kleinvogel, Hans-Joachim, to Siemens-Schuckertwerke Aktiengesellschaft. Measuring and regulating apparatus for electric contact converters. 2,769,951, 11–6–56, Cl. 321—48.

Klotz, Abraham I. Handle assembly for portable bags. 2,769,474, 11–6–56, Cl. 150—12.

Knapp, Lester H. Simulated hockey game board. 2,769,688, 11–6–56, Cl. 273—85.

Knaus, Rudolph, to Olin Mathieson Chemical Corp. Production of oleds chlorohydrins. 2,769,845, 11–6–56, Cl. 260—634.

Koch, Werner, to Faber & Schleicher Aktiengesellschaft. Sheet transporting and stacking device for printing machines. 2,769,634, 11–6–56, Cl. 271—79.

Koester, David W.: *See*—
Milliken, Thomas H., Jr., and Koester. 2,769,688.

Kolka, Alfred J.: *See*—
Closson, Rex D., Kolka, and Ligett. 2,769,350.

Koppius, Otto G.: *See*—
Coppola, Patrick P., Hughes, and Koppius. 2,769,706.

Koren, Heiman W.: *See*—
Crownover, Joseph W., and Koren. 2,769,867.





Kornel, Otto, to Clevite Corp. Magnetic transducer head. 2,769,866, 11–6–56, Cl. 179—100.2.

Kolmin, Milton, and S. A. Heininger, to Monsanto Chemical Co. Process of producing alkyl acrylates by dehydrohalogenation using an anhydrous calcium sulfate catalyst. 2,769,835, 11–6–56, Cl. 260—486.

Krasnow, Louis B. Thermal applicator for head. 2,769,308, 11–6–56, Cl. 62—1.

Krasnow, Shelley, to Schlumberger Well Surveying Corp. Radioactivity responsive systems for use in boreholes. 2,769,930, 11–6–56, Cl. 250—83.6.

Kratville, Robert H., to P. W. Hallerberg. Indicator lamp dimming circuit. 2,769,970, 10–2–56, Cl. 340—213.

Knighten, Carl V., to McGraw Electric Co. Deep fat fryer. 2,769,575, 11–6–56, Cl. 200—137.

Krueger, Ruth F. Hair dryers. 2,769,247, 11–6–56, Cl. 34—90.

Krueger, Theodore H., to Better Packages Inc. Dispenser for pressure sensitive adhesive tape. 2,769,532, 11–6–56, Cl. 271—2.4.

Kuhlenschmidt, Donald, and C. O. Fowler, to Whirlpool-Seeger Corp. Damper control mechanism for air conditioning apparatus. 2,769,320, 11–6–56, Cl. 62—129.

Kuhnle, Ernst. Adjusting mechanism for weighing scales. 2,769,590, 11–6–56, Cl. 235—61.

Kulo, Thomas E.: *See*—
Regler, Clarence F., Kulo, and Singer. 2,769,524.

Kunz, Jacob T., to Schulmerich Electronics, Inc. Rigid vibrator musical instrument. 2,769,361, 11–6–56, Cl. 84—1.15.

Kwitek, Edwin M., and E. D. Nystrand, to Paper Converting Machine Co., Inc. Web winding machine. 2,769,600, 11–6–56, Cl. 242—56.

Lambert, Reuben B. Flashlight switch. 2,769,896, 11–6–56, Cl. 240—10.6.

Lamoureux, Edward R., and B. N. Pierce, to The Merrow Machine Co. Feed control for shirring mechanism. 2,769,417, 11–6–56, Cl. 112—209.

Landgraber, Fred A., Sr., to Drumstick, Inc. Confection coating apparatus. 2,769,423, 11–6–56, Cl. 118—2.

Landis & Gyr A. G.: *See*—
Zamboni, Paul. 2,769,591.

Landry, Henry J.: *See*—
Froelich, George R. 2,769,183.

Lane, Robert F., and F. L. Mooney, to United Shoe Machinery Corp. Outsole roughing machines. 2,769,328, 11–6–56, Cl. 69—5.5.

Larsen, Carl H., and W. J. Gibbs, to American Machine & Foundry Co. Elevating and lowering device. 2,769,676, 11–6–56, Cl. 312—206.

Larson, Charles O. Anchorage device. 2,769,606, 11–6–56, Cl. 248—71.

Larson, Charles O. Table leg mounting bracket and latch structure therefor. 2,769,650, 11–6–56, Cl. 287—14.

Lartz, George F. Battery terminal connector. 2,769,964, 11–6–56, Cl. 339—226.

Lauck, John A., to Borg-Warner Corp. Power unit. 2,769,394, 11–6–56, Cl. 103—11.

Laughlin, Clayton A., to Northwest Plastics, Inc. Calendar stand. 2,769,261, 11–6–56, Cl. 40—120.

Lawrence Bros., Inc.: *See*—
Folts, Robert E. 2,769,198.

Lawrence, Owen N.: *See*—
Harris, Thomas A., Lawrence, and Warne. 2,769,488.

Layer, Clarence L. Bow string. 2,769,430, 11–6–56, Cl. 124—30.

Lazan, Frank, Jr., 50% to A. Gianola. Bumper guard. 2,769,653, 11–6–56, Cl. 293—71.

Leavens, William B., Jr. Printing cylinder stripping means with stop press control. 2,769,392, 11–6–56, Cl. 101—232.

Le Baron, Ira M.: *See*—
McCullough, Robert F., and Le Baron. 2,769,656.

Lee, Fred A., to International Harvester Co. Vehicle cab and front end mounting. 2,769,656, 11–6–56, Cl. 296—35.

Lee, John D. Hangers for trousers. 2,769,586, 11–6–56, Cl. 223—95.

Lee, Robert F. Bottle cap and opener. 2,769,560, 11–6–56, Cl. 215—46.

Lenelont, Louis J., to L. H. Cook, d. b. a. Cook Research Laboratories. Hydraulic device and travel limit valve. 2,769,429, 11–6–56, Cl. 121—38.

Leonard, Albert J., Sr. Safety razor. 2,769,232, 11–6–56, Cl. 30—60.5.

Lesjak, Babette V.: *See*—
Lesjak, Michael. 2,769,381.

Lesjak, Michael, deceased, by B. V. Lesjak executrix. Apparatus for daylight developing, fixing and washing of light sensitive strips. 2,769,381, 11–6–56, Cl. 95—90.5.

Leak, Israel A., to General Electric Co. Non-linear resistance device. 2,769,926, 11–6–56, Cl. 307—88.5.

Lever Brothers Co.: *See*—
Eckardt, Wolfgang M. J., and Preisinger. 2,769,748.

Levin, Jordan: *See*—
Zinnemon, Martin, Semlitz, and Levin. 2,769,584.

Lewis, Edward F.: *See*—
Jennings, Uel P., and Lewis. 2,769,377.

Libby, Carl F., to J. D. Riordan and G. C. Libby. Narrow web beam. 2,769,462, 11–6–56, Cl. 139—122.

Libby, Gertrude C.: *See*—
Libby, Carl F. 2,769,462.

Libert, Norris R. Tacking machine. 2,769,174, 11–6–56, Cl. 1—49.

Lidgard, Edward J., to Studebaker-Packard Corp. Packing container for curved glass. 2,769,594, 11–6–56, Cl. 206—62.

Lieberman, Joseph N. Self-winding mechanism for vehicle clock. 2,769,301, 11–6–56, Cl. 58—44.

Lienhard, Gottlieb, to Roce Manser Precision Engineering Corp. Gauging device. 2,769,242, 11–6–56, Cl. 33—147.

Ligett, Waldo B.: *See*—
Closson, Rex D., Kolka, and Ligett. 2,769,350.

Ligneri, Anthony, to Radio Corp. of America. Automatic phasing of synchronous multiplex telegraph systems. 2,769,857, 11–6–56, Cl. 178—50.

Lindgren, Robert D. Furniture stop. 2,769,275, 11–6–56, Cl. 45—137.

Lindstrom, Charles M., to Bostitch, Inc. Staple magazine and feed means for stapling machines. 2,769,173, 11–6–56, Cl. 1—49.

Link-Belt Co.: *See*—
Davis, Ralph P. 2,769,217.

Lip S. A. d'Horlogerie: *See*—
Drouhot, Germaine. 2,769,842.

Lipton, Thomas J., Inc.: *See*—
Hariman, Arthur J. 2,769,290.

Litkenhous, Edward E., to Tennessee Products & Chemical Corp. Reactor. 2,769,696, 11–6–56, Cl. 23—288.

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Harman, Gerald J., Hooker, and Rummel. 2,769,572.
Harman, Gerald J., Hooker, and Rummel. 2,769,575.

Loeschcke, Hans, and R. Wever. Counting device for microscopic particles. 2,769,865, 11–6–56, Cl. 88—14.

Logemann, George H., ⅔ to Custom Designers and ⅓ to A. J. Wagner. Containers, container blanks, and method of making same. 2,769,581, 11–6–56, Cl. 222—465.

Lohman, Robert D., to Radio Corp. of America. Semi-conductor relaxation oscillator circuits. 2,769,907, 11–6–56, Cl. 250—36.

Lomax, Clarence E.: *See*—
Graybill, Kenneth W., and Lomax. 2,769,863.

Longstreth, Murrey O., and J. E. Tollar, to The Dow Chemical Co. Radial extrusion die. 2,769,200, 11–6–56, Cl. 18—12.

Loosli, Paul, to Sodeco, Societe des Compteurs de Geneve. Register resetting means. 2,769,596, 11–6–56, Cl. 235—144.

L'Orange, Rudolf. Needle nozzle for internal combustion engines. 2,769,689, 11–6–56, Cl. 299—107.6.

Loreman, Zareh. Screw extrusion apparatus for manufacturing articles of thermoplastic and thermosetting materials. 2,769,201, 11–6–56, Cl. 18—13.

Love, Albert J. Archery gloves. 2,769,179, 11–6–56, Cl. 2—161.

Loveland, Theron A., Jr., and A. F. Prust, to Republic Steel Corp. Electrodeposition method. 2,769,774, 11–6–56, Cl. 204—56.

Lucas, Joseph, (Industries) Ltd.: *See*—
Harris, Thomas A., Lawrence, and Warne. 2,769,488.

Lucas, Joseph, Ltd.: *See*—
Harris, Thomas A. 2,769,306.

Lucas, Kenneth: *See*—
Annable, Weldon G., Hutchings, and Lucas. 2,769,760.
Annable, Weldon G., Hutchings, and Lucas. 2,769,761.
Annable, Weldon G., Hutchings, and Lucas. 2,769,762.

Lucia, Carroll J.: *See*—
Horton, Winthrop S., and Lucia. 2,769,420.

Lucia, Carroll J., and J. E. Witzky; said Lucia assor. to Studebaker-Packard Corp. Split path transmission and supercharger drive. 2,769,308, 11–6–56, Cl. 60—13.

Lucia, Carroll J., and J. Z. De Lorean, to Studebaker-Packard Corp. Shift regulator valve. 2,769,350, 11–6–56, Cl. 74—472.

Lukocevich, Josef S. Load signal for vehicles. 2,769,967, 11–6–56, Cl. 340—52.

Lupfer, Dale E., and A. B. Broerman, to Phillips Petroleum Co. Shut-off valve. 2,769,912, 11–6–56, Cl. 250—41.9.

Luttge, William G., to The Chemstrand Corp. Composite textile yarn. 2,769,300, 11–6–56, Cl. 57—140.

Mass, Friedrich J., to Société Financiere d'Expansion Commerciale et Industrielle S. A. "Sindex." Electrical precipitation apparatus for protective respirators. 2,769,505, 11–6–56, Cl. 183—7.

MacDonald, Leslie A., to American District Telegraph Co. Method and apparatus for detecting motion. 2,769,972, 11–6–56, Cl. 340—258.

MacDonnell, Richard J.: *See*—
Eckert, Francis M., MacDonnell, and Villars. 2,769,883.

Macemon, Herbert J., and W. T. Posey, to General Electric Co. Electric switching device. 2,769,876, 11–6–56, Cl. 200—113.

Madge, Evelyn W., W. Mobberley, and F. J. Tibenham, to Dunlop Tire and Rubber Corp. Rubber reinforcing agents and compositions containing such agents. 2,769,789, 11–6–56, Cl. 260—17.5.

Mahan, John E., to Phillips Petroleum Co. Production of alkenyl pyridines. 2,769,811, 11–6–56, Cl. 260—290.

Mahan, John E., and R. A. Stahl, to Phillips Petroleum Co. Inhibiting corrosion of ferrous metals. 2,769,690, 11–6–56, Cl. 23—157.

Mahleoff, Salomon K., 25% to F. C. Tenser. Adjustable window screen. 2,769,490, 11–6–56, Cl. 160—21.

Maile, Evangelino. Train control apparatus. 2,769,900, 11–6–56, Cl. 246—182.

Malman, Herbert A., ½ to H. R. Mandell. Separable fasteners. 2,769,221, 11–6–56, Cl. 24—216.

Mallorau Corp., The: *See*—
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Manchester Hosiery Mills: *See*—
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Man-Sew Corp.: *See*—
Sigada, Victor J. 2,769,415.

Marco Products Co.: *See*—
Hunt, Robert G. and W. W. 2,769,191.

Marisic, Milton M.: *See*—
Hutchings, Le Roi E., and Marisic. 2,769,753.

Martin, Gustav J., J. M. Beller, and S. Avakian, to The National Drug Co. Therapeutic substituted chalcones. 2,769,817, 11–6–56, Cl. 260—240.5.

Martin, Lynn P., to W. A. Sheaffer Pen Co. Writing implements. 2,769,427, 11–6–56, Cl. 120—47.

Martin, Raymond F. Trap. 2,769,273, 11–6–56, Cl. 43—61.

Martin, Rex K., and J. S. Bartlett. Fish lure. 2,769,269, 11–6–56, Cl. 43—42.46.

Martois, Arthur E. Portable pipe cutting machine. 2,769,235, 11–6–56, Cl. 30—97.

Mason, Raymond A.: *See*—
Courson, Iber C., Mason, and Gramlich. 2,769,677.

Massey, Albert G., to Curtiss-Wright Corp. Hydraulic governor compensation system. 2,769,432, 11–6–56, Cl. 121—42.

Massey, Albert G., to Curtiss-Wright Corp. Hydraulic governor compensation system. 2,769,433, 11–6–56, Cl. 121—42.

Massey, Phillip S., and R. C. Reilly, to Phillips Petroleum Co. Tank switching system. 2,769,455, 11–6–56, Cl. 137—122.

Mathews Conveyer Co.: *See*—
Thomas, Theron H., and Huggins. 2,769,515.

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Matter, Max. A. Rossi, and H. von Sprecher, to Ciba Pharmaceutical Products, Inc. Polyglycol ether acid anilides. 2,769,838. 11–6–56, Cl. 260—562.

Matthews, Russell B., to Milwaukee Gas Specialty Co. Electromagnetic control device. 2,769,943, 11–6–56, Cl. 317—168.

Mattingly, Lawrence J., to Motorola, Inc. Neutralised amplifier. 2,769,860, 11–6–56, Cl. 179—171.

Mattson, Raymond W., to Union Oil Co. of California. Pest control utilising pesticidal compositions of phosphorus. 2,769,743, 11–6–56, Cl. 167—30.

Maurits, Orville C., and P. H. Grevengoed, to Dexter Industries, Inc. Deadlocking mechanism for auxiliary door locks. 2,769,652. 11–6–56, Cl. 292—169.

Maybach, Gerald E., to Gould-National Batteries, Inc. Storage battery watering device. 2,769,465, 11–6–56, Cl. 141—96.

Mayo, Edward L., to The Bishop & Babcock Mfg. Co. Thermostatic valve with solid actuator member. 2,769,597, 11–6–56, Cl. 236—34.

Mazzagatti, Roy P., to The Texas Co. Displacement fluid in secondary petroleum recovery. 2,769,913, 11–6–56, Cl. 250—43.5.

McCaleb, Omer K.: *See*—
Serfling, Byron A., and McCaleb. 2,769,351.

McCarthy, Henry J., to Bomac Laboratories Inc. Electrode structure for multiple section broad-band transmit receive tubes. 2,769,986. 11–6–56, Cl. 315—39.

McCullough, Robert F., and I. M. Le Baron, to the United States of America as represented by the United States Atomic Energy Commission. Recovery of mineral values from leached zone material overlying Florida pebble phosphate deposits. 2,769,686, 11–6–56, Cl. 23—14.5.

McDonnell, James A., to Sperry Rand Corp. Control system for aircraft surfaces. 2,769 603, 11–6–56, Cl. 244—77.

McFarland, Forest R., to Studebaker-Packard Corp. Hydraulically operated servo-motor. 2,769,307, 11–6–56, Cl. 60—97.

McGill Mfg. Co., Inc.: *See*—
Popp, Rudolf. 2,769,871.
Popp, Rudolph. 2,769,898.

McGonigal, Richard E.: *See*—
Frie, George R., McGonigal, and Benkert. 2,769,657.

McGraw Electric Co.: *See*—
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McInnis, Joseph S., to A. A. Schwartz, d. b. a. Metallic Arts, Not Inc. Table lamp construction. 2,769,899, 11–6–56, Cl. 240—83.

McIntosh, A Vern, Jr.: *See*—
Schneider, William P., and McIntosh. 2,769,824.

McKee, Hilton J.: *See*—
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McKissick, William H., and J. E. Fate, Jr. Tubing anchor. 2,769,499. 11–6–56. Cl. 166—209.

McLaughlin, Joseph K., and N. E. Oglesby, to Norton Co. Coated abrasive wheel manufacture. 2,769,284, 11–6–56, Cl. 51—193.5.

McPhee, Angus S., ½ to D. S. McPhee and ½ to L. W. Stillfant. Means for and method of applying a filling matrix to a tooth. 2,769,238. 11–6–56, Cl. 32—63.

McPhee, Duncan S.: *See*—
McPhee, Angus S. 2,769,238.

Mead, Theodore E. Snow thrower. 2,769,255. 11–6–56, Cl. 37—43.

Meadows, Clifford A. Artificial ice rink. 2,769,315, 11–6–56, Cl. 62—12.

Meadows, Stanley G., L. Hallas, and E. Searles, to Southern United Telephone Cables Ltd. Automatic measuring and printing apparatus. 2,769,958, 11–6–56, Cl. 324—73.

Meanor, Doyle W. and G. G. Havens, to Narmco, Inc. Machine for forming structural material. 2,769,481, 11–6–56, Cl. 154—1.8.

Mechanical Patents, Inc.: *See*—
Ashworth, William J. 2 769 248.

Meis, Helmut, W. Scheib, and K.-H. Decker, to Rutgerswerke-Aktiengesellschaft. Aminoplast resins and aminoplast resin compositions stabilised with oxirane compounds and process of preparing same. 2,769,798, 11–6–56, Cl. 260—45.8.

Melville, William S., to The British Thomson-Houston Co. Ltd. Cooling means for laminated magnetic cores. 2,769,962, 11–6–56, Cl. 336—61.

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Lamoureux, Edward R., and Pierce. 2,769,417.
Pierce, Bernard N. 2,769,416.

Metallic Arts, Not Inc.: *See*—
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Metzger, William J., to National Malleable and Steel Castings Co. Car coupler. 2,769,556, 11–6–56, Cl. 213—127.

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Geisy, Wilhelm, Albrecht, and Meyer. 2,769,684.

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Miller, Charles D., to The Springs Cotton Mills. Setting gauge for mote knife brackets. 2,769,243, 11–6–56, Cl. 33—181.

Miller, Clark O., to Cleveland Industrial Research, Inc. Method of pickling iron and recovering pickling agent. 2,769,736, 11–6–56. Cl. 134—13.

Miller, Earl M., to Cook Coffee Co. Method and apparatus for treating coffee roaster exhaust gas. 2,769,504, 11–6–56, Cl. 183—6.

Miller, George T. Unitary sink, counter top and drainboard construction. 2,769,181, 11–6–56, Cl. 4—187.

Miller, Myron C., to Herring Magic, Inc. Fish lures. 2 769,368, 11–6–56, Cl. 43—42.06.

Miller, Theodore A. Mold filling apparatus. 2,769,573, 11–6–56, Cl. 222—48.

Milliken, Thomas H., Jr. and D. W. Koester, to Hendry Process Corp. Low sodium catalyst support. 2,769,686, 11–6–56, Cl. 23—143.

Milwaukee Gas Specialty Co.: *See*—
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Mine Safety Appliances Co.: *See*—
Jacobson, Moses G., Gilfert, De Luca, and Mruk. 2,769,884.

Minneapolis-Honeywell Regulator Co.: *See*—
Du Bois, Robert C. 2,769 453.
Hermanson, Harry M. 2,769,338.
Gille, Willis H. 2,769,950.

Minster Machine Co., The: *See*—
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Moberg, Theodore E., and J. M. Sackman. Vacuum ash tray for vehicles. 2,769,447. 11–6–56, Cl. 131—256.

Modern Faucet Mfg. Co.: *See*—
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Moennig, William K., and O. C. Holbrook, to The Pure Oil Co. Mounting oil well cores. 2,769,235, 11–6–56, Cl. 73—38.

Moncrieff, Alexander D. F., to Michigan Tool Co. Hobbing machine. 2,769 375. 11–6–56. Cl. 90—4.

Monier, Alice E. Shoe construction. 2,769,252, 11–6–56, Cl. 36—8.5.

Monroe Calculating Machine Co.: *See*—
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Boyd, Thomas. 2,769,732.
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Fincke, John K. 2,769,839.
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Mooney, Fred L.: *See*—
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Moore, George A. Closure construction for containers. 2,769,589, 11–6–56, Cl. 220—37.

Morgan Construction Co.: *See*—
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Morgan, Myles, to Morgan Construction Co. Rolling mill repeater. 2,769,356, 11–6–56, Cl. 80—51.

Morgavi, Gaetano A., Jr., ½ to E. J. Hamback. Oil mist lubricator for suction devices. 2,769,445, 11–6–56, Cl. 128—278.

Moriarty, Wallace A., to James R. Kearney Corp. Connector crimping tool with pivoted and fixed jaws. 2,769,357, 11–6–56, Cl. 81—15.

Morin, Louis H., to Coats & Clark Inc. Method of producing plastic shreaded spools. 2,769,204, 11–6–56, Cl. 18—47.5.

Morlan, Erwin A., and H. B. Woods, to Hughes Tool Co. Prevention of mud cutting in earth boring drills. 2,769,616, 11–6–56, Cl. 255—306.

Morris, David M., to International Harvester Co. Implement adjusting device. 2,769,579, 11–6–56, Cl. 222—170.

Morrow, Joseph H., to Fuller Co. Material trap. 2,769,544, 11–6–56, Cl. 209—474.

Morton Salt Co.: *See*—
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Motorola, Inc.: *See*—
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Mruk, Walter F.: *See*—
Jacobson, Moses G., Gilfert, De Luca, and Mruk. 2,769,884.

Müller, Josef. Electrical device for testing the weldability of metallic materials. 2,769,803, 11–6–56, Cl. 219—109.

Mumford, William W., to Bell Telephone Laboratories, Inc. Non-reciprocal wave transmission networks. 2,769,960, 11–6–56, Cl. 332—52.

Muñiz, Francisco L. Mechanical bagasse loosener and pneumatic picker. 2,769,871, 11–6–56, Cl. 302—38.

Murray Corp. of America, The: *See*—
Shapter, Robert D. 2,769,244.

Müschenborn, Walter: *See*—
Reerink, Wilhelm, Müschenborn, and Nötzold. 2,769,537.
Reerink, Wilhelm, Müschenborn, and Nötzold. 2,769,538.

Muskegon Piston Ring Co.: *See*—
Hamm, Douglas W. 2,769,675.

N. V. Optische Industrie "de Oude Delft": *See*—
Bouwers, Albert. 2,769,373.





Nahin, Paul G., and E. E. Attins, Jr., to Union oil Co. of California. Prevention of well casing corrosion. 2,769,921, 11–6–56, Cl. 250—106.

Nakken, Theodore H. Device for charging lubricants. 2,769,621, 11–6–56, Cl. 259—7.

Narmco, Inc.: *See*—
Meanor, Doyle W., and Havens. 2,769,481.

Nash, Edward L., to Studebaker-Packard Corp. Differential gearing. 2,769,353, 11–6–56, Cl. 74—711.

National Drug Co., The: *See*—
Martin, Gustav J., Beller, and Avakian. 2,769,817.

National Gunite Corp.: *See*—
Dunn, Byron B. 2,769,670.

National Malleable and Steel Castings Co.: *See*—
Metzger, William J. 2,769,556.
Shafer, James A. 2,769,402.

National Presto Industries Inc.: *See*—
Wittenberg, Edward H. 2,769,457.

National Research Corp.: *See*—
Di Nardo, Albert, Gardner, and Robertson. 2,769,846.
Preston, John S. 2,769,775.
Williams, Frederic C., and Kilburn. 2,769,935.

National Weather-Top Corp.: *See*—
Edmonds, Harry G., Sr. 2,759,658.

Navy, United States of America as represented by the Secretary of the: *See*—
Hutchinson, Franklin, and Herlin. 2,769,937.

Neer, Kenneth R., to Solar Aircraft Co. Bending apparatus. 2,769,477, 11–6–56, Cl. 153—54.

Neff, Edsel B.: *See*—
Neff, Lewis T. 2,769,215.

Neff, George D.: *See*—
Neff, Lewis T. 2,769,215.

Neff, Lewis E.: *See*—
Neff, Lewis T. 2,769,215.

Neff, Lewis T., ¼ to L. E. Neff, ¼ to E. B. Neff, and ¼ to G. D. Neff. Weather strip. 2,769,215, 11–6–56, Cl. 20—68.

Nepera Chemical Co., Inc.: *See*—
Tenenbaum, Leon E. 2,769,808.

Nettel, Frederick. Apparatus for processing of air, gas, vapors or liquids. 2,769,618, 11–6–56, Cl. 257—1.

Neuffer, Karl. Roller bearings. 2,769,674, 11–6–56, Cl. 308—183.

New Jersey Machine Corp.: *See*—
Von Hofe, George W., and Wolff. 2,769,561.

Newmont Mining Corp.: *See*—
Brant, Arthur A. 2,769,956.

Niblick, Walter P. Pendant vibratory display device. 2,769,264. 11–6–56, Cl. 40—139.

Noe, Harold C., to Kidde Mfg. Co., Inc. Fabric take-up assisting apparatus for warp knitting machines. 2,769,324, 11–6–56, Cl. 66—149.

Noetzel, Gustave H.: *See*—
Burge, James S., McKee, Alexander, Conrad, Rider, Noetzel, and Salatin. 2,769,226.

Noregard, Maurice J. Key operated multiple electric circuit switch. 2,769,873, 11–6–56, Cl. 200—87.

Norlin, Francis E., to Borg-Warner Corp. Pressure loaded gear pump. 2,769,396, 11–6–56, Cl. 103—126.

Norma-Hoffmann Bearings Corp.: *See*—
Berry, Hugh E. 2,769,642.

Norrö, Allan F.: *See*—
Herneryd, Fritz O., Norrö, and Sundström. 2,769,706.

North American Aviation, Inc.: *See*—
Ostergren, Ralph H., Goldberg, Horsfall, and Wuerth. 2,769,492.

North American Philips Co., Inc.: *See*—
Coppola, Patrick P., Hughes, and Keppins. 2,769,708.

Northcote, John A., to John Deere Plow Co. (Ltd.). Hitch device for tractor drawn agricultural implement. 2,769,295, 11–6–56, Cl. 56—25.4.

Northcott, Roy P.: *See*—
Porter, Frederick W. B., and Northcott. 2,769,687.

Northrop Aircraft, Inc.: *See*—
Beck, Robert M. 2,769,680.
Hagopian, Jacob J., and Hennies. 2,769,601.
Williams, Charles R. 2,769,939.

Northwest Plastics, Inc.: *See*—
Laughlin, Clayton A. 2,769,261.

Norton Co.: *See*—
Ault, Neil N. 2,769,718.
Beth, Walter F. 2,769,286.
Comstock, George E., 3d. 2,769,280.
Comstock, George E., 3d. 2,769,969.
Hendrickson, Fritz E. 2,769,285.
Jensen, Louis P., and Whelldon. 2,769,963.
McLaughlin, Joseph K., and Oglesby. 2,769,284.
Polch, Frank J. 2,769,699.
Wood, Wallace H. 2,769,282.

Norton, Wendell P., Jr., to The Fellows Gear Shaper Co. Cutter reconditioning apparatus. 2,769,288, 11–6–56, Cl. 51—241.

Nötzold, Erich: *See*—
Reerink, Wilhelm, Müschenborn, and Nötzold. 2,769,537.
Reerink, Wilhelm, Müschenborn, and Nötzold. 2,769,538.

Nualist, Erwin J. Inflatable mattress lifters. 2,769,182, 11–6–56, Cl. 5—68.

Nystrand, Ernest D.: *See*—
Kwitek, Edwin M., and Nystrand. 2,769,600.

Nystrom, Karl F., to International Steel Co. Method of fabricating railway car ladders. 2,769,230, 11–6–56, Cl. 29—482.

Nystrom, Karl F., to International Steel Co. Door or framing post for freight cars including lading strap anchor. 2,769,405, 11–6–56, Cl. 105—368.

Ochiai, Eiji, and M. Ikehara, to Shiomoi & Co., Ltd. Process for preparing hydroxy-n-methyl-morphinan. 2,769,810, 11–6–56, Cl. 260—285.

Ochwat, Joseph F., to General Electric Co. Article conveyer. 2,769,528, 11–6–56, Cl. 198—34.

O'Connell, John J. Lock having a sliding latch bolt. 2,769,330, 11–6–56, Cl. 70—97.

Oglesby, Nicholas E.: *See*—
McLaughlin, Joseph K., and Oglesby.

Ohio Crankshaft Co., The: *See*—
Schwan, Clarence F. 2,769,953.

Ohler, Joh. F. O. H. G.: *See*—
Hake, Richard. 2,769,224.

Ohlinger, Kenneth A.: *See*—
Safranek, Louis L., and Ohlinger. 2,769,506.

Ohr, Norman T., to Rutherford Press, Inc. Skid inverter. 2,769,557, 11–6–56, Cl. 214—1.

Oller, Frank E., to O. Smith. Microfilm printer. 2,769,369, 11–6–56 Cl. 88—24.

Oishei, John R., to Trico Products Corp. Windshield clearing system. 2,769,194, 11–6–56, Cl. 15—250.4.

Okulitch, George J.: *See*—
Zosulin, Igor V. G. J. and V. J. Okulitch, Volkoff, and Elliett. 2,769,932.

Okulitch, Vladimir J.: *See*—
Zosulin, Igor V. G. J. and V. J. Okulitch, Volkoff, and Elliett. 2,769,932.

Olin Mathieson Chemical Corp.: *See*—
Knaus, Rudolph. 2,769,845.

Olson, Frank W., Jr., to Phillips Petroleum Co. Leak detector and pump control system. 2,769,895, 11–6–56, Cl. 106—12.

Olson, Oscar R. Liquid bath article treating furnace. 2,769,425, 11–6–56, Cl. 118—429.

O'Malley, Joseph M., to Morgan Construction Co. Coupling. 2,769,323, 11–6–56, Cl. 64—6.

Omon, Gene L., and E. C. Thayer, to J. I. Case Co. Tractor implement hitch having a positive locking latch. 2,769,646, 11–6–56, Cl. 280—504.

Onanian, Richard A. Pencil sharpeners. 2,769,428, 11–6–56, Cl. 120—96.

Orelind, John R., E. F. Huddle, and E. S. Ulm, Jr., to International Harvester Co. Balanced mower. 2,769,297, 11–6–56, Cl. 56—306.

Ose, John. Truck scraper. 2,769,256, 11–6–56, Cl. 37—126.

Ostergren, Ralph H., S. J. Goldberg, R. B. Horsfall, Jr., and J. M. Wuerth, to North American Aviation, Inc. Velocity meter. 2,769,492, 11–6–56, Cl. 161—18.

Oswald, Richard L. Optional gun sight reticule enlarging device. 2,769,239, 11–6–56, Cl. 33—50.

Ougland, Nels M. Crab traps. 2,769,274, 11–6–56, Cl. 43—105.

Over, Raymond E., to M. H. Detrick Co. Furnace construction, including portable wall panel. 2,769,410, 11–6–56, Cl. 110—1.

Oxhandler, Samuel, to Sargent & Co. Pruning shears. 2,769,237. 11–6–56, Cl. 30—254.

Packman Harvester Developments Ltd.: *See*—
Packman, Percival J. 2,769,539.

Packman, Percival J., to Packman Harvester Developments Ltd. Separating apparatus. 2,769,539, 11–6–56, Cl. 209—78.

Page, Irving H. Receiver for pulse signaling system. 2,769,902, 11–6–56, Cl. 250—20.

Page, Robert N., to Boeing Airplane Co. Metal foil appliques and method of making same. 2,769,265, 11–6–56, Cl. 41—26.

Pagny, Pierre G.: *See*—
Andrés, Louis E., and Pagny. 2,769,704.

Paper Converting Machine Co., Inc.: *See*—
Kwitek, Edwin M., and Nystrand. 2,769,600.

Parker Pen Co., The: *See*—
Perlin, Fred. 2,769,326.

Parker Rust Proof Co.: *See*—
Russell, William S. 2,769,737.

Parks, Charles O., to Bell Telephone Laboratories, Inc. Time and Traffic controlled trunking system. 2,769,864, 11–6–56, Cl. 179—18.

Patterson Foundry & Machine Co., The: *See*—
Cawood, Richard L. 2,769,623.

Patterson, James A.: *See*—
Craven, Paul M., and Patterson. 2,769,788.

Paul, Edwin F. Fuel mixer insert. 2,769,698, 11–6–56, Cl. 48—180.

Pauli, Peter L., to Texaco Development Corp. Process for treating spent oil refinery clay. 2,769,751, 11–6–56, Cl. 196—14.

Paulson, Marvin H., to California Research Corp. Separation of xylene isomers by fractional crystallisation. 2,769,852. 11–6–56, Cl. 260—674.

Pauly, Jacob L.: *See*—
Hallerberg, Theodore W., and Pauly. 2,769,880.

Pauly, Jacob L., to T. W. Hallerberg. Means for flashing signal lights. 2,769,938, 11–6–56, Cl. 315—210.

Paxson, Gordon D., to the United States of America as represented by the United States Atomic Energy Commission. Pulse forming network. 2,769,905, 11–6–56, Cl. 250—27.

Pearce, George C., to General Motors Corp. Domestic appliance. 2,769,440, 11–6–56, Cl. 126—39.

Peery, Walter E., to Time, Inc. Character positioning mechanism. 2,769,379, 11–6–56, Cl. 95—4.5.

Peery, Walter E., to Time, Inc. Tape reading mechanism. 2,769,922, 11–6–56, Cl. 250—219.

Pelouch, James J., to Farm Tools, Inc. Frame contact lift. 2,769,507, 11–6–56, Cl. 187—8.75.

Pelouch, James J., to Farm Tools, Inc. Frame contact lift. 2,769,508, 11–6–56, Cl. 187—8.75.

Penick, Archie V. Butter melting attachment for waffle irons and like appliances. 2,769,897, 11–6–56, Cl. 99—339.

Perlin, Fred., to The Parker Pen Co. Smokers' lighters. 2,769,326, 11–6–56, Cl. 67—7.1.

Perry, Richmond E., to United States Pipe and Foundry Co. Beneficiation of iron ores. 2,769,541, 11–6–56, Cl. 209—166.

Perry, Thomas W., and L. P. Schubert, to Studebaker-Packard Corp. Stabilizer for tail gate doors mounted on laterally spaced hinges. 2,769,659, 11–6–56, Cl. 296—106.

Pestarini, Joseph M. Excitation system and control therefor. 2,769,952, 11–6–56, Cl. 322—24.

Peterson, Marjorie A. Universally adjustable invalid chair. 2,769,483, 11–6–56, Cl. 155—28.

Pettit, Dorn L., to Square D Co. Swingout panel cabinet. 2,769,940, 11–6–56, Cl. 317—120.

Pfeifer, Fred B. Conveyor and stretching means. 2,769,522, 11–6–56, Cl. 198—34.

Pfleger, Frederick W.: *See*—
Burkhart, William H., Fleming, and Pfleger. 2,769,592.

Pfleumer, Hans, to Rubatex Products, Inc. Expanded cellular rubber with elliptical cells and method of making. 2,769,205, 11–6–56, Cl. 18—53.

Philco Corp.: *See*—
Boothroyd, Wilson P., and Creamer. 2,769,853.
Conrson, Iber C. Mason, and Gramlich. 2,769,677.
Pool, Charles H. 2,769,733.

Phillips, Andrew T., and R. J. Collins. Tile removing tools. 2,769,236, 11–6–56, Cl. 30—169.

Phillips Petroleum Co.: *See*—
Hearer, Louis C. 2,769,693.
Brownlow, Cecil L. 2,769,868.
Burns, William E. 2,769,773.
Burton, Joe M. 2,769,304.
Crawford, Francis W. 2,769,919.
De Boisblanc, Deslonde R. 2,769,341.
Gomory, Paul L. 2,769,772.
Hettick, George R. 2,769,853.
Lupfer, Dale E., and Broerman. 2,769,912.
Mahan, John E. 2,769,811.
Mahan, John E., and Stahl. 2,769,690.
Massey, Phillip S., and Reilly. 2,769,455.
Olson, Frank W., Jr. 2,769,395.
Pritchard, James E. 2,769,802.

Pierce, Bernard N.: *See*—
Lamoureux, Edward R., and Pierce. 2,769,417.

Pierce, Bernard N., to The Merrow Machine Co. Feed control for shirring mechanism. 2,769,416, 11–6–56, Cl. 112—209.

Pierce, Raymond C. Axle assembly. 2,769,631, 11–6–56, Cl. 267—57.1.

Pinke, August H.: *See*—
Hudson, Robert C., and Pinke. 2,769,580.

Pirwitz, Gustave P.: *See*—
Van Horn, Clarence R., and Pirwitz. 2,769,364.

Pitcoff, Robert, to Epoch Products Corp. Retractable window enclosure. 2,769,491, 11–6–56, Cl. 160—23.

Pittsburgh Plate Glass Co.: *See*—
Bader, Alfred R. 2,769,842.
Helbing, Clarence H. 2,769,742.

Pizzarello, Roy A.: *See*—
Schneid, Alfred F., Resnick, and Pizzarello. 2,769,731.

Polch, Frank J., to Norton Co. Grinding wheels. 2,769,699, 11–6–56, Cl. 51—298.

Pollard, Charles E., Jr.: *See*—
Brown, John T. L., and Pollard. 2,769,875.

Polsguter, Franz: *See*—
Dick, Adolf, and Pölsguter. 2,769,216.

Pomper, Anthony W., and C. J. Waechter, to John Waldron Corp. Web cutting and sheet delivery and stacking mechanism. 2,769,495, 11–6–56, Cl. 164—68.

Pool, Charles H., to Philco Corp. Method of depositing particles on a cathode ray tube screen structure. 2,769,733, 11–6–56, Cl. 117—211.

Popp, Rudolph, to McGill Mfg. Co., Inc. Electric switch and socket. 2,769,871, 11–6–56, Cl. 200—51.06.

Popp, Rudolph, to McGill Mfg. Co., Inc. Electrical receptacles. 2,769,898, 11–6–56, Cl. 240—81.

Portell, James V. Hair curler. 2,769,449, 11–6–56, Cl. 132—42.

Porter, Frederick W. B. and R. P. Northcott, to The British Petroleum Co. Ltd. Process for the recovery of vanadium from carbon- and vanadium-contaminated catalysts. 2,769,687, 11–6–56, Cl. 21—140.

Porter, Frederick W. B., and J. N. Haresnape, to The British Petroleum Co. Ltd. Hydrodesulfurizing petroleum with desulphurisation catalysts on calcined trihydrate bauxite. 2,769,755, 11–6–56, Cl. 196—28.

Porter, Frederick W. B., and J. S. Isitt, to The British Petroleum Co. Ltd. Hydrodesulfurising crude petroleum with a desulfurising catalyst on trihydrate bauxite. 2,769,756, 11–6–56, Cl. 196—28.

Porter, Frederick W. B., and J. S. Isitt, to The British Petroleum Co. Ltd. Removal of sodium and vanadium from petroleum hydrocarbons followed by catalytic desulphurisation of said petroleum hydrocarbons. 2,769,758, 11–6–56, Cl. 196—28.

Posey, William T.: *See*—
Macemon, Herbert J., and Posey. 2,769,876.

Potasse & Engrais Chimiques: *See*—
Andrès, Louis E., and Berquin. 2,769,703.
Andrès, Louis E., and Pagny. 2,769,704.

Powers, Kenneth J., to Borg-Warner Corp. Deburring machine. 2,769,279, 11–6–56, Cl. 51—7.

Powers, Richard, to Bulletin Co. Deflector for use with conveyor. 2,769,530, 11–6–56, Cl. 198—188.

Preble, Harry, Jr.: *See*—
Gilbert, Jack, and Preble. 2,769,289.

Preisinger, Siegfried R.: *See*—
Eckardt, Wolfgang M. J., and Preisinger. 2,769,748.

Preston, John S., to National Research Development Corp. Method of making transparent conducting films by cathode sputtering. 2,769,778, 11–6–56, Cl. 204—192.

Pritchard, James E., to Phillips Petroleum Co. Polymers of divinyl sulfide and methods for their production. 2,769,802, 11–6–56, Cl. 260—79.7.

Prust, Alvin F.: *See*—
Loveland, Theron A., Jr., and Prust. 2,769,774.

Pugh, Alexander L., Jr.: *See*—
Stein, Sidney J., and Pugh. 2,769,944.

Purdie, William H., and P. Jackson, to William Doxford & Sons Ltd. Means for supplying combustion air to internal combustion engines. 2,769,502, 11–6–56, Cl. 60—13.

Pure Oil Co., The: *See*—
Annable, Weldon G. 2,769,764.
Annable, Weldon G., and Haines. 2,769,757.
Annable, Weldon G., and Haines. 2,769,759.
Annable, Weldon G., and Haines. 2,769,763.
Annable, Weldon G., Hutchings, and Lucas. 2,769,760.
Annable, Weldon G., Hutchings, and Lucas. 2,769,761.
Annable, Weldon G., Hutchings, and Lucas. 2,769,762.
Fierce, William L., and Crosby. 2,769,767.
Fierce, William L., and Crosby. 2,769,768.
Folkins, Hillis O., and Kempf. 2,769,766.
Hutchings, Le Roi B., and Mariale. 2,769,753.
Moennig, William K., and Holbrook. 2,769,335.

Rabinovitch, Benjamin, and A. Rothgart, said Rabinovitch assor. to H. I. Sobel. Body supporting device. 2,769,486, 11–6–56, Cl. 155—182.

Radio Corp. of America: *See*—
Artzt, Maurice. 2,769,850.
Kidd, Marshall C., and Hasenberg. 2,769,906.
Liguori, Anthony. 2,769,857.
Lohman, Robert D. 2,769,907.

Radio Frequency Laboratories, Inc.: *See*—
Emker, Henry H. 2,769,928.

Radmacher, Donald S., to Stoddart Aircraft Radio Co., Inc. Pulse generators. 2,769,900, 11–6–56, Cl. 250—27.

Rankin, James J., to St. Joseph Lead Co. Fungistatic pigment and coating composition. 2,769,716, 11–6–56, Cl. 106—15.

Ransburg Electro-coating Corp.: *See*—
Juvinall, James W. 2,769,728.

Rapaport, Myron S. Camera shutter and film release. 2,769,380, 11–6–56, Cl. 95—31.

Ratcliffe, Temple W.: *See*—
Harter, Isaac, I. Harter, Jr., Ratcliffe, and Armstrong. 2,769,218.

Redmond Co., Inc.: *See*—
Stone, Thomas W., and Tweedy. 2,769,934.

Reerink, Wilhelm, W. Müschenborn, and E. Nötzold, to Bergwerksverband Zur Verwertung Von Schutzrechten der Kohlentechnik G. m. b. H. Production of high-grade products, especially fuels, from raw material containing pit coal or brown coal. 2,769,537, 11–6–56, Cl. 200—49.

Reerink, Wilhelm, W. Müschenborn, and E. Nötzold. Process for froth flotation dressing. 2,769,538, 11–6–56, Cl. 209—49.

Regler, Russell K.: *See*—
Spurrier, William A., and Regler. 2,769,494.

Reid, Allen F., to the United States of America as represented by the United States Atomic Energy Commission. Method of making a product containing uranium 237. 2,769,776, 11–6–56, Cl. 204—154.

Reilly, Edward L., to E. I. du Pont de Nemours and Co. Manufacture of aromatic nitriles. 2,769,832, 11–6–56, Cl. 260—465.

Reilly, Robert C.: *See*—
Massey, Phillip S., and Reilly. 2,769,455.

Reimers, Walter: *See*—
Fürst, Stefan. 2,769,599.

Reinig, Henry J., to Singmaster & Breyer. Bellows valves. 2,769,608, 11–6–56, Cl. 251—31.

Reintjes, George P. Wall facing. 2,769,333, 11–6–56, Cl. 72—19.

Reistle, Carl E., Jr., to Esso Research and Engineering Co. Method for treating hydrocarbon producing formations. 2,769,497, 11–6–56, Cl. 166—42.

Rem-Cru Titanium, Inc.: *See*—
Vordahl, Milton B. 2,769,707.

Renoux, Pierre E., to Societe Anonyme dite: Cri-Dan. Control means for cutting a thread in plural successive passes. 2,769,186, 11–6–56, Cl. 10—101.

Republic Steel Corp.: *See*—
Loveland, Theron A., Jr., and Prust. 2,769,774.
Stone, Leonard R., Watson, and Carleton. 2,769,945.

Resnick, Paul: *See*—
Schneid, Alfred F., Resnick, and Pizzarello. 2,769,731.

Rhodes, Herbert C. Dough molding apparatus. 2,769,408, 11–6–56, Cl. 197—12.

Rhodes, Joseph C.: *See*—
Segers, John P., and Rhodes. 2,769,336.

Ricards, Harold A.: *See*—
Betts, Raymond L., Corning, Ricards, and Ryder. 2,769,765.

Rich, Theodore A., to General Electric Co. Rebalance type flow meter. 2,769,337, 11–6–56, Cl. 73—206.

Richards, Lorenso A. Irrigation tubes. 2,769,669, 11–6–56, Cl. 299—104.

Richterressing, Frank H., to W. M. Cissell Mfg. Co., Inc. Pivoted gate valve. 2,769,460, 11–6–56, Cl. 137—625.4.

Rider, Warren M.: *See*—
Burge, James S., McKee, Alexander, Conrad, Rider, Noetzel, and Salatin. 2,769,228.

Rines, Robert H. Sound system. 2,769,966, 11–6–56, Cl. 340—3.

Rines, Robert H. Electromagnetic object-tracking-and-destroying method and system. 2,769,975, 11–6–56, Cl. 343—7.

Rinhimer, John H. Adjustable footplate for snowshoe. 2,769,250, 11–6–56, Cl. 36—4.5.

Riordan, John D.: *See*—
Libby, Carl F. 2,769,462.

Rives, Walter L. Rare gas welding torch. 2,769,894, 11–6–56, Cl. 219—130.





Roberts, Graham B., and J. B. Copping, to The Decca Record Co. Ltd. Position indicating apparatus for use with radio navigation systems. 2,769,977, 11–6–56, Cl. 343—112.

Robertson, Nat C.: *See*—
Di Nardo, Albert, Gardner, and Robertson. 2,769,846.

Robinson, Albert: *See*—
Bird, Stanley, and Robinson. 2,769,543.

Robinson, Ralph L., to Imperial Chemical Industries Ltd. Catalysts for the hydration of olefines and dehydration of alcohols. 2,769,847, 11–6–56, Cl. 260—641.

Rocca, Julius P., and A. C. Hoag, to Esso Research and Engineering Co. Lubricating oil additive having improved copper corrosion properties. 2,769,782, 11–6–56, Cl. 252—42.7.

Rochester Button Co.: *See*—
Frankl, Egon. 2,769,721.

Rockwell Mfg. Co.: *See*—
Dimmett, James E. 2,769,594.
Thoresen, Einar. 2,769,571.

Roco Maneer Precision Engineering Corp.: *See*—
Lienhard, Gottlieb. 2,769,242.

Roetger, Richard C.: *See*—
Goodrich, John J., and Roetger. 2,769,528.

Regler, Clarence F., T. E. Kule, and J. Singer, to Johnson Fare Box Co. Coin handling machine. 2,769,524, 11–6–56, Cl. 198—37.

Roll, William G.: *See*—
Duncanson, Robert H., and Roll. 2,769,257.

Rolling, Kathrine B. and M. L. Novelty utility article. 2,769,550, 11–6–56, Cl. 211—11.

Rolling, Mark L.: *See*—
Rolling, Kathrine B. and M. L. 2,769,550.

Roper, Alec N.: *See*—
Sswarc, Michael M., Roper, and Steiner. 2,769,786.

Ropiequet, Richard L., to Tektronix, Inc. Gated sweep generator. 2,769,904, 11–6–56, Cl. 250—27.

Ropiequet, Richard L., to Tektronix, Inc. Sweep circuit. 2,769,905, 11–6–56, Cl. 250—27.

Rosenbaum, Harry S. Venetian blind assembly machine. 2,769,223, 11–6–56, Cl. 29—24.5.

Rosenblad Corp.: *See*—
Simmons, Torsten M. G. 2,769,411.

Roshkind, Allan L., to A. B. Dick Co. Method of manufacturing imaged hectograph spirit master. 2,769,391, 11–6–56, Cl. 101—149.4.

Rossi, Alberto: *See*—
Matter, Max, Rossi, and von Sprecher. 2,769,838.

Rothgart, Albert: *See*—
Rabinovitch, Benjamin, and Rothgart. 2,769,486.

Rounds & Porter Lumber Co., Inc., The: *See*—
Swanson, Willis R. 2,769,468.

Rubatex Products, Inc.: *See*—
Pfleumer, Hans. 2,769,205.

Ruddy, Arlo W., to Sterling Drug Inc. 1-methyl-2-(3,3-diphenylpropyl)piperidine and preparation thereof. 2,769,812, 11–6–56, Cl. 260—293.

Rudolph, Nathan H., to All-Steel Equipment Inc. Electrical box. 2,769,562, 11–6–56, Cl. 220—3.4.

Ruhrchemie Aktiengesellschaft: *See*—
Feichtinger, Hans. 2,769,843.

Rummel, Robert T.: *See*—
Harman, Gerald J., Hooker, and Rummel. 2,769,572.
Harman, Gerald J., Hooker, and Rummel. 2,769,575.

Russell, John C., and J. S. Kennedy, to American Cyanamid Co. Beneficiation of bauxite. 2,769,542, 11–6–56, Cl. 209—166.

Russell, Peter B.: *See*—
Hitchings, George H., and Russell. 2,769,809.

Russell, William S., to Parker Rust Proof Co. Amine phosphate coating solutions and method of coating. 2,769,737, 11–6–56, Cl. 148—6.15.

Rutgerswerke Aktiengesellschaft: *See*—
Meis, Helmut, Scheib, and Decker. 2,769,798.

Rutherford Press, Inc.: *See*—
Ohr, Norman T. 2,769,557.

Rutten, Walter. Construction of dome-shaped roofs. 2,769,409, 11–6–56, Cl. 106—32.

Ryder, James W.: *See*—
Betts, Raymond L., Corning, Ricards, and Ryder. 2,769,765.

Rzesutko, Stanley J., to The Hess Co. Fluorescent light fixture. 2,769,897, 11–6–56, Cl. 240—51.11.

Sackman, James M.: *See*—
Moberg, Theodore E., and Sackman. 2,769,447.

Safranek, Louis L., and K. A. Ohlinger. Fertility period indicator. 2,769,503, 11–6–56, Cl. 235—88.

Sahyun Laboratories: *See*—
Sahyun, Melville, and Faust. 2,769,827.

Sahyun, Melville, and J. A. Faust, to Sahyun Laboratories. 3,5 - diisopropylsalicylamide. 2,769,837, 11–6–56, Cl. 260—559.

St. Joseph Lead Co.: *See*—
Rankin, James J. 2,769,716.

St. Regis Paper Co.: *See*—
Goodrich, John J., and Roetger. 2,769,528.

Sakornbut, Songe S., to Monsanto Chemical Co. Method of treating cellulosic materials. 2,769,730, 11–6–56, Cl. 117—137.

Salatin, James F.: *See*—
Burge, James S., McKee, Alexander, Conrad, Rider, Noetzel, and Salatin. 2,769,228.

Salem-Brosius, Inc.: *See*—
Buckholdt, Robert R. 2,769,629.

Sampson, Lorne G., to Armour and Co. Process of separation of siliceous impurities from lecaite solutions. 2,769,747, 11–6–56, Cl. 167—75.

Sargent & Co.: *See*—
Ozbandler, Samuel. 2,769,237.

Satsinger, Gebhard. Wire brushes. 2,769,192, 11–6–56, Cl. 15—160.

Saunders, Norman B., to American Machine & Foundry Co. Magnetic stepping switches. 2,769,925, 11–6–56, Cl. 307—88.

Schaeffer, William D., to Union Oil Co. of California. Selective olathration of C$_8$ aromatic hydrocarbon mixtures with a para-amino substituted triphenylmethane. 2,769,851, 11–6–56, Cl. 260—674.

Schane, Edward H., to Fanner Mfg. Co. Machine for forming wire into a helix. 2,769,478, 11–6–56, Cl. 153—66.

Scheib, Walter: *See*—
Meis, Helmut, Scheib, and Decker. 2,769,798.

Schiess Aktiengesellschaft: *See*—
Keyser, Johann J. 2,769,209.

Schlesinger, Arthur H., to Monsanto Chemical Co. Oxybis (phenylacetamides). 2,769,818, 11–6–56, Cl. 260—347.3.

Schlicksupp, Theodore F. Closure mechanism for containers. 2,769,582, 11–6–56, Cl. 222—513.

Schloen, John H., E. M. Elkin, and K. Ekler, to Canadian Copper Refiners Ltd. Electrolyte for copper refining, including polyvinyl alcohol. 2,786,775, 11–6–56, Cl. 204—108.

Schlumberger Well Surveying Corp.: *See*—
Goodman, Clark. 2,769,914.
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Schmerling, Louis, to Universal Oil Products Co. Production of alkylcycloparaffins. 2,769,849, 11–6–56, Cl. 260—666.

Schneid, Alfred F., P. Resnick, and R. A. Pizzarello, to Interchemical Corp. Fungicidal metal salts of phthalic acid. 2,769,731, 11–6–56, Cl. 117—138.5.

Schneider, William P., and A. E. Hanse, to The Upjohn Co. Preparation of 17-α-hydroxy-20-keto-pregnenes. 2,769,823, 11–6–56, Cl. 260—397.45.

Schneider, William P., and A. V. McIntosh, Jr., to The Upjohn Co. Hydroxylation of Δ17(20)-pregnenes. 2,769,824, 11–6–56, Cl. 260—397.45.

Schneider, William P., and J. A. Hogg, to The Upjohn Co. Preparation of 17-α-hydroxy-20-ketopregnenes from Δ17-pregnenes. 2,769,825, 11–6–56, Cl. 260—397.45.

Schonrock, Edwin A. Tail gate, apron and axle placement construction for dump trailers. 2,769,661, 11–6–56, Cl. 298—20.

Schonrock, Edwin A. Tail gate and operating device for dump or trailer trucks. 2,769,662, 11–6–56, Cl. 298—23.

Schubert, Lawrence P.: *See*—
Perry, Thomas W., and Schubert. 2,769,659.

Schulmerich Electronics, Inc.: *See*—
Kuns, Jacob T. 2,769,361.

Schulthels, Hary B., Jr., to Bendix Aviation Corp. Matrix type decoding circuit for binary code signals. 2,769,968, 11–6–56, Cl. 340—166.

Schwan, Clarence F., to The Ohio Crankshaft Co. Field coil balancing arrangement. 2,769,953, 11–6–56, Cl. 322—58.

Schwartz, Arnold A.: *See*—
McInnis, Joseph S. 2,769,899.

Schwartz, Ralph E., to The Malloran Corp. Method of making a fibrous article. 2,769,741, 11–6–56, Cl. 154—101.

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Schwarzkopf, Paul. 2,769,611.

Schwarzkopf, Paul, to Schwarzkopf Development Corp. Gas turbine rotors and their production. 2,769,611, 11–6–56, Cl. 253—39.

Schweitzer, Fritz L. Blow torch. 2,769,487, 11–6–56, Cl. 158—33.

Schwesinger, Gerhard, to the United States of America as represented by the Secretary of the Army. Device for compensating optical image motion. 2,769,367, 11–6–56, Cl. 88—16.8.

Scott, Carleton B., to Union Oil Co. of California. Preparation of unsymmetrical trialkyltetrathio - ortho - phosphates. 2,769,831, 11–6–56, Cl. 260—461.

Scovill Mfg. Co.: *See*—
Spender, Donald L. 2,769,665.
Spender, Donald L. 2,769,666.
Spender, Donald L. 2,769,667.

Scruton, Arthur H.: *See*—
Davidson, Thomas R. N., and Scruton. 2,769,520.

Scully, Frank P., and A. E. Mathey, to Scully Signal Co. Portable filling connection. 2,769,649, 11–6–56, Cl. 285—175.

Scully Signal Co.: *See*—
Scully, Frank P., and Mathey. 2,769,649.

Seale, Frank E. Simulated baseball game. 2,769,639, 11–6–56, Cl. 273—93.

Searles, Edward: *See*—
Meadows, Stanley G., Hallas, and Searles. 2,769,958.

Segers, John P.: *See*—
Birkness, Harald A., and Segers. 2,769,459.
Segers, John P., and J. C. Rhodes, to Standard Oil Co. Capillary assemblies for flow measurements. 2,769,336, 11–6–56, Cl. 73—53.

Seidel, Roland J.: *See*—
Thompson, William M., Graham, and Seidel. 2,769,749.

Seidman, Irving. Garment hanger. 2,769,552, 11–6–56, Cl. 211—86.

Selser, John, to International Harvester Co. Plow. 2,769,384, 11–6–56, Cl. 97—46.21.

Sem, Mathias Ö., to Elektrokemisk A/S. Process of charging fine materials. 2,769,705, 11–6–56, Cl. 75—10.

Semlitz, Edward F.: *See*—
Zinamon, Martin, Semlitz, and Levin. 2,769,584.

Serfling, Byron A., and O. K. McCaleb. Adjustable steering post. 2,769,351, 11–6–56, Cl. 74—493.

Shabaker, Hubert A., to Houdry Process Corp. Solids withdrawal unit. 2,769,694, 11–6–56, Cl. 23—284.

Shafer, James A., to National Malleable and Steel Castings Co. Car truck. 2,769,402, 11–6–56, Cl. 105—197.

Shapiro, Jacob. Back rest. 2,769,485, 11–6–56, Cl. 155—182.

Shapter, Robert D., to The Murray Corp. of America. Clothes drier. 2,769,246, 11–6–56, Cl. 34—82.

Sheaffer, W. A., Co.: *See*—
Martin, Lynn P. 2,769,427.

Shields, William E., Jr.: *See*—
Day, Stewart T. 2,769,292.
Shionogi & Co., Ltd.: *See*—
Ochiai, Eiji, and Ikehara. 2,769,810.
Sidt, Erwin. Electrical light screen. 2,769,374, 11-6-56, Cl. 88—76.
Sieg, Robert P., to California Research Corp. Production of iron biscyclopentadienyl. 2,769,828, 11-6-56, Cl. 260—439.
Siemens-Schuckertwerke Aktiengesellschaft: *See*—
Kleinvogel, Hans-Joachim. 2,769,951.
Sigoda, Victor J., to Man-Sew Corp. Attachment for blind-stitching. 2,769,415, 11-6-56, Cl. 112—140.
Sillifant, Leonard W.: *See*—
McPhee, Angus S. 2,769,238.
Silvernail, George. Window ventilator. 2,769,386, 11-6-56, Cl. 98—88.
Simmons, Torsten M. G., to Rosenblad Corp. Fuel combustion process and apparatus. 2,769,411, 11-6-56, Cl. 110—28.
Sinclair, Robert L., to The Gillette Co. Blade dispensing device. 2,769,569, 11-6-56, Cl. 221—37.
Singer, Joseph: *See*—
Rogier, Clarence F., Kulo, and Singer. 2,769,524.
Singer Mfg. Co., The: *See*—
Allen, George W. 2,769,931.
Johnson, Edwin W., Donaldson, and Hewey. 2,769,418.
Singmaster & Breyer: *See*—
Reinig, Henry J. 2,769,608.
Skelton, Jesse D., to Esso Research and Engineering Co. Variable density recording of galvanometer motion. 2,769,683, 11-6-56, Cl. 346—109.
Smallegan, Marvin L., to Automatic Poultry Feeder Co. Multifloor feeders. 2,769,527, 11-6-56, Cl. 198—85.
Smith, Eric M. Combined anti-twist rudder and float for use with fishing lures. 2,769,271, 11-6-56, Cl. 43—43.13.
Smith, Oscar: *See*—
Oiler, Frank E. 2,769,369.
Smith, Phillip W.: *See*—
Elsey, Carroll M. 2,769,251.
Smith, Wesley A., to Tilt-A-Door Corp. Edge structure for a closure device. 2,769,513, 11-6-56, Cl. 189—46.
Smith, William, Jr., to General Motors Corp. Domestic appliance. 2,769,327, 11-6-56, Cl. 68—12.
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Societe Anonyme dite: Cri-Dan: *See*—
Renoux, Pierre E. 2,769,186.
Société Financiere d'Expansion Commerciale et Industrielle S. A. "Sindex": *See*—
Maas, Friedrich J. 2,769,505.
Socony Mobil Oil Co., Inc.: *See*—
Butcosk, Richard A. 2,769,781.
Evans, Louis P. 2,769,752.
Fahnestock, Frank C. 2,769,672.
Sodeco, Societe des Compteurs de Geneve: *See*—
Loosli, Paul. 2,769,596.
Soehngen, Erich, to the United States of America as represented by the Secretary of the Air Force. Simulator for transient convective heat transfer phenomena. 2,769,334, 11-6-56, Cl. 73—15.
Solar Aircraft Co.: *See*—
Neer, Kenneth R. 2,769,477.
Solla, Alexander A., to Burroughs Corp. Control mechanisms for printing machines. 2,769,682, 11-6-56, Cl. 346—98.
Sommers, Armiger H., and J. D. Barnes, to Abbott Laboratories. Alkylene-diazides. 2,769,819, 11-6-56, Cl.260—349.
Sonotone Corp.: *See*—
Crownover, Joseph W., and Keren. 2,769,867.
Soriano, Thomas J., and J. D. Alessio. Conveyor apparatus with clamping and stretching mechanism. 2,769,529, 11-6-56, Cl. 198—179.
Sottile, John. Compact shaving kit. 2,769,565, 11-6-56, Cl. 220—20.
South Bend Lathe Works: *See*—
Costello, Otto A. 2,769,349.
Southern United Telephone Cables Ltd.: *See*—
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Southwell, Mary E.: *See*—
Southwell, Raymond J. 2,769,222.
Southwell, Raymond J., deceased; M. E. Southwell, executrix. Fabric and method of making same. 2,769,222, 11-6-56, Cl. 28—73.
Sowa, Frank J. Herbicidal composition. 2,769,702, 11-6-56, Cl. 71—2.2.
Sowa, Frank J. Complexes of higher alkanol amines and boron trifluoride. 2,769,840, 11-6-56, Cl. 260—584.
Sparkman, Dorothy J. Stickless, collapsible kite. 2,769,605, 11-6-56, Cl. 244—153.
Spender, Donald L., to Scovill Mfg. Co. Oscillating sprinkler. 2,769,665, 11-6-56, Cl. 299—67.
Spender, Donald L., to Scovill Mfg. Co. Impulse operated sprinkler. 2,769,666, 11-6-56, Cl. 299—69.
Spender, Donald L., to Scovill Mfg. Co. Reaction type sprinklers. 2,769,667, 11-6-56, Cl. 299—69.
Sperry Rand Corp.: *See*—
Durbin, Edward. 2,769,976.
McDonnell, James A. 2,769,602.
Wolters, Carl F. 2,769,678.
Spiegel, Inc.: *See*—
Faulkner, Charles E., and Brouwer. 2,769,518.
Spinner, Isidore. Rotary cutting die for perforating signatures. 2,769,496, 11-6-56, Cl. 164—99.
Springs Cotton Mills, The: *See*—
Miller, Charles D. 2,769,243.
Sprarrier, William A., and R. K. Begler. Balanced-force rotary-cutting mechanism. 2,769,494, 11-6-56, Cl. 164—61.
Square D Co.: *See*—
Pettit, Dorn L. 2,769,940.
Stahl, Robert A.: *See*—
Mahan, John E., and Stahl. 2,769,690.
Stahmer, Bernhardt. Bag content dispenser. 2,769,577, 11-6-56, Cl. 222—160.
Stahmer, Bernhardt. Sliced potato product. 2,769,714, 11-6-56, Cl. 99—100.
Stahmer, Bernhardt. Sliced corrugated potato products. 2,769,715, 11-6-56, Cl. 99—100.
Stamicarbon N. V.: *See*—
Fontein, Frerk J. 2,769,846.
Stamy, David E.: *See*—
Travis, Paul H., and Stamy. 2,769,197.
Standard Oil Co., (Illinois): *See*—
Birkness, Harald A., and Segers. 2,769,459.
Segers, John P., and Rhodes. 2,769,236.
Stanley, Leslie O., to Wheeling Steel Corp. Apparatus for coating metal articles. 2,769,424, 11-6-56, Cl. 118—56.
Stansel, Frank R., to Bell Telephone Laboratories, Inc. Negative impedance translator circuits. 2,769,906, 11-6-56, Cl. 250—36.
Stark, Arnold L.: *See*—
Cheney, Grant W., and Stark. 2,769,208.
Starke, Albert C., Jr.: *See*—
Kartinos, Nicholas J., and Starke. 2,769,816.
State of Iowa, for the benefit of the State University of Iowa, The: *See*—
Homma, Minoru. 2,769,266.
Steel Heddle Mfg. Co.: *See*—
Kaufmann, Frank H. 2,769,461.
Steffen, Alvin H., Portable rear seat speaker. 2,769,858, 11-6-56, Cl. 179—1.
Stein, Sidney J., and A. L. Pugh, Jr., to International Resistance Co. Capacitor. 2,769,944, 11-6-56, Cl. 317—242.
Steiner, Max E.: *See*—
Szwarc, Michael M., Roper, and Steiner. 2,769,788.
Steiner, Robert L., to The Bromo-Meat Co. Infant's plaything. 2,769,276, 11-6-56, Cl. 46—82.
Steiner, Rudolf. Bimetallic electrical switch mechanism for fire detecting apparatus. 2,769,879, 11-6-56, Cl. 200—138.
Steinhagen, William K.: *See*—
Dolza, John, Steinhagen, and Johnson. 2,769,660.
Sterling Drug Inc.: *See*—
Ruddy, Arlo W. 2,769,812.
Sterner, Melvin F., to Holley Carburetor Co. Ignition device. 2,769,436, 11-6-56, Cl. 123—117.
Stetson, Erskall I. Door and closer assembly. 2,769,212, 11-6-56, Cl. 20—16.
Stevens, Frank L., to W. F. Webster Cement Co. Method for dispensing and applying highly viscous cements. 2,769,207, 11-6-56, Cl. 18—59.
Stevens, Frank L., to W. F. Webster Cement Co. Dispenser for tile laying cement and similar materials. 2,769,576, 11-6-56, Cl. 222—90.
Strickland, Frank S., to J. Stone & Co. (Deptford) Ltd. Cooling arrangements using eutectic solutions. 2,769,310, 11-6-56, Cl. 62—2.
Stiles, Samuel R., to The M. W. Kellogg Co. Separation of ethylene from a gaseous mixture. 2,769,321, 11-6-56, Cl. 62—175.5.
Stoddart Aircraft Radio Co., Inc.: *See*—
Radmacher, Donald G. 2,769,909.
Stone, J. & Co. (Deptford) Ltd.: *See*—
Strickland, Frank S. 2,769,310.
Stone, Leonard R., E. G. Watson, and R. J. Carleton, Jr., to Republic Steel Corp. Electric crane scale repeater. 2,769,945, 11-6-56, Cl. 318—29.
Stone, Natalie G.: *See*—
Gordon, Melvin J. 2,769,262.
Stone, Thomas W., and J. W. Tweedy, to Redmond Co., Inc. Rotor construction, particularly for use in electric motors. 2,769,934, 11-6-56, Cl. 310—261.
Stoner-Mudge, Inc.: *See*—
Yobo, Clayton W. 2,769,838.
Storch, Clifford, to Astorloid Mfg. Co., Inc. Fueling device for lighters. 2,769,325, 11-6-56, Cl. 67—7.1.
Stratton, Jerry L., to General Electric Co. Method and apparatus for motor speed regulation. 2,769,949, 11-6-56, Cl. 318—312.
Strickland, George H., to General Motors Corp. Freezing device. 2,769,317, 11-6-56, Cl. 62—108.5.
Strong, Walter J.: *See*—
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Stubbs, George. Valve for inflatable pessaries and the like. 2,769,442, 11-6-56, Cl. 128—127.
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Horton, Winthrop S., and Lucia. 2,769,420.
Lidgard, Edward J. 2,769,584.
Lucia, Carroll J., and De Lorean. 2,769,850.
Lucia, Carroll J., and Witzky. 2,769,203.
McFarland, Forest R. 2,769,207.
Misch, Herbert L. 2,769,458.
Nash, Edward L. 2,769,255.
Perry, Thomas W., and Schubert. 2,769,659.
Taylor, Rees E. 2,769,427.
Van Deventer, Ralph E. 2,769,226.
Witzky, Julius E. 2,769,434.
Witzky, Julius E. 2,769,438.
Studenic, Alfred and Anthony. Wax impregnated leather and method of making same. 2,769,724, 11-6-56, Cl. 117—55.
Studenic, Anthony: *See*—
Studenic, Alfred and Anthony. 2,769,724.
Sturm, Robert H. Piezo-electric devices. 2,769,960, 11-6-56, Cl. 310—8.9.
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Brown, William. 2,769,354.
Suen, Tsung J., and Y. Jen, to American Cyanamid Co. Melamine-formaldehyde-polyamine condensation product. 2,769,796, 11-6-56, Cl. 260—45.2.





Suen, Tsung J., and Y. Jen, to American Cyanamid Co. Melamine resins modified with polyalkylene polyamine-halohydrin condensates. 2,769,797, 11-6-56, Cl. 260—45.2.
Suen, Tsung J., and Y. Jen, to American Cyanamid Co. Polyamine modified melamine resins. 2,769,799, 11-6-56, Cl. 260—67.6.
Suen, Tsung J., and Y. Jen, to American Cyanamid Co. Polyamine modified melamine-formaldehyde resins. 2,769,800, 11-6-56, Cl. 260—67.6.
Sundstrand Machine Tool Co.: *See*—
Cardillo, Joseph S., and Hann. 2,769,366.
Sundström, Erik O. A.: *See*—
Hermeryd, Fritz O., Nordh, and Sundström. 2,769,706.
Sundt, Edward V., to Sundt Engineering Co. Time delay fuse. 2,769,577, 11-6-56, Cl. 200—131.
Sundt Engineering Co.: *See*—
Sundt, Edward V. 2,769,577.
Swanson, Willis R., to The Roumds & Porter Lumber Co., Inc. Log barker having flop-over cutterhead. 2,769,483, 11-6-56, Cl. 144—208.
Sweetser, Sumner B., and J. Weikart, to Esso Research and Engineering Co. Process for hydrodesulfurization of coker products. 2,769,754, 11-6-56, Cl. 196—24.
Sykes, Charles, and H. W. Kirkby, to Thos. Firth & John Brown Ltd. Welded joint between ferritic and austenitic steel members. 2,769,227, 11-6-56, Cl. 29—196.1.
Szwarc, Michael M., A. N. Roper, and H. M. B. Steiner, to The M. W. Kellogg Co. Production of polymers from aromatic and the like compounds. 2,769,788, 11-6-56, Cl. 260—2.
Tack, Carl E., to American Steel Foundries, Brake rotor. 2,769,512, 11-6-56, Cl. 188—218.
Talmage, Charles R. Sintered metal article and method of improving its fatigue resistance by shot peening. 2,769,709, 11-6-56, Cl. 75—221.
Talone, Albert L. Formula for cementitious composition. 2,769,720, 11-6-56, Cl. 106—97.
Tarean, Georges H., and L. C. Wilhelm. Metal support more particularly for brassieres and similar uses. 2,769,180, 11-6-56, Cl. 2—264.
Taylor, Rees E., to Studebaker-Packard Corp. Starter gear mechanism. 2,769,437, 11-6-56, Cl. 123—179.
Tektronix, Inc.: *See*—
Ropiequet, Richard L. 2,769,941.
Ropiequet, Richard L. 2,769,965.
Telefonaktiebolaget L M Ericsson: *See*—
Holmqvist, Gert R. O.; Björklund, and Dietsch. 2,769,880.
Tenenbaum, Leon E., to Nepera Chemical Co., Inc. Dioxolane compounds. 2,769,808, 11-6-56, Cl. 260—247.7.
Tennessee Products & Chemical Corp.: *See*—
Litkenhous, Edward E. 2,769,696.
Tenser, Frank C.: *See*—
Mahlouf, Salomon K. 2,769,490.
Texaco Development Corp.: *See*—
Harris, Rhett G. 2,769,750.
Paull, Peter L. 2,769,751.
Texas Co., The: *See*—
Mazzagatti, Roy P. 2,769,913.
Thayer, Earl C.: *See*—
Omon, Gene L., and Thayer. 2,769,646.
Thomas & Betts Co., The: *See*—
Frey, John N. 2,769,965.
Thomas, Theron H., and J. W. Huggins, to Mathews Conveyer Co. Controlled gravity conveyer. 2,769,515, 11-6-56, Cl. 193—35.
Thompson, Earl H. Molding apparatus. 2,769,202, 11-6-56, Cl. 18—34.
Thompson, Herbert L. Fly-tying vise. 2,769,607, 11-6-56, Cl. 242—226.
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# CLASSIFICATION OF PATENTS

## ISSUED NOVEMBER 6, 1956

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# TRADEMARKS

## NOTICES

### Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

**TM 162,573** (UNIVIS), Standard Oil Co. of New Jersey, Lubricating oils, filed Oct. 1, 1956, D. C., District of Columbia, Doc. 2983/56, *Esso Standard Oil Co. v. Sun Oil Co.*

**TM 268,899** ("Wooster Seal Kote Roofing" and design), The J. E. Harris Co., Asbestos compounds for waterproofing roofs; **TM 411,936** (Wooster Seal Kote), The J. E. Harris Co., doing business as Wooster Sealkote Co., Ready-mixed all-purpose paints, filed Sept. 27, 1956, D. C., E. D. Mich. (Detroit), Doc. 16070, *Wooster Sealkote Co. v. Seal Rite Caulking Co. et al.*

**TM 411,936.** (See TM 268,899.)

**TM 501,708** (ROTHMOOR), Rothmoor Corp., Ladies' coats and suits, filed Sept. 26, 1956, D. C., N. D. Ind. (Hammond), Doc. 2079, *Rothmoor Corp. v. Rothmor Dept. Store, Inc. et al.*

**TM 540,561.** (See TM 575,890.)

**TM 569,491** (HARVARD), The Harvard Mfg. Co., Bed frames, bed head boards, hollywood bed frames, etc., filed Aug. 23, 1956, D. C., S. D. N. Y., Doc. 112/229, *Harvard Mfg. Co. v. Better-Built Bedding Co., Inc.* Stipulation and judgment; defendant enjoined Sept. 26, 1956.

**TM 575,890** (BREW "102" Maier Beer and design), **TM 540,561** (BREW "102"), Maier Brewing Co., Beer, filed Sept. 18, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20476–WM, *Maier Brewing Co. v. Leisy Brewing Co. et al.*

**TM 505,949** (De Angelo), Carmo Shoe Mfg. Co., Women's shoes, filed June 12, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35566, *Carmo Shoe Mfg. Co. v. Angelo Markoulis.* Consent decree; injunction against defendant from further infringement Sept. 26, 1956.

## CONDITION OF TRADEMARK APPLICATIONS AS OF SEPTEMBER 28, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] ..... 7,583
Date of oldest new application ..... Jan. 30, 1956
Date of oldest amended application ..... Feb. 3, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

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|---|---|---|
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Applications Filed During the Month of September 1956—1,596

Registrations Issued ..... 318—No. 636,660 to No. 636,977
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# MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

## CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

SN 274. Vaughan's Seed Company, Chicago, Ill. Filed Jan. 6, 1956.

**MASTER BLEND**

The word "Blend" is disclaimed apart from the mark as shown.

For Flower Seeds, Vegetable Seeds, and Bulbs.
First use Jan. 1, 1953.

SN 896. Mud Control Laboratories, Inc., Oklahoma City, Okla. Filed Jan. 17, 1956.

**CONTROLBAR**

For Oil Well Drilling Fluid Additives—Namely, Ground Barytes Which Increase the Weight of Drilling Muds.
First use 1950.

SN 898. Mud Control Laboratories, Inc., Oklahoma City, Okla. Filed Jan. 17, 1956.

**CONTROLFIBER**

For Oil Well Drilling Fluid Additives—Namely, Blended Materials of a Spongy and Flocculent Character.
First use 1951.

SN 1,391. Pollak Industrial Corporation, Stratford, Conn. Filed Jan. 24, 1956.

ARNAR PLASTIC

The word "Plastic" is disclaimed apart from the mark as shown.

For Plastic Film and Sheeting and Plastic Products, More Particularly Sheet Plastic Formed of Polyvinyl Chloride, Polyvinyl Chloride-Acetate, Co-Polymers, and Polyethylene.
First use Jan. 4, 1956.

SN 6,389. F. H. Woodruff & Sons, Inc., Milford, Conn. Filed Apr. 13, 1956.

Woodruff SEEDS

The word "Seeds" is disclaimed apart from the mark as shown.

For Seeds, Particularly Vegetable Seeds, Flower Seeds, Grass Seeds, and Grass Seed Mixtures.
First use about January 1948.

SN 7,105. Northrup, King & Co., Minneapolis, Minn. Filed Apr. 25, 1956.

**CHERRY SUNDAE**

For Zinnia Seeds.
First use Mar. 1, 1956.

SN 7,271. Nichols Poultry Farm, Inc., Kingston, N. H. Filed Apr. 27, 1956.



For Hatching Eggs and Day Old Chicks.
First use in June 1955.

SN 7,616. Midwest Plastic Products Company, Chicago Heights, Ill. Filed May 3, 1956.

**MIDLON**

For Extruded Synthetic Plastic Sheets and Tubes.
First use Dec. 24, 1953.

SN 7,868. Superior Tanning Company, Chicago, Ill. Filed May 7, 1956.

**ALMANAC**

For Leather Made From Cattlehides and Horsehides.
First use Aug. 1, 1954.

SN 7,870. Superior Tanning Company, Chicago, Ill. Filed May 7, 1956.

**KODIAK**

For Leather Made From Cattlehides and Horsehides.
First use Apr. 2, 1956.

SN 7,920. Fine Foods, Inc., Seattle, Wash. Filed May 8, 1956.

**SUN GIRL**

For Plants, Flowers, and Bulbs.
First use March 1955.

SN 7,996. J. & L. Adiks, Inc., Jamaica, N. Y. Filed May 9, 1956.

**GRO-WELL**

For Grass Seed.
First use July 1, 1932.





## CLASS 2

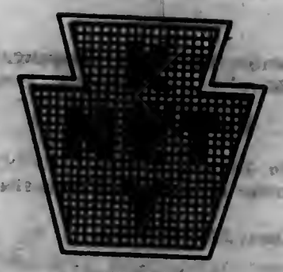
### RECEPTACLES

SN 7,506. International Molded Plastics, Inc., Cleveland, Ohio. Filed May 2, 1956.

ARROWHEAD

Owner of Reg. No. 552,692.
For Plastic Dinner Dish Ware.
First use May 1, 1952.

SN 8,230. Keystone Casing Supply Company, Carnegie, Pa. Filed May 14, 1956.



For Tubular Netted Fabric Enclosures for Sausage Casings.
First use Mar. 9, 1956.

SN 8,231. Keystone Casing Supply Company, Carnegie, Pa. Filed May 14, 1956.

**KEYNET**

For Tubular Netted Fabric Enclosures for Sausage Casings.
First use Mar. 9, 1956.

SN 8,896. Dalmine S. p. A., Milan, Italy. Filed Apr. 30, 1956.

**DALMINE**

Owner of Italian Reg. No. 121,993, dated Mar. 16, 1955.
For Receptacles—Namely, Pressure Tanks and Bottles.

SN 8,904. Dalmine S. p. A., Milan, Italy. Filed Apr. 30, 1956.



Owner of Italian Reg. No. 109,706, dated Feb. 16, 1951.
For Receptacles—Namely, Pressure Tanks and Bottles.

SN 8,908. Dalmine S. p. A., Milan, Italy. Filed Apr. 30, 1956.



Owner of Italian Reg. No. 99,025, dated Nov. 18, 1950.
For Receptacles—Namely, Pressure Tanks and Bottles.

## CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 12,384. Ronay, Inc., New York, N. Y. Filed July 18, 1956.

**Endura**

For Ladies' Handbags, Made of Plastic Fabric.
First use June 11, 1956.

SN 12,407. Abraham Boretz, New York, N. Y. Filed July 19, 1956.

EVEREDGE

For Suitcases for Men.
First use Mar. 1, 1956.

SN 12,652. Nash Inc., Jersey City, N. J. Filed July 23, 1956.

**"DINGLE-DANGLE"**

For Wallets and Billfolds.
First use Mar. 6, 1956.

SN 13,242. Julius Resnick, Inc., New York, N. Y. Filed Aug. 1, 1956.

**JR**

For Ladies' Handbags and Purses.
First use Aug. 25, 1955.

## CLASS 4

### ABRASIVES AND POLISHING MATERIALS

SN 699,287. Bev-Rich Products, Inc., Philadelphia, Pa. Filed Dec. 2, 1955.

**FORMULA X-10**

No claim is made to the word "Formula" apart from the mark as shown.
For Automobile Polish.
First use October 1947.

SN 7,066. Cadie Chemical Products, Inc., New York, N. Y. Filed Apr. 25, 1956.

**LUSTRE-DUSTER**

For Chemically Impregnated Dusting and Polishing Cloths.
First use Jan. 25, 1956.

SN 7,067. Cadie Chemical Products, Inc., New York, N. Y. Filed Apr. 25, 1956.

**RE-LAC**

For Chemically Impregnated Dusting and Polishing Cloths.
First use Jan. 25, 1956.

SN 7,152. The Betco Corporation, Toledo, Ohio. Filed Apr. 26, 1956.

**BETCO BRITE**

For Floor Wax.
First use Apr. 10, 1956.

SN 7,237. Lodge Plugs Limited, Rugby, England. Filed Apr. 27, 1956.

**SINTOX**

Owner of British Reg. No. 687,904, dated Apr. 6, 1950; and U. S. Reg. No. 370,078.
For Abrasive Preparations of Alumina, Grinding Wheels, Sharpening Stones, Sharpening Wheels, Cutting Devices and Lapping Devices, All Being Parts of Machines.

## CLASS 5

### ADHESIVES

SN 7,182. The Firestone Tire & Rubber Company, Akron, Ohio. Filed Apr. 26, 1956.

*Loxite*

Owner of Reg. Nos. 520,826 and 442,487.
For Adhesive Cement To Be Used in Adhering Plastics, Wood, Fabrics, Leather, Paper, Glass, Metal, Ceramics, Metal Foil, Rubber, and Upholstery.
First use Dec. 18, 1947.

## CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

SN 631,873. John Wiley Jones, d. b. a. John Wiley Jones Co., Caledonia, N. Y. Filed June 27, 1952.




Owner of Reg. No. 296,856.
For Sodium Hypochlorite and Liquid Chlorine for Industrial Use and Household Bleach.
First use Dec. 1, 1950; Apr. 6, 1932, as to "Sunny Sol" and the representation of the sun.

SN 694,301. Bromine Producers Company, Adrian, Mich. Filed Sept. 7, 1955.

**BROM 55**

Owner of Reg. No. 594,113.
For Bromine Carrier Products for Use in the General Industrial Arts.
First use in or about January 1953.

SN 695,015. Panogen, Inc., Ringwood, Ill. Filed Sept. 20, 1955.

**PANO-DRENCH**

The word "Drench" is disclaimed apart from the mark as shown.
For Soil Drench.
First use Jan. 24, 1955.

SN 695,899. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Oct. 5, 1955.

**SHIRLAN**

Owner of Reg. No. 305,724.
For Chemical Compounds Having Bacteriostatic and/or Fungicidal Properties.
First use May 12, 1955.

SN 695,900. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Oct. 5, 1955.

**ZONIUM**

Owner of Reg. No. 592,940.
For Chemical Compounds or Compositions for Protecting Materials From Tarnishing or Corrosion.
First use July 12, 1955.

SN 699,733. Metalloid Industrial Service, Inc., New York, N. Y. Filed Dec. 9, 1955. Sec. 2(f).

**METALLOID**

For Soluble Heat Retardant Compounds Used in Metal Cutting and Grinding Operations.
First use Dec. 15, 1949.



SN 700,479. Reichhold Chemicals, Inc., Detroit, Mich. Filed Dec. 22, 1955.

**REZAMUL**

Owner of Reg. Nos. 528,464, 568,070, and 579,774.
For Emulsified Synthetic Resins.
First use Dec. 9, 1955.

SN 700,585. Diamond Alkali Company, Cleveland, Ohio. Filed Dec. 27, 1955.

**TYRENE**

For Dye Assistant.
First use Dec. 9, 1955.

SN 678. Hydroponic Chemical Company, Inc., Copley, Ohio. Filed Jan. 13, 1956.

**NIBONEX**

For Rabbit Repellent.
First use Dec. 2, 1955.

SN 1,126. Benjamin D. Smith, d. b. a. American Manufacturing Company, Whitesboro, N. Y. Filed Jan. 19, 1956.

**AM-CO**

For Rodenticides.
First use on or before Mar. 30, 1955.

SN 1,244. International Biochemical Corporation, Brooklyn, N. Y. Filed Jan. 23, 1956.

**BIOSTAN**

The drawing is lined for red.
For Bovine Blood Serum Ultrafiltrate for Biochemical Standardisation for Laboratory Use Only.
First use on or about Aug. 15, 1955.

SN 3,746. Geigy Chemical Corporation, Ardsley, N. Y. Filed Mar. 2, 1956.

**MAXICRON**

For Dyes and Dyestuffs.
First use Feb. 13, 1956.

SN 3,747. Geigy Chemical Corporation, Ardsley, N. Y. Filed Mar. 2, 1956.

**MAXILON**

For Dyes and Dyestuffs.
First use Feb. 13, 1956.

SN 6,558. Rigo Manufacturing Co., Inc., Nashville, Tenn. Filed Apr. 17, 1956.

**Pinegard**

For Disinfectant and Deodorant.
First use Jan. 2, 1953.

## CLASS 8

### SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

SN 10,670. Elgin American, Inc., Elgin, Ill. Filed June 21, 1956.

**UNIMATIC**

For Cigarette Lighters and the Operating Mechanism Therefor.
First use Apr. 30, 1956.

SN 11,397. Park Sherman Company, Chicago, Ill. Filed July 2, 1956.

**PARK AVENUE**

For Ash Trays, Cigarette Boxes and Cases, Pipe Racks.
First use January 1956.

## CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

SN 10,431. Horning-Cooper, Incorporated, Monrovia, Calif. Filed June 18, 1956.

**ASP**

For Atmospheric Sounding Projectile or Rocket.
First use Dec. 21, 1955.

## CLASS 10

### FERTILIZERS

SN 698,900. N'Land Industries, Inc., Lewiston, Idaho. Filed Nov. 25, 1955.

**AQUALIZER**

For Fertilizer Comprised of Agricultural Grade Aqueous Ammonia.
First use Apr. 11, 1954.

SN 9,967. Escambia Bay Chemical Corp., Pensacola, Fla. Filed June 11, 1956.

**BAY-SOL**

For Nitrogen Solutions for Fertilizers.
First use Oct. 14, 1955.

SN 9,968. Escambia Bay Chemical Corp., Pensacola, Fla. Filed June 11, 1956.

**AMMO-NITE**

For Fertilizer.
First use Oct. 21, 1955.

SN 12,854. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Fertilizers, Soil Conditioners, Soil Amendments, Soil Correctives, Chemical Preparations To Prevent Premature Dropping of Fruits and Vegetables From Trees and Plants, and Plant Hormones.
First use June 25, 1956.

CLASS 11

INKS AND INKING MATERIALS

SN 9,420. Addressograph-Multigraph Corporation, Cleveland, Ohio. Filed June 1, 1956.

MULTILITH

Owner of Reg. Nos. 305,209, 612,565, and others.
For Printing Ink, Carbon Paper, Inked Ribbons, and Writing Fluid.
First use Jan. 10, 1933.

CLASS 12

CONSTRUCTION MATERIALS

SN 681,469. Southwestern Petroleum Co., Inc., d. b. a. The Zone Co., Fort Worth, Tex. Filed Jan. 25, 1955.

ZONE

Owner of Reg. Nos. 370,377 and 370,201.
For Liquid Asbestos Roof Coating and Plastic Roof Cement.
First use Nov. 9, 1936.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 9,623. American Tack Co., Inc., New York, N. Y. Filed June 5, 1956.

ROLL-A-GLIDE

For Ball Bearing Casters.
First use Mar. 19, 1956.

SN 9,696. Thomas S. Becher, d. b. a. Win-Door Co., Laconia, N. H. Filed June 6, 1956.

CRASH BAR

For Metal Bar Which Extends Across Screen and Storm Doors and Is Used for Pushing Them Open.
First use April 1955.

CLASS 15

OILS AND GREASES

SN 692,340. Mid-West Oil Company, Kansas City, Kans. Filed Aug. 2, 1955. Sec. 2(f).

Dependable BRAND MOTOR OIL

Exclusive use of the words "Brand Motor Oil" is not claimed apart from the mark as shown.
For Motor Oil.
First use January 1932.

SN 696,910. Sayer Refining Company, Inc., Oklahoma City, Okla. Filed Oct. 21, 1955.

STAY-READY

For Motor Oil for Automobile Motors.
First use Nov. 1, 1949.

SN 700,933. Paragon Oil Company, Incorporated, Long Island City, N. Y. Filed Dec. 27, 1955.

paragon Oil

The words "Oil, Oil Burners, Heating Oils" are disclaimed apart from the mark as shown. Owner of Reg. No. 554,157.
For Gasoline and Petroleum Lubricating Oils.
First use Apr. 1, 1925.

SN 700,935. Parason Oil Company, Inc., Long Island City, N. Y. Filed Dec. 27, 1955.

paragon Oil

The word "Oil" is disclaimed apart from the mark as shown. Owner of Reg. No. 554,157.
For Gasoline and Petroleum Lubricating Oils.
First use April 1925.



SN 9,809. S. A. R. O. M. Societa Azionaria Raffinazione Olii Minerali, Milan, Italy. Filed June 8, 1956.

S. A. R. O. M.

Owner of Italian Reg. No. 113,532, dated Sept. 30, 1953.
For Motor Fuels, Diesel Oil, Gas Oil, Kerosene, Stove Oil.

SN 10,808. Shell Oil Company, New York, N. Y. Filed June 22, 1956.

DIALA

For Lubricating Oil.
First use Sept. 9, 1946.

SN 10,809. Shell Oil Company, New York, N. Y. Filed June 22, 1956.

FUSUS

For Lubricating Oil.
First use Feb. 1, 1948.

SN 10,810. Shell Oil Company, New York, N. Y. Filed June 22, 1956.

MACOMA

For Lubricating Oil.
First use Sept. 15, 1948.

SN 10,811. Shell Oil Company, New York, N. Y. Filed June 22, 1956.

CARNEA

For Lubricating Oil.
First use Jan. 29, 1930.

SN 10,812. Shell Oil Company, New York, N. Y. Filed June 22, 1956.

LIMEA

For Lubricating Oil.
First use Feb. 1, 1948.

SN 10,813. Shell Oil Company, New York, N. Y. Filed June 22, 1956.

GARIA

For Lubricating Oil.
First use Sept. 1, 1941.

SN 11,042. Manuel Muntanola Tey, Barcelona, Spain. Filed June 26, 1956.

CERJADE

Owner of Spanish Reg. No. 288,445, dated Mar. 24, 1955.
For Plain and Decorated Candles.

SN 11,071. Gaspard & Sons Limited, Winnipeg, Manitoba, Canada. Filed June 27, 1956.

ETERNALITE

Owner of Canadian Reg. No. N. S. 48,534, dated Dec. 31, 1953.
For Church Candles.

SN 11,267. Kiekhaefer Corporation, Cedarburg, Wis. Filed June 29, 1956.

QUICKSILVER

Owner of Reg. Nos. 565,610 and 611,763.
For Oil.
First use May 2, 1956

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 7,107. The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. Filed Apr. 25, 1956.

NEOFLOOR

For Kits Containing Resilient Coating Material and Grit for Preparing Protective Coatings Having a Grit Embedded Therein.
First use May 6, 1954.

CLASS 17

TOBACCO PRODUCTS

SN 5,533. Kraemer Stores, Inc., Toledo, Ohio. Filed Mar. 30, 1956.

Lord Kenyon

Owner of Reg. No. 343,083.
For Smoking Tobacco, Primarily for Pipes, and Cigars.
First use Mar. 1, 1936.

SN 10,656. Casa Cuba Cigar Factory, d. b. a. Casa Cuba Cigar Co., Tampa, Fla. Filed June 21, 1956. Sec. 2(f).

Casa Cuba

For Cigars.
First use Oct. 23, 1944.

SN 11,488. Larus & Brother Company, Richmond, Va. Filed July 3, 1956.

KEG

Owner of Reg. No. 333,030.
For Smoking Tobacco and Cigarettes.
First use Oct. 3, 1935.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 675,141. General Health Corporation, Camden, N. J. Filed Oct. 20, 1954.

PIKup

For Vitamin Preparations in Liquid and Tablet Form for Human Use.
First use on or about July 19, 1954.

SN 683,217. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 16, 1955.

**Parvex**

For Anthelmintic Preparation for Veterinary Use.
First use May 9, 1955.

SN 694,662. Mildred Benyo, d. b. a. Physio Appliance Co., Cudahy, Wis. Filed Sept. 12, 1955.

**VITA TISSUE**

For Medicated Lotion or Liniment for the Treatment of Hernia or Rupture and Muscular Aches and Pains or Stiff Joints.
First use June 25, 1955.

SN 694,585. Meyer Chemical Company, Detroit, Mich., now by change of name Meyer and Company. Filed Sept. 13, 1955.

**ALMETHINE**

For Antispasmodic Capsule, for the Treatment of Gastro-Intestinal Spasm and Hyperchlorhydria.
First use Nov. 15, 1954.

SN 694,587. Meyer Chemical Company, Detroit, Mich., now by change of name Meyer and Company. Filed Sept. 13, 1955.

**HISTALME**

For Antihistamine, Antisecretory, and Antispasmodic Capsule: Used for the Symptomatic Treatment of Hay Fever, Urticaria, Vasomotor Rhinitis, and Other Conditions Induced by Histamine.
First use June 6, 1955.

SN 697,786. Gane and Ingram, Incorporated, New York, N. Y. Filed Nov. 7, 1955.

**CALMITOL**

For Medicated Pharmaceutical Preparation for the Relief of Itching Skin.
First use August 1922.

SN 697,925. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories, Norwich, N. Y. Filed Nov. 8, 1955.

**ENTEFUR**

For Antibacterial Preparation for Veterinary Use.
First use Oct. 17, 1955.

SN 700,404. The Upjohn Company, Kalamazoo, Mich. Filed Dec. 21, 1955.

**FILIN**

For Antibiotics for Antifungal Use.
First use Sept. 14, 1955.

SN 1,316. Anchor Serum Co. of Indiana, Inc., Indianapolis, Ind. Filed Jan. 24, 1956.

**FORAGE-FEEN**

For Anthelmintic for Removing Internal Parasites From Livestock Comprising Flavored Phenothiazine.
First use Nov. 2, 1955.

SN 6,115. R. S. Miller Laboratories, Inc., Los Angeles, Calif. Filed Apr. 10, 1956.

**SOLVILITH**

For Medicated Tablet for Suppression of Calciuria.
First use Dec. 15, 1955.

SN 6,140. Warner-Lambert Pharmaceutical Company, New York, N. Y. Filed Apr. 10, 1956.

**STERISIL**

Owner of Reg. No. 363,254.
For Vaginal Gel.
First use Apr. 6, 1956.

SN 6,282. Pix-Ease Pharmaceutical Distributing Co., Anaheim, Calif. Filed Apr. 12, 1956.

**PIX-EASE**

For Pills for the Relief of Headaches, Nausea, Irritated Stomach, and Gastric Hyperacidity.
First use Feb. 16, 1956.

## CLASS 19

## VEHICLES

SN 683,181. Clowd, Inc., Arcadia, Calif. Filed Mar. 10, 1955.

**FLIGHT DESK**

For Device for Holding Flight Instructions, Charts, Maps, Etc. in an Aircraft or Other Vehicle.
First use July 2, 1954.

SN 686,349. Norman Bennett, Kensington, Md. Filed Apr. 27, 1955.

**SPECTRUCKULAR**

For Advertising Signs for Automobiles and Trucks.
First use Dec. 28, 1953.

SN 696,893. Kwikset Locks, Inc., Anaheim, Calif. Filed Oct. 21, 1955.

**kwikset**

Owner of Reg. Nos. 518,294, 612,907, and others.
For Outside Door Handles, Inside Door Handles, Window Regulator Handles, External Ornamentation, Rear Luggage Compartment Handles, Hood Ornaments, Emblems, and Retainers.
First use since December 1953.

SN 6,417. Ford Motor Company, Dearborn, Mich. Filed Apr. 16, 1956.

**COUNTRY SQUIRE**

For Automobiles.
First use Nov. 18, 1949.



## CLASS 20

## LINOLEUM AND OILED CLOTH

SN 697,524. Armstrong Cork Company, Lancaster, Pa. Filed Nov. 2, 1955.

**BUDGET**

For Felt Base Type Wall Covering.
First use Oct. 24, 1955.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 699,866. United States Rubber Company, New York, N. Y. Filed Dec. 12, 1955.

**GRAY PERFECTION**

For Electrical Insulatory Tape.
First use as early as 1906.

SN 699,867. United States Rubber Company, New York, N. Y. Filed Dec. 12, 1955.

**USKORONA**

Owner of Reg. No. 600,702.
For Electrical Insulating Tape Commonly Known as Splicing Compound.
First use as early as 1937.

SN 6,566. Telex, Inc., St. Paul, Minn. Filed Apr. 17, 1956.

**TELE-FI**

For Head Phone.
First use Apr. 10, 1956.

SN 8,589. Tansitor Electronics, Inc., Bennington, Vt. Filed May 18, 1956.

T E

For Electronic Capacitors.
First use Apr. 18, 1956.

SN 8,954. General Cable Corporation, New York, N. Y. Filed May 24, 1956.

**FORMLON**

For Insulated Electrical Wires.
First use Apr. 10, 1956.



## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

SN 663,851. W. J. Voit Rubber Corp., Los Angeles, Calif. Filed Apr. 2, 1954.

VOIT
SAIL-FINS

Owner of Reg. Nos. 510,267, 609,517, and 610,328.
For Swimming Aids To Be Attached to the Feet of Swimmers.
First use Jan. 13, 1954.

SN 667,079. Berkeley Models Inc., West Hempstead, N. Y. Filed May 26, 1954. Sec. 2(f).

**Berkeley's**

For Kits for the Construction of Model Aircraft, Boats and Cars, All Supplies and Accessories, Propulsion Units and Fuels Relating Thereto.
First use Sept. 15, 1933.

SN 680,416. Dorothy F. Rodgers, New York, N. Y. Filed Jan. 24, 1955.

**HASHARADE**

For Word Game or Puzzle.
First use Dec. 10, 1954.

SN 692,391. M. F. Greenwood, Carmel, Calif. Filed Aug. 3, 1955.

**DOWNBEAT**

For Music Card Game.
First use Dec. 17, 1954.

SN 692,643. John C. Rumsey, Lawrence, Kans. Filed Aug. 8, 1955.

BIG BAD

For Toy Wagons.
First use July 15, 1955.

SN 693,974. Crosman Arms Company, Inc., Fairport, N. Y. Filed Aug. 31, 1955.

Crosman

Owner of Reg. No. 617,687.
For Targets and Target Inserts.
First use 1925.

SN 696,489. Angelica Enterprises, Inc., Los Angeles, Calif. Filed Oct. 17, 1955.

Angelica

For Dolls and Doll Clothing and Accessories.
First use on or about Aug. 26, 1955, on dolls.

SN 697,300. Jennings & Company, Chicago, Ill. Filed Oct. 28, 1955.

BUCKAROO

For Mechanical Games—Namely, Coin Controlled Amusement Machines.
First use June 17, 1955.

SN 698,939. United Specialties of Birmingham, Inc., Birmingham, Ala. Filed Nov. 25, 1955.

USC

For Wagons, Scooters, Toy Wheelbarrows, Toy Tables and Chairs.
First use August 1950 on wagons, scooters, and toy wheelbarrows.

SN 4,975. Alexander Miner Manufacturing Corp., d. b. a. Alexander Miner Mfg. Corp. or Alex. Miner Mfg. Corp., New York, N. Y. Filed Mar. 21, 1956.

Little Mother

Owner of Reg. No. 615,280.
For Toy Dolly Feeder; and a Miniature Toy Market Bag Set Comprising a Shopping Bag, a Purse, Shopper's Check Book, Pencil, and Set of Play Money.
First use Jan. 15, 1956.

SN 4,976. Alexander Miner Manufacturing Corp., d. b. a. Alexander Miner Mfg. Corp. or Alex. Miner Mfg. Corp., New York, N. Y. Filed Mar. 21, 1956.

DOLLY'S OWN

For Toy Nursing Bottles and Toy Bottle Carrier.
First use July 1, 1955.

SN 5,102. The Jotto Corporation, New York, N. Y. Filed Mar. 23, 1956.

JOTTO

For Game Pad.
First use on or about Feb. 24, 1956.

SN 5,128. Payton Products, Inc., New York, N. Y. Filed Mar. 23, 1956.

PAYTON

For Toy Cars and Trucks, Toy Trains, Toy Horses, and Toy Cowboys and Indians.
First use Feb. 6, 1956.

SN 5,254. Tony-E-Toy Corporation, Austin, Minn. Filed Mar. 26, 1956.

CATEGORY

For Educational Word Game.
First use Feb. 18, 1956.

SN 5,313. Manning Manufacturing Corporation, Chicago, Ill. Filed Mar. 27, 1956.

ZIPEES

For Roller Skates and Roller Skate Wheels.
First use Dec. 20, 1955.

SN 5,393. James W. Carl, d. b. a. Gull Products Co., Kalamazoo, Mich. Filed Mar. 29, 1956.

AQUA SPRING

For Spring Actuated Diving Devices.
First use Aug. 1, 1954.

SN 5,660. Raymond J. Mulkern, Minneapolis, Minn. Filed Apr. 2, 1956.

PUTTING PAL

For Golf Ball Position Marker and Magnetised Holder for the Same.
First use Dec. 20, 1955.

SN 5 838. Hockaday Associates, Inc., New York, N. Y. Filed Apr. 5, 1956.

WHO ARE WE

For Children's Coloring Books.
First use Aug. 29, 1955.

SN 5,839. Hockaday Associates, Inc., New York, N. Y. Filed Apr. 5, 1956.

WHO AM I

For Children's Coloring Books.
First use Aug. 29, 1955.



SN 6,120. Kingfisher Company, Inc., Mountain View, Calif. Filed Apr. 10, 1956.

TRAIL-A-BAIT

For Fish Lures.
First use Mar. 20, 1956.

SN 6,192. Monroe H. Rosenow, d. b. a. Gem Leather Goods Company, Milwaukee, Wis. Filed Apr. 11, 1956.

Kantkut King

For Covers for the Heads of Golf Clubs.
First use Jan. 4, 1956.

SN 6,386. Widder Sales Corporation, New York, N. Y. Filed Apr. 13, 1956.

WIDDER

For Skis and Ski Boots.
First use Apr. 5, 1956.

SN 6,411. Earl & Arlington, Inc., San Francisco, Calif. Filed Apr. 16, 1956.

CLINK CLANKS

For Infant's Rattles.
First use Dec. 20, 1955.

SN 6,412. Earl & Arlington, Inc., San Francisco, Calif. Filed Apr. 16, 1956.

CLINKY

For Infant's Rattles.
First use Dec. 20, 1955.

SN 6,528. Kimball Manufacturing Corporation, San Francisco, Calif. Filed Apr. 17, 1956.

DIHEDRAL

For Water Skis.
First use Feb. 1, 1956.

SN 6,777. Acushnet Process Company, Acushnet, Mass. Filed Apr. 20, 1956.

CLUB SPECIAL

For Golf Balls Sold in Professional Shops Only.
First use June 1939.

SN 7,136. Widder Sales Corporation, New York, N. Y. Filed Apr. 25, 1956.

WIDDER

For Skis and Ski Boots.
First use Apr. 5, 1956.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 681,620. Emanuel Neugroschel, New York, N. Y. Filed Feb. 14, 1955.

RUSTA

For Shears, Scissors, Razors, Knives, and Saws.
First use Nov. 15, 1951.

SN 699,544. Bemis Bro. Bag Co., Minneapolis, Minn. Filed Dec. 7, 1955.

BEMIS Vee-Slat

For Endless Conveyors.
First use Nov. 11, 1955.

SN 1,976. Norman Engineering Company, Chicago, Ill., to Oil-Dyne, Inc., Chicago, Ill. Filed Feb. 2, 1956.

OIL-DYNE

For Hydraulic Pumping Units.
First use Nov. 5, 1955.

SN 8,331. The Gyromat Corporation, Fairfield, Conn. Filed May 15, 1956.

GYROMAT

For Apparatus for Spraying Paint, Enamel, Ceramic, and Other Coating Materials.
First use on or about Jan. 1, 1952.

SN 8,656. Foley Manufacturing Company, Minneapolis, Minn. Filed May 21, 1956. Sec. 2(f).

FOLEY

Owner of Reg. No. 519,250.
For Rolling Pins, Rolling Pin Covers, Measuring Spoons, Scraper Spoons, Meat Lifters, Basters, Disc Sharpeners, and Grass Catchers.
First use November 1952 on rolling pins.

SN 8 985. Richards Bros. & Sons Limited, Sheffield, England. Filed May 24, 1956.

POMPADOUR

Owner of British Reg. No. 695,408, dated Jan. 18, 1951.
For Penknives, Pocket Knives, Scissors (Other Than Surgical Scissors), Table Knives, Bread Knives, Slicing Knives (Hand Tools), Paring Knives, Fruit Knives, and Vegetable Knives.

SN 9,073. Armstrong Bros. Tool Co., Chicago, Ill. Filed May 28, 1956.

ARMALOY

For Wrenches and Cast Alloy Cutting Tools.
First use Aug. 1, 1946.

SN 9,074. Armstrong Bros. Tool Co., Chicago, Ill. Filed May 28, 1956.

**ARMIDE**

For Solid Carbide Tips for Cutting Tools and Carbide Tipped Cutting Tools.
First use Sept. 1, 1929, on carbide tipped cutting tools.

SN 9,119. Didde-Glaser, Inc., Emporia, Kans. Filed May 28, 1956.

**SPEED KLECT**

For Collating Machines.
First use Dec. 8, 1954.

SN 12,858. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Garden Hose Sprayers for Applications of Insecticides, Fungicides, Germicides, Herbicides, Disinfectants, Antiseptics, Deodorants, and Cleaners; and Fertiliser Spreaders.
First use June 25, 1956.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

SN 684,989. Waters Manufacturing, Inc., Waltham, Mass. Filed Apr. 5, 1955.

Torque Watch GAUGE

The word "Gauge" is disclaimed. The word "Torque" is disclaimed apart from the mark.
For Torsion Gauge.
First use September 1954.

SN 6,635. Projection Optics Company, Inc., Rochester, N. Y. Filed Apr. 18, 1956.

HIGH 16

The numeral "16" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 599,317 and 615,354.
For Projection Lenses, Lens Assemblies, and Projection Screens.
First use Feb. 2, 1956.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

SN 675,708. Maxann Mfg. Co., Inc., Providence, R. I. Filed Oct. 29, 1954.




For Earrings, Bracelets, Ornamental Pins, Necklaces, and Brooches.
First use Mar. 6, 1944.

SN 10,193. Rodox, Inc., New York, N. Y. Filed June 13, 1956.

**RODOX**

For Costume and Novelty Jewelry—Namely, Earrings, Necklaces, Bracelets, Brooches, and Rings.
First use April 1947.

SN 12,580. Marcel Boucher et Cie, New York, N. Y. Filed July 23, 1956.

**MARCEL BOUCHER**

The trademark consists of the name of a particular living individual, consent of record. Owner of Reg. No. 526,092.
For Costume Jewelry Not Including Watches.
First use in or about January 1938.

## CLASS 29

## BROOMS, BRUSHES, AND DUSTERS

SN 670,702. Star Brush Manufacturing Co. Inc., Boston, Mass. Filed July 27, 1954.



The drawing is lined for red and black.
For Brushes for Painting, Varnishing, or Applying Similar Liquids.
First use July 1, 1953.

SN 698,505. Cushman and Denison Mfg. Co., Inc., New York, N. Y. Filed Nov. 18, 1955.

**CADO**

For Fountain Brushes and Parts Thereof, Including Felt Tips.
First use about 1940.



SN 10,278. Anro Products Company, Inc., Aurora, Ill. Filed June 15, 1956.

**SUDSY SUE**

For Brushes With Hollow Handles for Dispensing Detergent.
First use Jan. 19, 1956.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 9,418. Weldit, Inc., Detroit, Mich. Filed May 31, 1956. Sec. 2(f).

**WELDIT**

Owner of Reg. No. 537,195.
For Plumbers' Furnaces, Plumbers' Torches, Salamanders, Jet Heating Torches, Weed Burners, Paint Burning Torches, and Propane Soldering Irons.
First use 1948.

SN 9,532. Economy Flue Cleaner Company, St. Cloud, Minn. Filed June 4, 1956.

**AJAX**

For Boiler Flue Blowers.
First use Jan. 1, 1938.

SN 9,642. Edwin R. Joseph, d. b. a. E. R. Joseph Co., Norristown, Pa. Filed June 5, 1956.

**ERJO**

For Spark Lighters and Flints.
First use Apr. 1, 1946.

SN 9,717. G & S Manufacturing Co., Inc., Nashville, Tenn. Filed June 6, 1956.




For Liquid Fuel Burning Cook Stoves.
First use on or about Mar. 3, 1956.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

SN 690,154. Estelle "Shad" Fry, d. b. a. Shad Records, Tarzana, Calif. Filed June 24, 1955.




For Grooved Phonograph Records.
First use Feb. 14, 1955.

SN 699,536. Isabella Maria Wallich, d. b. a. Delysé Recording Company, London, England. Filed Dec. 6, 1955.

*Delysé*

Owner of British Reg. No. 736,642, dated Nov. 29, 1954.
For Mechanically Grooved Gramophone and Phonograph Records and Mechanically Actuated Gramophones.

SN 700,737. G. Leblanc Corporation, Kenosha, Wis. Filed Dec. 28, 1955.

*Dynamique*

For Musical Instruments of the Woodwind Family, Especially Clarinets.
First use Apr. 13, 1953.

SN 9,469. M. Hohner, Inc., New York, N. Y. Filed June 1, 1956.

**CORSO**

For Accordions.
First use September 1955.

SN 9,470. M. Hohner, Inc., New York, N. Y. Filed June 1, 1956.

**ERICA**

For Accordions.
First use September 1955.

SN 10,587. Down Home Records, Inc., Beverly Hills, Calif. Filed June 20, 1956.

**DOWN HOME**

For Grooved Phonograph Records and Jackets and Albums for Phonograph Records.
First use May 2, 1956.

## CLASS 37

## PAPER AND STATIONERY

SN 683,697. Mid-West Wall Paper Mills, Joliet, Ill. Filed Mar. 17, 1955.

*Story Book*

For Wall Paper.
First use Mar. 7, 1955.

SN 690,195. S. P. Richards Paper Company, Atlanta, Ga. Filed June 24, 1955.

Sparco

For Adding Machine Rolls, File Folders, Index Cards, Memo Pads, Legal Rule Pads, Ring Book Fillers, Teletype Rolls, Mimeograph Stencils, Receipt Books, and Printing Paper.
First use February 1916.

SN 690,878. Goldsmith Bros., New York, N. Y. Filed July 7, 1955. Sec. 2(f).

MANDARIN

Owner of Reg. No. 331,242.
For Lead Pencils.
First use Jan. 2, 1929.

SN 692,288. Ralph R. Wilkins, d. b. a. The Wilkins Company, Cortland, N. Y. Filed Aug. 1, 1955.

K-LENS-M

Owner of Reg. Nos. 384,139 and 426,521.
For Tissue for Cleaning Glass and Plastic Lenses.
First use June 12, 1944.

SN 693,181. Pacific Waxed Paper Company, Seattle, Wash. Filed May 21, 1956.

MicroGloss

For Printed Plastic-Coated Bread Wrappers.
First use June 14, 1955.

SN 696,463. Rodi & Wienenberger Aktiengesellschaft, Pforzheim, Germany. Filed Oct. 14, 1955.

Owner of German Reg. No. 472,004, dated Dec. 24, 1934.
For Mechanical Pencils and Fountain Pens.

SN 1,890. The Mutual Paper Co., Inc., Brooklyn, N. Y. Filed Feb. 1, 1956.

MARK-O-MATIC

For Marking Paper.
First use Jan. 25, 1956.

SN 3,417. Marathon Corporation, Menasha, Wis. Filed Feb. 27, 1956. Sec. 2(f).

COMPACT

Owner of Reg. Nos. 334,240, 531,998, and others.
For Paper Napkins.
First use Jan. 21, 1935.

SN 6,057. H. P. Smith Paper Company, Chicago, Ill. Filed Apr. 9, 1956.

RAPSOL

For Wax Paper To Be Used as Freezer Paper.
First use Apr. 7, 1951.

SN 6,125. Millers Falls Paper Company, Millers Falls, Mass. Filed Apr. 10, 1956.

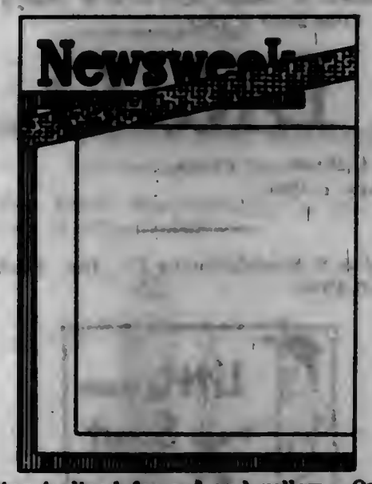
Fleetway

For Writing and Printing Paper.
First use Aug. 15, 1937.

CLASS 38

PRINTS AND PUBLICATIONS

SN 668,492. Weekly Publications, Inc., New York, N. Y. Filed June 18, 1954.




The drawing is lined for red and yellow. Owner of Reg. Nos. 603,659 and 603,657.
For Weekly Magazine.
First use Feb. 21, 1940; June 8, 1939, as to "Newsweek."

SN 696,747. Television Audience Measurement Ltd., London, England. Filed Oct. 19, 1955.

TAM

Owner of British Reg. No. 736,784, dated Dec. 3, 1954.
For Newspapers, Periodical Publication, Series of Books and Printed Instructional and Teaching Material.

SN 697,125. Show-House, New York, N. Y. Filed Oct. 25, 1955.

SHOW-HOUSE

Owner of Reg. No. 603,719.
For Advertising Sections in Magazine Publications and for Magazine Publications.
First use September 1953 as to advertising sections in magazine publications.



SN 5,177. Di-Noc Chemical Arts, Inc., Cleveland, Ohio. Filed Mar. 26, 1956.

DINO-BRITE

Owner of Reg. Nos. 196,223, 613,197, and others.
For Decalcomanias.
First use Feb. 15, 1956.

SN 5,443. Motor Publications, Inc., Washington, D. C. Filed Mar. 29, 1956.

CAR LIFE

For Periodicals Published From Time to Time.
First use Oct. 12, 1955.

SN 7,269. Leon Morse, Burlington, Vt. Filed Apr. 27, 1956.

YOUR FRIEND, LEON MORSE

For Newspaper Column Appearing at Regular Intervals.
First use May 7, 1941.

SN 7,667. Continental Decalcomania Co., Sparta, Mich. Filed May 4, 1956.




For Decalcomania Transfers.
First use Dec. 15, 1937.

SN 7,672. General Features Corporation, New York, N. Y. Filed May 4, 1956.

BOY AND GIRL

For Newspaper Cartoon Feature.
First use Mar. 27, 1956.

SN 7,860. Simmons-Boardman Publishing Corporation, New York, N. Y. Filed May 7, 1956. Sec. 2(f).

Pacific Marine Review

Owner of Reg. No. 334,414.
For Section of a Periodical Published Monthly and Also Susceptible of Separate Distribution.
First use Mar. 31, 1914.

SN 8,029. Socony Mobil Oil Company, Inc., New York, N. Y. Filed May 9, 1956.



Owner of Reg. Nos. 340,261, 443,604, and others.
For Periodical Publications.
First use February 1935.

SN 8,030. Socony Mobil Oil Company, Inc., New York, N. Y. Filed May 9, 1956.

THE FLYING RED HORSE

Owner of Reg. Nos. 332,916 and 383,488.
For Periodical Publications.
First use September 1937.

SN 8,040. United Feature Syndicate, Inc., New York, N. Y. Filed May 9, 1956.

SPOT

For Comic Drawings of a Fictitious Character, Published in Daily Newspapers.
First use Mar. 5, 1956.

SN 8,109. Ziff-Davis Publishing Company, New York, N. Y. Filed May 10, 1956.

Pen Pals

For Magazine Produced From Time to Time.
First use Apr. 19, 1956.

SN 8,248. The Meyercord Co., Chicago, Ill. Filed May 14, 1956.

POLY-CAL

For Decalcomania Transfers.
First use Apr. 25, 1956.

SN 8,306. Aerosol Publications, Inc., Caldwell Township, N. J. Filed May 15, 1956.

AEROSOL AGE

For Periodical Publications.
First use on or about Apr. 23, 1956.

SN 8,321. H. S. Crocker Co., Inc., San Bruno, Calif. Filed May 15, 1956. Sec. 2(f).

California artists

Owner of Reg. No. 547,365.
For Christmas Cards.
First use Jan. 30, 1950.

SN 11,454. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Periodic Publications Distributed From Time to Time.
First use March 1956.

CLASS 39

CLOTHING

SN 666,580. The Fylde Press (1935) Limited, d. b. a. Sarec Footwear Company, St. Annes-on-Sea, England. Filed May 18, 1954.

MITZI

Owner of British Reg. No. 710,531, dated Sept. 12, 1952.
For Boots, Shoes, Slippers, and Gaiters for Women.

SN 679,922. Milsan Mills, Inc., Lebanon, Pa. Filed Jan. 14, 1955.

SUPER ROCK

For Men's and Boys' T-Shirts, Briefs, Undershirts, Undershorts, Pajamas, and Polo Shirts.
First use July 22, 1954.

SN 681,680. Claude André Deburaux, Paris, France. Filed Feb. 15, 1955.




Owner of French Reg. No. 396,462, dated Sept. 1, 1949 (Paris); Natl. Inst. No. 477,729.
For Women's and Men's Clothing—Namely, Suits, Costumes, Overcoats, Ski Outfits, Trousers, Slacks, Golf Suits, Hunting and Riding Habits, Tennis Clothing, Swim Suits, Shorts, Beach Clothes.

SN 681,688. Harry Goldman, d. b. a. Monarch Knitting Mills, Los Angeles, Calif. Filed Feb. 15, 1955.

Cashalamere

For Sweaters.
First use Oct. 1, 1953.

SN 682,589. Perfect Plus Hosiery Mills, Inc., Chicago, Ill. Filed Mar. 1, 1955.

SPAND-O-SOK

The word "Sox" is disclaimed apart from the mark as shown.
For Socks for Men, Women, and Children.
First use on or about Nov. 24, 1954.

SN 685,432. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Apr. 13, 1955.

NICE

For Sport Shirts.
First use Oct. 27, 1954.

SN 687,048. Brooks Brothers, Inc., New York, N. Y. Filed May 9, 1955.

"THE SIGN OF THE GOLDEN FLEECE"



Brooks Brothers

Owner of Reg. Nos. 103,889 and 103,992.
For Men's Ties, Undershorts, Undershirts, Pajamas, and Men's and Women's Outer Shirts.
First use 1954; prior to 1894 as to the representation of the golden fleece.

SN 687,805. Palm Beach Company, Sanford, Maine. Filed May 18, 1955.

CELEBRITY

For Slacks.
First use Mar. 21, 1955.

SN 692,553. Shoichi Takata, Honolulu, Territory of Hawaii. Filed Aug. 5, 1955.

MARBLE

For Sandals.
First use on or about Apr. 21, 1955.

SN 693,420. Myron H. Ackerman Associates, Incorporated, New York, N. Y. Filed Aug. 22, 1955.

ACK-TI-VATED

Owner of Reg. No. 603,092.
For Ties and Cut Linings Therefor.
First use Aug. 12, 1955.

SN 695,922. Leitman Furs, Inc., New York, N. Y. Filed Oct. 5, 1955.

HOUSE OF Jules

For Women's Fur Garments—Namely, Stoles, Capes, Jackets, Coats, Vests, Boleros, Spencers, Hug-Me-Tights, Hats, Muffs, Chokers, Shawls; Fur-Trimmed Items of Clothing—Namely, Sweaters, Skirts, Hats, Scarves, Stoles, Capes, Jackets, Coats, and Slippers; Fur Accessories—Namely, Ascot Fill-Ins, Fur Collars and Cuffs, Scarf Loops, Headbands, and Skirts.
First use October 1954.



SN 696,845. Stern-Siegman-Prins Company, Kansas City, Mo. Filed Oct. 20, 1955.

Suburban Miss

For Ladies' Coats, Suits, and Combinations of Jackets, Skirts, and Coats; Coats With Skirts and Blouses; Suits With Blouses; and Suits With Stoles.
First use Oct. 4, 1955.

SN 698,359. "International Textiles" Uitgevers Maatschappij N. V., Amsterdam, Netherlands.

VISCOUNT Melbourne

Owner of Dutch Reg. No. 122,602, dated Aug. 17, 1955.
For Shirts.

SN 698,405. Catalina, Inc., Los Angeles, Calif. Filed Nov. 17, 1955.

Miss Brooks

For Ladies' Play Clothes (Shirts, Shorts, and Skirts), Swimwear and Sweaters.
First use Oct. 31, 1955.

SN 698,810. Surprise Brassiere Co., Inc., New York, N. Y. Filed Nov. 23, 1955.

"Surprise!" ORIGINAL DESIGN BRA 5 Lengths

No claim is made to the exclusive use of the words "Original Design," "5 Lengths," and "Bra," apart from the mark as shown. Owner of Reg. Nos. 367,015, 503,685, and 519,529.
For Brassieres.
First use Jan. 30, 1948.

SN 699,601. Carol Sullivan, New York, N. Y. Filed Dec. 7, 1955.

Carol

For Head Scarfs and Head Kerchiefs for Women.
First use Apr. 5, 1955.

SN 699,931. The Simone Company, Inc., New York, N. Y. Filed Dec. 13, 1955. Sec. 2(f).

Lacies

For Pantie Girdles, Garter Belts, Girdles, and Corselettes.
First use 1945.

SN 700,571. Cary & Company, Inc., Binghamton, N. Y. Filed Dec. 27, 1955.

RUFF AND TUMBLE

For Children's Playwear—Creepers, Rompers, Overalls, Trousers, Slacks, Jackets, Jacket Sets, Blouses, Shirts, Halter-Panties, Shorts, Pedal Pushers, Coveralls, and Jumpers.
First use in 1935.

SN 1,310. Adams-Millis Corporation, High Point, N. C. Filed Jan. 24, 1956.

TEXTUFF

Owner of Reg. No. 138,439.
For Hosiery for Ladies, Men, Boys, Misses, and Infants.
First use Apr. 1, 1920.

SN 2,021. Chipman Knitting Mills, Easton, Pa. Filed Feb. 3, 1956.

DÉVILIQUE

The word "Dévilique" is a coined French word and the approximate English equivalent is "devilish."
For Women's Hosiery.
First use Jan. 4, 1956.

SN 8,421. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed May 16, 1956.

CONCHITA

For Brassieres.
First use Apr. 26, 1956.

SN 8,551. Hines, Incorporated, Winston-Salem, N. C. Filed May 18, 1956.

JOHNNY BULL

For Shoes Made of Leather, Rubber, Fabric, and Combinations Thereof.
First use in 1924.

SN 8,613. B & S Coat Co., Stamford, Conn. Filed May 21, 1956.

LADY CARLTON

For Ladies' Coats.
First use Jan. 9, 1956.

SN 8,853. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed May 23, 1956.

CONCERTINA

For Brassieres.
First use May 2, 1956.

SN 9,289. The Page Boy Company, Inc., Dallas, Tex. Filed May 29, 1956.

Page Boy

For Women's Girdles, Panties, Slips, Brassieres, Gowns, and Robes, and Women's Skirts.
First use August 1937.

SN 9,875. London Character Shoes Corporation, New York, N. Y. Filed June 8, 1956.

London Character

"purr-fee-soft"



Owner of Reg. Nos. 583,190, 136,518, and others.
For Shoes Made of Leather, Fabric or Rubber or Combination of Such Materials, for Men, Women, and Children.
First use Mar. 7, 1956; 1907 as to "London."

SN 10,017. Peter Pan Foundations, Inc., New York, N. Y. Filed June 11, 1956.

Little X

For Girdles.
First use May 10, 1956.

SN 10,086. The Formfit Company, Chicago, Ill. Filed June 12, 1956.

REVEL

For Brassieres.
First use on or about June 1, 1956; on combination brassieres and girdles Dec. 11, 1933.

SN 10,161. Glen Raven Knitting Mills, Inc., Glen Raven, N. C. Filed June 13, 1956.

Lady Ellen

For Hosiery for Women.
First use May 15, 1956.

SN 10,301. Craddock-Terry Shoe Corporation, Lynchburg, Va. Filed June 15, 1956.

ADVOCATE

For Shoes.
First use June 6, 1956.

SN 10,323. Joyce, Inc., Cincinnati, Ohio. Filed June 15, 1956.

CITY LINERS

For Footwear—Namely, Shoes, Slippers, and Sandals Made of Leather, Fabric, Rubber, or Cork, and/or of Combinations of Said Materials.
First use Apr. 15, 1956.

SN 10,563. Singer Hosiery Mills, Inc., High Point, N. C. Filed June 19, 1956.

Sir Phillips

For Hosiery.
First use May 10, 1956.

SN 10,564. Singer Hosiery Mills, Inc., High Point, N. C. Filed June 19, 1956.

Lady Phillips

For Hosiery.
First use May 10, 1956.

SN 10,604. Joyce, Inc., Cincinnati, Ohio. Filed June 20, 1956.

INNER CIRCLE

For Footwear—Namely, Shoes, Slippers, and Sandals Made of Leather, Fabric, Rubber, or Cork, and/or of Combinations of Said Materials.
First use June 1, 1956.

SN 10,738. Admiral Shoe Corporation, Maynard, Mass. Filed June 22, 1956.

FIRST EDITIONS

For Women's Shoes.
First use June 6, 1956.

SN 10,739. Admiral Shoe Corporation, Maynard, Mass. Filed June 22, 1956.

RARE EDITIONS

For Women's Shoes.
First use June 6, 1956.

SN 14,032. Kingsboro Mills, Inc., Daisy, Tenn. Filed Aug. 21, 1956. Sec. 2(f).

ROGERS RUN-PROOF

No claim is made to the term "Run-Proof" apart from the mark as shown.
For Women's and Children's Underwear, Pajamas, Nightgowns, and Men's Undershirts and Shorts.
First use Apr. 1, 1927.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 10,212. The Continental Elastic Corporation, New Bedford, Mass. Filed June 14, 1956.

staylace

For Shoe Laces.
First use May 29, 1956.

SN 10,554. Armand Schwab & Co., Inc., New York, N. Y. Filed June 19, 1956.

"CRYSTALLINE"

For Millinery Braids.
First use Sept. 14, 1955.



## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 685,053. Joseph M. Sterts, Manhasset, N. Y. Filed Apr. 6, 1955.

HEALIUM

For Radiation Resistant Fabrics.
First use Mar. 17, 1955.

SN 700,861. D. B. Fuller & Co., Inc., New York, N. Y. Filed Dec. 30, 1955.

SPOTLIGHT

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use July 18, 1955.

SN 8,299. Warren Fabrics Company, Inc., New York, N. Y. Filed May 14, 1956.

WAMA

For Nylon Fleece Fabrics.
First use July 1955.

SN 8,958. The W. A. Handley Manufacturing Company, Roanoke, Ala. Filed May 24, 1956.

ROANOKE

For Cotton Duck.
First use about 1930.

SN 9,406. Societe Anonyme d'Industrie Cotonniere, Mulhouse, Haut Rhin, France. Filed May 31, 1956.

VELCOREX

Priority claimed under Sec. 44(d) on French Reg. No. 2,682, dated Jan. 27, 1956 (Mulhouse); Natl. Inst. No. 68,632.
For Fabrics Including Cotton Velvet.

SN 9,837. Ames Shower Curtain Co., Inc., New York, N. Y. Filed June 8, 1956.

MAGNESHOWER

For Shower Curtains.
First use May 28, 1956.

SN 10,158. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 13, 1955.

DOBETTE

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Mar. 1, 1955.

SN 10,159. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 13, 1956.

LINTWEED

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 27, 1955.

SN 10,160. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 13, 1956.

SHANTUSSA

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Mar. 14, 1955.

SN 10,267. Toyo Rayon Co., Ltd., Chuo-ku, Tokyo, Japan. Filed June 14, 1956.

LINELAN

Owner of Japanese Reg. No. 468,333, dated July 22, 1955.
For Rayon Filament Fabrics, Spun Rayon Fabrics.

SN 10,316. Homemaker Rugs, Inc., New York, N. Y. Filed June 15, 1956.

WOOL-TONE

For Wool Braided Rugs.
First use Jan. 31, 1956.

SN 10,325. M. Lowenstein & Sons, Inc., New York, N. Y. Filed June 15, 1956.

PENNSHEEN

For Piece Goods, Made of Cotton and/or Synthetic Fibres.
First use May 14, 1956.

## CLASS 43

## THREAD AND YARN

SN 633,450. Dixie Mercerizing Company, Chattanooga, Tenn. Filed Aug. 4, 1952.




The words "Controlled Manufacture," "Yarns," and "Chattanooga, Tennessee" are disclaimed apart from the mark as shown. The circle of stippling surrounding the cone represents an orange coloring, which is also disclaimed apart from the mark. Owner of Reg. No. 149,368.
For Yarns of Natural Fibers; Yarns Formed of Similar Synthetic Fibers; Yarns Formed of Combinations and Blends of Synthetic Fibers With Natural Fibers; and Yarns Formed of Combinations and Blends of Differing Synthetic Fibers.
First use November 1947 on yarns of natural fibers.

SN 698,312. Toyo Rayon Co., Ltd., Chuo-ku, Tokyo, Japan. Filed Nov. 15, 1955.

SUPER TENACORD

Priority claimed under Sec. 44(d) on Japanese application filed May 17, 1955; Reg. No. 474,784, dated Dec. 22, 1955.
For High Tenacity Rayon Yarn, and Rayon Thread and Cord in the Nature of Yarn.

SN 1,522. Glanzstoff-Courtaulds G. m. b. H., Koln-Weidenpesch, Germany. Filed Jan. 26, 1956.

**COLVADUR**

Owner of German Reg. No. 640,419, dated June 23, 1953; and U. S. Reg. Nos. 583,125 and 592,069.
For Yarns Made of Rayon and Rayon Staple.

SN 7,903. Beaunit Mills, Inc., New York, N. Y. Filed May 8, 1956.

**Cupracolor**
BEMBERG YARN WITH COLOR-BOND

No claim is made to the expression "Yarn With Colorbond" apart from the mark as shown. Owner of Reg. Nos. 589,113, 589,115, and others.
For Thread and Yarn.
First use Mar. 2, 1956.

SN 7,934. North American Rayon Corporation, New York, N. Y. Filed May 8, 1956. Sec. 2(f).

**NORTH AMERICAN**

Owner of Reg. Nos. 329,306 and 375,686.
For Thread and Yarn of Artificial Origin.
First use about May 3, 1934.

SN 8,053. Canadian Lastex, Ltd., Montreal, Quebec, Canada. Filed May 10, 1956.

**MARCA ROYÁL**

For Yarns and Rubber Thread.
First use Feb. 21, 1956, on yarns; in commerce Feb. 21, 1956.

SN 8,621. British Celanese Limited, London, England. Filed May 21, 1956.

**TRICEL**

Owner of British Reg. No. 734,989, dated Oct. 13, 1954.
For Yarns.

SN 8,962. William Hollins & Company Limited, Nottingham, England. Filed May 24, 1956.

**VIYELLON**

Owner of British Reg. No. 745,954, dated Sept. 8, 1955; and U. S. Reg. Nos. 541,192 and 548,797.
For Yarns.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 694,308. Eisemann Gesellschaft mit beschrankter Haftung, Stuttgart, Germany. Filed Sept. 7, 1955.

**FORFEX**

Priority claimed under Sec. 44(d) on German application filed July 1, 1955; Reg. No. 6[illegible]630, dated July 9, 1956. Owner of U. S. Reg. No. 606,257
For Electric Hair Dryers, Electric Massage Apparatus and Parts of Said Goods.

SN 5,066. Vet-Way Products Corporation, Cypress, Calif. Filed Mar. 22, 1956.

**SELECTA**

For Syringe Gun That Includes a Barrel and Piston for Use in Ejecting Fluid Therefrom.
First use Feb. 20, 1956.

SN 6,480. Tibbetts Laboratories, Inc., Camden, Maine. Filed Apr. 16, 1956.

**HELICON**

For Hearing Aid Cord.
First use Nov. 9, 1955.

SN 7,111. Productexa Co., Inc., New York, N. Y. Filed Apr. 25, 1956.

**MEDI-TAPE**

For Adhesive Tape.
First use Dec. 23, 1955.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

SN 693,468. Mona Lisa, Inc., Dallas, Tex. Filed Aug. 22, 1955.

**MONA LISA**



Owner of Reg. Nos. 319,353 and 403,121.
For Carbonated Soft Drinks and Sparkling Water.
First use June 24, 1955.

SN 10,386. The Apollinaris Company Limited, London, England. Filed June 18, 1956. Sec. 2(f).

**Apollinaris**

For Mineral and Aerated Waters.
First use Dec. 31, 1872.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

SN 678,819. Silver Hill Corporation, Riverside, N. J. Filed Dec. 22, 1954.

**"Kitchen Queen"**

For Frozen Hamburger Patties.
First use on or about July 2, 1952.



SN 687,184. Cheese Products Co., Inc., Chicago, Ill. Filed May 10, 1955.

**Ye Olde Tavern**

Owner of Reg. No. 351,558.
For Cheese, Mayonnaise, Salad Dressing, Pickle Relish, Lemon Beverage Mix, Cherries, and Olives.
First use Apr. 1, 1936.

SN 688,259. Pluss Poultry, Incorporated, of North West Arkansas, Siloam Springs, Ark. Filed May 25, 1955.

**TOWN & COUNTRY**

For Frozen Poultry Parts.
First use Apr. 15, 1955.

SN 688,979. D. L. Waggoner & Son, El Paso, Tex. Filed June 6, 1955.

**Val-lay**

For Fresh and Frozen Poultry and Eggs.
First use on or about Sept. 2, 1930.

SN 691,133. Robert F. Hunsicker, Allentown, Pa. Filed July 12, 1955.

**GALEN HALL**

For Powdered Flavored Mixtures for Milk Shakes.
First use May 5, 1955.

SN 691,986. Dorothy Dawson's Food Products, Inc., Jackson, Mich. Filed July 27, 1955.

**Dorothy Dawson's**

"Dorothy Dawson" is the name of a living individual whose consent is of record.
For Packaged Flour Mixes—Namely, Bread Mixes, Cake Mixes, and Frying Mixes.
First use June 27, 1955.

SN 692,162. Rayco Products, Clarinda, Iowa. Filed July 29, 1955.

**MEAT MASTER**

For Meat Tenderizer Composed of Salt, Dextrose, Pure Spices, and Vegetable Enzyme of the Papaya Melon.
First use Apr. 1, 1955.

SN 693,661. Central Soya Company, Inc., Fort Wayne, Ind. Filed Aug. 25, 1955.

**MASTER MIX CALORIZED**

Owner of Reg. Nos. 324,431 and 331,457.
For Broiler Concentrate Feed, Broiler Finisher Feed, and Broiler Formula Feed.
First use May 26, 1955.

SN 698,544. Nutrena Mills, Inc., Minneapolis, Minn. Filed Nov. 18, 1955.

**FIFTY GRAND**

For Feed for Laying Hens.
First use Sept. 12, 1955.

SN 698,650. School House Candy Company, Providence, R. I. Filed Nov. 21, 1955.

**TWEETY**

For Candy on a Stick.
First use Nov. 10, 1955.

SN 699,347. Buddy Boy Popcorn Co., Watseka, Ill. Filed Dec. 7, 1955.

**Buddy Boy**

For Unpopped Popcorn.
First use Sept. 12, 1951.

SN 699,792. Franco-Italian Packing Company, Terminal Island, Calif. Filed Dec. 12, 1955.

**Petuna**

For Dog and Cat Pet Food.
First use Nov. 30, 1955.

SN 699,919. Mask & Gay Food Products Co., Brooks, Ga. Filed Dec. 13, 1955.

**M-G**

For Canned Meats and Meat Products—Namely, Stew, Hash, and Sausage; Frozen Stew and Chili; and Canned Chicken Dumplings.
First use 1946 on canned stew.

SN 700,627. Larry J. LaMarre, d. b. a. Larry J. LaMarre & Co., Milwaukee, Wis. Filed Dec. 27, 1955.

**TAST-D-LITE**

For Canned Vegetables, Pork and Beans in Tomato Sauce, Spaghetti With Tomato Sauce, and Cheese.
First use Aug. 12, 1955.

SN 700,744. The Nestle Company, Inc., White Plains, N. Y. Filed Dec. 28, 1955.

Gril

For Liquid Concentrate To Be Added to Water for Making Hot or Cold Consomme Beverage.
First use Dec. 2, 1955.

SN 208. O. W. Meyer, d. b. a. O. W. Meyer Laboratories, Napoleon, Ohio. Filed Jan. 5, 1956.

MOLASKA

For Feed Additive for Livestock and Poultry Such as Cows, Hogs, Horses, Sheep, Chickens, Turkeys, Geese, and Ducks.
First use Dec. 22, 1955.

SN 491. Eastern Specialty Packing Co., Inc., New Haven, Conn. Filed Jan. 11, 1956.

FAVORITA

"Favorita" translated into English means "favorite."
For Antipasto of Eggplants, Antipasto of Pepper, Antipasto of Mushroom.
First use 1941.

SN 539. Beaver Meadow Creamery, Inc., d. b. a. Beaver Meadow Creamery, Du Bois, Pa. Filed Jan. 12, 1956.

Beaver Meadow

Owner of Reg. No. 519,892.
For Butter and Fresh Eggs.
First use Nov. 11, 1937.

SN 1,108. Hugh F. Penn, Hartselle, Ala. Filed Jan. 19, 1956.

MOTHER BESSIE'S

For Pone Bread.
First use Dec. 19, 1955.

SN 1,153. Fort Ringgold Canning Company, Rio Grande City, Tex. Filed Jan. 20, 1956.

FORT RINGGOLD

For Canned Vegetables.
First use Dec. 17, 1955.

SN 1,475. Safeway Stores, Incorporated, d. b. a. Fairfax Baking Company, Oakland, Calif. Filed Jan. 25, 1956.

Stoneridge Farm

For Bakery Goods—Namely, Bread.
First use Jan. 7, 1956.

SN 1,539. Northwest Nut Growers, Portland, Oreg. Filed Jan. 26, 1956.




The drawing is lined for the colors blue and red.
For Shelled and Unshelled Edible Nuts.
First use October 1955.

SN 1,869. Hershey Creamery Company, Harrisburg, Pa. Filed Feb. 1, 1956.

Early American

For Ice Cream.
First use Jan. 16, 1956.

SN 2,118. General Mills, Inc., Minneapolis, Minn. Filed Feb. 6, 1956.

PAYGEL

For Wheat Starch for Food Purposes.
First use Dec. 22, 1949.

SN 2,119. General Mills, Inc., Minneapolis, Minn. Filed Feb. 6, 1956.

EDI-GEL

For Wheat Starch for Food Purposes.
First use in July 1951.

SN 2 312. I. Rokeach & Sons, Inc., Flushing, N. Y. Filed Feb. 8, 1956. Sec. 2(f) as to "Rokeach."

ROKEACH

Owner of Reg. Nos. 561,451, 561,795, and 562,020.
For Fish Products—Namely, Gefilite Fish and Fish Hors d'Oeuvres.
First use Jan. 15, 1956.

SN 4 556. Philip J. Nauman, Deckerville, Mich. Filed Mar. 14, 1956.

Derby Winner

For Feed for Livestock, i. e., Oats.
First use Dec. 22, 1955.

SN 4,767. E. J. Brach & Sons, Chicago, Ill. Filed Mar. 19, 1956.

PIRATE TREASURES

For Candy.
First use Jan. 21, 1956.



SN 4,828. K. R. Nutting, d. b. a. K. R. Nutting Co., Salinas, Calif. Filed Mar. 19, 1956.

King o'Hearts

For Fresh Vegetables.
First use in 1934 on fresh lettuce.

SN 5,039. Wm. Jensen & Sons, Watsonville, Calif. Filed Mar. 22, 1956. Sec. 2(f).

JENSEN PRIDE

Owner of Reg. No. 543,187.
For Fresh Apples.
First use Dec. 15, 1948.

SN 5,154. Batley Farms, Brawley, Calif. Filed Mar. 26, 1956.

ORO BLANCO

The English translation of "Oro Blanco" is "white gold."
For Fresh Vegetables and Fresh Melons.
First use Mar. 3, 1956.

SN 5,189. Geo. A. Fox Products Co., Inc., Kansas City, Mo. Filed Mar. 26, 1956.

"APPLE BETTY"

For Mix Used in the Preparation of Ice Cream and Ice Cream.
First use Mar. 14, 1956.

SN 5,250. Howard H. Straughn, d. b. a. Sierra Slope Vineyards, Visalia, Calif. Filed Mar. 26, 1956.

Golden ERA

For Fresh Grapes.
First use September 1952.

SN 5,251. Howard H. Straughn, d. b. a. Sierra Slope Vineyards, Visalia, Calif. Filed Mar. 26, 1956.

SIERRA SLOPE

For Fresh Grapes.
First use June 19, 1953.

SN 5,814. American Breddo Corporation, New York, N. Y. Filed Apr. 5, 1956.

DO-MULS

For Emulsifier for Bread and Baked Goods.
First use Jan. 24, 1956.

CLASS 47

WINES

SN 11,022. Monarch Wine Company of Georgia, Atlanta, Ga. Filed June 26, 1956.

VINKA

For Wines.
First use May 24, 1956.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 678,475. Regal Pale Brewing Company, San Francisco, Calif. Filed Dec. 16, 1954. Sec. 2(f).

ONE OF AMERICA'S 2 GREAT BEERS

For Beer.
First use Feb. 17, 1953.

SN 698,277. Falls City Brewing Company, d. b. a. Falls City Brewing Co., Inc., Louisville, Ky. Filed Nov. 15, 1955.

CITY

Owner of Reg. Nos. 399,466, 505,654, and others.
For Beer.
First use May 2, 1955.

SN 10,426. The William Gretz Brewing Company, Philadelphia, Pa. Filed June 18, 1956.

TOONER SCHOONER

For Beer.
First use May 28, 1956.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 672,136. Boyd and Company Distillers Limited, Belfast, Northern Ireland. Filed Aug. 24, 1954.

HIGHLAND HEATHER

Owner of British Reg. No. 545,404, dated Oct. 17, 1933; and U. S. Reg. No. 323,588.
For Whisky.

SN 672,137. Boyd and Company Distillers Limited, Belfast, Northern Ireland. Filed Aug. 24, 1954.

INNISBAWN

Owner of British Reg. No. 445,819, dated Feb. 29, 1924; and U. S. Reg. No. 196,530.
For Irish Whisky.

SN 10,362. Hiram Walker & Sons Inc., Peoria, Ill. Filed June 15, 1956.

**NINETY-NINE**

For Whiskey.
First use March 1955; May 1935 as to the mark in numeral form.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 676,126. Meredith Galleries, Inc., New York, N. Y. Filed Nov. 5, 1954. Sec. 2(f).

**MEREDITH GALLERIES**

For Paintings, Sculpture, and Bric-a-Brac.
First use Jan. 1, 1939.

SN 691,900. Sophia C. Stader, Perkasie, Pa. Filed July 25, 1955.

**SENTRI**

For Safety Flag Standard, Being a Device Consisting of a Base, Vertical Flag Holder Tube and Spring and Chain Assembly Inside the Vertical Tube and Attached to the Base To Maintain the Vertical Position of the Flag Holder.
First use Jan. 3, 1955.

SN 692,828. Avalon Manufacturing Corporation, Brooklyn, N. Y. Filed Aug. 11, 1955.




For Arts and Crafts Sets and Kits Comprising Materials and Tools and Instructions for Use Thereof, Including Paint-by-Number Picture-, Tray-, Basket-, and Desk Basket- Sets and Kits; Leather Craft Sets and Kits; Bead Craft Sets and Kits, Etc. Both for Adult and Children's Use.
First use on or about Apr. 1, 1953.

SN 695,263. Auburn Rubber Company, Inc., Auburn, Ind. Filed Sept. 26, 1955.

**Superlyte**

For Synthetic Composition Soling.
First use May 3, 1953.

SN 697,738. Vogue Textiles, Inc., Pawtucket, R. I. Filed Nov. 3, 1955.

**SAFLAGS**

For Signal Flags.
First use on or about Sept. 2, 1955.

SN 9,431. Atlantic Playing Card Co., Inc., New York, N. Y. Filed June 1, 1956.

**Party Poops**

For Kits Including Ash Trays and Coasters for Drinks.
First use Mar. 21, 1956.

SN 9,879. Macklanburg-Duncan Company, Oklahoma City, Okla. Filed June 8, 1956.




Owner of Reg. No. 284,457.
For House Numbers and Letters.
First use April 1956.

SN 10,827. Thomas Adams, d. b. a. Adams Associates, Kenosha, Wis. Filed June 25, 1956.

**MASON'S PAL**

For Hand Pallets for Carrying and Moving Materials.
First use Mar. 15, 1956.

SN 11,035. Rainbow Panes, Inc., Los Angeles, Calif. Filed June 26, 1956.

**RAINBOW PANES**

For Translucent Decorative Panels for Attachment to Windows.
First use June 7, 1956.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 686,912. International Latex Corporation, Dover, Del. Filed May 5, 1955.

**LIVING**

For Baby Powder.
First use Apr. 28, 1955.

SN 694,844. Elizabeth Arden Sales Corporation, New York, N. Y. Filed Sept. 19, 1955.

**ELIZABETH ARDEN**

**PINK PINK**

Consent of Elizabeth Arden is of record. The words "Pink Pink" are disclaimed apart from the mark, for registration purposes only. Owner of Reg. Nos. 153,598 and 589,039.
For Nail Polish, Lipstick, and Rouge.
First use June 27, 1955.



SN 5,160. Biokosma AG., Kappel, Saint Gall, Switzerland. Filed Mar. 26, 1956.

**SWISTAN**

Priority claimed under Sec. 44(d) on Swiss Reg. No. 159,816, dated Feb. 13, 1956.
For Sun Tan Lotion and Protective Cream To Prevent Sunburn.

SN 5,560. J. Strickland & Co., Memphis, Tenn. Filed Mar. 30, 1956.

**PERMA PRESS**

For Cold Permanent Hair Dressing and Cold Permanent Pressing Cream.
First use Feb. 20, 1956.

SN 5,561. J. Strickland & Co., Memphis, Tenn. Filed Mar. 30, 1956.

**SILKY DRESS**

For Cold Permanent Hair Dressing and Cold Permanent Pressing Cream.
First use Feb. 20, 1956.

SN 6,233. Daggett & Ramsdell, Inc., New York, N. Y. Filed Apr. 12, 1956.

**DEBUTETTE**

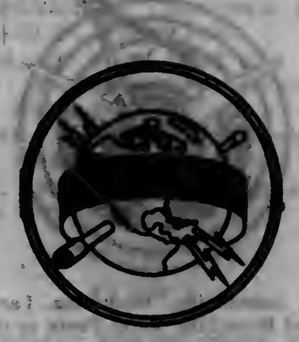
Owner of Reg. Nos. 297,827 and 506,568.
For Toilet Water.
First use Feb. 13, 1956.

## SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 684,329. Mud Control Laboratories, Inc., Oklahoma City, Okla. Filed Mar. 28, 1955.



The cross-hatching does not indicate any particular color.
For Inspection Services for Pipes, Rods, Tubes, Casings, and Other Elongated Articles.
First use on or about Dec. 10, 1953.

CLASS 101

ADVERTISING AND BUSINESS

SN 698,224. Secretary Sue, Incorporated, Louisville, Ky. Filed Nov. 14, 1955.




In the drawing the word "Sue" is lined for the color gray or silver, but no claim is made to color as a feature of the mark.
For Typing Service Wherein the Applicant Transcribes Material Dictated by the Applicant's Customers.
First use Aug. 9, 1955.

SN 7,112. The Purnell Company, Boston, Mass. Filed Apr. 25, 1956.

**TRUSPECTIVE**

For Technical Illustrating Service in the Preparation of Specialized Illustrations of Machines and Machine Parts for Catalogs, Sales Brochures, Instruction Manuals, and Other Industrial Publications Prepared by Applicant.
First use in April 1953.

CLASS 103

CONSTRUCTION AND REPAIR

SN 688,345. Montgomery Elevator Company, Moline, Ill. Filed May 26, 1955.

**P.M.**

For Maintenance, Safety Testing, and Repair of Passenger and Freight Elevators and Elevator Systems.
First use December 1950.

SN 688,348. Montgomery Elevator Company, Moline, Ill. Filed May 26, 1955. Sec. 2(f).

**MONTGOMERY**

For Construction, Installation, Maintenance, Safety Testing, and Repair of Passenger and Freight Elevators and Elevator Systems.
First use 1911.

SN 686,894. Rotary Engineering Company, Midland, Tex. Filed Aug. 10, 1955.



For Oil Well Logging—Namely, Securing and Recording Data Concerning the Presence of Gas and Oil and the Characteristics of the Mud and Cuttings at Various Depths To Determine Whether a Particular Section of a Well Appears To Have Gas or Oil Possibilities, and the Rental of Well Logging Equipment, Such as Gas.

First use November 1949.

## CLASS 105

### TRANSPORTATION AND STORAGE

SN 4,551. Louisville and Nashville Railroad Company, Louisville, Ky. Filed Mar. 14, 1956.




The drawing is lined for red.

For Railroad Passenger and Freight Transportation Service.

First use in the year 1837.

## CLASS 106

### MATERIAL TREATMENT

SN 687,475. Leonard's Precision Manufacturing Co., Dunellen, N. J. Filed May 13, 1955.



For Forming, Assembling, Machining, Lacquering, Stamping, Brazing, and Broaching Metal Parts to the Specifications of Customers.

First use on or about February 1955.

# CERTIFICATION MARKS

## CLASS A

### GOODS

SN 700,452. International Association of Machinists, Washington, D. C. Filed Dec. 9, 1955.



The mark is used by persons authorized by the applicant to certify that the work or labor on the goods was performed by members of the applicant.

For Goods Produced by All the Industries in Which Applicant Has Members, Such as Food, Clothing, Furniture, Jewelry, Raw Materials, Construction Materials, Machinery, Vehicles, and So Forth.

First use Dec. 5, 1955.

# TRADEMARK REGISTRATIONS ISSUED

## PRINCIPAL REGISTER

## CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

636,660. SMOOTHIE. The Griess-Pfleger Tanning Co. SN 641,293. Pub. 8-18-53. Filed 1-26-53.

636,661. DRYPLY. Flexfirm Products. SN 649,582. Pub. 6-7-55. Filed 6-30-53.

## CLASS 2

### RECEPTACLES

636,662. COPPERAMA. Heller Hostess-Ware, Inc. SN 667,693. Pub. 8-21-56. Filed 6-4-54.

636,663. SPILLPROOF. Richford Corporation. SN 694,595. Pub. 8-21-56. Filed 9-13-55.

636,664. TEKMOLD. Bemis Bro. Bag Company. SN 694,298. Pub. 8-21-56. Filed 9-7-55.

636,665. POCKET-TAINER. Chase Bottle & Supply Corp. SN 752. Pub. 8-21-56. Filed 1-16-56.

636,666. BY BEACON YOUR BEST BUY IN PLASTICS AND DESIGN. Beacon Plastics Corporation. SN 1,760. Pub. 8-21-56. Filed 1-31-56.

636,667. RANGER. Knapp-Monarch Company, d. b. a. Insta Products Co. SN 2,994. Pub. 8-21-56. Filed 2-20-56.

636,668. POLLY ANN. Rawl Engineering & Mfg. Co., Inc. SN 6,042. Pub. 8-21-56. Filed 4-9-56.

## CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

636,669. ENVOY. The Associated Merchandising Corporation. SN 700,556. Pub. 8-21-56. Filed 12-27-55.

636,670. LOEWE. Loewe, S. A. SN 3,618. Pub. 8-21-56. Filed 2-29-56.

636,671. SPACEMAKER. The Syracuse Handbags, Inc. SN 6,765. Pub. 8-21-56. Filed 4-19-56.

## CLASS 4

### ABRASIVES AND POLISHING MATERIALS

636,672. MINK. Bengal Company. SN 683,343. Pub. 8-21-56. Filed 3-14-55.

636,673. SPIRO. Spiro Inc. SN 3,243. Pub. 8-21-56. Filed 2-23-56.

636,674. PANTALOON. The Callowax Company. SN 3,353. Pub. 8-21-56. Filed 2-27-56.

636,675. SAFE-TEX. The Flintkote Company. SN 4,021. Pub. 8-21-56. Filed 3-7-56.

## CLASS 5

### ADHESIVES

636,676. AGGMET. Atlas-Ago, Chemische Fabrik (I. m. b. H. SN 698,010. Pub. 8-21-56. Filed 11-10-55.

636,677. BASE-TAPE. Base-Tape Mfg. Co., Inc. SN 3,727. Pub. 8-21-56. Filed 3-2-56.

## CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

636,678. VISTAC. Advance Solvents & Chemical Corporation, to Carlisle Chemical Works, Inc. SN 590,922. Pub. 9-16-52. Filed 1-16-50.

636,679. REPEL-A-MIST. Knapp-Monarch Company. SN 632,720. Pub. 5-5-53. Filed 7-16-52.

636,680. BRISK-AIR AND DESIGN. Brisk-Air, Inc. SN 688,209. Pub. 8-21-56. Filed 6-6-55.

636,681. ELVALAN. E. I. du Pont de Nemours and Company. SN 696,288. Pub. 8-21-56. Filed 9-26-55.

636,682. DOUGLAS AND DESIGN. Douglas Chemical Company, sometimes d. b. a. Douglas Chemical and Supply Co., Inc. SN 698,959. Pub. 8-21-56. Filed 11-28-55.

636,683. SIRIAMIN. Farbenfabriken Bayer Aktiengesellschaft. SN 698,966. Pub. 8-21-56. Filed 11-28-55.

636,684. MERCADIUM. Imperial Paper and Color Corporation. SN 699,400. Pub. 8-21-56. Filed 12-5-55.

636,685. BRUCE. E. L. Bruce Company. SN 700,180. Pub. 8-21-56. Filed 12-19-55.

## CLASS 7

### CORDAGE

636,686. TAFFY TYE. Hallmark Cards, Inc. SN 687,784. Pub. 8-21-56. Filed 5-18-55.

## CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

636,687. CYAMITE. American Cyanamid Company. SN 695,796. Pub. 7-31-56. Filed 10-4-55.

636,688. CYAMON. American Cyanamid Company. SN 695,797. Pub. 7-17-56. Filed 10-4-55.

## CLASS 10

### FERTILIZERS

636,689. CORENCO LIQUID-GREEN. Consolidated Rendering Company. SN 311. Pub. 8-21-56. Filed 1-6-56.

636,690. UNI FORM. Lebanon Chemical Corporation. SN 6,020. Pub. 8-21-56. Filed 4-6-56.

## CLASS 11

### INKS AND INKING MATERIALS

636,691. PALMER METHOD ETC. AND DESIGN. The A. N. Palmer Company. SN 1,009. Pub. 8-21-56. Filed 1-18-56.

## CLASS 12

### CONSTRUCTION MATERIALS

636,692. COLORAMIC AND DESIGN. Coloramic Tile Co. Inc. SN 642,621. Pub. 8-18-53. Filed 2-24-53.

## CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

636,693. HOYT WIRE CLOTH ETC. AND DESIGN. Hoyt Wire Cloth Company. SN 692,232. Pub. 8-21-56. Filed 8-1-55.

636,694. PROTECTROL. Sullivan Valve and Engineering Company. SN 694,525. Pub. 8-21-56. Filed 9-12-55.

636,695. GER-FLEX. Gering Products, Inc. SN 3,527. Pub. 8-21-56. Filed 2-28-56.

636,696. GER-TUBE. Gering Products, Inc. SN 3,528. Pub. 8-21-56. Filed 2-28-56.

636,697. SOCKOLET. Bonney Forge & Tool Works. SN 5,906. Pub. 8-21-56. Filed 4-6-56.

636,698. ZIP-A-BAC. Carmelita M. Clark, d. b. a. Zip A Bac Co. SN 5,910. Pub. 8-21-56. Filed 4-6-56.

636,699. BROASTER. Flavor Fast Foods, Inc. SN 6,161. Pub. 8-21-56. Filed 4-11-56.

## CLASS 14

### METALS AND METAL CASTINGS AND FORGINGS

636,700. FLOTRUSION. Claude C. Slate Company. SN 691,213. Pub. 8-16-55. Filed 2-7-55.

## CLASS 15

### OILS AND GREASES

636,701. LPG AND DESIGN. Empire Oil & Refining Company, Inc. SN 699,675. Pub. 8-21-56. Filed 6-14-55.

636,702. SUNHEAT ETC. AND DESIGN. Sun Oil Company. SN 694,608. Pub. 8-21-56. Filed 9-13-55.

636,703. HEET VS AND DESIGN. Dessert & Dougherty, Inc. SN 699,783. Pub. 8-21-56. Filed 12-12-55.

636,704. ATOM-IZIT AND DESIGN. Charles P. Orr, d. b. a. Spray Starting Fluid Company. SN 263. Pub. 8-21-56. Filed 1-6-56.

636,705. HICKSATOMIC AND DESIGN. Hicksatomic Stations, Inc. SN 884. Pub. 8-21-56. Filed 1-17-56.

636,706. LION AND DESIGN. Monsanto Chemical Company. SN 3,301. Pub. 8-21-56. Filed 2-24-56.

636,707. FRANLUBE. La France Manufacturing Co. SN 5,852. Pub. 8-21-56. Filed 4-5-56.

## CLASS 16

### PROTECTIVE AND DECORATIVE COATINGS

636,708. PRODORPLAST. Prodorite Limited. SN 684,678. Pub. 8-21-56. Filed 3-31-55.

636,709. LUSTERTONE. The United States Playing Card Company. SN 691,592. Pub. 8-21-56. Filed 7-19-55.

636,710. NIEMEYER'S. Niemeyer Paint Co. SN 697,576. Pub. 8-21-56. Filed 11-2-55.

636,711. SMITH. The Valspar Corporation. SN 699,534. Pub. 8-21-56. Filed 12-6-55.

636,712. KEM-ALUM. The Sherwin-Williams Company. SN 4,374. Pub. 8-21-56. Filed 2-13-56.

## CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

636,713. RELAX-O-BATH. Mack O. Lewis, d. b. a. Therapy Company, to Robinson-Bracey, Inc. SN 667,719. Pub. 8-21-56. Filed 6-4-54.

636,714. BOTAN. Botan Pharmaceutical Company, by change of name from Drug & Chemical Company, Inc. SN 683,491. Pub. 8-21-56. Filed 3-15-55.

636,715. CRYPTANOID. Samuel Miller, d. b. a. Miller Laboratories, to Miller Laboratories, Inc. SN 684,580. Pub. 8-21-56. Filed 3-30-55.

636,716. TESSALON. Ciba Limited. SN 690,535. Pub. 8-21-56. Filed 6-30-55.

636,717. ALMUTH. Etablissements Requea. SN 692,586. Pub. 8-21-56. Filed 8-8-55.

636,718. DELPHICOL. American Cyanamid Company. SN 693,296. Pub. 8-21-56. Filed 8-18-55.

636,719. VIRID. John L. Lenihan. SN 695,229. Pub. 8-21-56. Filed 9-22-55.

636,720. TWELVFIFTEEN. John Beard Memorial Foundation. SN 694,121. Pub. 8-21-56. Filed 9-2-55.

636,721. FLEXIN. McNeil Laboratories, Incorporated. SN 697,666. Pub. 8-21-56. Filed 11-4-55.

636,722. BLADEX. Madame J. P. L. Gerard née Simonne Moiseonnier. SN 697,787. Pub. 8-21-56. Filed 11-7-55.

636,723. ANTRATE. Armour and Company. SN 696,397. Pub. 8-21-56. Filed 11-17-55.

636,724. ZORO-CIN AND DESIGN. Walter Ratner, d. b. a. Zoro-Cin. SN 698,641. Pub. 8-21-56. Filed 11-21-55.

636,725. LUSTRO. The Chemdrug Corporation. SN 699,371. Pub. 8-21-56. Filed 12-5-55.

636,726. NISAMENE. Irwin, Neisler & Company. SN 1,875. Pub. 8-21-56. Filed 2-1-56.

636,727. CEVEPE. U. S. Vitamin Corporation. SN 1,918. Pub. 8-21-56. Filed 2-1-56.

636,728. DESENFRIOL. Schering Corporation. SN 1,984. Pub. 8-21-56. Filed 2-2-56.

636,729. METI-DERM. Schering Corporation. SN 1,985. Pub. 8-21-56. Filed 2-2-56.

636,730. METRETON. Schering Corporation. SN 1,986. Pub. 8-21-56. Filed 2-2-56.

636,731. METIPRAN. Schering Corporation. SN 1,987. Pub. 8-21-56. Filed 2-2-56.

636,732. METIPORTE. Schering Corporation. SN 1,988. Pub. 8-21-56. Filed 2-2-56.

636,733. COROVAS. Grant Chemical Company, Inc. SN 2,351. Pub. 8-21-56. Filed 2-9-56.

636,734. DES AND DESIGN. Grant Chemical Co., Inc. SN 2,352. Pub. 8-21-56. Filed 2-9-56.

636,735. IRONTON. Chas. Pfizer & Co., Inc. SN 2,378. Pub. 8-21-56. Filed 2-9-56.

636,736. PARZONE. Mallinckrodt Chemical Works. SN 2,436. Pub. 8-21-56. Filed 2-10-56.

## CLASS 19

### VEHICLES

636,737. MOBYSCOUT. Ateliers de la Motobecane. SN 683,082. Pub. 8-21-56. Filed 12-6-54.

636,738. MOBYCONFORT. La Motoconfort. SN 683,262. Pub. 8-21-56. Filed 12-6-54.



636,739. DESIGN OF NORSEMAN'S HEAD. Norseman Boat Company. SN 700,642. Pub. 8-21-56. Filed 12-27-55.

636,740. REGENCY. U. S. Metal Products Company, Inc. SN 700,890. Pub. 8-21-56. Filed 12-29-55.

636,741. ROYAL PRINCE. The Hercules Cycle & Motor Company Limited. SN 1,786. Pub. 8-21-56. Filed 1-31-56.

636,742. DORMOBILE. Martin Walter Limited. SN 3,769. Pub. 8-21-56. Filed 3-2-56.

636,743. HARRISON. General Motors Corporation. SN 6,166. Pub. 8-21-56. Filed 4-11-56.

636,744. DURAPLANE. Weston's Inc. SN 6,311. Pub. 8-21-56. Filed 4-12-56.

## CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

636,745. FINLAND HOUSE. Finland House Lighting Corporation. SN 677,707. Pub. 8-21-56. Filed 12-3-54.

636,746. POWER SURGE. National Rubber Machinery Company. SN 695,433. Pub. 1-31-56. Filed 9-27-55.

636,747. SEQUOIA. Sequoia Process Corporation. SN 697,704. Pub. 8-21-56. Filed 11-4-55.

636,748. KN WIEN AND DESIGN. Kraus & Naimer. SN 697,916. Pub. 8-21-56. Filed 11-8-55.

636,749. OPC. The Okonite Company. SN 698,633. Pub. 8-21-56. Filed 11-21-55.

636,750. OKONEX. The Okonite Company. SN 698,634. Pub. 8-21-56. Filed 11-21-55.

636,751. CM-OT. The Okonite Company. SN 700,115. Pub. 8-21-56. Filed 12-16-55.

636,752. AUT-O-CEL. Robert V. Abshire. SN 126. Pub. 8-21-56. Filed 1-4-56.

636,753. CMC. Carter Manufacturing Corporation. SN 302. Pub. 8-21-56. Filed 1-9-56.

636,754. LIGHT-STICK. Justrite Manufacturing Company. SN 338. Pub. 8-21-56. Filed 1-9-56.

636,755. DRULANE. Drulane, Inc. SN 970. Pub. 8-21-56. Filed 1-18-56.

636,756. UAC AND DESIGN. Universal Atomics Corp. SN 1,488. Pub. 8-21-56. Filed 1-25-56.

636,757. NPC. Nucleonic Products Company, Inc. SN 1,621. Pub. 8-21-56. Filed 1-27-56.

636,758. AUTO-DINE. International Projector Corporation. SN 2,534. Pub. 8-21-56. Filed 2-13-56.

636,759. ELIMAG. American Time Products, Inc. SN 2,849. Pub. 8-21-56. Filed 2-17-56.

636,760. CITIES SERVICE. Cities Service Oil Company. SN 5,007. Pub. 8-21-56. Filed 4-23-56.

## CLASS 22

### GAMES, TOYS, AND SPORTING GOODS

636,761. THOMMEN. Thommen, Inc. SN 672,606. Pub. 8-21-56. Filed 8-1-54.

636,762. KINGFISHER LINES AND DESIGN. The Kingfisher-Bristol Company. SN 673,838. Pub. 8-21-56. Filed 9-27-54.

636,763. THE JUNIOR ELECTRICIAN AND DESIGN. R. B. Sloane & Co., Inc. SN 677,102. Pub. 8-21-56. Filed 11-22-54.

636,764. LOU FERRIS. Thomas H. McDonald, d. b. a. McDonald & Son. SN 690,155. Pub. 8-21-56. Filed 1-19-55.

636,765. LITTLETOWN. Banner Plastics Corporation. SN 697,247. Pub. 8-21-56. Filed 8-11-55.

636,766. GLASSRIN. Plastic Age Reinforced Products Inc. SN 697,630. Pub. 8-21-56. Filed 8-16-55.

636,767. TRI-LURE. Tri-Lure Company. SN 698,664. Pub. 8-21-56. Filed 8-1-55.

636,768. LONG-LIFE. Frabill Manufacturing Co. SN 691,996. Pub. 7-17-56. Filed 7-28-55.

636,769. FIN 'N FEATHER CLUB. Max McGraw, d. b. a. Fin 'n Feather Club, to Fin 'n Feather Farms, Inc. SN 698,165. Pub. 8-21-56. Filed 8-16-55.

636,770. SKE-DADDLE. Carl M. Friedel. SN 698,984. Pub. 8-21-56. Filed 8-31-55.

636,771. COLOR FESTIVAL! American Artists' Color Works, Inc. SN 698,676. Pub. 8-21-56. Filed 11-22-55.

636,772. HAL-SAM AND DESIGN. Halsam Products Company. SN 698,703. Pub. 8-21-56. Filed 11-22-55.

636,773. ROL-ET-TOE. The Tri-G Company. SN 699,120. Pub. 8-21-56. Filed 11-29-55.

636,774. STRIPTEASER. Lester M. Davis, d. b. a. Davis Fishing Tackle Co. SN 699,959. Pub. 8-21-56. Filed 12-14-55.

636,775. PAUL REVERE. L. M. Eddy Manufacturing Co., Inc. SN 700,208. Pub. 8-21-56. Filed 12-19-55.

## CLASS 23

### CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

636,776. SWISS INSTRUMENT MFG. CO. AND DESIGN. Anthony G. Rosa, d. b. a. Swiss Instrument Manufacturing Co. SN 658,548. Pub. 8-21-56. Filed 12-24-53.

636,777. REGAL AND DESIGN. The Beloit Tool Corporation. SN 691,422. Pub. 8-21-56. Filed 7-16-55.

636,778. MARILYN PATTERN. Geneter Manufacturing Corporation. SN 693,673. Pub. 8-21-56. Filed 8-25-55.

636,779. W AND DESIGN. Wesselmann-Bohrer-Co. A.-G. SN 696,196. Pub. 8-21-56. Filed 10-10-55.

636,780. DANISH PRIDE. Utica Cutlery Company. SN 458. Pub. 8-21-56. Filed 1-10-56.

636,781. C. E. M. A. AND DESIGN. Gonnale Mediano Capdevila. SN 2,127. Pub. 8-21-56. Filed 2-6-56.

636,782. SPRAY-MO-LAS. Robert F. Riegel, d. b. a. Riegel & Son Elevator. SN 2,656. Pub. 8-21-56. Filed 2-14-56.

636,783. CAVALIER. The E. T. Rugg Company. SN 3,890. Pub. 8-21-56. Filed 3-5-56.

636,784. COURIER. The E. T. Rugg Company. SN 3,891. Pub. 8-21-56. Filed 3-5-56.

636,785. CARDOX FIRE-MATE. Cardox Corporation. SN 4,176. Pub. 8-21-56. Filed 3-9-56.

636,786. FIRE-MATE. Cardox Corporation. SN 4,177. Pub. 8-21-56. Filed 3-9-56.

636,787. TASTY-SHOT. Jungreth. SN 4,330. Pub. 8-21-56. Filed 3-12-56.

636,788. MOTOR MASTER AND DESIGN. Motor Master Products Corporation. SN 4,348. Pub. 8-21-56. Filed 3-12-56.

636,789. VALUE-CHECKED ETC. AND SEAL DESIGN. Deere & Company. SN 5,173. Pub. 8-21-56. Filed 3-26-56.

## CLASS 26

### MEASURING AND SCIENTIFIC APPLIANCES

636,790. FASTAR. The W. L. Maxson Corporation. SN 691,059. Pub. 8-21-56. Filed 7-11-55.

636,791. LUNA AND DESIGN. Scope Instrument Corp. SN 691,091. Pub. 8-21-56. Filed 7-11-55.

636,792. SCHOOLMASTER. Minneapolis-Honeywell Regulator Company. SN 691,871. Pub. 8-21-56. Filed 7-25-55.

636,793. SEISMOS. Seismos Gesellschaft mit beschrankter Haftung. SN 694,920. Pub. 8-21-56. Filed 9-19-55.

636,794. COPYFLO. The Haloid Company. SN 666,164. Pub. 8-21-56. Filed 11-14-55.

636,795. LOG MASTER GEORGE E. FAILING COMPANY AND DESIGN. George E. Failing Company. SN 700,373. Pub. 8-21-56. Filed 12-21-55.

636,796. DU-RITE. J. H. Scharf Manufacturing Company. SN 700,530. Pub. 8-21-56. Filed 12-22-55.

636,797. HYRAN. Hyran, Inc. SN 2,532. Pub. 6-12-56. Filed 2-13-56.

636,798. DESIGN OF SYMBOLS FOR "AND OR." Epsco, Incorporated. SN 3,742. Pub. 8-21-56. Filed 2-2-56.

636,799. SUPERPANNER. Infrasizers Limited. SN 2,753. Pub. 8-21-56. Filed 2-2-56.

636,800. INFRASIKER. Infrasizers Limited. SN 2,754. Pub. 8-21-56. Filed 2-2-56.

## CLASS 29

## BROOMS, BRUSHES, AND DUSTERS

636,801. ONE-WIPE. The Joseph Parmet Co., Inc. SN 695,107. Pub. 8-21-56. Filed 9-21-55.

636,802. POLYWHIRL. Amac Refinements Limited. SN 2,010. Pub. 8-21-56. Filed 2-2-56.

## CLASS 31

## FILTERS AND REFRIGERATORS

636,803. D-I. Dorr-Oliver Incorporated. SN 684,932. Pub. 8-21-56. Filed 4-5-55.

636,804. MIRACLE. Water Treatment Engineering Corporation. SN 692,442. Pub. 8-21-56. Filed 8-3-55.

## CLASS 32

## FURNITURE AND UPHOLSTERY

636,805. NORQUIST CORONET AND DESIGN. Norquist Products, Inc. SN 624,562. Pub. 8-21-56. Filed 2-5-52.

636,806. PROLONG YOUR DAYS WITH RESTFUL NIGHTS. Sears, Roebuck and Co. SN 672,945. Pub. 8-14-56. Filed 9-28-54.

## CLASS 33

## GLASSWARE

636,807. PROTEX. Chance Brothers Limited. SN 690,222. Pub. 8-22-56. Filed 6-27-55.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

636,808. CHAR-GLO. Joe Del Francia Company. SN 696,777. Pub. 8-21-56. Filed 10-20-55.

636,809. TRIG-R-TROL. The Turner Brass Works. SN 699,240. Pub. 8-21-56. Filed 11-14-55.

636,810. THE SCOT. Amana Refrigeration, Inc. SN 2,940. Pub. 8-21-56. Filed 2-20-56.

636,811. ALUMALUNG. James B. Shaver, d. b. a. Iron Lung Ventilator Company. SN 6,293. Pub. 8-21-56. Filed 4-12-56.

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

636,812. DUR-A-GRID. The Peterson Oven Company. SN 5,066. Pub. 8-21-56. Filed 4-2-56.

636,813. FLEX-GRID. United States Steel Corporation. SN 5,092. Pub. 8-21-56. Filed 4-2-56.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

636,814. NU-CLEAR AND DESIGN. Nuclear Music Company. SN 439. Pub. 8-21-56. Filed 1-10-56.

636,815. SCHILLER. Conover-Cable Piano Co. SN 1,345. Pub. 8-21-56. Filed 1-24-56.

636,816. BRADBURY NEW YORK. Winter & Company, Inc. SN 1,415. Pub. 8-21-56. Filed 1-24-56.

636,817. VIK. Radio Corporation of America. SN 2,567. Pub. 8-21-56. Filed 2-13-56.

## CLASS 37

## PAPER AND STATIONERY

636,818. OZ. The Oz Corporation. SN 700,054. Pub. 8-21-56. Filed 12-15-55.

636,819. JUMBO AND DESIGN. Southland Paper Converting Co. SN 700,246. Pub. 8-21-56. Filed 12-20-55.

636,820. SACKVELOPE. Cahoes Carrybag Company, Inc. SN 700,712. Pub. 8-21-56. Filed 12-30-55.

636,821. SUN-MAID. Coppins Company. SN 7,718. Pub. 8-21-56. Filed 8-7-56.

## CLASS 38

## PRINTS AND PUBLICATIONS

636,822. JUNIOR SCHOLASTIC SUMMERTIME. Scholastic Corporation, to Scholastic Magazines, Inc. SN 670,610. Pub. 8-21-56. Filed 7-14-54.

636,823. MERRY WASHINGTON. Richard Paul Hallett. SN 685,187. Pub. 8-21-56. Filed 4-8-55.

636,824. ITD AND DESIGN. Annuaire Telephonique International. SN 691,924. Pub. 8-21-56. Filed 7-26-55.

636,825. FUSON. The Meyercord Co. SN 696,447. Pub. 8-21-56. Filed 11-17-55.

636,826. INTERNATIONAL WHO'S WHO AMONG HOTEL EXECUTIVES. Abroan Publishing Company, Inc. SN 699,043. Pub. 8-21-56. Filed 11-29-55.

636,827. POPULAR SCIENCE. Popular Science Publishing Company, Inc. SN 700,740. Pub. 8-21-56. Filed 12-30-55.

636,828. FRASHERS. Frashers Incorporated. SN 1,892. Pub. 8-21-56. Filed 1-24-56.

636,829. AMERICAN FEDERATION OF LABOR ETC. AND DESIGN. American Federation of Labor and Congress of Industrial Organizations. SN 1,832. COLLECTIVE MARK. Pub. 8-21-56. Filed 2-1-56.

636,830. BOUNTY. Tegor Publications, Inc. SN 1,904. Pub. 8-21-56. Filed 2-2-56.

636,831. THE WELDOR MAGAZINE. Welding Advertising Agency, Inc. SN 1,906. Pub. 8-21-56. Filed 2-2-56.

636,832. TOYS AND NOVELTIES. Toys and Novelties Publishing Co. SN 2,602. Pub. 8-21-56. Filed 2-10-56.

636,833. BUILDING PRODUCTS. Hudson Publishing Company. SN 3,006. Pub. 8-21-56. Filed 2-21-56.



636,834. THE RADIO-ELECTRONIC MASTER AND DESIGN. United Catalog Publishers, Inc. SN 4,251. Pub. 8-21-56. Filed 3-9-56.

636,835. THE GOVERNOR. Fisher Governor Company. SN 4,317. Pub. 8-21-56. Filed 3-12-56.

## CLASS 39

## CLOTHING

636,836. JOHN WANAMAKER RITTENHOUSE SHOPS. John Wanamaker Philadelphia. SN 663,238. Pub. 8-21-56. Filed 2-24-54.

636,837. TEXTILE-IZED. Carlton Plastics, Inc. SN 667,202. Pub. 8-21-56. Filed 5-28-54.

636,838. LEN-SHIRE ETC. AND DESIGN. Leonard Schwartz and Company, Inc. SN 678,270. Pub. 8-21-56. Filed 12-13-54.

636,839. MIAMI "WEDGETTES" ETC. Miami Footwear Corporation. SN 693,172. Pub. 8-21-56. Filed 8-16-55.

636,840. ACROBAT. C. J. Grenier Ltd. SN 694,876. Pub. 8-21-56. Filed 9-19-55.

636,841. ANQUETIL. Societe en Nom Collectif "Anquetil." SN 697,031. Pub. 8-21-56. Filed 10-24-55.

636,842. CAPELLI ORIGINALS. The Gilbert Shoe Company. SN 227. Pub. 8-21-56. Filed 1-9-56.

636,843. ANDRE MILLAR. Russell's Incorporations. SN 370. Pub. 8-21-56. Filed 1-9-56.

636,844. RUGGIE-ETTES. W. L. Kreider's Sons Mfg. Co. Inc. SN 990. Pub. 8-21-56. Filed 1-18-56.

636,845. CORLISS. The Associated Merchandising Corporation. SN 1,194. Pub. 8-21-56. Filed 1-23-56.

636,846. IDOL. Idol Inc. SN 2,624. Pub. 8-21-56. Filed 2-14-56.

636,847. GARDENEER. The Rhoades Glove Company. SN 2,655. Pub. 8-21-56. Filed 2-14-56.

636,848. KOVERETTE. Famous Bathrobe Co., Inc. SN 2,771. Pub. 8-21-56. Filed 2-16-56.

636,849. LOVABLE. The Lovable Brassiere Co. SN 3,297. Pub. 8-21-56. Filed 2-24-56.

636,850. LOVELAND AND DESIGN. Joseph Love, Inc., d. b. a. Loveland Sportswear. SN 3,691. Pub. 8-21-56. Filed 3-1-56.

636,851. MOTHER GOOSE. Mother Goose Corporation. SN 4,212. Pub. 8-21-56. Filed 3-9-56.

636,852. FUN 'N PLAY. Seidman Bros. & Co. SN 4,287. Pub. 8-21-56. Filed 3-9-56.

636,853. NORMAL-TREDS. W. L. Douglas Shoe Company. SN 5,284. Pub. 8-21-56. Filed 3-27-56.

636,854. CLASSIC JUNIORS AND DESIGN. Delmar Shoe Company. SN 5,250. Pub. 8-21-56. Filed 3-26-56.

636,855. FEATHERFIT. Miller-Smith Hosiery Mills. SN 5,537. Pub. 8-21-56. Filed 3-30-56.

636,856. FINE FEATHERS. Miller-Smith Hosiery Mills. SN 5,538. Pub. 8-21-56. Filed 3-30-56.

636,857. MARIETTA. Brown and York Hosiery Mill. SN 5,588. Pub. 8-21-56. Filed 4-2-56.

636,858. JON-E. Aladdin Laboratories, Incorporated. SN 5,755. Pub. 8-21-56. Filed 4-4-56.

636,859. SOCKTOWN. Nicta Textile Mills Company, Incorporated. SN 5,784. Pub. 8-21-56. Filed 4-4-56.

636,860. BOWETTE. Alex Lee Wallau, Inc. SN 5,807. Pub. 8-21-56. Filed 4-4-56.

636,861. "SKIRT SAVER." Beverly Vogue Company. SN 5,817. Pub. 8-21-56. Filed 4-5-56.

636,862. HI-FI'S BY PFEIFFER AND DESIGN. Frank H. Pfeiffer Company, Incorporated. SN 5,862. Pub. 8-21-56. Filed 4-5-56.

636,863. LAVELLO. Stanley Fisk and Company. SN 5,969. Pub. 8-21-56. Filed 4-9-56.

636,864. SULVA. O'Sullivan Rubber Corporation. SN 6,040. Pub. 8-21-56. Filed 4-9-56.

636,865. SKY LINE. Harry P. Simpson, d. b. a. Harry P. Simpson Company. SN 6,134. Pub. 8-21-56. Filed 4-10-56.

636,866. STAR PERFORMER. Jack Kreins Hosiery, Inc. SN 6,259. Pub. 8-21-56. Filed 4-12-56.

636,867. RIMFORTS. F. D. Ward Limited. SN 6,306. Pub. 8-21-56. Filed 4-12-56.

636,868. MERONA. Penway Coats, Inc. SN 6,415. Pub. 8-21-56. Filed 4-16-56.

636,869. TINY-ETTES. U-Need-Em Specialty Co. SN 6,485. Pub. 8-21-56. Filed 4-16-56.

636,870. CHARMED LIFE. Virginia Maid Hosiery Mills, Inc. SN 6,489. Pub. 8-21-56. Filed 4-16-56.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

636,871. PROBAN. Proban Limited. SN 697,833. Pub. 8-21-56. Filed 11-7-55.

636,872. SCHOWANEK. J. Schowanek. SN 677,006. Pub. 8-21-56. Filed 11-19-54.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

636,873. FUSE PRINT AND DESIGN. Velveray Corporation. SN 629,873. Pub. 8-21-56. Filed 5-17-52.

636,874. LILION. Pellon Corporation. SN 687,405. Pub. 8-20-56. Filed 5-12-55.

636,875. COMMODORE TWIST ETC. AND DESIGN. Smart Maid Coat & Suit Corp. SN 690,412. Pub. 8-21-56. Filed 6-28-55.

636,876. DURALON. Louis Hornick & Co., Inc. SN 697,911. Pub. 8-21-56. Filed 11-8-55.

636,877. SPLASH. D. B. Fuller & Co., Inc. SN 699,223. Pub. 8-21-56. Filed 12-1-55.

636,878. SILICOTE. Herbert Glatt, d. b. a. Magla Products. SN 673. Pub. 8-21-56. Filed 1-12-56.

636,879. CREASE-KEEPER. Rosewood Fabrics, Inc. SN 1,115. Pub. 8-19-56. Filed 1-19-56.

636,880. AIRESILK BATISTE. Fantasy Lingerie Corp. SN 1,350. Pub. 8-21-56. Filed 1-24-56.

636,881. APPLETON AND DESIGN. J. P. Stevens & Co. Inc. SN 1,662. Pub. 8-21-56. Filed 1-27-56.

636,882. "MELROFLAN." Mel Roos Mfg. Co. SN 2,153. Pub. 8-21-56. Filed 2-6-56.

636,883. MAGLA. Herbert Glatt, d. b. a. Magla Products. SN 2,691. Pub. 8-21-56. Filed 2-21-56.

636,884. DESIGN OF KNITTING TRIANGLE. Pyramid Manufacturing Co., Inc. SN 2,220. Pub. 8-21-56. Filed 2-22-56.

636,885. "TOG-A-SHEEN." Bernside Mills, Inc. SN 2,512. Pub. 8-21-56. Filed 2-28-56.

636,886. SOIL RESISTO. Golding Bros. Company, Inc. SN 5,199. Pub. 8-21-56. Filed 3-26-56.

636,887. BERKSET. Berkshire Hathaway, Inc. SN 5,326. Pub. 8-21-56. Filed 3-29-56.

636,888. GALLERY COLLECTION. The Firth Carpet Company, Inc. SN 5,422. Pub. 8-21-56. Filed 3-30-56.

636,889. ABERDEEN. R. T. Barwick Mills. SN 5,468. Pub. 8-21-56. Filed 3-30-56.

## CLASS 43

### THREAD AND YARN

636,899. LE FAUCON ET LA MONTAGNE AND DESIGN. Filatures et Tresseries de la Mauriennc. SN 655,971. Pub. 12-27-55. Filed 11-6-53.

636,901. FALCON. Max Pollack & Company, Inc. SN 696,724. Pub. 2-7-56. Filed 11-22-55.

## CLASS 44

### DENTAL, MEDICAL, AND SURGICAL APPLIANCES

636,902. SURE-SPRAY. Sure-Spray Atomizer Corp. SN 669,674. Pub. 8-21-56. Filed 6-16-55.

636,903. META-POR AND DESIGN. Nu-Dent Porcelain Studio Inc. SN 693,842. Pub. 8-21-56. Filed 8-29-55.

636,904. HOLLYWOOD. Nu-Nails. SN 699,980. Pub. 8-21-56. Filed 12-14-55.

636,905. REMCO. Rehabilitation Equipment Inc. SN 700,752. Pub. 8-21-56. Filed 12-28-55.

636,906. INFRA-MASSAGE. International Biotical Corp. SN 2,609. Pub. 8-21-56. Filed 2-29-56.

## CLASS 45

### SOFT DRINKS AND CARBONATED WATERS

636,907. COLLINS JOLLY AID. Collins Corporation of Georgia. SN 682,971. Pub. 8-21-56. Filed 2-7-55.

## CLASS 46

### FOODS AND INGREDIENTS OF FOODS

636,908. SERVA-CONE. Turnbull Cone Baking Company. SN 668,264. Pub. 8-28-56. Filed 12-21-53.

636,909. GOLDEN SPARROW AND DESIGN. Abaco Corp. Ltd. SN 662,999. Pub. 8-21-56. Filed 3-15-54.

636,909. OMSTEAD'S WHEATLEY BRAND AND DESIGN. Omstead Fisheries Limited. SN 677,978. Pub. 8-21-56. Filed 4-27-56.

636,911. HMS AND DESIGN. N. V. Hollandsche Melkzuiker-fabriek. SN 699,984. Pub. 8-14-56. Filed 2-1-55.

636,912. SPIKE. Modern Products, Inc., d. b. a. Modern Products, Inc. of America. SN 685,606. Pub. 8-21-56. Filed 4-15-55.

636,913. GROVE SWEET. Dairy Service Corporation of Florida. SN 667,264. Pub. 8-21-56. Filed 5-11-55.

636,914. OLD TOM. Evangeline Popper & Food Products, Inc. SN 667,856. Pub. 8-21-56. Filed 5-19-55.

636,915. G-400H. Gunther Products, Inc. SN 668,924. Pub. 8-21-56. Filed 6-6-55.

636,916. G-400V. Gunther Products, Inc. SN 668,925. Pub. 8-21-56. Filed 6-6-55.

636,917. G. P. I. Gunther Products, Inc. SN 668,927. Pub. 8-21-56. Filed 6-6-55.

636,918. JANSEEN'S. The Janssen Company. SN 695,478. Pub. 8-21-56. Filed 9-28-55.

636,919. FLO. Anderson, Clayton & Co. SN 695,374. Pub. 8-21-56. Filed 9-27-55.

636,910. SEPACO. Seymour Foods, Inc. SN 696,382. Pub. 8-21-56. Filed 10-12-55.

636,911. BAKED BY MOTHER'S CAKE & COOKIE CO. ETC. AND DESIGN. Mother's Cake & Cookie Co. SN 696,718. Pub. 8-21-56. Filed 10-19-55.

636,912. IMPERIAL. Imperial Sugar Company. SN 696,803. Pub. 8-21-56. Filed 10-20-55.

636,913. IMPERIAL AND DESIGN. Imperial Sugar Company. SN 696,804. Pub. 8-21-56. Filed 10-20-55.

636,914. LIQUID GOLD. Baker and Fisher Foods. SN 698,259. Pub. 8-21-56. Filed 11-15-55.

636,915. ARNOLD AND DESIGN. Arnold Bakers, Inc. SN 700,707. Pub. 8-21-56. Filed 12-28-55.

636,916. EAT A BITE. John A. Williamson, d. b. a. Williamson Orchard. SN 117. Pub. 8-21-56. Filed 1-3-56.

636,917. RED DIAMOND. Donovan Coffee Company, Inc. SN 197. Pub. 8-21-56. Filed 1-5-56.

636,918. HAPPY BOY. Hotel Bar Foods Inc. SN 262. Pub. 8-21-56. Filed 1-6-56.

636,919. COMMODORE. Archer-Daniels-Midland Company. SN 292. Pub. 8-21-56. Filed 1-9-56.

636,920. ECONOMY. G. D'Amico Macaroni Company. SN 312. Pub. 8-21-56. Filed 1-9-56.

636,921. OLD SOUTHERN HOLLY AND DESIGN. Storck Baking Company. SN 456. Pub. 8-21-56. Filed 1-16-56.

636,922. B-LO-C. John Kide, d. b. a. Kide Bros. SN 894. Pub. 8-21-56. Filed 1-16-56.

636,923. HAMMOND'S. Swift & Company, d. b. a. G. H. Hammond Company. SN 845. Pub. 8-21-56. Filed 1-16-56.

636,924. TOM THUMB AND DESIGN. Guadalupe Valley Pecan Co. SN 868. Pub. 8-21-56. Filed 1-17-56.

636,925. FEATHER CREST. Mayfield Poultry and Egg Company. SN 890. Pub. 8-21-56. Filed 1-17-56.

## CLASS 47

### WINES

636,926. CIN. Francesco Cinzano & Co. SN 2,112. Pub. 8-21-56. Filed 2-6-56.

## CLASS 48

### MALT BEVERAGES AND LIQUORS

636,927. GEOMETRICAL DESIGN. Minneapolis Brewing Company. SN 668,109. Pub. 8-21-56. Filed 6-11-54.

636,928. TOPPER AND DESIGN. Rochester Brewing Company, Inc. SN 692,740. Pub. 8-21-56. Filed 8-9-55.

636,929. ST. PAULI GIRL AND DESIGN. St. Pauli Brauerei C. L. Wilh. Brandt. SN 1,812. Pub. 8-21-56. Filed 1-31-56.

## CLASS 49

### DISTILLED ALCOHOLIC LIQUORS

636,930. ASBACH „URALT." Asbach & Co. SN 677,378. Pub. 8-21-56. Filed 11-29-54.

636,931. LUXARDO. Priv. Fabbrica Maraschino "Excelsior" Girolamo Luxardo S. p. A. SN 700,923. Pub. 8-21-56. Filed 12-15-55.



## CLASS 50

### MERCHANDISE NOT OTHERWISE CLASSIFIED

636,932. CELONS ETC. AND DESIGN. The Celon Company. SN 684,277. Pub. 8-21-56. Filed 3-28-55.

636,933. STYLE MASTER. The Wooster Rubber Company. SN 690,211. Pub. 8-21-56. Filed 6-24-55.

636,934. TRACER TAG INVISIBLE IDENTIFICATION AND DESIGN. Arcon Leather Products Manufacturing Company. SN 691,115. Pub. 8-21-56. Filed 7-12-55.

636,935. HANG-RITE. Waldorf Paper Products Company. SN 694,021. Pub. 8-21-56. Filed 8-31-55.

636,936. SCAT AND DESIGN. James H. Potter. SN 511. Pub. 8-21-56. Filed 1-11-56.

636,937. KIT-KAFE. Charles B. Bishop. SN 1,843. Pub. 8-21-56. Filed 2-1-56.

636,938. MAGICAP. Harold H. Meadows, d. b. a. Variety Products. SN 4,134. Pub. 8-21-56. Filed 3-8-56.

636,939. LONG JOHN. Milko Cone & Baking Co., Inc., also d. b. a. Milko Drinking Straw Co. SN 4,243. Pub. 8-21-56. Filed 3-12-56.

636,940. CREST-TWINS. The Paine & Williams Company. SN 4,981. Pub. 8-21-56. Filed 3-21-56.

636,941. RAYBESTEX. Raybestos-Manhattan, Inc. SN 5,133. Pub. 8-21-56. Filed 3-22-56.

636,942. WOOD=MASTER FLONG. Wood Flong Corporation. SN 7,716. Pub. 8-21-56. Filed 5-3-56.

## CLASS 51

### COSMETICS AND TOILET PREPARATIONS

636,943. TROUBADOUR. Dodge & Olcott, Inc. SN 697,904. Pub. 8-21-56. Filed 11-8-55.

## CLASS 52

### DETERGENTS AND SOAPS

636,944. TOUCH-UP! John P. Lynch Company of San Francisco. SN 700,322. Pub. 8-21-56. Filed 12-20-55.

636,945. DUZ. The Procter & Gamble Company. SN 5,545. Pub. 8-21-56. Filed 3-30-56.

## Service Marks

## CLASS 100

### MISCELLANEOUS

636,946. REPRESENTATION OF GENIE. Montana-Dakota Utilities Co. SN 685,441. Pub. 8-28-56. Filed 5-27-55.

## CLASS 101

### ADVERTISING AND BUSINESS

636,947. VISITIN' TIME. Sherman W. Brown, Jr. SN 638,894. Pub. 8-24-54. Filed 12-3-52.

## CLASS 103

### CONSTRUCTION AND REPAIR

636,948. WE SERVICE THE HEART OF OUR NATION AND DESIGN. Builders Sales and Service, Inc. SN 640,257. Pub. 8-21-56. Filed 1-2-53.

636,949. SHINE-O-MAT. Sam Sacks, d. b. a. Shine-O-Mat Rental Service. SN 642,588. Pub. 8-21-56. Filed 2-18-53.

636,950. ASSOCIATED OIL FIELD RENTALS A AND DESIGN. Associated Oil and Gas Co. SN 692,563. Pub. 8-21-56. Filed 8-8-55.

## CLASS 105

### TRANSPORTATION AND STORAGE

636,951. "FOLLOW THE FLAG" WABASH AND DESIGN. Wabash Railroad Company. SN 694,680. Pub. 8-21-56. Filed 9-14-55.

## CLASS 106

### MATERIAL TREATMENT

636,952. METFUSE. David Craven, d. b. a. Alloy Surfaces Company. SN 692,579. Pub. 8-21-56. Filed 8-8-55.

## CLASS 107

### EDUCATION AND ENTERTAINMENT

636,953. EDUCATIONAL GATEWAYS AND DESIGN. Carson Centers, Inc. SN 679,976. Pub. 8-21-56. Filed 1-17-55.

## Collective Membership Marks

## CLASS 200

636,954. ORDER OF THE WHITE SHRINE OF JERUSALEM. The Supreme Shrine of the Order of the White Shrine of Jerusalem. SN 640,018. Pub. 8-21-56. Filed 12-24-52.

636,955. DESIGN OF BADGE. Theta Xi Fraternity. SN 693,706. Pub. 8-21-56. Filed 8-25-55.

636,956. THETA XI. Theta Xi Fraternity. SN 693,707. Pub. 8-21-56. Filed 8-25-55.

# SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

## CLASS 10

### FERTILIZERS

636,957. Ivory Forest Products Company, Dinuba, Calif., from Ivory Shavings Company. SN 691,044. Filed P. R. 7–11–55. Am. S. R. 8–6–56.

FOREST Humus

For Natural Soil Conditioner.
First use May 1, 1954.

## CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

636,958. Myzon, Inc., Chicago, Ill. SN 6,624. Filed 4–18–56.




The drawing is lined for red.
For Mineral and Vitamin Compound Used as a Supplementary Dietary Preparation in Calf Feeds.
First use in 1953.

636,959. Myzon, Inc., Chicago, Ill. SN 6,625. Filed 4–18–56.




The drawing is lined to indicate the color green.
For Mineral and Vitamin Compound Used as a Supplemental Dietary Preparation in Swine Feeds.
First use in 1953.

636,960. Myzon, Inc., Chicago, Ill. SN 6,626. Filed 4–18–56.

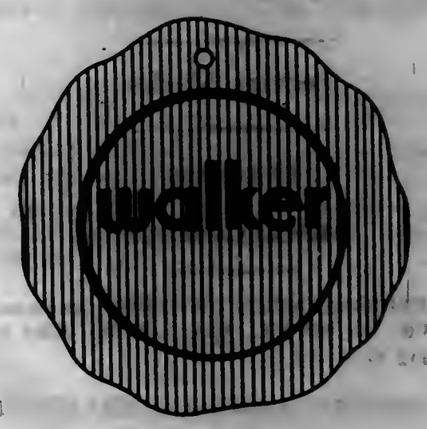



The drawing is lined to indicate the color blue.
For Mineral and Vitamin Compound Used as a Supplementary Dietary Preparation in Poultry Feeds.
First use in 1953.

## CLASS 19

### VEHICLES

636,961. Walker Industries Limited, Dublin, Ireland. SN 695,051. Filed P. R. 9–20–55. Am. S. R. 8–30–56.




The drawing is lined for red.
For Baby Coaches and Strollers.
First use in the year 1946.



## CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

636,962. Birdsell Audio-Visual Co., Cincinnati, Ohio. SN 692,893. Filed P. R. 8–12–55. Am. S. R. 9–4–56.




For Electrical Timing Devices for Automatically Playing Church Chimes.
First use Aug. 8, 1955.

## CLASS 34

### HEATING, LIGHTING, AND VENTILATING APPARATUS

636,963. Thomas J. Neisworth, d. b. a. Metal Products Company, Leetsdale, Pa. SN 9,735. Filed 6–6–56.

NICEWORK

For Ventilating Chimney Caps.
First use Feb. 7, 1953.

## CLASS 36

### MUSICAL INSTRUMENTS AND SUPPLIES

636,964. The Fred. Gretsch Manufacturing Co., Brooklyn, N. Y. SN 689,718. Filed P. R. 6–17–55. Am. S. R. 9–14–56.

Renault

For Trumpet Outfits.
First use May 5, 1955.

## CLASS 37

### PAPER AND STATIONERY

636,965. Ginsburg Brothers, Inc., Somerville, Mass. SN 688,525. Filed P. R. 5–31–55. Am. S. R. 6–4–56.

RAP-IN-FOIL

For Laminated Paper and Foil Wrapping Sheets for Application to the Bottom Portion of Meats and Poultry in Pre-Packaging the Same.
First use Jan. 5, 1955.

## CLASS 38

### PRINTS AND PUBLICATIONS

636,966. Walter W. Brown Publishing Co., Inc., Atlanta, Ga. SN 695,605. Filed P. R. 9–30–55. Am. S. R. 3–16–56.

Commercial Fertilizer
and PLANT FOOD INDUSTRY

The drawing is lined for green, but no claim is made to color.
For Periodical Publication.
First use on or about February 1955; 1910 as to "Commercial Fertilizer."

636,967. Famous Artists Schools Inc., Westport, Conn. SN 700,591. Filed 12–27–55.

FAMOUS ARTISTS PAINTING COURSE

For Instruction Material in Printed Serial Form.
First use August 1953.

## CLASS 39

### CLOTHING

636,968. Walda Scott Originals, Inc., New York, N. Y. SN 691,093. Filed P. R. 7–11–55. Am. S. R. 9–17–56.

Scott Classics

For Misses' Suits.
First use June 21, 1955.

636,969. McGreevey, Werring & Howell, Inc., New York, N. Y. SN 694,896. Filed P. R. 9–19–55. Am. S. R. 9–4–56.

McGREEVEY

For Boys' Outer Shirts, Men's Pajamas, Boys' Pajamas, Boys' Socks, Men's Socks, Men's Athletic Shirts, Men's T Shirts, and Men's Athletic Shorts.
First use Aug. 22, 1952, on boys' socks.

## CLASS 46

### FOODS AND INGREDIENTS OF FOODS

636,970. Del Gaizo S. p. A., Rome, Italy. SN 658,000. Filed P. R. 12–15–53. Am. S. R. 4–4–55.




Owner of Italian Reg. No. 117,002, dated Apr. 24, 1954; and U. S. Reg. No. 66,168.
For Tomato Sauce.

636,971. Long Island Duck Growers Marketing Cooperative, Inc., Eastport, N. Y. SN 686,552. Filed P. R. 4-29-55. Am. S. R. 8-8-56.



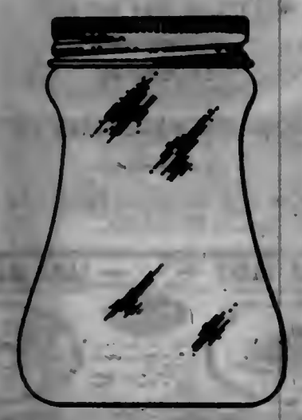

No claim is made to the wording "Genuine Long Island Duckling" apart from the mark as shown.
For Dressed Poultry—Namely, Ducks.
First use September 1954.

636,972. The R. T. French Company, Rochester, N. Y. SN 695,294. Filed P. R. 9-26-55. Am. S. R. 8-31-56.




The mark consists of the word "French's" and the configuration of the container with label attached.
For Prepared Mustard Sauce.
First use July 7, 1955.

636,973. The R. T. French Company, Rochester, N. Y. SN 695,295. Filed P. R. 9-26-55. Am. S. R. 8-31-56.



The mark consists of the configuration of the container.
For Prepared Mustard Sauce.
First use July 7, 1955.

636,974. Hilda A. Freire, d. b. a. Lisbon Sausage Co., New Bedford, Mass. SN 699,489. Filed P. R. 12-6-55. Am. S. R. 8-9-56.

## AMARAL'S

For Portuguese Meat Products—Namely, Chourico and Linguica.
First use July 15, 1955.

### CLASS 50

### MERCHANDISE NOT OTHERWISE CLASSIFIED

636,975. Flex-O-Glass, Inc., d. b. a. Warp Brothers, Chicago, Ill. SN 689,616. Filed P. R. 6-16-55. Am. S. R. 9-11-56.

## TAPE-ON

For Sheet of Clear Plastic Film and an Adhesive Strip for Securing the Same Over a Surface, Opening, Window or the Like, Packaged as a Unit.
First use June 8, 1955.

## Service Marks

### CLASS 101

### ADVERTISING AND BUSINESS

636,976. Elrod Systems, Inc., Detroit, Mich. SN 698,512. Filed P. R. 11-18-55. Am. S. R. 7-12-56.

## ELROD SYSTEMS

For Management Consultants to the Dry Cleaning Industry, Including Plant Layouts, Time and Motion Studies, Locations of Equipment, Etc.
First use July 1, 1954.

### CLASS 102

### INSURANCE AND FINANCIAL

636,977. Michigan National Bank, Saginaw, Mich. SN 651,080. Filed P. R. 7-28-53. Am. S. R. 8-9-56.

E-Z Pay..

For Personal Checking Account Service for Employees Whose Employers Deposit Their Wages Directly Into Their Respective Accounts.
First use May 5, 1953.

# TRADEMARK REGISTRATIONS RENEWED

14,051. DIME BRAND ETC. AND DESIGN. Cl. 46. 2-8-87.
112,347. AUTOMATICKET. Cl. 23. 9-5-16.
113,728. LIBERTY. Cl. 46. 10-31-16.
113,862. JEWEL. Cl. 43. 11-7-16.
113,889. UNIVERSAL. Cl. 26. 11-7-16.
114,258. GUARDSMAN. Cl. 39. 12-5-16.
114,398. RAYNSTER. Cl. 39. 12-12-16.
114,749. GRAKO. Cl. 1. 1-2-17.
114,956. TOM SAWYER. Cl. 39. 1-16-17.
115,015. PENSLAR. Cl. 44. 1-16-17.
115,205. MERMAID AND DESIGN. Cl. 1. 1-30-17.
115,368. SUN MAID AND DESIGN. Cl. 46. 2-6-17.
333,313. GROFF'S LIN-LIME. Cl. 18. 3-17-36.
335,139. DURANOL AND DESIGN. Cl. 2. 5-26-36.
335,537. QUINTONINE. Cl. 18. 6-9-36.
336,988. STANDARD OIL ETC. Cl. 16. 7-21-36.
337,805. PRINCESS ELIZABETH ETC. AND DESIGN. Cl. 39. 8-18-36.
337,835. STANDARD OIL ETC. Cl. 18. 8-18-36.
337,925. EXCELSIOR. Cl. 29. 8-25-36.
337,926. OUR LEADER. Cl. 29. 8-25-36.
338,005. GEM. Cl. 29. 8-25-36.
338,114. STANDARD OIL CO. OF NEW JERSEY. Cl. 4. 8-25-36.
338,249. LORENTZEN AND DESIGN. Cl. 13. 9-1-36.
338,490. MARCA REGISTADA AND DESIGN. Cl. 47. 9-8-36.
338,670. DESIGN OF WIRE ROPE WITH RED CORE. Cl. 7. 9-15-36.
338,737. WELDMASTER. Cl. 34. 9-15-36.
338,747. CERESE. Cl. 15. 9-15-36.
338,892. STANDARD OIL CO. OF NEW JERSEY. Cl. 12. 9-15-36.
339,044. DUOCONE. Cl. 23. 9-22-36.
339,047. SUZE. Cl. 49. 9-22-36.
339,360. SUGARFOS. Cl. 6. 10-6-36.
339,550. KAY-SAN AND DESIGN. Cl. 18. 10-13-36.
339,756. TUFFY. Cl. 42. 10-20-36.
339,775. CHALLENGER. Cl. 23. 10-20-36.
339,889. B. JANE MILLER AND DESIGN. Cl. 39. 10-27-36.
340,170. SILEX. Cl. 13. 11-3-36.
340,261. DESIGN OF FLYING HORSE. Cl. 15. 11-3-36.
340,711. LA BOHEME. Cl. 49. 11-17-36.
340,842. RICHELIEU FELTS AND DESIGN. Cl. 39. 11-24-36.
341,349. TRIP-O-LINK. Cl. 21. 12-8-36.
341,816. SCHUTTER'S BIT-O-SWEETS. Cl. 46. 12-22-36.
342,163. GOLD BUCKLE. Cl. 46. 1-5-37.
342,349. HORMODIN. Cl. 10. 1-12-37.
342,354. VERITHOL. Cl. 44. 1-12-37.
342,423. ST. CHARLES BEEVO. Cl. 47. 1-19-37.
342,464. PHYSICAL CULTURE SHOES AND DESIGN. Cl. 39. 1-19-37.
342,809. HEARTH-BRED. Cl. 46. 2-2-37.
342,811. LUSTRAL. Cl. 52. 2-2-37.
342,931. RELION. Cl. 52. 2-2-37.
343,061. OLIVER. Cl. 23. 2-9-37.
343,097. DESIGN OF HANDS ETC. Cl. 43. 2-9-37.
343,099. KAREN. Cl. 18. 2-9-37.
343,153. FLORMAID. Cl. 37. 2-9-37.
343,192. OAK TWIST AND DESIGN. Cl. 42. 2-9-37.
343,244. CORDULUX. Cl. 39. 2-16-37.
343,541. THEORUD. Cl. 18. 2-23-37.

# TRADEMARK REGISTRATIONS CANCELED

**Section 8**

107,427. CRESCENT BRAND AND DESIGN. Cl. 12. 11-23-15.
251,119. "NO RUN" ETC. Cl. 39. 12-25-28.
269,210. LICOLIN. Cl. 18. 4-1-30.
270,465. WASP JUNIOR. Cl. 23. 5-6-30.

*The following registrations issued Aug. 8, 1950*

528,551. NATHEN. Cl. 22.
528,558. SUN RANCH. Cl. 12.
528,567. VISIONNAIRE RUFFLES. Cl. 42.
528,568. FAVOR-IT. Cl. 22.
528,584. STEIN'S DOUBLE TWIST. Cl. 39.
528,586. HAMILTON STANDARD PROPELLERS AND DESIGN. Cl. 19.
528,587. FAY WOOD. Cl. 51.
528,588. ATLAS WITH FIGURE. Cl. 23.
528,601. HYWA. Cl. 12.
528,603. WEBSTER'S TOMALADE. Cl. 46.
528,608. ATLAS. Cl. 23.
528,620. RY AND DESIGN. Cl. 19.
528,623. TRACYFIER. Cl. 13.
528,624. MISTER MIKE. Cl. 39.
528,629. AMERICAN AND DESIGN. Cl. 49.
528,630. ENSIGN. Cl. 19.
528,636. 147. Cl. 16.
528,637. GLAMOUR-GLO. Cl. 50.
528,638. MISTY-GLO. Cl. 50.
528,639. NEUTRA-TONE. Cl. 50.
528,642. DESIGN OF HAND ETC. Cl. 13.
528,651. SUPREME. Cl. 24.
528,652. ORIGINAL JEAN DELANE AND DESIGN. Cl. 39.
528,654. ANTIQUAX. Cl. 4.
528,655. WHITCOMB. Cl. 23.
528,662. DESIGN OF OIL DROPS IN A CIRCLE. Cl. 15.
528,664. AUTO-FISHER. Cl. 22.
528,670. VISION AND DESIGN. Cl. 49.
528,671. THUNDERBOLT. Cl. 22.
528,673. EUREKA. Cl. 23.
528,675. FLER AND DESIGN. Cl. 45.
528,676. NEWGREN. Cl. 23.
528,679. MINT ATURES. Cl. 46.
528,684. MYVACENE-S. Cl. 15.
528,685. TIMELESS. Cl. 51.
528,686. ANCO. Cl. 22.
528,696. GEORGE YOUNGER'S AND DESIGN. Cl. 48.
528,698. PLYBENT. Cl. 12.
528,699. DESIGN OF ANNULAR BAND. Cl. 46.
528,700. CTC AND DESIGN. Cl. 19.
528,701. TONY MICHEL. Cl. 39.
528,705. BAKER. Cl. 31.
528,707. COLCOMBET. Cl. 49.
528,710. SWISHY. Cl. 23.
528,711. SWISHY AND DESIGN. Cl. 23.
528,719. DA-ZEE. Cl. 39.
528,720. KILTIE KIT. Cl. 51.
528,722. JET. Cl. 22.
528,738. IRISH CREAM BRAND AND ETC. Cl. 48.
528,739. IRISH CREAM BRAND AND DESIGN. Cl. 48.
528,740. FAMOUS B SINCE 1845. Cl. 48.
528,741. FAMOUS BEVERWYCK BEER. Cl. 48.
528,742. COZY COTTAGE. Cl. 19.
528,754. AERO-DRY. Cl. 22.
528,755. HEATMATIC. Cl. 15.
528,759. SWINEX. Cl. 18.
528,766. SHELBY AND DESIGN. Cl. 19.
528,769. SICKS'. Cl. 48.
528,770. HEMP WITHIN A REPRESENTATION OF ROPE DESIGN. Cl. 12.
528,771. PLAS-TEX AND DESIGN. Cl. 22.
528,777. A SURE BET AND DESIGN. Cl. 39.
528,781. CHEETAH. Cl. 51.
528,783. MARY ANN. Cl. 42.
528,784. BALSHAG. Cl. 22.
528,788. GREEN RIVER. Cl. 45.

528,797. CYRUS CLARK'S NOMUS CLOTH. Cl. 42.
528,798. TEXEL TAPE. Cl. 5.
528,799. ELWING. Cl. 19.
528,803. METEOR. Cl. 19.
528,804. OLD WORLD ROMANCE. Cl. 8.
528,805. MICROBOMB. Cl. 6.
528,809. UR-KAR. Cl. 15.
528,811. HI-COMP. Cl. 15.
528,812. ARIST-O-BRAK. Cl. 13.
528,815. GI-GR-NITE AND DESIGN. Cl. 19.
528,817. CO-CHERRY. Cl. 45.
528,819. STITCHWOVEN. Cl. 39.
528,820. COPASHAN. Cl. 42.
528,821. RED RAZZ. Cl. 45.
528,823. NATIONAL. Cl. 19.
528,825. ISOTROPIC. Cl. 22.
528,833. GEE-WEE. Cl. 22.
528,834. CHAIR LEG. Cl. 22.
528,839. STERI-QUIP. Cl. 50.
528,840. STRESTWALL. Cl. 12.
528,841. Y-P-Z. Cl. 16.
528,842. GLOBESTER. Cl. 19.
528,843. L. W. J. Cl. 39.
528,851. WAVERLY. Cl. 42.
528,852. WINDSOR. Cl. 42.
528,862. ST. MORITZ. Cl. 42.
528,863. ARROYO TAN. Cl. 42.
528,864. CHAPARRAL GREEN. Cl. 42.
528,865. CHARRO BROWN. Cl. 42.
528,868. ORIGINAL JEAN DELANE. Cl. 39.
528,877. PRO-FAILLE FINISH. Cl. 106.
528,878. PROGRESSIVE MOIRES. Cl. 106.
528,880. SANI-SEPTIC. Cl. 103.
528,882. YOUR MILEAGE MERCHANT. Cl. 103.
528,883. TEXAS AND DESIGN. Cl. 46.
528,885. SULZER ETC. Cl. 23.
528,888. BARBASOL. Cl. 23.
528,897. STA-SOFT. Cl. 46.
528,898. BEAUTY BEGINS ETC. Cl. 32.
528,899. FULLER. Cl. 23.
528,904. BRADFORD ENGLISH BROAD. Cl. 39.
528,906. ISMAN FASHION. Cl. 39.
528,908. SERVUS-TABLE. Cl. 21.
528,909. BRINLY. Cl. 23.
528,910. KASK-LINE AND DESIGN. Cl. 2.
528,916. LANNOYE AND DESIGN. Cl. 23.
528,917. STA-FRESH. Cl. 2.
528,920. POP-N-DIVE. Cl. 22.
528,921. WESTERN STARS. Cl. 38.
528,922. EVN-SHEEN. Cl. 16.
528,924. SELECTONE. Cl. 16.
528,925. CLEEN CRISP ETC. Cl. 39.

### Vacation of Order of Cancellation

The order of cancellation dated September 21, 1956, cancelling Registration No. 527,502, was inadvertently entered and has been vacated.

## REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

340,312. Nov. 3, 1936. Superior Chemical Products, Inc., Philadelphia, Pa. Pub. by registrant.



OMNICIDE

For Insecticide.

### CLASS 12

### CONSTRUCTION MATERIALS

289,773. Dec. 8, 1931. The Mosaic Tile Company, Zanesville, Ohio. Pub. by registrant.

VELVETEX FLOOR TILE

For Floor and Wall Tiles of Baked Clay.

338,166. Sept. 1, 1936. Republic Steel Corporation, Cleveland, Ohio. Pub. by The Superock Company, Wilmington, Del.

SUPEROCK

For By-Products of Blast Furnaces—Namely, Crushed Slag for Use as an Aggregate for Cement or Concrete.

397,331. Sept. 1, 1942. X-Pando Corporation, Long Island City, N. Y. Pub. by registrant.

X-PANDOSEAL

For Transparent Liquid Coating Materials for Waterproofing and Dampproofing Plaster, Masonry, Tile and the Like, Wood, Linoleum, Leather, Paper, Fabric and the Like; and for Coating Materials Preventing the Dusting of Concrete Floors.

### CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

340,183. Nov. 3, 1936. Naamloose Vennootschap Drogerijen Maatschappij, Rotterdam, Netherlands. Pub. by Harold Ritchie, Inc., Clifton, N. J.

Silvikrin

For Medicinal and Cosmetic Products for Dressing Hair and Treating Hair, for Promoting the Growth of Hair, and for Curing and Healing Diseases of Hair, Scalp, and Skin.



### CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

354,911. Mar. 1, 1938. Frank McCall, Los Angeles, Calif. Pub. by Joseph Chiarello, Los Angeles, Calif.

DESERT-AIR

For Electric Lamps.

### CLASS 28

### JEWELRY AND PRECIOUS-METAL WARE

430,017. June 3, 1947. Oneida Ltd., Oneida, N. Y. Pub. by registrant.

TOGETHER

For Silverplated Flat and Hollowware and Cutlery.

### CLASS 32

### FURNITURE AND UPHOLSTERY

361,334. Oct. 11, 1936. The Elias Glass Company, Hartford, Conn. Pub. by Century Industries, Inc., Chicago, Ill.

DuraBrite

For Mirrors.

### CLASS 35

### BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

275,954. Oct. 7, 1930. Aaron Meyerowitz, Brooklyn, N. Y. Pub. by registrant.

UNITED

For Inner Tubes for Tires.

### CLASS 39

### CLOTHING

210,064. Mar. 9, 1926. McCallum Hosiery Co., Northampton, Mass. Pub. by Claussner Hosiery Company, Paducah, Ky.

McCallum

For Hosiery for Men, Women, and Children.

337,550. Aug. 11, 1936. Susquehanna Waist Company, Philadelphia, Pa. Pub. by Susquehanna Waist Company, Upland, Pa.

Lady Linen

For Ladies' Blouses.

337,567. Aug. 11, 1936. J. Schoeneman, Incorporated, Baltimore, Md. Pub. by J. Schoeneman, Incorporated, Baltimore, Md.

Air Conditioned

For Coats, Vests, and Trousers for Men, Youths, and Boys.

### CLASS 42

### KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

285,824. Aug. 11, 1931. The Dayton Company, Minneapolis, Minn. Pub. by registrant.

NOKOMIS

For Textile Rugs.

### CLASS 44

### DENTAL, MEDICAL, AND SURGICAL APPLIANCES

29,722. Mar. 23, 1897. Meinecke & Co., New York, N. Y. Pub. by Davol Rubber Company, Providence, R. I.

ANTI-COLIC

For Nipples for Nursing Bottles.

234,712. Nov. 1, 1927. Davol Rubber Company, Providence, R. I. Pub. by registrant.

Anti-Colic

For Nipple Shields, and Nipples for Nursing Bottles.

244,079. July 10, 1928. Davol Rubber Company, Providence, R. I. Pub. by registrant.

**SANI-TAB**

For Nursing-Bottle Nipples or Caps Made of Rubber.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

110,295. May 16, 1916. Phenix Cheese Co., New York, N. Y. Pub. by Kraft Foods Company, Chicago, Ill.



For Cheese.

202,450. Aug. 25, 1925. Chicago Macaroni Co., Chicago, Ill. Pub. by Chicago Macaroni & Food Products Co., Chicago, Ill.




For Alimentary Products—Namely, Macaroni, Spaghetti, Vermicelli, and Noodles.

227,800. May 17, 1927. Chicago Macaroni Co., Chicago, Ill. Pub. by Chicago Macaroni & Food Products Co., Chicago, Ill.




For Alimentary Products—Namely, Macaroni.

CLASS 48

MALT BEVERAGES AND LIQUORS

336,147. June 30, 1936. Honolulu Sake Brewery & Ice Company, Limited, Honolulu, Territory of Hawaii. Pub. by registrant.

**TAKARA**

For Malt Beverage—Namely, Sake.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

232,975. Sept. 20, 1927. Davol Rubber Company, Providence, R. I. Pub. by registrant.

**Anti-Colic**

For Bottle Caps.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

210,968. Mar. 30, 1926. M. Naef & Cie., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

**Opopanol**

For Artificial and Synthetical Perfumes and Essential Oils for the Production of Perfumes.

# LIST OF REGISTRANTS OF TRADEMARKS

## REGISTERED NOVEMBER 6, 1956

Abaco Corp. Ltd., Zurich, Switzerland. 636,899, pub. 8–21–56. Cl. 46.
Abel Corp., The, Columbus, Ohio. 528,841, canc. Cl. 16.
Abshire, Robert V., New Braunfels, Tex. 636,752, pub. 8–21–56. Cl. 21.
Advance Solvents & Chemical Corp., to Carlisle Chemical Works, Inc., Reading, Ohio. 636,676, pub. 9–18–52. Cl. 6.
Ahrens Publishing Co., Inc., New York, N. Y. 636,826, pub. 8–21–56. Cl. 38.
Aladdin Laboratories, Inc., Minneapolis, Minn. 636,858, pub. 8–21–56. Cl. 39.
All American Aircraft, Inc., Long Beach, Calif. 528,830, canc. Cl. 19.
Alloy Surfaces Co.: *See*—
Craven, David.
Amac Refinements Ltd., Chesham, England. 636,902, pub. 8–21–56. Cl. 29.
Amana Refrigeration, Inc., Amana, Iowa. 636,810, pub. 8–21–56. Cl. 34.
American Artists' Color Works, Inc., Hazleton, Pa. 636,771, pub. 8–21–56. Cl. 22.
American Bemberg Corp., to Beaunit Mills, Inc., New York, N. Y. 343,097, ren. 2–9–57. Cl. 43.
American Cyanamid Co., New York, N. Y. 636,687, pub. 7–31–56. Cl. 9.
American Cyanamid Co., New York, N. Y. 636,688, pub. 7–17–56. Cl. 9.
American Cyanamid Co., New York, N. Y. 636,718, pub. 8–21–56. Cl. 18.
American Distilling Co., The, Pekin, Ill., and New York, N. Y. 528,629, canc. Cl. 40.
American Federation of Labor and Congress of Industrial Organizations, Washington, D. C. 636,829, pub. 8–21–56. Cl. 38.
American Time Products, Inc., New York, N. Y. 636,759, pub. 8–21–56. Cl. 21.
Anderegg, J. C., Mfg. Co., Inc., The, Algoma, Wis. 528,686, canc. Cl. 22.
Anderson, Clayton & Co., Sherman, Tex. 636,909, pub. 8–21–56. Cl. 46.
Annuaire Telephonique International, Paris, France. 636,824, pub. 8–21–56. Cl. 38.
Archer-Daniels-Midland Co., Minneapolis, Minn. 636,919, pub. 8–21–56. Cl. 46.
Arcon Leather Products Mfg. Co., New York, N. Y. 636,934, pub. 8–21–56. Cl. 50.
Armour and Co., Chicago, Ill. 636,723, pub. 8–21–56. Cl. 18.
Arnold Bakers, Inc., Port Chester, N. Y. 636,915, pub. 8–21–56. Cl. 46.
Asbach & Co., Rudesheim-on-the-Rhine, Germany. 636,930, pub. 8–21–56. Cl. 49.
Ash Grove Lime & Portland Cement Co., Kansas City, Mo., to Ash Grove Lime & Portland Cement Co. 528,601, canc. Cl. 12.
Associated Merchandising Corp., The, New York, N. Y. 636,669, pub. 8–21–56. Cl. 3.
Associated Merchandising Corp., The, New York, N. Y. 636,845, pub. 8–21–56. Cl. 39.
Associated Oil and Gas Co., Houston, Tex. 636,950, pub. 8–21–56. Cl. 103.
Ateliers de la Motobecane, Pantin (Seine), France. 636,737, pub. 8–21–56. Cl. 19.
Atlas-Ago, Chemische Fabrik G. m. b. H., Frankfurt (Main), Germany. 636 676. pub. 8–21–56. Cl. 5.
Automatic Ticket Selling & Cash Register Co., New York, to General Register Corp., Long Island City, N. Y. 112,347, ren. 9–5–56. Cl. 23.
Baker and Fisher Feeds, Portland, Oreg. 636,914, pub. 8–21–56. Cl. 46.
Baker Ice Machine Co., Inc., South Windham, Maine, now by change of name Baker Refrigeration Corp. 528,705, canc. Cl. 31.
Baker Imperial Co., Inc., New York, N. Y. 528,804, canc. Cl. 8.
Baker Refrigeration Corp.: *See*—
Baker Ice Machine Co., Inc.
Banner Plastics Corp., Paterson, N. J. 636,765, pub. 8–21–56. Cl. 23.
Barbasol Co., The, Indianapolis, Ind. 528 888. canc. Cl. 23.
Barraclough, Benjamin B. S., Greenfield, England. 528,755, canc. Cl. 15.
Bartmann & Bixer, Inc., New York, N. Y. 528,567, canc. Cl. 42.
Barwick, E. T., Mills, Chamblee, Ga. 636,880, pub. 8–21–56. Cl. 42.
Basalt Rock Co., Inc., Napa, Calif. 528 840, canc. Cl. 12.
Base-Tape Mfg. Co., Inc., Brookline, Mass. 636,677, pub. 8–21–56. Cl. 5.
Beacon Plastics Corp., Newton Highlands, Mass. 636,666, pub. 8–21–56. Cl. 2.
Beard, John, Memorial Foundation, San Francisco, Calif. 636,720, pub. 8–21–56. Cl. 18.
Bearings Co. of America, Lancaster, Pa. 528,710, canc. Cl. 23.
Bearings Co. of America, Lancaster, Pa. 528,711, canc. Cl. 23.
Beaunit Mills, Inc.: *See*—
American Bemberg Corp.
Beech-Nut Packing Co., Canajoharie, N. Y. 528,699, canc. Cl. 46.
Beloit Tool Corp., The, Turtle, Wis. 636,777, pub. 8–21–56. Cl. 23.
Bemis Bro. Bag Co., Minneapolis, Minn. 636,664, pub. 8–21–56. Cl. 2.
Bengal Co., New York, N. Y. 636,672, pub. 8–21–56. Cl. 4.
Berkshire Hathaway, Inc., Providence, R. I. 636,887, pub. 8–21–56. Cl. 42.
Berkshire Woolen Co.: *See*—
Terhune, Yearance & Wolf, Inc.
Bernside Mills, Inc., New York, N. Y. 636,885, pub. 8–21–56. Cl. 42.
Beverly Vogue Co., Los Angeles, Calif. 636,861, pub. 8–21–56. Cl. 39.
Beverwyck Breweries, Inc., Albany, N. Y. 528,738, canc. Cl. 48.
Beverwyck Breweries, Inc., Albany, N. Y. 528,739, canc. Cl. 48.
Beverwyck Breweries, Inc., Albany, N. Y. 528,740, canc. Cl. 48.
Beverwyck Breweries, Inc., Albany, N. Y. 528,741, canc. Cl. 48.
Birdsell Audio-Visual Co., Cincinnati, Ohio. 636,962. Cl. 21.
Bishop, Charles B., Princeton, N. J. 636,937, pub. 8–21–56. Cl. 50.
Blaw-Knox Co., Pittsburgh, Pa. 528,623, canc. Cl. 13.
Bonney Forge & Tool Works, Allentown, Pa. 636,697, pub. 8–21–56. Cl. 13.
Borden Co., The: *See*—
N. Y. Condensed Milk Co.
Botan Pharmaceutical Co., Providence, R. I., by change of name from Drug & Chemical Co., Inc. 636,714, pub. 8–21–56. Cl. 18.
Botany Mills, Inc., Passaic, N. J. 528,720, canc. Cl. 51.
Braiding, C. P., Co.: *See*—
Paas, Alfred C. S.
Breneman, Chas. W., Co., The, Cincinnati, Ohio. 528,898, canc. Cl. 32.
Brinly-Hardy Co., Louisville, Ky. 528,909, canc. Cl. 23.
Brisk-Air, Inc., Fort Worth, Tex. 636,680, pub. 8–21–56. Cl. 6.
Brown, Sherman W., Jr., Clayton, Mo. 636,947, pub. 8–24–54. Cl. 101.
Brown, Walter W., Publishing Co., Inc., Atlanta, Ga. 636,966. Cl. 38.
Brown and York Hosiery Mill, Asheboro, N. C. 636,857, pub. 8–21–56. Cl. 39.
Bruce, E. L., Co., Memphis, Tenn. 636,685, pub. 8–21–56. Cl. 6.
Builders Sales and Service, Inc., Bogota, N. J. 636,948, pub. 8–21–56. Cl. 103.
Burrus Mills, Inc.: *See*—
Collin County Mill & Elevator Co.
Campbell, Metzger & Jacobson, New York, N. Y., to Peri-Lasta, Ltd., Staffordshire, England. 113,862, ren. 11–7–56. Cl. 43.
Candy Artists, Inc., San Francisco, Calif. 528,679, canc. Cl. 46.
Carand Corp., Racine, Wis. 528,805, canc. Cl. 6.
Cardox Corp., Chicago, Ill. 636,785–6, pub. 8–21–56. Cl. 23.
Carlisle Chemical Works, Inc.: *See*—
Advance Solvents & Chemical Corp.
Carlton Plastics, Inc., Philadelphia, Pa. 636,837, pub. 8–21–56. Cl. 39.
Carson Centers, Inc., New Orleans, La. 636,953, pub. 8–21–56. Cl. 107.
Carter Mfg. Corp., Hudson, Mass. 636,753, pub. 8–21–56. Cl. 21.
Cellowax Co., The, Baltimore, Md. 636,674, pub. 8–21–56. Cl. 4.
Celon Co., The, Madison, Wis. 636,932, pub. 8–21–56. Cl. 50.
Century Industries, Inc.: *See*—
Elias Glass Co., The.
Chair Leg Tackle Co., The, Williams Bay, Wis. 528,834, canc. Cl. 22.
Chance Brothers Ltd., Smethwick, England. 636,807, pub. 5–22–56. Cl. 33.
Chase Bottle & Supply Corp., New York, N. Y. 636,665, pub. 8–21–56. Cl. 2.
Chemdrug Corp., The, New York, N. Y. 636,725, pub. 8–21–56. Cl. 18.
Chiarello, Joseph: *See*—
McCall, Frank.
Chicago Macaroni Co., by Chicago Macaroni & Food Products Co., Chicago, Ill. 202,450, 12(c) pub. 11–6–56. Cl. 46.
Chicago Macaroni Co., by Chicago Macaroni & Food Products Co., Chicago, Ill. 227,800, 12(c) pub. 11–6–56. Cl. 46.
Chicago Macaroni & Food Products Co.: *See*—
Chicago Macaroni Co.
Chicago Macaroni Co.
Ciba Ltd., Basel, Switzerland. 636,716, pub. 8–21–56. Cl. 18.
Cinsano, Francesco, & Co., Turin, Italy. 636,926, pub. 8–21–56. Cl. 47.
Cities Service Oil Co., New York, N. Y. 636,760, pub. 8–21–56. Cl. 21.
Clark, Carmelita M., d. b. a. Zip A Bac Co., Los Angeles, Calif. 636,698, pub. 8–21–56. Cl. 13.
Clark, Cyrus, Co., Inc., New York, N. Y. 528,797, canc. Cl. 42.

Claussner Hosiery Co.: *See*—
McCallum Hosiery Co.
Clayton Mfg. Co., The, Bristol, Conn. 628,608, canc. Cl. 23.
Clinton Products Co.: *See*—
Geiger, Fred R.
Co-Cherry Co.: *See*—
Davis, Ivey B.
Coffing Hoist Co., Danville, Ill., to Duff-Norton Co., Pittsburgh, Pa. 339,775, ren. 10–20–56. Cl. 23.
Cohoes Carrybag Co., Inc., Cohoes, N. Y. 636,820, pub. 8–21–56. Cl. 37.
Collins Corp. of Georgia, Vidalia, Ga. 636,897, pub. 8–21–56. Cl. 45.
Collin County Mill & Elevator Co., McKinney, to Burrus Mills, Inc., Dallas, Tex. 342,909, ren. 2–2–57. Cl. 46.
Coloramic Tile Co., Inc., Chicago, Ill. 636,692, pub. 8–18–53. Cl. 12.
Columbia Trailers Co., Glendale, Calif. 528,700, canc. Cl. 19.
Conover-Cable Piano Co., Oregon, Ill. 636,815, pub. 8–21–56. Cl. 36.
Consolidated Cosmetics, Chicago, Ill. 528,781, canc. Cl. 51.
Consolidated Rendering Co., Boston, Mass. 636,689, pub. 8–21–56. Cl. 10.
Continental Oil Co., Ponca City, Okla. 528,811, canc. Cl. 15.
Continental Oil Co., Ponca City, Okla. 528,882, canc. Cl. 103.
Cosgrove Brothers, Inc.: *See*—
Love, Joseph, Inc.
Cozy Cottage Trailer Co.: *See*—
Gray, Robert.
Craven, David, d. b. a. Alloy Surfaces Co., Philadelphia, Pa. 636,952, pub. 8–21–56. Cl. 106.
Cupples Co., San Francisco, Calif. 636,821, pub. 8–21–56. Cl. 37.
Dairy Service Corp of Florida, Washington, D. C. 636,903, pub. 8–21–56. Cl. 46.
D'Amico, G., Macaroni Co., Steger, Ill. 636,920, pub. 8–21–56. Cl. 46.
Davis Fishing Tackle Co.: *See*—
Davis, Lester M.
Davis, Ivey B., d. b. a. Co-Cherry Co., Americus, Ga. 528,817, canc. Cl. 45.
Davis, Lester M., d. b. a. Davis Fishing Tackle Co., Tacoma, Wash. 636,774, pub. 8–21–56. Cl. 22.
Davol Rubber Co.: *See*—
Meinecke & Co.
Davol Rubber Co., Providence, R. I. 232,975, 12(c) pub. 11–6–56. Cl. 50.
Davol Rubber Co., Providence, R. I. 234,712, 12(c) pub. 11–6–56. Cl. 44.
Davol Rubber Co., Providence, R. I. 244,079, 12(c) pub. 11–6–56. Cl. 44.
Dayton Co., The, Minneapolis, Minn. 285,824, 12(c) pub. 11–6–56. Cl. 42.
Da-Zee, Inc., Philadelphia, Pa. 528,719, canc. Cl. 39.
Deere & Co., Moline, Ill. 636,789, pub. 8–21–56. Cl. 23.
Del Gaizo, S. p. A., Rome, Italy. 636,970. Cl. 46.
Dell Publishing Co., Inc., New York, N. Y. 528,921, canc. Cl. 38.
Delmar Shoe Co., St. Louis, Mo. 636,854, pub. 8–21–56. Cl. 39.
DeMert & Dougherty, Inc., Chicago, Ill. 636,703, pub. 8–21–56. Cl. 15.
Dermetics, Inc., New York, N. Y. 528,685, canc. Cl. 51.
Distillation Products, Inc., Wilmington, Del., and Rochester, N. Y., to Eastman Kodak Co., Rochester, N. Y. 528,684, canc. Cl. 15.
Distillerie de la Suze, Societe Anonyme, Maison-Alfort, France. 339,047, ren. 9–22–56. Cl. 49.
Diversey Corp., The, Chicago, Ill. 342,911, ren. 2–2–57. Cl. 52.
Diversey Corp., The, Chicago, Ill. 342,931, ren. 2–2–57. Cl. 52.
Dodge & Olcott, Inc., New York, N. Y. 636,943, pub. 8–21–56. Cl. 51.
Donovan Coffee Co., Inc., Birmingham, Ala. 636,917, pub. 8–21–56. Cl. 46.
Dorr-Oliver Inc., Stamford, Conn. 636,803, pub. 8–21–56. Cl. 31.
Douglas Chemical Co., sometimes d. b. a. Douglas Chemical and Supply Co., Inc., North Kansas City, Mo. 636,682, pub. 8–21–56. Cl. 6.
Douglas Chemical and Supply Co., Inc.: *See*—
Douglas Chemical Co.
Douglas, W. L., Shoe Co., Nashville, Tenn. 636,853, pub. 8–21–56. Cl. 39.
Drug & Chemical Co., Inc.: *See*—
Botan Pharmaceutical Co.
Drulane, Inc., New York, N. Y. 636,755, pub. 8–21–56. Cl. 21.
Duff-Norton Co.: *See*—
Coffing Hoist Co.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 636,681, pub. 8–21–56. Cl. 6.
Duranol Products, Inc.: *See*—
Meyer, Joseph H., Brothers.
Eddy, L. M., Mfg. Co., Inc., Framingham, Mass. 636,775, pub. 8–21–56. Cl. 22.
Elder Mfg. Co., St. Louis, Mo. 114,956, ren. 1–16–57. Cl. 39.
Electric Steel Foundry, Portland Oreg. 528,642, canc. Cl. 13.
Elias Glass Co., The, Hartford, Conn., by Century Industries, Inc., Chicago, Ill. 361,334, 12(c) pub. 11–6–56. Cl. 32.
Elrod Systems, Inc., Detroit, Mich. 636,976. Cl. 101.
Elwing Corp., The, Wilmington, N. C. 528,799, canc. Cl. 19.
Empire Mfg. Co., Winder, Ga. 528,777, canc. Cl. 39.
Empire Oil & Refining Co., Inc., Tyler, Tex. 636,701, pub. 8–21–56. Cl. 15.
Epeco, Inc., Boston, Mass. 636,798, pub. 8–21–56. Cl. 26.
Esso Standard Oil Co.: *See*—
Standard Oil Co. of New Jersey.
Etablissements Roques, Paris, France. 636,717, pub. 8–21–56. Cl. 18.
Evangeline Pepper & Food Products, Inc., St. Martinville, La. 636,904, pub. 8–21–56. Cl. 46.
Falling, George E., Co., Enid, Okla. 636,795, pub. 8–21–56. Cl. 26.
Famous Artists Schools Inc., Westport, Conn. 636,967. Cl. 38.
Famous Bathrobe Co., Inc., New York, N. Y. 636,848, pub. 8–21–56. Cl. 39.
Fantasy Lingerie Corp., New York, N. Y. 636,880, pub. 8–21–56. Cl. 42.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 636,683, pub. 8–21–56. Cl. 6.
Fenway Coats, Inc., New York, N. Y. 636,868, pub. 8–21–56. Cl. 39.
Filatures et Tresleries de la Mauriesne, Saint-Remy (Savoie), France. 636,890, pub. 12–27–55. Cl. 43.
Finland House Lighting Corp., New York, N. Y. 636,745, pub. 8–21–56. Cl. 21.
Fin 'N Feather Club: *See*—
McGraw, Max.
Fin 'N Feather Farm, Inc.: *See*—
McGraw, Max.
Firmenich, Inc.: *See*—
Naef, M., & Cie.
Firth Carpet Co., Inc., The, New York, N. Y. 636,888, pub. 8–21–56. Cl. 42.
Fisher Governor Co., Marshalltown, Iowa. 636,835, pub. 8–21–56. Cl. 36.
Fisk, Stanley, and Co., Omaha, Nebr. 636,863, pub. 8–21–56. Cl. 39.
Flavor Fast Foods, Inc., Rockton, Ill. 636,699, pub. 8–21–56. Cl. 13.
Flex, Inc., New York, N. Y. 528,675, canc. Cl. 45.
Flexifirm Products, El Monte, Calif. 636,661, pub. 6–7–55. Cl. 1.
Flex-O-Glass, Inc., d. b. a. Warp Brothers, Chicago, Ill. 636,975. Cl. 50.
Flintkote Co., The, New York, N. Y. 636,675, pub. 8–21–56. Cl. 4.
Florsheim Shoe Co., The, Chicago, Ill. 343,153, ren. 2–8–57. Cl. 37.
Frabill Mfg. Co., Milwaukee, Wis. 636,768, pub. 7–17–56. Cl. 22.
Francia, Joe Del, Co., Los Angeles, Calif. 636,808, pub. 8–21–56. Cl. 34.
Frashers Inc., Pomona, Calif. 636,828, pub. 8–21–56. Cl. 38.
Freire, Hilda A., d. b. a. Lisbon Sausage Co., New Bedford, Mass. 636,974. Cl. 46.
French, R. T., Co., The, Rochester, N. Y. 636,972–3. Cl. 46.
Friedel, Carl M., Pocatello, Idaho. 636,770, pub. 8–21–56. Cl. 22.
Friedstrass Co., The, New York, N. Y. 528,783, canc. Cl. 42.
Fuller Brush Co., The, Hartford, Conn. 528,899, canc. Cl. 23.
Fuller, D. B., & Co., Inc., New York, N. Y. 636,877, pub. 8–21–56. Cl. 42.
Funk Bros. Hat & Cap Co., St. Louis, Mo. 340,842, ren. 11–24–56. Cl. 39.
Geiger, Fred R., d. b. a. Clinton Products Co., Clinton, Mich. 528,815, canc. Cl. 19.
General Motors Corp., Detroit, Mich. 636,743, pub. 8–21–56. Cl. 19.
General Register Corp.: *See*—
Automatic Ticket Selling & Cash Register Co.
Gerard, Madame J. P. L., Simonne Moissonnier, Paris, France. 636,722, pub. 8–21–56. Cl. 18.
Gering Products, Inc., Kenilworth, N. J. 636,695, pub. 8–21–56. Cl. 13.
Gering Products, Inc., Kenilworth, N. J. 636,696, pub. 8–21–56. Cl. 13.
Gessler Mfg. Corp., Brooklyn, N. Y. 636,778, pub. 8–21–56. Cl. 23.
Gilbert Shoe Co., The, Columbus, Ohio. 636,842, pub. 8–21–56. Cl. 39.
Gilmour, Duncan, & Co., Ltd., New York, N. Y. 528,707, canc. Cl. 49.
Ginsburg Brothers, Inc., Somerville, Mass. 636,965. Cl. 37.
Gladdy Colleen, Inc., New York, N. Y. 528,925, canc. Cl. 39.
Glatt, Herbert, d. b. a. Magla Products, Newark, N. J. 636,878, pub. 8–21–56. Cl. 42.
Glatt, Herbert, d. b. a. Magla Products, Newark, N. J. 636,883, pub. 8–21–56. Cl. 42.
Globe Corp., Joliet, Ill. 528,842, canc. Cl. 19.
Gold Buckle Association, East Highlands, Calif. 342,163, ren. 1–5–57. Cl. 46.
Golding Bros. Co., Inc., New York, N. Y. 636,886, pub. 8–21–56. Cl. 42.
Goldstein, Samuel, New York, N. Y. 528,651, canc. Cl. 24.
Gotham Silk Hosiery Co., Inc., New York, N. Y. 251,119, canc. Cl. 39.
Grant Chemical Co., Inc., New York, N. Y. 636,733, pub. 8–21–56. Cl. 18.
Grant Chemical Co., Inc., New York, N. Y. 636,734, pub. 8–21–56. Cl. 18.
Graton & Knight Co.: *See*—
Graton and Knight Mfg. Co., The.
Graton and Knight Mfg. Co., The, to Graton & Knight Co., Worcester, Mass. 114,749, ren. 1–2–57. Cl. 1.
Gray, Robert, d. b. a. Cozy Cottage Trailer Co., Los Angeles, Calif. 528,742, canc. Cl. 19.
Green River Corp., Chicago, Ill. 528,788, canc. Cl. 45.
Grenier, C. J., Ltd., Montreal, Quebec, Canada. 636,840, pub. 8–21–56. Cl. 39.
Gretsch, Fred., Mfg. Co., The, Brooklyn, N. Y. 636,964. Cl. 36.
Griess-Pfleger Tanning Co., The, Waukegan, Ill. 636,660, pub. 8–18–53. Cl. 1.
Groff, Robert L., Reidsville, N. C. 333,313, ren. 3–17–56. Cl. 18.
Guadalupe Valley Pecan Co., San Antonio, Tex. 636,924, pub. 8–21–56. Cl. 46.



Gunther Products, Inc., Galesburg, Ill. 636,905–7, pub. 8–21–56. Cl. 46.
Hallett, Richard P., Washington, D. C. 636,823, pub. 8–21–56. Cl. 28.
Hallmark Cards, Inc., Kansas City, Mo. 636,686, pub. 8–21–56. Cl. 7.
Hallock-Denton Co., Newark, N. J. 113,726, ren. 10–31–56. Cl. 44.
Haloid Co., The, Rochester, N. Y. 636,794, pub. 8–21–56. Cl. 26.
Haloam Products Co., Chicago, Ill. 636,772, pub. 8–21–56. Cl. 22.
Hartenbach, Henry C., Inc., St. Louis, Mo. 528,880, canc. Cl. 103.
Helin, Victor, Indre, to Societe a Responsabilite Limitee Societe Helin & Compagnie, Paris, France. 335,537, ren. 6–9–56. Cl. 18.
Heller Hostess-Ware, Inc., White Plains, N. Y. 636,662, pub. 8–21–56. Cl. 2.
Hemp, Paul L., Rochester, Minn. 528,770, canc. Cl. 12.
Hercules Cycle & Motor Co. Ltd., The, Aston, Birmingham, England. 636,741, pub. 8–21–56. Cl. 19.
Hicksatomic Stations, Inc., Roberts, Ill. 636,706, pub. 8–21–56. Cl. 15.
Hoefer, Chris P., d. b. a. Ur-Kar Oil Products Co., Sioux City, Iowa. 528,809, canc. Cl. 15.
Honolulu Sake Brewery & Ice Co., Ltd., Honolulu, Hawaii. 336,147, 12(c) pub. 11–6–56. Cl. 46.
Hornick, Louis, & Co., Inc., New York, N. Y. 636,876, pub. 8–21–56. Cl. 42.
Hotel Bar Foods Inc., New York, N. Y. 636,918, pub. 8–21–56. Cl. 46.
Hoyt Wire Cloth Co., Lancaster, Pa. 636,693, pub. 8–21–56. Cl. 13.
Hudson Publishing Co., Hudson, Ohio. 636,833, pub. 8–21–56. Cl. 38.
Hyram, Inc., Los Angeles, Calif. 636,797, pub. 6–12–56. Cl. 26.
Ian Macdonald, San Diego, Calif. 528,784, canc. Cl. 22.
Idol Inc., New York, N. Y. 636,846, pub. 8–21–56. Cl. 39.
Imperial Paper and Color Corp., Glens Falls, N. Y. 636,684, pub. 8–21–56. Cl. 6.
Imperial Sugar Co., Sugar Land, Tex. 636,912–13, pub. 8–21–56. Cl. 46.
Industrial Tape Corp., North Brunswick Township, N. J. 528,796, canc. Cl. 5.
Infrasisers Ltd., Toronto, Ontario, Canada. 636,799–800, pub. 8–21–56. Cl. 26.
Insta Products Co.: *See*—
Knapp-Monarch Co.
International Biotical Corp., New York, N. Y. 636,896, pub. 8–21–56. Cl. 44.
International Projector Corp., Bloomfield, N. J. 636,758, pub. 8–21–56. Cl. 21.
International Shoe Co.: *See*—
McElwain, H. W., Co.
Interstate Industries, Jacksonville, Fla. 528,812, canc. Cl. 13.
Iron Lung Ventilator Co.: *See*—
Shaver, James B.
Irwin, Neisler & Co., Decatur, Ill. 636,726, pub. 8–21–56. Cl. 18.
Isman, Louis, & Son, Inc., Aurora, Ill. 528,906, canc. Cl. 39.
Ivory Forest Products Co., from Ivory Shavings Co., Dinuba, Calif. 636,957. Cl. 10.
Ivory Shavings Co.: *See*—
Ivory Forest Products Co.
Janssen Co., The, Cincinnati, Ohio. 636,906, pub. 8–21–56. Cl. 46.
Jet Lures, New York, N. Y. 528,732, canc. Cl. 22.
Joanna-Western Mills Co., Chicago, Ill. 528,851, canc. Cl. 42.
Joanna-Western Mills Co., Chicago, Ill. 528,852, canc. Cl. 42.
Johnson, Cyril, Woolen Co., The, Stafford Springs, Conn. 528,863, canc. Cl. 42.
Johnson, Cyril, Woolen Co., The, Stafford Springs, Conn. 528,864, canc. Cl. 42.
Johnson, Cyril, Woolen Co., The, Stafford Springs, Conn. 528,865, canc. Cl. 42.
Josef Knitted Fabrics Co., Inc.: *See*—
Josef Knitted Fabrics, Inc.
Josef Knitted Fabrics, Inc., New York, N. Y., to Josef Knitted Fabrics Co., Inc., West Warren, Mass., and New York, N. Y. 339,756, ren. 10–20–56. Cl. 42.
Joseph & Feiss Co., The, Cleveland, Ohio. 343,244, ren. 2–16–57. Cl. 39.
Jungroth, Milwaukee, Wis. 636,787, pub. 8–21–56. Cl. 23.
Justrite Mfg. Co., Chicago, Ill. 636,754, pub. 8–21–56. Cl. 21.
Kask-Line and Container Co., Mount Vernon, N. Y. 528,910, canc. Cl. 2.
Kaylon Inc., New York, N. Y. 528,904, canc. Cl. 39.
Kearney, James R., Corp., St. Louis, Mo. 341,349, ren. 12–8–56. Cl. 21.
Kelley Island Lime & Transport Co., The, Cleveland, Ohio. 107,427, canc. Cl. 12.
Kenney Paint & Varnish Co., Inc., Chicago, Ill. 528,636, canc. Cl. 16.
Kido Bros.: *See*—
Kido, John.
Kido, John, d. b. a. Kido Bros., Niland, Calif. 636,922, pub. 8–21–56. Cl. 46.
Kingfisher-Bristol Co., The, Rockville, Conn. 636,762, pub. 8–21–56. Cl. 22.
Kisco Co., Inc., St. Louis, Mo. 528,908, canc. Cl. 21.
Knapp-Monarch Co., d. b. a. Insta Products Co., St. Louis, Mo. 636,667, pub. 8–21–56. Cl. 2.
Knapp-Monarch Co., St. Louis, Mo. 636,679, pub. 5–5–53. Cl. 6.
Kraft Foods Co.: *See*—
Phenix Cheese Co.
Kraus & Naimer, Vienna, Austria. 636,748, pub. 8–21–56. Cl. 21.
Kreider's, W. L., Sons Mfg. Co. Inc., Palmyra, Pa. 636,844, pub. 8–21–56. Cl. 39.
Kreiss, Jack, Hosiery, Inc., New York, N. Y. 636,866, pub. 8–21–56. Cl. 39.
La France Mfg. Co., St. Louis, Mo. 636,707, pub. 8–21–56. Cl. 15.
La Moteconfort, Pantin (Seine), France. 636,738, pub. 8–21–56. Cl. 19.
Landers, Frary & Clark, New Britain, Conn. 113,289, ren. 11–7–56. Cl. 23.
Lebanon Chemical Corp., Lebanon, Pa. 636,690, pub. 8–21–56. Cl. 10.
Lenihan, John L., Minneapolis, Minn. 636,719, pub. 8–21–56. Cl. 18.
Leschen, A., & Sons Rope Co., to The Watson-Stillman Co., St. Louis, Mo. 338,670, ren. 9–15–56. Cl. 7.
Les Papeteries de Genval, Genval, Belgium. 528,916, canc. Cl. 23.
Lewis, Mack O., d. b. a. Therapy Co., to Robinson-Bracey, Inc., Detroit, Mich. 636,713, pub. 8–21–56. Cl. 15.
Liberty Frock Co., Inc., Kansas City, Mo. 528,852, canc. Cl. 39.
Liberty Frock Co., Inc., Kansas City, Mo. 528,868, canc. Cl. 39.
Lisbon Sausage Co.: *See*—
Freire, Hilda A.
Loewe, S. A., Madrid, Spain. 636,670, pub. 8–21–56. Cl. 3.
Long Island Duck Growers Marketing Cooperative, Inc., Long Island, N. Y. 636,971. Cl. 46.
Lorentzen, Hans L., New York, N. Y., to Levolor Lorentzen, Inc., Hoboken, N. J. 336,249, ren. 9–1–56. Cl. 13.
Lorentzen, Levolor, Inc.: *See*—
Lorentzen, Hans L.
Lovable Brassiere Co., The, Atlanta, Ga. 636,849, pub. 8–21–56. Cl. 39.
Love, Joseph, Inc., New York, N. Y., to Cosgrove Brothers, Inc., Quincy, Mass. 337,805, ren. 8–18–56. Cl. 39.
Love, Joseph, Inc., d. b. a. Loveland Sportswear, New York, N. Y. 636,850, pub. 8–21–56. Cl. 39.
Loveland Sportswear: *See*—
Love, Joseph, Inc.
Lowenbaum, E., Mfg. Co., St. Louis, Mo. 528,843, canc. Cl. 39.
Lynch, John P., Co. of San Francisco, San Francisco, Calif. 636,944, pub. 8–21–56. Cl. 52.
MacAndrews & Forbes Co., Camden, N. J. 269,210, canc. Cl. 18.
Magla Products: *See*—
Glatt, Herbert.
Malis, Irving H., d. b. a. Veritas Products Co., to Veritas Products Co., Inc., New York, N. Y. 342,354, ren. 1–12–57. Cl. 44.
Mallinckrodt Chemical Works, St. Louis, Mo. 636,736, pub. 8–21–56. Cl. 18.
Maxson, W. L., Corp., The, New York, N. Y. 636,790, pub. 8–21–56. Cl. 26.
Mayfield Poultry and Egg Co., Bryan, Tex. 636,925, pub. 8–21–56. Cl. 46.
McCall, Frank, by J. Chiarello, Los Angeles, Calif. 354,911, 12(c) pub. 11–6–56. Cl. 21.
McCullum Hosiery Co., Northampton, Mass., by Claussner Hosiery Co., Paducah, Ky. 210,064, 12(c) pub. 11–6–56. Cl. 39.
McDonald & Son: *See*—
McDonald, Thomas H.
McDonald, Thomas H., d. b. a. McDonald & Son, West Chicago, Ill. 636,764, pub. 8–21–56. Cl. 22.
McElwain, W. H., Co., Boston, Mass., to International Shoe Co., St. Louis, Mo. 114,256, ren. 12–5–56. Cl. 39.
McGraw, Max, d. b. a. Fin 'N Feather Club, to Fin 'N Feather Farm, Inc., Dundee, Ill. 636,769, pub. 8–21–56. Cl. 23.
McGreevey, Werring & Howell, Inc., New York, N. Y. 636,969. Cl. 39.
McNeil Laboratories, Inc., Philadelphia, Pa. 636,721, pub. 8–21–56. Cl. 18.
Meadows, Harold H., d. b. a. Variety Products, Evansville, Ind. 636,938, pub. 8–21–56. Cl. 50.
Mediano Capdevila, Gonzalo, Barcelona, Spain. 636,781, pub. 8–21–56. Cl. 23.
Meinecke & Co., New York, N. Y., by Davol Rubber Co., Providence, R. I. 29,722, 12(c) pub. 11–6–56. Cl. 44.
Merck & Co., Inc., Rahway, N. J. 342,349, ren. 1–12–57. Cl. 10.
Metal Products Co.: *See*—
Neisworth, Thomas J.
Meyer, Joseph H., Brothers, Brooklyn, to Duranol Products, Inc., New York, N. Y. 335,139, ren. 8–26–56. Cl. 2.
Meyercord Co., The, Chicago, Ill. 636,825, pub. 8–21–56. Cl. 38.
Meyerowitz, Aaron, Brooklyn, N. Y. 275,954, 12(c) pub. 11–6–56. Cl. 35.
Meyers, Louis, & Son, to Louis Meyers & Son, Inc., New York, N. Y. 115,305, ren. 1–30–57. Cl. 1.
Meyers, Louis, & Son, Inc.: *See*—
Meyers, Louis, & Son.
Miami Footwear Corp., Miami, Fla. 636,839, pub. 8–21–56. Cl. 39.
Michel, Tony, Inc., Clayton, Mo. 528,701, canc. Cl. 39.
Michigan National Bank, Saginaw, Mich. 636,977. Cl. 102.
Milko Cone & Baking Co., Inc., d. b. a. Milko Drinking Straw Co., Chicago, Ill. 636,939, pub. 8–21–56. Cl. 50.
Milko Drinking Straw Co.: *See*—
Milko Cone & Baking Co., Inc.
Miller-Elmer Mfg. Co., Ltd., New Orleans, La., to Sun-Maid Raisin Growers of California, Fresno, Calif. 115,368, ren. 2–6–57. Cl. 46.
Miller Laboratories: *See*—
Miller, Samuel.
Miller Laboratories, Inc.: *See*—
Miller, Samuel.

Miller, Samuel, d. b. a. Miller Laboratories, to Miller Laboratories, Inc., New York, N. Y. 636,715, pub. 8–15–56. Cl. 18.
Miller Shoe Co., Inc.: *See*—
Miller Shoe Co., The.
Miller Shoe Co., The, to Miller Shoe Co., Inc., Cincinnati, Ohio. 339,889, ren. 10–27–56. Cl. 39.
Miller-Smith Hosiery Mill, Chattanooga, Tenn. 636,855–6, pub. 8–21–56. Cl. 39.
Millway Knitting Mills, Inc., Millway, Pa. 528,819, canc. Cl. 39.
Minneapolis Brewing Co., Minneapolis, Minn. 636,927, pub. 8–21–56. Cl. 48.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. 636,792, pub. 8–21–56. Cl. 26.
Modern Engineering Co., Inc., St. Louis, Mo. 338,737, ren. 9–15–56. Cl. 34.
Modern Products, Inc. of America, d. b. a. Modern Products, Inc., Milwaukee, Wis. 636,902, pub. 8–21–56. Cl. 46.
Monsanto Chemical Co., St. Louis, Mo. 636,706, pub. 8–21–56. Cl. 15.
Montana-Dakota Utilities Co., Minneapolis, Minn. 636,946, pub. 8–29–56. Cl. 100.
Mosaic Tile Co., The, Zanesville, Ohio. 289,773, 12(c) pub. 11–6–56. Cl. 12.
Mother Goose Corp., Westminster, Md. 636,851, pub. 8–21–56. Cl. 39.
Mother's Cake & Cookie Co., Oakland, Calif. 636,911, pub. 8–21–56. Cl. 46.
Motor Master Products Corp., Defiance, Ohio. 636,788, pub. 8–21–56. Cl. 23.
Myson, Inc., Chicago, Ill. 636,958–60. Cl. 18.
N. V. Hollandsche Melksuikerfabriek, Uitgeest, Provinciale weg, Netherlands. 636,901, pub. 8–14–56. Cl. 46.
Naamloose Vennootschap Drogerijen Maatschappij, Rotterdam, Netherlands, by Harold Ritchie, Inc., Clifton, N. J. 340,183, 12(c) pub. 11–6–56. Cl. 18.
Naef, M., & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 210,968, 12(c) pub. 11–6–56. Cl. 51.
Nathan Products Corp., New York, N. Y. 528,551, canc. Cl. 22.
National Lock Washer Co., The, Newark, N. J. 528,823, canc. Cl. 19.
National Rubber Machinery Co., Akron, Ohio. 636,746, pub. 1–31–56. Cl. 21.
Nelsworth, Thomas J., d. b. a. Metal Products Co., Leetsdale, Pa. 636,963. Cl. 34.
Newgren Co., The, Toledo, Ohio. 528,676, canc. Cl. 23.
N. Y. Condensed Milk Co., to The Borden Co., New York, N. Y. 14,051, ren. 2–6–57. Cl. 46.
Niemeyer Paint Co., St. Louis, Mo. 636,710, pub. 8–21–56. Cl. 16.
Nilos-Bement-Pond Co., New York, N. Y., to Pratt & Whitney Co., West Hartford, Conn. 339,044, ren. 9–22–56. Cl. 23.
Niota Textile Mills Co., Inc., Niota, Tenn. 636,859, pub. 8–21–56. Cl. 39.
Norquist Products, Inc., Jamestown, N. Y. 636,805, pub. 8–21–56. Cl. 32.
Norseman Boat Co., Bellingham, Wash. 636,739, pub. 8–21–56. Cl. 19.
Nuclear Music Co., Columbus, Ga. 636,814, pub. 8–21–56. Cl. 36.
Nucleonic Products Co., Inc., Los Angeles, Calif. 636,757, pub. 8–21–56. Cl. 21.
Nu-Dawn Porcelain Studio Inc., New York, N. Y. 636,893, pub. 8–21–56. Cl. 44.
Nu-Nails, Chicago, Ill. 636,894, pub. 8–21–56. Cl. 44.
Okonite Co., The, Passaic, N. J. 636,749, pub. 8–21–56. Cl. 21.
Okonite Co., The, Passaic, N. J. 636,750, pub. 8–21–56. Cl. 21.
Okonite Co., The, Passaic, N. J. 636,751, pub. 8–21–56. Cl. 21.
Old Colony Paint & Chemical Co., Los Angeles, Calif. 528,924, canc. Cl. 16.
Oliver Corp., The: *See*—
Oliver Farm Equipment Co.
Oliver Farm Equipment Co., to The Oliver Corp., Chicago, Ill. 343,061. ren. 2–9–57. Cl. 23.
Olmstead Fisheries Ltd., Wheatley, Ontario, Canada. 636,900, pub. 8–21–56. Cl. 46.
Oneida Ltd., Oneida, N. Y. 430,017, 12(c) pub. 11–6–56. Cl. 28.
Orr, Charles P., d. b. a. Spray Starting Fluid Co., Camden, N. J. 636,704, pub. 8–21–56. Cl. 15.
Orthopedic Shoes, Inc., to The Selby Shoe Co., Portsmouth, Ohio. 342 464. ren. 1–19–57. Cl. 39.
O'Sullivan Rubber Corp., Winchester, Va. 636,864, pub. 8–21–56. Cl. 39.
Oz Corp., The, New York, N. Y. 636,818, pub. 8–21–56. Cl. 37.
Paas, Alfred C. S., d. b. a. C. P. Braiding Co., Central Valley, N. Y. 528 754, canc. Cl. 22.
Paine & Williams Co., The, Cleveland, Ohio. 636,940, pub. 8–21–56. Cl. 50.
Palmer, A. N., Co., The, Chicago, Ill. 636,691, pub. 8–21–56. Cl. 11.
Parmet, Joseph, Co., Inc., The, Catasauqua, Pa. 636,801, pub. 8–21–56. Cl. 29.
Partridge, Frank, Inc., New York, N. Y. 528,654, canc. Cl. 4.
Patterson, C. J., Co., Kansas City, Mo. 528,897, canc. Cl. 46.
Pellisson Pere & Cie, Cognac, France. 528,670, canc. Cl. 49.
Pellon Corp., New York, N. Y. 636,874, pub. 3–20–56. Cl. 42.
Peninsular Chemical Co., Detroit, Mich., to The Pensilar Co. Inc., New York, N. Y., 115,015, ren. 1–16–57. Cl. 44.
Pensilar Co. Inc., The: *See*—
Peninsular Chemical Co.
Peri-Lusta, Ltd.: *See*—
Campbell, Metzger & Jacobson.
Perkins Products Co., Chicago, Ill. 528,821, canc. Cl. 45.
Petersen Oven Co., The, Franklin Park, Ill. 636,812, pub. 8–21–56. Cl. 35.
Petter, James H., New York, N. Y. 636,936, pub. 8–21–56. Cl. 50.
Pfeiffer, Frank H., Co., Inc., Worcester, Mass. 636,862, pub. 8–21–56. Cl. 39.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 636,735, pub. 8–21–56. Cl. 18.
Phenix Cheese Co., New York, N. Y., by Kraft Foods Co., Chicago, Ill. 110,295, 12(c) pub. 11–6–56. Cl. 46.
Plas-Tex Corp., The, Los Angeles, Calif. 528,771, canc. Cl. 22.
Plastic Age Reinforced Products Inc., San Fernando, Calif. 636,766, pub. 8–21–56. Cl. 22.
Plybeat Wood Products, Newark, N. J. 528,696, canc. Cl. 12.
Pollack, Max, & Co., Inc., New York, N. Y. 636,891, pub. 2–7–56. Cl. 43.
Popular Science Publishing Co., Inc., New York, N. Y. 636,827, pub. 8–21–56. Cl. 38.
Pratt & Whitney Aircraft Co., The, Hartford, Conn. 270,465, canc. Cl. 23.
Pratt & Whitney Co.: *See*—
Niles-Bement-Pond Co.
Pretty Penny, Inc., Atlanta, Ga. 528,624, canc. Cl. 39.
Prints-Biederman Co., The, Cleveland, Ohio. 528,662, canc. Cl. 42.
Priv. Fabbrica Maraschino "Excelsior" Girolamo Luxardo S. p. A., Torreglia, Padova, Italy. 636,931, pub. 8–21–56. Cl. 49.
Proban Ltd., London, England. 636,871, pub. 8–21–56. Cl. 40.
Procter & Gamble Co., The, Cincinnati, Ohio. 636,945, pub. 8–21–56. Cl. 52.
Proderite Ltd., Wednesbury, Staffordshire, England. 636,708, pub. 8–21–56. Cl. 16.
Progressive Silk Finishing Co., Hoboken, N. J. 528,877, canc. Cl. 106.
Progressive Silk Finishing Co., Hoboken, N. J. 528,878, canc. Cl. 106.
Pro-Phy-Lac-Tic Brush Co.: *See*—
Pro-phy-lac-tic Brush Co.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-Phy-Lac-Tic Brush Co., Florence, Mass. 337,925, ren. 8–25–56. Cl. 29.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-Phy-Lac-Tic Brush Co., Florence, Mass. 337,926, ren. 8–25–56. Cl. 29.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-phy-lac-tic Brush Co., Florence, Mass. 338,005, ren. 8–25–56. Cl. 29.
Pyramid Mfg. Co., Inc., New York, N. Y. 636,884, pub. 8–21–56. Cl. 42.
Radio Corp. of America, New York, N. Y. 636,817, pub. 8–21–56. Cl. 36.
Ratner, Walter, d. b. a. Zoro-Cin, Chicago, Ill. 636,724, pub. 8–21–56. Cl. 18.
Rawl Engineering & Mfg. Co., Inc., Providence, R. I. 636,668, pub. 8–21–56. Cl. 2.
Raybestos-Manhattan, Inc., Manheim, Pa. 636,941, pub. 8–21–56. Cl. 50.
Rehabilitation Equipment Inc., New York, N. Y. 636,895, pub. 8–21–56. Cl. 44.
Republic Steel Corp., Cleveland, Ohio, by The Superock Co., Wilmington, Del. 338,166, 12(c) pub. 11–6–56. Cl. 12.
Rhoades Glove Co., The, Columbus, Ohio. 636,847, pub. 8–21–56. Cl. 39.
Richards & Associates: *See*—
Richards, Harvey B.
Richards, Harvey B., d. b. a. Richards & Associates, Chicago, Ill. 528,917, canc. Cl. 2.
Richford Corp., New York, N. Y, 636,663, pub. 8–21–56. Cl. 2.
Riegel, Robert F., d. b. a. Riegel & Son Elevator, Greenville, Ohio. 636,782, pub. 8–21–56. Cl. 23.
Riegel & Son Elevator: *See*—
Riegel, Robert F.
Ritchie, Harold, Inc.: *See*—
Naamloose Vennootschap Drogerijen Maatschappij.
Robinson-Bracey, Inc.: *See*—
Lewis, Mack O.
Robinson, James S., Apothecary: *See*—
Robinson, Mrs. James S.
Robinson, Mrs. James S., d. b. a. James S. Robinson, Apothecary, to Mary Ann Robinson, d. b. a. "James S. Robinson Apothecary," Memphis, Tenn. 343,099, ren. 2–9–57. Cl. 18.
Robinson, Mrs. James S., d. b. a. James S. Robinson, Apothecary, to Mary Ann Robinson, d. b. a. "James S. Robinson Apothecary," Memphis, Tenn. 343,541, ren. 2–23–57. Cl. 18.
Robinson, Mary Ann: *See*—
Robinson, Mrs. James S.
Rochester Brewing Co., Inc., Rochester, N. Y. 636,928, pub. 8–21–56. Cl. 48.
Roma Wine Co., Inc., New York, N. Y., and Lodi, Calif., to Schenley Industries, Inc., New York, N. Y. 340,711, ren. 11–17–56. Cl. 49.
Rosa, Anthony G., d. b. a. Swiss Instrument Mfg. Co., Lyndhurst, N. J. 636,776, pub. 8–21–56. Cl. 23.
Rose, Mel, Mfg. Co., Dallas, Tex. 636,882, pub. 8–21–56. Cl. 42.
Rosewood Fabrics, Inc., New York, N. Y. 636,879, pub. 8–19–56. Cl. 42.
Rover Co. Ltd., The, Birmingham, England. 528,803, canc. Cl. 19.
Ruge, E. T., Co., The, Newark, Ohio. 636,783–4, pub. 8–21–56. Cl. 23.
Russell's Incorporations, Columbus, Ohio. 636,843, pub. 8–21–56. Cl. 39.
Rycenga Mfg. Co., Detroit, Mich. 528,620, canc. Cl. 19.
S K F Industries, Inc., Philadelphia, Pa. 528,588, canc. Cl. 23.
Sacks, Sam, d. b. a. Shine-O-Mat Rental Service, New York, N. Y. 636,949, pub. 8–21–56. Cl. 103.
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St. Pauli Brauerei C. L. Wilh. Brandt, Bremen, Germany. 636,929, pub. 8–21–56. Cl. 43.
Schaaf, J. H., Mfg. Co., Omaha, Nebr. 636,796, pub. 8–21–56. Cl. 26.
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Schering Corp., Bloomfield, N. J. 636,728, pub. 8–21–56. Cl. 18.
Schering Corp., Bloomfield, N. J. 636,729, pub. 8–21–56. Cl. 18.
Schering Corp., Bloomfield, N. J. 636,730, pub. 8–21–56. Cl. 18.
Schering Corp., Bloomfield, N. J. 636,731, pub. 8–21–56. Cl. 18.
Schering Corp., Bloomfield, N. J. 636,732, pub. 8–21–56. Cl. 18.
Schmidt, R. F., Co., The, Milwaukee, Wis. 528,568, canc. Cl. 22.
Schoeneman, J., Inc., by J. Schoeneman, Inc., Baltimore, Md. 337,567, 12(c) pub. 11–6–56. Cl. 39.
Scholastic Corp., to Scholastic Magazines, Inc., New York, N. Y. 636,822, pub. 8–21–56. Cl. 38.
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Scholastic Corp.
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Schutter-Johnson Candy Corp., to Schutter Candy Co., Chicago, Ill. 341,816, ren. 12–22–56. Cl. 46.
Schwartz, Leonard, and Co., Inc., Philadelphia, Pa. 636,838, pub. 8–21–56. Cl. 39.
Scope Instrument Corp., Mamaroneck, N. Y. 636,791, pub. 8–21–56. Cl. 26.
Scott, Walda, Originals, Inc., New York, N. Y. 636,968. Cl. 39.
Sears, Roebuck and Co., Chicago, Ill. 636,806, pub. 8–14–56. Cl. 32.
Seidman Bros. & Co., New York, N. Y. 636,852, pub. 8–21–56. Cl. 39.
Seismos Gesellschaft mit beschrankter Haftung, Hannover, Germany. 636,793, pub. 8–21–56. Cl. 26.
Sequoia Process Corp., Redwood City, Calif. 636,747, pub. 8–21–56. Cl. 21.
Seymour Foods, Inc., Topeka, Kans. 636,910, pub. 8–21–56. Cl. 46.
Shaver, James B., d. b. a. Iron Lung Ventilator Co., Cleveland, Ohio. 636,811, pub. 8–21–56. Cl. 34.
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Shoe Form Co. Inc., Auburn, N. Y. 528,638, canc. Cl. 50.
Shoe Form Co., Inc., Auburn, N. Y. 528,639, canc. Cl. 50.
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Smart Maid Coat & Suit Corp., New York, N. Y 636,875, pub. 8–21–56. Cl. 42.
Sociedade dos Vinhos Borges & Irmao, Lda., Villa Nova de Gaya, to Sociedade Dos Vinhos Borges & Irmao, S. A. R. L. Vila Nova de Gaia, Portugal. 338,490. ren. 9–8–56. Cl. 47.
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Somers, Charles, d. b. a. St. Charles Winery, to St. Charles Winery, Grapeview, Wash. 342,423. ren. 1–19–57. Cl. 47.
Southland Paper Converting Co., Los Angeles, Calif. 636,819, pub. 8–21–56. Cl. 37.
Spiro Inc., Hattiesburg, Miss. 636,673, pub. 8–21–56. Cl. 4.
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Stenton Laboratories, Inc., Luzerne, Pa. 339,850, ren. 10–13–56. Cl. 18.
Stevens, J. P., & Co. Inc., New York, N. Y. 636,881, pub. 8–21–56. Cl. 42.
Stokes, F. J., Machine Co., Philadelphia, Pa. 528,673, canc. Cl. 23.
Storck Baking Co., Parkersburg, W. Va. 636,921, pub. 8–21–56. Cl. 46.
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Sucro-Blanc, Inc., New York, N. Y. 339,360, ren. 10–6–56. Cl. 6.
Sullivan Valve and Engineering Co., Butte, Mont. 636,694, pub. 8–21–56. Cl. 13.
Sulzer Freres, Societe Anonyme, Winterthur, Switzerland. 528,885, canc. Cl. 23.
Sun-Maid Raisin Growers of California: *See*—
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Sun Oil Co., Philadelphia, Pa. 636,702, pub. 8–21–56. Cl. 15.
Superior Chemical Products, Inc., Philadelphia, Pa. 340,312, 12(c) pub. 11–6–56, Cl. 6.
Superock Co., The: *See*—
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Supreme Shrine of the Order of the White Shrine of Jerusalem, The, Lorain, Ohio. 636,954. pub. 8–21–56. Cl. 200.
Sure-Spray Atomizer Corp., New York, N. Y. 636,892, pub. 8–21–56. Cl. 44.
Susquehanna Waist Co., Philadelphia, by Susquehanna Waist Co., Upland, Pa. 337,550, 12(c) pub. 11–6–56. Cl. 39.
Swift & Co., Chicago, Ill. 636 923, pub. 8–21–56. Cl. 46.
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Syracuse Handbags, Inc., The, Syracuse, N. Y. 636,671, pub. 8–21–56. Cl. 3.
Terhune, Yearance & Wolff, Inc., New York, N. Y., to Berkshire Woolen Co., Pittsfield, Mass. 343,192, ren. 2–9–57. Cl. 42.
Texas Citrus Fruit Growers Exchange, Mission, Tex. 528,883, canc. Cl. 46.
Therapy Co.: *See*—
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Thommen, Inc., New York, N. Y. 636,761, pub. 8–21–56. Cl. 22.
Theta Xi Fraternity, St Louis, Mo. 636,955–6, pub. 8–21–56. Cl. 200.
Togor Publications, Inc., New York, N. Y. 636,830, pub. 8–21–56. Cl. 38.
Toys and Novelties Publishing Co., New York, N. Y. 636,832, pub. 8–21–56. Cl. 38.
Tri-O Co., The, Pacific Palisades, Calif. 636,773, pub. 8–21–56. Cl. 22.
Tri-Lure Co., Mill Rift, Pa. 636,767, pub. 8–21–56. Cl. 22.
Turnbull Cone Baking Co., Chattanooga, Tenn. 636,898, pub. 3–29–55. Cl. 46.
Turner Brass Works, The, Sycamore, Ill. 636,809, pub. 8–21–56. Cl. 34.
U-Need-Em Specialty Co., Brooklyn, N. Y. 636,869, pub. 8–21–56. Cl. 39.
United Aircraft Corp., East Hartford, Conn. 528,586, canc. Cl. 19.
United Catalog Publishers, Inc., New York, N. Y. 636,834, pub. 8–21–56. Cl. 38.
U. S. Metal Products Co., Inc., Brooklyn, N. Y. 636,740, pub. 8–21–56. Cl. 19.
United States Playing Card Co., The, Cincinnati, Ohio. 636,709, pub. 8–21–56. Cl. 16.
United States Rubber Co., Passaic, N. J. 114,398, ren. 12–12–56. Cl. 39.
United States Steel Corp., Pittsburgh, Pa. 636,818, pub. 8–21–56. Cl. 35.
U. S. Vitamin Corp., New York, N. Y. 636,727, pub. 8–21–56. Cl. 18.
Universal Atomics Corp., New York, N. Y. 636,756, pub. 8–21–56. Cl. 21.
Ur-Kar Oil Products Co.: *See*—
Hoefer, Chris P.
Utica Cutlery Co., Utica, N. Y. 636,780, pub. 8–21–56. Cl. 23.
Valspar Corp., The, Ardmore, Pa. 636,711, pub. 8–21–56. Cl. 16.
Variety Products: *See*—
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Velveray Corp., Passaic, N. J. 636,873, pub. 8–21–56. Cl. 42.
Veritas Products Co.: *See*—
Malis, Irving H.
Veritas Products Co., Inc.: *See*—
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Verney Corp., Boston, Mass. 528,820, canc. Cl. 42.
Virginia Maid Hosiery Mills, Inc., Pulaski, Va. 636,870, pub. 8–21–56. Cl. 39.
Wabash Railroad Co., St. Louis, Mo. 636,951, pub. 8–21–56. Cl. 105.
Waldorf Paper Products Co., St. Paul, Minn. 636,935, pub. 8–21–56. Cl. 50.
Walker Industries Ltd., Dublin, Ireland. 636,961. Cl. 19.
Wallau, Alex Lee, Inc., New York, N. Y. 636,860, pub. 8–21–56. Cl. 39.
Walter, Martin, Ltd., Folkestone, Kent, England. 636,742, pub. 8–21–56. Cl. 19.
Wanamaker, John, Philadelphia, Philadelphia, Pa. 636,836, pub. 8–21–56. Cl. 39.
Ward, F. D., Ltd., Higham Ferrers, England. 636,867, pub. 8–21–56. Cl. 39.

Warp Brothers: *See*—
Flex-O-Glass, Inc.
Water Treatment Engineering Corp., Fort Wayne, Ind. 636,804, pub. 8–21–56. Cl. 31.
Watson-Stillman Co., The: *See*—
Leschen, A., & Sons Rope Co.
Webster, G. L., Co., Inc., Cheriton, Va. 528,603, canc. Cl. 46.
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Welding Advertising Agency, Inc., New York, N. Y. 636,831, pub. 8–21–56. Cl. 35.
Wenselmann-Bohrer-Co. A.-G., Munich, Germany. 636,779, pub. 8–21–56. Cl. 23.
Weston, Michael, d. b. a. Weston Products Co., Brooklyn, N. Y., to Weston Products Co. 528,839, canc. Cl. 50.
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Weston, Michael.
Weston's Inc., Columbia, S. C. 636,744, pub. 8–21–56. Cl. 19.
Whitcomb Locomotive Co., The, Rochelle, Ill. 528,655, canc. Cl. 23.
White Bros. & Co., Little Rock, Ark. 528,664, canc. Cl. 22.
Williams, Cy, d. b. a. Cy Williams Fabricators, Port Washington, N. Y. 528,558, canc. Cl. 12.
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Williamson, John A., d. b. a. Williamson Orchard, Caldwell, Idaho. 636,916, pub. 8–21–56. Cl. 46.
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Wilson Sporting Goods Co., Chicago, Ill. 528,825, canc. Cl. 22.
Winter & Co., Inc., New York, N. Y. 636,816, pub. 8–21–56. Cl. 36.
Wood, Fay, Corp., New York, N. Y. 528,587, canc. Cl. 51.
Wood Flong Corp., Hoosick Falls, N. Y. 636,942, pub. 8–21–56. Cl. 50.
Woolworth, F. W., Co., New York, N. Y. 528,922, canc. Cl. 16.
Wooster Rubber Co., The, Wooster, Ohio. 636,933, pub. 8–21–56. Cl. 50.
X-Pando Corp., Long Island City, N. Y. 397,331, 12(c) pub. 11–6–56. Cl. 12.
Younger, George, & Son Ltd., Alloa, Scotland. 528,696, canc. Cl. 46.
Zip A Bac Co.: *See*—
Clark, Carmelita M.

U. S. GOVERNMENT PRINTING OFFICE: 0—1956

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November 13, 1956 Volume 712 Number 2

# PATENTS

## NOTICES

### Adjudicated Patent

(C. A. Oreg.) Smith Patent No. 2,001,271 (137—244), for a gate valve, *Held* infringed. *The United States National Bank of Portland, Oregon et al.* v. *Fabri-Valve Company of America*, 235 F.2d 563; 110 USPQ 77.

### Patents Available for Licensing or Sale

2,628,846. Trailer Vehicle and Coupling Therefor. Gilbert Bratlien, 3915 De Garmo Ave., El Monte, Calif.

2,747,904. Device for Removably Connecting an Element to a Wall. Karl Koch, Morfelder Landstrasse 45, Frankfurt am Main, Germany. Correspondence to Dr. Max Kronenberg, 1429 E. McMillan St., Room 202, Cincinnati 6, Ohio.

2,749,619. Automatic Drafting Scale. Eugene M. Todd, E. Swamp Road, R. D. 3, Doylestown, Pa.

2,757,953. Bale Grapple (Hay and Cotton Bale Loading Equipment). Paul E. Kunkel, % Cassel Bros. Gin, Route 1, Lockney, Tex.

2,763,089. Ball-End Fishhook. Marshall E. McDonald, P. O. Box 402, Babbitt, Nev.

Michael Grasiosi offers the following two patents. Inquiries concerning the patents should be addressed to: Michael Grasiosi, 383 Second St., Jersey City 2, N. J.

2,692,316. Combination Safety Fuse Plug.

2,706,818. Control Device for Flush Tanks.

General Electric Company is prepared to grant nonexclusive licenses under the following 33 patents on reasonable terms to domestic manufacturers.

Applications for license may be addressed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass., Attention Patent Counsel.

Re. 22,744. Electric Circuit Breaker.

2,246,180. Lightning Arrester.

2,254,696. Resistance Welding Electrode.

2,261,633. Potential Distributing Insulator Tube and Method for Making Same.

2,267,393. Electric Circuit Interrupting Apparatus.

2,287,499. Jumpering Device.

2,296,621. Lightning Arrester.

2,300,195. Electrical Apparatus.

2,324,888. Electric Switch.

2,325,935. Electrical Protective Device.

2,335,062. Electric Circuit Interrupter.

2,348,029. Reclosing Circuit Interrupting Device.

2,354,907. Electric Switch.

2,371,969. Impulse Protected Fuse.

2,379,729. Electric Circuit.

2,380,769. Reclosing Circuit Interrupting Device.

2,372,035. Lightning Arrester.

2,385,663. Protective Device.

2,391,681. Gang Operating Mechanism for Switching Devices.

2,399,028. Terminal Construction.

2,414,308. Protective Gap Device.

2,424,126. Electric Circuit Breaker.

2,433,666. Electric Circuit Interrupter.

2,464,565. Disconnecting Device.

2,555,971. Arc Extinguishing Device.

2,600,305. Electrical Protective Device.

2,677,810. Step Voltage Regulator.

2,682,176. Resilient Power Transmission Mechanism.

2,707,261. Motor Speed Reduction Device.

2,727,961. Refusable Fuseholder.

2,740,016. Electrical Fuseholder Construction.

2,749,408. Fuseholder Having a Spring Loaded Cap.

2,753,467. Parallel Operation of Transformers.

### Disclaimer

2,697,742.—*John Evans*, Princeton, N. J. SWITCHING APPARATUS. Patent dated Dec. 21, 1954. Disclaimer filed Oct. 19, 1956, by the assignee, *Radio Corporation of America*.

Hereby disclaims the remaining portion of the term of said patent.

### New Applications Received During September 1956

| | |
|---|---|
| Patents | 5,343 |
| Designs | 336 |
| Plants | 11 |
| Reissues | 10 |
| Total | 5,700 |

### Issue

| | | |
|---|---|---|
| Patents | 826—No. 2,769,978 to No. | 2,770,803, incl. |
| Designs | 55—No. 179,178 to No. | 179,232, incl. |
| Plants | 1—No. 1,527 | |
| Reissues | 2—No. 24,237 to No. | 24,238, incl. |
| Total | 884 | |

# CONDITION OF PATENT APPLICATIONS AS OF SEPTEMBER 28, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217,262 |
| Total number of pending Design applications | 6,321 |
| Total number of applications awaiting action (excluding Designs) | 120,294 |
| Total number of Design applications awaiting action | 2,772 |
| Date of oldest new application | Apr. 29, 1955 |
| Date of oldest amended application | May 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, I. G., CHEMICAL AND RELATED ARTS | 6, 21, 26, 43, 46, 59, 86, 89, 90, 63, 64. |
| II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 16, 23, 28, 37, 42, 44, 48, 51, 54, 60, 70. |
| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 39, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 8, 20, 29, 33, 36, 40, 41, 52, 66. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 5, 9, 10, 18, 22, 25, 45, 67. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 25, 30, 32, 49, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders | 10-21-55 | 11-9-54 |
| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 12-22-55 | 6-7-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 1-22-56 | 11-8-54 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 12-28-55 | 1-28-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminuters; Fences; Gates | 12-12-55 | 5-3-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-1-55 | 3-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-9-55 | 1-3-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 7-14-55 | 9-23-54 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 12-20-55 | 12-14-54 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 9-21-55 | 1-17-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cultery; Cleaning and Liquid Treatment of Solids | 2-3-56 | 4-6-55 |
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| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 12-5-55 | 10-4-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 9-20-55 | 9-17-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 1-3-56 | 9-23-54 |
| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 9-28-55 | 7-20-54 |
| 17. (IV) LEIGHEY, R. A. (HOFFMAN, R. J., acting), Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 11-14-55 | 1-7-55 |
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| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 12-14-55 | 4-26-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 1-10-56 | 1-3-55 |
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| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 1-9-56 | 10-14-54 |
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| 26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 1-31-56 | 7-26-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 1-9-56 | 3-11-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyors; Fluid Current Conveyors; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-10-55 | 1-10-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 11-23-55 | 2-21-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 4-2-56 | 5-9-55 |



| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 9-9-55 | 5-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 1-9-56 | 6-18-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 12-12-55 | 9-14-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 11-22-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Plastic Material Handling, Filling; Toilet, Kitchen and Table Articles | 1-12-56 | 9-16-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 9-26-55 | 9-9-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 10-14-55 | 9-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 1-5-56 | 6-6-55 |
| 39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-9-56 | 10-1-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 1-9-56 | 9-1-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds | 7-20-55 | 9-9-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 4-29-55 | 10-19-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Weed Treatment Apparatus) | 9-22-55 | 1-25-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar ;Sonar; Torpedoes | 6-2-55 | 6-18-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 10-28-55 | 2-9-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., Senionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 7-26-55 | 1-10-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 1-10-56 | 7-20-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems; Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transisters, Barrier Layer Rectifiers | 8-12-55 | 9-16-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 9-1-55 | 2-21-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 12-20-55 | 9-7-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 12-20-55 | 9-24-54 |
| 52. (V) NEFF, P. E., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 10-24-55 | 11-16-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 12-2-55 | 9-30-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 10-24-55 | 10-4-54 |
| 55. (VII) KLINE, J. B., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminuters | 7-29-55 | 11-16-54 |
| 56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 12-23-55 | 9-13-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 2-19-56 | 2-9-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittons | 10-17-55 | 11-4-54 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 9-29-55 | 1-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 8-2-55 | 9-30-54 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 12-6-55 | 2-4-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 1-9-56 | 7-9-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Ligains, Carbonhydrate Derivatives; Fats and Metal Containing Carbocyclic or Acyclic Carbon Compounds | 11-28-55 | 12-15-54 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 12-27-55 | 12-29-54 |
| 66. (V) LISANN, L., Geometric Instruments; Automatic Weighing Scales; Acoustics | 10-27-55 | 6-21-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-6-55 | 2-18-55 |
| 68. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators | 11-17-55 | 6-15-54 |
| 70. (II) BREWBINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 9-14-55 | 4-6-55 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 1-16-56 | 10-14-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-9-56 | 7-5-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 12-2-55 | 2-14-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 2-6-56 | 2-1-56 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 2-27-56 | 2-27-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 2-2-56 | 2-13-56 |

The following divisions have been abolished: 65 and 69

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during November 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1955*.

| | |
|---|---|
| Patents | Numbers 2,178,536 to 2,181,857, inclusive |
| Plant Patent | Numbers 346 to 348, inclusive |

# PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,018,968, Keeney and Ferm, Rolling mill; 2,072,122, A. B. Montgomery, same; 2,072,121, same, Method and apparatus for guiding material; 2,087,065, same, Method and apparatus for rolling; 2,214,107, same, Method of rolling; 1,977,214, A. P. Stockel, Method and apparatus for hot rolling strip metal, filed Mar. 9, 1950, D. C., E. D. Mich. (Detroit), Doc. 9070, *McLouth Steel Corp.* v. *The Cold Metal Products Co.* Patent 2,018,968 held invalid as to claims 2, 5, 10, 11, and 16 to 26 inclusive; Patent 1,977,214 held invalid as to claims 2 to 5 inclusive, 11 to 13 inclusive, 18 and 22; Patent 2,072,121 held invalid as to claims 2 and 3; Patent 2,072,122 held invalid as to claims 6, 10, and 15 to 20 inclusive; Patent 2,087,065 held invalid as to claims 1 to 5 inclusive; Patent 2,214,107 held invalid as to claims 4 and 6 to 10 inclusive (notice Oct. 5, 1956).

1,977,214. (See 1,918,968.)

2,072,121. (See 1,918,968.)

2,072,122. (See 1,918,968.)

2,087,065. (See 1,918,968.)

2,104,949, 2,199,227, A. M. Marks, Crystalline formation, appeal filed Oct. 19, 1955, C. C. A., 1st Cir., Doc. 5055, *Alvin M. Marks et al.* v. *Polaroid Corp.* Judgment of District Court affirmed (notice Oct. 10, 1956).

2,104,797, M. Birkigt, Percussion fuse for projectiles, filed Oct. 5, 1956, Ct. Cls., Doc. 432/56, *Brevets Aero-Mechaniques, S. A.* v. *The United States.*

2,198,227. (See 2,104,949.)

2,211,612, 2,211,614, R. M. Bowie, Cathode ray tube, filed July 20, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16754, *Sylvania Electric Products Inc.* v. *Claremont Tube Corp.* Dismissed without prejudice Oct. 10, 1956.

2,211,614. (See 2,211,613.)

2,214,107. (See 1,918,968.)

2,220,504, W. Kromer, Woodworking tool, filed June 6, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c989, *Lace Die Casting Co. et al.* v. *Edward Lasham Co. et al.* Stipulation and consent order dismissing defendants Joseph M. Andalman, Avrum M. Andalman; Leo Andalman and Rose Finsky, doing business as Edward Lasham Co. Aug. 3, 1956: On stipulation; complaint and counterclaim dismissed Sept. 14, 1956.

2,220,542, K. Schmidt, Combination purse and billfold, filed Oct. 2, 1956, D. C., S. D. N. Y., Doc. 113/264, *Marioness & Co. Inc.* v. *Bernard Cahn Co. Inc.*

2,224,052, C. A. Kaufman, Stocking and method of knitting, filed Oct. 5, 1956, D. C., M. D. N. C. (Greensboro), Doc. 1056–G, *Alamance Industries, Inc.* v. *Sherney Hosiery Mills, Inc.*

2,239,200. (See 2,496,194.)

2,266,661, J. G. Sola, Alternating current supply system, filed Aug. 16, 1955, D. C., N. J. (Newark), Doc. 733/55, *Sola Electric Co.* v. *Universal Mfg. Corp.* Stipulation and order of dismissal Oct. 5, 1956.



2,266,263, D. A. Lyon, Method for coating optical elements, filed Mar. 11, 1954, D. C., W. D. N. Y. (Buffalo), Doc. 6135, *Dean A. Lyon* v. *Wollensak Optical Co.* Judgment favor plaintiff Sept. 19, 1956; order dismissing 3rd party complaint Oct. 3, 1956.

2,466,194, S. Bennett, Powder distributor for preventing offset from freshly printed sheets; 2,230,899, W. Wilson, Non-offset spraying device, filed Mar. 7, 1950, D. C., S. D. N. Y., Doc. 56/230, *International Dry Spray Corp. et al.* v. *Western Newspaper Union.* Stipulation and order of discontinuance (notice Sept. 27, 1956).

2,500,510, C. Cohen et al., Apparatus for making cheese, filed Dec. 22, 1952, D. C., W. D. Wis. (Madison), Doc. 2421, *Chain-O-Lakes, Inc. et al.* v. *Blue Moon Foods, Inc.* Consent judgment; patent held valid and infringed; injunction granted enjoining defendant from further infringement Sept. 12, 1956.

2,645,769. (See Des. 164,294.)

2,647,666, Stewart and Winters, Retrieving arrangement for well drilling operations, filed Sept. 1, 1954, D. C., S. D. Tex. (Houston), Doc. 8462, *Tri-State Oil Tool Co., Inc.* v. *Houston Oil Field Material Co., Inc.* Consent decree; patent held valid and infringed; no injunction issued; counterclaim dismissed with prejudice Oct. 5, 1956.

2,678,753, W. O. Hersey, Toy pistol; 2,724,338, same, Toy gun, filed Oct. 4, 1956, D. C., S. D. N. Y., Doc. 113/302, *Knickerbocker Plastic Co., Inc.* v. *Empire Plastic Corp.*

2,707,380, D. C. Taggart, Bed pad, filed Oct. 8, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16972, *The General Cellulose Co., Inc.* v. *Whitestone Products Co., Inc. et al.*

2,724,338. (See 2,678,753.)

2,724,702, D. B. Marshall, Method of improving and simplifying the cold milling of soap and product obtained thereby, filed Oct. 10, 1956, D. C. Md. (Baltimore), Doc. 9207, *Donald E. Marshall* v. *The Procter & Gamble Mfg. Co. et al.*

2,737,422, J. H. Barnes, Trim and protective member for attachment to an automobile tire and wheel assembly, filed May 2, 1956, D. C. N. J. (Newark), Doc. 378/56, *James H. Barnes et al.* v. *Eastern Molding Co. et al.* Stipulation of dismissal; patent infringed (notice Oct. 5, 1956).

2,749,866, R. H. Thomas, Dispenser, appeal filed Sept. 25, 1956, C. C. A., 2nd Cir., Doc. 24310, *Carter Products, Inc.* v. *Bristol-Myers Co.*

2,757,536, H. E. Crawford, Knitting machine, filed Aug. 23, 1956, D. C., M. D. N. C. (Greensboro), Doc. 1042–G, *H. E. Crawford Co., Inc.* v. *Hemphill Co. et al.*

Des. 164,294, S. S. Fortino, Multiway electrical connector or similar article; 2,645,769, same, Blade engageable electric connector, filed Sept. 17, 1953, D. C., E. D. N. Y. (Brooklyn), Doc. 13843, *Gem Electric Mfg. Co., Inc.* v. *A. K. Electric Corp. et al.* Dismissed with prejudice Oct. 10, 1956.

# REISSUES

## NOVEMBER 13, 1956

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

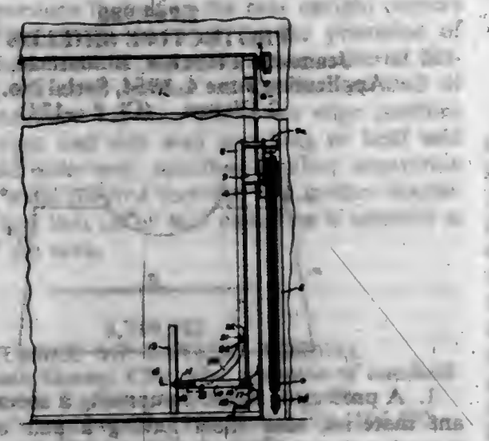
24,237

### OVERHEAD DOOR STRUCTURE

George W. Sjoboen, Birmingham, Mich., assignor to Steel Door Corporation, Pontiac, Mich., a corporation of Michigan

Original No. 2,741,806, dated April 17, 1956, Serial No. 403,265, January 11, 1954. Application for reissue May 17, 1956, Serial No. 585,598

11 Claims. (Cl. 20—19)



*11. In an overhead door structure of the type wherein a door panel is rotatably mounted on support arms which swing to generally vertical upward and downward positions for opening and closing the door, stabilizing structure for the door which comprises, a brace structure attached to said door panel adjacent each side through means including a pivotal bearing connection disposed generally on the axis of rotation of said support arms relatively to said door panel, each brace structure having at least two spaced apart connections to one of said support arms, one of which is a pivotal connection and the other of which is a shiftable connection, so that said brace structure can be swung about said pivotal connection to selected positions relatively to said support arm for centering said door panel in a doorway, means operable to lock said shiftable connection to secure said brace structure in adjusted position, said pivotal bearing connections being shiftable relatively to said door panel in a plane generally parallel to the plane of the door panel for adjusting the positions of said pivotal bearing connections with respect to the axis of rotation of said support arms on said door panel, and means operable to fix said pivotal bearing connections in adjusted relation.*

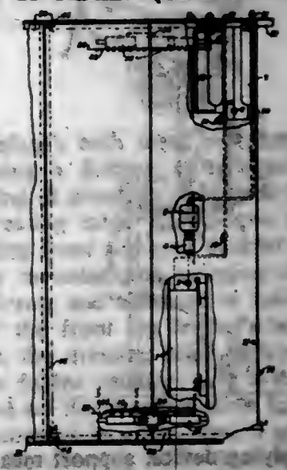
24,238

### POWER OPERATED HATCH COVER

Edward M. Greer, Great Neck, and Jean Mercier, New York, N. Y., assignors, by direct and mesne assignments, to G. M. E. Corporation, Brooklyn, N. Y., a corporation of New York

Original No. 2,491,261, dated December 13, 1949, Serial No. 646,696, February 9, 1946. Application for reissue January 30, 1956, Serial No. 562,374

15 Claims. (Cl. 160—188)



*10. A cover assembly for a hatchway, comprising a pair of panels each having an outer end an inner face lying in side by side relation in substantially a horizontal plane when they close the hatchway, means pivotally mounting an edge of one of said panels with respect to such hatchway, pivot means the axes of which extend along a straight line substantially parallel to the plane of the hatchway, connecting the adjacent edges of said panels for folding movement thereof between closed substantially horizontal position and open substantially vertical position, means to guide the opposite edge of the other of said panels in substantially a horizontal plane, reaction means for said pair of panels, said pivot means being substantially at the inner face of said panels and pivotally mounting said reaction means, and movable means carried by said cover assembly operatively connected to said reaction means to react thereagainst in order to effect movement of said panels about said pivot means, between closed and open position, said movable means being located under the outer face of said panel to be positioned between the outer faces of said panels when they are in open position, said reaction means, each of said pivot means and said movable means all being located within the perimeter of said panels when in closed position.*

# PLANT PATENTS

## GRANTED NOVEMBER 13, 1956

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,527

### ROSE PLANT

Thomas Edison Meteer, Fairport, N. Y.

Application December 6, 1955, Serial No. 551,462

1 Claim. (Cl. 47—61)

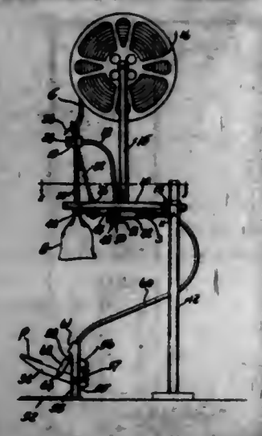
A new and distinct variety of rose plant substantially as hereinabove described and disclosed, characterized as to novelty by its thornless canes and branches; by its Carmine and related colored blooms; by the unusual form of its flower which may be described, in its early stage of bloom, as an attractive loose ball of petals resting on five or more large, outer, fully unfurled petals radiating from the base of said ball; by its abundant production of flowers with stiff narrow stem; by its dark, leathery leaves with small, simple serrations.

# PATENTS

## GRANTED NOVEMBER 13, 1956

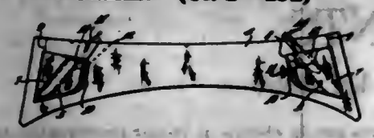
## GENERAL AND MECHANICAL

**2,769,978**
**CLIP APPLYING DEVICES**
**Ercole R. Berlasi, Saginaw, Mich.**
**Application June 29, 1953, Serial No. 364,661**
**10 Claims. (Cl. 1—187)**



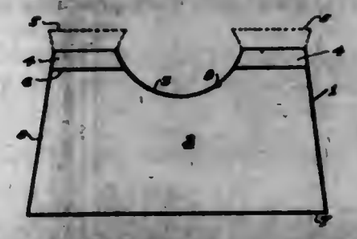
1. In a clip applying device, support means shaped to provide a recess into which the neck of a bag can be inserted, an anvil mounted on said support rearwardly of said recess, means for feeding a U-shaped clip including legs with depressions therein into position to be clinched, with the body portion thereof disposed forwardly of said anvil and the legs thereof extending forwardly to straddle the neck of said bag, oppositely disposed, substantially hook-shaped jaws having reversely curved adjacent ends pivotally mounted interjacent their ends on both sides of said recess, the inner walls of the hooked ends of said jaws being recessed to provide reduced leg portions engageable in the depressions in said legs of the clip when the jaws are swung laterally to close the legs of a clip about the neck of the bag, and means for swinging said jaws laterally and thence moving the jaws rearwardly toward said anvil to fold the ends of the clip inwardly, the recess of said jaws forming also substantially lateral shoulders engaging the legs and aiding in folding them inwardly when the jaws are moved rearwardly.

**2,769,979**
**NON-REMOVABLE COLLAR STAY**
**Gilbert O. Driesbach, Robesonia, Pa., assignor to Publix Shirt Corporation, New York, N. Y., a corporation of New York**
**Application August 2, 1954, Serial No. 447,363**
**4 Claims. (Cl. 2—132)**



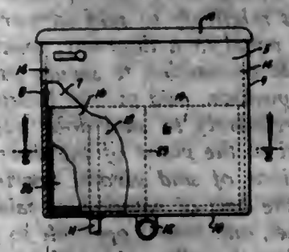
1. A collar construction comprising a bottom ply, cushion means secured to said bottom ply at each end of said collar, each of said cushion means comprising a soft cloth fabric piece seated against said bottom ply and conforming to said end configuration, a piece of regular shirting of lesser area than the soft cloth fabric piece next adjacent said soft cloth fabric piece, and said cushion means also comprising a strip of tape secured to said soft cloth fabric piece opposite said piece of regular shirting, spaced lines of stitching joining said strip of tape to said soft cloth fabric piece to provide a stay receiving pocket, and lines of stitching securing said assembly to said bottom ply.

**2,769,980**
**PROTECTIVE SHIELDS**
**Jeannette Fleischer, Bloomfield, N. J.**
**Application June 4, 1954, Serial No. 434,501**
**2 Claims. (Cl. 2—174)**



1. A protective shield comprising a sheet of heat resistant material, said sheet having a pair of lobes along one edge thereof, each lobe being folded upon itself and fastened in said folded position to form a pocket for engagement with the upper part of the ear of the wearer, said pockets being in inverted position when the shield is worn by the user.

**2,769,981**
**CONDENSATE INHIBITING LINER FOR TOILET FLUSH TANKS**
**Richard C. Jaye, Watertown, Wis., assignor to The Jaye Corporation, Watertown, Wis., a corporation of Wisconsin**
**Application November 10, 1953, Serial No. 391,179**
**3 Claims. (Cl. 4—10)**



1. A heat insulating liner for the interior of a toilet flush tank, characterized by: complementary panel sections each covering one side wall and substantially one-half of the front wall of the tank from the bottom thereof to a level higher than the normal level of water in the tank, each of said panel sections being of cellular plastic material having good heat insulating characteristics and the rigidity of which increases with the thickness thereof, said panel sections having a thickness which normally renders them substantially rigid and incapable of being bent around corners, and each having a solid portion which edgewise meets that of the other panel section substantially at a central zone of the front wall of the tank, and an end portion consisting of a plurality of substantially thin independently flexible laminations flatwise overlapping one another and together comprising the thickness of the panel section, the inner portions of said laminations being integrally joined to the solid portion of the panel section and overlying portions of the front wall of the tank inwardly from the adjacent upright corner of the tank, said laminations on both panel sections being of the same length and being bent around the upright front corners of the tank to substantially conform to the shape thereof and closely overlying and covering the interior surfaces of the side walls of the tank with their free ends contiguous to the back wall of the tank; further characterized by the provision of a back wall panel of similar cellular heat insulating material, flatwise overlying the inner surface of the back wall, and confined lengthwise between the free end portions of the laminations of said complementary panel sections to hold said end portions thereof in the rear upright corners of the tank; further characterized by the provision of panelling of similar cellular heat insulating material flatwise overlying the inner surface of the bottom wall of the tank and confined between the lower edge portions of the back, front and side wall panelling to hold said back, front and side wall panelling against separation from the tank walls covered thereby; and further characterized by the fact that all of said panelling is exposed at the interior of the tank.



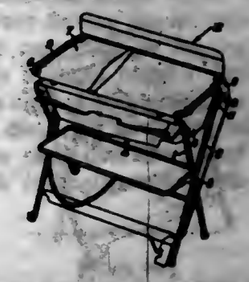


**2,769,982**
**PORTABLE MINIATURE URINAL**
**John R. Gossett, Orange City, Fla., assignor of one-half to Corrine E. Gossett, Orange City, Fla.**
**Application November 20, 1950, Serial No. 196,673**
**1 Claim. (Cl. 4—110)**



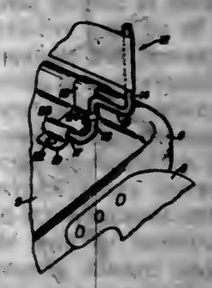
A portable trainee-type urinal for use by children in the home and, if desired, in an automobile or the like comprising a portable small-sized sheet material cabinet extremely light in weight and such that it may be easily picked up, handled and hand-carried from place to place, said cabinet being rectangular in general shape and cross-section, said cabinet being self-standing partially open at the back and embodying a flat bottom wall, flat vertical side walls and a flat top wall all of the same cross-sectional size, and a flat front wall, a vertically disposed semi-circular splash shield supported within the enclosing confines of said walls and provided at its lower portion with a horizontal dished liquid trapping and disposal basin vertically spaced above said bottom wall, said top wall covering the upper end of said shield and overlying said basin and being in vertically spaced relation and providing a balanced carrying handle, said front wall having opening means exposing said shield and basin, the vertical edge portions of said opening means projecting partly over and beyond the adjacent edge portions of said shield and the lower edge portion of said opening means projecting to a plane above said basin, a shelf fixed in the lower portion of said cabinet, located directly beneath said basin, and spaced above said bottom wall, guide means mounted atop said shelf, and a slidable liquid trapping and disposal drawer mounted on said shelf and held in a liquid receiving and collecting position beneath said basin by said guide means said drawer being removable for dumping by way of an opening provided therefor in said front wall, and said basin having drainage holes therein located above and in proper drainage relation to said drawer.

**2,769,983**
**DRESSING TABLE SCREEN GUARD SUPPORTING MEANS FOR INFANT'S BATH STAND**
**Chester C. Skirvin, Rochester, N. Y., assignor to Trimble, Inc., Rochester, N. Y., a corporation of New York**
**Application October 13, 1954, Serial No. 462,065**
**3 Claims. (Cl. 4—177)**



1. In an infant's bath stand and dressing table of the type comprising a folding cross-legged tub supporting stand consisting of pivotally connected front and rear leg frames, a dressing table including a rectangular metal frame including front and rear bars of tubular cross section pivotally mounted and swinging about the ends of the rear leg frame and arranged to fold downwardly and forwardly of the front leg frame when the leg frames are collapsed, the dressing table thus acting to hold the leg frames in folded relation, and a screen guard pivotally supported on the dressing table frame, the improvement which consists in a wire screen guard frame of less length than the dressing table frame and including U-shaped gripping portions in parallel relation spaced from the ends of the dressing table frame and releasably engaging the rear bar of the dressing table frame at points spaced from the ends thereof to retain the screen guard frame in upright position, said screen guard frame terminating in inwardly extending supporting trunnions, and brackets attached to the rear bar of said dressing table frame at points spaced from the ends thereof and having bearing portions engaged by said trunnions.

**2,769,984**
**SCREEN GUARD STRUCTURE FOR METAL DRESSING TABLE OF INFANT'S BATH STAND**
**Chester C. Skirvin, Rochester, N. Y., assignor to Trimble, Inc., Rochester, N. Y., a corporation of New York**
**Application October 13, 1954, Serial No. 462,066**
**5 Claims. (Cl. 4—177)**



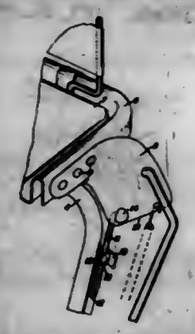
1. In an infant's bath stand and dressing table of the type comprising a folding tub supporting stand, a dressing table comprising a metal body having an upstanding curved rim around its edges, and a screen guard pivotally supported on the dressing table, the improvement which consists in a wire screen guard frame comprising parallel ends terminating in right-angled pintles extending inwardly toward each other immediately above said body of the dressing table, and rigid straps attached to said dressing table, said straps including rear attaching portions surrounding and embracing said rim and front attaching portions extending over and in contact with said body of the dressing table, said front portions including loops constituting bearings that receive said pintles.

2,769,985
ARTICLE POCKET FOR INFANT'S FOLDING BATH STAND
Chester C. Skirvin, Rochester, N. Y., assignor to Trimble, Inc., Rochester, N. Y., a corporation of New York
Application October 13, 1954, Serial No. 462,067
2 Claims. (Cl. 4—177)



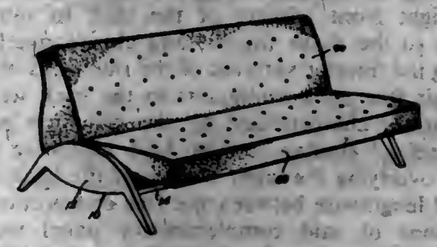
1. In an infant's folding cross-legged bath stand comprising pivotally connected front and rear leg frames having top rails, a fabric tub suspended between the leg frames on the top rails, and a towel rod pivotally mounted on the front leg frame, the improvement which consists in the fabric article pocket having a rear wall coextensive in length with the tub and attached at its upper edge throughout its length to the fabric tub along a line beneath and in rear of the top rail of the front leg frame, the article pocket including a front wall coextensive in length with the rear wall and attached at its ends to the ends of said rear wall, said front wall being spaced between its ends from the rear wall and having its top edge located substantially beneath the top of said rear wall, the bottom of the article pocket being located beneath the top of said front wall and beneath said towel rod, and the front wall of the pocket being provided at its central portion with means extending thereabove and connected to the towel rod.

2,769,986
DRESSING TABLE SUPPORTING MEANS FOR INFANT'S BATH STAND
Chester C. Skirvin, Rochester, N. Y., assignor to Trimble, Inc., Rochester, N. Y., a corporation of New York
Application October 13, 1954, Serial No. 462,068
2 Claims. (Cl. 4—177)



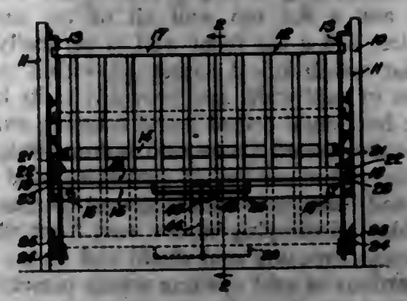
1. In an infant's folding bath stand and dressing table including a metal leg frame having rounded corners at the upper ends of the legs, a dressing table, and hinge plates secured to the ends of the dressing table, and spaced laterally from said rounded corners, the improvement which consists in supporting posts extending parallel to the adjacent legs and including inwardly bent lower ends engaging openings in the legs below said rounded corners, fastening means intermediate the ends of the posts securing the posts to the legs, and outwardly bent trunnions at the upper ends of the posts spaced laterally from the adjacent rounded corners of the legs and pivotally connected to and supporting said hinge plates.

2,769,987
SOFA BED
Harry A. Thal, Kew Gardens, N. Y.
Application October 28, 1955, Serial No. 543,389
3 Claims. (Cl. 5—37)



1. A sofa bed comprising spaced parallel end members, spaced parallel side rails carried by said end members and extending therebetween to define a bed frame, quadrant plates mounted on adjacent faces of the end members for movement in spaced vertical arcuate paths about a common axis which lies parallel with and above the side rails, each plate having an arcuate row of circumferentially spaced openings extending therethrough in concentric spaced relation to the common axis, each end member having an arcuate row of circumferentially spaced recesses opening into adjacent faces thereof, the rows of recesses lying in concentric spaced relation to the common axis, arms pivotally mounted on the end members for movement about the common axis adjacent the quadrant plates, a first cushion frame carried by the quadrant plates and extending therebetween for movement therewith about the common axis in a vertical arcuate path between the end members, a second cushion frame carried by the arms for movement therewith about the common axis in a vertical arcuate path between the end members, bolts carried by the second cushion frame for projection through selected openings in the quadrant plates to hold the second cushion frame at a selected position relative to the first cushion frame, bolts carried by the first cushion frame for entering selected recesses in the end members and holding the cushion frames in a selected position relative to the bed frame, and cushions carried by the cushion frames.

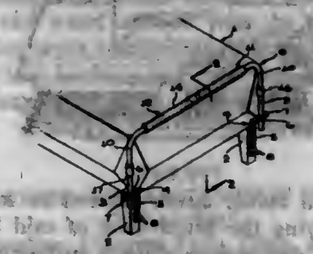
2,769,988
CRIB MUSIC BOX CONTROLLED BY DROP SIDE OF CRIB
Victor J. Bukolt, Stevens Point, Wis.
Application October 19, 1953, Serial No. 386,755
3 Claims. (Cl. 5—317)



1. The combination of a crib having end members connected by a stabilizing bar, a slidable drop side with guiding means therefore on the end members, said drop side being movable vertically with respect to the stabilizing bar from a lowered position in which the crib is open and the bottom of the drop side is below the stabilizing bar to an elevated position in which the crib is closed and the bottom of the drop side is above the stabilizing bar, a music box mechanism mounted on said stabilizing bar and having a spring driven winding drum and a pull cord to wind up its spring when the cord is pulled out of the box, and means detachably connecting the free end of the pull cord to the bottom portion of said drop side, the construction and arrangement being such that when the drop side is moved to its lowered open position the cord will be pulled out of the box and held taut to prevent operation of the music box, and when the drop side is then moved to its elevated closed position, the cord will be slackened and the music box will operate until the slack in the cord is taken up.

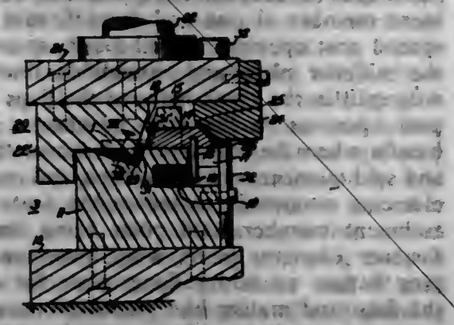


2,769,989
BEDCLOTHES ANCHOR
George H. Woodford, Lexington, Va.
Application January 22, 1954, Serial No. 405,562
2 Claims. (Cl. 5—320)



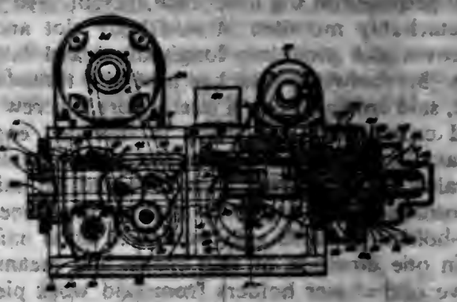
1. In a bed, a frame having legs at one end thereof, a bracket on each of said legs, a vertical rod for each bracket having an upper end, means releasably mounting each rod on a related bracket for vertical adjustment relative thereto, an inverted U-shaped frame having depending bars having lower ends, said U-shaped frame having a bight portion extending between said bars, pivot means pivoting the lower ends of said bars to the upper ends of said vertical rods to swing on an axis extending along said one end of the bed frame from an erect operative position to a pendant inoperative position, holding means acting between said rods and said bars for holding said frame in erect position, and a resilient friction covering on said bight portion for frictional holding engagement with bed clothes on said one end of the bed frame.

2,769,990
WEDGE NUT FORGING MACHINE
Ruben L. Pawsat, Maysville, Ky.
Application June 15, 1953, Serial No. 361,571
1 Claim. (Cl. 10—76)



A machine for forming a wedge nut from a flat metal blank of tear drop shape which comprises a lower main die member having an upwardly facing cavity therein of right angle shape in vertical section having a wedge-shaped portion of substantially semi-circular cross section and expanding in conic form toward the angle and an inclined wall at the large end of the wedge-shaped portion, a yoke mounted on the lower main die adjacent the wall of the cavity and having a horizontal guide opening therethrough extending lengthwise of the axis of the die cavity, an upper main die member having a downwardly extending projection complementary in form to that of the recess and of less extent in said vertical section and engageable with the blank, means for bringing the main dies toward each other to cause the projection to drive the blank into the cavity with the wide end of the blank engaging said wall and to shape the blank in the die cavity, a reciprocating die member mounted in and slidable along said guide opening, said reciprocating die member having a die face parallel to the wall of the cavity and an inclined cam face spaced therefrom, a pusher member attached to the upper main die member, said pusher member having an inclined face engageable with the inclined cam face of the reciprocating die as the main dies are brought toward each other and after the projection has engaged and partially shaped the blank, the reciprocating die being advanced into alignment with the wall when the main dies are closed to bend the wide end of the blank into alignment with the wall of the die cavity.

2,769,991
THREADING MACHINE HAVING SPINDLE FEED MEANS AND SPINDLE RETURN MEANS
Charles H. Lasmanel, Dayton, Ohio, assignor to The Sheffield Corporation, Dayton, Ohio, a corporation of Ohio
Application November 18, 1952, Serial No. 321,145
11 Claims. (Cl. 10—89)

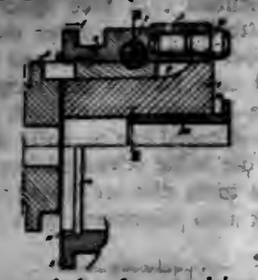


1. A threading machine comprising a threading unit and a workpiece holder, said threading unit comprising a tool holding spindle, means slidably and rotatably supporting said spindle in said threading unit, a holder for a collapsible cutting head fixed to the outer end of said spindle, a driving sleeve fitted coaxially about said spindle adjacent said cutting head holder, means connecting said drive sleeve to said spindle for rotation thereof but allowing relative sliding therebetween, a power drive means including change speed gearing connected to rotate said drive sleeve, a return sleeve coaxially mounted about said spindle adjacent said drive sleeve, abutment means on said spindle at each end of said return sleeve allowing relative rotation of the return sleeve with respect to said spindle but preventing axial movement between these units, a rack extending axially along one side of said return sleeve, a drive pinion engaging said rack, return power means drivingly connected to said pinion, a lead screw mounted on the inner end of said spindle and removably fixed thereto, lead nut segments about said lead screw, means mounting said lead nut segments in said unit in removable relationship thereto and for movement toward and from said lead screw, resilient means urging said lead nut segments radially outward from said lead screw, an annular cam means about the radially outward portions of said lead nut segments for positively engaging said lead nut segments with said lead screw, adjustable limit projections carried by said return sleeve as it moves axially with said spindle during a threading operation, control means for moving said cam means to release said lead nut segments and actuating said return means, in that sequence, after a threading operation, switch means actuated by said adjustable limit projections and connected to said control means for energization thereof at the selected limits of spindle travel determined by said adjustable limit projections.

2,769,992

## SELECTIVELY POSITIONED CAM MEANS FOR OPERATING PIVOTED CHASER CARRIERS

Roland Hoffherr, Bagny, Brasc, France
Application July 11, 1952, Serial No. 298,413
Claims priority, application France July 13, 1951
3 Claims. (Cl. 10—160)

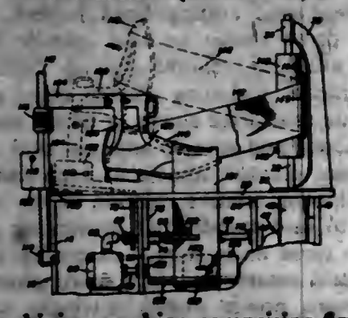


1. A screwing stock head comprising an annular body having a central opening for supporting the workpiece therethrough, a plurality of chaser-holders pivotally mounted on said body around said opening, a crown positioned around said body and rotatably supported thereon for moving circumferentially of said body, said body having a longitudinal slot provided in the periphery thereof, said crown having an annular laterally extending slot provided in the inner face thereof, a key slidably and detachably mounted in said body slot and also in said crown slot providing longitudinal and lateral connection therebetween, said key having a threaded lateral section, said crown having a lateral bore, a screw mounted in said crown bore and being in threaded engagement with said key threaded section for rotating said crown, a plurality of abutments each mounted on said crown and positioned for engaging and pivoting one of said chaser-holders towards said workpiece upon axial movement in one direction of said crown and means tending to move said chaser holders from said work piece when said abutments are moved from said chaser holders.

2,769,993

## SHOE SHINING MACHINE

Serafin S. Fernandez, Las Vegas, Nev.
Application December 4, 1952, Serial No. 323,981
3 Claims. (Cl. 15—97)



3. A shoe shining machine comprising first and second rollers having longitudinal axes disposed normal to each other, drive means simultaneously oscillating said rollers through limited angles about said axes, means carried by said rollers in circumferentially spaced relation for attaching polishing cloths to said rollers, polishing cloths having opposite ends connected to said rollers by said last mentioned means, said polishing cloths being disposed at substantially right angles to each other and in partial overlapping relation to form a T arrangement.

2,769,994

## WAX APPLICATORS

Otis E. Sutton, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application January 5, 1954, Serial No. 402,251
9 Claims. (Cl. 15—98)

1. A wax applicator comprising a disc-like body having a lower face provided with circumferentially spaced depressions adapted to be charged with wax, a plurality of circumferentially spaced radial ribs projecting from the upper face of said body, a central hub projecting from the upper face of said body, attaching means on



said hub, and a textile cover secured to said body and normally overlying the lower face of said body to feed wax from said depressions onto a surface contacted by said cover.

2,769,995

## HOUSEHOLD SPONGE CLEANING DEVICE

Michael Klein, New York, N. Y.
Application March 10, 1954, Serial No. 415,220
1 Claim. (Cl. 15—244)



A mop and cleaning device comprising an absorbent and resilient elongated block having an upper face, said block being centrally split lengthwise from the upper face to a point less than the depth of the block and transversely split at such point of depth less than the width of the block to form two centrally disposed foldable flaps, a rigid stiffener plate removably disposed in the transverse split beneath the flaps, a handle with a mop attachment member at one end thereof, said member having spaced post openings therethrough, spaced posts fixed to the stiffener plate and extendable through the lengthwise split in the block between the flaps and through the post openings in the mop attachment member of the handle when the flaps are folded over the stiffener plate and said member is over the flaps, and removable fastener elements removably to secure the posts to the mop attachment member, said posts being threaded and said fastener elements being wing nuts, spaced raised gripping flanges on said stiffener plate for disposal beneath the flaps and mating like spaced grooves on the mop attachment member, said mop attachment member having raised annular portions around said post openings to locate said wing nuts by touch as well as by sight.

2,769,996

## MOBILE VACUUM CLEANER HAVING A HOSE ADAPTED TO BE USED AS A PUSHING OR PULLING MEANS THEREFOR

John C. Shalvoy, Fairfield, and Paul O. Rawson, Jr., Trumbull, Conn., assignors to General Electric Company, a corporation of New York
Application December 21, 1953, Serial No. 399,271
5 Claims. (Cl. 15—323)

1. A vacuum cleaner comprising a casing having a suction inlet, wheels on the casing for supporting it and on



which it may be moved, a suction hose comprising a flexible section and a rigid wand section, the end of the wand section being provided with latch means for connection of cleaning tools thereto, means connecting the end of the flexible section to the suction inlet, a handle forming ledge adjacent to the said suction inlet, and

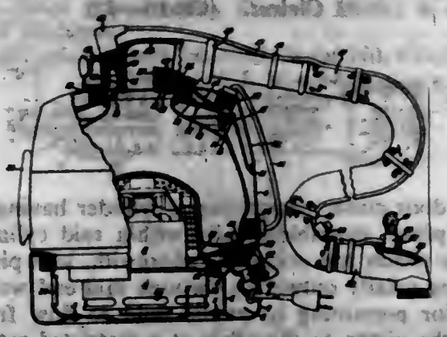


walls including a wall portion which is a part of said handle forming ledge which defines a pocket into which the end of the wand section may be positioned, said pocket forming walls comprising latch means for engagement by the tool latching means at the end of the wand section for fastening the wand section in the pocket.

2,769,997

## ELECTRIC CORD ARRANGEMENT FOR VACUUM CLEANERS

Robert E. Sheahan, Chagrin Falls, Ohio, assignor to General Electric Company, a corporation of New York
Application July 9, 1953, Serial No. 366,917
1 Claim. (Cl. 15—324)



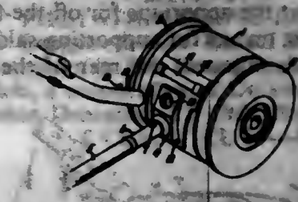
In a vacuum cleaner, an enclosure comprising side walls and a removable cover, a power unit in the enclosure comprising an electric motor and a suction fan, an inlet nozzle carried by the cover, a plug receptacle carried by the nozzle, wiring including a detachable electrical connection connecting the plug receptacle in parallel with said electric motor, said electrical connection being disposed to enable separation of said cover and said side walls, a suction hose connected at one end to the inlet nozzle, its other end being provided with a cleaning tool fitting, an electric cord which extends longitudinally of and is carried by said suction hose, an electric plug at one end of said cord for connection to said plug receptacle, a cleaning tool detachably connected to said cleaning tool fitting, a plug body attached to the other end of said electric cord, said cord having a free section adjacent said tool fitting and carrying said plug body at the free end thereof, means on the outer wall of said cleaning tool spaced from the connection of said cleaning tool fitting and said cleaning tool and adapted to receive and support said plug body, and an electric lamp carried by said plug body connected to the conductors of said electric cord.

2,769,998

## MOBILE VACUUM CLEANER HAVING A HOSE ADAPTED TO BE USED AS A PUSHING OR PULLING MEANS THEREFOR

James P. Hunter, Southport, Conn., assignor to General Electric Company, a corporation of New York
Application December 21, 1953, Serial No. 399,270
7 Claims. (Cl. 15—327)

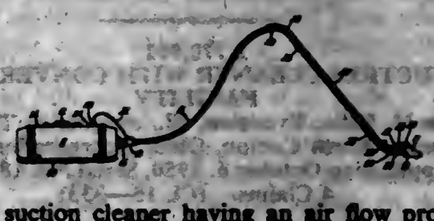
1. A vacuum cleaner comprising a casing having a suction inlet, wheels on the casing for supporting it and on which it may be moved, a suction hose comprising a flexible section and a rigid wand section, the end of the wand section being provided with latch means for connection of cleaning tools thereto, means connecting the end of said flexible section to the suction inlet, and said cleaner having means forming a pocket adjacent to said suction inlet into which the end of said wand section may be positioned, said pocket forming means comprising latching means for engagement by the tool latching means at the end of the wand section for substantially rigidly fastening the wand section in said pocket whereby when the wand section is fastened in the pocket it forms a handle for moving the cleaner on its wheels with the flexible section hanging in a loop beneath the wand section.



2,769,999

## SUCTION CLEANER HOSE AND HANDLE ARRANGEMENT

Robert E. Sheahan, Chagrin Falls, Ohio, assignor to General Electric Company, a corporation of New York
Application May 22, 1953, Serial No. 356,721
2 Claims. (Cl. 15—327)



2. In a suction cleaner having an air flow producing body, an elongated flexible air hose connected to said body, a cleaning tool attached to the end of said hose remote from said body, and a detachable handle for manipulating said tool and rendering substantially rigid a portion of said hose near the end adjacent said tool, said handle including a rigid elongated unitary member extending from the tool connected end of said hose to a point remote therefrom and located approximately at the hand position of the user, said member being curved at its upper end to form a gripping portion and curved in the reverse direction at its lower end, said member being secured to said hose by at least four spring clips, at least one of said clips being rigidly secured at each end of said member and the remainder of said clips being rigidly secured to the central portion of said member and with at least one of said clips of said remainder fixed at a point near the inner end of the curvature of each of said curved portions.

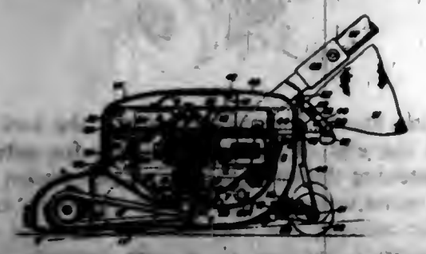
2,770,000

## SUCTION CLEANER HAVING AGITATOR DRIVE IN AIR STREAM AND UNOBSTRUCTED FAN INLET

Louis E. Sagerman, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application September 3, 1953, Serial No. 378,246
4 Claims. (Cl. 15—333)

1. In a suction cleaner having a main body portion provided with a suction cleaning nozzle across the front thereof and a rotary cleaning device mounted in the nozzle, the combination of an electric drive motor carried by the body portion, a suction air fan driven by the motor, means forming a suction air duct for conveying dirt laden air from the nozzle to the fan, a drive pulley driven by the motor positioned in the air duct, a belt forming a driving connection between the pulley and

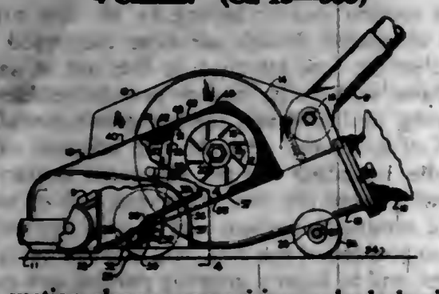
rotary cleaning device positioned in the air duct, said pulley and belt being so positioned in the air duct relative to the fan that said air duct includes an elongated section between the belt and pulley and the fan free of obstruction, said elongated section of the air duct including a removable portion providing for the insertion of a converting tool to interrupt communication between the fan and nozzle to convert the apparatus for off-the-floor cleaning, surface engaging means for supporting said body portion including wheels adjacent the rear of the body por-



tion, means mounting said wheels for movement relative to the body portion for adjusting the position of the nozzle relative to a supporting surface, means biasing said wheels downwardly to lower the nozzle relative to a supporting surface, a tension member engaged between said wheels and the removable portion of the air duct for limiting movement of the rear wheels by the biasing means to place the nozzle in a normal operating position and to hold the removable portion of the air duct in operative position.

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**2,770,001**
**SUCTION CLEANER WITH CONVERTER FACILITY**
**William H. Kitto, Evanston, Ill., assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio**
**Application October 6, 1950, Serial No. 188,737**
**4 Claims. (Cl. 15—333)**

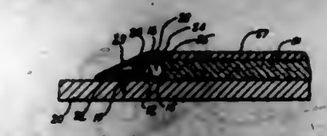


1. A suction cleaner comprising: a body having a nozzle for on-the-floor cleaning and a port adapted to receive a converter for off-the-floor cleaning, barrier means including first and second means pivotally mounted on said body for movement on axes transverse to each other and cooperating to span said port for closing the latter during on-the-floor cleaning, barrier control means on said body connected with said first means and movable to one position to shift the latter about its axis into engagement with said second means to maintain said first and second means in said closed position for on-the-floor cleaning, said control means movable to another position to shift said first means about its axis to partially uncover said port and out of said engagement with said second means to release the latter for subsequent movement about its axis to its open position by placing the converter thereon for insertion into said port for off-the-floor cleaning.

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**2,770,002**
**CARPET GRIPPER MOLDING**
**Billy V. Thompson, Vicksburg, Miss.**
**Application December 28, 1954, Serial No. 478,067**
**1 Claim. (Cl. 16—7)**

A carpet edge-gripping assembly comprising a base strip adapted to be secured to the floor, an upstanding flange at one longitudinal edge of said base strip, said flange having a top portion extending parallel to and positioned above said base strip, the other longitudinal edge of said base strip being formed with a longitudinal recess, and a cover strip adapted to be engaged over said top portion to clamp the edge of a carpet therebe-



tween, said cover strip having a longitudinal rib element at its intermediate portion directed downwardly and inwardly toward said upstanding flange, whereby a portion of the edge of a carpet may be gripped between said rib element and the edge of said top portion, said cover strip being formed at its outer margin with an inturned longitudinal flange lockingly receivable in said recess.

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**2,770,003**
**HYDRAULIC DOOR CLOSER**
**Charles S. Causey, Pasadena, and Millard Francis Saxton and Henry C. Stewart, Flint, Mich., assignors to The Engineered Products Co., Flint, Mich., a corporation of Michigan**
**Application July 26, 1951, Serial No. 238,731**
**11 Claims. (Cl. 16—52)**



1. A door closer comprising a cylinder having an end wall, a piston movable axially within said cylinder and having a piston rod connected therewith, said piston rod projecting axially outwardly through said end wall, valve means for permitting hydraulic fluid to flow from one side of the piston to the other at a restricted rate as the piston is moved axially of the cylinder in one direction, check valve means for permitting free flow of fluid across the piston when the piston is moved axially in the opposite direction, said cylinder having an end wall at the end thereof opposite said first mentioned end wall, said last mentioned end wall being movable generally axially of the cylinder to increase and decrease the effective volume of the cylinder between said piston and said last mentioned end wall.

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**2,770,004**
**DOOR CLOSER MECHANISM**
**Martin Carlson, Brookfield, and Edward G. Brubaker, La Grange Park, Ill., assignors to George W. Housby, Jr., Chicago, Ill.**
**Application March 5, 1952, Serial No. 274,894**
**4 Claims. (Cl. 16—55)**

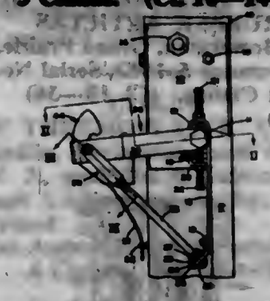


1. In a door closer mechanism, a vertical operating spindle adapted to extend above the floor level in the swinging axis of the door and a horizontal arm for attachment to the door and spindle and movable with the spindle about the vertical axis thereof, said spindle being provided with opposed flat faces at the upper portion, said arm having a head provided with a vertical recess open at the lower side of the head for receiving said upper portion of the spindle, said recess being of greater cross sectional area than the cross sectional area of the upper end portion of the spindle and being so shaped to enable said recess to receive said portion of the spindle when the head is lowered upon the spindle in tilted relation thereto in an angular direction with respect to the normal plane of the door, said recess being generally cylindrical and provided at one side thereof with an extension terminating in a flat wall of a width enabling the head to be shifted upon the spindle to move said flat wall into contacting relation with one of the flat faces of the spindle, an adjusting screw in a threaded opening in the wall of the recess opposed to said flat wall and adapted to be tightened against the other flat face of the spindle to shift the head and arm transversely of the spindle for pressing said flat wall of the recess firmly against the first-mentioned flat face of the spindle and clamping the head to the spindle against relative movement in directions normal to said flat wall of the recess, and means for preventing shifting of the head on the spindle in directions parallel to said flat wall comprising wall portions adjacent said flat wall at each longitudinal edge thereof and providing abutments for opposed surface portions of the spindle when said screw is tightened.



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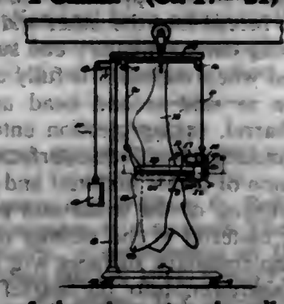
**2,770,005**
**IMPROVED MOUNTING CONSTRUCTION FOR OVERHEAD DOOR LATCH**
**Wesley A. Smith, West Palm Beach, Fla., assignor to Tilt-A-Door Corporation, Detroit, Mich., a corporation of Michigan**
**Application March 24, 1955, Serial No. 496,436**
**5 Claims. (Cl. 16—146)**



1. In an overhead, horizontally pivoted, door construction, including a door frame, a hinge pin on said door and a latch for said door, the combination, with said door construction, of an improved mounting construction for said latch, comprising: an arm having one of its ends pivotally mounted on said hinge pin; means adjacent to said door frame and fixed with respect thereto for adjusting the vertical position of said hinge pin and said one end of said arm relative to said door frame; said latch being mounted on the other end of said arm; means engaging said other end of said arm for pivoting said arm to cause same to assume different positions of angularity with respect to said door frame.

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**2,770,006**
**HIDE-STRIPPING DEVICES**
**Ernst H. Willeke, Milwaukee, Wis.**
**Application June 8, 1955, Serial No. 513,939**
**1 Claim. (Cl. 17—21)**



In a device of the character described, a horizontal frame mounted for vertical movement, a pair of horizontal opposed troughs, a plurality of cylindrical resilient rolls disposed in two chains rotatable within said troughs, for receiving therebetween a hide to be pulled from a carcass hanging within said frame, and knife means on one trough adapted to cut the hide from said carcass.

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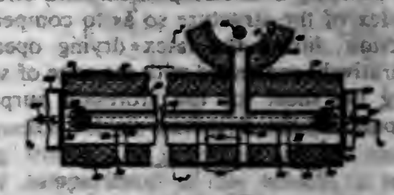
**2,770,007**
**FILM STRETCHING DEVICE**
**Murrey O. Longstreth and Daniel W. Ryan, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware**
**Application December 22, 1952, Serial No. 327,362**
**1 Claim. (Cl. 18—1)**



In an apparatus for stretching previously unoriented tubular film both laterally and longitudinally comprising a spreader mandrel having two parallel plane sides lying between outer edges which diverge symmetrically from the end at which film is fed to said mandrel, of a length, and disposed with said outer edges at an angle, to provide the desired radial stretch to tubular film advanced thereover; freely rotating film-engaging rollers disposed along the outer edges and on both sides of the mandrel; and means for applying a longitudinal stretch to the film; the combination with said mandrel, at a point beyond that at which tubular film formed thereover attains its maximum radial stretch, of film-slitting means rigidly affixed to each edge of each of said plane sides of the mandrel and within the film tube and close to said rollers and disposed so as to maintain longitudinal cutting engagement with film drawn over the mandrel.

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**2,770,008**
**APPARATUS FOR PRODUCING UREA PRILLS**
**William W. Yeandle, Nolan A. Carter, and James T. Parnell, Pryor, Okla., assignors to Deere & Company, Moline, Ill., a corporation of Illinois**
**Application July 14, 1954, Serial No. 443,204**
**15 Claims. (Cl. 18—2.4)**



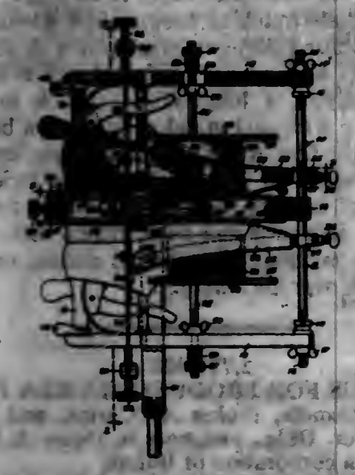
1. In apparatus of the class described, a header pipe, a generally horizontal sparger pipe connected thereto, said sparger pipe having a row of orifices in the bottom thereof, a heat storage casing enclosing said sparger pipe and having an inner surface in contact with a major portion of the outer surface of said sparger pipe to permit transfer of heat by conduction therebetween, and an insulating cover on the outside of said casing, said casing and cover having enlarged passages aligned with said orifices to provide for escape of liquid from said sparger pipe.

2,770,009
**TUBE COOLING BLOWER**
Edward H. Regal and Arthur Martynec, Shawinigan Falls, Quebec, Canada, assignors to Du Pont Company of Canada Limited, Montreal, Quebec, Canada, a corporation of Canada
Application February 3, 1955, Serial No. 485,967
Claims priority, application Canada December 15, 1954
4 Claims. (Cl. 18—14)



1. An apparatus adapted to direct an even stream of gaseous cooling medium upon extruded tubing made of a thermoplastic material as said tubing issues from extrusion apparatus, said apparatus comprising a rotatable radial flow turbine and means to direct a succession of streams of said cooling medium inwardly upon the blades of said turbine.

2,770,010
**SHOE BOTTOM PRESS**
William H. Doherty, Rego Park, N. Y.
Application December 27, 1951, Serial No. 263,637
4 Claims. (Cl. 18—17)



3. In a device for completing a unitary heel and sole structure of gelled latex on a shoe, a sheet of stretchable material for exerting a lateral pull on said structure to spread the latex of the structure so as to compensate for shrinkage action during the latex drying operation, a stretcher operatively connected with the edge of said sheet for stretching the sheet for the aforesaid purpose, and means for operating the stretcher.

2,770,011
**DIE CONSTRUCTION FOR INJECTION-TYPE MOLDING MACHINES**
George W. Kelly, Columbus, Ohio, assignor to Columbus Plastic Products, Inc., Columbus, Ohio, a corporation of Ohio
Application December 15, 1951, Serial No. 261,871
3 Claims. (Cl. 18—30)

1. In an injection molding machine; a die having a molding surface and passage means through which plastic materials may be forcibly passed to said molding surface; said passage means terminating in a discharge orifice at said molding surface and embodying a plurality of relatively angularly disposed branches; injection means for forcing plastic material through said passage means toward the discharge orifice thereof; a sprue cut-off pin movably mounted in said die in axially spaced relation to said injection means and having an outer end, said pin normally extending into said passage means in axial alignment with



but in spaced relation to the discharge orifice thereof; and means independent of said injection means for moving said pin in the general direction of flow of plastic material toward said discharge orifice and to a position at which said pin closes the orifice of said passage means and is disposed in substantially flush relation to said molding surface.

2,770,012
**APPARATUS FOR AND METHOD OF MOLDING RUBBER ARTICLES**
Hulie E. Bowerman, Grand Prairie, Tex.
Application January 5, 1953, Serial No. 329,660
11 Claims. (Cl. 18—36)



3. A high-pressure mold for molding a substantially tubular product from an uncured blank of rubber-like material comprising a barrel adapted to shape the outer portion of the product; a short mandrel and a long mandrel to form when mated a core in the mold; a pair of heads to close said barrel, a first head supporting the short mandrel and being initially fixed at one end of said barrel, and a second head supporting the long mandrel and adapted to be forced into the other end of the barrel, said mandrels having complementary end surfaces mating near said first head when the mold is fully closed; and an annular projection in said second head and shaped to slide inside said barrel, said projection entering into the barrel before the mating of said end surfaces to close the barrel after expulsion of excess material and of air, whereby upon further closing of the mold said projection will end-pressurize the material in the vicinity of said second head and said complementary surfaces will mate to force the material therebetween into the barrel portion and thereby simultaneously pressurize the material in the mold in the vicinity of said first head.

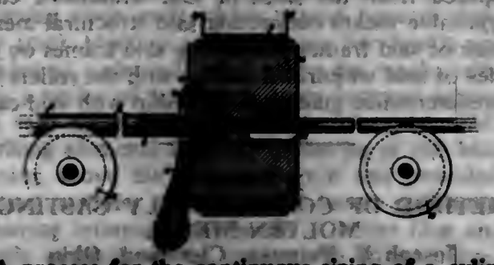


2,770,013
**STUD HOLDERS FOR USE IN TIRE MOLDS**
David E. Crocker, Ontonagon, Mich., assignor of one-half to Lloyd L. Folker, Marshfield, Wis.
Application February 28, 1951, Serial No. 213,140
7 Claims. (Cl. 18—36)



1. In a tire mold, a circular matrix having an internal peripheral portion adapted to form a road engaging surface on a tire, said portion having a plurality of threaded holes therein, a plurality of stud holders each having a portion removably threaded within one of said holes and each stud holder having another portion projecting inwardly from said internal peripheral portion of the matrix, said last-mentioned portion of each holder being bored to a substantial depth to provide an elongated open ended socket for receiving a portion of the length of the shank of a stud with the remaining portion projecting freely, and means in connection with said socket constituting the sole means for normally releasably retaining said shank therein and for retaining the projecting portion in rigid projecting position, said socket including means for determining the amount of the length of the shank which is received in said socket.

2,770,014
**SIZING OF THERMOPLASTIC CABLE CORES**
Henry G. Nerville, Livingston, and Paul M. Kourner, Paterson, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application August 25, 1953, Serial No. 376,493
6 Claims. (Cl. 18—48)



1. A process for the continuous sizing of a cylindrical form of thermoplastic material comprising passing said cylindrical form through a heated die whose sizing hole is maintained at a substantially uniform temperature along is axial length above the flow point of said thermoplastic material, the sizing hole of said die being of uniform bore and smaller normally than the diameter of said cylindrical form, and accumulating a body fluid of surplus thermoplastic material at the entrance to said die through which said cylindrical form must pass to thereby preheat and maintain the cylindrical form substantially centered within said die, and at least partially annealing said cylindrical form within said die at its output portion.

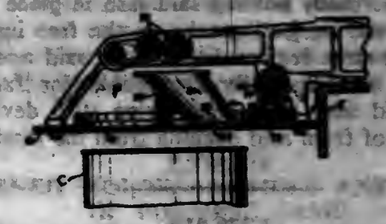
2,770,015
**METHOD FOR PRODUCING PELLICLES, FILMS, AND SHEETS**
Charles M. Reese and William O. Baldhart, Fredericksburg, Va., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 5, 1952, Serial No. 291,956
4 Claims. (Cl. 18—57)

1. A process for drying pellicles which comprises the steps of positioning a plurality of wet gel pellicles in face-to-face contact, passing said contacting pellicles into a drying stage, separating said pellicles during the drying stage only after the moisture content thereof is less than



30% by weight, restoring said pellicles into face-to-face contact after the separation thereof, and completing the drying thereof.

2,770,016
**SLIVER COILING MECHANISM**
John S. Dudley, Douglas, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts
Application November 10, 1953, Serial No. 391,286
2 Claims. (Cl. 19—159)



1. In a sliver coiler, a rotated coiler head having structure providing a downwardly-inclined and converging sliver-delivery passage of substantially circular cross section, and said passage having its extreme lower end portion only provided with a sliver-locating lateral enlargement in a side wall portion of said passage and of limited angular extent only and at the following side of said passage, having reference to the normal direction of rotation of said coiler head, and said enlargement being substantially U-shaped in sectional plan adjacent the sliver-delivery locus, and being effective to maintain the delivery path of slivers of different diameters at a substantially uniform radial distance from the axis of the coiler head.

2,770,017
**WINDSHIELD WASHER SYSTEM**
John R. Oishei, Buffalo, and Henry C. Hoover, Snyder, N. Y., assignors to Trico Products Corporation, Buffalo, N. Y.
Application April 9, 1954, Serial No. 422,066
7 Claims. (Cl. 20—40.5)

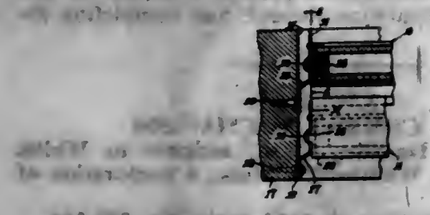


6. A motor vehicle having a windshield, a rain water collecting trough for diverting surface rain from the passenger compartment of the vehicle, a reservoir into which the trough empties, and means for applying the liquid content of the reservoir to the windshield.

2,770,018
**WINDOW STRUCTURE**
John W. Seibert, Aurora, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application November 17, 1953, Serial No. 392,689
2 Claims. (Cl. 20—52.2)

1. In combination, window sash adapted to be mounted in an opening formed in a building wall, said sash being

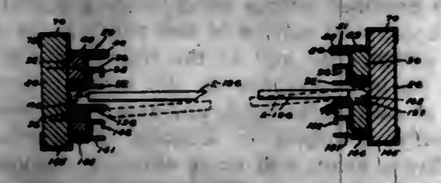
formed with a protruding bead on opposed sides thereof, means for mounting said sash in said opening and comprising metal spring strip devices disposed at opposed sides of said opening, each of said spring strip devices having a longitudinally extending channel substantially complementary to said bead and adapted to respectively receive one of said beads therein for slidably mounting the sash in said opening, said spring strip devices disposed



on one side of said opening having the outer edge only secured to the edge of said opening and thereby being resilient for normally holding said sash in place between said devices, and projecting tabs on the free inner edge of said spring strip devices disposed on said one side of said opening and manually depressible for facilitating release of said sash from said spring strip devices and removal thereof from said opening from the inside of the building.

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**2,770,019**
**WINDOW FRAME ASSEMBLY**
**Joseph Sylvan, Berkley, Mich.**
**Application November 19, 1953, Serial No. 393,050**
**9 Claims. (Cl. 20—52.2)**



7. In a window frame assembly: a pair of opposed complementary jamb assemblies provided with an outer pair and an inner pair of opposed complementary sash runway channels, the inner pair of runway channels spaced inwardly along the jamb members from the outer pair of runway channels by a sash receiving channel space of a width not less than the width of an adjacent runway channel and of a depth not less than the depth of an adjacent runway channel.

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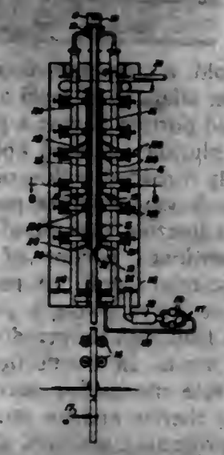
**2,770,020**
**AWNING AND CANOPY STRUCTURES**
**Howard E. Zerbe, Du Bois, Pa.**
**Application August 26, 1953, Serial No. 376,722**
**3 Claims. (Cl. 20—57.5)**



1. An awning structure comprising a pair of spaced apart sloping water shedding surfaces one above the other, each of said surfaces made up of a plurality of spaced apart substantially parallel members having parallel openings therebetween, the members of one level lying in vertical alignment with the openings of the other level, a transverse slot in each said surface adjacent the lowermost edge extending from a point adjacent one side to a point adjacent the other side and formed by removing a narrow portion from each member in the same vertical plane, and gutter means connected to said surfaces beneath the slots receiving water therefrom and discharging said water to one side of the structure.

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**2,770,021**
**METHOD OF AND APPARATUS FOR CONTINUOUS CASTING**
**Isaac Harter, Jr., and Temple W. Ratcliffe, Beaver, Pa., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey**
**Application October 23, 1952, Serial No. 316,446**
**7 Claims. (Cl. 22—57.2)**



1. Continuous casting apparatus including an upright liquid-cooled open ended mold, means for delivering molten metal to the upper end of said mold, pinch rolls for withdrawing a casting from the lower end of said mold, and guide means positioned adjacent the lower end of said mold and between said mold and pinch rolls for the casting withdrawn from said mold comprising, at least two frames, a plurality of rollers journaled in each of said frames and having their axes lying in a common plane in each frame, structural support members horizontally spaced from the sides of said withdrawn casting, and adjustable means connecting said structural members with each of said frames positioning said frames on opposite sides of said withdrawn casting with the rollers therein in predetermined guiding relationship with said casting.

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**2,770,022**
**METHOD OF CONTINUOUSLY CASTING MOLTEN METAL**
**Joseph B. Brennan, Cleveland, Ohio**
**Application December 8, 1952, Serial No. 324,795**
**6 Claims. (Cl. 22—200.1)**

1. The method of continuously casting molten metal which comprises the steps of cooling successive longitudinal portions of a laterally confined, longitudinally flowing stream of molten metal of substantially uniform cross-section size and shape to a self-sustaining state, and heating the surface of successive longitudinal portions of the self-sustaining, laterally confined stream to melt at least a substantial portion thereof to provide a slippery skin thereon facilitating continued longitudinal, laterally confined flow of said stream.

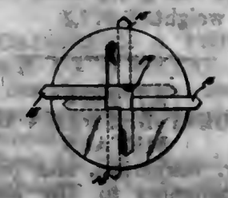
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**2,770,023**
**PRESS FASTENER**
**Peter Michalsky, Garfield, N. J.**
**Application August 6, 1954, Serial No. 448,315**
**1 Claim. (Cl. 24—153)**

A paper fastener or the like formed of bendable sheet material with a central shear cut stopping a predetermined distance short of the outer edges of the material and with side cuts parallel to the center cut on opposite sides of the center cut, one extending from said distance



within the edge of the material to a point well beyond the center of the sheet and the other extending from said distance within an opposite edge to a point beyond said



center and a cut adjacent each of said opposite edges connecting the ends of the shear cuts adjacent each edge of the material to define oppositely extending prong outlines.

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**2,770,024**
**TRACK FOR ADJUSTABLE FASTENING DEVICES**
**Noel Stadtman, New Canaan, Conn.**
**Application March 6, 1952, Serial No. 275,143**
**10 Claims. (Cl. 24—266)**

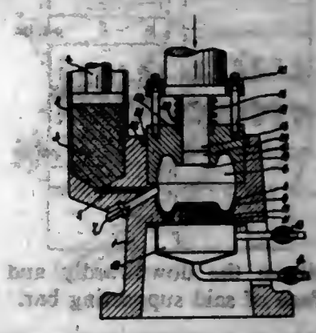


1. A track forming one member of an adjustable fastener of which the other member is comprised of a slider adapted to be secured to one of two parts to be adjustably secured together, said track comprising an integral band of tape-like material and upon which said slider is adapted to be slidably secured by virtue of an element of generally elliptical cross section adapted to embrace the longitudinal edges of the track and having open ends which extend beneath the edges of the track together with a clamp for fixedly securing the slider at a desired point along the track, said track having a series of transverse stops between adjacent of which said slider is adapted to be clamped, said stops comprising elements disposed crosswise of the band and projecting above the surface thereof and provided with clamping portions engaging said band, said stops further having interruptions therein at either face and substantially centrally of the band which afford a free space extending longitudinally of and through the band to accommodate continuous means for attaching said band to the other of said parts to be secured, the extent of said stops crosswise of the band being confined substantially to the transverse extent of said band, and the track having substantial rigidity in the transverse direction sufficient essentially to prevent escape of the track from the slider by transverse collapse of the track when the slider is applied to it, thereby affording smooth movement of the slider along said track.

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**2,770,025**
**DEVICE FOR THE MANUFACTURE OF CERAMIC MOULDINGS**
**Josef Möllers, Hamburg-Poppenbuettel, Germany, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee**
**Application April 26, 1952, Serial No. 284,625**
**Claims priority, application Germany June 9, 1951**
**4 Claims. (Cl. 25—27)**

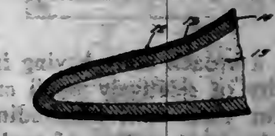
1. An apparatus for molding wet ceramic material comprising a vacuum-tight mold, means for introducing a wet batch of ceramic material into said mold, vacuum-tight valve means for controlling the introduction of ceramic material into said mold, a vacuum-tight receptacle, said mold having a plurality of channels in a wall portion thereof communicating with said receptacle, filter means disposed adjacent said channels for permitting



the passage only of gases or liquids, means connected to said receptacle for evacuating said receptacle and said mold, and means for applying pressure to said wet batch of ceramic material to simultaneously press out the liquid therefrom and shape said material.

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**2,770,026**
**HARDENED MOLDED ARTICLE AND METHOD OF FORMING SAME**
**Hans Hermann Peterßen, Hamburg, and Erich Otto Zimmermann, Hamburg-Altona, Germany, assignors to Franz R. Lushas, New York, N. Y.**
**Application October 26, 1951, Serial No. 253,304**
**6 Claims. (Cl. 28—74)**



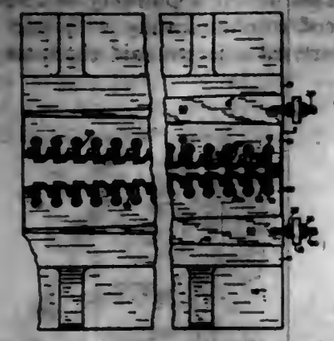
1. A method of manufacturing a hardened molded article of the type described, comprising the steps of forming a plurality of formable-form preserving and non-formable impregnable elongated elements in a comparatively loose web the individual elements of which are easily displaceable relative to another but remain in any displaced relative position; first molding the said web in conformity with the contours of a selected surface by bending the said individual elements out of the general plane of the web and displacing the same relative to each other; then subjecting the web, thus molded, to a preliminary hardening treatment; thereupon applying to one side of the molded web a comparatively heavy layer of a pasty material hardening when drying; and finally applying to the opposite side of the molded web at least one thin coat of a liquid substance hardening when drying, the forces of shrinkage developed by the said thin coat during the hardening thereof impeding any deformation of the web due to shrinkage of the said layer during the hardening.

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**2,770,027**
**BROACH WITH MULTIPLE CUTTING PLATES**
**Oliver W. Bonnafe, Hudson, Mass., assignor to The Lapointe Machine Tool Company, Hudson, Mass., a corporation of Maine**
**Application February 14, 1955, Serial No. 487,811**
**2 Claims. (Cl. 29—95.1)**

1. In a broach, a plurality of identical cutting units, holding bars transversely slotted to receive said cutting units, a supporting bar for said units having alternate raised and depressed top surface portions which support alternate cutting units of identical cross section in correspondingly raised and depressed relative positions, the top surface of the supporting bar being downwardly and backwardly inclined away from the cutting edges of said

cutting units, and each cutting unit having a cooling inclined bottom edge surface, and means to firmly seat



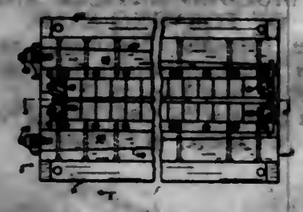
each cutting unit on the downwardly and backwardly inclined top surface of said supporting bar.

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2,770,023
BROACH WITH MULTIPLE SMALL CUTTING UNITS

Oliver W. Bennafe, Hudson, Mass., assignor to The Lapointe Machine Tool Company, Hudson, Mass., a corporation of Maine

Application January 31, 1955, Serial No. 484,981
2 Claims. (Cl. 29—95.1)



2. In a broach, a broach body having front and back surfaces, a plurality of relatively small cutting units, a separate holder for each unit, longitudinally extended bars mounted at the front surface of said body and receiving said holders in two transversely spaced longitudinal series, with the cutting units gradually approaching the center line of the broach toward the first cutting units, means to adjust said bars transversely while preserving their original angular relation, tapered supporting members underlying said bars and having bar-engaging surfaces which gradually approach the back surface of the broach body toward the first cutting units, and means to adjust said members longitudinally to raise or lower said cutting units relative to the work but without change in the original angular relation of the series of units relative to the back surface of the broach body.

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2,770,029
COMPOSITE ELECTRICAL RESISTOR

Herbert F. G. Ueltz, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

No Drawing. Application June 2, 1952,
Serial No. 291,327
1 Claim. (Cl. 29—182.2)

A dense integral electrical resistor having a porosity of less than 1%, and having a central portion consisting of 85% to 90% molybdenum, silicon and molybdenum disilicide, the remainder mainly nickel, said resistor having cold ends consisting of from 50% to 60% molybdenum, silicon and molybdenum disilicide, the remainder mainly nickel, the entire resistor having a composition consisting of the elements molybdenum, silicon and nickel to the extent of at least 96%, at least 80% of the total molybdenum and silicon being present as molybdenum disilicide, both the central portion and in the cold ends having at least 31% molybdenum, at least 18% silicon and at least 10% nickel, there being not more than 4% of elements other than said molybdenum, silicon and nickel in the central portion and in the cold ends, and of said elements other there being not more than 2% of the central portion and not more than 2% of the cold end elements of the iron group other than nickel, all percentages being by weight.

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2,770,030
WELDED JOINT BETWEEN DISSIMILAR METALS

Otis R. Carpenter, Barberton, and Nicholas C. Jessen, Akron, Ohio, assignors to The Babcock & Wilcox Company, Rockleigh, N. J., a corporation of New Jersey

No Drawing. Application June 15, 1950,
Serial No. 168,385
3 Claims. (Cl. 29—196.1)

1. A welded joint for use under cyclically variable elevated temperatures and pressures, comprising a Cr—Ni austenitic alloy steel member, a low alloy ferritic steel member of the chromium containing type and having a carbon content in the range of 0.10% to 0.15%, and a weld deposit uniting said members and consisting of a ferritic alloy steel having substantially the same composition as said ferritic steel alloy member but containing carbon in an amount not exceeding 0.05%.

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2,770,031
BEARING

Alfred W. Schlachter, Dearborn, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application April 16, 1953,
Serial No. 349,361
7 Claims. (Cl. 29—197)

7. A bearing formed of an alloy containing approximately 0.5% to 9% silicon, 0.2% to 5% cadmium, 0.03% to 0.5% indium, and the balance substantially all aluminum, the physical structure of said alloy being substantially free of continuous networks of brittle eutectic mixtures.

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2,770,032
TOOL FOR INSERTING FLUTING

Gerard J. Kelly, Light Street, Pa., assignor to American Car and Foundry Company, New York, N. Y., a corporation of New Jersey

Application January 20, 1951, Serial No. 206,957
2 Claims. (Cl. 29—235)



1. A tool for inserting a resilient metallic snap-in type fluting having a top portion and depending side flanges terminating in lower edge surfaces into a prepared recess comprising, a base member having a grooved portion engageable with the top portion of the fluting, pairs of spaced-apart rollers mounted on said base member at opposite sides of said grooved portion for rotation about substantially parallel axes, said rollers each having a flat tread portion engageable with the side flanges of the fluting to compress the same toward each other and a rim portion projecting outwardly from the lower portion of the flat tread portion and engageable with the edge surface of the fluting side flanges to retain the fluting in the tool and to prevent side twist of the fluting during insertion in the prepared recess, guide means secured to said base member between a pair of said rollers engageable by said fluting to assist said rollers in preventing side twist of the fluting, and a handle for moving said tool along said fluting.

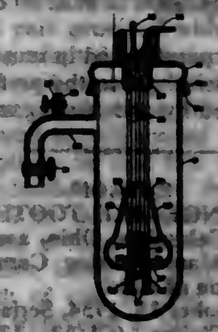


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2,770,033
METHOD OF SOLDERING A THIN BERYLLIUM MEMBER TO A METAL PART

William A. Zarth, Stamford, Conn., assignor to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut

Application June 14, 1951, Serial No. 231,467
2 Claims. (Cl. 29—488)



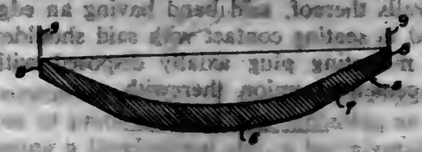
1. A method of soldering a thin piece of beryllium vacuum-tight to a support wherein the beryllium surface is cleaned, thereafter the beryllium surface is etched in a suitable etching solution, then transferred without rinsing and while still covered with the etching solution directly into a solder wettable metal plating solution and plated, a layer of hydride of a metal is applied atop the plated area, brazing solder is placed atop the hydride, the support is placed atop the solder, and, when thus assembled, the solder is melted in a vacuum furnace and caused to flow sufficiently to complete the vacuum-tight bond between the beryllium and its support.

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2,770,034
METHOD OF COINING AND CUTTING METAL

George Albert Lyon, Detroit, Mich.

Application March 14, 1952, Serial No. 276,576
1 Claim. (Cl. 29—534)



In a method of coining and cupping a metal blank, the steps of coining a metal blank to provide a blank of oversize diameter having a gradually diminishing thickness uniformly toward the peripheral margin of the blank from a thicker central portion, trimming the periphery of the blank to provide a smooth unbroken concentric circular peripheral edge with a uniform radially outwardly beveled surface extending from one side to the opposite side of the blank, and cupping the blank by simultaneously forcing the portion of the blank radially outwardly of said central portion into cylindrical form from said opposite side and depressing the central portion of the blank on said one side to provide a cylindrical cup side wall of substantially uniform thickness.

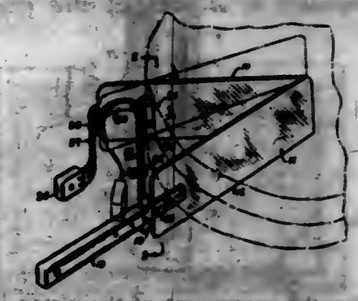
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2,770,035
CAKE CUTTER AND SERVER

Gerard J. O'Brien, Jersey City, N. J.

Application February 29, 1956, Serial No. 568,555
3 Claims. (Cl. 30—114)

1. A cake cutter and server comprising a pair of blades adapted to cut down through a cake, each of said blades having a handle at one end thereof, a telescopic member having one end rigidly secured to one of the blades at the handle end thereof and extending at an angle thereto in the direction of the other of said blades, the other end of said telescopic member being pivotally secured to said other of said blades near the handle end thereof, resilient



means normally urging said other of said blades to swing toward said one of said blades to a limit position wherein the other ends of the blades are in mutual contact, and means for locking said telescopic member against expansion or contraction.

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2,770,036
SAWING APPARATUS, AND MORE PARTICULARLY A PRUNING SAW

Albert E. Anderson, Greenwich, Conn., assignor, by mesne assignments, to Textron Inc., a corporation of Rhode Island

Application June 23, 1955, Serial No. 517,563
17 Claims. (Cl. 30—167)



1. In a pruning saw adapted for cutting limbs from below, a saw head comprising a rotatable angular rim-driven saw blade having teeth on its periphery, means for supporting the saw blade for rotation about its axis and for driving the saw blade, means at the top of the saw head forming with the saw blade a limb-receiving and cutting zone, and a kerf retainer aligned with the saw blade at the cutting zone for engagement with the limb on opposite sides of the kerf formed therein by the saw blade.

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2,770,037
DEVICES FOR SURGICAL WORK

Gustaf Erik Björklund, Stockholm, and Svante Roland Edvardsson, Solna, Sweden, assignors to Aktiebolaget Dunstong, Hagersten, Sweden, a corporation of Sweden

Application June 25, 1954, Serial No. 439,304
Claims priority, application Sweden June 30, 1953
7 Claims. (Cl. 30—372)

1. A hand tool for surgical work comprising a casing having a bore, a cylinder movable axially in said bore, said cylinder including connecting means for connection of a pressure fluid conduit, a hydraulic pressure operated piston movable axially to and fro in said cylinder and carrying a working tool intended to penetrate into material worked upon as the piston moves in one direction,

and an upper clamping tool actuated by said cylinder intended to hold the material as the working tool is with-



drawn during the movement of the piston in the opposite direction.

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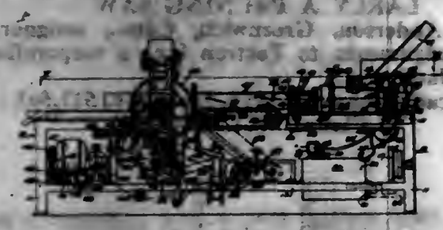
2,770,038

**AUTOMATIC FEED SYNCHRONIZING MECHANISM FOR SUBSTANCES PREPARATORY TO PROCESSING**

Bertil J. Skoglund, Elmwood Park, Ill., assignor to Charles Doering and Henry Doering, Chicago, Ill.

Application May 12, 1952, Serial No. 288,971

20 Claims. (Cl. 31—9)



1. In a plasticizing and preforming device of the character mentioned, the combination with means for displacing irregular masses of plastic substances at a substantially uniform rate along a predetermined path, means associated with said displacing means for extrusion of the irregular masses of plastic substances into elongated columns of preformed substances, means in said path for converting said preformed substances into uniform preformed increments, conveyor means between said extrusion and increment converting means to present said elongated uniform column of substances to said converting means responsive to the latter uniform rate of displacement, and means reacting to said substance preforming means to synchronize the operation of said displacing and increment converting means in a continuity of coordinated operations of said preforming, feeding and increment converting means.

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2,770,039

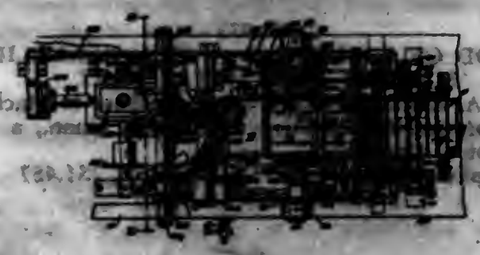
**CONTINUOUS FEEDING AND SLICING MECHANISM FOR PLASTIC SUBSTANCES AND THE LIKE**

Charles Doering and Henry H. Doering, Chicago, and Bertil J. Skoglund, Elmwood Park, Ill.; said Skoglund assignor to said Charles Doering and said Henry H. Doering

Application December 17, 1951, Serial No. 262,146

10 Claims. (Cl. 31—20)

1. In a cutting mechanism of the character mentioned for cutting uniform thin slices from preformed slabs of material, the combination with a rigid frame, of means on said rigid frame for feeding preformed substances along a predetermined path, a cutter frame mounted proximate to the end of travel of said feeding means in said path for movement in timed relation with said feeding means, cutter means mounted for reciprocable movement in said cutter frame substantially transversely of said feeding means, and means on said rigid frame for continuously operating said feeding and reciprocable cutter means in timed relation to displace said cutting



means along a path parallel and in unison with said feeding means to successively slice the preformed substances while being displaced by said feeding means.

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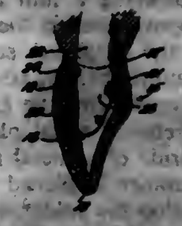
2,770,040

**INTERCHANGEABLE TOOTH CROWN**

James H. Meyer, Columbus, Ohio, assignor to The Columbus Dental Manufacturing Company, Columbus, Ohio, a corporation of Ohio

Application October 14, 1954, Serial No. 462,225

5 Claims. (Cl. 32—12)



1. Jacket crown construction for dental bridges, comprising: a molded heat-hardened body, said body including an internal cavity closed on all sides thereof and terminating in a cervical extension which opens to the gingival end of the body, said cavity being formed with an inwardly and laterally projecting shoulder placed in predetermined spaced relationship to the open end of said extension; a metallic mounting band positioned in said extension for close-fitting cemented engagement with the walls thereof, said band having an edge thereof arranged in seating contact with said shoulder; and a stationary mounting plug axially disposed within said band for cemented union therewith.

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2,770,041

**SIGHT FOR FIREARMS**

Herman M. Bell, Beaverton, Oreg.

Application April 6, 1954, Serial No. 421,404

5 Claims. (Cl. 33—56)



3. In an open field sight for fire arms, the combination of a sight hole concentrically located within a ring, arms projecting radially from the center of said ring, an elevation eccentric supporting said arms, and an azimuth eccentric encircling said elevation eccentric, said azimuth and elevation eccentrics being out of phase with respect to each other, a sight mounting embracing said azimuth eccentric and secured to the barrel of a fire arm, said mounting being displaced from a vertical centerline passing through the bore of the barrel and the center of said hole by an amount substantially equal to one half the eccentricity of said elevation eccentric.



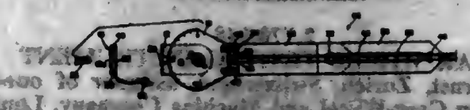
2,770,042

**POINT LOCATING DEVICE**

Robert R. Hume, Greenwich, Conn.

Application April 15, 1952, Serial No. 282,415

3 Claims. (Cl. 33—75)



1. The combination of a device for locating points from a known point with a measuring tape comprising a support adapted to be fixed at said known point, a locator comprising a first part provided with an index thereon, said first part being adapted to be removably held in said support, a second part pivoting on said first part, said second part having graduations thereon, an extension arm pivotally secured to said second part whereby when said second part pivots on said first part said index coacts with said graduations to give the direction of said point to be located by said measuring tape, said extension arm comprising at least two sections, one extensible section being slidable along the longitudinal axis of the other section, both of said sections being pivoted as a unit in a direction transverse to the pivotal movement of said second part, and guiding means on one of said sections for preventing said measuring tape from deviating from said direction of said point to be located.

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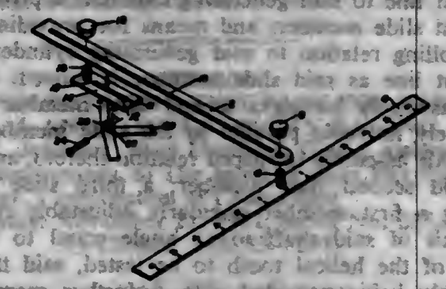
2,770,043

**TILER'S GAUGE**

Henry R. Kwiecinski, Brooklyn, N. Y.

Application June 19, 1951, Serial No. 232,389

11 Claims. (Cl. 33—94)



2. A measuring device for gauging rectangular tiles to fit an area of predetermined size including an elongated shank having a longitudinal slot, a bar pivotally secured to one end of said shank, a support slidably mounted in the elongated slot for longitudinal movement along said shank, means to arrest said bar in its movement around its pivot relative to said shank, other means to arrest the movement of said support along said shank, a square slidably mounted in said support for movement parallel to the axis of said shank, means to limit the motion of and square in said support a distance exactly equivalent to the longitudinal distance between the outer and inner aspects of said square whereby the outer aspects of said square may be used in measuring the space to be filled and the inner aspects may be used to gauge a tile to be fitted to said space.

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2,770,044

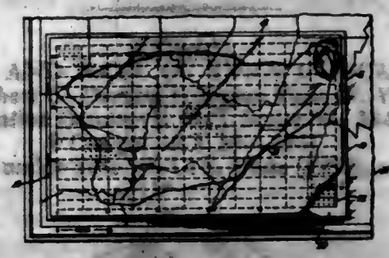
**DEVICE AND METHOD FOR MEASURING SURFACE AREAS**

Walter F. Wood, Iowa City, Iowa, assignor to The State of Iowa, for the use and benefit of the State University of Iowa, an educational institution of the State of Iowa, Iowa City, Iowa

Application March 18, 1953, Serial No. 343,123

10 Claims. (Cl. 33—121)

1. A device for measuring a surface area, said device comprising a first sheet having a surface and a plurality of uniformly spaced apart dots located on said surface, each dot having a minimum size consistent with ability to count the dots easily, the area of said surface throughout which said dots extend being at least coextensive with the area to be measured whereby said first sheet may be placed in registry with the area to be measured and all



of the dots located throughout the area to be measured counted, the area of said surface actually covered by said dots being small in relation to the total area of said surface throughout which said dots extend but said dots being visible in relation to the area to be measured, and a second transparent sheet overlying said first sheet.

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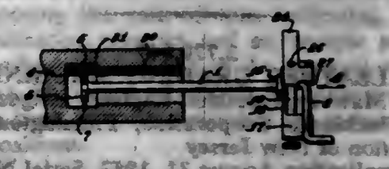
2,770,045

**STEM CALIPER**

Felix Oliva, Maywood, Calif.

Application November 25, 1955, Serial No. 549,076

5 Claims. (Cl. 33—143)



1. A gauge of the character disclosed, including a pair of elongated telescopic members, the outer ends of which are provided with laterally projecting work-engaging arms lying in the same plane, one member of said pair provided with a crank arm, a disk secured to the other member of said pair and positioned transverse of said member, a swing block rotatably carried on one member of said elongated pair of members and adapted to lie in the path of movement of the crank arm to limit rotative movement thereof, and a braking means for said swing block releasably engaging the periphery of said disk, said crank arm when rotated in one direction, causing approach of the laterally projecting work-engaging arms and when moved in a second direction, causing separation between said arms, the said swing block limiting said separation.

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2,770,046

**MEASURING INSTRUMENT**

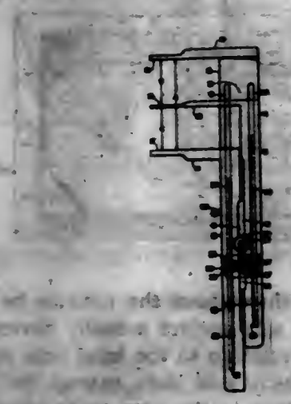
Wilhelm Wichmann, Clifton, N. J.

Application March 4, 1955, Serial No. 492,864

1 Claim. (Cl. 33—143)

In a caliper device, a transverse stationary measuring jaw, a longitudinal supporting bar connected thereto, a second transverse movable jaw in cooperative relation to said stationary jaw, a longitudinal plate supporting said movable jaw and in slidable engagement with said bar, a transverse movable divider member disposed intermediate said jaws, a second longitudinal plate supporting said divider member and in slidable engagement with said bar, said plates being parallel to each other and disposed on opposite lateral sides of one surface of said bar, said plates having recessed portions along adjacent edges thereof in facing relation, whereby an elongated aperture is formed therebetween, a post affixed to said

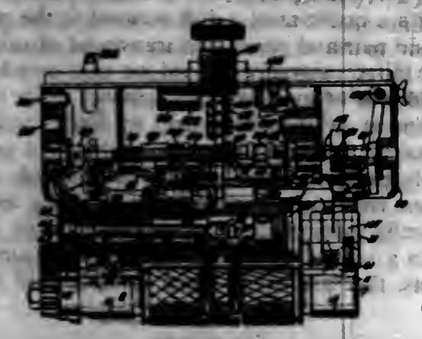
bar and extending up through said aperture, a nut in threaded engagement with the outer end of said post and proportioned for pressing engagement with said two plates, whereby said plates are releasably held locked against movement, said bar having two longitudinal parallel grooves therein, each of said plates having a longitudinal gear rack extending into one of said grooves,



rotatable gear means on said bar and in operative engagement with one of said racks, other rotatable gear means on said bar and in operative engagement with the other of said racks, both of said rotatable gear means being in operative engagement with each other, whereby the operative movement of said movable jaw and its plate will cause an operative movement of said second plate and a corresponding movement of the divider member.

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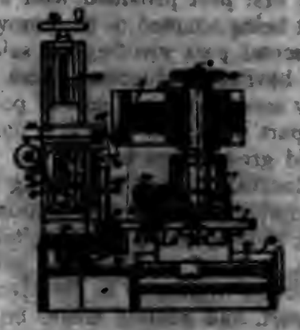
2,770,047
**LEATHER GRADING MACHINE**
Lawrence Mawbey, Leicester, England, assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Original application August 31, 1953, Serial No. 377,550, now Patent No. 2,720,101, dated October 11, 1955. Divided and this application February 15, 1955, Serial No. 488,369
7 Claims. (Cl. 33—147)



1. In a machine of the class described, measuring means comprising opposed members between which passes a work piece the thickness of which is to be measured, one of said members having a recess formed therein, means for registering the minimum thickness measurement of the work piece comprising a member movable to and fro in accordance with variations in the thickness of the work piece detected by said measuring means, a stop cooperating with said registering member to prevent its movement in response to increasing thickness of the work piece, a latch for normally holding said stop out of engagement with said registering member, connections for releasing said latch to free said stop for movement into cooperative relation with said registering member whereby its minimum thickness measurement registering action is started, said connections comprising a work-engaging shoe mounted for movement in said recess in response to engagement therewith of the work piece upon its emergence from said measuring means, and means acting upon said stop between successive measuring operations to reset said latch.

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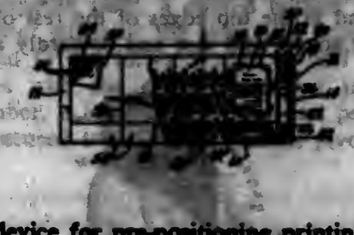
2,770,048
**GEAR WHEEL TESTING INSTRUMENT**
Daniel Ernst, Zurich, Switzerland, assignor of one-half to Maag Gear-Wheel and Machine Company, Limited, Zurich, Switzerland, a body corporate of Switzerland
Application October 1, 1953, Serial No. 383,624
6 Claims. (Cl. 33—179.5)



1. An instrument for testing both the helical profile and involute face of a helical gear wheel having teeth of involute form, comprising a feeler adapted to contact the face of the tooth to be tested, a turnable shaft adapted to carry the gear wheel to be tested and a generating cylinder mounted on said shaft; a first slide assembly operatively connected with said generating cylinder and having a straight slide member movable parallel to a tangent line to said generating cylinder, a pivot on said straight slide member, and means for providing a relative rolling relation to said generating cylinder on said tangent line as said slide member is moved; a second slide assembly having a second slide member which is relatively movable parallel to the slide member of the first slide assembly in spaced relation thereto, and a pivot on said second slide member; a third slide assembly having a first member angularly adjustable relative to the axis of said shaft to an angle equal to the helix angle of the helical tooth to be tested, said third slide assembly being provided with a further member, said further member and said second slide member of said second slide assembly being provided with slider means interconnecting said third assembly with said second assembly, said third assembly being provided with another member which is operatively connected with said feeler; indicator means operatively connected and cooperating with said feeler for indicating any departure from the true contour of the tooth being tested; means for providing relative movement between said third slide assembly and said shaft to bring the point of said feeler in contact with the flank of the tooth to be tested; a pivoted lever of variable effective length mounted on a main pivot disposed in fixed parallel relation to said shaft and on the pivots of the first and second slide members and slidably pivoted on at least two of said pivots to provide an operative connection between said slide members and shaft, whereby the ratio of the arms of said lever when the point of the feeler is located on the base circle is always in the ratio of the radii of the generating cylinder and base circle respectively; means for providing movement of said feeler and of said third slide assembly in a plane parallel to the axis of said shaft and cooperating with said slider means whereby the point of said feeler is moved along a helical tooth contour of the tooth to be tested; and means for moving said third slide assembly parallel to said tangent line to said generating cylinder whereby the point of said feeler is moved along an involute contour of the tooth to be tested.



2,770,049
**APPARATUS FOR PRE-POSITIONING PRINTING PLATES**
Harry R. Wiesenbacher, Lawrence, N. Y.
Application January 28, 1954, Serial No. 406,549
10 Claims. (Cl. 33—184.5)

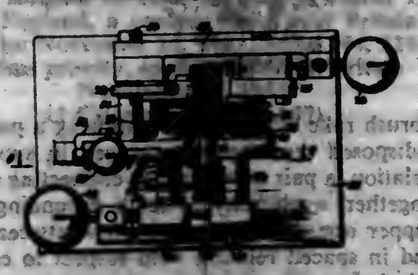


1. In a device for pre-positioning printing plates on a bed, a straight-edge assembly mountable on one side of an imposing table, and comprising a backing plate attachable to said table, an aligning bar extending the length of said backing plate and projecting forwardly therefrom, a guide lip extending the length of said aligning bar, and clamp means carried by said bar and adapted to cooperate with the lip in engaging therebetween an aligning sheet overlying said bed, the bar having a top surface offset upwardly from the top surface of the lip, to define a vertical abutment extending along one edge of the lip against which said sheet may be positioned.

7. In an aligning device for pre-positioning printing plates on a bed having diagonally extending grooves with clamping hooks adjustably mounted in the grooves, a transparent mask adapted to provide a support for individual page proofs with which the plates are to be registered, said mask having perforations parallel to the diagonal grooves through which a key pin may be extended for registering the plates with said proofs, the perforations being formed in the shape of slots.

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2,770,050
**GAGE FOR ROTATING TEST PART FOR PERIPHERAL AND CONCENTRICITY GAGING**
Stanley G. Johnson, West Hartford, Conn., assignor, by mesne assignments, to The Johnson Gage Development Company, a corporation of Connecticut
Application November 21, 1951, Serial No. 257,589
14 Claims. (Cl. 33—199)



7. A gage for gaging a test part having axially adjacent threaded portions comprising a gage frame, gaging means including a pair of thread gaging rollers, pivot means mounting the gaging rollers upon the frame for rotation and in parallel spaced relation to engage a test part at spaced points around the periphery thereof, cooperating gaging means including at least one thread gaging roller, pivot means carried by the gage frame to rotatably mount the gaging roller of the cooperating gaging means thereon in parallel spaced relation to the pair of gaging rollers, means mounting at least one of the gaging means for movement towards and away from the other gaging means to insert a test part within the gaging means and to gage the test part, means to rotate one of the gaging rollers for rotating the test part, an indicator connected with the gaging means having a gaging movement to indicate the position thereof and gage the test part, a fourth thread gaging roller, pivot means mounting the fourth gaging roller for rotation and for axial movement, mounting means mounting the pivot means for the fourth gaging roller for movement towards and away from the gaging axis and the adjacent thread of the test part, and an indicator carried by the gage frame and engaging the mounting means to indicate the position thereof and of the fourth gaging roller.

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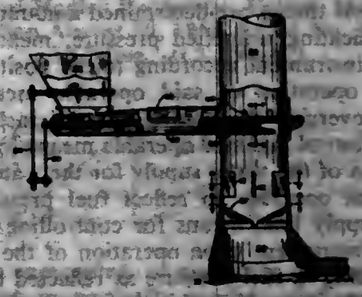
2,770,051
**BANK AND RATE OF TURN INDICATOR**
Robert G. Drever, Williston Park, N. Y.
Application October 5, 1953, Serial No. 384,359
8 Claims. (Cl. 33—204)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. An indicator of the character described comprising a pivoted rate of turn indicating arm, a substantially semi-circular bank indicating member pivoted at its upper end to said arm and having at least two distinct and differently designated areas, a front face having a transparent portion for exposing the rate of turn indicating arm and the bank indicating member and an opaque portion of the same configuration as one of the designated areas to hide this area from view when the rate of turn indicating arm and the bank indicating member are in normal flight indicating positions.

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2,770,052
**METHOD AND APPARATUS FOR DRYING TREATMENT OF SOLIDS IN THE FLUIDIZED OR GAS ENTRAINED STATE**
Robert Laurance Morrison, Blairmore, Alberta, Canada, assignor to Silver Engineering Works, Inc., a division of the Silver Corporation, a corporation of Colorado
Application July 29, 1952, Serial No. 301,494
8 Claims. (Cl. 34—10)



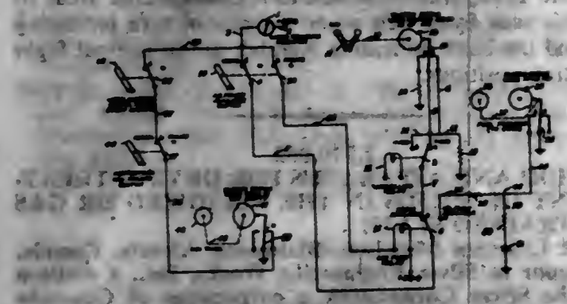
6. The process of drying sub-divided coal or the like, which comprises directing heated gases upwardly through a closed vertical drying zone, feeding such coal in sub-divided condition into said drying zone intermediate its ends, subjecting the heated gases to a swirling action at the lower end of said drying zone and below the level of feed introduction, subjecting the swirling gases to a swirl-retarding action at a point below the level of feed introduction to the drying zone whereby the coal is suspended in the non-swirling gas, and separating the dried coal from heated gases after its passage from said drying zone.

2,770,683
METHOD FOR PRODUCING PELLICLES, FILMS, AND SHEETS
Charles M. Ramer, Wallingford, Pa., and William Oldham Brilhart, Fredericksburg, Va., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Original application June 5, 1952, Serial No. 291,956. Divided and this application July 13, 1956, Serial No. 597,681
4 Claims. (Cl. 34—12)



1. A process for drying pellicles which comprises the steps of positioning a plurality of wet gel pellicles in face-to-face contact, passing said contacting pellicles into a drying stage, separating said pellicles during said drying stage before the moisture content thereof has been reduced to 30% by weight, treating the opposed surfaces of said pellicle during such separation with an aqueous liquid medium, restoring said pellicles into face-to-face contact and continuing passage of the same through said drying stage, separating said pellicles after the moisture content thereof is less than 30% by weight, and completing the drying thereof.

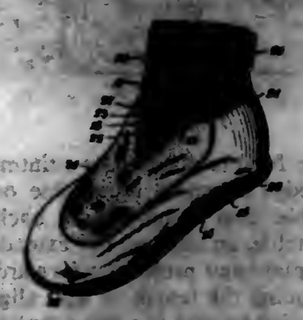
2,770,654
SIMULATED WATER INJECTION SYSTEM
Robert G. Stern, West Caldwell, and Duncan W. Simpson, Wyckoff, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware
Application November 24, 1954, Serial No. 470,916
10 Claims. (Cl. 35—12)



1. In ground based training apparatus for aircraft personnel, means for simulating the operation of a water injection system comprising a simulated air-fuel mixture control, means operable for reflecting a simulated engine R. P. M. of less than a pre-determined amount, an instrument for indicating simualted pressure, means for controlling said instrument according to the position of said control and operation of said operable means, means operable to override the control of said instrument by the mixture control and said operable means for reflecting the exhaustion of the water supply for the water injection system, means operable to reflect fuel pressure in the carburetor supply line, means for controlling the operation of said instrument upon operation of the overriding means according to fuel pressure as reflected by the last-named operable means including timing means for gradual control of said instrument upon operation of the overriding means with the fuel pressure reflecting means operated to reflect less than a pre-determined pressure.

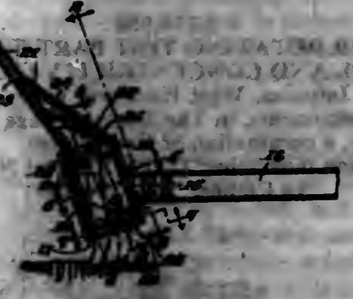
2,770,655
SLIPPER
Helen M. Hayden, New York, N. Y.
Application January 22, 1954, Serial No. 405,590
1 Claim. (Cl. 36—51)

In a slipper that grips the foot of a wearer, the combination of a substantially inelastic sole, a substantially inelastic body attached to the sole and extending upwardly along the side of the foot to just below the ankle bone when the slipper is in use, said body having a slot of substantial width at its upper end extending downwardly for a short distance at the instep part thereof, and a sock portion fastened to said body at the edges of said slot and at the top edges of the rest of the body and extending across said slot and upwardly around the



ankle, the sock portion being made of stretchable material with the part of the sock portion that extends across the slot being less stretchable than the rest of said material and tighter against the wearer when the slipper is in use, whereby the part of the sock portion that extends across the slot creates a binding over the instep and against the heel and against the lower part to the leg of the wearer to hold said slipper in position against removal by scuffing or kicking.

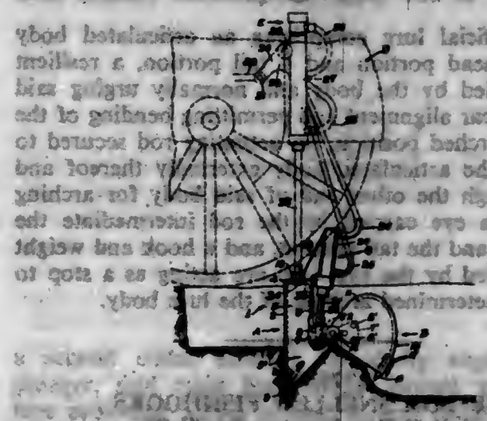
2,770,656
BRUSH RAKE ATTACHMENT FOR A TRACTOR
Elmer W. Hawkins, Jonesboro, Ark.
Application August 9, 1955, Serial No. 527,352
2 Claims. (Cl. 37—3)



1. A brush rake attachment comprising a pair of horizontally-disposed cross-beams arranged in superimposed spaced relation, a pair of end plates connecting said cross-beams together, a plurality of teeth dependingly carried by the upper one of said cross-beams between said end plates and in spaced relation with respect to each other, said teeth being connected to said upper one of said cross-beams for swinging movement transversely with respect to said pair of cross-beams between a forwardly position and a rearwardly position, said teeth projecting by their lower ends below the lower one of said cross-beams, and spring means connected to said teeth adjacent their lower ends for biasing said teeth toward the forwardly position.

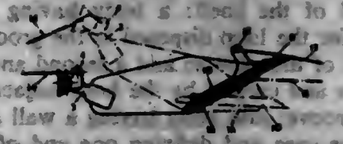
2,770,657
GRAVE DIGGER
John L. Camp, Waverly, N. Y.
Application July 31, 1953, Serial No. 371,444
3 Claims. (Cl. 37—169)

1. Grave excavating equipment comprising an elevated support, a hydraulic motor mounted on said support and having a piston rod actuated thereby, a shovel member rigidly secured to said piston rod, said shovel member having an elongated front plate and a foreshortened back plate, an upper end wall and a pair of parallel side plates integral with the front and back plates and retaining said front and back plates in spaced parallel relation to each other, and ground engaging teeth secured to the lower edge of said front wall, a scoop member having a pair of opposed sides, a curved bottom wall integral with the lower edges of the sides and ground engaging teeth secured to the forward edge of said bottom wall for coaction with the ground engaging teeth on said shovel member, a crankshaft having end portions thereof rigidly secured to said sides, means pivotally mount-



ing opposed ends of said crankshaft on said shovel member, a hydraulic motor rigidly secured to said shovel member and having a piston rod actuated thereby, means connecting said piston rod with said crankshaft whereby actuation of said second hydraulic motor effects rotation of said scoop member toward and away from said shovel member, and actuation of said first hydraulic motor raises and lowers said shovel member together with the elements associated therewith in vertical relation to ground level so that in excavating position said shovel and scoop members are located below ground level.

2,770,658
SCRAPER BUCKETS
James Stewart Thompson, Bildworth, near Mansfield, England, assignor to Coal Industry (Patents) Limited, London, England, a company of Great Britain
Application November 14, 1952, Serial No. 320,429
Claims priority, application Great Britain November 16, 1951
11 Claims. (Cl. 37—147)



1. A scraper bucket comprising two opposite longitudinal side walls which have lower straight edges with portions upswept in straight lines towards the rear end thereby forming a fulcrum about which the bucket can rock between two limit positions of stable equilibrium in each of which limit position straight portions of said lower edges rest on the ground, a scoop member located towards the rear end of said side walls and extending therebetween and upwardly and rearwardly, a member having a portion curved outwardly frontwards and connecting together the said longitudinal side walls at their front ends, a front rope attachment means on said member, a forwardly facing ram on said member, and a rear rope attachment means at the rear end of said walls, the arrangement being such that a forward pull on said front rope attachment means rocks the bucket into one limit position and a rearward pull on said rear rope attachment means rocks the bucket about said fulcrum to the other limit position.

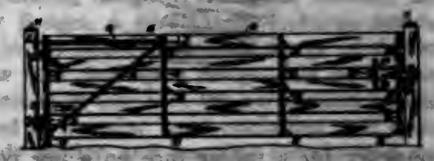


2,770,659
SELF-LIFTING SADIRONS
George A. Bruce, Highland Park, Ill., assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application August 5, 1953, Serial No. 372,510
6 Claims. (Cl. 38—79)



1. A self-lifting smoothing iron comprising, a sole plate, a cover shell overlying and secured to said sole plate, a one piece operating handle having a front leg secured to said cover shell, a cavity formed in said front leg above said cover shell, an extensible and retractible supporting means for supporting said sole plate out of contact with an ironing surface, said supporting means including an elongated reciprocatable strut normally retracted within said cavity and extensible through an opening in said sole plate below said cavity, said opening and cavity forming a guideway for the reciprocation of said strut, a slot formed in the side wall of said front leg and extending from the exterior thereof into said cavity, and a control for said supporting means extending through said slot and being accessible for manipulation on the exterior of said front leg, said supporting means including a U-shaped spring actuator for said strut, one end of said spring being pivotally attached to said strut intermediate the ends thereof, the other end of said spring being connected to said control, the arrangement being such that movement of said control to one end of said slot moves said spring through a neutral position to one stable position in which said strut is retracted within said cavity with its lower end above the ironing surface of said sole plate and movement of said control to the other end of said slot moves said spring through its neutral position to another stable position wherein said strut is extended with its lower end positioned below the lower face of said sole plate whereby said sole plate is supported above an ironing surface.

2,770,660
FARM GATE
Carl Hadley Remschler, Fulton, Mo.
Application August 29, 1955, Serial No. 531,241
3 Claims. (Cl. 39—87)

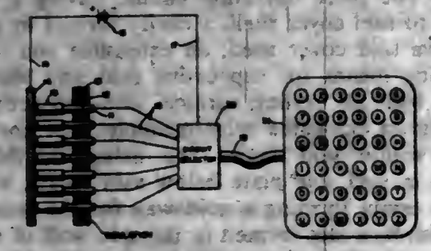


1. A gate comprising an assembly of horizontal gate bars arranged in vertically spaced relation, a pair of spaced, opposite tie members disposed on opposite sides near one end of said gate bar assembly, said tie members being V-shaped in cross section having lateral edge portions and central corner portions, said tie members being arranged with the lateral edge portions engaging the gate bars and with the central corner portions spaced outwardly from the gate bars, fastening means extending transversely through said corner portions of said tie members and through the intervening portion of each gate bar, horizontally disposed hinge elements extending between said tie members, adapted for vertical adjustment between pairs of spaced adjacent gate bars,

said hinge elements being provided with threads, a pair of clamp plates on each said hinge element, each pair of clamp plates engaging opposite sides of said tie members, adjustable threaded members threadedly received on said hinge elements, said adjustable members being disposed adjacent said pair of clamp plates and being adapted to vary the position of said clamp plates along said hinge elements, whereby to adjust the angular position of said gate.

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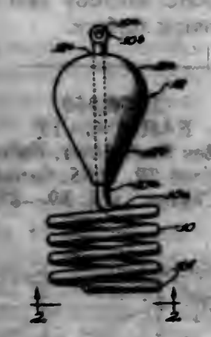
**2,770,861**
**DISPLAY APPARATUS**
Henry T. Marcy, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 30, 1955, Serial No. 556,558
5 Claims. (Cl. 40—52)



1. Apparatus for displaying information, comprising a conductive transparent sheet; a plurality of semi-conductive elements, said elements being positioned closely adjacent but spaced from one side of said sheet; means for applying a potential difference between the adjacent surfaces of selected ones of said elements and said sheet, whereby the selected elements are attracted to the sheet.

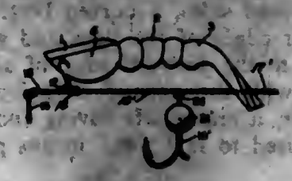
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**2,770,862**
**WEIGHTED LURE RETRIEVER**
John A. Russell, Chicago, Ill.
Application January 20, 1956, Serial No. 560,415
4 Claims. (Cl. 43—17.2)



2. A retriever for a fishing lure on a line comprising in combination: a spring coil having an axis and being of a diameter sufficient to pass the lure and having an axial upstanding portion of substantial length having means at one end to receive a pull cord; a weight received on the upstanding portion of the coil and being spaced in relation to the turns of the coil to pass the lure, the largest dimension of the weight normal to the axis of the coil further being such that the line may pass vertically through the coil without interference with the weight, whereby the spring coil may be threaded through the line and lowered to engagement with the snagged lure, the retriever may be bounced on the lure to dislodge the same by repeated blows, and the lure may then be disengaged by passing the same through the coil.

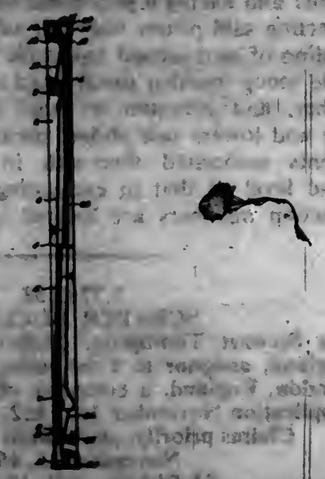
**2,770,863**
**ARTIFICIAL FISHING LURE**
William F. Martin, Amarillo, Tex.
Application June 29, 1951, Serial No. 234,349
2 Claims. (Cl. 43—42.32)



1. An artificial lure comprising an articulated body including a head portion and a tail portion, a resilient member carried by the body and normally urging said body into linear alignment and permitting bending of the body to an arched position, an actuating rod secured to one end of the articulated body externally thereof and passing through the other end of said body for arching said body, an eye carried by the rod intermediate the head portion and the tail portion, and a hook and weight member carried by the eye, said eye acting as a stop to permit a predetermined arching of the lure body.

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**2,770,864**
**CASE FOR SNELLED FISHHOOKS**
Paul A. Kelley, Los Angeles, Calif.
Application June 25, 1954, Serial No. 438,784
5 Claims. (Cl. 43—57.5)



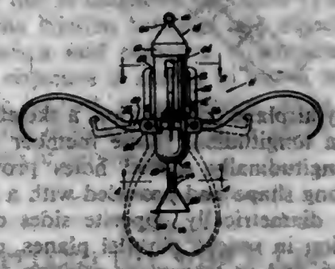
3. In a case for a hook having a snell with a loop at the free end of the snell: a body having a groove; a first anchor for the loop disposed in the groove and adjacent one end of the groove; and a second anchor exterior of the groove and carried by the body adjacent the other end of the groove; said body having a wall extending inwardly of the case and defining one end of the groove, said wall having an edge which defines a passage with the case from said end of the groove, to that portion of the case beyond the groove; said second anchor being carried by a wall adjacent said passage and in the case; said second anchor being adapted to anchor a rubber band extending through the passage for engaging the hook; the groove being deep enough to receive the snell and hook entirely within the groove; and the edge of the wall at the passage being so placed as to bias the snell toward the bottom of the groove.

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**2,770,865**
**FISHING APPARATUS**
Willie James Walker, Phoenix City, Ala.
Application April 16, 1956, Serial No. 423,699
3 Claims. (Cl. 43—99)

3. In a trap device, a tubular main body having a bottom wall, a plurality of pairs of hooks pivoted to opposite sides of said body in opposing relationship and being swingable toward each other, spring means biasing said hooks toward each other, a plunger mounted for axial sliding movement in said main body, the lower end of said plunger extending through said bottom wall and projecting axially from said body, a bait carrier secured to said lower end, respective hooked catch arms on said hooks, a first collar element on said plunger, an annular detent rib on said first collar element, said catch arms being engageable with said rib to hold the hooks spread apart, guide means on the top end of said main body slidably receiving the upper end of said plunger,





a second collar element threadedly engaged on the plunger, said main body being formed with an aperture providing access to said second collar element for adjustment of the same, and a coil spring surrounding said plunger and bearing between said second collar element and said bottom wall, biasing said plunger toward said catch arms, the rib being disengageable from said catch arms responsive to an outward axial pull on said bait carrier, whereby the hooks are swung toward each other by said spring means, said body being formed with apertures through which said catch arms are extensible to engage with said rib.

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**2,770,866**
**INSECT TRAP**
Paul J. O'Sullivan, Pasadena, Calif.
Application September 8, 1953, Serial No. 378,841
1 Claim. (Cl. 43—107)



In an insect trap, a cover for attachment to a receptacle having a threaded neck defining a mouth, comprising: a strip of thin ribbon of thickness, width and material conforming to the thickness, width and material of photographic film, said ribbon being wound spirally upon itself to form an intermediate body of flat ring form, succeeding convolutions of said ribbon being displaced axially in the same direction both at the periphery and the center of said intermediate body so as to form a central annular lip of acute angular section tapering to a relatively thin edge consisting not over three convolutions, and a peripheral skirt which is likewise of acute angular section, terminating in a thin edge, and an insert ring formed of sheet metal including a face flange secured to the inner wall of said flat ring body and a flange with a rolled thread projecting axially from the periphery of said face flange in radially spaced relation to said skirt, for threaded connection to said neck.

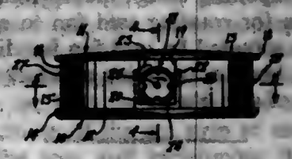
**2,770,867**
**PROCESS FOR THE PRODUCTION OF A BAIT FOR KILLING RODENTS, MOLES, AND NOXIOUS ANIMALS**
Karl Axel Helmer Lindblom, Stockholm, Sweden, assignor to Rederiaktiebolaget Atlantbolaget, Stockholm, Sweden
Application July 23, 1952, Serial No. 300,478
Claims priority, application Sweden September 29, 1951
2 Claims. (Cl. 43—124)



1. A process for the production of a poison bait for killing rodents, wild rabbits and moles, gnawing insects and other noxious animals with similar habits, which process comprises soaking whole kernels of dry Indian corn of storable dryness having a hard, glassy, cellular tissue with a portion at the sprout end comprised of a soft, porous, cellular tissue in an aqueous solution of a poison toxic to said noxious animals for not over two hours to cause the solution to be absorbed substantially entirely in the soft, porous portion only of the kernels, and then drying the kernels to storable dryness to leave the poison substantially in said soft portion only, whereby the hard, glassy tissue remains non-toxic.

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**2,770,868**
**POWDER ATOMIZER CONTAINER**
Mauricio Jakub, New York, N. Y.
Application November 2, 1955, Serial No. 544,422
11 Claims. (Cl. 43—146)



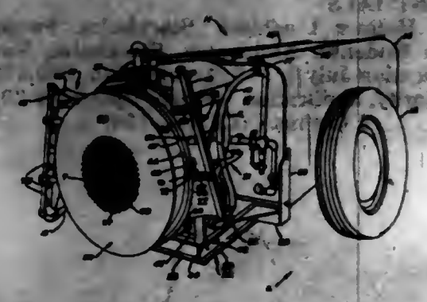
1. A box for dispensing powders, insecticides or the like comprising a cylindrical body section having a flexible bottom wall, an open top and spaced inner and outer flanges around the bottom wall, a cover section for the open top of said body section including a rigid top wall and a depending flange in the space between said inner and outer flanges, a perforated discharge nozzle device mounted in the upstanding inner flange of the body section below said depending flange, said outer flange having an opening in line with the perforation in said nozzle device, and an annular band encircling said outer flange of the body section and turnable therearound, said band having a hole therein adapted to be moved into register with the opening in the outer flange.

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**2,770,869**
**AGRICULTURAL SPRAYING AND DUSTING APPARATUS**
Adrian St. J. Bowie, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application November 24, 1951, Serial No. 258,084
11 Claims. (Cl. 43—140)

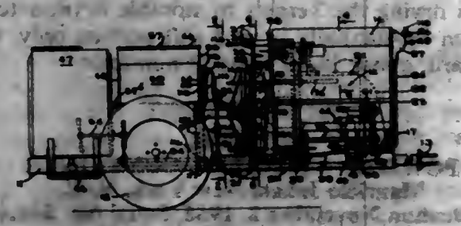
1. An agricultural pesticide spraying and dusting apparatus comprising a frame, means on said frame for creating an air blast, an air blast deflector enclosing said

air blast creating means and adjustably supported at one end only by said frame and disposed to receive and discharge said air blast in a predetermined direction, and means for delivering pesticide to said blast.



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2,770,670
AGRICULTURAL PESTICIDE DISTRIBUTING APPARATUS
Walter W. Funk, Medina, N. Y., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application December 24, 1952, Serial No. 327,874
11 Claims. (Cl. 43—149)



1. A pesticide distributing apparatus comprising a fan having an air impelling blade, means rotatably mounting said fan, means for rotating said fan to create a blast of air, and means actuated by said fan for discharging pesticide into said blast at a point substantially within the rotational path of said blade.

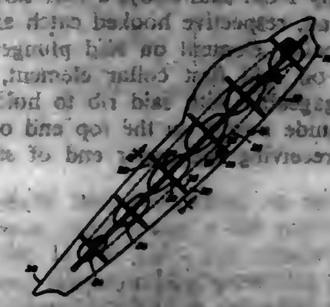
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2,770,671
SOAP HOLDER AND SAVER
Fred J. Endres and Frank Paiva, Reno, Nev.
Application April 15, 1954, Serial No. 423,399
3 Claims. (Cl. 45—28)



1. In combination, a bar of soap provided with a portion of reduced size, a cap arranged contiguous to the portion of reduced size, said cap including a continuous rolled edge embedded in said bar of soap and having its free end curved inwardly, a pair of fingers having curved sections extending from said cap and embedded in said bar of soap, a plurality of lugs projecting from the ends of said cap, a handle detachably connected to said cap and including a pair of body portions mounted for movement towards and away from each other, each of said body portions being provided with an opening, a flange extending transversely from each end of said handle, each of said flanges being provided with a plurality of sockets for receiving therein said lugs.

2,770,672
TOY AIRPLANE CONSTRUCTION
Nathan G. Rast, Rockford, Ill., assignor to Nils F. Teeter, Rockford, Ill.
Application February 27, 1952, Serial No. 273,631
4 Claims. (Cl. 46—17)



1. In a toy airplane construction, a skeleton framework comprising a longitudinal frame member having a plurality of longitudinally spaced holes provided therein, each of oblong shape and provided with a pair of shoulders on the diametrically opposite sides of the narrow middle portion in spaced parallel planes, cross-members assembled on and in transverse relation to the longitudinal member, one in each of said holes, each cross-member having one dimension intermediate its ends that is appreciably greater than the width of the narrow middle portion of the associated hole but less than the length dimension of said hole, said cross-member having on that dimension inwardly extending slots provided in diametrically opposite side portions thereof of a width approximately equal to the thickness of the longitudinal member and receiving the same to interlock the members when the cross-member is inserted in the associated hole to a position in which the slots are in coplanar relation to the longitudinal member and is turned to the interlocked position, the cross-member in its terminal assembled position having abutment on its opposite sides with the shoulders while the slots closely receive portions of the longitudinal member adjacent said shoulders outwardly from the hole, the distance between the inner ends of said inwardly extending slots on said cross-members being substantially equal to the width of the narrow middle portion of the holes associated therewith, and a longitudinal tie member entered in inwardly extending slots provided in said cross-members between the diametrically opposed slots, said tie member having longitudinally spaced substantially parallel slots provided in the inner longitudinal edge portion thereof closely receiving said cross-members at the slots therein to prevent turning of said cross-members from assembled position on the longitudinal member while holding the cross-members in fixed parallel relationship.

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2,770,673
ANIMATED DISPLAY DEVICE
William J. Sullivan, Rossmoor, Mont.
Application June 21, 1954, Serial No. 437,974
2 Claims. (Cl. 46—239)



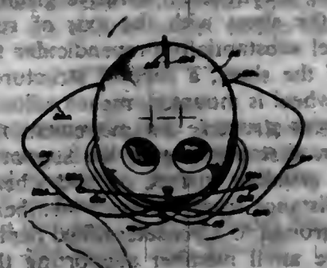
1. An animated display device including a support having a central vertical axis; a horizontally elongated objective; a substantially straight bar magnet carried by said objective and extending lengthwise thereof; first



means, carried by said support, providing a substantially horizontal surface through which said axis passes, sustaining said objective for gliding movement in a substantially horizontal path with respect to said surface; a plurality of substantially straight bar magnets for attracting and repelling said bar magnet; and second means rotatably supporting said plurality of bar magnets spaced below said horizontal surface in spaced-apart relationship and arranged in a plurality of spaced-apart pairs, the bar magnets of one pair having their south poles remote from said axis and their north poles nearer said axis, and the bar magnets of another pair having their north poles remote from said axis and their south poles nearer said axis, whereby due to magnetic attraction of said bar magnets and to the friction between said objective and said first means when said objective is sustained upon said surface, said objective is caused to move, when said second means is rotated, in wandering paths around said axis without the objective tending to follow a cyclical or uniform pattern of movement.

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2,770,674
SELF PROPELLED TOY WHICH CIRCUMVENTS OBSTRUCTIONS
David W. Jones, Glencoe, and Fred Zaut, Chicago, Ill.; said Zaut assignor to said Jones
Application September 3, 1953, Serial No. 378,326
10 Claims. (Cl. 46—247)



1. A self-propelled toy, comprising a housing, a pair of wheels supporting said housing, power means for driving said wheels, transmission means effective to drive said wheels simultaneously in either a forward or reverse direction, or to drive each of said wheels simultaneously in opposite directions with respect to each other, said transmission means normally effective to drive said wheels simultaneously so that said toy moves forward in a straight line direction, outwardly extending means extending outwardly of said housing and operatively connected with said transmission means, said outwardly extending means when engaged by an obstruction in the path of travel of said toy being effective to operate said transmission means so that said transmission means simultaneously drives said wheels in opposite directions with respect to each other to change the direction of travel of said toy whereby said toy may turn away from and avoid the obstruction.

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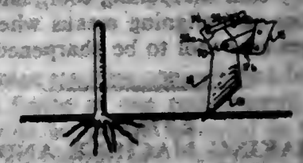
2,770,675
ELECTRIC BAIT GETTER
Maurice B. Moore, Rushville, Ill.
Application July 26, 1955, Serial No. 524,469
1 Claim. (Cl. 47—1.3)



An electric bait getter comprising: a metallic electrode, a dielectric handle, a resilient dielectric grip encompassing said handle, said handle having a bore extending therein to support said electrode, a transverse bore extending through said handle, a nut seated in said transverse bore and engaged over said electrode securing said electrode in said first-named bore, said electrode bearing against said handle at its inner end to prevent inward movement of said electrode in said handle, an electric wire and means for connecting one end of said electric wire to said electrode including a bore in said electrode through which said wire extends, and a washer soldered to the free end of said wire.

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2,770,676
METHODS OF REMOVING AND TRANSPLANTING TREES
Edward H. Klackbohn, Naperville, Ill.
Original application December 11, 1947, Serial No. 791,028, now Patent No. 2,652,639, dated September 22, 1953. Divided and this application January 8, 1953, Serial No. 330,285
4 Claims. (Cl. 47—58)



1. The method of removing a mature tree from the body of the earth utilizing an upstanding substantially U-shaped cutter having open front and rear faces; said method comprising submerging the upstanding cutter in the body of the earth at a first location disposed on one side of the tree and removed therefrom, advancing the submerged upstanding cutter in a substantially horizontal direction toward the tree and into a second location disposed directly below the tree in order to sever with the submerged upstanding cutter an elongated substantially horizontally disposed strip of earth substantially U-shaped in cross-section free from the body of the earth toward and only slightly past the mass of roots of the tree while leaving the cut strip of earth in place in the body of the earth and to sever with the submerged upstanding cutter the roots of the tree projecting beyond the confines of the submerged upstanding cutter, and then lifting the upstanding cutter from the body of the earth so as to raise therewith only the clump of the cut strip of earth disposed directly below the tree and enveloping the mass of the roots of the tree together with the tree and so as to leave undisturbed the raised clump of earth enveloping the mass of roots of the raised tree.

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2,770,677
SOIL CONDITIONING WITH ALKENYL SUCCINIC COMPOUNDS
Keith L. Smith, Charleston, W. Va., assignor to Union Carbide and Carbon Corporation, a corporation of New York
No Drawing. Application October 14, 1954, Serial No. 462,367
9 Claims. (Cl. 47—58)

1. The method of improving the stability of granules of surface soils to the action of water which comprises incorporating in soil containing soil moisture from 0.005% to 1% based on said soil of one of the group consisting of alkenyl succinic acids and their anhydrides and salts, in which the alkenyl radical contains from five to eight carbon atoms.

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2,770,678
TOOL SHARPENER
Robert S. Rowden, Alhambra, Calif.
Application February 14, 1955, Serial No. 487,862
12 Claims. (Cl. 51—34)

1. A base adapted to be secured on a machine tool, an aligning means on said base, a tool shaft having sec-

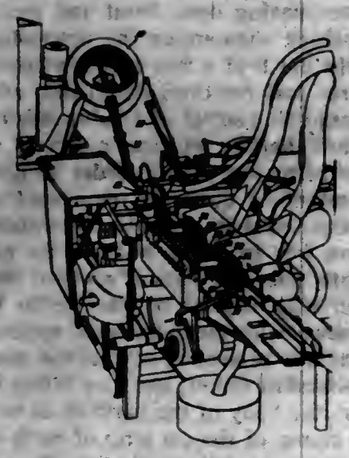
end means cooperable with said aligning means for initially locating said base with respect to the axis of a tool chuck in which said tool shaft may be carried, third means for fixing said base on a machine tool employing said chuck, a carriage on said base and movable laterally with respect to the axis of said tool shaft, a tool post



supported by said carriage and movable thereby with respect to said tool shaft, and a sharpening tool on said tool shaft, said tool post disposed to support a tool to be sharpened by said sharpening tool, said second means disengaged from said aligning means when said sharpening tool engages said tool to be sharpened.

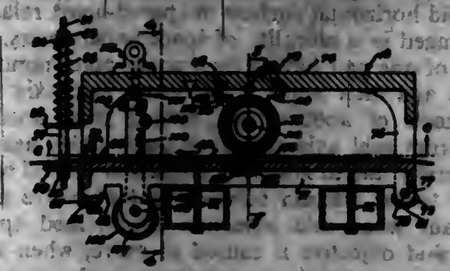
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2,770,879
**BRUSH MAKING MACHINE AND METHOD**
John G. Baumgartner, Aurora, Ill.
Application July 14, 1954, Serial No. 443,360
15 Claims. (Cl. 51—74)



1. Apparatus for finishing the end portions of the bristles of a brush by grinding the same, which bristles are provided as a single compact tuft extending from the brush handle with the bristles being thin and individually yieldable over the length thereof, said apparatus including in combination, moving grinding means, brush handling means for retaining a brush in a position with the bristles thereof extending toward the grinding means, a bristle rest so constructed and so positioned relative to said brush handling means that a bristle tuft of a retained brush will engage said bristle rest on one side of said tuft intermediate the brush handle and the ends of the bristles, air supply means for directing a jet of air on the other side of the bristle tuft on said bristle rest to spread out the end portions of bristles and momentarily apply bristle-end-portions to the moving grinding means in a fanwise pattern so that a substantial number of the bristle-end-portions in the tuft are presented to the grinding means for grinding, said brush handling means operating to turn a brush retained thereby to present other bristles to the grinding means, and means in the apparatus cooperating with said brush handling means and said air supply means for interruptedly and repeatedly operating said two latter means to momentarily present in the fanwise pattern different parts of the bristle tuft to said moving grinding means for grinding bristle-end-portions into a tapered configuration.

2,770,880
**APPARATUS FOR COMBINING SHEETS OF PAPER**
Edwin R. Hoyt, Ashland, Ohio, assignor, by mesne assignments, to Beloit-Oliver Incorporated, Stamford, Conn., a corporation of Delaware
Application June 14, 1952, Serial No. 293,535
6 Claims. (Cl. 51—75)



1. In apparatus of the character described, means for supporting a moving sheet of paper including a table and a rounded anvil member extending transversely of the path of movement of the sheet and over which the sheet is adapted to ride, means fixedly mounting the anvil member on the table with the anvil member projected to provide an arched path of movement of the sheet over the table with substantially a single point contact of the moving sheet with said anvil member and a substantially single point contact of the sheet at each side of the anvil member, a rotatable grinding wheel over the anvil member and having a cylindrical abrasive grining surface posioned over the sheet with the axis of rotation of the grinding wheel substantially prependicular to the path of movement of the sheet, a support structure upon which the grinding wheel is mounted, means adjustably supporting said support structure for movement relative to the anvil member, a stop engaging the support structure to maintain the grinding surface of said wheel a predetermined fixed distance from the anvil member whereby the sheet can be ground to a predetermined depth, at least the portion of the anvil member supporting the portion of the sheet engaged by the grinding wheel being of material substantially non-porous to paper dust, resilient means connected to said support structure to hold the same against said stop, and means including an exhaust nozzle adjacent said anvil to effect removal of ground dust.

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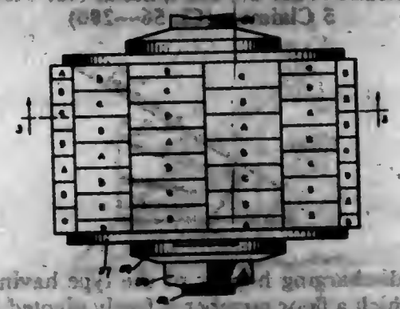
2,770,881
**GRINDING APPARATUS**
Roy C. Northcutt and Joseph N. Skaggs, Muncie, Ind., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application January 8, 1954, Serial No. 403,007
6 Claims. (Cl. 51—103)



1. An apparatus for grinding simultaneously a plurality of diameters on a workpiece having a gear fixed thereon, comprising a multi-diameter grinding wheel positioned by support means a headstock and a tailstock for mounting the workpiece, a gear connected to the headstock and a countershaft, said countershaft being formed with a gear on one end in mesh with the gear on the headstock and a gear on the other end in mesh with the gear on the workpiece, whereby said gear on the headstock drives the gear on the workpiece thus rotating the workpiece at the same speed of rotation as that of the headstock and permitting simultaneous grinding of all of said diameters on the workpiece in a single operation.



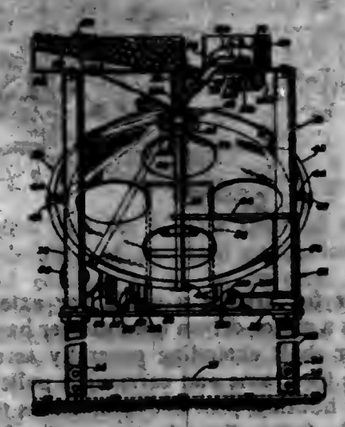
2,770,882
**GRINDING AND POLISHING AND THE LIKE**
Harry Whitcomb, Chicago, Ill.
Application August 31, 1953, Serial No. 377,521
17 Claims. (Cl. 51—141)



1. A contact wheel having a peripheral cylindrical running surface for arcuate travel of an abrasive surface, said contact wheel including a body section and a plurality of elastic bodies lying in a cylindrical zone at the exterior radial portion of the wheel, each body being of substantially uniform degree of softness throughout its outer peripheral portion, said elastic bodies being of different degrees of softness and including a plurality of groups of bodies, the bodies of each group being of substantially the same preselected degree of softness, and the bodies of the different groups being of different degrees of softness and being located in said cylindrical zone, together with means to retain the elastic bodies within said zone.

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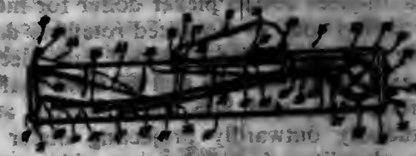
2,770,883
**TUBE HANDLING APPARATUS**
Elbe A. Wilcline, Baltimore, Md., assignor to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application October 28, 1953, Serial No. 388,749
30 Claims. (Cl. 53—76)



1. In an apparatus for inserting closures into containers, a container feeding device for successively feeding containers, a rotatable carrier member positioned below the container feeding device and having pockets therein positioned about its periphery for successively receiving containers in a horizontal position and transferring them to a vertical position upon 180° rotation of said carrier member, a closure feeding device positioned above said carrier member for feeding closures thereto, means on said carrier member for receiving and positioning said closures adjacent the end of said containers when the containers are in the horizontal position, means for inserting said closures into said containers after said closures have been positioned on said carrier member and while said containers are being moved from their horizontal position to their vertical position, and means for intermittently rotating said carrier member in step by step increments to position one of said pockets and said first-mentioned closure positioning means in communication with said container and closure feeding devices respectively whereby one of the containers is positioned horizontally in the pocket and one of the closures is positioned adjacent the ends of the horizontally positioned container.

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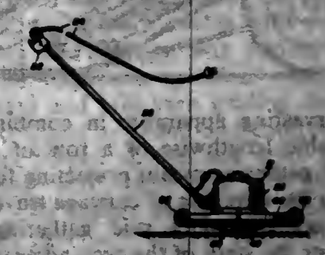
2,770,884
**DEVICE FOR EXPANDING BAGS FOR FILLING**
Manuel L. Ruderman, New York, N. Y.
Application March 30, 1954, Serial No. 419,691
8 Claims. (Cl. 53—109)



1. A bag package machine comprising a frame, a blower mounted in the frame at one end thereof, a bottom air guide and two side air guides mounted in the frame and extending from the blower, said bottom air guide having a bag edge holding free end portion, a bag holding table movably mounted in the frame and having one end disposed beneath said bag edge holding free end portion of the bottom air guide, a pair of spaced product guides mounted over the bottom air guide for closing movement together and opening movement apart, said product guides having front ends disposed adjacent to and behind said bag edge holding free end portion of the bottom air guide, and stop means adjacent said front ends of the product guides to limit the opening thereof, said table being pivotally connected at its other end to the frame and grounded, spaced contour blocks mounted on the table, a bag end holding member movably mounted on the table at the pivoted end thereof, said member having an upper end extending over the table, and a stiffy flexible bag holding shield adapted to rest on the table and on the spaced contour blocks thereon and removably held to the table by said bag end holding member.

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2,770,885
**POWER MOWER WITH FRUSTO-SPHERICAL GROUND SHOE**
Myron P. Laughlin, St. Petersburg, Fla.
Application December 11, 1953, Serial No. 397,508
9 Claims. (Cl. 56—25.4)



1. A power mower comprising a portable housing means, a power-rotated shaft depending from and extending substantially normal to said housing means, a generally frusto-spherical ground shoe operatively connected to the shaft below said housing means and forming a ground support for said housing means, a plurality of cutting means extending radially outwardly from the peripheral portion of said shoe, and handle means operatively connected to said housing means for tilting the latter and thereby the shoe to cause movement of the mower in a desired direction.

2,770,086
COTTON PICKER DOFFER
Harold M. Knuth, Davenport, Iowa, assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application March 15, 1954, Serial No. 416,016
17 Claims. (Cl. 56—41)



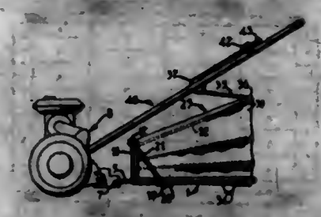
1. A multi-piece cotton picker doffer for mounting on and for rotation with an elongated rotatable doffer shaft, comprising: an externally threaded hub sleeve having opposite axially spaced ends and an axial shaft-receiving bore therethrough, said hub sleeve having at one end thereof radially outwardly projecting doffer mounting means; a plurality of radially separable sector-shaped plate-like doffer elements having doffing means thereon and contiguously grouped about the hub sleeve in a common plane normal to the axis of rotation to comprise a circular plate-like assembly having said axis as its center, each element having a center-proximate portion seating on the doffer mounting means, each center-proximate portion further having a sleeve-receiving notch therein; and annular, shaft-surrounding, internally threaded releasable means threadedly carried by the hub sleeve and movable axially relative to the hub sleeve toward the doffer mounting means and engaging the seated element portions for securing said elements in assembled relation to the hub and to each other.

2,770,087
HARVESTING MACHINE FOR ROW CROP STALKS
Lloyd W. Hurlbut, Lincoln, Nebr., assignor to Research Corporation, New York, N. Y., a corporation of New York
Application November 23, 1954, Serial No. 470,717
6 Claims. (Cl. 56—46)



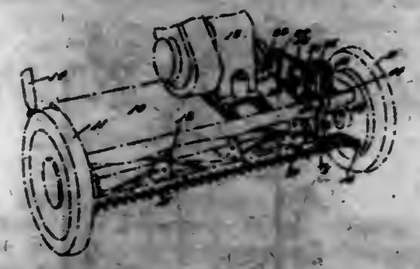
1. Seed harvesting apparatus in combination with a carriage movable lengthwise of a row of standing crop including stalk gathering means projecting forwardly from the carriage in the direction of carriage travel, stalk severing means associated with said gathering means and adapted to sever the stalk of the crop adjacent the ground, a pair of seed stripping rolls, said seed stripping rolls having their longitudinal axis extending generally upwardly and at an angle relative to said gathering means and the direction of carriage travel with the lower ends of said rolls positioned to receive the severed end of the stalk from the stalk severing means, power means for operating the gathering means, said severing means and for rotating the seed stripping rolls in opposite directions with the opposed surfaces of the rolls moving in a generally downwardly direction whereby the severed stalk will be discharged forwardly and to the side of the path of the incoming row of crop.

2,770,088
DUMPING HOPPER FOR LAWN MOWERS AND THE LIKE
Martin W. McNamara, Pittsfield, Mass., assignor of one-half to Martin W. McNamara, Jr., Chicago, Ill.
Application July 27, 1954, Serial No. 445,989
5 Claims. (Cl. 56—200)



1. In a discharging hopper of the type having a lower frame in which a floor member is freely pivoted for downward and rearward tilting movement when the frame member is raised and having means for pivotally connecting the forward end of the frame to the rear of a lawn mower and similar machines having a handle extending rearwardly over the hopper; upwardly extending lever arms secured to the sides of said frame and forming means by which the latter may be tilted upwardly about the pivotal connection of the frame to said machine, an upper frame connected to said lower frame by collapsible walls, said upper frame being connected at its forward end to the forward end of the lower frame for pivotal movement relative thereto to thereby permit the lower frame member to swing into close proximity to the upper frame member and collapse the flexible walls upon the application of forward tilting pressure on the lever arms.

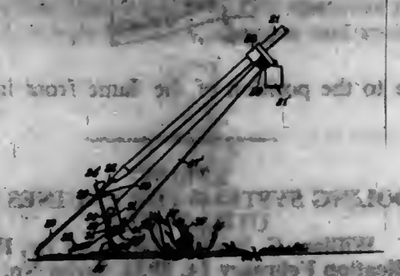
2,770,089
SICKLE BAR DRIVE ADAPTOR FOR ATTACHMENT TO REEL TYPE MOWER
Hugo F. Feuerlein, Philadelphia, Pa.
Application December 13, 1952, Serial No. 325,828
1 Claim. (Cl. 56—230)



An adapter for driving a sickle bar extending transversely across a motor-driven lawn mower having a frame, from a motor shaft extending generally across the lawn mower above the frame and carrying a pulley, consisting of an adapter housing, provided with means to removably and adjustably fasten the adapter on the frame, a first shaft journalled in the adapter housing and extending outside thereof at one end, pulley means on the first shaft outside the housing and adapted to connect with the lawn mower motor shaft pulley by means of a belt, gear means on the first shaft inside the housing, a second shaft in the housing journalled thereon and extending outside the housing and transversely to the first shaft, gear means in the housing on the second shaft cooperating with the gear means on the first shaft, an eccentric on the second shaft outside the housing, an eccentric strap pivot on the outside of the housing below the eccentric and an elongated eccentric strap extending below the frame, having an eccentric strap opening at one end surrounding and engaging the eccentric and having a fork at the opposite end adapted to engage the sickle bar, the eccentric strap being pivoted on the eccentric strap pivot between the two ends of the eccentric strap.

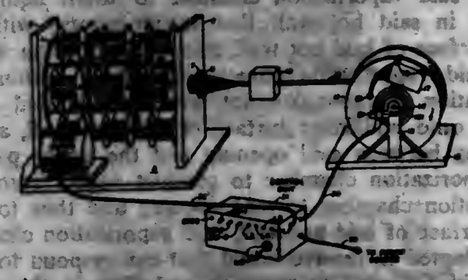


2,770,090
CRABGRASS CUTTING AND RAKING IMPLEMENT
Robert L. Bordas, Garden City, N. Y.
Application May 15, 1953, Serial No. 355,280
10 Claims. (Cl. 56—400.07)



1. A lawn-weed cutting implement, comprising a rigid prong-support and spacer member, an operating handle fixed thereto for manipulation of the implement; flexible rake prongs carried by the support member to extend therefrom in a direction opposite that of the handle; and blade-carrying means attached to the support member including means for retaining rigidly, for operation, cutting blades in a substantially vertical plane when the implement is drawn manually by the operating handle, with downward pressure exerted thereon, over turf infested with weeds, the severed weed portions being collected by said rake prongs.

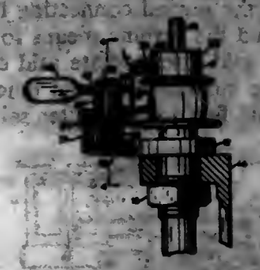
2,770,091
CONTROL UNIT FOR CABLE SPINNING MACHINE
Theodor Frankel, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application January 7, 1954, Serial No. 402,688
11 Claims. (Cl. 57—51)



1. A control unit for a cable spinning machine comprising; a plurality of insulated conductors, means for causing said conductors to be formed into a cable, means for continuously checking the electrical continuity of said conductors during the formation of said cable, and means for stopping said cable forming means responsive to the occurrence of an electrical discontinuity in any of said conductors.

2,770,092
BRAKE FOR SPINNING OR TWISTING SPINDLE
Earl S. Wood, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts
Application January 11, 1954, Serial No. 403,301
1 Claim. (Cl. 57—93)

In a textile machine having spindles comprising blades and whirls and having spindle bases therefor provided with offset and upwardly-extending oil spouts, that improvement for each spindle which consists in an oil cover mounted on a fixed vertical pivot, a braking member which is resilient in part and which is mounted to swing about said vertical pivot with said cover manually-releasable means to lock said cover and said braking member together in a horizontal operative angular position, a brake element mounted on said braking member and movable towards said spindle to engage a side wall of said whirl, and a cam lever mounted on said fixed vertical



pivot and manually swingable horizontally relative to the cover and braking member to engage an intermediate portion of said braking member and effective to force said brake element against said whirl.

2,770,093
SPINNING FRAME
Eugene Cleveland Gwaltney, Biddeford Pool, Maine, assignor to Saco-Lowell Shops, Boston, Mass., a corporation of Maine
Application October 4, 1951, Serial No. 249,732
6 Claims. (Cl. 57—99)

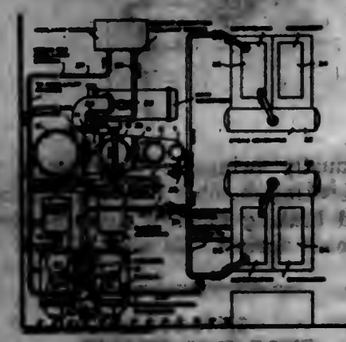


1. A lifting mechanism for spinning frames of the type having a plurality of spinning instrumentalities extending along either side of a frame including spindles on opposite sides of said frame, a plurality of horizontally spaced vertical guide members on opposite sides of said frame, slide means mounted on said guide members for vertical movement on said guide members, yarn guiding devices mounted on and movable with said slide means, tie rods extending between said slide means on opposite sides of said frame and vertically movable with said slide means for maintaining said yarn guiding devices in axial alignment with the respective spindles, means for moving said slide means and said yarn guiding devices including a builder mechanism arranged and controlled to provide a reciprocating builder motion and drive means connecting said builder mechanism and said slide means for moving said slide means along said guide members in response to the movement of said builder mechanism.

2,770,094
MULTIPLE EXPANSION RECIPROCATING STEAM ENGINE WITH TURBINE OPERATING FROM INTERMEDIATE STAGE
Angelo A. Fabius, Washington, D. C.
Application October 6, 1952, Serial No. 313,909
2 Claims. (Cl. 60—31)

1. In an elastic fluid marine power installation, in combination, a supply of live steam and a multiple expansion reciprocating steam engine comprising at least three stages of expansion, turbine means connected to an intermediate

expansion stage of said engine for receiving steam from the exhaust of said intermediate stage, a reheater having separate flow passages, the first connected to said supply of live steam and the second connecting the intermediate expansion stage and the turbine means to receive the exhaust steam from said intermediate said expansion stage, an auxiliary engine connected to said reheater for receiving steam from said first passage after said steam has re-



heated the exhaust steam from the intermediate expansion stage, a partition fixed with valve means placed between the exhaust of the intermediate stage of expansion and the low pressure stage of expansion whereby, by closing the valves, the steam is diverted from said low pressure stage to said turbine means, a steam passage between said auxiliary engine and the low pressure stage of expansion engine to convey exhaust steam to the reciprocating engine.

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2,770,895
**JET DEFLECTOR HAVING CURVED GUIDE WALL FOR AIRCRAFT**
Peter Frederick Ashwood, Farnham, and Philip John Fletcher, Farnborough, England, assignors to Power Jets (Research and Development) Limited, London, England, a British company
Application May 26, 1953, Serial No. 357,117
Claims priority, application Great Britain May 30, 1952
9 Claims. (Cl. 60—35.54)



1. A jet nozzle unit for a jet propelled aircraft, for directing the jet rearwardly or deflecting the jet and comprising walls constituting a nozzle, and defining a nozzle orifice discharging to atmosphere, a guiding boundary wall extending outside the nozzle beyond the said nozzle orifice to form a smooth continuation of that one of said nozzle walls which is on that side of the nozzle towards which it is desired to deflect the jet, said guiding wall curving round into a direction transverse to the direction of the nozzle walls, and means operable at will to cause the issuing jet to separate from said guiding wall or to follow the curvature of said guiding wall into a path transverse to the direction of the nozzle walls.

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2,770,896
**CONTINUOUS COMBUSTION CHAMBER WITH AIR FLOW AND TURBULENCE CONTROLLED BY FLAME FRONT POSITION**
Homer M. Fox, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application September 15, 1952, Serial No. 309,655
10 Claims. (Cl. 60—39.29)

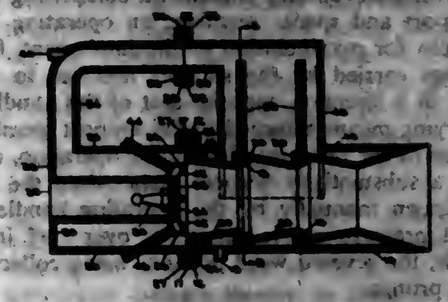
9. In a continuous combustion power plant, the improvement which comprises means for determining the position of the flame front in the burner tube; and means operatively connected with the first said means for varying the fuel-air ratio in the primary combustion zone in



response to the position of the flame front in the burner tube.

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2,770,897
**COOLING SYSTEMS FOR ENGINES THAT UTILIZE HEAT**
William C. Walker, Granite City, Ill.
Application February 14, 1952, Serial No. 271,483
13 Claims. (Cl. 60—39.55)



7. In an engine which utilizes heat, the improvement that comprises a substantially continuous metal hot wall for said engine, a casing disposed outwardly of said hot wall of said engine to define a vaporization chamber between said hot wall of said engine and said casing, said vaporization chamber being in heat-transferring relation with the outer surface of said hot wall of said engine, said vaporization chamber being vapor-tight, an inlet in said vaporization chamber to admit liquid, an opening in said hot wall that communicates with the inner surface of said hot wall, said opening being spaced from said vaporization chamber so liquid within said vaporization chamber can not flow through said opening and onto said inner surface of said hot wall, a duct extending between said opening and the upper part of said vaporization chamber to conduct vapor from said vaporization chamber to said opening and thus to said inner surface of said hot wall, said vaporization chamber being adapted to receive liquid that can respond to heat from said hot wall to vaporize and flow in the vapor state to said opening and onto said inner surface of said hot wall, said hot wall defining a combustion chamber which has an outlet for hot gases, said opening being in confronting relation to said outlet and being immediately adjacent the inner surface of said hot wall of said engine whereby vapors issuing from said opening are directed toward said outlet.

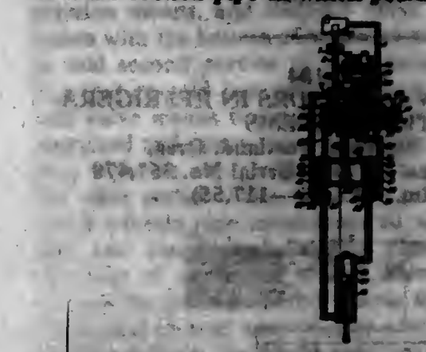
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2,770,898
**HYDRAULIC SERVO-MOTORS**
Eberhard Kaderawek, Stuttgart-Feuerbach, and Gustav Schmidt, Stuttgart-Vaihingen, Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany
Application February 24, 1953, Serial No. 339,861
Claims priority, application Germany March 12, 1952
11 Claims. (Cl. 60—52)

1. A control device for hydraulic servo-motors, including in combination, a housing, a first control member, a second control member both in said housing, a suction pipe and a pressure pipe leading from said control members to a hydraulic pump, two working pipes connected to a working cylinder, means to connect said working pipes with said pressure pipe, stop valves in said working pipes, a control pipe connecting said working pipes with said control members, means operated by the



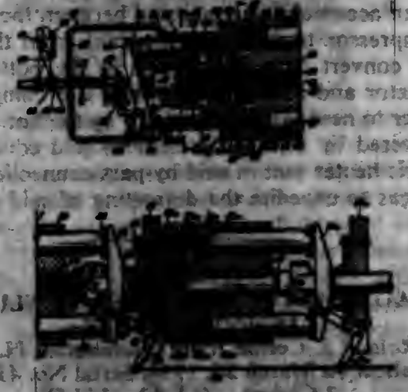
first control member connecting in one operative position the pressure pipe with a working pipe and the pressure pipe with the control pipe, and in a second operative position the pressure pipe to the second working pipe and the pressure pipe to the control pipe, means to connect the other working pipe in each of said operative positions with the suction pipe in which positions said second con-



trol member is inoperative, means in the position of rest to effect by the first control member a connection between the pressure and suction pipes through a by-pass, in addition to a connection between the two working pipes, and means in the position of rest to effect by the second control member a connection of the control pipe with either the suction or pressure pipe.

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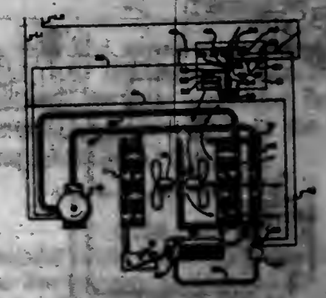
2,770,899
**ROTARY PUMP AND MOTOR HYDRAULIC TRANSMISSION AND SPEED VARYING MECHANISM THEREFOR**
Giovanni Bodoira, Milan, Italy
Application January 24, 1951, Serial No. 207,464
Claims priority, application Italy March 3, 1947
4 Claims. (Cl. 64—23)



1. A hydraulic speed changing device comprising, in combination, a pump having a housing and a driving shaft, a hydraulic motor having a housing and a driven shaft, said pump and said motor being hydraulically coupled with each other, said driving shaft being fixed to said pump housing and extending thereinto, said driven shaft being fixed to said motor housing and extending therethrough coaxially with said driving shaft, one end of said driven shaft extending into said pump housing, a wobble plate within said pump housing and pivotally mounted on said one end of said driven shaft, a stationary stub shaft arranged coaxially with said driven shaft adjacent the other end of the latter, a guide plate pivotally mounted on said stub shaft, a first set of pistons and a second set of pistons, said first and second sets of pistons being reciprocatingly movable in said pump housing and in said motor housing, respectively, and arranged to perform variable strokes, spherically dished shoes receiving the ends of said pistons respectively, spring means urging said pistons and shoes toward said wobble plate and said guide plate, said shoes for said first set of pistons being in sliding contact with and controlled by said wobble plate, said shoes for said second set of pistons being in sliding contact with and controlled by said guide plate, whereby rotative movement of said driving shaft and of said pump housing fixed thereto is hydraulically transmitted to said motor and translated into a rotative movement of said motor housing and of said driven shaft fixed thereto, and means outside said pump housing and said motor housing, respectively, for changing the inclination of said wobble plate and said guide plate, respectively, relative to said driving shaft and said driven shaft.

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2,770,100
**AIR CONDITIONING CONTROL**
Estel C. Raney, Fort Lauderdale, Fla., assignor to Ranco Incorporated, Columbus, Ohio, a corporation of Ohio
Application June 21, 1954, Serial No. 437,971
5 Claims. (Cl. 62—4)



5. In an air conditioning system having a compressor, and an evaporator comprising a refrigerating circuit, electrically controlled means to control operation of the compressor, electrically controlled means to reheat air chilled by the evaporator, control means for both said electrically controlled means comprising two movable switch members movable to control the first and second electrically controlled means respectively, and a thermally responsive expansible element adapted to move one of said switch members upon a predetermined expansion thereof and to move the other of said switch members upon a predetermined greater expansion.

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2,770,101
**REFRIGERATED DISPLAY CASE**
Victor W. Smith, Trenton, N. J., assignor to C. V. Hill & Company, Inc., Trenton, N. J., a corporation of New Jersey
Application June 11, 1953, Serial No. 361,008
5 Claims. (Cl. 62—4)

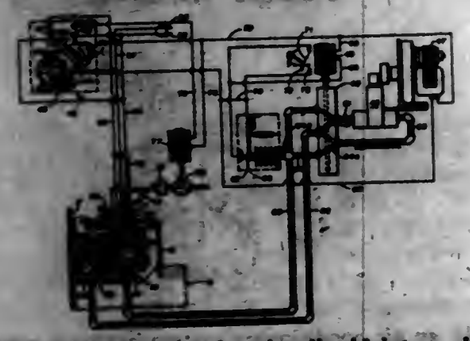


1. A refrigerated self-service display case comprising means forming a display space which is open for access to customers, a support for articles to be refrigerated located within the display space, an air chamber beneath said support, air inlet and outlet channels for said air chamber, a blower located within said case in position to circulate air through said air channels and said air chamber to and from the display space, means in said case for refrigerating the air thus circulated, a compressor for delivering refrigerant to said refrigerating means, electrical circuit means for energizing said blower and said compressor, said circuit means including a thermostat for establishing "on" and "off" cycles of operation

of said compressor and a contact for normally maintaining an "on" cycle of operation of said blower, and a single temperature responsive means located within said case in the path of circulation of air by said blower for directly moving said contacts, said blower contact being operated when the temperature of the air being circulated by said blower presents an undesired condition of refrigeration in said display space.

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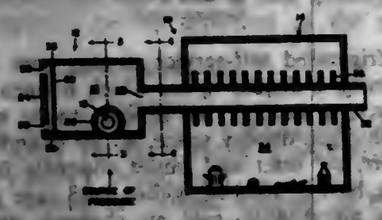
2,770,102
AUTOMATIC ICE MAKER
Henry E. Roedter, Cincinnati, Ohio, assignor to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware
Application March 29, 1954, Serial No. 419,238
6 Claims. (Cl. 62—7)



1. Automatic means for freezing liquid into a discrete mass of definite shape designed for installation and use in a refrigerated environment having means for absorbing heat comprising a mold in heat transfer relationship with said heat absorbing means, said mold defining a mold cavity, a non-metallic flexible liner flexibly disposed within the mold cavity and secured to said mold in sealing engagement therewith adjacent the top edges of the cavity, said liner being fitted closely within the cavity by evacuation thereof, means for supplying a measured quantity of liquid to said liner when disposed within the mold cavity, a reservoir in heat transfer relationship with the refrigerated environment, working fluid in the reservoir at least equal in volume to the volume of the mold cavity, and pumping means for withdrawing working fluid from the reservoir and forcing it under pressure into the mold cavity beneath said liner for flexing and inverting said liner and ejecting from said liner frozen liquid having substantially the shape of the mold cavity, said pumping means comprising the sole means for ejection of the frozen liquid.

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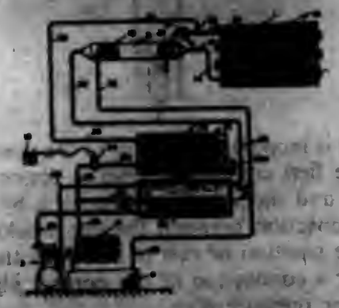
2,770,103
PORTABLE COOLING DEVICE FOR FLUIDS AND FOOD
Harold R. Fierce, Wantagh, N. Y.
Application March 26, 1954, Serial No. 419,119
3 Claims. (Cl. 62—96)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A portable refrigerator unit comprising a cylindrical chamber, inlet means tangentially secured to said chamber to supply an incoming air stream whereby an outer heated portion and a coaxial cooled portion are obtained by rotational action of the incoming air stream in the cylindrical chamber, an annularly slotted outlet at one end of said chamber, said annularly slotted outlet being adjacent the periphery of said cylindrical chamber, a valve disk rotatably mounted in said chamber adjacent said slotted outlet to control the flow of the heated portion, an axial outlet at the other end of said chamber, a refrigerator chamber connected to said axial outlet and heat exchange means in said refrigerator chamber.

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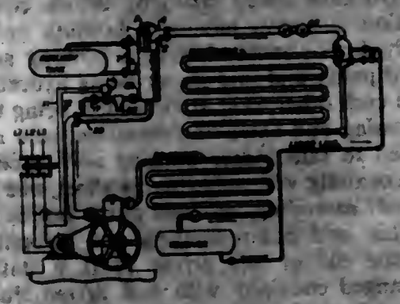
2,770,104
DEFROSTING EVAPORATORS IN REFRIGERATION SYSTEMS
Stanley J. Sweyner, Portland, Oreg.
Application June 15, 1953, Serial No. 361,470
1 Claim. (Cl. 62—117.55)



In a refrigeration system including a compressor for delivering hot compressed gas refrigerant, a condenser connected with said compressor to receive the gas refrigerant therefrom, an evaporator connected between said condenser and said compressor to receive condensed liquid refrigerant from said condenser and return gaseous refrigerant to said compressor, a by-pass connection directly between said compressor and said evaporator, and by-passing said condenser to deliver gas refrigerant from said compressor to said evaporator to defrost said evaporator, an accumulator connected between the evaporator and compressor to receive refrigerant from the evaporator and convert it to gas, a coil in the bottom of said accumulator and connected between said compressor and condenser to heat said accumulator by the hot compressed gas delivered by said compressor to said condenser, and an electric heater unit in said by-pass connection for heating the gas to expedite the defrosting of said evaporator.

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2,770,105
AUTOMATIC REFRIGERANT SLUG DISINTEGRATOR
Roland J. Colton, Port Washington, N. Y.
Application March 25, 1954, Serial No. 418,609
2 Claims. (Cl. 62—117.7)

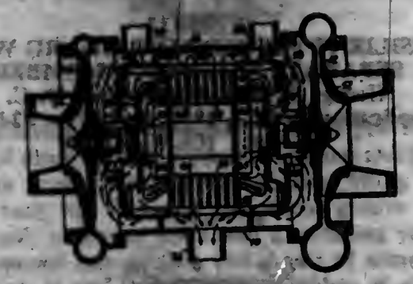


1. In a refrigerating system of the compression type having a high side including compression means driven by an electrically controlled prime mover, condensing means and a receiver to receive liquid refrigerant and having an expansion valve connected thereto, and also having a low side including an evaporator connected to the output of said expansion valve, and a conduit connecting said evaporator to the inlet of said compression means; an accumulator tank connected in series with said conduit whereby a portion thereof extends into said accumulator and comprises a gaseous refrigerant inlet having its inner extremity spaced apart from both the upper and the lower ends thereof, a second portion of said conduit having an open end terminating within said accumulator tank at a higher level than the end of said extremity, said second mentioned portion of said conduit leading from said accumulator to the inlet of said compression means, and solenoid valve means in communication with the bottom of said accumulator and connected to said second portion of the conduit for delivering refrigerant to said last mentioned portion of said conduit said valve means being actuated by a solenoid which is energized and opens the valve orifice and holds it open in time with the energization of said prime mover so that the valve orifice closes when the prime mover is at rest, and a tell-tale pipe interconnected with said accumulator tank and comprising a vertical pipe which is under the influence of refrigerant in said accumulator and adapted to have the portion thereof above the level of the liquid refrigerant in said accumulator coated with frost and to thereby indicate the liquid refrigerant level in said accumulator.



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2,770,106
COOLING MOTOR COMPRESSOR UNIT OF REFRIGERATING APPARATUS
Arthur M. G. Moody, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis., a corporation of Wisconsin
Application March 14, 1955, Serial No. 493,851
4 Claims. (Cl. 62—117.5)

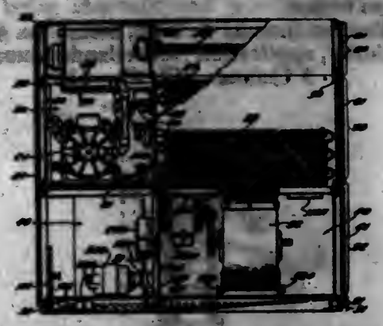


3. In refrigerating apparatus, the combination of an evaporator for vaporizing refrigerant, a condenser for liquefying refrigerant, a compressor for circulating refrigerant through said evaporator and condenser, a substantially cylindrical casing secured in fluid tight contact at one end with said compressor, a motor frame in said substantially cylindrical casing and spaced with respect to said substantially cylindrical casing, partitions between said frame and said substantially cylindrical casing defining a central chamber and two end chambers, a stator secured to said frame, bearings secured to each end of the frame, a shaft and rotor assembly rotatably mounted in said bearings, said shaft and rotor assembly extending into said compressor, an impeller in said compressor, said impeller being secured to said shaft and rotor assembly for rotation therewith, fan means secured to said shaft and rotor assembly for moving gas from said end chambers over the surfaces of said stator and thence into said central chamber, means for conducting gas from said evaporator to said end chambers and means for conducting gas from said central chamber to said evaporator.

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2,770,107
AIR TO AIR HEAT PUMP APPARATUS
Russell H. Barnes, Chicago, Ill., assignor to Drying Systems, Inc., Chicago, Ill., a corporation of Illinois
Application February 15, 1954, Serial No. 410,203
4 Claims. (Cl. 62—117.5)

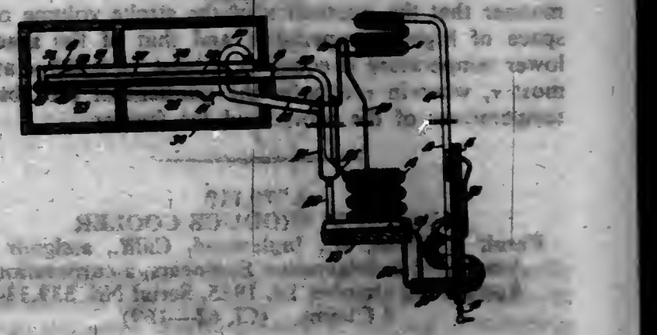
1. In an air to air heat pump apparatus having inside and outside air-circulating passages and a refrigerating system with heat exchangers in said outside and inside air-circulating passages for a winter heating cycle, means affording a fully closed heat and sound insulated compressor chamber, compressor means forming part of said refrigerating system and mounted and housed within said chamber, and a finned superheater forming part of said



refrigerating system and mounted on the refrigerant suction line thereof, said superheater being located in said compressor chamber to heat expanded refrigerant and thereby utilize the compressor heat in the heating cycle of the heat pump apparatus.

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2,770,108
ABSORPTION REFRIGERATION
Sigurd Mattias Backstrom, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden
Application January 21, 1953, Serial No. 332,364
Claims priority, application Sweden January 23, 1952
10 Claims. (Cl. 62—119.5)



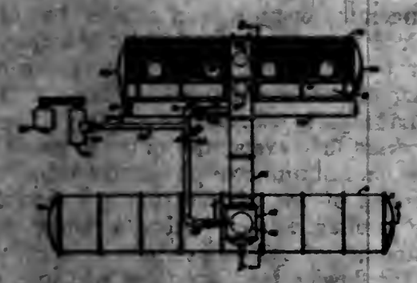
6. A refrigerator comprising a cabinet having an interior provided with spaces thermally segregated from one another, an absorption refrigeration system having a circuit for circulation of inert gas including an absorber and low and higher temperature cooling elements in which refrigerant fluid evaporates in the presence of such gas, said low temperature cooling element being arranged to effect cooling of one of said spaces and said higher temperature cooling element being arranged to effect cooling of another of said spaces, first conduit means in said circuit for flowing inert gas from said low temperature cooling element to said higher temperature cooling element and from the latter to said absorber, and second conduit means in said circuit for flowing inert gas from said absorber in thermal exchange relation successively with said higher temperature cooling element and said low temperature cooling element and then introducing such inert gas into the presence of refrigerant fluid in said low temperature cooling element, said second conduit means also including means for diverting into the presence of refrigerant fluid in said higher temperature cooling element a part of the inert gas flowing therethrough after such gas flows in heat exchange relation with said higher temperature cooling element.

2,770,109
[illegible] AND COOLED CHAMBER CONSTRUCTION OF A COLD-GAS REFRIGERATOR
[illegible] and Leendert de Lange, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application January 6, 1955, Serial No. 480,126
Claims priority, application Netherlands January 15, 1954
3 Claims. (Cl. 62—136)



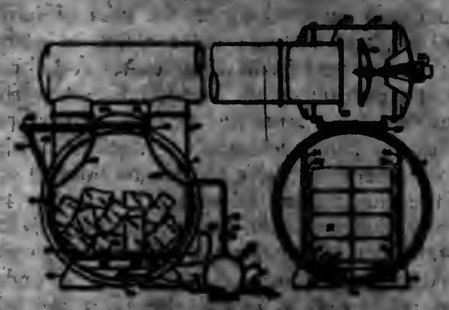
1. A refrigerator of the type described provided with a first space having a temperature lower than —40° C. and a second space having a higher temperature than said first space, further comprising a cooler, a regenerator, a freezer, said first and second spaces being in open communication with each other through said cooler, regenerator and freezer, a cylinder means enclosing said first and second spaces, a gas of invariable chemical composition performing a closed thermodynamic cycle in said refrigerator, two pistons for reciprocation in said cylinder means to thereby vary the volume of said gas in said spaces, said refrigerator being proportioned in such a manner that the quotient $\nu$ of the stroke volume of the space of higher temperature and that of the space of lower temperature is equal to at least $1+0.025\ \tau$ and at most $\tau$, wherein $\tau$ denotes the quotient of the absolute temperatures of the cooler and the freezer.

2,770,110
VACUUM PRODUCE COOLER
Frank J. Hilke, Jr., Inglewood, Calif., assignor to Associated Refrigerating Engineers, a corporation
Application October 10, 1955, Serial No. 539,334
4 Claims. (Cl. 62—169)



1. A vacuum produce cooler for use with a produce tube comprising a refrigerator tube, means for supporting a heat absorber in said refrigerator tube, a drain tank, means for connecting said drain tank to said refrigerator tube near the bottom thereof and to the atmosphere, valves in said connecting means, a vacuum pump, a suction manifold in said refrigerating tube on one side of said heat absorber supporting means, means for connecting said suction manifold to said pump, an inlet manifold in said refrigerating tube on the other side of said heat absorber supporting means, and means for connecting said inlet manifold to said produce tube.

2,770,111
VACUUM PRODUCE COOLER
James C. Rose, Berkeley, Calif., assignor to The United Ice Company, a corporation
Application October 14, 1955, Serial No. 539,389
3 Claims. (Cl. 62—169)



1. A vacuum produce cooler for use with a produce tube comprising a refrigerator tube, an ice supporting grid in said refrigerator tube, hatches in said refrigerator tube for ingress of ice to said grid, a drain tank, means for connecting said drain tank to said refrigerating tube beneath said grid and to the atmosphere, valves in said connecting means, a vacuum pump, a perforated suction manifold in said refrigerating tube beneath said grid, means for joining said suction manifold to said pump, inlet manifolds in said refrigerating tube above said grid, and means for connecting said inlet manifolds to said produce tube.

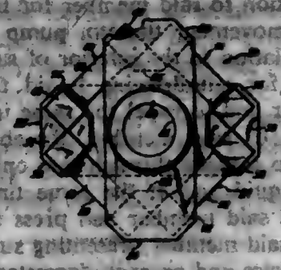
2,770,112
RESILIENT FINGER RING GUARD WITH SEPARATE MOUNTING MEMBER
George S. Butts, Washington, D. C.
Application July 27, 1955, Serial No. 524,709
1 Claim. (Cl. 63—15.6)



A finger ring guard comprising a support member and a resilient finger-engaging member, said support member comprising an elongated body, legs and arms on said body, said legs being an extension of said body at both ends, said arms being transverse to said body and adjacent the ends thereof and being adapted to bend around said ring to hold said body in close engagement throughout its length with the lower portion of the inner surface of said ring, said legs being bent back upon themselves to form locking flanges, said resilient finger engaging member comprising an oval shaped spring having its ends secured to the locking flanges to maintain said spring in a normally horizontal position in said ring.

2,770,113
FLEXIBLE COUPLING
Maurice Nolles, Elmhurst, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application October 26, 1953, Serial No. 388,350
2 Claims. (Cl. 64—12)

1. A flexible coupling for shafts comprising, a pair of flanged hub members disposed in spaced confronting relationship with respect to each other, and flexible interconnecting means disposed between said flanged members comprising a plurality of rubber link-like elements disposed in an annular array with the extreme end portions thereof being respectively immovably bonded directly to opposed flanges of said flanged members, each of said link-like elements comprising a narrow web interconnecting wide flat ends thereof, said web being axially de-



flectable responsive to angular or parallel misalignment of the flanged members.



2,770,114
UNIVERSAL JOINT ASSEMBLY
William W. Slaght, Rocky River, Ohio, assignor to Cleveland Steel Products Corporation, Cleveland, Ohio, a corporation of Ohio
Application March 22, 1954, Serial No. 417,890
5 Claims. (Cl. 64—17)



1. A universal joint comprising a cross provided with two pairs of diametrically opposite trunnions axially alined on crossing axes, a bearing cup slidably fitting on each trunnion, each cup having a peripheral groove adjacent its inner end, a driving yoke and a swinging yoke each having a central hub portion and a pair of arms integral with the hub at one end thereof, the arms of each yoke being offset radially outwardly from the hub and extending axially on opposite sides of the hub axis, the arms of each yoke having axially alined openings in which the bearing cups of alined trunnions slidably fit and through which said cups can be inserted onto the trunnions or removed from the trunnions, each of the arms of the swinging yoke being formed in one piece, the arms of the driving yoke being divided substantially in a plane normal to the yoke axis and across the openings to provide separable caps which are removable to detach said cross from said driving yoke without removal of bearing cups, a pair of bolts detachably holding each cap in place, the bolts of each pair extending axially on opposite sides of the cup receiving opening, a spring clip removably mounted in the peripheral groove of each of said bearing cups and engaging the inner face of a yoke arm to hold said cups against outward movement, and spring retaining means attached to said cross and yieldably engaging the grooves of the bearing cups that are mounted in said driving yoke to releasably hold the same on their trunnions when said cross is detached from said driving yoke.

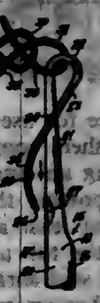
2,770,115
OVERLOAD RELEASE FRICTION COUPLING
Howard C. Ober, Lyndhurst, Ohio
Application August 14, 1953, Serial No. 374,174
3 Claims. (Cl. 64—30)

1. In a device including a shaft member having a peripheral wall, bearing means supporting the shaft member for rotation about its axis, a second member, a clamp on the second member and having wall portions normally in tight clamping engagement with the peripheral wall of the shaft member and thereby drivingly connecting the members for rotation together about said axis, and power means drivingly connected to one of the members and operative to rotate the members at relatively high speed, said clamp being characterized in that those of its said wall portions which are in clamping engagement with said



peripheral wall are composed of bearing metal which is sufficiently softer than the peripheral wall so that the bearing metal cannot score the peripheral wall due to rotation of the said one of the members relative to the other of said members occasioned by instantaneous stopping of the said other of the members while said wall portions are in their normally tight clamping relation.

2,770,116
MEANS AND METHOD FOR PRODUCING KNITTED FABRICS
Joseph L. Morris, Elmhurst, N. Y.
Application January 21, 1955, Serial No. 483,342
2 Claims. (Cl. 66—119)

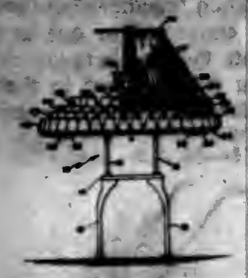


1. A spring beard knitting needle comprising a needle with front, rear and right and left side portions and a shank with an elongated tapered portion at one end terminating in a bend and hook with a spring beard, said beard having a spring tip, said tapered portion having a recess at the rear thereof adapted removably to receive said spring tip, said hook being at the front of the needle and said beard extending from the hook toward the shank and across the left side of the tapered portion and spaced from said side and from the rear of the needle, said spring tip being disposed adjacent to and centered with the recess at the rear of the needle, said beard being spaced a predetermined distance from said side and a predetermined distance from the rear of the needle, said predetermined distances being those sufficient for yarn to pass between the beard and said side and rear of the needle, said recess being an elongated slot.

2,770,117
YARN RACK FOR CIRCULAR KNITTING MACHINE
Sam Mishcon, Bell Harbor, Lester Mishcon, Woodmere, and Harry Agatstein, Brooklyn, N. Y., assignors to Supreme Knitting Machine Co. Inc., Brooklyn, N. Y., a corporation of New York
Application February 5, 1954, Serial No. 406,592
9 Claims. (Cl. 66—125)

1. In a multiple feed circular knitting machine a yarn rack for yarn cones, said cones positioned on said rack

in more than one plane in upwardly converging stepped formation, and adapted to form a canopy and umbrella-



like compartment under the said yarn rack to afford headroom for an attendant machine operator.

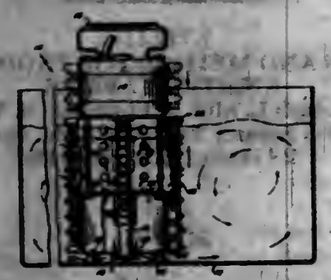
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**2,770,118**

**WASHING OR SCRUBBING DEVICE WITH OSCILLATING SCRUBBING MEMBER HAVING A VERTICAL COMPONENT OF MOTION**

Richard R. Walton, Boston, Mass., assignor to Walton Washing Machine Corporation, Boston, Mass., a corporation of Massachusetts

Application September 13, 1952, Serial No. 309,517
15 Claims. (Cl. 68—28)



1. A washing device for use in a tub to contain liquid and articles to be washed, comprising, in combination, a hollow member having an external article engaging surface, means for supporting the same in the tub, said member being open at least at that side thereof which faces the bottom of the tub and being provided over a substantial portion of said surface with a multiplicity of openings, driving mechanism mounted in driving connection to said hollow member for imparting movement thereto such that the movement of said surface includes a downward component of motion, pump means mounted in operative relation to the interior of said hollow member and arranged to withdraw liquid therefrom and to expel it into the tub beneath the periphery of said open side thereof, the cross-sectional area of said hollow member throughout the remaining portion thereof being at least as great as the cross-sectional area of the portion thereof adjacent said open side and the action of said pump means causing liquid from the tub to cascade inwardly through said openings to replace the expelled liquid and at the same time to carry the articles towards said hollow member and press portions of the articles against said article engaging surface.

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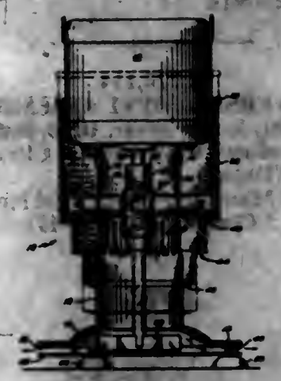
**2,770,119**

**WASHING DEVICE WITH MEANS FOR INJECTING AIR BUBBLES IN THE WASHING LIQUID**

Richard R. Walton, Boston, Mass., assignor to Walton Washing Machine Corporation, Boston, Mass., a corporation of Massachusetts

Application January 12, 1955, Serial No. 481,390
3 Claims. (Cl. 68—28)

1. A washer unit, for use in a tub containing liquid and articles to be washed, comprising a hollow scrubbing member open at its lower end, said hollow scrubbing member being provided over substantially the whole of its immersed surface with a multiplicity of openings and being throughout of cross-sectional area at least as great as that of its lower end, driving mechanism mounted in driving relation to said member for imparting vertical reciprocating movement thereto, pump means mounted in operative relation to the interior of said hollow scrubbing member for withdrawing liquid from within said hollow member and to expel the same into the tub from the lower end of said member, thereby causing liquid from the tub to cascade through said openings to replace the expelled liquid and at the same time to carry said articles toward said member and press the same against said member, said member presenting surface portions to engage the articles and on each downstroke of said member to push the articles downwardly toward the output



stream of said pump means, and a casing mounted within said member providing a wall extending upwardly from the intake of said pump means within said scrubbing member, said wall defining an intake conduit for said pump means, said casing being in free communication with the atmosphere and being provided with restricted liquid admitting openings communicating between said intake conduit and the interior of said scrubbing member, said openings being of predetermined limited aggregate cross-sectional area in relation to the capacity of said pump means limiting the flow of liquid to the latter to less than its capacity so that said pump means will draw air in addition to liquid and force the same as air bubbles into the output stream thereof.

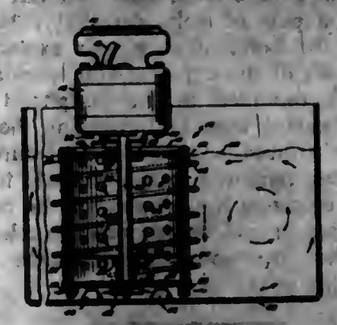
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**2,770,120**

**WASHING DEVICE WITH ROTARY SCRUBBER**

Richard R. Walton, Boston, Mass., assignor to Walton Washing Machine Corporation, Boston, Mass., a corporation of Massachusetts

Application December 28, 1953, Serial No. 400,568
9 Claims. (Cl. 68—28)



1. A scrubbing device for use in a container holding liquid and articles to be scrubbed comprising a generally cylindrical hollow body having a plurality of openings, a mounting for said body permitting rotation thereof and supporting the same at a predetermined level within said container, a rotatable shaft mounted centrally of said mounting, and adapted to be driven from one end thereof, a portion of said shaft extending substantially to the level of the lower portion of said hollow body, impeller means



connected to said portion of said shaft adapted to force liquid radially outwardly from beneath said hollow body while drawing liquid toward and through the openings in said body to replace the liquid so withdrawn and drawing any articles carried in said liquid against the outer surface of said body, means for imparting rotation to said hollow body during rotation of said shaft, said body being provided with at least one external generally spirally arranged rib adapted to convey any articles of clothing in contact therewith downwardly toward the output stream of said impeller during rotation of said body.

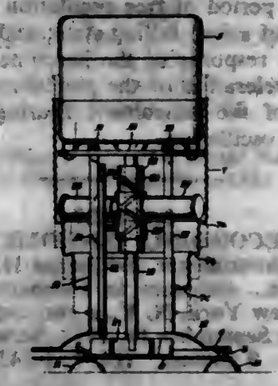
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**2,770,121**

**WASHING MACHINE**

William H. Kuntz, Grand Rapids, Mich.

Application April 23, 1953, Serial No. 350,644
11 Claims. (Cl. 68—38)



7. A portable, power operated, fluid circulating and washing machine adapted to be placed in receptacles of various sizes and shapes for washing fabrics within said vessels, said washing machine including a pump with a water inlet and a peripheral water outlet positioned substantially therebelow; means including an electric motor for driving said pump, and means for injecting air bubbles into fabrics adjacent the washing machine to impart buoyancy thereto whereby they will be carried to said machine by flotation and by the fluid currents induced by said circulating means; said last named means including a slender tube having one end projecting into the water inlet of the pump, with its other end open to the atmosphere.

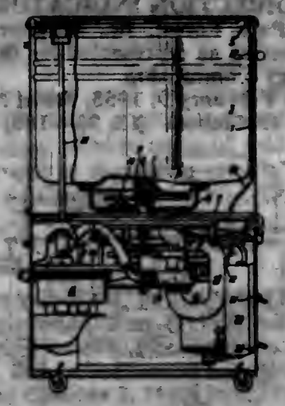
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**2,770,122**

**WASHING MACHINES**

Kenneth Jackson, Oldham, England, assignor to H. Fisher (Oldham) Limited, Oldham, England

Application November 8, 1954, Serial No. 467,545
Claims priority, application Great Britain
November 23, 1953
6 Claims. (Cl. 68—133)



1. A washing machine comprising a wash tub; a shaft rotatably mounted in the bottom of the wash tub; a pulsator within the wash tub carried by the shaft; and means including an electric motor outside the wash tub for driving the shaft; said pulsator formed as a circular member with more than half of its upper working surface raised above the plane of its rim and divided by a transverse ridge into two portions whereof the leading portion considered with respect to the direction of rotation of the pulsator increases progressively in height up to said ridge and the trailing portion progressively decreases in height, the remaining portion of said working face being a flat bottomed depression below the plane of the rim, and all said portions merging smoothly without sharp abutments.

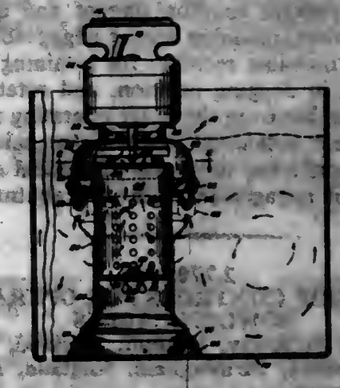
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**2,770,123**

**WASHING DEVICE, INCLUDING JET MEANS FOR CIRCULATING THE ARTICLES BEING WASHED**

Richard R. Walton, Boston, Mass., assignor to Walton Washing Machine Corporation, Boston, Mass., a corporation of Massachusetts

Application January 5, 1954, Serial No. 402,965
5 Claims. (Cl. 68—184)



5. A washing device for use in a tub to contain liquid and articles to be washed, comprising, in combination, a stationary generally cylindrical hollow member, the cylindrical wall thereof forming an external article engaging surface, a hollow base member mounting said first named member in spaced relation to the bottom of said tub in upright fashion so that said surface is generally vertically arranged, said cylindrical member having a substantial opening at the upper end thereof and being provided over substantially the whole of the immersed portion of its said cylindrical wall with a multiplicity of liquid admitting ports, an impeller mounted on the upper end of said cylindrical member with its intake in communication with said opening for withdrawing liquid from within said hollow member, a motor mounted on said device in driving connection to said impeller, and a plurality of nozzles mounted externally of and near the upper end of said hollow member and in communication with the output of said impeller, said nozzles being directed downwardly at an angle into said tub, operation of said pump means causing liquid from the tub to pour inwardly of said ports to replace the withdrawn liquid and at the same time to carry the articles towards said hollow member and press portions of the articles against said article engaging surface, said liquid being expelled from said nozzles in the form of strong jets for causing circulation in a generally toroidal fashion within said tub of said liquid and any articles carried therein, said cylindrical member and said base being provided with intercommunicating openings and the lower rim of said base being provided with an annular sealing ring adapted to rest on the bottom of the tub, the action of said impeller tending to reduce the pressure within said base member thereby causing it to adhere to the bottom of said tub by atmospheric pressure.

2,770,124
DOOR LOCK
Nicholas A. Welch, West Hartford, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a corporation of Connecticut
Application January 27, 1955, Serial No. 484,407
17 Claims. (Cl. 70—146)



13. A door lock comprising a case, a retractor for a latch bolt in said case, an inner and an outer rollback for operating said retractor, an inner and an outer operating member for rotating its respective rollback to actuate the retractor, said outer rollback being axially movable relatively to its operating member, abutment means engageable by said outer rollback when in dogging position to prevent rotation thereof, a longitudinally movable member operable from the inner operating member for moving said outer rollback into engagement with said abutments to prevent rotation thereof and of the outer operating member, retaining means engageable with said longitudinally movable member for retaining it and said outer rollback in dogging position, and rotatable releasing means operable from the outer operating member for disengaging said retaining means from said longitudinally movable member to permit movement of the outer rollback out of engagement with said abutments.

2,770,125
TWIST-GRIP CONTROLS FOR OPERATING BOWDEN CABLES
Norman John Solloway, Solihull, England, assignor to Ferdax Limited, Birmingham, England, a registered British company
Application May 1, 1952, Serial No. 285,565
3 Claims. (Cl. 70—185)



1. A twist grip control for operating a flexible cable comprising a tubular handle, a co-axial drum on said handle, said drum and said handle being adapted to be mounted for rotation as a unit on a support having the cross section of said tubular handle, said drum having a cable groove and a nipple anchorage, a divided clamp adapted to be secured to said support and having an annular groove in the bore thereof and in which said drum rotatably engages, a cable inlet in said clamp, and a key operated locking bolt rotatably mounted in said clamp, the inner end of said bolt extending into said annular groove and being adapted when turned into the locking position to co-operate with an abutment on said drum to lock said handle against rotary movement whereas in the unlocked position, the said inner end permits said handle to turn.

2,770,126
DEVICE FOR MAKING ACCELERATION TESTS ON SMALL OBJECTS
Ralph E. Brown, Los Angeles, Calif., assignor to Genisco, Inc., Los Angeles, Calif., a corporation
Application March 2, 1953, Serial No. 339,842
14 Claims. (Cl. 73—1)

1. In a test device for applying acceleration to an instrument such as an accelerometer, the combination of: a pendulum; a support structure; means pivotally mounting said pendulum on said support structure for free oscillation of the pendulum about a single axis; means to mount the instrument of said pendulum in a position fixed relative to the pendulum; means to apply force to the pendulum to cause acceleration of the pendulum



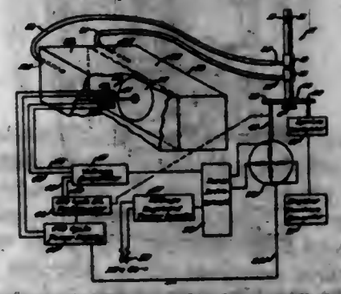
followed by a period of free oscillation of the pendulum in simulation of a free falling state; and indicator means to indicate the response of the instrument on the pendulum to the acceleration of the pendulum and to indicate the reaction of the instrument during the subsequent period of free oscillation.

2,770,127
RECORDING TENSIOMETER
Earnest N. Schwensinger and James H. Hoffman, Cumberland, Md., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application September 18, 1952, Serial No. 310,226
9 Claims. (Cl. 73—143)



1. A device for recording the tension in a moving yarn comprising means movable from a predetermined equilibrium position in response to a change in the tension on the yarn, said means including a roller over which the yarn passes, a member having a chamber, a source of fluid pressure connected to said chamber, means for transmitting the fluid pressure in said chamber to said movable means, means actuated by the movements of said movable means in response to increases and decreases of said tension, for returning said movable means to said equilibrium position by a change in fluid pressure in said chamber and means for recording the fluid pressure in said chamber.

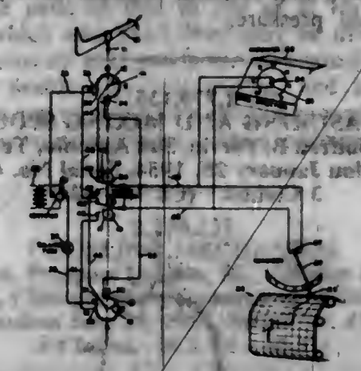
2,770,128
ELECTRONIC PRESSURE DIFFERENTIAL WIND DIRECTION INDICATOR
Harry Moses, Park Forest, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application February 9, 1955, Serial No. 487,229
15 Claims. (Cl. 73—188)



3. An apparatus for sensing wind direction comprising a fully rotatably mounted member having two orifices opening at right angles to one another and radially with respect to the axis of rotation of the member, a chamber, a flexible membrane disposed within the chamber dividing the chamber into two compartments, each compartment being connected by conduit means to one orifice, an electro-mechanical transducer coupled to the membrane for sensing movements of the membrane and generating electrical signals in response thereto, a motor coupled to the rotatably mounted member, and electronic means having an input stage connected electrically to the transducer and having an output stage connected electrically to the motor to form a feedback circuit responsive to imbalance in the air pressure on the orifices whereby the rotatably mounted member is rotated to position the orifices symmetrically with respect to wind direction.



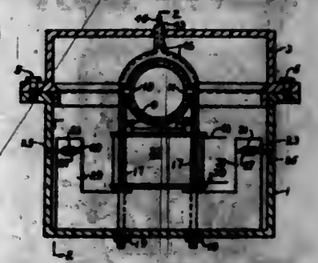
2,770,129
WIND INDICATING AND RECORDING APPARATUS
Clarence W. Dalzell, Princeton, N. J., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application March 15, 1954, Serial No. 416,205
10 Claims. (Cl. 73—188)



1. In wind direction indicating and/or recording apparatus, a transmitter including a rotatable member adapted to turn in response to changes in direction of the wind, a movable direction indicating and/or recording member, direct current electrical motive means effective to move said latter member to a position corresponding to a given compass point coincident with the angular position of said rotatable transmitter member and in a direction dependent upon the direction of flow of current through said motive means, an electrical circuit including a source of direct current potential and said electrical motive means, resistance means in said circuit arranged to control the rate of flow of current through said motive means and hence the voltage drop thereacross, means for varying said resistance means as a function of the angular position of said rotatable transmitter member, and means synchronized with the turning movement of said rotatable transmitter member interposed in said circuit arranged to direct the flow of current through said motive means in one direction until said indicating and/or recording member moves through a predetermined distance corresponding to a given turning angle of said rotatable transmitter member and to thereupon reverse the flow of current in said motive means.

2,770,130
MAGNETIC FLOW METER
Albert F. Rogatowski, Fort Wayne, Ind., and Lawrence A. Wolseiffer, Wilmington, Ill., assignors to Bowser, Inc., Fort Wayne, Ind., a corporation of Indiana
Application October 3, 1950, Serial No. 188,180
7 Claims. (Cl. 73—194)

1. An apparatus for measuring fluid flow comprising a first non-magnetic, electrically non-conductive tube through which the fluid to be measured flows, a second non-magnetic, electrically conductive tube disposed exteriorly of said first tube, means disposed exteriorly of said tubes for creating a magnetic field across the entire cross-sectional area of said tubes, and output electrodes



extending through the tubes within said magnetic field, said electrodes being insulated from the second tube and communicating electrically with the fluid within the first tube.

2,770,131
FLOWMETER
Ray C. Sperling, San Gabriel, Calif.
Application July 19, 1954, Serial No. 444,094
4 Claims. (Cl. 73—231)

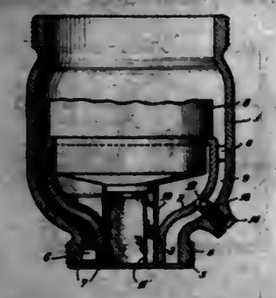


1. A flowmeter comprising, in combination with a fluid conduit: a fixed support member mounted within the conduit; and elongated axle secured to said support member and projecting upstream therefrom axially of the conduit; an impeller having an axially elongated bore closed at its upstream end and surrounding said axle, and having vanes for rotating the impeller in response to longitudinal flow of fluid in the conduit; bearing means rotatably supporting the upstream portion of said impeller on said axle adjacent the upstream end of the axle; additional bearing means spaced longitudinally from the first mentioned bearing means, rotatably supporting the downstream end portion of the impeller on the axle; said axle having a hollow portion intermediate said two bearing means defining an enclosed cylindrical chamber within the axle; a rotor having a shaft mounted rotatably within said axle and a driven permanent magnet secured to said shaft and located within said enclosed chamber; and a driving permanent magnet secured coaxially to said impeller at a position intermediate the length of said bore and surrounding said driven magnet to rotatably couple said impeller to said rotor.

2,770,132
WATER METER WITH CONCENTRICALLY ARRANGED CONNECTION CHANNELS
Franz Ringe, Nahne, near Osnabrück, Germany, assignor to G. Kromschröder Aktiengesellschaft, Osnabrück, Germany
Application December 29, 1954, Serial No. 478,316
2 Claims. (Cl. 73—273)

1. In a water meter including a generally cylindrical outer housing having an outlet connection snout at one end thereof and a metering mechanism arranged within said housing, an open-ended inner housing mounted within said outer housing coaxially therewith and having an inlet connection snout extending concentrically into said connection snout of said outer housing, said inner housing being spaced from said outer housing to form an annular outlet passageway therebetween, said meter mechanism being mounted in and closing the inner end

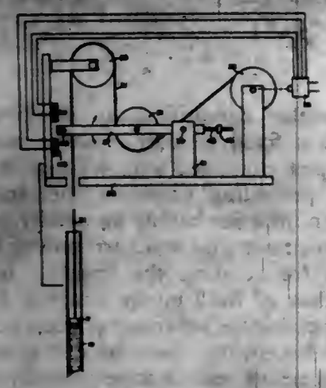
of said inner housing leaving a space within said inner housing, and a cylindrical filter body nested within and engaging the inner surface of said connecting snout of



said inner housing and extending into the space within said inner housing and being so constructed and arranged that all water passing through said connecting snout of said inner housing passes also through said filter body before passing into said metering mechanism.

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2,770,133
LIQUID LEVEL INDICATING APPARATUS
John C. Stevens, Portland, Oreg., assignor to Leupold & Stevens Instruments, Inc., Portland, Oreg., a corporation of Oregon
Application June 29, 1954, Serial No. 440,066
5 Claims. (Cl. 73—305)



4. A water level indicating apparatus comprising a float, a line connected at one end to said float, reel means connected to the other end of said line, reversible motor means drivingly connected to said reel means, a stationary sheave between said float and said reel means over which said line is trained, a movable roller between said sheave and said reel means under which said line is trained, a pivoted arm supporting said movable roller whereby the weight of said roller and said arm are imposed on said line to deflect the same, switch means associated with said arm and adapted to close one circuit to said reversible motor means in response to movement of said arm in one direction and to close a second reversing circuit to said motor in response to movement of said arm in the opposite direction.

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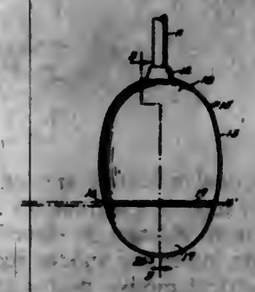
2,770,134
PRESSURE GAUGE
Louis M. Gaigerin, Philadelphia, Pa.
Application May 31, 1955, Serial No. 511,900
9 Claims. (Cl. 73—390)



1. A pressure gauge for measuring and indicating the air pressure of a pneumatic tire comprising, in combination, a casing, means providing a port in said casing for delivering air thereto from said tire, means providing an expansion chamber in said casing and including a first resilient tubular member supported in said casing and having a closed reinforced end portion and an open end portion which is connected with said port for admitting air from said tire to said resilient member, said resilient member being adapted to expand within said casing in response to air pressure, means providing a liquid chamber within said casing and containing therein a viscous liquid having lubricating properties, the space between said casing and the outside walls of said resilient member containing said liquid for lubricating the resilient member, and a second resilient tubular member supported in said casing at one end of said liquid chamber and having a closed end portion which is adjacent one end of said casing and an open end portion for admitting said liquid into the second resilient member in response to the expansion of said first resilient member, the space between said casing and the outside walls of said second resilient member containing said liquid for lubricating said second resilient member and air which is compressed in response to the expansion of said second resilient member until an equilibrium condition is established whereby the expansion of said first resilient member provides an indication of said pressure.

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2,770,135
MEASURING AND MIXING SPOON
Winifred B. Purvis, San Antonio, Tex.
Application January 25, 1954, Serial No. 405,678
3 Claims. (Cl. 73—426)

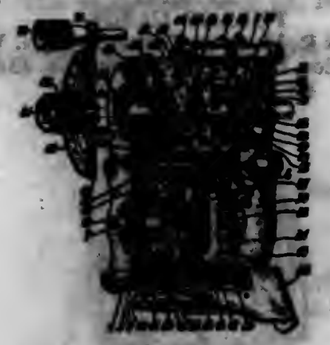


1. A measuring and mixing spoon useful for measuring shortening or the like and mixing said shortening with other ingredients used in cooking, said spoon comprising a bowl having a continuous rim, said bowl having a predetermined volume when leveled off at said rim, said rim having a pair of notches therein and said bowl having an upper surface including a groove extending across said upper surface between said notches, said notches facilitating inserting a scraper blade edgewise into said bowl to bring an edge of said blade into contact with said groove, said blade, when positioned in contact with said notches and said groove, dividing said leveled off volume into two volumes of predetermined volume relation to each other.

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2,770,136
SHAFT POSITIONING MECHANISM
Wilhelmus Lambertus Vervaat, Geesrijn van Gelder, and Godfried Hendrik Waasti, Hilversum, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application April 26, 1952, Serial No. 284,672
Claims priority, application Netherlands May 9, 1951
15 Claims. (Cl. 74—10.3)

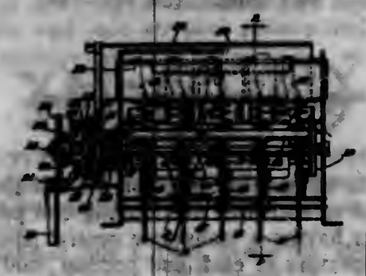
1. A shaft positioning mechanism of the locking pawl type comprising a rotatable shaft to be positioned, a plurality of individually adjustable stop elements mounted on said shaft, a plurality of pawl shafts circularly arranged around said rotatable shaft, each of said pawl shafts having a pivotally mounted locking pawl, pawl selector means for each of said pawls in order to enable each of said pawls to co-act individually with a corresponding individual stop element thereby arresting said rotatable shaft in a predetermined position, said pawl selector means comprising a pawl lifter, a pawl arm and a cam member, external means operatively co-acting with said pawls by moving said pawl lifter, pawl arm



and cam member, said pawl lifter having a certain profile for each pawl so that in one of at least two positions into which said pawl lifter may be moved by said external means all said pawls are maintained in a lifted, inoperative position by said profile, and in the other position any one of said pawls may be moved into operative position in engagement with a corresponding stop element.

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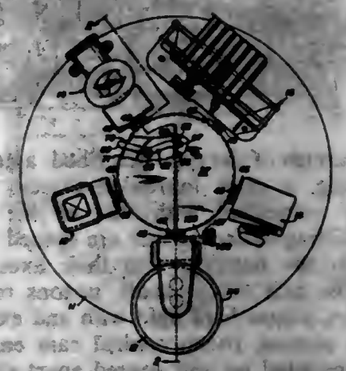
2,770,137
COUPLING MECHANISM
Leo D. Sacre, Prospect Heights, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application July 25, 1955, Serial No. 524,225
5 Claims. (Cl. 74—10.33)



1. In a selector mechanism for controlling the position of a member and which mechanism includes push buttons for providing predetermined positions of the member and rotary driving means for providing continuous movement of the member from one position to another, means for disengaging said rotary driving means from the member to be positioned in response to operation of a push button including in combination, a first part forming an inner race for a ball structure, a second part forming an outer race for the ball structure, a plurality of balls positioned between said inner and outer races, a third part positioned between said inner and outer races and having retainer portions for receiving said balls therein, two of said parts being individually connected to said rotary driving means and the member to be positioned, and latch means normally engaging the other one of said parts for retaining the same against rotation to thereby provide a driving connection between said two parts through said balls, said latch means being operated in response to the operation of a push button to release said other part and thereby disengage said rotary driving means.



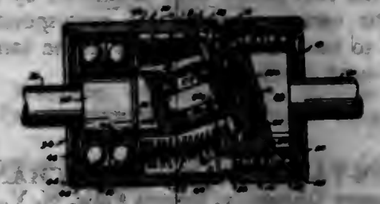
2,770,138
KITCHEN APPLIANCE
Melvin H. Ripple, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application July 22, 1954, Serial No. 445,137
8 Claims. (Cl. 74—16)



1. A domestic kitchen device comprising: an electric motor having driving means, a plurality of kitchen appliances, means on each of said appliances adapted to be separately connected with said driving means to operate said appliances, a centrifugally operated switch attached to said motor, and means for each of said appliances connectible with said centrifugal switch to control the operation of the latter.

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2,770,139
HERMETICALLY SEALED TORQUE TRANSMISSION SYSTEM
Yain C. Shaw, Great Notch, and Harlow D. Adkins, Wertsnlyke, N. J., assignors to the United States of America as represented by the Secretary of the Air Force
Application November 26, 1952, Serial No. 322,642
4 Claims. (Cl. 74—18.1)



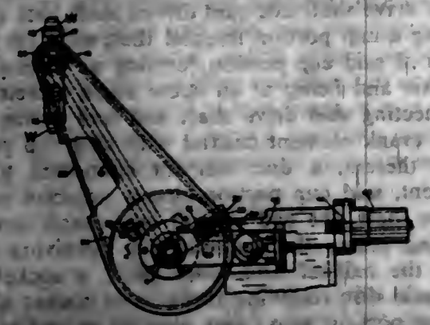
1. A high speed sealed torque transmission unit comprising a drive shaft, a driven shaft, and a housing, said shafts rotatably mounted in the housing, means connecting said drive shaft and said driven shaft, one of said shafts having a cup portion integral therewith, the longitudinal axis of said cup portion forming an extension of the shaft axis and being at an acute angle thereto, said means connecting said drive shaft and said driven shaft including a crank element coaxial with said cup portion and seated therein, a disc element connected to said crank element, said cup portion closely adjacent an end of the other shaft, the end of said other shaft having a disc receiving recess therein, said disc receiving recess inclined to the axis of said other shaft, a socket in a surface of said disc receiving recess, said socket aligned with said cup portion, said crank element extending from said cup portion to a seat in said socket, said disc element substantially equal in size to the size of the end of said other shaft and positioned partially in said disc receiving recess making an acute angle with the axis of said other shaft, a frustum shaped bellows substantially coaxial with one of said shafts, one end of said bellows sealed to said disc, the other end of the bellows sealed to said housing to isolate said shafts in separate chambers in the housing, said chambers being fluid tight with respect to each other.

2,770,140
CAM MECHANISM
Vincent E. Schmahe, Cleveland Heights, Ohio
Application November 27, 1953, Serial No. 394,649
9 Claims. (Cl. 74—86)



1. In apparatus of the type described, a generally cylindrical housing, a shaft journaled therein with its axis substantially coincident with that of the housing, the housing including cylinders that are spaced apart circumferentially of the housing with their axes substantially parallel to the axis of the shaft, pistons reciprocable in said cylinders, piston bars rigid with and extending axially from the pistons, frusto conical cam engaging rollers rotatably supported by and spaced apart along each piston bar, a drum cam on the shaft having circumferential undulated cam faces engaged by the spaced rollers of the respective piston bars, the axis of each roller intersecting the axis of the shaft at substantially right angles, and the apex of the projected conical surface of each roller being substantially coincident with the point of intersection of the axis of said roller and shaft, each cam face having a taper complementary to that of the rollers that engage said face, rigid tie means bridging the shaft and reciprocable therealong between the cam and cylinders and secured to opposed piston bars for restraining them against outward radial movement, a device on each of the opposed piston bars located beyond the side of the cam remote from said tie means and disposed within the radius of the drum cam and engaging a circumferential part of the cam for holding the adjacent portion of the piston bar against outward movement, the undulations of the cam faces being at all times identically related to the two piston bars connected by each of the aforesaid tie means whereby the corresponding pistons are caused to move simultaneously in the same direction and at the same speed.

2,770,141
TURN-TABLE TRANSFER MECHANISM
Arthur Sumner Dinsmore, Seneca Falls, N. Y., assignor to Seneca Falls Machine Company, Seneca Falls, N. Y., a corporation of Massachusetts
Application June 16, 1954, Serial No. 437,196
1 Claim. (Cl. 74—99)



A turntable transfer mechanism comprising a supporting arm, a main shaft on which said arm is secured, a work support pivoted at the swinging end of said arm, a relatively smaller sprocket fixed to said work support and concentric with its pivot, a relatively larger sprocket mounted in fixed position concentric with the axis of said main shaft, a chain connecting said two sprockets, a power arm fixed on said main shaft and having a radial slot, a crank arm having a roll movable in said radial slot, a supporting shaft for said crank arm, a fixed bearing for said supporting shaft, a pinion on said supporting shaft, a rack engaging said pinion, a manually-controlled air-operated cylinder-and-piston operating unit for said rack, and stops to limit swinging movement of said supporting arm in both directions, and said sprocket-and-chain connection being effective to reverse the angular position of the work as the supporting arm is swung 90°.

2,770,142
PULLEY GUIDE
Frank R. Murphy, Chittenango, N. Y.
Application June 3, 1954, Serial No. 434,276
1 Claim. (Cl. 74—240)



In combination, a pulley of the type having a single flange, an attachment comprising an elongated plate having a longitudinal row of openings, and fastening means carried by the pulley and engaged in a selected opening to secure the plate in a radially outwardly extending adjusted position at the periphery of the pulley and spaced from the flange thereof to retain a flexible member on the pulley between the flange and the plate.

2,770,143
FLEXIBLE LINK CHAIN
Wilfrid H. Bendall, New York, N. Y.
Application February 12, 1951, Serial No. 210,586
10 Claims. (Cl. 74—245)



1. A chain comprising links of flexible sheet material disposed end to end with overlapping end portions, each of said links having a transverse central aperture and a transverse aperture at each end portion, said links being arranged with registering apertures at said end portions and being interconnected by links of like flexible material having transverse flat portions passing through the registering apertures and transverse curved portions passing through adjacent central apertures and engaging the edges of said apertures.

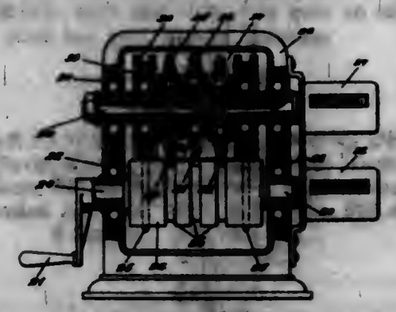
2,770,144
FLEXIBLE LINK CHAIN
Wilfrid H. Bendall, New York, N. Y.
Application June 12, 1952, Serial No. 293,158
14 Claims. (Cl. 74—245)



1. A flexible link chain comprising apertured links of flexible sheet material disposed end to end with overlapping end portions and registering apertures in said end portions, and link interconnecting members of like material having a transversely curved center portion with extensions thereof doubled over said center portion and end portions turned normal thereto passing through said registering apertures.

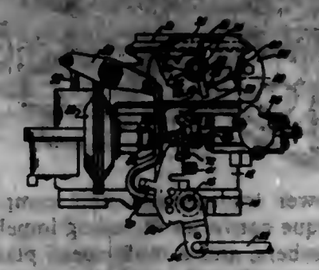


2,770,145
FUNCTION UNIT
George R. Stibitz, Burlington, Vt.
Continuation of application Serial No. 7,982, February 12, 1948. This application April 13, 1954, Serial No. 422,844
28 Claims. (Cl. 74—393)



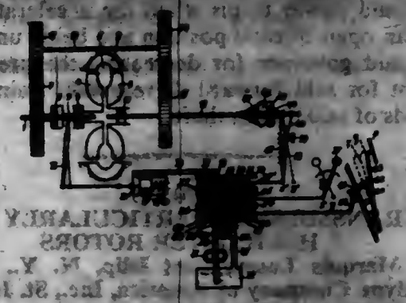
1. A function unit comprising a rotatable input shaft the amount of movement of which from a fixed reference point represents a real variable, a rotational output shaft the amount of rotation of which from a fixed reference represents a function of said real variable, pattern means bearing a physical pattern having predetermined characteristics arranged along a pattern path, said pattern means having a length much greater than its width or thickness means positively driving said pattern means from said input shaft in the direction of its length so as to impart movement to said pattern upon rotation of said input shaft and means cooperating with said pattern means for means positively driving said output shaft through said physical pattern to thereby vary the number of revolutions of said output shaft from said fixed reference in accordance with said physical pattern and the movement imparted thereto by said input shaft.

2,770,146
AUTOMOTIVE VEHICLE CONTROL MECHANISM
Albert H. Winkler, Elmira, N. Y., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application July 3, 1952, Serial No. 297,842
3 Claims. (Cl. 74—472)



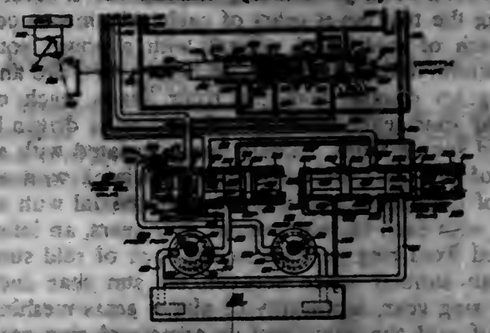
3. A control mechanism for a carburetor having a kickdown switch mounted thereon comprising a choke valve, a choke lever operatively connected to said choke valve, a throttle, a throttle lever operatively connected to said throttle, a control lever rotatably mounted adjacent said throttle lever, abutment means on said control lever adapted to engage said choke lever and switch, and an arm on said throttle lever adapted to move said control lever into engaged position with said choke lever and switch when said throttle is opened a predetermined amount.

2,770,147
METHOD AND DEVICE FOR THE SHIFT CONTROL OF DRIVES, PARTICULARLY OF MOTOR VEHICLE DRIVES WITH A FLUID DRIVE
Friedrich K. H. Nallinger, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application April 22, 1950, Serial No. 157,459
Claims priority, application Germany April 29, 1949
7 Claims. (Cl. 74—472)



1. A drive mechanism for a vehicle comprising a driving member, a driven member, a fluid drive arranged between the driving and driven members, a driving branch by-passing the fluid drive, a shifting device for engaging and disengaging the driving branch, a control mechanism responsive to the speed of rotation at one point of the drive mechanism, a further control mechanism actuatable by the operator in the control of the vehicle, a shifting member for each control mechanism, a third control mechanism manually actuatable, a third shifting member, each control member having a predetermined control position, and means actuatable by the three shifting members to influence the shifting device to engage said driving branch only when all three control mechanisms have exceeded the predetermined control position and the shifting mechanism is not engaged if at least one of the three control mechanisms remains below said control position.

2,770,148
TRANSMISSION
Robert W. Waymon, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application October 2, 1951, Serial No. 249,296
14 Claims. (Cl. 74—472)

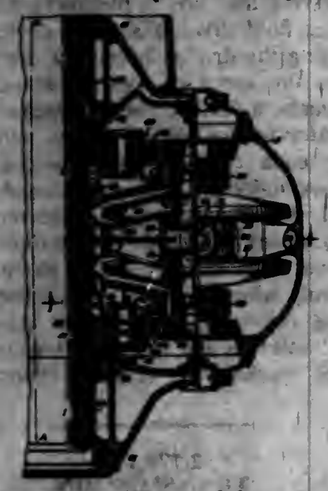


1. In transmission mechanism for an automotive vehicle having a driving engine with a throttle, the combination of a drive shaft, a driven shaft, a hydraulic torque converter driven by said drive shaft, an accelerator for controlling the engine throttle, means for providing a forward drive power train between said torque converter and said driven shaft, means for providing a reverse drive power train between said torque converter and said driven shaft, said two last named means including a planetary gear set having a reaction element and a friction brake for the reaction element for completing both of said power trains when engaged, the reaction on said reaction element for said reverse drive power train being greater than for said forward drive power train and said brake being wrapping or self-energizing for the direction of

reaction on the reaction element for said reverse drive power train and being unwrapping or self-deenergizing for the direction of reaction on the reaction element for said forward drive power train, means for engaging said friction brake with substantially the same pressure for completing both of said power trains, and a governor driven in accordance with the speed of said driven shaft, said brake engaging means being under the control of said accelerator for increasing the pressure of engagement for both of said power trains when the accelerator is moved toward an open throttle position and being under the control of said governor for decreasing the pressure of engagement for said forward drive power train on increasing speeds of said driven shaft.

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**2,770,149**
**TRANSMISSION, PARTICULARLY FOR HELICOPTER ROTORS**
Arthur Marquis Leavy, East Islip, N. Y., assignor to Gyrodyne Company of America, Inc., St. James, N. Y., a corporation of New York
Application March 9, 1953, Serial No. 341,235
11 Claims. (Cl. 74—665)

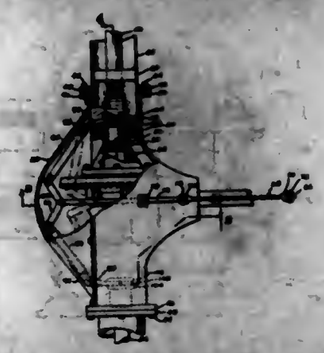


1. In a helicopter having coaxial rotors, two coaxial rotor shafts, two pairs of bevel gears disposed on opposite sides of said rotor shafts and rotatable about fixed axes parallel to said rotor shafts, each of said pairs comprising two coaxial bevel gears facing one another, a bevel pinion driving the two bevel gears of each pair, means connecting each of said bevel pinions with a power source, a spur pinion fixed to each of said bevel gears, two annnular spur gears coaxial with the rotor shafts, each of said annular spur gears meshing with and being driven by two of said spur pinions, namely one associated with a bevel gear of one pair and the other associated with a bevel gear of the opposite pair, a sun gear coaxial wtih and rotating with each of said annular spur gears, an internally-toothed fixed ring gear encircling each of said sun gears with an annular space between the sun gear and associated ring gear, a plurality of planet gears meshing with each of said sun gears and its associated ring gear, two carriers each rotatably supporting the planet gears associated with one of said sun gears, said carriers being coaxial with said rotor shafts and means connecting one of said carriers with one rotor shaft and the other of said carriers with the other rotor shaft.

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**2,770,150**
**FRONT AXLE**
Frank E. Culverwell, Mesquite, Nev.
Application August 7, 1953, Serial No. 373,312
1 Claim. (Cl. 74—710)

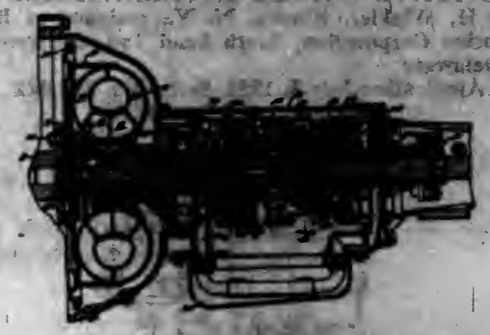
In an automotive vehicle of the four-wheel drive type including a front differential housing having differential gearing therein for driving the front wheels, the improvement residing in the combination of means for preventing rotation of said front differential gearing when said gearing is not drivingly engaged with said front wheels, said means comprising opposed coaxially aligned stub shafts operatively connected at one end to said differential gearing and extending outwardly therefrom, a wheel axle in end-to-end relation with each of said stub shafts, said axle rotatably mounting the front wheels adjacent the end thereof remote from said stub shaft and the end adjacent said stub shaft having external splines, the end of said stub shaft remote from said gearing being externally splined, a drive clutch having internal splines carried



by each of said stub shafts on the splined end thereof for movement longitudinally thereof into and out of operative connection to the adjacent splined end of the wheel axle for operative connection with the latter for transmitting the drive of said gearing to the front wheel; with linkage means carried by and disposed within said housing and operatively connected to said drive clutches, and actuating means carried on the vehicle and operatively connected to said linkage means for selectively simultaneously moving said linkage means and the drive clutch on each of said stub shafts into and out of operative connection with the adjacent wheel axle end.

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**2,770,151**
**HYDRODYNAMIC TRANSMISSION**
Bert W. Cartwright and William T. Dunn, Detroit, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 17, 1952, Serial No. 294,034
15 Claims. (Cl. 74—732)

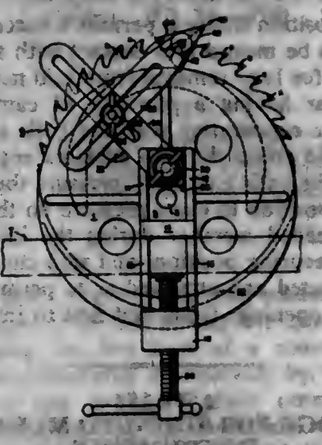


1. A power transmission unit comprising a hydrodynamic torque converter including impeller, turbine and reaction members, and a multi-speed planetary gear box including first and second planetary gear sets and an output shaft, said gear sets each being arranged in series between said converter and said output shaft, said gear box comprising an intermediate shaft connected to the converter turbine member and adapted to transmit drive between the turbine member and the several gear sets, said intermediate shaft mounting a first sun gear of said first gear set and a first annulus gear of said second gear set, a second sun gear for said first gear set, a clutch device connectible between said intermediate shaft and said second sun gear of said first gear set, a first brake means to selectively anchor said second sun gear of said first gear set against rotation, a first set of pinion gearing meshingly engaged with the first and second sun gears of said first gear set, a carrier rotatably supporting said first set of pinion gearing and drivingly connected to said output shaft, a second annulus gear meshingly engaged with the pinion gearing of the first gear set, a second brake means adapted to be applied to said second annulus gear to selectively anchor said second annulus gear against rotation, a second set of pinion gearing rotatably supported by said carrier member and arranged in meshing engagement with the said first annulus gear of the second set of gearing, a third sun gear meshingly engaged with the said second set of pinion gearing, and a third brake means engageable with said third sun gear to selectively anchor said third sun gear against rotation.



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**2,770,152**
**CIRCULAR SAW BLADE SHARPENING DEVICE**
Elwood R. Davis, Keene, N. H., assignor to Harrington & Richardson, Inc., a corporation of Massachusetts
Application April 19, 1955, Serial No. 502,491
8 Claims. (Cl. 76—36)



1. A saw holding device for sharpening circular saws, comprising a pair of clamping jaws having aligned openings, a stud projecting through said openings on which a circular saw blade may be supported between said jaws, a pivotally mounted arm rotatably on an axis concentric with the saw blade, and a gauge block mounted on said arm, said gauge block having one face in a plane subetantially parallel and closely spaced to the plane in which the front faces of alternate teeth of the blade are to be filed and a second face in a plane subetantially parallel and closely spaced to the plane in which the back faces of said alternate teeth are to be filed.

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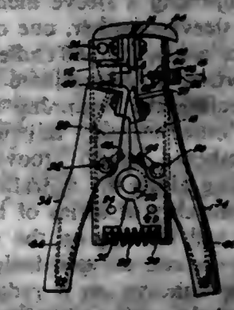
**2,770,153**
**KNIFE SHARPENER**
Franch F. Rodossi, San Francisco, Calif.
Application September 27, 1955, Serial No. 537,023
1 Claim. (Cl. 76—89.1)



In a device for forming serrations on the edge of a knife, a base member, a member pivoted to said base and having a portion thereof parallel to said base, a cutting element carried by and suspended from said pivoted member, a spring mounted on said base and supporting the free end of said cutter, a guide rest mounted on said base, said guide having a pair of inwardly inclined bearing surfaces positioned on opposite sides of said cutter, said rest having a slot therethrough to guide said cutter in an up and down movement, and fulcrum means carried by said inclined surfaces whereby a knife may be forced against said cutter.

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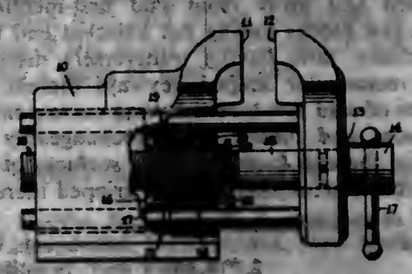
**2,770,154**
**ADJUSTABLE BITE WIRE STRIPPERS**
William G. Schlenke, Sycamore, Ill., assignor to Ideal Industries, Inc., Sycamore, Ill., a corporation of Delaware
Application June 15, 1953, Serial No. 361,689
3 Claims. (Cl. 81—9.5)



1. In a hand tool for stripping insulation from a wire, a pair of opposed jaw carriers pivoted together, a pair of handle members pivotally mounted on the jaw carriers, one of the jaw carriers and its handle member having longitudinally opposed clamping jaws, the other jaw carrier and its handle member having longitudinally opposed stripping jaws, resilient means for biasing the pivoted jaw carriers so that the jaws come together, and a variable abutment between the said other jaw carrier and its handle member and on one of them to regulate the distance that the stripping jaw on the handle member can move toward the stripping jaw on the jaw carrier, said abutment being disposed so as to be effective between the pivot and the stripping jaw on the jaw carrier, said variable abutment being disposed on said other jaw carrier and adapted to engage its handle member, said variable abutment having a stem threaded into said other jaw carrier, and a plastic pin mounted in said other jaw carrier in engagement with the threaded stem so as to prevent accidental movement of the abutment.

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**2,770,155**
**BALL AND HELICAL RACE FOR MECHANICAL MOVEMENTS**
Porter S. Morgan, Westport, Conn., assignor to Morgan Development Laboratories, Inc., Westport, Conn., a corporation of Delaware
Application July 24, 1952, Serial No. 301,043
22 Claims. (Cl. 81—36)



1. A device comprising a first member and a second member, one of said members being a cylinder and the other being a sleeve surrounding the cylinder, the first member only having on its surface facing the surface of the second member a helically disposed race having a face portion which inclines away from the axis of the second member and is spaced therefrom, the second member having on its surface facing said race a helical

track, a series of spaced balls between the members and rifling in said rifle in the space between the face of the race and the surface of the track on the second member, the inclination of the face of the race and the position thereof relative to the surface of said helical track being such that the balls wedge between said race face and the track surface of the second member in the absence of relative rotation between the members and prevent axial movement between the members in one direction and cause relative axial movement between the members in the other direction as the wedged balls travel in the helically disposed race and track in response to relative rotation between the members.

13. A device comprising a sleeve member and a rod member within the sleeve member, one of said members having on its surface a plurality of endless grooves each having a helical portion of determinate pitch and a reverse portion connecting the beginning and end of the helical portion, the other member having on its surface facing the first member a helical groove of said determinate pitch extending along the operating length of the second member, a plurality of series of balls each series interposed between and bearing on the surfaces of one of said endless grooves and on said helical groove, said helical groove being concave on a radius substantially that of the balls, and the endless grooves each having a wedging face inclined toward the axis of the members between which face and the concave surface of the helical groove the balls wedge and prevent axial movement between the sleeve and the rod in one direction and cause relative axial movement between the members in the other direction as the wedged balls travel in the helically disposed grooves in response to relative rotation between the members, the balls being freed of said wedging action during passage through the reverse portions of said endless grooves.

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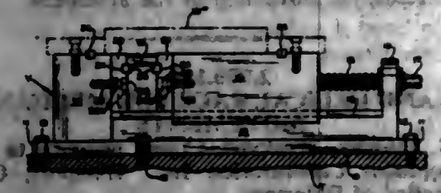
2,770,156

**AUXILIARY JAWS SELECTIVELY ATTACHABLE TO CONFRONTING AND UPPER SURFACES OF VISE JAWS**

Henry J. Brettinger, Saginaw, Mich.

Application July 18, 1955, Serial No. 522,761

4 Claims. (Cl. 81—38)



1. In a vise, a fixed jaw block, a movable block movable toward and away from said first-mentioned jaw block, the jaw blocks having flat adjacent end faces and upper surfaces, jaws having transversely disposed substantially rectangular shaped keyways therein, and the upper faces of said jaw blocks having corresponding keyways therein, and means for interchangeably securing said jaws to the end faces or upper surfaces of said jaw blocks so that a workpiece may be gripped therebetween.

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2,770,157

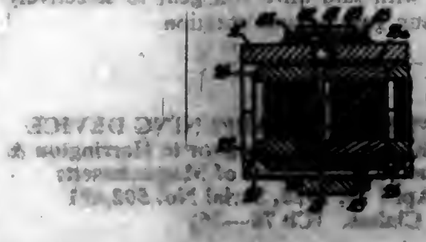
**MAGAZINE SOCKET WRENCHES**

Samuel A. Morse, Elmhurst, N. Y.

Application May 24, 1954, Serial No. 431,679

2 Claims. (Cl. 81—125)

1. A magazine socket wrench comprising a magazine polygonal in cross section and of a length to contain a plurality of threaded members, each defined by a peripheral polygonal wall said front and rear ends, means at the forward end of said magazine for engaging the front end of a leading threaded member and thus retaining all threaded members therein and arranged to be moved to permit a leading threaded member to be removed therefrom, the walls of said magazine having a plurality of small openings therein spaced about its periphery, said openings being spaced from the first-mentioned means a distance equal to the length of the peripheral wall of a threaded member, the walls of said magazine to the rear of said openings being imperforate, a ball in each of said openings, each movable from a first position where it abuts against the rear end of a leading threaded member and prevents discharge of succeeding threaded members



to a second position where it permits a succeeding threaded member to be moved into contact with said first-mentioned means for later removal from said magazine, and a movable collar having a plurality of cam surfaces on its interior for cooperating with the balls so that in one position of said collar the cam surfaces engage the outer periphery of the balls and apply pressure thereto to maintain them in position to exert pressure on the rear end of a leading threaded member during the initial threading thereof into securing position, and said cam surfaces being so constructed and arranged as to permit the balls to move in said openings from said first to said second positions.

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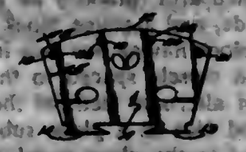
2,770,158

**BRIDGE FOR STRINGED MUSICAL INSTRUMENTS**

Reginald M. Bowman, Baltimore, Md.

Application March 27, 1956, Serial No. 574,315

3 Claims. (Cl. 84—309)



1. A support for the strings of a stringed instrument comprising a bridge having a foot at each end and adjacent the bottom thereof for supporting the bridge upon the instrument, said bridge having a plurality of apertures spaced upwardly from the foot members a predetermined distance across the top portion of the bridge, a grummet surrounding each of the apertures of a material harder than the material of the bridge.

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2,770,159

**MUSICAL INSTRUMENT**

Shoji Kato, Suzuki-ku, Tokyo, Japan, assignor to National Merchandising Corp., Los Angeles, Calif., a corporation of California

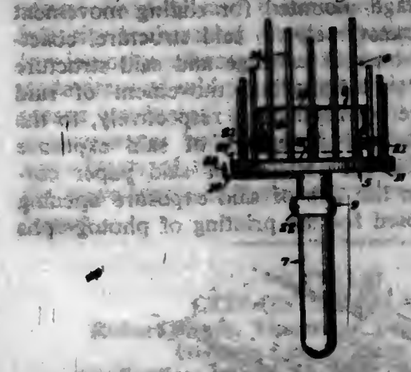
Application January 3, 1956, Serial No. 557,150

5 Claims. (Cl. 84—404)

1. A musical instrument comprising a base provided with a handle by means of which said base is adapted to be reciprocatively shaken, a complement of differently pitched musical rods carried by the base in circular arrangement, a bridge member rotatably mounted centrally of the musical rods, a pendent clapper attached to each end of said bridge member adjacent to the musical rods



and adapted to strike the same when the instrument is shaken, and means to rotationally adjust the bridge mem-



ber to bring the clappers into selective striking position with said rods.

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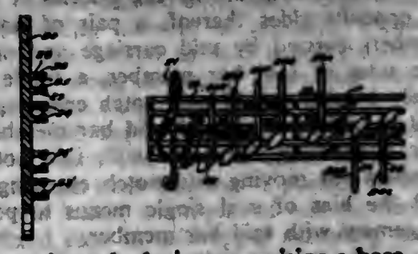
2,770,160

**MUSIC STUDY DEVICE**

Bernhard Ulrad, North Leominster, Mass.

Application December 15, 1953, Serial No. 398,258

2 Claims. (Cl. 84—470)



1. A music study device comprising a base, a simulated staff fixed thereto, said staff having five spaced horizonal bars representing the five lines of a conventional staff and being cross-connected at intervals by vertical bars, each horizontal bar having a plane outer face, rearwardly converging inner face portions, and rounded longitudinal edges, and a plurality of simulated notes of flexible material adapted to be attached to the staff to indicate various pitches, each note having four pairs of lugs disposed in substantially vertical alignment on the back thereof, each lug terminating in an enlarged head having a rounded surface portion, the rounded head portions of the two lugs of any pair facing each other so that they will pass easily over and clamp on the rounded longitudinal edges of any of the two horizontal bars to which the note is applied, two of said lug-pairs being adapted alternatively to engage two of the horizontal bars upon flexing the note to spring the lugs of the two selected pairs, the two outer pairs of lugs being arranged to engage two of a trio of horizontal bars skipping the intermediate one, the two inner pairs being arranged to engage two successive bars.

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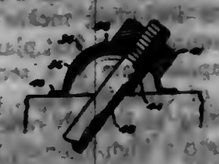
2,770,161

**SEMI-SPHERICAL COMPENSATING WASHER**

Charles E. Schantz, Grosse Pointe, Mich.

Application September 23, 1954, Serial No. 457,859

3 Claims. (Cl. 85—50)



1. A one piece washer for compensating for angles between the head or nut of a fastener shank and a surface of a member through which the shank extends comprising, a thin sheet metal body of generally semi-spherical shape, a seat along the edge of said body to bear against the surface of the member, a tab sheared out of the body providing a slot to receive the shank in any one of an infinite number of positions along the length of the slot depending upon the angle between the head or nut and the surface of the member, said slot extending substantially from the crown of the semi-spherical body arcuately toward said seat, said tab connected to said body at the end of the slot adjacent said seat and bent inwardly of said semi-spherical body to engage the fastener shank and locate the washer relative thereto, said tab having its end terminating substantially in the plane of said seat and spaced from the center of said body a distance substantially equal to the radius of the shank.

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2,770,162

**APPARATUS FOR VISUALLY DETECTING SUSPENDED MATTER IN FLUID**

William T. Fleming, West Orange, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey

Application June 5, 1952, Serial No. 291,952

2 Claims. (Cl. 88—14)



2. In apparatus for visually detecting suspended matter in a stream of fluid, the combination of a casing having an opening in the front wall thereof and having a transverse partition dividing the casing into forward and rearward sections formed with a circular aperture in coaxial alignment with the opening, a cylindrical tube extending between the opening and the aperture, and a forward to rearward extending partition depending from said tube to the bottom of said casing and extending between said transverse partition and said casing front wall for dividing the forward section of said casing into a pair of isolated chambers; a window structure in each of said isolated chambers including a rearwardly and upwardly inclined transparent member; means including conduits extending through said transverse partition for circulating a stream of fluid through each of said chambers and adjacent said transparent members; a pair of windows in said transverse partition constructed and arranged to direct a light beam past said transparent members and through the portion of said streams adjacent said members; a pair of reflectors mounted in the rearward section of said casing for directing a light beam through each of said windows; and a unit including a generally tubular housing removably positioned within said tube, a lamp socket carried by said housing element at the inner end thereof, a lamp in operative connection with said socket positioned in the rearward section of said casing adjacent each of said reflectors for directing a beam of light thereon.

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2,770,163

**NON-INTERMITTENT PROJECTOR FOR MOTION PICTURES**

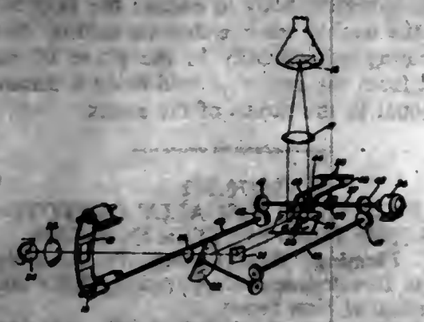
Charles F. Mattke, Fanwood, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 19, 1950, Serial No. 201,660

6 Claims. (Cl. 88—16.6)

1. An optical image producing device comprising a first objective lens and a second objective lens, means for directing light rays moving in one coordinate direction through said first lens whereby said moving light rays change their angles of incidence with respect to said first lens in said one coordinate direction, a pair of reflecting

means positioned between said first lens and said second lens for transferring said moving light rays from said first lens to said second lens, each of said reflecting means of said pair oscillatable about a set of pivots whose axes of oscillation are in a single line perpendicular to the plane defined by said light rays moving in said one coordinate direction, further reflecting means positioned between said first objective lens and said pair of reflecting means



for applying said moving light rays from said first lens first to one of the reflecting means of said pair of reflecting means and then to the other, and means for oscillating each one of the reflecting means of said pair of reflecting means about its axis of oscillation to maintain said moving light rays applied to said second lens at a constant angle of incidence in said one coordinate direction.

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2,770,164
CORRECTION OF THE CONDITION OF STRABISMUS IN HUMAN VISION
Elizabeth P. Olmsted, Buffalo, Richard R. Francis, Tonawanda, and Ira G. Ross, Buffalo, N. Y.
Application March 25, 1952, Serial No. 278,334
5 Claims. (Cl. 88—28)

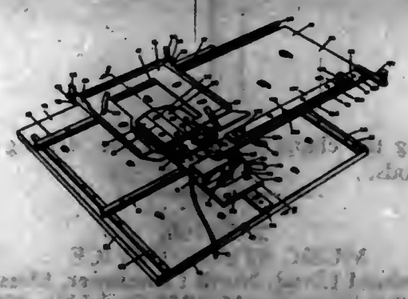


1. A spectacle lens for reducing the visual acuity of a good eye so as to tend to force the concurrent use and fusion with the poorer eye to alleviate the condition of strabismus in human vision which involves the suppression of the poorer eye and the favoring of the good eye, said lens having the proper refractive correction for the good eye and having on one side and over the full area thereof a diffractive grating of light transmitting and light interrupting areas arranged in a uniform pattern and the light transmitting areas having opposite edge portions spaced apart not less than about 0.001 inch and not more than about 0.015 inch so that light transmitted therethrough is diffracted in at least two different directions to cause the normally sharp outlines of light and dark demarcation of the image to be invaded by fringe band effects of sufficient width to reduce the resolving power of the eye, the closer the spacing within the aforementioned dimensional range the wider the fringe band effect and hence the greater the resolution reduction, whereby the retinal image in the good eye may be made slightly less clear than in the poorer eye.

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2,770,165
PHOTOGRAPHIC EXPOSURE DEVICE
Arthur D. Vriesslaer, Missouri, Iowa
Application May 13, 1953, Serial No. 354,751
2 Claims. (Cl. 88—24)

1. For use with a photographic printer in the printing of a series of photographs on a single sheet of photographic paper, apparatus for printing rows of side by side pictures on said paper comprising a longitudinally extended base and track structure, a plate member secured in a parallel spaced relation to said base and track structure and having an exposure opening therein of a size corresponding to the size photograph to be printed, a paper carrying carriage mounted for sliding movement longitudinally and transversely on said structure, coacting engaging means on said carriage and said structure limiting transverse or longitudinal movement of said carriage to a distance corresponding, respectively, to the transverse or longitudinal dimension of said exposure opening whereby adjacent sections of said paper corresponding in size to the size of said exposure opening are successively exposed for the printing of photographs



thereon, with one of said coacting means comprising a bar member on said structure having a series of notches formed in opposite sides thereof, a pair of notch engaging members carried by said carriage and arranged on opposite sides of said bar member, a single means for selectively biasing one of said notch engaging members toward the adjacent side of said bar member, and lever means operatively associated with said notch engaging members for moving said notch engaging members against the bias of said single means to positions out of engagement with said bar member.

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2,770,166
IMPROVEMENTS IN AND RELATING TO OPTICAL APPARATUS FOR PRODUCING MULTIPLE INTERFERENCE PATTERNS
Dennis Gabor, London, England, assignor to National Research Development Corporation, London, England
Application June 30, 1952, Serial No. 296,315
Claims priority, application Great Britain July 6, 1951
13 Claims. (Cl. 88—39)



1. Optical apparatus of the kind with which a specimen can be illuminated by a beam of coherent light and a photographic record can be obtained of an interference pattern produced as a result of the illumination, and for viewing such records with a source of coherent light, the apparatus including means for supporting a specimen to be examined in a first plane, means for supporting a photographic plate in a second plane, means providing a beam of coherent light, a beam-splitter of the partly-transmitting and partly-reflecting type for dividing said beam into a high-intensity background beam and an illuminating beam of relatively low intensity with respect to the background beam, means for directing said illuminating beam onto said specimen, second beam-splitting means receiving the light beam transmitted from said specimen and forming two information-carrying



beams of approximately equal intensity and directing them upon separate portions of said photographic plate, means dividing said background beam into two high-intensity background beams superimposed upon the two low-intensity information-carrying beams within said separate areas of said photographic plate, and phase-shifting means producing a difference of an odd number of quarter-waves between the phase displacements of the wave-fronts of the two background beams relatively to the wave-fronts of their respective information-carrying beams.

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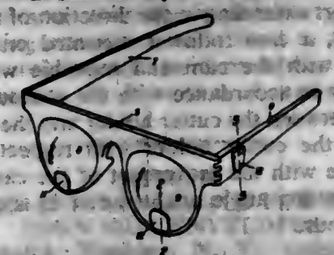
2,770,167
CLIP-ON SUNGLASSES
Robert Pasnet, Viscennes, France, assignor to Georges Lissac, Paris, France
Application August 12, 1952, Serial No. 304,070
Claims priority, application France August 20, 1951
2 Claims. (Cl. 88—41)



1. A pair of clip-on sunglasses comprising a resilient upper mounting member of generally arcuate shape, a pair of lenses affixed to said upper mounting member substantially along the arc of said upper mounting member, said lenses extending beyond the outer ends respectively of said upper mounting member, an abutment formed on each end of said upper mounting member, said abutments extending over a portion of the outer surface of said lenses, and a pair of resilient clamping members affixed each to said upper mounting member adjacent an end thereof, said clamping members extending from said upper mounting member on the concave side of said arc, downwardly in a direction generally parallel to said lenses, and toward said lenses.

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2,770,168
SUPPLEMENTAL LENS-POSITIONING MEANS
Nicholas Tenuro, San Francisco, Calif.
Application October 8, 1953, Serial No. 384,624
2 Claims. (Cl. 88—41)

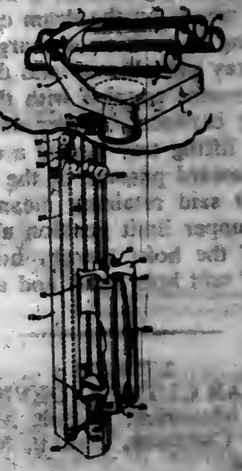


1. In combination with an eye glass frame having temples secured thereto, socket-like recesses in said frame adjacent lenses mounted in the frame and similar socket-like recesses in said temples, a magnetic element mounted in each of said recesses and a magnetically attractive metal secured to a supplemental lens, said metal on said supplemental lens having a coinciding configuration as said recesses and adapted for selective placement in respective frame and temple recesses.

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2,770,169
DEPTH-CHARGE LAUNCHER
Sven Gunnar Gerdin, Bofors, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation
Application May 27, 1952, Serial No. 290,448
Claims priority, application Sweden November 5, 1951
4 Claims. (Cl. 89—1)

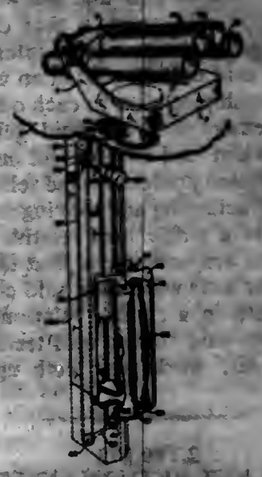
1. A launcher for depth charges comprising a plurality of launching tubes, a support structure fixedly supporting said tubes in a spatial relationship such that the axes of the tubes are parallel to each other and disposed in arcuate arrangement, a frame structure mounted rotatably about an axis perpendicular to the horizontal and supporting said support structure pivotally about a horizontal axis for traversing and elevating said launching tubes, the said tube support structure and the said frame support structure being disposed in a spatial relationship such that the



center of the arc as defined by the tube axes coincides with the rotational center axis of the frame structure in the perpendicular position of the tubes, and a loading mechanism for loading depth charges into said tubes when in perpendicular position, said loading mechanism including a loading station situated in registry with said arc whereby said tubes, when perpendicularly disposed, are rotatable one by one into alignment with said loading station for successively loading said tubes.

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2,770,170
HOIST FOR PROJECTILES
Erik Albin Fransson, Karlskoga, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation
Application May 28, 1952, Serial No. 290,449
Claims priority, application Sweden November 5, 1951
5 Claims. (Cl. 89—46)



1. In a launching assembly for launching depth charges of the class comprising at least one launching tube and a pivot mount mounted upon a platform and mounting the tube thereon pivotal between a perpendicular loading position and a slanted discharge position, the combination with a hoist disposed below the platform and comprising a fixedly mounted perpendicular hoist shaft upwardly protruding through said platform for directly ramming a depth charge into the launching tube when in perpendicular position and aligned with the shaft,

said hoist shaft having a lateral loading opening below said platform, a loading drum below the platform rotatably mounted axially parallel to said shaft and in a spatial relation relative thereto such that in each rotational position of the drum, part of the side wall thereof protrudes into the shaft through said opening, the protruding side wall part of said drum being formed with at least one axial recess extending throughout the length of the drum for inserting therein a depth charge to be loaded, retaining means on the drum extending into said recess for retaining in position a charge inserted in said recess, a lifting tray movable up and down in said hoist shaft, and drive means coupled with the lifting tray for moving the same between a lower and an upper limit position, the said lifting tray having a configuration providing for a downward passage of the same through an empty recess past said retaining means and for lifting the tray into its upper limit position above the level of the upper end of the hoist thereby hoisting the charge completely out of said hoist shaft and into the launching tube.

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2,770,171

## GEAR CUTTING DEVICE

Alexander D. F. Moncrieff, Detroit, Mich., assignor to Michigan Tool Company, Detroit, Mich., a corporation of Delaware

Application January 29, 1952, Serial No. 268,895
6 Claims. (Cl. 90—1.6)



1. A device for finishing involute gear teeth, including a cutting tool having a plurality of cutting teeth adapted to engage and finish the tooth surfaces of the teeth of a work gear, a master gear, means rigidly interconnecting the master gear with the work gear in a predetermined relationship relative thereto and preventing relative movement between the master gear and the work gear, means rotatably supporting said gears, a gear element meshing with said master gear, means rigidly interconnecting said gear element and said cutting tool in an adjustable a predetermined relationship relative to each other and preventing relative movement between said gear element and said cutting tool when said cutting tool and said gear element are in an adjusted predetermined relationship, means for simultaneously actuating and moving said gear element and cutting tool as a single unit relative to said master gear and work gear respectively so that the meshing gear element and master gear will retain said cutting tool teeth and work gear teeth in a cutting relationship relative to each other, whereby said cutting tool teeth will finish the tooth surfaces of said work gear teeth upon said movement.

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2,770,172

## COOLANT RETURN SYSTEM

Benjamin P. Graves, Providence, R. I., assignor to Brown & Sharpe Mfg. Company, Providence, R. I., a corporation of Rhode Island

Application April 24, 1953, Serial No. 352,233
5 Claims. (Cl. 90—11)

1. In a milling machine having a base, a machine column, and a work supporting assembly including a knee vertically adjustable on the column, and a plurality of supports mounted one on the other for movement in a plurality of directions including a clamp bed mounted for transverse movement on the knee, the combination of a coolant reservoir having a coolant collecting pan thereon in the base, a drainage basin for coolant on the clamp bed, and a telescoping pipe providing an unobstructed passageway between the drainage basin and the



pan, means securing the telescoping pipe for movement as a unit with the clamp bed, and means supported from the base for maintaining the lower end of said pipe spaced above the pan.

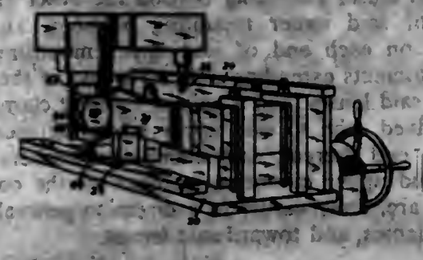
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2,770,173

## MECHANISMS FOR CONTROLLING THE ANGULARITY OF MILLING MACHINE CUTTERS

William Ochse, Uniondale, N. Y., assignor to Liberty Products Corporation, Farmingdale, N. Y., a corporation of New York

Application April 26, 1954, Serial No. 425,354
3 Claims. (Cl. 90—13)



1. In combination, a support, a head movable with respect to said support, a rotary body supported in said head for rotation on a given axis, a cutter holder, means rotatively supporting said cutter holder, on said body, for rotation on an axis at an angle to said given axis, a cutter affixed to the holder, an elongated stationary cam affixed to said support extending in the direction of the movement of said head, a cam follower mounted on said body in engagement with the cam and movable with respect to the said body in accordance with the contour of the cam, and means between the cutter holder and the cam follower for rotating the cutter holder with respect to the body in accordance with the movemeat of the cam follower to change the cutting angle of the cutter in accordance with the cam contour.

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2,770,174

## BROACHING TOOL FOR FORMING TAPERED OPENINGS IN TUBES

Edward B. Hannaffl, Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 9, 1953, Serial No. 390,778
3 Claims. (Cl. 90—33)



1. A fixture for cutting a plurality of tapered surfaces on the internal surface of a tube, which comprises a



stationary plate, a block secured fixedly to the plate and having a plurality of surfaces tapered with respect to an axis thereof, a plurality of broaching cutters each of which reciprocates over a corresponding one of the tapered surfaces, means for mounting a tube on the plate so that the cutters may be placed within the tube prior to the broaching thereof, and means for reciprocating the cutters.

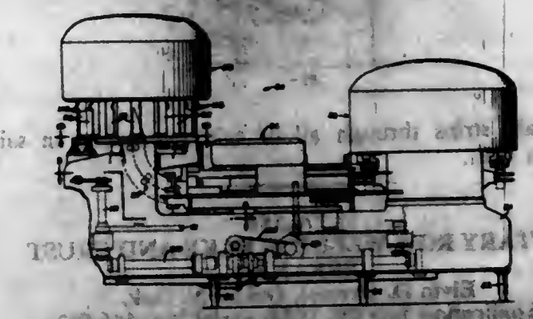
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2,770,175

## MACHINE FOR MAKING FLAT-TOPPED PAPER BOTTLES

James F. Earp, Detroit, Mich., assignor to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan

Application November 5, 1952, Serial No. 318,882
12 Claims. (Cl. 93—44.1)



1. In a machine for making cartons from cut and scored blanks of paperboard or the like and having a plurality of side panels and two fractional side panels, a body forming unit comprising, in combination, a machine base, a turret shaft journaled in said base for rotation about an upright axis, a turret head fixed adjacent the upper end portion of said turret shaft for rotation bodily therewith, a plurality of body forming mandrels fixed in circumferentially spaced depending relation on said turret head, a plurality of holders carried by said turret head for holding said blanks against said mandrels, a plurality of seam closers rotatably carried by said turret head and having arcuate portions with openings therein for manipulating the fractional side panels of said blanks about said mandrels and into overlapping seam relation, cam means fixed to said base for actuating said holders and said closers as an incident to movement of said turret head relative to said base, a folder gate assembly, and a bottom flap closing assembly, said folder gate and bottom flap closing assemblies being fixed to said base and disposed for coaction with said mandrels, holders, and closers to complete the formation of carton bodies from said blanks.

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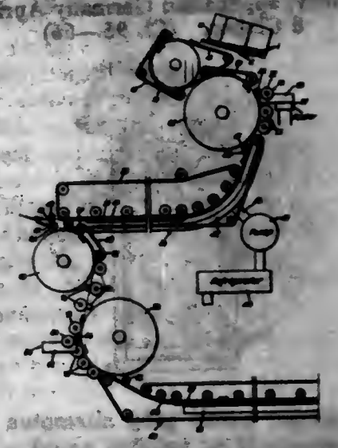
2,770,176

## METHOD AND APPARATUS FOR MAKING OPEN SIDE ENVELOPES

Abraham Novick, Flushing, N. Y., assignor to F. L. Smithe Machine Co., Inc., New York, N. Y., a corporation of New York

Application October 25, 1952, Serial No. 316,921
8 Claims. (Cl. 93—62)

4. In an envelope making machine, in combination, means for gumming and drying fanned-out blanks and conducting them fanned-out in a first band to a turn around station, and mechanism at said station for rearranging the blanks into a second band in which the fanned-out arrangement is reversed and the direction of travel is reversed, comprising a stop toward which the fanned-out blanks of the first band are advanced, a support for the blanks of the first band approaching said stop, spaced from the stop far enough to be nearly cleared by the leading blank of said first band when said blank engages the stop at a pick-up point, a suction arm engageable with the leading margin of the leading blank at the pick-up point to draw it by suction clear of the stop, and means for oscillating the suction arm to impart a first motion to the blank in a direction to continue the previous travel of the leading edge of the leading blank beyond said stop and to pull the leading blank clear of said support, and then to impart a second motion in the opposite direction to thrust the blank to and beyond



the pick-up point to a point of delivery, means for supporting the blanks during and after the action of the arm upon them, and means for conducting the blanks away from the point of delivery in rearranged fanned-out relation at uniform speed and in the direction of said second motion with the bottom flaps leading.

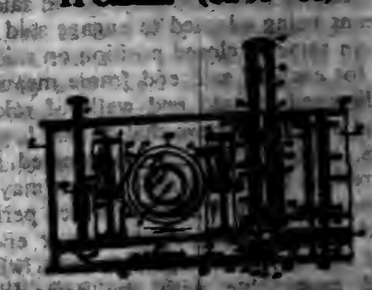
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2,770,177

## COMBINED SHUTTER SETTING AND FILM TRANSPORTING MECHANISM

Fritz Faulhaber, Schwabisch (Wurttemberg), Bodo Bobingen, Germany, assignor to Voigtlander, A. G., Braunschweig, Germany, a corporation of Germany

Application December 30, 1953, Serial No. 401,295
11 Claims. (Cl. 95—31)



1. A combined shutter-setting and film-transporting mechanism for photographic cameras comprising a single control member adapted to pass through a wall of said camera, said single control member being reciprocatable between an initial position in which it protrudes from the camera to a final position in which it is substantially wholly disposed within the interior of said camera, a projection provided on the inner end of said single control member, a film pressure plate, lever means disposed in the path of travel of said projection for releasing said film pressure plate during an initial fraction of inward movement of said single control member, a shutter setting mechanism, means disposed in the path of travel of said projection for actuating said shutter setting mechanism during a final fraction of inward movement of said single control member, a film transport mechanism, a rotatable member for actuating said film transport mechanism, a shaft disposed at least partially internally of said single control member, means for rotating said shaft during an intermediate portion of movement of said single control member, a one-way clutch for coupling said rotatable member to said shaft during inward movement of said single control member and spring means for returning said single control member to its initial position.

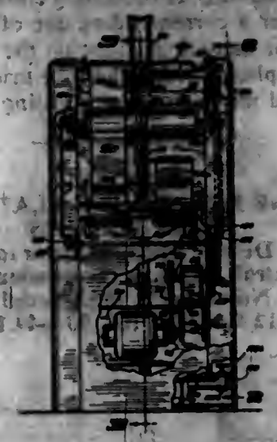
2,770,178
**HOLDER FOR CARRIERS OF LIGHT SENSITIVE EMULSIONS**
Nikolaus Karpf, Munich, Germany, assignor to Valentin Linhof, Munich, Germany
Application April 11, 1952, Serial No. 281,816
Claims priority, application Germany April 18, 1951
8 Claims. (Cl. 95—66)



1. A holder for light-sensitive carrier means comprising oppositely arranged frame-shaped housings having end walls, open lower ends and a partition common to said housings, oppositely disposed spring-supported walls mounted on opposite faces of said partition, respective dark slide means arranged for movement into said housings and spaced from said spring-supported walls thereof, guide means for the insertion of said carrier means into and for their removal from the lower ends of said housings, said guide means being disposed to extend within said housings adjacent said spring-supported walls, respectively, and for cooperation with the latter, hingedly supported and spring-actuated end frame means for closing said lower ends of said housings and shaped for pressing said carrier means against said spring-supported walls, when said end frame means close on said housings, said slide means being adapted to engage said end frame means to retain same in closed position on said housings, pivot means for each of said end frame means arranged in recesses disposed in said end walls of said housings and positioned at a level above that of said lower ends of said housings, whereby said spring-actuated end frame means upon release from said slide means may be swung about said pivot means to a position which permits ready access to said carrier means in said lower ends of said housings, and ejector means operable from without said housings and engageable with the respective carrier means to displace the later toward and beyond the respective lower housing end.

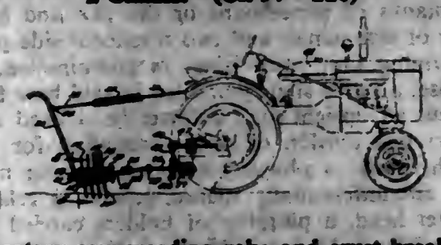
2,770,179
**APPARATUS FOR PROCESSING STRIPS OF LIGHT-SENSITIVE MATERIAL**
Glen M. Dye, Christian O. Knudsen, and John F. Braden, Minneapolis, Minn., assignors to The Pako Corporation, Minneapolis, Minn., a corporation of Delaware
Application March 19, 1953, Serial No. 158,568
19 Claims. (Cl. 95—94)

1. An apparatus for processing a pair of strips of light-sensitive material having in combination, a plurality of receptacles adapted to contain liquids, a lower roller in each of said receptacles respectively, upper rollers above said receptacles, an endless leader belt running over said rollers in sequence whereby it moves downwardly and upwardly in each receptacle and traverses all of said receptacles in a sinuous path, said belt having spaced attaching means thereon, a pair of members detachably secured adjacent one of their ends respectively in said means and each having a portion projecting at one side of said belt and having a free end, said members being adapted to engage the forward ends of said pair of strips respectively and lead the same over said upper and lower rollers successively at each side of said belt and thus



lead said strips through all of said receptacles in said sinuous path.

2,770,180
**ROTARY ROW WEEDING RAKE AND CRUST BREAKER**
Elvin D. Dressel, Oakes, N. Dak.
Application July 29, 1954, Serial No. 446,547
2 Claims. (Cl. 97—216)



1. A rotary row weeding rake and crust breaker comprising longitudinally spaced transversely positioned parallel discs rigidly connected with pairs of rods, said rods being inclined to the longitudinal axis of rotation of the discs, bolts removably mounted in the discs spaced from and parallel to the rods, coils with tines extended from one of the ends thereof and loops extended from the opposite ends positioned on the bolts with the loops extended between the rods and with the tines extended radially from the bolts, a stub shaft extending from the disc at the leading end of the unit, and a stud extended from the disc on the trailing end of the unit.

2,770,181
**COFFEE EXTRACTING APPARATUS**
Mortimer J. Kahan, New York, N. Y.
Application January 4, 1952, Serial No. 264,965
3 Claims. (Cl. 99—298)

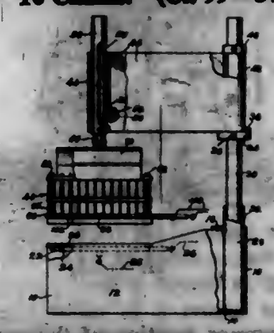


3. A coffee extractor having a cylindrical housing for coffee and water and a plurality of strainers in units above and below the coffee filling the interior of the housing and slidable therein, and removable girthwise band retainers for packing said strainer units from leakage, the edges of said bands of said retainers being gathered above and below the strainers of a unit of strainers and releasable to permit the strainers and band



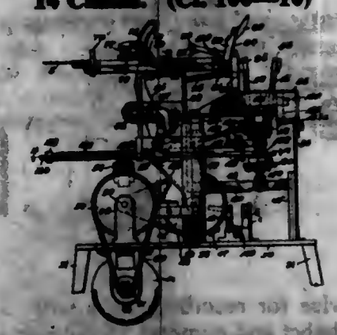
to be cleaned and renewed, having a tubular edge, and draw strings in each edge slidable therein for gathering and snugly drawing each edge of the band as above and below said strainers and for releasing said edges and said retainer, and means for detachably securing the ends of said draw strings.

2,770,182
**ELECTRIC MEAT FRYER**
Weldon H. Jensen, Salt Lake City, Utah, assignor of one-half to William B. Lynch, Cheyenne, Wyo.
Application July 2, 1954, Serial No. 441,044
10 Claims. (Cl. 99—373)



1. An electric meat fryer comprising a substantially horizontal stationary plate, at least one movable plate positioned above the stationary plate and mounted for upward and downward movement relative thereto, a stripping plate suspended beneath the movable plate for upward and downward movement relative thereto, spring means urging the stripping plate downward, said stripping and movable plates having a plurality of aligned pin openings therein, a plurality of pins mounted for upward and downward movement through said pin openings, said pins normally extending below the movable plate with their lower ends positioned above the underside of the stripping plate, spring means urging the pins downward, and electric heating elements connected to a source of electrical energy and positioned to heat the stripping and stationary plates.

2,770,183
**TYING MACHINE**
Harris F. Hanscom, Barrington, R. I., assignor to H. F. Hanscom & Company, Inc., a corporation of Rhode Island
Application November 4, 1955, Serial No. 544,999
14 Claims. (Cl. 100—10)



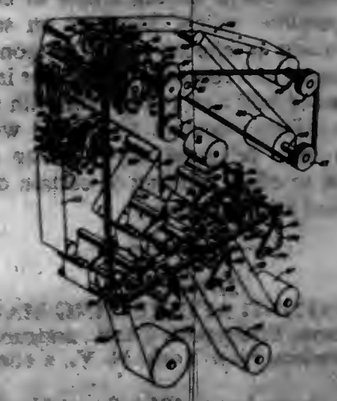
1. A tying machine comprising a fixed means for supporting the article to be tied, a pair of normally open movable jaws mounted for reciprocation relative to said fixed means, said jaws having means for receiving binding material, means for feeding binding material into said receiving means, means for cutting off a length of the binding material held by said jaws, means reciprocating said jaws away from said fixed means, and means responsive to a predetermined travel of said jaws to rotate said jaws about a common axis thereby twisting the ends of said material.

2,770,184
**BALING MACHINE**
Carlisle F. Smith, Knoxville, Tenn., assignor to J. I. Case Company, Racine, Wis.
Application February 6, 1954, Serial No. 408,691
5 Claims. (Cl. 100—19)



5. In an automatic tying baling machine of the type comprising a frame defining an elongated baling chamber, a needle support arm pivotally mounted on said frame to extend along the side thereof, a needle attached to said arm and arranged to project into said chamber upon predetermined swinging movement of said arm about its pivot for extending said needle into said baling chamber, means defining limits of movement of said arm, and a power drive connected to said arm to impart predetermined oscillating motion thereto between said limits, the combination of a coil spring mounted on said frame displaced from said pivot and having a finger-like end extending in a direction substantially parallel to said arm in one position thereof, and a finger-contacting abutment surface on said arm displaced from said pivot in position to contact said finger as said arm approaches one of said limits of movement wherein said needle is retracted from said baling chamber, said spring being biased to press said finger-like end against said surface with substantial force as said arm continues to a retracted position at said limit of movement, whereby said finger is displaced and the force of said spring tends to check the motion of said arm prior to its reaching said limit of movement to avoid impact and vibratory rebound of said needle into said baling chamber.

2,770,185
**CONTINUOUS FORM FEEDING APPARATUS IN SELECTIVE PRINTING MACHINES**
Arnold B. Crowell, Endicott, and Henry A. Reiffert and Chester V. Mankiewicz, Vestal, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 30, 1952, Serial No. 328,758
4 Claims. (Cl. 101—19)



1. In a recording device for printing on an original web, a carbon and a duplicate web, each web being divided into form lengths, a platen over which said webs are drawn, means for printing related groups of impres-

sions on each form length, a pair of feed rollers for line spacing the webs said located above said platen, a supply roll for each web, a pair of feed rollers to draw each web from its respective supply roll and advance it toward said platen while forming a loop between the last mentioned feed rollers and said platen, means to regulate the rate of advance of said webs to said platen including a plurality of contact actuating means operated by a change in size of said loops in related webs, means controlled thereby for separating and closing said feed rollers for drawing each web from its respective supply roll, and punching mechanism for perforating a locating hole at spaced intervals and coordinated with said feed rollers for line spacing to operate between printing on said original web, said punching mechanism including a punch and a clutch operative under control of the printing means after each series of related printing operations to actuate said punch.

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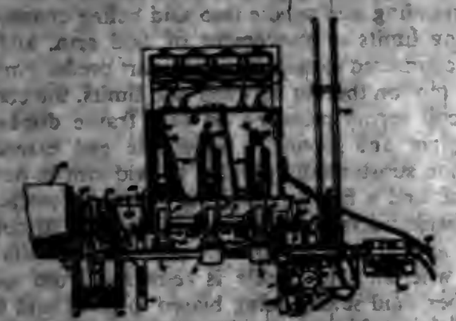
**2,770,186**

**PLATE SENSING MEANS IN ADDRESS PRINTING MACHINES**

James T. Eberhard, Arlington, Va.

Application June 4, 1953, Serial No. 359,519

20 Claims. (Cl. 101—87)



1. In a printing machine, printing means, means for sequentially moving printing devices through said machine past said printing means, sensing means for controlling the operation of said printing means whereby impressions will be made only from certain of the printing devices, said sensing means being positioned before said printing means in the path of movement of said printing devices through said machine and having a detector determining as each printing device moves past said detector the spatial relation of the indicia carried by such printing device to the leading end of each printing device and selector means connecting said detector to said printing means for selectively determining the certain of the printing devices to be printed in accordance with the indicia carried by each such device, said selector means comprising a connector board having a row of contacts representing the possible indicia locations on said printing devices and contacts to effect printing or non-printing of said printing means, and connecting leads for interconnecting selected ones of said row of contacts with the printing contact or non-printing contact as desired whereby said selector means may be preset by utilizing appropriate connecting leads to effect printing of certain of the printing devices by said printing means.

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**2,770,187**

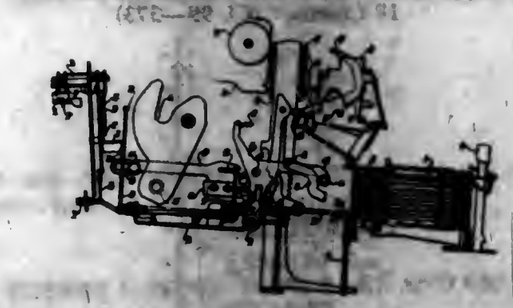
**CHECK WRITING ACCOUNTING MACHINE**

Oscar W. Swanson, Bridgeport, Conn., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware

Application December 6, 1954, Serial No. 473,426

3 Claims. (Cl. 101—93)

1. In a ten-key accounting machine having a platen carried by a carriage tabulatable to different columnar positions, a plurality of denominational order representing type bars, each type bar having a protective symbol type and a full complement of digit types, said type bars being normally positioned with their protective symbol types aligned with the platen and being differentially operable to align the digit types thereof with the platen, a field of indexable stops for controlling the differential operation of said type bars, a ten-key keyboard for indexing amounts in said field of stops, cycling mechanism for operating said type bars, said cycling mechanism normally moving the type bars representing the uniindexed denominational orders to their "0" positions, means operable in a first columnar position of the carriage to print an amount set up in said field of stops, means operable in said first columnar position to suppress the printing of insignificant "0's", means for retaining the amount set up in said field of stops, means operable in a second columnar position of said carriage for printing the amount set up in said field of stops, means operable in said second columnar position for retaining the type bars representing the unindexed orders in their normal positions with their protective symbol types aligned with the platen, and means operable in said second columnar position for printing protective symbols to the left of the amount.



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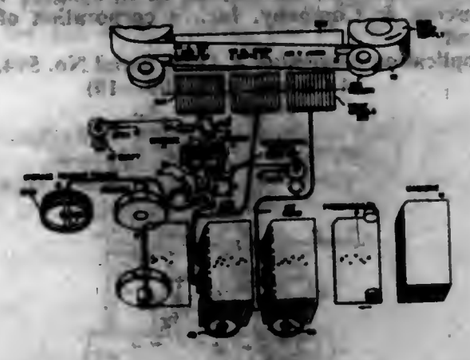
**2,770,188**

**DICK STRIP PRINTER**

John J. Nolan, St. Albans, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 6, 1952, Serial No. 324,563

16 Claims. (Cl. 101—93)



1. In a device for recording on a strip, a plurality of groups of alphabet and numeral printing devices arranged at equal intervals along a common printing line with similar spaces between the groups, means for supporting said strip diagonally across said printing line, means for feeding said strip successively in portions equal to the intervals of spacing of the groups of printing devices and diagonally across them, and means for operating said printing devices between operations of said feeding means to record simultaneously from said plurality of printing devices on a plurality of strip portions and successively on different parts of each strip portion from different printing devices.



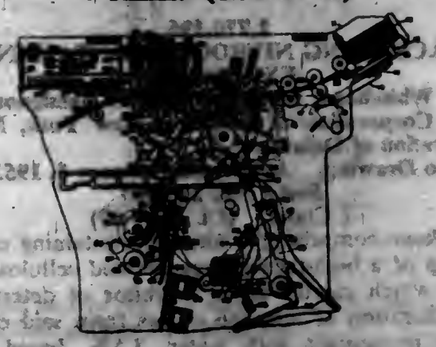
**2,770,189**

**CARD INTERPRETING MACHINE FOR DETECTING DOUBLE PUNCHINGS AND BLANK COLUMNS**

Harold J. Kinnon, Endicott, N. Y., and John C. Veburg, Richmond, Calif., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 14, 1955, Serial No. 546,574

6 Claims. (Cl. 101—93)



1. In a cyclically operable printing machine in which record cards are fed in succession past first and second sensing stations and having means at the first station to sense a columnar order of a record having a series of index point positions in which a value designation is effected in solely one index point position but may have an additional unwanted designation at a second index point position, a type carrier, means for positioning said carrier once during a machine cycle, supplemental sensing means at the second station to sense said index positions for a value designation after such designation has been sensed by the first sensing means, a relay comprising two oppositely wound coils, means responsive to the sensing of a designation by the first sensing means to cause said positioning means to position said carrier, means under control of said positioning means to effect energization of one coil of said relay, circuit means under control of said supplemental sensing means to effect energization of the other coil of said relay in response to the sensing of the first designation by said supplemental sensing means at the time said one relay coil is energized, whereby energization of both relay coils causes said relay to be ineffective, said other coil being again energized upon the sensing of a second designation by said supplemental sensing means to activate said relay, and means under control of said relay when activated to indicate an error.

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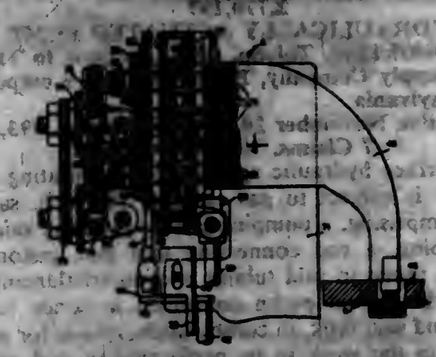
**2,770,190**

**WIRE PRINTING MECHANISM**

Thomas E. Arden, Candlewood Island, Conn., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 4, 1952, Serial No. 318,581

5 Claims. (Cl. 101—93)



1. Printing mechanism comprising in combination, a multiplicity of printing elements, a cylindrical member for each element, each member having a projection extending outwardly therefrom, a pair of guides in which each member is slidably supported, means for connecting each member to its related element, actuating means for engaging the members, means for moving said actuating means from an inactive to an active position, whereby selected ones of said members are engaged to move the related printing elements to a marking position, and a plate positioned between said guides for cooperating with the projection of each engaged member to restore each member when the actuating means is again moved to an inactive position.

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**2,770,191**

**SQUEEGEE AND FRAME MOUNTING FOR STENCIL PRINTING MACHINES**

Stanley C. Holly, Mariemont, Ohio, assignor to Cincinnati Screen Process Supplies Inc., Cincinnati, Ohio, a corporation of Ohio

Application August 24, 1953, Serial No. 376,143

4 Claims. (Cl. 101—126)



1. A squeegee and frame structure for screen printing machines wherein a screen frame is hingedly mounted on a printing table, comprising a single cylindrical rail extending between standards at the rear of said table, a counterweighted squeegee bar having a carriage arranged to ride on said single rail and rockable thereabout, a pair of bell-crank levers pivotally mounted on said rail and each having one leg extending downwardly and normally resting on said table and another leg extending upwardly, a bar connecting the said other legs, said squeegee bar carrying an abutment arranged to abut said bar upon upward movement of said squeegee bar but out of contact therewith in the operating position of said squeegee bar, and a connection between the said other legs and the free edge of said frame, whereby after a degree of upward movement of said squeegee bar, said screen is raised from said table upon further upward movement of said squeegee bar.

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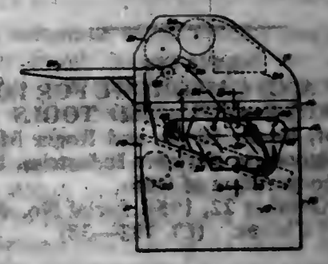
**2,770,192**

**SHEET RECEIVING TRAY FOR ROTARY PRINTING MACHINE**

Lester F. Mitchell, Shaker Heights, and Edward J. Janke, Cleveland, Ohio, assignors to Addressograph-Multigraph Corporation, Cleveland, Ohio, a corporation of Delaware

Application June 26, 1953, Serial No. 364,226

7 Claims. (Cl. 101—240)



1. In a duplicating machine, a vertically extending rectangular housing including a pair of spaced side walls, a front wall and a rear wall, a rotary printing couple journaled in the upper portion of said housing with their axes extending horizontally and transversely relative to said housing, a sheet feed table secured to said housing and extending forward from the front wall thereof and across which sheets may be fed to said printing couple,

one of said side walls having an enlarged opening extending therethrough, a sheet receiving receptacle carried by said housing and movable into and out of sheet receiving position in said housing through said opening, means within said housing to divert freshly printed sheets from the printing couple into said receptacle, said receptacle having a planar sheet receiving surface, means to removably support said receptacle with said surface sloping downward from front to rear and downward from a point adjacent one side of the housing toward the side of said housing having the opening extending therethrough whereby one corner of the leading edge of a sheet being discharged by said printing couple will strike said surface before other portions of such sheet, an upstanding abutment carried by said receptacle adjacent the rear housing wall and a second upstanding abutment carried by the receptacle adjacent the housing wall having the opening extending therethrough, each of said abutments extending at an acute angle in a counterclockwise direction from the corner of the housing formed at the junction of said adjacent walls.

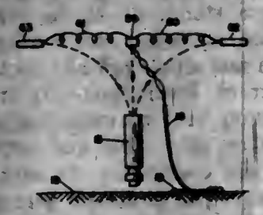
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2,770,193

## SEISMIC WAVE GENERATION

Joseph D. Elsler, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application February 1, 1952, Serial No. 269,500
7 Claims. (Cl. 102—23)



1. In the method of generating seismic waves by detonating a pattern of explosive charges in the air, the improvement comprising propelling a plurality of explosive charges simultaneously upwardly into the air and radially outwardly from a given center point, simultaneously propelling a detonating charge substantially vertically into the air, paying out a detonating fuse connection from each of said charges to said detonating charge as said charges move radially outwardly therefrom, maintaining an electrical detonating connection between said detonating charge and an actuating circuit as said detonating charge rises in the air, and detonating said detonating charge through said electrical connection whereby the detonating fuse connections from said charge to each of said plurality of charges are actuated to detonate all of said plurality of charges substantially simultaneously at a desired pattern position in the air.

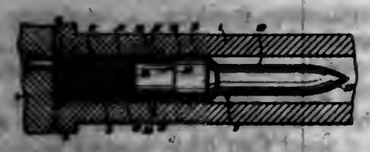
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2,770,194

## METHOD OF AND CARTRIDGE FOR LOADING POWDER-ACTUATED TOOLS

Rowland J. Kopf, Rocky River, and Roger Marsh, Hudson, Ohio, assignors to Portable Industries, Inc., Cleveland, Ohio, a corporation of Ohio

Application October 22, 1954, Serial No. 464,024
3 Claims. (Cl. 102—38)



3. A cartridge for powder-actuated tools comprising an open-mouth case, a charge of propellant contained within said case, charge-confining wad means located forwardly of said charge but rearwardly of said open mouth, the wall of the case having at least one weakened section spaced forwardly of said wad means and rearwardly of said mouth, which is bendable inwardly for engagement with the base of the fastener to be seated therein, said weakened section being defined by a U-shaped cut.

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2,770,195

## PACKAGING NITROGEN-CONTAINING EXPLOSIVES

William Whitehead, Forest Hills, N. Y., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application January 8, 1952, Serial No. 265,529
1 Claim. (Cl. 102—97)

A package comprising a nitrogen-containing explosive in a wrap of a high-tenacity regenerated cellulose textile material which carries as an inhibitor of deterioration, due to liberation of nitrogen oxides from said explosive and due to contact with water, 3.5%, based on the weight of the textile material, of diphenyl ethylene diamine.

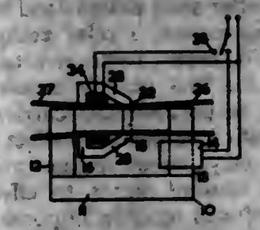
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2,770,196

## ELECTROMAGNETIC INTERACTION PUMP

Dudley Albert Watt, Oxford, England, assignor to United Kingdom Atomic Energy Authority, London, England

Application October 5, 1955, Serial No. 384,090
7 Claims. (Cl. 103—1)



1. A single phase electromagnetic pump for pumping liquid metals comprising a closed primary iron circuit having a radially laminated part, at least one primary winding for said primary iron circuit, a duct of curved section around a length of said radially laminated part arranged to conduct liquid metal in a direction along that part, a partial secondary iron circuit comprising bridge members providing further radial laminations having one end in low reluctance contact with said radially laminated part and the other end forming a pole piece around said duct and means for feeding liquid metal into and away from said duct.

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2,770,197

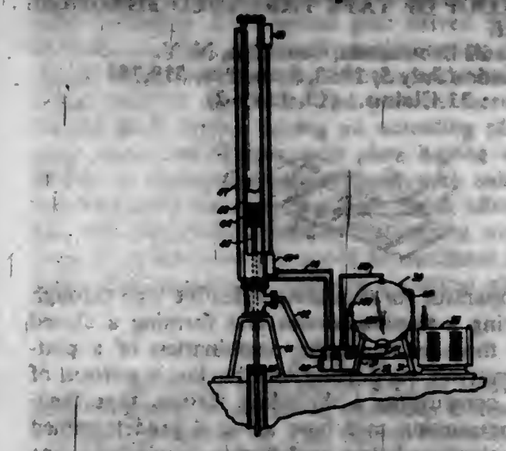
## HYDRAULICALLY ACTUATED PUMP

Roy H. Dettrichson, Toledo, Ohio, assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application November 26, 1953, Serial No. 393,330
7 Claims. (Cl. 103—45)

1. In surface hydraulic apparatus for operating a well pump that is subject to gas entering the well, said apparatus comprising, a pumping jack, a piston in said jack, a well tubing, a rod connecting said jack piston to a production pump in said tubing, a counterbalancing tank and a working fluid pump connected in series between said jack and said tank, in combination, means for sensing variations in the work to be performed in said working fluid pump, and means controlled by said sensing means for interposing a pressure drop between said jack and said working fluid pump during a down stroke and between said counterbalancing tank and said working fluid pump during an up stroke, in accordance with decreases in the differential between pressures in said jack and in said tank caused by the action of such gas on the production fluid column in said tubing.





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2,770,198

## LADING STRAP ANCHORS

Harry Blomberg, Cleveland, Ohio, assignor to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio

Application June 8, 1951, Serial No. 230,585
5 Claims. (Cl. 105—369)



5. A post for the side walls of railway freight cars, said post comprising a flange presenting an edge, said flange being provided with vertically spaced recesses extending into said flange from said edge, U-shaped lading strap anchors, each of said anchors having legs and a vertically arranged bight, said legs being disposed in said recesses in alinement with said flange, said bight being spaced from the adjacent portion of said flange, and welding material securing said legs to said flange.

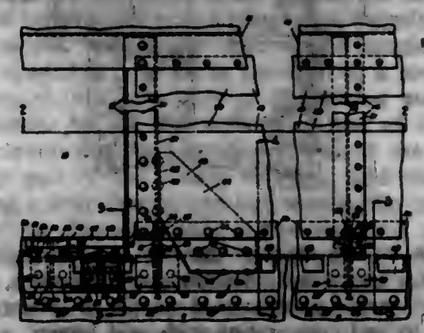
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2,770,199

## SIDES FOR RAILWAY FREIGHT CARS

Gabriel Maitland, Chicago, Ill., assignor to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio

Application December 15, 1952, Serial No. 325,977
7 Claims. (Cl. 105—409)



1. A replacement carside unit for railway freight cars adapted to be secured to a side sill of a said car comprising a metallic side plate, metallic intermediate and door posts adapted to be disposed outwardly of the side sill, means securing the upper ends of said posts to said side plate, metallic sheathing secured to said side plate and said posts, a longitudinally continuous metallic extension member having an upstanding flange secured to said posts and sheathing, a downwardly and inwardly sloping web and a depending flange adapted to be secured to the side sill, and metallic brackets secured to said posts and adapted to be secured to the side sill for fastening said posts directly to the side sill, said brackets being secured to said web.

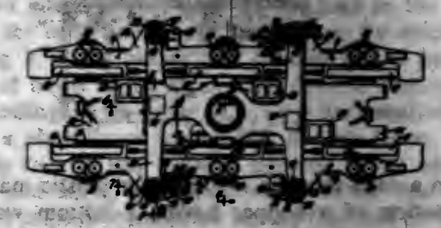
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2,770,200

## RAILWAY VEHICLE TRUCK

Richard M. Dilworth and Joseph P. Miller, Hinsdale, Ill., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 29, 1952, Serial No. 328,378
8 Claims. (Cl. 105—192)



7. A locomotive truck comprising a truck frame having supporting rotatable wheels and axles attached thereto, said frame including a pair of longitudinally extending side frame members outwardly of said wheels, a bolster, lateral outwardly extending supporting means rigidly fixed on said members, said supporting means having resilient means supported directly thereon which support said bolster on said frame outwardly of said side frame members to stabilize said bolster with respect to said frame, and means on said outwardly extending means engaging said bolster outwardly of said side frame members to transmit longitudinal movement of said frame to said bolster.

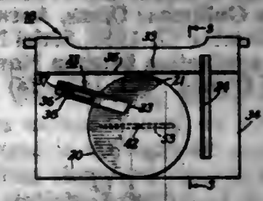
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2,770,201

## DOUGH HANDLING AND WORKING

William E. Lanham, Atlanta, Ga.

Application September 5, 1952, Serial No. 307,957
4 Claims. (Cl. 107—12)

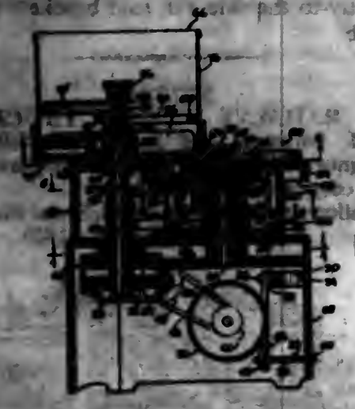


1. In an automatic bread making machine of the type wherein the dough is mixed and cut into pieces and sheeted and is then rolled into cylindrical loaf like shapes for baking, an assembly disposed along the path of travel of the dough sheet between the sheeter and the rolling operation comprising, a base plate positioned along the path of the dough and downwardly inclined whereby the dough tends to slide therealong, a rotatable disc adjustably mounted thereon and having its upper surface in alignment with the upper surface of said base plate, said disc being freely pivoted upon an axis out of alignment with the center of dough pieces passing along the base plate, a movable hook adjustably mounted on said plate adjacent said disc and having a dough engaging portion positioned to intercept the edge of dough pieces passing downwardly onto the edge of said disk, with the line of engagement being on the same side of the center of the dough piece as the axis of said disc, said disc and hook being movable

relative to each other and to said plate, and a fixed guide mounted on said plate and adapted to ensure that at least a portion of the dough piece is engaged by said disc.

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2,770,203
**MACHINE FOR MOULDING PLASTIC MATERIALS**
Louis X. Cardinahl, New York, N. Y.
Application November 14, 1952, Serial No. 320,450
16 Claims. (Cl. 107—15)



7. In a cake-forming machine for plastic material, the combination of a hopper having a bottom wall with a feed opening therein, a vertical drive shaft extending through said bottom wall, a feed means in said hopper, said feed means constituting a multi-bladed member immediately above the feed opening, said member having a downwardly facing well therein, said member being slidable on and rotatable with the drive shaft, said well having a diameter in excess of the diameter of said drive shaft, whereby a space is provided between the well and the shaft, and means to vary the height of the feed means above the feed opening, said means constituting a sleeve adjustably secured directly on the shaft beneath the feed means, the top of the sleeve extending into the well and the bottom of the well resting on said sleeve, whereby adjustment of the position of the sleeve on the shaft will vary the height of the feed means above the opening.

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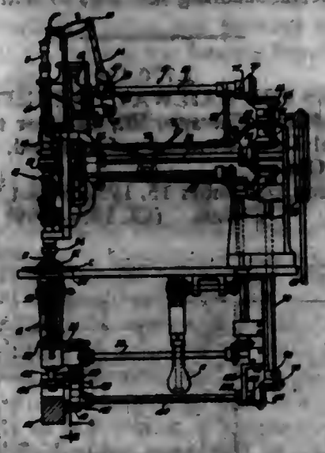
2,770,204
**METHOD AND APPARATUS FOR FORMING A CLOSED LOOP OF TAPE THREADED THROUGH A BUCKLE**
Louis Brownstein, Brooklyn, N. Y.
Application July 5, 1955, Serial No. 519,785
21 Claims. (Cl. 112—2)



9. In an apparatus for threading a flexible tape through a buckle having a transverse slot and forming a closed loop of said threaded tape, the combination of a platform for operatively supporting said buckle, a portion of the platform constituting a threading station, tape feeding means for moving said tape along a predetermined line of feed extending below said station, a movable tape pusher blade normally in an operatively retracted limiting position below said station and below said transverse slot of said buckle when operatively disposed on the station, and positioned for movement upwardly through said slot into an operatively raised limiting position, thereby to push a section of said tape upwardly through said slot, means to actuate said pusher blade between its said limiting positions, a sewing machine adjacent the said platform at a region forwardly of said threading station, buckle actuating means for operatively moving buckles on said platform forwardly along a path of travel from said threading station to the region of said sewing machine, and folding means above said platform and disposed between said threading station and said sewing machine region, said folding means having a portion thereof positioned operatively to engage said tape section when extending upwardly through said slot, said sewing machine being disposed laterally with respect to said buckle path of travel along said platform.

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2,770,205
**UNIVERSAL TUFTING MACHINES**
Thomas J. Stothard, Jr., New York, N. Y., assignor to Simplex & Sun Curtain Corp., New York, N. Y., a corporation of New York
Original application August 9, 1951, Serial No. 241,897, now Patent No. 2,694,994, dated November 30, 1954. Divided and this application November 17, 1953, Serial No. 393,634
2 Claims. (Cl. 112—79)



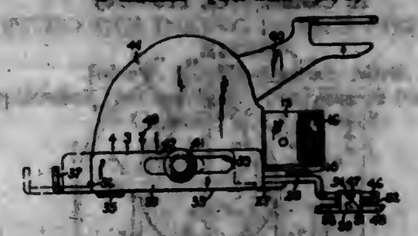
1. In a tufting machine having a cloth feeding foot, a nipple for temporarily holding down the cloth, a needle, means delivering yarn to said needle, a looper, a knife adjacent to and cooperating with said looper, a constant speed drive for actuating said cloth feeding foot, nipple, needle, looper, and knife; means for oscillating said looper



and knife in a vertical plane, said means comprising a main drive shaft, first vertically extending shaft means gear driven from said main drive shaft, second horizontally extending shaft means gear driven from said first shaft means, and a vertically reciprocating shaft laterally spaced from said first shaft means and having a shifting collar fixed to the lower end portion thereof, and said second shaft means having an actuating plate mechanically connected thereto, said plate having a lateral projection in cooperative engagement with said collar, and said vertically reciprocating shaft being effective to oscillate said looper and knife so that on the rotation of said main drive shaft said plate will be oscillated thereby oscillating said looper and knife in a vertical plane.

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2,770,206
**SEWING MACHINE ATTACHMENT**
Carl G. Beahn, West Haven, and John Connors, Hamden, Conn., assignors to The Geiger Manufacturing Company, New Haven, Conn., a corporation of Connecticut
Application June 9, 1949, Serial No. 97,943
1 Claim. (Cl. 112—239)



A decorative-stitch attachment for a sewing machine comprising a frame member, a lever pivoted to the frame member and having a forwardly extending end portion, said portion being provided with laterally extending trunnions, one upon each side thereof, a presser foot having an upstanding lug at each side edge thereof, each lug being provided with an upwardly facing recess within which one of said trunnions is received, and spring members secured to the presser foot and extending over said trunnions to hold the latter in said recesses and releasably secure the presser foot to the lever.

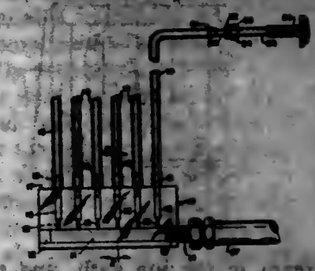
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2,770,207
**DEVICE FOR FASTENING THE STITCH PLATE ON THE LOWER PART OF A SEWING MACHINE**
Otto Hess, Ludwigsburg, Wurttemberg, Germany
Application February 24, 1950, Serial No. 330,440
3 Claims. (Cl. 112—260)



1. In a high speed sewing machine an elongated stitch plate on the lower part of the sewing machine and having oppositely disposed chamfered edges and openings in two opposite ends, one of said ends being the operator's side and the opposite end being at the rear of the sewing machine, and both of said ends having edges chamfered from the top to the bottom, the said second-mentioned end with its chamfered edge being provided in a corresponding groove in the lower part of the sewing machine, a claw member for the first-mentioned end of the stitch plate to secure the first-mentioned end of the plate to the lower part of the sewing machine, said claw member having a hole therein and overlapping the chamfered section of the first-mentioned end of the stitch plate and being separately fixed to the lower part of the sewing machine, and a screw provided in the lower part of the sewing machine to secure the plate to the sewing machine, said screw freely passing through the hole in the claw and having a collar near its head bearing against the claw.

2,770,208
**APPARATUS FOR OBSERVING FUEL IN FUEL PRESSURE SYSTEMS OF MOTOR VEHICLES**
Alfred N. McGurk, Denver, Colo.
Application April 8, 1955, Serial No. 499,390
10 Claims. (Cl. 116—117)



1. Apparatus for attachment to a motor for observing fuel in the fuel pressure systems of motor vehicles and the like while the fuel is passing to the fuel tank of the motor, comprising a portable transparent manifold block, a manifold passageway closed at one end in the block, means in the open end of the passageway for detachably connecting it to the return fuel conduit of the motor, a plurality of bores in the block each open at one end and communicating at its other end with the manifold passageway, a plurality of transparent flexible tubes, means connecting each of said tubes at one end to the open end of one of said bores, the opposite ends of the tubes being free, and a connector mounted on the free end of each of said transparent tubes for detachably connecting it to the return fuel line of the motor.

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2,770,209
**INDICATING DEVICE**
William L. Nielsen, East Paterson, N. J., assignor to Wilpot Tool & Manufacturing Co., Kearny, N. J., a corporation of New Jersey
Application February 21, 1956, Serial No. 566,965
6 Claims. (Cl. 116—136)



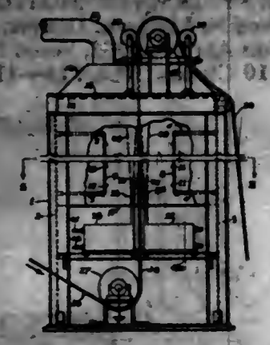
1. An indicating device comprising a flat body member, such body member being provided with a recessed panel in the one surface thereof; an indicia bearing card removably engaged in the recessed panel; a plurality of openings extending along one edge of the body member in registry with the indicia; a strip of flexible material extending laterally from such edge of the body member, adjacent each opening; and a plug extending outward from one face of each strip adapted to be removably inserted in the adjacent opening.

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2,770,210
**APPARATUS FOR COATING**
Emery P. Miller, Williams Creek, Ind., assignor, by direct and mesne assignments, to Ransburg Electro-Coating Corp., Indianapolis, Ind., a corporation of Indiana
Application November 5, 1948, Serial No. 626,631
7 Claims. (Cl. 118—7)

1. An apparatus comprising, means for moving an object to be coated, ionizing means in proximity to at least one surface of said object, means for producing a dispersion of liquid particles in a gas stream, a conduit for introducing a stream of dispersed particles between

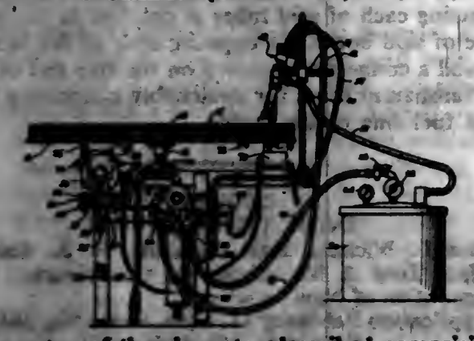
said object and ionizing means, said conduit terminating in the ion path between the ionizing means and object to



release said stream in the ion path, and means coordinating the rate of flow of said stream of dispersed particles with the speed of said object.

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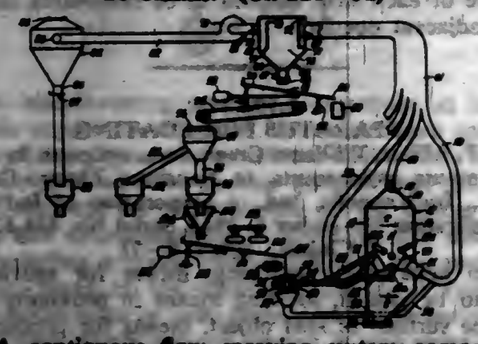
2,770,211
GLUE APPLYING APPARATUS
George W. Gustafson, Hoquiam, Wash., assignor to Lamb-Grays Harbor Co., Inc., Hoquiam, Wash., a corporation of Washington
Application August 20, 1954, Serial No. 451,131
3 Claims. (Cl. 118—11)



1. Apparatus of the character described comprising, a turntable for supporting paper heads thereon, a spray gun mounted in spaced relation to the turntable for applying glue to a paper head, an electric motor for rotating said turntable, a valve for controlling said spray gun, and an electric circuit for controlling said motor and said valve, said circuit including a switch for energizing said motor and a switch for actuating said valve, means on the turntable for actuating the valve switch in response to a predetermined position of the turntable, and said valve switch including mechanism for de-energizing said motor after every other actuation of the valve switch.

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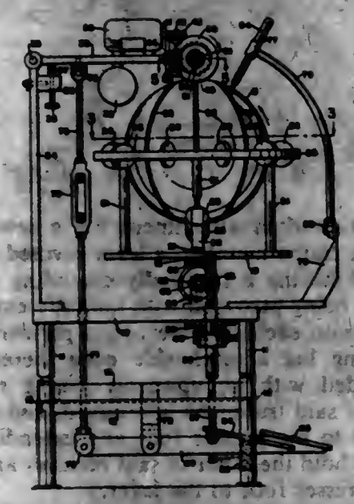
2,770,212
CONTINUOUS FLOW SPRAYING SYSTEM
Israel H. Maranzo, Forest Hills, N. Y., assignor to Columbia Cable & Electric Corporation, a corporation of New York
Application March 26, 1952, Serial No. 278,553
10 Claims. (Cl. 118—31)



1. A continuous flow spraying system comprising a powder distributor having a plurality of inlets on the top surface thereof and a plurality of outlets associated respectively with said inlets, powder supply means having an outlet above the level of the top surface of said distributor and laterally spaced therefrom, an inclined table having its inlet end beneath the outlet of said powder supply means and its discharge end above the inlets of said distributor, means to vibrate said table to distribute the powder fed thereon over the surface of the latter, whereby said powder will flow down the inclined table into the inlets of said distributor, a plurality of spray means connected respectively to each of the outlets of the distributor, means to force powder from said distributor to said spray means for discharge therefrom, suction means to collect excess powder discharged from said spray means, and means to feed such excess powder back to said powder supply means.

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2,770,213
BALL STRIPING APPARATUS
Paul Rolstyr, Akron, Ohio, assignor to The Sun Rubber Company, Barberton, Ohio, a corporation of Ohio
Application July 27, 1955, Serial No. 524,759
12 Claims. (Cl. 118—76)



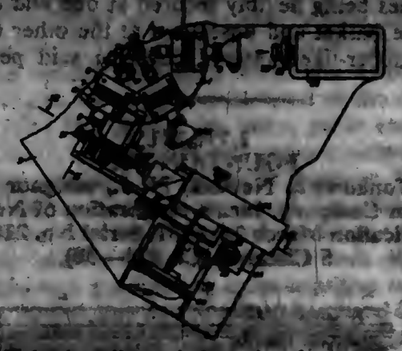
1. Ball striping apparatus including a base, a turntable rotatably supported on a vertical axis on the base, said turntable having a frame mounting radially disposed rollers for contacting the horizontal circumference of a ball within the frame, driving means for conducting said ball to rotate it around a horizontal diameter thereof, arcuately arranged rollers in the vertical plane of said horizontal diameter for supporting said ball on said base, means for rotating the turntable in either direction on said base, and means on said base for holding the end of a marking implement against the outer surface of said ball under constant predetermined pressure.

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2,770,214
CUP HANDLE STROKING MACHINE
George E. Rychman, East Liverpool, Ohio, assignor to The Homer Laughlin China Company, Newell, W. Va., a corporation of Delaware
Application October 31, 1955, Serial No. 543,674
11 Claims. (Cl. 118—242)

1. A cup handle stroking machine comprising a housing, a sleeve mounted in the housing and projecting laterally therefrom, means for oscillating the sleeve on its axis, an arm extending away from the outer end of the sleeve at an oblique angle, means pivotally connecting the arm and sleeve on a transverse axis, a control rod slidably mounted in the sleeve and projecting from its opposite ends, means in the housing for reciprocating the rod, means operatively connecting the outer end of the rod with the arm for swinging the arm on said transverse axis, an applicator mounted on the outer end of the arm,





said applicator for supporting a cup having the applicator with its handle pointed toward the applicator, a crowder of the arm, whereby the arm can swing the applicator into contact with the handle and then the sleeve can swing the arm to cause the applicator to roll along the handle to paint a stroke on it.

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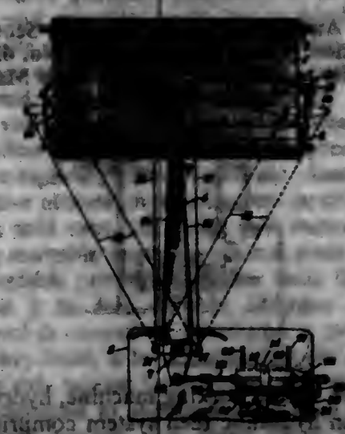
2,770,215
CONTINUOUS ROTARY DEVICE FOR INKING RIBBON
John F. Sellers, Detroit, Mich.
Application November 17, 1953, Serial No. 392,564
9 Claims. (Cl. 118—260)



1. A ribbon inking device comprising, a frame adapted for mounting on a printing machine, a roller arm pivoted on the frame and carrying an ink transfer roller, a spring interconnecting the roller arm and frame for yieldably urging the transfer roller against an inking ribbon on the printing machine, a cartridge arm pivoted on the frame for movement in substantially the same plane as the roller arm, the cartridge arm carrying an ink supply cartridge having an ink reservoir and means including a wick for inking said transfer roller, and a spring interconnecting said cartridge arm and frame yieldably urging a portion of said wick against said transfer roller to



2,770,216
SPRAYING APPARATUS FOR WEB MATERIAL
Alfred Schock, Elmhurst, N. Y., assignor to Alexander Smith, Incorporated, Yonkers, N. Y., a corporation of New York
Application August 16, 1955, Serial No. 527,467
2 Claims. (Cl. 118—323)

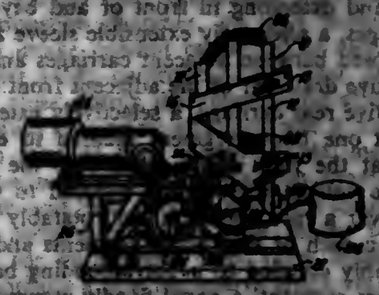


1. An apparatus for spraying an advancing web, comprising a bar pivotally secured to a fixed support to

outflow in a plane parallel to said web, a spray head secured to the free end of said bar so as to oscillate therewith in an arcuate path across said web, means including a cylinder and a fluid motor piston connected to said bar, said piston being disposed to travel in a path substantially transverse of said web, whereby the transverse component of the rate of traverse of said head is substantially proportional to the rate of traverse of said piston, an air duct disposed on the side of said web opposite said head, said duct comprising a channel member closed at the top by said web and projecting beyond said web at both sides of the path of the spray to collect overspray during traverse of said head, and means supplying air under slight pressure to said duct to produce an air current at the sides of the web adapted to prevent drifting of overspray to the back of said web.

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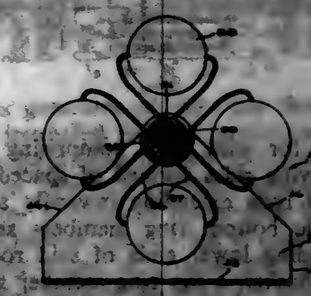
2,770,217
CEMENT APPLICATOR FOR BRAKE LINING
Antonin J. Kasak, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application November 20, 1952, Serial No. 321,636
6 Claims. (Cl. 118—410)



6. A machine for covering the inner surface of brake lining with an adhesive including a hopper member shaped to receive nested pieces of lining, a plurality of roller members, some of which are driven, positioned beneath the hopper and serving to both move and direct the path of movement of the lining as it leaves the hopper, means for feeding the several pieces of lining to the roller members, means for changing the mode of operation of a part of the feeder means and for adjusting the relative position of the several rollers, power means for actuating the feeder mechanism and the driven rollers, and an extrusion nozzle for covering each piece of lining with cement as it leaves the rollers said nozzle being adjustably positioned beneath two of the guide roller members and opposite one of the driven roller members.

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2,770,218
GOLF BALL REPAINT FIXTURE
Wayne E. Wilson, York, Pa.
Application September 17, 1954, Serial No. 456,673
3 Claims. (Cl. 118—503)



1. A repainting fixture for golf balls comprising a support including a flat base portion and a pair of upstanding end arms, a horizontal shaft spaced above said flat base portion and rotatably mounted in said end arms

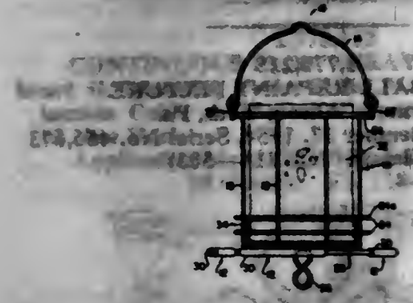
adjacent the free ends thereof, and a resilient ball clamping member mounted on the pintles of said shaft between said arms for rotation therewith, said ball clamping member comprising a pair of opposing resilient clamping jaws having inwardly projecting end portions adapted to engage diametrically opposite portions of a golf ball.

2,770,219
STARTING GATE
Asa T. Blanks, New York, N. Y.
Application September 22, 1954, Serial No. 457,590
2 Claims. (Cl. 119—18.5)



1. A starting gate for handicap horse racing comprising a plurality of linearly disposed wheeled carriages each behind another forming a train of cars having a lead car, a draw-bar secured linearly to each of said carriages and extending in front of and beyond each of said carriages, a selectively extensible sleeve and bar coupling disposed between adjacent carriages and secured to the respective draw-bar of the adjacent front carriage and the respective rear carriage, a selectively extensible boom of at least one boom segment secured to each of said carriages at the right angle relative to the longitudinal axis of the vehicle thereto and adapted to extend horizontally over a raceway, a bar rotatably horizontally disposed on each of said boom segments and adapted to be removably coupled to a corresponding bar in an adjacent boom segment, a panel fixedly secured to each of said rotatable bars and having a restraining netting fixedly secured thereto, motivating means for moving and controlling the speed of said string of cars, means for starting said motivating means located in the lead car of said string of cars, and means for rotating said bars of said boom segments located in said lead car.

2,770,220
BIRD FEEDER
Donald R. Hyde, Newtonville, Mass.; Joyce P. Hyde, executrix of Donald R. Hyde, deceased, assignor to Joyce P. Hyde, Newton, Mass.
Application July 10, 1953, Serial No. 367,249
3 Claims. (Cl. 119—60)



1. A feeder for wild birds comprising a cylindrical wire basket having sides formed of spaced parallel vertical rods, said rods extending inwardly at their lower ends, concentric bottom ring members secured to the inwardly extending lower ends of said rods to form a bottom to the basket, a top ring member secured to the top ends of the vertical rods, the sides of said basket being open to permit a bird the size of a finch to enter the interior thereof, a bail having a centrally situated eye pivotally secured to diagonally opposite points of the top ring member, and wire perches spaced outwardly from said extending horizontally alongside the basket, said bail being pivotally movable on said points, said perches being flexibly secured at one end of the bottom of the basket and unsecured at the other end, and a tubular rubber-like material covering said perches.

2,770,221
FOUNTAIN PEN
William Tenkowich, Norwalk, Ohio, assignor to Waterman Pen Company, Inc., a corporation of New York
Application March 28, 1955, Serial No. 218,145
5 Claims. (Cl. 120—39)



1. A feed bar for a fountain pen in which one end of the feed bar is fitted within the base of a feed section with a heel portion of a pen nib being held between the feed bar and the feed section, said feed bar having an ink feed groove extending longitudinally along the top thereof, said feed groove communicating with an ink reservoir at said one end of the feed bar and with a point of the pen nib at the other end of the feed bar, which is characterized by said feed bar having side pockets extending along each side of the feed bar intermediate its ends, a series of transverse ladder cuts in the sides of the feed bar and the side walls of each of the side pockets forming capillary ink storage chambers therein, a number of said ink storage chambers being located within the feed section, portions of adjacent sides of the feed bar being spaced from each other whereby the ink storage chambers on each side of the feed bar are in communication with each other through capillary passageways formed between the pen nib and the feed bar, said feed bar having transverse channels extending between the ink feed groove and the side pockets on each side of the feed bar, and a back groove extending along the bottom of the feed bar from the tip thereof to a point on the feed bar located within the feed section, said back groove communicating with the pen point at the tip of the feed bar and having an enlarged opening therein intermediate its ends, said enlarged opening extending from a point on the feed bar located within the feed section to a point on the feed bar located outside of the feed section and forming a passageway extending between the ink storage chambers located within the feed section and the extension of the feed section.

2,770,222
HYDRAULIC SYSTEM OF LATHES AND OTHER METAL WORKING MACHINES, PRESSES, AND THE LIKE
James Anderson, Newton Mearns, Scotland
Application April 30, 1954, Serial No. 426,795
Claims priority, application Great Britain May 13, 1953
2 Claims. (Cl. 121—39)

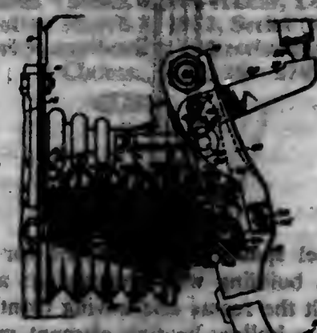


1. In a lathe, metal working machine, hydraulic presses and the like an hydraulic feed system comprising a cylinder with differential piston working therein, a control valve comprising a valve body and a manually operable



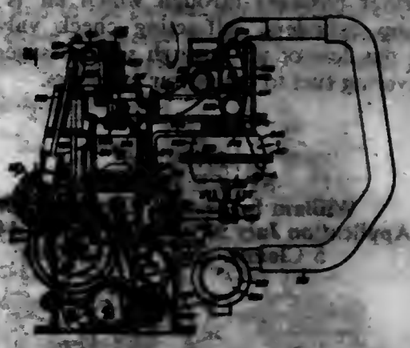
shuttle valve member working therein, means whereby, irrespective of the position of the shuttle valve member, hydraulic pressure fluid supplied to the valve body is fed to said cylinder to act on the annular face of the differential piston, means by which, on the manual operation of the shuttle valve member in one direction pressure fluid is also fed to act on the head of the differential piston to effect the feed of the lathe, press and the like, means by which, when the shuttle valve member is moved in the other direction the supply of pressure fluid to act on the piston head is interrupted and thereafter the fluid acting on the piston head is opened to exhaust and means to move the shuttle valve member in such other direction comprising a snap action valve sensitive to the pressure of the fluid acting on the piston head and controlling the passage of pressure fluid to act on the end of the shuttle valve member, said snap action valve momentarily opening when a predetermined pressure acts thereon to permit a short sharp surge of pressure fluid to pass to the end of shuttle valve member, the kinetic energy of such fluid acting on the shuttle valve member first moving the valve member so that it cuts off the supply of pressure fluid to the piston head and thereafter permits the fluid acting on the piston head to exhaust.

2,770,223
FLUID PRESSURE OPERATED MOTOR
David T. Ayres, Jr., and Edward Govan Hill, Birmingham, Mich., assignors to Kelsey-Hayes Wheel Company, Detroit, Mich., a corporation of Delaware
Original application April 2, 1954, Serial No. 420,488. Divided and this application March 14, 1955, Serial No. 494,204
13 Claims. (Cl. 121—41)



1. A fluid pressure operated motor comprising a stationary head, a movable head spaced therefrom, and a bellows connecting said heads and forming therewith an internal variable pressure chamber, a valve mechanism carried by said movable head and comprising a pair of valve elements one of which is fixed to said movable head and the other of which is movable independently of said movable head, an air cleaner carried by said movable head, said valve elements being constructed to establish communication between said variable pressure chamber and the atmosphere through said air cleaner when said movable valve element is in a normal position, a vacuum chamber in said movable head, said movable valve element being movable from its normal position to disconnect said variable pressure chamber from the atmosphere and connect it to said vacuum chamber whereby said movable head is moved by atmospheric pressure toward said stationary head, a [illegible] turning movement on [illegible], said lever being pivotally [illegible] said stationary head, and means independent of said lever for moving said movable valve from its normal off position.

2,770,224
INTERNAL COMBUSTION ENGINE
George M. Holley, Richmond, Mich., Mary M. Holley, executrix of said George M. Holley
Original application December 23, 1950, Serial No. 202,974. Divided and this application May 17, 1955, Serial No. 508,467
11 Claims. (Cl. 123—48)



1. In a variable compression internal combustion engine, the combination of, a cylinder and piston assembly including, a cylinder, a cylinder head, a piston reciprocating in said cylinder and cooperating with said head to form a combustion chamber, an inlet passage to said cylinder, an intake conduit connected to said inlet passage, an inlet valve controlling said inlet passage and operated to close during the compression stroke of said piston to obtain volumetric efficiency and a high effective compression ratio at high engine speeds, means to increase the capacity of said combustion chamber at low engine speeds and high conduit pressures to decrease the mechanical compression ratio, and means to positively compensate for unfavorable inlet valve timing at such speeds, comprising a flow responsive check valve adjacent said engine operated valve operating to prevent rejection of the fuel and air charge from the cylinder to the intake conduit and its adverse effect on compression ratio and thereby maintain a substantially full fuel and air charge in said engine for higher torque output at lower engine speeds.

2,770,225
CONTROLLED STROKE, PISTON TYPE GAS GENERATOR FOR PRODUCING GAS TO OPERATE TURBINES, ETC.
Vincent E. Peterson, Cleveland Heights, Ohio
Application September 17, 1954, Serial No. 456,795
9 Claims. (Cl. 123—46)



1. In a gas generator of the class described, a housing, a shaft journaled therein, means on the shaft for converting reciprocatory motion into rotary motion, an elongate piston structure provided intermediate its ends with means for operatively connecting it to the former means, said structure terminating at each end in a power piston, a pump piston of considerably greater diameter than the power pistons intermediate one of the former pistons and the second mentioned means, the housing including power cylinders wherein the power pistons operate, and a pump cylinder wherein the pump piston reciprocates, the housing being provided with exhaust

ports communicating with the power cylinders and controlled by the pistons therein, the housing also enclosing air compartments and being provided with ports through which said compartments communicate with the power cylinders and which are likewise controlled by the power pistons, the housing having passages through which the pump cylinders communicate with said compartments and further passages through which air is admitted to the pump cylinders, self-acting check valves for controlling the flow of air through said passages, and means for delivering fuel to the power cylinders.

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2,770,226
SPACE HEATER
William L. Tenney, Dayton, Ohio
Application July 9, 1954, Serial No. 442,292
5 Claims. (Cl. 123—142.5)



1. A heating system for circulating fresh heated air through an enclosed space, comprising a pulse jet combustion device including a combustion chamber and a discharge tube terminating in an outlet for discharging the exhaust gases from said combustion chamber, a jacket surrounding said combustion chamber and extending beyond said discharge tube outlet, said jacket being closed at the end thereof adjacent said combustion chamber and open at the other end thereof, a partition in said jacket spaced upstream of said discharge tube from said outlet thereof to leave a minor portion of said discharge tube projecting therebeyond, an inlet to the interior of said jacket on the opposite side of said partition from said discharge tube outlet for admitting fresh air to be heated by passage over said discharge tube and combustion chamber, a supply conduit leading from said closed end of said jacket to said enclosed space for conducting the resulting heated air from the interior of said jacket to said enclosed space, and an exhaust conduit leading from said space for conducting air from said space to said jacket and connecting with said jacket at a position between said partition and said discharge tube outlet to cause the discharge flow of exhaust gases from said outlet to induce a flow of said heated air from said jacket through said space and out said exhaust conduit.

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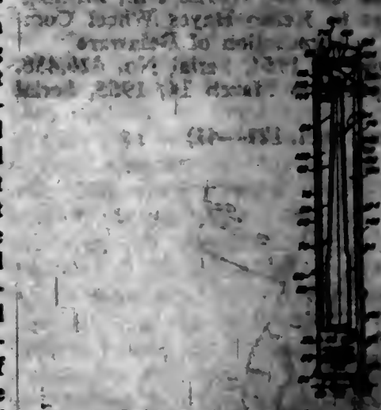
2,770,227
COMBUSTION CHAMBER
Edgar Haigh, Wyandotte, and Paul F. Keydel, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 28, 1952, Serial No. 322,926
7 Claims. (Cl. 123—191)



1. A combustion chamber for engines comprising an engine cylinder having a piston therein and a head for said cylinder, said head being formed to provide a firing chamber for said combustion chamber in directly opposed relation to said cylinder, said firing chamber being formed to provide a plane surface and a pair of adjacent but oppositely disposed frusto conical surfaces, said plane and frusto conical surfaces being surfaces of revolution and translation with the axis of rotation thereof being normal to said plane surface and the plane of translation thereof being a plane through said axis and parallel to said plane surface, said frusto conical surfaces being formed on the cylinder side of said plane surface with the adjacent and outer edges thereof merging in a curved surface and being disposed with the apex of one of said frusto conical surfaces on one side of said plane surface and the apex of the other of said frusto conical surfaces on the opposite side of said plane surface, said frusto conical surfaces also being formed with the inner edge of one of said surfaces merging with said plane surface and the inner edge of the other of said surfaces merging with a peripheral edge of said cylinder, and a spark plug opening extending into said cavity on an axis substantially normal to one of said frusto conical surfaces.

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2,770,228
FUEL BURNING WALL SPACE HEATER
Louis E. Nordblatt and Murray Wilhelm, Nashville, Tenn., assignors to Temco, Inc., Nashville, Tenn., a corporation of Tennessee
Application September 11, 1953, Serial No. 379,583
3 Claims. (Cl. 126—116)



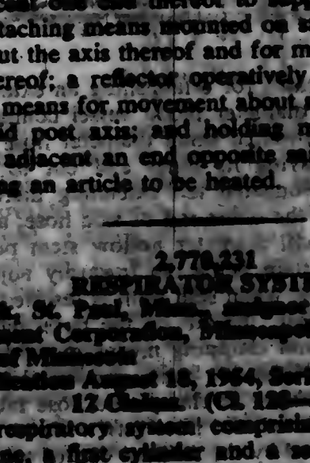
1. A fluid fuel space heater adapted for installation in a recess in a building wall comprising: a metal casing adapted to fit the recess and having front, back, side, and top panels; a hollow heating element mounted vertically in said casing in spaced relation to said front panel, said element being of substantially uniform width with the sides thereof disposed closely adjacent said casing side panels to form front and back passages for upward passage of air, the upper portion of said element terminating in a pair of laterally-spaced tubes for forward flow of air therebetween from said back passage; a fuel burner mounted in said casing below said heating element for discharging products of combustion thereinto; means for connecting said tubes to a flue within the building wall; means defining a lower cold-air inlet and an upper hot-air outlet in said casing front panel, said outlet extending from the upper ends of said tubes downwardly past the lower ends thereof; and a forwardly-inclined baffle at the front of said heating element adjacent the lower ends of said tubes for deflecting air rising in said front passage outwardly through the hot-air outlet.

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2,770,229
SOLAR HEATING APPARATUS
Adnan Tarcici, Hatice Akbas Lehmann
Application October 7, 1952, Serial No. 313,486
Claims priority, application Switzerland August 27, 1949
12 Claims. (Cl. 126—270)



1. Solar heating apparatus, comprising, in combination, a post adapted to have one end thereof supported on the ground or the like, universal joint means located on said post at an end opposite to said one end thereof, a reflector connected at its center to said universal joint means so as to be turnable in all directions with respect to said post; an elongated, rigid member connected to said reflector, located in front of the same, and extending



along the optical axis thereof; and carrier means, adapted to carry an article to be heated, adjustably connected to said elongated member at an end thereof distant from said reflector for providing, irrespective of the inclination of the reflector, an upper horizontal surface to receive the article to be heated.

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2,770,230
SOLAR HEATING APPARATUS
Adnan Tarcici, Hatice Akbas Lehmann
Application March 8, 1952, Serial No. 275,530
Claims priority, application Switzerland August 27, 1949
6 Claims. (Cl. 126—270)



1. Solar heating apparatus, comprising, in combination, an elongated post; support means connected to said post adjacent one end thereof to support said post vertically; attaching means mounted on said post for movement about the axis thereof and for movement along the length thereof; a reflector operatively connected to said attaching means for movement about an axis perpendicular to said post axis; and holding means mounted on said post adjacent an end opposite said one end thereof for holding an article to be heated.

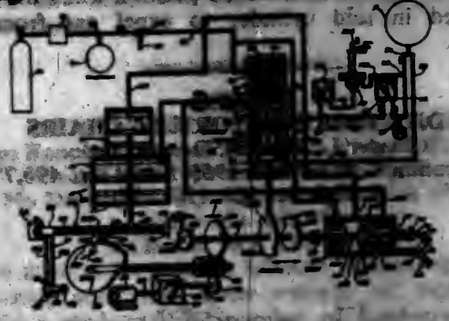
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2,770,231
RESPIRATOR SYSTEM
Tage Falk, St. Paul, Minn., assignor to Smith Welding Equipment Corporation, Minneapolis, Minn., a corporation of Minnesota
Application August 18, 1954, Serial No. 450,534
12 Claims. (Cl. 128—29)

1. A respiratory system comprising a respirator gas supply line, a first cylinder and a second cylinder each having a port and each having a piston therein, means for operating the pistons in said cylinders simultaneously



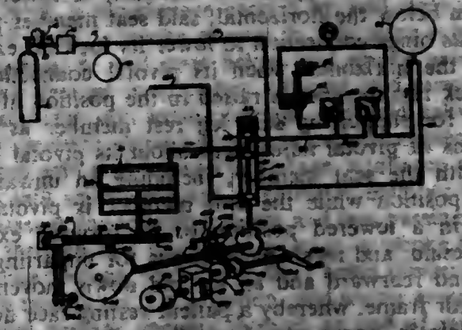
for simultaneously drawing in and expelling gas thru the ports of the first and second cylinders, a patient supply line for conducting respirator gas to the patient and a patient exhaust line for exhausting gas from the patient, a multiple chamber valve and manual valve having a manual operation for moving said manual valve to first and second positions, said multiple chamber valve and manual valve being connected to each other and to the cylinder ports and to the patient supply and exhaust lines, a mechanical drive connected to the pistons for positively actuating them in their cylinders, and first and second



cam means connected to the mechanical drive so as to be actuated thereby and positioned so that the first or second cam means may actuate the multiple chamber valve, said cam means being connected to said manual actuator so as to be traversable when the actuator is moved to first and second positions such that the first cam means actuates said multiple chamber valve when the manual actuator is moved to place said manual valve in its first position and the second cam means actuates said multiple chamber valve when the actuator is moved to place said manual valve in its second position.

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2,770,232
RESPIRATOR SYSTEM
Tage Falk, St. Paul, Minn., assignor to Smith Welding Equipment Corporation, Minneapolis, Minn., a corporation of Minnesota
Application May 26, 1954, Serial No. 432,532
25 Claims. (Cl. 128—29)

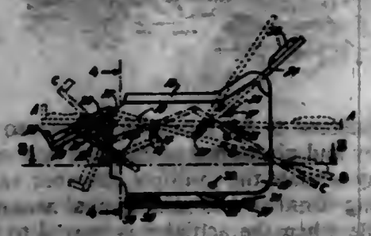


1. A respiratory system comprising a respirator gas supply line, a cylinder having a port and a piston operable in said cylinder for drawing in and expelling respirator gas through said port, a patient supply line for conducting respirator gas to the patient and a patient exhaust line for exhausting gas from the patient; multi-chamber valve means including two-way and one-way valve sections, said two-way section having ports connected respectively to said cylinder port, said respirator supply line and said patient supply line, said one-way section being connected in said patient exhaust line for opening and closing said line, said multi-chamber valve means including valve mechanism connected to be actuated by cam means and movable to alternate first and second positions in which, in said first position as the cam means moves the piston to draw gas into said cylinder port, the respirator gas supply line is connected to the port of the cylinder and said

patient exhaust line is opened to atmosphere and said patient supply line is closed and in said second position said first means moves the piston to expel gas from said cylinder port, said respirator gas supply line said patient exhaust line are both closed and said cylinder port is connected to said patient supply line; said cam drive means connected to the piston for actuating the piston in said cylinder and including said valve mechanism cooperatively to move said valve mechanism to the first position when the piston is actuated in the cylinder to draw gas into said cylinder and to said second position when the piston is actuated in said cylinder to expel gas from said cylinder.

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2,770,235
ADJUSTABLE MOTORIZED CHAIRS
Chester L. Thomas, Denver, Colo.
Application February 28, 1955, Serial No. 490,776
2 Claims. (Cl. 128—33)



1. An adjustable chair for therapeutic purposes comprising a frame having a pair of side panels; a seat member hingedly disposed between said panels on an axis intermediate of the length of said seat member; a leg rest member pivoted to the forward end of said seat member; a back rest member pivoted to the rear end of the seat member, said back member being provided adjacent to its outer extremity with an aperture and an annular cushion framing said aperture; adjustable means for supporting said back rest member in various positions of pivotal adjustment, including a position at which its pivotal connection with the seat member is raised above the horizontal and the apertured extremity is lowered to a position below the horizontal; said seat member pivoting about its hinge connection to lower its forward extremity below the horizontal when its pivotal connection with the back rest member is raised in the position aforesaid; means for supporting said leg rest member at various positions of pivotal adjustment about its pivotal connection with the seat member, including an upwardly inclined position while the seat member is pivotally adjusted in a lowered position of its forward extremity as aforesaid; and mechanical means for imparting a forward and rearward and an up and down movement to said chair frame, whereby a patient resting face down on said chair in genupectoral position with the face supported on said annular pillow, with the knees positioned at the pivotal junction between the seat portion and the leg rest portion, is given a gentle continuous oscillating motion to further therapeutic action.

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2,770,234
PARENTERAL ADMINISTRATION OF LIQUIDS
Nassrie M. Nemet, Palestine, and Cyrus R. Brenner, Evanston, Ill., assignors to Baxter Laboratories, Inc., Morton Grove, Ill., a corporation of Delaware
Application April 5, 1954, Serial No. 421,654
8 Claims. (Cl. 128—214)

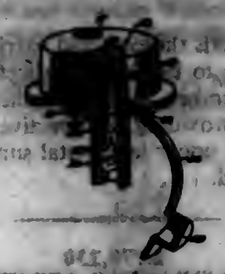
1. In combination with the closure for an inverted liquid dispensing container, passage-providing means for exhausting liquid therefrom, passage-providing means for admitting air thereto, said air passage means being obstructed by a non-liquid-penetrable, air-permeable membrane, said air passage means including an air collection chamber inward of said membrane, said chamber being



provided with a bubble-forming outlet adjacent the liquid in said container.

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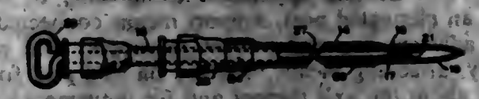
2,770,236
PARENTERAL ADMINISTRATION OF LIQUIDS
Nassrie M. Nemet, Palestine, and Cyrus R. Brenner, Evanston, Ill., assignors to Baxter Laboratories, Inc., Morton Grove, Ill., a corporation of Delaware
Application June 29, 1953, Serial No. 364,684
4 Claims. (Cl. 128—214)



4. An air inlet tube insertable in the air inlet opening of a container of the type described, said air inlet tube providing a passage for the admission of air, said passage including a capillary portion and an enlarged portion inwardly thereof providing a collection chamber for the air passing through the capillary portion, and wherein at least the walls of said collection chamber are substantially hydrophobic and said passage gradually enlarges in cross-sectional area from said capillary passage portion into said collection chamber portion.

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2,770,237
SURGICAL NEEDLE AND METHOD FOR BLOOD TRANSFUSION OR INTRAVENOUS FEEDING
George D. Udey, Forest Hills, and Sidney Hirsch, Cedarhurst, N. Y.
Application December 31, 1954, Serial No. 478,985
9 Claims. (Cl. 128—221)



1. Surgical apparatus for establishing an external connection to a small diameter blood vessel comprising, in combination, a thin-walled small diameter hose of inert, flexible material having its inner end cut to form at least one narrow elongated tab extending therefrom; a coupling secured to the outer end of said hose; a surgical needle having a small diameter hollow stem pointed at its inner end, said stem being cut inwardly adjacent its pointed end whereby, when said stem is inserted through said coupling and hose, the tab on the hose may be engaged in said cut; and clamping means movable in said stem relative to at least the main portion thereof and constructed and arranged to clamp said hose tab to said stem to draw the end of said hose into a blood vessel as the latter is punctured by the pointed end of said needle; said clamping means and at least the main portion of said stem being relatively manipulable to disengage the hose tab from said stem to provide for withdrawal of said stem from said hose and coupling while leaving the inner end of said hose inserted in said blood vessel.

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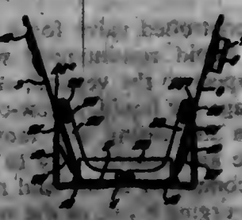
2,770,237
BABY DIAPER
Harriet Stern, New York, N. Y.
Application August 14, 1953, Serial No. 374,299
1 Claim. (Cl. 128—287)



A diaper of the character disclosed comprising an inner panel having opposite edge portions thereof folded inwardly into adjacency to the inner face thereof, a water-proof panel disposed outwardly of said inner panel and having opposite edge portions thereof folded inwardly into lapping engagement with said first inwardly folded portions, a pair of like panels of soft absorbent material of substantially greater width than said first and second panels, one of said pair of panels having one edge portion thereof folded inwardly into contact with one of said inwardly folded portions of said water-proof panel, said one of said pair of panels having spaced folds providing a plurality of superposed layers intermediate the folded edge portions of the first and second named panels, the other of said pair of panels having one edge portion thereof folded inwardly into contact with the other of said inwardly folded portions of said water-proof panel, said last panel being also provided with spaced folds providing a plurality of superposed layers inwardly of said first plurality of layers, and means securing all of said inwardly folded edge portions together.

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2,770,238
LOOSE LEAF FILING TRAYS OR BINDERS
Frederick Robert Sewell, Beckenham, England, assignor to Percy Jones (Twinlock) Limited, Beckenham, England
Application June 28, 1952, Serial No. 296,112
5 Claims. (Cl. 129—16)



1. A filing tray comprising a flat generally rectangular base plate, a pair of cover members hingedly mounted at their bases on parallel sides of said base plate so as to be movable between a "closed" position in which they extend substantially vertically upwardly and an "open" position in which they incline outwardly away from the base plate and one another, a pair of abutment members each secured to the outer surface of a respective cover member and each providing both a downwardly and an inwardly facing abutment surface, a pair of support members each slidingly engaging the base plate and each including an upwardly projecting arm having a portion disposed between a cover member and the inwardly facing abutment surface of the abutment member secured thereto and disposed directly below the downwardly facing abutment surface of said abutment member, whereby sliding movement of each of said support members away from and towards the base plate is caused by movement of the corresponding cover member to the "open" and "closed" positions respectively by virtue of the couplings established between the said arms of said support members, said inwardly facing abutment surfaces and the outer surfaces of the cover members, and whereby further outward tilting of said cover members is prevented by virtue of the couplings established between said arms and said downwardly facing abutment surfaces.

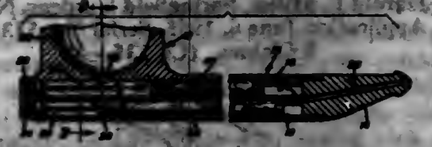
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2,770,239
PROCESS OF TREATING TOBACCO
Jose Romero Prats and Francisco Romero Prats II, Pasay City, Republic of the Philippines
No Drawing. Application February 4, 1952, Serial No. 269,892
2 Claims. (Cl. 131—142)

1. A process for treating tobacco comprising the steps of making successive water extracts of said tobacco wherein a predetermined number of successive extracts are made at room temperature, 60° C., 80° C., and 100° C., respectively, bleaching said remaining tobacco with hydrogen peroxide and saturating said bleached tobacco with at least one and not more than one less than the predetermined number of the above tobacco extracts made at the lower temperatures with reference to room temperature.

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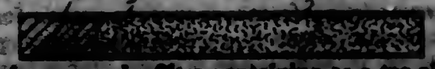
2,770,240
SMOKER'S PIPE
Francis C. Stamber, Sturgeon Bay, Wis.
Application January 6, 1954, Serial No. 402,497
1 Claim. (Cl. 131—243)



A smoking pipe comprising a bowl, a stem attached to said bowl, a mouthpiece carried by said stem remote from said bowl, a smoke passage in said stem, a parallel saliva passage in said stem below said smoke passage, a transverse passage in said stem adjacent said mouthpiece communicating said smoke passage and said saliva passage, an upwardly sloping passage in said mouthpiece communicated with said transverse passage, a tobacco and ash filter in said smoke passage, a collector member in said saliva passage for collecting saliva and tars passing downwardly through said transverse passage, a smoke filter in said smoke passage, said smoke filter being similar to said collector member in configuration, said smoke passage and said saliva passage opening through an end of said stem remote from said mouthpiece, closures removably seated in open ends of said smoke passage and said saliva passage to permit access to said filters and said collector member, said tobacco and ash filter being secured to said closure for said smoke passage and supported thereby in spaced relation thereto.

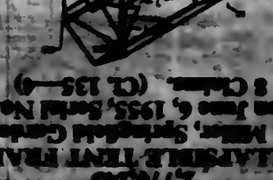
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2,770,241
TOBACCO SMOKE FILTER AND METHOD
Joseph Whitlier, Queens, N. Y., assignor to American Cello Corporation, New York, N. Y.
Application May 18, 1956, Serial No. 585,799
7 Claims. (Cl. 131—209)



1. A tobacco smoke filter consisting as a tar absorbent an open cell polyurethane cellular plastic material.

## 2,770,243
## LADDER DISENGAGEMENT PREVENTER
Bessie L. Thayer, Mrs. Gertrude C. Cole, Appleton, Assignors to Gertrude C. Cole, Appleton, and Harold F. Meier, Sheboygan Falls, Wis.
Application August 24, 1953, Serial No. 376,071
3 Claims. (Cl. 134—43)



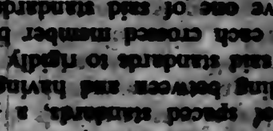
1. In a collapsible tent frame, a pair of crossed members each having a pair of spaced sockets, a pair of crossed members extending between and having their opposite ends pivoted to said standards to rigidly connect the latter, one end of each crossed member being detachable from its respective one of said standards for collapsing said standards, and crossed members, a key xone linkage having one end connected to one of said standards for extension and retraction in a plane disposed at an angle with respect to the plane of said standards, and fastener means carried by said linkage to hold the latter in its extended condition, whereby a second identical two wall unit is adapted for connection to said linkage and the other of said standards to define a four wall structure.

## 2,770,244
## PORTABLE DRESSING ROOM
Nicholas Cassos, Hamden, Tex.
Application October 26, 1954, Serial No. 464,557
2 Claims. (Cl. 135—9)



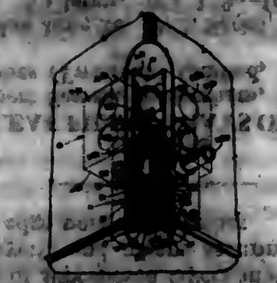
1. A portable dressing room for use with an automobile or like vehicle, comprising, a generally annular curtain-supporting frame, mounting means for supporting the curtain frame in generally horizontal position at one side of an automobile window frame having upper and lower glass guide channels, said mounting means including a pair of spaced apart brackets, each bracket having a pair of spaced apart arms, each arm having a pair of spaced apart fingers, said fingers being adapted to be received in the glass guide channels, and a pair of pivot pins, each pivot pin extending through the fingers of one of said pairs of arms and through the curtain frame, whereby the curtain frame may be swung about the pivot pins to a position within the automobile.

## 2,770,245
## COMBINATION TUBE FRAME
Harold F. Meier, Sheboygan Falls, Wis., Assignor to Gertrude C. Cole, N. Y.
Application June 6, 1955, Serial No. 513,199
8 Claims. (Cl. 135—6)



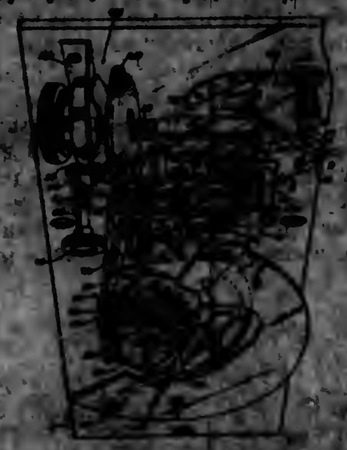
1. A portable dressing room for use with an automobile or like vehicle, comprising, a generally annular curtain-supporting frame, mounting means for supporting the curtain frame in generally horizontal position at one side of an automobile window frame having upper and lower glass guide channels, said mounting means including a pair of spaced apart brackets, each bracket having a pair of spaced apart arms, each arm having a pair of spaced apart fingers, said fingers being adapted to be received in the glass guide channels, and a pair of pivot pins, each pivot pin extending through the fingers of one of said pairs of arms and through the curtain frame, whereby the curtain frame may be swung about the pivot pins to a position within the automobile.

## 2,770,246
## GRAVITY-CONTROLLED VALVES FOR CONTINUOUS LIQUID SUPPLY TANKS
Kenneth William Ivy, North York, Ontario, Canada, assignor to Ontario Research Foundation, Toronto, Ontario, a corporation
Application November 7, 1952, Serial No. 320,975
3 Claims. (Cl. 137—39)



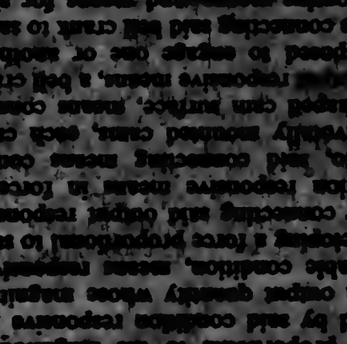
1. A gravity-controlled valve for a tank that must be able to supply liquid continuously when it is in any position with respect to the vertical, comprising a casing enclosing a passage for liquid, a flow-controlling member reciprocatable in the casing and movable one way to open the passage and another way to close the passage, resilient means connected to the said member and exerting a force on it urging it one of the said ways, a flexible connector with one end attached to the said member, guide means connected to the casing and adapted to part of the connector near the said member to flow under the influence of the said resilient means, the other end of the connector being attached to the said member through the connector when the casing is in one position with respect to the vertical to urge the said member in the direction of the said resilient means, the weight attached to the other end of the connector, the weight being greater than the said force and supported by the said member through the connector when the casing is in one position with respect to the vertical to urge the said member in the direction of the said resilient means, the weight being unable to overcome the said resilient means to flow under the guide means, and a surface rigidly connected to the said casing within the radius of the said arc to support the weight against gravity when the casing is in another position with respect to the vertical to allow the resilient means to urge the said member in the first mentioned way.





1. In a pressure-control apparatus having a source of liquid under pressure, said apparatus comprising a casing, a bellows connecting said bell crank to said variable condition responsive means for shifting the bell crank and cam following member relative to the cams to effect engagement of said follower with one or another of said cams only when the cams are in a predetermined position.

## 2,770,247
## ENGINEMENTS
William D. Hosking, Bellerose, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application September 28, 1954, Serial No. 456,261
12 Claims. (Cl. 137—36)



1. A variable condition responsive device provided with means responsive to said variable condition and to develop a force proportional to the magnitude thereof, means actuated by said condition responsive means for establishing an output quantity whose magnitude varies with said variable condition, means responsive to said output for developing a force proportional to said output, said means for connecting said output responsive means to said condition responsive means in force opposing relation thereto, said connecting means comprising a pivotally mounted cam, each cam having a differently shaped cam surface, means connecting the cams to said output responsive means, a bell crank having a follower disposed to engage one of another of said cams, a bellows connecting said bell crank to said variable condition responsive means, a fulcrum for said bell crank and cam following member relative to the cams to





1. Apparatus for flushing a beer coil in a beer dispensing system including a beer supply source and a dispensing spigot, said apparatus comprising a mixing tank for storing a cleaning solution, having a warm water inlet connection and an outlet connection, a three-way remote valve having a first inlet port connective to said source, a second inlet port connective to said outlet connection and having an outlet port connectible to said coil and spigot, electrical control means including an electrical switch for operating said magnetic valve so as to selectively connect either said mixing tank outlet connection or said beer supply source to said coil and spigot and equal means associated with said dispensing spigot.

## 2,770,249
## CONTROL MEANS FOR SELECTIVE OPERATION OF VALVES
Theo. Bertram, Nelson Avenue, Bellport, assignor to Bellport Marine Products, Inc., Bellport, a Corporation of New York
Application May 25, 1951, Serial No. 228,543
Divided and this application December 29, 1953, Serial No. 400,339
6 Claims. (Cl. 137—625)



5. For use on a water heating system having a hot water tank, the combination comprising a manual control lever fixed to said control shaft for rocking about the axis thereof, a manual control valve, a diverter valve having a first inlet port connective to said valve, a second inlet port connective to said source, a second inlet port connective to said heating tank and a third port connective to said tank, the valve of said diverter valve being movable between a position connecting said first inlet port to said third port and a position connecting said second inlet port to said third port, and means connecting said control lever to said valve for moving the valve of said diverter valve between said positions in response to rocking of said control shaft.

## 2,770,250
## COIL CLEANER FOR BEER DISPENSING SYSTEMS
Benjamin Adams-Weatherspoon, Pa.
Application April 22, 1953, Serial No. 350,728
4 Claims. (Cl. 137—240)

selector valve, a valve plunger in said selector valve chamber, said control shaft disposed for reciprocation along and rotation on said axis, a manual control lever mounted for bodily movement with said manual control lever as well as independent and fully rotatable movement with respect to said control lever, and a connecting linkage interposed between said control knob and said selector valve plunger, said linkage being ineffective to actuate said valve plunger during said bodily movement only but effective to actuate said plunger during said independent rotatable movement.

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2,770,250
INLET VALVE FOR FLUSH TANKS
Harry F. Smith, Lexington, Ohio, assignor to Mansfield Sanitary Pottery, Inc., Perrysville, Ohio, a corporation of Ohio
Application June 2, 1953, Serial No. 359,864
4 Claims. (Cl. 137—426)



1. In a flush tank, an inlet pipe having a valve seat at its discharge end, an endwise movable hush pipe around said inlet pipe, stop means engageable with said hush pipe to limit the extent of its endwise movement, a housing carrying a valve to engage said seat and connected to one end of said hush pipe for circumferential and endwise movement thereon to vary the extent of opening of the valve, a collar surrounding and loosely engaging said housing for substantially non-axial (rotational movement relative thereto, a float-carrying lever pivotally connected to said collar, said a strut having one end portion connected to said lever and the other end portion U-shaped and positioned transversely of the strut with the free leg thereof pivotally connected to the inlet pipe adjacent to the outlet end of the hush pipe, said U-shaped portion being manually adjustable about a horizontal axis to vary the water level.

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2,770,251
QUICK-ACTING REDUCING VALVE
Robert H. Goddard, deceased, late of Annapolis, Md., by Esther C. Goddard, executrix, Worcester, Mass., assignor of one-half to The Daniel and Florence Guggenheim Foundation, New York, N. Y., a corporation of New York
Application June 25, 1953, Serial No. 364,695
1 Claim. (Cl. 137—488)

A quick-acting reducing valve for a controlled pressure system comprising a valve body having inlet and discharge connections, an interposed port and a valve member therefor, a spring to move said valve member in a direction to close said port, a control unit comprising an actuating part movable to engage and shift said valve member to open said port, springs to effect such movement of said actuating part, a pressure connection between the discharge passage of said reducing valve and said control unit, whereby the discharge pressure balances the spring pressure at a predetermined regulating position of said valve member, and said control unit including a bellows member, means to admit auxiliary air under pressure from an auxiliary air supply to said bellows member to further open said reducing valve on a drop in pressure in the controlled system, and quick-acting auxiliary means to



accelerate the valve-opening action of said actuating part, and said quick-acting auxiliary means comprising a member in said control unit, which member is directly exposed to said auxiliary air under pressure and which member acts directly to move said actuating part and to thereby quickly open said reducing valve when said member is moved by said auxiliary air under pressure and before the bellows member completes its relatively slow response to said auxiliary air pressure.

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2,770,252
GAS PRESSURE REDUCTION REGULATOR
Harvey G. Rose, Sr., Shaker Heights, Ohio, assignor to Alice M. Rose, Shaker Heights, Ohio
Application September 24, 1952, Serial No. 247,991
2 Claims. (Cl. 137—505.12)



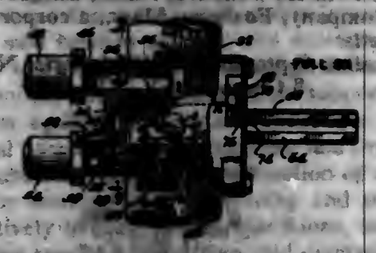
1. A mulit-stage gas pressure reduction regulator comprising a unitary body provided with an intermediate transverse wall forming therewithin an initial chamber and a second chamber, said second chamber being provided with a gas discharge outlet, a flexible diaphragm mounted transversely within each of said chambers, said casing body and said transverse wall being formed with a duct through which gas may flow from said initial chamber to said second chamber, said transverse wall having a valve opening between said duct and said second chamber, valve means for said valve opening, said valve means being connected to the diaphragm in said second chamber, the wall of said initial chamber that is opposite to said last-named valve opening having an inlet opening with a valve seat, a valve therefor operatively connected to the diaphragm in said initial chamber, spring means effective through the diaphragm in said initial chamber



for normally biasing said inlet valve towards its closed position, means between said transverse wall and the diaphragm in said initial chamber for flexing said diaphragm in opposition to said spring means and having manipulating means therefor extending to the outside of said initial chamber, said diaphragm-flexing means being slidably mounted upon said transverse wall.

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2,770,253
GAS VALVE
Charles C. Lasser, Chicago, Ill., assignor of one-fourth to Philip S. Harper and one-fourth to Carolyn L. Harper, Chicago, Ill. (as individuals), one-fourth to Harris Trust and Savings Bank, Chicago, Ill. (an Illinois banking corporation), trustee for a trust known as The Philip S. Harper Trust, and one-fourth to Harris Trust and Savings Bank, Chicago, Ill. (an Illinois banking corporation), trustee for a trust known as The Carolyn L. Harper Trust
Application March 18, 1952, Serial No. 277,219
12 Claims. (Cl. 137—625.32)



1. A valve for supplying high and low quantities of gas to a burner, including a valve body having a valve chamber and a pair of burner outlet passageways and a gas inlet passageway, and a valve element rotatably mounted in said chamber, and said body and element including a system of passageways for controlling the flow of gas from said inlet to said outlet passageways, said system comprising axial and transverse passageways in said element connecting said inlet passageway to one of said outlet passageways in different angular ranges of said rotatable valve element and also to the other of said outlet passageways in one of said ranges and variably controlling the supply of gas to said outlet passageways, and other passageway defining means including a single gas flow predetermining restricting orifice effectively at the outlet side of the axial passageway of said rotatable valve element for connecting said inlet passageway to said one outlet passageway in said different ranges and supplying said one outlet passageway with a small quantity of gas predeterminable by said orifice in each of said different ranges.

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2,770,254
CARBURETOR METERING VALVE
Harry G. Bolton, Decatur, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application July 10, 1951, Serial No. 235,951
2 Claims. (Cl. 137—625.48)



1. A metering valve assembly for a carburetor having a fuel feeding nozzle associated therewith and a reservoir for fuel, said metering valve assembly including means defining a valve chamber having one end thereof adapted for communication with said reservoir, and circumferentially spaced ports formed in said chamber and spaced from said one end, a sleeve valve journalled in said chamber and having a conically tapered metering surface formed thereon adjacent to said one end for controlling the flow of fuel through said chamber to said ports, said tapered metering surface and said adjacent end wall of said chamber defining an annular passage of generally triangular cross-section, the wider end of which passage adapted for communication with said reservoir and the narrower end whereof may be placed in communication simultaneously and equally with each of said ports, and means for adjusting the position of said valving surface with respect to said ports including a valve stem surrounded by said sleeve and spaced therefrom, said stem having an enlarged portion provided with screw threads and resilient means for holding said sleeve valve on said valve stem by pressure on the ends of said sleeve valve, whereby said sleeve valve may be moved axially by rotation of said screw threaded portion and said sleeve valve is laterally movable relative to said stem.

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2,770,255
DUAL-RANGE SAFETY VALVE
Robert H. Goddard, deceased, late of Annapolis, Md., by Esther C. Goddard, executrix, Worcester, Mass., assignor of one-half to The Daniel and Florence Guggenheim Foundation, New York, N. Y., a corporation of New York
Application August 16, 1952, Serial No. 304,787
1 Claim. (Cl. 137—629)



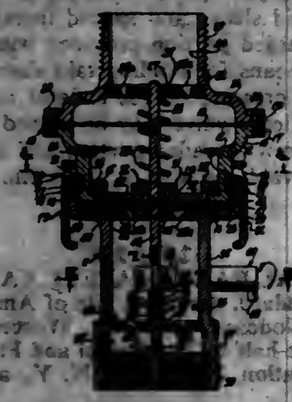
A dual range safety valve comprising a relief valve, a valve-closing member, a light spring to apply relatively light closing pressure to said member, additional fluid pressure-operated means to apply a relatively much higher closing pressure to said member, a heavier spring urging said additional means to inoperative position, predetermined clearance being provided between said additional means and said closing member, and means for adjusting the heavier spring pressure while maintaining the predetermined clearance unchanged, and which latter means comprises screw-threaded pressure-adjusting means for said heavier spring and screw-threaded clearance adjusting means for said valve-closing member, and said two screw-threaded means being mechanically interconnected and of the same hand and pitch whereby they rotate simultaneously and equally when said heavier spring is adjusted.

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2,770,256
VALVED COUPLING
John T. Krupp, Port Washington, N. Y.
Application July 19, 1951, Serial No. 237,295
1 Claim. (Cl. 137—614.2)

In a separable coupling, a female member having a passage therethrough, a passage of larger diameter communicating with said passage, and forming a shoulder therebetween, a sealing gasket on said shoulder, a valve seat formed in said member adjacent to said gasket, a valve cooperating with said seat and having a stem extending axially in said first passage, cam means comprising cams

rotatably carried in opposed clearance slots formed in the walls of said second passage, each of said cams having an actuating lever formed integral therewith, valve opening means comprising a shaft extending through the wall of said first passage and operatively connected to said cams, said shaft carrying an actuating lever adapted to rotate on a plane substantially tangent to the outer edge of at least one of said cam actuating levers when the latter is in an actuated position, a male member having a tubular portion adapted to fit into said second passage, said male member also having a seating face on the end thereof adapted to engage and form fluid tight seal with said gasket when said levers are actuated, a second valve



seat formed in said male member adjacent to said seating face, a second valve means cooperating with said second seat and having a stem reciprocally movable on the axis of said second member, spring means embracing said stem and urging second valve onto its seat, and an annular groove formed on the exterior of said male member adjacent to said seating face and adapted to be engaged by said cam means when said tubular portion is positioned in said second passage with said end in contact with said gasket, both said valve means normally contacting each other when said members are secured together, thereby minimizing any loss of fluid when said members are separated and causing them to move in unison to open positions when said valve opening means is actuated.

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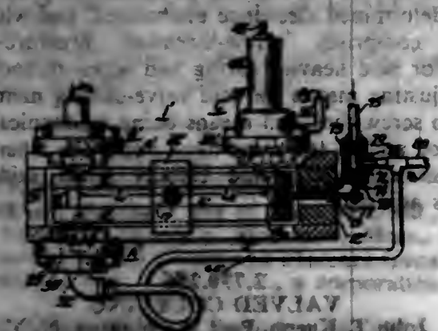
**2,770,257**

**PNEUMATIC TOGGLE DEVICES PROVIDED WITH ADJUSTABLE FULCRUMS**

**Alfred A. Markson, Pittsburgh, Pa., assignor to Hagan Corporation, Pittsburgh, Pa., a corporation of Pennsylvania**

**Application November 7, 1955, Serial No. 545,231**

**6 Claims. (Cl. 137—620)**



1. A pneumatic toggle device comprising a beam, a double acting fulcrum for said beam, a valve actuated by said beam from zero to maximum output positions and vice versa, a pressure receiving member having a chamber and a diaphragm responsive to pressure in said chamber, means connecting said chamber to the output of said valve, means connecting said diaphragm to said beam at a distance $L_1$ from the fulcrum, a second pressure receiving member having a pressure receiving chamber and a diaphragm responsive to pressure in said chamber, the diaphragm of said second chamber being connected to exert a force on said beam at a distance $L_2$ from the fulcrum, the turning moments of the said diaphragms being in the same direction about the fulcrum, said adjustable yielding means in the chamber of said second pressure receiving member for exerting a predetermined force in opposition to the force of pressure on said diaphragm, the second chamber being disposed to receive a variable pressure whereby, when the force of said variable pressure on said second diaphragm is less than the opposing force of said yielding means, the valve is actuated to one of its output positions and when the force of the pressure exceeds that yielding means force, the valve is actuated to its other pressure output position.

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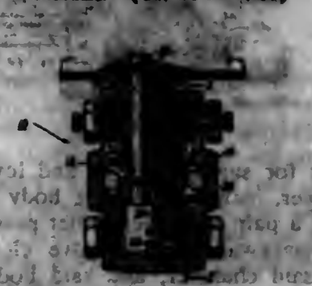
**2,770,258**

**DIFFERENTIAL PRESSURE RESPONSIVE ASSEMBLY**

**Hoel L. Bowditch, Foxboro, Mass., assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts**

**Application September 20, 1954, Serial No. 457,161**

**8 Claims. (Cl. 137—787)**



1. In differential pressure responsive apparatus, in combination, a casing, a differential pressure responsive unit in said casing, said unit comprising a metal back-up plate and a pair of resilient metal diaphragms secured at their peripheries to opposite sides of said plate to form a hermetically sealed unit, said back-up plate having a passage therethrough establishing communication between said diaphragms and a flexure member extending around the periphery of said unit and interconnecting the periphery of said unit and said casing, whereby said unit is supported in said casing through said flexure member and is movable as a unit in response to over-range differential pressures applied thereacross but returns to its original position upon equalization of the differential pressure.

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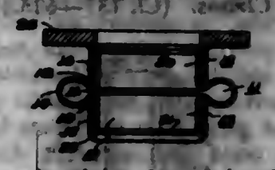
**2,770,259**

**EXPANSION JOINT AND APPARATUS FOR AND METHOD OF MAKING SAME**

**Blake P. Zallea, Wilmington, Del.**

**Application July 12, 1952, Serial No. 298,572**

**2 Claims. (Cl. 138—42)**



1. In an expansion joint for a pipe line or the like, a unitary bellows element of hollow toroidal shape formed of a tubular blank to have permanently formed an annular central wall part of generally ovaloid shape in transverse section, said ovaloid part being concave to any internal pressure to which the joint may be subjected and having major and minor axes of which the major axis extends normal to the axis of said bellows element, said annular central wall part being transversely curved through an arc substantially greater than 180 degrees



and terminating at opposite sides thereof in a pair of axially spaced annular side wall parts which define therebetween a relatively narrow opening extending circumferentially about the annular base of said central wall part, and side wall parts being each similarly curved reversely throughout with respect to the curvature of said central part and thus convex to said internal pressure, the reversely curved side wall parts providing respectively on opposite sides of the central wall part of the bellows element a pair of oppositely presenting annular indentations equally spaced radially from the central longitudinal axis of the bellows element, the said indentations being each of a same radius substantially less than that of any portion of the central wall part, the opposite sides of said annular central wall part of the bellows element and said reversely curved side wall parts thereof being symmetrically disposed with reference to the median plane of the element extending normal to the axis thereof, said reversely curved side wall parts being respectively provided with axially alined tubular extremities of equal diameter at opposite sides of said main central wall part, means snugly fitted in the indentations formed by said reversely curved side wall parts of said bellows element and extending axially from opposite sides thereof in embracing relation to said tubular extremities for reinforcing and supporting said side wall parts against deformation under the influence of said internal pressure, while permitting said central part to flex freely upon expansion and contraction of said joint, and means for securing said reinforcing and supporting means respectively to said tubular extensions, said securing means being spaced axially from said reversely curved side wall parts, said bellows element being further characterized in that the transversely curved central wall part and the reversely curved side wall parts thereof are formed of continuously homogeneous metal entirely free of any circumferentially extending welds.

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**2,770,260**

**SELF-ALINING PROTECTIVE PLUG FOR TUBINGS, HOSE LINES, THREADED OPENINGS, ETC.**

**Harold P. Shanaman, Tonawanda, N. Y.**

**Application August 19, 1954, Serial No. 450,899**

**3 Claims. (Cl. 138—89)**



2. In combination with an object having an opening provided with a standard screw-thread and a plug-contact seat a distance from the outer end of said opening, a cylindrical closure plug having a thread rolled into its peripheral wall pitched to the pitch of said standard screw-thread and having a seat-contacting portion, said screw-threads being sized relatively to permit spinning inward movement of said closure plug into said opening until in contact with said plug-contact seat, said rolled screw-thread being deformable under tightening action of said closure plug into said opening so as to lock said plug in said opening.

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**2,770,261**

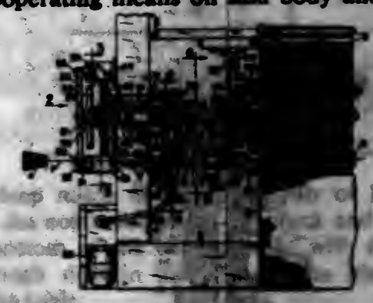
**LOOM OPERATING WITH STATIONARY WEFT SUPPLY**

**Richard G. Tiller, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts**

**Application May 27, 1953, Serial No. 357,736**

**13 Claims. (Cl. 139—126)**

1. In a loom operating with a stationary weft supply, a thread guide from which projects the end of a thread drawn from said weft supply, a shuttle supported by the loom adjacent to said guide comprising a body substantially aligned with said end of the thread, thread gripper jaws on the shuttle adjacent to said guide in open non-gripping relation, said jaws being projectible lengthwise with respect to said body toward said guide, actuating means to project said jaws from said body toward said guide, cooperating means on said body and jaws causing



the latter to move from said open non-gripping relation to closed gripping relation to grip said end of said thread when said actuating means projects said jaws toward said guide, the latter being formed with a hollow bore for the thread, and pneumatic means to cause compressed air to pass through and out of said bore toward the shuttle and maintain said end of the thread in position to be gripped by said jaws.

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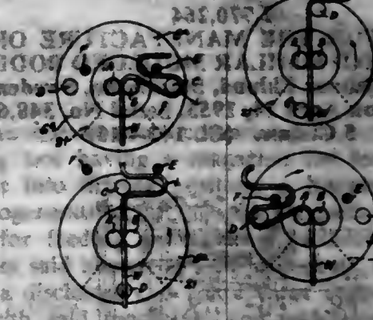
**2,770,262**

**MACHINE FOR FORMING SPRING-WIRE INTO ZIG-ZAG MATERIAL AND METHODS OF FORMING ZIG-ZAG SPRING MATERIAL**

**Joseph Gessel, Jersey City, N. J., assignor to Springs, Inc., a corporation of New Jersey**

**Application June 17, 1952, Serial No. 294,001**

**6 Claims. (Cl. 140—71)**



1. In a machine for forming sprisg wire into zig-zag spring material, a support, a pair of centrally-disposed circular and grooved initial-bending wire-forming mandrels mounted on fixed axes on said support and having their peripheries arranged to provide a wire-feeding channel disposed therebetween to guide a section of wire, the wire being in contact with the peripheral surfaces of said initial wire forming mandrels, in combination with loop-forming means including a turret member movable in the arc of a circle about said centrally-disposed mandrels, and a pair of round wire-forming elements mounted on and carried by said turret to move about said centrally-positioned mandrels, and means for feeding a spring wire through said wire-feeding channel.

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**2,770,263**

**METHOD AND APPARATUS FOR FILLING CONTAINERS WITH A LIQUID**

**Rudolph H. Brodbeck, Baltimore, Md., assignor to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York**

**Application March 3, 1954, Serial No. 413,819**

**25 Claims. (Cl. 141—6)**

1. In a container filling machine, a filling head element, a container supporting element arranged to move the

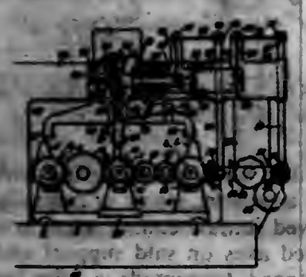
coöperate into and out of sealing engagement with the filling head element, said filling head element including a liquid flow nozzle and a container venting means arranged to be closed by rise of liquid in the container, a displacement member depending from said filling head element and adapted to be received within the container, said displacement member being adjustable whereby height of



fill of liquid in the container may be varied, and valve means on said filling head element, said valve means being operated to place said liquid flow nozzle in communication with said container venting means after the container has been filled whereby liquid in said liquid flow nozzle will flow into the container as the container is being removed from said filling head element.

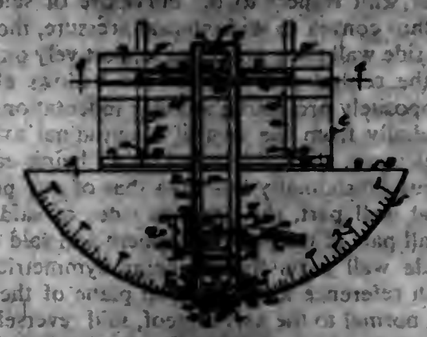
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2,770,264
**MACHINES FOR THE MANUFACTURE OF SHOE LASTS AND SIMILAR MOULDED BODIES**
Carl Hjalmar Eklund, Stockholm, Sweden
Application April 14, 1953, Serial No. 348,677
8 Claims. (Cl. 142—15)



1. A machine for the manufacture of shoe lasts comprising a rotary model last holder, a rotary last blank holder, a model follower, a cutting tool holder, a primary width grading mechanism operated by the model follower, a secondary width grading mechanism connected with the primary width grading mechanism and operating to impart to the cutting tool holder an additional motion increment superimposed on the motion imparted by the primary width grading mechanism, said secondary width grading mechanism comprising a rotary member adapted to rotate in synchronism with the last blank holder, an actuating member in operative engagement with the primary width grading mechanism, and means for transforming the movement of said rotary member into an oscillating movement of said actuating member, means for feeding the last blank holder lengthwise, and means actuated by said feeding means for continuously changing the oscillation amplitude of said actuating member.

2,770,265
**COMBINATION GUIDE AND PORTABLE SUPPORT FOR POWER SAWS**
Leon J. Peterson, Albany, Ga.
Application July 28, 1953, Serial No. 370,719
3 Claims. (Cl. 143—6)

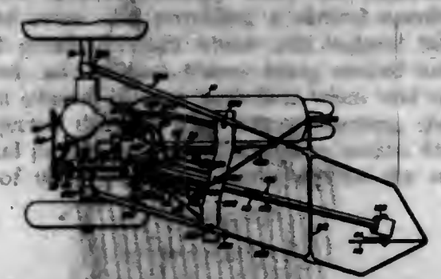


1. A work surface for portable power operated hand saws, which is adapted to be placed on a support, and comprises an arcuate front section having an arcuate front edge, and a straight rear edge, angular calibrations along the arcuate front edge, a rear rectangular work surface section defining a continuation of the arcuate front section but being of less length than the front section and having a straight forward end and a straight rear end, the forward end engaging the straight rear edge of the front section in even and level engagement therewith for providing with the front section a continuous and uninterrupted flat work surface, locking means detachably interlocking the rear section to the front section, a power-operated hand saw carriage track extending across both the rear section and the front section, the said rear rectangular section having a rear edge parallel to the rear straight edge of the arcuate front section, a beam mounted on the rear straight end of the rectangular section, means pivotally attaching the carriage track to the rear edge of the rear rectangular section centrally thereof for enabling angular rotation of the carriage track relative to the rear and front sections for sawing a workpiece at a known selected angle indicated by the calibrations on the said arcuate front edge, the pivotally attaching means comprising a depending cylinder having an upper end secured to the beam, a pivot shaft depending from the rear end of the carriage track member and receivable in the cylinder, the cylinder having a substantially closed bottom end but provided with an opening therethrough, a threaded rod extending through the bottom end of the cylinder, a threaded nut mounted in the cylinder in threaded engagement with the rod, the rod having an operating head for effecting elevation of the track member, adjustable roller track supporting means engagable with the calibrated arcuate front edge of the front section, a substantially V-shaped angle marker carried by the carriage track registering with the calibrations, locking means for releasably locking the carriage track to the arcuate front edge of the front section at a selected angular adjustment, and an adjustable fence guide structure mounted on the rectangular rear section of the work surface for use when a saw mounted on the carriage track is being employed for ripping, plowing and rabbeting operations, selectively, on a workpiece, and as a guide when the saw is being used in cross-cutting a workpiece at various angles.

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2,770,266
**HYDRAULIC LIFT FOR THE SAW BOOM OF TRACTOR OPERATED SAW**
Roy C. Wyss, Lawrence, Ill.
Application April 7, 1955, Serial No. 499,933
6 Claims. (Cl. 143—43)

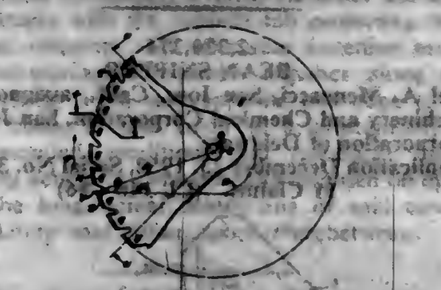
1. In a tractor operated rotary cutting tool, the combination with a tool carrying beam alongside the tractor having a rear end pivoted on said tractor for vertical swinging of the boom, a vertical arcuate guide on said tractor, and an annular carriage for said boom encircling the boom and slidably mounted in said guide to extend in a vertical plane laterally from the tractor, of hydraulic



lift means for said carriage comprising a pressure responsive cylinder mounted for vertical movement on the tractor, and cable and pulley means operative by downward movement of the cylinder to lift said carriage at diametrically opposite sides thereof.

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2,770,267
**ALL PURPOSE SAW BLADE**
Arthur G. Edmister, Sacramento, Calif.
Application January 5, 1954, Serial No. 402,325
1 Claim. (Cl. 143—133)



A saw blade comprising a circular plate of predetermined diameter adapted to be mounted on a rotatable saw arbor, and a plurality of teeth each having substantially identical root and marginal dimensions and being separated by a gullet of substantially uniform size, each of said teeth having a root dimension greater in extent than the height thereof and inclining forwardly in the direction of rotation of said blade to form a hook angle defined by the pitch line of said tooth and a hook line tangent with an imaginary circle having a diameter substantially one-third said predetermined diameter, said plurality of teeth being disposed in a series of recurring groups, each group comprising a first set of three teeth each having its front edge and upper margin beveled toward one side of said blade, and a second set of three teeth each having its front edge and upper margin beveled toward the other side of said blade, said first and second sets being separated by a square-faced single tooth beveled equally on its upper margin toward each side of said blade to present a centrally disposed triangular outline over its cutting area, said first set of three teeth having an overhang toward said one side of said blade and said second set of three teeth having an overhang toward said other side of said blade.

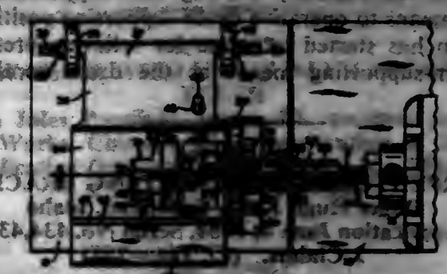
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2,770,268
**MACHINE FOR TRIMMING THE FINGER PLATE OF A PIANO KEY**
Herbert B. Gibson, Williamsville, Mass.
Application March 6, 1953, Serial No. 340,604
6 Claims. (Cl. 144—3)

1. In a machine of the class described, a base, a cutter journaled on the base, a table overlying the base and hinged thereto for raising and lowering movements, a supporting block resting on the table, a screw securing

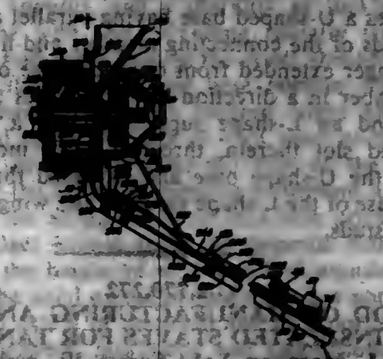


the block to the table, a channel in the block, a guide plate extending longitudinally through the channel perpendicular to the table for directing work to the cutter, said guide plate having in its lower longitudinal edge portion a deep notch to provide a pair of legs, said guide plate at the notch straddling the block and resting thereon at the bottom of the channel, and with the legs extending through slots in the ends of the block and into a slot in the table.



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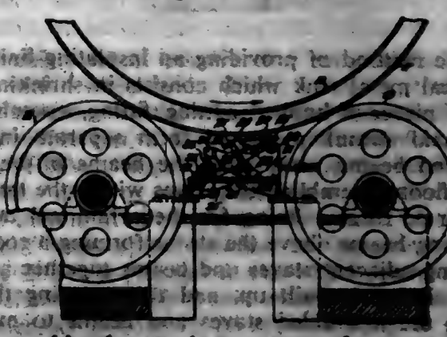
2,770,269
**POWER SCREW DRIVER**
Leonard E. Austin, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application January 12, 1951, Serial No. 206,804
23 Claims. (Cl. 144—32)



6. The combination comprising a powered fastener applying tool having a magazine for feeding fastening elements into driving position, a hopper for receiving a heterogeneous mass of said fasteners, a feed chute, means for feeding fasteners in predetermined orientation from said hopper to said feed chute, said feed chute having a discharge end adapted for cooperative engagement with said magazine, and escapement mechanism on said chute operable by cooperative engagement of said magazine and said chute to discharge a predetermined number of fasteners from said feed chute into said magazine.

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2,770,270
**SUPPORTS FOR ROTATING DRUMS**
Peter N. Otterlund, Watertown, N. Y.
Application March 30, 1954, Serial No. 419,815
6 Claims. (Cl. 144—288)

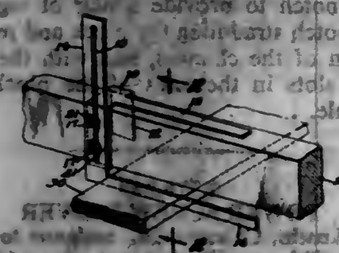


1. In combination, a drum, means for rotatably supporting said drum, means for rotating the drum, and sup-

pneumatic drum-supporting means normally disposed in inoperative position when the drum is at rest, and means controlled in its operation by the means for rotating the drum for automatically moving said supplemental supporting means to operative drum-supporting position after the drum has started to rotate for relieving pressure on the drum-supporting means as the drum continues to rotate.

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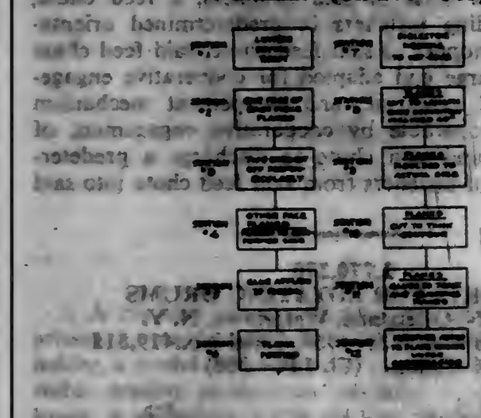
2,770,271
**CARPENTER'S BOARD HOLDING BRACKET**
Roger Hugh Kent, Sandpoint, Idaho
Application June 4, 1954, Serial No. 434,434
2 Claims. (Cl. 144—297)



2. In a board retaining bracket, the combination which comprises a U-shaped base having parallel arms extended from ends of the connecting member and having an elongated finger extended from one side edge of the connecting member in a direction at right angles to that of said arms, and an L-shape support having a base with an elongated slot therein, threaded studs mounted in one arm of the U-shape base and extended through the slot in the base of the L-shape support, and wing nuts threaded on said studs.

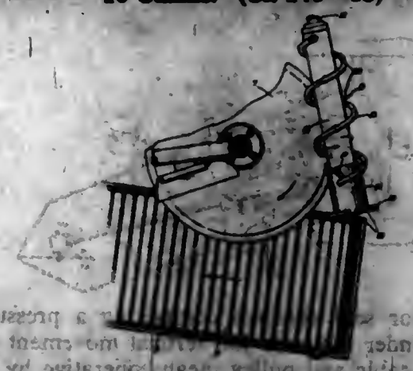
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2,770,272
**METHOD OF MANUFACTURING AND INSTALLING INSULATED STAVES FOR TANK LINING**
Willard L. Morrison, Lake Forest, Ill., assignor to Union Stock Yards and Transit Company of Chicago, Chicago, Ill., a corporation of Illinois
Application June 12, 1953, Serial No. 361,430
4 Claims. (Cl. 144—309)



1. The method of providing an insulating lining for a cylindrical metal tank which consists in shrinking a plurality of pieces of lumber, cutting, fitting, assembling and gluing said shrunk pieces to form separate interfitting staves and beams, assembling the beams in the tank to form a floor, assembling the staves within the tank above the floor to form a lining for the cylindrical tank wall, assembling beams above the staves forming a roof lining, cementing adjacent staves and beams together as the insulating lining is built up, and then causing the wood forming the assembled staves and beams to expand to exert a tension on the tank walls with resultant compression of the wood lining.

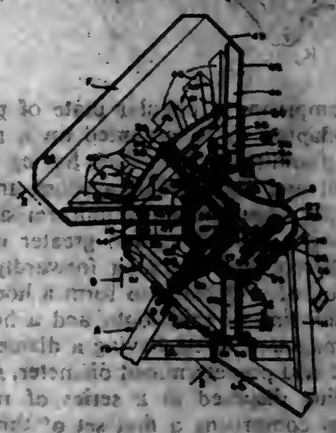
2,770,273
**BEET IMPELLING DEVICE**
Lewis Wallace Schmidt, Rio Vista, Calif.
Application April 29, 1953, Serial No. 351,776
10 Claims. (Cl. 146—85)



1. In a beet harvester, a conveyor, a driven beet topping and supporting disc mounted with a peripheral portion overhanging the conveyor, a driven feed auger above the disc in position to deflect supported beets to and for discharge from said peripheral portion, and means on the auger operative to strike beets discharging from said peripheral portion and to impart a throw to said struck beets generally lengthwise of the conveyor.

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2,770,274
**BEAN SNIPPER**
Samuel A. Mencacci, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application December 23, 1952, Serial No. 327,515
11 Claims. (Cl. 146—86)



2. A bean snipping mechanism comprising a pair of continuously rotating truncated conical carriers mounted one above the other for rotation about axes at right angles to each other, the conical surfaces of said carriers being substantially tangent to each other along a horizontal line common to both, each of said carriers having pockets arranged peripherally thereof and adapted to register successively with those of the other on rotation of said carriers, means operably connected to said carriers for continuously rotating them in unison, and snipping means mounted across pockets of said carriers.

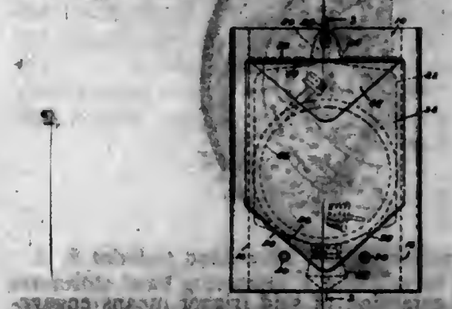
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2,770,[illegible]
**HOT WATER BOTTLE COVER**
Application [illegible]
2 Claims. (Cl. [illegible])

1. A cover for a hot water bottle of the type comprising a generally flat, flexible container of rectangular shape having a filling spout projecting from one end and a support tab projecting from the other end, said



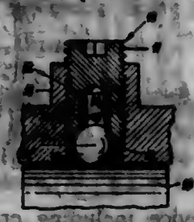
cover having front and rear fabric panels of generally rectangular shape secured together along their side edges and dimensioned to receive a hot water bottle therebetween, means generally closing one end of said cover along a line spaced inwardly from the adjacent end edge of the cover and providing a central opening between said panels through which said support tab may be projected, said closure means being spaced inwardly of said end edge a distance such that when said support tab is projected through said central opening, the portions of said panels between said closure means and said end edge of the cover substantially overlie the support



tab, the extent of said cover between said closure means and the opposite end edge of the cover being sufficient to substantially completely overlie the water bottle when inserted therein with the support tab projecting through said central opening, and releasable fastening members for interconnecting said panels together along a line spaced inwardly from said opposite end edge to retain the water bottle in said cover in a substantially completely concealed condition, said releasable fastening means being generally symmetrically disposed on opposite sides of the longitudinal center line of said cover for accommodating said filling spout therebetween.

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2,770,276
**SET SCREW WITH BALL EXPANDER LOCKING MEANS**
Reuben Broder, Brooklyn, N. Y.
Application April 17, 1952, Serial No. 282,810
3 Claims. (Cl. 151—31)



3. In a bodily intact radially expandable self-locking screw, comprising a self-contained two-member interengaged unitary structure, said expandable screw having a centrally positioned elongated opening terminating in upper and lower cylindrical portions at opposite ends thereof, said screw having a convex section connecting said cylindrical portions, said lower cylindrical portion being of larger diameter than said upper cylindrical portion, said convex shaped section connecting said cylindrical portions, a ball mounted in said lower cylindrical portion having a clearance space thereabove, operatively connected to said screw and in contacting relation with said ball mouth shaped section at a single plane, the center of said ball being positioned slightly inward of the lower end face of said screw, thus permitting deformation of the outer edge defining said lower opening of said screw and retaining said ball against disengagement from said screw, whereby when said screw is forcibly threaded against a part to be locked by said screw, said ball is tensioned in a direction inwardly of said opening, causing radial expansion of the bodily intact screw threads at the lower portion of said screw and a wedging action against the mating threads, preventing disengagement of said screw from the part being locked, when subjected to vibrations.

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2,770,277
**LOCK WASHER WITH UNEQUALLY PROJECTING TEETH**
Ouzjem Jules Poupitch, Illinois, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application October 23, 1951, Serial No. 252,589
2 Claims. (Cl. 151—35)



1. A lock washer of sheet metal stock adapted to be retained in preassembled relationship with a rotary fastener having a clamping surface with an annular recess therein; and said lock washer comprising an inner rigid body portion in the form of an inwardly inclined continuous uninterrupted conoidal annulus substantially nondeformable during ordinary use, a narrow uninterrupted annular base portion projecting from the larger end of said conoidal annulus, and a plurality of locking teeth formed integral with and extending radially from said base portion, said teeth having the roots thereof spaced apart around the edge of said base portion and being oppositely twisted to present locking edges projecting axially beyond opposite sides of said base portion, the locking edges of the teeth on the side of the washer opposite from the conoidal annulus projecting a greater distance from the adjacent side of said base portion than the locking edges extend from the opposite side of the base portion, the height of said conoidal annulus being greater than the axial extent of said teeth but not greater than the radial extent of the teeth and base portion so as to provide a properly positioned and proportioned inner washer retaining conoidal surface in the vicinity of the free margin of smaller diameter oppositely disposed from said base portion.

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2,770,278
**VEHICLE WHEEL CONSTRUCTION**
Robert J. Dillon, San Francisco, Calif.
Application February 18, 1952, Serial No. 272,078
9 Claims. (Cl. 152—41)



1. A vehicle wheel construction comprising, in combination with a wheel brake drum, a unitary structure removably mounted on the wheel brake drum and consisting of a wheel rim, a first continuous circular element having a relatively large dished portion for receiving the wheel brake drum as well as having a plurality of small openings therein at circumferentially spaced intervals adjacent said large dished portion for receiving lugs for attaching said first element to the wheel drum, a second circular element secured to said wheel rim, a first annular rubber member bonded on its opposite faces to said first and second circular elements intermediate said wheel rim and the wheel brake drum, a third circular element se-

cured to said wheel rim and disposed adjacent to said second circular element, a fourth circular element secured to said first element adjacent to the wheel brake drum, a second annular rubber member bonded on its opposite faces to said third and said fourth elements and disposed in juxtaposition with respect to said first annular rubber member, and a pair of thrust rings secured to said wheel rim and disposed outside of and in juxtaposition to said first and fourth circular elements.

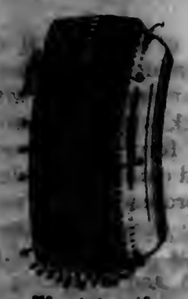
2,770,279

**VEHICLE TIRE**

John O. Harrison, Independence, Mo., assignor to Dealers Tire Service, Inc., Kansas City, Mo., a corporation of Missouri

Application January 4, 1954, Serial No. 401,826

1 Claim. (Cl. 152—209)



A tire having a resilient tread provided with a central traction portion extending circumferentially of the tire and defined by laterally spaced apart annular grooves extending circumferentially of the tire and interconnected by circumferentially spaced apart transverse primary grooves dividing said central portion into spaced apart main lugs, said main lugs having secondary transverse grooves of less width than the transverse primary grooves, with side faces of said secondary transverse grooves spaced from each other to promote resiliency of portions of the main lugs between said secondary transverse grooves and providing working clearance for movement of said portions under weight applied to the tire when the tire is in use, said tread also having two spaced apart annular grooves extending circumferentially of the tire and defining spaced annular traction portions on respective sides of the central traction portion, said spaced, annular traction portions having spaced apart angularly extending primary grooves connecting said annular grooves, with said last named primary grooves on one side of said central traction portion extending in the same direction circumferentially of the tire as said angularly extending primary grooves on the other side of said central portion to form main lugs extending at the same angle as the said angularly extending primary grooves, said angularly extending main lugs having spaced apart angularly extending secondary grooves of less width than said angularly extending primary grooves and having side faces thereof spaced apart to provide working clearance for portions of the lugs between the angularly extending secondary grooves, said transverse primary grooves and said angularly extending primary grooves cooperating with the annular grooves to form continuous passages for escape of any air when the tire flattens under said weight and said resiliency of the portions of the lugs between said secondary grooves providing for self cleansing of said grooves when the tire turns through said flattened position.

2,770,280

**ANTI-SKID APPARATUS FOR MOTOR VEHICLES**

Adam J. Pritz and Edward J. Hoffman, Pittsburgh, Pa.

Application February 15, 1956, Serial No. 565,599

9 Claims. (Cl. 152—216)

1. An anti-skid apparatus for intermittent use in combination with a driving wheel and tire assembly of a motor vehicle comprising a rotatable ring spaced inboard of said wheel for rotation coaxially therewith in a plane parallel thereto, a plurality of resiliently pivotally mounted cleat elements carried at spaced points by said ring extending radially therefrom and outwardly transversely to the periphery of said tire and normally spaced therefrom, pivotal trigger means carried by said ring, actuating means



on the outboard extension of said trigger means engageable with said wheel and tire assembly for securing said ring therewith, securing means for said ring on the inboard extension of said trigger means, latch means carried by said motor vehicle adapted to releasably engage said securing means and displace said actuating means from engagement with said wheel and tire assembly whereby said ring is non-rotatably retained.

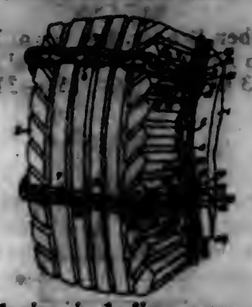
2,770,281

**TIRE CHAIN FOR TRACTORS AND HEAVY VEHICLES**

Glen M. Eddy, Kansas City, Mo., assignor to Roll-O-Matic Chain Company, Kansas City, Mo., a corporation of Missouri

Application February 5, 1954, Serial No. 408,319

1 Claim. (Cl. 152—241)



An anti-skid device including cross and carrier side chain members each composed of a series of interconnected links, the links of the carrier side members having side bars spaced apart and providing an opening therebetween, and swivel units connecting endmost links of the cross members with links of the carrier side members, each of said swivel units including a shank extending through an opening between the side bars of a link of the carrier side members and having an axis of rotation, a head integral with one end of said shank and of larger diameter than the space between said side bars to provide an annular shoulder with opposite diametrical portions contacting the respective side bars when the shank turns about its axis within said opening between the bars of the link under rolling movement of the cross members, a hook integral with the other end of said shank and having an entrance way for passing the endmost link of a cross member, a roller slidable on the shank to close said entrance way to the hook, a washer on the shank engaging opposite sides of said bars of the link of said side members, and a spring on said shank having one end engaging the roller and the other engaging the washer to



retain yieldingly the shoulder of said head in direct swivelling contact with the side bars of the link and the roller closing the entrance way to the hook.

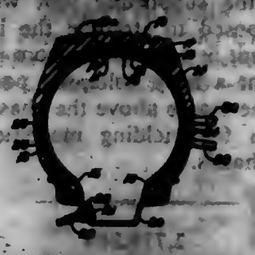
2,770,282

**TUBELESS PNEUMATIC TIRE**

Frank Hornak, Cleveland, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application February 16, 1954, Serial No. 409,291

2 Claims. (Cl. 152—330)



1. A tubeless pneumatic tire consisting of a pair of inextensible bead grommets, a plurality of reinforcing plies of closely spaced, crossed, air-conducting cords anchored to the grommets and extending radially outward from each grommet and merging with the cord plies extending outward from the other grommet to form an open-bellied hollow carcass, the innermost ply of cords having turnups extending around the bead portions and along the outside of the carcass to a zone of the bead portions destined to be radially outwardly of the rim flanges, an air-containing lining of flexible material bonded to the innermost surface of the reinforcing plies, a vulcanized rubber road-engaging tread on the crown of the reinforcing plies, flexible vulcanized rubber sidewall covers on that portion of the reinforcing plies not covered by the tread, and punctures formed in the sidewall covers without removal of rubber material, said punctures extending through the sidewall cover to vent said furnace, said punctures being held in a normally closed position by the resiliency of the sidewall cover material but opening up under sidewall flexure, said punctures as a group being spaced circumferentially about said sidewall by a distance substantially equal to the center-to-center spacing of said cords, successive punctures in the group being radially staggered.

2,770,283

**APPARATUS FOR MAKING PILE FABRIC**

Leslie A. Benton, Harrison, and Walter G. Behnke, Mount Vernon, N. Y., assignors to Alexander Smith, Incorporated, Yonkers, N. Y., a corporation of New York

Application August 19, 1955, Serial No. 529,418

8 Claims. (Cl. 154—1.1)



1. Apparatus for making pile fabric, comprising a pile forming conveyor having a series of connected links each link extending transversely across the fabric, said links having flat upper surfaces to support a sheet of pile yarn and having spaces therebetween for receiving pile loops, means feeding a sheet of pile yarns across said yarn supporting surfaces with said links spaced to permit the passage of the yarn downwardly therebetween for forming pile loops, an ejector station above said conveyor, means feeding a series of pile forming wires to said ejector station, ejector means at said station to eject said wires in succession into the space between successive links of said pile forming conveyor for thereby forcing the pile yarn into said spaces to form pile loops, means advancing said pile forming conveyor with said links closed to grip said yarn therebetween and with said flat upper surfaces forming a support for the pile yarn, means advancing a backing material to the pile yarn carried on said support, and means withdrawing said pile forming wires lengthwise from said loops after said backing has been attached to said loops.

2,770,284

**PIPELINE COATING AND WRAPPING MACHINE**

Elvin L. Mydek, Ebensburg, Pa.

Application January 25, 1954, Serial No. 405,939

6 Claims. (Cl. 154—41)



6. In a pipeline coating and wrapping machine, a frame, a coating shoe carried by the frame and comprising an annular container having an imperforate forward wall and a perforate rearward wall, each said wall consisting of a plurality of segments flexibly secured together, and a spreading ring carried by said container and disposed in spaced adjacent relation to said perforate wall, said spreading ring having an internal diameter greater than that of said container walls, means for delivering coating liquid to said container, and means for holding the inner peripheries of said container walls in close, yieldable engagement with said pipeline comprising a cable having a loop connecting said segments, and resilient means applying tension to said cable.

2,770,285

**WITHDRAWN**

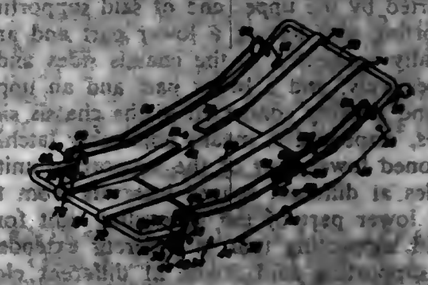
2,770,286

**SELF-LEVELING SEAT STRUCTURE**

James O. Wallis, Long Beach, Calif., assignor to Ernest F. Pahl, Woodside, N. Y.

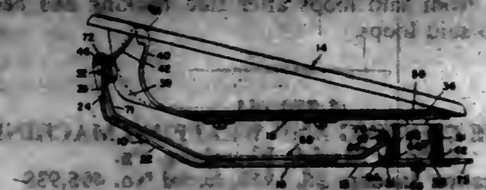
Application May 20, 1953, Serial No. 356,619

12 Claims. (Cl. 155—9)



1. A seat assembly for tractors and the like comprising a posterior-receiving seat member, guide rail means extending transversely of the front to rear direction of the seat member, and roller support means cooperative with said guide rail means for supporting said member for movement in said transverse direction relative to the support for the assembly along an arc of a circle in response to changes in angularity of the support relative to the horizontal, and means engaging the guide rails for limiting the freedom of adjustment in response to the said changes.

2,770,287
**LEVEL RIDE SEAT**
Edwin S. Christensen, Long Beach, Calif., assignor to Rupert F. Peil, Westdale, N. Y.
Application January 19, 1954, Serial No. 404,935
18 Claims. (Cl. 155—9)



1. In a level ride seat construction two superposed members, the lower member being designed to be secured to a support, the upper member being adapted to carry a sitter, and means providing a three point suspension of the upper member on the lower member, said suspension points being in substantially triangular arrangement with the apex of each triangle at the front of the seat, the apex point suspension being a fixed yielding and resilient pivot means, and the two remaining points of suspension comprising spaced rollers, whereby the rear of the upper member may swing upwardly and laterally in either direction with respect to the lower member.

2,770,288
**COMBINATION HIGH CHAIR AND VEHICLE**
Edward S. Peyton, Miami, Fla., assignor of fifty percent to Joseph F. Miami, Borough of Hollidaysburg, Blair County, Pa.
Application October 30, 1953, Serial No. 389,279
4 Claims. (Cl. 155—17)



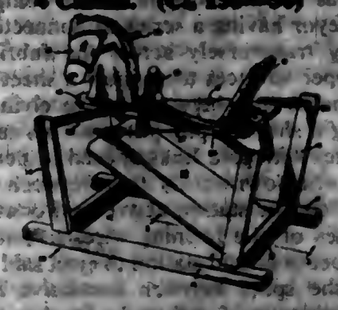
1. A combination vehicle of the character described comprising a wheeled chassis having spaced sides, an extensible supporting unit comprising a system of jointed levers having a lower end connected to the chassis sides, a seat supporting frame having spaced sides connected to and supported by the upper end of said supporting unit, said supporting unit having a lower part and an upper part pivotally connected to the chassis sides and frame sides, respectively, and a lower part and an upper part pivotally and slidably connected to the chassis sides and frame sides, respectively, means adjustably latching said last mentioned lower part of the supporting unit to the chassis sides at different spaced intervals from the first mentioned lower part of the supporting unit for maintaining said supporting unit in different extended positions for supporting said frame at different elevations above the chassis, a seat mounted on and supported by the frame sides, a back rest connected to and supported by the frame sides and extending upwardly from the rear end of said seat, said supporting unit including lower pairs of levers, a lower shaft pivotally connecting the individual levers of said pairs of lower levers in crossed relation, upper pairs of levers, an upper shaft pivotally connecting the individual levers of said upper pairs of levers in crossed relation, said last mentioned lower part of the lower end of said supporting unit being slidable relatively to the chassis and away from said first mentioned lower part of the supporting unit when said latch means is released for completely collapsing the supporting unit and to position said frame immediately above and adjacent the chassis, hanger members swingably suspended from said upper shaft of the supporting unit, coil springs supported on said hanger members, and positioning means connected to said hanger members and adjustably connected to a portion of the jointed lever system for locating said hanger members to either straddle said lower shaft or to pass to one side thereof when the supporting unit is moved toward a fully collapsed position, said springs engaging between the upper and lower shafts of the supporting unit when the hanger members are disposed to straddle the lower shaft and the supporting unit is detached from the chassis and moved to adjacent a fully collapsed position for yieldably supporting the frame above the chassis in a partially extended position for yielding movement toward and away from said chassis.

2,770,289
**HOSPITAL CHAIR**
Leo McKinney, Sturtevant, Wis.
Application August 9, 1954, Serial No. 448,469
5 Claims. (Cl. 155—45)



2. A convertible hospital chair comprising a wheeled framework, a shaft carried by said framework, means for rotating said shaft, a back rest pivotally attached to said framework including a pair of frame members, a body support pivotally attached to said back rest, a foot rest pivotally attached to said body support, links pivotally interconnecting said frame members and said foot rest, and a linkage connected to said shaft for adjusting the position of said back rest, said body support and said foot rest, said linkage including pairs of crank arms attached to said shaft, a pair of connecting links terminally attached to said back rest and one of said pairs of crank arms, and other connecting links terminally attached to said body support and another of said pairs of crank arms, said frame members having downwardly projecting portions to which said first recited pair of connecting links are attached and forming a quadrilateral link arrangement consisting of said body support, said foot rest, said links, and said frame members.

2,770,290
**HOBBY HORSE**
William F. Whittle, Benton, Ark.
Application November 10, 1953, Serial No. 391,236
4 Claims. (Cl. 155—99)



1. A hobby horse comprising a support member having a substantially rectangular base and spaced posts extending upwardly from each corner of the base, a seat positioned intermediate the posts, springs extending from said posts and attached to said seat, a footrest beneath the seat, said footrest comprising an elongated platform member pivotally connected at its rear extremity to said support member, and seat actuating means connected at one end to the forward portion of the footrest and at its other end to the rearward portion of the seat.

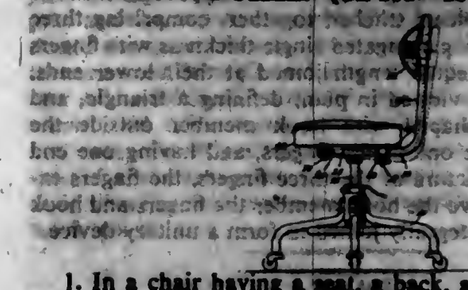


2,770,291
**HOBBY HORSE**
Sidney Forman, University City, Mo.
Application November 8, 1954, Serial No. 467,368
3 Claims. (Cl. 155—56)



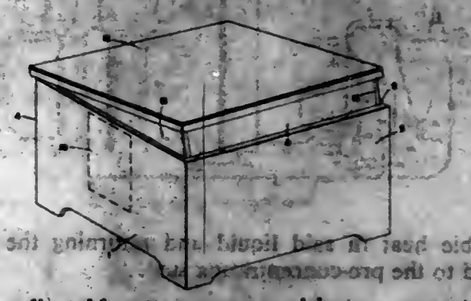
1. In a riding apparatus, a base including front and rear cross bars and a longitudinal bar, an upright supporting member, means pivotally connecting said upright member to said longitudinal bar, a carrier, means pivotally connecting said carrier to said upright member, a resilient element carried by said upright member, and adapted to abut the longitudinal bar to provide a range of fore-and-aft pivotal movement of said upright member about the pivotal connection of said member with said longitudinal bar, a pair of tension springs disposed on one side of said upright member, and a second pair of tension springs disposed on the other side of said upright member, the springs of each pair having upper ends connected to the carrier, and having lower ends connected to said longitudinal bar, one spring of each pair extending downwardly and forwardly from its upper end to its lower end, and the other spring of each pair extending downwardly and rearwardly from its upper end to its lower end.

2,770,292
**SPRING-BACK CHAIR**
Bertie F. Hamilton, Columbus, Ind.; William S. Hamilton, executor of said Bertie F. Hamilton, deceased
Application September 24, 1951, Serial No. 247,969
4 Claims. (Cl. 155—157)



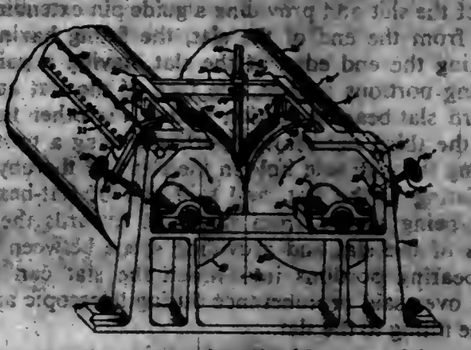
1. In a chair having a seat, a back, a back-support including a generally horizontal portion extending beneath said seat and a generally vertical portion on which said back is mounted, means for pivotally connecting the front end of said horizontal portion to said seat on a horizontal axis transverse to the seat, said means comprising a bracket secured to said seat and a removable pivot pin extending through openings in said bracket and horizontal portion said bracket having a series of openings in which said pivot pin is alternatively receivable, the openings of said series being opened apart fore-and-aft of said seat, and resilient means acting between the seat and back-support and yieldingly opposing rearward movement of the back about said pivot pin.

2,770,293
**ADJUSTABLE OTTOMAN**
Herman H. Eichorst, Hollydale, Calif.
Application April 25, 1955, Serial No. 503,534
2 Claims. (Cl. 155—169)



1. An adjustable ottoman comprising an open-topped box frame member, a cover member having downwardly extending side skirts, a face cam having a substantially parallelogram shaped cam groove secured to at least one of the sides of said frame member, a cam follower attached to the adjacent side skirt and riding in said cam groove and means for supporting the ends of said cover in more than one vertical position.

2,770,294
**APPARATUS FOR PROCESSING LIQUID MATERIAL**
Charles Frederick Fiedler, Jersey City, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware
Application May 14, 1954, Serial No. 429,931
6 Claims. (Cl. 159—16)

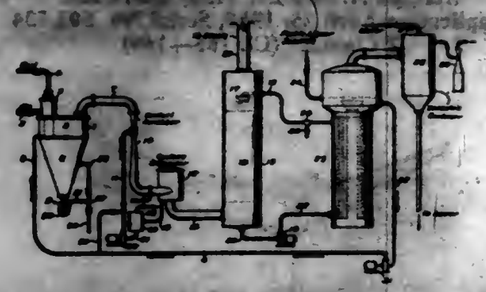


1. Apparatus for processing liquids comprising a pair of parallel, adjacent, horizontally disposed rotary drums adapted to receive in the trough between said drums liquids to be processed on the circumferential surfaces thereof, a pneumatic manifold adjacent to each end of said trough adapted to deliver a stream of gas inwardly against liquid in said trough and against the apex and adjacent walls of said trough, and a gas deflecting means disposed to retard the escape of gas from the end of said trough.

2,770,295
**CONCENTRATING PROCESS AND APPARATUS**
Louis N. Allen, Jr., West Nyack, N. Y.
Application December 5, 1952, Serial No. 324,257
7 Claims. (Cl. 159—16)

1. The process of concentrating a solution which comprises, evaporating solvent therefrom under reduced pressure in a pre-concentrating step and withdrawing the resulting solvent vapor while passing a stream of hotter recirculating liquid in heat exchange with said solution, thereby transferring thereto the heat necessary for the solvent evaporation and cooling the liquid, further concentrating the pre-concentrated solution by physically contacting the solution with hot gas, withdrawing the resulting mixture of gas and hot vapor from the concentrate, physically contacting said mixture of gas and hot vapor with the

recirculating cooled liquid to condense the vapor and recover the latent heat of condensation thereof as increased



sensible heat in said liquid and returning the resulting liquid to the pre-concentrating step.

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2,770,296

**SLAT END GUIDE FOR VENETIAN BLINDS**

Ernst E. Bond, North Plainfield, N. J., assignor to Levelon Hardware Mfg. Corp., New York, N. Y., a corporation of New York

Application May 14, 1953, Serial No. 355,076

4 Claims. (Cl. 160—173)



1. A thin Venetian blind slat of springy sheet metal having a hole through the slat adjacent to an end thereof, a molded one-piece fitting of resilient plastic astride said end of the slat and providing a guide pin extending lengthwise from the end of the slat, the fitting having a body abutting the end edge of the slat, having a pair of slat-bearing portions against one face of the slat and having a third slat-bearing portion against the other face of the slat, the third slat-bearing portion having a protuberance passing through said hole in the slat and thereby securing the fitting to the slat, and said pair of slat-bearing portions being spaced from said hole towards the opposite edges of the slat and providing space between such two slat-bearing portions into which the slat can flex as it rides over said protuberance during telescopic application of the fitting to the slat.

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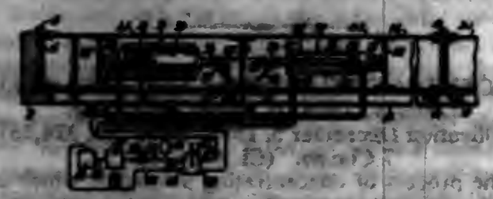
2,770,297

**HYDRAULICALLY ACTUATED ARTICULATED MEMBERS**

Jean Mercier and Jacques H. Mercier, New York, N. Y., assignors to G. M. E. Corporation, Brooklyn, N. Y., a corporation of New York

Application January 19, 1954, Serial No. 404,896

23 Claims. (Cl. 160—188)



1. A system of the character described comprising a pair of pivotally connected members, a hydraulic unit in each of said members mounted in opposed relation, each of said units having a reciprocable plunger, a reaction member, a pivotal mount for said reaction member, one end of each of said plungers being connected to the reaction member on opposed sides thereof respectively, whereby upon movement of said plungers toward each other, said connected members will be rotated about their pivotal mount, the effective area of one of the plungers against which fluid under pressure will react to move said plunger toward the other plunger being greater than the effective area of said other plunger against which fluid under pressure will react.

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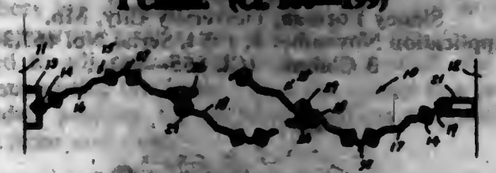
2,770,298

**FOLDABLE CLOSURE**

Wilbur L. Blair, Indianapolis, Ind., assignor to Sylvester, Inc., Indianapolis, Ind., a corporation

Application July 6, 1953, Serial No. 441,585

1 Claim. (Cl. 160—199)



A foldable closure movable between folded and extended positions comprising a series of upright closure panels each having a slot formed along its longitudinal edges, said slots being narrowed at their mouths, and hinges for equalizing the folding and unfolding action of said panels, said hinges connecting each panel to its adjacent panels and comprising a normally substantially V-shaped strip of resilient material, said strip terminating along its longitudinal edges in beads sized to be slidingly received within the slots of said upright panels, said beads having openings formed therein at their opposite ends, and means inserted within said openings for radially distending said beads into frictional engagement with the walls defining said slots.

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2,770,299

**DRAPERY SUPPORTS**

Philip Rosenzweig, Detroit, Mich., assignor to Triangle Specialties Inc., a corporation of Michigan

Application December 6, 1954, Serial No. 473,479

4 Claims. (Cl. 160—349)



1. A drapery heading support for supporting a drape having vertical pleats stitched together, comprising three vertically extending elongated single thickness wire fingers of substantially equal length joined at their lower ends, with the fingers, viewed in plan, defining a triangle, and an inverted U-shaped wire hook member outside the triangle, opposite one of the fingers, and having one end joined to the juncture of the three fingers, the fingers extending well above the hook member the fingers and hook member being integrally joined to form a unitary device.

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2,770,300

**METHOD OF AND APPARATUS FOR FORMING SERRATED CUTTING EDGES ON SLICER BLADES**

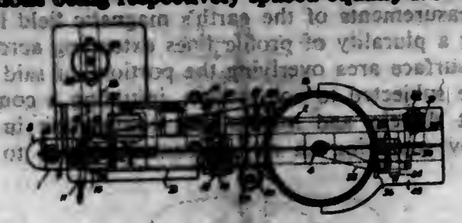
Gordon Hill and Paul C. Bauer, Davenport, Iowa, assignors, by mesne assignments, to Bettendorf Bakery Equipment Company, Bettendorf, Iowa, a corporation of Iowa

Application November 29, 1951, Serial No. 258,952

9 Claims. (Cl. 164—69)

1. The herein described method of forming equally spaced cutting teeth and intermediate scallops throughout an edge of an endless flexible hard steel band, which comprises punching a plurality of scallops in an edge of the band that are spaced apart a distance corresponding to an odd plurality of tooth spaces and punching identically spaced scallops in each of a series of subsequent punching operations, the scallops punched in successive punching operations being respectively spaced equally from scallops





punched in a previous operation a distance corresponding to two tooth spaces spaced scallops from the distance between said identically spaced scallops, and said punching operations being continued until cutting teeth and intermediate scallops are formed throughout the edge of said band.

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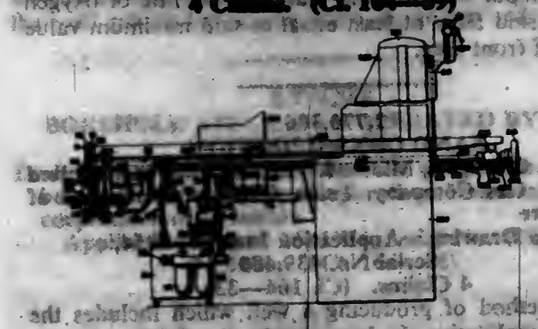
2,770,301

**BACK GAUGE-PLANETARY GEAR-BRAKE DISCONNECT FOR HYDRAULIC DRIVE**

Frederick W. Seybold, Westfield, N. J., assignor to E. P. Lawson Co., Inc., New York, N. Y., a corporation of New York

Application June 20, 1951, Serial No. 232,518

4 Claims. (Cl. 164—59)



1. In a paper cutter, having a horizontal table; a back gauge therefor; a longitudinal screw driving the back gauge; a hand wheel at one end of said screw; drive means for said screw; the invention comprising a connection between said drive means and said screw including a planetary gear and sun gear transmission; the drive means being connected to the planetary gear; the sun gear being rotatably mounted on said screw; an additional planetary gear arrangement between the first-mentioned planetary gear and the screw; apparatus for holding the first-mentioned sun gear stationary and causing the drive means to be connected through said first-mentioned planetary gear and said additional planetary gear arrangement to said screw, said drive means comprising a hydraulic motor, and means for releasing said sun gear to permit free rotation of said screw when said hydraulic motor is inoperative, whereby said screw may be readily rotated by said hand wheel.

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2,770,302

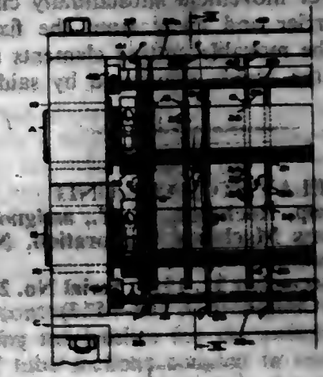
**MACHINE FOR SHREDDING PAPER OR THE LIKE INTO STRIPS**

Florent T. Lee, San Francisco, Calif.

Application January 8, 1952, Serial No. 265,375

2 Claims. (Cl. 164—69)

1. In a machine for shredding paper or the like into strips, a frame, a pair of parallel shafts journaled at spaced complementary points in said frame, a plurality of spaced disc cutters mounted on each shaft intermediate said journals with the cutters on one shaft being interjacent the cutters on the other shaft, means for rigidly supporting said shafts intermediate the journal points and for maintaining the cutters in fixed relationship on said shafts comprising a plurality of combs mounted on each shaft, the combs on each shaft being interjacent the cutters on the same shaft and being opposite the cutters on the other shaft, the combs each having flat bases extended transversely of the shafts with the flat bases of the combs on one shaft extending parallel to the flat bases of the combs on the other shaft, said frame having an upper plate and a lower plate defining flat facing parallel surfaces, the flat bases of the combs on one shaft being seated on one of said surfaces, and the flat bases of the combs of the other shaft being seated on the other of said surfaces, means for connecting said combs to the respective shafts comprising a ring associated with each comb, each ring having a sliding fit with its associated shaft and a running fit with its associated comb and projecting outwardly of the comb on each side thereof to space each comb from the elements adjacent each comb on the associated shaft, said surfaces and bases being perpendicular to a line extending diametrically through both shafts and parallel to the normal line of feed of material to said cutters.



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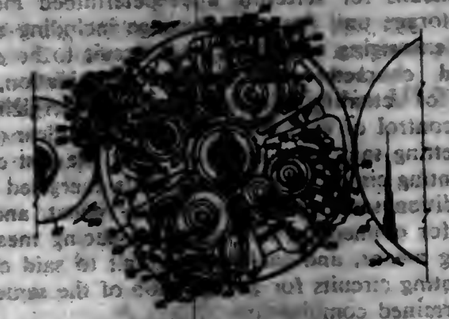
2,770,303

**APPARATUS FOR APPLYING CUTS IN ENVELOPE BLANKS AND THE LIKE**

Richard Winkler, Remscheid, and Kurt Dünnebier, Neuwied (Rhine), Germany, assignors to Rockley Machine Company, Kansas City, Mo., a corporation of Missouri

Application May 24, 1952, Serial No. 289,708

11 Claims. (Cl. 164—64)



1. An apparatus for applying corner cuts in marginal side edges of rhombic shaped blanks wherein angular portions of the blanks provide the flaps of an envelope and the corner cuts define the point of the fold for the flaps, said apparatus including means for feeding the blanks individually and in successive order with the angular portions which form the bottom and closure flaps aligned with the directional feed of the blanks and with the angular portions which form the side flaps extending laterally, a carrier rotatable about an axis transversely of the directional feed of the blanks and forming a circular support for the blanks, laterally spaced cutting elements fixed on the carrier, said carrier having means engaging leading angular portions of the respective blanks to carry

a blank engaged thereby about said circular support with the marginal side edges overlying the fixed cutting elements, movable cutting elements for cooperating with the fixed cutting elements to make sheet cuts through said marginal edges, means for engaging the leading angular portions of the engaged blank to remove the blank from the carrier, and means for supporting the movable cutting elements for bodily support by the carrier along with the fixed cutting elements and for movement on the carrier in a radial direction through said edges of the engaged blank and then for movement substantially circumferentially on the carrier and away from the fixed cutting elements to get the movable cutting elements away from the blank when the blank is engaged by said removing means.

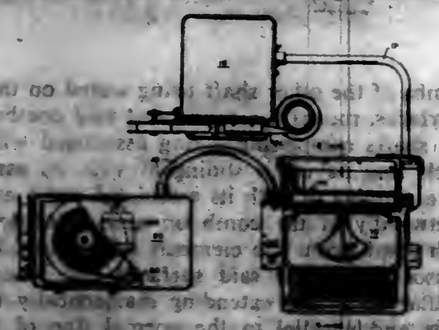
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2,770,304

## RELAY STORAGE UNIT

Henry L. Thelstrup, Rochester, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 21, 1951, Serial No. 262,791
4 Claims. (Cl. 168—113)



1. In combination with a tape reading device, an electric typewriter and a tape punching device, wherein are located separate electric circuits representing the characters to be recorded by said typewriter and by said punch, means for inserting any given message or predetermined specific combination of characters to be recorded by said typewriter and said punch which was not found on said tape, comprising, means for producing electrical pulses of a proper duration and spacing for sequentially energizing said character representing circuits, means for selecting a predetermined message, a relay storage unit for each message including a pair of circuit energizing relays for each circuit to be energized in said character representing combination, circuit means for actuating said pair of circuit energizing relays under control of said electrical pulses, a clear-out relay for resetting said pairs of relays after the last character representing circuit of said message is energized in order to condition said storage unit for a repeat, and circuit means for connecting said pulse producing means, said selecting means, and said storage unit to said character representing circuits for energization of the same in said predetermined combination.

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2,770,305

## UNDERGROUND COMBUSTION OPERATION

Sylvain J. Pirson, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application September 2, 1952, Serial No. 307,548
4 Claims. (Cl. 166—4)

1. In the recovery of oil from an underground reservoir by a process involving combustion of a portion of the oil in place, wherein the reservoir stratum, at a known depth and of known thickness, contains materials having magnetic properties susceptible to being altered by the heat of the combustion process, and wherein the rate of oxygen supply to a combustion front in said stratum must be maintained above a minimum value per unit of front area to secure propagation of said front therethrough in a stable manner, the improvement comprising, in combination, the steps of making at the earth's surface an initial set of measurements of the earth's magnetic field intensity along a plurality of profile lines extending across at least the surface area overlying the portions of said stratum to be subjected to combustion, initiating a combustion front therein and maintaining combustion in said stratum by supplying an oxygen-containing gas to said



front through at least one oxygen-input well penetrating said stratum, remeasuring at intervals the earth's magnetic field intensity, and determining and plotting the differences between the initial and the remeasured values of said magnetic field intensity so as to show in several directions around said input well the positions of the boundary of the burned-out zone, noting said boundary positions, and adjusting, on the basis of said re-measured values, the rate of injection of said oxygen-containing gas into said input well so as to maintain the rate of oxygen supply to said front at least equal to said minimum value per unit of front area.

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2,770,306

## SAND CONSOLIDATION

Roscoe C. Clark, Jr., Midland, Tex., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

No Drawing. Application June 25, 1954, Serial No. 439,499
4 Claims. (Cl. 166—33)

1. A method of producing a well which includes the step of consolidating the loose sands of a fluid-producing formation penetrated by said well, said consolidating step comprising obtaining samples of said sand, applying to one sample a mixture of a resin-forming liquid and oil acting as a diluent therein, to determine whether the resin of said mixture will combine with and coat the particles of sand and the diluent will occupy the interstices of the sample or vice-versa, applying to a second sample a mixture of said resin-forming liquid and water acting as a diluent therein, to determine whether the resin of said mixture will combine with and coat the particles of said sand and the diluent will occupy the interstices between the particles or vice-versa, injecting into said formation that mixture of resin-forming liquid and diluent which combines with the sand particles so that the resin coats the particles and the diluent occupies the interstices between the particles, whereby the particles of sand in said formation are wetted only by said resin-forming liquid, maintaining said mixture in place in said formation while said resin-forming liquid solidifies, and producing fluids from said formation into said well to remove said diluent and leave the formation surrounding said well consolidated and permeable.

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2,770,307

## PARAFFIN REMOVAL PROCESS FOR OIL WELLS

Thomas J. Deardorff, Loveland, Tex., assignor, by mesne assignments, to Paraflow, Inc., a corporation of New Mexico

Application June 1, 1954, Serial No. 433,567
7 Claims. (Cl. 166—21)

1. A method of removing deposited paraffin accumulation from the well tubing and pump rods of pumping oil



wells which comprises sequentially forcing layers of an emulsion breaker, a lubricant gasses and hot oil down the well tubing thereby removing the encrusted paraffin from the well tubing and pump rods and depositing a lubricant coating on the well tubing, agitating the mass formed by the successive layers during their passage down the well tubing by reciprocating the pump rods.

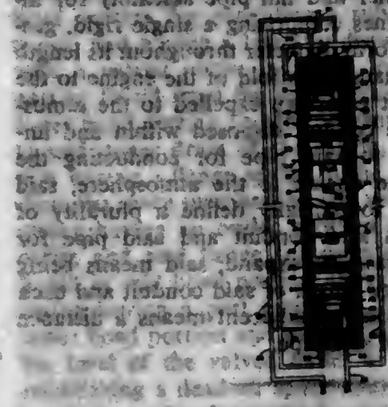
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2,770,308

## BOREHOLE APPARATUS OPERATED BY THE WELL FLUID

Dean F. Sauerwein, Houston, Tex., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware

Application August 11, 1954, Serial No. 449,231
3 Claims. (Cl. 166—65)



1. Borehole apparatus comprising a housing adapted to be passed through a borehole containing a column of liquid, a fluid chamber in said housing, means for applying the hydrostatic pressure of said column of liquid to the fluid in said chamber, a tank in said housing filled with a low pressure fluid, a cylinder in said housing containing a piston, first valve means in a first channel connecting said chamber to said cylinder on one side of said piston, second valve means in a second channel connecting said tank to said cylinder on the other side of said piston, third valve means in a third channel connecting said chamber to said cylinder on said other side of said piston, fourth valve means in a fourth channel connecting said tank to said cylinder on said one side of said piston, means for opening and closing said first and second valve means simultaneously, and means for opening and closing said third and fourth valve means simultaneously.

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2,770,309

## DIRT GUARDS

Albert J. Whitehead, Bradford, Pa.

Application April 19, 1955, Serial No. 502,153
16 Claims. (Cl. 166—65)



1. In a control for a well pump, a casing, a switch and actuating mechanism for the switch in said casing, a string of tube sections coupled in end-to-end engagement with each other and being of a length to extend to the top of a well in which the casing is disposed at the bottom of the well; and a dirt excluder between said casing and the bottom tube section, said dirt excluder comprising a vertically disposed cylindrical housing, couplings connecting ends of said housing with the lower tube section and the upper end of said casing, the lower coupling having therein a partition formed with a centrally located threaded opening, a guard tube disposed vertically in said housing and having its lower end screwed into the threaded opening and its upper end spaced downwardly from the upper end of the housing, space within the housing about said tube constituting an annular dirt-receiving chamber, and a temporary closure for the upper end of said tube serving to prevent passage of foreign matter through the tube into the casing during assembling of the tube sections, said closure being formed of frangible material adapting it to be ruptured by a conductor passed downwardly through the string of tube sections into the housing and through the tube therein.

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2,770,310

## POWER PROPELLED HAND TRUCK

Joseph Harold Gates, Glendale, Calif., assignor of one-half to Dale Gates, Albany, Ind.

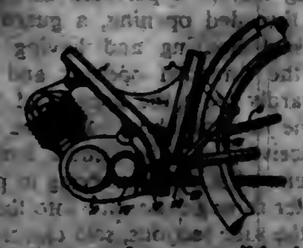
Application February 19, 1953, Serial No. 337,726
3 Claims. (Cl. 180—19)



1. A carrier including, an elongate frame, and two individually shiftable supporting means connected to the forward end portion of the frame and shiftable relative to each other and each shiftable relative to the frame to be selectively and individually employed to support the frame, one of said supporting means being an elongate tractor type supporting means including, an elongate carriage, legs fixed to and depending from the forward and portion of the frame, the forward end portion of the carriage being pivotally carried by said legs on a horizontal

axis extending transversely of the frame, adjustably extensible links connecting the frame to the rear end portion of the carriage, there being fasteners for selectively locking the links to secure the rear end portion of the carriage against movement vertically relative to the frame, rollers journaled in each end of the carriage, endless flexible ground engaging members carried by the rollers and extending lengthwise of the carriage, the other said supporting means being a wheel type supporting means including, a pair of spaced arms, and a pair of ground engaging wheels journaled in the forward ends of the arms, the rear ends of the arms being pivotally carried by the frame on an axis extending transversely thereof, the wheels being carried on a common axis to shift with the forward ends of the arms to move vertically relative to the frame and relative to the tractor type support at the forward end of the frame and into and out of position where they are below the tractor type of support at the forward end of the frame, and a pin engageable between each arm and the frame for selectively securing the arms and wheels against movement vertically relative to the frame.

2,770,311
LIGHT MOTORCYCLE CONVERTIBLE TO ENGINE-ASSISTED PEDAL CYCLE AND VICE VERSA
Alfred Krettler, Stuttgart, Germany
Application June 23, 1954, Serial No. 438,709
Claims priority, application Germany June 26, 1953
5 Claims. (Cl. 180—33)



1. In a light motorcycle convertible into an engine-assisted pedal cycle, a cycle frame carrying a front and a rear wheel, a unitary crankcase and gearbox assembly having a recess in one side thereof, a first shaft rotatable in geared relationship to said engine and having one end portion within said recess and its other end portion carrying a first chain-wheel with first means for driving said rear wheel, a freewheel chain sprocket engaging said one end portion of said first shaft and a kickstarter chain having one end attached to said sprocket, if used as a motorcycle only, said cycle frame having a bottom bearing, a footrest bar mounted in said bottom bearing and a kickstarter lever attached to the other end of said kickstarter chain and mounted for partial rotation coaxially with said footrest bar, said footrest bar and said kickstarter lever being adapted to be replaced by a second shaft carrying pedal cranks and a second chainwheel with second means for driving said rear wheel, in order to convert said motorcycle to an engine-assisted pedal cycle.

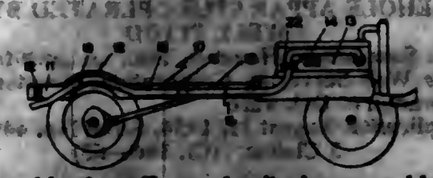
2,770,312
SEISMIC WAVE GENERATION
Donald Stevenson, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
Application September 11, 1953, Serial No. 379,994
9 Claims. (Cl. 181—.5)

1. Seismic surveying apparatus comprising, in combination, an elongated explosive charge comprising a plurality of segments of explosive material placed end-to-end in a bore hole opposite an earth medium of seismic wave propagation velocity V, alternate segments of said explosive material having a detonation velocity $V_1$ less than V and the remainder of said segments having a detonation velocity $V_2$ greater than V, the sum of lengths of any two adjacent segments being chosen to provide



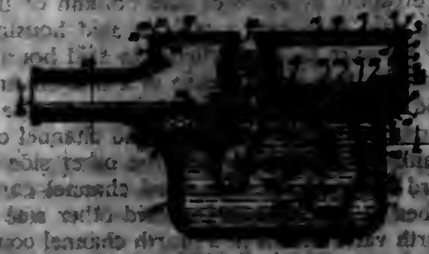
an average detonation velocity therethrough approximately equal to V, means for initiating detonation of said charge at one end thereof, and means spaced from said charge for receiving and recording the resultant seismic waves after travel through the earth's subsurface.

2,770,313
COMBINATION TAIL PIPE AND MUFFLER
Samuel G. Johnson, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application January 19, 1953, Serial No. 267,248
7 Claims. (Cl. 181—41)



3. A combined muffler and tail pipe assembly for internal combustion engines comprising a single rigid, gas-impervious pipe of uniform diameter throughout its length extending from the exhaust manifold of the engine to the area where the exhaust gases are expelled to the atmosphere; a single flexible conduit disposed within and immovable with respect to said pipe for conducting the exhaust gases from the engine to the atmosphere, said conduit being formed to partially define a plurality of means spaced between said conduit and said pipe for allowing the exhaust gases to expand, said means being disposed along the entire length of said conduit and each means being spaced from an adjacent means a distance less than the diameter of said pipe.

2,770,314
FLOOR DRAIN
Paul R. Powell, Kansas City, Mo.
Application November 3, 1954, Serial No. 466,567
2 Claims. (Cl. 182—14)

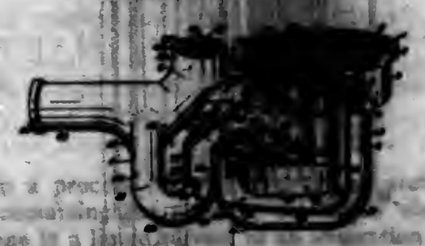


1. A floor drain including a casing having a flow passageway therethrough from a drain inlet in said casing to a drain outlet on a side of the casing remote from the drain inlet, said casing having a part depending from



vicinity of said passageway to a point below the outlet for holding a seal with a body of water trapped in the passageway to prohibit sewage gases from escaping through the drain inlet side of said depending part of the casing, the drain outlet side of said depending part of the casing having an upper drain compartment and a lower valve compartment within said passageway, said partition having an opening therethrough, a backflow control valve having an annular plate portion closing said opening and having a depending duct portion extending downwardly through said opening and terminating in an outlet below the level of the outlet of said casing, means forming a valve seat in the passageway at the outlet side of said depending part of the casing and at a level below said outlet of the casing, means forming a valve seat on the outlet of said duct, and valving members on the outlet side of said seat forming means and arranged to open in the direction of flow from the drain inlet to the drain outlet and to seat in case of backflow from the outlet of the casing in the direction of said drain inlet.

2,770,315
DRAIN WITH VALVED TRAP
Paul R. Powell, Kansas City, Mo.
Application January 7, 1953, Serial No. 330,061
1 Claim. (Cl. 182—19)



A floor drain including a casing having a lower bowl portion and an upper drain portion, a back-flow type unit having a substantially vertical duct extending into the lower bowl portion and of a size relatively to said lower bowl portion for providing a substantial space therebetween, and having a laterally disposed terminal provided with a valved outlet into said lower bowl portion for passing liquid from the upper drain portion into the said lower bowl portion and for preventing back-flow of liquid to said upper drain of the casing, said vertical duct portion having a flange seated in the upper drain portion to close the space surrounding said vertical duct portion, said casing having an outlet between the level of the valved outlet and said flange for maintaining the level of the liquid in said bowl portion above the valved outlet, said casing having a part extending therefrom between the lower bowl portion and said outlet and terminating below the level of the valved outlet to form a liquid seal for establishing a dead-air space above the level of the liquid in the lower bowl portion for retarding surface evaporation of said liquid, and a partition extending upwardly across the interior of the casing between the valved outlet and the said part of the casing and terminating at a level between the valved outlet and the outlet in the casing to cooperate with the outlet in assuring a water seal over the valved outlet.

2,770,316
APPARATUS FOR COLLECTING AIR CONTAMINANTS
Jack T. Wilson and Robert J. Ryan, Milwaukee, Wis., assignors to The Louis Allis Company, Milwaukee, Wis., a corporation of Wisconsin
Application October 26, 1954, Serial No. 464,488
4 Claims. (Cl. 183—7)

1. An air testing apparatus comprising a housing having an inlet at one end thereof and an outlet at its other end, a fan for causing air to flow through the housing from the inlet to the outlet, and collector means in the housing upon which contaminants in the air flowing therethrough may be deposited to enable analysis of the nature and quantity of contaminants in the air at the location of the apparatus, said apparatus being characterized by the fact that the collector means comprises a holder in the housing having a stem in the housing extending in a



direction parallel to the flow of air from the inlet to the outlet and a plurality of spaced-apart finger-like projections radiating therefrom so as to be disposed transversely to the direction of air flow through the housing; and a woven fibrous sleeve readily removably fitted on each of the projections and impregnated with a non-volatile hygroscopic liquid.

2,770,317
REFRIGERATOR DEHYDRATOR
Edward W. Bateman, Detroit, Mich.
Application October 1, 1953, Serial No. 383,534
1 Claim. (Cl. 183—4.9)



In a dehydrator adapted for placement in a refrigerating system to dehydrate a refrigerant and comprising a hollow casing having inlet and outlet means and a wire mesh bag containing a granular desiccant disposed therein, the improvement consisting of a spring wire positioned in a channel formed by folding and fastening the end of said bag, said spring wire being slightly bowed with the ends thereof engaging the inner wall of said container to firmly position said bag within said container and prevent movement of said bag relative to said container thereby preventing the powdering of said desiccant.

2,770,318
ODOR AND SMOKE CONSUMER
Kenneth F. Tilger, Huntington, Ind.
Application May 2, 1955, Serial No. 505,460
1 Claim. (Cl. 183—6)



An odor and smoke consumer adapted to be mounted in the smoke emitting line of a burner, comprising a series of perforated elongated sheet metal tubes extending transversely of the flow of gas through said line, said tubes being positioned in parallel spaced relation to each other with portions of one tube overlapping portions of the adjacent tubes to present a continuous intercepting surface to odor and smoke producing particles carried by said gas while permitting the flow of gas therebetween,

said a fuel conducting manifold having a plurality of burner nozzles extending in alignment with each said tube for directing a flame interiorly thereon to render it individually incandescent from within, whereby said particles will be consumed upon striking the exterior of said incandescent tubes and prevented from passing out of the flue.

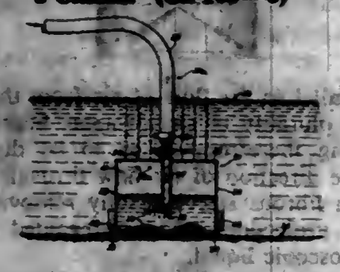
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2,770,319

## DUST SEPARATOR

Ley D. Hagenbook, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application August 5, 1954, Serial No. 448,634
5 Claims. (Cl. 183—9)



1. A dust separator completely immersible under liquid, said separator comprising a housing having side walls, a perforate top wall and an open bottom defining an air chamber, said housing being weighted to offset the buoyancy of air within said chamber when said separator is completely immersed under a liquid, an open-ended inlet pipe extending through the center of the top wall having one end thereof adapted for connection to an eductor hose bringing a mixture of dust-laden air from a source located remotely therefrom, the other end of said pipe terminating in a perforated portion disposed within said housing, an aspirator mounted in said pipe, said aspirator having the suction end thereof located outside the housing effectively inspiring liquid into said pipe responsive to the flow of dust-laden air therethrough to pre-mix liquid and dust-laden air within said pipe and the perforated end portion of said pipe being effective to further mix and facilitate settling of dust through the open bottom of the housing and the passage of dust-free air through the perforate top wall.

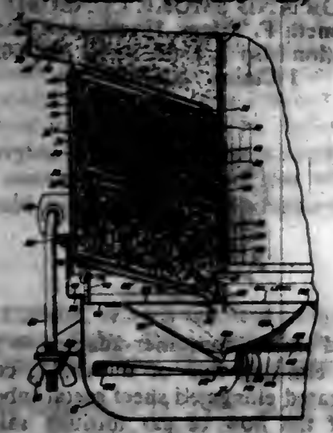
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2,770,320

## OIL BATH AIR CLEANER

John J. Dreznes, Chicago, Ill., assignor to United Specialties Company, Chicago, Ill., a corporation of Delaware

Application December 19, 1952, Serial No. 326,973
7 Claims. (Cl. 183—15)



1. In a liquid bath air cleaner, a central intake air shaft, a housing surrounding the air shaft, the space between the housing and the shaft constituting a filter space chamber, the end of the housing opposite the intake end of the air shaft being provided with a removable cup, at least two, insertable cartridge positioned within the space, removably surrounding the air shaft, the cartridges having filtering intensities that increase from one cartridge to the next along the path of air movement through the filter space chamber, the cartridge relatively adjacent the removable cup being provided with a projection element so that the cartridges can only be inserted in the order of decreasing filtering intensity, the cartridges remote from the removable cup being provided with a depending collapsible member attached to the cartridge so that, after the lower cartridge has been removed, the collapsible member depends and constitutes a handle by which the cartridge may be manipulated.

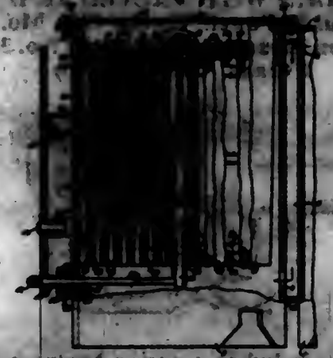
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2,770,321

## AIR FILTERING APPARATUS

Raymond E. Bischoff, Chamblee, Pa., assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 24, 1954, Serial No. 438,953
15 Claims. (Cl. 183—69)



1. Filtering apparatus comprising an upright drum, a plurality of spaced concentric rings each in a horizontal plane in the upper part of the drum, a downwardly tapered filter bag in the drum having its larger end encircling the rings and sealed to the drum, the bag being telescoped up and down within itself between upper and lower folds to provide concentric filtering walls hanging down around and between the rings, the rings being disposed beneath said upper folds and supporting said walls, spacing members engaging the inner surface of the bag between said walls, a rod extending across the drum above the rings and supported by the drum, and means suspending the rings from the rod, the lower part of the drum being provided with an air inlet and the upper part of the drum being provided with an air outlet.

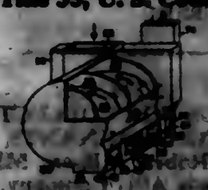
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2,770,322

## SPARK AND FLY ASH ARRESTOR

James W. Bastian, Jr., Lansdowne, and William A. Fate, Jr., Springfield, Pa., assignors to the United States of America as represented by the Secretary of the Navy

Application May 20, 1954, Serial No. 431,364
2 Claims. (Cl. 183—68)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A spark and fly ash arrestor comprising a horizontally disposed spiralled outer wall having vertically spaced overlapping inner and outer edges providing an extended outlet in the lower portion thereof, a cylindrical inner wall providing an axial interior passageway with the outer



wall and an inner passageway, a compartment at one end of the housing interconnecting said passageways, a transverse strip within the annular space providing a helical path, a supply conduit in communication with the annular passageway for the admission of combustion products, means adjacent the other end of the housing for establishing flow of the combustion products through the helical path in the passageways and through the chamber and a lower compartment in communication with the extended outlet for receiving separated deposits from the flowing combustion products.

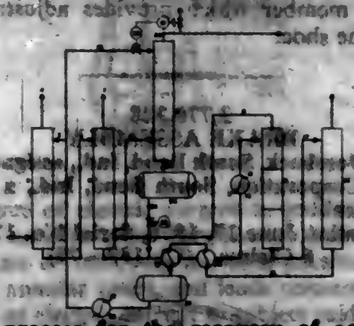
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2,770,323

## ACETYLENE HANDLING

Theodore Breitmayer, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application February 15, 1952, Serial No. 272,282
4 Claims. (Cl. 183—115)



1. In a process for the recovery of acetylene from gases containing the same by selectively absorbing the acetylene in a liquid solvent in an absorption zone, withdrawing the acetylene-rich solvent from the absorption zone and passing it to a desorption zone where acetylene is released from the solvent, and recycling the solvent from which acetylene has been released for absorption of further amounts of acetylene, the improvement which comprises passing the released acetylene through a final column, provided with liquid-vapor contact means and connected to an auxiliary surge tank, where it flows upward countercurrent to a descending stream of solvent, automatically controlling the rate at which purified acetylene is produced from said final column by regulating the overhead pressure in such a manner that any increase in pressure results in an increase in solvent feed to the column to absorb the excess acetylene, the acetylene-rich solvent being passed from the bottom of said final column and stored in the connected auxiliary surge tank, and any decrease in pressure in the overhead line results in a consequent reduction in the solvent feed to said final column to permit additional purified acetylene to pass overhead.

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2,770,324

## SELF-LEVELING LIFT

Robert J. Peterson, Warren, Minn.

Application July 21, 1952, Serial No. 299,989
1 Claim. (Cl. 187—34)



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2,770,325

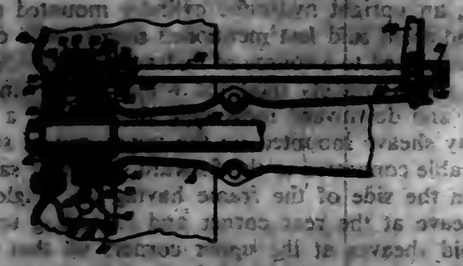
## BRAKE AND ACTUATING MECHANISM THEREFOR

Edward K. Dornbeck, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application August 9, 1947, Serial No. 767,710
10 Claims. (Cl. 188—18)

1. For use on a vehicle having a rotatable brake drum and a non-rotatable axle housing, brake mechanism comprising a supporting plate secured to the axle housing, an anchor pin supported on said plate at one side thereof, said anchor pin extending toward the center of the vehicle, two brake shoes horizontally extending brake shoes mounted on said plate, said plate having outwardly extending arms which guide the webs of said shoes, said shoes hav-

ing adjacent separable end portions which engage opposite sides of the anchor pin in released position and which are arranged to anchor selectively during braking depending upon the direction of drum rotation, an actuating shaft which extends horizontally from the brake assembly toward the center of the vehicle, the end of the shaft which actuates the brake being flatted to provide two longitudinally extending legs which straddle the anchor pin and which rest on the end of one shoe, the legs being arranged when the shaft is rotated to exert a spreading force on the adjacent separable ends of the shoes, the end of the shaft remote from the brake assembly being journaled in a bearing provided by the axle housing and having sufficient play in said bearing to permit slight vertical swivelling movement of the shoe-actuating end of the shaft as the shoe ends shift toward or away from the anchor pin, and a lever arm carried by the actuating shaft which is adapted to be manually operated to apply the brake.





2,770,526
BRAKE MECHANISM
Robert W. Wertzen, North Riverside, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application August 3, 1950, Serial No. 177,471
5 Claims. (Cl. 188—78)

1. In brake mechanism, the combination of a rotatable toothed element, a sprag movable toward and away from the rotatable element and adapted to engage the latter, a manually operable control, a toggle linkage comprising two links having a pivotal connection at ends of each and one of said links being connected at its other end with said sprag and the other link being pivotally connected at its other end with a stationary member, a pin on said first pivotal connection, and a lever connected to be moved by said manually operable control and having surfaces defining a generally U-shaped opening on its end for receiving said pin whereby to move the pivoted links in one direction to engage said sprag on movement of said manually operable control in one direction and whereby to move the pivoted links in another direction to disengage said sprag and to disengage said slot from said pin on movement of said manually operable control in another direction.

2,770,527
BRAKE ASSEMBLY
William E. Wahl, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application September 13, 1950, Serial No. 184,974
9 Claims. (Cl. 188—78)

4. A brake assembly comprising a support member having two axially-spaced anchor projections, a brake shoe having a transversely-extending anchor pin supported on its anchoring end and arranged to engage simultaneously both of said projections, and a shoe-positioning member which engages the shoe at a point remote from its anchoring end which is so constructed as to



assist in laterally positioning the shoe web, said shoe-positioning member having an adjustable connection with the support member which provides adjustment of the position of the shoe.

2,770,528
BRAKE ASSEMBLY
Edward K. Dornbush, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 27, 1950, Serial No. 170,545
6 Claims. (Cl. 188—78)



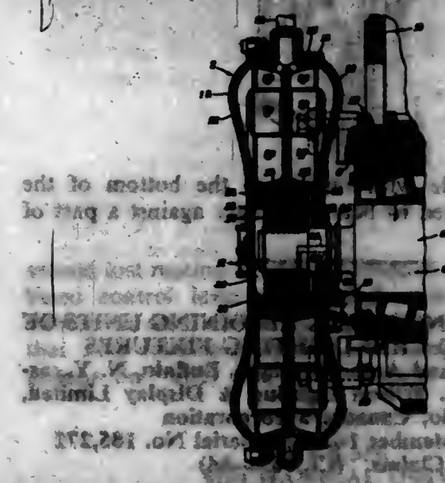
6. For use on a vehicle having a rotatable drum and a non-rotatable housing therefor, brake mechanism comprising a torque-taking member adapted to be secured to said housing and being provided with a radially outwardly disposed pinion having axially spaced sides, an axially extending anchor member secured between said sides, two brake shoes carried by said torque-taking member and having adjacent separable end portions which anchor on corresponding side portions of said anchor member, and an actuating lever pivotally carried by said anchor member and having one arm operative to effect spreading of said separable end portions and having the other arm bent to project through an opening in said torque-taking member whereby this last mentioned arm may be rotated about said anchor member to cause said shoes to be forced into frictional engagement with the drum.

2,770,529
HYDRAULIC MAGNETIC FLUID BRAKE
William J. Casey III, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application July 26, 1952, Serial No. 300,942
7 Claims. (Cl. 188—90)

1. In a brake arrangement for a railway car truck having a journal box mounted on a truck frame, an axle having an extension integral and coaxial therewith and projecting outwardly from the journal box, a hydraulic torque converter including a casing extending axially coaxial with said extension and secured to said journal box,



sealed coaxial bearings formed of non-magnetic metal provided on the casing coaxial with said axle extension, a cylindrical sleeve formed of paramagnetic metal rotatably mounted on said bearings, an impeller secured on said sleeve to circulate liquid within the casing, a cylindrical housing formed of paramagnetic metal secured on said extension within said sleeve to define therewith an annular space, a coil within said housing to be energized



from a source of electric current to produce a magnetic flux in said annular space between the housing and said sleeve, a mass of relatively movable paramagnetic particles in said annular space, and leads connecting said coil to a source of electric current to subject said housing and sleeve and mass of paramagnetic particles to a magnetic field to produce a coupling force between said housing and sleeve.

2,770,530
BRAKING DEVICE
Cesar Jaques, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application July 5, 1952, Serial No. 297,238
Claims priority, application Netherlands August 18, 1951
6 Claims. (Cl. 188—90)



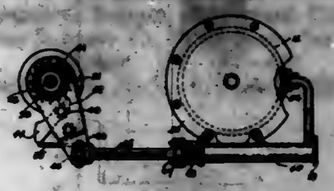
1. A liquid brake assembly comprising a vessel containing a filling liquid, a cylindrical sheath communicating with said vessel and comprising an aperture for supplying and discharging said liquid and an open conduit member interconnecting the interior of said sheath as a source of gaseous medium arranged exteriorly to said liquid, a trough-shaped member secured to a wall of the vessel and intimately engaging and supporting a portion of said sheath, said trough-shaped member having openings corresponding to and aligned with each of said apertures, a blade wheel disposed within said cylindrical sheath, and input power means for rotating said blade wheel, said input power means rotatably guiding said blade wheel at a speed to cause substantially all of the liquid in said sheath to be displaced by centrifugal action through said apertures and said openings whereby said blade wheel operates substantially in said gaseous medium at speeds at least equal to that of said normal rotation and at least a portion of said liquid at speeds below the speed of normal rotation, said portion of liquid exerting a braking action on said blade wheel.

2,770,531
BRAKE SLACK ADJUSTER
George B. Dewy, Westmount, Quebec, Canada
Application February 7, 1952, Serial No. 436,609
6 Claims. (Cl. 188—196)



1. In a slack adjuster for the brake leverage system of a railway car including a rod through which braking force is transmitted and a rotatable take-up device in said rod operable by rotation for varying the length of the connection and thereby compensating for slack in the system, a ratchet, lever and pawl structure for rotating the take-up device by rocking movement of the lever, the herein described improved means for rocking the lever including an operating lever swingable in a plane substantially parallel with the plane of swinging movement of the rocking lever, a bar pivotally connecting the respective levers, and a spring connecting the operating lever and bar and wholly carried thereby for moving the bar by changing the angular relation between the bar and operating lever.

2,770,532
PAWL RELEASING MEANS FOR A SLACK ADJUSTER
George B. Dewy, Westmount, Quebec, Canada
Application September 29, 1954, Serial No. 459,193
1 Claim. (Cl. 188—196)



In a slack adjuster for the brake leverage system of a railway car and the like having a take-up device operable by rotation thereof to vary the relation between certain parts of the system and thereby compensate for excessive slack in the brake parts and having a structure for rotating the take-up device to take up slack including a ratchet wheel fixedly mounted on the take-up device and a lever freely swingable on the take-up device, said lever having a pawl pivotally mounted thereon to provide a clutch connection between the ratchet wheel and lever when the latter is swung in a direction to take up slack and a declutched connection when swung in the opposite direction, said pawl being provided with a weighted extension to bias the pawl into engagement with the ratchet wheel, said structure including an operating link pivotally mounted on the lever for swinging the latter by movement of the link, the herein described improved means for releasing the pawl from the ratchet wheel at the completion of the take up movement and including an extension on the link lying beneath the weighted extension of the pawl and adapted to engage therewith at the completion of the take-up movement of the link to declutch the pawl from the ratchet wheel and allow free rotary movement of the take-up device in either direction.

2,770,250

**BRAKE SHOE ADJUSTER AND RELEASE MECHANISM**

Robert F. Smith, Detroit, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Original application May 9, 1952, Serial No. 286,934. Divided and this application April 22, 1954, Serial No. 424,993

8 Claims. (Cl. 188—315)



1. In a brake assembly, a support plate, a brake shoe of the expanding type rockably mounted on said support plate, a rotatable cam carried by said support plate having portions engageable with said shoe to provide for adjustment of the shoe relative to said support, an anchor means carried by said support plate and spaced from said cam, a strut member extending between said cam and said anchor means, and a resilient element connected between said strut and said shoe.

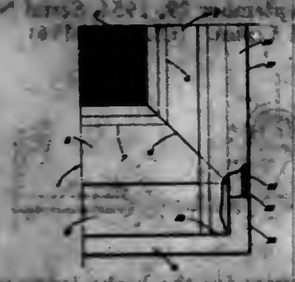
2,770,334

**DOOR FRAME STRUCTURE**

David Jordan Rust and Josh H. Jensen, San Leandro, Calif., assignors to Rylock Company, Ltd., San Leandro, Calif., a corporation of California

Application November 6, 1954, Serial No. 467,426

2 Claims. (Cl. 189—46)



1. In a metallic door frame having a horizontal bottom rail and a vertical stile extending from the lower inner corner of said frame; a vertical attachment post at the inner edge of the frame laterally adjustably secured thereto, said post lapping the front of the stile and the adjacent end of the bottom rail, and a horizontal shoe rail vertically adjustable in and depending below the bottom rail; the post including a vertical back wall, said back wall being notched at the lower end portion, and the adjacent end portion of said shoe rail projecting through the notch and terminating flush with the back edge of said post.

2,770,335

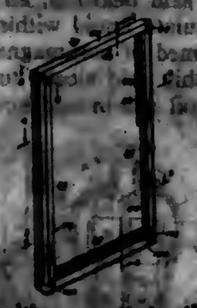
**WINDOW FRAME ASSEMBLY**

Joseph Sylvan, Bentley, Mich.

Application April 6, 1953, Serial No. 346,981

10 Claims. (Cl. 189—78)

1. A window frame assembly adapted to be received within a window opening and having a pair of jamb portions each being channel shape in cross section and each having the bottom of its channel shape disposed parallel to the plane of the frame and adapted to seat against an outer surface of an jamb portion defining the window opening and each having the outer side wall of its channel shape formed of resilient sheet metal and flared outwardly at an obtuse angle with respect to the bottom of the channel and adapted to bear yieldingly against a part of the jamb.



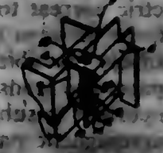
2,770,336

**MEANS FOR CONNECTING ADJOINING UNITS OF LOUVERED GRID LIGHTING FIXTURES**

James V. Vevirit and Anthony Giuffre, Buffalo, N. Y., assignors to J. A. Wilson Lighting & Display Limited, Toronto, Ontario, Canada, a corporation

Application September 16, 1953, Serial No. 185,272

5 Claims. (Cl. 189—84)



1. In combination, a pair of louvered grid lighting units having adjoining walls, said walls having recesses in their adjoining surfaces intermediate their upper and lower edges, a portion of one of said wall surfaces facing towards a portion of the adjoining surface of the other wall, said facing surface portions being between the upper edges of the walls and the recesses, and a clip connecting said walls, the clip comprising a wall embracing portion connecting said walls and spacer means extending downwardly from said embracing portion between the walls, the spacer means being in contact with said facing surface portions thus spacing the walls a predetermined distance apart, each wall having a projection extending from the wall towards the adjoining wall, the projection having a rib that is spaced from, and that has a vertical surface facing, the wall from which the projection extends, said vertical surface defining with the wall the recess of the wall, and the spacer means fitting in said recesses against said vertical surfaces thus preventing spreading apart of the walls.

2,770,337

**DUAL CONTROL MECHANISM**

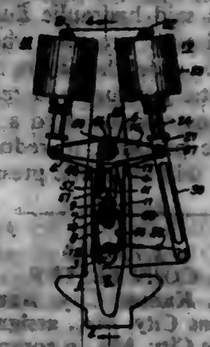
Edwin G. Hunt, Kalamazoo, Mich.

Application January 2, 1953, Serial No. 329,355

9 Claims. (Cl. 192—4)

1. In a combined control mechanism for a reversing clutch and a throttle valve, a clutch shaft, a combined control lever having a neutral position, a clutch control linkage coupled to said clutch shaft for positioning rotation of said clutch shaft, means thus coupling said clutch linkage to said combined control lever through a first lost motion coupling, an input end power booster having a valve control for actuating said power booster, means for connecting said power booster to said clutch linkage to actuate said clutch linkage, a valve linkage connected between said combined lever and said valve control, said valve linkage operating said valve control to actuate said power booster upon a movement of said combined lever from its neutral position by an amount less than that necessary to take up the lost motion in said first lost motion coupling, a throttle control member for controlling the throttle valve, a throttle linkage connected to said throttle lever for effecting movement thereof, a second lost motion coupling connected between said combined control lever and said throttle linkage, the lost motion in said second lost motion coupling being such that said combined control lever engages said throttle linkage only after said clutch linkage has been actuated.





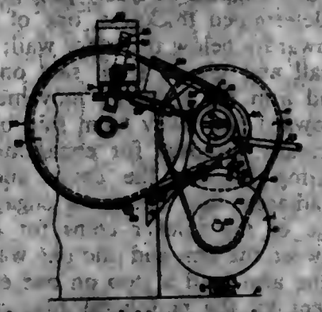
2,770,338

**MECHANICAL DRIVE**

James H. Penney, Buffalo, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 30, 1953, Serial No. 334,153

9 Claims. (Cl. 192—11)



1. A belt drive comprising, a stationary support, a drive motor, means pivotally mounting said drive motor on said stationary support, a jack shaft pedestal secured to said motor and projecting upwardly therefrom, a jack shaft secured in said pedestal, a motor pulley secured to the shaft of said motor, a flywheel, a driving pulley connected to said flywheel, said flywheel and driving pulley being mounted on said jack shaft, a driven pulley mounted on said stationary support, a first belt connecting said motor pulley and said flywheel, a second belt connecting said driving and driven pulleys, said motor and pedestal tilting toward said driven pulley to loosen said second belt, a friction member, a lever movably mounting said friction member on said stationary support adjacent the portion of said second belt passing over said driven pulley, and a link connecting said lever with said pedestal to actuate said friction member by movement of said pedestal.

2,770,339

**LEVER HOIST**

Orrie E. Dotson, Lisbon, Ohio, assignor, by mesne assignments, to The Allen Plastic Mold and Die Company, Cuyahoga Falls, Ohio

Application March 30, 1953, Serial No. 345,656

5 Claims. (Cl. 192—16)

1. In a lever hoist, a hollow body member having oppositely disposed aligned openings, a driven shaft located therein and journaled therein midway between said openings and in one of said openings a sprocket and an annular flange secured to said driven shaft and a thread pattern formed on said driven shaft, said sprocket, annular flange and thread pattern positioned in spaced relation to one another, a cam disc rotatably positioned on said driven shaft between said annular flange and said thread pattern, and a secondary body member engaged on said thread pattern, an annular ring within said first mentioned body member about said cam disc and spaced with respect thereto, a plurality of cam slots



formed in the periphery of said disc and a plurality of rollers located one in each of said cam slots for engagement with said annular ring when moved in one direction, means for rotating said secondary body member, said secondary body member being capable of limited rotation on said thread pattern on said driven shaft to engage said cam disc and move the same against said annular flange to move the driven shaft and sprocket in another direction.

2,770,340

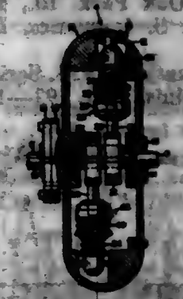
**AUTOMATIC VARIABLE SPEED FLUID TRANSMISSION**

Edward C. Bynum, Ridgecrest, Calif.

Application January 26, 1955, Serial No. 484,323

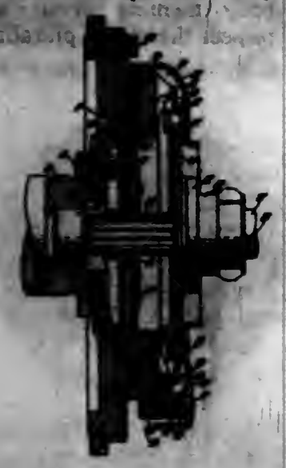
9 Claims. (Cl. 192—60)

(Granted under Title 35, U. S. Code (1952), sec. 266)



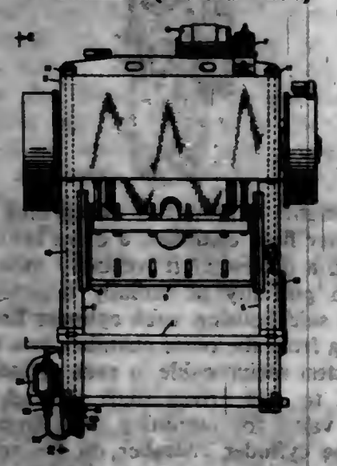
2. An automatic fluid clutch comprising a housing forming an outer fluid chamber, a drive shaft connected to the housing, a driven shaft rotatably mounted within the housing, a plurality of radially disposed cylinders secured within said housing, each cylinder having a fluid passage leading from the outer chamber into the cylinder chamber, a piston reciprocable in each cylinder chamber and connected to said driven shaft through a slippage connection, a valve for admitting fluid from the outer chamber to the cylinder chamber on the return stroke of the piston, a control member slidably mounted on each cylinder and movable by centrifugal force to restrict the fluid flow out of the respective cylinders in accordance with the rotational speed of the drive shaft, and resilient means for resisting the restricting movement of the control member.

2,770,341
CLUTCH ASSEMBLY
Marvin T. Wolverek, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 21, 1954, Serial No. 431,367
7 Claims. (Cl. 192—68)



1. A clutch assembly including a flywheel cover adapted to be secured to a flywheel member and having a diaphragm spring and pressure plate means secured thereto, said pressure plate including annularly arranged projections formed near the outer periphery of one face thereof and having radial projections formed on the outer periphery thereof, and laterally flexible drive straps secured to said radial projections and extended chordally across said pressure plate outwardly of said annular projection for securement to said flywheel cover, said pressure plate being adapted to be rotated with said flywheel through said cover and drive straps and being adapted to be axially movable by said diaphragm spring for engaging frictional clutch plate means adapted to be disposed between said flywheel and pressure plate for the transmitting of flywheel rotation to a rotatable shaft adapted to be connected to said clutch plate means.

2,770,342
OVERLOAD RELEASE ASSEMBLY FOR POWER PRESSES
Elmer K. Johansen, Oak Park, Ill., assignor, by mesne assignments, to U. S. Industries, Inc., a corporation of Delaware
Application February 1, 1954, Serial No. 407,191
10 Claims. (Cl. 192—150)



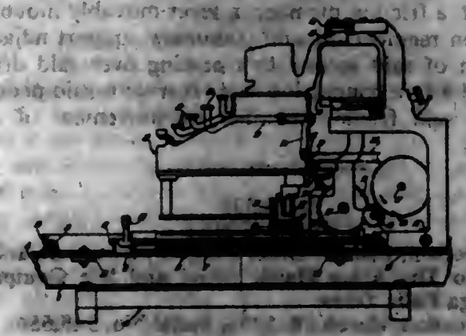
1. In a mechanical metal working press having a frame including a crown, a bed, uprights, tie rods connecting the crown with the bed, and a reciprocating slide, a hydraulic pressure control mechanism comprising, an overload device including a reciprocable member, hydraulic fluid pressure means normally urging said member in one direction, pneumatic pressure means normally urging said member in the opposite direction, said pressures being substantially equal during normal operation of the press, means operatively associated with the tie rods and connected with said hydraulic fluid pressure means to increase the hydraulic pressure when excessive pressure is exerted by the slide, thereby to move said member against the pneumatic pressure and relieve the overload condition, and means responsive to a predetermined reduction in hydraulic pressure, to reduce said pneumatic pressure and return said hydraulic pressure to normal.

2,770,343
COIN TESTER
Boley A. Andrews, Kansas City, Kans., and Lorne A. Shontz, Jr., Kansas City, Mo., assignors to The Vendo Company, Kansas City, Mo., a corporation of Missouri
Application November 26, 1951, Serial No. 258,264
2 Claims. (Cl. 194—102)



1. In a coin selector, a coin-receiving chute having spaced walls and adapted to freely pass gravitating coins below a predetermined thickness, one of said walls extending downwardly below the other wall; an arm below said other wall and spaced from said one wall; means mounting said arm for swinging movement on a horizontal axis toward and away from said other wall; and structure normally disposed for engagement by thicker coins gravitating through the chute and including a beveled disc adjacent said means for engagement by one marginal edge of the thicker coins for decreasing the clearance between the arm and said one wall intermediate the ends of the arm, and a stop on one end of the arm for engagement by the peripheral edge of said thicker coins and movement thereby with the arm to deflect the larger coins as they fall below the lowermost end of said other wall.

2,770,344
LINE-SPACE CONTROL MECHANISM FOR FLAT PLATEN TYPEWRITER OR THE LIKE
Oscar J. Sundstrand and Oscar W. Swanson, West Hartford, Conn., assignors to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application May 21, 1953, Serial No. 356,494
5 Claims. (Cl. 197—124)

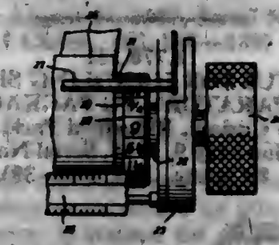


1. In a machine of the class described, a type carriage having a set of type actions and a keyboard by means of which said type actions may be selectively actuated, a flat platen horizontally mounted beneath said type carriage and against which said type actions are arranged to



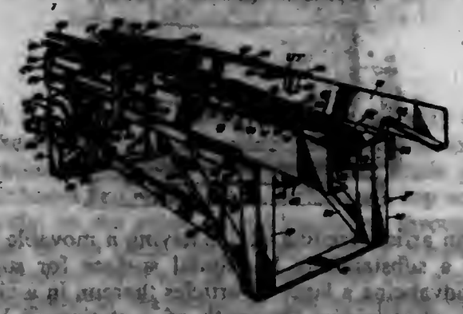
strike, mechanism for advancing said type carriage in letter feed direction in response to operation of the type actions, a motor, a carriage return key, means responsive to operation of said carriage return key to cause said motor to return said type carriage to line-start position, line-space mechanism for effecting a relative line-space movement between said type carriage and said platen, and means connecting said carriage return key to said line-space mechanism whereby operation of said line-space mechanism is instituted by operation of said key.

2,770,345
POSITION DETERMINING DEVICE
William Ray Brown, Corpus Christi, Tex.
Application April 25, 1955, Serial No. 503,607
12 Claims. (Cl. 197—189)



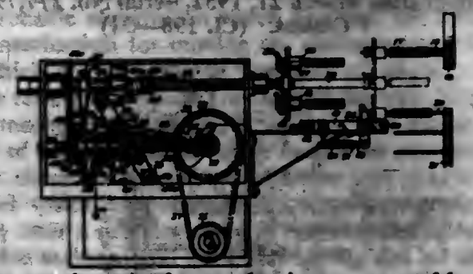
1. A device for determining the position of the line of typing of a typewriter or the like relative to an end of a sheet of paper inserted in the platen thereof, comprising a first member rotatable with the platen, a second member connectable to said first member for rotation relative thereto, indicia arranged substantially concentrically about the axis of rotation of one of said members and including numerals representative of the distance traveled by the platen during a whole number multiple of revolutions of said one member, and means on the other of said members providing a datum point for indicating the numeral to be read in determining said position of the line of typing, said numerals being arranged about the axis of rotation of said first member and including multiples of a unit of measurement which is an aliquant of the platen circumference and an aliquot of said whole number times the platen circumference, said first and second members being connectable by gears in which the ratio of said first member gear teeth to those of said second member corresponds to the ratio of the platen circumference to the largest multiple of said unit of measurement which is less than the platen circumference, and said datum point providing means comprising equally spaced apart indicating lines which correspond in number to said largest multiple of said unit of measurement which is less than the platen circumference divided by said unit of measurement.

2,770,346
PALLET FEEDER
George L. Oswalt, Elmwood Park, Ill.
Application June 24, 1952, Serial No. 295,311
9 Claims. (Cl. 198—19)



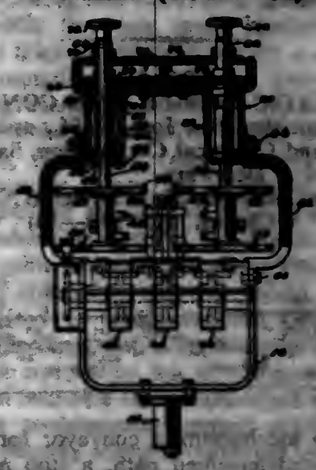
1. In a pallet feeding mechanism wherein pallets are fed to and from a molding mechanism with a molding station where blocks are molded on pallets as they are consecutively presented and removed from the molding station, the improvement including a pair of tracks, one along which pallets are fed to and the other along which pallets are fed from the molding station, a feeding carriage for each track, and power means for intermittently reciprocating both carriages at the same time including a continuously rotating mutilated driving gear, and a driven pinion intermittently rotating and in meshing engagement with said gear, the number of teeth on the pinion exceeding the number of teeth on the gear by one so that one revolution of the gear will cause one revolution of the pinion.

2,770,347
COLLAPSIBLE TUBE TRANSFER MECHANISM
Jack N. Portenfield, Chico, Calif.
Application October 14, 1952, Serial No. 314,729
16 Claims. (Cl. 198—28)



1. In a tube transfer mechanism, a rotatable gripper frame, a plurality of grippers equally spaced apart circumferentially on said frame, means for reciprocating the frame, to retract on one stroke a tube gripped by one gripper and to advance on the opposite stroke another tube gripped by another gripper, means for intermittently rotating the frame in the same direction for part of a revolution during the last part of a tube-retracting stroke and during the initial part of a tube-advancing stroke of the reciprocating means, said frame-rotating means including a clutch, and means for engaging and disengaging the clutch, means to guide and to align the frame and to hold the frame against rotation during the initial part of the retracting stroke and during the last part of a tube-advancing stroke, and means in the path of the frame to operate a gripper to release the tube gripped thereby at the end of a selected tube-advancing stroke.

2,770,348
CONTAINER ACTUATED DIVIDER
Carl L. Day and Frederick E. Pfaff, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application March 18, 1953, Serial No. 343,128
9 Claims. (Cl. 198—31)

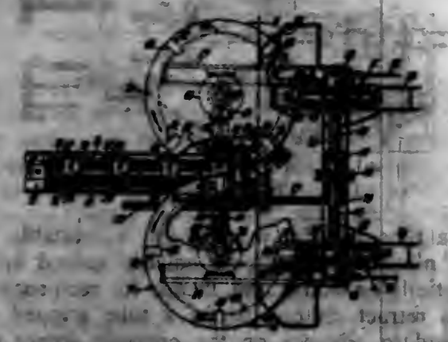


1. A conveyor mechanism for directing articles travelling on a conveyor comprising a supporting frame, a

plurality of vertical tubular sleeves rotatably mounted in said frame, a gear train interconnecting said sleeves for synchronizing relative movement of the same, shafts mounted in each of said sleeves, article directing means detachably connected on the lower ends of each of said shafts, and means on the upper ends of said shafts and said sleeves coacting to drivingly connect and support said shafts in said sleeves, said last-mentioned means being detachable to permit upward vertical movement of said shafts with respect to said sleeves whereby the article directing means may be removed from said shafts and replaced.

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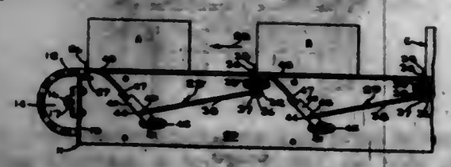
2,770,349
CONVEYOR MECHANISM FOR DIVIDING SINGLE LINE OF ARTICLES INTO DOUBLE LINE
Ronald E. L. Nordquist, Maplewood, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application March 21, 1952, Serial No. 277,796
7 Claims. (Cl. 198—31)



1. In a conveying mechanism for magnetizable can bodies and other articles, the combination of a conveyor for advancing can bodies along a predetermined path of travel in spaced and timed order, a pair of oppositely disposed divider wheels located one on each side of said conveyor in the path of travel of said can bodies and between which said bodies pass, said divider wheels carrying peripherally located magnets arranged in alternately spaced relation, means for rotating said divider wheels in unison and in time with said conveyor for rotating said magnets individually into engagement with can bodies advanced into position between said wheels for removing said can bodies alternately from said conveyor in spaced and timed order for distribution of said can bodies in said spaced and timed order into two separate paths of travel, a rotatable star wheel located adjacent each of said divider wheels and having prongs engageable with the can bodies on said wheels for further advancing said bodies in said spaced and timed order, and means for rotating said star wheels in time with said divider wheels.

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2,770,350
AUTOMATIC SELF-FILLING CONVEYOR
Hans G. Hoffmeister, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application December 26, 1952, Serial No. 327,990
6 Claims. (Cl. 198—34)



1. In a stop mechanism, a conveyor for moving articles along a predetermined path, a stop member pivotally mounted adjacent said conveyor and having an abutment surface movable into and out of a position obstructing the movement of an article along said path, said stop member being arranged for pivotal movement in the direction of article movement on said conveyor out of article obstructing position in response to abutment thereagainst of an article being moved on said conveyor, a control member having a separate pivotal mounting adjacent said conveyor and spaced longitudinally thereof from said stop member, said control member having an abutment portion movable into and away from a position obstructing the movement of an article along said path, and means interconnecting said stop member and said control member for conjoint movement, said interconnecting means being so arranged that movement of either said stop member or said control member out of the path of an article advanced on said conveyor moves the other member into path obstructing position.

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2,770,351
APPARATUS FOR HANDLING SPAGHETTI PREPARATORY TO PACKAGING
Aldo Cariani, Ridgefield Park, N. J.
Application May 9, 1955, Serial No. 506,701
8 Claims. (Cl. 198—39)



1. A device for handling spaghetti or the like, said device comprising a flexible endless carrier mounted for movement about a path having upper and lower stretches, drive means for effecting movement of said carrier in increments about said path, a plurality of receptacles secured at spaced points along said carrier for movement therewith and each adapted to receive a quantity of spaghetti when in one position on said upper stretch, means responsive to the delivery of spaghetti to each of said receptacles for actuating said drive means to move a successive receptacle into said one upper stretch position, at least one upwardly opening hopper disposed below said lower stretch for receiving successive quantities of spaghetti from said receptacles when the latter are moved to said lower stretch, and a member slidable in said hopper for feeding each of said quantities of spaghetti from said hopper to a packaging machine.

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2,770,352
DEVICE FOR ORIENTING AND FEEDING ARTICLES
Kasper F. Moller, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 29, 1951, Serial No. 253,659
8 Claims. (Cl. 198—34)



1. In an article feeding device having a movable member with a substantially horizontal surface for supporting and advancing a layer of articles thereon in a circular path, the combination therewith of a stationary hopper for holding a supply of said articles, said hopper having an outlet for said articles positioned a distance slightly



greater than the dimension of the article above the article supporting surface of said movable member to permit a single layer of said articles to be advanced therebeneath by said member, and a door pivotally supported on said hopper and movable to an upper position to close said outlet and a lower position to open said outlet for the passage of a single layer of said articles from said hopper onto said member, said door being moved to its upper position by the articles advanced thereunder.

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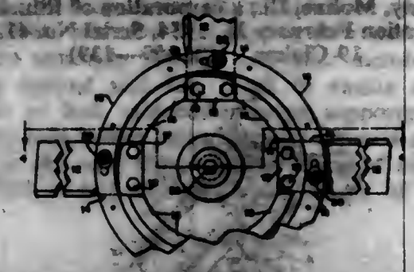
2,770,353
TAKEUP DEVICE FOR ARTICULATED CONVEYORS AND CUSHIONING MEANS THEREFOR
Frederick B. Miller, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 26, 1953, Serial No. 376,666
1 Claim. (Cl. 198—189)



In an articulated flight conveyor for a mining machine, said conveyor being characterized by idler members over which the conveyor is trained for reversal in direction thereof, means for taking up the slack occasioned by changes in effective length of a conveying reach of said conveyor during articulation thereof and for absorbing the shocks incident to reversal of direction of such conveyor over said idler members, said takeup means comprising a movable idler shoe over which said conveyor is reversed in direction, a flexible strand connected to said movable idler shoe, a fixed sheave around which said strand is wrapped and fastened, a second sheave of smaller diameter having a second flexible strand wrapped thereabout and fastened thereto, and a weight connected to said second strand and having guide means therefor, resilient means disposed within said weight and having one end bottomed against said weight and its other end bottomed against means confining said resilient means and secured to said second strand for cushioning the tugging upon said strands occasioned by the shocks induced by passage of said flights around said idler members and said movable idler shoe.

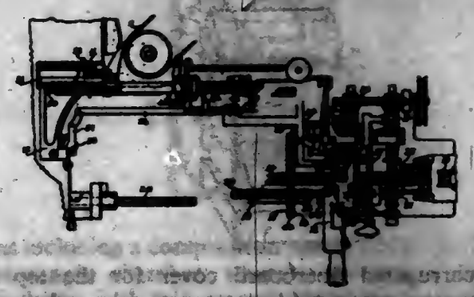
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2,770,354
DISTRIBUTOR FOR AN COMPOSITOR
Willard L. Morrison, Lake Forest, Ill., assignor to Chicago Stock Yards Compost Company, Chicago, Ill., a corporation of Illinois
Application February 27, 1954, Serial No. 411,599
12 Claims. (Cl. 198—139)



1. A fan including a hub, having a plurality of radial slots therein, inclined to a plane perpendicular to the axis of rotation of the hub, a removable fan blade perforate at its inboard end, socketed in each slot, a cap screw perpendicular to the plane of and extending through a perforation in the blade adapted to exert a pressure tending to displace such end in one direction and a cap screw perpendicular to the plane of and extending through a perforation in the blade tending to displace such end in the opposite direction.

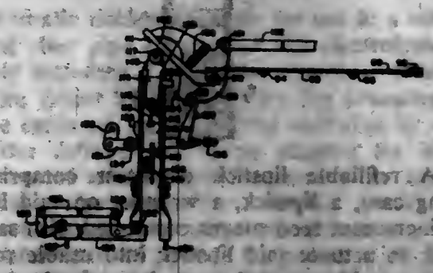
2,770,355
SAFETY CONTROL MECHANISM FOR A TYPE COMPOSING AND LINE CASTING MACHINE
Byrd S. Fine, Chicago, Mass.; Margaret A. Fine, administratrix of said Byrd S. Fine, deceased
Application January 7, 1953, Serial No. 330,069
7 Claims. (Cl. 199—18)



1. A type composing and casting machine comprising a reciprocable elevator on which matrices are assembled, power mechanism for moving the elevator, notched code bars which are movable to positions of aligning sets of notches selectively, means for moving the code bars selectively, mechanism including a selector bar movable into one set of aligned notches which causes the power mechanism to move the elevator, mechanism including a releasable lock which normally permits movement of the elevator only after a substantially full line of matrices has been assembled thereon, said code bars having one set of aligned quadding notches for governing a quadding operation, and mechanism including a special selector bar movable into the aligned quadding notches which causes the lock to be released although the matrix line is incomplete so that the elevator may move for a quadding operation.

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2,770,356
CONTROL UNIT FOR COMPOSING MACHINES
Arthur F. Lindberg, Chicago, Ill., assignor, by mesne assignments, to Teletypesetter Corporation, Chicago, Ill., a corporation of Delaware
Application December 1, 1953, Serial No. 395,509
4 Claims. (Cl. 199—18)



1. In a linecasting and composing machine, means for releasing variable thickness space elements, means for releasing fixed thickness space elements, a record reading means, a permutation code selector controlled by said record reading means, a selectable member controlled by a predetermined permissive setting of said selector for controlling both said releasing means, a pair of alternately operable means for operating said releasing means, said pair of means parallelly disposed with respect to said selectable member, an actuating means comprising a swingable member operably relatable alternately to said pair of alternately operable means, said actuating means articulated to said selectable member, floating means for controlling said swingable member, and latchable means for controlling the effectiveness of said floating means, said latchable means controlled by said selector in response to predetermined record reading conditions, whereby said floating means is rendered effective to control said swingable member to control the sequential operation of said pair of alternately operable means.

2,770,357
CARTON
William C. Sheard, Cleveland, Ohio, assignor to General Container Corporation, Cleveland, Ohio, a corporation of Ohio
Application November 15, 1954, Serial No. 468,887
9 Claims. (Cl. 206—7)



3. A corrugated fiberboard cover for the top of a clothes storage carton, said cover comprising substantially identical sections each having a plane rectangular top wall and side walls depending from three edges of the top wall and at right angles thereto, an integral transversely extending intermediate portion between said sections connecting the fourth edges of the top walls together, said portion being channel-shaped in cross section and extending below the planes of the top walls of said sections and having a length shorter than the length of each section, a rigid bar in the channel of said portion, said bar being longer than said portion and shorter than each section, the ends of the bar projecting slightly beyond the ends of said portion, and a plurality of clothes supporting holes in said bar and said intermediate portion.

2,770,358
REFILLABLE LIPSTICK DISPENSER
Henry I. Keith, Chicago, Ill., assignor to Frank H. Keith, Chicago, Ill.
Application October 19, 1951, Serial No. 252,165
4 Claims. (Cl. 206—56)



1. A refillable lipstick dispenser comprising a dispensing case, a lipstick, a wrapper on said lipstick, and fixed increment feed means connected with said wrapped lipstick to actuate said lipstick into usable relation with respect to said case and in predetermined advanced positions with respect to said case, said wrapper having perforations therein to form tear lines whereby portions of said wrapper may be successively torn away to expose unused portions of said lipstick, said wrapper also comprising means to maintain said lipstick out of contact with the working parts of the dispenser, and said tear lines being spaced to conform with the increments of advance of said fixed increment feed means.

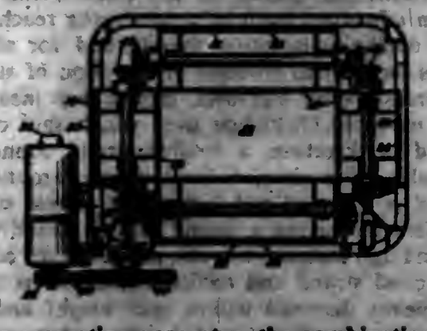
2,770,359
PALLETS AND CONTAINERS FOR TRANSPORTING BRICK AND THE LIKE
William E. White, Bethlehem, Pa., and John R. Clark, Silver Spring, Md., assignors, by direct and mesne assignments, to said John R. Clark and Thomas Somerville III, Kenwood, Md., as trustee
Application May 27, 1952, Serial No. 290,266
7 Claims. (Cl. 206—65)

6. A package, comprising a pallet member, a pile of bricks on said pallet member, an enclosure surrounding said pile of bricks comprising a plurality of side members separate from said pallet member, means projecting angularly from the side members to rest on the pile and



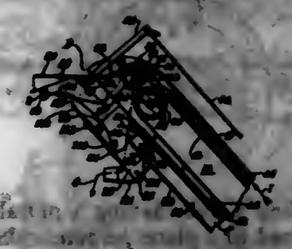
hooks on one vertical edge of each side member engaging detents on the vertical edge of the adjacent side member.

2,770,360
SEPARATOR
Rolf Moen, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application June 8, 1953, Serial No. 360,127
9 Claims. (Cl. 209—139)



1. In a separating apparatus, the combination of movable wall means arranged to constitute the sides of a vertical passageway having a substantially continuous inner wall surface, means guiding said wall means in a direction so as to maintain said passageway open at all times, means for causing fluid to flow upwardly through said passageway at a selected rate, and means for moving said wall means in the direction of fluid flow at a rate corresponding substantially to said selected flow rate.

2,770,361
COTTON BOLL SEPARATOR
Jack F. Foster, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application February 26, 1954, Serial No. 412,773
19 Claims. (Cl. 209—139)

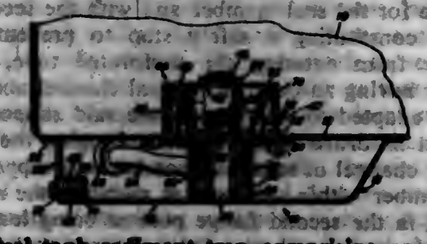


1. In a material-separating apparatus having an uphill conveyor housing from the upper end of which indiscriminately commingled heavier and lighter material is discharged in a downward stream and an air blast issuing from an air discharge outlet below the conveyor traverses the stream with such intensity to permit the heavier material to continue downwardly while causing the lighter material to depart from the stream and move



generally in the direction of the blast and wherein a deflector mounted adjacent to the conveyor housing above and beyond the air discharge outlet above the air blast is positioned to intercept the blast containing the lighter material for redirecting the lighter material, the improvement residing in a secondary separating unit comprising: a laterally disposed plate member also inclined uphill and having upper and lower ends, a pair of side members depending from the housing and fixed to the plate member to form with the latter an elongated channel positioned under the air blast, with the lower end of the plate member traversing the material stream, and the upper end of the plate proximate to the deflector and defining therewith a discharge opening through which the lighter materials are blown by the air blast, said plate member serving to deflect toward the lower end of the plate member not only heavier material dropping through the air blast from the discharge stream but incidental lighter materials carried by the heavier materials, a part adjustably mounted on the upper end of the member for movement toward and away from the deflector to vary the size of the discharge opening, means directing an additional blast of air at the plate member so as to drive the remaining incidental lighter material up the plate member and through the discharge opening while the heavier material gravitates to the lower end of the plate member, an adjustable discharge device positioned beneath the lower end of the member for redirecting and distributing the heavier material gravitating from the plate member, and means connecting the adjustable discharge device to the secondary separating unit.

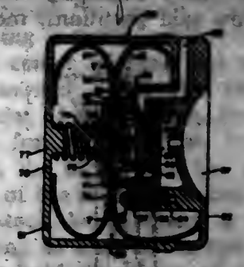
2,770,362
FUEL TANK SEDIMENT TRAP
Patrick J. Pagnia, West Brookfield, Mass.
Application June 25, 1954, Serial No. 439,266
2 Claims. (Cl. 210—43)



1. A fuel tank sediment trap comprising an auxiliary tank securable to the bottom of a fuel tank, a fuel block seated on the bottom of said auxiliary tank and adapted to project up into a fuel tank, said fuel block including an upper fuel inlet, a filter member carried by an upper portion of said fuel block, a shield around said filter member preventing direct downward flow of fuel into said fuel inlet, whereby fuel passing into said fuel inlet first passes upwardly through said filter member, baffles extending around said fuel block to ensure direct upward flow of fuel, said baffles being supported by said fuel block, said baffles being spirally disposed and of increasing height, said filter member being of an inverted conical outline and abutting upper edges of said baffles.

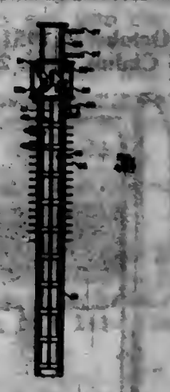
2,770,363
LIQUID DELIVERING DEVICE
John L. Ryde, Los Angeles, Calif., assignor to McCulloch Motors Corporation, Los Angeles, Calif., a corporation of Wisconsin
Application June 15, 1953, Serial No. 361,458
11 Claims. (Cl. 210—46)

1. In a liquid delivering device: a liquid supply chamber; wall members enclosing a second chamber, said members including a fixed wall member having an annular rib and an impervious movable wall member; absorbent means communicating with said two chambers; said means including a portion disposed between said annular rib and said movable wall member; means for urging said movable wall member toward said annular rib, said



means including a compression spring disposed within said liquid supply chamber, whereby air is prevented from being drawn into said second chamber from said liquid supply chamber, and an outlet from said second chamber adjacent the base of said fixed wall member.

2,770,364
ALKALI METAL PURIFICATION DEVICE
John S. Hoose, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware
Application October 14, 1954, Serial No. 462,235
2 Claims. (Cl. 210—67.5)



1. An automatic tickler assembly for use in a substantially vertical riser pipe of a fused salt electrolysis cell, said assembly including a tickler for insertion within the riser pipe, the tickler having elements for sweeping substantially the entire riser pipe internal wall area by movement hereafter defined, and being adapted for limited vertical movement and for rotation, means for applying solely vertical reciprocating force to the tickler independent of rotation thereof, said force including a downward thrust of at least 10 pounds for pound of the tickler weight, and guiding means, said guiding means including a stationary, two element, cylindrical cam and a follower operatively attached to the tickler, the cam defining a repetitive series of cycles for the tickler, each cycle consisting of vertical upward and downward movements of equal amplitude of from about two to about six inches and unidirectional rotation in a portion of each vertical movement, the ratio of rotation to the concurrent vertical movement being not greater than about 30 degrees per inch.

2,770,365
VACUUM FLOTATION AND LIQUID PURIFICATION APPARATUS AND PROCESS
Otis D. Welsch, Tonopah, Nev.
Application October 1, 1952, Serial No. 312,461
3 Claims. (Cl. 210—53)

1. An apparatus for scum flotation of materials comprising a vessel having two opposed and upwardly extending partitions therein forming upper and lower separating chambers in said vessel, said partitions being spaced and

terminating in vertical lips at their inner sides, thereby forming a passageway between said upper and lower chambers, said lower chamber having opposed parallel plates disposed therein forming an air-lift compartment, a baffle with downwardly extending walls over said compartment and below said partitions, means to admit air



under atmospheric pressure to said compartment, means for reducing pressure below atmosphere in said upper chamber, means on one side of said lower chamber to admit said materials, gravity exit means in said upper chamber for said materials, and exit means for the residue of said materials on the other side of said lower chamber.

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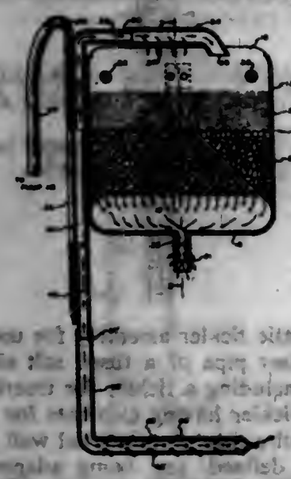
2,770,366

**REVERSE FLOW CLEANABLE AQUARIUM FILTER**

Stanley J. Pszenwoski, Erie, Pa.; now by change of name to Stanley J. Prusz, assignor to Gustavo Miller, Washington, D. C.

Application October 2, 1951, Serial No. 249,370

3 Claims. (Cl. 210—98)



1. A reverse flow cleanable aquarium filter comprising a filtering medium container arranged to be suspended in an aquarium, said container comprising an open top member, a foraminated false bottom for supporting the filtering medium spaced from the bottom of said container, the container bottom having a port extending therethrough, means for removably suspending said container in the aquarium including an aquarium wall engaging hanger secured to one side of said container, a pipe secured vertically along one side of said container from below the bottom thereof and extending to discharge over the open top of said container an angle pipe rotatably mounted on the lower end of said vertical pipe, an air conduit connected to said vertical pipe adjacent its lower end and secured thereto, the other end of said air conduit being arranged to be connected to an aquarium aeration source to discharge into said vertical pipe and to cause aquarium water to flow from said pipe bottom end upwardly therethrough into the open top of said container, through the filtering medium therein, through said foraminated false bottom and said bottom port to the aquarium, said filtering medium container being readily removable from the aquarium, with said air conduit disconnected, said bottom port being arranged to be connected to a cleansing water supply to provide a reverse flow of cleansing water therethrough, through the foraminated false bottom, through the filtering medium supported thereon and out the open top to waste to thereby cleanse the filtering medium in position within the container.

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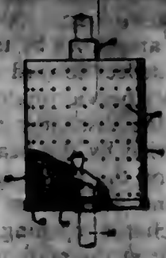
2,770,367

**OIL FILTER SEAL CONSTRUCTION**

John A. Donnelly, Brookville, Ohio, assignor, by mesne assignments, to Eaton Motor Systems, Inc., a corporation of Pennsylvania

Application May 5, 1953, Serial No. 353,152

1 Claim. (Cl. 210—149)



In a perforated cylindrical type oil filter cartridge containing filtering material, an outer cartridge filter wall, a central perforated tube within the outer cartridge filter wall and having an open end portion to fit around a supporting bolt, the combination of seal means for providing a seal between the supporting bolt and the end portion of the central perforated tube, said seal means comprising an anchor member and a seal member mounted within the anchor member, said anchor member comprising an annular ring having first and second spaced in-turned flange portions defining substantially a U-shaped cross section, said flange portions respectively having an opening to surround said supporting bolt, said anchor member being mounted at the open end portion of the tube with the first flange portion constituting an entrance for the seal member and with the second flange portion constituting a safety stop to prevent the seal member from entering the perforated tube, said seal member having an outer peripheral channel and an inner surface adapted to snugly embrace said supporting bolt, said first in-turned flange portion engaging the outer peripheral channel of said seal member and supporting said seal member within said anchor member, the size of the opening in the second flange portion being less than the size of the seal member and the distance that the second flange portion is spaced from the first flange portion being less than the thickness of the seal member whereby the second flange portion prevents the seal member from entering the perforated tube, said anchor member and said seal member supporting said filter cartridge against lateral movement but permitting axial movement of the filter cartridge with respect to said supporting bolt.

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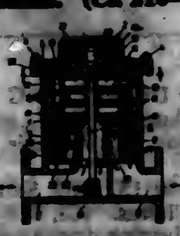
2,770,368

**LIQUID FILTERS**

Ernst Max Tischer, Augsburg, Germany

Application December 29, 1952, Serial No. 328,227

12 Claims. (Cl. 210—164)



1. A filter for liquids comprising a housing, an inlet passage leading into the housing axially thereof, a closure for the other end of said housing, a drum-shaped filter element comprising an axial cylinder forming a passage arranged as an extension of the inlet passage, a cylindrical filter means spaced radially outwardly by an imperforate annulus from said axial passage, an outlet coaxial of said inlet intermediate said axial passage and said cylindrical filter means, a plurality of flat filter elements each comprising an outer ring of the same diameter as the cylindrical filter element, and an inner ring, said outer ring being of greater axial length than said inner ring, said rings being interconnected by hollow spokes constituting passages for the liquid, filter material closing the ends of said inner rings, a bolt extending axially from said inlet passage through all of said filter elements to secure said elements in the housing and against said inlet, and a cover for the endmost flat filter element contacting the outer ring thereof.

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2,770,369

**LIQUID PURIFYING FILTERS**

Cornelis Wichert Hulsbergen, The Hague, Netherlands

Application April 14, 1953, Serial No. 348,644

3 Claims. (Cl. 210—171)



1. A nozzle for use in liquid purifying filters comprising two identical nozzle sections each having an annular base, a circular series of outwardly tapering elements integral with and axially projecting from said base and uniformly spaced to an extent somewhat exceeding the width of such elements, said nozzle sections being coaxially assembled so that the elements of one section interengage with some lateral clearance with those of the other section, and means for locking said sections in said relative position comprising at least one local enlargement on each said element so disposed that, in coaxially assembling said nozzle sections, the tips of the elements of one section are jammed between the roots of the elements of the other section to thereby define the width of the outlet slots formed by the lateral clearance of the inter-engaging elements.

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2,770,370

**STACK TYPE FILTER WITH CHANNELED CENTER STANDARD**

Edgar J. Griffin, Pittsburgh, Pa.

Application March 7, 1952, Serial No. 275,431

2 Claims. (Cl. 210—183)



1. A stack type liquid filter comprising a housing with an outlet, a stack of annular filter plates having a center opening therethrough and located within the housing, the plates of said stack having surfaces around their outer and inner edges for stamping filter elements between the plates, and said plates enclosing chambers between them and having openings for the passage of liquid into and out of the chambers for passage through the filter elements that are clamped between the successive plates, a standard extending through the outlet of the housing and extending through the center opening of the stack, the standard having a width substantially equal to the diameter of said center opening and aligning the filter plates with one another, a threaded element located inwardly of the outlet of the housing, threads on one end of the standard for screwing the standard into said threaded element, the threads on the standard stopping short of the part of the standard within the center opening through the stack, an abutment at the other end of the standard having an annular bottom face for contact with the stack to hold the plates of the stack together under pressure with the filter elements between them and the standard serving as a tension member, said standard having channels in its circumferential surface extending lengthwise of the standard for a substantial distance from the abutment face and along the portion of the standard that is surrounded by the stack of filter plates, the channels terminating short of the threaded end of the standard, and said standard having its threaded end of a width at least as small as the center opening through the stack of plates and tubular for a distance beyond the threads and within a portion of the length of the standard having the channels therein, the tubular part of the standard being unobstructed and of circular cross section and opening at its upper end into the channels beyond the threads of the standard and providing a passage for flow of liquid from the channels into the tubular part of the standard and through the outlet of the housing, and means sealing the liquid from flow in contact with the threaded portion of the standard.

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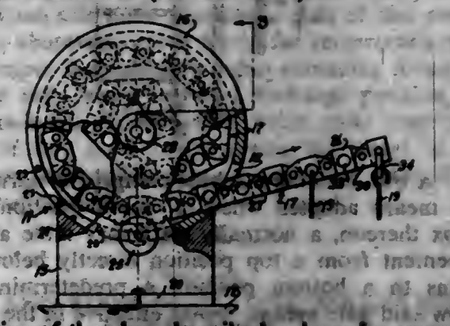
2,770,371

**GARMENT CARRYING RACK**

Joseph A. Sodon, Toledo, Ohio

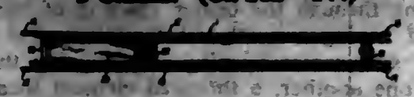
Application April 15, 1954, Serial No. 423,332

3 Claims. (Cl. 211—104)



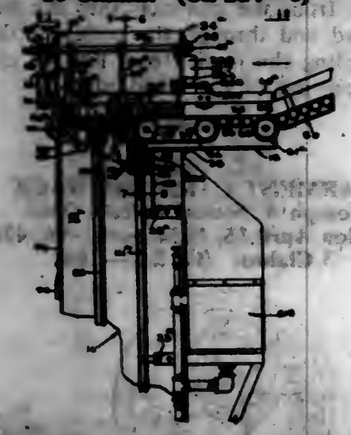
1. In a device of the class described, a base for mounting on a support and having a recess in its top, a housing of narrow cylindrical form for edgewise mounting in said base recess, said housing having a series of circumferentially spaced sockets around its edge and a peripheral opening on that portion of the housing adjacent the spaced sockets, means carried by the base and releasably engageable with the sockets in the housing to retain the housing seated in said recess and thereby adjust the housing about its axis and the angle of the peripheral opening with respect to the base, a rack member for coiling in said housing about a central point therein and having its inner end anchored in the housing and its outer end portion extendible outwardly through said opening by an uncoiling within the housing, said member being composed of a plurality of pivotally connected links which have relative inward pivotal movements relative to the housing center from a substantially straight line position and have coacting shouldering parts that prevent flexing of the member outwardly in a vertical plane from said straight line position.

2,770,372
BOOM
Edwin O. Mantheaux, Milwaukee, Wis., assignor to Kearney Company, Milwaukee, Wis., a corporation
Application April 29, 1952, Serial No. 285,891
3 Claims. (Cl. 212—146)



3. A composite boom of the class described, comprising a pair of substantially identical girder members having web portions, a pair of tubular cross members spaced along the girder members, the respective ends of the cross members being entered in openings in the web of each girder and being welded thereto around the openings, disc like parts welded within the tubular members in alignment with the webs of the girder members, and a diaphragm extending between the tubular members and the webs of the girder members, said diaphragm being continuously welded to the said webs and tangentially continuously welded to the said two tubular members.

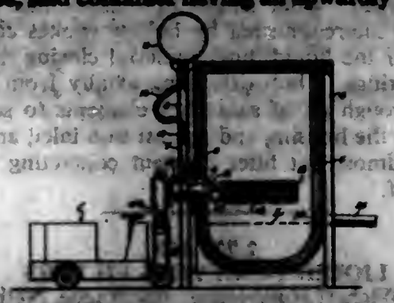
2,770,373
MACHINE FOR STACKING BOXES, CASES, AND THE LIKE
Ernest A. Vervinkle, Riverside, and Earle J. McGrath, Nueve, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application December 29, 1952, Serial No. 328,445
18 Claims. (Cl. 214—6)



1. A box stacking machine comprising normally closed gate means adapted when in closed position to support a box thereon, a normally stationary table arranged for movement from a top position directly below said gate means to a bottom position a predetermined distance below said gate means, means effective in the presence of a box on said gate means to open said gate means so as to drop the box onto said table and to lower said table until the box has dropped below the level of said gate means, and stack limiting means adjustable to protrude into the path of a box on said table at selected levels between said top and bottom positions and effective upon engagement with the lowermost box on said table to hold said gate means in closed position.

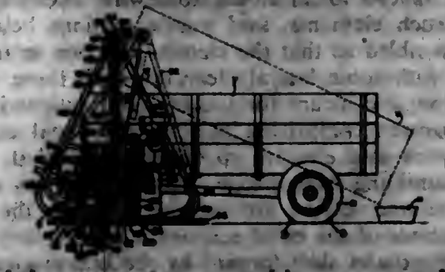
2,770,374
APPARATUS FOR REFINING LEAD SCRAP
Cecil E. Bennett and Charles B. Bradfield, Baton Rouge, La., assignors to Schuylkill Products Company, Inc., Baton Rouge, La., a corporation of Louisiana
Original application April 6, 1951, Serial No. 219,628. Divided and this application April 23, 1953, Serial No. 350,282
2 Claims. (Cl. 214—18)

1. In combination, a lead scrap refining furnace and equipment for charging the furnace with scrap lead material, including an upright furnace wall having a charging opening with a door located externally of the furnace and mounted for upward movement, said door being provided with a roller extended along and below the lower edge of the door; a charging container, mounting means providing for movement of the container horizontally into the furnace through said charging opening, and mounting means providing for movement of the container in a vertical sense, said container having an upwardly presented



surface adapted to engage the roller at the under side thereof for opening the door when the container is moved upwardly, said surface also extending horizontally along the container to provide for rolling of the roller along the container as the container is introduced into the furnace, said container being dimensioned so that when the container is positioned beneath the door in engagement with the roller and moved vertically it will effectively block off the major portion of the charging opening at all times during the charging operation.

2,770,375
HOISTING APPARATUS FOR ELEVATING AND DUMPING VEHICLES
Leonard B. Neighbour, Moline, Ill., and Orville P. Lance, Davenport, Iowa, assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Application May 28, 1949, Serial No. 95,906
13 Claims. (Cl. 214—46.34)



1. Hoisting apparatus, comprising: a generally elongated, horizontal platform having opposite end portions and adapted normally to rest on the ground or a comparable surface; a pair of end elements spaced apart and disposed respectively at the end portions of the platform, each element including an upright column and a base member rigid with the column and extending transverse to the length of the platform, each base member having a curved under surface symmetrical at each side of the base member and providing a rocker for rocking of the element selectively and symmetrically in opposite directions in a generally vertical plane transversely of the platform; and a pair of guide means respectively interconnecting each column with the proximate end portion of the platform to connect the platform to the elements for vertical movement relative to the elements and for movement with the elements as the latter rock as aforesaid.

2,770,376
MOTOR VEHICLE BODY OF THE SELF-UNLOADING TYPE
Donald V. Zinn, Fort Wayne, Ind.
Application November 6, 1948, Serial No. 59,388
2 Claims. (Cl. 214—83.26)

1. In a semi-trailer for hauling bulk materials, a chassis having at the forward end a fifth wheel for coupling to a tractor and being supported at the rearward end by a set of road wheels, said chassis supporting a body generally of a W-shape in cross-section and having intermediate bulkheads dividing it into a plurality of compartments, each compartment including discharge openings controlled by adjustable gates which are operated by pneumatic pistons, said openings emptying into separate tunnels running longitudinally along the under side of and attached to the body, said tunnels forming troughs conforming closely to the peripheries of a pair of screw con-





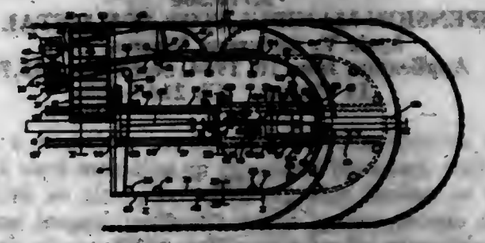
veyors disposed horizontally beside and parallel to the longitudinal centerline of the body, said conveyors operating in conjunction with the forementioned gates, providing means of emptying the forementioned compartments selectively without regard to their respective positions in the body, said conveyor system being driven by a motor mounted on the forward end of the forementioned chassis, said conveyor system, by reason of its location outside the body, being easily accessible for maintenance and servicing of bearings and shafts through openings in the forementioned tunnels.

2,770,377
SUSPENSION FOR VEHICLES SUCH AS SHUTTLE CARS
Robert A. McCallum, Clarendon Hills, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application March 26, 1954, Serial No. 418,806
3 Claims. (Cl. 214—83.36)



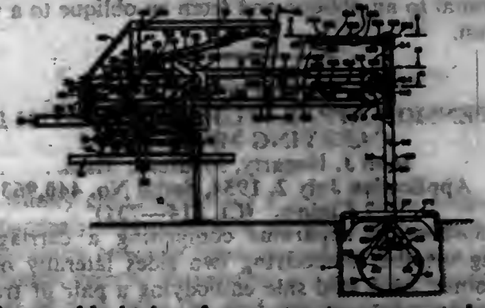
1. In a mine shuttle car, a frame, a material receiving compartment and an elevatable discharge compartment supported on said frame, a floor plate for each of said compartments, said floor plates lying substantially in the same plane and having an endless flight conveyor movable longitudinally thereof, means for suspending said frame so as to maintain said floor plates in such substantial plane comprising an axle disposed beneath said material receiving compartment and an axle disposed beneath said discharge compartment, each of said axles being spaced from the bottom of said vehicle frame and being arranged to have tilting movement with respect to said vehicle frame upon traverse of said car over irregular terrain, such tilting movement being restricted so as to prevent striking of said vehicle frame, means for enabling such tilting movement comprising members extending laterally of said frame and on each side of said axle, said members being rigidly secured to said vehicle frame, and means affording a connection between the ends of said members and a corresponding end of said axle comprising a stirrup connected to said axle near the end thereof with extensions therefrom substantially in alignment with said laterally extending members, and connecting members pivotally connected to said extensions and to said laterally extending members, said connecting members being angularly disposed to said frame and having their point of connection to said extension higher than the point of connection to said laterally extending member when said vehicle frame is in a normal position; said axle, said laterally extending members and the length of said connecting members being so arranged that the angularity of said connecting members is disturbed but little on one side of the vehicle when one of the wheels is encountering an irregularity in terrain, the angularity of the opposite connecting members changing so as to accommodate the shifting of the axle in accordance with such irregularity in terrain.

2,770,378
SCRAPER LOADER APPARATUS FOR MINES
Timothy F. McCarthy, Indiana, Pa., assignor of one-fourth to Goodman Manufacturing Company, Chicago, Ill.
Application December 21, 1953, Serial No. 399,539
7 Claims. (Cl. 214—93)



1. In a scraper loading apparatus for coal and the like, a guide frame extending along opposite ribs of a working place of a mine and having a head frame extending across the working face of the working place, said guide frame having parallel spaced side guide rails mounted in spaced relation with respect to the floor, and a head rail carried by said side guide rails for extensible movement with respect thereto and connecting said guide rails together, means for advancing and retractibly moving said head rail along the floor, and for extending said side guide rails toward a working face, a scraper reciprocally movable along said head rail and said side guide rails, a hoist spaced rearwardly of one of said side guide rails, a motor for operating said hoist, flexible draft devices connected from said hoist to opposite ends of said scraper and trained about said guide frame for reciprocally moving said scraper therealong, a ramp extending along one of said side rails into a material discharge position, and reversing switches on said side guide rails controlling operation of said hoist for reversing the travel of said scraper along said guide frame at opposite ends of the path of travel thereof.

2,770,379
BOOM AND BOOM-OPERATING MEANS FOR DIPPER STICK
Daniel F. Przybylski, Winona, Minn.
Application October 23, 1951, Serial No. 253,183
12 Claims. (Cl. 214—147)

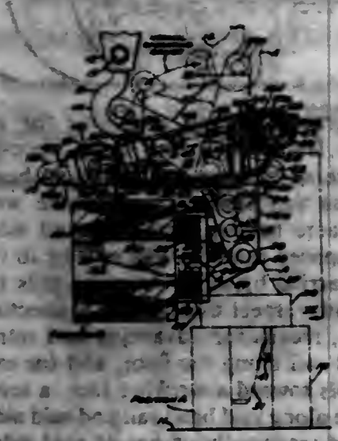


1. A portable bed, a frame structure mounted on the bed and having upper and lower track rails, a dipper having an upstanding dipper stick, a dolly having front and rear upper and lower wheels arranged to run on the track rails, an upper bearing and an intermediate mount in which the dipper stick is mounted to turn about its longi-

tudinal axis, a rocker bearing pivoted to the mount to turn about a horizontal axis, two substantially parallel booms pivoted at their inner ends to the dolly and pivoted at their outer ends to the rocker bearing, an inner link and an outer link pivoted to the booms at their intermediate portions and connecting the same, said outer link extending above the uppermost of said booms, a third boom overlying the first-noted booms, and pivoted at its inner end to the frame structure, a pivoted link connecting the third boom at its outer end portion to the uppermost of the first noted booms, means for operating the third boom, and a connection between the bearing on the dipper stick and the upper end portion of the outer link for moving the dipper stick about the axis of the rocker bearing.

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2,770,380
SUSPENSION MANIPULATOR FOR METAL COILS
Lyle V. Anderson, Warren, Ohio
Application June 10, 1954, Serial No. 435,700
11 Claims. (Cl. 214—650)

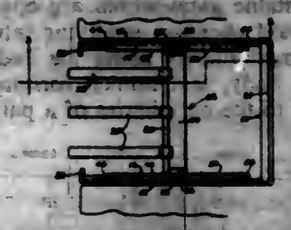


1. A suspension manipulator for picking up and delivering a metal work piece such as a metal coil comprising, a support structure, a position change structure operatively mounted on and carrying said support structure, said position change structure having means to pivotally suspend its upper end portion, a pick-up means for the metal work piece operatively connected to a lower end portion of said position change structure, means for holding a work piece on said pick-up means, actuating means mounted on said support structure and operatively connected to said position change structure to move said pick-up means between vertical, oblique and horizontal positions, an actuating mechanism for said holding means operatively connected thereto to positively hold the work piece on said pick-up means and retain the positive holding action when said pick-up means is moved from a horizontal to an oblique and from an oblique to a vertical position.

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2,770,381
SUSPENSION APPARATUS FOR USE WITH LOAD CARRYING MECHANISM
John J. Hegarty, Medford, Mass.
Application July 2, 1954, Serial No. 440,963
7 Claims. (Cl. 214—731)

1. Suspension apparatus comprising a carriage supporting member embodying two sides laterally opposite each other, each said side embodying a pair of tracks at the upper and lower portions thereof, a suspension carriage movably supported by said supporting member and embodying two side suspension members and a connecting member attached to and extending between them, each said suspension member embodying a frame having two rollers rotatably attached thereto at upper and lower portions thereof which are respectively in contact with said upper and lower tracks, at the lower and upper edges respectively of the latter, and two braces pivotally mounted on said frame at an intermediate portion



thereof and extending therefrom in opposite directions, each said brace having a roller rotatably mounted thereon, said latter rollers being adapted to contact and move along said tracks when opposite thereto.

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2,770,382
CONTAINER
Vaughn L. Ritter, Dunkirk, Ind., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application August 13, 1952, Serial No. 304,089
6 Claims. (Cl. 215—31)



5. In a sealed glass container, the combination comprising a glass container having a continuous helical thread around the neck thereof, said thread having an uninterrupted undersurface and being provided with a plurality of radially outwardly extending projections located at different points around the periphery of the container, and a closure applied in sealing position on said container, said closure having a thread complementary to the thread on the container, said closure thread being in continuous engagement with the undersurface of the container thread and in engagement with the outwardly extending projections of the container thread at several points around the periphery of the container, no two of which points are diametrically opposed to one another.

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2,770,383
PLASTIC MATERIAL BOTTLE-SEAL
Giorgio Livas, Milan, Italy
Application February 11, 1952, Serial No. 270,960
Claims priority, application France March 5, 1951
2 Claims. (Cl. 215—45)



2. A seal for insertion into the neck of a bottle, said seal comprising a substantially cylindrical hollow body fabricated of flexible, resilient material one end of said body being closed for insertion into a bottle neck, a laterally outwardly extending flange formed on said body adjacent the other end thereof and grasping means integral with and normally laying in the plane of said flange, said grasping means comprising a strip extending circumferentially about and having a relatively small segment secured to said flange, the unsecured portion of said strip being yieldingly displaceable out of the plane of said flange.

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2,770,384
BOTTLE CLOSURE
Joseph B. Biedermann, Cincinnati, Ohio
Application June 8, 1953, Serial No. 360,225
2 Claims. (Cl. 215—36)



1. A removable closure for a bottle having a neck, an open mouth at one end of the neck, and a bead on the outside of the neck spaced from the mouth which comprises a one-piece body of elastomeric material having a plug adapted to be received inside the neck of the bottle and a cap portion for overlying the mouth of the bottle, said plug having an annular groove between the inner end thereof and the cap portion, the inner end portion of the plug being cylindrical and engageable with the inside surface of the neck of the bottle, the surface of the inner end of the plug being concave, thereby rendering the cylindrical portion deformable by pressure inside the bottle to firmly engage the inner surface of the bottle neck, the cap portion being provided with a diametrically extending slot, a one-piece pivot pin in said slot with ends of the pivot pin projecting on opposite sides of the cap portion, the cap portion being provided with a bore extending on both sides of the slot, an annular rim on the cap portion surrounding the bore, a pin retaining plate received in the bore overlying the pin and engaging the rim to hold the pin in the slot, and a cap retainer member pivotally mounted on said pin, said retainer member having a flange engageable with the bead of the bottle to hold the closure body with the plug inside the neck of the bottle and the cap portion in engagement with the mouth of the bottle.

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2,770,385
OUTLET BOX
Ignatius C. Schultz, Conshohocken, Pa.
Application April 1, 1955, Serial No. 498,719
5 Claims. (Cl. 220—3.6)



1. In an electrical outlet box, a box having spaced side walls, clamping structure comprising a pair of levers pivoted intermediate their ends on said side walls, said levers having rear portions, and a cross member extending between and secured to said rear portions, said cross member being engageable with the back of a wall having an opening in which said box is to be positioned, said box having a front having lateral flange means thereon arranged to engage the front of the wall in opposition to said cross member.

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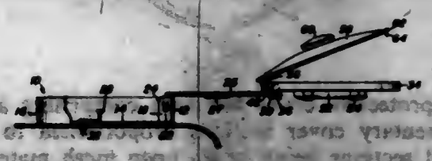
2,770,386
MOLDED PLASTIC CONTAINERS AND METHODS OF MAKING THE SAME
Charles Mitchell, Lansing, and Edwin F. Beckman, Aurora, Ill., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York
Application November 26, 1954, Serial No. 471,328
9 Claims. (Cl. 220—4)



1. In a container or the like, the combination comprising a shell including an elongated boundary wall provided with an elongated marginal edge having an elongated and longitudinally extending groove therein defining a pair of elongated and longitudinally extending side flanges disposed in laterally spaced-apart relation, an elongated and longitudinally extending reinforcing strip carried upon the marginal edge of said wall and provided with an elongated and longitudinally extending body disposed outwardly of said groove and carrying an elongated and longitudinally extending tongue projecting inwardly into said groove, the thickness of said wall between the opposite and laterally spaced-apart outer surfaces of said side flanges being substantially equal to the thickness of said body between the opposite and laterally spaced-apart outer surfaces thereof, the opposite outer surfaces of said side flanges and the opposite outer surfaces of said body being respectively disposed substantially flush with each other so as to provide respective smooth junctions therebetween, said tongue having a plurality of longitudinally spaced-apart holes extending laterally therethrough, and a plurality of longitudinally spaced-apart securing elements extending laterally through said holes and interconnecting said side flanges, said wall and said side flanges and said securing elements being of integral structure and formed of molded plastic material embedding said tongue and securely anchoring said strip in place.

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2,770,387
VANITY CASE
Oscar L. Lowen, Kalispell, Mont.
Application October 31, 1955, Serial No. 543,944
3 Claims. (Cl. 220—18)



1. A vanity case comprising a hollow base adapted to be permanently connected to a supporting surface, a container pivotally movable from a position within said base to a position remote therefrom, linkage connecting said container to said base for said pivotal movement, a lid hingedly connected to said container, and means to lock said lid in closed position on said container, said lid being constructed and arranged to close both said container and said base when said container is positioned within said base.

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2,770,388
ASH RECEIVER OR THE LIKE
George D. Lepp, Van Dyke, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 2, 1953, Serial No. 395,776
2 Claims. (Cl. 220—18)



2. Means for biasing members in rattle-free engagement during their relative movement and for limiting the extent of relative movement therebetween which includes, a leaf spring member having opposite ends bent and extended substantially at right angles, the one end of said spring member including means for securing said one end to one of said relatively movable members and the other end of said spring member being free to extend in spaced relation between said relatively movable members, spring fingers formed from the side edges of said free end of said spring member and extended in spaced relation thereto and out of the plane thereof towards the secured end of said spring member, the terminal ends of said spring fingers being bent up towards said free end of said spring member and the terminal end of said free end of said spring member being rolled over to provide stops adapted for engagement by said one movable member for limiting the open and closed disposition thereof relative to the other of said relatively movable members.

2,770,389
SCREEN COVERING FOR FRYING PANS AND THE LIKE
Anisis Drabeck, Hartford, Conn.
Application October 18, 1954, Serial No. 462,980
2 Claims. (Cl. 220—44)



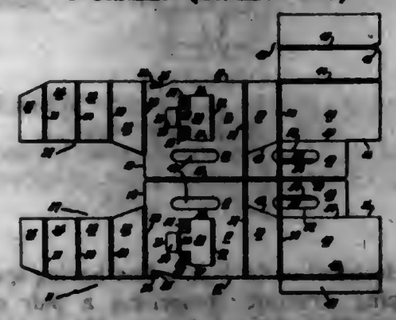
1. A protective cover for pans comprising a pair of complementary cover sections proportioned to cover a pan, said sections being of an open mesh material, and means connecting the sections for relative movement between a position in which said sections completely cover said pan, and a position in which the pan is partially uncovered, said means comprising a pair of spaced pins on which the sections are mounted to slide independently of one another, the sections having overlapping portions through which said pins extend, said overlapping portions being formed with spaced slots, with each pin extending through one slot of one section and one slot of the other section, the slots through which each pin extends being aligned longitudinally.

2,770,390
SAFETY CONTAINER
Constantino Liscioni, Chicago, Ill., assignor to The Protectoseal Company, Chicago, Ill., a corporation of Illinois
Application June 28, 1952, Serial No. 294,754
5 Claims. (Cl. 220—88)



1. In a device of the class described, and in combination, a bench can, a closure for the can hingedly connected thereto by a hinged connection, a support base comprising a plate-like member underlying the bench can for supporting the bench can, said support base including stop means comprising an integral overlying portion extending substantially parallel to the axis of the hinged closure and spaced from the bench can and for supporting the closure in its opened position, a bracket member mounted on the support base laterally of the bench can, a thermally responsive release means comprising a fusible link operatively affixed within the container, hook means operatively affixed to and within the bench can, a second hook means oppositely positioned with respect to the first-mentioned hook means and operatively extending through the peripheral wall of the bench can, said fusible link complementally formed to and detachably connected at one end to the first-mentioned hook means and at the opposite end to the second-mentioned hook means, spring-biased pusher means including the second hook means and operatively mounted with respect to the bench can, the bracket member and the closure, said spring-biased pusher means operatively connected to the second-mentioned hook means, and said spring-biased pusher means adapted upon the melting of the fusible link to bias the closure to move the closure to its closed position from its open position abutting the stop means.

2,770,391
NON-RETURNABLE BOTTLE CARRIER
Henry L. Metzger, Castleton-on-Hudson, N. Y., assignor to Fort Orange Paper Company, Castleton-on-Hudson, N. Y., a corporation of New York
Application May 19, 1954, Serial No. 428,522
3 Claims. (Cl. 220—113)



1. A single die-cut and scored blank of paper-board material to be folded and secured together in collapsed form for use, when opened, as a non-returnable bottle carrier, which comprises a rectangularly shaped panel divided into two identical portions along a first transverse score line to provide two connected, integral longitudinal partition sections and inner carrying handle sections, foldable along said score line and securable to each other; a T-shaped transverse partition section centrally cut from within the confines of each longitudinal partition section, and providing a T-shaped opening therein, but hingedly connected thereto and securable to an opposite side wall of said carrier, each carrying handle section having a hand-hold therein adjacent said T-shaped opening; a first elongated panel section laterally extending from the same side of each longitudinal partition section, each said first panel section being divided along transverse score lines into an end wall section, an end wall extension, a transverse partition section as wide as its end wall section and as long as a side wall, and a glue flap respectively, the latter being securable to an opposed longitudinal partition section centrally to overlie said T-shaped opening as a barrier between opposed bottles, and said end wall extension being securable to an opposed side wall section; a second elongated panel section laterally extending from the opposite side of each longitudinal partition section, each said second panel section being divided along a transverse score line into an opposite end wall section and a side wall; a bottom panel hingedly connected to the bottom of one of said side walls and securable to the bottom of the opposite side wall; and a third elongated panel section laterally extending from said handle carrying sections, between each said second panel section and being severed therefrom and from said adjacent end wall section, said third panel being divided by a second transverse score line, coaxial with said first transverse score line, into outer carrying handle sections, having hand-holes therein, foldable along said second transverse score line, and securable to said inner carrying handle sections with all said hand-holes in alignment.



2,770,392
METHOD FOR FEEDING ARTICLES IN PREDETERMINED QUANTITIES
Franklin B. Roberts, Springfield, Mass., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application February 16, 1950, Serial No. 144,563
1 Claim. (Cl. 221—1)



A method of feeding a predetermined quantity of relatively thin, fragile articles from a stack which comprises, supporting the stack on a vertically reciprocable support, lowering the support and the stack of articles thereon a predetermined distance, clamping the stack of articles above the support at a point sufficiently above the topmost article of the quantity to be fed to leave a surplus of articles on the support, lowering the support a further distance, inserting a separator between the edge of the topmost article of said quantity and the edge of the article immediately above said topmost article, lowering the support a further distance while holding the separator stationary to lower the rear edges of the surplus articles above the separator and position said surplus articles in an inclined position, advancing a secondary support beneath the surplus articles at an elevation to engage the articles rearwardly of their center to thereby raise the surplus articles to substantially the level of the separator, withdrawing the separator to permit the surplus articles to rest on the secondary support, moving the group of articles transversely from the first support, raising the latter into engagement with the surplus supported on the secondary support, raising the first support a further distance to raise the surplus from the secondary support and into proximity with the bottom of the clamped stack and unclamping the stack to permit the latter to descend onto the surplus to be again supported by the first support.

2,770,393
DISPENSING OR VENDING MACHINE
Ronald Gale, Elgin, Ill., assignor, by mesne assignments, to Universal Vendor Company, Elgin, Ill., a corporation of Delaware
Application February 1, 1952, Serial No. 269,469
6 Claims. (Cl. 221—67)



1. In an article dispensing device for a storage cabinet having a plurality of vertically spaced racks inclining downwardly toward a vertical well in the cabinet, spaced depending guide plates defining the lower end of the well, a dividing member disposed below the well and intermediate the guide plates, a pair of vaned members rotatably mounted below the storage cabinet on opposite sides of the dividing member and spaced therefrom with the vanes on said members asymmetrically arranged, means connecting said vaned members for causing simultaneous opposite rotation of said vaned members, said vaned members and said dividing member cooperating to successively dispense articles from the vertical well each time said vanes are rotated through a predetermined arc, said articles being dispensed alternately from opposite sides of the dividing member, the weight of the articles in said vertical well tending to cause said vaned members to rotate, locking mechanism for controlling the arc of travel of said vaned members, and means for actuating said locking mechanism to release said vaned members for rotation and dispensing an article.

2,770,394
METHOD AND APPARATUS FOR DISPENSING A MEASURED AMOUNT OF BEVERAGE INGREDIENTS
Richard J. Mueller, Franklin Park, Ill., assignor to Automatic Canteen Company of America, Inc., Chicago, Ill., a corporation of Delaware
Application May 4, 1954, Serial No. 427,469
9 Claims. (Cl. 222—1)



1. A process of measuring and dispensing a measured amount of a flowable material which comprises forcing

said flowable material into a measuring chamber one side of which is displaced to a predetermined position in response to the pressure exerted thereon by said material and against a gaseous back pressure smaller than said displacing pressure, and reducing said displacing pressure below said back pressure to cause said displaced side of said chamber to move in the reverse direction in response to said back pressure to dispense said material from said chamber.

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**2,770,396**
**PORTIONING DEVICE FOR VISCOUS MASSES**
Wilhelm Schmidt, Bromma, Sweden, assignor to International Ytong-Stabenfeldt Company Ltd., London, England, a corporation of Great Britain
Application January 27, 1953, Serial No. 333,593
Claims priority, application Sweden February 7, 1952
5 Claims. (Cl. 222—23)



1. In a device for measuring predetermined volumes of viscous substances comprising a vessel, a lining disposed within said vessel, the lining being of an easily deformable material and forming two chambers within said vessel, an outer expansion chamber between the lining and the walls of the vessel and an inner portioning chamber within the lining, means including a meter connected to the expansion chamber for admitting a predetermined volume of fluid to the expansion chamber whereby the volume of the portioning chamber is established at a predetermined value, means for filling the portioning chamber with the viscous substance to be measured, and means independent of said last-named means for drawing off the measured volume of the viscous substance.

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**2,770,397**
**LIQUID MEASURING AND DISPENSING APPARATUS**
Robert K. Gallaway, Hoopeston, Ill., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application October 5, 1953, Serial No. 384,699
6 Claims. (Cl. 222—168.5)



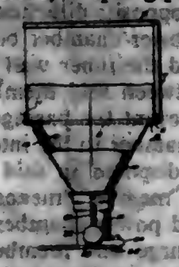
1. Apparatus for measuring and dispensing liquid comprising a measuring receptacle having an inlet port in a wall thereof, a sleeve having a port therein reciprocably mounted in the receptacle so as to close the inlet port thereof when in one position and to open said inlet port when in another position, said sleeve comprising a bore including a lower portion of predetermined diameter and an upper portion of larger diameter, a valve head fitted to the bore of said sleeve for entry bodily thereinto, and means for mounting said valve head in position to seat within the lower portion of said bore to close the bore of said sleeve when the sleeve is in said port opening position and to be received by the upper portion of said bore to open the bore when the sleeve is in said port closing position.

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**2,770,398**
**DEVICE FOR DISPENSING MEASURED QUANTITIES OF GRANULAR MATERIAL**
Edward E. Sanderson, Detroit, Mich.
Application November 2, 1953, Serial No. 389,670
1 Claim. (Cl. 222—281)

A device for dispensing measured quantities of granular material comprising a bracket formed of a vertical rear wall engageable with a vertical support, an upper horizontal wall projecting from said rear wall and engageable over the inverted bottom of a container, a lower horizontal wall projecting from said rear wall, the inverted open top of said container engaging on said lower wall, said lower wall having an opening extending inwardly from the front edge thereof, a conical member fixed to and depending from said bottom wall, a cylindrical delivery member fixed to the lower end of said conical member, a spring-pressed valve plate in

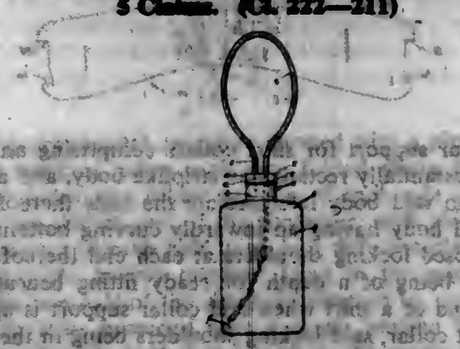




the upper end of said delivery member, a rock shaft fixed to said valve plate, a right-angled arm extending from one end of said shaft, a weight on said arm gravitatingly maintaining said valve plate in closed position, a second valve plate bearing against the lower end of said delivery member, means pivotally securing said second valve plate to said delivery member, and a handle projecting from said second valve plate.

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**2,770,399**
**FLEXIBLE SELF-SEALER OILER AND FLUID DISPENSER**
Charles H. Gross, Detroit, Mich.
Application December 1, 1953, Serial No. 395,375
5 Claims. (Cl. 222—211)

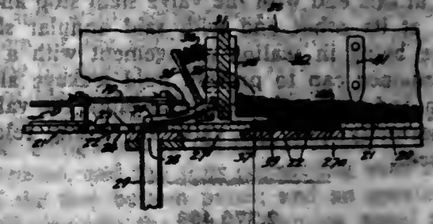


1. A resilient self sealer fluid dispenser adapted for controlled, restricted discharge of fluid by externally applied pressure, and used with selected fluid, comprising a closed, resilient, hand pressure fluid container made of plastic material and formed with an open neck section leading therein, a suitable stopper plug formed with tube opening, fixedly mounted within said open neck section, a small, elongated flexible plastic fluid discharge tube tightly, but adjustably mounted through said stopper plug tube opening and projected within the container chamber a predetermined length, also extended outside the supporting stopper plug, designed for discharge of the container fluid therethrough when hand pressure is applied to the container walls, and tube supporting pin means mounted on said stopper plug for self sealing the discharge tube when not in operation.

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**2,770,400**
**SEED SEPARATING AND FEEDING MECHANISM**
Eddie F. Nielsen, Gresham, N. Dak.
Application November 18, 1954, Serial No. 469,715
3 Claims. (Cl. 222—222)

1. In a seed planter the combination of a frame, a seed-carrying hopper having a bottom and having generally upright side walls including a discharge seed-delivery portion adjacent said bottom, each of said side walls having an inner side and an outer side, one of said side walls having an elongated slot extending horizontally throughout the length thereof and adjacent said bottom, an elongated, flexible driving element extending horizontally along said last mentioned side wall and adjacent said slot therein, engaging means mounted on said frame and connected with said flexible element for guiding the same, said engaging means being adapted for connection with a source of power for driving said flexible element,



a flat seed-delivery conveyor secured to said flexible driving element and extending laterally outwardly therefrom and inwardly of said hopper through said slot, said conveyor being supported on said bottom and having a plurality of seed-receiving chambers each communicating with the interior of said hopper for receiving a seed therefrom, and delivery means mounted on said frame and being operatively connected with said conveyor for receiving seeds therefrom and delivering the same to the ground for planting.

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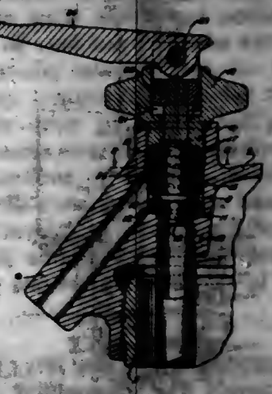
**2,770,401**
**MEASURING DISPENSER CLOSURE**
Orlestus R. Brenner and William Bross, Cincinnati, Ohio
Application December 7, 1954, Serial No. 473,544
4 Claims. (Cl. 222—339)



1. A closure cap comprising a housing having a neck attachable to a container, an arcuate slot in said housing above said neck, said housing provided with a passage connecting said arcuate slot with said neck, a sliding member movable endwise in said arcuate slot, and a measuring cavity in said member co-operating with said passage.

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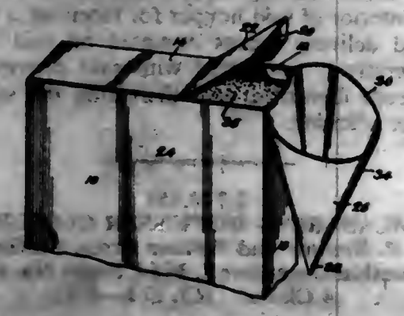
**2,770,402**
**DISCHARGE VALVES FOR PRESSURE JUGS**
Ronald F. Quam, Fort Atkinson, Wis.
Application April 18, 1955, Serial No. 502,166
3 Claims. (Cl. 222—400.7)



1. A discharge valve mechanism for controlling the discharge of fluid from a container having an end, comprising a cap mounted on an end of the fluid container, a valve stem reciprocatably mounted through said end-

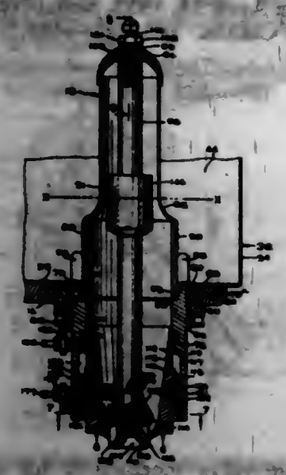
taner cap, the container cap being provided with a discharge chamber into which said valve stem extends and the valve stem being formed with a stop, the discharge chamber being formed with a valve seat, and a wall portion of the cap adjacent the chamber having an annular shoulder, a valve carried by an inner portion of the valve stem movable into and out of engagement with said valve seat, and a generally cylindrical resilient sealing sleeve surrounding portions of the valve stem and in engagement at one end with the valve stem stop and in engagement at its other end with said annular shoulder, said sleeve being in sealing engagement with a portion of the container cap to prevent fluid leakage along the valve stem and resiliently reacting against the valve stem stop to normally hold the valve in closing relation to the valve seat.

2,770,403
COMBINED DISPENSING CARTON AND ATTACHED COLLAPSIBLE MEASURING CUP
Dorothy L. Eckley, Denver, Colo.
Application January 24, 1955, Serial No. 483,590
6 Claims. (Cl. 222—424.5)



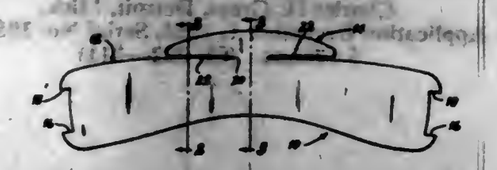
1. A dispensing container and measuring device comprising in combination: a dispensing container provided with a pour opening; and, a measuring cup attached along a portion of the rim thereof to the container and suspended beneath the pour opening in position to receive the contents of said container when dispensed through said pour opening, said cup being foldable into collapsed position following each use without detaching same from the container.

2,770,404
FILLING VALVE
Robert K. Galloway, Hoopeston, Ill., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application December 1, 1952, Serial No. 323,406
2 Claims. (Cl. 222—448)



2. A liquid dispenser comprising a housing having a hollow interior affording a reservoir for liquid and having an opening in one wall, a member disposed across said opening having side walls in sliding sealing engagement with the inner walls of said housing and a bottom wall with a discharge port through which liquid may be discharged from said reservoir, a valve seat formed in said member around said discharge port, a valve arranged to engage said valve seat in liquid-tight engagement, said member being movable in one direction for moving said valve seat into engagement with said valve and movable in an opposite direction to unseat said valve, means defining a power chamber between the outer wall of said member and the inner wall of said housing, seal means disposed between said member and said housing and arranged to prevent the passage of pressurized fluid from said power chamber to the interior of said housing, an annular flange disposed in said power chamber and connected to said member, means for directing pressurized fluid to said power chamber on one side of said annular flange to urge said member in said one direction, and means for simultaneously releasing the pressurized fluid on said one side and directing pressurized fluid to said power chamber on the other side of said annular flange to urge said member in said opposite direction.

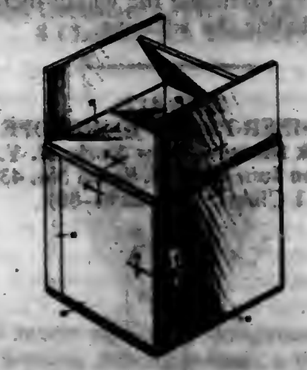
2,770,405
SHIRT COLLAR SUPPORT
Richard N. Williams, St. Louis, Mo., assignor to R. N. Williams Paper Company, St. Louis, Mo., a corporation of Missouri
Application June 12, 1953, Serial No. 361,298
1 Claim. (Cl. 223—69)



A collar support for shirt collars comprising an elongated substantially rectangular striplike body, and a wing secured to said body intermediate the ends thereof, said elongated body having an inwardly curving bottom edge and opposed locking shoulders at each end thereof, each shoulder being of a depth for ready fitting beneath the collar band of a shirt when said collar support is applied to a shirt collar, said locking shoulders being in the same plane with said elongated body, said locking shoulders being in a plane at substantially right angles to the body of a shirt when inserted in a shirt collar, and said wing being connected to said body by a neck portion and being separated from said body at each side of said neck portion by a slot, said wing being substantially narrower in width than the body and of a length less than half of the length of said elongated body.

2,770,406
CARTON CONSTRUCTION
Gardiner Lane, Darien, Conn., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York
Application June 28, 1954, Serial No. 439,765
7 Claims. (Cl. 229—3.5)

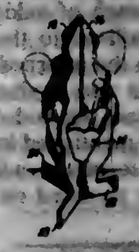
1. A collapsible carton formed by folding a carton blank, characterized in that the blank constitutes a sandwich having two spaced-apart sheets of paper or the like and the space therebetween being filled with a layer of foamed compressible plastic material containing many thousands of gas cells per cubic centimeter, the opposite surfaces of which layer respectively are secured throughout to such sheets, the corners for the carton being formed along narrow bands at which the plastic material is permanently compressed to a substantially non-foamed and substantially higher density than the other areas, the sandwich along said corners being sufficiently flexible to permit free bending for the formation of at least 90° corners without rupture of the foamed layer or said sheets as secured thereto, but the foamed layer in the main wall



areas of the carton being relatively uncompressed and said areas being relatively non-resilient and rigid against deflection and the foamed layer therein being subject to fracture upon substantial bending.

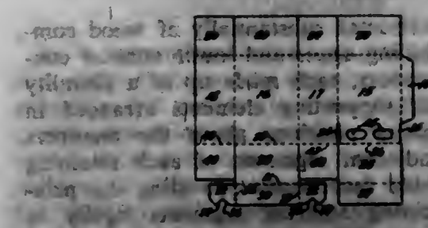


2,770,407
CONTAINER
Carl S. Dehm, Kearny, N. J.
Application June 25, 1952, Serial No. 295,453
8 Claims. (Cl. 229—8)



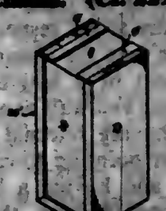
1. An ornamental container formed with a plurality of joined identical sides, each side folded along its longitudinal center, the folded portion of each side lying adjacent the central axis of the container, each side having two halves and each half lying in a different plane, each adjacent side having one-half lying in the same plane with the one-half of the side it is adjacent to, said joined identical sides provided with a single portion that is a portion of each half that is not in the same plane as either half and protrudes from the face of each half to form an article holder.

2,770,408
CONTAINER-FEEDER
Robert G. Lindeberg, St. Paul, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application August 23, 1952, Serial No. 305,980
2 Claims. (Cl. 229—17)



1. As a combined packaging and dispensing carton and feeding trough for flowable granular material, a carton having four vertical walls and a bottom closure; the said bottom closure comprising a first panel hinged to the bottom of the front wall and extending to the rear wall to form the inside bottom surface of the carton, a second panel hinged to the bottom of the rear wall and extending underneath the first panel to a position below the front wall, a trough-forming panel hinged to the front edge of the second panel and extending upwardly therefrom in front of the front wall, two end flaps hinged to the two ends, respectively, of the trough-forming panel, two vertical slots in the walls at the front corners of the carton to receive the two end flaps, respectively, stop members on the end flaps to engage the walls when the flaps are partially withdrawn from the carton a given distance, and two side closure flaps hinged to the bottom edges of the two side walls, respectively, each extending across the bottom of the carton underneath the second panel toward the opposite side wall to form the outside bottom surface of the carton; the front and rear walls and the first and second bottom panels being of equal width, the said width being equal to the lateral extent of the trough-forming panel, and the slots connecting with the lateral edges of the first bottom panel; and an aperture in the front wall opposite the trough-forming panel to permit the contents of the carton to flow into the trough that is formed between the front wall and the trough-forming panel when the end flaps are partially withdrawn from the carton, the said aperture being closed by the trough-forming panel when the latter is in contact with the front wall.

2,770,409
HEAVY AND LIGHT DUTY CONTAINER STRUCTURE AND METHOD OF MAKING SAME
George Arlington Moore, New York, N. Y.
Application March 5, 1954, Serial No. 414,242
12 Claims. (Cl. 229—23)

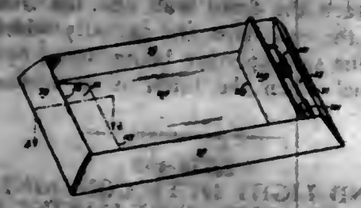


1. A container of sheet material comprising a body of substantially rectangular cross section having four side walls arranged in opposing pairs, one pair having a bridged flat end wall of uniform single thickness and being integrally related with said pair of side walls, each of said walls having free end sides provided with continuous marginal flange portions bent inwardly at right angles of their corresponding walls, the other pair of said side walls having an alternate bridged flat end wall of uniform single thickness and being integrally related with corresponding side walls, said alternate end wall having two substantially parallel straight side edges spaced inwardly and parallel to interior surface portions of the first mentioned side walls to provide a pair of slot openings for access into the interior of the container, the first mentioned pair of side walls and flange portions being extended outwardly of said end wall, the extended flanged portions being partially severed from the side wall portions with slit lines terminating adjacent the surface of said end wall, the other of said flange portions being disposed in continuous overlapping relationship with exterior marginal portions of the last mentioned pair of other side walls, the overlapping parts being secured together in seam forming relationship after which, said extended side wall and severed flange portions provide means for closing and sealing said pair of slot openings.

2,770,410
HOLLOW-WALLED BOXES
Marshall L. Williamson, New Haven, Conn.
Application April 14, 1953, Serial No. 348,739
5 Claims. (Cl. 229—34)

1. A hollow walled folding box comprising, in combination, a main panel; a pair of side wall structures on oppo-

side sides of the main panel, a pair of end wall structures at opposite ends of the main panel; and corner structures between said side wall structures and said end wall structures; each of said side wall structures comprising, an outer side wall panel articulated to said main panel along an outer side fold line; an inner side wall panel articulated to said outer side wall panel along a side ridge fold line; and a bottom side panel articulated to said inner side wall panel along an inner side fold line and extending outwardly toward said outer side fold line in the set-up box; each of said end wall structures comprising, an outer end wall panel articulated to said main panel along an outer end fold line; an inner end wall panel articulated to said outer end wall panel along an end ridge fold line; and a bottom end panel articulated to said inner end panel along an inner end fold line, said bottom end panel extending outwardly toward said outer end fold line in the set-up box; each of said corner structures comprising at least one corner panel articulated to one of the wall panels of one wall structure along a fold line aimed at the ridge



fold line of said one wall structure, said corner panel lying, in the set-up box, between the outer wall panel and the inner wall panel of the other wall structure meeting said one wall structure at the respective corner; a liner panel of a width greater than the distance between the inner side wall panels and of a length greater than the distance between the inner end wall panels, considering the set-up box, said liner having internal flaps cut from its stock, said internal flaps pointing towards the proximate end edges of the liner and having a hinge line substantially parallel to, and spaced from, the inner end panel of the box, the end edges of the flaps being substantially parallel and spaced from each other a distance equal to the distance between the inner end panels of the box; and bottom tabs on the end wall structures, said bottom tabs extending at right angles to the inner end wall panels and in the opposite direction as the bottom end panels, said liner underlying said bottom side panels and said bottom end panels, said tabs underlying said liner flaps at the end edges of said flaps.

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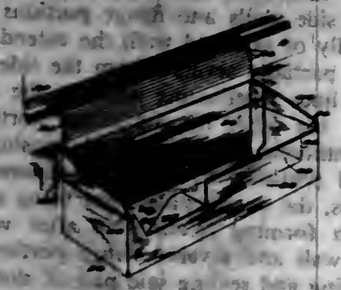
2,770,411

**SELF-SUSPENDING DISPOSABLE SERVICE BOX**

Kenneth H. MacKay, Ocala, Fla.

Application December 1, 1952, Serial No. 323,397

11 Claims. (Cl. 229—43)



1. A self-suspending, disposable service device comprising an elongated, rectangular paper box open at the top side and having an integrally joined closure flap extending along one longitudinal edge of the open top side, said closure flap being of a width to provide a free marginal portion adapted to be folded against the upper marginal portion of the other longitudinal edge when the box is closed, and a substantial area of pressure sensitive adhesive extending lengthwise of the outer face of the closure flap inwardly of the free foldable marginal portion, the inner face of the closure flap having a plurality of rows of scoring extending the length thereof throughout the area including the adhesive.

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2,770,412

**TAMPER-PROOF ENVELOPE**

Mark Ellwood, New York, N. Y.

Application June 2, 1954, Serial No. 433,992

1 Claim. (Cl. 229—90)



A tamper-proof envelope comprising a rectangular front wall having an inturned flap at one end affixed to the inner adjacent end of said front wall, and another flap at its other end gummed on both surfaces, a rectangular back wall comprising two panels each having one of their longitudinal edges formed integral with the respective longitudinal edges of said front wall, said panels extending over said front wall, each of said panels having an inturned flap at one end affixed to the adjacent wall of the associated panel and to the inturned flap at the end of said front wall, said panels also having inturned flaps at the other end thereof adjacent the said other gummed flap of said front wall, said last mentioned inturned flaps being affixed to the inner surface of the adjacent end of the associated panel and being gummed on the other surface thereof.

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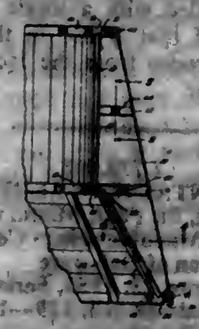
2,770,413

**WOOD FAN RING**

Helen E. Grantham and John L. Goldsmith, Houston, Tex., assignors to Hudson Engineering Corporation, Houston, Tex., a corporation of Texas

Application February 1, 1952, Serial No. 269,562

19 Claims. (Cl. 230—133)



1. A fan ring constructed substantially of wood comprising a frame including upper and lower annular concentric retaining members, each made up of a plurality of segments; upright supporting elements arranged in circumferentially spaced positions about the members with one between adjacent segments of each retaining member; separate hold fast means providing the principal means of securing adjacent segments rigidly to each other and to an upright supporting element therebetween independently of the other similar joints of the fan ring; a plurality of staves; and stave receiving and retaining means carried by the retaining members for receiving and retaining the staves between said members in snug, upright, side-by-side relationship in the form of a substantially cylindrical shell.



2,770,414

**VACUUM PUMP**

Marvin Skolnik, Cleveland Heights, Ohio, assignor to The Weldon Tool Company

Application December 4, 1952, Serial No. 324,985

8 Claims. (Cl. 230—149)



1. A fluid motor or pump, comprising, a housing, a wall in said housing defining a bore, a rotor rotatable in said bore, one of said rotor and housing having a cam surface, the other of said rotor and housing having slots and blades slidable in said slots, spring means engaging said blades to urge same into engagement with said cam surfaces, said blades in co-operation with said cam surface dividing said bore into first and second variable volume chambers, engagement of said blades with said cam surface forming first and second interfaces, an inlet port adjacent one blade and an outlet port adjacent the other blade in each chamber, means connecting said outlet ports together and to a liquid storage tank, means introducing into said first chamber a first fluid exclusively and means introducing into said second chamber passing a second different fluid exclusively, seal means including said exclusive circulation of said second fluid through said second chamber sealing said first and second interfaces thereby maintaining a high pressure differential between said first and second variable volume chambers.

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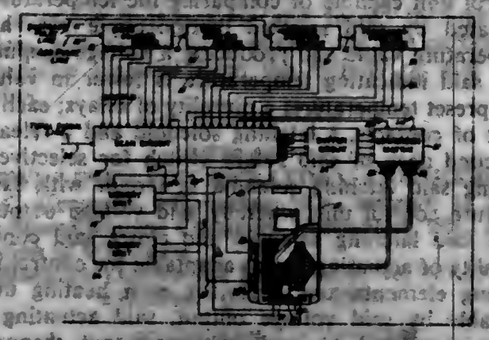
2,770,415

**READ-OUT AND RADIX CONVERSION APPARATUS FOR ELECTRONIC COMPUTING APPARATUS**

John L. Lindenmeier, Sierra Madre, Calif., assignor to Clary Corporation, a corporation of California

Application December 3, 1951, Serial No. 259,568

21 Claims. (Cl. 235—61)



1. A computing device comprising the combination of a multi-denomination counter, means for successively actuating said counter to enter digital values thereinto, a multi-denomination accumulator, means responsive to a tens carry-over operation from a predetermined denomination only of said counter and during a counting operation of said counter for actuating a denomination of said accumulator corresponding to one denomination higher than said first predetermined denomination to enter the digit one therein, and selectively operable means controlled by said predetermined denomination and all lower denominations of said counter and operable after said counting operation for actuating the remaining lower denominations of said accumulator whereby to transfer amounts from said counter to said accumulator.

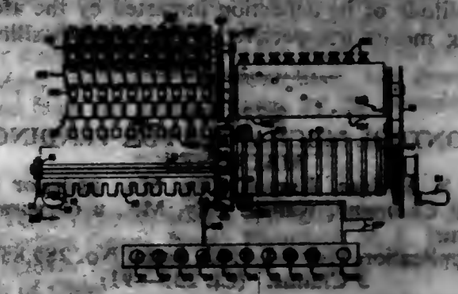
2,770,416

**CALCULATING MACHINE**

George W. Hawkins, San Leandro, Calif., assignor to Friden Calculating Machine Co., Inc., a corporation of California

Application April 13, 1951, Serial No. 220,989

11 Claims. (Cl. 235—61)



3. In a calculating machine, an accumulator, a supporting shaft for the said accumulator, a plurality of numeral wheels rotatably mounted on the said shaft, a magnetic clutch for each numeral wheel adapted to be driven by the said shaft to effect registration in the said accumulator, each such clutch including a permanently magnetized driving element mounted for rotation with the said shaft, a complementary clutch follower element adapted to be magnetically driven thereby, the said follower element being mounted on its corresponding numeral wheel for rotation therewith, and an ordinally arranged escapement mechanism including an electromagnet in each order for controlling step-by-step driving engagement of each such permanently magnetized element with its complementary clutch follower element, and mechanism for supplying counting pulses to the said electromagnets comprising, a series of ordinally-spaced pickup coils, a plural order magnetic record-receiving means mounted for rotation with respect to said coils, means for ordinally shifting said record-receiving means, means for recording a figure in said record-receiving means by magnetizing said record-receiving means so that for each digit of the figure there is a corresponding portion of the record-receiving means, and means for rotating said record-receiving means so that in each order thereof containing a magnetically-recorded number a corresponding number of pulses of current will be induced in the ordinally related pickup coil and transmitted to the electromagnet which controls the escapement mechanism in that order.

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2,770,417

**ELECTRONIC DISTRIBUTOR FOR COUNTING AND SIMILAR PURPOSES**

Paul François Marie Chenau and Jean Arthur Marie Louis Gallavardin, Paris, France

Application June 2, 1949, Serial No. 96,146

Claims priority, application France July 7, 1948

15 Claims. (Cl. 235—92)



1. In an electric step by step type pulse distributor, a cathode ray tube, means inside said tube for producing an electron beam and for directing said beam along a predetermined reference axis, a plurality of targets located inside the tube and around said axis for receiving the beam, a plurality of deflecting means arranged around the said axis so as to deflect the beam in different radial planes

extending through said axis and said targets, means to connect separately and directly each target to the corresponding deflecting means located in the same radial plane, a supplementary starting target located in said reference axis, connected to one of said targets and independent means under control of the incoming pulses to be distributed for acting upon the beam so as to change the amplitude of its deflection imparted by the aforesaid deflecting means irrespective of the beam position.

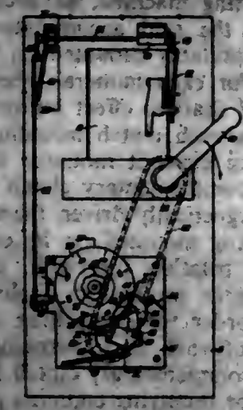
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2,770,418

**CONTROL MECHANISM FOR VENDING MACHINES**

Charles S. Hodges, Kansas City, Mo., assignor to The Vendo Company, Kansas City, Mo., a corporation of Missouri

Application May 24, 1952, Serial No. 289,858
3 Claims. (Cl. 235—91)



1. In a control mechanism having a rotatable index disc provided with a stop and a movable latch engageable with the stop; structure for imparting step-by-step, rotative movement to the disc, said structure comprising in combination a stub shaft; a ratchet wheel, a pinion, and a plate element all rotatably mounted on said shaft, the pinion and the ratchet wheel being interconnected; a gear secured to the disc in mesh with the pinion; an oscillatable shaft; a member mounted on the oscillatable shaft and having a pin thereon; spring means connected with said element and yieldably holding the latter biased against the pin; and a spring-loaded pawl on the element and engageable with the ratchet wheel for rotating the latter to rotate the pinion, the gear and the disc as the pin is oscillated to swing the element against the action of said spring means.

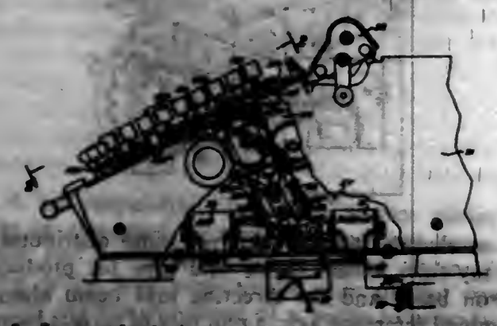
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2,770,419

**KEYBOARDS FOR CALCULATING MACHINES**

Colin L. Campbell, Fontana, and Smith Lee, West Covina, Calif., said Lee assignor to said Campbell

Application September 19, 1950, Serial No. 535,077
8 Claims. (Cl. 235—145)



1. In a calculating machine of the key-set type having power drives, cyclic actuating means and a plurality of different arithmetical function-controlling means, a keyboard comprising, in combination: an upper keyboard plate; a plurality of value keys having key stems extending through openings in said plate and depressible for setting up amounts to be entered into the machine upon a cyclic operation thereof; means for latching said keys in depressed setup condition, said keyboard openings for the key stems being shaped and enlarged, relative to the cross section of the key stems, to permit limited amounts of tilting movements from normal latched position of the key stems therein relative to the keyboard plate, optionally in a plurality of different directions; electronic means, normally functionally inoperative, adapted for selectively initiating action of a plurality of said different function-controlling means; and means, operative upon tilting of a latched value key in an optionally selected direction from normal position, for rendering said electronic means operative to initiate action of the selected function-controlling means.

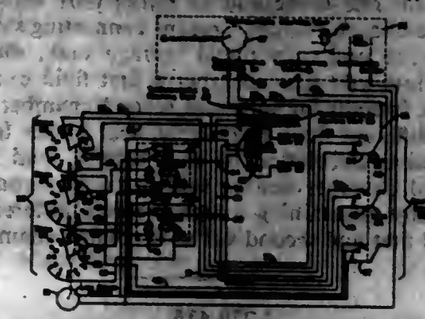
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2,770,420

**MULTIPLE TEMPERATURE CONTROL DEVICE**

Kenneth P. Potter, Indianapolis, and Guy R. Stutzman, Greenwood, Ind.

Application July 29, 1955, Serial No. 525,405
2 Claims. (Cl. 236—15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A temperature control device for regulating a plurality of heating units having heating elements comprising; a voltage supply; a plurality of thermocouples for indicating temperature, one each adapted for temperature indication in each of a plurality of heating units; a rotary switch having a plurality of decks, one deck for selectively connecting said thermocouples with a temperature control unit capable of comparing the temperature value indicated by said selected thermocouple with a preset temperature value and producing a voltage output whenever said indicating temperature is lower in value than said preset temperature; a plurality of relays; each having a set of contacts, a latching solenoid and a release coil; a second deck of said rotary switch for selectively connecting said latching solenoid in circuit with said temperature control unit whereby said voltage output energizes said latching solenoid and closes said contacts; a plurality of actuating means adaptable for controlling said heating elements, one each for each heating unit and operable by said voltage output, said actuating means being connected to said voltage output through said selected relay contacts; and a third deck of said rotary switch for selectively connecting said voltage supply in circuit with said release coils after said latching solenoid is connected in circuit with said temperature control unit.

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2,770,421

**RAILWAY-TIE PAD**

George A. Wilson, Weston, Mass., assignor to Fabreeka Products Company, Boston, Mass., a corporation of Massachusetts

Application May 19, 1954, Serial No. 430,321
6 Claims. (Cl. 238—283)

1. A railway tie pad comprising a body layer of vulcanized rubber having fibrous material embedded therein, a tie-contacting bottom layer bonded to the body layer, said tie-contacting layer being relatively thin as compared with the body layer, the tie-contacting layer being weather-impervious and sticky, within the upper limits at least of the normal range of climatic temperatures, and a top layer relatively thin as compared with the tie-contacting layer and integral with the body layer, the outer surface of said top layer being adhesive.





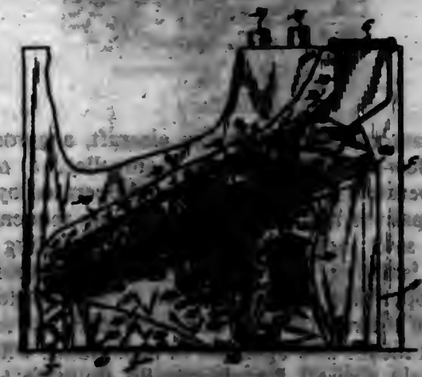
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2,770,422

**PLURAL STAGE - RECIPROCATING - PUNCH CRUSHER FOR FRANGIBLE MATERIALS**

Julius A. Hjalmar, Palos Heights, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois

Application June 8, 1955, Serial No. 513,932
7 Claims. (Cl. 241—147)



1. In an apparatus for reducing the size of frangible material, the combination comprising a plurality of plate members, a reciprocally movable punch plate cooperating with said plate members, said plate members having a plurality of tooth-like protuberances disposed along the lower edges thereof, means fixedly maintaining said plate members substantially vertical to said reciprocally movable punch plate, punch means affixed to said reciprocally movable punch plate, said punch means entering the interstices defined by said tooth-like protuberances and effecting a shearing relationship therewith whereby frangible material interposed between said interstices and said punch means is fragmentated and forced through said interstices, means adapted to remove the fine particles of said frangible material from the vicinity of said fragmentation.

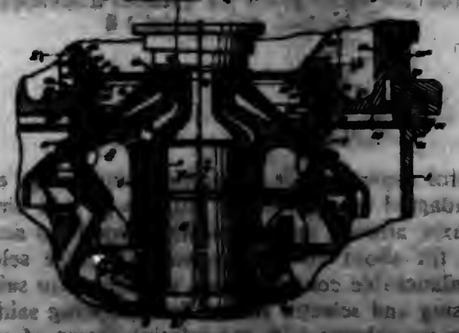
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2,770,423

**BOWL LINER FOR GYRATORY CRUSHERS**

Oscar C. Gruender, Milwaukee, Wis., assignor to Nordberg Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin

Application October 28, 1952, Serial No. 317,193
8 Claims. (Cl. 241—299)



1. In a bowl liner for gyratory crushers and the like, a body portion having a generally conic upper surface and having an upward extension from the upper inner edge of said conic upper surface, said upward extension having a circumferential outer channel therethrough located at a level above the plane in which the inner edge of said conic upper surface terminates, said circumferential channel being upwardly bounded by an outwardly extending locking flange, the exterior diameter of which approximates the diameter of the upper inner edge of said conic upper surface and an outwardly extending, centering, flange carried by said upward extension and having an outer surface located above the upper-most part of the conic upper surface of the bowl liner, but downwardly separated from the locking flange by the circumferential channel.

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2,770,424

**AUTOMATIC STATOR WINDING MACHINE**

Frank Carlton Grove, North Plainfield, N. J., assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application April 6, 1953, Serial No. 346,904
13 Claims. (Cl. 242—1)



2. In a electromagnetic core winding machine, a core support mounted for oscillatory movement about a vertical axis, a wire laying needle, means for reciprocating said needle vertically through a core on said support and for projecting said needle radially of a core adjacent the upper and lower limits of its movement, a lower forming member mounted below and in spaced relation to a core on said support and having a slot to receive said needle when projected, an upper forming member having a slot to receive said needle when projected, means for moving said upper forming member to and from an operative position spaced from a core on said support and within the limits of the reciprocating movement of said needle and an inoperative position away from said core support, means for oscillating said core support while said needle is above and below a core thereon, drive means for actuating said needle and said oscillating means, control means for energizing said drive means to lay wire in a core according to a predetermined plan and for de-energizing said drive means and for actuating said moving means to move said upper forming member to said inoperative position at the termination of a winding operation.

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2,770,425

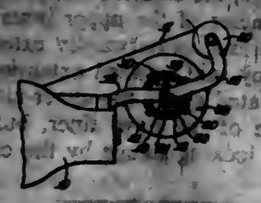
**SPOOL AND MANDREL ASSEMBLY**

Glenn Richard Lee, Kokomo, Ind., assignor to Continental Steel Corporation, Kokomo, Ind., a corporation of Indiana

Application September 28, 1954, Serial No. 458,772
7 Claims. (Cl. 242—46.3)

1. A spool and mandrel assembly comprising, an annular ring mounted for rotation about its axis, a single piece substantially uniformly arcuate leaf-type spring member anchored to the exterior of said ring and circumferentially

encompassing more than 180 degrees of the periphery of the ring, said circular spring member in its unflexed condition being disposed eccentrically with respect to said ring, and a spool having a circular opening in the core thereof removably received upon and supported solely by said spring member, the wall of said opening forcefully embracing the outer surface of said spring member and flexing said member inwardly to a position substantially concentric with said ring, the ring, spring member and spool thereby being rotatable as a unit substantially concentrically about said axis of said ring, the resilience of said spring member retaining said spool thereon.

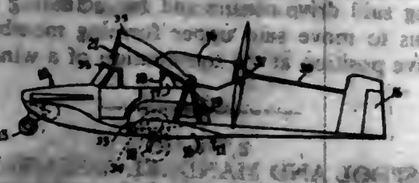


2,770,426
FILTER CARTRIDGE
Eldred D. Steven, Winona, Minn., assignor to Unit Manufacturing Company, Winona, Minn., a partnership
Application May 28, 1952, Serial No. 290,397
3 Claims. (Cl. 242—123)



1. In a spool including a tube, an end wall therefor comprising a plurality of outwardly directed fingers fixed to an end of the tube and positioned substantially perpendicular to the axis of the tube, some of said fingers being disposed in a first radial plane and the remainder of said fingers being disposed in a second radial plane spaced axially outward of the tube from the first radial plane, a first disk received between said some and said remainder of said fingers, a second disk positioned against said remainder of said fingers, and staple means securing said disks and said fingers together, said staple means comprising a plurality of metal staples passing through said disks and said fingers, each of said staples passing through both a finger of said first radial plane and a finger of said second radial plane.

2,770,427
AIRCRAFT CONSTRUCTION
Robert E. Schmidt, Huntingdon, Pa.
Application July 15, 1953, Serial No. 299,260
6 Claims. (Cl. 244—3)



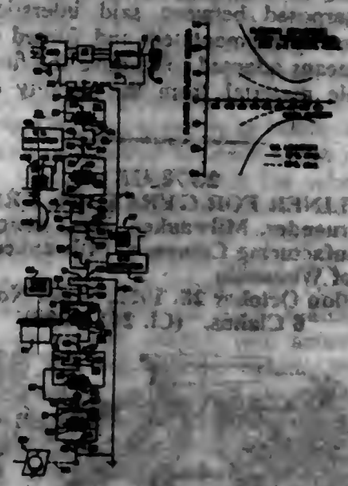
2. An aircraft comprising a buoyant, watertight, automotive type amphibious vehicle detachably mounted onto a buoyant, watertight, flight unit, said buoyant, watertight, flight unit being provided with engine controls and flight surface controls, said engine controls and said flight surface controls operable independent and apart from said buoyant, watertight, automotive type amphibious vehicle.

2,770,428
AUTOMATIC STEERING MECHANISM
Clarence E. Vogel, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application January 31, 1952, Serial No. 269,289
16 Claims. (Cl. 244—77)



13. In an automatic pilot for an aircraft, a gyroscope operated follow-up rebalanceable controller, a motor adapted to operate a control surface and operated by said controller, a pair of limit switches inverlably sequentially operated by said motor, circuit means including said switches for isolating said surface from the motor for limiting the operation of said surface by said motor independently of the rebalance of said controller; and means in said circuit means and operated in accordance with the airspeed of said aircraft for electrically shunting a first operable switch for rendering effective a subsequent operated switch.

2,770,429
AUTOMATIC CONTROL SYSTEMS
Oscar Hugo Schuck, Minneapolis, and Benjamin H. Clegel, Minneapolis, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application September 17, 1951, Serial No. 246,954
12 Claims. (Cl. 244—77)

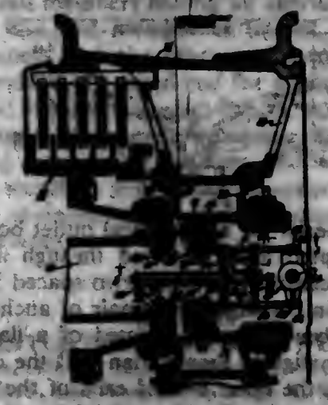


2. Control apparatus for an aircraft comprising: a servomotor adapted to control the attitude of said aircraft about an axis; attitude sensing means movable in accordance with tilt about an axis; movable attitude selector means; balanceable control means responsive to said attitude sensing and selector means for operating said servomotor in accordance with the relative extent of movement of said attitude sensing means and said selector means; and further means responsive to the longitudinal



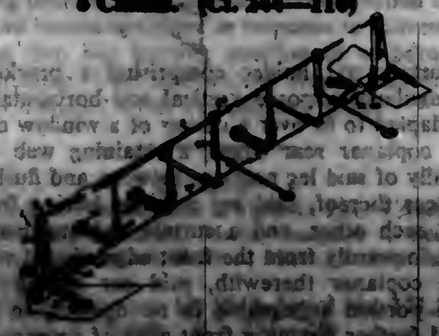
change in position of the center of gravity of said aircraft and connected to said control means for changing the operation of said servomotor for any given difference in extents of movements of said attitude means and said movable attitude selector means.

2,770,430
AIRCRAFT UNDERCARRIAGE
Franklin C. Albright, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application November 1, 1949, Serial No. 124,509
19 Claims. (Cl. 244—103)



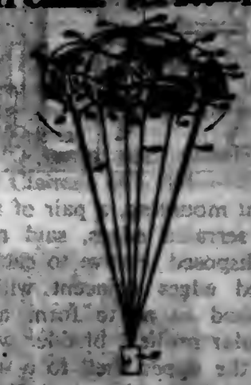
1. In an aircraft undercarriage including a wheel rotatably mounted on a pivot block, a kingpin supporting said pivot block for pivotal movement and disposed diametrically with respect to and inside said wheel, a substantially horizontal stationary axle secured to said kingpin at right angles thereto and extending through said pivot block, one end of said axle terminating substantially flush with the corresponding lateral side of said wheel; shimmy damping means, including a hydraulic cylinder carried intermediate its ends by said outer axle end and means for holding the same for a predetermined axial movement but against radial movement with respect to said axle, a piston sealingly received in said cylinder and having a rod projecting from both sides thereof which extends diametrically across said pivot block, means operatively connecting the ends of said rods to said pivot block, said piston defining two variable volume liquid-containing chambers in said cylinder, and valve means operatively associated with said chambers whereby sudden movement of said piston from rest in one direction will be substantially unrestricted while movement in the opposite direction thereafter will be restricted.

2,770,431
AIRCRAFT BARRIER
John E. Snow, Hillsdale, N. J., assignor to Acme Precision Products, Inc., Bucyrus, Ohio, a corporation of Ohio
Application January 13, 1955, Serial No. 481,591
8 Claims. (Cl. 244—110)



1. An aircraft runway barrier comprising in pair of spaced supports, an arresting cable lying in the runway in a slack condition, an actuator cable extending between the supports above said arresting cable and releasably connected at each end thereof to the supports, a plurality of lifter straps depending from said actuator cable at spaced intervals and releasably connected to said arresting cable, energy absorbing means connected to said arresting cable at each end thereof respectively, and a pair of elongated flexible members each affixed at one end thereof at opposite sides of the runway and having the opposite end thereof releasably connected to said arresting cable adjacent one end of the latter, said members each contacting the runway at a point intermediate the ends thereof.

2,770,432
PARACHUTE WITH ROTATING CANOPY
Harry Thompson Stenhouse, Uplands, Ontario, Canada, assignor to The National Research Council, Ottawa, Ontario, Canada, a corporation of Canada
Application November 9, 1953, Serial No. 391,619
Claims priority, application Great Britain November 10, 1952
11 Claims. (Cl. 244—149)



1. A parachute for inanimate objects comprising a canopy, a plurality of shroud line units each connected at one end to the canopy, means for connecting the other end of each shroud line unit to a load, said means being adapted to transmit to the load such torque as is developed at the load end of the shroud lines and said canopy being formed of a plurality of gores each tapering from an outer end at the mouth of the canopy toward the top centre of the canopy, the gores being spaced from adjacent gores at the mouth of the canopy and substantially throughout their length to define correspondingly tapered slots between said gores, a junction member arranged centrally of the canopy to which the inner end of each gore is attached, at least one flexible relatively inextensible strap member spanning the gap between adjacent gores intermediate their ends and interconnecting adjacent edges of adjacent gores, and means adapted when the canopy is in flight to tilt said gores spaced from adjacent gores whereby in flight air trapped by the canopy passes tangentially through said slots and the canopy is rotated in a direction depending on the tilting of said gores.

2,770,433
PNEUMATIC MOUNTING SYSTEM
James A. McNally, United States Navy, Arlington, Va.
Application April 28, 1949, Serial No. 88,522
4 Claims. (Cl. 248—22)
(Granted under Title 35, U. S. Code (1952), sec. 266)



4. A resilient mounting comprising a pair of shells having juxtaposed complementary serrated edges and a

common axis, an impervious bladder within a cavity formed by said shells, valve means connected to said bladder having connection means passing through an upstanding side of one of said shells for connection to a source of fluid supply, means for supporting a machine from the upper of said shells, means for supporting the lower of said shells upon a supporting structure, and means exteriorly attached to one of said shells for coacting with the other of said shells thereby preventing axial displacement beyond a predetermined distance.

2,770,434
PNEUMATIC MOUNTING SYSTEM
James A. McNally, United States Navy, Arlington, Va.
Original application April 28, 1949, Serial No. 90,522. Divided and this application June 30, 1952, Serial No. 299,661
5 Claims. (Cl. 248—32)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a resilient mounting, a pair of rectangular shells having matched serrated edges, said rectangular shells being vertically disposed relative to each other and having said matched edges adjacent with the serrations thereon intermeshed so as to form a cavity therebetween, a rectangular resilient bladder within said cavity, means to attach the upper shell to a weight to be supported and to attach the lower shell to a supporting structure, means to permit inflation of said bladder for lifting the upper shell from the lower shell, first stop means on said upper shell, second stop means on said lower shell, retaining means attached to the stop means one one of said shells, and limiting means on said retaining means for engaging the other of said stop means for limiting separation of said shells to a predetermined value.

2,770,435
FASTENING DEVICE
Philip D. Becker, Hingham, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application July 17, 1953, Serial No. 368,759
2 Claims. (Cl. 248—27)



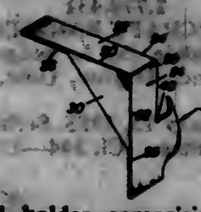
2. A fastening device for attaching a radio shield can to a support panel, comprising a substantially flat base having a central opening extending therethrough to receive the shield can, a pair of tongues extending downwardly from the inner edge of two opposing sides of the base, said tongues being inclined toward each other to enter suitable openings in opposite sides of the can, and a pair of attaching legs extending downwardly from the outer edges of two other opposing sides of the base, said legs being inclined inwardly toward each other and having bifurcated end portions, said bifurcated end portions having opposing shoulders disposed thereon, said base being transversely flexible between the legs whereby said legs may be moved toward the panel by flexing the base to enable the shoulders to snap into engagement in a suitable aperture in the panel, thereby maintaining the base in a bowed condition to hold the can tightly against the panel.

2,770,436
OUTLET BOX SUPPORT
Charles Linhardt, Jr., Baltimore, Md.; Mercantile Trust Company of Baltimore, executor of said Charles Linhardt, Jr., deceased, assignor to The Automatic Life Company, Baltimore, Md., a corporation of Maryland
Application December 6, 1950, Serial No. 199,435
1 Claim. (Cl. 248—57)



Supporting means for an electrical outlet box, said support being adapted to be inserted through a hole in a wall or ceiling centrally between two spaced joists thereof comprising, in combination, a pair of anchoring arms, each arm member being constructed of a flat rigid material and made slightly longer than half the distance between the joists, the outer end of each of the arms being twisted at right angles to the remaining portion of the arm having two or more pointed spurs on the outer twisted ends to engage the said joists, the opposite ends of the arms having apertures therethrough to receive a pivot pin, an L shaped bracket having an opening in the outer end of one of the legs thereof of substantially the same size as the aperture in the said anchoring arms, said leg being positioned between the apertured ends of the said anchoring arms, a pin frictionally connecting the two apertured ends of the anchoring arms with the leg of the bracket, the other leg of the bracket adapted to extend across the outer rear surface of the outlet box, a pair of apertures within said other leg for receiving bolts for securing the outlet box to the said second mentioned bracket leg, the length of the said first mentioned leg and the depth of the outlet box being substantially that of the distance from the outer surface of the ceiling to the point of contact of the anchoring arms with the joists.

2,770,437
CURTAIN ROD HOLDER
Erwin F. Pasch, Hancock, Mich.
Application June 4, 1953, Serial No. 359,473
1 Claim. (Cl. 248—262)



A curtain rod holder comprising a bracket having right angularly disposed vertical and horizontal leg portions adapted to fit over a corner of a window casing and having coplanar rear edges, a retaining web extending diagonally of said leg portions between and flush with the rear edges thereof, said leg portions having front edges free of each other, and a curtain rod engaging ear extending forwardly from the front edge of said vertical leg portion coplanar therewith, said ear having an upper pointed portion engageable in an opening in a curtain rod and further having a front edge of compound curvature adapted to fit in a curtain rod to hold the same in place on said pointed portion.

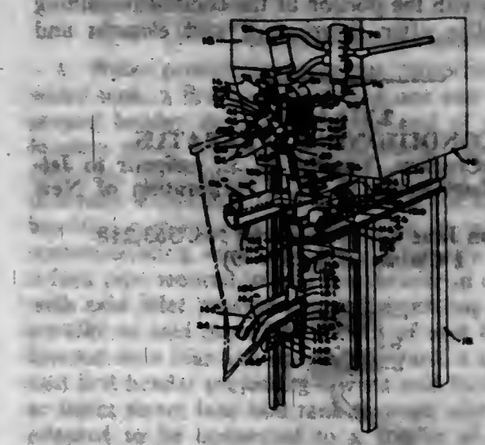


2,770,438
CONNECTOR STRUCTURE
Anthony E. Zingone, Massapequa, N. Y., assignor to New-Ray Products, Inc., New York, N. Y., a corporation of New York
Application June 24, 1953, Serial No. 363,743
4 Claims. (Cl. 248—317)



1. In a connector structure for connecting two members together, a link structure including end members and a plurality of links flexibly connected in chain formation, one of the end members having an aperture for pivotally connecting said end member to one of said first mentioned members and the other end member having an opening providing a hooked end for engagement with the other of said first mentioned members, said end members having reduced inner ends providing shoulders, and a coiled spring surrounding the links and the reduced ends of said end members and tensioned against the shoulders thereof for maintaining the link structure in tensioned elongated relation.

2,770,439
APPARATUS FOR FILLING POWDERED OR GRANULAR MATERIALS INTO BAGS
Neil S. Stafford, San Jose, and George A. Worley, Newark, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application September 17, 1954, Serial No. 456,768
6 Claims. (Cl. 249—66)



1. A discharge spout for fluidized solids comprising an initial conduit portion of resilient material and a terminal conduit portion of rigid material, said initial conduit portion having a section formed in the manner of a bellows and a smooth section, opposed members at either side of said smooth section normally held in a position sufficiently close to each other to deform said smooth section and block the flow of fluidized solids therethrough, a clamp movable into a position wherein it is effective to hold a bag in receiving position with regard to said terminal conduit portion, and means operative in response to movement of said clamp into bag holding position to withdraw said opposed members from said smooth section and thus permit flow of fluidized solids through said spout.

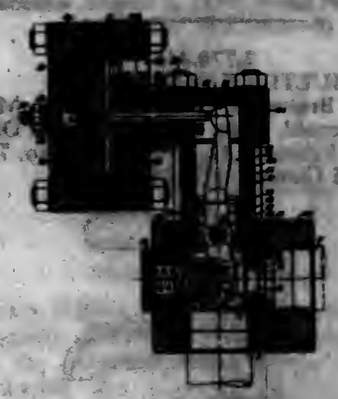
2,770,440
PILOT-CONTROLLED HYDRAULIC VALVE
John E. Woods, Cohasset, Mass., assignor to Standard-Thomson Corporation, Boston, Mass., a corporation of Delaware
Application February 12, 1952, Serial No. 271,219
5 Claims. (Cl. 251—28)

1. A hydraulic valve comprising a frame having a main valve seat, a main valve member having a base portion, a flexible seal secured between said base portion and the frame to accommodate axial movements of the main valve member, a pilot valve coaxial with the main valve, and having a stem passing through the main valve, a closure member for the frame having a seat for



the pilot valve, a spring tending to close the pilot valve, and a spring surrounding the stem and tending to close the main valve, the main valve member having a leakage opening to relieve the pressure in the rear of said base when the pilot valve closes.

2,770,441
FLUID PRESSURE REGULATOR
Marvin Henry Grove, Piedmont, Calif., assignor to Grove Valve and Regulator Company, Oakland, Calif., a corporation of California
Application October 1, 1951, Serial No. 249,201
2 Claims. (Cl. 251—63)



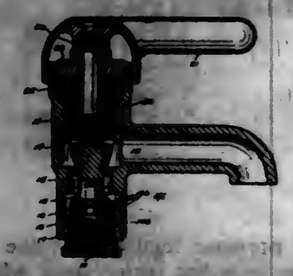
1. In a fluid pressure regulator of the type including a movable valve member cooperating with a valve seat for controlling flow of fluid and a fluid pressure operated member for operating the valve member, together with a body having one part serving to mount the valve seat and enclose the valve member and a second part detachably secured to the first part; means forming an operative connection between the fluid pressure operated member and the valve member comprising a lever disposed within the body, one end of the lever being disposed within the first part of the body and operatively connected to the valve member and the other end of the lever extending within the second part of the body and operatively connected to said fluid pressure operated member, a rigid sleeve, a pivot pin carried by diametrically opposite portions of said sleeve and providing a pivotal mounting for said lever, said first and second body parts having aligned bores formed therein for accommodating said sleeve, the ends of the pin terminating within the body and within one of said bores, and sealing means surrounding said sleeve and forming a seal between said first and second body parts, said sleeve having a portion of enlarged diameter at one end, a shoulder formed in the bore in said second body part, said enlarged portion fitting between said shoulder and said first body part to lock said sleeve against movement in a longitudinal direction relative to the body parts.

2,770,442
**CONTROL APPARATUS**
Peter P. Denny, Chicago, Ill., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 16, 1953, Serial No. 337,025
6 Claims. (Cl. 251—61)



3. In an actuator adapted to be attached to a valve stem, a motor chamber having a movable wall, a rigid reinforcing member abutting said movable wall, a spring retaining member having means spacing said latter member from said wall and having diametrically extending slots therein, a latch member slidable along said spring retainer member and having portions movable along said slots and having an aperture adapted to retain a valve stem, and spring means arranged to hold said spring retaining member, said latch member and the reinforcing member in assembled relation.

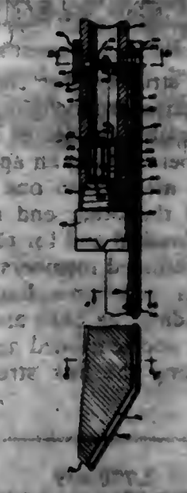
2,770,443
**MULTIPLE SEAL VALVE**
Henry J. Rand, Brunswick, Ohio, assignor to Magic Seal, Inc., Brunswick, Ohio, a corporation of Ohio
Application February 12, 1949, Serial No. 76,072
5 Claims. (Cl. 251—333)



1. A valve comprising a housing having a fluid inlet and a fluid outlet and an inner connecting passage therebetween, a compressible resilient plug part at the upstream end of said passage, coaxial therewith and axially movable relative thereto, said plug part being insertable in the upstream part of said passage, one of said parts being cylindrical and the other of said parts being frustoconical, one of said parts having a plurality of uninterrupted parallel peripheral ribs lying in planes at right angles to the axis of said plug, and one only of said ribs adapted to make an initial line contact with the other of said parts to immediately seal said passage against the flow of liquid therethrough.

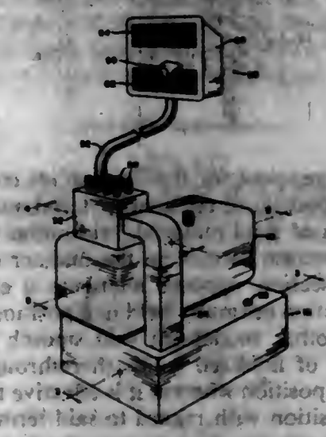
2,770,444
**CIRCULATING AND ROTATING RETRIEVABLE WHIPSTOCK**
Stephen A. Neal, Odessa, Tex.
Application March 16, 1953, Serial No. 341,423
2 Claims. (Cl. 255—1.6)

1. In a drilling apparatus including a drill collar formed with a passage for a fluid drilling substance, a whipstock arranged longitudinally exteriorly of said drill collar and having a pipe extending longitudinally therealong, a shearable conduit extending between and connecting said whipstock and said drill collar for rotation together as a unit, said conduit connecting said drill collar passage to said whipstock pipe and being shearable upon longitudinal movement of the drill collar relative to the whipstock, valve means positioned within said drill collar passage and normally spaced from said conduit and operatively connected to said drill collar, a frangible element positioned



within and extending laterally through said conduit so as to be sheared therewith and engaging said valve means to hold said valve means in the normally spaced position with said conduit, and means operatively connected to said valve means for moving said valve means into closing position with the portion of the conduit remaining in the drill collar after shearing of said element and said conduit.

2,770,445
**AIR CONDITIONING APPARATUS**
Calvin D. MacCracken, Tenafly, N. J., assignor to Jet-Heet, Inc., Englewood, N. J., a corporation of New York
Application June 22, 1953, Serial No. 363,210
1 Claim. (Cl. 257—9)



In a diffuser for a forced air domestic heating and cooling system of the type comprising separate hot and cold air delivery units and distributing means for conducting either warm or cold air from said units to a plurality of diffusers, in combination, a casing having air inlet and outlet openings, a nozzle in said casing having a neck portion, a collar forming a channel around said neck portion of said nozzle within which to collect condensate forming on said nozzle, and said nozzle neck having a hole therein adjacent said collar and opening into said channel for diverting into said channel a small portion of the air delivered to said nozzle whereby to evaporate condensate collecting in said channel.

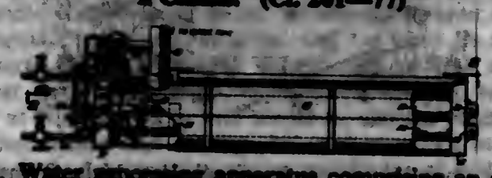


2,770,446
**GAS AND LIQUID MIXING DEVICE**
Ellis P. Agbabian, New York, N. Y.
Application February 18, 1953, Serial No. 337,806
10 Claims. (Cl. 261—76)



1. A device for mixing a gas and a liquid comprising a conduit for the liquid, an inverted cup perforated at its top and having an internal lip at its open end, screen means in the cup and bearing against said lip, and tabs extending inward from the inner side wall of the cup and limiting the upward motion of the screen means, said cup being located in said conduit, said cup having an air inlet into the same and said conduit having an air inlet feeding air to the air inlet of said cup.

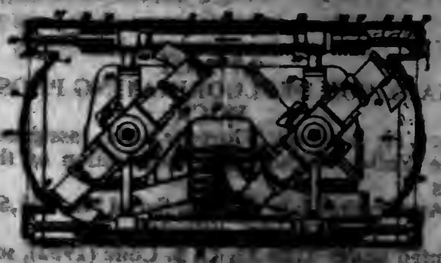
2,770,447
**WATER PROCESSING APPARATUS**
Henry C. Kraus, Long Beach, Calif., assignor to Railway Steam Research Corporation, Monterey Park, Calif., a corporation of California
Application November 27, 1953, Serial No. 394,783
2 Claims. (Cl. 261—77)



1. Water processing apparatus comprising an elongate water tank, a first header closing one end of said tank, a second header closing the other end of said tank, said headers being formed of solid metal blocks secured to the ends of said tank, a pair of tubes disposed longitudinally within said tank and secured at each end to said headers, a water inlet passageway in said first header communicating with said tank externally of said tubes, a feed pipe secured to said first header in communication with said inlet passageway and extending into said tank parallel to said tubes, the mouth of said feed pipe being formed on a bias and opening upward, a steam nozzle in said first header projecting toward said feed pipe, effective to inject steam into said tank through said feed pipe and adapted to be connected to a source of steam, one of said tubes having an opening therein adjacent said first header for entry of water from said tank into said one tube, said second header having a passageway communicating between said pair of tubes for passage of water from said one tube to the other tube, a circulation passageway in said first header communicating between said inlet passageway and the end of said other tube to permit recirculation of water through said tubes by virtue of injected steam, outlet conduit means communicating with said other tube through the top thereof and adjacent said first header, adapted to convey water away from the apparatus, and vent conduit means communicating with said tank at the top thereof generally above the mouth of said feed pipe and extending upward from said tank.

**EXTENSIBLE ROTARY CUTTER BAR FOR BORING TYPE MINER**
Frederick B. Mining Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application February 14, 1953, Serial No. 487,981
6 Claims. (Cl. 262—7)

1. In a mining machine having a boring arm for cutting a bore, the improvement comprising, an elongated rotary cutter means supported by the machine substantially tangentially to the cutting limit of the boring arm, said cutter means including an inner portion and an outer portion, means providing longitudinal relative movement between said portions, drive means for rotating said cutter means including connection means between the inner



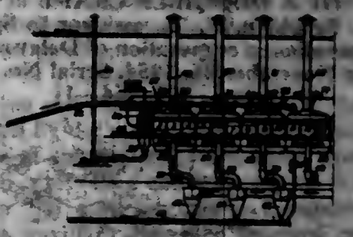
and outer portions thereof, said connection means including a slot in one of said portions and a bit disposed on the other portion in alignment with said slot, said bit being so positioned in relation to said slot to provide a positive drive means between the inner and outer portions of the cutter means.

2,770,449
**BORING AND BREAKER HEAD FOR SLACK COAL**
Vincent J. McCarthy, Youngstown, Ohio, assignor to The Salem Tool Company, Salem, Ohio, a corporation of Ohio
Application August 2, 1955, Serial No. 525,842
14 Claims. (Cl. 262—9)



1. A rotary drilling head comprising an axial portion, spaced radially disposed vanes extending outwardly therefrom, the peripheral edges of the vanes being inclined forwardly and inwardly, radially disposed arms extending outwardly from said axial portion between the vanes, cutting bits upon said arms, and an axially disposed cutting tool at the forward end of said head.

2,770,450
**METHOD AND APPARATUS FOR BURNING CEMENT**
Eigen Seleger, London, England, assignor to Associated Limestone Corporation Limited, London, England
Application June 4, 1953, Serial No. 359,479
Claims priority, application Great Britain June 16, 1952
13 Claims. (Cl. 263—32)



1. A method of burning cement in which a granulated mixture of raw cement material and solid fuel is formed into beds on grates in a number of independent containers in which the burning cycles are staggered, the air flows upwards through each bed, and the containers are continuously or intermittently fed with additional

mixtures of raw material and fuel as the burning proceeds, so that the depth of the bed increases as the burning proceeds from the bottom upwards and the combustion zone during the greater part of the burning is always covered by a thin layer of fresh raw material and fuel, the burnt beds of clinker being successively discharged so that cement is produced substantially continuously.

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2,770,451

## FURNACE FOR DEFLUORINATING PHOSPHATE ROCK

Lawrence H. Almond, Florence, Ala., assignor to Tennessee Valley Authority, a corporation of the United States

Application July 6, 1954, Serial No. 441,689
2 Claims. (Cl. 263—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a furnace for the production of molten defluorinated phosphate rock having a hearth section surmounted by a shaft section, means for charging phosphate rock located at the top of the shaft section, at least one fluid fuel burner in the hearth section and a taphole at the bottom of the hearth section, that improvement which comprises a substantially round vertical-walled hearth section constructed of a single layer of graphite blocks; a vertical-walled shaft section surmounting said hearth section and having an internal diameter substantially the same as that of the hearth section; supporting members independent of the hearth section, disposed to bear substantially the entire weight of the shaft section; means for exerting uniform pressure upon a small part of each graphite block of the hearth section toward the vertical axis of the furnace disposed around said hearth section; and means for flowing a film of cooling liquid of substantial thickness over substantially the entire external surface of the hearth section in direct contact with the graphite blocks.

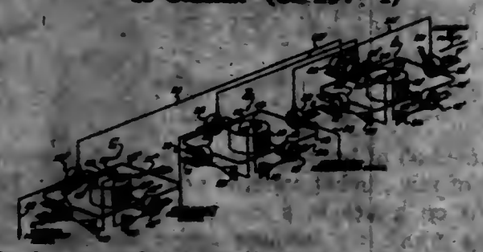
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2,770,452

## SYSTEM FOR MEASURING THE ACCELERATION OF A DIRIGIBLE CRAFT

Harry Miller, Brooklyn, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application November 26, 1954, Serial No. 471,174
13 Claims. (Cl. 264—1)



13. A system for measuring horizontal and vertical accelerations along the responsive fore and aft, athwartship and vertical axes of a dirigible craft comprising a short period vertical reference having gravity sensitive devices responsive to athwartship and fore and aft accelerations of the craft, respectively, a normal period vertical reference having gravity sensitive devices for detecting tilt about the fore and aft axis and athwartship axis of the craft, a second short period vertical reference having a gravity sensitive device responsive to vertical acceleration of the craft, means for providing a signal proportional to the fore and aft acceleration of the craft operated by said first short period vertical reference and said normal period vertical reference, means for providing a signal proportional to the athwartship acceleration of the craft operated by said first short period vertical reference and said normal period vertical reference, and means for providing a signal proportional to the vertical acceleration of the craft operated by said first short period vertical reference and said second short period vertical reference.

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2,770,453

## AUTOMOTIVE VEHICLE STABILIZING MEANS

Herman C. Cable, Birmingham, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application September 9, 1952, Serial No. 309,023
9 Claims. (Cl. 267—21)



1. In combination, a longitudinal vehicle frame, an individual wheel suspension at each side of the frame and each including a lateral arm connected to the frame for swinging movement about an axis lying substantially longitudinally with respect to the frame, the axis of oscillation of one lateral arm being disposed in a horizontal plane containing the axis of oscillation of the other said lateral arm, and oscillant bar means extending transversely of the frame adjacent said lateral arms, said bar means having a substantially straight central section and opposite end portions extending generally diagonally with respect to said central section, the junction between each of said generally diagonal end portions and said central section of the bar means being located substantially at the intersection of said central section with a vertical plane containing the axis of oscillation of the adjacent lateral arm, there being a first means of yieldable material mounted on the frame at each side thereof connecting the portion of the central section of said bar means adjacent its respective junction point at that side to said frame at a location in close juxtaposition to the axis of oscillation of the lateral arm at that side, there being a second means of yieldable material at each side of the frame connecting the end portion of the bar means at that side to the lateral arm at that side adjacent the axis of oscillation of the latter.

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2,770,454

## DRIVE CONTROL AND TRANSMISSION MECHANISM

Rupert Clifford Turtle, East Cowton, England, assignor to Airmec Controls, Limited, East Cowton, England, a British company

Application October 30, 1954, Serial No. 464,817
Claims priority, application Great Britain November 2, 1953
8 Claims. (Cl. 268—31)

1. A mechanism for effecting movement of one member relative to another member comprising a carriage secured to the first of said members, said carriage being



pivotally mounted about a pivot axis and having a roller rotatably mounted therein for rotation about an axis coincident with said carriage pivot axis, a bar slidably mounted within said carriage and adapted for longitudinal reciprocatory movement therein, one end of said bar being pivotally secured to the second of said members, cable means for adjusting the angular position of said members relative to each other, said cable means including a first cable secured to one end of said bar and a second cable secured to the other end of said bar, said cables passing in opposite directions around said roller, control means for applying tension to either cable at will,



said pivot connection of said bar to said second member being so disposed that in the closed position of said members said connection is coaxial with respect to said carriage pivot axis, whereby in the closed position of said members and pursuant to an increase in tension on the appropriate cable said carriage and bar may be moved angularly about the pivotal axis from a position nesting against said members to a position extending substantially at right angles to said members and the position of said bar within said carriage being then varied to effect to any desired extent the angular positioning of said members with respect to each other.

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2,770,455

## AUTOMATIC CONTROL FOR GARAGE DOORS

Aubrey D. Brister, Orange, Tex.

Application May 31, 1955, Serial No. 512,167
4 Claims. (Cl. 268—59)



1. In combination with an overhead garage door movable in tracks and cooperating with a door frame to form a closure, an automatic control comprising a reversible motor driving a pair of drums, first cable means entrained about one of said pair of drums and connected to said door for raising said door, second cable means entrained about the other of said pair of drums and entrained about a pulley on said door frame and secured to said door for lowering said door, and switch means for actuating said motor, latch means for holding said door closed, said first cable means being secured to and actuating said latch means.

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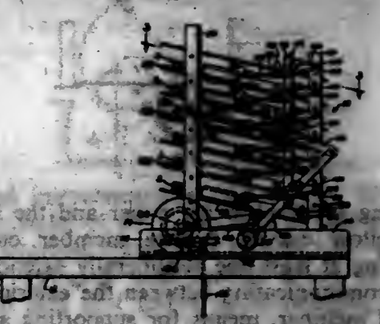
2,770,456

## COLLATOR

Joseph Maguirase and Floyd C. Hoffman, Chicago, Ill., assignors to Courier-Citizen Company, Chicago, Ill., a corporation of Massachusetts

Application February 24, 1952, Serial No. 271,578
8 Claims. (Cl. 270—58)

1. In a collating machine of the character described, a stationary framework including a plurality of superposed trays providing a series of bins therebetween each adapted to receive therein a stack of paper sheets, the trays being inclined and with their forward edge uppermost a reciprocable carriage mounted on said framework for movement in a fore and aft direction at an inclination parallel to the trays, pusher arms pivoted to the carriage and each overlying a tray, each arm being movable from a lowered operative position wherein it engages the uppermost sheet of a stack to an elevated inoperative position wherein it clears said stack, means operable when said



carriage approaches its foremost position for moving said arms to their elevated positions, means operable when said carriage approaches its rearmost position for causing said elements to be lowered into stack-engaging positions, means for selectively disabling the last named means of any selected ones of the pusher arms whereby the selected ones of the pusher arms are maintained in their inoperative positions, and means for reciprocating said carriage, whereby forward movement of each lowered arm causes it to move the top sheet of its stack forwardly in an upwardly inclined path.

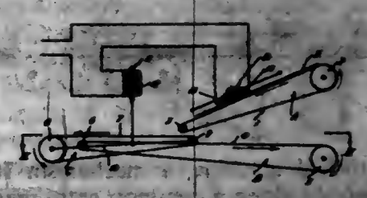
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2,770,457

## MACHINE FOR FOLDING BEDSHEETS AND OTHER ARTICLES IN SOFT AND PLIABLE SHEET FORM

Henri Leon Lucien Mons, Boulogne-Billancourt, France

Application February 1, 1955, Serial No. 485,505
7 Claims. (Cl. 270—68)

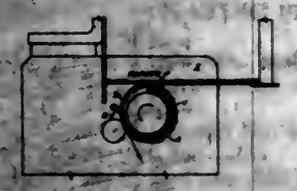


1. Machine for folding soft and pliable materials in sheet form, of the category of bed sheets, comprising: a stationary feed conveyor with a delivery end; a delivery conveyor with several aprons passing over end rollers and of which the upper plies pass under the delivery end of the stationary feed conveyor; an auxiliary conveyor with several aprons passing over end rollers and imbricated in those of the delivery conveyor, and of which the upper plies move in the opposite direction to that of the upper plies of the delivery conveyor, one at least of the delivery conveyor and auxiliary conveyor being mobile in relation to the other in a direction such that the plane defined by its upper plies can pass from one side or the other of the plane defined by the upper plies of the other conveyor so that a sheet of soft and pliable material coming from the delivery end of the feed conveyor can be displaced in one direction or the other according to whether the upper plies of the auxiliary conveyor or those of the delivery conveyor are nearest to the delivery end of the feed conveyor; control means operatively connected to that one of the two conveyors which is mobile in relation to the other, to control the movements of the said conveyor; and at least one detector means sensitive to the passage of

each soft and pliable sheet of material over the feed conveyor and connected to the control means so as to actuate them.

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2,770,458
PAPER FEEDER
John Hutchins, Brookville, Theodore F. Arenson, Valley Stream, and Floyd A. Lyon, Brookville, N. Y.
Application August 14, 1953, Serial No. 374,304
3 Claims. (Cl. 271—39)



1. A feeding mechanism for paper and the like comprising a hollow curved surface member oscillatably mounted having at least one peripherally extending aperture therein communicating between the exterior and interior of said member, means for supporting a stack of papers to rest operatively upon said member with the closest paper adjacent and tangent one end of said aperture, means for placing the interior of said cylinder under a partial continuous vacuum between papers, and means for oscillating said member and moving said closest paper when overlapping the slotted portion of said cylinder separated in part from the rest of the stack and means for removing said paper from the stack such that the line of travel of said paper is along said surface.

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2,770,459
STOPPING DEVICE FOR CARD FEEDING MACHINES
Lawrence A. Wilson, Apalachin, Bernard V. Kamp, Binghamton, and George A. Lindsay, Endicott, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application September 2, 1953, Serial No. 378,112
7 Claims. (Cl. 271—57)



5. In a statistical machine, a mechanism for feeding records successively along a common path, means having a movable operating arm for controlling the operation of the feeding mechanism, a ribbon extending along said path and connected at one end to said arm and fixedly mounted at the other end, and a guide member against which said ribbon rests between the ends thereof, distortion of a record from said path on either side of said guide member pushing transversely on said ribbon to effect a tensioning of said ribbon and cause a pull thereon, whereby said arm and controlling means are operated to stop the feeding mechanism.

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2,770,460
MISSILE AND TARGET DEVICE THEREFOR
John F. Deasy, Shawnee, Kans.
Application August 14, 1953, Serial No. 374,223
2 Claims. (Cl. 273—102)

1. In game apparatus of the character described, the combination of a target member having a sheet of material with a suitable target marked on the forward face thereof, a mesh member overlying the target area and spaced forwardly from said sheet of material, said mesh having a plurality of substantially uniform equally spaced parallel wires extending across the target area in one direction and a plurality of substantially equally spaced parallel wires extending across the target area at right angles to the first named wires and forming substantially square openings therebetween, said wires being secured together at their crossing points, means securing the mesh and sheet together to maintain the spacing therebetween in the target area, and a missile having an elongated body for projection toward the target, said missile having a relatively slender resilient compressible portion at the forward portion thereof, the resilient compressible portion tapering from the forward end of the missile to



a transverse dimension that is larger than the transverse dimensions of the openings in the mesh whereby when the missile is projected toward the target and the forward end of the missile enters an opening in the mesh the portions of the mesh defining the opening engages and compresses the compressible material of the missile preventing displacement of the missile, the spacing between the mesh and target sheet being slightly greater than the portion of the missile projecting through the opening in the mesh whereby the mesh stops and holds the missile with the point of the missile close to yet spaced from the target.

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2,770,461
CHUCK
Martin H. Rodmer, Chicago, Ill.
Application February 21, 1956, Serial No. 566,887
5 Claims. (Cl. 279—55)



1. A chuck comprising a shank plate, a hub plate, means for bolting said hub plate to said shank plate, a hub seated in said hub plate, a split tool bushing in said hub, said hub having a removable segment and a spring band urging said removable segment away from said bushing, a yoke member for clamping about said hub to hold said removable segment in position against said bushing, and means carried by said yoke for applying clamping pressure by said hub and its removable segment against said bushing.

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2,770,462
LOOSE JAW CHUCK
John Jordan Roberts, Riverside, Idaho
Application June 1, 1954, Serial No. 433,422
5 Claims. (Cl. 279—56)

1. A chuck comprising an outer casing, an inner cylinder, an intermediate cylinder rotatably positioned between the outer casing and the inner cylinder, a segmental pressure ring positioned around the inner cylinder, said inner cylinder having a plurality of slots with inclined end walls forming cam surfaces, a plurality of tool gripping jaws radially movably mounted in said slots, said jaws having inclined outer ends with cam surfaces for engaging the cam surfaces in the end walls of said slots in said segmental pressure ring, said pressure ring being exteriorly threaded and said intermediate cylinder being interiorly threaded wherein said cam surfaces will move relative

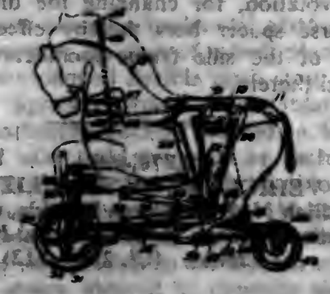


to each other upon rotation of the intermediate cylinder thereby moving said jaws radially in the slots for selectively gripping a tool.

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2,770,463
TOY HOBBY HORSE
Eugene P. Battaglia and Joe Miller, Bronx, N. Y.
Application August 25, 1955, Serial No. 530,575
9 Claims. (Cl. 258—1.195)

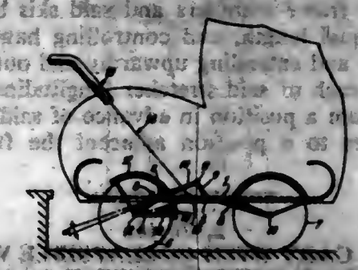


1. In a rider-propelled toy vehicle, a fixed frame, a movable frame having a pivot intermediate the ends thereof securing the movable frame to the fixed frame, the movable frame comprising a pair of panels in parallel spaced relation to each other and in the shape of a ridable animal, a seat secured to the movable frame and movable as a unit therewith, means for rocking the movable frame comprising a pair of substantially horizontal foot levers pivoted at the rear ends thereof to and respectively on opposite side of the fixed frame and operable by the rider alternately downwardly to oscillate respectively in opposite directions simultaneously, the front end of each lever being free, a connecting rod from an intermediate point on one lever to a point on one of the panels in horizontal spaced relation to and on one side of the pivot, and a connecting rod from an intermediate point on the other lever to a different point on the other panel on the other side of the pivot and in horizontal spaced relation thereto, a front wheel unit comprising a crank shaft, means securing the shaft to the fixed frame, a connecting member between the shaft and the movable frame rotating the shaft when the movable frame is rocked by the levers, a rear wheel unit, a pivot mounting said unit to the fixed frame, and means for swinging said unit to steer the vehicle.

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2,770,464
UNDERCARRIAGE FOR VEHICLES DESIGNED TO RUN OVER UNEVEN GROUND AND, IN PARTICULAR, UP AND DOWN STAIRS
Michael Mitterdrein and Herwig Göbel, Vienna, Austria, assignors to AVE Transportmittel Holding A. G., St. Moritz, Switzerland
Application March 19, 1953, Serial No. 343,424
Claims priority, application Switzerland March 19, 1952
3 Claims. (Cl. 280—5.28)

1. An undercarriage for a baby carriage or the like comprising a frame, two first wheels, two second wheels, two first levers individually and coaxially swingably connected with said frame, each of said first levers having a free end supporting one of said first wheels, two second levers individually and coaxially swingably connected with said frame, each of said second levers having a free end supporting one of said second wheels, a first torsion rod interconnecting said first levers and extending coaxially of the swing axes of said first levers, a second



torsion rod interconnecting said second levers and extending coaxially of the swing axes of said second levers, a linkage interconnecting said torsion rods and including means for swinging said second levers in a direction opposite to said first levers upon swinging of said first levers.

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2,770,465
RESCUE SLED
Raoul Dandurand, Montreal, Quebec, Canada
Application March 16, 1953, Serial No. 342,406
5 Claims. (Cl. 280—12)



1. A rescue sled comprising in combination with a stretcher body having elongated rigid longitudinal side frame members terminating at each end in carrying handles, at least one rigid transverse frame member secured between said longitudinal members, and a flexible body supporting portion mounted on and extending between said side frame members to terminate at each end short of said handle portions; ski attaching and supporting members secured to and extending directly downwards from said longitudinal side frame members in spaced apart pairs, each of said members having a pair of opposed ski-spanning lower terminal end portions bent inwardly in opposed relationship to constitute ski clamping members adapted to engage the side and lower surface of a ski at each side, an adjustable ski-spanning retaining member extending between each opposed pair of said ski clamping members in spaced apart relationship with and above said terminal ends, a pair of skis mounted on said ski supporting members in spaced apart alignment and beneath said longitudinal side frame members with the body of each ski disposed between said adjustable retaining members and said clamp members terminal ends whereby adjustment of each of said adjustable members in one direction is adapted to urge the corresponding clamp members opposed terminal ends towards each other and into engagement with the side and lower surfaces of said ski and the upper surface of said ski into bearing engagement with said ski-spanning adjustable retaining member, said ski attaching and supporting members being located relative to the overall length of said stretcher body side frame members and skis whereby considerable lengths of the front and rear portions of said skis are free and unattached and adapted to flex in the manner of a free ski, a pair of flexible transverse shock absorber members of arcuate shape mounted beneath said stretcher body in spaced apart relationship with the terminal ends of each member connected at each side to said ski supporting members adjacent said connection with said skis,

flexible longitudinal bracing members extending between said longitudinal side frame members and said ski supporting members and being connected thereto at spaced apart points leaving the front and rear portions of said skis free for shock absorbing flexure and constituting a flexible reinforcing truss structure, said stretcher longitudinal side frame members and said skis being of substantially equal length, and controlling handle members mounted on and extending upwardly and outwardly from one end of each of said stretcher longitudinal side frame members from a position in advance of said ski supporting members to a position adjacent the front ends of said skis.

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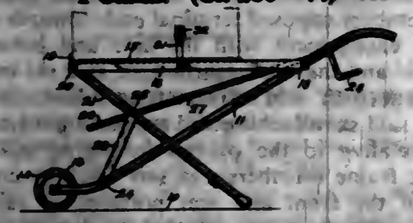
2,770,466
**GOLF CART WITH COLLAPSIBLE WHEEL STRUCTURE**
Anthony P. Pearson and Robert L. Pigott, Seattle, Wash.
Application March 28, 1955, Serial No. 497,072
9 Claims. (Cl. 280—41)



1. A cart of the character described comprising a frame structure including an elongated, central bar, a cross-head fixed to the bar between its ends, a pair of legs with their inner ends pivoted on the opposite end portions of the cross-head, respectively, for swinging adjustment from positions extended closely along opposite sides of said central bar to a plurality of definite positions outwardly directed therefrom, a wheel mounted at the outer end of each of said legs, for the wheeled support of the cart at any of the various positions of adjustment of said legs; said cross-head being provided at its opposite ends with edge surfaces along which portions of the legs that are adjacent their pivotal mountings, are adapted to swing in moving from one position of adjustment to another, said edge surfaces being provided with notches, at spaced intervals therealong, a boot slidably fitted to each leg, a tooth projecting from the inner end of each boot adapted to be received in any one of said notches of the corresponding edge surface to retain the leg to which the boot is fitted at a definite position of adjustment.

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2,770,467
**VERTICALLY ADJUSTABLE TABLE**
John Earl Mowry, Denver, Colo.
Application June 6, 1955, Serial No. 513,542
1 Claim. (Cl. 280—44)



A frame for supporting and vertically adjusting a table, comprising in combination, two table top supporting side frame members, means for holding said members in spaced parallel relation, a first pair of table legs pivotally connected with one end of the side frame assembly, a second pair of legs pivotally connected with the side frame assembly at the other end thereof, said second pair projecting upwardly beyond its pivotal connection forming handles, the legs of the first and second pairs of legs crossing beneath the table, the lower ends of said pairs of legs constituting supports means comprising upper and lower transverse bars for holding the legs of the second pair in a predetermined spaced relation, a link pivotally connected to each leg of said second pair at a point adjacent its lower end, the upper ends of the links being pivoted to the corresponding legs of the first pair at points spaced from their pivotal connections with the side frame members a distance substantially equal to the distance between the pivot points of said links, a spacer bar positioned between the legs of the first pair adjacent the point of link pivotation, the upper spacer bar connecting the second pair of legs being positioned adjacent the pivotal connections of the legs with the side frame members, and means comprising a crank shaft journaled in a bearing in the last mentioned transverse bar and having a threaded connection with the transverse bar spacing the first pair of legs adjacent the link pivotation, for changing the distance between the transverse spacer bars thereby effecting a vertical adjustment of the side frame members and the table top attached thereto.

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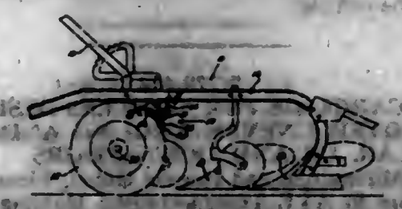
2,770,468
**VEHICLE SWAY STABILIZER**
Elijah N. Williamson, Bayside, Calif.
Application January 28, 1954, Serial No. 405,992
2 Claims. (Cl. 280—112)



1. A sway stabilizer comprising a load-carrying axle, a pair of braces hinged one to the other and having their opposite ends hinged at points adjacent the extremities of the axle, independent spring means extending between said axle and each of said braces, and pivotal connections connecting the opposite sides of the load to one of the respective adjacent braces.

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2,770,469
**AGRICULTURAL IMPLEMENT WHEEL SCRAPER ASSEMBLY**
Edward C. Sedo, Traer, Iowa
Application February 8, 1955, Serial No. 486,782
3 Claims. (Cl. 280—158)



1. For use on an agricultural implement having a ground wheel, a wheel scraper assembly comprising a scraper disc having a supporting shaft extended only from one side thereof, a bearing for said shaft, and means for mounting said bearing on said implement at a fixed position providing for the location of said disc in a position in which the opposite side thereof is adjacent to and



at an angle relative to the periphery of said wheel, with said shaft being positioned inwardly of the transverse center of the ground engaging surface of said wheel to provide for rotation of said disc on contact therewith of mud and dirt adhering to said wheel.

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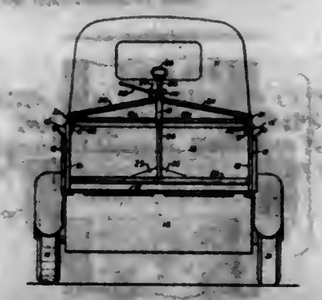
2,770,470
**BOAT TRAILER AND ANCHORING STRAP THEREFOR**
Milton A. Halvorsen, Brainerd, Minn., assignor to Design-Rite Company, Brainerd, Minn., a corporation of Minnesota
Application February 8, 1954, Serial No. 408,728
1 Claim. (Cl. 280—179)



In a boat trailer having a horizontal platform adapted to receive and support the keel of a boat placed thereon, a friction buckle-equipped flexible girth strap adapted to encompass and tightly embrace a boat intermediate its ends, friction anchoring buckles secured to the intermediate portion of said girth strap one on each side of its longitudinal center and adapted to be positioned on opposite sides of said boat below the gunwales thereof when said first-mentioned buckle is between said gunwales and in overlying relationship to the bottom of said boat, and anchoring straps secured to opposite sides of said trailer intermediate its front and rear ends, the upper end portions of said anchoring straps having cooperative engagement one each with one of said anchoring buckles, said girth strap being provided with a generally U-shaped metallic link adapted to be interposed between the platform of said trailer and the keel of said boat and to receive said keel therein.

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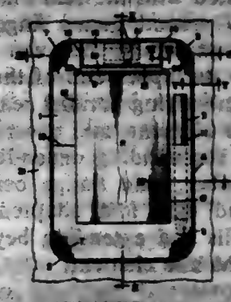
2,770,471
**HOLD-DOWN BAR**
Harry E. Scott, Englewood, Colo.
Application April 11, 1955, Serial No. 500,558
7 Claims. (Cl. 280—179)



1. A hold-down bar for conventional truck beds comprising complementary channel members fixed at the opposite sides of the bed to extend above and perpendicular to the bed floor with their channels directed inwardly in opposition transversely of the bed, a rigid headframe detachably secured to upper ends of said members and bridging transversely of the bed therebetween, a bar spanning between and slidably engaged at its ends with said members, a stem fixed centrally of and perpendicular to said bar in slidable association with said headframe, and latch means on the latter frictionally engaged with said stem to releasably limit upward shift of the stem relative to the headframe.

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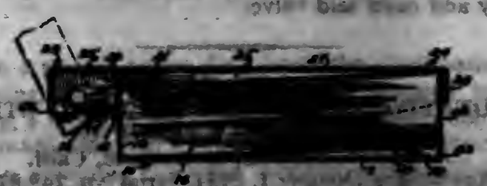
2,770,472
**MAGNETIC MEMO HOLDERS**
Orea E. Whitwell, Denver, Colo.
Application July 9, 1954, Serial No. 442,358
2 Claims. (Cl. 281—15)



1. A holder for magnetic attachment to a metal surface and adapted to hold a relatively stiff article such as a pad, which comprises a face panel and a back panel of flexible plastic material, said face and back panels being sealingly joined completely around their marginal edges to present a forwardly extending continuous bead around the margin and which bead is of a thickness greater than the thickness of either of the panels so as to provide a rigidifying marginal frame therefor, and there being a groove-like depression in the face panel immediately adjacent to and inboard of said bead and extending continuously around the margin of the face panel to provide an area in the face panel of less cross sectional thickness than the remainder of the panel whereby that portion of the panel lying inwardly from the bead and from the groove is gathered and puckered to stand away from the adjacent surface of the back panel, said face panel having a narrow elongate opening therein substantially parallel to one edge thereof to receive a relatively stiff article such as the backing of a pad, and there being a second groove-like seal intermediate said opening and said one side of the panel with which the opening is parallel, said second seal defining, with a marginal portion of the first mentioned seal, a rectangular area wherein the first seal forms one side and the second seal forms the other three sides, and said second seal forming a groove in the face panel and flattening the same throughout so as to further pucker and spring away the material of the face panel within the confines of the second groove to form a magnet pocket and leaving the back panel substantially flat, and an elongate magnet positioned within said pocket, said magnet having beveled opposite side edges extending parallel to said marginal portion of the first mentioned groove forming one boundary of the pocket and said beveled edges being disposed in opposed relation to the inner surface of the front panel portion of the pocket whereby to obviate puncture of the face panel by the magnet.

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2,770,473
**METER READING CARD CONTAINER**
Frank Sedlacek, Cary, Ill.
Application January 16, 1956, Serial No. 559,234
5 Claims. (Cl. 281—44)



1. A container adapted to receive a stack of meter reading cards, including a bottom wall, and side walls integral with the bottom wall, a forward end wall, said forward end wall being formed with a vertical opening coextensive with the height of the side walls to permit gripping one end of the stack as an entity, said forward

wall being spaced from the bottom wall to form a horizontally extending slot to receive a card removed from said stack, said container including a rear end wall, of less height than the front wall, stack-engaging means operatively associated with the rear end wall, said means including laterally spaced guard fingers and an intermediate element extending between the fingers and adapted to engage the upper end of the stack, said stack engaging means embodying parallel rearwardly extending hinge ears, a cover element, said cover element including a top member, a surrounding depending flange integral with the top member, said flange being hingedly connected to the said ears and adapted to embrace the front and side walls and extending beyond the rear end wall to provide a handle element.

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2,770,474
**VALVED SEPARABLE COUPLING**
John T. Kruge, Port Washington, N. Y.
Application December 23, 1952, Serial No. 327,601
1 Claim. (Cl. 284—18)

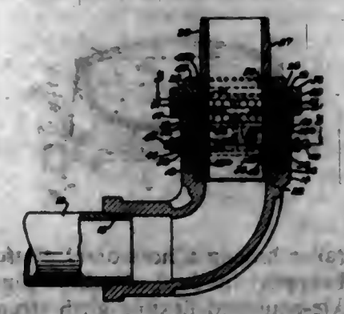


In a separable coupling device, a female member comprising a tubular body having an axial passage therein of one diameter and a second axial passage of a larger diameter with a valve seat formed therebetween, a valve reciprocally carried in said body, means constantly urging said valve into engagement with said seat, a sleeve reciprocally carried in said first passage with one end adjacent to said valve seat, said sleeve having a sealing face formed on the other end thereof, annular gasket means carried in said first passage in fluid-tight relation with said sleeve, a spider carried by the head of said valve and internally engaged with said sleeve so that the sleeve and the valve move in unison, a third passage in said member joining and larger in diameter than said first passage, cam levers carried on said body and having cams extending into said third passage, a male member inserted in said third passage and having a passage therethrough, a sealing ring adjacent to one end of said last member, and an external annular groove adjacent to said last end and releasably engaged by the cams of said cam levers for forcing said members together axially, whereby said sealing ring is first brought into engagement with the sealing face on the end of said sleeve, effecting a seal between said members, and further movement of said members by said cams causes the sleeve to move axially and open said valve.

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2,770,475
**ROTATIVE SWING JOINT COUPLING WITH REPLACEABLE BUSHING**
Arthur W. Rafferty, Sacramento, Calif.
Application October 1, 1951, Serial No. 249,029
3 Claims. (Cl. 285—94)

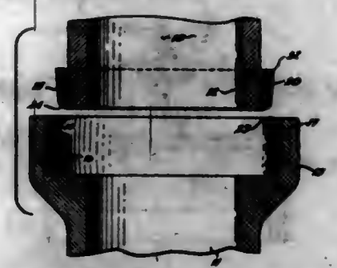
1. A rotative connecting joint for conduit pipes, comprising a main body housing having a tubular faucet bell open at one end for connection of a continuation conduit member and having its opposite end free and open for retainively receiving therein the spigot end of another conduit member, said housing including a removable closure collar member at the free open end thereof, a replaceable bushing member snugly slidable in the housing and having an axial bore therethrough, a portion of said bore being of relatively greater diameter providing a shoulder, the radially inner wall of said bushing having circumferential and axially longitudinal relatively communicating grooved lubricating channels which also communicate with said bushing bore of greater diameter, a tubular spigot nipple member rotatively mounted in the bushing bore and having a circumferential radially outwardly extended bearing flange extending into the portion of the bushing bore of greater diameter, a race of ball bearings



in said bore of greater diameter on each of the opposite axially longitudinal sides of said flange, a wear ring within the housing at each of the opposite axially longitudinal sides of said races of ball bearings for receiving thereagainst the axially longitudinal wear thrust exerted upon the nipple flange, and means for lubricating the ball bearings and the rotation of the nipple in the bushing comprising a valve-controlled pressure operated filling nipple and a valve-controlled discharge vent intermediate the ends of the housing and the bushing therein and extending through said housing and bushing and communicating with said circumferential and longitudinal grooved channels.

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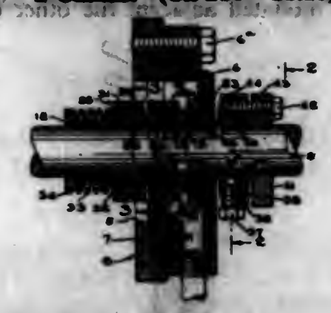
2,770,476
**PLASTIC INTERLOCKING SEALING MEANS FOR SEWER PIPE JOINTS**
Robert B. Cleverly, East Liverpool, Ohio, assignor to American Vitrified Products Company, Cleveland, Ohio, a corporation of New Jersey
Application September 8, 1953, Serial No. 378,952
7 Claims. (Cl. 285—231)



1. In a pipe joint between the bell end of one pipe section and the spigot end of an adjoining pipe section, a pair of annular sealing elements of deformable resilient material, one being in the form of a collar secured to the spigot end of said one pipe section and the other being in the form of a lining secured within the bell end of said other pipe section, the collar element having a tapering outer side wall and being wedged within said lining element for joint-forming purposes, the said lining element having an axially concave inner side wall, with the center of curvature of such inner side wall being substantially equidistant from the ends of the lining element.



2,770,477
**MECHANICAL SEAL**
Dan B. Rankin, Altadena, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application July 30, 1951, Serial No. 239,350
2 Claims. (Cl. 286—11.15)



2. In a mechanical seal for a rotatable member, a mounting member disposed around the rotatable member and having an annular recess in an end thereof, a support member snugly fitting at its outer periphery within said mounting member recess and in sealing engagement therewith, abutment members respectively integral with the mounting member and the support member and engaging each other in surfaces each of which extends both axially and substantially radially of the rotatable member to key the support member and the mounting member against relative rotary movement, means defining a socket in said support member concentric with the rotatable member, a seal ring disposed in said socket in sealing engagement with the support member and composed of brittle, dimensionally variable material having a smooth and highly polished seal surface facing outwardly of the socket, and a second set of abutment members respectively integral with the support member and the seal ring and engaging each other in surfaces each of which extends axially and substantially radially of the rotatable member to key the support member and the seal ring against relative rotary movement, said support member being formed of a material having sufficient shear strength to prevent severance of the abutment members of the seal ring, sufficiently yieldable to avoid overstressing the seal ring upon the occurrence of dimensional variation of the seal ring, and sufficiently resilient to maintain sealing engagement with said seal ring through the range of dimensional variation thereof occurring during normal operation of the mechanical seal.

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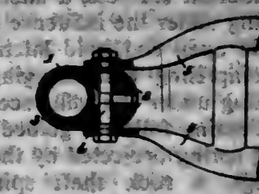
2,770,478
**PISTON ROD AND CRANK PIN CONNECTION FOR AQUARIUM PUMPS**
Eugene G. Danner, Brooklyn, N. Y.
Application November 12, 1952, Serial No. 319,816
1 Claim. (Cl. 287—96)



A connector for a piston rod and crank pin of the character described, including a pair of opposed separable symmetrical halves, each half having a substantially semi-cylindrical portion of maximum diameter and a convexly curved or bulging central portion, the semi-cylindrical portion in each case having a peripheral wall, said separable halves each having the central convexly curved portion thereof provided with a central convex portion having a central hole for a crank pin, said central convex portions with their central holes being alined to receive the crank pin simultaneously through both central holes, the semi-cylindrical portions of both halves being adapted to receive the piston rod therebetween, unitary means for securing said halves together along said semi-cylindrical portions and for securing the piston rod therewithin, a cylindrical sleeve intermediate said central convexly curved portions disposed within said convex portions, and a substantially flat circular body of lubricant-containing packing material disposed intermediate said convex portions and having a central opening receiving said sleeve therethrough, and said crank pin being adapted to be rotatably received through the alined central holes in said convex portions and through the sleeve therebetween.

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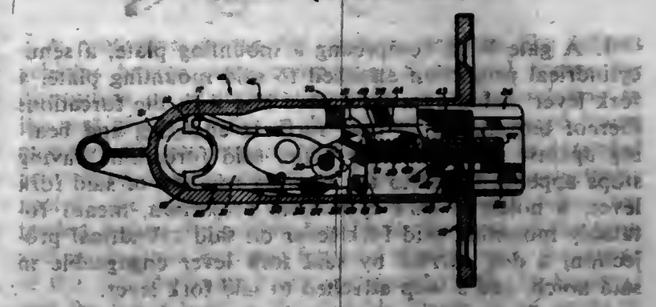
2,770,479
**CYCLE SADDLE SUPPORT MOUNTING**
Hanns Hilber, Stuttgart, Germany, assignor to Alfred Kreidler, Stuttgart, Germany
Application September 18, 1952, Serial No. 310,216
Claims priority, application Germany October 29, 1951
2 Claims. (Cl. 287—119)



1. In a cycle-frame for a saddle, a saddle tube having an upper end portion of substantially oval cross section and of a configuration which has a larger dimension lengthwise than crosswise and slit longitudinally in a region adjacent its upper end, a support member for the said saddle disposed in the said saddle tube, jaw means housed within said upper end portion of the said saddle tube and presenting with said tube an opening receiving the said support member of the said saddle, the said support member of the said saddle engaging the said jaw means, and means for compressing the said saddle tube and said jaw means, whereby the said support member may be secured relative to the said saddle tube.

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2,770,480
**DEAD LATCH STRUCTURE**
Thomas B. Linton, Huntington Beach, Calif., assignor to Kwikset Locks, Inc., Anaheim, Calif., a corporation of California
Application March 8, 1954, Serial No. 414,571
7 Claims. (Cl. 292—169)



6. In a reverse action dead latch, the combination of: a housing; main and auxiliary bolts mounted in said housing; a retractor bar spaced from said main bolt movable toward the outer end of said housing to retract said bolts; a rotatable retractor mounted intermediate the ends of said housing in advance of said bar, said retractor having its lower end engaged with said bar and its upper end engaged with said main bolt; a dog on said retractor intermediate said upper and lower ends; and a dead locking lever pivotally mounted in said main bolt and engageable by said dog to render said lever inoperative during the retraction of said bolts.

2,770,481
**NARROW FRAME SCREEN DOOR LATCH**
Andrew Erkkila, Fitchburg, Mass., assignor to Independent Lock Company, Fitchburg, Mass., a corporation of Massachusetts
Application February 20, 1953, Serial No. 338,077
5 Claims. (Cl. 292—169)



4. In a latch having a short backset, a tubular casing having at one end a closed end wall and a guide opening at the other end, a pair of compression springs bearing against said end wall concentrically positioned on said end wall and of different stiffness, a latch bolt assembly guided by said casing under the influence of both springs guided through said open end, said latch bolt assembly having a shank comprising wall engaging branches extending in said casing under the influence of the weaker of said springs, a floating follower guided by said shank, said follower being spring projected by the stiffer of said compression springs, a rock shaft spindle extending through said casing between said branches having a camming portion actuating said follower whereby, upon rocking said spindle, the latch bolt is retracted against the influence of both compression springs and to project the latch bolt and follower under such influence, the latch bolt being independently depressible against the influence of the softer of the compression springs.

2,770,482
**GATE LATCH**
Alex B. Kasick, Newlin, S. Dak.
Application October 28, 1954, Serial No. 465,343
5 Claims. (Cl. 292—246)



1. A gate latch comprising a mounting plate, a semi-cylindrical projection attached to said mounting plate, a fork lever including a bifurcated end with the furcations thereof terminating in cam surfaces engaging and bearing against said mounting plate, said furcations having stops appended thereto for limiting rotation of said fork lever, a notch in said cylindrical projection, means rotatably mounting said fork lever on said cylindrical projection, a dog carried by said fork lever engageable in said notch, and a loop attached to said fork lever.

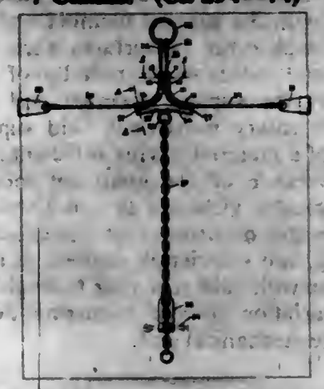
2,770,483
**HAND WEED PICKER**
Leo Patnaude, Fairhaven, Mass., assignor of fifty percent to Helen M. Patnaude, Fairhaven, Mass.
Application December 14, 1953, Serial No. 398,024
1 Claim. (Cl. 294—50.9)

A hand weed picker comprising a handle, an elongated stationary jaw mounted at one end of the handle and extending endwise transversely thereof, an angular member pivotally secured at its angle to said handle adjacent said jaw, said member having one portion thereof extending lengthwise of said handle in the direction of said stationary jaw, an elongated movable jaw secured to said one portion and extending endwise transversely of the handle and movable by said portion into engagement with said stationary jaw, said movable jaw being of obtuse angle shape in cross section, said member having a second portion thereof extending transverse to said handle and means mounted adjacent the other end of said



handle and connected to an end of said second portion of said member for moving said member whereby said movable jaw will be moved toward and away from one side of said stationary jaw, said stationary jaw having a longitudinal bottom edge flange on its opposite side extending laterally away from both jaws for fulcruming on the ground to lift both jaws for lifting weeds out of the ground.

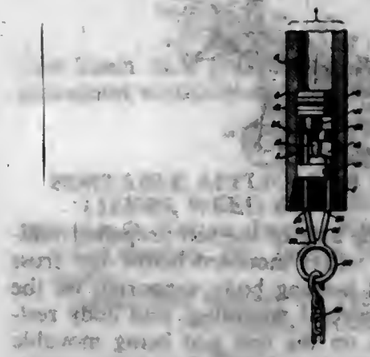
2,770,484
**DOOR HANDLING DEVICES**
James T. Lunsford, Fort Worth, Tex.
Application October 26, 1955, Serial No. 542,846
7 Claims. (Cl. 294—74)



1. A handling device for applying or removing box car doors, said device comprising a yoke having a substantially vertical tubular section and oppositely extending substantially horizontal tubular section disposed below said vertical tubular section, a flexible member extending slidably through one of said horizontal tubular sections and said vertical tubular section, means on said flexible member adapted to engage one vertical side of a said door, a second flexible member extending slidably through the other of said horizontal tubular sections and said vertical tubular section, means on said second flexible member, adapted to engage the opposite vertical side of said door, hoist engaging means on said flexible members, a third flexible member suspended from said yoke, and a door engaging member carried by said third flexible member.

2,770,485
**FLOAT VALVE PULLER**
Boyd E. Hine, Lewistown, Mont.
Application July 8, 1952, Serial No. 297,671
1 Claim. (Cl. 294—90)

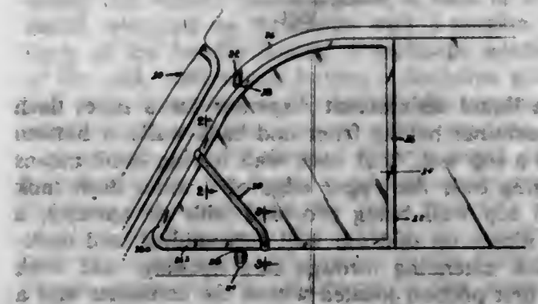
A float valve puller comprising: a unitary bifurcated member of resilient material having spaced apart leg portions rigidly joined together at one end at a central juncture, means rigid with said leg portions at said juncture for engaging an anchor member, the other end of each of said leg portions having a laterally extending hooking element formed thereon, said hooking elements extending in opposite directions transverse to a plane containing said legs and each being provided with a transverse surface



facing the said one end, each of said leg portions being twisted generally about its longitudinal axis in a direction to move its hooking element away from the other leg portion whereby tension in said legs causes said hook elements to pivotally move toward each other by the tendency of said leg portions to untwist resiliently under the influence of said tension.

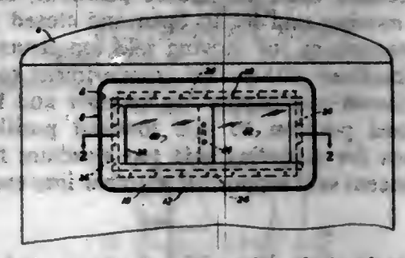


2,770,486
**RAIN GUTTER FOR AUTOMOBILE VENTILATORS**
Aldo Del Noce, Brooklyn, N. Y.
Application July 15, 1953, Serial No. 368,155
1 Claim. (Cl. 296—44)



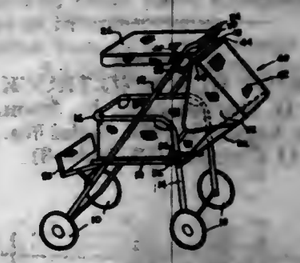
A rain gutter for a swingable ventilating window of an automobile, said window having a pane of glass mounted in a metal frame with yieldable gaskets between said pane of glass and said frame, said frame having a generally horizontal lower portion and a front portion which extends upwardly therefrom, said rain gutter comprising a channel-shaped member which is L-shaped in cross-section, one end of said rain gutter being provided with a clip-shaped portion which is adapted to be clipped to the front portion of said frame, said rain gutter being so oriented relative to said clip-shaped portion that it extends diagonally downwardly toward the lower portion of said frame when said clip-shaped portion is clipped to the front portion of said frame, the opposite end of said rain gutter being bent downwardly at an angle to the main body of said rain gutter and being provided with a pointed portion which is adapted to be inserted into said lower frame portion between its yieldable gasket and the pane of glass, and a resilient insert mounted within said rain gutter between its clip-shaped portion and its bent opposite end for engagement wtih said pane of glass to provide a water-tight seal between said pane of glass and said rain gutter.

2,770,487
**TRUCK WINDOW UNIT**
Jessie C. Isbell, Oklahoma City, Okla., assignor to Leo W. Barber, Oklahoma City, Okla.
Application October 6, 1954, Serial No. 460,707
2 Claims. (Cl. 296—47)



1. A window unit for a truck cab having a window opening therein, comprising a base plate having a contour of a size and shape corresponding to the contour of the window opening, an elastic retaining ring having grooves in the outer and inner peripheries thereof of a size to receive the edge of the window opening and the outer edge of the base plate respectively, whereby the base plate may be secured in the window opening, said base plate having a rectangular opening in the central portion thereof, Z-shaped clamps secured to the face of the base plate to form an inwardly opening U-shaped chamber around the last-mentioned opening, packing in said chamber having a pair of circumferential grooves in the inner periphery thereof, and a rectangular transparent panel slidingly supported in each of said grooves for covering and alternately partially uncovering the last-mentioned opening.

2,770,488
**PROTECTIVE STRUCTURES FOR STROLLERS**
Walter Gardner Kunholm and Robert E. D. Hebby, Gardner, Mass., assignors to Kunholm Mfg. Co., Gardner, Mass., a corporation of Massachusetts
Application April 15, 1954, Serial No. 423,378
1 Claim. (Cl. 296—107)

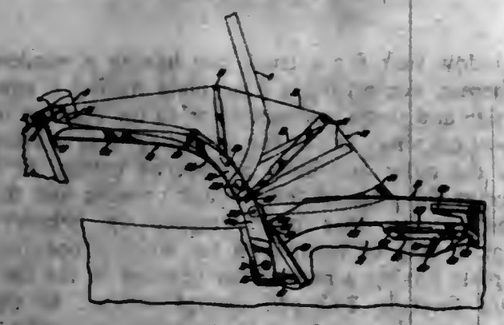


A protective device for strollers and the like infants vehicles having seats comprising a covered frame for disposition on a pusher handle in overlying relation to the seat of the stroller, a slidable nestable covered frame mounted thereon, means to hold the frames in extended articulated relation, means to hold the frames selectively nested, the slidable frame depending freely when extended, below the pusher handle to the rear of the seat, and an inclined backrest for said stroller seat, the cover of the slidable frame being engageable with the backrest and the latter holding the slidable frame at an angle to the seat and backrest.

2,770,489
**VEHICLE FOLDING TOP STRUCTURE AND POWER ACTUATING MEANS THEREFOR**
Louis P. Garvey, Karl A. Walter, and Robert L. Ballard, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 1, 1951, Serial No. 244,784
52 Claims. (Cl. 296—117)

51. The combination comprising a stationary supporting member, a top structure movable between raised and

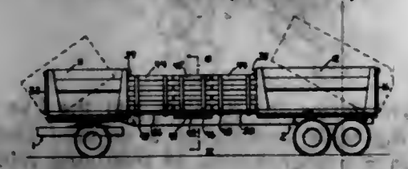
lowered positions, a bow supported on said top structure for movement therewith as said top structure is moved between raised and lowered positions and for movement independently of said top structure, a storage compartment for said top structure, a lid for said compartment movable between open and closed positions, first power means for moving said lid to open and closed positions, second power means for moving said top structure from a lowered position within said compartment to a raised position adjacent said supporting member and from said last-mentioned position to said lowered position, third power means for actuating said top structure from said position adjacent said supporting member into engagement



with the latter and from said last-mentioned position to said position adjacent said supporting member, fourth power means for moving said bow between a first position adjacent said lid when the latter is in closed position and a second position in spaced relationship with said lid, latch means for detachably securing said top structure to said stationary member when said top structure has been moved into engagement with the latter, power means for withdrawing said latch means, means for moving said latch means to latching position, a power circuit operatively connected to said first, second, third, and fourth power means, and control means in said circuit for causing said first, second, third, and fourth power means to operate in a predetermined order.

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2,770,490
**MULTIPLE BODY DUMPING TRUCK TRAILER**
William D. Hockensmith, Jr., Irwin, Pa.
Application August 3, 1954, Serial No. 447,615
11 Claims. (Cl. 298—8)

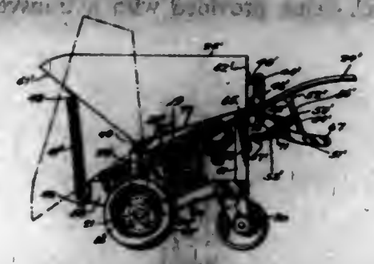


1. A trailer adapted to be pulled by an automotive tractor, comprising a frame, separate dumping bodies mounted on the front and rear end portions of the frame, dump gates normally closing the outer ends of the bodies, the front body being pivotally mounted near its front end on the frame for dumping its load forward over the front end of the frame and the rear body being pivotally mounted near its rear end on the frame for dumping its load backward over the rear end of the frame.

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2,770,491
**DUMPING VEHICLE**
Frank J. Parks, Moscow, Pa.
Application October 23, 1950, Serial No. 191,576
5 Claims. (Cl. 298—10)

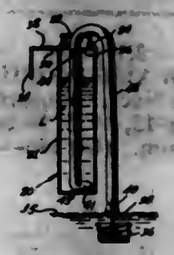
1. A hauling vehicle unit of the character described, including a self-propelled vehicle, having an axle and a pair of driving wheels mounted thereon, a material moving dump body-supporting frame adapted for detachable connection with the axle of the self-propelled vehicle, said frame comprising side bars having a cross connection at the ends remote from the vehicle axle, a rest for a material holding body extending upwardly from the cross-connection, trunnion supports extending vertically above the side bars, and having yoke members constructed and



arranged to hook over the axle of the self-propelled vehicle, at least one swivel wheel mounted below the cross member, and a material holding body supported on the trunnion supports by a pivotal mounting, said body resting in traveling position on the rest and being movable to dumping position by rotation about said pivotal mounting.

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2,770,492
**DISPENSER FOR A LIQUID DISINFECTANT**
Robert S. Kaar, Broomall, Pa.
Application May 28, 1954, Serial No. 433,159
2 Claims. (Cl. 299—20)

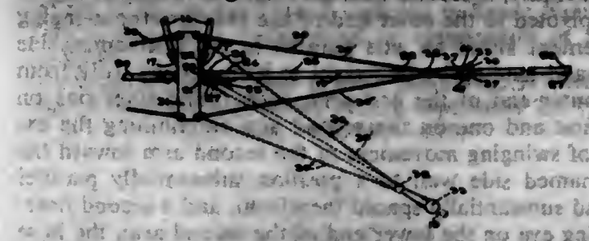


1. In a liquid disinfectant dispenser for a toilet flush tank, a container having front and back walls, a bottom wall, and a top wall, said back wall having hook means for engaging over the upper edge of a toilet flush tank wall, said top wall being provided with an opening, a threaded nipple on said top wall surrounding said opening, a wick extending through said opening, said wick having a first portion located within the container and a second portion outside of the container and depending along said front wall, said second portion of the wick having a lower end normally positioned below the container, and a closure cap secured to the lower end of said second portion of the wick arranged to thread over said nipple when the wick is positioned within the container, said cap serving in the normal position of said second wick portion to hold the lower end of said second wick portion below the container.

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2,770,493
**SPRAY BOOM**
Walter F. Fisher, Sanville, Wis., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application June 26, 1952, Serial No. 295,698
16 Claims. (Cl. 299—39)

12. In a spraying unit, a support frame, a boom mounted for free universal movement on said frame, an adjustable clamp mounted on the boom, guys adjustably connected to said clamp, means on said clamp to provide slidable movement thereof in a direction axially of said boom for adjusting said guys, and means connecting said guys to said frame above and on opposite sides of the universal mounting of the boom on the frame to support



said boom in a predetermined position and for guided movement vertically and laterally from said position.



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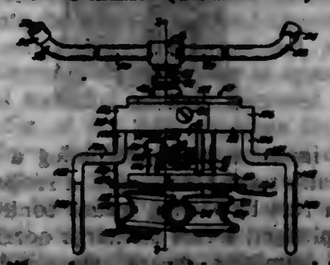
2,770,494
**PORTABLE APPLICATOR FOR LIQUID FERTILIZERS, WEED KILLERS, AND THE LIKE**
Maurice O. Nelson, Iconia, Wis., assignor to The Farnwell Company, Inc., Iconia, Wis., a corporation of Wisconsin
Application January 14, 1955, Serial No. 481,739
6 Claims. (Cl. 299—43)



1. A device for evenly applying liquids to turf and soil, comprising: a frame having handle means; wheels mounted on the frame and supporting it for free travel across the surface to be treated; a tank to contain the liquid, mounted on the frame with a portion thereof in front of the handle means; a discharge nozzle in front of the tank, said nozzle having a discharge port of fixed size shaped to produce a relatively flat arcuate spray of substantially uniform density which projects forwardly and to both sides to thereby cover a swath of predetermined width as the device is pushed along; a connection between the nozzle and the tank, including means for shutting off flow from the tank to the nozzle; a piston type air pump fixed with respect to the frame and tank; means connecting the discharge of the pump with the tank; and actuating means for the piston of the pump including a crank pin on one of the wheels and a connecting rod between the crank pin and the piston rod so that the movement of the device across the surface to be treated produces a pressure in the tank.

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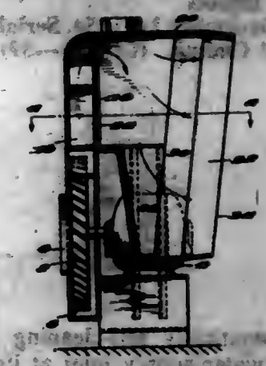
2,770,495
**TRAVELING LAWN SPRINKLER**
William D. Egly, South Bend, and Columbus W. Harris, Elkhart, Ind., said Harris assignor to said Egly
Application October 8, 1948, Serial No. 53,492
22 Claims. (Cl. 299—50)



1. A travelling lawn sprinkler comprising a housing adapted to be connected to a flexible water conduit, a water reactance sprinkler unit rotatably mounted by said housing and rotatable drive members actuated by said unit and including a pair of rotatable members gripping said conduit therebetween to propel said housing.

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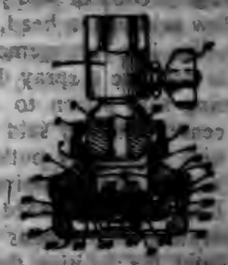
2,770,496
**AUTOMOBILE DRIER**
Earl Wilson, Long Beach, Calif.
Application January 4, 1954, Serial No. 401,788
3 Claims. (Cl. 299—58)



1. An automobile drier comprising a rotary fan, a diffuser chamber of increasing cross-section connected to the outlet of the fan, a muffler chamber connected to said diffuser chamber, said muffler having a vertical extension therefrom adjacent one side thereof and offset therefrom in a direction transverse to the axis of rotation of the fan, and converging plates arranged in substantially vertical planes forming a nozzle communicating with said muffler chamber and said extension, the nozzle opening comprising a relatively narrow, vertically elongated slit.

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2,770,497
**AUTOMATICALLY SELF-CLEANING SHOWER HEADS**
Jacques J. Fillberg, Chicago, and James J. Swartz, Berwyn, Ill., assignors to Sloan Valve Company, Chicago, Ill., a corporation of Illinois
Application January 6, 1954, Serial No. 402,536
6 Claims. (Cl. 299—89)



1. In an automatically self-cleaning shower head, a casing having a water passage therethrough, a flexible diaphragm arranged normally across the bottom of said casing across said water passage, and having openings therein for water passage, a cap threaded onto the bottom of said casing, said cap having a large spray discharge opening therein spaced below said diaphragm, a spray dispersing disc attached to the bottom of said diaphragm and spaced from said spray discharge opening, a pressure member attached to the top of said diaphragm and normally extending into said water passage, said pressure member being movable responsive to water flow into said water passage to cause flexing of said diaphragm away from the bottom of said casing, said diaphragm thereby projecting said spray dispersing disc into said spray discharge opening, said pressure member having openings in the sides thereof registering with the bottom of said casing when moved whereby water can only flow through said openings from said water passage when said spray

dispersing disc is in engagement with said spray discharge opening, said flexible diaphragm restoring said pressure member and spray dispersing disc to normal position when water flow through said device ceases.

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2,770,498
**AUTOMATIC SELF-CLEANING SHOWER HEADS**
Jacques J. Filliung and Robert E. Campbell, Chicago, Ill., assignors to Sloan Valve Company, Chicago, Ill., a corporation of Illinois
Application December 21, 1954, Serial No. 476,684
7 Claims. (Cl. 299—59)

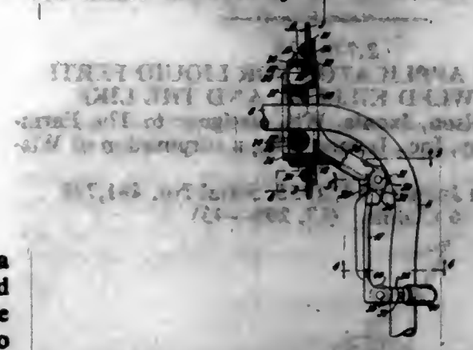


3. In an automatically self-cleaning shower head, a casing having a water supply inlet at its upper end and a spray discharge outlet at its lower end, a guiding plate arranged across said casing and dividing the same into a pressure chamber and a discharge chamber, a piston having a hollow stem extending through an opening in said guiding plate, a piston head on the top end of said stem arranged in said pressure chamber, said piston head comprising a pressure disc arranged across the upper end of said pressure chamber and having its edge portion in slidable contact with the walls of said pressure chamber during the full stroke of said piston, a spray disc on said stem arranged in said discharge chamber and spaced from said discharge outlet, said hollow stem having openings at the bottom end extending into said pressure chamber and directly adjacent the top side of said guiding plate, water flow into said pressure chamber forcing said piston head downward together with said stem to project said stem openings into said discharge chamber, said piston head effective to force the water flow to take place only through said stem opening and to prevent flow around the edge portion of said piston into said pressure chamber below said piston head, said stem also carrying said spray disc into engagement with said spray discharge outlet to produce a spray discharge therefrom, means for returning said piston to its normal position after water flow ceases whereby said spray disc provides a wide opening with said spray outlet to drain the discharge chamber, a stop in said casing contacted by said piston head for limiting the upward movement of said piston, and cooperating stop means on said spray disc and said spray outlet for limiting the downward movement of said piston.

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2,770,499
**HOSE GUIDE FOR FLUID DISPENSING APPARATUS**
Edward D. Ragsdale, Agawam, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a corporation of Massachusetts
Application October 18, 1954, Serial No. 462,829
5 Claims. (Cl. 299—77)

1. In a fluid dispensing apparatus, having a housing with upstanding front, rear and side walls and a top wall, a dispensing hose stored in part within said housing and extending out of the same through one of said side walls, a first hose-guiding arm having a tubular hub mounted on the last-named side wall near the upper end thereof for swinging movement about an axis normal thereto and affording a first guiding eye through which the hose passes out of said casing, said first arm extending outwardly from the last-named side wall terminating with its outer end spaced therefrom and tending by its weight to hang downwardly, a second hose-guiding arm having its upper end pivoted to the outer end of the first arm for swinging movement about an axis parallel to the last-named side wall and tending by its weight to hang downwardly from the outer end of the first arm, cooperating stops one on the first and one on the second arm for limiting the extent of swinging movement of the second arm toward the last-named side wall to a position substantially parallel to and substantially spaced therefrom, and a second hose-guiding eye on the lower end of the second arm, the hose passing from the first eye to and through the second eye and thence downwardly therefrom, said second eye encompassing the hose peripherally to a sufficient extent to prevent the hose from being moved out of the eye in all directions radially of the latter, the axis of said second eye being substantially parallel to the second arm, a pull on the hose in a direction outwardly from the last-named side wall causing the second arm to swing outwardly therefrom and upwardly moving the second eye more nearly into alignment with the first eye, a pull on the hose toward either the front or the rear wall swinging both said arms about the axis of the first eye and carrying the second eye outwardly toward either the front or rear wall and positioning it to guide the hose around and out of contact with the corner where the last-named side wall intersects either the front or the rear wall.



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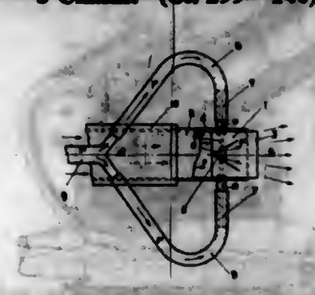
2,770,500
**FUEL INJECTION DEVICE**
John Dickson, Huntington Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 24, 1954, Serial No. 470,855
7 Claims. (Cl. 299—107.2)



1. A fuel injection pump including a longitudinally fixed and axially rotatable plunger, a reciprocating pump cylinder with fuel by-passing means controlled by rotation of said plunger, a fuel discharge nozzle fixed to the cylinder and camming means interposed between the cylinder and plunger operable to rotate the nozzle during reciprocation.



2,770,501
**MEANS FOR THE ATOMIZATION OF LIQUIDS**
Henri Coanda, Paris, France, assignor to Sebac Nouvelle S. A., Lausanne, Switzerland, a corporation of Switzerland
Application September 1, 1953, Serial No. 377,898
Claims priority, application France September 23, 1952
5 Claims. (Cl. 299—140)



1. Device for atomizing at least one liquid comprising, in combination, a conduit adapted to have a fluid circulated therethrough, at least one airfoil wing having a substantially symmetrical profile and including an extrados, an intrados, a leading edge disposed inside said conduit, a trailing edge disposed outside said conduit and a pair of lateral sides disposed between marginal shields in the portion of said wing corresponding substantially to laminar flow of said fluid along said extrados and said intrados of said wing, a substantially triangular opening in said wing disposed in the zone of depression created by the flowing of said fluid along said wing and having the apex thereof directed towards the leading edge of said wing and the base thereof disposed inside said conduit at a substantial distance from and in a substantially parallel relationship to said trailing edge of said wing, and means for projecting at least two jets of said at least one liquid into colliding relationship in said opening.

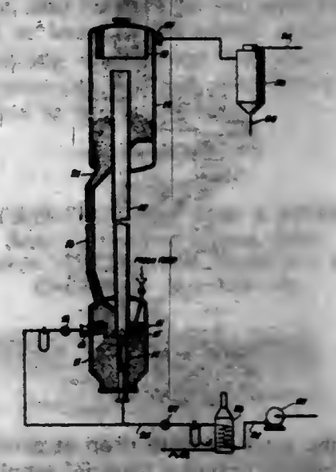
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2,770,502
**REMOTE CONTROL FAUCET**
Walter D. Hodge, Kansas City, Kans., assignor to Manley, Inc., Kansas City, Mo., a corporation of Missouri
Application August 2, 1954, Serial No. 447,359
2 Claims. (Cl. 299—140)



1. In a mixing faucet for carbonating beverages, a hollow body having a chamber for receiving a syrup and a chamber for receiving a pressurized carbonating fluid; a supply conduit communicating with each chamber respectively; a nozzle mounted on the body below the fluid chamber and provided with an outlet at its lowermost end; a syrup outlet tube carried by the body and extending downwardly from the syrup chamber through the fluid chamber and into the nozzle, said fluid chamber having a frusto-conical outlet at its lowermost end, progressively increasing in diameter as the nozzle is approached; and a frusto-conical metering member mounted on the tube within said outlet of the fluid chamber for controlling flow of fluid from the fluid chamber and directing the same into the nozzle and against the inner face of the latter, the space between the wall of said body forming the frusto-conical outlet and the metering member progressively increasing as the lowermost end of the latter is approached whereby the pressure of said fluid is gradually released into the nozzle.

2,770,503
**METHOD AND APPARATUS FOR PNEUMATIC TRANSFER OF GRANULAR CONTACT MATERIALS**
Jean M. Bourgeat, Westville, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application February 16, 1951, Serial No. 211,343
8 Claims. (Cl. 302—17)



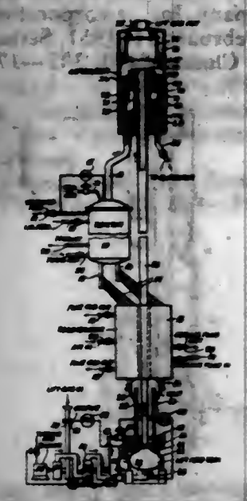
1. A gas lift for conveying upwardly granular material comprising a substantially vertical elongated lift pipe, a separating vessel at the top of the pipe, a feeding vessel at the bottom of the pipe, means for introducing a granular material into the feeding vessel to form a compact column of particles about the bottom of the lift pipe, an upwardly directed pipe terminating in the feeding vessel near the bottom of the lift pipe adapted to introduce primary lifting gas directly into the lift pipe without passing through any substantial thickness of the bed of granular material, means for introducing secondary lifting gas into the feeding vessel at at least one location outside of the lift pipe and laterally offset from its axis and far enough from the lower end of said lift pipe to cause said secondary lifting gas to pass through a substantial thickness of the bed of granular material, the lower end of the lift pipe tapered outward gradually from substantially vertical along a substantially hyperbolic spiral curve to a minimum slope at the bottom of the pipe, means for withdrawing separated lift gas from the separator and conduit means for withdrawing granular material from the bottom of the separating vessel.

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2,770,504
**METHOD FOR TRANSFER OF CONTACT MATERIALS**
Jean M. Bourgeat, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application February 14, 1951, Serial No. 210,942
5 Claims. (Cl. 302—53)

1. A method for pneumatically transferring granular solid material from a zone at one elevation to a second zone at a higher elevation without excessive attrition and breakage of the solid granules which comprises, forcing the solid material from said first zone into the lower end of a confined lift passage extending upwardly from the zone at the lower elevation to a separation zone at the higher elevation, said separation zone being of substantially greater horizontal cross-section than said lift passage, carrying the granular material upwardly, suspended in a suitable lift gas through said lift passage and discharging it from the upper end of said passage upwardly into said separation zone where the granular material rapidly decelerates and then drops down onto a retaining surface shortly below the upper end of said lift passage in said separation zone, observing the pressure drop due to the flow across the total length of said lift passage regulating the rate of granular material entry to

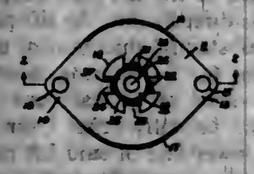
said lift passage to a fixed value and adjusting the total rate of gas supplied to the lower end of said lift passage



to maintain the total pressure drop at a minimum value for the fixed rate of granular material supply.

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2,770,505
BEARING
Richard H. Jordan, Mansfield, Ohio
Application March 19, 1953, Serial No. 343,350
6 Claims. (Cl. 308—72)

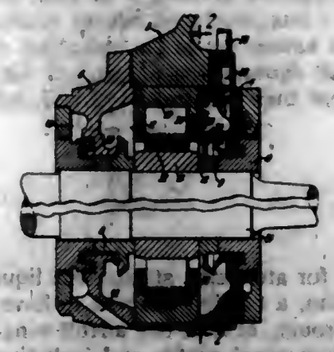


1. A bearing support and self-aligning bearing, comprising a body of spring sheet material, said body having a surface defining an aperture, four ears extending inwardly from said surface, adjacent ears being bent differently and opposite ears being bent similarly thereby establishing first and second opposite ears in a first plane and third and fourth opposite ears in a second plane, a generally spherical bearing having a given diameter and having two flattened faces, a surface defining a journal in said bearing and having an axis substantially normal to said flattened faces, said ears being spaced to frictionally grip said bearing, the spacing between the ends of all said ears on one side of said body being slightly greater than the thickness of said bearing between said flattened faces in one direction and greater than the said given diameter in a direction perpendicular to said one direction to permit assembly by passing said bearing flattened faces between the two opposite ears in one of said first and second planes with the bearing axis in a plane generally parallel to said body and then tumbling said bearing ninety degrees into a position so that said bearing axis is generally normal to the plane of said body wherein each ear frictionally grips said bearing at substantially equidistant points from the nearest flattened face.

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2,770,506
LUBRICATION MEANS
William J. Derner, La Grange, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 29, 1952, Serial No. 328,478
3 Claims. (Cl. 308—187)

1. A motor bearing having lubrication means therefor including a housing having a bearing cavity formed therein, a bearing assembly positioned within said cavity, said bearing assembly including an inner race, an outer race, and a cage positioned between said races and rotatably retaining a plurality of roller bearings therebetween, a rotatable shaft supported by the inner of said races, means to conduct oil mist to said cavity, and an arcuate shaped baffle having a substantially flat surface portion



and an open pocket communicating with said means to conduct oil mist to said cavity, said arcuate shaped baffle being positioned within said cavity so that said flat surface portion is immediately adjacent end faces of said inner and outer races and said cage and roller bearings to direct oil mist between said races, said cage, and said rollers to effect lubrication thereof.

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2,770,507
GREASE RELIEF FITTING
Fred H. Ehnis, Philadelphia, Pa., assignor to Keystone Lubricating Company, Philadelphia, Pa., a corporation of Pennsylvania
Application December 3, 1954, Serial No. 473,823
10 Claims. (Cl. 308—187)



1. A grease relief fitting for use in lieu of the conventional removable relief plug in an anti-friction bearing housing and the like, said fitting consisting of a body member and a closure assembly, said body member having a smooth axial bore therethrough, one end of which provides a grease inlet for the fitting, said inlet end of the body member being formed with a nipple portion surrounding said bore having means for engaging and securing said fitting within the grease relief opening in a bearing housing, the opposite end of said bore being enlarged and providing a grease outlet or relief opening, the minimum diameter of the axial bore being only slightly less than the diameter of the hole in the bearing housing into which the grease inlet end of the fitting is adapted to be mounted, the bore in the body member inwardly beyond the nipple portion flaring outwardly toward the grease outlet end whereby to provide maximum relief and minimum resistance to outflow of grease through the fitting, and said closure assembly comprising a manually operable closure member movable into and out of closing relation to the said opposite end of the bore and means for captively holding said closure member in open or closing position onto the fitting.



2,770,508
CAM FOLLOWER BEARING
Richard J. Smith, Valparaiso, Ind., assignor to McGill Manufacturing Company, Inc., Valparaiso, Ind., a corporation of Indiana
Application March 7, 1955, Serial No. 492,680
2 Claims. (Cl. 308—187.1)



1. A sealed cam follower type bearing including in combination a one-piece stud member having a circular head plate at the outside end thereof, an inner raceway portion adjacent the head plate of lesser diameter than the head plate, and lubricating duct-means opening into said inner raceway portion, an annular retainer plate fixedly carried on said stud member at the inside end of said inner raceway portion, a cylindrical outer race ring retained against longitudinal movement by said head plate and said retainer plate and having thereon a central portion as the outer raceway for the bearing, said outer race ring having an annular groove at each end of said raceway portion and each groove being formed at its outer end by an annular flange of the outer race ring and at its inner end by the outer raceway portion, each of said annular flanges having an annular edge of greater diameter than the diameter of the outer raceway portion and each said groove being of greater diameter at its base than the diameter of the annular edge of the adjacent flange, rollers in the bearing confined between the two raceway portions, and means cooperating with said annular grooves and with said annular flanges and acting when the bearing is installed in an operating apparatus to store at said rollers lubricants fed through said duct-means and to minimize the introduction of dirt into the bearing at the rollers, said cooperating means including a first annular non-metal sealing member maintained in a press-fit on the circumference of said head plate and a second annular non-metal sealing member maintained in a press-fit on the circumference of said retainer plate, with each of said two sealing members as maintained on the stud member being of a size as to extend into a respective one of said grooves in the outer race ring so as to substantially fill the groove but each of said two sealing members adapted to be in a sliding relation with its respective groove when the bearing is installed in an apparatus and there is relative rotation between said outer race ring and said stud member.

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2,770,509
DOUBLE ROW ROLLER BEARING
August Gunnar Fernlund Wallgren, Gothenburg, Sweden
Application November 25, 1952, Serial No. 322,470
Claims priority, application Sweden November 28, 1951
2 Claims. (Cl. 308—214)



1. A double row roller bearing comprising inner and outer bearing members and rollers disposed therebetween, said members having surfaces for axially fixing the rollers in both directions between the members, a retainer comprising an annular retainer portion and a plurality of separating portions projecting between the rollers from said annular portion to maintain the rollers in each row in desired peripherally spaced position, a holder ring rigidly secured to one of said bearing members for preventing said retainer from displacement out of the bearing, said holder ring and said retainer having inclining and at least approximately spherically curved surfaces in sliding engagement for preventing the retainer from becoming wedged upon taking an inclined position relative to the holder ring.

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2,770,510
PACKING MEANS FOR A PISTON
John E. Collins, Akron, Ohio
Application May 25, 1954, Serial No. 432,194
15 Claims. (Cl. 309—4)



1. In combination, inner and outer relatively movable members, a generally annular packing means carried by one of said members, said annular packing having a cross-section including displaced O-ring portions and having a connecting web extending between the O-ring portions, the diameter of each O-ring portion in cross section being larger than the thickness of said web, and means on said one member to interlock one of the O-ring portions therewith with said other O-ring portion bearing against said other member in sealing relationship.

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2,770,511
WRIST PIN ASSEMBLY
Robert J. Powell, Muskegon, Mich., assignor to Continental Motors Corporation, Detroit and Muskegon, Mich., a corporation of Virginia
Application November 22, 1954, Serial No. 470,350
3 Claims. (Cl. 309—19)



1. A piston and wrist pin assembly for an engine comprising a pin constructed of a soft material such as aluminum or the like and of a total length substantially equal to the diameter of the piston to which it is assembled, said piston having diametrically opposed wrist pin bearing bores, a sleeve fitted on the medial portion of said pin and constructed of a steel material having a hardened outer cylindrical surface, said sleeve bore having internally champfered ends forming an annular recess, said pin having reduced diameter end portions providing an annular shoulder axially spaced inwardly from the ends of said pin, and an outwardly swaged pin part distorted from said shoulder portion and forced into said annular recesses of the sleeve to secure and locate said sleeve on said pin, said medial enlarged diameter portion of said

pin having a length slightly less than the overall length of said sleeve and greater than the length of the straight internal bore of said sleeve, said end faces of the axial pin being unaffected by said swaging and comprising the only part of said wrist pin assembly that may contact the engine cylinder wall with which said piston is operable.

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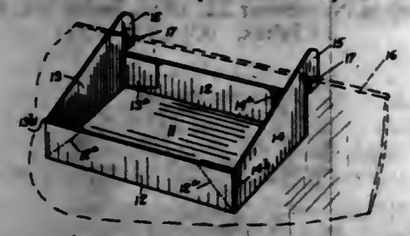
2,770,512
UNIT PISTON RING
Douglas W. Hamm, Muskegon, Mich., assignor to Muskegon Piston Ring Company, Muskegon, Mich., a corporation of Michigan
Application January 21, 1955, Serial No. 483,321
6 Claims. (Cl. 309—44)



1. A piston ring comprising, a circumferentially compressible, flexible, circular spacer having a parting at one side thereof, horizontal spaced connected segments, and lips at the inner edges of said segments extending away therefrom at an angle to the horizontal, and a plurality of thin, arcuate rail sections releasably secured to said segments around said spacer at the outer sides thereof having inner edges substantially against said lips, the ends of the rail sections at said parting being aligned with the ends of said spacer at the parting, and adjacent ends of ring sections opposite said parting being spaced from each other, the radius of curvature of said spacer being greater than the radius of curvature of said ring sections in normal uncompressed condition, and substantially equal therewith in circumferentially compressed condition.

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2,770,513
HOOKED CURB SERVICE TRAY
Julius Brown, Indianapolis, Ind.
Application March 8, 1954, Serial No. 414,784
1 Claim. (Cl. 311—22)

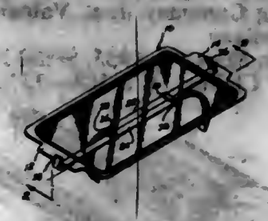


A service tray comprising a bottom panel and side and end walls formed of a fibre board type material, said end walls each being similarly tapered to provide gradually increasing height in said end walls from one end thereof to the other, and a tab and hook formed at the higher end of each end wall, said tab being hingedly connected to said higher end and engageable with the inner surface of the adjacent side wall for adding strength thereto and said hook projecting beyond the vertical plane of the adjacent side wall for engagement with the window-pane of an automobile.

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2,770,514
LUNCH TRAY HOLDER
Ingham Ideo, Fargo, N. Dak.
Application November 29, 1954, Serial No. 471,826
10 Claims. (Cl. 311—23)

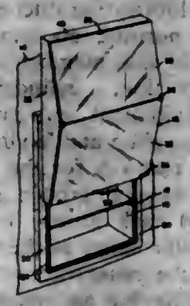
1. A tray and a holder therefor, said holder comprising a pair of relatively slidable members positioned below the tray so as to rest across the legs of a user and having upwardly extending flanges for engaging opposite edges



of said tray and downwardly extending flanges for engaging the legs of said user.

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2,770,515
MEDICINE CABINETS
Dwight La Barre, Detroit, Mich., assignor to Ornes and La Barre, Centerline, Mich., a partnership
Application July 27, 1953, Serial No. 370,536
2 Claims. (Cl. 312—209)



2. In a medicine cabinet of the type described, a cabinet body in the form of a recessed box structure having vertical side affixed door guides, a sliding door for said box structure vertically arranged in said guides and having an inwardly extending lower flange, a horizontal shelf fixed in said cabinet body defining said cabinet into upper and lower compartments, said shelf supporting a flexible, retractable door catch projecting outwardly from said shelf in overlapping relation with said lower flange of said door and positioned to releasably limit upward travel of said door in said guides, said door being releasably stopped in its upper travel by said door catch at a position fully exposing said lower compartment, said door catch being retractable from its stop position against said door flange to permit further upward travel of said door whereby said upper compartment is exposed to full access, said flexible door catch being urged inwardly of said cabinet body upon downward travel of said sliding door by said door flange, whereby said upper and lower compartments are closed to access upon reaching the lower limit of travel by said sliding door, said flexible retractible door catch being disposed in the said lower compartment and exposed to full access when said sliding door is raised to expose the lower compartment and to mask said upper compartment.

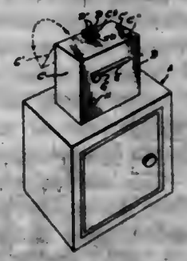
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2,770,516
DEPOSITING MACHINES
Luis Mestre, New York, N. Y., assignor to The Mosler Safe Co., New York, N. Y., a corporation of New York
Application May 11, 1953, Serial No. 354,014
33 Claims. (Cl. 346—22)

1. Deposit apparatus for use with a deposit package having two portions, the upper one being adapted to become a receipt and the other, when separated from the receipt portion, to be accepted as a deposit, said apparatus including a safe having an opening in the top thereof; a lockable housing secured to the top of the safe above said opening and having a deposit receiving



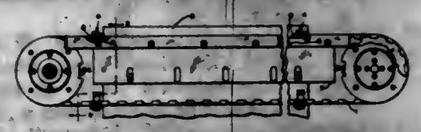
opening in the top thereof above the top opening in the safe; and a depositing machine in said housing, said machine having a vertically disposed, upwardly opening, stationary package receiver accessible through the housing opening and having means to support a deposit package in pendent position; a stationary chute below the package receiver and open at the top and bottom, a normally closed upper door above the chute and adjacent the package receiver, a normally open lower door below the chute, severing mechanism below the upper door, and manually operable mechanical means movable from a normal or home position through a cycle and back to



the home position thereof, including means for maintaining the upper door closed and the lower door opened, means for thereafter closing the lower door and holding it closed while it opens the upper door so that a package may be placed in the deposit support while access to the safe is denied, and means for then closing the upper door and opening the lower door, and means controlled by the manual means for actuating the severing means to sever the deposit portion from the receipt portion while the lower door is open so that the deposit portion drops into the safe under the influence of gravity.

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2,770,517
FACSIMILE SCANNING MECHANISM
Douglas M. Zabriskie, Northvale, N. J., assignor to The Western Union Telegraph Company, New York, N. Y., a corporation of New York
Application March 18, 1954, Serial No. 417,057
8 Claims. (Cl. 346—74)



1. In a facsimile recorder of the kind employing electric writing on a sheet of electrosensitive paper, in combination, a belt of flexible organic materal, metallic tension strands embedded longitudinally in the interior thereof, cogs formed on the inner surface thereof, a pair of belt carrying pulleys constructed of readily moldable material and having recesses in the faces thereof, metallic hubs in the said pulleys, a plurality of stylus carrying stylus holders affixed to the said belt, styluses in the said holders, means for guiding the said stylus holders in a linear track, a conductive bar fixed adjacent the path of travel of said stylus holders in sliding contact therewith, and a sheet of electrographic paper advanceably retained in the path of travel of said styluses.

## CHEMICAL

2,770,518
DYED TEXTILE MATERIALS AND METHOD OF MAKING
Anthony B. Conciatori, New Providence, and Victor S. Salvin, Irvington, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
No Drawing. Application October 20, 1952, Serial No. 315,824
16 Claims. (Cl. 8—18)

1. Process for improving the resistance to gas fading of a dyed textile material having a basis of an ester selected from the group consisting of cellulose acetate and polyethylene terephthalate and dyed with a blue anthraquinone dye which exhibits a tendency to gas-fading on said material, which comprises applying a polymeric dialkyl-amino-alkyl-ecrylate wherein the alkyl and alkylene groups contain at most 6 carbon atoms to the said dyed textile material.

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2,770,519
CARROTING PROCESS AND SOLUTION
Egon Eisd, Badenweiler, Germany
No Drawing. Application September 15, 1954, Serial No. 456,315
Claims priority, application Germany September 26, 1953
5 Claims. (Cl. 8—112)

1. A method of producing hair felt including the step of subjecting fur fibers to the action of a carroting solution containing at least one oxidizing agent of the group consisting of hydrogen peroxide and persalts in an amount corresponding to not more than about 5 percent by volume of 100% hydrogen peroxide, an acid of the group consisting of nitric acid and hydrochloric acid in an amount of about 3 to 10 percent by volume, calculated on 100% acid, and formamide in an amount of about 2 to 10 percent by volume.

2,770,520
RECOVERY OF URANIUM FROM PHOSPHORIC ACID AND PHOSPHATE SOLUTIONS BY ION EXCHANGE
Ray S. Long, Solano, and Richard H. Ballou, Walnut Creek, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 11, 1950, Serial No. 155,307
9 Claims. (Cl. 23—14.5)

1. In a method for recovering uranium values from a phosphoric acid solution, the steps comprising oxidizing said uranium in solution to the VI oxidation state, whereby uranyl phosphate complex anions are formed therein, contacting the oxidized solution with an anionic exchange resin to adsorb said uranyl complex anions thereon, and then eluting adsorbed uranium from said exchange resin with an acidic solution and an adjunct reducing agent.

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2,770,521
SEPARATION OF URANIUM FROM MIXTURES
Louis Spiegler, Woodbury, N. J., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application October 20, 1944, Serial No. 559,665
11 Claims. (Cl. 23—14.5)

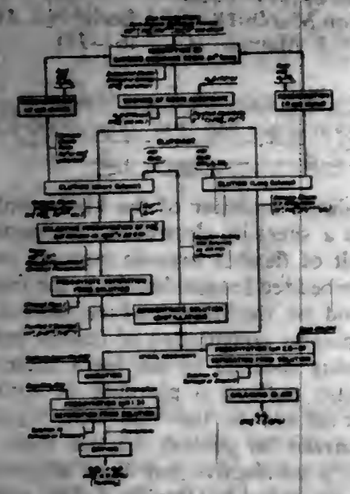
1. The method of obtaining uranium peroxide from a uranium-containing sulfate mixture which comprises forming a solution of the uranium sulfate in hexavalent form in aqueous sulfuric acid solution having an initial pH between 2 and 5, adding sufficient peroxide to completely convert uranyl sulfate in the solution to uranium peroxide, subsequently adding sufficient alkaline reagent to bring the pH of the solution to between 2 and 5, effecting crystallization of the uranium peroxide from the solution, and separating the crystallized uranium peroxide from the solution.

2,770,522

## METHOD OF PURIFYING AND RECOVERING VANADIUM FROM PHOSPHATE-CONTAINING SOLUTIONS

Richard H. Bailes, Walnut Creek, and Robert R. Grinstead, Concord, Calif., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application June 5, 1952, Serial No. 291,946
16 Claims. (Cl. 23—19)



1. In a process for purifying and recovering vanadium values from a solution containing tetravalent vanadium cations and an inorganic phosphatic impurity, the steps comprising adsorbing the tetravalent vanadium on a cationic exchange resin, whereby a portion of the phosphatic impurity is also adsorbed thereon, washing the resin with water thereby removing a portion of the phosphatic impurity from the resin, eluting the vanadium from the resin with an aqueous elutriant means, and recovering the vanadium from the eluate.

2,770,523

## FERRO-MAGNETIC COBALT AND NICKEL MANGANESE OXIDES HAVING THE ILMENITE-TYPE CRYSTAL STRUCTURE

Richard C. Teale, Grand Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 26, 1954, Serial No. 452,449
13 Claims. (Cl. 23—58)

1. The crystalline form of a complex oxide of manganese, corresponding to the formula $MMnO_3$ wherein M is a group VIII metal selected from the class consisting of cobalt and nickel, characterized by having a crystal structure of the ilmenite-type and by being ferromagnetic.

8. Process for preparing a ferromagnetic crystalline complex oxide of manganese which comprises heating a mixture of manganese dioxide and a simple oxide of a metal selected from the class consisting of cobalt and nickel at a temperature of at least 500° C., and under a pressure of at least 1000 atmospheres, and separating as the resulting product a crystalline complex oxide of manganese and a metal selected from the class consisting of cobalt and nickel which has the ilmenite-type crystal structure and is ferromagnetic.

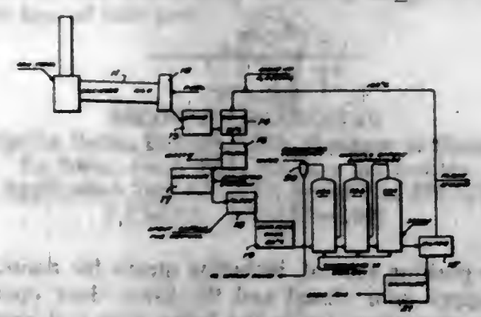
2,770,524

## PRODUCTION OF PURE SODIUM CARBONATE FROM WYOMING TRONA

Max Y. Seaton and Robert D. Pike, Greenwich, Conn.; Kenneth R. Ray and The Stamford Trust Company, executors of said Robert D. Pike, deceased, said Seaton assignor to Food Machinery and Chemical Corporation, New York, N. Y., a corporation of Delaware

Application August 2, 1951, Serial No. 239,926
8 Claims. (Cl. 23—63)

1. In a cyclic process for producing soda ash of high purity from Wyoming trona, the steps comprising calcining trona at a temperature in excess of 500° C., dissolving the calcined trona in water and recycled mother liquor at about 50° C., filtering and substantially removing all of the organic coloring matter by an adsorbent producing a water white solution, separating the latter solution from the adsorbent, flowing the solution through a plurality of heating and evaporating zones in countercurrent flow to the passage of steam therethrough to a final heating zone having a pressure in excess of atmospheric and a solution temperature substantially in excess of 100° C. at which anhydrous sodium carbonate is the stable crystal phase, separating the formed crystals from the mother liquor, adding make-up water sufficient to maintain a constant amount of water in the system, recycling the mother liquor and added make-up water to again dissolve calcined trona at a substantially lower temperature than prevails in said last zone, calcining and drying the crystals of sodium carbonate to produce soda ash.



2,770,525

## PREPARATION OF ALKALI METAL CYANATES

Alfred Gordon Houpt, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 3, 1954, Serial No. 413,957
11 Claims. (Cl. 23—79)

1. In a method for preparing an alkali cyanate, the steps which comprise: fusing at temperatures in excess of 550° C. a mixture of an organic nitrogen compound and an alkali metal carbonate in a titanium vessel for a period of less than thirty minutes and recovering an alkali cyanate of low cyanide content therefrom.

2,770,526

## METHOD FOR PURIFYING METAL HALIDES

Horace N. Lander, Topsfield, Mass., assignor to Metal Hydrides Incorporated, Beverly, Mass., a corporation of Massachusetts

No Drawing. Application December 19, 1955, Serial No. 553,704
3 Claims. (Cl. 23—99)

1. The method of treating impure calcium chloride to remove impurities which comprises heating the calcium chloride to render it anhydrous, and then heating the anhydrous material for at least about 1 to 4 hours at a temperature between about 425° C. and 650° C. in intimate contact with a gaseous medium consisting essentially of chlorine and carbon tetrachloride under a pressure slightly greater than one atmosphere, the minimum required ratio of chlorine to carbon tetrachloride by volume in the gaseous medium depending upon the temperature used and varying from a minimum ratio of about 1 to 2 at a temperature of about 425° C. to a minimum ratio of about 15.5 to 1 at a temperature of about 650° C.



2,770,527

## TERNARY FERROUS GROUP METAL SULFIDES OF MOLYBDENUM AND TUNGSTEN AND THEIR PREPARATION

Witt Lyde Alderson, Jr., and John T. Maynard, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 28, 1953, Serial No. 358,158
18 Claims. (Cl. 23—134)

1. A method for preparing ternary metal sulfides which comprises bringing hydrogen sulfide into contact with a mixture of a ferrous group metal sulfide and a sulfide of a non-ferrous metal selected from the class consisting of molybdenum and tungsten, said mixture being heated to a temperature between 500° and 1300° C. and the ratio of ferrous group metal sulfide to said non-ferrous metal sulfide in said mixture being from 1 to 2 gram moles of ferrous group metal sulfide per gram mole of non-ferrous metal sulfide.

9. A ternary ferrous group metal sulfide characterized by being a crystalline solid stable at temperatures within the range of 500° to 1300° C. and corresponding in chemical composition to the general formula $AMS_y$ wherein sulfur S is chemically combined with a ferrous group metal A and with a metal selected from the class consisting of molybdenum and tungsten in atomic ratio of y:1:1, y being 2.5 to 3.

2,770,528

## BARIUM FERROUS GROUP METAL TERNARY SULFIDES AND THEIR PREPARATION

John T. Maynard, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 15, 1954, Serial No. 416,437
13 Claims. (Cl. 23—134)

1. A barium ferrous group metal ternary sulfide conforming to the general formula $BaMS_x$ wherein M is a ferrous group metal, x is 2 to 2.5, and the ratio of barium to ferrous group metal is 1:1.

5. Process for preparing a barium ferrous group metal ternary sulfide which comprises sintering barium sulfide with a binary sulfide of a ferrous group metal at a temperature of 800° to 1400° C., in an atmosphere of hydrogen sulfide, and recovering as the resulting reaction product a barium ferrous group metal ternary sulfide wherein the ratio of barium to ferrous group metal is 1:1.

2,770,529

## METHOD FOR PREPARING CHLORINATION FEED MATERIAL

William W. Anderson, Metuchen, and Lancelot W. Rowe, Ferdo, N. J., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application August 24, 1955, Serial No. 530,406
6 Claims. (Cl. 23—202)

1. A single stage process for preparing a chlorination feed material by directly converting the titanium values in a titaniferous iron material to a substantially iron-free titanium oxide material in the presence of a carbonaceous reducing agent which comprises: admixing a titaniferous iron material, a carbonaceous reducing agent and sulfuric acid to form a slurry; heating said slurry in a pressure vessel while maintaining the pressure within said vessel in the range of from about 100 p. s. i. to about 2000 p. s. i. for a period of time sufficient to solubilize the calcium, magnesium and iron constituents of said titaniferous material and precipitate the titanium values in the presence of the carbonaceous reducing agent in the form of a coalesced substantially iron-free relatively insoluble, hydrated titanium oxide-carbon material; said carbonaceous reducing agent being present in an amount of at least 20% based upon the amount of titanium dioxide in the titaniferous iron material; said sulfuric acid being present in an amount sufficient to solubilize substantially all of the calcium, magnesium and iron constituents in the titaniferous iron material; and thereafter separating said solubilized constituents and gangue from said insoluble hydrated titanium oxide-carbon material.

2,770,530

## METHOD OF OIL TESTING AND COMPOSITION THEREFOR

Roland F. Bergstrom, Martinez, Thomas S. Hodgson, Concord, and Harvey E. Hook, Danville, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application September 8, 1953, Serial No. 379,072
12 Claims. (Cl. 23—230)

4. An acid-base indicator composition which comprises from about 0.001 to about 0.002 mole of bromocresol green and from about 0.0002 to about 0.04 mole of 4-amino-1-naphthaleneazobenzene-4'-sulfonic acid per liter of a developer solution consisting essentially of from about 20% to about 40% by volume of aqueous ethanol containing from 0.5 to 20% by volume water based on said aqueous ethanol, from about 10% to about 30% by volume 4-methyl-2-pentanol, from about 0.1 to 1.5% by volume glycerol, from about 4% to about 70% by volume alpha-methylnaphthalene and from about 4 to about 50 percent by volume of a homogeneous solvent mixture which boils within the range of about 100° to about 400° F., and the aromatic content of which is from about 30% to about 70% by weight of said solvent mixture.

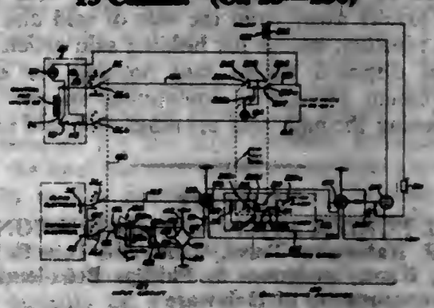
9. The method for determining the suitability of a used lubricating oil for further use in an internal combustion engine which comprises placing a small quantity of said oil in a thin essentially white porous medium, pouring over said small quantity of oil a solution of an organic acid-base indicator compound which exhibits a color change in the pH range of 3 to 6 in an essentially neutral developer solution comprising essentially from about 0.5 to about 20% by volume of water, at least 15% by volume of a monohydric alcohol and from about 4 to about 70% of a water immiscible oil-solvent, the concentration of said acid-base indicator compound in said developer solution being from about 0.0001 to about 0.05 gram moles of said indicator compound per liter of said developer solution.

2,770,531

## METHOD AND APPARATUS FOR AUTOMATIC TITRATION AND CONTROL OF VARIABLES

Roland C. Hawes, Los Angeles, and Allen Strickler, Burbank, Calif., assignors to Beckman Instruments, Inc., South Pasadena, Calif., a corporation of California

Application March 3, 1951, Serial No. 213,724
13 Claims. (Cl. 23—230)



12. An automatic titrator for bringing a batch of a sample solution to an end point by controlled addition of a reagent to such solution in measurable volume until a desired end point condition is reached, said automatic

titrator including in combination: means for developing an electric value which varies with the amount of said reagent added to said sample solution and which reaches a predetermined input value when the end point is reached; a valve in the path of flow of said reagent to said sample solution, said valve including an electric control means for shifting same substantially instantaneously between fixed positions, said positions being respectively an open and a closed position; an amplifier providing an input means and an output means; a relay having a control winding connected to said output means, said relay having first and second contact means actuatable upon change in energy level supplied to said control winding by said amplifier; means for operatively connecting one of said contact means to said electric control means of said valve to control the shifting of said valve between said positions in response to such change in energy supplied to said control winding; an RC circuit and means for operatively connecting same to the other of said contact means to produce a pulsing output varying in step with the shifting of said valve between said positions; and means for applying to said input means both the pulsing output of said RC circuit and a potential changing with changes in said electric value to repeatedly bring said amplifier prematurely to a valve-closing energy level until said pulsing output returns said amplifier to a valve-opening energy level, thus creating a series of closings and openings of said valve supplying increments of reagent of decreasing volume as said end point is approached.

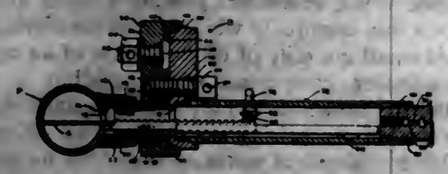
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**2,770,532**

**DEVICE FOR REMOVING ARTICLES FROM AND INSERTING ARTICLES INTO PIPELINES**

John C. Mason, Bellflower, Calif.

Application July 6, 1953, Serial No. 366,691
6 Claims. (Cl. 23—253)



1. A device for removing and inserting an article through an aperture formed in a pipeline, comprising: a base disc, said base disc being formed with an opening that is aligned with said aperture means for mounting said base disc on said pipeline adjacent said aperture; a coaxial auxiliary disc rotatably mounted on said base disc adjacent thereto, said base disc being formed with an opening that is alignable with the opening in said base disc when said auxiliary disc is disposed in a first position, said auxiliary disc being rotatable to a second position wherein its opening is misaligned with the opening in said base disc whereby the latter is blocked; a fluid-tight housing mounted upon said auxiliary disc in line with the opening formed therein and in communication therewith, said housing extending axially away from the side of said disc remote from said pipeline; means for holding said article; and a mechanism disposed within said housing for effecting axial movement of said last-mentioned means relative to said housing through said openings and said aperture.

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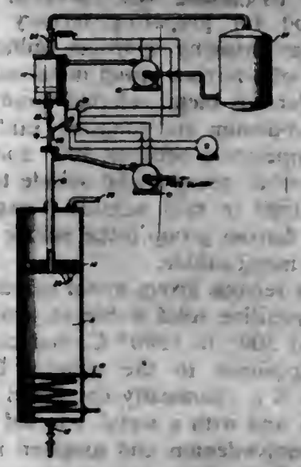
**2,770,533**

**CRYSTAL PURIFICATION APPARATUS CONTROL**

Anthony R. Kahmann, Tulsa, Okla., and Tom E. Martin, Topeka, Kans., assignors to Phillips Petroleum Company, a corporation of Delaware

Application December 1, 1952, Serial No. 323,390
12 Claims. (Cl. 23—273)

1. In an apparatus for the separation and purification of crystals comprising an elongated, closed vessel having a heater disposed in the downstream portion of said vessel with respect to the flow of crystals, a perforate, reciprocable piston disposed in the upstream portion of said vessel adapted to produce a longitudinal compression stroke, an outlet opening in the upstream portion and an outlet opening in the downstream portion the improvement comprising a crystal feed inlet positioned so as to introduce feed downstream from the downstream face of the piston with respect to the flow of crystals; means for supplying a slurry of crystals and mother liquor



to said inlet; means for imparting a longitudinal compression stroke to said piston downstream with respect to the flow of crystals; means actuated by the piston at the completion of the compression stroke to disengage the means for imparting the compression stroke and to engage the means for supplying the crystal slurry, and actuated by the piston at the opposite poistion of longitudinal reciprocation to engage the means for imparting the compression stroke and to disengage the means for supplying the crystal slurry.

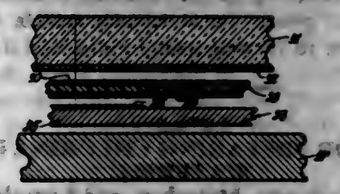
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**2,770,534**

**METHOD AND MATERIAL FOR MAKING OVERLAY MASKS**

Walter S. Marx, Jr., Santa Barbara, Calif., assignor to Printing Arts Research Laboratories, Inc., Santa Barbara, Calif., a corporation of Delaware

Application May 10, 1953, Serial No. 356,285
9 Claims. (Cl. 41—41)



1. The method of making an overlay mask on a base sheet of transparent or translucent material and of a type adapted for use in the production of relief halftone and lithographic plates from art copy having tone and other areas, which method comprises the steps of applying to the base sheet a surface exposed layer of a color-changeable substance, distinguishing between the tone and other areas of the art copy by the inclusion in one of said areas of a normally inert substance which is stationary at normal room temperature and so sensitive to mild heat at an elevated temperature that a gaseous reagent is generated from said substance, which reagent is chemically reactive in its gaseous form with said color-changeable substance to effect a change of the color thereof, placing the base sheet upon the art copy with the color-changeable substance in contact with said areas thereof, and heating the contacting surfaces from its normal room temperature to a reagent-generating temperature for said inert substance for a limited period of time to effect the color change of the color-changeable substance.



**2,770,535**

**STABILIZED ORGANIC COMPOSITIONS**

Eugene F. Hill, Birmingham, and David O. De Prue, Royal Oak, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 11, 1952, Serial No. 325,453
8 Claims. (Cl. 44—69)

3. A new composition consisting essentially of a non-olefinic petroleum hydrocarbon motor fuel for internal combustion engines, and an alkyllead anti-knock agent, and, in an amount sufficient to prevent premature decomposition of the alkyllead, a material having the general formula



wherein $R_1$ is selected from the group consisting of alkyl, cycloalkyl, aryl and substituted aryl, said substituted aryl containing a radical selected from the group consisting of hydroxy, amino and alkylamino, $R_3$ and $R_4$ are selected from the group consisting of hydrogen, alkyl, cycloalkyl, aryl, aralkyl and alkaryl, A is selected from the group consisting of hydroxy, amino and hydrocarbon derivatives thereof, and X is selected from the group consisting of oxygen and sulfur.

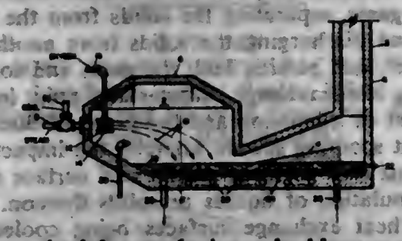
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**2,770,536**

**METHOD FOR GASIFICATION OF SOLID FUELS**

Scott W. Walker, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application December 30, 1950, Serial No. 203,574
10 Claims. (Cl. 48—206)



10. A method for producing valuable gaseous products from solid carbonaceous fuel which includes mixing particles of said fuel with steam which is under pressure, injecting said particles into a combustion zone maintained at a temperature of from about 2200° to about 3500° F., admixing and reacting free oxygen therewith in said zone to produce molten slag, partially burned fuel particles, and a gaseous mixture comprising CO and $CO_2$, the injecting being effected at such velocity and at such elevation above the floor of the zone that the particles of fuel and molten slag follow an arcuate path, due to the action of gravity, terminating at the floor of said zone short of the boundary of said zone toward which injection is effected, forming at the bottom of said zone a horizontal quiescent bed of molten slag having on the surface thereof partially burned fuel articles, and thereafter allowing the latter to react with $CO_2$ in said gaseous mixture to produce additional quantities of CO.

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**2,770,537**

**N-1-NAPHTHYLPHTHALAMIC ACID HERBICIDAL COMPOSITIONS**

Allen E. Smith, Oxford, Albert W. Feldmann, North Haven, and Gracie M. Shaw, Naugatuck, Conn., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 27, 1954, Serial No. 465,151
11 Claims. (Cl. 71—2.4)

8. The method of controlling weeds in soil which comprises treating the soil before emergence of weeds with a phytotoxic amount of N-1-naphthylphthalamic acid, and material selected from the group consisting of sulfuric, hydrochloric, nitric and phosphoric acids, and alkali bisulfates in proportion sufficient to reduce leaching in the soil of said N-1-naphthylphthalamic acid, and in the absence of any added basic material capable of reacting with such acidic inorganic chemical to neutralize it.

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**2,770,538**

**LIQUID FERTILIZERS**

Donald E. Vierling, Pittsburgh, Pa.

No Drawing. Application August 11, 1954, Serial No. 449,247
2 Claims. (Cl. 71—29)

1. The method of manufacturing a liquid fertilizer which comprises adding to water sufficient potassium hydroxide to obtain the desired percentage of potassium oxide, adding sufficient phosphoric acid to obtain the desired percentage of phosphorous pentoxide, neutralizing the phosphoric acid with ammonia and adding sufficient urea to provide the desired amount of organic nitrogen, said organic nitrogen avoiding fast assimilation of nitrogen.

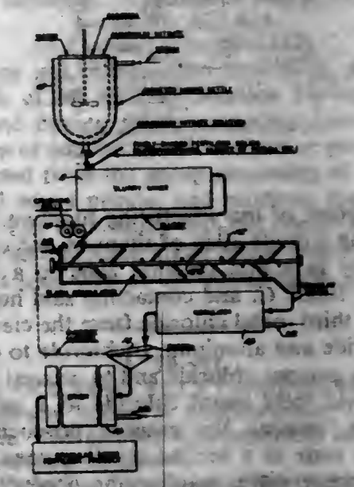
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**2,770,539**

**PROCESS FOR PRODUCING A MIXED FERTILIZER**

Simon J. Martenet, Indianapolis, Ind.

Application February 15, 1954, Serial No. 410,247
2 Claims. (Cl. 71—36)

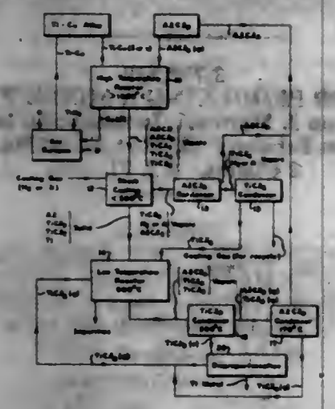


1. The continuous process of making a substantially non-hydroscopic mixed fertilizer of particulate form with a final water content as low as one percent with a high nitrogen content derived primarily from ammonium nitrate wherein each discreet particle of the fertilizer product has individually an analysis substantially the same as that of the overall fertilizer, which process comprises intermixing and agitating quickly into a thin watery slurry, a dry, finely divided phosphate material selected from superphosphate and triple superphosphate, and a water solution of ammonium nitrate in a concentration selected for the final fertilizer nitrogen content wherein the total quantity of the ammonium nitrate ranges from 300 to 800 pounds per ton of finished fertilizer and the temperature of the slurry is maintained above the ammonium nitrate salting out temperature ranging upwardly from an approximate minimum of 130 degrees F., the quantity of water in said solution ranging upwardly from approximately 150 pound per ton of finished fertilizer, agitating the slurry and simultaneously cooling it to below said salting out temperature resulting in quick solidification; and continuing the agitation to bring the solidifying product into particulate form.

2,770,540
LIQUID FERTILIZERS
Donald E. Vierling, Pittsburgh, Pa.
No Drawing. Application June 19, 1953, Serial No. 362,943
2 Claims. (Cl. 71—43)

1. The method of manufacturing a liquid fertilizer which includes adding to water sufficient potassium hydroxide to obtain the desired percentage of potassium oxide, neutralizing the potassium hydroxide with nitric acid, adding sufficient phosphoric acid to obtain the desired percentage of phosphoric pentoxide, neutralizing the phosphoric acid with ammonia, and adding equal molecular weights of ammonia and nitric acid to obtain the desired percentage of nitrogen.

2,770,541
METHOD OF PRODUCING TITANIUM
Richard H. Singleton, Lexington, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application August 14, 1952, Serial No. 304,388
9 Claims. (Cl. 75—84.5)

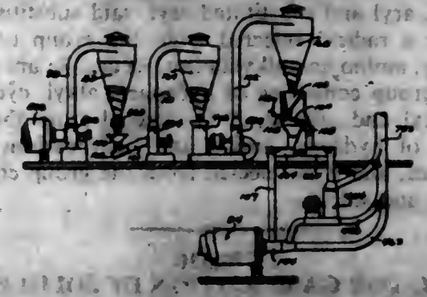


2. The process of manufacturing titanium which comprises forming a crude alloy of titanium and copper, heating said alloy in a first reaction zone to a temperature above about 1000° C. and contacting said hot alloy with a vapor of a third metal chloride from the class consisting of zinc chloride and aluminum trichloride to convert said titanium to a gaseous chloride and to convert the metallic portion of said third metal chloride to a gaseous lower valence state, passing the gaseous products from the first reaction zone to a second reaction zone maintained at a lower temperature, reacting the products from said first zone with titanium tetrachloride in said second zone to form titanium trichloride and said chloride of said third metal, separating said titanium trichloride from the reaction mass and by-products, disproportionating said titanium trichloride to titanium metal and titanium tetrachloride, and recycling said titanium tetrachloride to said second zone to increase the production of titanium trichloride therein.

2,770,542
COLOUR PHOTOGRAPHY
Gordon H. Burt, Wellington, New Zealand, assignor to Tru Colour Film Limited, Wellington, New Zealand, a company of New Zealand
No Drawing. Application September 2, 1952, Serial No. 307,567
Claims priority, application Great Britain August 31, 1951
10 Claims. (Cl. 95—88)

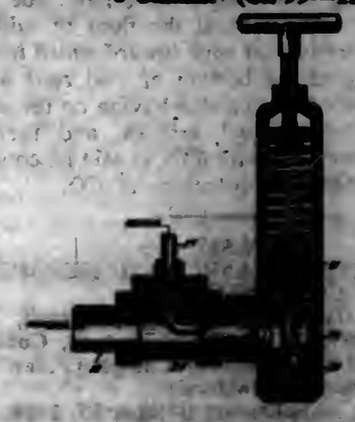
1. In a photographic process for producing a positive colour image comprising forming a substantially insoluble silver bromide-amide-acid dyestuff complex by treating silver bromide containing bleached silver image with an aqueous bath containing a substance selected from the group consisting of water-soluble thioamides and selenoamides and with an aqueous bath containing an acid dyestuff and thereafter transferring the dyestuff component of said complex to a permanent base, the improvement in the step of forming said complex which comprises treating said bleached image with an aqueous bath containing (*a*) a low concentration of said amide (*b*) an acid dyestuff and (*c*) a water-soluble bromide salt, whereby said complex is formed in amounts in substantial linear proportionality to the silver present in said bleached image.

2,770,543
RECIRCULATING CONVECTION CURRENT COOLER AND METHOD
Gerald D. Arnold and Alexander A. Arnold, Wauwatosa, Wis.; said Alexander A. Arnold assignor to Gerald D. Arnold
Application November 24, 1950, Serial No. 197,266
12 Claims. (Cl. 99—2)



1. A method of refrigerating solids in a stream of gas containing moisture, said method comprising circulating gases in a closed circuit, delivering the solids to be cooled into said circuit at one point for advance therein by the circulating gases, separating the solids from the circulating gases and discharging the solids from another point in the circuit, and passing both the gases and solids over refrigerating heat exchange surfaces at a point intermediate the point of admission and the point of discharge of the solids at scouring speeds whereby the impact of said solids against said surfaces scours said surface and prevents accumulation of liquids or solids thereon, said refrigerating heat exchange surfaces being cooled to the point where condensation of the moisture in said gas would otherwise hold and accumulate solids on said surfaces.

2,770,544
CONTINUOUS METHOD OF MIXING
Ogden Johnson, Bronxville, N. Y., assignor to Ford, Bacon & Davis, Inc., New York, N. Y., a corporation of New Jersey
Application January 11, 1952, Serial No. 265,959
8 Claims. (Cl. 99—123)



1. A method of intimately and continuously admixing an additive with a stream of base material which comprises continuously advancing the stream of base material under a superatmospheric pressure of at least 300 p. s. i., continuously injecting, at a pressure at least equal to the pressure of the stream of base material, a stream of said additive into the stream of base material, and immediately thereafter releasing the combined streams of base material and additive from said superatmospheric pressure to accelerate the rate of flow of the combined streams and provide a high degree of turbulence to intimately mix the materials.



2,770,545
STABILIZATION OF ORGANIC COMPOUNDS
Ralph B. Thompson, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application October 2, 1953, Serial No. 383,937
20 Claims. (Cl. 99—163)

1. Method of stabilizing an organic material against oxidative deterioration which comprises incorporating therein a purpurogallin compound.

2,770,546
METAL DEACTIVATORS
Ralph B. Thompson, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application February 26, 1954, Serial No. 412,988
18 Claims. (Cl. 99—163)

1. A method of stabilizing an organic substance against oxidative deterioration catalyzed by a metal constituent which comprises incorporating in said organic substance a tropolone compound.

2,770,547
SOFT PLASTIC FOOD PACKAGE
Leo Peters, Grand Rapids, Mich.
Application August 16, 1954, Serial No. 450,188
7 Claims. (Cl. 99—171)



1. A soft plastic food package, comprising an open-ended tubular container having walls formed of an unbacked sheet of thermoplastic material having a thickness of from .008 to .03 inch and being provided with an indented decorative design, said thermoplastic sheet walls being unsupported externally, a soft plastic food body within said container having outer surfaces conforming to said thermoplastic sheet walls and bearing the impression of said decorative design, and closures for the ends of said container, said thermoplastic sheet walls being resiliently shape-restoring when deformed in local areas while being bendable through an arc of 180° without forming a crease at said arc.

2,770,548
MEAT-CURING SALT COMPOSITION
Lloyd A. Hall and Walter S. Kalchbrenner, Chicago, Ill., assignors to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
No Drawing. Application July 1, 1955, Serial No. 519,615
14 Claims. (Cl. 99—222)

1. A curing salt composition consisting of the flash-dried crystals of an aqueous solution having a pH not under 7.4 and having solute consisting essentially of a major portion of sodium chloride, a minor portion of curing salt selected from the group consisting of alkali metal nitrite, alkali metal nitrate, and mixtures thereof, and a small quantity of anti-caking material comprising a hygroscopic agent, a small quantity of alkaline alkali metal orthophosphate, and a small quantity of alkali metal citrate.

2,770,549
MEAT-CURING SALT COMPOSITION
Lloyd A. Hall, Chicago, Ill., assignor to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
No Drawing. Application July 1, 1955, Serial No. 519,617
10 Claims. (Cl. 99—222)

1. A curing salt composition consisting of the flash-dried crystals of an aqueous solution having a pH not under 7.4 and having solute consisting essentially of a major portion of sodium chloride, a minor portion of curing salt selected from the group consisting of alkali metal nitrite, alkali metal nitrate, and mixtures thereof, and a small quantity of anti-caking material comprising a hygroscopic agent and at least 0.5% by weight of alkali metal tartrate calculated as sodium tartrate dihydrate.

2,770,550
MEAT-CURING SALT COMPOSITION
Lloyd A. Hall and Carroll L. Griffith, Chicago, Ill., assignors to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
No Drawing. Application July 1, 1955, Serial No. 519,614
14 Claims. (Cl. 99—222)

1. A curing salt composition consisting of the flash-dried crystals of an aqueous solution having a pH not under 7.4 and having solute consisting essentially of a major portion of sodium chloride, a minor portion of curing salt selected from the group consisting of alkali metal nitrite, alkali metal nitrate, and mixtures thereof, and a small quantity of anti-caking material comprising a hygroscopic agent and alkaline alkali metal orthophosphate in amount in at least 2% of the composition, calculated as $NaPO_4 \cdot H_2O$.

2,770,551
MEAT-CURING SALT COMPOSITION
Lloyd A. Hall and Walter S. Kalchbrenner, Chicago, Ill., assignors to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
No Drawing. Application July 1, 1955, Serial No. 519,616
10 Claims. (Cl. 99—222)

1. A curing salt composition consisting of the flash-dried crystals of an aqueous solution having a pH not under 7.4 and having solute consisting essentially of a major portion of sodium chloride, a minor portion of curing salt selected from the group consisting of alkali metal nitrite, alkali metal nitrate, and mixtures thereof, and a small quantity of anti-caking material comprising a hygroscopic agent and at least 0.5% by weight of alkali metal citrate calculated as sodium citrate dihydrate.

2,770,552
PROCESS OF MAKING REFRACTORY MATERIAL
Arthur O. Fleger, Brighton, N. Y., assignor to Henry Industrial Ceramic Corporation, New Haven, Conn., a corporation of New York
No Drawing. Application March 11, 1953, Serial No. 341,819
1 Claim. (Cl. 106—44)

The process of making refractory material which consists in mixing about 17.5% to 25% by weight of silicon carbide having a fineness of 46 mesh with about 75%

to 82.5% by weight of alumina, said volume of alumina being made up of 58% by weight having a fineness of —6+60 mesh, 32% by weight having a fineness of —60+325 mesh, and 10% by weight having a fineness of —325 mesh, adding to said mix 320 grams of a lignin derivative and water in the proportions of 2 oz. of water to 4 pounds of the alumina, silicon carbide and lignin derivative mix, and thereafter forming, drying for five hours at a temperature of 400° F., and firing the material from room temperature to 3000° F. over a period of 16 hours.

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2,770,553
SOFT GELATIN ENCAPSULATION
Joseph Francis Waldenheimer, Orangeburg, and Francis Marc Callahan, South Nyack, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application September 9, 1952, Serial No. 308,713
3 Claims. (Cl. 106—136)

3. A soft gelatin capsule comprising a shell formed by casting a composition comprising essentially gelatin 48 to 56 parts, glycerin 12 to 18 parts, water 30 to 34 parts and a plasticizer selected from the group consisting of formamide and acetamide 2 to 6 parts and capsule contents in said shell.

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2,770,554
VISCOSE SOLUTION, A PROCESS FOR MAKING IT AND A FILAMENT FORMED FROM IT
William B. Miller, Edward H. Shaw, and Hoyt Little, Rome, Ga., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
No Drawing. Application November 3, 1952, Serial No. 319,604
18 Claims. (Cl. 106—165)

12. A viscose solution containing a sodium aldohexonate in an amount sufficient to improve its clarity.

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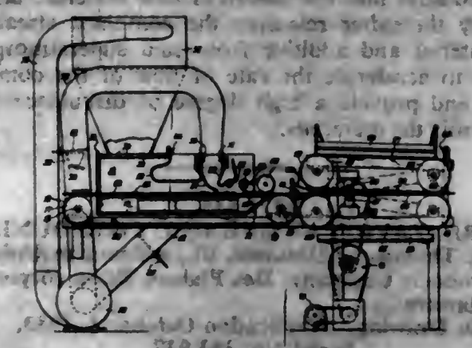
2,770,555
CELLULOSE COMPOUND FILM-FORMING COMPOSITION AND A REGENERATED CELLULOSE FILM COATED THEREWITH
Ralph T. K. Cornwell, Rossmont, Pa., assignor to American Viscose Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 7, 1951, Serial No. 230,444
19 Claims. (Cl. 106—173)

1. A composition of matter comprising a film-forming material consisting of a substance selected from the group consisting of organic solvent-soluble cellulose ethers, cellulose esters, mixed cellulose esters and cellulose ether-esters and tricyclohexyl phosphate.

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2,770,556
METHOD OF PATCHING AN OPENING IN A PLANE MEMBER
Donald H. Grangaard, Appleton, and Arthur W. Plummer, Neenah, Wis., assignors, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware
Application January 22, 1953, Serial No. 332,694
3 Claims. (Cl. 117—2)

1. The method of patching an opening extending through a generally plane member, which comprises providing a constantly flowing gaseous stream containing comminuted solid filler particles, supporting said plane member on a foraminous member in a position generally parallel to the direction of flow of the gaseous stream and in surface contact with the constantly flowing gaseous stream, said foraminous member being disposed on the side of said plane member opposite that which is in contact with said gaseous stream, and providing suction on the side of said plane member opposite the gaseous stream, thereby drawing filler particles from the stream only into



said opening through said plane member and filling said opening at least to the level of the opposite surfaces of said plane member.

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2,770,557
CATHODE RAY TUBE SCREEN FILMING BY A FLOW METHOD
Eros Atti, Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 5, 1954, Serial No. 402,207
21 Claims. (Cl. 117—33.5)



1. The method of filming a water wetted phosphor screen within a bulb of a cathode ray tube with lacquer, said bulb having a face plate and a neck portion, which comprises placing a quantity of liquid lacquer within the bulb, tilting the bulb so that its faceplate is downwards and the axis of its neck is at an angle to the vertical, and slowly rotating the bulb about the axis of its neck at a speed below that at which the centrifugal force would have an appreciable effect on said lacquer so that the lacquer flows in a spiral path over the surface of the screen.

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2,770,558
METHOD OF PRODUCING MIRRORS
Roney A. Gaiser, Toledo, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application December 13, 1952, Serial No. 325,829
1 Claim. (Cl. 117—35)

A method of producing a mirror including a mirror plate of vitreous material and a reflecting coating on a surface thereof, comprising heating said plate to a temperature between approximately 750° F. and a point below the softening point of the vitreous material, spraying the heated plate with a solution consisting essentially of from 1 to 50 parts of a tin compound and from 19 to 50 parts of alcohol until a clear transparent reflective but substantially colorless film of a tin oxide in a thickness of an odd multiple of a quarter wave length of visible light having a wave length of approximately 5600 Angstrom units is formed on a surface thereof, and discontinuing the spray before a noticeable fog or objectionable color appears.

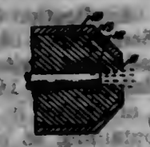


2,770,559
HEAT SEALING LACQUER COATED FILM AND METHOD OF PRODUCING SAME
William Basil Herbeck, Irvington, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
No Drawing. Application February 23, 1954, Serial No. 412,060
17 Claims. (Cl. 117—76)

1. An organic acid ester of cellulose film coated with a member of the class consisting of di-(alkoxymethyl)-ethylene ureas and thioureas and having applied to said coating a heat-sealing lacquer.

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2,770,560
METHOD OF EMPLACING MORTAR
Lloyd H. Holmes, Lemont, Ill., assignor to E-Z-On Corporation, Chicago, Ill., a corporation of Illinois
Application July 27, 1954, Serial No. 446,133
8 Claims. (Cl. 117—104)



1. The method of emplacing an aqueous mortar mix comprising mixing with an aggregate and cementitious material having a low water content which renders it non-flowable, an air-entraining agent to form air bubbles in the mixture and to render the mixture flowable, conveying the aerated mixture within an enclosed conduit to a point adjacent the place of application, and discharging the mixture upon said place of application while disrupting the bulk of the air bubbles to release the air therefrom at about the point of discharge.

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2,770,561
PHOTOELECTRIC CATHODE AND METHOD OF PRODUCING SAME
Alfred H. Sommer, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 8, 1954, Serial No. 414,563
14 Claims. (Cl. 117—211)



8. The method of forming a photosensitive electrode on a support member, said method comprising the steps of forming a film of antimony on said support member, sensitizing said antimony film by depositing thereon a plurality of alkali metals, and subsequently baking said film at an elevated temperature.

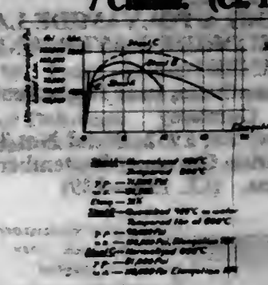
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2,770,562
METHOD OF PRODUCING NON-CRYSTALLIZING HYDROL
Walter R. Fetzer, Clinton, Iowa, assignor, by mesne assignments, to Standard Brands Incorporated, New York, N. Y., a corporation of Delaware
No Drawing. Application May 3, 1954, Serial No. 427,248
4 Claims. (Cl. 127—34)

1. A method of rendering corn sugar hydrol non-crystallizing comprising heating the hydrol to a temperature between 160° and 230° F. and admixing it with ammonia in such an amount that the ammonia constitutes between 0.5% and 1.0% of the dry basis weight of the hydrol, continuing the reaction under the heat treatment for at least 10 minutes and terminating the reaction by cooling of the mixture to limit the reaction to not more than 30 minutes.

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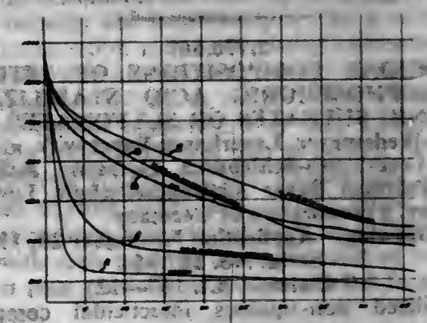
2,770,563
LOW ALLOY STEEL TUBING
Eugene M. Herzog, Nancy, France, assignor to Acieries de Pompey, Paris, France, a corporation of France
Application June 10, 1953, Serial No. 360,677
Claims priority, application France March 7, 1953
7 Claims. (Cl. 148—31)



1. Rolled steel steel tubing made of an alloy steel having substantially the following composition 0.08–0.2% carbon, 0.3–1.2% manganese, 0.6–5% chromium, 0.1–0.5% silicon, 0.15–0.6% aluminum, up to 0.5% molybdenum and the balance iron, said tubing being subjected to a heat treatment comprising a normalizing heating and cooling or quenching following by an annealing conferring to it a microstructure consisting of ferrite grains and uniformly dispersed carbides.

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2,770,564
METHOD OF QUENCHING METALS
Mack Gordon, Cleveland, Ohio
Application July 6, 1954, Serial No. 441,482
9 Claims. (Cl. 148—13.1)



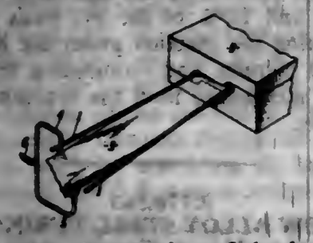
1. The method of quenching quench-hardenable steel in an austenitic condition from above the austenite transformation range to below the $M_S$ temperature to produce hardening, comprising immering it in a solution of a soluble gum in water.

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2,770,565
HUMIDIFYING PROCESS IN ELECTRIC CABLE INSULATION MAKING
Sidney Wilfred Ferguson and Leslie Frank Cowan, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application June 15, 1953, Serial No. 361,768
Claims priority, application Great Britain June 23, 1952
8 Claims. (Cl. 154—2.24)

3. A method of insulating an electric conductor by applying a strip of paper therearound, comprising subjecting substantially the complete paper strip to a humidifying process to impart a controlled moisture content

thereto, longitudinally folding said moistened strip of paper around said conductor, and heating said paper



sufficiently so that the reaction of the heat and moisture sets the paper in its folded position.

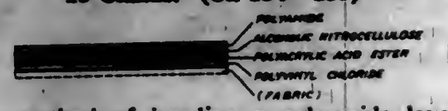
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2,770,566

**METHOD OF BONDING A POLYAMIDE LAYER TO A POLYVINYL CHLORIDE LAYER AND PRODUCTS THUS OBTAINED**

Franz Ritter, Grossostheim, near Aschaffenburg, Germany

Application September 24, 1952, Serial No. 311,323
Claims priority, application Germany September 29, 1951
15 Claims. (Cl. 154—139)




1. The method of bonding a polyamide layer to a polyvinyl chloride layer which comprises depositing on the polyvinyl chloride layer a first intermediate layer of a solution of a substance selected from the group consisting of a polyacrylic acid ester and a polymethacrylic acid ester, depositing on said first intermediate layer a second intermediate layer of a substance selected from the group consisting of nitrocellulose and polyvinyl acetate, and depositing on said second intermediate layer the polyamide layer.

11. Artificial material comprising, as a basic layer, a layer of polyvinyl chloride, on said basic layer an intermediate layer of a substance selected from the group consisting of a polyacrylic acid ester and a polymethacrylic acid ester and on said intermediate layer a layer consisting of a mixture of nitrocellulose and the polyamide.

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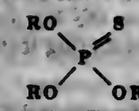
2,770,567

**INSECTICIDAL COMPOSITIONS OF ESTERS OF THIONOPHOSPHORIC ACID STABILIZED BY ORGANIC SULFATES OR SULFONATES**

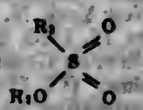
Karlfried Wedemeyer, Leverkusen-Bayerwerk, and Detlef Delfs, Leverkusen-Schlebusch, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application November 23, 1951, Serial No. 257,964
7 Claims. (Cl. 167—22)

1. Stabilized non-aqueous insecticidal compositions containing as an active ingredient an insecticidal neutral ester of thionophosphoric acid of the following general formula:



wherein R stands for lower alkyl and $R_1$ for a member of the group consisting of β-ethylmercapto lower alkyl and p-nitrophenyl, and as a stabilizer about 0.5 to about 20 mol percent, based on the number of mols of active ingredient of a compound having the following general formula:



wherein $R_2$ stands for lower alkyl, and $R_3$ is a member selected from the group consisting of lower alkyl, O-lower alkyl and tolyl.

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2,770,568

**P-CHLOROBENZYL P-CHLOROPHENYL SULFIDE AND ACARICIDAL COMPOSITIONS CONTAINING THE SAME**

Douglas Greenwood, Mansfield, Nottingham, and Herbert Aubrey Stevenson, Clifton, Nottingham, England, assignors to Boots Pure Drug Company Limited, Nottingham, England, a British company

No Drawing. Application March 9, 1953, Serial No. 341,342
Claims priority, application Great Britain March 17, 1952
7 Claims. (Cl. 167—30)

2. An acaricidal composition comprising p-chlorobenzyl-p-chlorophenyl sulfide and a carrier.

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2,770,569

**ANALGESIC COMPOSITIONS**

Konrad Frankenberg, André Grossmann, Béla Pullmann, and Otto Schnider, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application October 15, 1952, Serial No. 314,954
Claims priority, application Switzerland August 1, 1952
6 Claims. (Cl. 167—65)

4. A composition of matter in a form for administration by injection containing as essential therapeutic ingredients morphine-type analgesic material and antagonist material selected from the group consisting of levo-3-hydroxy-N-allyl-morphinan and its acid addition salts, the effective content of levo-3-hydroxy-N-allyl-morphinan in said composition being from about 0.5 percent to about 10 percent by weight of said analgesic material.

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2,770,570

**METHOD OF OBTAINING INTRINSIC FACTOR PREPARATIONS OF ENHANCED POTENCY**

Kenneth C. Robbins, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application September 18, 1952, Serial No. 310,372
3 Claims. (Cl. 167—74)

1. In a process for preparing an intrinsic factor preparation of enhanced potency, the sequence of steps comprising extracting intrinsic factor-bearing tissue selected from the group consisting of hog stomach tissue and hog duodenum tissue with water at an acidic pH between 2.0 and 4.0 to obtain an intrinsic factor extract, adjusting the pH of said extract to a pH from 4.5 to 5.0 to form a precipitate of relatively low intrinsic factor potency, separating the precipitate from the supernatant, and fractionating said supernatant to obtain a precipitate of enhanced intrinsic factor potency, said fractionating step being carried out by adding an alcohol to said supernatant until the alcohol concentration thereof is from 30 to 50% by volume while maintaining the pH of said extract within the range from pH 4.0 to 6.0, said alcohol being selected from the group consisting of methanol and ethanol.

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2,770,571

**SOFT GELATIN CAPSULE PROVIDED WITH INTERNAL BARRIER**

John James Vance, Park Ridge, N. J., and Ernest Chu Yen, Pearl River, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 17, 1953, Serial No. 374,530
1 Claim. (Cl. 167—82)

A soft gelatin capsule comprising a gelatin composition film and on the inner surface thereof a smooth continuous inert coating of a beta-pinene polymer from about .00005 to .0005 inch thick, whereby the gelatin composition is protected from deleterious interaction with the capsule contents.



2,770,572

**BLOOD GROUPING CARD**

Knud-Erik Harboe Eldon, Hellerup, Denmark, assignor to Nordisk Insulinlaboratorium, Gentofte, Denmark, a firm

Application July 24, 1952, Serial No. 300,698
Claims priority, application Denmark July 28, 1951
10 Claims. (Cl. 167—84.5)



1. Means for blood grouping comprising a solid sheet having at least one surface area carrying the dried residue of a mixture of a dextrane solution and a serum containing a specific agglutinin against human blood cells, the proportion of dried serum residue to that of dried solution residue being one such as would result from drying a mixture of the serum and a six percent dextrane solution having a composition between about one percent serum and about twenty percent serum.

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2,770,573

**ENZYMATIC SYNTHESIS OF N-ACETYLGLUCOSAMINIDO GALACTOSE AND GALACTOSIDO-N-ACETYL GLUCOSAMINE**

Paul György, Villanova, and Friedrich Zilliken, Philadelphia, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 10, 1953, Serial No. 397,469
4 Claims. (Cl. 195—28)

1. The process of preparing a mixture containing N-acetyl-glucosaminido galactose and galactosido-N-acetyl glucosamine, said mixture having high activity for promoting the growth of *Lactobacillus bifidus* var. Penn, A. T. C. C. No. 11,863, which comprises reacting lactose and N-acetyl-d-glucosamine in the presence of an enzyme present in growing cultures of said *Lactobacillus bifidus* var. Penn microorganism and secured therefrom by centrifuging a growing culture of said microorganism in order that said enzyme may be separated therefrom, lyophilizing the separated solid product, and intimately mixing the dry product resulting with aluminum oxide in the presence of a phosphate buffer solution, thereby securing a solution of said enzyme.

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2,770,574

**SELECTIVE ENRICHMENT MEDIUM FOR SALMONELLA**

Jacob L. Stokes, El Cerrito, and William W. Osborne, Richmond, Calif., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application June 24, 1955, Serial No. 517,950
9 Claims. (Cl. 195—100)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A medium which stimulates the growth of Salmonella and suppresses the growth of other microorganisms comprising water, nutritive materials, and the following ingredients in the approximate concentrations set forth below:

| | | |
|---|---|---|
| Alkali-metal selenite | percent | 0.1 to 1.0 |
| Brilliant green | ppm | 1 to 20 |
| At least one member of the group consisting of taurocholic acid, desoxycholic acids and the salts thereof | percent | 0.05 to 1 |

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2,770,575

**PRODUCTION OF BACTERIAL ENZYME PREPARATIONS AND THE CULTIVATION OF MICRO-ORGANISM OF INDUSTRIAL AND NUTRITIONAL VALUE**

Donald Herbert Frank Clayton, Stanmore, England, assignor to J. Lyons & Company Limited, London, England, a British company

Application February 11, 1952, Serial No. 270,974
9 Claims. (Cl. 195—116)

1. A method of preparing a spongy, absorbent, porous substrate for use as a microbial culture medium which comprises making a dough comprising a farinaceous material, nutrients for the microbes to be cultured, and a leavening agent, followed by heating to form said substrate.

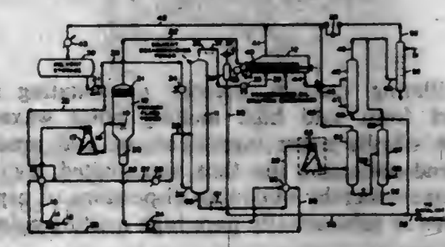
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2,770,576

**PREPARATION OF CATALYTIC CRACKING FEED**

Thomas W. Pratt, Rutherford, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application June 3, 1954, Serial No. 434,181
4 Claims. (Cl. 196—14.46)



1. A method for preparing a charge oil for catalytic cracking, which includes the steps of: heating an atmospheric reduced crude and introducing it into a vacuum flashing tower at a temperature sufficiently high to maintain within said tower a flashing temperature within the range of about 100° F. below that at which substantial thermal decomposition begins to take place; withdrawing from said tower a vacuum bottoms containing at least 25% of the oil suitable for catalytic cracking; cooling said vacuum bottoms and introducing it into a vertically extended fractionation zone and counter-currently contacting it therein with an upflowing stream of normally gaseous hydrocarbon solvent at temperatures within 100° F. below the critical temperature of said solvent to fractionate said vacuum bottoms into an asphalt raffinate and a decarbonized oil extract; and withdrawing hot vapors from said flashing tower and extract phase from said fractionation zone and passing them in indirect heat exchange with each other to condense most of said vapors and to at least partially evaporate solvent from said extract phase.

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2,770,577

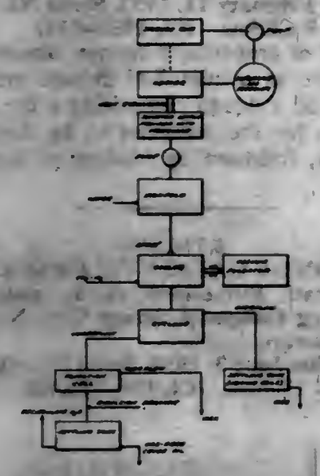
**PROCESS OF SEPARATING MICROCRYSTALLINE WAXES FROM CRUDE OIL**

Ernest Stossel, San Francisco, Calif.

Application July 11, 1952, Serial No. 298,305
5 Claims. (Cl. 196—18)

1. A process of separating high melting point waxes from crude oil containing the same and also containing resinous and asphaltic ingredients, comprising the steps of heating said crude oil at a predetermined temperature above the solvation temperature of said waxes in said oil which reduces to an optimum degree the pour point and viscosity of said crude oil so as to stabilize the colloidal systems in said crude oil by temporarily reducing the pour point and viscosity to an optimum degree and converting said crude oil to a homogeneous oil-in-water emulsion, thereby forming a homogeneous stabilized oil-in-water emulsion; cooling said homogeneous

stabilized oil-in-water emulsion in an oscillating vacuum during the optimum pour point and viscosity hysteresis period until precipitation of said high melting point waxes from said emulsion so as to cool said emulsion and disintegrate the same while further reducing the pour point of said crude oil by shaking action of



the oscillating vacuum, thereby precipitating in finely dispersed form said high melting point waxes in an emulsion of the other ingredients of said crude oil in water; and collecting the thus precipitated high melting point waxes, thereby obtaining dispersions of asphaltenes and resins in substantially pure high melting point waxes.

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2,770,578

## SATURATING OF A HYDROCARBON FRACTION WITH HYDROGEN AND THEN HYDRODESULFURIZING SAID FRACTION

Vladimir Haensel, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application August 19, 1953, Serial No. 375,292
8 Claims. (Cl. 196—24)

1. A process for refining an unsaturated sulfur-containing hydrocarbon distillate which comprises saturating unsaturated hydrocarbons in said distillate by subjecting the distillate to hydrogenation in the presence of a hydrogenating catalyst containing a member selected from the group consisting of platinum and palladium at below desulfurizing temperature and thereafter subjecting the thus saturated sulfur-containing distillate to desulfurization in the presence of a desulfurizing catalyst containing a group VI metal and a metal of the iron group of the periodic table.

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2,770,579

## PRODUCTION OF SPECIAL SOLVENT PETROLEUM NAPHTHAS BY REFINING WITH SODIUM

Weldon G. Annable, Mundelein, Kenneth Lucas, Woodstock, and Robert M. Haines, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application September 9, 1954, Serial No. 455,664
10 Claims. (Cl. 196—28)

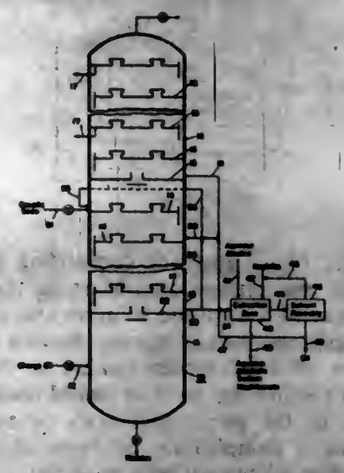
1. The method for producing special solvent naphthas from petroleum hydrocarbon mixtures containing small amounts of total sulfur of not more than about 0.025 weight percent which comprises contacting said petroleum hydrocarbon mixture with alkali metal at a temperature of above 400° F. and below 500° F. and separating special solvent naphthas therefrom characterized by their ability to pass the distillation-corrosion test.

2,770,580

## ALKALINE TREATMENT OF PETROLEUM VAPORS

Earl M. Honeycutt, Claymont, Del., and Curtis C. Walin, Springfield, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application September 17, 1953, Serial No. 380,642
8 Claims. (Cl. 196—36)



1. In the removal of naphthenic acids from heavy petroleum lubricating oil vapors by contact with liquid alkaline material in a contacting zone at a temperature within the approximate range from 600° F. to 700° F. under reduced pressure permitting vapor phase contacting at said temperature, the improvement which comprises: initiating contact of said vapors with said alkaline material in a portion of said contacting zone wherein said alkaline material comprises 60 to 95 parts by weight of liquid lubricating oil, 3 to 30 parts of alkali metal naphthenates, and 0.2 to 10 parts of alkali metal hydroxide, whereby formation of carbonaceous deposits normally occurring in said contacting zone at said temperature, is inhibited.

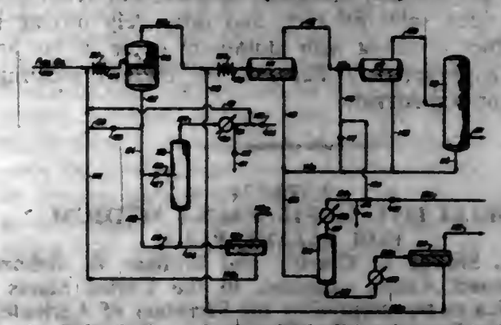
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2,770,581

## STABILIZATION OF FUEL OIL

Frank W. Brooks, Jr., and Claiborne A. Duval, Jr., Beaumont, Tex., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application April 27, 1953, Serial No. 351,168
2 Claims. (Cl. 196—41)



1. A method of producing fuel oil having an A. S. T. M. color not darker than 3½ after storage in a glass bottle at 100° F. for two months, which comprises intimately mixing a fuel oil having an A. S. T. M. color darker than 3½ with a first aqueous solution containing as its sole essential solute about 20 to about 55 weight percent sodium hydroxide at an oil-to-sodium hydroxide solution ratio of about 4:1 to about 20:1, separating partially treated oil from fouled first aqueous sodium hydroxide solution containing sodium salts of material extracted from said oil, intimately mixing said partially treated oil with a second aqueous solution containing as its sole essential solute about 35 to about 55 weight percent potassium hydroxide at an oil-to-potassium hydroxide solution ratio of about 5:1 to about 200:1, separating treated oil from fouled second aqueous potassium hydroxide solution containing potassium salts of material extracted from said partially treated oil, water-washing said treated oil, separating said water-washed treated oil from wash water, removing entrained wash water from said treated oil to obtain a treated oil having an A. S. T. M. color not darker than 3½ after storage in a glass bottle at 100° F. for two months.



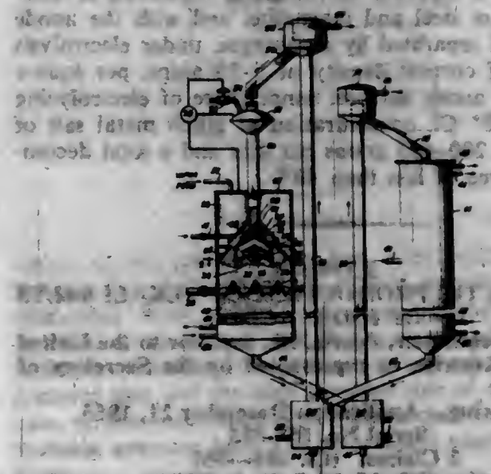
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2,770,582

## METHOD AND APPARATUS FOR THE CONVERSION OF HIGH BOILING LIQUID HYDROCARBONS

Sylvander C. Eastwood, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application October 7, 1952, Serial No. 313,546
9 Claims. (Cl. 196—52)



1. A continuous process for the conversion of high boiling liquid hydrocarbons to lower boiling hydrocarbons in the presence of a downwardly moving, substantially compact columnar mass of granular contact material which comprises: mixing granular contact material at a temperature suitable for the desired conversion with a high boiling liquid hydrocarbon charge, supplying said contact material mixed with liquid charge and fresh contact material free of liquid charge and at a temperature suitable for the desired conversion onto at least one contact material surface below which is a substantially compact columnar mass of granular contact material within a confined conversion zone as alternate layers of contact material containing liquid charge and fresh contact material free of liquid charge, said layers being applied one on top of the other to said surface so that along a vertical line within said mass there are alternate layers of contact material initially supplied mixed with liquid charge and contact material initially supplied free of liquid charge, passing the liquid charge through the columnar mass to effect the desired conversion to lower boiling hydrocarbon products, removing hydrocarbon products from the columnar mass and removing contact material from the lower section of the columnar mass.

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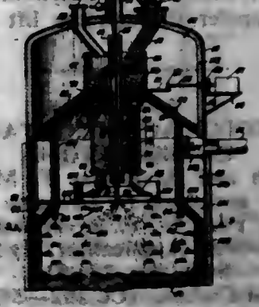
2,770,583

## METHOD AND APPARATUS FOR THE CONVERSION OF LIQUID HYDROCARBONS IN THE PRESENCE OF A GRANULAR CONTACT MATERIAL

James H. Haddad, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application July 5, 1952, Serial No. 297,233
7 Claims. (Cl. 196—52)

1. A process for the conversion of high boiling liquid hydrocarbons to lower boiling gaseous products in the presence of a granular contact material, which comprises: maintaining a substantially compact column of granular contact material throughout the lower section of a confined conversion zone, maintaining a gas space above said column in the upper section of said conversion zone, removing contact material from the lower section of said column so as to promote the downward movement of contact material granules in said column, passing contact material into the upper section of said gas space and downwardly through said gas space and onto the upper surface of said column as a tubular shower, passing additional contact material into said gas space and downwardly through said gas space and onto the upper surface of said column as a second tubular shower positioned concentrically about said first-named tubular shower, baffling the flow of contact material in said second shower so as to reduce the rate of acceleration of the particles in said second shower while confining the particles laterally so that a major portion of the contact material in said shower passes downwardly in a single downward path, spraying high boiling liquid hydrocarbon charge into said first-named shower from a point within said shower and above said column whereby the liquid charge will be sorbed on showering contact material granules, passing the liquid charge downwardly through said column to effect the desired conversion to lower boiling gaseous products, and removing gaseous products from the conversion zone separately of the contact material.



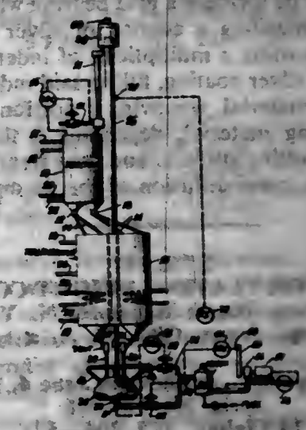
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2,770,584

## METHOD OF OPERATING A PNEUMATIC LIFT USED TO TRANSPORT GRANULAR SOLIDS IN A HYDROCARBON CONVERSION PROCESS

Frederick E. Ray, Woodbury, and Robert D. Drew, Wenonah, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application December 11, 1951, Serial No. 261,062
3 Claims. (Cl. 196—52)



1. In a hydrocarbon conversion process in which a granular solid is gravitated as a substantially compact columnar mass through reaction and regeneration zones and lifted from a location below one of the zones to a location above the other zone through an upwardly di-

rected lift passage by means of a flowing stream of lift gas, the improved method of controlling the lifting step for optimum performance with minimum attrition which comprises: gravitating granular solids downwardly from the bottom of one of the zones to a feeding zone located at the bottom of the lift passage, introducing a lift gas into the feeding zone, so as to support and transport the granular solids upwardly through the lift passage, measuring continuously the static pressure in said passage at a location in the upper two thirds of the passage, and controlling the flow rate of the lift gas admitted to said feeding zone in response to said static pressure, so that the flow is maintained below that point at which minimum pressure occurs and slightly above that point at which the pressure increases very substantially with any further reduction in gas flow rate, whereby the attrition of the granular solids during transfer through the lift passage is minimized.

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2,770,585

## PURIFICATION OF ACIDS CONTAINING 2 TO 6 CARBON ATOMS

Eldred T. Smith and Alexander F. MacLean, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application July 2, 1952, Serial No. 296,936
14 Claims. (Cl. 202—59)

7. Process for the removal of formic acid from a mixture comprising principally a lower fatty acid containing from 2 to 6 carbon atoms and containing up to 10% of formic acid, which process comprises adding to said mixture the anhydride of said lower fatty acid, reacting said anhydride with the formic acid in said mixture to produce carbon monoxide and said lower fatty acid, and distilling said lower fatty acid, there being present in the reaction mixture insufficient water to prevent the reaction between the anhydride and the formic acid.

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2,770,586

## GRID BEARING AND METHOD OF MAKING SAME

Elmer G. Davis, Brownsburg, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 8, 1953, Serial No. 330,256
9 Claims. (Cl. 204—37)



1. A method of forming a grid bearing which comprises the steps of depositing a coating of silver on a backing member, die forming a multiplicity of indentations in the surface of said silver coating, filling said indentations with a soft bearing material, removing a portion of said silver and soft bearing material, depositing a thin coating of tin over the resulting surface, and heat treating the resultant structure to cause diffusion of the tin and silver.

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2,770,587

## BATH FOR PLATING BRIGHT COPPER

Burnet D. Ostrow, North Bellmore, N. Y., assignor to Electrum Corp., Jersey City, N. J., a corporation of New Jersey

No Drawing. Application June 4, 1956, Serial No. 588,986
14 Claims. (Cl. 204—52)

1. An electrolytic bath comprising an aqueous alkaline solution of a cyanide of copper, and a soluble selenium compound in which the selenium has a valence of —2 in amount sufficient to exert a brightening effect on the copper deposit.

2,770,588

## METHOD OF RECOVERING FATTY ACID AND ALKALI BY THE ELECTROLYSIS OF AN AQUEOUS SOLUTION OF AN ALKALI METAL SALT OF A FATTY ACID

Shinzo Okada, Kyoto-shi, and Tomotsu Enichi, Okayama-shi, Japan, assignors, by direct and mesne assignments, of three-fourths to Kurashiki Rayon Co., Ltd., Kurashiki-shi, Okayama Prefecture, Japan, a corporation of Japan, and one-fourth to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application February 26, 1953, Serial No. 339,174
Claims priority, application Japan March 1, 1952
5 Claims. (Cl. 204—72)

1. A process for recovering fatty acid and alkali from an alkali metal salt of a fatty acid which comprises electrolyzing an aqueous solution of an alkali metal salt of a fatty acid of the formula of R—COOH, where R is an alkyl group composed of 1–3 carbon atoms, with an anode consisting of a member of the group consisting of acid-proof stainless steel and magnetite, and with the anode compartment separated by diaphragm, under electrolysis conditions of current density of 5–30 amps. per square decimeter of anode surface, temperature of electrolyzing cell of 40–80° C., concentration of alkali metal salt of fatty acid of 200–400 grams per liter and a total decomposition degree of less than 60%.

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2,770,589

## ELECTROLYTIC PRODUCTION OF ALKALI SALTS OF IODIC ACID

Charles L. McIlhenny, Peoria, Ill., assignor to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application December 21, 1955, Serial No. 554,595
2 Claims. (Cl. 204—95)
(Granted under Title 35, U. S. Code (1952), sec. 266)

2. A process for preparing sodium iodate comprising passing an electric current through a 2-compartment cell divided by a porous partition, said cell containing in one of its compartments as anolyte a solution of elemental iodine in aqueous sodium hydroxide in which is immersed a carbon anode and containing in its other compartment as catholyte an aqueous solution of sodium hydroxide in which is immersed an iron cathode, whereby the elemental iodine is oxidized to sodium iodate at the said carbon anode.

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2,770,590

## REACTOR CIRCULATING SYSTEM

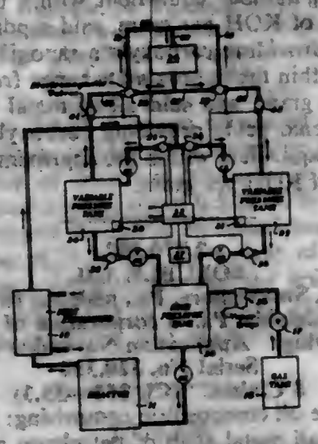
James T. Serduke, El Cerrito, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application May 17, 1950, Serial No. 162,553
1 Claim. (Cl. 204—193)

A reactor coolant circulating system for a nuclear reactor wherein the reactor is connected to a heat exchanger by a liquid-carrying duct passing through the reactor and the heat exchanger, the combination with the reactor and heat exchanger of a high pressure coolant tank duct-connected to said liquid carrying duct at the reactor end thereof; first and second variable pressure liquid coolant tanks; a first and second outlet duct each duct including an electromagnetically-controlled flow valve, said outlet ducts connecting said first and second variable pressure tanks to said high pressure coolant tank: duct means, containing electromagnetically-controlled flow valve means, connecting said first and second variable pressure tanks to said liquid-carrying duct at the heat exchanger end, a gas pressure duct network containing a unidirectional gas pressure source having a gas inlet and outlet, a first and second electromagnetically-controlled



two position valve, said gas source inlet being connected through one position of said first and second electromagnetically-controlled valves to a first and second gas duct, said first and second gas duct connected respectively to said first and second variable pressure tanks; a gas collecting duct connected between the second positions of said first and second electromagnetically-controlled valves and said gas pressure source inlet; a liquid level control located in each of said variable pressure tanks, electrical



switch means controlled by said level controls for controlling the relative positions of said electromagnetically-controlled flow valve, said electromagnetic-controlled flow valve means and said first and second electromagnetically-controlled two position valves, whereby the low pressure side and the high pressure side of said gas pressure source are respectively connected to a depleted variable pressure tank and to a filled variable pressure tank.

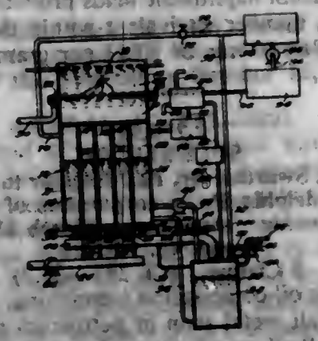
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2,770,591

## HEAVY WATER MODERATED NEUTRONIC REACTOR

Eugene P. Wigner, Princeton, N. J., Leo A. Ohlinger and Gale J. Young, Chicago, Ill., and Alvin M. Weinberg, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application July 3, 1946, Serial No. 681,252
6 Claims. (Cl. 204—193)



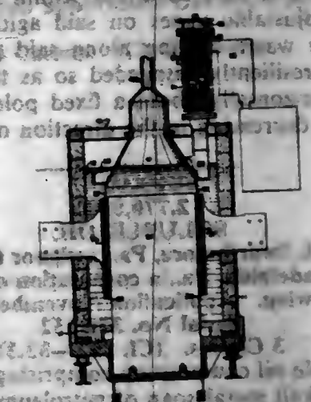
1. A neutronic reactor comprising a reaction tank, a plurality of vertically disposed tubes within said tank, elongated bodies containing material fissionable by neutrons of thermal energy disposed within the tubes, a body of heavy water at least partially filling the tank, the elongated bodies within the tubes being spaced therefrom to provide passages, and means to flow a liquid coolant upwardly through the passages in heat exchange relationship with the bodies and the tubes.

2,770,592

## PURIFICATION DEVICE FOR ALKALI METAL CELLS

Arthur L. Fentress, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application November 6, 1953, Serial No. 390,543
5 Claims. (Cl. 204—245)



1. In a cell for electrolytic production of sodium from fused salts, having a riser pipe extending above the cell for concurrently discharging the sodium metal, cooling and precipitating calcium impurity and returning the calcium metal, the improvement comprising a helical blade within the riser pipe, the helix having a length approximately equal to the length of the riser pipe and a diameter approaching the diameter of the riser pipe, and being positioned within said riser pipe, the blade being relatively narrow with respect to the diameter of the riser pipe thereby defining an open space within said helix, said helical blade being attached to a shaft concentric with and projecting from the top of the riser pipe, the blade and shaft being rotatable, and vertically movable in a limited distance, motor means operatively connected to the shaft for rotating the shaft and helical blade, and means synchronized with said motor means for imparting a vertical reciprocating motion to the shaft and helical blade at least once in every revolution, the upward portion of the reciprocating movement being at a low and substantially uniform rate, the downward portion being abrupt and accelerated, thereby dislodging calcium particles from the riser pipe and preventing adhesion of said calcium particles to the helical blade.

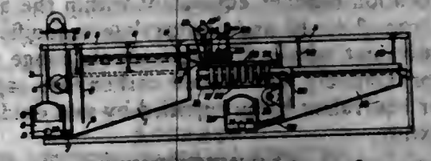
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2,770,593

## PURIFICATION OF WASTE WATER

Hans Heymann, Ulm (Donube), Germany

Application May 23, 1951, Serial No. 227,779
5 Claims. (Cl. 210—16)



1. An apparatus for the purification of waste water consisting of a vibratable structure defining a flow path for said water, said structure comprising a first resiliently suspended preliminary purifying container, a second resiliently suspended afterpurifying container, a resiliently suspended mixing gutter between said first and second containers, and a highly resilient tongue between said first container and said mixing gutter, over which the water is constrained to flow, means for closing chemical additives to said mixing gutter, means for controlling said dosing means, said means for controlling being operatively connected to said tongue so that the amount of

additive is directly governed by the amount of water passing over said tongue, a storage container and a resilient connection thereto for each of said first and second containers, the bases of said first and second containers being inclined against the direction of flow of said water and having outlet openings to said resilient connections to said storage containers for leading off sludge, an agitator for mixing said additives within said gutter, and angularly adjustable vanes on said agitator, adapted to dip into the water flowing along said gutter, said agitator being resiliently suspended so as to be capable of vibrating horizontally about a fixed pole, the amplitude of vibration decreasing in the direction of said pole.

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**2,770,594**
**SOLUBLE OIL**
James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application November 13, 1952, Serial No. 320,352
3 Claims. (Cl. 252—33.3)

1. A soluble oil composition comprising: mineral lubricating oil; alkali metal soap of petroleum mahogany sulfonic acids; alkali metal soap of carboxylic acids obtained by partial oxidation of mineral oil; 2.25 to 5.0 volume percent of water; and 1.25 to 3.0 volume percent of a phenyl alkanol having 7 to 9 carbon atoms inclusive; said soluble oil having sulfonate saponification number equivalent within the range from 3 to 10 mg. of KOH per gram and carboxylate saponification number equivalent within the range from 10 to 20 mg. of KOH per gram.

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**2,770,595**
**SOLUBLE OIL**
James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application November 13, 1952, Serial No. 320,351
2 Claims. (Cl. 252—33.3)

1. A soluble oil composition comprising: mineral lubricating oil having S. U. viscosity at 100° F. within the range from 40 to 120 seconds; alkali metal soap of petroleum mahogany sulfonic acids; alkali metal soap of petroleum naphthenic acids; a saponified oxidation product mixture obtained by partially oxidizing petroleum foots oil in liquid phase at a temperature in the range from 260° F. to 320° F. and a pressure from atmospheric to 100 p. s. i. g. in the presence of a metallic oxidation catalyst until the saponification number of the oxidation product mixture is within the range from 60 to 120 mg. of KOH per gram, and saponifying said oxidation product mixture with an alkali metal basic compound; 2.75 to 5.0 volume percent of water; and 1.25 to 3.0 volume percent of cyclohexanol; said soluble oil having sulfonate saponification number equivalent within the approximate range from 3 to 10 and carboxylate saponification number equivalent within the approximate range from 10 to 20, approximately half of said carboxylate saponification number equivalent being supplied by said oxidation product mixture.

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**2,770,596**
**SOLUBLE OIL**
James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application November 13, 1952, Serial No. 320,353
4 Claims. (Cl. 252—33.3)

1. A soluble oil composition comprising: mineral lubricating oil; alkali metal soap of petroleum mahogany sulfonic acids; alkali metal soap of petroleum naphthenic acids; a saponified oxidation product mixture obtained by partially oxidizing petroleum foots oil in liquid phase at a temperature in the range from 260° F. to 320° F. and a pressure from atmospheric to 100 p. s. i. g. in the presence of a metallic oxidation catalyst until the saponification number of the oxidation product mixture is within the range from 60 to 120 mg. of KOH per gram, and saponifying said oxidation product mixture with an alkali metal basic compound; 1.75 to 3.0 volume percent of an alcohol consisting essentially of a primary amyl alcohol; and 2.75 to 5.0 volume percent of water; said soluble oil having sulfonate saponification equivalent within the range from 3 to 10 mg. of KOH per gram and carboxylate saponification number equivalent within the range from 10 to 20 mg. of KOH per gram, said saponification product mixture providing carboxylate saponification number equivalent within the approximate range from 5 to 10 mg. of KOH per gram, and said alkali metal soap of petroleum naphthenic acids providing carboxylate saponification number equivalent within the approximate range from 5 to 10 mg. of KOH per gram.

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**2,770,597**
**SOLUBLE OIL**
James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application November 13, 1952, Serial No. 320,354
8 Claims. (Cl. 252—33.3)

1. A soluble oil composition comprising: mineral lubricating oil; alkali metal soap of petroleum mahogany sulfonic acids; alkali metal soap of petroleum naphthenic acids; a saponified oxidation product mixture obtained by partially oxidizing petroleum foots oil in liquid phase at a temperature in the range from 260° F. to 320° F. and a pressure from atmospheric to 100 p. s. i. g. in the presence of a metallic oxidation catalyst until the saponification number of the oxidation product mixture is within the range from 60 to 120 mg. of KOH per gram, and saponifying said oxidation product mixture with an alkali metal basic compound; 2.25 to 5.0 volume percent of water; and 0.75 to 3.0 volume percent of an organic compound selected from the group consisting of a dihydroxy alkane having 8 to 10 carbon atoms inclusive and an alkoxy dihydroxy alkane having 9 to 11 carbon atoms inclusive; said soluble oil having sulfonate saponification number equivalent within the approximate range from 3 to 10 mg. of KOH per gram and carboxylate saponification number equivalent within the approximate range from 10 to 20 mg. of KOH per gram, said saponified oxidation product mixture providing carboxylate saponification number equivalent within the approximate range from 5 to 10 mg. of KOH per gram and said alkali metal soap of petroleum naphthenic acids providing carboxylate saponification number equivalent within the approximate range from 5 to 10 mg. of KOH per gram.

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**2,770,598**
**SOLUBLE OIL**
James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application March 23, 1956, Serial No. 573,328
5 Claims. (Cl. 252—33.3)

1. A soluble oil composition comprising: mineral lubricating oil; alkali metal soap of petroleum mahogany sulfonic acids; alkali metal soap of petroleum naphthenic acids; alkali metal soap of carboxylic acids obtained by partial oxidation of mineral oil; 2.25 to 5.0 volume percent of water; and 1.25 to 3.0 volume percent of a compound selected from the group consisting of compounds having the formula $RCH_2O(CH_2CH_2O)_nH$ and compounds having the formula $RCOO(CH_2CH_2O)_nH$, R in each formula being a radical having 4 to 21 carbon atoms inclusive and selected from the group consisting of aliphatic and cycloaliphatic radicals, and $n$ in each formula being an integer greater than 3 and within the range from $(x-4)$ to $(x+4)$ where $x$ is the number of carbon atoms in R; said soluble oil having sulfonate saponification number equivalent within the range from 3 to 10 mg. of KOH per gram and carboxylate saponification number equivalent within the range from 10 to 20 mg. of KOH per gram.



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**2,770,599**
**STABLE LIQUID SHAMPOOS**
Hyman Hoskin, Bayside, N. Y., assignor to Colgate-Palmolive Company, a corporation of Delaware
No Drawing. Application September 23, 1953, Serial No. 381,988
11 Claims. (Cl. 252—117)

1. An opaque liquid shampoo consisting essentially of about 5 to 35% by weight of a detersive salt from the group consisting of water-soluble anionic sulfated and sulfonated detersive salts, about 0.5 to 10% by weight of behenic acid present therein as an opacifying and stabilizing agent, about 0.25 to 3% by weight of a highly hydrogenated castor oil having a melting point of at least about 180° F., and water in an amount sufficient to prepare a fluid composition, said shampoo having a pH of from 5 to 7.5.

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**2,770,600**
**PARTICULATE DETERGENT COMPOSITIONS**
Louis Gene Ricciardi, Brooklyn, N. Y., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware
No Drawing. Application November 26, 1954, Serial No. 471,491
6 Claims. (Cl. 252—131)

1. A detergent composition consisting essentially of a water-soluble particulate organic detergent in spray dried form, the major portion of said particles being retained upon a standard U. S. No. 100 sieve, admixed with from ¼ to 10% by weight of the total mixture of powdered anhydrous aluminum silicate prepared by calcining kaolin and having the approximate formula $Al_2O_3 \cdot 2SiO_2$, said composition exhibiting an increased bulk density in comparison to similar spray dried particles which have not been admixed with anhydrous aluminum silicate.

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**2,770,601**
**METHOD OF PREPARING BILIRUBIN STANDARDIZED REAGENTS**
Theodore E. Weichselbaum, Normandy, Mo., assignor to A. S. Aloe Company, St. Louis, Mo., a corporation of Missouri
Original application June 25, 1951, Serial No. 233,465, now Patent No. 2,664,403, dated December 29, 1953. Divided and this application October 15, 1953, Serial No. 391,657
4 Claims. (Cl. 252—408)

1. The method of making bilirubin standardized reagents for use in colorimetry and in checking the accuracy of spectrophotometric calibration tables which method comprises providing a predetermined quantity of bilirubin, dissolving the measured quantity of bilirubin in a predetermined volume of chloroform to provide a solution of predetermined concentration, placing a measured quantity of solution within a glass container, evaporating the liquid material in the container for reduction thereof to a dry, solid state, then sealing the container in an inert atmosphere, opening the container at the time of preparation of the standard, dissolving the dry reagent in such amount of chloroform as requisite for complete dissolution of the dried material, then quantitatively transferring same by methyl alcohol to a flask having a volume-indicating mark, and then making up to the mark with methyl alcohol to constitute a standard of predetermined concentration.

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**2,770,602**
**METHOD OF PREPARING PROTEIN STANDARDIZED REAGENTS**
Theodore E. Weichselbaum, Normandy, Mo., assignor to A. S. Aloe Company, St. Louis, Mo., a corporation of Missouri
Original application June 25, 1951, Serial No. 233,465, now Patent No. 2,664,403, dated December 29, 1953. Divided and this application October 15, 1953, Serial No. 391,658
4 Claims. (Cl. 252—408)



1. The method of making protein standardized reagents for use in colorimetry and in checking the accuracy of spectrophotometric calibration tables as utilized for the determination of total serum protein, which method comprises determining the protein content in a predetermined quantity of non-human blood plasma, diluting the predetermined quantity of plasma in a .85 percent sodium chloride solution to provide a liquid reagent of predetermined concentration of protein, placing a measured quantity of the liquid reagent within a glass container, freezing the liquid material in the container, subjecting the frozen material to a high vacuum system for complete desiccation of the reagent to provide a solid standardized reagent, then sealing the container under vacuum, opening the container at the time of preparation of the standard, then transferring the reagent into a container of predetermined volume having a volume indicating mark, and then making up to the mark with diluent to constitute a standardized reagent of predetermined concentration.

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**2,770,603**
**PRODUCTION OF SYNTHETIC RESINS BY REACTION OF DIOLEFIN POLYMERS WITH $SO_2$**
Charles S. Lynch, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application December 31, 1952, Serial No. 329,100
31 Claims. (Cl. 260—29.7)

30. A latex of a heteropolymeric reaction product formed by the reaction of sulfur dioxide with a polymer while present as product in a latex produced by aqueous emulsion polymerization of a diene selected from the group consisting of an unsubstituted conjugated diolefin and a conjugated diolefin containing at least one substituent radical selected from the group consisting of phenyl, alkyl, cyano, cyanate, isocyanate, thiocyanate, isothiocyanate and alkoxy.

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**2,770,604**
**RUBBER PLASTICIZED WITH ZINC SALTS OF NUCLEAR CHLORINATED AROMATIC MERCAPTANS**
Arthur A. Baum, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 9, 1952, Serial No. 281,477
9 Claims. (Cl. 260—30.8)

1. The process of plasticizing a rubber which comprises milling the rubber and adding thereto from 0.05% to 5.0% by weight, based on the weight of the rubber, of a plasticizing agent consisting of the zinc salt of trichlorophenyl mercaptan as the sole essential ingredient.

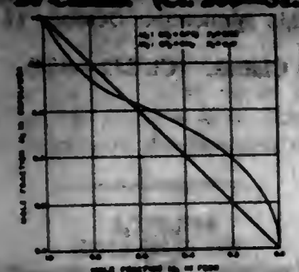
2,770,595

**SOLUTIONS OF COPOLYMERS OF A PERFLUOROCHLOROETHYLENE AND A FLUOROETHYLENE**

Francis J. Honn, Westfield, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application December 16, 1954, Serial No. 475,770

20 Claims. (Cl. 260—31.5)



1. A solution which comprises as a solute a copolymer containing between above 69 and not higher than about 80 mole percent of a perfluorochloroethylene copolymerized with a different partially fluorinated ethylene as the remaining major constituent and as a solvent at least one oxygen containing saturated aliphatic organic compound having a boiling point between about 55° C. and about 160° C. of the group consisting of esters, ketones and ether alcohols.

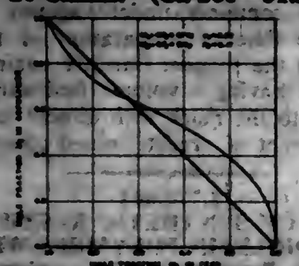
2,770,596

**SOLUTIONS OF COPOLYMERS OF A PERFLUOROCHLOROETHYLENE AND A FLUOROETHYLENE**

Wilbur O. Teeters, River Edge, Herbert J. Passino, Englewood, and Albert L. Dittman, North Bergen, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application December 16, 1954, Serial No. 475,776

20 Claims. (Cl. 260—31.2)



1. A solution which comprises as a solute a copolymer containing between about 20 and about 69 mole percent of a perfluorochloroethylene copolymerized with a different partially fluorinated ethylene as the remaining major constituent and as a solvent at least one oxygen containing saturated aliphatic organic compound having a boiling point between about 55° C. and about 160° C. of the group consisting of esters, ketones and ether alcohols.

2,770,597

**RESINOUS PRODUCTS CONTAINING FREE HYDROXYL RADICALS PREPARED BY POLYMERIZING ACRYLONITRILE IN ADMIXTURE WITH AN INTERPOLYMER OF AN ALKENOL AND ANOTHER UNSATURATED MONOMER**

Hugh J. Hagemeyer, Jr., and Elizabeth L. Oglesby, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 1, 1952, Serial No. 279,912

14 Claims. (Cl. 260—30.2)

1. A process for preparing a composite resinous composition comprising polymerizing, at an elevated temperature in the presence of a peroxide polymerization catalyst, from about ⅗ to ⅘ part by weight of acrylonitrile in admixture with from ⅕ to about ⅖ part by weight of a previously polymerized hydroxy-containing interpolymer containing three distinct types of recurring units in the interpolymer molecules, which interpolymer was derived from the partial deacylation of the polymeric product obtained by the interpolymerization of (1) a lower alkanoate of an alkenol selected from the group consisting of isopropenyl alcohol and vinyl alcohol and (2) a mono-ethylenically unsaturated compound selected from the group consisting of ethylene, propylene, styrene, a lower alkyl maleate, vinyl cyanoethyl formal, vinyl chloride and acrylonitrile, said interpolymer being characterized by the presence of from about 3% to about 20% by weight of the interpolymer of free hydroxyl radicals derived from the interpolymerized lower alkanoate of the alkenol.

2,770,598

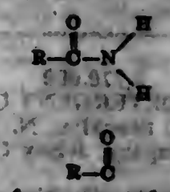
**POLYETHYLENE COMPOSITION**

Harold C. Barber, Wilmington, Del., Ernest E. Lewis, Claudia Ford, Pa., and William H. Happoldt, Jr., Claymont, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 12, 1954, Serial No. 461,908

9 Claims. (Cl. 260—32.6)

1. A plastic composition comprising solid polyethylene and 0.1% to 0.5% by weight of an amide having the formula



in which



is the acyl radical of a saturated fatty acid containing 10 to 16 carbon atoms, based on the weight of polyethylene.

2,770,599

**POLYETHYLENE-OLEAMIDE COMPOSITION**

Albert Edward Symonds, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 26, 1953, Serial No. 376,745

5 Claims. (Cl. 260—32.6)

1. A plastic composition comprising polyethylene and 0.01% to 0.5% by weight of oleamide, based on the weight of polyethylene.

2,770,610

**ESTERS OF EPOXIDIZED PHOSPHONIC ACIDS AND HALOGENATED ORGANIC MATERIALS STABILIZED THEREWITH**

Edgar E. Hardy and Theodor Reetz, Anniston, Ala., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application October 30, 1952, Serial No. 317,832

3 Claims. (Cl. 260—45.9)

2. A halogenated organic material containing stabilizing amounts of di-n-butyl 9,10-epoxyoctadecane phosphonate.

2,770,611

**HALOGENATED POLYMERS STABILIZED WITH A HEXAORGANODISTANNOXANE**

Siegfried Nitzsche and Rudolf Wiedle, Burghausen, Germany, assignors to Wacker Chemie G. m. b. H., Munich, Germany

No Drawing. Application March 9, 1954, Serial No. 415,148

Claims priority, application Germany March 14, 1953

3 Claims. (Cl. 260—45.75)

1. A composition consisting essentially of a chlorohydrocarbon high polymer and from 0.1 to 3 percent by weight based on the weight of the polymer of a distannoxane of the formula $R_2SnOSnR_2$, where R is a hydrocarbon radical selected from the group consisting of aliphatic, alicyclic, and aromatic radicals.



2,770,612

**ELASTOMERIC DIISOCYANATE-MODIFIED POLYESTERS**

Charles S. Schollenberger, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application January 23, 1952, Serial No. 267,015

12 Claims. (Cl. 260—75)

1. The process of producing a rubbery, processable, substantially linear polyesterurethane gum vulcanizable to a tensile strength of greater than 5,000 pounds per square inch which consists essentially of reacting one mole of a linear aliphatic hydroxyl polyester of ethylene glycol and an aliphatic dicarboxylic acid having a molecular weight of 600 to 1,200, a hydroxyl number of 95 to 185, a hydroxyl content of 2.8 to 5.7 percent and an acid number below 2 with 1.02 to no greater than 1.1 moles of an aromatic diisocyanate selected from the class consisting of phenylene diisocyanates and 1,5-naphthylene diisocyanate.

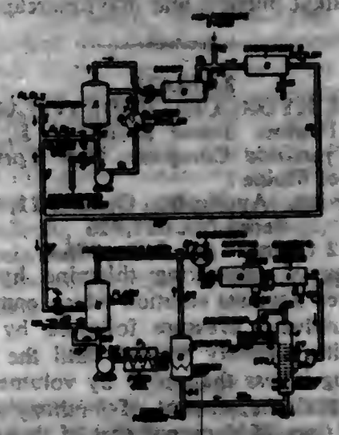
2,770,613

**NOVEL PETROLEUM RESIN PROCESS**

Bruce E. Tegge, Chatham, and Fred W. Reuse, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application July 2, 1953, Serial No. 365,739

8 Claims. (Cl. 260—82)



1. An improved process for making hydrocarbon resins which comprises the steps of polymerizing a $C_5$ plus unsaturated hydrocarbon stream boiling up to 280° C. with a fluid aluminum chloride catalyst, contacting in presence of the remaining active catalyst the resulting reactant mixture with water in liquid phase at about 100–200° C. and subjecting the hydrolyzed mixture to stripping to recover an unreacted hydrocarbon fraction and a light-colored, low ash resin.

2,770,614

**PROCESS FOR POLYMERIZING CRACKED FRACTIONS CONTAINING A METHYL STYRENE**

Thomas Heaton Howarth, John Downing, and James Gordon Napier Drewitt, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain

No Drawing. Application May 25, 1951, Serial No. 228,360

Claims priority, application Great Britain June 2, 1950

6 Claims. (Cl. 260—82)

1. Process for the production of a synthetic resin, which comprises effecting polymerization in a mixture of hydrocarbons containing unsaturated constituents none of which boils below 130° C., at least 70% of the total weight of the unsaturated constituents consisting of a substance selected from the class consisting of beta-methyl styrene and indene, and said total weight not containing as much as 5% of any di-unsaturated substance, the polymerization being effected by the action of aluminum chloride in solution in a molar excess of diethyl ether at a temperature of —10 to +30° C.

2,770,615

**COPOLYMER OF TRIFLUOROCHLOROETHYLENE AND VINYLIDENE CHLORIDE AND A METHOD OF MANUFACTURING SAME**

Charles O. Krencke, Jr., Bayonne, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application August 4, 1951, Serial No. 240,453

5 Claims. (Cl. 260—87.7)

3. A method for preparing a copolymer of trifluorochloroethylene and vinylidene chloride which comprises polymerizing a reaction mixture comprising between 20 and not more than 98 mol percent of vinylidene chloride and between not less than 2 and 80 mol percent of trifluorochloroethylene in the presence of a halogenated acyl peroxide at a temperature between about —20° C. and about 20° C. to produce a thermoplastic copolymer comprising more than two mol percent and less than 50 mol percent of trifluorochloroethylene and the remaining major constituent being vinylidene chloride.

2,770,616

**FRACTIONATION OF PROTEINACEOUS MATERIALS IN BLOOD PLASMA AND LIVER TISSUE**

Edwin J. Cohn, Cambridge, Mass.; Rebekah E. Cohn, Charles A. Coolidge, and Eustace Salignac, executors of said Edwin J. Cohn, deceased, assignors to Protein Foundation, Incorporated, Cambridge, Mass., a non-profit corporation

No Drawing. Application January 29, 1951, Serial No. 212,204

5 Claims. (Cl. 260—112)

1. A method for the quantitative separation of albumin from the fibrinogen and gamma globulin content of blood plasma comprising equilibrating the plasma at a temperature near the freezing point of the plasma at a pH of 6.8 to 7.4 and an ionic strength of approximately 0.15, in the presence of a sufficient quantity of zinc ions to precipitate the fibrinogen and gamma globulin content of the plasma in the form of insoluble zinc complexes while retaining the solubility of the albumins and thereafter separating the soluble albumins from the insolubilized fibrinogen and gamma globulin zinc complexes.

2,770,617

**2,5-BIS-ETHYLENEIMINO-HYDROQUINONE AND PROCESS FOR PREPARING SAME**

Adrian Marxer, Basel, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application April 25, 1955, Serial No. 503,785

Claims priority, application Switzerland April 30, 1954

6 Claims. (Cl. 260—239)

1. A process which comprises contacting paraquinone with ethyleneimine in molecular ratio of from about 1:2.5 to about 1:4 at a temperature of from about 40° C. to about 100° C., and isolating the resulting 2,5-bis-ethyleneimino-hydroquinone.

2,770,618

**TOMATIDINE DERIVATIVES**

Richard Kuhn and Irmentraut Löw, Heidelberg, Germany, assignors, by mesne assignments, to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 7, 1952, Serial No. 313,593

2 Claims. (Cl. 260—239.5)

1. The product resulting by prolonged heating, with glacial acetic acid, of diacetyltomatidine of melting point

approximately 194° C., said diacetyl-pseudotomatidine product constituting an amorphous, colorless compound of empiric formula $C_{31}H_{49}O_4N$, melting at 90–92° C., and boiling at 270–280° C. at a reduced pressure of 0.001 millimeter of mercury.

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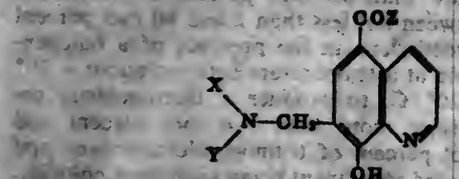
2,770,619

## SUBSTITUTED 8-QUINOLINOLS

Ernst Schraufstätter, Wuppertal-Elberfeld, and Marianne Beck, Wuppertal-Sonnborn, Germany, assignors to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application November 12, 1953, Serial No. 391,768
7 Claims. (Cl. 260—240)

1. As a new chemical compound, a 5-acyl-7-tertiary aminomethyl-8-quinolinol of the general formula



in which Z is a member of the group consisting of a phenyl, benzyl, phenethyl, styryl, phenylbutadiene, furfurylidenemethyl, thienylidenemethyl, and quinolylidenemethyl radical, and in which X and Y are members of the group consisting of lower alkyl radicals, the sum total of carbon atoms of which does not exceed 14 and further members wherein, taken together with —N<, they form a saturated heterocyclic radical of the class consisting of piperidino and pyrrolidino.

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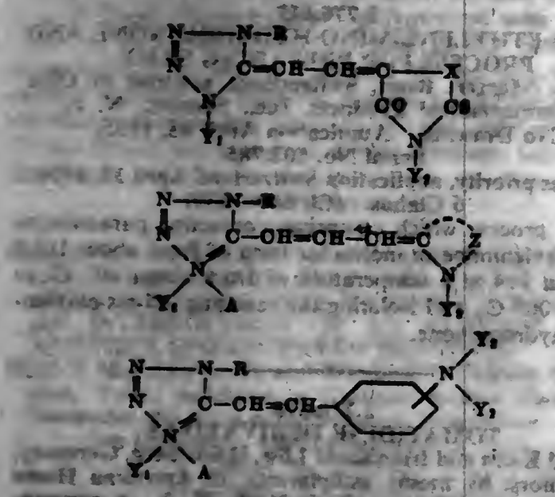
2,770,620

## SENSITIZING DYESTUFFS

Adolf Steigler, Bad Soden am Taunus, Ludwig Berlin, Frankfurt am Main, and Heinrich Hensel, Okriftel, near Limburg (Lahn), Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application January 18, 1955, Serial No. 482,673
Claims priority, application Germany January 21, 1954
7 Claims. (Cl. 260—240.4)

1. Sensitizing dyestuffs having a formula selected from the group consisting of the following three formulae:



wherein R represents a member of the group consisting of lower alkyl and phenyl, A represents a negative radical of an inorganic acid, X stands for a member selected from the group consisting of O, S, Se and N-alkyl, $Y_1$ and $Y_2$ stand for lower alkyls and Z represents the atoms necessary to complete a heterocyclic radical.

2,770,621

## PROCESS FOR THE PREPARATION OF 2-AMINO-4,6-DIPHENOXY-S-TRIAZINE

John A. Shotwell, St. Louis, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 21, 1954, Serial No. 476,893
3 Claims. (Cl. 260—249.9)

1. A process for the preparation of 2-amino-4,6-diphenoxy-s-triazine which comprises reacting molten 2,4,6-triphenoxy-s-triazine with gaseous ammonia at substantially atmospheric pressure.

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2,770,622

## PROCESS FOR THE PRODUCTION OF 2,4-DIAMINO-6-CHLORO-S-TRIAZINE

Bert S. Gerber and Byron L. Williams, Texas City, Tex., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 30, 1954, Serial No. 478,876
5 Claims. (Cl. 260—249.8)

1. An improved process for the preparation of 2,4-diamino-6-chloro-s-triazine which comprises reacting cyanuric chloride and ammonia in an aqueous medium in the presence of a minor amount of a wetting agent selected from the group consisting of alkyl aryl sulfonates and condensation products of ethylene oxide with abietic acid, tall oil, alkyl phenols and alkyl mercaptans.

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2,770,623

## THIAMINE HYDROCHLORIDE (VITAMIN $B_1$)

Robert Louis Herlan, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 11, 1955, Serial No. 539,916
2 Claims. (Cl. 260—256.6)

1. A process of recovering thiamine hydrochloride from sulfate-free aqueous solution which comprises concentration at reduced pressure followed by azeotropic dehydration with β-ethoxy ethanol until the amount of water remaining is less than 10% by volume of the residual solvent and the amount of β-ethoxy ethanol remaining is less than 15 parts per part of thiamine hydrochloride but sufficient to maintain a filterable slurry.

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2,770,624

## PREPARATION OF NEW THIAMINE SALTS

Isamu Utsumi, Yoshida, Sakyo-ku, Kyoto-shi, and Kiyoshi Harada, Otsu-shi, Shiga-ken, Japan, assignors to Gobisi Tanabe & Co., Ltd., Osaka, Japan, a corporation of Japan

No Drawing. Application June 15, 1954, Serial No. 437,008
11 Claims. (Cl. 260—256.6)

5. A thiamine di-higher molecular straight chain alkyl sulfate, wherein the alkyl sulfate moiety is a member selected from the class consisting of lauryl, myristyl, cetyl and stearyl sulfates.

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2,770,625

## ANTHRAQUINONE DYESTUFFS

Fritz Baumann, Leverkusen-Bayerwerk, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application July 19, 1954, Serial No. 444,351
Claims priority, application Germany July 21, 1953
5 Claims. (Cl. 260—281)

1. An anthraquinone dyestuff obtained by partial hydrolysis of a member selected from the group consisting of 1,4-diamino-anthraquinone-2,3-dinitrile chloro-substituted 1,4-diamino-anthraquinone-2,3-dinitrile and nitro-substituted 1,4-diamino-anthraquinone-2,3-dinitrile with sulfuric acid to form the carbaminide and reaction of said carbaminide with a member selected from the group consisting of benzidine, 1,8-naphthylene-diamine and β-anthramine.

4. Process for the production of anthraquinone dyestuffs, which comprises contacting a member selected from the group consisting of 1,4-diamino-anthraquinone-2,3-dinitrile, chloro-substituted 1,4-diamino anthraquinone-2,3-dinitrile, cyano-substituted 1,4-diamino-anthraquinone-2,3-dinitrile and nitro-substituted 1,4-diamino-anthraquinone-2,3-dinitrile with sulfuric acid at a temperature ranging from about 20°–35° C., recovering from the reaction mixture a hydrolysis product, heating said hydrolysis product with a member selected from the group consisting of benzidine, 1,8-naphthylene diamine and β-anthramine to a temperature ranging from about 150° to about 250° C. and recovering the anthraquinone dyestuff thus obtained from the reaction mixture.



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2,770,626

## SOLUBILIZED 8-HYDROXYQUINOLINE AND METHOD OF PRODUCING SAME

Albright M. Nicholson, Warrensville, and Stanley B. Elliott, Shaker Heights, Ohio, assignors to Ferro Corporation, Cleveland, Ohio, a corporation

No Drawing. Application August 25, 1952, Serial No. 306,293
12 Claims. (Cl. 260—270)

1. The method of producing a composition of matter which consists of reacting at temperatures between 200° F. and the lowest decomposition temperature of the reactants, 8-hydroxyquinoline, with at least one water insoluble metal organic acid soap, said metal soap selected from the group consisting of the metal water insoluble soaps of stearic, palmitic, lauric, 2-ethyl-hexoic, linoleic, linolenic, oleic, ricinoleic, naphthenic, tall oil, rosin oil, rosin and abetic acids.

7. As a new composition of matter the product produced by claim 1.

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2,770,627

## DESERPIDIOL AND SALTS THEREOF

Harold Bolling MacPhillamy, Middlesex, N. J., assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J., a corporation of New Jersey

No Drawing. Application January 13, 1955, Serial No. 481,720
6 Claims. (Cl. 260—286)

1. A member of the group consisting of deserpidiol and acid addition salts thereof.

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2,770,628

## NONSUBSTITUTED PYRROLES AND PROCESS

Newman M. Bortnick, Philadelphia, and Milton F. Fegley, Mount Clare, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

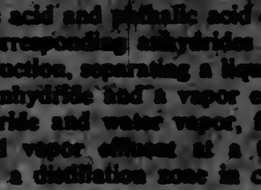
No Drawing. Application August 26, 1953, Serial No. 376,542
9 Claims. (Cl. 260—299.7)

1. A process for preparing N-substituted pyrroles which comprises reacting together between about 20° and 150° C. in liquid phase under the influence of an acidic catalyst giving in water at least the acidity of propionic acid a primary amine having an ionization constant of at least $4.6\times10^{-10}$ and a bis(tert-enolic)-1,3-butadiene of the structure



wherein $R^1$ and $R^2$ represent members of the class consisting of aliphatic hydrocarbon groups of not over four carbon atoms each and the benzyl group when taken individually and when taken together saturated divalent aliphatic chains which together with the nitrogen atom form a five- to six-sided heterocycle, $R^3$ and $R^4$ represent members of the class consisting of aliphatic hydrocarbon groups of not over four carbon atoms each and the benzyl group when taken individually and when taken together saturated divalent aliphatic hydrocarbon chains which together with the nitrogen atom form a five- to six-sided heterocycle, and $R^3$ and $R^4$ are members of the class consisting of hydrogen, alkyl groups of not over eight carbon atoms, and phenyl groups.

8. Pyrroles of the formula



wherein A is an alkylene chain of two to three carbon atoms.

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2,770,629

## PREPARATION OF PHTHALOCYANINE PIGMENTS

John W. Eastes, Somerville, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application January 8, 1952, Serial No. 265,523
20 Claims. (Cl. 260—314.5)

1. The method of producing a finely-divided, tinctorially strong, non-crystallizing, red shade, beta form metal phthalocyanine pigment which comprises slurrying a phthalocyanine crude pigment prepared in an autoclave in a saturated aliphatic hydrocarbon solvent, in an aqueous medium comprising sulfuric acid, the sulfuric acid concentration being between about 62.5% and about 80%, drowning the pigment-acid slurry in water, separating the pigment, and neutralizing acid remaining in the pigment.

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2,770,630

## RECOVERY OF MALEIC ANHYDRIDE

Stuart P. Miller, Scarsdale, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application March 12, 1952, Serial No. 276,982
7 Claims. (Cl. 260—346.8)

1. The process of recovering maleic anhydride from a dilute aqueous liquor containing maleic acid and phthalic acid which comprises concentrating said liquor by submerged combustion evaporation of water at 98–110° C., whereby formation of fumaric acid is minimized, mixing the resulting concentrate with a large excess by weight of molten phthalic anhydride, passing the molten mixture rapidly through a dehydrating zone at a temperature of 170–250° C. to convert a substantial proportion of the maleic acid and phthalic acid content of said mixture to the corresponding anhydrides with minimum fumaric acid production, separating a liquid effluent containing phthalic anhydride and a vapor effluent containing maleic anhydride and water vapor, feeding at least a portion of said vapor effluent at a temperature of 165–240° C. into a distillation zone in contact with an alkylated benzene selected from the group consisting of trimethyl, methyl ethyl and propyl benzenes and xylenes, distilling water and said alkylated benzene out of said zone in the form of a water-alkylated benzene azeotrope, condensing maleic anhydride out of the vapors in said distillation zone and recovering said maleic anhydride as product.

2,770,631

## HYDROXYESTER SUBSTITUTED SILOXANES

Robert L. Merker, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application May 20, 1954, Serial No. 431,297
11 Claims. (Cl. 260—448.2)

1. A siloxane having the unit formula

$$[(OH)_nRCOOCH_2]R'_nSiO_{\frac{3-n}{2}}$$

in which R is a polyvalent hydrocarbon radical, R' is a monovalent hydrocarbon radical, $n$ has a value of from 1 to 2 inclusive and $x$ has a value of at least 1.

2,770,632

## CARBOXYESTER SUBSTITUTED SILOXANES

Robert L. Merker, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application May 20, 1954, Serial No. 431,296
12 Claims. (Cl. 260—448.2)

1. A siloxane having the unit formula

$$[HOOCRCOOCH_2]R'_nSiO_{\frac{3-n}{2}}$$

in which R is selected from the group consisting of divalent hydrocarbon radicals and hydroxylated divalent hydrocarbon radicals, R' is a monovalent hydrocarbon radical and $n$ has an average value from 1 to 2 inclusive.

2,770,633

## ORGANOSILICON ESTERS

Lee H. Sommer, State College, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application October 28, 1953, Serial No. 388,919
8 Claims. (Cl. 260—448.2)

1. A compound of the formula

$$RCO_2(CH_2)_mSiO[SiO]_nSi(CH_2)_mO_2CR$$

where R is a monovalent hydrocarbon radical, $n$ is an integer from 3 to 18 and $m$ has a value of at least one.

2,770,634

## METHOD OF PRODUCING VINYLCHLOROSILANES

Donald R. Weyenberg, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application July 17, 1953, Serial No. 368,823
5 Claims. (Cl. 260—448.2)

1. A method of preparing vinylchlorosilanes which comprises, heating a mixture of vinylchloride and a chlorosilane of the formula $R_aSiHCl_{3-a}$, where R is selected from the group consisting of alkyl radicals of less than 5 C atoms and phenyl radicals and $a$ has a value from 0 to 1 inclusive, at a temperature of from 550° C. to 650° C. for at least two seconds at a pressure below three atmospheres.

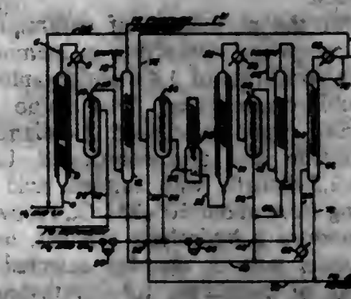
2,770,635

## PRODUCTION OF ALCOHOLS AND ORGANIC ACIDS FROM OXYGENATED ORGANIC COMPOUNDS

Karel L. Hijzek and Richard Mangan, Tulsa, Okla., assignors to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application December 7, 1953, Serial No. 396,624
9 Claims. (Cl. 260—450)

3. A process for increasing the proportion of one of the classes of oxygenated organic compounds selected from the group consisting of alcohols and acids present in a mixture of aldehydes and ketones, which comprises subjecting said mixture to the action of a gaseous mixture consisting essentially of hydrogen and carbon dioxide in



the presence of a hydrocarbon synthesis catalyst, the minimum molar ratio of carbon dioxide to hydrogen being approximately within the range of conditions defined below, where an increase in the proportion of acids is desired:

| Pressure, p. s. i. | Temperature, ° C. | $CO_2$:$H_2$ |
|---|---|---|
| 400 | 180 | 3:1 |
| 450 | 315 | 5:1 |
| 200 | 315 | 4:1 |
| 200 | 180 | 2:1 |

the maximum molar carbon dioxide-hydrogen ratio being approximately within the ranges of conditions defined below where an increase in the proportion of alcohols is desired:

| Pressure, p. s. i. | Temperature, ° C. | $CO_2$:$H_2$ |
|---|---|---|
| 450 | 180 | 1:1 |
| 450 | 315 | 3:1 |
| 200 | 315 | 2:1 |
| 200 | 180 | 1:2 |

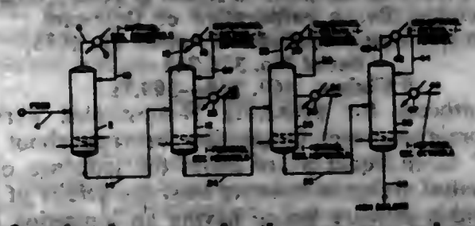
whereby aldehydes, ketones and at least about 25 weight percent of the acids are converted into alcohols, and thereafter recovering a mixture in which one of said oxygenated organic compounds selected from the group consisting of alcohols and acids is present in increased ratio to the other components of the mixture recovered.

2,770,636

## METHOD FOR PURIFICATION OF OIL-SOLUBLE ALCOHOLS

Alfred Stoltz, Jr., Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application October 18, 1952, Serial No. 315,448
9 Claims. (Cl. 260—450)



1. In a batch process for the recovery and purification of preferentially oil-soluble straight chain alcohols present in a mixture consisting essentially of said straight chain alcohols and branched chain alcohols of corresponding carbon content together with objectionable concentrations of hydrocarbon contaminants wherein said mixture is obtained by first extracting hydrocarbon synthesis oil with an aqueous solution of a substantially nonsurface-active salt of a preferentially oil-soluble carboxylic acid to obtain an extract contaminated with objectionable amounts of hydrocarbons, thereafter subjecting the resulting extract to distillation to obtain a distillate containing oil-soluble carbonyl compounds and alcohols, said distillate being free from said salt solution but containing hydrocarbon contaminants, and topping said distillate to a temperature of from about 95° to about 110° C. whereby an appreciable quantity of said hydrocarbons is removed overhead together with some alcohols and carbonyls, the steps which comprise subjecting the resulting residue, which still contains an objectionable concentration of hydrocarbons, to reducing conditions whereby the carbonyl compounds present therein are substantially completely converted to their corresponding alcohols, introducing the resulting reduced residue into the distillation zone of a column under fractional distillation conditions of elevated temperature and reduced pressure and separately collecting as distillate alternate fractions of highly purified straight chain alcohols and of branched alcohols containing hydrocarbons in concentrations substantially greater than the concentration of said hydrocarbons present in said mixture.



2,770,637

## PRODUCTION OF OXYGENATED HYDROCARBONS

Robert L. Mitchell and Oren V. Lyle, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application September 4, 1952, Serial No. 307,908
2 Claims. (Cl. 260—461)

1. In a process for the production of oxygenated hydrocarbons by the vapor phase partial oxidation of normally gaseous saturated aliphatic hydrocarbon materials at a pressure of between about 20 and 300 pounds per square inch wherein a main stream comprising a reaction mixture containing oxygen and said hydrocarbon materials, said mixture containing between about 2 and 25 mole percent oxygen on the hydrocarbons, is heated to an elevated temperature of about 500° to 700° F. and below that at which the oxidation reaction will take place in an uncontrolled manner and the oxidation reaction proceeds at a rapid rate after an induction period of about 0.5 to 5 seconds, the improvement which comprises introducing into the main stream an auxiliary stream comprising an alkyl peroxide which will decompose to liberate free radicals at the temperature reached by the reaction mixture during the induction period in an amount sufficient to yield a concentration of at least about 0.05 volume percent on the volume of the main stream, said substance being essentially the sole added reaction promoter in said reaction mixture.

2,770,638

## XANTHYL AND TRITHIOCARBONYL SULFONES AS NOVEL COMPOSITIONS OF MATTER

Silvio L. Giolito, New York, N. Y., and Robert H. Jones, Atlanta, Ga., assignors to Stauffer Chemical Company, a corporation of California

No Drawing. Application July 3, 1953, Serial No. 366,955
6 Claims. (Cl. 260—455)

1. As a new composition of matter, a compound having the formula:

$$(RXCS)_2SO_2$$

wherein X is chosen from the group consisting of sulfur and oxygen, and R is an alkyl radical having from one to twelve carbon atoms.

2,770,639

## METHOD OF PRODUCING ALIPHATIC AND ALICYCLIC CARBONATES

Robert J. Slocombe, Dayton, Ohio, and Edgar E. Hardy and James H. Saunders, Anniston, Ala., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application January 17, 1955, Serial No. 482,422
10 Claims. (Cl. 260—463)

1. The method of producing aliphatic and alicyclic carbonates, which comprises reacting together while substantially completely in the vapor phase, phosgene and a compound selected from the group consisting of unsubstituted primary and secondary aliphatic and alicyclic monohydric alcohols which boil at atmospheric pressure without substantial decomposition, said reactants being employed in a phosgene/alcohol molar ratio of from about 1:2 to about 1:10 and said reaction being carried out at a temperature above the boiling point of said alcohols but below the temperature at which substantial decomposition of said carbonates takes place during the time allowed for the reaction.

2,770,640

## CYANOETHYLATION OF KETONES

Glen E. Journeay, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 23, 1954, Serial No. 458,805
17 Claims. (Cl. 260—464)

1. A process for the cyanoethylation of ketones which comprises reacting $\beta,\beta'$-oxydipropionitrile with a ketone having at least one active hydrogen atom attached to a carbon atom adjacent to the ketonic carbonyl group in the presence of a strongly alkaline catalyst.

2,770,641

## PREPARATION OF BENZONITRILE

Charles H. McKeever, Meadowbrook, and Joseph W. Nemec, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 13, 1954, Serial No. 449,784
2 Claims. (Cl. 260—465)

1. A process for preparing benzonitrile which comprises charging to a reaction zone in a reaction system benzonitrile in an amount to fill a fraction of said zone, supplying to said zone a dehydration catalyst, heating the charged benzonitrile until vapors thereof pass through a fractionating zone to a condensing zone where the vapors are condensed with reflux of benzonitrile, passing into the reaction zone benzoic acid and ammonia in molecular excess of the said acid while maintaining reflux of the benzonitrile, heating the reaction zone until the contents thereof are between 200° and 250° C. and the vapor temperatures at the head of the fractionating zone are maintained between 125° and 175° C. while addition of benzoic acid and ammonia is continued, taking off benzonitrile and water while maintaining reflux of benzonitrile and water.

2,770,642

## PREPARATION OF BETA-HYDROXY-BETA-PHENYL-PROPIONITRILE AND CINNAMONITRILE

Robert S. Montgomery, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 11, 1953, Serial No. 354,625
4 Claims. (Cl. 260—465)

1. A method which comprises heating beta-hydroxy-beta-phenylpropionitrile with a strong alkali of the class

consisting of the alkali metal hydroxides and the alkali metal alkoxides, the alkali being present in an amount corresponding to from 0.5 to 5.0 parts by weight as alkali metal hydroxide per 100 parts of the beta-hydroxy-beta-phenylpropionitrile, in the presence of a lower saturated aliphatic alcohol, removing the alcohol by distillation and distilling cinnamonitrile from the reaction mixture at a pressure corresponding to a distillation temperature of from about 100° C. to about 150° C.

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2,770,643

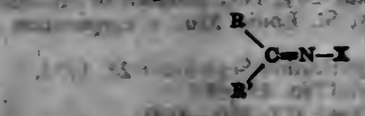
## SYNTHESIS OF ALIPHATIC NITRILES BY PYROLYSIS AND THERMAL CLEAVAGE OF HYDRAZONES, KETAZINES, KETIMINES AND KETOXIMES

John L. Anderson, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

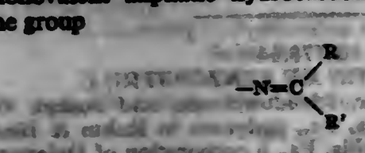
No Drawing. Application November 5, 1953, Serial No. 390,420

12 Claims. (Cl. 260—465.1)

1. Process for obtaining aliphatic nitriles which comprises pyrolyzing and thermally cleaving in the absence of a catalyst at a temperature within the range of 400 to 1000° C. a compound of the general formula



wherein R and R' are selected from the class consisting of acyclic aliphatic radicals and aliphatic radicals which together with the carbon atom to which they are attached form a cycloaliphatic radical and X is selected from the class consisting of hydrogen, hydroxyl, alkoxy, acyloxy, monovalent aliphatic hydrocarbon radicals, amino and the group



wherein R and R' are defined as aforesaid, and condensing the pyrolysis products containing aliphatic nitrile of a lesser number of carbon atoms than the unpyrolyzed compound.

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2,770,644

## PURIFICATION OF ACRYLONITRILE

Marvin L. Owens, Jr., Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 29, 1954, Serial No. 478,541

5 Claims. (Cl. 260—465.9)

1. A process for the purification of acrylonitrile containing methyl vinyl ketone which comprises treating said acrylonitrile with a minor amount of hydroxylamine hydrochloride.

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2,770,645

## PURIFICATION OF ACRYLONITRILE

David W. McDonald, Texas City, and Keith M. Taylor, La Marque, Tex., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 29, 1954, Serial No. 478,496

7 Claims. (Cl. 260—465.9)

1. A process for the purification of acrylonitrile containing methyl vinyl ketone which comprises treating said acrylonitrile with a minor amount of a compound selected from the group consisting of the alkali metal, the alkaline earth metal and ammonium bisulfites.

2,770,646

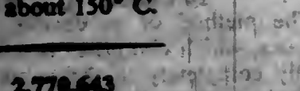
## QUATERNARY AMMONIUM COMPOUNDS OF BASIC ESTERS OF 2-ARYL-2-(1-HYDROXYCYCLOHEXYL) ETHANOIC ACIDS

Gino R. Treves, New York, N. Y., assignor to Schieffelin & Co., New York, N. Y., a corporation of New York

No Drawing. Application April 18, 1951, Serial No. 221,752

15 Claims. (Cl. 260—473)

1. The compound:



in which A is a group selected from the class consisting of 1-hydroxycyclohexyl and alkyl-substituted 1-hydroxycyclohexyl groups, *n* is a whole number varying from 1 to 6, M is a quaternary ammonium salt moiety, and B is a radical selected from the class consisting of phenyl and alkoxyphenyl radicals, said alkyl and alkoxy groups each containing 1 to 6 carbon atoms.

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2,770,647

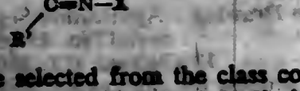
## QUATERNARY AMMONIUM COMPOUNDS OF BASIC ESTERS OF 2-ARYL-2-(1-HYDROXYCYCLOPENTYL) ETHANOIC ACIDS

Gino R. Treves, New York, N. Y., assignor to Schieffelin & Co., New York, N. Y., a corporation of New York

No Drawing. Application April 18, 1951, Serial No. 221,751

14 Claims. (Cl. 260—473)

1. The compound:



in which A is a group selected from the class consisting of 1-hydroxycyclopentyl and alkyl-substituted 1-hydroxycyclopentyl groups, *n* is a whole number varying from 1 to 6, M is a quaternary ammonium salt moiety, and B is a radical selected from the class consisting of phenyl and alkoxyphenyl radicals, said alkyl and alkoxy groups each containing 1 to 6 carbon atoms.

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2,770,648

## PREPARATION OF HYDROXYBENZOIC ESTERS BY ALCOHOLYSIS

Jack Vair Scharmann, New York, N. Y., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application January 13, 1953, Serial No. 331,121

6 Claims. (Cl. 260—474)

1. An alcohol exchange process for the preparation of a higher ester of an o-hydroxybenzoic acid substantially free of phenol which comprises forming a mixture of a low boiling ester of an o-hydroxybenzoic acid and a monohydric alcohol having up to 4 carbon atoms, an aliphatic alcohol having a boiling point of at least 150° C., and an alkaline catalyst, heating said mixture to a temperature sufficient to cause alcohol exchange and to distill said monohydric alcohol out of said mixture, conducting said heating in the presence of an inert gas from the group consisting of nitrogen and carbon dioxide to inhibit formation of phenol, thereby forming a higher boiling ester of said o-hydroxybenzoic acid and aliphatic alcohol substantially free of phenol.

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2,770,649

## o-METHOXYPHENOXY-2-HYDROXY-PROPYL CARBAMATES

Robert S. Murphey, Richmond, Va., assignor to A. H. Robins Company, Inc., Richmond, Va.

No Drawing. Application June 22, 1955, Serial No. 517,387

3 Claims. (Cl. 260—482)

1. A compound selected from the group consisting of 3-o-methoxyphenoxy-2-hydroxy-propyl carbamate and N-lower alkyl derivatives thereof.



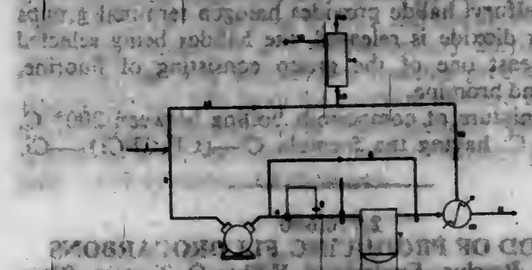
2,770,650

## PROCESS FOR THE PRODUCTION OF VINYL ESTERS

Walter H. Stanton, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application January 26, 1953, Serial No. 333,249

4 Claims. (Cl. 260—498)



1. A process for the production of vinyl esters which comprises the following steps: compressing an acetylene-containing gas stream by means of a constant-output compressor; combining a predetermined portion thereof as it comes from the compressor with a quantity of vaporized aliphatic monocarboxylic acid and passing said combined stream into a catalytic reactor; injecting the remainder of said acetylene-containing stream into the product gas stream emerging from the reactor and passing said mixed gas stream into a condenser where the vinyl ester is condensed; recycling the acetylene and other noncondensable gases to the compression step; venting a portion of said recycled gases through a scrubber where the carboxylic acid is employed as the scrubbing agent to remove acetylene; and purifying the condensed ester by conventional distillation techniques.

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2,770,651

## PREPARATION OF 2-METHYL-4 CHLOROPHENOXY-ACETIC ACID

Alex Hlynsky, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application April 27, 1954, Serial No. 426,638

7 Claims. (Cl. 260—521)

1. The method of preparing 2-methyl-4-chlorophenoxy-acetic acid comprising the steps of reacting orthocresol and chloracetic acid in an alkaline medium, adjusting the pH of the reaction mass to a value within the range of about 7.0 to 9.0, cooling the reaction mass to a temperature less than about 10° C., and adding to the reaction mass a mixture of an alkali metal hydroxide and chlorine in amounts sufficient to produce in solution a chlorinating quantity of hypochlorite ion, and thereafter removing the chlorinated product.

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2,770,652

## POLYFLUORO-ETHERS OF OXIMES AND PREPARATION THEREOF

David Charles England, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 1, 1955, Serial No. 512,565

12 Claims. (Cl. 260—566)

1. A process for the manufacture of polyfluoroethers of oximes which comprises reacting a polyhalogenomonoolefin, having the ethylenic linkage a terminal one and having at least three halogens on doubly bonded carbon, at least one of said halogens being fluorine and having any singly bonded carbon externally joined only to fluorine, with the alkali metal salt of the oxime of a monooxohydrocarbon of from 2 to 18 carbon atoms which is free from non-aromatic unsaturation, hydrolyzing the resulting compound and extracting the oxime ether.

6. The O-polyhalogenoalkyl ether of the oxime of a monooxohydrocarbon of from 2 to 18 carbon atoms and free from non-aromatic unsaturation, the polyhalogenoalkyl radical containing one hydrogen on the β carbon atom, at least one fluorine on the β carbon atom, only fluorine on any further carbons and with any remaining valence of the α carbon atom bonded to halogens of atomic number up to 17 and of the β carbon atom to fluorine.

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2,770,653

## DIARALKYL-ALKYLENEDIAMINE PREPARATION

Roy S. Hanslick, Philadelphia, and Richard Regnah, Ormond, Pa., assignors to American Phenol Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 9, 1955, Serial No. 493,256

6 Claims. (Cl. 260—570.9)

1. The process comprising reacting a diamine having the formula R—CH=N·alk·N=CH—R with a halide of the formula $R_1$·Hal in the presence of an alcohol of 2 to 8 carbon atoms, said reactants being in a molar ratio, diamine:halide:alcohol of at least 1:2:4, the reaction being carried out under substantially anhydrous conditions and at a temperature in the range of 75° to about 225° C., R in the above formulae standing for a member of the group consisting of alkyl of not more than 17 carbon atoms, phenyl, methoxyphenyl and furfuryl radicals, while $R_1$ represents a member of the group consisting of benzyl, alpha-methylbenzyl and beta-phenylethyl, "Hal" 4. The process comprising reacting N,N'-dibenzal-ethylenediamine with bezyl chloride and n-hexyl alcohol under substantially anhydrous conditions and at the refluxing temperature of the alcohol, the molar proportions of diamine:halide:alcohol being at least 1:2:4.

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2,770,654

## CATALYTIC REGENERATION OF PHENYLACETALDEHYDE FROM ITS TRIMER

Walter B. Trapp, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 19, 1953, Serial No. 393,248

4 Claims. (Cl. 260—599)

1. The method which comprises heating 2,4,6-tribenzyl-s-trioxane to a temperature in the range from 90° to 160° C. at an absolute pressure of not to exceed 15 millimeters of mercury, in contact with a catalyst which is an earth having an acidity factor in the range from —10 to 100, and withdrawing the so-regenerated phenylacetaldehyde from the heated zone as formed.

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2,770,655

## PROCESS FOR THE PRODUCTION OF BRANCHED CARBON CHAIN ALDEHYDES

Karl Mönkemeyer, Marl, Kreis Recklinghausen, Germany, assignor to Chemische Werke Hüls Aktiengesellschaft, Marl, Kreis Recklinghausen, Germany, a corporation of Germany

No Drawing. Application March 26, 1954, Serial No. 419,084

Claims priority, application Germany May 27, 1953

2 Claims. (Cl. 260—603)

1. A process for the production of branched carbon chain aldehydes which comprises reacting an aliphatic tertiary alcohol with carbon monoxide and hydrogen in the presence of a cobalt catalyst at an elevated temperature within the range from about 100° to about 300° C. and under a pressure within the range from about 200 to about 1000 atmospheres absolute in the presence of water within the range from about 5 to about 50 percent, based upon the weight of the starting alcohol.

2,770,656
PREPARATION OF ETHYLENE GLYCOL
David J. Pye, Concord, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application June 5, 1953, Serial No. 359,969
13 Claims. (Cl. 260—635)

1. A catalytic vapor phase process for hydrating ethylene oxide to ethylene glycol which comprises passing a vapor phase mixture of water and less than an equimolecular proportion of ethylene oxide over a catalyst comprising a normal calcium ortho phosphate at a reaction temperature below 500° C.

2,770,657
NITROGEN DIOXIDE COMPOUNDS OF 1,3-DICHLORO-2-BUTENE, AND COMPOSITIONS CONTAINING THE SAME
Jack Raymond Hively, Clarksville, Ind., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 11, 1953, Serial No. 336,441
6 Claims. (Cl. 260—644)

1. A process for preparing a stable nitrogen-containing derivative of 1,3-dichloro-2-butene which comprises reacting 0.003 to 0.74 part of nitrogen dioxide with 1 part of 1,3-dichloro-2-butene at temperatures of from −30° to +125° C.

4. A chloro-1,3-butadiene compound of the group consisting of 2-chloro-1,3-butadiene and 2,3-dichloro-1,3-butadiene stabilized against the growth of granular polymers by containing a 1,3-dichloro-2-butene–nitrogen dioxide reaction product obtained by the process of claim 1 in an amount sufficient to give in the chloro-1,3-butadiene solution from 0.001% to 1.0% of combined $NO_2$.

2,770,658
PROCESS FOR THE MANUFACTURE OF BENZENE HEXACHLORIDE
Ford R. Lowdermilk, Gwynedd Valley, and Everett A. Bruce, Paoli, Pa., assignors to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application November 4, 1952, Serial No. 318,753
8 Claims. (Cl. 260—648)

1. In a process for the recovery of a water immiscible organic liquor adhering to benzene hexachloride solids, the steps comprising washing the benzene hexachloride solids containing adhering water immiscible organic liquor with an aqueous solution of an organic wetting agent at a temperature at which both the water immiscible organic liquor and the wash water remain liquid, thereafter withdrawing a mixture of water immiscible organic liquor and the said aqueous solution of the organic wetting agent from contact with said solids and separating the said organic liquor from the said aqueous solution.

2,770,659
TELOMERIZATION WITH SULFURYL HALIDE AND PRODUCT THEREOF
William S. Barnhart, Cranford, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
No Drawing. Application June 19, 1952, Serial No. 294,095
20 Claims. (Cl. 260—653)

1. A process for the production of a distillable open chain compound having a general formula selected from the group consisting of

$$W—(X)_n—W \text{ and } W—(X)_n(Y)_m—W$$

in which X is a haloolefin and Y is a different haloolefin, W is a halogen selected from the group consisting of fluorine, chlorine and bromine and $n$ and $m$ are integers at least one being greater than 1 which comprises reacting a polymerizable compound containing a double bond between two carbon atoms and at least one halogen atom attached to at least one of the carbon atoms of the double bond under liquid phase and substantially anhydrous conditions in the presence of a sulfuryl halide such that the sulfuryl halide provides halogen terminal groups and sulfur dioxide is released, the halides being selected from at least one of the group consisting of fluorine, chlorine and bromine.

18. A mixture of compounds boiling between 200° C. and 550° C. having the formula $Cl—(CF_2CFCl)_n—Cl$.

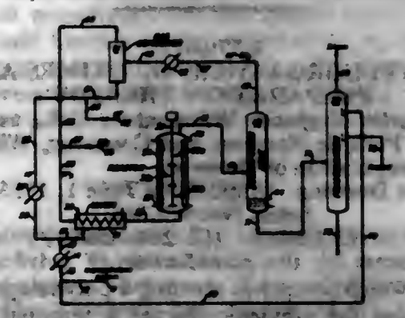
2,770,660
METHOD OF PRODUCING FLUOROCARBONS
Herbert J. Passino, Englewood, Wilbur O. Teeters, River Edge, and Russell M. Mantell, Orange, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application February 11, 1952, Serial No. 271,916
9 Claims. (Cl. 260—653)

1. A process which comprises reacting a fluidized mass of finely divided carbon particles with fluorine as substantially the sole halogen at a temperature of about 375° to about 925° F. in the presence of between 8 percent and 12 percent by weight of an inorganic metal halide.

2,770,661
PRODUCTION OF CHLORINATED COMPOUNDS
Theodore Herlenko, Frank B. Marcotte, and Owen V. Lake, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
No Drawing. Application August 11, 1953, Serial No. 373,685
8 Claims. (Cl. 260—658)

1. In the process for the production of addition products by the reaction of ethylene and carbon tetrachloride under pressure in the presence of free radicals, the improvement which comprises saturating the carbon tetrachloride with oxygen, then purging said saturated carbon tetrachloride with a gas for a predetermined period of time in order to remove a portion only of the oxygen therefrom, and then effecting the reaction of said purged carbon tetrachloride with ethylene.

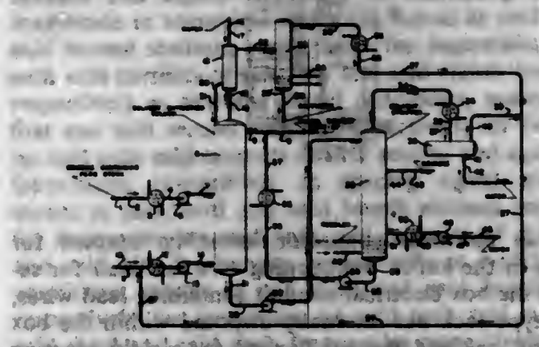
2,770,662
HF-$BF_3$ TREATING OF SECONDARY ALKYLTOLUENES
David A. McCauley, Chicago, Ill., and Arthur P. Lien, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application October 30, 1953, Serial No. 389,380
6 Claims. (Cl. 260—668)



1. A process which comprises contacting, under substantially anhydrous conditions, a charge consisting essentially of at least one isomer of a single secondary alkyltoluene selected from the class consisting of isopropyltoluene and secondary butyltoluene with at least one mol of $BF_3$ per mol of secondary alkyltoluene charged and at least sufficient liquid HF to participate in complex-formation and to dissolve said charge to form a single essentially homogeneous liquid phase, at a temperature between about −20° C. and about +30° C. for a permissible maximum time of about 5 minutes at +30° C. and several days at −20° C., the lower the temperature of contacting, the longer the corresponding permissible maximum time, said conditions of time and temperature resulting in the formation of 3,5-di-secondary alkyltoluene as essentially the only alkyltoluene reaction product, removing the HF and $BF_3$ from the reaction mixture under conditions to substantially avoid rearrangement reactions and recovering from said reaction product mixture essentially pure 3,5-di-secondary alkyltoluene.



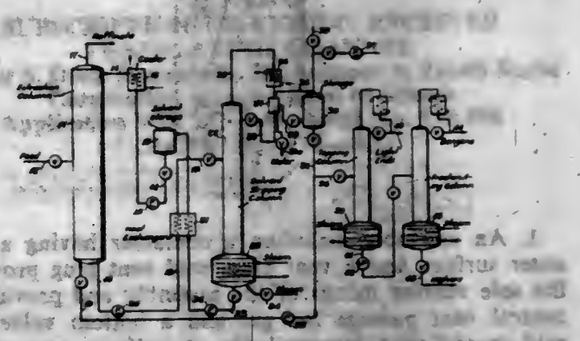
2,770,663
SOLVENT EXTRACTION OF HYDROCARBONS
Henry W. Grote, Hinsdale, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware
Application July 30, 1952, Serial No. 301,778
4 Claims. (Cl. 260—674)



1. A process for producing an aromatic concentrate from a reformed gasoline product which comprises separating from the reformed product a light paraffinic fraction boiling between about 40° C. and about 65° C. and a heavier fraction containing aromatic and paraffinic hydrocarbons, countercurrently contacting said heavier fraction with an aqueous polyoxy-polyalkylene glycol solvent for aromatics in an extraction zone, thereby forming a paraffinic raffinate and an aromatic extract containing a small amount of relatively heavy paraffins, countercurrently contacting said extract in said zone with a quantity of said light paraffinic fraction in excess of that required to displace from the extract said small amount of relatively heavy paraffins, removing the excess of said light fraction from said zone in admixture with said raffinate, distilling the withdrawn raffinate to separate said excess of light paraffinic hydrocarbons therefrom and returning the latter to said zone for further countercurrent contact with the extract therein, and distilling light paraffins from said extract and returning the same to the extraction zone together with the light paraffins separated from said raffinate.

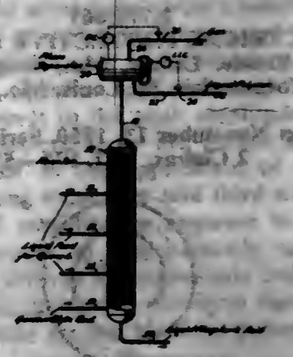
2,770,664
AROMATIC HYDROCARBONS BY SOLVENT EXTRACTION WITH A SOLVENT OF DIETHYLENE GLYCOL AND WATER
Leo H. Horsley, Victor S. Morello, and Noland Poffenberger, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application November 9, 1951, Serial No. 255,686
7 Claims. (Cl. 260—674)

1. A continuous process for isolating benzene in a substantially pure state from the liquid hydrocarbon product of the vapor-phase catalytic reforming and cyclization in the presence of hydrogen of a gasoline fraction containing mainly hydrocarbons of six and seven carbon atoms per molecule, such product containing at least 10 percent by weight of benzene and an appreciable proportion of olefins not exceeding about 3 percent, which comprises introducing a stream of the hydrocarbon product into a counterflow multistage extraction system near the middle, introducing a stream of diethylene glycol containing 0.5 to 10 percent by weight of water into one end of the system into extractive contact with the hydrocarbon phase therein, withdrawing a stream of substantially



aromatic hydrocarbon-free raffinate containing part of the olefins from the system at the same end, withdrawing a stream of benzene-containing extract containing the other part of the olefins from the other end of the system, subjecting the extract to evaporative conditions to distill a benzene-rich hydrocarbon portion therefrom, returning part of the said separated hydrocarbon portion as a reflux stream to the extraction system at this other end, and subjecting the remainder of the separated hydrocarbon portion to fractional distillation to separate the olefins therefrom and to isolate the benzene therein in a substantially pure state.

2,770,665
POLYMERIZATION PROCESS FOR PREPARING PROPYLENE TETRAMER
Lawrence H. Cook, Canonsburg, Pa., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 12, 1952, Serial No. 309,333
2 Claims. (Cl. 260—683.15)



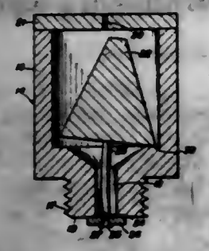
1. The method of bonding a polyamide layer to a polyvinyl chloride layer which comprises depositing on the polyvinyl chloride layer a first intermediate layer of a solution of a substance selected from the group consisting of a polyacrylic acid ester and a polymethacrylic acid ester, depositing on said first intermediate layer a second intermediate layer of a substance selected from the group consisting of nitrocellulose and polyvinyl acetate, and depositing on said second intermediate layer the polyamide layer.

# ELECTRICAL

## 2,770,666
## STORAGE BATTERY WITH VENT PLUG

Milton A. Knight, Centreville, Va.

Application May 11, 1955, Serial No. 507,755
9 Claims. (Cl. 136—178)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An assembly including a container having a hard outer surface and a vent plug, said vent plug providing the sole venting means of the assembly and providing a central vent passage for gas and a bottom valve seat, said central vent passage being of uniform cross-section along its lower portion and providing an opening of the same uniform cross-section through and at right angles to the bottom valve seat, a vent control dual valve having a tiltable weight portion within the plug and a pivotable valve stem which is secured to the weight and passes through the vent passage, said valve stem extending below the valve seat and having a reduced portion spaced from but near its lower end, a circular disc valve of uniform cross-section surrounding a portion of the reduced portion and being supported from below by the valve stem and limited to movement axially of the valve stem by the length of the reduced portion, said disc having a central opening which is larger than the reduced portion so that the dual valve will be partially open when the disc is positioned above the supporting portion of the valve stem, said supporting portion being smaller in cross-section than the vent passage at the valve seat so that it will not press on the disc directly below the valve seat, and said disc being sufficiently rigid against flexing that its outer portion will maintain a seat on the valve seat when the weight is tilted and the valve is completely closed.

## 2,770,667
## ELECTRICAL PROTECTIVE DEVICES

Kenneth R. Runde, Lemay, Mo., assignor to James R. Kearney Corporation, St. Louis, Mo., a corporation of Missouri

Application November 13, 1950, Serial No. 195,360
2 Claims. (Cl. 174—5)



1. A protective device comprising an elongated body which is formed by a single sheet of relatively rigid electrical insulating material shaped to provide said elongated body with a wall portion extended substantially spirally thereof and spaced apart to provide a substantially spiral passageway having an entrance leading to a central space within said elongated body to admit a conductor from the exterior to said central space, the convolutions of said spiral wall being spaced apart a distance at least equal to the diameter of the conductor, said space within said elongated body having a top wall, portions of which are inclined to provide a seat for a conductor extended through said central space so that said elongated body may be centered in a suspended position with respect to said conductor when in use, and a part on said elongated body for connection with a handle.

## 2,770,668
## LOCK NUT BUSHING FOR ELECTRICAL CONNECTORS

Arthur I. Appleton, Northbrook, Ill.

Application January 7, 1955, Serial No. 480,414
2 Claims. (Cl. 174—137)



2. In an electrical connector assembly adapted for mounting in the knock out opening of a box wall for securing to the box electrical conduit containing lead wires, a sleeve type lock nut internally disposed within the box and having one end thereof flanged for rigidly securing the assembly to the box, the other end of said lock nut provided with a plurality of staked-out portions about its outer periphery, and an annular bushing of hard insulating material for fitting over said staked-out portions, said staked-out portions acting to bite into said bushing and thereby retain the bushing positively on said lock nut for insulating the lead wires from contact with the lock nut.

## 2,770,669
## MULTIPLE SOLDER-SEAL BUSHING

Baynard R. Smith, Matawan, N. J., assignor to Stanlite Research Corporation, Keasbey, N. J., a corporation of Delaware

Application January 26, 1953, Serial No. 333,323
5 Claims. (Cl. 174—152)



5. A sealed terminal structure comprising a metal wall having an opening therein and an insulating bushing having a unitary body of insulating material, said body of the insulating bushing having a lower portion adapted to snugly fit into said opening in said wall, and an enlarged upper portion, a shoulder at the area where the lower portion and the upper portion of said body are joined together, said shouldered area comprising at least one endless groove extending about the same with flat surfaces on each side thereof and a solder seal between each of said flat areas and the contacting area of said wall.

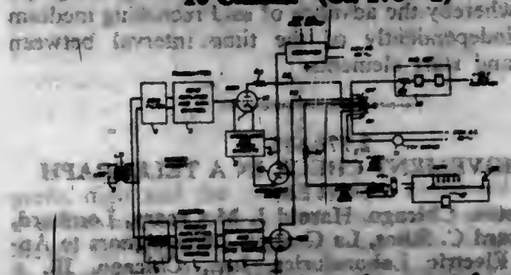




## 2,770,670
## CARRIER TELEGRAPH SWITCHBOARD SUPERVISORY SYSTEM

Leland A. Gardner and John L. Hyslop, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 9, 1952, Serial No. 286,996
10 Claims. (Cl. 178—3)



9. A frequency shift telegraph system having, a telegraph path, a first and a second telegraph station connected to a first end of said path, a third and a fourth telegraph station connected to a second end of said path, means connected to said path for generating alternating currents of a first, second, third, fourth, fifth, sixth, seventh and eighth frequency of increasing numerical magnitude in numerical sequence, means at said first and said second stations, respectively for impressing on said path said currents of said first and said eighth frequencies respectively as marking signal conditions, means at said first and said second stations respectively for impressing on said path said currents of said second and said seventh frequencies respectively as spacing signal conditions, means at said third and said fourth stations respectively for impressing on said path said currents of said fourth and said fifth frequencies respectively as marking signal conditions, means at said third and said fourth stations respectively for impressing on said path said currents of said third and said sixth frequencies respectively as spacing signal conditions, means at said first, second, third and fourth stations respectively for selectively receiving currents of said third and fourth, said fifth and sixth, said first and second and said seventh and eighth frequencies respectively and means at each of said stations for transmitting its respective marking current frequency while receiving.

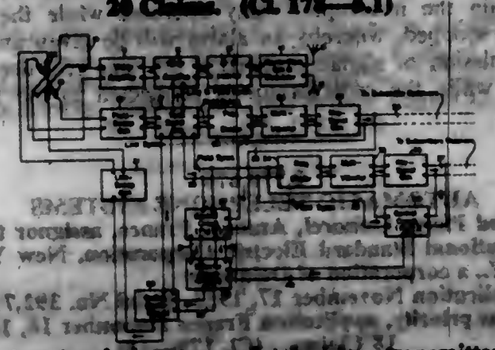
### ERRATUM

For Class 178—5.1 see:
Patent No. 2,770,803

## 2,770,671
## SUBSCRIPTION TELEVISION SYSTEM

Alexander Eliot, River Forest, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois

Application February 2, 1951, Serial No. 209,185
20 Claims. (Cl. 178—5.1)

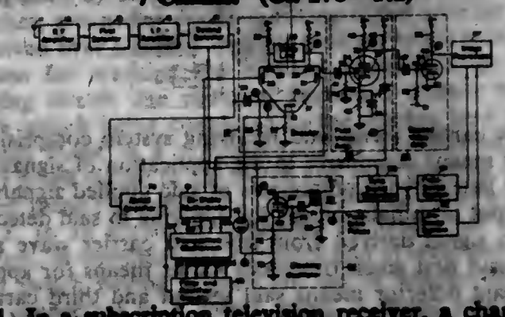


1. A subscription type of television transmitter comprising: a generator for developing a television signal representing a scanned subject and for transmitting said signal to subscriber receivers; [illegible] connected to said generator for selectively [illegible] of said signal between a plurality of [illegible] modes during spaced operating intervals; a control circuit for controlling said coding apparatus to determine a first group of spaced operating intervals in each of which a variation is effected in the mode of transmission; a selector device controlling said coding apparatus to determine a second group of spaced operating intervals in certain of which a mode variation is likewise effected and also to determine the particular one of said plurality of modes selected by said coding apparatus during said spaced operating intervals of both said groups; and means coupled to said selector device for actuating said device in accordance with a coding schedule.

## 2,770,672
## SUBSCRIPTION TELEVISION RECEIVER TRANSLATING CHANNEL

Walter S. Druz, Bensenville, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois

Application May 25, 1955, Serial No. 510,898
7 Claims. (Cl. 178—5.1)



1. In a subscription television receiver, a channel for translating a composite television signal which, in addition to the usual video and synchronizing components, includes code signal components which occur during retrace intervals and within an amplitude range otherwise assigned to the video components and therefore subject to impairing retrace blanking in the receiver, said channel comprising: first, second and third video signal translating stages coupled in cascade; means for applying said composite television signal, with the synchronizing components negative with respect to the video components, to said first stage; a source for developing a potential during at least that portion of said retrace intervals in which said code signal components occur; means for impressing a potential from said source on said first stage with a polarity tending to render said first stage non-conductive and of such magnitude that any of said code signal components remaining in said television signal as applied to said second stage are predominately positive with respect to said video components; means for impressing a potential from said source on said second stage with a polarity tending to increase the gain of said second stage and of such magnitude that the residuum of said code signal components in said television signal as applied to said third stage are negative with respect to the peak amplitude level of the synchronizing components in the output signal of said second stage prior to the application of the potential thereto; and biasing means for said third stage for establishing a cut off condition in response to signal levels negative with respect to approximately said peak synchronizing level, thereby to remove said code signal components from said composite television signal and establish in place thereof retrace blanking pulses.

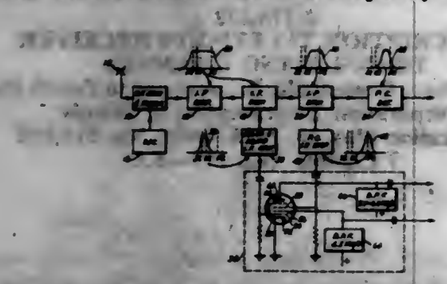
## 2,770,673
## SOUND AND COLOR SIGNAL DETECTION SYSTEM

Edgar M. Cruemer, Jr., Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Continuation of application Serial No. 316,511, October 23, 1952. This application March 8, 1955, Serial No. 492,900
19 Claims. (Cl. 178—5.4)

1. A receiving system for a composite signal comprising a first intelligence component in the form of a first

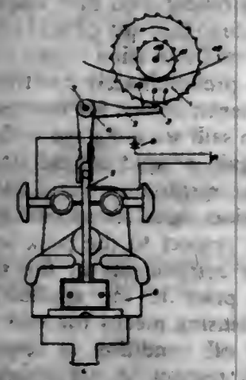
modulated carrier wave having a first given frequency value and having a frequency spectrum extending to a given maximum frequency value, a second intelligence component in the form of a second modulated carrier wave having a second given frequency value and having a frequency spectrum arranged at one end of the frequency spectrum of said first intelligence component, and a third intelligence component in the form of a third modulated carrier wave having a third given frequency value and having a frequency spectrum arranged adjacent to the frequency spectrum of said second carrier wave at the end thereof remote from the frequency spectrum of



said first carrier wave, said receiving system comprising: detector means responsive to the application of signals to produce heterodyne components of said applied signals at said output terminals; means for applying to said detector means a signal derived from said first carrier wave and having said first given frequency value; means for applying to said detector means said second and third carrier waves; and means for selectively deriving from said detector means heterodyne components of said signal having said first frequency value and said second carrier wave and heterodyne components of said signal having said first frequency value and said third carrier wave.

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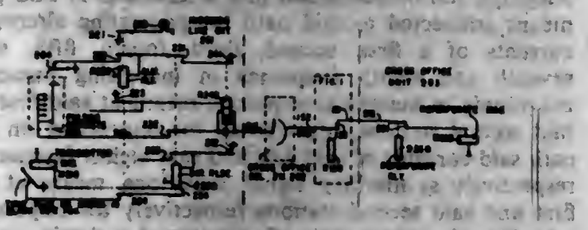
**2,770,674**
**TAPE RECORDING APPARATUS**
**Arthur Edward Brewster, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware**
**Application October 7, 1953, Serial No. 384,579**
**Claims priority, application Great Britain October 9, 1952**
**4 Claims. (Cl. 178—17)**



1. A device for selectively altering the time interval between telegraph characters in a telegraph repeater, each character represented by a signal combination consisting of a start element, a plurality of intelligence elements and a stop element comprising means for receiving incoming telegraph signals, means for applying said incoming signals to a record medium, means for advancing said record medium past said signal applying means, said advancing means comprising a wheel having a plurality of stop members equally disposed about the periphery thereof, arresting means coupled to and under control of said receiving means for selectivity co-operating with said stop members, the arc between adjacent stop members being of such a length that said wheel is rotated an angular distance equal to said arc length during the receipt of a start element, intelligence elements and a portion of a stop element, said arresting means adapted to co-operate with a stop member upon the receipt of a portion of a stop element at the conclusion of a received signal combination, said arresting means adapted to release said stop member upon the receipt of the start element of the next succeeding telegraph character, whereby the advance of said recording medium is halted independently of the time interval between such stop and start elements.

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**2,770,675**
**TAPE MOVEMENT CHECK IN A TELEGRAPH SYSTEM**
**Leith Johnston, Chicago, Harold J. McCreary, Lombard, and Richard C. Stiles, La Grange, Ill., assignors to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware**
**Application October 26, 1953, Serial No. 388,329**
**5 Claims. (Cl. 178—17.5)**

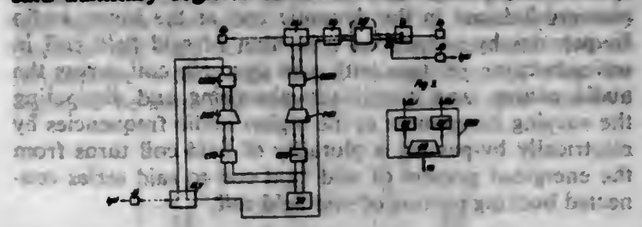


2. For use in a telegraph system having a transmitter, a reperforator and a transmission circuit together with means for connecting the reperforator to the transmitter by way of the transmission circuit and for controlling the transmitter to send signals of a telegraph message to the reperforator to cause said reperforator to record the message on a tape fed thereto from a tape reel, an alarm system comprising a relay counting chain, means operated at predetermined time intervals after the reperforator is connected to the transmitter for sequentially operating successive relays in said counting chain, a circuit means associated with each of said relays for maintaining its respective relay operated after it has been operated by said second means and for preparing the next relay in the chain for operation, means controlled by the operation of the last relay in the chain for operating an alarm and for stopping the transmission of signals, an interrupter relay for restoring all operated relays in the counting chain, circuit means controlled by the tape reel as it rotates for operating said interrupter relay at predetermined time intervals, each interval less than the minimum time required for operating all of the relays in the counting chain, thereby to prevent an alarm while the tape reel is rotating, and means for rendering the interrupter relay ineffective should said circuit means maintain the interrupter relay operated while the tape reel is stopped, whereby an alarm will be given and the transmission of signals stopped if the tape reel does not move while the reperforator is connected to the transmitter.

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**2,770,676**
**AUTOMATIC TELEPHONE SYSTEMS**
**Fernand Pierre Gobeni, Antony, France, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware**
**Application November 17, 1953, Serial No. 392,713**
**Claims priority, application France December 18, 1952**
**18 Claims. (Cl. 179—18)**

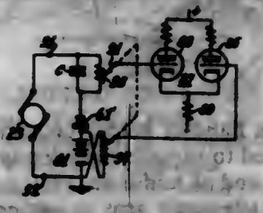
1. An automatic telephone system comprising a plurality of lines and selecting means for connecting a calling line with a called line, said selecting means comprising a main register, means for connecting a calling line with said main register upon the initiation of a call, first receiving means in said main register for receiving a digit denoting the special character of the call, an auxiliary register, means responsive to the receipt of said digit by said first receiving means for connecting said auxiliary register to said main register, second receiving means in said auxiliary register for thereafter receiving the office



prefix digit and the corresponding translated signals of a called number transmitted from said calling line, and means for thereafter causing said first receiving means to receive the digits denoting the numerical portion of said called number.

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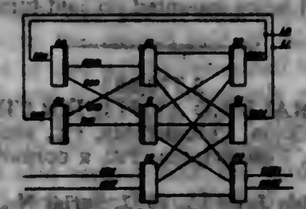
**2,770,677**
**NEUTRAL-TO-POLAR CURRENT CONVERSION CIRCUITS**
**James Stallings Harris, Old Greenwich, Conn., assignor to Radio Corporation of America, a corporation of Delaware**
**Application April 29, 1952, Serial No. 284,863**
**8 Claims. (Cl. 178—70)**



3. In a telegraph signalling circuit arrangement having a resistive circuit component across which a neutral mark-space signal appears, a capacitor, a rectifier and a source of bias potential connected in series across said resistive circuit component, a potentiometer connected across said capacitor, and another potentiometer connected across said source of bias potential thereby to produce a polar mark-space telegraph signal between the arms of said potentiometers, and a differential amplifier circuit including two electron discharge systems having anodes, grids individually connected to the arms of said potentiometers and cathodes connected in common, and individual anode resistors connected to said anodes, the arms of said potentiometers being ganged to permit changing the symmetry of said circuit substantially without changing the balance thereof.

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**2,770,678**
**AUTOMATIC TELEPHONE EXCHANGE SYSTEMS**
**Thomas Harold Flowers, London, England**
**Application August 3, 1950, Serial No. 177,411**
**Claims priority, application Great Britain August 12, 1949**
**37 Claims. (Cl. 179—18)**

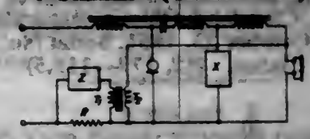


1. An automatic telephone exchange line selecting system comprising a marker and at least one switch having at least one set of selector terminals for connection to a speech trunk, a signal trunk and a forward marking trunk and at least one set of bank terminals for connection to a speech trunk and a signal trunk, a marker lead associated with each set of bank terminals, means for signalling the condition free or engaged of the speech trunk connected to each set of bank terminals, means responsive to a mark on a marker lead for backwardly marking the associated speech trunk if it is signalled to be free and in which each switch is provided with a common backward marker lead and means for marking the same when at least one speech trunk on the bank side of the switch is marked, said system further comprising link circuits connecting successive ranks of switches, each link circuit comprising leads connecting the speech and signal trunk terminals of a set of bank terminals of a switch in one rank to the corresponding speech and signal trunk terminals of a set of selector terminals of a switch in the next higher rank; said system further comprising means for marking the marker leads of a group of bank terminals designated by called number signals communicated to the marker, means for communicating called number signals received over a calling incoming circuit to the marker and means for marking the forward marking trunk of the calling circuit, the common backward marker lead for each switch being coanected to the marker lead of each speech trunk in a previous rank of switches connected over a link circuit to the switch and each forward marking trunk being connected to a corresponding signal trunk.

18. In an automatic telephone exchange line selecting system, in combination; a marker and at least one switch, said switch having at least one set of selector terminals for connection to a speech trunk, a signal trunk and a forward marking trunk and at least one set of bank terminals for connection to a speech trunk and a signal trunk, a marker lead associated with each set of bank terminals, means for signalling the condition free or engaged of the speech trunk connected to each set of bank terminals, means responsive to a mark on a marker lead and to said free or engaged signal for backwardly marking the associated speech trunk when it is signalled to be free and in which each switch is provided with a common backward marker lead and with means for marking the same when at least one speech trunk on the bank side of the switch is marked, said system further including means for marking the marker leads of a group of bank terminals designated by called number signals communicated to the marker.

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**2,770,679**
**TELEPHONE SUBSETS**
**Anthony Crisp Bendle, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware**
**Application April 14, 1952, Serial No. 282,131**
**Claims priority, application Great Britain April 26, 1951**
**6 Claims. (Cl. 179—81)**

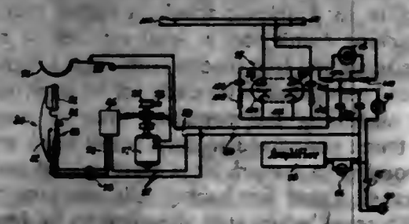


1. A telephone substation circuit comprising a pair of line terminals, a transmitter, a receiver, a line balancing network, an induction coil having a first winding, a second winding and a third winding, a condenser and a bridge network of two non-linear resistance elements connected in series with one another and together in parallel with two linear resistance elements connected in series with one another the circuit being connected up so that there is a conducting path from one line terminal to the other, through the first winding of the said coil, the transmitter and the said bridge network, the said path through the bridge network branching into two parallel paths one through the two non-linear resistances in series with one another and the other through the two linear resistances

in series with one another, that the condenser, the line balancing network and the second winding of the said coil, in series with one another in any order are connected between the terminal of the transmitter other than the one connected to the said bridge network, and the junction of the two linear resistances of the bridge network, that the receiver and the third winding of the said coil in series with one another are connected in parallel with the line balancing network, that the junction of the two non-linear resistances is connected to the terminal of the receiver other than the one connected to the junction of the two linear resistance elements, that the said bridge network is arranged to present a shunt to the receiver which diminishes in resistance when the unidirectional line current increases and which rises in resistance when the unidirectional line current falls, and that the bridge network also is arranged so that the points thereof to which the receiver is connected are substantially equipotential points in respect of currents applied to or generated by the transmitter.

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**2,770,680**
**SIGNALING SYSTEMS FOR DICTATING MACHINES**
**Richard M. Sessers, West Orange, N. J., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a corporation of New Jersey**
**Application July 29, 1952, Serial No. 301,437**
**16 Claims. (Cl. 179—100.1)**



1. In a dictating machine including a start-stop control: the combination of means for selectively placing said machine into recording and other conditions; a signaling system independent of said start-stop control including means for giving signals of different character; and means controlled solely by said conditioning means for causing said signaling means to give a signal of one character when the machine is in condition for recording and to give a signal of a different character when the machine is out of condition for recording, irrespective of whether the machine is in or out of operation.

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**2,770,681**
**LOUD-SPEAKER**
**Charles A. Perry, Cleveland, Ohio, assignor to The Rola Company, Inc., Cleveland, Ohio, a corporation of Ohio**
**Application October 23, 1951, Serial No. 252,651**
**2 Claims. (Cl. 179—115.5)**



1. In a loudspeaker having a continuously wound energizing field coil and a cooperating dynamic voice coil in a common magnetic operating circuit, wherein a portion of said field coil is energized from a uni-directional current source having a varying component and said dynamic coil is energized from a source of audio-frequency varying electrical oscillations, the method of neutralizing the varying component in the common magnetic field throughout the audio frequency range of the speaker consisting of, balancing out the varying components induced in the dynamic coil at the lower audio frequencies by connecting a portion of said field coil in series bucking relation with said dynamic coil across the audio source, and electrically absorbing and dissipating the varying component at the higher audio frequencies by electrically by-passing a plurality of field coil turns from the energized portion of said field coil to said series connected bucking portion of said field coil.

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**2,770,682**
**TELEPHONE HANDSET HOLDER**
**Charles J. Malone, New York, N. Y.**
**Application September 30, 1953, Serial No. 383,182**
**4 Claims. (Cl. 179—156)**



1. A telephone handset holder comprising a flat tabular portion adapted to support the telephone base thereon, an upright at one end of said base, a telescopic arm, means for rotating said telescopic arm at one end thereof about a substantially vertical axis at the top of said upright, means for rotatably mounting said telescopic arm at said end about a substantially horizontal axis on the top of said upright, means for securing the telephone handset to the other end of said telescopic arm, and means for supporting said telescopic arm in a raised operative position upon angular displacement of said telescopic arm about a vertical axis, said last mentioned means being adapted to permit said telescopic arm to be lowered to a substantially horizontal, inoperative position upon reversal of said angular rotation, said means for rotatably mounting said telescopic arm at one end thereof about a substantially vertical axis on the top of said upright comprising the upper end of said upright having a flat substantially horizontal upper surface, said upper surface having a downwardly extending, substantially vertical, substantially cylindrical opening, a turntable adapted to rotate on the upper surface of said upright, a substantially cylindrical, downwardly extending shank carried on the undersurface of said turntable and extending downwardly at substantially right angles thereto, said shank being rotatably received within said opening and means for preventing upward displacement of said shank in said opening while at the same time permitting rotation therein, said telescopic arm at one end being mounted on said turntable.

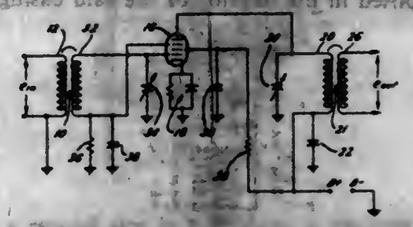
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**2,770,683**
**NEUTRALIZED AMPLIFIER CIRCUIT**
**William K. Jackson, Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania**
**Application June 18, 1952, Serial No. 294,241**
**9 Claims. (Cl. 179—171)**

2. A signal amplifier stage for amplifying signals within a predetermined band of frequencies comprising an electron tube having a cathode, a control grid, a screen grid, a suppressor grid and an anode arranged in the order



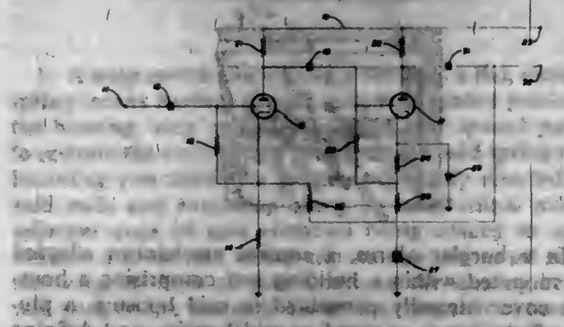
recited, a source of anode supply potential, a load impedance connected between said anode and one terminal of said source of potential, means connecting a second terminal of said source of potential to said cathode, means connected between a point of reference potential and said cathode and said screen grid for maintaining said cathode and said screen grid at fixed potentials for all frequencies within said band, means for applying the signal to be amplified between said control grid and said



suppressor grid, and a resistor and a capacitor in parallel combination connecting said suppressor grid to said point of reference potential, said parallel combination being separate from the anode-cathode circuit of said electron tube, said capacitor having an impedance greater than substantially zero at signal frequencies within said predetermined band, the impedance of said resistor-capacitor combination being such as to effectively neutralize feedback through the interelectrode capacitances of said electron tube.

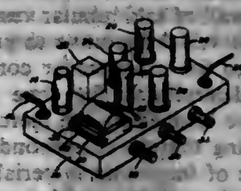
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**2,770,684**
**LIMITED AMPLIFIER**
**Robert E. Thomas, Walnut Creek, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission**
**Application July 9, 1953, Serial No. 366,919**
**1 Claim. (Cl. 179—171)**



A limited amplifier comprising a first vacuum tube having a plate and a plate resistor, a second vacuum tube having an anode, cathode and control grid, a positive potential supply, a negative potential supply, a plate resistor connecting the anode of said second tube to said positive potential supply, a crystal connected between ground and the cathode of said second tube, a pair of serially connected resistors connected between the cathode of said second tube and said negative potential supply whereby a current flows through said series resistors and crystal and through said second tube, a grid leak resistor connected between the control grid of said second tube and the juncture of said serially connected resistors whereby said control grid is biased negatively with respect to the cathode of said second tube, and a coupling capacitor connected between the plate of said first tube and the control grid of said second tube, the value of the plate resistor of said first tube being limited to a value such that the maximum voltage change therein is less than the change in voltage of the cathode of said second tube from initial condition to zero grid bias condition whereby substantially no grid current flows in said second tube and said coupling capacitor remains uncharged.

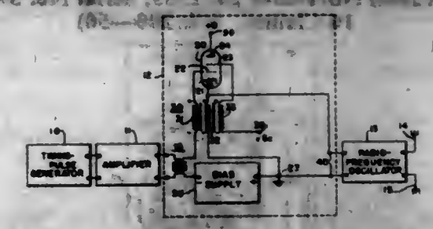
**2,770,685**
**HUM REDUCTION**
**Nathan Hirsch, Brooklyn, N. Y.**
**Application February 4, 1952, Serial No. 269,865**
**3 Claims. (Cl. 179—171)**



1. A tube-type amplifier having an alternating current tube filament heating circuit, an input terminal for receiving signals to be amplified, an input impedance of more than 50,000 ohms a transformer type power supply unit for energization by alternating current electric power connected to operate the amplifier, and a hum-reducing combination of an electrical conductor having one end unconnected but at least partially wrapped around the transformer to pick up power supply hum of the desired phase and intensity, and having its other end connected to the input terminal to supply said picked up hum in balancing relation to the power line hum otherwise introduced into the amplified signals by the amplifier.

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**2,770,686**
**PULSE-POWER AMPLIFIER**
**Frederick C. Hallden, Floral Park, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois**
**Application May 12, 1953, Serial No. 354,507**
**5 Claims. (Cl. 179—171)**



1. A pulse-power amplifier comprising: an electron-discharge device having a cathode, a control electrode, and an anode; a transformer including first and second windings; a pulse-signal input circuit coupled through said first winding to said control electrode and through said second winding to said cathode with said windings connected in series relation in said input circuit; supply-circuit terminals coupled to said anode and coupled through said second winding to said cathode to form an energy-supply circuit; said windings being coupled to said control electrode and said cathode with such relative polarity as substantially to eliminate degeneration due to said second winding; and output circuit terminals coupled to said second winding.

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**2,770,687**
**STANDING AND DIRECTIVE FLOOD LIGHTING SYSTEM FOR VEHICLES**
**Malcolm Morrow, Annandale, Va.**
**Application November 29, 1952, Serial No. 323,218**
**4 Claims. (Cl. 200—39)**

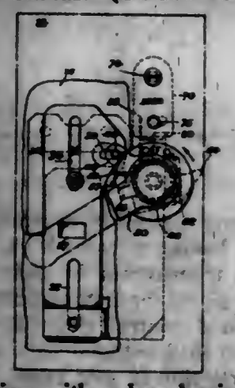


1. An electrical control switch comprising a rotatable member, a lock for controlling the orientation of said

rotatable member, a disc of insulation material carried by said rotatable member, a tubular vessel extending diametrically of said disc, said vessel having a bulbular portion on each end thereof and a constricted passage intermediate the ends thereof, a pair of spaced contacts sealed within the wall of said tubular vessel and a quantity of mercury in said vessel operative to gravitate from one bulbular portion to the other under control of said constriction for predetermining the time period that said spaced contacts are bridged by the mercury and the electrical circuit leading thereto correspondingly closed, and in which said disc of insulation material is longitudinally displaceable on said rotatable member and which includes a cylindrical housing surrounding said lock and extending rearwardly thereof and internally screw threaded at the end thereof, an adjustable end member of insulation material externally screw threaded to engage the internal screw threads in said housing, a coil spring interposed between the inside wall of said end member and said disc of insulation material carried by said rotatable member, a panel member interposed between said lock and said disc of insulation material, electrical contacts mounted on said panel member and coacting switching contacts carried by said disc whereby the switching contacts on said disc are yieldably urged by said coil spring to a position for making or breaking electrical connections between said contacts.

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2,770,688
INTERLOCKING COVER AND SWITCH MECHANISM
David W. Johnson, Newington, Conn., assignor to The Arrow-Hart & Hegeman Electric Company, Hartford, Conn., a corporation of Connecticut
Application November 24, 1953, Serial No. 394,084
16 Claims. (Cl. 200—50)



1. In combination with a box having a cover hinged thereon and a switch mounted therein, said switch having an operating member extending therefrom, mechanism interlocking said cover and switch comprising means fixedly located in said box movable to actuate said switch-operating member, manually operable switch-operating means carried by the cover engaging and disengaging said actuating means in the box when said cover is closed and opened respectively, and latch means on the cover separate from said manual switch-operating means and biased to hold the cover closed in normal switch-operating positions of said manual switch-operating means but freed by movement of said manual switch-operating means to a cover-releasing position.

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2,770,689
AUTOMATIC INTERRUPTER DEVICE FOR THE ELECTRICAL CIRCUIT IN AUTOMOBILE VEHICLES IN CASE OF COLLISION OR OVERTURNING OF SAME
Luis Gonzalez, Lomas de Zamora, Argentina
Application July 1, 1953, Serial No. 365,468
6 Claims. (Cl. 200—61.52)

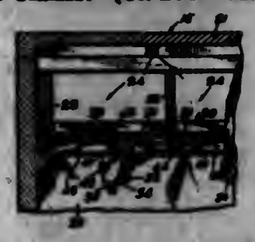
1. An automatic interrupter device for the electrical circuit in automobile vehicles in case of collision or overturning of same, characterized by the fact that it comprises a relatively heavy disk, horizontally displaceable and freely disposed in the interior of a casing rigidly fixed to the structure or body of the vehicle; said disk carries centrally mounted on its upper face, a pin disposed resting and axially lined up, against a piece of insulating material, opposed by a spring and capable of sliding vertically with regards to the above mentioned disk; said sliding piece being provided with means capable of alternatively establishing a bridging connection between two pairs of contacts, disposed in the interior of the said casing, the first



one of them being adapted to be directly inserted in the circuit "generator-ignition key" of the automobile; the second pair of said contacts being adapted to be electrically coupled, through a relay, to the circuit battery-ground of the said automobile; the above mentioned disk resting on a vertically sliding plate, opposed by a spring capable of maintaining the pin of said disk pressed against the piece of insulating material and establishing the bridge on the first pair of contacts; means to correctly guide the vertical sliding of the said disk, and means for manually operating the above mentioned resting plate of the disk.

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2,770,690
ELECTRICALLY ACTUATED BURGLAR ALARM AND CIRCUIT CLOSER THEREFOR
Tillman J. Sanders, Philadelphia, Pa.
Application July 16, 1953, Serial No. 367,283
2 Claims. (Cl. 200—61.61)



1. In a burglar alarm, a control mechanism adapted to be mounted within a building and comprising a housing, a cover hingedly connected to said housing, a plurality of partitions arranged in said housing and defining compartments therein for holding valuables, a front and rear plate mounted in said housing, a plurality of shelves pivotally connected to said front plate, said shelves providing the bottom of said compartments, the lower inner portion of said rear plate being cut away to provide a shoulder, said shoulder and shelves adapted to receive therebetween currency, angle irons positioned below each of said shelves, a micro-switch secured to each of said angle irons and including a contact arm engaging the bottom of said shelves, and spring members for urging said shelves upwardly when the currency or other valuables are removed therefrom.

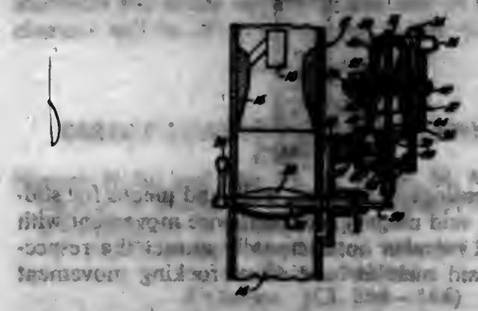
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2,770,691
STARTER SWITCH
Albert H. Winkler, Elmira, N. Y., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application November 27, 1953, Serial No. 394,774
6 Claims. (Cl. 200—61.9)

1. An electrical starting switch for an internal combustion engine having a throttle, comprising a stationary



contact, a movable contact, a piston connected to said movable contact, a stem, a slot in said stem of greater length than the piston adapted to surround said piston and provide a lost motion connection therewith, a spring urging said stem in a switch closing direction, a throttle actuated lever for moving said stem in a switch opening



direction, a second slot in said stem, a vacuum actuated piston in said second slot, a first annular groove in said vacuum piston adapted to receive said stem when the switch is in a closed position, and a second annular groove in said vacuum piston adapted to receive said stem to hold said switch in an open position.

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2,770,692
SNAP SWITCH
John F. Dalton, Springfield, Clayton A. Fischer, Chatham, and William G. Turnbull, Jr., New Providence, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 12, 1952, Serial No. 325,638
7 Claims. (Cl. 200—67)



1. A snap switch comprising a housing, a flat, elongated spring means having its ends seated on spaced portions of the housing, stop means at each of said spaced portions to restrain the ends of said spring means, said spring means including two cantilever elements inwardly directed from said ends and extending along its longitudinal axis, the adjacent ends of said elements being spaced to accommodate a U-shaped spring clip having re-entrant tips for receiving the ends of said elements, the spacing between said ends of the elements being less than that between the tips, whereby said elements are urged out of the plane of the spring means, an axially movable switch operating plunger within and secured to said clip with its axis perpendicular to the plane of the spring means, normally open, spring mounted switch contacts adjacent one end and in the path of said plunger, and an operating button on the other end thereof; a bowed return spring secured to the plunger and bearing on the stop means for biasing said plunger away from the switch contacts, and an expanding coil spring housed in the plunger between the tips of said clip to aid in biasing said tips toward the cantilever elements of the flat spring means.

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2,770,693
SNAP SWITCH MECHANISM
Lester E. Fichel, Columbus, Ohio, assignor to Ranco Incorporated, Columbus, Ohio, a corporation of Ohio
Application June 21, 1954, Serial No. 438,014
3 Claims. (Cl. 200—67)

1. In a snap switch mechanism, a contact arm having one end free to move in opposite directions between limits, spaced stops forming limits of movement of said end of said contact arm, a relatively rigid toggle link having one end pivoted to said arm adjacent to said one end, a pair of fixed spaced pivots for said link, one on opposite sides thereof and intermediate the ends thereof, said stops forming alternate pivots for said link when said link is shifted in the directions of said movements of said contact arm, a spring having one end pivotally connected to the other end of said link and urging said



link in the direction of its said one end and to one or the other of said fixed pivots, and means pivotally connected to the other end of said spring for moving said spring generally parallel to the movement of said one end of said contact arm to shift the line of force of said spring from one side to the other of the longitudinal centerline of said link.

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2,770,694
PRESSURE SWITCH
Jean Mercier, New York, N. Y.
Application July 12, 1952, Serial No. 298,583
12 Claims. (Cl. 200—83)



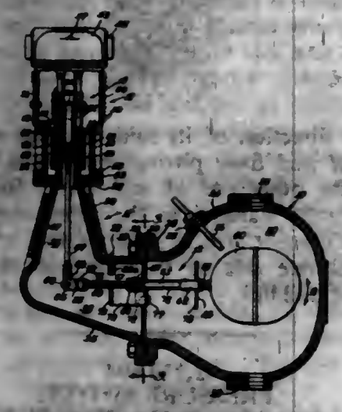
1. A pressure switch for operating the resiliently urged control member of a microswitch, comprising a slidably mounted member, means to connect a source of pressure to said member to effect movement thereof, resilient means operatively connected to said member to restrain movement thereof until the pressure has risen to a predetermined amount, means to restrain movement of said member after it has moved a predetermined distance in response to the rise in pressure to such predetermined amount, said means including a second resilient means reacting against said member after it has moved such first determined distance, and restraining movement of said member until the pressure rises above a second predetermined amount greater than the first amount, a second member slidably mounted on said first member and movable longitudinally thereof, means to limit the movement of said second member in two directions, and resilient means normally urging said second member to its outermost position.

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2,770,695
BOILER CONTROL MECHANISM
Leopold J. Kulecki, Chicago, Ill., assignor to McDonnell & Miller, Inc., Chicago, Ill., a corporation of Delaware
Application January 21, 1954, Serial No. 405,286
7 Claims. (Cl. 200—84)

1. In a liquid level responsive boiler control device of the class described, a float chamber housing having liquid

inlet and outlet means, a substantially elbow shaped linkage housing connected to one side of said float housing and enclosing a substantially horizontal chamber communicating at one end with the interior of said float chamber housing and at the other end with a substantially vertical chamber, skirt wall means depending partially into said horizontal chamber and serving to trap air in said vertical chamber when liquid is introduced to said device, switch means mounted exteriorly of the upper end of said vertical chamber, float means in said float chamber, linkage means



connecting said switch means to said float means, leaf spring means supporting said linkage means in a manner permitting arcuate movement of said float to operate said switch means, and air cooling fin means formed about the wall portions of said linkage housing which enclose and define said vertical chamber, whereby said switch means is effectively insulated from the operating temperatures existing within said float chamber by the air entrapped in said vertical chamber and said wall portions of such linkage housing are effectively cooled by said fin means.

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2,770,696
TAPE SWITCH
Robert H. Koenig, Forest Hills, N. Y.
Application January 6, 1954, Serial No. 402,460
3 Claims. (Cl. 200—86)

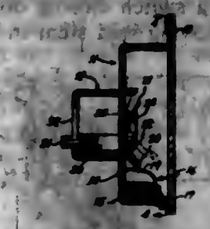


1. An electrical tape switch adapted to be coiled like a cable comprising a pair of spaced continuous uniform conducting stripe having a slight transverse curvature, and a pair of insulating strips placed between said conducting stripe adjacent the outer edges thereof, a continuous flat insulating strip placed under said conducting stripe, and continuous weatherproof jacket enclosing said strip, wherein at least one of said conductor stripe comprises segmented overlapping leaves adapted to move axially with respect to each other, thereby permitting coiling and bending without buckling, the outer of said strips being axially stretched and the inner of said strips being axially compressed.

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2,770,697
MAGNETIC ELECTRICAL SWITCH
Alfred L. Kalbat, New Hyde Park, N. Y.
Application April 1, 1954, Serial No. 420,400
5 Claims. (Cl. 200—87)

1. A switch comprising a sealed container, switch elements in said container, each of said switch elements having an inclined section, a member formed of magnetic material and bent along the length thereof, means adjacent a wall of said container pivotally mounting said member for rocking movement within said container, means including a conductive bar insulatedly carried by one end of said member adapted to move into and out of wiping engagement with said switch elements upon rocking of said member, a magnet adjacent the exterior



of the aforementioned container wall, and means for slidably mounting said magnet for lengthwise movement with respect to said member to alternately attract the respective ends of said member and effect rocking movement thereof.

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2,770,698
THERMOSTATIC SWITCH
Herman Ulanet, Maplewood, N. J.
Application November 2, 1953, Serial No. 389,523
11 Claims. (Cl. 200—138)



5. A thermostatic switch comprising, in combination, a sealed enclosure; switching mechanism therein comprising a plurality of contact arms and a thermo-sensitive element controlling the movement of one of said arms; a plug or head sealing one end of the said enclosure; an adjusting screw threaded through said head; an adjusting member threaded into the inner end of said adjusting screw with a shorter pitch than the pitch of the threads on the adjusting screw exterior, the inner end of said adjusting member contacting one of said switch arms to adjust the setting of the same; and a bellows surrounding the stems of the adjusting screw and adjusting member, one end of said bellows being sealed to the inner face of the said enclosure head, the other being sealed to the adjusting member, whereby the latter will be held against rotation but given micrometer longitudinal movement upon rotation of the adjusting screw.

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2,770,699
THERMOSTATIC CONTROL DEVICE
Paul F. Shivers, Minneapolis, Minn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application June 23, 1955, Serial No. 517,511
11 Claims. (Cl. 200—138)



2. In a thermostatic control device, the combination comprising a pivotally mounted mercury switch movable from one angular position to another for controlling the flow of electric energy, a bimetallic element operatively



connected to said mercury switch for varying the angular position of said mercury switch in response to variations in temperature of said bimetallic element, and manually operable means for varying the angular position of said mercury switch, said bimetallic element being bent to substantially enclose said mercury switch whereby substantially the entire surface of one side of said bimetallic element will be directly exposed to the surrounding air.

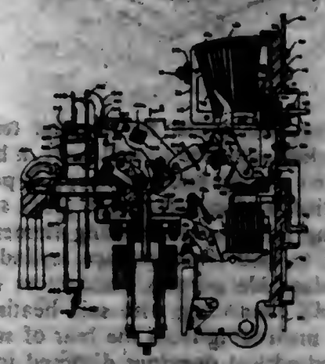
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2,770,700
DIRECT CURRENT ELECTRIC SWITCHING CONTACTS
Ragnar Holm and Else M. K. Holm, St. Marys, Pa., assignors to Stackpole Carbon Company, St. Marys, Pa., a corporation of Pennsylvania
No Drawing. Application March 12, 1953, Serial No. 342,026
5 Claims. (Cl. 200—166)

1. A cooperating pair of electric relay contacts for use with voltage regulators and the like utilizing low direct current that may form an arc when the contacts are separated, in which at least one of the contacts is formed from an electrically conducting material including up to about 5% of material selected from the group of elements consisting of cadmium, bismuth, antimony, manganese and chromium, the amount of said last-mentioned material being great enough to produce an anode voltage drop in said arc when the intensity of said current reaches a predetermined value, and the balance noble metal.

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2,770,701
ESCUTCHEON DESIGN FOR CIRCUIT BREAKERS
Charles J. Yarrick, West Collingswood, N. J., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application October 29, 1951, Serial No. 253,717
7 Claims. (Cl. 200—167)

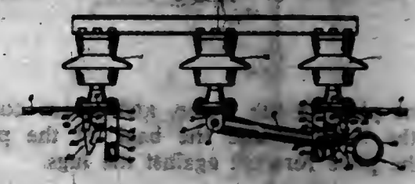


1. An escutcheon unit for circuit breakers comprising a movable gas-excluding rigid escutcheon plate, a stationary escutcheon plate, a visual indicator, a handle and a driving mechanism; said visual indicator being moved by said driving mechanism when said circuit breaker is opened or closed; said stationary escutcheon plate being fixed with respect to said circuit breaker and having movably mounted thereon said handle which manually operates said circuit breaker; resilient means pressing said movable escutcheon plate into sealing relationship with said stationary escutcheon plate.

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2,770,702
LATCH FOR SINGLE AND DOUBLE THROW HOOK OPERATED DISCONNECT SWITCH
Theodore A. Fjallstedt, Ingleside, Ill., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application April 7, 1954, Serial No. 421,531
5 Claims. (Cl. 200—169)

1. In an electric switch, the combination of a hinge member, a contact member and a switch blade mounted on said hinge member for swinging movement relative to said contact member, a latch juxtaposed to said contact member, said latch having a cutaway portion defining intersecting catch and cam surfaces, said cam surface being intermediate said catch and the pivot axis of said latch, a spring interposed between said contact member and said latch biasing said latch toward said contact member, a fixed latch pin transversely through said blade engageable with the catch in substantially the same plane as the latch pivot, a bifurcated member straddling said blade



at its free end and pivotally mounted on said latch pin, prying arms disposed on opposite sides of said latch pin on each furcation and extending adjacent said cam surfaces on said latch when said switch is in latched position, a stop pin transversely through said switch blade intermediate said arms, and a hook stick ring integral with said bifurcated member, whereby rocking of said bifurcated member by means of said hook ring will urge said latch clear of said latch pin and pry against said cam surfaces to urge said blade toward open circuit position.

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2,770,703
TRANSDUCER
John S. Schoenrich, Minneapolis, Minn., assignor to Northern Pump Company, Minneapolis, Minn., a corporation of Minnesota
Application May 28, 1953, Serial No. 358,063
1 Claim. (Cl. 201—63)



A device for measuring pressures having in combination, a casing having a chamber therein, a ring disposed in said chamber and having one side engaging a rigid surface at one end of said chamber, a diaphragm having one side in a plane tangentially engaging said ring at the opposite side thereof, means for holding said diaphragm in position, a member secured in said casing having a passage therethrough for fluid, said passage being disposed to transmit pressure of fluid therein to said diaphragm, a pair of strain gages secured respectively on the outer and inner side of said ring between said engaged sides thereof, electrical conductors extending from said gages, a bar extending through said ring at said first mentioned side, means extending through the ends of said bar and threaded into said casing for holding said ring rigidly in said casing, and said means being movable to release said ring so that it can be rotated about its central axis.

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2,770,704
RADIANT HEATERS
Emil W. Ruthe, New York, N. Y., assignor to Continental Radiant Glass Heating Corporation, New York, N. Y., a corporation of Michigan
Application January 31, 1951, Serial No. 208,738
4 Claims. (Cl. 219—34)

3. In an electric heater, a panel-like glass heater plate having a rear face provided with an electric resistance heating element, a frame for the plate, a bracket behind each end of the plate, means connecting the bracket to

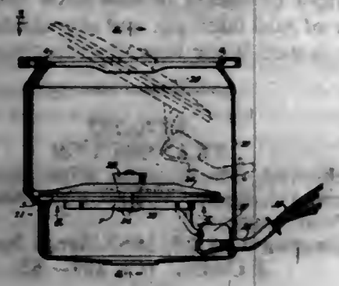
the frame, a lug detachably connected to each bracket and overlying a small area of the outer face of the plate



to hold the plate in the frame, and means compressed between the brackets and the back of the plate and pressing the plate forward against the lugs.

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2,770,705
LIFTING DEVICE FOR THRIFT COOKER UNIT
Ernst P. Lang, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application February 1, 1954, Serial No. 407,517
6 Claims. (Cl. 219—37)



1. In combination, an electric range having a cooking top provided with a well, a substantially circular heating unit disposed in said well and movable between operative positions at the bottom and at the top of said well, said heating unit including spaced supporting elements, a cooking vessel for use with said heating unit in either of its operative positions, a cover for said vessel, said cover being smaller in diameter than said well, and a plurality of hook members fixed to the underside of said cover and extending downwardly therefrom to below the rim thereof for engagement with the underside of said supporting elements centrally of said heating unit to provide for manually moving said heating unit from one to the other of its said operative positions.

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2,770,706
METHOD AND DEVICE OF HEATING SPRAYING AGENTS
Friedrich Vögtle, Ehingen (Danube), and Johann Vögtle, Neuselwangen Kreis Überlingen (Bodan See), Germany
Application February 17, 1953, Serial No. 337,294
Claims priority, application Germany February 28, 1952
14 Claims. (Cl. 219—39)

14. A spraying device, comprising, in combination, spraying means for spraying fluid material under pressure; vessel means having an inlet and an outlet and being connected at its outlet to said sprayig means, said vessel means being adapted to contain fluid material flowing therethrough to said spraying means for spraying thereby, and having spaced surface portions defining a laminar passage through which the fluid material is forced to flow in a thin film in its flow toward said spraying means; electrical heating means associated with said vessel means outside thereof for heating said laminar passage so as to heat the film of fluid material flowing therethrough; and operating means for starting and stopping the operation of said spraying means and said heating means simultaneously, said operating means including an electrical circuit having thermo-regulator means and switch means operable thereby for operating said heating means, said



operating means further including compressed fluid supply means operatively connected to said spraying means, and regulating means for controlling the flow of compressed fluid in said supply means; said switch means being operable by said regulating means for stopping and starting the operation of said heating means.

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2,770,707
TEST TUBE HEATER
Anthony G. Jordan, Battle Creek, Mich.
Application February 18, 1954, Serial No. 411,073
5 Claims. (Cl. 219—43)

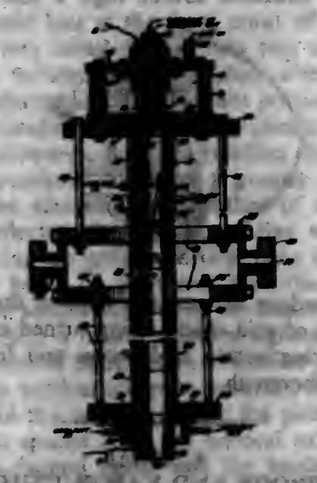


4. In laboratory apparatus for heating test tubes, a ceramic body, a lead attached to said body, a heating unit comprising a fixed portion and a replaceable portion, said replaceable portion having a C-shaped front surface portion for receiving tubes, and a heating element disposed upon the glued to said front surface, cylindrical openings in said replaceable portion, conductors disposed in said openings and connecting with said heating element, said conductors protruding from the rear of said replaceable element, cylindrical openings disposed in said fixed portion aligned with the first mentioned cylindrical openings, arcuate contact surfaces in said last mentioned cylindrical openings adapted to receive and continue contact with said protruding conductors, a pair of additional cylindrical openings disposed at right angles to the before mentioned cylindrical openings, conductors received in said openings and contacting said arcuate contact surfaces, said conductors continuing contact from said arcuate contact surfaces to said lead.

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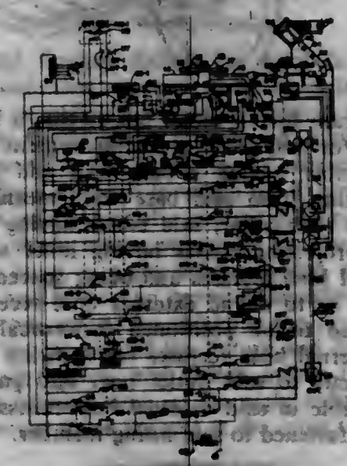
2,770,708
ELECTRIC ARC TORCH
Rufus L. Briggs, Melrose, Mass., assignor to Amalgamated Growth Industries, Inc., New York, N. Y., a corporation of Delaware
Application September 21, 1954, Serial No. 457,343
12 Claims. (Cl. 219—75)

1. In an electric-arc torch, an upstream electrode, a hollow downstream electrode, an elongated arc chamber extending between said electrodes and axially spacing all parts of said upstream electrode from all parts of said downstream electrode, and inlet-gas-supply means at the upstream end of said chamber for inducing a flow of gas along said chamber and through said downstream electrode, said chamber comprising a plurality of like interfitting sectional elements of insulating material.



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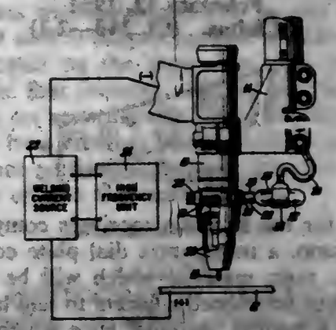
2,770,709
ELECTRIC FLASH-BUTT-WELDING MACHINES
Charles D. Moore, Byfield, and Hermann W. Stieglitz, Marblehead, Mass., assignors to Thomson Electric Welder Company, Lynn, Mass., a corporation of Massachusetts
Application May 25, 1954, Serial No. 432,124
33 Claims. (Cl. 219—97)



1. A flash-butt-welding machine including relatively movable platen means for supporting workpieces to be welded, reversible fluid motor means for moving said platen means toward and away from one another at a substantially constant pressure in accordance with the fluid pressure supplied thereto, a snubbing device, a toggle mechanism connected between said snubbing device and said platen means for cooperating with said snubbing device to resist the relative motion of said platen means induced by said motor means during the first portion of the movement of said platen means toward one another and thereafter to permit said motor to complete said movement of said platen means toward one another substantially unresisted by said snubbing device, valve means effective to vary the direction of travel of said motor means, and control means responsive to voltage across said workpieces, said control means being connected and arranged to operate said valve means to preheat said workpieces by butting said workpieces and then moving said platen means away from one another to gap said workpieces, and finally to weld said workpieces by moving said platen means toward one another.



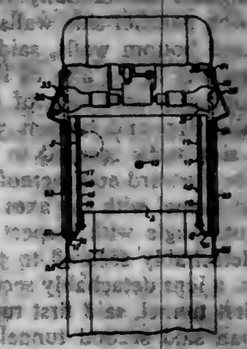
2,770,710
ARC WORKING APPARATUS
Walter E. Burkart, St. Louis, Mo., assignor to Union Carbide and Carbon Corporation, a corporation of New York
Application May 26, 1954, Serial No. 432,536
4 Claims. (Cl. 219—130)



1. Arc working apparatus comprising the combination with a metal bracket, an electric arc working torch having a body mounted on said bracket, said torch comprising an electrode and a gas cup of metal surrounding and spaced from such electrode and insulated from said body of the torch, and sources of working current and high-frequency connected to said electrode, of a neon tube comprising a metal base provided with at least one terminal and a glass envelope, means electrically connecting said terminal to said gas cup, and means including a metal clip electrically connecting said glass envelope to said bracket, said neon tube and clip being effective as a potential discharge condenser to assure the starting of a working arc between such electrode and another electrode in circuit with said sources of working current and high-frequency.

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2,770,711
DISPENSER DIAL AND SIGN ILLUMINATOR
Leslie B. Baranowski, Burlington, Ontario, Canada, assignor to Bowser, Inc., Fort Wayne, Ind., a corporation of Indiana
Application March 16, 1953, Serial No. 342,642
2 Claims. (Cl. 240—2.1)



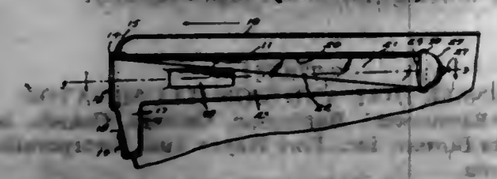
1. In a liquid dispenser, a planar dial, a door, a door glass therein disposed in parallel, closely spaced relation to the dial, means for supporting a lamp above the dial and glass with its longitudinal axis substantially normal to the plane of the dial, a translucent sign panel mounted in the door above said glass, said panel having upper and lower planar walls disposed substantially at right angles to each other, said upper wall being longer than said lower wall, said walls intersecting to form a concave-convex wall disposed at the level of the lamp and with its convexity extending away from the lamp, said lamp being disposed to extend into the concavity of the panel to position the filament of the lamp directly above the space between the dial and door glass, said panel convexity projecting from said dispenser whereby the outside surfaces of the dispenser and the ground around the dispenser will be illuminated when said lamp is energized.

2,770,712
**ILLUMINATED DIAL PLATE**
Arie Dros, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application January 9, 1952, Serial No. 265,683
Claims priority, application Netherlands February 12, 1951
2 Claims. (Cl. 240—2.1)



1. A dial for use in radio receivers comprising an incandescent lamp, a transparent dial plate composed of a thermoplastic resin material which will be deformed or discolored when positioned adjacent to said lamp, said dial plate having a bottom marginal edge which slants angularly upwards, and a transparent connecting piece arranged between said lamp and said dial plate and angularly thereto, said piece being adapted to transmit light from said lamp to said dial plate through said bottom marginal edge and said piece being composed of a thermoplastic resin material exhibiting a value of resistance to heat at which said piece is not substantially deformed or discolored when adjacent said lamp.

2,770,713
**VEHICLE HEADLIGHT**
Wesley Earl Sears, McKee, Ky.
Application March 5, 1954, Serial No. 414,441
1 Claim. (Cl. 240—7.1)



In a vehicle headlight system of the type having dual head lamps, a construction for each of said head lamps comprising, an elongated substantially rectangular hollow first tunnel having parallel side walls and rearwardly converging top and bottom walls, said tunnel having its axis extending parallel to the axis of the vehicle, said tunnel having the opposite ends thereof open, a second tunnel having parallel top and bottom walls and rearwardly converging side walls secured to a side wall of said first tunnel at the forward end thereof and communicating with said first tunnel with the axes of said tunnels extending at an acute angle with respect to each other, a source of light detachably secured to the rear end of each of said tunnels, a lens detachably secured to the forward end of said first tunnel, said first tunnel being substantially longer than said second tunnel with the light rays from each of said tunnels passing through said lens, a second lens positioned below said first lens, and reflector means depending from the bottom wall of said first tunnel rearwardly of said second lens for reflecting a portion of the light from each of said light sources through said second lens.

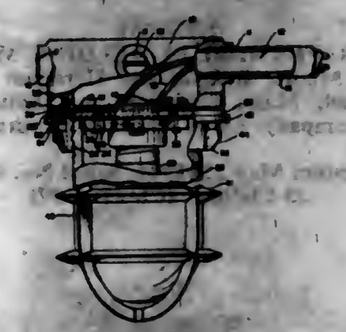
2,770,714
**PLASTIC SHIELD FOR FLUSH-MOUNTED HEADLAMP**
Howard C. Mead, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 27, 1953, Serial No. 357,751
6 Claims. (Cl. 240—8.1)

1. A light passing device adapted for attachment in front of a headlamp lens comprising a light passing shield, a circumferential recess in the base of said shield, a continuous metallic ring positioned in said recess, a plurality of fastening bolts attached to said ring, and a



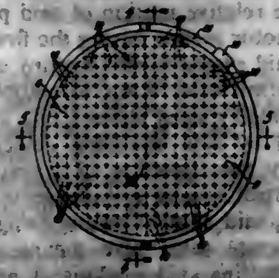
chamfer formed on at least one edge of the base of said ring, the base of said shield being turned over said edge to lock said ring within said recess and form a unitary combination therewith.

2,770,715
**WEATHERPROOF AND VAPOR-TIGHT FIXTURE**
Henry D. Stecher, Lakewood, Ohio
Application September 3, 1953, Serial No. 378,350
6 Claims. (Cl. 240—11.2)



6. In a fixture for an outlet box having a lamp globe and a guard for said globe, the improvement comprising a fitting member having a base wall and an annular collar projecting from said base wall, means to secure said globe to said collar, said collar having a plurality of radially projecting bosses having inner surfaces defining internal boss recesses and being spaced from said base wall so as to define external boss recesses, screw means adapted to be positioned in vertical alignment with said internal boss recesses for securing said fitting member directly to said outlet box, said guard having parts engageable in said external boss recesses whereby said guard is fastened to said fitting member.

2,770,716
**T-SHAPED SPLIT BEAM TRACTOR LAMP**
James E. Kingery, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 22, 1952, Serial No. 305,793
6 Claims. (Cl. 240—41.3)



2. A vehicle lamp comprising a generally cup-shaped reflector vertically divided into two parabolic sections of substantially equal size and shape, said sections being



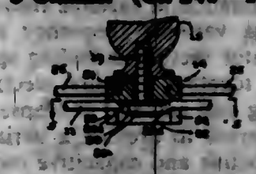
tilted inwardly toward each other so that their optical axes are at an angle with respect to each other in a substantially horizontal plane, a lens positioned in front of said reflector and a light source mounted between said reflector and said lens at the focal point of said reflector sections, said lens being divided into two portions along a vertical line substantially coinciding with the dividing line of said reflector, each of said lens portions being provided with a plurality of substantially identical contiguous light bending elements, the light bending elements in one of said lens portions providing a greater vertical light spread than the elements in the other of said portions, one of said reflector sections cooperating with said lens portion providing the greater vertical light spread to project a frontal beam of light and the other of said reflector sections cooperating with the other of said lens portions to project a lateral beam of light at an angle to said frontal beam of light, the combination of said beams producing on a vertical screen, a generally T-shaped light pattern wherein the vertical axis of the pattern from the lateral beam is spaced from the vertical axis of the pattern from the frontal beam and the horizontal axis of the pattern from the lateral beam substantially dissects the vertical axis of the pattern from the frontal beam.

2,770,717
**ELECTRIC LIGHTING FIXTURE**
Martin W. Schwartz and Max J. Marks, Chicago, Ill.
Application February 6, 1953, Serial No. 336,534
7 Claims. (Cl. 240—73)



1. A night lighting fixture for cabinets, mirrors and the like, comprising supporting means including a translucent base extending horizontally from a wall and over a cabinet or mirror to be illuminated, a straight tubular lamp supported in the fixture in a horizontal position at a distance from the wall to which the fixture is connected so that it is in advance of a cabinet opening or a mirror, transparent shade means supported by the base and enclosing the lamp, a night light mounted in the base of the fixture and having an opening therethrough for light rays therefrom, means for shielding the rays of the night light from the interior of the fixture and from illuminating the shade means, and switch means for connecting the straight tubular lamp or the night light for illumination at different times but not at the same time.

2,770,718
**LAMP SHADE MOUNTING MEANS**
Herbert Lapin, Great Neck, N. Y.
Application November 9, 1953, Serial No. 390,840
3 Claims. (Cl. 240—148)



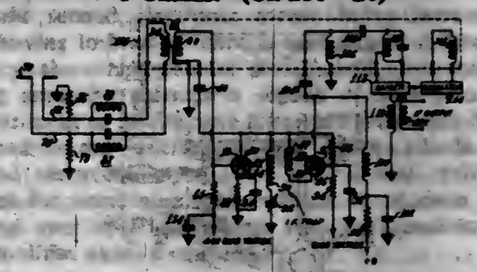
1. In combination, a lamp harp frame having a cross wire, a downwardly extending U-shaped intermediate portion in said cross wire having side arms connected by a web, and a connection for mounting a lamp shade on the cross wire, said connection comprising a first member and a second member, said first member having a base element, a threaded stud extending up from said base element, said base element resting on and being formed around the web of said U-shaped portion in said cross wire and between the side arms of said U-shaped portion, to clamp said first member on said cross wire, said second member having an opening extending through the center thereof, said threaded stud on the first member being positioned in said opening and extending out therefrom, said second member having downwardly opening slots through the sides thereof to permit said second member to be moved downwardly onto the cross wire, said cross wire being received in said slots on opposite sides of said U-shaped portion whereby the second member is seated on the cross wire and over the base element of the first member, and a finial screw on said threaded stud for securing said first and second members together, said base member being provided with a pair of opposed cut-out portions embracing the inner surfaces of the side arms of said U-shaped portion.

2,770,719
**PHOTOGRAPHIC SYSTEM**
Luther G. Simjian, Greenwich, Conn., assignor to The Reflectone Corporation, Stamford, Conn., a corporation of Connecticut
Application April 2, 1954, Serial No. 420,600
6 Claims. (Cl. 250—69)



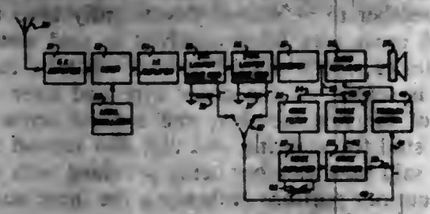
1. A photographic system for locating objects within a body comprising; two sources of penetrating radiation positioned on opposite sides of the body; two photographic films also positioned on opposite sides of the body in close proximity thereto; and two metal shields which are opaque to said radiation, each adjacent to one of said films for shielding the film from the radiation from one of said sources, said shields containing a plurality of holes for the passage of said radiation.

2,770,720
**HIGH FREQUENCY AMPLIFIER WITH ANODE TO GRID INPUT AND ANODE TO CATHODE OUTPUT**
Tomomi Murakami and Richard W. Sonnenfeldt, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application May 26, 1955, Serial No. 511,210
5 Claims. (Cl. 250—20)



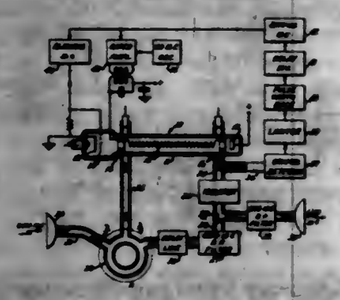
1. A high-frequency signal amplifier comprising in combination, a first and a second electron tube, each of said tubes having an anode, a cathode and a control grid; means providing a direct current connection between the anode of said first tube to the cathode of said second tube; means for applying a signal voltage between the anode and the control grid of said first tube; means effectively connecting the cathode of said first tube to ground for said amplifier at signal frequencies; means effectively connecting the control grid of said second tube to said ground at signal frequencies; and means for deriving an output signal from said amplifier between the anode of said second tube and said ground.

2,770,721
**SQUELCH CIRCUIT**
James M. Clark, Brookfield, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application May 3, 1952, Serial No. 285,973
18 Claims. (Cl. 250—20)



1. In a radio receiver for receiving an audio modulated carrier wave and for deriving the audio signal therefrom, and having an audio signal reproducer, the voltage responsive means to control the operation of said reproducer to prevent the reproduction of noise in the absence of a desired audio signal containing voice frequencies including in combination, means responsive to noise in the derived audio signal in a selected range of frequencies above voice frequencies and also including the higher voice frequencies for producing a first direct current voltage of one polarity, means responsive to reception of a carrier wave by said receiver to produce a second direct current voltage having a polarity opposite to said first voltage, means responsive in a selected range of lower voice frequencies of the derived audio signal to produce a third direct current voltage of the same polarity as said second voltage, means to differentially combine said first, second and third voltages to provide a direct current control voltage, and means for controlling said audio reproducer in accordance with said direct current control voltage so that said reproducer is blocked when said control voltage is of said one polarity and is rendered operative when said control voltage is of said opposite polarity, whereby the reproduction of noise in the absence of a desired audio signal containing voice frequencies is prevented and the reproduction of an audio signal containing the selected range of lower voice frequencies is permitted.

2,770,722
**TIME SHIFT RE-ENTRANT AMPLIFIER SYSTEM FOR CARRIER PULSES**
Frank R. Arams, Radnor, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application June 30, 1955, Serial No. 519,162
7 Claims. (Cl. 250—20)



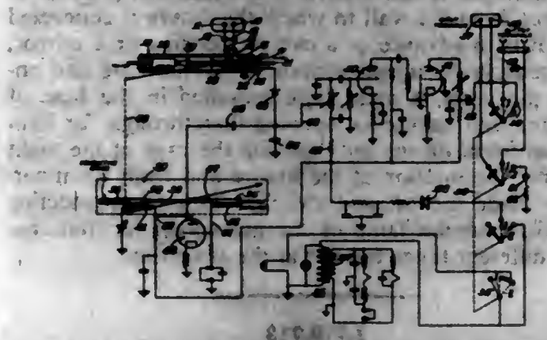
1. A pulse amplifier comprising an amplifier tube having a signal input coupling and a signal output coupling, means to apply a signal to said input coupling, an input signal pulse path from said output coupling to said input coupling including a signal delay device providing a delay greater than the duration of the input signal pulse, means for causing a signal component of a predetermined frequency to appear in said output coupling only after said input signal pulse has circulated through the amplifier tube a predetermined number of times, and means including a frequency-selective device for deriving an output of said predetermined frequency from said output coupling.

2,770,723
**ULTRAHIGH FREQUENCY TUNER**
Harry C. Rowe, Cincinnati, Ohio, assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application September 21, 1951, Serial No. 247,627
10 Claims. (Cl. 250—20)



1. In an ultra high frequency tuner, a terminal cylinder, a coaxial terminal disc, a crystal rectifier positioned in the cylinder and having its opposite terminals connected to the cylinder and the disc, a coupling plate adjacent the disc, a dielectric film positioned between the plate and the disc, inductive tuning means including the cylinder and comprising in addition a cylindrical post connected to the plate and positioned externally parallel to and eccentrically offset from the cylinder, and a tuning slider including respective sleeves slidable on the post and on the cylinder and a cross bar connected between the sleeves.

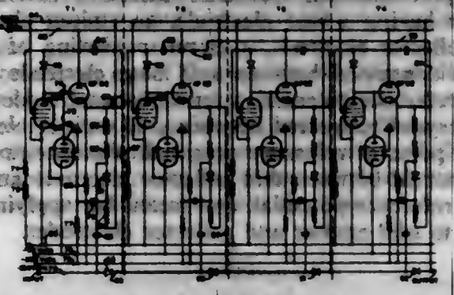
2,770,724
**CONVERTER**
Henry Nell Frihart, Brookfield, and George F. Baroch, Lombard, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application July 26, 1952, Serial No. 301,102
9 Claims. (Cl. 250—20)



5. An ultra high frequency coaverter for tuning over a wide range of ultra high radio frequency input signals to produce a fixed frequency intermediate output signals comprising in combination, a variable frequency resonant oscillator section, a variable frequency resonant input section, said oscillator section including spaced coil and condenser portions together with first electrically conductive means spanning said coil and condenser portions and movable axially thereof to provide a variable frequency series resonant inductive and capacitive oscillator circuit, second electrically conductive means movable with said first electrically conductive means and insulatingly spaced from the end thereof associated with said coil portion and movable into said coil portion as said first conductive means is withdrawn therefrom to inductively short circuit unused turns of said coil portion, said input section including a coaxial variable capacity loaded resonant tuned unit having an axially movable coaxial element for varying the resonant frequency thereof, means for ganging said conductive means and said coaxial element for axial movement to simultaneously vary the resonant frequencies of said oscillator circuit and said input resonant unit such that the intermediate frequency output of the tuner remains substantially the same over the entire tuning range, and an axially movable conductive sleeve mounted in said coaxial variable capacity loaded tuned unit, said sleeve being electrically connected to said unit and in capacitive relation with said movable coaxial element therein to adjustably predetermine the capacity loading and the resonant frequency thereof in the middle range of travel of said coaxial element to maintain the tracking of said oscillator and input sections over their entire tuned resonant ranges.

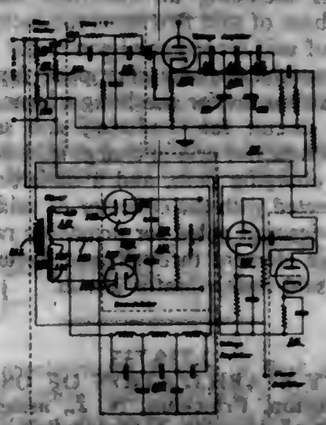


2,770,725
**BINARY-DECADE COUNTER**
John J. Lentz, Chappaqua, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 21, 1951, Serial No. 262,802
12 Claims. (Cl. 250—27)



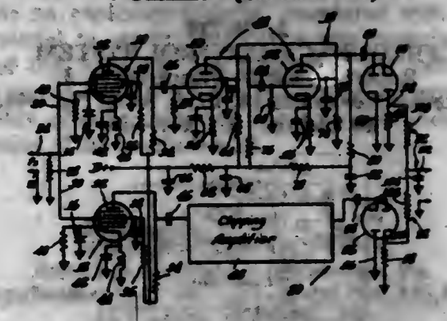
11. In an electronic circuit including a plurality of electronic switches responsive to a predetermined number of electrical changes to complete a cycle of operation, input means connected to apply said electrical changes to each of said switches, said input means including a plurality of serially connected voltage responsive devices selectively connected to said switches; and voltage transferring means connecting each of said devices to one of said switches including means coupling the voltage present at a preselected point in each switch to the device connected thereto to control the conductivity of that device.

2,770,726
**FREQUENCY ERROR SENSING AND SIGNAL SYSTEM**
Stephen H. Fairweather, South Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application September 28, 1953, Serial No. 382,584
4 Claims. (Cl. 250—37)



1. A frequency error sensing and signal system deriving its input from a variable frequency source, variations in the frequency of which serve as the error to be sensed, comprising a phase shifter, a twin T network fed by said phase shifter, a cathode follower fed by said twin T network, a delay line network fed by said cathode follower, energy coupling means fed by the input to the phase shifter and also by the output from the delay line network, and an energy comparing means fed by said energy coupling means.

2,770,727
**DOUBLE COUNTER DEMODULATOR CIRCUIT**
Julius J. Rupert, Andrzej B. Przedpelski, and Kenneth Ringer, River Forest, Ill., assignors to A. R. F. Products, Inc., River Forest, Ill., a corporation of Illinois
Application August 21, 1952, Serial No. 305,634
4 Claims. (Cl. 250—27)

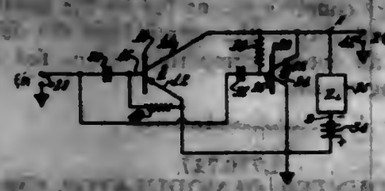


1. A frequency discriminator device for demodulating a signal frequency that is frequency modulated comprising means for generating a frequency lower than the signal frequency, means for mixing said lower frequency with the signal frequency to produce a first difference frequency, means for generating a frequency higher than the signal frequency, means for mixing said higher frequency with the signal frequency to produce a second difference frequency, a first counter discriminator for producing a voltage proportional to said first difference frequency, a second counter discriminator for producing a voltage proportional to said second difference frequency, said first counter discriminator including electronic means containing two cathodes and two plates, one of said cathodes and one of said plates being interconnected and having impressed thereon said first difference frequency, the other of said cathodes being grounded and the other of said plates being grounded through a resistance, a voltage proportional to said first difference frequency being developed at the junction between said other plate and said resistance, said second counter discriminator including a second electronic means containing a pair of plates and a pair of cathodes, one of the cathodes and plates of said second electronic means being interconnected and having impressed thereon said second difference frequency, the other plate of said second electronic means being grounded through a second resistance, a voltage proportional to said second difference frequency being developed at the junction of said other cathode of said second electronic means and said second resistor, and means for combining said voltages to produce a single voltage varying in accordance with the frequency modulation of the signal frequency.

2,770,728
**SEMI-CONDUCTOR FREQUENCY MULTIPLIER CIRCUIT**
Gerald B. Herzog, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 26, 1954, Serial No. 445,697
14 Claims. (Cl. 250—36)

1. In a frequency multiplier circuit, the combination with a pair of semi-conductor devices of opposite conductivity types, of signal input circuit means connecting said pair of devices effectively in parallel, circuit means providing a continuous conductive path through said de-

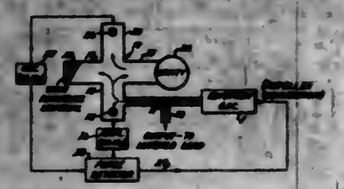
vices serially, and means providing an output circuit connected with each of said devices, said signal input means providing a source of input signals of a predetermined



frequency for rendering said devices alternately conductive to provide a corresponding push-push output signal of a frequency equal to twice said predetermined frequency.

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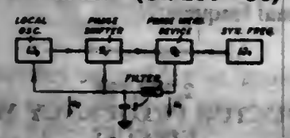
2,770,729
FREQUENCY CONTROL SYSTEM
Robert H. Dicke, Princeton, N. J.
Application November 14, 1955, Serial No. 546,502
20 Claims. (Cl. 250—36)



1. In an oscillator frequency control system, an oscillator the frequency of which is to be controlled, an impedance bridge type frequency discriminator comprising a magic-T assembly having two symmetrical waveguide branches and two asymmetrical waveguide branches, a passive wave impedance element terminating one of said two symmetrical branches, a cavity resonator coupled to the other of said two symmetrical branches, said resonator being matched to said assembly at the predetermined desired frequency of said oscillator, a mixer crystal coupled to one of said two asymmetrical branches, and a modulator crystal coupled to the other of said two asymmetrical branches; means for applying output energy from said oscillator to said one asymmetrical branch and to the mixer crystal coupled thereto, means coupled to said modulator crystal for modulating the energy from said oscillator appearing thereat, thereby to produce sideband energy, said mixer crystal operating to develop beat frequency energy by mixing of said sideband energy and energy from said oscillator; means for developing a frequency control voltage from said beat frequency energy, and means for applying said control voltage to said oscillator for control purposes.

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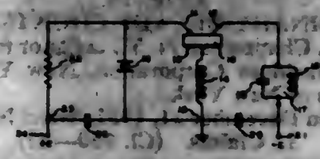
2,770,730
FREQUENCY CONTROL CIRCUIT
Rudolf Urtel, Pforzheim, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application July 23, 1953, Serial No. 369,791
Claims priority, application Germany July 25, 1952
3 Claims. (Cl. 250—36)




1. A frequency control circuit comprising a local oscillator, a source of synchronizing signals, a phase measuring device, means applying the local oscillations and said synchronizing signals to said phase measuring device, said phase measuring device producing a control voltage in response to a phase difference in said applied frequencies, and means applying said control voltage to said local oscillator to correct said deviations, and characterized by means for more rapidly and directly correcting said deviations comprising a phase shifting device coupled between the output of said local oscillator and the input of said phase measuring device, and means applying said control voltage to said phase shifting device, whereby said control voltage is applied simultaneously to said local oscillator and said phase shifting device.

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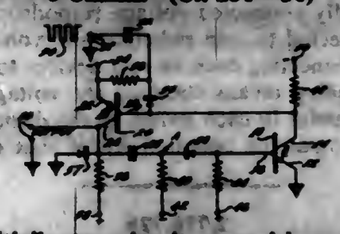
2,770,731
TRANSISTOR OSCILLATOR
Calvin C. Bopp and Richard W. Bundschuh, Cincinnati, Ohio, assignors to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware
Application August 17, 1954, Serial No. 450,384
7 Claims. (Cl. 250—36)



1. A point contact transistor oscillator including a transistor having a base electrode, an emitter electrode, and a collector electrode, a circuit consisting of an inductance connected between said base electrode and a point of reference potential, a series-resonant mode piezoelectric crystal connected between said emitter electrode and said point of reference potential, a tank output circuit connected between said collector electrode and said point of reference potential, and means for applying bias voltages to said emitter and collector electrodes.

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2,770,732
TRANSISTOR MULTIVIBRATOR CIRCUIT
Carlos F. Cheng, Philadelphia, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application July 8, 1955, Serial No. 520,706
6 Claims. (Cl. 250—36)



1. A multivibrator circuit comprising, a first and a second semi-conductor device of opposite conductivity types each including a base, an emitter and a collector electrode, means providing a direct current conductive connection between the collector of said first semi-conductor device and the base of said second semi-conductor device, means including an electrical storage element coupling the base of said first semi-conductor device with the collector of said second semi-conductor device, means providing a conductive charging path for said storage element, circuit means for receiving trigger pulses in said multivibrator circuit for rendering said semi-conductor devices non-conductive and to charge said storage element through said charging path, and a unilateral conducting element connected with the collector of said second semi-conductor device and poled for providing rapid discharge of said storage element through said devices and stable operation of said multivibrator circuit.

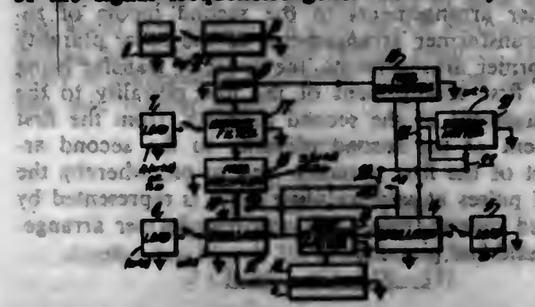
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2,770,733
FREQUENCY STABILIZATION OF OSCILLATORS
Lowell E. Norton, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 2, 1951, Serial No. 218,807
7 Claims. (Cl. 250—36)

3. In a frequency-stabilizing system, a servo loop including oscillator means for generating signal frequencies



$\omega$ and $\omega \pm \Delta$, a frequency multipled connected to said oscillator means to provide the $n$th harmonic of one of said signal frequencies, a mixer connected to said multiplier to receive the output of said multiplier and a signal of standard frequency $\omega_s$ separately stabilized, thereby to produce a difference frequency, a comparator connected to said mixer to receive said difference frequency signal and connected to said oscillator means to receive one of the signal frequencies generated thereby to produce

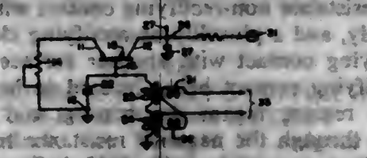


an error signal, and oscillator stabilizing means connected to said oscillator means and connected to receive and be controlled by said error signal to stabilize one of said oscillator means signal frequencies, the signal frequency provided by the multiplier being $n\omega$ and said comparator having a selector in an input circuit of the comparator to provide for selective impression thereon of the signal frequencies $\omega$, $\omega \pm \Delta$ to shift the stabilized signal frequency $\omega$ to an extent corresponding to

$$\pm \frac{\Delta}{n+1}$$

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2,770,734
TRANSISTOR RELAY DEVICE
Robert J. Reek, Bellwood, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application January 22, 1953, Serial No. 332,654
13 Claims. (Cl. 250—36)



1. In a relay device, a transistor, a control circuit connected to said transistor for causing the transistor to be maintained in a stable condition, an inductance having a variable impedance characteristic included in the control circuit, and means inductively coupled to said inductance for varying the impedance characteristic to cause said transistor to oscillate.

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2,770,735
NON-POISONING MASS SPECTROMETER
John E. Clemens, near Xenia, and Ben B. Johnstone, Dayton, Ohio
Application May 9, 1955, Serial No. 506,828
10 Claims. (Cl. 250—41.9)



1. A mass spectrometer having a first chamber; an electron source within said chamber; a second chamber adapted to enclose a gas to be ionized by electrons from said source; and a window permeable to electrons but impervious to gas positioned between the chambers thereby separating the electron source from the gas to be ionized.

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2,770,736
RADIOACTIVE METHOD FOR MARKING BOREHOLE FORMATIONS
Stanley Krasnow, Fairfax County, Va., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware
Original application April 10, 1942, Serial No. 438,475, now Patent No. 2,692,494, dated April 8, 1952. Divided and this application March 12, 1952, Serial No. 276,194
10 Claims. (Cl. 250—83.6)



10. In a method of determining the amount of erosion of the wall of a borehole, the steps of exploding in the borehole an explosive material associated with radioactive material to spatter the radioactive material on the walls of the borehole, and measuring the radioactivity present in the borehole in the vicinity of the explosion at a plurality of different times to obtain data indicative of the erosion of the borehole wall.

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2,770,737
MAGNETIC DELAY LINE
Robert A. Ramey, Jr., Pittsburgh, Pa.
Application May 12, 1955, Serial No. 508,892
15 Claims. (Cl. 307—88)
(Granted under Title 35, U. S. Code (1952), sec. 266)



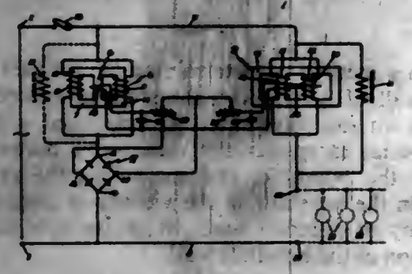
15. A magnetic ring timing circuit comprising a plurality of time delay stages coupled in endless series; each stage including at least a saturable magnetic core having a magnetizing and demagnetizing winding wound thereon, means including alternating supply voltage means for alternately applying magnetizing and demagnetizing voltage to said magnetizing and demagnetizing windings respectively in successive half-cycles; magnetizing voltage being applied to the magnetizing winding in a given stage and demagnetizing voltage being applied to the demagnetizing winding in the next succeeding stage in the same half-cycle; means for applying an initiating pulse in opposition to the demagnetizing voltage in one of said stages whereby in the next half-cycle the magnetizing voltage in said one stage causes saturation of the core therein resulting in the flow of saturation current through the magnetizing winding thereof; interstage coupling means responsive to the flow of saturation current in any stage to produce a voltage in opposition to the demagnetizing voltage in the next succeeding stage thereby to cause said next stage magnetizing voltage to saturate the associated core; and means for deriving an output timing pulse from each of said stages in accordance with saturation current flow therein.

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2,770,738
STATIC ELECTRICAL PULSATION APPARATUS
Paul A. Vance, Columbia City, Ind., assignor to General Electric Company, a corporation of New York
Application December 5, 1955, Serial No. 550,987
18 Claims. (Cl. 307—88)

16. Static electrical pulsation apparatus comprising a pair of input terminals adapted to be connected to a source of alternating current, a first saturable core reactor having a three-legged core with a pair of alternating current gate windings respectively on the outer legs and a direct current saturating winding on the center leg thereof, said gate windings being connected in parallel, a bridge rectifier

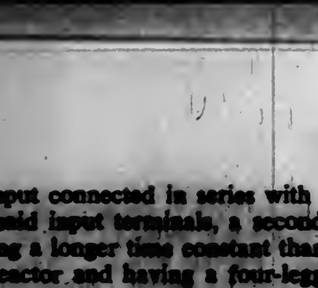
having its input connected in series with said gate windings across said input terminals, a second saturable core reactor having a longer time constant than said first saturable core reactor and having a four-legged core with a pair of alternating current gate windings respectively on the center two legs thereof and a direct current saturating winding on said center two legs, said last named saturating winding having a lower impedance than said first named saturating winding, said last named gate windings being connected in parallel, a pair of output terminals,



said last named gate windings being connected between one of said input terminals and one of said output terminals, the other of said output terminals being connected to the other of said input terminals, said saturating windings being connected respectively across the output of said rectifier, variable resistors respectively connected in said series with each of said saturating windings, a capacitor connected across said first named saturating winding, and an inductance connected across said last named gate windings.

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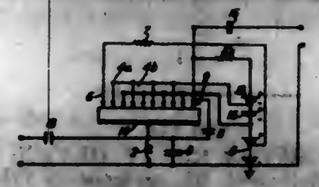
**2,770,739**
**TRIGGER CIRCUITS**
Harry Grayson and Rowland Arthur George Dunkley, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application February 15, 1954, Serial No. 410,394
Claims priority, application Great Britain February 17, 1953
7 Claims. (Cl. 307—88)



2. A magnetic counting circuit comprising a counting input circuit adapted to receive electrical pulses of relatively short duration to be counted, a first plurality of second-harmonic transformer arrangements, a second plurality of second-harmonic transformer arrangements, each of said second-harmonic transformer arrangements comprising a single second-harmonic transformer having a primary winding and first and second secondary windings, a first input connected to said primary winding and adapted to have alternating current applied thereto, a second input connected to said first secondary winding and adapted to have pulses of relatively short duration applied thereto, an output connected to said second secondary winding, said second secondary winding adapted to provide a path for an alternating current of a frequency which is an harmonic derivative of said alternating current applied to said first input, a feed-back circuit connected from said second secondary winding to said first secondary winding for passing current therebetween to produce a condition of sustained output, and means for rectifying current in said output, means for applying an alternating current to the first input of each of said first plurality of second-harmonic transformer arrangements in response to the arrival of a pulse to be counted at said counting input, means for applying an alternating current to the first input of each of said second plurality of second-harmonic transformers when there is no pulse at said counting input, and means for applying the rectified current in the output of each of said second-harmonic transformer arrangements to the second inputs of respective transformer arrangements of the other plurality of transformer arrangements, the order of transfer being from the first arrangement of the first plurality to the first arrangement of the second plurality, from the first arrangement of the second plurality to the second arrangement of the first plurality, and so on, whereby the arrival of pulses at said counting input is represented by a sustained output from successive transformer arrangements of said first plurality.

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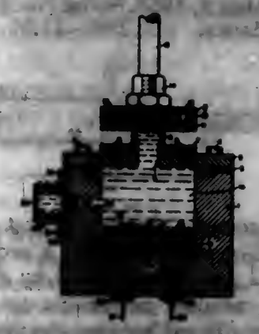
**2,770,740**
**ELECTRIC COUNTING DEVICES AND CIRCUITS EMPLOYING SEMI-CONDUCTORS**
Alec Harley Reeves and Reginald Benjamin Williams Cooke, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application October 10, 1952, Serial No. 314,662
Claims priority, application Great Britain October 12, 1951
8 Claims. (Cl. 307—88.5)



1. An electric pulse counting device comprising a body of semiconducting material having a base electrode making low resistance non-rectifying contact with one surface of the body, and a plurality of rectifying electrodes making rectifying contact with another surface of the body, each rectifying contact being formed to have a negative resistance region, means for biasing said rectifiers for operation through the negative resistance region and any pair of adjacent rectifying electrodes being so spaced that when the corresponding rectifying contacts are passing current in the forward direction, a change in current through one contact produces a change in current through the other.

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**2,770,741**
**VIBRATION PICKUP**
Milton P. Vera, Catonsville, Md., and Herbert M. Kroft, Venice, Calif., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 4, 1953, Serial No. 340,318
7 Claims. (Cl. 310—8.7)

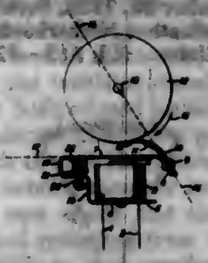


1. A vibration pickup comprising, a rigid hollow pickup body having an opening therein, an electrical pressure sensitive transducer disposed in said pickup body, a flexible fluid-tight tubular member of small cross-sectional area relative to the cross-sectional area of the hollow portion of said hollow pickup body, said flexible tubular member being flexible in an axial direction and being stiff circumferentially to minimize changes in cross-sectional area of the flexible tubular member with variations in fluid pressure therewithin, a clamp means securing one end of said tubular member to said pickup body in fluid tight relation about said opening, a prod mount connected to and sealing the other end of said tubular member, and a relatively incompressible fluid filling said hollow pickup body and said tubular member.



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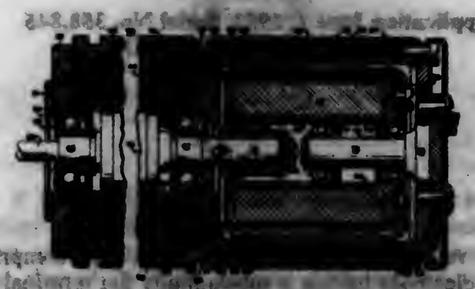
**2,770,742**
**IMPULSE MOTOR**
Harry Fuchs, Jamaica, N. Y.
Application March 16, 1953, Serial No. 342,596
3 Claims. (Cl. 310—21)



1. In an electro-mechanical device, a bracket structure having two legs and a section joining the two legs, an electroresponsive device secured to one leg adapted to vibrate the other leg, a resilient element positioned at the section joining the two legs and adapted to cushion the impact of said other leg upon its vibration by the electroresponsive device, and adjustable means associated with the resilient element adapted to vary the tension thereof.

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**2,770,743**
**SERVO SYSTEM AND SERVO MOTOR WITH BUILT-IN DAMPING ACTION**
Bernard H. Walloch, New York, N. Y., assignor to Kearfott Company, Inc., Little Falls, N. J., a corporation of New York
Application October 12, 1954, Serial No. 461,816
4 Claims. (Cl. 310—74)



2. A servo motor with built-in viscous damping, comprising a motor having a motor with a main drive shaft on one end of the rotor and with a stub shaft extension on the other end of the rotor, both shafts being co-axially aligned on the rotor axis; and a damping device for the motor, said device consisting of a permanent magnet and a keeper radially spaced therefrom to define a cylindrical air gap concentric with the motor stub shaft, bearing means supporting the magnet and keeper for free rotation relative to the stub shaft, and a cylindrical cup supported on and secured to the stub shaft and extending into the cylindrical air gap for free rotation relative to the magnet.

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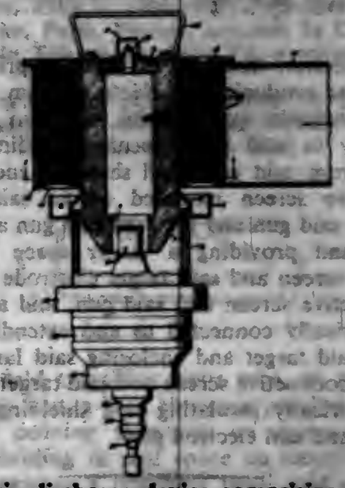
**2,770,744**
**MAGNETIC POLE STRUCTURE**
Ralph M. Heintz, Los Gatos, Calif., assignor to Jack & Heintz, Inc., Cleveland, Ohio, a corporation of Delaware
Application April 20, 1953, Serial No. 349,633
8 Claims. (Cl. 310—216)



2. Pole structure for dynamo-electric machines comprising in combination, a plurality of laminations each having at least one arcuate edge, means for securing the laminations in stacked array with the arcuate edges thereof defining a common arcuate surface, a unitary retaining cup encasing the laminations with the arcuate surface formed thereby exposed through the mouth of the cup, and means for securing the laminations to the cup.

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**2,770,745**
**FLUID COOLING ARRANGEMENT FOR ELECTRIC DISCHARGE DEVICES**
Robert E. Manfredi, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 19, 1951, Serial No. 299,820
6 Claims. (Cl. 313—44)



1. An electric discharge device comprising a cylindrical anode, a cylindrical insulator having a larger inner diameter than an outer diameter of said anode, a metal sealing ring bonded to said anode intermediate the ends thereof and to said insulator and having a heat radiating portion, and a radiator surrounding said anode and including a plurality of annular metal members mounted in a stack between said sealing ring and the outer end of said anode, the lower one of said annular members being adjacent said sealing ring and having apertures facing said portion to deflect cooling fluid toward said portion.

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**2,770,746**
**CATHODE RAY TUBE AND TARGET**
Sidney Gray, New Brunswick, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 28, 1953, Serial No. 344,616
17 Claims. (Cl. 313—65)

17. A ray sensitive target for a cathode ray tube, comprising an insulating support member, a plurality of

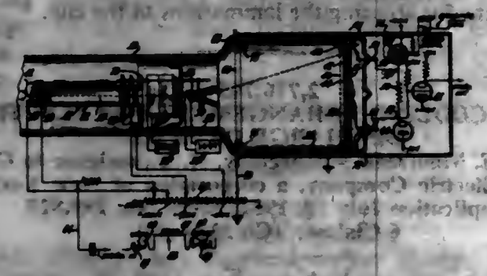
spaced conductive signal strips extending across said member, a plurality of bus bars on said member, sets of said signal strips each being connected to one of said bus bars, each of said sets of signal strips being insulated



from the other sets and the bus bars connected to said other sets, and a plurality of conductive finger strips each extending intermediate one of said signal strips and the bus bar connected thereto.

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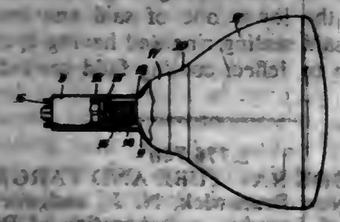
2,770,747
STORAGE TUBE
Arthur Seigfried Jensen, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 1, 1952, Serial No. 279,251
12 Claims. (Cl. 313—66)



1. An electron discharge device comprising, an electron gun for producing an electron beam along a path, a target electrode spaced from said gun and mounted transversely to said path, means shielding said target electrode from said gun, said shielding means including a conductive screen mounted across said beam path adjacent to said gun and between said gun and said target electrode and providing a larger space between said conductive screen and said target electrode than between said conductive screen and said gun, and a tubular electrode electrically connected to and extending from said screen to said target and enclosing said larger space between said conductive screen and said target electrode and means electrically insulating said shielding means from said target and said electron gun.

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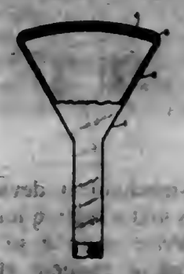
2,770,748
DEFLECTION SYSTEM
Kurt Schlesinger, Maywood, and Victor Graziano, Oak Park, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application June 15, 1953, Serial No. 361,472
8 Claims. (Cl. 313—78)



1. An electrode structure for providing electrostatic deflection of a cathode ray beam including, a tubular support member having an opening therein through which the beam passes, four conducting electrodes symmetrically positioned with respect to each other on the surface of said opening in said member, each of said electrodes extending longitudinally of said tubular member and being of zigzag shape with apex portions extending in opposite direction around said tubular member and having an overall angular physical extent thereabout of substantially 270°, said electrodes being interleaved to provide a substantially continuous conducting coating on said surface, said electrodes having adjacent edges of complementary sinusoidal configuration so that the electrical field produced by applying a potential to alternate electrodes has an effective angular extent of substantially 180° and a substantially sinusoidal distribution through this extent.

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2,770,749
CATHODE-RAY TUBE COMPRISING A LUMINESCENT SCREEN
Alfred Bril, Hendrik A. Klasens, and Pieter Zalm, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application October 30, 1952, Serial No. 317,716
Claims priority, application Netherlands August 21, 1952
1 Claim. (Cl. 313—92)



In a cathode-ray tube with a decay time shorter than $10^{-8}$ seconds and emitting ultra-violet radiation, the spectral distribution of which exhibits a maximum at about 2900 A., including an envelope having a quartz window at one end and means for producing a beam of electrons within said tube, a luminescent screen consisting of self-activated zirconium pyrophosphate.

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2,770,750
LOW TENSION SURFACE DISCHARGE SPARK PLUG
Wytze Reye Smits, Voorburg, Netherlands, assignor to Smitsvonk N. V., Leidschendam, Netherlands, a company
Application June 1, 1953, Serial No. 358,845
1 Claim. (Cl. 313—131)



A low voltage surface discharge spark plug comprising an inner electrode having a substantially flat terminal portion, an insulating separator body surrounding said inner electrode and having an end face extending substantially contiguously with the terminal portion of the inner electrode, and an outer electrode disposed concentrically with respect to the inner electrode and the separator body, the outer electrode having a terminal portion extending contiguously with the terminal portion of the inner electrode, said insulating separator body being in contact with both said terminal portions, spaced recesses formed in the terminal portions of the inner and outer electrodes and in the end face of the separator body, said recesses being in communication with each other and permitting expansion and contraction of the electrodes.



2,770,751
CONSTRUCTION OF GAS-FILLED TUBES, PARTICULARLY SHIELDING
Hans John Fraser, Maplewood, and William Curtis Dale, Basking Ridge, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application February 27, 1953, Serial No. 339,202
7 Claims. (Cl. 313—199)



1. A gas discharge device, comprising a sealed envelope having an ionizable medium therein, a pair of spaced apart insulator members within said envelope, a cathode, a control electrode and an anode supported in spaced relationship between said insulator members, said electrodes extending through both of said insulator members, a different lead-in conductor connected to one of the extended portions of each of said electrodes and sealed through said envelope, a metallic member intermediate the lead-in conductor for said anode and the lead-in conductor for said cathode and extending from one of said insulator members substantially to said envelope, a third insulator member, a U-shaped metallic member extending from the other of said insulator members to said third insulator member and intermediate the other extended portion of said anode and the other extended portion of said cathode.

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2,770,752
INSULATED SHIELDING STRUCTURE FOR GASEOUS DISCHARGE TUBE
Donald V. Edwards, Montclair, and William P. Kruger, Morristown, N. J., assignors to Electrons, Incorporated, Newark, N. J.
Application January 26, 1952, Serial No. 268,391
7 Claims. (Cl. 313—206)



1. A gaseous discharge tube comprising, an evacuated envelope containing a gaseous medium, an anode having a lead sealed in said envelope, a shield of imperforate metal shaped to have a short path spacing from said anode and from its lead, and a joint between the boundary edges of said shield and said anode lead, said joint including an element of material of very slight electrical conductivity in contact with the shield and the anode lead, the shortest path through said material between said shield and said lead being greater than said short path spacing, thereby affording a dimension of said material capable of withstanding without break-down relatively high differences of potential, said element being effective to establish surface potentials influencing the electric field in the region of said joint, whereby the effect of said short path spacing is extended into the region of said joint.

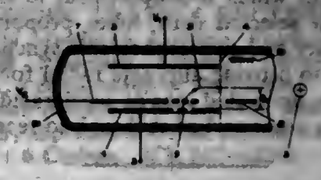
2,770,753
TIGHTENING MEMBER FOR FILAMENTS
Gerard Meesker, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee; patent dedicated to the Public insofar as it relates to lamps and lamp parts to the extent stated in document recorded in the United States Patent Office April 13, 1954
Application October 16, 1952, Serial No. 315,079
Claims priority, application Netherlands November 23, 1951
5 Claims. (Cl. 313—278)



1. A tightening device for filaments of an electrical apparatus comprising a support, a securing element being provided with a linking member fixedly secured to said support thus forming a unitary structural piece, a resilient member having part thereof adjacent one end helically wound about said support, and the one end of said resilient member being secured to said securing element, and a stay pole, means connecting said securing element to said stay pole.

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2,770,754
TRANSVERSE FIELD TRAVELLING WAVE TUBE
Daniel Charles, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application January 11, 1951, Serial No. 205,589
Claims priority, application France January 20, 1950
2 Claims. (Cl. 315—3.5)

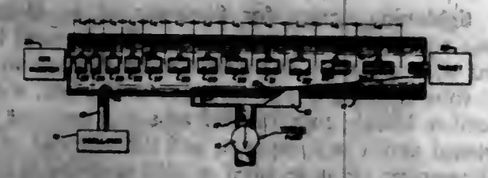


2. A cross-field travelling wave tube, of the type including a delay line, a base electrode parallel to said delay line and defining therewith an interaction space, means for providing in said space an electric field and means for providing a magnetic field, said electric and magnetic fields being perpendicular to each other and to the direction of said delay line and base electrode, whereby there is provided within said interaction space an equipotential plane corresponding to the mean velocity with which electrons, when fed into said space, propagate therein under the action of said crossed fields, said tube comprising: means comprising a cathode and two electron focusing electrodes, parallel to said delay line and base electrode and defining a focusing space; means for providing in said focusing space a uniform electric field substantially less than the field in said interaction space, of same direction and parallel thereto, and for providing the same magnetic field therein as in said interaction space; said cathode being positioned to feed electrons into said focusing space in a direction perpendicular to said focusing electrodes and parallel to the direction of said electric field, the distance between the center of said cathode and the plane of entry of said electrons into said interaction space being substantially equal to half the chord of an arch of the cycleidal path

imparted to said electrons in said focusing space under the action of said fields, the distance between said equipotential plane and a parallel plane, passing through said cathode, being equal to the algebraic sum of the distance between said base electrode and the equipotential plane of same potential value in the focusing space and of the distance between said base electrode and said parallel plane, and said focusing electrodes being positioned for delivering said electrons into said interaction space as soon as they leave said focusing space; a grid parallel to said focusing electrodes and positioned therebetween; a terminal connection for applying a control potential to said grid; and means for controlling the field in said focusing space as a function of said grid control potential.

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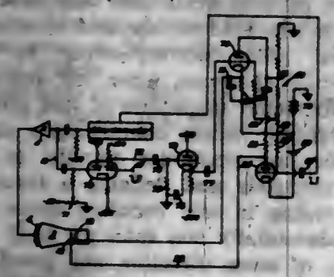
2,770,755
LINEAR ACCELERATOR
Myron L. Good, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application February 5, 1954, Serial No. 408,630
4 Claims. (Cl. 315—5)



1. In a linear accelerator for charged particles, the combination comprising an elongated air-tight tank, evacuating means associated with said tank, a plurality of drift tubes disposed axially in spaced apart relation in said tank, a sinusoidal radio-frequency oscillator coupled to said tank for producing an axial electric field, injector means disposed at one end of said tank for projecting ions in a beam along the axis thereof during the decreasing portion of the excitation cycle of said oscillator to provide a radially focused beam, the length of said drift tubes along the path of said ion proportional to a synchronous length which is proportional to the velocity of said ions with selected drift tubes proportionately and alternately lesser and greater than said synchronous length in such order to provide alternate radial focusing and defocusing forces upon said ions as accelerated, and a target disposed at the other end of said tank to receive said ions.

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2,770,756
AUTOMATIC BEAM STABILIZATION
Rudolph J. Klein, Downers Grove, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application June 16, 1953, Serial No. 362,086
5 Claims. (Cl. 315—22)



2. In a memory system comprising a cathode ray tube, a pick up plate coupled to the screen thereof, an amplifier coupled to said plate, means for establishing an electron beam within said tube, electrodes for deflecting said beam about said tube to a raster of position responsive to a series of control voltages, and a grid for controlling the intensity of said beam; the improvement comprising a grid driver stage provided with input and output circuits, said output circuit being coupled to said grid for determining the voltage impressed thereon, a difference amplifier having two input circuits and an output circuit, said output circuit being coupled to the input of said driver stage, one input being coupled to said amplifier output circuit, first and second sources of reference potentials coupled respectively to said input circuits of the difference amplifier a source of reference voltage pulses coupled to the other input of the driver stage, a clock pulse generator coupled to said source of reference pulses for timing said pulses, and means responsive to said clock pulse generator for periodically directing said beam to a selected raster position to produce a reference signal for said difference amplifier.

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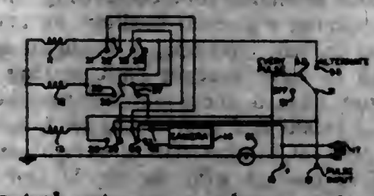
2,770,757
ARRANGEMENTS FOR THE PROTECTION OF CABLES AGAINST SHORT-CIRCUIT CURRENTS AND AGAINST OVERLOADING
William S. Edsall, Boston, Mass., assignor to The Chase-Shawmut Company, Newburyport, Mass.
Application March 13, 1953, Serial No. 342,113
3 Claims. (Cl. 317—40)



1. An arrangement for the protection against short-circuit currents and against overloading of electric conductors which are insulated by an organic insulating material comprising an electric circuit, a conductor having a metallic current-carrying core and an organic insulating covering enveloping said core arranged in said circuit, a current-limiting fuse for the protection of said conductor against short-circuit currents also arranged in said circuit, and an additional circuit interrupting device for the protection of said conductor against overloading arranged between sections of said conductor in series with said sections and in series with said current-limiting fuse, said additional circuit interrupting device being directly responsive to the temperature of said core of said conductor and including a pair of separable contacts normally spring-biased to the open position thereof and held in closed position by solder means conductively interconnecting said pair of contacts, the losses in said core of said conductor being virtually the only source of heat controlling the response of said additional circuit interrupting device.

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2,770,758
RELAY CIRCUIT
Richard C. Babbit, Boston, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 26, 1945, Serial No. 630,946
6 Claims. (Cl. 317—140)



1. In a control system responsive to an input signal of recurrent, intermittent electrical pulses to control a device mechanically operative when electrically energized and adapted for selectively energizing said device with all of said signal pulses or with alternate signal pulses, apparatus comprising a source of power, three normally de-energized electrically interlocked contact carrying relays, the first of said relays having a time delay equal to a fraction of the time duration of a signal pulse, means responsive to a first signal pulse to energize said first and second relays, means controlled by said energized second relay to hold said second relay energized for the time duration of a first signal pulse, means controlled by said first relay on being energized by said first signal pulse and operative after said time delay in connection with said power source to hold said first relay energized after said first signal pulse, and to energize the third of said relays upon the application of a second signal pulse through the contacts of said energized first relay, means controlled by said energized third relay to energize said device for the time duration of said second signal pulse and to de-energize said first relay, said second relay and said first relay time delay precluding the energization of said third relay by said first signal pulse.



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2,770,759
MAGNETIC ASSEMBLY
Axel W. Ahlgren, Rockford, Ill., assignor to Amerock Corporation, a corporation of Illinois
Application February 8, 1955, Serial No. 486,776
4 Claims. (Cl. 317—199)



2. In a magnetic assembly, the combination of, a housing of non-magnetic material having front and side walls and open at the rear, a permanent magnet bar loosely placed and longitudinally disposed within said housing, pole pieces of magnetic material abutting against the ends of said magnet and projecting outwardly through said front wall, a backing plate extending across the open rear of said housing to hold said magnet and said pole pieces in the housing, detents projecting inwardly from the side edges of said plate intermediate the ends thereof, and lugs rigid with said side walls and engaged by said detents to hold said plate in place, said plate being weakened to bend along transverse lines disposed between said detents and the ends of said magnet whereby the end portions of the plate may be bent along said lines without disengaging the detents and the lugs.

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2,770,760
MECHANICAL VIBRATOR
Austin N. Stanton, Garland, Tex.
Application August 11, 1953, Serial No. 373,567
5 Claims. (Cl. 317—182)

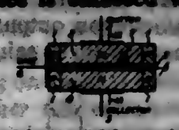


1. A mechanical vibrator including: an annulus of resilient magnetic substance; and means for supporting said annulus at four substantially equally spaced points along one edge of said annulus, opposed sections of said annulus being resiliently movable toward and away from one another about four nodes disposed at said points.

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2,770,761
SEMICONDUCTOR TRANSLATORS CONTAINING ENCLOSED ACTIVE JUNCTIONS
William G. Pfann, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 16, 1954, Serial No. 475,709
9 Claims. (Cl. 317—235)

1. A semiconductor translating device comprising a body of semiconductive material, having therein a zone of one conductivity type in contact with a zone of a second conductivity type, in which the junction common to the two said zones is enclosed within the said body,



together with means for making electrical contact to at least one of the said zones and means for making electrical contact to at least one other portion of the said body.

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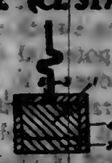
2,770,762
CRYSTAL TRIODES
Charles du Belaunoise White and Kenneth Albert Matthews, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application March 28, 1950, Serial No. 152,301
Claims priority, application Great Britain April 1, 1949
11 Claims. (Cl. 317—235)



1. An electric amplifying device comprising a semiconducting body adapted to be used in a point-contact rectifier, a plurality of point-contact electrodes making contact with said body, a pair of said electrodes being emitter and collector electrodes with respect to each other and each making contact with said body close to the other, and a third one of said electrodes in contact with said body at a distance from said pair of electrodes exceeding that at which it can act as either emitter or collector electrode with respect to either of said pair of electrodes.

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2,770,763
ELECTRIC CRYSTAL RECTIFIERS
Kenneth Albert Matthews, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application August 1, 1952, Serial No. 302,065
Claims priority, application Great Britain August 29, 1951
6 Claims. (Cl. 317—236)



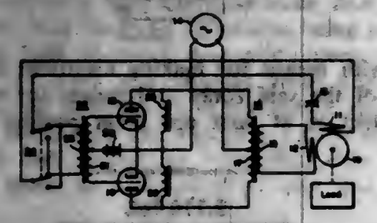
1. An electric crystal rectifier comprising a semiconducting body of given conductivity type and having on its surface a layer of the opposite conductivity type, an electrode making low resistance substantially non-rectifying contact with part of the said layer, a thin film of said given conductivity type over a limited area of another part of said layer, and a second electrode making rectifying contact with the said thin film, the two electrodes being spaced apart by a distance of between 0.001 and 0.01 inch.

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2,770,764
LOAD CONTROL WITH SINGLE CONTROL TUBE
Colin H. McArdle, Baltimore, and Charles Keith Hooper, Linthicum Heights, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 8, 1954, Serial No. 408,762
6 Claims. (Cl. 315—207)

1. A control circuit comprising a high vacuum electron emplifying tube having a control electrode, a cathode

and an anode; an input transformer having a primary winding for connection to a source of alternating current, and having a secondary winding connected to said control electrode and cathode; an output transformer having a primary winding connected to said anode, and having



a secondary winding for connection to a load; connections for applying an alternating current difference of potential between said primary winding of said output transformer and cathode, and an inductor connected directly between said anode and cathode.

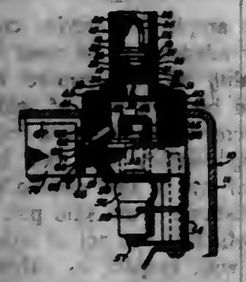
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**2,770,765**

**DOSIMETER CHARGING UNIT**

Robert W. Negus, Monrovia, Calif., assignor to Arnold O. Beckman, Inc., South Pasadena, Calif., a corporation of California

Application January 12, 1954, Serial No. 403,540
13 Claims. (Cl. 320—1)



1. A dosimeter charging unit for charging a dosimeter having an electroscope and an electroscope charging switch within a housing, said charging unit including: an enclosure; a switch actuating post; insulation means for fixedly attaching said post to said enclosure, said post being formed of electrically conducting material and being shaped to actuate said charging switch upon relative movement of said electroscope housing and said enclosure toward each other; a source of charging potential in said enclosure; an operating switch operating when actuated to supply a charging potential from said source to said post; and means responsive to such relative movement for actuating said operating switch during a first part of such relative movement to supply said charging potential to said post, said source of charging potential including a step-up transformer having a primary winding and a secondary winding, a rectifying means connecting said secondary winding to said post for supplying said charging potential thereto, a battery, and a vibrator actuated by energization of said primary winding and providing contacts connected serially with said primary winding, said battery and said operating switch.

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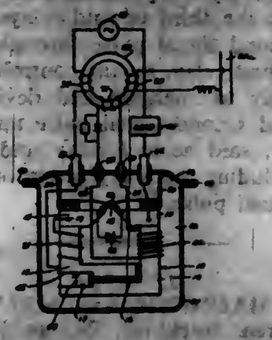
**2,770,766**

**MAGNETIC RECTIFIER**

Fritz Kesselring, Zollikon, Zurich, Switzerland, assignor to FKG Fritz Kesselring Gerätebau A. G., Bachtobel-Wetzikon, Thurgau, Switzerland, a corporation of Switzerland

Application June 27, 1952, Serial No. 296,011
6 Claims. (Cl. 321—48)

1. An electromagnetic switch comprised of a magnetic structure, an armature, and a conductor; said conductor being comprised of a first and a second member positioned in alignment and spaced a predetermined distance from each other; said magnetic structure surrounding said first and second member; said magnetic structure having an air gap in alignment with the space between said first and second member; an armature comprised of a magnetic portion and a conducting portion; said armature positioned in alignment with the gap of said magnetic structure and a space between said first and second member;



said armature having an engaged and disengaged position; said magnetic portion of said armature bridging the gap of said magnetic structure when said armature is in said engaged position; said conducting portion of said armature bridging the space between said first and second member when said armature is in said engaged position.

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**2,770,767**

**WINDING ARRANGEMENT USING A TERTIARY WINDING**

Robert A. Nelson, Rome, Ga., assignor to General Electric Company, a corporation of New York

Application December 14, 1954, Serial No. 475,119
8 Claims. (Cl. 323—43.5)



1. A winding for a transformer comprising a helically wound high current winding having a plurality of parallel connected stacked insulated conducting strands, said strands being transposed to reduce circulating currents, a helically wound tapped tertiary winding wound adjacent to said high current winding and conducting means connecting one end of said high current winding to the adjacent end of said tertiary winding.

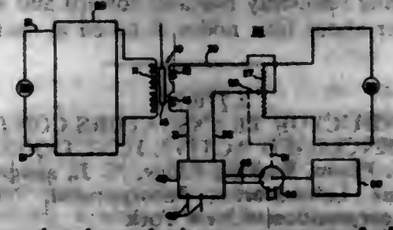
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**2,770,768**

**SIGNAL GENERATING APPARATUS**

Frank M. Exner, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application December 29, 1952, Serial No. 328,487
15 Claims. (Cl. 323—51)



15. In a signal producing apparatus of the induced voltage type, a magnetic core structure with an air gap therein and magnetic operating means positioned in said air gap and movable relative thereto, an energizing winding and an output winding mounted on said core structure, said output winding being adapted to have a voltage induced therein in proportion to the movement of said magnetic operating means, an energizing circuit means connected to said energizing winding and adapted to be connected to an alternating current source of power, and a correcting network means including a transformer having a magnetic circuit with a portion simulating the magnetic circuit of said signal producing device and having primary and secondary windings thereon with a resistor connected to the output winding of the transformer and in series with a reactor, said resistor being further connected in series with said energizing windings of said signal producing apparatus across said alternating current source with said primary winding energized from said alternating current source to correct for phase displacement originating in the energizing circuit means and said energizing winding and in the magnetic core structure of said signal producing device to align the phase of the induced voltage in the output winding with the voltage of said source of supply, and further inductive means included in said connecting network and mounted on said magnetic circuit of said transformer comprising a pair of windings, one of which is connected in series with said transformer secondary and said reactor and the other is connected in series with said resistor for correcting for harmonic distortion present in the induced voltage of said output winding of said signal producing apparatus.



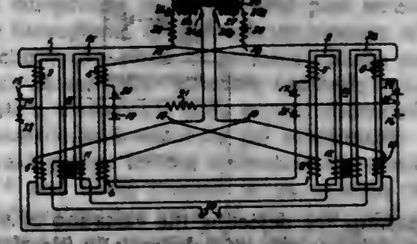
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**2,770,769**

**PUSH-PULL MAGNETIC AMPLIFIER**

Walter R. Seeguiller, Scotia, N. Y., assignor to General Electric Company, a corporation of New York

Application November 12, 1952, Serial No. 320,061
7 Claims. (Cl. 323—89)



1. A self-saturating push-pull magnetic amplifier for connection to a source of alternating electric current supply comprising a pair of direct current signal terminals, a pair of saturable reactor devices each having a pair of reactor windings and a direct current saturating winding, means connecting said reactor windings in a bridge circuit having four arms with each said pair of reactor windings in opposite arms of the bridge, said bridge having input terminals for connection to said source of alternating current supply and output terminals intermediate said input terminals for connection to a load, a rectifier connected in each arm of said bridge, said rectifiers being poled to conduct current in one direction only between said input terminals, a ballast resistor in series with said bridge input terminals and having a direct current impedance equal to the impedance of said load, and means connecting said saturating windings in series circuit relation between said signal terminals.

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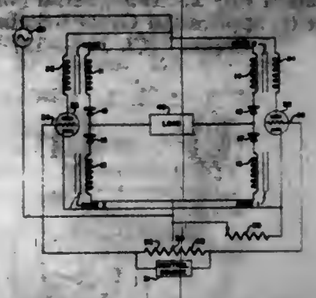
**2,770,770**

**VACUUM TUBE CONTROLLED MAGNETIC AMPLIFIER**

Carroll W. Lafey, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application May 22, 1953, Serial No. 356,915
3 Claims. (Cl. 323—89)

4. A half-wave magnetic amplifier comprising four impedance elements, at least two of said impedance elements comprising controlled windings each wound on a core of saturable magnetic material, means connecting the controlled windings to form separate parallel branch circuits therewith, each of said branch circuits including one of said controlled windings, means including a source of A. C. potential having one side connected to said controlled windings and the other side connected to said first mentioned means for applying an A. C. potential to said branch circuits, unidirectional impedance elements connected in said branch circuits and arranged so that current flows through said controlled windings only during



one half cycle of said A. C. potential, a control winding on each of said cores, a pair of tubes each having a plate, a control grid and a cathode, means connecting the plates of each of said tubes to one of said control windings, means connecting the cathodes of said tubes to each other and to a cathode biasing resistor, means connecting said source of A. C. potential to said control windings and to said biasing resistor whereby current flows through said control windings during the other half cycle of said A. C. potential, and means for applying a control signal to the grids of said vacuum tubes.

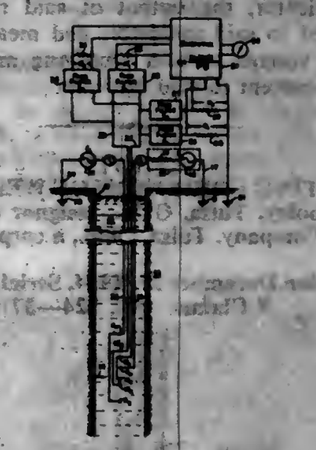
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**2,770,771**

**WELL LOGGING METHODS AND APPARATUS**

Nick A. Schuster, Houston, Tex., assignor to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Delaware

Application June 6, 1952, Serial No. 292,073
14 Claims. (Cl. 324—1)



1. In a method of investigating an electrical characteristic of earth formations traversed by a bore hole containing electrically conductive liquid, the steps of creating a first electric field having components directed oppositely along the bore hole and emanating from a first location therein, creating a second separably measurable electric field having components directed oppositely along the bore hole and emanating from each of second and third locations in the bore hole above and below said first location, respectively, picking up first signals representative of the absolute potential with respect to ground of one of said fields at a location in the vicinity of said first location, picking up second and third signals representative, respectively, of the potential gradients along the

bore hole in each of said fields in a region near one of said locations, and producing a signal that is a function of the product of said first signal and the ratio of said second and third signals.

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2,770,772

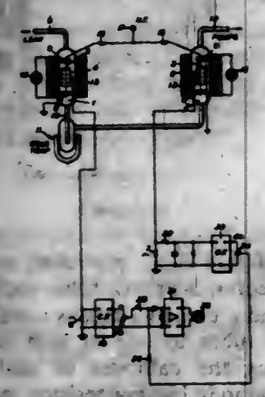
**DETECTION OF LEAKS IN VACUUM APPARATUS**

Christopher Henry Fenkes and Ernest James Blythe, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application July 23, 1953, Serial No. 369,806

Claims priority, application Great Britain July 29, 1952

1 Claim. (Cl. 324—33)



Apparatus for the measurement and detection of leaks in a vacuum system comprising a pair of cold cathode magnetron ionization gauges, a probe gas filter, one of said gauges being adapted to be connected directly to the system under test and the other connected via said filter, means for setting up an alternating magnetic field axially of the cathode in each gauge so that the output of said gauges is in the form of pulses, and means for comparing the pulse output of the two gauges, said means comprising a rectifier coupled to the output of the gauge following the filter and producing a biasing voltage output, rectifying means connected to the output of the gauge connected directly to the system of the test, an indicator, the output of said rectifying means being applied to said indicator, and means for applying the biasing voltage to said rectifying means to control the flow of current to said indicator.

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2,770,773

**DETECTING CORROSION OF WELL CASING**

Elihu H. Cooley, Tulsa, Okla., assignor to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application December 27, 1954, Serial No. 477,814

9 Claims. (Cl. 324—37)



2. In a system for detecting corrosion pits in a cylindrical ferromagnetic wall such as a well casing, the combination comprising a ferromagnetic armature parallel to the cylindrical axis of said wall having at its ends pole pieces shaped to fit the contour of said wall, at least one magnetizing-current winding on said armature and a source of direct current connected to said winding, whereby a steady magnetic flux can be created which substantially saturates the portion of said wall adjacent and between said pole pieces, a plurality of magnetic-flux-responsive elements about midway between said pole pieces spaced along an arc adjacent said wall and perpendicular to said cylindrical axis, each of said flux-responsive elements including a coil, a plurality of electrical bridge circuits each having two of said coils in adjacent impedance arms, a source of alternating current connected across one diagonal of each of said bridge circuits, a plurality of filtering and demodulating circuits, each connected across the other diagonal of one of said bridge circuits, each of said filtering and demodulating circuits being adapted to select and transmit substantially only those output signals of said bridge circuit having characteristics of frequency and amplitude variation which are related to the rate of movement of said flux-responsive elements past corrosion pits at a given speed, and means for producing an indication of the variations in output of said filtering and demodulating circuits.

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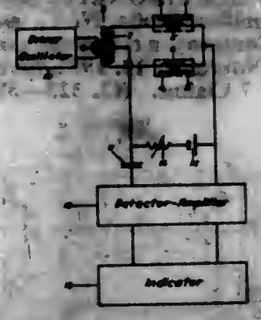
2,770,774

**BALANCED MAGNETOMETER**

Henry B. Ribbet, Kinderhook, N. Y., assignor to the United States of America as represented by the Secretary of the Navy

Application May 16, 1944, Serial No. 534,961

2 Claims. (Cl. 324—43)




1. Apparatus for detecting the variation of a magnetic field comprising a pair of substantially identical magnetometer elements each having a magnetic core and a winding, a transformer having a center-tapped secondary, said windings being so disposed that their magnetic axes are parallel and said windings are so connected in a series with said transformer secondary that similar poles of the cores are oppositely directed, means for operating said transformer to provide substantial saturation voltages in said windings, output terminals connected to the junction of said windings and to said center tap for delivering an output signal whose characteristics are dependent upon the magnetic field surrounding the detecting apparatus, a source of direct current connected across said terminals through a potentiometer, and means for detecting the output signal impulses to indicate any change in the surrounding magnetic field.

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2,770,775

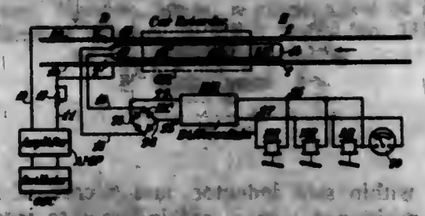
**WAYSIDE VEHICLE SPEED DETERMINING BRAKE**

Edward J. Agnew, Swissvale, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application December 21, 1951, Serial No. 262,831

15 Claims. (Cl. 324—70)

1. The method of determining the speed of a railway vehicle as it progresses between two fixed points spaced along a railway track, comprising the steps of creating an alternating voltage which progressively varies from a first to a second value as the vehicle moves from a first one to the second one of the fixed points, said voltage being created due to the inductive relation between a track circuit including the track rails between the two



fixed points and a loop circuit including a conductor mounted along at least one of the track rails of the track circuit, and detecting the slope of the envelope of the magnitude of the created voltage.

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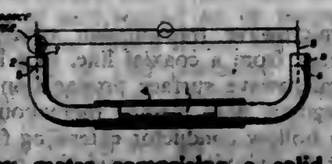
2,770,776

**FREQUENCY METER**

Walter Juda, Lexington, and Wayne A. McRae, Arlington, Mass., assignors to Ionics, Incorporated, Cambridge, Mass., a corporation of Massachusetts

Original application July 9, 1949, Serial No. 103,784, now Patent No. 2,636,851, dated April 28, 1953. Divided and this application April 14, 1953, Serial No. 348,722

1 Claim. (Cl. 324—78)



A frequency meter comprising a solid unfractured structure comprising as an essential part extending substantially throughout, a predominant amount of a homogeneous continuous phase of an ion exchange resin which comprises: an insoluble infusible synthetic organic polymeric matrix, dissociable ionic groups chemically bonded to said matrix, and water in gel relationship with said matrix; said groups having a dissociation constant of at least $10^{-9}$ and being present in an amount of at least 0.3 milliequivalent per gram of dry resin, and said water being present in an amount of at least 15% of the weight of dry resin, a pair of spaced metallic conductors in direct contact with said solid unfractured structure, and means for measuring impedance of said structure whereby the frequency may be determined.

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2,770,777

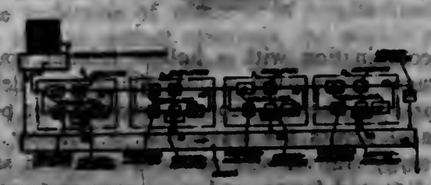
**IMPULSE TRANSMISSION SYSTEMS**

Henri Feissel, Paris, France, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Original application October 23, 1948, Serial No. 56,243, now Patent No. 2,651,716, dated September 8, 1953. Divided and this application April 7, 1953, Serial No. 347,195

Claims priority, application France November 8, 1947

3 Claims. (Cl. 332—1)



1. An electrical translator for converting amplitude modulated pulses to corresponding binary pulse code groups comprising a cascade of circuits each having an output equal to $2(V_2-V_r)$, for $V_1$ greater than $V_r$ and equal to $2V_1$ for $V_1$ less than $V_r$ where $V_1$ is the input voltage pulse and where $V_r$ is given reference voltage, means to apply said amplitude modulated pulses to the first circuit of said cascade, and means to produce at each circuit of said cascade a corresponding member of said pulse code group only when $V_1$ is greater than $V_r$.

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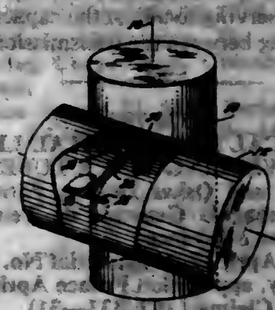
2,770,778

**SLOT COUPLING FOR TANGENT CIRCULAR WAVEGUIDE STRUCTURES**

William N. Parker, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application April 27, 1951, Serial No. 223,325

32 Claims. (Cl. 333—6)



1. In combination, two waveguiding structures each having walls including a curved wall enclosing a waveguiding space and with said curved walls tangential at a common wall portion at substantially a single point only of tangency, said structures having a mode of excitation at an operating frequency with non-parallel directions of wall current flow at said common wall portion, each said structure having an elongated slot in its walls which slot passes through said common wall portion and has a central longitudinal line coplanar with the like line of the other said slot, the direction of said line being inclined at an angle between 0° and 90° to the direction of said current flow in at least one of said structures, and a hollow passageway extending between said structures and enclosing said slots for coupling wave energy in said spaces.

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2,770,779

**DIRECTIONAL COUPLER**

Thomas F. Turner, San Jose, Calif., assignor, by mesne assignments, to Sierra Electronic Corporation, San Carlos, Calif., a corporation of California

Application February 8, 1951, Serial No. 209,931

2 Claims. (Cl. 333—10)



1. In a directional coupler of the character described, a first transmission line section having straight coaxial center and outer conductors and adapted to conduct high frequency over a substantial frequency range, a second transmission line section disposed alongside the first section and having straight coaxial center and tubular conductors parallel to the first named conductors, the tubular conductors of the two sections having a common conducting wall located intermediate the center conductors, said common wall having a single coupling opening therethrough whereby the transmission line sections are coupled together with magnetic and capacitive components,

said opening being of a size which is small compared with ½ the wavelength of frequency in said range and having its central axis at right angles to the center conductors, the length of the opening in the direction of the conductors being not greater than its width, and a cylindrical shaped coupling member formed of conducting material extending in alignment with said axis, said coupling member being adjustably mounted on one of the center conductors for adjustment axially of said opening to advance or retract to one end thereof with respect to the other center conductor, said coupling member being dimensioned whereby when it is advanced to a position within the opening a free space is provided between the same and the periphery of said opening through which the transmission lines are magnetically coupled, adjustment of said coupling member serving to adjust the capacitative component of the coupling between the transmission line sections.

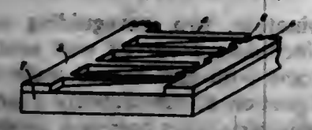
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**2,770,780**

**SYMMETRICAL INTERDIGITAL LINE FOR TRAVELLING WAVE TUBES**

Robert Warnecke and Oskar Doehler, Paris, France, assignors to Compagnie Generale de Telegraphie Sans Fil, a corporation of France

Application April 17, 1952, Serial No. 282,761
Claims priority, application France April 23, 1951
6 Claims. (Cl. 333—31)



1. A delay line adapted for use for the introduction of delay in the phase propagation of ultra high frequency waves in the direction of its axis, said line comprising two symmetrical comb-like members having alternately interleaved fingers and a common plate extending parallel to the plane of said members, said members being carried on said plate, an interval being provided between at least all but the bases of the fingers and the plate, the distance between said fingers and said plate not exceeding 0.5% of the wavelength of said ultra high frequency wave.

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**2,770,781**

**WAVE DELAYING STRUCTURE FOR RECTANGULAR WAVE-GUIDES**

Robert Bruce Robertson-Shersby-Harvie, Great Malvern, and John Dain, Abingdon, England

Application July 16, 1951, Serial No. 236,932
1 Claim. (Cl. 333—31)



A loaded waveguide comprising an elongated flat metal sheet arranged in a central plane of the guide and formed with a series of transverse inductive slots such that each face present an inductive impedance to the guide and similar slow waves may be propagated in the guide on each side of the sheet wherein said sheet is thickened near the center of the slots to increase the self capacity of the slots, but while leaving the sheet adjacent the ends of the slots at substantially the same thickness as the remainder of the sheet.

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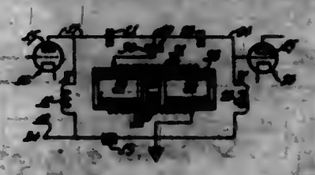
**2,770,782**

**FREQUENCY SELECTIVE COUPLING SYSTEM**

Walter van B. Roberts, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application August 30, 1952, Serial No. 307,304
6 Claims. (Cl. 333—71)

1. A band-pass filter circuit comprising three tuned branches connected in electrically parallel relation without mutual inductance coupling therebetween, one of said branches comprising a capacitor and an inductor in series, an annular resonator of magnetostrictive material



disposed within said inductor, and a core of magnetic material positioned within said inductor to increase the magnetic coupling between said inductor and said resonator.

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**2,770,783**

**SURFACE WAVE TRANSMISSION LINE**

Andre G. Clavier, Nutley, N. J., and David L. Thomas, Lee, London, England, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application May 23, 1953, Serial No. 163,581
5 Claims. (Cl. 333—95)



1. In a microwave transmission system, means for coupling energy from a coaxial line, to a line conductor capable of microwave surface propagation by means of an electromagnetic field formed thereabout, said means comprising a hollow conductor extending from the outer conductor of the coaxial line, said line conductor being extended into said hollow conductor, said hollow conductor being decreased gradually in thickness toward the end remote from the coaxial line, whereby the conductance thereof is gradually decreased and insulating material disposed about said line conductor within said hollow conductor to constrict substantially the radial extent of the electromagnetic field as it is propagated from the coaxial line to the line conductor.

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**2,770,784**

**METAL PAINTED APERTURE OR WINDOW FOR WAVEGUIDES**

Robert H. Hatch, Massapequa Park, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application June 25, 1952, Serial No. 295,540
8 Claims. (Cl. 333—98)



1. In combination with a hollow tubular waveguide, a diaphragm comprising a metallic frame defining a window area and being adapted along its outer periphery to be sealed across the waveguide, a window of nonporous energy transmissive material seated in said area and sealed to said frame, and an energy obstructive configuration of metallic paint described on the exposed surface of said window distal to said frame, said configuration being readily altered by the removal of metallic paint from and the addition thereof to said window.

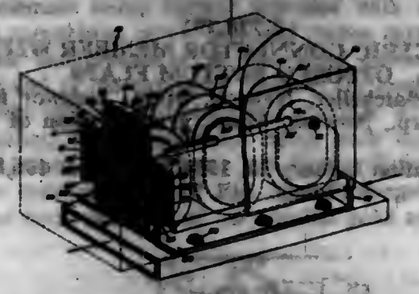


**2,770,785**

**DIRECTLY-COOLED ELECTROMAGNETIC COMPONENTS**

Robert G. Haagsma, Concord, and Leonhard Katz, Weston, Mass., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware

Application January 29, 1953, Serial No. 333,954
4 Claims. (Cl. 336—61)



1. In an electromagnetic component having a laminated magnetic core and at least one current-carrying winding surrounding said core, a first set of thermally-conductive spaced laminations and a second set of thermally-conductive spaced laminations, said laminations of said first and second sets being positioned between said core laminations and having outer portions located externally of said core, said outer portions of said first set of laminations being connected together to form a first heat-conductive path on one side of said laminated core, said outer portions of said second set of laminations being connected together to form a second heat-conductive path on the other side of said laminated core, said heat-conductive paths being of gradually increasing cross-section in the direction away from said core, each of said laminations of said first set having one end thereof spaced from the said corresponding end of each of said laminations of said second set, to prevent closed electrically-conductive paths in said component, and a heat sink exposed to a circulating cooling fluid and thermally connected to said first and second heat-conductive paths.

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**2,770,786**

**DOUBLE SAFETY ELECTRICAL RECEPTACLE**

Mikolaj V. Czyzewski, Seattle, Wash., now by judicial change of name Max Victor Chaiken

Application October 11, 1952, Serial No. 314,383
10 Claims. (Cl. 339—40)



1. A safety electrical receptacle comprising a single receptacle mounting housing having prong openings for the reception of the prongs of a standard electrical plug; electrical contact members disposed in the prong openings; locking members one each for said prong openings separately slidably mounted in said housing having a trigger end portion and a prong opening locking end portion, the underside of which is in longitudinally spaced relation to said contact members, the middle portion of said members being disposed in side by side relation in extending between said prong openings, the trigger portion of each being disposable in a blocking position in a prong opening and the locking end portion simultaneously extending entirely across the oppositely disposed prong opening when said trigger is in blocking position in a prong opening in making it necessary for each prong of a plug to be simultaneously inserted to unlock the prongs opening for the other prong when applied to a receptacle before said prongs may engage the said electrical contact members; and a flat spring for each locking member, each of said springs separately engaging its respective locking member, and each of said springs being fixedly held as to one of its end portions in said housing in urging the trigger member of its engaged locking member normally into blocking position in one prong opening, said locking members moving away from each other against said spring action in being actuated into unblocking position, and simultaneously the locking end portion of said locking member in locking position in the opposite prong opening, and each spring cooperating in mounting its locking member.

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**2,770,787**

**SOCKET MOUNTING BASE FOR TUBE SHIELD**

Arthur C. Peters, Midlothian, Ill., assignor to Cinch Manufacturing Corporation, Chicago, Ill., a corporation of Illinois

Application August 21, 1952, Serial No. 305,684
2 Claims. (Cl. 339—143)



1. A tube socket mounting member and shield support comprising a central ring-like vertical wall portion, said wall portion having a flanged seat portion for receiving and supporting a tube socket, and a plurality of vertical wing members arranged laterally exteriorly of said wall portion, said wing members being disposed in spaced, substantially parallel relation to said wall portion and extending above the same, and provided with frictional engaging means to receive and retain a tube shield, said wing members being connected at their bottom edges thereof to the bottom edge of said wall portion by a resilient U-shaped bight portion, said bight portion lying in a vertical plane.

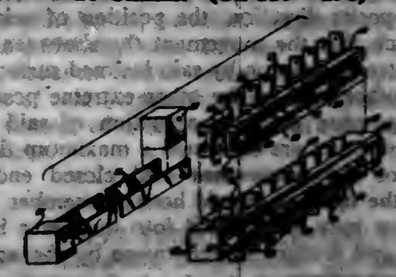
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**2,770,788**

**MULTICONTACT ELECTRICAL CONNECTOR**

Albert Rechner, Jr., Culver City, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application May 31, 1955, Serial No. 511,889
10 Claims. (Cl. 339—198)



1. An electrical connector comprising, in combination: two pairs of elongated body members of substantially identical cross sectional configuration; means for securing each body member of said pairs in spaced relationship to another of said body members; longitudinally extending ribs on each of said body members, said ribs being disposed in facing spaced relationship in each of said pairs of body members; a plurality of contact members; notches in sides of said contact members, said notches being adapted for disposition over said ribs; spacers disposed on said ribs between said contact members, said contact members having end portions adapted for extension from the space defined between each of said pairs of said body members on at least one side

thereof; contact surfaces on said extended end portions of said contact members, said contact surfaces carried by said contact members carried by each of said pairs of body members being adapted for free interleaved frictional engagement; and pressure applying means disposed longitudinally between a portion of said body member securing means and one end of said plurality of contact members and acting on a line parallel to said ribs, whereby to bias said contact surfaces into tight contact with each other following said interleaving of said contact members.

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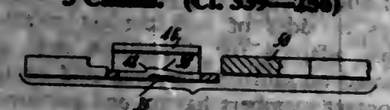
2,770,789
SPRING BINDING POST
Frederick G. Bolte, Nutley, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Delaware
Application January 12, 1953, Serial No. 330,719
2 Claims. (Cl. 339—255)



1. An electrical binding post for engaging a conductor, comprising a body member having an elongated slot, the slot extending linearly along one surface of the body member and the depth of the slot gradually increasing from one end of the body member towards the other end thereof defining an inclined surface, a hollow housing member closed at one end and surrounding said body member, said closed end having an opening whereby a conductor may be inserted therethrough, a cam element slidable in said slot and having a corrugated inclined surface substantially parallel to and adjacent the inclined surface of said slot, means attaching said cam element relatively immovably to said housing member, whereby the cam element and housing member are movable together in a common direction relative to said body member, spring means positioned between said closed end of said housing and said body member and tending to move the body member in one direction and the housing member in the opposite direction, the position of said members being such that the movement therebetween is limited at one extreme position by said inclined surfaces contacting each other, and at the other extreme position of movement, opposing the normal action of said spring, said inclined surfaces are separated a maximum distance, the portion of the space near said closed end being aligned with the opening in said housing member, whereby a conductor may be inserted into the space between said surfaces and wedged therebetween by the action of said spring upon release.

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2,770,790
CONNECTOR MEMBER WITH SPLIT FLOOR
Hugh W. Batcheller, Newton, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts
Application January 19, 1954, Serial No. 404,987
3 Claims. (Cl. 339—256)



1. A female connector member having a floor, side walls and inturned flanges on said side walls, said floor having a slit extending along its longitudinal median, the ends of the slit being spaced inward from the ends of the floor, said floor having an upstanding boss at the midportion of said slit, said boss having a surface sloping gradually upward to the maximum height in a direction away from the entering end of the member.

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2,770,791
ELECTRIC CONNECTOR MEMBER WITH OPPOSED BOTTOM FLAPS
Hugh W. Batcheller, Newton, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts
Application January 28, 1954, Serial No. 406,837
5 Claims. (Cl. 339—258)



1. An electric connector member comprising a piece of sheet metal bent to form a shallow channel with a floor, parallel side walls, and upper flaps projecting from said side walls over said floor toward each other, said flaps sloping slightly downward toward their face ends, and slots in said floor forming lower flaps underlying said upper flaps and sloping slightly upward toward their free ends.

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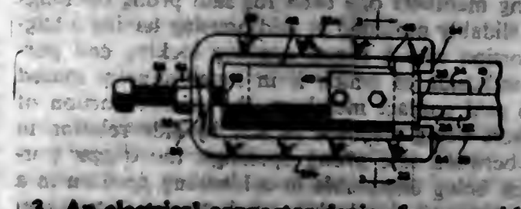
2,770,792
ELECTRIC CONNECTOR MEMBER AND METHOD OF MAKING THE SAME
Hugh W. Batcheller, Newton, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts
Application September 3, 1954, Serial No. 453,980
4 Claims. (Cl. 339—258)



1. An electric connector member of the type comprising a shallow channel with a floor, side walls and overhanging flanges on said walls, said floor having two parallel cuts defining a central band, said band being transversely bent for substantially its entire length.

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2,770,793
ANODE CONNECTOR FOR ELECTROPLATING LINES
John E. Erhardt, Jr., and Albert E. Grimes, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., a corporation of New York
Application October 3, 1951, Serial No. 249,512
4 Claims. (Cl. 339—272)



3. An electrical connector device for use with an electroplating anode positioned within an electroplating tank and being provided with a vertically extending tongue for engagement by the connector device, the connector device comprising an elongated member having a first end for abutting a first face of the anode vertical tongue and a second end adapted to extend through a slot in



the side of the electroplating tank in which the anode is positioned, means on the second end of the elongated member for receiving a flexible electrical conductor, a yoke element for overlying the elongated member, the yoke element having parallel side arms each provided with a hook portion for engaging a second face of the vertical anode tongue opposite the first tongue face, the yoke element being further provided with a cross-arm, means comprising screw threaded means arranged to act between the cross-arm of the yoke element and the second end of the elongated member for tending to move said yoke element and elongated member with respect to each other, the arrangement being such that operation of the screw thread means will firmly clamp the anode tongue between the first end of the elongated member and the hook portions of the parallel yoke arms.

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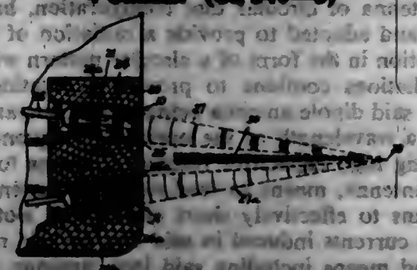
2,770,794
ELECTRICAL CONNECTING DEVICE
Erich Hofmann, Duesseldorf, Germany
Application December 1, 1949, Serial No. 130,449
Claims priority, application Switzerland March 30, 1949
5 Claims. (Cl. 339—273)



1. A clamping connection device adapted to be interposed between the ends of two electric conductors to be interconnected, comprising a metal socket formed of a shell having the shape of a truncated cone provided with an outer insulating material casing, an integral clamping element having a peripheral surface of revolution having a diameter larger than the smallest internal diameter of said cone at the apex of said cone and smaller than the largest internal diameter thereof, of said cone, said clamping element being disposed within said socket adjacent the smaller end thereof of said socket and adapted to directly contact and squeeze one of said conductor ends against the inner conical wall of said socket, so as to establish direct electric contact therebetween, elastic resilient means located within the socket and adapted to urge said clamping element toward the smaller end of said cone into its squeezing position to provide firm direct contact between the conductor and the conical wall surface irrespective of the smallness of the conductor diameter, and conductive means formed integrally with said socket and adapted for contact with a second electric conductor, so that there is provided between said electric contacts an integral uninterrupted metallic electric path.

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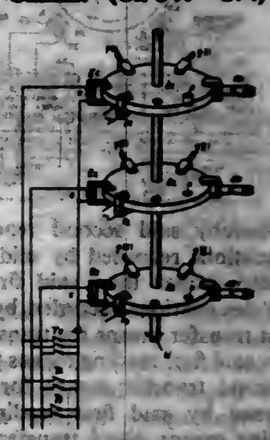
2,770,795
ACOUSTIC LOG
Robert E. Peterson, Old Lyme, Conn., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application March 30, 1951, Serial No. 218,463
4 Claims. (Cl. 340—3)



1. A speed-measuring device comprising means for generating compressional wave energy, means for transmitting said energy through a fluid in a converging beam to produce cavitation in the region of convergence, means for receiving the energy waves reflected from said region of cavitation, and means for comparing the frequency of said transmitted waves with the frequency of said reflected waves.

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2,770,796
REGISTERING DEVICE FOR RECEIVING AND SENDING CONNECTING ORDERS, PARTICULARLY FOR CONVEYING PLANTS
Hans Bilz, Berlin-Steglitz, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application February 13, 1953, Serial No. 336,851
Claims priority, application Germany February 23, 1952
7 Claims. (Cl. 340—174)



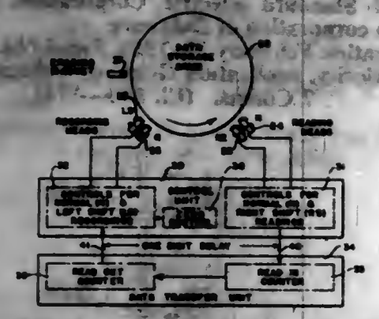
1. A register comprising a plurality of input circuits, means for energizing said input circuits in different code combinations, a plurality of output circuits, a plurality of movable carrier means, a plurality of groups of magnetic register elements, each of said groups mounted on a different one of said carrier means, each element of a group spaced from the other, single means coupling said carrier means for movement in tandem, a plurality of magnetic recording devices, each coupled to a different one of said input circuits and adapted to be controlled thereby, fixedly mounted with respect to and in proximity of a first portion of a different one of said carrier means, said recording devices adapted to selectively alter the magnetic characteristics of selected of the elements in said groups in response to said code combinations, a plurality of movable, magnetic receiving devices, each in proximity with different portions of said carrier means, separate switch means, each coupled to a different one of said output circuits, each of said switch means under control of a different one of said magnetic receiving devices.

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2,770,797
DATA STORAGE APPARATUS
Francis E. Hamilton, Binghamton, and George V. Hawkins, Robert E. Lawhead, Jr., and Ernest S. Hughes, Jr., Vestal, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1951, Serial No. 264,304
3 Claims. (Cl. 340—174)

1. A data storage apparatus comprising a rotatable storage member having a magnetizable periphery, a first magnetic recording means cooperating with said storage member for recording a sequence of data designations in consecutive circumferential relationship on the periphery of said member as said member is rotated, a second magnetic recording means cooperating with said storage member for recording a sequence of data designations in consecutive circumferential relationship on the periphery of said member as said member is rotated, a first magnetic

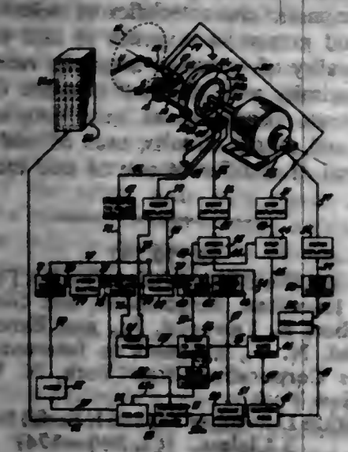
reading means adapted to cooperate with the periphery of said storage member and positioned in circumferentially spaced relationship to said first magnetic recording means for reading the data designations recorded thereby, a second magnetic reading means adapted to cooperate with the periphery of said storage member and positioned in circumferentially spaced relationship to said second recording means for reading the data designations recorded thereby, the circumferential distance separating said second reading means from said second recording means being substantially less than the circumferential distance separating said first reading means from said first record-



ing means, whereby said second reading means reads the data designations recorded by said second recording means relatively sooner than said first reading means reads the data designations recorded by said first recording means, first transfer means for transferring data designations read by said first reading means to said first recording means, second transfer means for transferring data designations read by said first reading means to said second recording means, third transfer means for transferring data designations read by said second reading means to said first recording means, and control means for rendering said first, second and third transfer means effective selectively.

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**2,770,798**
**METHODS AND APPARATUS FOR MEASURING ANGULAR MOVEMENT**
Robert L. Roth, Mount Pleasant, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 24, 1953, Serial No. 393,976
18 Claims. (Cl. 340—266)



1. Apparatus for measuring the angular movement of a shaft from a zero position comprising signal generating means, means operating synchronously with said signal generating means for generating first, second, third and fourth pulses, said first and second pulses being separated by a time interval indicative of the angular movement of said shaft, counting means, gating means for selectively coupling said signal generating means to said counting means, said gating means normally being opened by said first pulse and closed by said second pulse, control means conditioned by the reception of a predetermined number of said first and second pulses and a subsequent one of said fourth pulses to be responsive to one of said third pulses for obtaining information from said counting means, and resetting means conditioned by the operation of said control means to be responsive to another of said fourth pulses for resetting said counting means.

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**2,770,799**
**EMERGENCY DIAPHRAGM FOR AIR BRAKES AND THE LIKE**
Charles H. Hess, Downey, Calif.
Application July 24, 1953, Serial No. 370,185
6 Claims. (Cl. 340—242)



1. In a fluid pressure actuated system for brakes or the like wherein force is exerted through a flexible diaphragm, an auxiliary diaphragm adjacent the first diaphragm arranged to entrap fluid under pressure upon failure of the first diaphragm.

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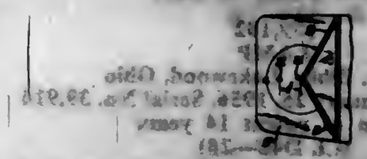
**2,770,800**
**ANTENNAS**
Frank J. Landberg, East Orange, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application June 2, 1951, Serial No. 229,629
16 Claims. (Cl. 343—787)



1. An antenna system comprising a dipole antenna adapted to be rotated to provide a radiation of horizontal polarization in the form of a figure-of-eight pattern, a loop antenna of circular disc configuration, having slots therein and adapted to provide a radiation of horizontal polarization in the form of a circular pattern whereby the two radiations combine to provide a rotating cardioid pattern, said dipole antenna being small compared to one-half of a wavelength of the operating frequency thereby presenting high capacitive reactance, means to feed said dipole antenna, means to feed said loop antenna including means to effectively short circuit said slots with respect to currents induced in said disc by said rotating dipole, and means including said loop antenna to provide a resonant loading to compensate for the capacitance reactance of said dipole antenna.



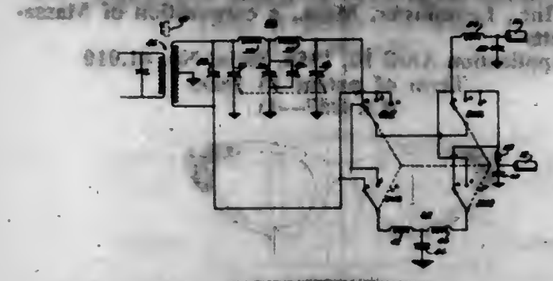
**2,770,801**
**CORNER REFLECTOR TYPE ANTENNA**
Ernest A. Jones, Columbus, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 23, 1952, Serial No. 300,414
9 Claims. (Cl. 343—834)



1. An antenna assembly for an airplane having a fuselage and a pair of wings, comprising: an antenna for each wing including a pair of plates arranged to extend outwardly from the end of the wing and form continuations of the upper and lower sides thereof, a pair of reflectors disposed between said plates and disposed in planes extending inwardly from a line of intersection transverse to said plates and at substantially equal angles from a plane transverse to the fuselage, and an antenna element disposed between said plates and in said transverse plane in outwardly spaced parallel relation to said line of intersection.

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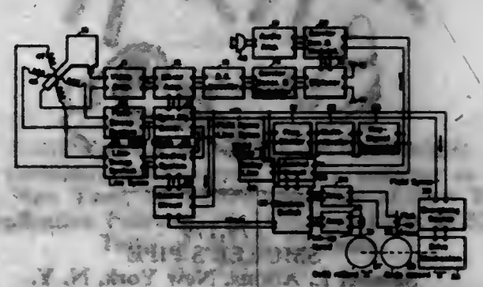
**2,770,802**
**RADIO ANTENNA SYSTEM**
John H. Mullaney, Washington, D. C., assignor to Direct Company, Washington, D. C., a partnership
Application November 13, 1951, Serial No. 256,568
6 Claims. (Cl. 343—852)



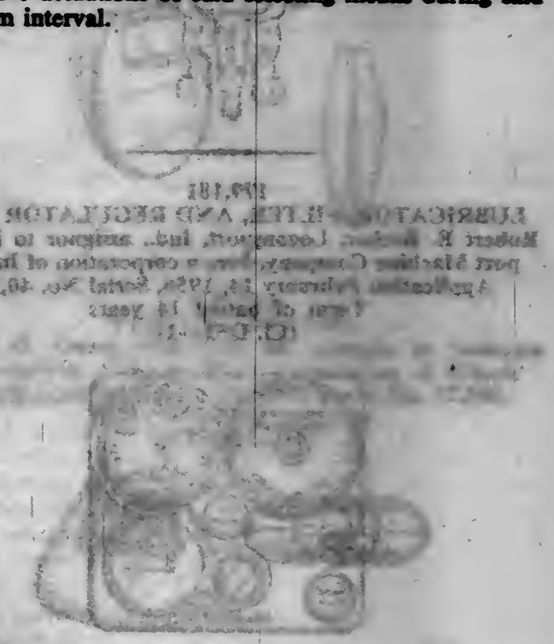
1. In a radio wave receiving system, in combination, a single pair of receiving antennas spaced from one another in a horizontal direction, means comprising respective channels for deriving signals from said antennas over said respective channels, means for combining the derived signals for application to receiving equipment, means for individually matching the impedances of the antennas to said combining means, and an M-derived phase shifting circuit in one of said channels for continuously adjusting the relative phase relationship of the combined signals through a range of the order of at least 180 degrees of phase relationship, while maintaining the effective output impedance of said phase shifting circuit substantially constant, whereby to vary the resultant directional pattern of sensitivity of said antennas and thereby to discriminate against undesired signals.

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**2,770,803**
**SUBSCRIPTION TELEVISION SYSTEM**
Alexander Eliot, River Forest, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application October 31, 1951, Serial No. 254,099
6 Claims. (Cl. 178—5.1)



5. A coding-signal source for controlling a coding device to effect mode changes in a subscription system in accordance with and in response to the characteristic variations of a coding signal developed by said source during a program interval comprising: apparatus for developing a plurality of coding signals respectively having characteristic variations occurring at intervals determined by different prescribed coding schedules; selecting means coupled to said apparatus for selectively applying said coding signals to said coding device; means for developing a key signal representing a random selecting schedule; and a control circuit coupled to said key-signal developing means and operable responsive to said key signal at spaced intervals long with respect to the aforesaid intervals determined by the coding schedules of said plurality of coding signals but short with respect to said program interval for actuating said selecting means at corresponding spaced intervals in accordance with said selecting schedule to determine the selective application of said plurality of coding signals to said coding device whereby a plurality of mode changes are effected between successive actuations of said selecting means during said program interval.



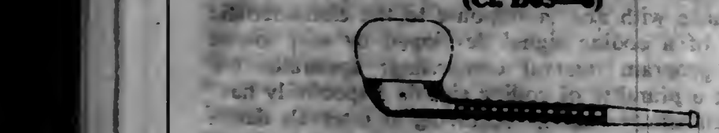
# DESIGNS

## NOVEMBER 13, 1956

179,178
**LIQUID DISPENSER FOR SURFACE TREATING MACHINES**
Carl Eric Stefan Andersson-Sasse, Solna, Sweden, assignor to Aktiebolaget Ekbalvalar, Stockholm, Sweden, a corporation of Sweden
Application September 26, 1954, Serial No. 32,344
Claims priority, application Sweden April 27, 1954
Term of patent 14 years
(Cl. D9—2)



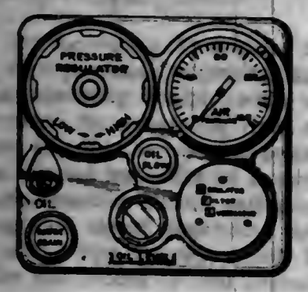
179,179
**SMOKER'S PIPE**
Samuel L. Atkins, New York, N. Y.
Application March 26, 1956, Serial No. 40,763
Term of patent 14 years
(Cl. D35—5)



179,180
**ANIMAL FIGURE FOR A HOBBY-HORSE OR SIMILAR ARTICLE**
Allan Levi Beck, North Hollywood, Calif.
Application June 28, 1955, Serial No. 36,742
Term of patent 14 years
(Cl. D34—15)



179,181
**LUBRICATOR, FILTER, AND REGULATOR UNIT**
Robert E. Becker, Logansport, Ind., assignor to Logansport Machine Company, Inc., a corporation of Indiana
Application February 14, 1956, Serial No. 40,162
Term of patent 14 years
(Cl. D52—1)




179,182
**LAMP**
John D. Bibbs, Lakewood, Ohio
Application January 25, 1956, Serial No. 39,914
Term of patent 14 years
(Cl. D48—20)



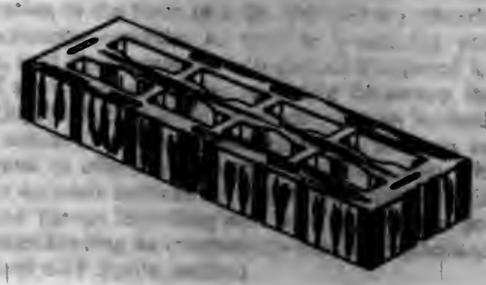
179,183
**SUNGLASS FRAME FRONT OR THE LIKE**
Jack Bloch, Leominster, Mass., assignor to Foster Grant Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application April 16, 1956, Serial No. 41,010
Term of patent 14 years
(Cl. D57—1)



179,184
**SUNGLASS FRAME FRONT OR THE LIKE**
Jack Bloch, Leominster, Mass., assignor to Foster Grant Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application April 16, 1956, Serial No. 41,014
Term of patent 14 years
(Cl. D57—1)



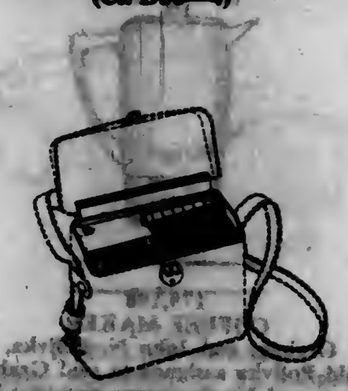
179,185
**BUILDING BLOCK**
Martin Brenham, Pound, Va.
Application May 11, 1956, Serial No. 41,451
Term of patent 14 years
(Cl. D18—2)



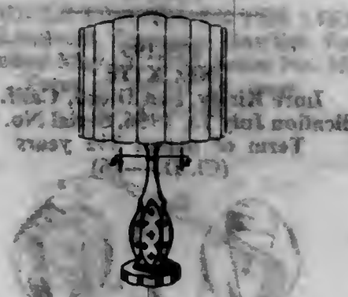




179,186
**PORTABLE RADIO RECEIVER**
Jack Bobbit and Carl W. Clarke, Chicago, Ill., assignors to Revere Camera Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1954, Serial No. 29,696
Term of patent 3½ years
(Cl. D86—4)



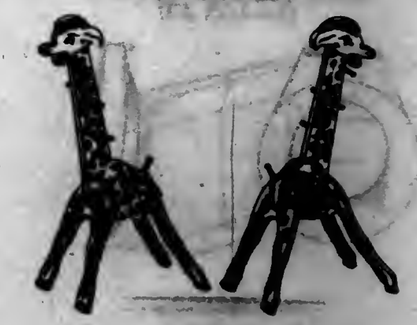
179,187
**ELECTRIC LAMP**
Charles W. Clemens, Nashville, Tenn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application August 16, 1955, Serial No. 37,549
Term of patent 3½ years
(Cl. D48—20)



179,188
**PLASTIC DOILY**
William R. Cole, London, England
Application July 5, 1956, Serial No. 42,152
Term of patent 14 years
(Cl. D39—2)



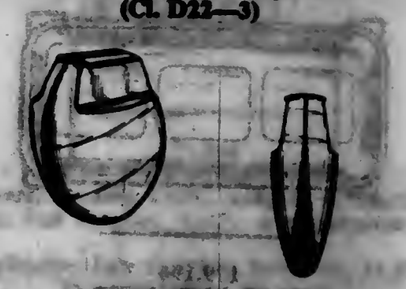
179,189
**COSTUMER**
Wilbert F. Comstock, Union City, Pa.
Application April 29, 1955, Serial No. 35,736
Term of patent 7 years
(Cl. D33—6)



179,190
**CASING FOR BEVERAGE DISPENSER**
Harry Cornman, Scarborough, N. Y., assignor to Apco, Inc., New York, N. Y., a corporation of New York
Application February 27, 1956, Serial No. 40,326
Term of patent 14 years
(Cl. D52—3)



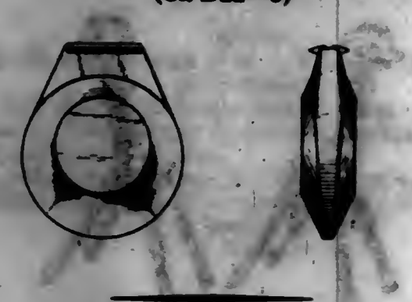
179,191
**ELECTRIC SHAVER**
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 13, 1955, Serial No. 37,905
Term of patent 14 years
(Cl. D22—3)



179,192
**ELECTRIC SHAVER**
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 13, 1955, Serial No. 37,906
Term of patent 14 years
(Cl. D22—3)



179,193
**ELECTRIC SHAVER**
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 13, 1955, Serial No. 37,969
Term of patent 14 years
(Cl. D22—3)



179,194
**ATOMIZER**
Karl Flury, Adliswil, Zurich, Switzerland, assignor to Deforest Aktiengesellschaft, Zurich, Switzerland, a corporation of Switzerland
Application September 9, 1955, Serial No. 37,866
Claims priority, application Switzerland April 4, 1955
Term of patent 7 years
(Cl. D83—1)



179,195
**TOTE BOX**
Roger E. French and Nicholas W. Keller, New Kensington, Pa., assignors to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 22, 1955, Serial No. 35,156
Term of patent 14 years
(Cl. D56—12)



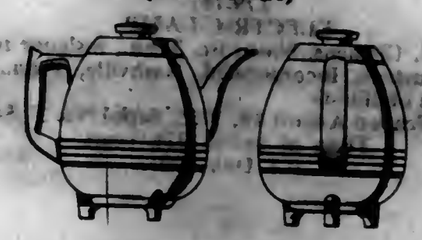
179,196
**TAPE DISPENSER**
Irvin J. Gershon, Springfield, N. J., assignor to Permacel Tape Corporation, a corporation of New Jersey
Application November 4, 1955, Serial No. 38,729
Term of patent 14 years
(Cl. D74—1)



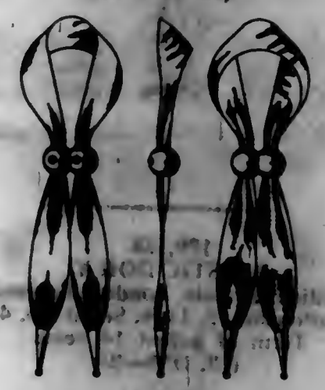
179,197
**COFFEE MAKER OR SIMILAR ARTICLE**
Bernard A. Graham, Hinsdale, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application June 24, 1955, Serial No. 36,652
Term of patent 14 years
(Cl. D44—26)



179,198
**COFFEE MAKER**
Maurice H. Graham and John N. Pellvin, Minneapolis, Minn.; said Pellvin assignor to said Graham, Maurice W. Graham, and Northwestern National Bank of Minneapolis, all of Hennepin County, Minn., executors of said Maurice H. Graham, deceased
Application February 9, 1954, Serial No. 28,932
Term of patent 14 years
(Cl. D44—26)



179,199
**NECKTIE**
Imre Kiraly, San Diego, Calif.
Application July 13, 1956, Serial No. 42,248
Term of patent 3½ years
(Cl. D3—16)



179,200
**PANTY**
Mary L. Klym, Detroit, Mich.
Application June 7, 1956, Serial No. 41,807
Term of patent 14 years
(Cl. D3—17)

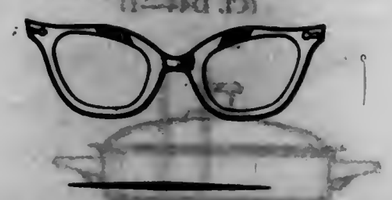




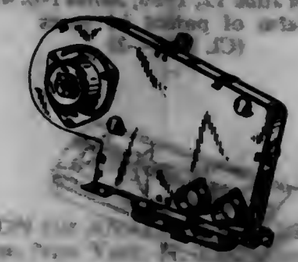
179,201
**EYEGLASS FRAME**
Alexander Kono, Woodside, N. Y., assignor to Kono Manufacturing Co. Inc., Woodside, N. Y., a corporation of New York
Application March 30, 1956, Serial No. 40,851
Term of patent 14 years
(Cl. D57—1)



179,202
**EYEGLASS FRAME**
Alexander Kono, Woodside, N. Y., assignor to Kono Manufacturing Co. Inc., Woodside, N. Y., a corporation of New York
Application April 10, 1956, Serial No. 40,594
Term of patent 14 years
(Cl. D57—1)



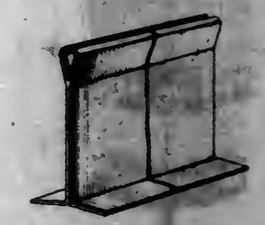
179,203
**VEHICLE HEATER OR THE LIKE**
Alan S. Lansburn, Trenance, Dawlish, England
Application May 13, 1955, Serial No. 35,982
Term of patent 14 years
(Cl. D14—6)



179,204
**SEPARATOR FOR MEAT AND PRODUCE**
Nels D. Levis, Los Angeles, Calif., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois
Application March 12, 1956, Serial No. 40,554
Term of patent 14 years
(Cl. D11—1)



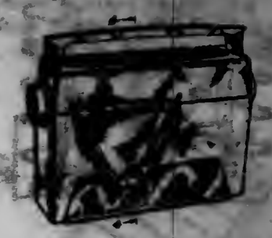
179,205
**SEPARATOR FOR MEAT AND PRODUCE**
Nels D. Levis, Los Angeles, Calif., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois
Application March 12, 1956, Serial No. 40,556
Term of patent 14 years
(Cl. D11—1)



179,206
**VIAL OR SIMILAR ARTICLE**
Edwin W. Lynn, Irvington, N. J., assignor to Colloplastic Corporation, a corporation of New Jersey
Application April 8, 1955, Serial No. 35,420
Term of patent 14 years
(Cl. D58—26)



179,207
**PORTABLE RADIO CABINET**
John W. Mason, Detroit, Mich.
Application April 4, 1956, Serial No. 40,893
Term of patent 14 years
(Cl. D56—4)



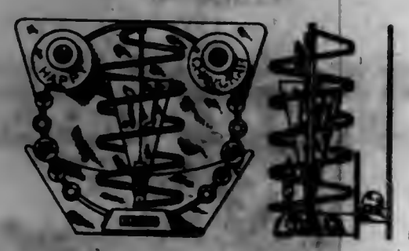
179,208
**BOTTLE**
Regis Meyers, Arcadia, Calif., assignor to Sunkist Growers, Inc., Los Angeles, Calif., a corporation of California
Application July 23, 1954, Serial No. 31,573
Term of patent 14 years
(Cl. D58—8)



179,209
**DISPLAY STAND**
John D. Miller, Clifton, N. J.
Application January 12, 1956, Serial No. 39,606
Term of patent 14 years
(Cl. D60—10)



179,210
**DREIDEL ORNAMENT**
Sara Rae Nalmon, Milwaukee, Wis.
Application February 14, 1956, Serial No. 40,174
Term of patent 14 years
(Cl. D29—1)



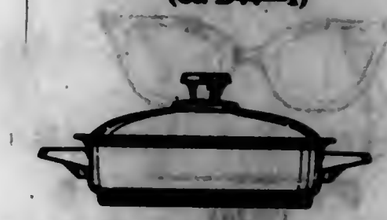
179,211
**CHANUKAH DISPLAY ORNAMENT**
Sara Rae Nalmon, Milwaukee, Wis.
Application February 27, 1956, Serial No. 40,344
Term of patent 14 years
(Cl. D29—1)




179,212
**MENORAH**
Sara Rae Nalmon, Milwaukee, Wis.
Application March 12, 1956, Serial No. 40,567
Term of patent 14 years
(Cl. D29—1)



179,213
**COOKING PAN OR SIMILAR ARTICLE**
David L. Palmer, Evanston, Ill., assignor, by mesne assignments, to Reno-Ware Distributors Inc., Opportunity, Wash., a corporation of Washington
Application April 25, 1955, Serial No. 35,661
Term of patent 14 years
(Cl. D44—1)



179,214
**MOLDED FOOD PRODUCT**
Leo Peters, Grand Rapids, Mich.
Application June 12, 1956, Serial No. 41,880
Term of patent 14 years
(Cl. D62—2)

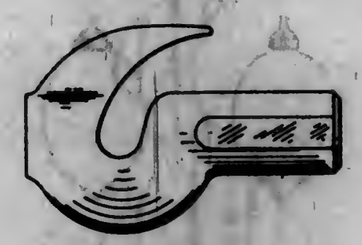


179,215
**INFANT'S FEEDING NIPPLE**
Joseph Prinzmetal, Los Angeles, Calif.
Application March 19, 1956, Serial No. 40,652
Term of patent 14 years
(Cl. D63—1)

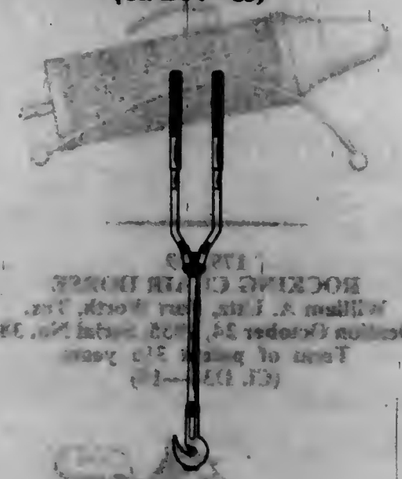




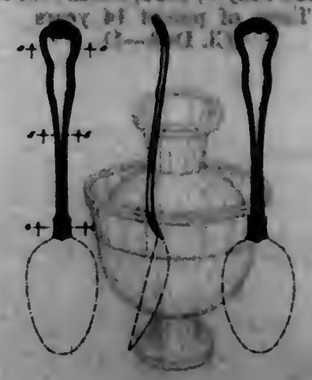
179,216
**CABLE CUTTER HEAD**
Leslie A. Repscher and William C. Stratman, Los Angeles, Calif., assignors to North American Aviation, Inc.
Application April 2, 1956, Serial No. 40,872
Term of patent 14 years
(Cl. D54—13)



179,217
**CABLE CUTTER**
Leslie A. Repscher and William C. Stratman, Los Angeles, Calif., assignors to North American Aviation, Inc.
Application April 2, 1956, Serial No. 40,875
Term of patent 14 years
(Cl. D54—13)



179,218
**SPOON OR ANALOGOUS ARTICLE**
Oscar Riedemer, New York, N. Y., assignor to Tiffany & Company, a corporation of New York
Application May 7, 1956, Serial No. 41,393
Term of patent 14 years
(Cl. D54—12)



179,219
**PLASTIC FLY SWATTER**
Robert H. Rodgers, Cleveland Heights, Ohio, assignor to Industrial Plastics, Inc., Cleveland, Ohio, a corporation of Ohio
Application May 29, 1956, Serial No. 41,699
Term of patent 14 years
(Cl. D31—3)



179,220
**KNOB ASSEMBLY**
Fred J. Russell, Los Angeles, Calif.
Application February 24, 1956, Serial No. 40,316
Term of patent 14 years
(Cl. D10—8)



179,221
**AWNING**
Peter M. Scatton, Philadelphia, Pa., assignor to Scatton Bros. Mfg. Co., Philadelphia, Pa., a partnership consisting of Michael J. Scatton, Peter M. Scatton, John P. Scatton, and Christina M. Scatton
Application April 24, 1956, Serial No. 41,187
Term of patent 14 years
(Cl. D21—6)



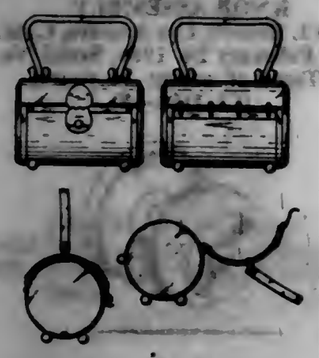
179,222
**LOCOMOTIVE BODY OR THE LIKE**
Carl F. Schmo, Hagaman, N. Y., and John K. Ryan, Erie, Pa., assignors to General Electric Company, a corporation of New York
Application February 16, 1955, Serial No. 34,448
Term of patent 14 years
(Cl. D66—1)



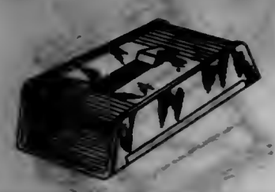
179,223
**COMBINED SCISSORS, SCABBARD, AND LETTER OPENER**
John J. Schwartz, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn.
Application December 2, 1955, Serial No. 39,140
Term of patent 14 years
(Cl. D74—1)



179,224
**HANDBAG**
Harry T. Silverman, Forest Hills, N. Y.
Application July 19, 1956, Serial No. 42,292
Term of patent 7 years
(Cl. D87—3)



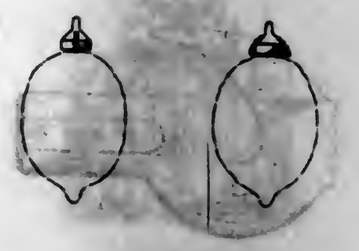
179,225
**RAZOR BLADE DISPENSER**
Stanley L. Smith, Stamford, Conn., assignor to Bic Strike Blade Company, New York, N. Y., a corporation of New York
Application February 3, 1956, Serial No. 40,035
Term of patent 14 years
(Cl. D58—12)



179,226
**COOKIE JAR**
Walter D. Starnes, Los Angeles, Calif., assignor to Walter Starnes, Inc., Los Angeles, Calif., a corporation of California
Application January 9, 1956, Serial No. 39,676
Term of patent 3½ years
(Cl. D58—25)



179,227
**COMBINED BOTTLE AND CLOSURE CAP**
Bernard George Middleton, England
Application October 18, 1955, Serial No. 38,318
Claims priority, application Great Britain October 4, 1955
Term of patent 14 years
(Cl. D68—26)



179,228
**HOLDER FOR DRINK DISPENSING VESSEL**
George R. Thomson, Kirkwood, Mo.
Application October 3, 1955, Serial No. 38,212
Term of patent 3½ years
(Cl. D2—3)



179,229
**ROCKING CHAIR HORSE**
William A. Utz, Fort Worth, Tex.
Application October 24, 1955, Serial No. 38,544
Term of patent 3½ years
(Cl. D34—15)



179,230
**MOLD FOR CONFECTION**
Geraldine D. Williamson, Anderson, Ind.
Application May 9, 1955, Serial No. 35,090
Term of patent 14 years
(Cl. D44—1)





179,231
**PAVING TILE**
Marco Zanuso and Alberto Scarzella, Milan, Italy
Application January 3, 1955, Serial No. 33,785
Term of patent 7 years
(Cl. D18—2)



179,232
**PENHOLDER**
Alvin M. Ziegler and Joseph Jeremias, Bronx, N. Y.
Application July 16, 1956, Serial No. 42,258
Term of patent 14 years
(Cl. D74—1)



# LIST OF REISSUE PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 13TH DAY OF NOVEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

G. M. B. Corp.: *See*—
Greer, Edward M., and Mercier. Re. 24,238.

Greer, Edward M., and J. Mercier, to G. M. B. Corp. Power operated hatch cover. Re. 24,238, 11-13-56, Cl. 160—188.

Mercier, Jean: *See*—
Greer, Edward M., and Mercier. Re. 24,238.

Sjoboen, George W., to Steel Door Corp. Overhead door structure. Re. 24,237, 11-13-56, Cl. 20—19.

Steel Door Corp.: *See*—
Sjoboen, George W. Re. 24,237.

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Motose, Thomas H. Rose plant. 1,527, 11-13-56, Cl. 47—61.

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Aktiebolaget Elektrolux: *See*—
Anderson-Sasen, Carl H. S. 179,178.

Aladdin Industries, Inc.: *See*—
Clemens, Charles W. 179,187.

Aluminum Co. of America: *See*—
French, Roger E., and Keller. 179,195.

Anderson-Sasen, Carl H. S., to Aktiebolaget Elektrolux. Liquid dispenser for surface treating machines. 179,178, 11-13-56, Cl. D9—2.

Apco, Inc.: *See*—
Cormano, Harry. 179,190.

Atkins, Samuel L. Smoker's pipe. 179,179, 11-13-56, Cl. D35—8.

Beck, Allen L. Animal figure for a hobby-horse or similar article. 179,180, 11-13-56, Cl. D34—15.

Becker, Robert E., to Logansport Machine Co., Inc. Lubricator, filter and regulator unit. 179,181, 11-13-56, Cl. D52—1.

Bibbs, John D. Lamp. 179,182, 11-13-56, Cl. D48—20.

Bloch, Jack, to Foster Grant Co., Inc. Sunglass frame front or the like. 179,183, 11-13-56, Cl. D57—1.

Bloch, Jack, to Foster Grant Co., Inc. Sunglass frame front or the like. 179,184, 11-13-56, Cl. D57—1.

Bla Strike Blade Co.: *See*—
Smith, Stanley L. 179,225.

Branham, Martin. Building block. 179,185, 11-13-56, Cl. D18—2.

Briskin, Jack, and C. W. Claras, to Revere Camera Co. Portable radio reciver. 179,186, 11-13-56, Cl. D56—4.

Brown & Bigelow: *See*—
Schwartz, John J. 179,223.

Celluplastic Corp.: *See*—
Lynn, Edwin W. 179,206.

Claras, Carl W.: *See*—
Briskin, Jack, and Claras. 179,186.

Clemens, Charles W., to Aladdin Industries, Inc. Electric lamp. 179,187, 11-13-56, Cl. D48—20.

Cole, William H. Plastic dolly. 179,188, 11-13-56, Cl. D9—2.

Comstock, Wilbert F. Costumer. 179,189, 11-13-56, Cl. D32—6.

Cormano, Harry, to Apco, Inc. Casing for beverage dispenser. 179,190, 11-13-56, Cl. D52—3.

Defensor Aktiengesellschaft: *See*—
Flury, Karl. 179,194.

Elco Products Co.: *See*—
Levie, Nola D. 179,204.
Levie, Nola D. 179,205.

Ernest, Robert O., to Sunbeam Corp. Electric shaver. 179,191, 11-13-56, Cl. D22—3.

Ernest, Robert O., to Sunbeam Corp. Electric shaver. 179,192, 11-13-56, Cl. D22—3.

Ernest, Robert O., to Sunbeam Corp. Electric shaver. 179,193, 11-13-56, Cl. D22—3.

Erner, John K.: *See*—
Schaus, Carl F., and Erner. 179,222.

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Foster Grant Co., Inc.: *See*—
Bloch, Jack. 179,183.
Bloch, Jack. 179,184.

French, Roger E., and N. W. Keller, to Aluminum Co. of America. Tote box. 179,195, 11-13-56, Cl. D58—12.

General Electric Co.: *See*—
Schaus, Carl F., and Erner. 179,222.

Gershen, Irvin J., to Permacel Tape Corp. Tape dispenser. 179,196, 11-13-56, Cl. D74—1.

Graham, Bernard A., to Sunbeam Corp. Coffee maker or similar article. 179,197, 11-13-56, Cl. D44—26.

Graham, Maurice H., and J. N. Polivka; said Polivka assor. to said Graham, M. W. Graham, and Northwestern National Bank of Minneapolis, executors of said M. H. Graham, deceased. Coffee maker. 179,198, 11-13-56, Cl. D44—26.

Graham, Maurice W.: *See*—
Graham, Maurice H., and Polivka. 179,198.

Industrial Plastics, Inc.: *See*—
Rodgers, Robert H. 179,219.

Jeremias, Joseph: *See*—
Ziegler, Alvin M., and Jeremias. 179,232.

Keller, Nicholas W.: *See*—
French, Roger E., and Keller. 179,195.

Kiraly, Imre. Necktie. 179,199, 11-13-56, Cl. D3—16.

Klym, Mary L. Panty. 179,200, 11-13-56, Cl. D8—17.

Kono, Alexander, to Kono Mfg. Co. Inc. Eyeglass frame. 179,201, 11-13-56, Cl. D57—1.

Kono, Alexander, to Kono Mfg. Co. Inc. Eyeglass frame. 179,202, 11-13-56, Cl. D57—1.

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Kono, Alexander. 179,201.
Kono, Alexander. 179,202.

Lamburn, Alan S. Vehicle heater or the like. 179,203, 11-13-56, Cl. D14—6.

Levie, Nola D., to Elco Products Co. Separator for meat and produce. 179,204, 11-13-56, Cl. D11—1.

Levie, Nola D., to Elco Products Co. Separator for meat and produce. 179,205, 11-13-56, Cl. D11—1.

Logansport Machine Co., Inc.: *See*—
Becker, Robert E. 179,181.

Lynn, Edwin W., to Celluplastic Corp. Vial or similar article. 179,206, 11-13-56, Cl. D58—26.

Mason, John W. Portable radio cabinet. 179,207, 11-13-56, Cl. D56—4.

Meyers, Regis, to Sunkist Growers, Inc. Bottle. 179,208, 11-13-56, Cl. D60—8.

Miller, John D. Display stand. 179,209, 11-13-56, Cl. D20—19.

Nalmon, Sara R. Dredel ornament. 179,210, 11-13-56, Cl. D29—1.

Nalmon, Sara R. Chanukah display ornament. 179,211, 11-13-56, Cl. D29—1.

Nalmon, Sara R. Menorah. 179,212, 11-13-56, Cl. D29—1.

North American Aviation, Inc.: *See*—
Repscher, Leslie A., and Stratman. 179,216.
Repscher, Leslie A., and Stratman. 179,217.

Northwestern National Bank of Minneapolis: *See*—
Graham, Maurice H., and Polivka. 179,198.

Painter, David L., to Rena-Ware Distributors Inc. Cooking pan or similar article. 179,213, 11-13-56, Cl. D44—1.

Permacel Tape Corp.: *See*—
Gershen, Irvin J. 179,196.

Peters, Leo. Molded food product. 179,214, 11-13-56, Cl. D62—2.

Polivka, John N.: *See*—
Graham, Maurice H., and Polivka. 179,198.

Priamment, Joseph. Infant's feeding nipple. 179,215, 11-13-56, Cl. D32—1.

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Painter, David L. 179,213.

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Repscher, Leslie A., and W. C. Stratman, to North American Aviation, Inc. Cable cutter. 179,217, 11-13-56, Cl. D54—13.

Revere Camera Co.: *See*—
Briskin, Jack, and Claras. 179,186.

Riedener, Oscar, to Tiffany & Co. Spoon or analogous article. 179,218, 11-13-56, Cl. D54—12.

Rodgers, Robert H., to Industrial Plastics, Inc. Plastic fly swatter. 179,219, 11-13-56, Cl. D81—3.

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Russell, Fred J. Knob assembly. 179,220, 11–13–56, Cl. D10—8.
Scarsella, Alberto: *See*—
Zanuso, Marco, and Scarsella. 179,231.
Scatton Bros. Mfg. Co.: *See*—
Scatton, Peter M. 179,221.
Scatton, Peter M., to Scatton Bros. Mfg. Co. Awning. 179,231, 11–13–56, Cl. D21—6.
Schaus, Carl F., and J. K. Esser, to General Electric Co. Locomotive body or the like. 179,222, 11–13–56, Cl. D58—1.
Schwartz, John J., to Brown & Bigelow. Combined scissors, scabbard, and letter opener. 179,223, 11–13–56, Cl. D74—1.
Silverman, Harry T. Handbag. 179,224, 11–13–56, Cl. D67—3.
Smith, Stanley L., to Bia Strike Blade Co. Razor blade dispenser. 179,227, 11–13–56, Cl. D36—12.
Starnes, Walter D., to Walter Starnes, Inc. Cookie jar. 179,226, 11–13–56, Cl. D58—25.
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Repecher, Leslie A., and Stratman. 179,217.
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Ernest, Robert O. 179,192.
Ernest, Robert O. 179,193.
Graham, Bernard A. 179,197.
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Thomsen, George R. Holder for drink dispensing vessel. 179,228, 11–13–56, Cl. D2—3.
Tiffany & Co.: *See*—
Riedner, Oscar. 179,218.
Uttz, William A. Rocking chair horse. 179,229, 11–13–56, Cl. D34—15.
Williamson, Geraldine D. Mold for confection. 179,230, 11–13–56, Cl. D44—1.
Zanuso, Marco, and A. Scarsella. Paving tile. 179,231, 11–13–56, Cl. D18—3.
Ziegler, Alvin M., and J. Jeremias. Penholder. 179,232, 11–13–56, Cl. D74—1.

## LIST OF PLANT PATENTEES

## LIST OF DESIGN PATENTEES



# LIST OF PATENTEES

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## PATENTS WERE ISSUED ON THE 13TH DAY OF NOVEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A. R. F. Products, Inc.: *See*—
Hupert, Julius J., Przedpelski, and Ringer. 2,770,727.
AVE Transportmittel Holding A. G.: *See*—
Mittendrein, Michael, and Göbel. 2,770,464.
Acme Precision Products, Inc.: *See*—
Snow, John R. 2,770,431.
Addressograph-Multigraph Corp.: *See*—
Mitchell, Lester F., and Janke. 2,770,192.
Adkins, Harlow D.: *See*—
Shen, Yuin C., and Adkins. 2,770,139.
Aginides, Elie P., Gas and liquid mixing device. 2,770,446, 11–13–56, Cl. 261—76.
Agnew, Edward J., to Westinghouse Air Brake Co. Wayside vehicle speed determining means. 2,770,775, 11–13–56, Cl. 324—70.
Agriculture, United States of America as represented by the Secretary of: *See*—
Mehltretter, Charles L. 2,770,589.
Stokes, Jacob L., and Osborne. 2,770,574.
Agulnek, Harry: *See*—
Mishcon, Sam and L., and Agulnek. 2,770,117.
Ahlgren, Axel W., to Amerock Corp. Magnetic assembly. 2,770,759, 11–13–56, Cl. 317—159.
Air Force, United States of America as represented by the Secretary of the: *See*—
Shen, Yuin C., and Adkins. 2,770,139.
Air Reduction Co., Inc.: *See*—
Okada, Shinso, and Eguchi. 2,770,588.
Aktiebolaget Bofors: *See*—
Fransson, Erik A. 2,770,170.
Aktiebolaget Bofors: *See*—
Gerdin, Sven. 2,770,169.
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Björklund, Gustaf E., and Edvardsson. 2,770,037.
Aktiebolaget Elektrolux: *See*—
Backstrom, Sigurd M. 2,770,106.
Albright, Franklin C., to Bendix Aviation Corp. Aircraft undercarriage. 2,770,430, 11–13–56, Cl. 244—103.
Alderson, Witty L., Jr., and J. T. Maynard, to E. I. du Pont de Nemours & Co. Ternary ferrous group metal sulfides of molybdenum and tungsten and their preparation. 2,770,527, 11–13–56, Cl. 23—124.
Allen, Louis N., Jr. Concentrating process and apparatus. 2,770,205, 11–13–56, Cl. 159—16.
Allied Chemical & Dye Corp.: *See*—
Miller, Stuart P. 2,770,630.
Almond, Lawrence H., to Tennessee Valley Authority. Furnace for defluorinating phosphate rock. 2,770,451, 11–13–56, Cl. 262—29.
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Weichselbaum, Theodore E. 2,770,601.
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Amalgamated Growth Industries Inc.: *See*—
Briggs, Rufus L. 2,770,769.
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Szlagor, Eugen. 2,770,450.
American Can Co.: *See*—
Nordquist, Ronald E. J. 2,770,349.
American Car and Foundry Co.: *See*—
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American Cable Corp.: *See*—
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American Cyanamid Co.: *See*—
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Rosner, Charles M., and Brillhart. 2,770,053.
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Cleverly, Robert B. 2,770,476.
Amerock Corp.: *See*—
Ahlgren, Axel W. 2,770,759.
Anderson, Albert E., to Textron Inc. Sawing apparatus, and more particularly a pruning saw. 2,770,696, 11–13–56, Cl. 30—167.
Anderson, James. Hydraulic system of lathes and other metal working machines, presses, and the like. 2,770,222, 11–13–56, Cl. 121—38.
Anderson, John L., to E. I. du Pont de Nemours and Co. Synthesis of aliphatic nitriles by pyrolysis and thermal cleavage of hydrazones, tetrazines, ketimines and ketorimes. 2,770,642, 11–13–56, Cl. 260—465.1.
Anderson, Lysle V. Suspension manipulator for metal coils. 2,770,380, 11–13–56, Cl. 214—658.
Anderson, William W., and L. W. Rowe, to National Lead Co. Method for preparing chlorination feed material. 2,770,529, 11–13–56, Cl. 23—202.
Andrews, Roley A., and L. A. Sheats, Jr., to The Vendo Co. Coin tester. 2,770,343, 11–13–56, Cl. 194—102.
Annable, Weldon G., K. Lucas, and R. M. Haines, to The Pure Oil Co. Production of special solvent petroleum naphthas by refining with sodium. 2,770,579, 11–13–56, Cl. 196—24.
Appleton, Arthur J. Lock nut bushing for electrical connectors. 2,770,068, 11–13–56, Cl. 174—137.
Arams, Frank R., to Radio Corp. of America. Time shift re-entrant amplifier system for carrier pulses. 2,770,722, 11–13–56, Cl. 250—20.
Arden, Thomas E., to International Business Machines Corp. Wire printing mechanism. 2,770,186, 11–13–56, Cl. 101—93.
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Bitter, Vaughn L. 2,770,832.
Arnold, Alexander A.: *See*—
Arnold, Gerald D. and A. A. 2,770,542.
Arnold, Gerald D. and A. A.; said A. A. Arnold assor. to G. D. Arnold. Recirculating convection current cooler and method. 2,770,542, 11–13–56, Cl. 99—2.
Aronson, Theodore F.: *See*—
Halahan, John, Aronson, and Lyon. 2,770,458.
Arrow-Hart & Hegeman Electric Co., The: *See*—
Johnson, David W. 2,770,688.
Ashwood, Peter F., and P. J. Fletcher, to Power Jets (Research and Development) Ltd. Jet deflector having curved guide wall for aircraft. 2,770,095, 11–13–56, Cl. 60—35.54.
Associated Refrigerating Engineers: *See*—
Hibbs, Frank J., Jr. 2,770,110.
Atlas Plastic Mold and Die Co., The: *See*—
Dotson, Orrie E. 2,770,339.
Atti, Eros, to Westinghouse Electric Corp. Cathode ray tube screen filming by a new method. 2,770,557, 11–13–56, Cl. 117—33.5.
Audia, Benjamin. Coil cleaner for beer distributing systems. 2,770,248, 11–13–56, Cl. 137—240.
Austin, Leonard E., to Illinois Tool Works. Power screw driver. 2,770,269, 11–13–56, Cl. 144—32.
Automatic Canteen Co. of America, Inc.: *See*—
Mueller, Richard J. 2,770,894.
Automatic Electric Laboratories, Inc.: *See*—
Johnston, Leith, McCreary, and Stiles. 2,770,675.
Automatic Lite Co., The: *See*—
Lishardt, Charles, Jr. 2,770,436.
Avco Mfg. Corp.: *See*—
Roedter, Henry E. 2,770,102.
Bopp, Calvin C., and Bradmiller. 2,770,731.
Ayers, David T., Jr., and H. G. Hill, to Kelsey-Hayes Wheel Co. Fluid pressure operated motor. 2,770,223, 11–13–56, Cl. 121—41.
Babcock & Wilcox Co., The: *See*—
Carpenter, Otis E., and Jensen. 2,770,060.
Harter, Isaac, Jr., and Ratcliffe. 2,770,061.
Babish, Richard C., to the United States of America as represented by the Secretary of the Navy. Relay circuit. 2,770,758, 11–13–56, Cl. 317—140.
Backstrom, Sigurd M., to Aktiebolaget Elektrolux. Absorption refrigeration. 2,770,105, 11–13–56, Cl. 62—119.5.
Badalini, Giovanni. Rotary pump and motor hydraulic transmission and speed varying mechanism therefor. 2,770,009, 11–13–56, Cl. 60—53.
Baehr, Carl G., and J. Connors, to The Greist Mfg. Co. Sewing machine attachment. 2,770,209, 11–13–56, Cl. 112—235.
Bailes, Richard H.: *See*—
Long, Ray S., and Bailes. 2,770,530.
Bailes, Richard H., and R. R. Grinstead, to the United States of America as represented by the United States Atomic Energy Commission. Method of purifying and recovering vanadium from phosphate-containing solutions. 2,770,522, 11–13–56, Cl. 23—19.
Ballard, Robert L.: *See*—
Garvey, Louis P., Walter, and Ballard. 2,770,486.
Banes, Fred W.: *See*—
Tegge, Bruce R., and Banes. 2,770,613.
Banham, James W., Jr., and W. A. Fritz, Jr., to the United States of America as represented by the Secretary of the Navy. Boark and fly ash arrester. 2,770,532, 11–13–56, Cl. 183—80.

Barber, Lee W.: *See*—
Labelle, Jessie C. 2,770,487.

Barber, Harold C., R. H. Lewis, and W. B. Happoldt, Jr., to E. I. du Pont de Nemours and Co. Polyethylene composition. 2,770,666, 11-13-56, Cl. 260—33.6.

Barnhart, William S., to The M. W. Kellogg Co. Telomerization with sulfuryl halide and product thereof. 2,770,650, 11-13-56, Cl. 260—653.

Barsch, George F.: *See*—
Frihart, Henry R., and Barsch. 2,770,724.

Bass, Alice M.: *See*—
Bass, Harvey G., Sr. 2,770,252.

Bass, Harvey G., Sr., to A. M. Bass. Gas pressure reduction regulator. 2,770,252, 11-13-56, Cl. 137—505.12.

Bassett, Cecil B., and C. B. Bradfield, to Schuylkill Products Co., Inc. Apparatus for refining lead scrap. 2,770,374, 11-13-56, Cl. 214—18.

Bast, Nathan G., to M. F. Tuster. Toy airplane construction. 2,770,073, 11-13-56, Cl. 46—17.

Batcheller, Hugh W., to Kent Mfg. Corp. Connector member with split floor. 2,770,790, 11-13-56, Cl. 339—256.

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Batcheller, Hugh W., to Kent Mfg. Corp. Electric connector member and method of making the same. 2,770,792, 11-13-56, Cl. 339—258.

Battaglia, Eugene P., and J. Miller. Toy hobby horse. 2,770,462, 11-13-56, Cl. 280—1.106.

Bauer, Paul C.: *See*—
Hill, Gordon, and Bauer. 2,770,800.

Baum, Arthur A., to E. I. du Pont de Nemours and Co. Rubber plasticized with zinc salts of nuclear chlorinated aromatic mercaptans. 2,770,604, 11-13-56, Cl. 260—30.8.

Baumann, Fritz, to Farbenfabriken Bayer Aktiengesellschaft. Anthraquinone dyestuffs. 2,770,626, 11-13-56, Cl. 260—261.

Baumgartner, John G. Brush making machine and method. 2,770,079, 11-13-56, Cl. 51—74.

Baxter Laboratories, Inc.: *See*—
Nesset, Maurice M., and Broman. 2,770,224.
Nesset, Maurice M., and Broman. 2,770,225.

Beadle, Anthony C., to International Standard Electric Corp. Telephone subsets. 2,770,679, 11-13-56, Cl. 179—81.

Becker, Philip D., to United-Carr Fastener Corp. Fastening device. 2,770,435, 11-13-56, Cl. 248—27.

Beckman, Arnold O.: *See*—
Negus, Robert W. 2,770,765.

Beckman Instruments, Inc.: *See*—
Hawes, Roland C., and Strickler. 2,770,581.

Bejeuhr, Walter G.: *See*—
Ruston, Leslie A., and Bejeuhr. 2,770,283.

Bell Telephone Laboratories, Inc.: *See*—
Dalton, John F., Fischer, and Turnbull. 2,770,692.
Gardner, Leland A., and Eyako. 2,770,670.
Matthe, Charles F. 2,770,163.
Pfann, William G. 2,770,781.

Bendall, Wilfrid H. Flexible link chain. 2,770,143, 11-13-56, Cl. 74—245.

Bendall, Wilfrid H. Flexible link chain. 2,770,144, 11-13-56, Cl. 74—245.

Bendix Aviation Corp.: *See*—
Albright, Franklin C. 2,770,490.
Daisell, Clarence W. 2,770,129.
Dornbeck, Edward K. 2,770,325.
Dornbeck, Edward K. 2,770,328.
Kasak, Antanin J. 2,770,217.
White, William R. 2,770,327.
Winkler, Albert H. 2,770,144.
Winkler, Albert H. 2,770,691.

Bergstrom, Roland F., T. S. Hodgson, and H. R. Hook, to Shell Development Co. Method of oil testing and composition therefor. 2,770,580, 11-13-56, Cl. 23—230.

Berkley Machine Co.: *See*—
Winkler, Richard, and Dunnebier. 2,770,303.

Berluti, Ercole R. Clip applying devices. 2,769,978, 11-13-56, Cl. 1—187.

Bettendorf Bakery Equipment Co.: *See*—
Hill, Gordon, and Bauer. 2,770,800.

Biederman, Joseph B. Bottle closure. 2,770,284, 11-13-56, Cl. 215—36.

Björklund, Gustaf E., and S. E. Edvardsson to Aktiebolaget Dentatus. Devices for surgical work. 2,770,087, 11-13-56, Cl. 30—272.

Blomberg, Harry, to The Youngstown Steel Door Co. Lading strap anchors. 2,770,198, 11-13-56, Cl. 105—369.

Blythe, Ernest J.: *See*—
Fenikes, Christopher H., and Blythe. 2,770,772.

Bock, Marianne: *See*—
Schraufstätter, Ernst, and Bock. 2,770,619.

Böer, Hans, to International Standard Electric Corp. Registering device for receiving and sending connecting orders, particularly for conveying plants. 2,770,796, 11-13-56, Cl. 340—174.

Bogash, Richard: *See*—
Hamalick, Roy S., and Bogash. 2,770,653.

Boll, Herman M. Sight for firearms. 2,770,041, 11-13-56, Cl. 33—56.

Bolte, Frederick G., to International Telephone and Telegraph Corp. Spring binding post. 2,770,780, 11-13-56, Cl. 339—256.

Bolton, Harry G., to Borg-Warner Corp. Carburetor metering valve. 2,770,354, 11-13-56, Cl. 137—426.43.

Bond, Scott R., to Lorentzen Hardware Mfg. Corp. Slat end guide for Venetian blinds. 2,770,206, 11-13-56, Cl. 160—178.

Bonnafe, Oliver W., to The Lapointe Machine Tool Co. Broach with multiple cutting plates. 2,770,027, 11-13-56, Cl. 29—96.1.

Bonnafe, Oliver W., to The Lapointe Machine Tool Co. Broach with multiple small cutting units. 2,770,028, 11-13-56, Cl. 29—96.1.

Boots Pure Drug Co. Ltd.: *See*—
Greenwood, Douglas, and Stevenson. 2,770,563.

Bopp, Calvin C., and R. W. Bradmiller, to Avco Mfg. Corp. Transistor oscillator. 2,770,731, 11-13-56, Cl. 250—36.

Borden, Robert L. Crabgrass cutting and raking implement. 2,770,060, 11-13-56, Cl. 56—400.7.

Borg-Warner Corp.: *See*—
Bolton, Harry G. 2,770,354.
Nelles, Maurice. 2,770,112.
Northcutt, Roy C., and Staggs. 2,770,081.
Seibert, John W. 2,770,918.
Wayman, Robert W. 2,770,148.
Wayman, Robert W. 2,770,326.

Bortnick, Newman M., and M. F. Fegley, to Rohm & Haas Co. N-substituted pyrroles and process. 2,770,628, 11-13-56, Cl. 260—300.7.

Bosch, Robert, G. m. b. H.: *See*—
Korkowski, Eberhard, and Schmidt. 2,770,098.

Bottum, Edward W. Refrigerator dehydrator. 2,770,317, 11-13-56, Cl. 183—4.8.

Bourguet, Jean M., to Socony Mobil Oil Co., Inc. Method and apparatus for pneumatic transfer of granular contact materials. 2,770,503, 11-13-56, Cl. 302—17.

Bourguet, Jean M., to Socony Mobil Oil Co., Inc. Method for transfer of contact materials. 2,770,504, 11-13-56, Cl. 302—53.

Bowditch, Hoel L., to The Foxboro Co. Differential pressure responsive assembly. 2,770,258, 11-13-56, Cl. 137—767.

Bowerman, Hulie E. Apparatus for and method of molding rubber articles. 2,770,012, 11-13-56, Cl. 18—36.

Bowie, Adrian St. J., to Food Machinery and Chemical Corp. Agricultural spraying and dusting apparatus. 2,770,069, 11-13-56, Cl. 43—148.

Bowman, Reginald M. Bridge for stringed musical instruments. 2,770,168, 11-13-56, Cl. 84—309.

Bowser, Inc.: *See*—
Baranowski, Leslie B. 2,770,711.
Romanowski, Albert F. and Weinecke. 2,770,130.

Brace, George A., to The Hoover Co. Self-lifting sadirons. 2,770,059, 11-13-56, Cl. 38—79.

Braden, John F.: *See*—
Dye, Glen M., Knudsen, and Braden. 2,770,179.

Bradfield, Charles B.: *See*—
Bassett, Cecil E., and Bradfield. 2,770,374.

Bradmiller, Richard W.: *See*—
Bopp, Calvin C., and Bradmiller. 2,770,731.

Branowski, Leslie B., to Bowser, Inc. Dispenser dial and sign illuminator. 2,770,711, 11-13-56, Cl. 240—2.1.

Breeback, Rudolph H., to Crown Cork & Seal Co., Inc. Method and apparatus for filling containers with a liquid. 2,770,263, 11-13-56, Cl. 141—6.

Breitmayer, Theodore, to Monsanto Chemical Co. Acetylene handling. 2,770,323, 11-13-56, Cl. 183—115.

Brennan, Joseph B. Method of continuously casting molten metal. 2,770,022, 11-13-56, Cl. 29—200.1.

Brenner, Orlestus R., and W. Bross. Measuring dispenser closure. 2,770,401, 11-13-56, Cl. 222—339.

Brettrager, Henry J. Auxiliary jaws selectively attachable to confronting and upper surfaces of vise jaws. 2,770,156, 11-13-56, Cl. 81—38.

Brewster, Arthur E., to International Standard Electric Corp. Tape recording apparatus. 2,770,674, 11-13-56, Cl. 179—17.

Briggs, Rufus L., to Amalgamated Growth Industries Inc. Electric arc torch. 2,770,708, 11-13-56, Cl. 219—75.

Brit, Alfred, H. A. Klasens, and P. Zalm, to Hartford National Bank and Trust Co., as trustee. Cathode-ray tube comprising a luminescent screen. 2,770,749, 11-13-56, Cl. 313—92.

Brillhart, William O.: *See*—
Rosser, Charles M., and Brillhart. 2,770,015.
Rosser, Charles M., and Brillhart. 2,770,063.

Brister, Aubrey D. Automatic control for garage doors. 2,770,455, 11-13-56, Cl. 268—96.

British Celanese Ltd.: *See*—
Howarth, Thomas H., Downing, and Drewitt. 2,770,614.

Brochetti, Raymond E., to Mine Safety Appliances Co. Air filtering apparatus. 2,770,321, 11-13-56, Cl. 183—68.

Broder, Reuben. Set screw with ball expander locking means 2,770,276, 11-13-56, Cl. 151—31.

Broman, Cyrus R.: *See*—
Nesset, Maurice M., and Broman. 2,770,224.
Nesset, Maurice M., and Broman. 2,770,225.

Brooks, Frank W., Jr., and C. A. Duval, Jr., to Socony Mobil Oil Co., Inc. Stabilization of fuel oil. 2,770,581, 11-13-56, Cl. 196—41.

Bross, William: *See*—
Brenner, Orlestus R., and Bross. 2,770,401.

Brown, Julius. Hooked curb service tray. 2,770,513, 11-13-56, Cl. 311—22.

Brown, Ralph E., to Geniesco, Inc. Device for making acceleration tests on small objects. 2,770,126, 11-13-56, Cl. 73—1.

Brown & Sharpe Mfg. Co.: *See*—
Graves, Benjamin P. 2,770,172.

Brown, William E. Position determining device. 2,770,345, 11-13-56, Cl. 197—189.

Brownstein, Louis. Method and apparatus for forming a closed loop of tape threaded through a buckle. 2,770,204, 11-13-56, Cl. 112—2.

Bruce, Everett A.: *See*—
Lowdermilk, Ford R., and Bruce. 2,770,558.

Bruhahn, Edward G.: *See*—
Carlson, Martin, and Bruhahn. 2,770,004.

Bukolt, Victor J. Crib music box controlled by drop side of crib. 2,769,060, 11-13-56, Cl. 5—317.

Burgess, Russell H., to Drying Systems, Inc. Air to air heat pump apparatus. 2,770,107, 11-13-56, Cl. 62—117.8.





Burkart, Walter E., to Union Carbide and Carbon Corp. Arc working apparatus. 2,770,710, 11-13-56, Cl. 219—130.

Burt, Gordon H., to Tru Colour Film Ltd. Colour photography. 2,770,542, 11-13-56, Cl. 96—92.

Buschman, Edwin F.: *See*—
Mitchell, Charles, and Buschman. 2,770,266.

Butts, George B. Resilient finger ring guard with separate mounting member. 2,770,112, 11-13-56, Cl. 63—15.8.

Byers, Robert J.: *See*—
Wilson, Jack T., and Byers. 2,770,316.

Bynum, Edward C. Automatic variable speed fluid transmission. 2,770,240, 11-13-56, Cl. 192—60.

Callahan, Francis M.: *See*—
Weidenheimer, Joseph F., and Callahan. 2,770,553.

Camp, John L. Grave digger. 2,770,057, 11-13-56, Cl. 37—103.

Campbell, Colin L., and S. Lee, said Lee assor. to said Campbell. Keyboards for calculating machines. 2,770,419, 11-13-56, Cl. 235—145.

Campbell, Robert E.: *See*—
Williams, Jacques J., and Campbell. 2,770,496.

Carlson, Martin, and E. G. Bruhahn, to G. W. Houleby, Jr. Door closer mechanism. 2,770,004, 11-13-56, Cl. 16—55.

Carpenter, Otis R., and N. C. Jensen, to The Babcock & Wilcox Co. Welded joint between dissimilar metals. 2,770,030, 11-13-56, Cl. 29—196.1.

Carson, Nathan. Portable dressing room. 2,70,244, 11-13-56, Cl. 135—6.

Carter, Nolan A.: *See*—
Yeandle, William W., Carter, and Purnell. 2,70,006.

Cartwright, Bert W., and W. T. Dunn, to Chrysler Corp. Hydrodynamic transmission. 2,770,151, 11-13-56, Cl. 74—732.

Case, J. I. Co.: *See*—
Smith, Carlisle F. 2,770,184.

Casey, William J., III, to American Steel Foundries. Hydraulic magnetic fluid brake. 2,770,329, 11-13-56, Cl. 188—90.

Celanese Corp. of America: *See*—
Conciatori, Anthony B., and Salvin. 2,770,518.
Herback, William B. 2,770,550.
Herlanko, Theodore, Marcotte, and Lake. 2,770,661.
Miller, William E., and Little. 2,770,554.
Mitchell, Robert L., and Lake. 2,770,637.
Schwenninger, Earnest N., and Hoffman. 2,770,127.
Smith, Eldred T., and MacLean. 2,770,585.
Whitehead, William. 2,770,196.

Charles, Daniel, to Compagnie Generale de Telegraphie Sans Fil. Transverse field travelling wave tube. 2,770,754, 11-13-56, Cl. 315—3.5.

Chase-Shawmut Co., The: *See*—
Edsall, William. 2,770,767.

Chelton, MacVictor: *See*—
Czyzewski, Mikolaj V. 2,770,786.

Chemische Werke Huls Aktiengesellschaft: *See*—
Möhlenmeyer, Karl. 2,770,655.

Chicago Stock Yards Compost Co.: *See*—
Morrison, Willard L. 2,770,354.

Cheng, Carlos F., to Radio Corp. of America. Transistor multivibrator circuit. 2,770,732, 11-13-56, Cl. 250—36.

Christensen, Edwin S., to H. F. Pohl. Level ride seat. 2,770,287, 11-13-56, Cl. 155—9.

Chrysler Corp.: *See*—
Cartwright, Bert W., and Dunn. 2,770,151.
Cuskie, Herman C. 2,770,453.
Smith, Robert F. 2,770,283.

Chu Yen, Ernest: *See*—
Vance, John J., and Chu Yen. 2,770,571.

Ciba Pharmaceutical Products, Inc.: *See*—
MacPhillamy, Harold B. 2,770,627.
Marxer, Adrian. 2,770,617.

Cinch Mfg. Corp.: *See*—
Peters, Arthur C. 2,770,787.

Cincinnati Screen Process Supplies, Inc.: *See*—
Holly, Stanley C. 2,770,191.

Cissel, Benjamin H.: *See*—
Schuck, Oscar H., and Cissel. 2,770,429.

Clark, James M., to Motorola, Inc. Squelch circuit. 2,770,721, 11-13-56, Cl. 250—20.

Clark, John E.: *See*—
White, William H., and Clark. 2,770,260.

Clark, Roscoe C., Jr., to Stanolind Oil and Gas Co. Sand consolidation. 2,770,308, 11-13-56, Cl. 166—33.

Clary, Corp.: *See*—
Lindesmith, John L. 2,770,415.

Clavier, Andre G., and D. L. Thomas, to International Standard Electric Corp. Surface wave transmission line. 2,770,733, 11-13-56, Cl. 333—95.

Clayson, Donald H. F., to J. Lyons & Co. Ltd. Production of bacterial enzyme preparations and the cultivation of microorganisms of industrial and nutritional value. 2,770,575, 11-13-56, Cl. 195—116.

Clemens, John H., and E. B. Johnstone. Non-poisoning mass spectrometer. 2,770,735, 11-13-56, Cl. 250—41.9.

Cleveland Steel Products Corp.: *See*—
Slaght, William W. 2,770,114.

Cleverly, Robert E., to American Vitrified Products Co. Plastic interlocking sealing means for sewer pipe joints. 2,770,476, 11-13-56, Cl. 285—231.

Coal Industry (Patents) Ltd.: *See*—
Thompson, James S. 2,770,064.

Cosada, Henri, to Soluz Kosmylle S. A. Means for the atomization of liquids. 2,770,691, 11-13-56, Cl. 239—428.

Cohn, Edwin J., deceased, by E. B. Cohn, C. A. Coulter, and R. Bateman, executors, to Protein Foundation, Inc. Precipitation of proteins from solutions by the use of zinc and liver tissue. 2,770,616, 11-13-56, Cl. 260—112.

Cohn, Rebekah R.: *See*—
Cohn, Edwin J. 2,770,616.

Colgate-Palmolive Co.: *See*—
Fletcher, Charles F. 2,770,204.
Henkin, Hyman. 2,770,593.
Ricciardi, Louis G. 2,770,600.
Scherman, Jack V. 2,770,648.

Collins, John M.: Packing means for a piston. 2,770,510, 11-13-56, Cl. 309—4.

Colton, Roland J. Automatic refrigerant slug disintegrator. 2,770,105, 11-13-56, Cl. 62—117.7.

Columbia Cable & Electric Corp.: *See*—
Maranto, Israel H. 2,770,212.

Columbus Dental Mfg. Co.: *See*—
Meyer, James H. 2,770,040.

Columbus Plastic Products, Inc.: *See*—
Kelly, George W. 2,770,011.

Comey, Charles S. and M. F. Saxton, and H. C. Stuerzl, to The Engineered Products Co. Hydraulic door closer. 2,770,005, 11-13-56, Cl. 16—52.

Compagnie Generale de Telegraphie Sans Fil: *See*—
Charles, Daniel. 2,770,754.
Warnecke, Robert, and Dehler. 2,770,780.

Conciatori, Anthony B., and V. S. Salvin, to Celanese Corp. of America. Dyed textile materials and method of making. 2,770,518, 11-13-56, Cl. 8—18.

Conners, John: *See*—
Bader, Carl G., and Conners. 2,770,206.

Continental Meters Corp.: *See*—
Powell, Robert J. 2,770,511.

Continental Radiant Glass Heating Corp.: *See*—
Bazley, Emil W. 2,770,704.

Continental Steel Corp.: *See*—
Lee, Glenn E. 2,770,455.

Cooke, Reginald B. W.: *See*—
Reeves, Alec H., and Cooke. 2,770,740.

Cooley, Hilbu H., to Stanolind Oil and Gas Co. Detecting corrosion of well casing. 2,770,773, 11-13-56, Cl. 324—37.

Coolidge, Charles A.: *See*—
Cohn, Edwin J. 2,770,616.

Cora, Lawrence H., to Gulf Oil Corp. Polymerization process for preparing propylene tetramer. 2,770,666, 11-13-56, Cl. 260—683.15.

Cornwell, Ralph T. K., to American Viscose Corp. Cellulose compound film-forming composition and a regenerated cellulose film coated therewith. 2,770,555, 11-13-56, Cl. 106—172.

Courier-Citizen Co.: *See*—
Magarinos, Joseph, and Hoffman. 2,770,456.

Cowan, Leslie F.: *See*—
Perguna, Sidney W., and Cowan. 2,770,565.

Crane Co.: *See*—
Hjulian, Julius A. 2,770,422.

Creamer, Edgar M., Jr., to Philco Corp. Sound and color signal detection system. 2,770,673, 11-13-56, Cl. 178—5.4.

Crompton & Knowles Loom Works: *See*—
Turner, Richard G. 2,770,341.

Crooker, David E., to L. L. Fuller. Stud holders for use in tire molds. 2,770,013, 11-13-56, Cl. 18—36.

Crowell, Arnold B., H. A. Rotfort, and C. V. Mankiewicz, to International Business Machines Corp. Continuous form feeding apparatus in selective printing machines. 2,770,185, 11-13-56, Cl. 101—19.

Crown Cork & Seal Co., Inc.: *See*—
Breeback, Rudolph H. 2,770,263.
Day, Carl L., and Fauth. 2,770,342.
Erkardt, John E., Jr., and Grimes. 2,770,793.
Wilkens, Elbe A. 2,770,063.

Culverwell, Frank E. Front axle. 2,770,156, 11-13-56, Cl. 74—710.

Curioni, Aldo. Apparatus for handling spaghetti preparatory to packaging. 2,770,351, 11-13-56, Cl. 198—36.

Curtiss-Wright Corp.: *See*—
Stern, Robert G., and Simpson. 2,770,654.

Cuskie, Herman C., to Chrysler Corp. Automotive vehicle stabilizing means. 2,770,453, 11-13-56, Cl. 267—11.

Czyzewski, Mikolaj V., now by judicial change of name MacVictor Chelton. Double safety electrical receptacle. 2,770,786, 11-13-56, Cl. 339—40.

Dahm, Carl S. Container. 2,770,407, 11-13-56, Cl. 229—8.

Daimler-Benz Aktiengesellschaft: *See*—
Nallinger, Friedrich K. H. 2,770,147.

Dain, John: *See*—
Robertson-Shersby-Harvie, Robert B., and Dain. 2,770,781.

Dale, William C.: *See*—
Prager, Hans J., and Dale. 2,770,751.

Dalton, John F., C. A. Fischer, and W. G. Turnbull, Jr., to Bell Telephone Laboratories, Inc. Snap switch. 2,770,692, 11-13-56, Cl. 200—67.

Daisell, Clarence W., to Bendix Aviation Corp. Wind indicating and recording apparatus. 2,770,129, 11-13-56, Cl. 73—189.

Dandenaud, Raoul. Reserve sled. 2,770,465, 11-13-56, Cl. 280—12.

Danner, Eugene G. Piston rod and crank pin connection for aquarium pumps. 2,770,478, 11-13-56, Cl. 287—90.

Davis, Edgar G., to General Motors Corp. Grid bearing and method of making same. 2,770,500, 11-13-56, Cl. 308—37.

Davis, Elwood R., to Harrington & Richardson, Inc. Circular saw blade sharpening device. 2,770,152, 11-13-56, Cl. 76—36.

Day, Carl L., and F. R. Fauth, to Crown Cork & Seal Co., Inc. Container actuated divider. 2,770,342, 11-13-56, Cl. 198—31.

Dealaap Tree Service, Inc.: *See*—
Harrison, John O. 2,770,370.

Deary, John P. Missile and target device therefor. 2,770,460, 11-13-56, Cl. 273—105.

Deerdorf, Thomas F., to Paraflow, Inc. Paraffin removal process for oil wells. 2,770,307, 11-13-56, Cl. 166—11.

Deere & Co. : *See*—
Deere, John F., 2,770,361.
Dehart, Hubert H. and Dehart, Robert M., 2,770,180.
Delbert, Edward K. to Deltrit Abrasives Corp., Brake and clutching mechanism therefor, 2,770,320, 11-13-56.
Delmonte, Albert A. to Delmonte Corp., Brake and counterbalance mechanism, 2,770,180, 11-13-56, Cl. 188—18.
Demaree, Robert E. to Zenith Radio Corp., Brake arrangement for wire feeds, 2,770,361, 11-13-56, Cl. 188—18.
Demato, John A., to Demato Engineering Co., Oil mixer and container, 2,770,367, 11-13-56, Cl. 210—148.
Demeter, Joseph D., to Brimfield Oil and Gas Co., Automatic well-cleaning device, 2,770,182, 11-13-56, Cl. 166—22.
Demuth, Harold F., to Demuth Abrasives Corp., Brake and clutching mechanism therefor, 2,770,320, 11-13-56, Cl. 188—18.
Denny, George B., Brake shock adjuster, 2,770,231, 11-13-56, Cl. 188—196.
Denny, George E., Power operated means for a shock adjuster, 2,770,233, 11-13-56, Cl. 188—196.
Dentler, Otto H. to Thos. Alva Plastic Mold and Die Co., Layer feeder, 2,770,209, 11-13-56, Cl. 192—14

Gleaves, Paul F. M., and J. A. M. L. Gallavardin. Electronic distributor for counting and similar purposes. 2,770,417, 11-13-56, Cl. 235—61.

Göbel, Herwig: *See*—
Mittendrein, Michael, and Göbel. 2,770,464.

Goddard, Esther C.: *See*—
Goddard, Robert H. 2,770,251.
Goddard, Robert H. 2,770,255.

Goddard, Robert H., deceased, by E. C. Goddard, executrix, to The Daniel and Florence Guggenheim Foundation. ½ to The Daniel and Florence Guggenheim Foundation. Quick-acting reducing valve. 2,770,251, 11-13-56, Cl. 137—486.

Goddard, Robert H., deceased, by E. C. Goddard, executrix, to The Daniel and Florence Guggenheim Foundation. Dual-range safety valve. 2,770,255, 11-13-56, Cl. 137—529.

Gobel Tanaka & Co., Ltd.: *See*—
Utsumi, Isamu, and Harada. 2,770,624.

Gobrecht, Fernand P., to International Standard Electric Corp. Automatic telephone systems. 2,770,676, 11-13-56, Cl. 179—18.

Goldsmith, John L.: *See*—
Grandjean, Hulan E., and Goldsmith. 2,770,413.

Gonzalez, Luis. Automatic interrupter device for the electrical circuit in automobile vehicles in case of collision or over-turning of same. 2,770,689, 11-13-56, Cl. 200—61.52.

Good, Myron L., to the United States of America as represented by the United States Atomic Energy Commission. Linear accelerator. 2,770,755, 11-13-56, Cl. 315—5.

Goodman Mfg. Co.: *See*—
Hagenbook, Loy D. 2,770,319.
McCallum, Robert A. 2,770,377.
McCarthy, Timothy F. 2,770 378.
Miller, Frederick E. 2,770,353.
Miller, Frederick E. 2,770,448.

Goodrich, B. F., Co., The: *See*—
Hennagh, Frank. 2,770,282.
Schottenberger, Charles S. 2,770,612.

Gordon, Mack. Method of quenching metals. 2,770,564, 11-13-56, Cl. 148—13.1.

Gorton, Bert S., and B. L. Williams, to Monsanto Chemical Co. Process for the production of 2,4-diamino-6-chloro-s-triazine. 2,770,622, 11-13-56, Cl. 260—249.8.

Gossett, Corrine E.: *See*—
Gossett, John R. 2,769,962.

Gossett, John R., ½ to C. E. Gossett. Portable miniature urinal. 2,769,962, 11-13-56, Cl. 4—110.

Grangaard, Donald H., and A. W. Plummer, to Kimberly-Clark Corp. Method of patching an opening in a plane member. 2,770,556, 11-13-56, Cl. 117—2.

Grantham, Hulan E., and J. L. Goldsmith, to Hudson Engineering Corp. Wood fan ring. 2,770,413, 11-13-56, Cl. 230—132.

Graves, Benjamin P., to Brown & Sharpe Mfg. Co. Coolant return system. 2,770,172, 11-13-56, Cl. 90—11.

Gray, Sidney, to Radio Corp. of America. Cathode ray tube and target. 2,770,746, 11-13-56, Cl. 313—65.

Grayson, Harry, and R. A. G. Dunkley, to International Standard Electric Corp. Trigger circuits. 2,770,739, 11-13-56, Cl. 307—88.

Graziano, Victor: *See*—
Schlesinger, Kurt, and Graziano. 2,770,748.

Greenwood, Douglas, and H. A. Stevenson, to Roots Pure Drug Co. Ltd. P-chlorobenzyl sulfide and acaricidal composition containing the same. 2,770,568, 11-13-56, Cl. 167—30.

Greist Mfg. Co., The.: *See*—
Baehr, Carl G., and Connors. 2,770,206.

Griffith, Carroll L.: *See*—
Hall, Lloyd A., and Griffith. 2,770,559.

Griffith Laboratories, Inc., The: *See*—
Hall, Lloyd A. 2,770,549.
Hall, Lloyd A., and Griffith. 2,770,550.
Hall, Lloyd A., and Kalchbrenner. 2,770,548.
Hall, Lloyd A., and Kalchbrenner. 2,770,551.

Griffiths, Edgar J. Stack type filter with channeled center standard. 2,770,270, 11-13-56, Cl. 210—183.

Grimes, Albert E.: *See*—
Erhardt, John E., Jr., and Grimes. 2,770,793.

Grimstead, Robert E.: *See*—
Bailes, Richard H., and Grimstead. 2,770,532.

Gross, Charles H. Flexible self-sealer oiler and fluid dispenser. 2,770,399, 11-13-56, Cl. 222—211.

Grote, Henry W., to Universal Oil Products Co. Solvent extraction of hydrocarbons. 2,770,969, 11-13-56, Cl. 260—674.

Grove, Frank C., to The Hoover Co. Automatic stator winding machine. 2,770,424, 11-13-56, Cl. 242—1.

Grove, Marvin H., to Grove Valve and Regulator Co. Fluid pressure regulator. 2,770,441, 11-13-56, Cl. 251—58.

Grove Valve and Regulator Co.: *See*—
Grove, Marvin H. 2,770,441.

Gruender, Oscar C., to Nordberg Mfg. Co. Bowl liner for gyratory crushers. 2,770,423, 11-13-56, Cl. 241—299.

Gruessner, André: *See*—
Fromherz, Konrad, Gruessner, and Schnider. 2,770,569.

Guggenheim, Daniel and Florence, Foundation, The: *See*—
Goddard, Robert H. 2,770,251.
Goddard, Robert H. 2,770,255.

Gulf Oil Corp.: *See*—
Corn, Lawrence H. 2,770,665.

Gustafson, George W., to Lamb-Grays Harbor Co., Inc. Glue applying apparatus. 2,770,211, 11-13-56, Cl. 118—11.

Gustave, Miller: *See*—
Pszarowski, Stanley J. 2,770,366.

Gwaltney, Eugene C., to Saco-Lowell Shops. Spinning frame. 2,770,003, 11-13-56, Cl. 57—90.

Gyllby, Paul, and F. Zillikens, to American Home Products Corp. Enzymatic synthesis of N-acetylglucosaminide galactose and galactoside-N-acetyl glucosamine. 2,770,573, 11-13-56, Cl. 195—28.

Gyrodyne Co. of America, Inc.: *See*—
Losey, Arthur M. 2,770,149.

Haagens, Robert G., and L. Katz, to Raytheon Mfg. Co. Directly-cooled electromagnetic components. 2,770,765, 11-13-56, Cl. 336—61.

Haddad, James H., to Socony Mobil Oil Co., Inc. Method and apparatus for the conversion of liquid hydrocarbons in the presence of a granular contact material. 2,770,583, 11-13-56, Cl. 196—52.

Haensel, Vladimir, to Universal Oil Products Co. Saturating of a hydrocarbon fraction with hydrogen and then hydrodesulfurizing said fraction. 2,770,578, 11-13-56, Cl. 196—24.

Hagan Corp.: *See*—
Shafer, Joseph R., and Waxman. 2,770,246.

Hagemeyer, Hugh J., Jr., and E. L. Oglesby, to Eastman Kodak Co. Resinous products containing free hydroxyl radicals prepared by polymerizing acrylonitrile in admixture with an interpolymer of an alkenol and another unsaturated monomer. 2,770,607, 11-13-56, Cl. 260—80.2.

Hagenbook, Loy D., to Goodman Mfg. Co. Dust separator. 2,770,319, 11-13-56, Cl. 183—8.

Haigh, Edgar, and P. F. Keydel, to General Motors Corp. Combustion chamber. 2,770,227, 11-13-56, Cl. 123—191.

Haines, Robert M.: *See*—
Annable, Weldon G., Lucas, and Haines. 2,770,579.

Halahan, John, T. F. Arneson, and F. A. Lyon. Paper feeder. 2,770,458, 11-13-56, Cl. 271—29.

Hall, Lloyd A., and W. S. Kalchbrenner, to The Griffith Laboratories, Inc. Meat-curing salt composition. 2,770,548, 11-13-56, Cl. 99—222.

Hall, Lloyd A., to The Griffith Laboratories, Inc. Meat-curing salt composition. 2,770,549, 11-13-56, Cl. 99—222.

Hall, Lloyd A., and C. L. Griffith, to The Griffith Laboratories, Inc. Meat-curing salt composition. 2,770,550, 11-13-56, Cl. 99—222.

Hall, Lloyd A., and W. S. Kalchbrenner, to The Griffith Laboratories, Inc. Meat-curing salt composition. 2,770,551, 11-13-56, Cl. 99—222.

Hallden, Frederick C., to Hazeltine Research, Inc. Pulse-power amplifier. 2,770,686, 11-13-56, Cl. 179—171.

Halverson, Milton A., to Design-Rite Co. Boat trailer and anchoring strap therefor. 2,770,470, 11-13-56, Cl. 280—179.

Hamal, Heinrich: *See*—
Sieglitz, Adolf, and Hamal. 2,770,620.

Hamilton, Bertie F., deceased; W. S. Hamilton, executor. Spring-back chair. 2,770,292, 11-13-56, Cl. 155—157.

Hamilton, Francis E., G. V. Hawkins, R. E. Lawhead, Jr., and E. S. Hughes, Jr., to International Business Machines Corp. Data storage apparatus. 2,770,797, 11-13-56, Cl. 340—174.

Hamilton, William S.: *See*—
Hamilton, Bertie F. 2,770,292.

Hamm, Douglas W. to Muskegon Piston Ring Co. Unit piston ring. 2,770,512, 11-13-56, Cl. 309—44.

Hammill, Edward B., to Western Electric Co., Inc. Broaching tool for forming tapered openings in tubes. 2,770,174, 11-13-56, Cl. 90—33.

Hanscom, H. F., & Co., Inc.: *See*—
Hanscom, Harris F. 2,770,183.

Hanscom, Harris F., to H. F. Hanscom & Co., Inc. Tying machine. 2,770,183, 11-13-56, Cl. 200—10.

Hanslick, Roy S., and R. Bognah, to American Home Products Corp. Diarylalkylenediamine preparation. 2,770,653, 11-13-56 Cl. 260—570.9

Happoldt, William B., Jr.: *See*—
Barker, Harold C., Lewis, and Happoldt. 2,770,606.

Harada, Kiyoshi: *See*—
Utsumi, Isamu, and Harada. 2,770,624.

Hardy, Edgar E.: *See*—
Slocombe, Robert J., Hardy, and Saunders. 2,770,639.

Hardy, Edgar E., and T. Reetz, to Monsanto Chemical Co. Esters of epoxidised phosphonic acids and halogenated organic materials stabilised therewith. 2,770,610, 11-13-56, Cl. 260—45.8.

Harper, Carolyn L.: *See*—
Lamar, Charles C. 2,770,253.

Harper, Carolyn L., Trust, The: *See*—
Lamar, Charles C. 2,770,253.

Harper, Philip S.: *See*—
Lamar, Charles C. 2,770,253.

Harper, Philip S., Trust, The: *See*—
Lamar, Charles C. 2,770,253.

Harrington & Richardson, Inc.: *See*—
Davis, Elwood R. 2,770,153.

Harris, Columbus W.: *See*—
Egly, William D., and Harris. 2,770,495.

Harris, James S., to Radio Corp. of America. Neutral-to-polar current conversion circuits. 2,770,677, 11-13-56, Cl. 178—70.

Harris Trust and Savings Bank: *See*—
Lamar, Charles C. 2,770,253.

Harrison, John O., to Dealers Tire Service, Inc. Vehicle tire. 2,770,279, 11-13-56, Cl. 152—209.

Harter, Isaac, Jr., and T. W. Ratcliffe, to The Babcock & Wilcox Co. Method of and apparatus for continuous casting. 2,770,021, 11-13-56, Cl. 22—57.2.

Hartford National Bank and Trust Co., trustee: *See*—
Brill, Alfred, Klaeesa, and Zahn. 2,770,740.
Dree, Arie. 2,770,712.
Jansen, Geurt. 2,770,330.
Jonkers, Cornelius O., and de Lange. 2,770,109.
Moesker, Gerard. 2,770,753.
Müllers, Josef. 2,770,025.
Vervest, Wilhelmus L., van Gelder, and Waarid. 2,770,136.





Hatch, Robert H. to the United States of America as represented by the Secretary of the Navy. Metal painted aperture or window for waveguides. 2,770,784, 11-13-56, Cl. 333—98.

Hawes, Roland C., and A. Strickler, to Beckman Instruments, Inc. Method and apparatus for automatic titration and control of variables. 2,770,531, 11-13-56, Cl. 23—230.

Hawkins, Elmer W. Brush rake attachment for a tractor. 2,770,064, 11-13-56, Cl. 37—2.

Hawkins, George V.: *See*—
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. 2,770,797.

Hayden, Helen M. Slipper. 2,770,055, 11-13-56, Cl. 36—51.

Hazeltine Research, Inc.: *See*—
Hallden, Frederick C. 2,770,686.

Heany Industrial Ceramic Corp.: *See*—
Pieper, Arthur O. 2,770,552.

Hedges, Charles S., to The Vendo Co. Control mechanism for vending machines. 2,770,418, 11-13-56, Cl. 235—91.

Hegarty, John J. Suspension apparatus for use with lead carrying mechanism. 2,770,361, 11-13-56, Cl. 214—731.

Heintz, Ralph M., to Jack & Heintz, Inc. Magnetic pole structure. 2,770,744, 11-13-56, Cl. 310—218.

Henderson, Harold P. Self-aligning protective plug for tubings, hose lines, threaded openings, etc. 2,770,260, 11-13-56, Cl. 138—89.

Henkin, Hyman, to Colgate-Palmolive Co. Stable liquid shampoo. 2,770,590, 11-13-56, Cl. 252—117.

Hennagh, Frank, to The B. F. Goodrich Co. Tubeless pneumatic tire. 2,770,282, 11-13-56, Cl. 152—330.

Hernog, Eugene M., to Acierias de Pompey. Low alloy steel tubing. 2,770,563, 11-13-56, Cl. 148—31.

Herneg, Gerald B., to Radio Corp. of America. Semi-conductor frequency multiplier circuit. 2,770,726, 11-13-56, Cl. 250—36.

Hess, Otto. Device for fastening the stitch plate on the lower part of a sewing machine. 2,770,207, 11-13-56, Cl. 112—260.

Heymans, Hans. Purification of waste water. 2,770,593, 11-13-56, Cl. 210—16.

Hiatt, Wilbur L., to Splender, Inc. Foldable closure. 2,770,296, 11-13-56, Cl. 160—199.

Hibbs, Frank J., Jr., to Associated Refrigerating Engineers. Vacuum produce cooler. 2,770,110, 11-13-56, Cl. 62—109.

Hilber, Hanns, to A. Kreidler. Cycle saddle support mounting. 2,770,479, 11-13-56, Cl. 287—119.

Hill, C. V., & Co., Inc.: *See*—
Smith, Victor W. 2,770,101.

Hill, Edward G.: *See*—
Ayers, David T., Jr., and Hill. 2,770,223.

Hill, Eugene F., and D. O. De Free, to Ethyl Corp. Stabilized organic compositions. 2,770,598, 11-13-56, Cl. 44—69.

Hill, Gordon, and P. C. Bauer, to Bettendorf Bakery Equipment Co. Method of and apparatus for forming serrated cutting edges on slicer blades. 2,770,300, 11-13-56, Cl. 164—50.

Hine, Boyd E. Float valve puller. 2,770,485, 11-13-56, Cl. 294—90.

Hirsch, Nathan. Ham reduction. 2,770,685, 11-13-56, Cl. 179—171.

Hirsch, Sidney: *See*—
Utley, George D., and Hirsch. 2,770,236.

Hively, Jack R., to E. I. du Pont de Nemours and Co. Nitrogen dioxide compounds of 1,3-dichloro-2-butene, and compositions containing the same. 2,770,657, 11-13-56, Cl. 260—644.

Hjullan, Julius A., to Crane Co. Fluval stage reciprocating punch crusher for frangible materials. 2,770,422, 11-13-56, Cl. 241—147.

Hlynsky, Alex, to Diamond Alkali Co. Preparation of 2-methyl-4 chlorophenoxy-acetic acid. 2,770,651, 11-13-56, Cl. 260—521.

Hobby, Robert E. D.: *See*—
Kuniholm, Waino G., and Hobby. 2,770,488.

Hobson, Lloyd H., to H-S-On Corp. Method of emplacing mortar. 2,770,560, 11-13-56, Cl. 117—104.

Hockensmith, Wilbur D., Jr. Multiple body dumping truck trailer. 2,770,490, 11-13-56, Cl. 298—8.

Hodge, Walter D., to Manley, Inc. Remote control faucet. 2,770,502, 11-13-56, Cl. 236—140.

Hodgson, Thomas S.: *See*—
Bergstrom, Roland F., Hodgson, and Hook. 2,770,530.

Hoffman, Edward J.: *See*—
Fries, Adam J., and Hoffman. 2,770,280.

Hoffman, Floyd C.: *See*—
Magarinos, Joseph, and Hoffman. 2,770,456.

Hoffman, James H.: *See*—
Schwenninger, Earnest N., and Hoffman. 2,770,127.

Hoffmann-La Roche Inc.: *See*—
Fromherz, Konrad, Gruessner, and Schnider. 2,770,569.

Hoffmeister, Hans G., to Food Machinery and Chemical Corp. Automatic self-filling conveyor. 2,770,350, 11-13-56, Cl. 198—34.

Hofmann, Erich. Electrical connecting device. 2,770,704, 11-13-56, Cl. 339—273.

Holly, Stanley C., to Cincinnati Screen Process Supplies Inc. Squeegee and frame mounting for stencil printing machines. 2,770,191, 11-13-56, Cl. 101—126.

Holm, Else M. K.: *See*—
Holm, Ragnar and E. M. K. 2,770,709.

Holm, Ragnar and E. M. K., to Stackpole Carbon Co. Direct current electric switching contacts. 2,770,700, 11-13-56, Cl. 200—166.

Homer Laughlin China Co., The: *See*—
Eyckman, George E. 2,770,214.

Hone, Robert E. Point locating device. 2,770,042, 11-13-56, Cl. 33—75.

Honea, John S., to Ethyl Corp. Alkali metal purification device. 2,770,384, 11-13-56, Cl. 210—52.5.

Honeycutt, Earl M., and C. C. Wallin, to Sun Oil Co. Alkaline treatment of petroleum vapors. 2,770,580, 11-13-56, Cl. 196—36.

Honn, Francis J., to The M. W. Kellogg Co. Solutions of copolymers of a perfluorochloroethylene and a fluorethylene. 2,770,605, 11-13-56, Cl. 260—31.2.

Hood, Edwin G. Dual control mechanism. 2,770,337, 11-13-56, Cl. 192—.098.

Hook, Harvey E.: *See*—
Bergstrom, Roland F., Hodgson, and Hook. 2,770,530.

Hooper, Charles K.: *See*—
McAdie, Colin H., and Hooper. 2,770,764.

Hoover Co., The: *See*—
Brace, George A. 2,770,059.
Grove, Frank C. 2,770,424.
Kitto, William H. 2,770,001.
Ripple, Melvin H. 2,770,135.
Segerman, Louis E. 2,770,000.
Sutton, Otis B. 2,769,994.

Hopkins, George W., to Friden Calculating Machine Co., Inc. Calculating machine. 2,770,416, 11-13-56, Cl. 235—61.

Horback, William B., to Celanese Corp. of America. Heat sealing lacquer coated film and method of producing same. 2,770,559, 11-13-56, Cl. 117—76.

Hornbo, Theodore, F. B. Marcotte, and O. V. Lake, to Celanese Corp. of America. Production of chlorinated compounds. 2,770,661, 11-13-56, Cl. 260—659.

Horn, Charles H. Emergency diaphragm for air brakes and the like. 2,770,799, 11-13-56, Cl. 340—242.

Horton, Robert L., to American Cyanamid Co. Thiamine hydrochloride (vitamin B1). 2,770,623, 11-13-56, Cl. 260—256.6.

Horsley, Lee H., V. S. Morello, and N. Poffenberger, to The Dow Chemical Co. Aromatic hydrocarbons by solvent extraction with a solvent of diethylene glycol and water. 2,770,664, 11-13-56, Cl. 260—674.

Hottinaux, Roland. Selectively positioned cam means for operating pivoted chaser carriers. 2,769,902, 11-13-56, Cl. 10—100.

Housley, George W., Jr.: *See*—
Carlson, Martin, and Brubaker. 2,770,004.

Houpt, Alfred G., to American Cyanamid Co. Preparation of alkali metal cyanates. 2,770,525, 11-13-56, Cl. 23—75.

Howarth, Thomas H. J. Downing, and J. G. N. Drewitt, to British Celanese Ltd. Process for polymerizing cracked fractions containing β. 2,770,614, 11-13-56, Cl. 260—82.

Hoyt, Edwin R., to Dorr-Oliver Inc. Apparatus for combining sheets of paper. 2,770,060, 11-13-56, Cl. 51—70.

Hudson Engineering Corp.: *See*—
Grantham, Hulan E., and Goldsmith. 2,770,413.

Hueber, Henry C.: *See*—
Olshei, John E., and Hueber. 2,770,017.

Hughes Aircraft Co.: *See*—
Eschner, Albert, Jr. 2,770,788.

Hughes, Ernest S., Jr.: *See*—
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. 2,770,797.

Hujsak, Karol L., and R. Mungen, to Stanolind Oil and Gas Co. Production of alcohols and organic acids from oxygenated organic compounds. 2,770,635, 11-13-56, Cl. 260—450.

Hulsbergen, Cornelis W. Liquid purifying filters. 2,770,360, 11-13-56, Cl. 210—171.

Hunter, James P., to General Electric Co. Mobile vacuum cleaner having a hose adapted to be used as a pushing or pulling means therefor. 2,769,999, 11-13-56, Cl. 15—327.

Hupert, Julius J., A. B. Przedpelski, and K. Ringer, to A. B. F. Products, Inc. Double counter demodulator circuit. 2,770,727, 11-13-56, Cl. 250—27.

Hurlbut, Lloyd W., to Research Corp. Harvesting machine for row crop stalks. 2,770,087, 11-13-56, Cl. 56—56.

Huston, William D., to American Machine and Metals, Inc. Instruments. 2,770,247, 11-13-56, Cl. 137—85.

Hyde, Donald B., deceased, by J. P. Hyde, executrix, to J. P. Hyde. Bird feeder. 2,770,220, 11-13-56, Cl. 119—60.

Hyde, Joyce P.: *See*—
Hyde, Donald B. 2,770,220.

Hysko, John L.: *See*—
Gardner, Leland A., and Hysko. 2,770,670.

I-T-E Circuit Breaker Co.: *See*—
Yarrick, Charles J. 2,770,701.

Ideal Industries, Inc.: *See*—
Schinske, William G. 2,770,154.

Ideo, Ingham. Lunch tray holder. 2,770,514, 11-13-56, Cl. 311—23.

Illinois Tool Works: *See*—
Austin, Leonard R. 2,770,269.
Poupitch, Ourjiem J. 2,770,277.

Independent Lock Co.: *See*—
Erkkila, Andrew. 2,770,481.

International Business Machines Corp.: *See*—
Arden, Thomas R. 2,770,166.
Crowell, Arnold D., Reitfert, and Mankiewicz. 2,770,185.
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. 2,770 797.
Kletzer, Harold J., and Veburg. 2,770,189.
Lentz, John J. 2,770,725.
Macy, Henry T. 2,770 061.
Nolan, John J. 2,770,186.
Roth, Robert I. 2,770,795.
Theistrup, Henry L. 2,770,304.
Wilcox, Lawrence A., Kamp, and Lanzig. 2,770,459.

International Harvester Co.: *See*—
Johnson, Samuel G. 2,770,313.

International Standard Electric Corp.: *See*—
Beadle, Anthony C. 2,770,679.
Biber, Hans. 2,770,784.
Brewster, Arthur E. 2,770,674.
Clavier, Andre G., and Thomas. 2,770,783.
Feissel, Henri. 2,770,777.
Foulkes, Christopher H., and Blythe. 2,770,772.
Gehoerel, Fernand P. 2,770,676.
Grayson, Harry, and Dunkley. 2,770,739.
Matthews, Kenneth A. 2,770,763.
Pergunas, Sidney W., and Cowan. 2,770,565.
Reeves, Alec H., and Cooke. 2,770,740.
Urtel, Rudolf. 2,770,730.
White, Charles de B., and Matthews. 2,770,762.

International Telephone and Telegraph Corp.: *See*—
Bolte, Frederick G. 2,770,780.
Lundburg, Frank J. 2,770,800.
Nordlin, Henry G., and Koerner. 2,770,014.

International Ytong-Stabalite Co. Ltd.: *See*—
Sebardt, Wilhelm. 2,770,395.

Ionics, Inc.: *See*—
Juda, Walter, and McRae. 2,70,776.

Isbell, Jessie C. to L. W. Barber. Truck window unit. 2,770,067, 11–13–56, Cl. 296—47.

Jack & Heintz, Inc.: *See*—
Heintz, Ralph M. 2,770,744.

Jackson, Kenneth, to H. Fisher (Oldham) Ltd. Washing machines. 2,770,122, 11–13–56, Cl. 68—133.

Jackson, William E., to Philco Corp. Neutralized amplifier circuit. 2,770,683, 11–13–56, Cl. 179—171.

Jakab, Mauricio. Powder atomizer container. 2,770,068, 11–13–56, Cl. 43—146.

Janke, Edward J.: *See*—
Mitchell, Lester F., and Janke. 2,770,192.

Jansen, Geurt, to Hartford National Bank and Trust Co., as trustee. Braking device. 2,770,330, 11–13–56, Cl. 188—90.

Jay, Kenneth W., to Orenda Engines Ltd. Gravity-controlled valves for continuous liquid supply tanks. 2,770,245, 11–13–56, Cl. 137—38.

Jaye Corp., The: *See*—
Jaye, Richard C. 2,769,961.

Jaye, Richard C., to The Jaye Corp. Condensate inhibiting liner for toilet flush tanks. 2,769,961, 11–13–56, Cl. 4—18.

Jensen, Arthur S., to Radio Corp. of America. Storage tube. 2,770,747, 11–13–56, Cl. 313—68.

Jensen, Jack H.: *See*—
Rast, David J., and Jensen. 2,770,334.

Jensen, Weldon H., ¼ to W. B. Lynch. Electric meat fryer. 2,770,182, 11–13–56, Cl. 99—373.

Jessen, Nicholas C.: *See*—
Carpenter, Otis R., and Jessen. 2,770,030.

Jesus, Henri L. L. Machine for folding bedsheets and other articles in soft and pliable sheet form. 2,770,457, 11–13–56, Cl. 270—68.

Jet-Heet, Inc.: *See*—
MacCracken, Calvin D. 2,770,445.

Jeul, James L., to Sun Oil Co. Soluble oil. 2,770,594, 11–13–56, Cl. 252—33.3.

Jeul, James L., to Sun Oil Co. Soluble oil. 2,770,595, 11–13–56, Cl. 252—33.3.

Jeul, James L., to Sun Oil Co. Soluble oil. 2,770,596, 11–13–56, Cl. 252—33.3.

Jeul, James L., to Sun Oil Co. Soluble oil. 2,770,597, 11–13–56, Cl. 252—33.3.

Jeul, James L., to Sun Oil Co. Soluble oil. 2,770,598, 11–13–56, Cl. 252—33.3.

Johansen, Einar K., to U. S. Industries, Inc. Overload release assembly for power presses. 2,770,342, 11–13–56, Cl. 192—150.

Johnson, David W., to The Arrow-Hart & Hegeman Electric Co. Interlocking cover and switch mechanism. 2,770,688, 11–13–56, Cl. 200—50.

Johnson Gage Development Co., The: *See*—
Johnson, Stanley G. 2,770,050.

Johnson, Ogden, to Ford, Bacon & Davis, Inc. Continuous method of mixing. 2,770,544, 11–13–56, Cl. 99—123.

Johnson, Samuel G., to International Harvester Co. Combination tail pipe and muffler. 2,770,313, 11–13–56, Cl. 181—41.

Johnson, Stanley G., to The Johnson Gage Development Co. Gage for rotating test part for peripheral and concentricity gaging. 2,770,050, 11–13–56, Cl. 33—199.

Johnston, Leith, H. J. McCreary, and R. C. Stiles, to Automatic Electric Laboratories, Inc. Tape movement check in a telegraph system. 2,770,675, 11–13–56, Cl. 178—17.5.

Johnstone, Ben B.: *See*—
Clemens, John E., and Johnstone. 2,770,735.

Jones, David W., and F. Zant, said Zant assor. to said Jones. Self propelled toy which circumvents obstructions. 2,770,074, 11–13–56, Cl. 46—247.

Jones, Ernest A., to Thompson Products, Inc. Corner reflector type antenna. 2,770,801, 11–13–56, Cl. 343—834.

Jones, Percy, (Twinlock) Ltd.: *See*—
Sewell, Frederick R. 2,770,238.

Jones, Robert H.: *See*—
Giolito, Silvio L., and Jones. 2,770,638.

Jonkers, Cornelius O., and L. de Lange, to Hartford National Bank and Trust Co., as trustee. Freezer and cooled chamber construction of a cold-gas refrigerator. 2,770,109, 11–13–56, Cl. 62—136.

Jordan, Anthony G. Test tube heater. 2,770,707, 11–13–56, Cl. 219—43.

Jordan, Richard H. Bearing. 2,770,505, 11–13–56, Cl. 308—72.

Journeay, Glen E., to Monsanto Chemical Co. Cyanoethylation of ketones. 2,770,640, 11–13–56, Cl. 260—464.

Juda, Walter, and W. A. McRae, to Ionics, Inc. Frequency meter. 2,770,776, 11–13–56, Cl. 324—78.

Kahan, Mortimer J. Coffee extracting apparatus. 2,770,181, 11–13–56, Cl. 99—298.

Kahmann, Anthony R., and T. E. Martin, to Phillips Petroleum Co. Crystal purification apparatus control. 2,770,533, 11–13–56, Cl. 23—273.

Kalchbrenner, Walter S.: *See*—
Hall, Lloyd A., and Kalchbrenner. 2,770,548.

Kamp, Bernard V.: *See*—
Wilson, Lawrence A., Kamo, and Luning. 2,770,459.

Kane, Roger H. Carpenter's board holding bracket. 2,770,271, 11–13–56, Cl. 144—297.

Karpf, Nikolaus, to V. Linhof. Holder for carriers of light sensitive emulsions. 2,770,178, 11–13–56, Cl. 95—66.

Kasak, Antonin J., to Bendix Aviation Corp. Cement applicator for brake lining. 2,770,217, 11–13–56, Cl. 118—410.

Kato, Shoji, to National Merchandising Corp. Musical instrument. 2,770,159, 11–13–56, Cl. 84—404.

Katz, Leonhard: *See*—
Haagens, Robert G., and Katz. 2,770,785.

Kearfott Co., Inc.: *See*—
Wallach, Bernard H. 2,770,743.

Kearney Corp.: *See*—
Runde, Kenneth R. 2,770,667.

Keith, Frank H.: *See*—
Keith, Henry I. 2,770,358.

Keith, Henry I., to F. H. Keith. Refillable lipstick dispenser. 2,770,358, 11–13–56, Cl. 206—56.

Kellett, Alfred L. Magnetic electrical switch. 2,770,697, 11–13–56, Cl. 200—87.

Kelley, Paul A. Case for snelled fishhooks. 2,770,064, 11–13–56, Cl. 43—57.5.

Kellogg, M. W., Co., The: *See*—
Barnhart, William S. 2,770,659.
Horn, Francis J. 2,770,605.
Kroncke, Charles O., Jr. 2,770,615.
Passino, Herbert J., Teeters, and Mantell. 2,770,660.
Pratt, Thomas W. 2,770,570.
Teeters, Wilber O., Passino, and Dittman. 2,770,666.

Kelly, George W., to Columbus Plastic Products, Inc. Die construction for injection-type molding machines. 2,770,011, 11–13–56, Cl. 18—30.

Kelly, Girard J., to American Car and Foundry Co. Tool for inserting fluting. 2,770,032, 11–13–56, Cl. 29—235.

Kelsey-Hayes Wheel Co.: *See*—
Ayers, David T., Jr., and Hill. 2,770,223.

Kent Mfg. Corp.: *See*—
Batcheller, Hugh W. 2,770,790.
Batcheller, Hugh W. 2,770,791.
Batcheller, Hugh W. 2,770,792.

Kesselring, Fritz, to FKG Fritz Kesselring Geratebau A. G. Magnetic rectifier. 2,770,766, 11–13–56, Cl. 321—48.

Keydel, Paul F.: *See*—
Haigh, Edgar, and Keydel. 2,770,227.

Keystone Lubricating Co.: *See*—
Ehnts, Fred. 2,770,507.

Kimberly-Clark Corp.: *See*—
Grangaard, Donald H., and Plummer. 2,770,556.

Kingery, James E., to General Motors Corp. T-shaped split beam tractor lamp. 2,770,716, 11–13–56, Cl. 240—41.3.

Klatner, Harold J., and J. C. Veburg, to International Business Machines Corp. Card interpreting machine for detecting double punchings and blank columns. 2,770,189, 11–13–56, Cl. 101—93.

Kitto, William H., to The Hoover Co. Suction cleaner with converter facility. 2,770,001, 11–13–56, Cl. 15—333.

Klaasens, Hendrik A.: *See*—
Bril, Alfred, Klaasens, and Zalm. 2,770,749.

Klein, Michael. Household sponge cleaning device. 2,769,995, 11–13–56, Cl. 15—244.

Klein, Rudolph J., to the United States of America as represented by the United States Atomic Energy Commission. Automatic beam stabilization. 2,770,756, 11–13–56, Cl. 313—22.

Kluckhohn, Edward H. Methods of removing and transplanting trees. 2,770,076, 11–13–56, Cl. 47—58.

Kmiecik, Leopold J., to McDonnell & Miller, Inc. Boiler control mechanism. 2,770,696, 11–13–56, Cl. 200—84.

Knight, John P. Continuous inking device for inking ribbon. 2,770,215, 11–13–56, Cl. 118—260.

Knight, Milton A. Storage battery with vent plug. 2,770,668, 11–13–56, Cl. 136—176.

Knoth, Harold M., to Deere & Co. Cotton picker doffer. 2,770,086, 11–13–56, Cl. 56—41.

Knudsen, Christian O.: *See*—
Dye, Glen M., Knudsen, and Braden. 2,779,179.

Koehring Co.: *See*—
Martinson, Edwin O. 2,770,372.

Koenig, Robert H. Tape switch. 2,770,696, 11–13–56, Cl. 200—86.

Koerner, Paul M.: *See*—
Nordlin, Henry G., and Koerner. 2,770,014.

Korkowski, Eberhard, and G. Schmidt, to Robert Bosch G. m. b. H. Hydraulic servo-motors. 2,770,098, 11–13–56, Cl. 60—52.

Krapp, John T. Valved coupling. 2,770,256, 11–13–56, Cl. 137—614.

Krapp, John T. Valved separable coupling. 2,770,474, 11–13–56, Cl. 284—18.

Krasnow, Shelley, to Schlumberger Well Surveying Corp. Radioactive method for marking borehole formations 2,770,736, 11–13–56, Cl. 250—83.6.

Kreidler, Alfred: *See*—
Hilber, Hanns. 2,770,479.

Kreidler, Alfred. Light motorcycle convertible to engine-assisted pedal cycle and vice versa. 2,770,311, 11–13–56 Cl. 180—33.

Kroft, Herbert M.: *See*—
Vore, Milton P., and Kroft. 2,770,741.

Kromschroder, G., Aktiengesellschaft: *See*—
Ringe, Franz. 2,770,152.





Kroncke, Charles O., Jr., to The M. W. Kellogg Co. Copolymer of trifluorochloroethylene and vinylidene and a method of manufacturing same. 2,770,615, 11–13–56, Cl. 260—87.7.

Kruger, William P.: *See*—
Edwards, Donald V., and Kruger. 2,770,752.

Kuhn, Richard, and I. Löw, to American Home Products Corp. Tomatidine derivatives. 2,770,618, 11–13–56, Cl. 260—239.5.

Kuniholm Mfg. Co.: *See*—
Kuniholm, Waino G., and Hobby. 2,770,488.

Kuniholm, Waino G., and R. E. D. Hobby, to Kuniholm Mfg. Co. Protective structures for strollers. 2,770,488, 11–13–56, Cl. 296—107.

Kuntz, William H. Washing machine. 2,770,121, 11–13–56, Cl. 68—24.

Kunze, Henry C., to Railway Steam Research Corp. Water processing appartus. 2,770,447, 11–13–56, Cl. 261—77.

Kurashiki Rayon Co., Ltd.: *See*—
Okada, Shinso, and Eguchi. 2,770,588.

Kusiek, Alex B. Gate latch. 2,770,482, 11–13–56, Cl. 292—246.

Kuss, Robert S. Dispenser for a liquid disinfectant. 2,770,492, 11–13–56, Cl. 299—20.

Kwiecinski, Henry R. Tiller's gauge. 2,770,043, 11–13–56 Cl. 33—94.

Kwikset Locks, Inc.: *See*—
Linton, Thomas B. 2,770,480.

La Barre, Dwight, to Orsas and La Barre. Medicine cabinets. 2,770,515, 11–13–56, Cl. 312—209.

Laemmel, Charles H., to The Sheffield Corp. Threading machine having spindle feed means and spindle return means. 2,769,901, 11–13–56, Cl. 10—89.

Lagin, Herbert. Lamp shade mounting means. 2,770,718, 11–13–56, Cl. 240—148.

Lamar, Charles C., ¼ to P. S. Harper and ¼ to C. L. Harper, ¼ to Harris Trust and Savings Bank, trustee for a trust known as The Philip S. Harper Trust, and ¼ to Haris Trust and Savings Bank for a trust known as The Carolyn L. Harper Trust. Gas valve. 2,770,253, 11–13–56, Cl. 137—625.32.

Lamb-Grays Harbor Co., Inc.: *See*—
Gustafson, George W. 2,770,211.

Lance, Orville P.: *See*—
Neighbour, Leonard B., and Lance. 2,770,375.

Lander, Horace N., to Metal Hydrides Inc. Method for purifying metal halides. 2,770,526, 11–13–56, Cl. 23—90.

Lane, Gardiner, to St. Regis Paper Co. Carton construction. 2,770,406, 11–13–56, Cl. 229—3.5.

Lanham, William E. Dough handling and working. 2,770,201, 11–13–56, Cl. 107—12.

Lapointe Machine Tool Co., The: *See*—
Bonnafe, Oliver W. 2,770,027.
Bonnafe, Oliver W. 2,770,028.

Laug, Ernest P., to General Electric Co. Lifting device for thrift cooker unit. 2,770,705, 11–13–56, Cl. 219—37.

Laughlin, Myron P. Power mower with frusto-spherical ground shoe. 2,770,095, 11–13–56, Cl. 56—25.4.

Lawhead, Robert E., Jr.: *See*—
Hamilton, Francis E., Hawkins, Lawhead, and Hughes. 2,770,797.

Lawson, E. P., Co., Inc.: *See*—
Seybold, Frederick W. 2,770,301.

Lee, Filemon T. Machine for shredding paper or the like into strips. 2,770,302, 11–13–56, Cl. 164—60.

Lee, Glenn R., to Continental Steel Corp. Spool and mandrel assembly. 2,770,425, 11–13–56, Cl. 242—46.2.

Lee, Smith: *See*—
Campbell, Colin L. 2,770,419.

Legge, George D., to General Motors Corp. Ash receiver or the like. 2,770,388, 11–13–56, Cl. 220—18.

Lents, John J., to International Business Machines Corp. Binary-decade counter. 2,770,725, 11–13–56, Cl. 250—27.

Leupold & Stevens Instruments, Inc.: *See*—
Stevens, John C. 2,770,133.

Lewis, Ernest E.: *See*—
Barker, Harold C., Lewis, and Happoldt. 2,770,608.

Libbey-Owens-Ford Glass Co.: *See*—
Gaiser, Romey A. 2,770,558.

Liberty Products Corp.: *See*—
Ochse, William. 2,770,173.

Lien, Arthur P.: *See*—
McCauley, David A., and Lien. 2,770,662.

Lindberg, Arthur F., to Teletypesetter Corp. Control unit for composing machines. 2,770,350, 11–13–56, Cl. 199—18.

Lindblom, Karl A. H., to Rodentin Aktiebolag. Process for the production of a bait for killing rodents, moles, and noxious animals. 2,770,067, 11–13–56, Cl. 43—124.

Lindeberg, Robert G., to Minnesota Mining & Mfg. Co. Container-feeder. 2,770,406, 12–13–56, Cl. 229—17.

Lindesmith, John L., to Clary Corp. Read-out and radix conversion apparatus for electronic computing apparatus. 2,770,415, 11–13–56, Cl. 235—61.

Linhardt, Charles, Jr., deceased; Mercantile Trust Co. of Baltimore, executor, to The Automatic Lite Co. Outlet box support. 2,770,436, 11–13–56, Cl. 248—57.

Linhof, Valentin: *See*—
Karpf, Nikolaus. 2,770,178.

Linton, Thomas B., to Kwikset Locks, Inc. Dead latch structure. 2,770,480, 12–13–56, Cl. 292—169.

Lisciani, Constantino, to The Protectoseal Co. Safety container. 2,770,890, 11–13–56, Cl. 220—88.

Lisenc, Georges: *See*—
Passet, Robert. 2,770,167.

Little, Hoyt: *See*—
Miller, William B., and Little. 2,770,554.

Livas, Giorgio. Plastic material bottle-seal. 2,770,383, 11–13–56, Cl. 215—55.

Long, Ray S., and R. H. Bailes, to the United States of America as represented by the United States Atomic Energy Commission. Recovery of uranium from phosphoric acid and phosphate solutions by ion exchange. 2,770,520, 11–13–56, Cl. 23—14.5.

Longstreth, Murrey O., and D. W. Ryan, to The Dow Chemical Co. Film stretching device. 2,770,007, 11–13–56, Cl. 18—1.

Lorentzen Hardware Mf'g. Corp.: *See*—
Bond, Scott R. 2,770,296.

Losey, Arthur M., to Gyrodyne Co. of America, Inc. Transmission, particularly for helicopter rotors. 2,770,149, 11–13–56, Cl. 74—665.

Louis Allis Co., The: *See*—
Wilson, Jack T., and Byers. 2,770,316.

Low, Irmentraut: *See*—
Kuhn, Richard, and Low. 2,770,618.

Lowdermilk, Ford R., and E. A. Bruce, to The Pennsylvania Salt Mfg. Co. Process for the manufacture of benzene hexachloride. 2,770,658, 11–13–56, Cl. 260—648.

Loween, Oscar L. Vanity case. 2,770,887, 11–13–56, Cl. 220—18.

Lucas, Kenneth: *See*—
Annable, Weldon G., Lucas, and Haines. 2,770,579.

Lufcy, Carroll W., to the United States of America as represented by the Secretary of the Navy. Vacuum tube controlled magnetic amplifier. 2,770,770, 11–13–56, Cl. 323—89.

Luke, Oren V.: *See*—
Horlenko, Theodore, Marcotte, and Luke. 2,770,661.
Mitchell, Robert L., and Luke. 2,770,637.

Lundburg, Frank J., to International Telephone and Telegraph Corp. Antennas. 2,770,800, 11–13–56, Cl. 343—757.

Luning, George A.: *See*—
Wilson, Lawrence A., Kamo, and Luning. 2,770,459.

Lunsford, James T. Door handling devices. 2,770,484, 11–13–56, Cl. 294—74.

Lushas, Franz R.: *See*—
Peteraitis, Hans H., and Zimmermann. 2,770,026.

Lynch, Charles S., to Phillips Petroleum Co. Production of synthetic resins by reaction of diolefin polymers with SO2. 2,770,603, 11–13–56, Cl. 260—29.7.

Lynch, William B.: *See*—
Jensen, Weldon H. 2,770,182.

Lyon, Floyd A.: *See*—
Halahan, John, Aronson, and Lyon. 2,770,458.

Lyon, George A. Method of coining and cupping metal. 2,770,034, 11–13–56. Cl. 29—534.

Lyons, J. & Co. Ltd.: *See*—
Clayson, Donald H. F. 2,770,575.

Maag Gear-Wheel and Machine Co., Ltd.: *See*—
Ernst, Daniel. 2,770,048.

MacCracken, Calvin D., to Jet-Heet, Inc. Air conditioning apparatus. 2,770,445, 11–13–56, Cl. 257—9.

Machlett Laboratories, Inc.: *See*—
Zarth, William A. 2,770,033.

MacKay, Kenneth H. Self-suspending disposable service box. 2,770,411, 11–13–56. Cl. 229—43.

MacLean, Alexander F.: *See*—
Smith, Eldred T., and MacLean. 2,770,585.

MacPhillamy, Harold B., to Ciba Pharmaceutical Products, Inc. Deserpidinol and salts thereof. 2,770,627, 11–13–56, Cl. 260—286.

Madland, Gabriel, to The Youngstown Steel Door Co. Sides for railway freight cars. 2,770,199, 11–13–56, Cl. 105—409.

Magarinos, Joseph, and F. C. Hoffman, to Courier-Citizen Co. Collator. 2,770,456, 11–13–56, Cl. 270—58.

Magic Seal, Inc.: *See*—
Rand, Henry J. 2,770,443.

Malone, Charles J. Telephone handset holder. 2,770,682, 11–13–56. Cl. 179—150.

Manfredi, Robert E., to General Electric Co. Fluid cooling arrangement for electric discharge devices. 2,770,745, 11–13–56, Cl. 313—44.

Mankiewicz, Chester V.: *See*—
Crowell, Arnold B., Reitfort, and Mankiewicz. 2,770,185.

Manley, Inc.: *See*—
Hodge, Walter D. 2,770,502.

Mansfield Sanitary Pottery, Inc.: *See*—
Smith, Harry F. 2,770,250.

Mantell, Russell M.: *See*—
Passino, Herbert J., Teeters, and Mantell. 2,770,660.

Marants, Israel H., to Columbia Cable & Electric Corp. Continuous flow spraying system. 2,770,212, 11–13–56, Cl. 118—51.

Marcotte, Frank B.: *See*—
Horlenko, Theodore, Marcotte, and Luke. 2,770,661.

Marcy, Henry T., to International Business Machines Corp. Display apparatus. 2,770,061, 11–13–56, Cl. 40—52.

Margrey, Frank R. Pulley guide. 2,770,142, 11–13–56, Cl. 74—240.

Marks, Max J.: *See*—
Schwartz, Martin W., and Marks. 2,770,717.

Marsh, Roger: *See*—
Kopf, Rowland J., and Marsh. 2,770,194.

Martenet, Simon J. Process for producing a mixed fertiliser. 2,770,539, 11–13–56, Cl. 71—36.

Martin, Tom E.: *See*—
Kahmann, Anthony R., and Martin. 2,770,533.

Martin, William F. Artificial fishing lure. 2,770,063, 11–13–56, Cl. 43—42.02.

Martinson, Edwin O., to Koehring Co. Boom. 2,770,372, 11–13–56. Cl. 212—144.

Martynse, Arthur: *See*—
Rogal, Edward H., and Martynse. 2,770,009.

Marx, Walter S., Jr., to Printing Arts Research Laboratories, Inc. Method and material for making overlay masks. 2,770,534, 11–13–56, Cl. 41—41.

Marxer, Adrian, to Ciba Pharmaceutical Products, Inc. 2,5-bis-ethyleneimino-hydroquinone and process for preparing same. 2,770,617, 11–13–56, Cl. 260—239.

Mason, John C. Device for removing articles from and inserting articles into pipelines. 2,770,332, 11–13–56, Cl. 29—203.

Massey-Harris-Ferguson (Sales) Ltd.: *See*—
Skerven, Theo. 2,770,249.

Matthews, Kenneth A.: *See*—
White, Charles de B., and Matthews. 2,770,762.

Matthews, Kenneth A., to International Standard Electric Corp. Electric crystal rectifiers. 2,770,763, 11–13–56, Cl. 317—234.

Matthe, Charles F., to Bell Telephone Laboratories, Inc. Non-intermittent projector for motion pictures. 2,770,163, 11–13–56, Cl. 88—16.8.

Mattson, Eddie P. Feed separating and feeding mechanism. 2,770,499, 11–13–56, Cl. 242—222.

Mawbey, Lawrence, to United Shoe Machinery Corp. Leather grading machine. 2,770,647, 11–13–56, Cl. 33—147.

Maynard, John T.: *See*—
Alderson, Witty L., Jr., and Maynard. 2,770,257.

Maynard, John T., to E. I. du Pont de Nemours and Co. Methods forming group metal ternary sulfides and their preparation. 2,770,528, 11–13–56, Cl. 23—134.

Mazzei, Joseph F.: *See*—
Peyton, Edward S. 2,770,288.

McAdie, Colin H., and C. K. Hooper, to Westinghouse Electric Corp. Load control with single control tube. 2,770,764, 11–13–56, Cl. 313—307.

McCallum, Robert A., to Goodman Mfg. Co. Suspension for vehicles such as shuttle cars. 2,770,377, 11–13–56, Cl. 214—83.24.

McCarthy, Timothy F., ⅜ to Goodman Mfg. Co. Scraper loader apparatus for mines. 2,770,378, 11–13–56, Cl. 214—83.

McCarthy, Vincent J., to The Salem Tool Co. Boring and breaker head for slack coal. 2,770,449, 11–13–56, Cl. 262—9.

McCauley, David A., and A. P. Lien, to Standard Oil Co. HF—BF₃ treating of secondary alkyltoluenes. 2,770,662, 11–13–56, Cl. 260—668.

McCreary, Harold J.: *See*—
Johnston, Leith, McCreary, and Stiles. 2,770,675.

McCulloch Motors: *See*—
Ryde, John L. 2,770,362.

McDonald, David W., and K. M. Taylor, to Monsanto Chemical Co. Purification of acrylonitrile. 2,770,645, 11–13–56, Cl. 260—465.9.

McDonnell & Miller, Inc.: *See*—
Kimlecik, Leopold J. 2,770,695.

McGill Mfg. Co., Inc.: *See*—
Smith, Richard J. 2,770,506.

McGrath, Earle J.: *See*—
Verrinder, Ernest A., and McGrath. 2,770,373.

McGraw Electric Co.: *See*—
Fjellstadt, Thorsten A. 2,770,702.

McGurk, Alfred N. Apparatus for observing fuel in fuel pressure systems of motor vehicles. 2,770,206, 11–13–56, Cl. 116—117.

McKeever, Charles H., and J. W. Nemec, to Rohm & Haas Co. Preparation of benzamitrile. 2,770,641, 11–13–56, Cl. 260—465.

McKendrey, Leo. Hospital chair. 2,770,289, 11–13–56, Cl. 155—45.

McNally, James A. Pneumatic mounting system. 2,770,433, 11–13–56, Cl. 248—22.

McNally, James A. Pneumatic mounting system. 2,770,434, 11–13–56, Cl. 248—22.

McNamara, Martin W., ½ to M. W. McNamara, Jr. Dumping hopper for lawn mowers and the like. 2,770,088, 11–13–56, Cl. 56—209.

McNamara, Martin W., Jr.: *See*—
McNamara, Martin W. 2,770,088.

McRae, Wayne A.: *See*—
Jude, Walter, and McRae. 2,770,776.

Mead, Howard C., to General Motors Corp. Plastic shield for flush-mounted headlamp. 2,770,714, 11–13–56, Cl. 240—8.1.

Mehltretter, Charles L., to the United States of America as represented by the Secretary of Agriculture. Electrolytic production of alkali salts of iodic acid. 2,770,589, 11–13–56, Cl. 204—95.

Mencacci, Samuel A., to Food Machinery and Chemical Corp. Bean sulfurer. 2,770,274, 11–13–56, Cl. 146—86.

Mercantile Trust Co. of Baltimore: *See*—
Linhardt, Charles, Jr. 2,770,436.

Mercier, Jacques H.: *See*—
Mercier, Jean and J. H. 2,770,297.

Mercier, Jean and J. H., to G. M. E. Corp. Hydraulically actuated articulated members. 2,770,297, 11–13–56, Cl. 160—188.

Mercier, Jean. Pressure switch. 2,770,694, 11–13–56, Cl. 200—83.

Merker, Robert L., to Dow Corning Corp. Hydroxyester substituted siloxanes. 2,770,631, 11–13–56, Cl. 260—448.2.

Merker, Robert L., to Dow Corning Corp. Carboxyester substituted siloxanes. 2,770,632, 11–13–56, Cl. 260—448.2.

Mestre, Luis, to The Mosler Safe Co. Depositing machines. 2,770,516, 11–13–56, Cl. 346—22.

Metal Hydrides Inc.: *See*—
Lander, Horace N. 2,770,526.

Metzger, Henry L., to Fort Orange Paper Co. Non-returnable bottle carrier. 2,770,391, 11–13–56, Cl. 220—112.

Michalsky, Peter. Press fastener. 2,770,023, 11–13–56, Cl. 24—153.

Michigan Tool Co.: *See*—
Monerieff, Alexander D. F. 2,770,171.

Miller, Emery P., to Ransburg Electro-Coating Corp. Apparatus for coating. 2,770,210, 11–13–56, Cl. 118—7.

Miller, Frederick B., to Goodman Mfg. Co. Takeup device for articulated conveyors and combining means therefor. 2,770,363, 11–13–56, Cl. 198—109.

Miller, Frederick B., to Goodman Mfg. Co. Extensible rotary cutter bar for boring type miner. 2,770,448, 11–13–56, Cl. 262—7.

Miller, Harold F. Collapsible tent frame. 2,770,243, 11–13–56, Cl. 135—4.

Miller, Harry, to Sperry Rand Corp. System for measuring the acceleration of a dirigible craft. 2,770,483, 11–13–56, Cl. 244—1.

Miller, Jos: *See*—
Battaglia, Eugene P., and Miller. 2,770,463.

Miller, Joseph P.: *See*—
Dilworth, Richard M., and Miller. 2,770,200.

Miller, Stuart P., to Allied Chemical & Dye Corp. Recovery of maleic anhydride. 2,770,630, 11–13–56, Cl. 260—346.8.

Miller, William B., R. H. Shaw, and H. Little, to Calanese Corp. of America. Viscose solution, a process for making it and a filament formed from it. 2,770,584, 11–13–56, Cl. 106—165.

Mine Safety Appliances Co.: *See*—
Brechetti, Raymond E. 2,770,321.

Minneapolis-Honeywell Regulator Co.: *See*—
Demay, Peter P. 2,770,442.
Exner, Frank M. 2,770,700.
Schuck, Oscar H., and Cassel. 2,770,429.
Vogel, Clarence E. 2,770,698.

Minnesota Mining & Mfg. Co.: *See*—
Lindeberg, Robert G. 2,770,466.

Mishcon, Lester: *See*—
Mishcon, Sam and L., and Aguinsk. 2,770,117.

Mishcon, Sam and L., and H. Aguinsk, to Supreme Knitting Machine Co. Inc. Yarn rack for circular knitting machine. 2,770,117, 11–13–56, Cl. 66—126.

Mitchell, Charles, and E. F. Buchman, to General American Transportation Corp. Molded plastic containers and methods of making the same. 2,770,396, 11–13–56, Cl. 220—4.

Mitchell, Lester F., and E. J. Janke, to Addressograph-Multigraph Corp. Sheet receiving tray for rotary printing machine. 2,770,192, 11–13–56, Cl. 101—240.

Mitchell, Robert L., and O. V. Lake, to Calanese Corp. of America. Production of oxygenated hydrocarbons. 2,770,637, 11–13–56, Cl. 260—451.

Mittendrein, Michael, and H. Göbel, to AVE Transportmittel holding A. G. Undercarriage for vehicles designed to run over uneven ground and, in particular, up and down stairs. 2,770,464, 11–13–56, Cl. 280—6.26.

Moen, Reid, to General Mills, Inc. Separator. 2,770,360, 11–13–56, Cl. 209—139.

Moesker, Gerard, to Hartford National Bank and Trust Co., as trustee. Tightening member for filaments. 2,770,753, 11–13–56, Cl. 313—278.

Moller, Kasper F., to Western Electric Co., Inc. Device for orienting and feeding articles. 2,770,352, 11–13–56, Cl. 198—34.

Möllers, Josef, to Hartford National Bank and Trust Co., as trustee. Device for the manufacture of ceramic mouldings. 2,770,025, 11–13–56, Cl. 25—37.

Monerieff, Alexander D. F., to Michigan Tool Co. Gear cutting device. 2,770,171, 11–13–56, Cl. 90—1.6.

Mönkemeyer, Karl, to Chemische Werke Huls Aktiengesellschaft. Process for the production of branched carbon chain aldehydes. 2,770,658, 11–13–56, Cl. 260—603.

Monsanto Chemical Co.: *See*—
Gorton, Bert S., and Williams. 2,770,622.
Hardy, Edgar E., and Reatz. 2,770,610.
Journeay, Glen E. 2,770,640.
McDonald, David W., and Taylor. 2,770,645.
Owens, Marvin L., Jr. 2,770,644.
Slocombe, Robert J., Hardy, and Saunders. 2,770,639.
Stanton, Walter H. 2,770,650.

Montgomery, Robert S., to The Dow Chemical Co. Preparation of beta-hydroxy-beta-phenyl-propionitrile and cinnamonitrile. 2,770,642, 11–13–56, Cl. 260—465.

Moody, Arthur M. G., to The Trane Co. Cooling water compressor unit of refrigerating apparatus. 2,770,106, 11–27–56, Cl. 62—117.8.

Moore, Charles E., and H. W. Stieglitz, to Thomson Welder Co. Electric flash-butt-welding machines. 2,770,709, 11–13–56, Cl. 219—97.

Moore, George A. Heavy and light duty container structure and method of making same. 2,770,400, 11–13–56, Cl. 229—23.

Moore, Maurice B. Electric bait getter. 2,770,075, 11–13–56, Cl. 47—1.3.

Morello, Victor S.: *See*—
Horsley, Lee H., Morello, and Poffenberger. 2,770,664.

Morse, Samuel A. Magazine socket wrenches. 2,770,157, 11–13–56, Cl. 81—125.

Morgan Development Laboratories, Inc.: *See*—
Morgan, Porter S. 2,770,155.

Morgan, Porter S., to Morgan Development Laboratories, Inc. Ball and helical race for mechanical movements. 2,770,155, 11–13–56, Cl. 81—36.

Morris, Joseph L. Means and method for producing knitted fabrics. 2,770,116, 11–13–56, Cl. 66—118.

Morrison, Robert L., to Silver Engineering Works, Inc., a division of the Silver Corp. Method and apparatus for drying treatment of solids in the fluidized or gas entrained state. 2,770,052, 11–13–56, Cl. 34—10.

Morrison, Willard L., to Union Stock Yards and Transit Co. of Chicago. Method of manufacturing and installing insulated staves for tank lining. 2,770,378, 11–13–56, Cl. 144—309.

Morrison, Willard L., to Chicago Stock Yards Company Co. Distributor fan compostor. 2,770,354, 11–13–56, Cl. 198—128.

Morrow, Malcolm. Standing and directive flood lighting system for vehicles. 2,770,697, 11–13–56, Cl. 200—33.





Moses, Harry, to the United States of America as represented by the United States Atomic Energy Commission. Electronic pressure differential wind direction indicator. 2,770,125, 11–13–56, Cl. 73—188.

Mosler Safe Co., The: *See*—
Mestre, Luis. 2,770,516.

Motorola, Inc.: *See*—
Clark, James M. 2,770,721.
Frihart, Henry N., and Baroch. 2,770,724.
Sacre, Leo D. 2,770,137.
Schlesinger, Kurt, and Graziano. 2,770,748.

Mowry, John E. Vertically adjustable table. 2,770,467, 11–13–56, Cl. 280—44.

Moyer, James H., to The Columbus Dental Mfg. Co. Interchangeable tooth crown. 2,770,040, 11–13–56, Cl. 32—12.

Mueller, Richard J., to Automatic Canteen Co. of America, Inc. Method and apparatus for dispensing a measured amount of beverage ingredients. 2,770,394, 11–13–56, Cl. 222—1.

Mullaney, John H., to Direcant Co. Radio antenna system. 2,770,802, 11–13–56, Cl. 343—852.

Mungen, Richard: *See*—
Hujsak, Karol L., and Mungen. 2,770,635.

Murakami, Tomomi, and R. W. Sonnenfeldt, to Radio Corp. of America. High frequency amplifier with anode to grid input and anode to cathode output. 2,770,720, 11–13–56, Cl. 250—20.

Murphey, Robert S., to A. H. Robins Co., Inc. o-methoxy-phenoxy-2-hydroxy-propyl carbamates. 2,770,649, 11–13–56, Cl. 260—482.

Muskegon Piston Ring Co.: *See*—
Hamm, Douglas W. 2,770,512.

Myrick, Elvin L. Pipeline coating and wrapping machine. 2,770,284, 11–13–56, Cl. 154—41.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Method and device for the shift control of drives, particularly of motor vehicle drives with a fluid drive. 2,770,147, 11–13–56, Cl. 74—472.

National Lead Co.: *See*—
Anderson, William E., and Rowe. 2,770,529.

National Merchandising Corp.: *See*—
Kato, Shoji. 2,770,159.

National Research Corp.: *See*—
Singleton, Richard H. 2,770,541.

National Research Council: *See*—
Stevinson, Harry T. 2,770,432.

National Research Development Corp.: *See*—
Gabor, Dennis. 2,770,166.

National Supply Co., The: *See*—
Deitrickson, Roy H. 2,770,197.

Navy, United States of America as represented by the Secretary of the: *See*—
Babish, Richard C. 2,770,758.
Banham, James W., Jr., and Fritz. 2,770,322.
Hatch, Robert H. 2,770,784.
Lafey, Carroll W. 2,770,770.
Ribiet, Henry B. 2,770,774.

Neal, Stephen A. Circulating and rotating retrievable whipstock. 2,770,444, 11–13–56, Cl. 255—1.6.

Negus, Robert W., to Arnold O. Beckman, Inc. Dosimeter charging unit. 2,770,765, 11–13–56, Cl. 320—1.

Neighbour, Leonard B., and O. P. Lance, to Deere & Co. Hoisting apparatus for elevating and dumping vehicles. 2,770,375, 11–13–56, Cl. 214—46.34.

Nelles, Maurice, to Borg-Warner Corp. Flexible coupling. 2,770,113, 11–13–56, Cl. 64—12.

Nelson, Maurice O., to The Farmwell Co., Inc. Portable applicator for liquid fertilizers, weed killers, and the like. 2,770,494, 11–13–56, Cl. 299—43.

Nelson, Robert A., to General Electric Co. Winding arrangement using a tertiary winding. 2,770,767, 11–13–56, Cl. 323—43.5.

Nemec, Joseph W.: *See*—
McKeever, Charles H., and Nemec. 2,770,641.

Neo-Ray Products, Inc.: *See*—
Zingone, Anthony E. 2,770,438.

Nesset, Maurice M., and C. R. Broman, to Baxter Laboratories, Inc. Parenteral administration of liquids. 2,770,234, 11–13–56, Cl. 128—214.

Nesset, Maurice M., and C. R. Broman, to Baxter Laboratories, Inc. Parenteral administration of liquids. 2,770,235, 11–13–56, Cl. 128—214.

Nicholson, Albright M., and S. B. Elliott, to Ferro Corp. Solubilised 8-hydroxyquinoline and method of producing same. 2,770,626, 11–13–56, Cl. 260—270.

Niciaus, William L., to Wilpet Tool & Mfg. Co. Indicating device. 2,770,209, 11–13–56, Cl. 116—136.

Nitzsche, Siegfried, and R. Riedle, to Wacker Chemie G. m. b. H. Halogenated polymers stabilized with a hexaorganodistannoxane. 2,770,611, 11–13–56, Cl. 260—45.75.

Nolan, John J., to International Business Machines Corp. Dick strip printer. 2,770,188, 11–13–56, Cl. 101—93.

Nordberg Mfg. Co.: *See*—
Gruender, Oscar C. 2,770,423.

Nordholt, Louis E., and M. Wilholte, to Temco, Inc. Fuel burning wall space heater. 2,770,228, 11–13–56, Cl. 126—116.

Nordisk Insulinlaboratorium: *See*—
Eldon, Knud-Erik H. 2,770,572.

Nordlin, Henry G., and P. M. Koerner, to International Telephone and Telegraph Corp. Sizing of thermoplastic cable cores. 2,770,014, 11–13–56, Cl. 18—48.

Nordquist, Ronald E. J., to American Can Co. Conveyor mechanism for dividing single line of articles into double line. 2,770,349, 11–13–56, Cl. 198—31.

Northcutt, Roy C., and J. N. Staggs, to Borg-Warner Corp. Grinding apparatus. 2,770,061, 11–13–56, Cl. 51—103.

Northern Pump Co.: *See*—
Scheurich, John S. 2,770,703.

Norton Co.: *See*—
Uelts, Herbert F. G. 2,770,029.

Norton, Lowell E., to Radio Corp. of America. Frequency stabilization of oscillators. 2,770,733, 11–13–56, Cl. 250—36.

Novick, Abraham, to F. L. Smithe Machine Co., Inc. Method and apparatus for making open side envelopes. 2,770,176, 11–13–56, Cl. 93—62.

Ober, Howard C. Overload release friction coupling. 2,770,115, 11–13–56, Cl. 64—30.

O'Brien, Gerard J. Cake cutter and server. 2,770,035, 11–13–56, Cl. 30—114.

Ochse, William, to Liberty Products Corp. Mechanisms for controlling the angularity of milling machine cutters. 2,770,173, 11–13–56, Cl. 90—13.

Oglesby, Elisabeth L.: *See*—
Hagemeyer, Hugh J., Jr., and Oglesby. 2,770,607.

Ohlinger, Leo A.: *See*—
Wigner, Eugene P., Ohlinger, Young, and Weinberg. 2,770,591.

Olshei, John R., and H. C. Hueber, to Trico Products Corp. Windshield washer system. 2,770,017, 11–13–56, Cl. 20—40.5.

Okada, Shinzo, and T. Eguchi, ⅝ to Kurashiki Rayon Co., Ltd., and ⅜ to Air Reduction Co., Inc. Method of recovering fatty acid and alkali by the electrolysis of an aqueous solution of an alkali metal salt of a fatty acid. 2,770,588, 11–13–56, Cl. 204—72.

Oliva, Felix. Stem caliper. 2,770,045, 11–13–56, Cl. 33—143.

Olmsted, Elisabeth P., R. R. Francis, and I. G. Ross. Correction of the condition of strabismus in human vision. 2,770,164, 11–13–56, Cl. 88—20.

Ooms, Hugo T. G. Biscuit-cutting machines. 2,770,203, 11–13–56, Cl. 107—24.

Orenda Engines Ltd.: *See*—
Jay, Kenneth W. 2,770,245.

Ornas and La Barre: *See*—
La Barre, Dwight. 2,770,515.

Oslund, Herbert D. Machine for trimming the finger plate on a piano key. 2,770,268, 11–13–56, Cl. 144—2.

Ostrow, Barnet D., to Elechem Corp. Bath for plating bright copper. 2,770,587, 11–13–56, Cl. 204—52.

O'Sullivan, Paul J. Insect trap. 2,770,066, 11–13–56, Cl. 43—107.

Oswalt, George L. Pallet feeder. 2,770,346, 11–13–56, Cl. 198—19.

Otteraland, Peter N. Supports for rotating drums. 2,770,270, 11–13–56, Cl. 144—208.

Owens, Marvin L., Jr., to Monsanto Chemical Co. Purification of acrylonitrile. 2,770,644, 11–13–56, Cl. 260—465.9.

Package Machinery Co.: *See*—
Roberts, Franklin B. 2,770,392.

Paiva, Frank: *See*—
Endres, Fred J., and Paiva. 2,770,071.

Pako Corp., The: *See*—
Dye, Glen M., Knudsen, and Braden. 2,770,179.

Palumbo, Vincent E. Cam mechanism. 2,770,140, 11–13–56, Cl. 74—56.

Palumbo, Vincent E. Controlled stroke, piston type gas generator for producing gas to operate turbines, etc. 2,770,225, 11–13–56, Cl. 123—58.

Paquin, Patrick J. Fuel tank sediment trap. 2,770,362, 11–13–56, Cl. 210—43.

Parafrac, Inc.: *See*—
Deerdoff, Thomas J. 2,770,307.

Parker, William N., to Radio Corp. of America. Slot coupling for tangent circular waveguide structures. 2,770,778, 11–13–56, Cl. 333—6.

Parvin, Winifred B. Measuring and mixing spoon. 2,770,135, 11–13–56, Cl. 73—426.

Pasch, Erwin F. Curtain rod holder. 2,770,437, 11–13–56, Cl. 248—262.

Passet, Robert, to G. Lissac. Clip-on sunglasses. 2,770,167, 11–13–56, Cl. 88—41.

Passino, Herbert J.: *See*—
Teeters, Wilber O. Passino, and Dittman. 2,770,606.

Passino, Herbert J., W. O. Teeters, and R. M. Mantell, to The M. W. Kellogg Co. Method of producing fluorocarbons. 2,770,660, 11–13–56, Cl. 260—653.

Patnaude, Helen M.: *See*—
Patnaude, Leo. 2,770,483.

Patnaude, Leo, 50% to H. M. Patnaude. Hand weed picker. 2,770,483, 11–13–56, Cl. 294—50.9.

Pawsat, Ruben L. Wedge nut forging machine. 2,769,990, 11–13–56, Cl. 10—76.

Pearson, Anthony P., and R. I. Pigott. Golf cart with collapsible wheel structure. 2,770,466, 11–13–56, Cl. 280—41.

Penney, James H., to Westinghouse Electric Corp. Mechanical drive. 2,770,338, 11–13–56, Cl. 192—11.

Pennsylvania Salt Mfg. Co., The: *See*—
Lowdermilk, Ford R., and Bruce. 2,770,658.

Pergunas, Sidney W., and L. F. Cowan, to International Standard Electric Corp. Humidifying process in electric cable insulation making. 2,770,565, 11–13–56, Cl. 154—2.24.

Perko, Frank J. Dumping-vehicle. 2,770,491, 11–13–56, Cl. 298—10.

Perry, Charles A., to The Rola Co., Inc. Loud-speaker. 2,770,681, 11–13–56, Cl. 179—115.5.

Peters, Arthur C., to Cinch Mfg. Corp. Socket mounting base for tube shield. 2,770,787, 11–13–56, Cl. 339—143.

Peters, Leo. Soft plastic food package. 2,770,547, 11–13–56, Cl. 99—171.

Petersallie, Hans H., and E. O. Zimmermann, to F. R. Lashas. Hardened molded article and method of forming same. 2,770,026, 11–13–56, Cl. 28—74.

Peterson, Robert E., to Raytheon Mfg. Co. Acoustic log. 2,770,795, 11–13–56, Cl. 340—3.

Peterson, Robert J. Self-leveling lift. 2,770,324, 11–13–56, Cl. 187—34.

Peyton, Edward S., 50% to J. F. Massei. Combination high chair and vehicle. 2,770,288, 11–13–56, Cl. 155—17.

Pfann, William G., to Bell Telephone Laboratories, Inc. Semiconductor translators containing enclosed active junctions. 2,770,761, 11–13–56, Cl. 317—235.

Philco Corp.: *See*—
Creamer, Edgar M., Jr. 2,770,673.
Jackson, William K. 2,770,683.

Phillips Petroleum Co.: *See*—
Fox, Homer M. 2,770,096.
Kahmann, Anthony R., and Martin. 2,770,533.
Lynch, Charles S. 2,770,603.

Pieper, Arthur O., to Heany Industrial Ceramic Corp. Process of making refractory material. 2,770,552, 11–13–56, Cl. 106—44.

Pigott, Robert I.: *See*—
Pearson, Anthony P., and Pigott. 2,770,466.

Pike, Robert D.: *See*—
Seaton, Max Y., and Pike. 2,770,524.

Pirson, Sylvain J., to Stanolind Oil and Gas Co. Underground combustion operation. 2,770,305, 11–13–56, Cl. 166—4.

Plummer, Arthur W.: *See*—
Grangaard, Donald H., and Plummer. 2,770,556.

Poffenberger, Noland: *See*—
Hornley, Lee H., Morello, and Poffenberger. 2,770,644.

Pohl, Ernest F.: *See*—
Christensen, Edwin S. 2,770,287.
Weller, James O. 2,770 286.

Pollock, Leon J. Combination guide and portable support for power saws. 2,770,265, 11–13–56, Cl. 143—6.

Portable Industries, Inc.: *See*—
Kopf, Rowland J., and Marsh. 2,770,194.

Porterfield, Jack N. Collapsible tube transfer mechanism. 2,770,347, 11–13–56, Cl. 198—25.

Potter, Kenneth P., and G. R. Stutsman. Multiple temperature control device. 2,770,420, 11–13–56, Cl. 236—15.

Poupitch, Ougljesa J., to Illinois Tool Works. Lock washer with unequally projecting teeth. 2,770,277, 11–13–56, Cl. 151—35.

Powell, Paul B. Floor drain. 2,770,314, 11–13–56, Cl. 182—14.

Powell, Paul R. Drain with valved trap. 2,770,315, 11–13–56, Cl. 182—15.

Powell, Robert J., to Continental Motors Corp. Wrist pin assembly. 2,770,511, 11–13–56, Cl. 309—19.

Power Jets (Research and Development) Ltd.: *See*—
Ashwood, Peter F., and Fletcher. 2,770,095.

Prager, Hans J., and W. C. Dale, to Radio Corp. of America Construction of gas-filled tubes, particularly shielding. 2,770,751, 11–13–56, Cl. 313—193.

Prats Francisco R., II.: *See*—
Prats, Jose R. and F. R. 2,770,239.

Prats, Jose R. and F. R. Process of treating tobacco. 2,770,239, 11–13–56, Cl. 131—142.

Pratt, Thomas W., to The M. W. Kellogg Co. Preparation of catalytic cracking feed. 2,770,576, 11–13–56, Cl. 196—14.46.

Fraser, Stanley J.: *See*—
Pusarowski, Stanley J. 2,770,366.

Printing Arts Research Laboratories, Inc.: *See*—
Marx, Walter S., Jr. 2,770,534.

Protectoseal Co.: *See*—
Liscinni, Constantine. 2,770,390.

Protein Foundation, Inc.: *See*—
Cohn, Edwin J. 2,770,616.

Przedpelski, Andrzej B.: *See*—
Hupert, Julius J., Przedpelski, and Ringer. 2,770,727.

Przybylski, Daniel F. Boom and boom-operating means for dipper stick. 2,770,379, 11–13–56, Cl. 214—147.

Publix Shirt Corp.: *See*—
Driesbach, Gilbert O. 2,769,979.

Pure Oil Co., The: *See*—
Annable, Weldon G., Lucas, and Haines. 2,770,579.

Purnell, James T.: *See*—
Yeandle, William W., Carter, and Purnell. 2,770,008.

Pusarowski, Stanley J., now by change of name to Stanley J. Fraser, to G. Miller. Reverse flow cleanable aquarium filter. 2,770,366, 11–13–56, Cl. 210—98.

Pye, David J., to The Dow Chemical Co. Preparation of ethylene glycol. 2,770,656, 11–13–56, Cl. 260—635.

Quam, Ranold F. Discharge valves for pressure jugs. 2,770 402, 11–13–56, Cl. 222—400.7.

Radio Corp. of America: *See*—
Arams, Frank R. 2,770 722.
Chong, Carlos F. 2,770,732.
Gray, Sidney. 2,770 746.
Harris, James S. 2,770 677.
Hersog, Gerald B. 2 770,728.
Jensen, Arthur S. 2,770 747.
Murakami, Tomomi, and Sonnenfeldt. 2,770,720.
Norton, Lowell E. 2,770,733.
Parker, William N. 2,770,778.
Prager, Hans J., and Dale. 2,770,751.
Roberts, Walter van B. 2 770,782.
Sommer, Alfred H. 2,770,561.

Rafferty, Arthur W. Rotative swing joint counling with replaceable bushing. 2,770,475, 11–13–56, Cl. 285—94.

Railway Steam Research Corp.: *See*—
Kunse, Henry C. 2,770,447.

Ramey, Robert A., Jr. Magnetic delay line. 2,770,737, 11–13–56, Cl. 307—88.

Ranco Inc.: *See*—
Fickel, Lester E. 2,770,693.
Raney, Estel C. 2,770,100.

Rand, Henry J., to Magic Seal, Inc. Multiple seal valve. 2,770,443, 11–13–56, Cl. 251—333.

Raney, Estel C., to Ranco Inc. Air conditioning control. 2,770,100, 11–13–56, Cl. 62—4.

Rankin, Dan R., to Food Machinery and Chemical Corp. Mechanical seal. 2,770,477, 11–13–56, Cl. 286—11.15.

Ransburg Electro-Coating Corp.: *See*—
Miller, Emery P. 2,770,210.

Rapisarda, Edward D., to Gilbert & Barker Mfg. Co. Hose guide for fluid dispensing apparatus. 2,770,499, 11–13–56, Cl. 299—77.

Ratcliffe, Temple W.: *See*—
Harter, Isaac, Jr., and Ratcliffe. 2,770,021.

Rawson, Paul O.: *See*—
Shalvoy, John G., and Rawson. 2,769,996.

Ray, Frederick E., and R. D. Drew, to Socony Mobil Oil Co., Inc. Method of operating a pneumatic lift used to transport granular solids in a hydrocarbon conversion process. 2,770,584, 11–13–56, Cl. 196—52.

Ray, Kenneth B.: *See*—
Seaton, Max Y., and Pike. 2,770,524.

Raytheon Mfg. Co.: *See*—
Haagens, Robert G., and Kats. 2,770,785.
Peterson, Robert E. 2,770,795.

Raslag, Emil W., to Continental Radiant Glass Heating Corp. Radiant heaters. 2,770,704, 11–13–56, Cl. 219—34.

Rear, James C., to The Union Ice Co. Vacuum produce cooler. 2,770,111, 11–13–56, Cl. 62—100.

Redmer, Martin H. Chuck. 2,770,461, 11–13–56, Cl. 279—55.

Reek, Robert J., to Teletype Corp. Transistor relay device. 2,770,734, 11–13–56, Cl. 250—36.

Reets, Theodor: *See*—
Hardy, Edgar E., and Reets. 2,770,610.

Reeves, Alec H., and R. B. W. Cooke, to International Standard Electric Corp. Electric counting devices and circuits employing semi-conductors. 2,770,740, 11–13–56, Cl. 307—88.5.

Reflectone Corp., The: *See*—
Simitjian, Luther G. 2,770,719.

Reitfort, Henry A.: *See*—
Crowell, Arnold B., Reitfort, and Mankiewicz. 2,770,185.

Rekettye, Paul, to The Sun Rubber Co. Ball striping apparatus. 2,770,213, 11–13–56, Cl. 118—76.

Rentschler, Carl H. Farm gate. 2,770,060, 11–13–56, Cl. 39—87.

Research Corp.: *See*—
Hurlbut, Lloyd W. 2,770,087.

Ribacoff, Mark. Tamper-proof envelope. 2,770,412, 11–13–56, Cl. 229—80.

Riblet, Henry B., to the United States of America as represented by the Secretary of the Navy. Balanced magnetometer. 2,770,774, 11–13–56, Cl. 324—43.

Ricciardi, Louis G., to Colgate-Palmolive Co. Particulate detergent compositions. 2,770,600, 11–13–56, Cl. 252—131.

Riedle, Rudolf: *See*—
Nitzsche, Siegfried, and Riedle. 2,770,611.

Ringer, Kenneth: *See*—
Hupert, Julius J., Przedpelski, and Ringer. 2,770,727.

Rings, Frans, to G. Kromschröder Aktiengesellschaft. Water meter with concentrically arranged connection channels. 2,770,132, 11–13–56, Cl. 73—273.

Ripple, Melvin H., to The Hoover Co. Kitchen appliance. 2,770 138, 11–13–56, Cl. 74—16.

Ritter, Frans. Method of bonding a polyamide layer to a polyvinyl chloride layer and products thus obtained. 2,770,566, 11–13–56, Cl. 154—139.

Ritter, Vaughn L., to Armstrong Cork Co. Container. 2,770,382, 11–13–56, Cl. 215—31.

Robbins, Kenneth C., to Armour and Co. Method of obtaining intrinsic factor preparations of enhanced poteney. 2,770,570, 11–13–56, Cl. 167—74.

Roberts, Franklin B., to Package Machinery Co. Method for feeding articles in predetermined quantities. 2,770,392, 11–13–56, Cl. 221—1.

Roberts, John J. Loose jaw chuck. 2,770,462, 11–13–56, Cl. 279—56.

Roberts, Walter van B., to Radio Corp. of America. Frequency selective coupling system. 2,770,782, 11–13–56, Cl. 333—71.

Robertshaw-Fulton Controls Co.: *See*—
Shivers, Paul F. 2,770,699.

Robertson-Sheraby-Harvie, Robert B., and J. Dain. Wave delaying structure for rectangular wave-guides. 2,770,781, 11–13–56, Cl. 333—31.

Robins, A. H., Co., Inc.: *See*—
Murphey, Robert S. 2,770,649.

Rodentin Atkiebolag: *See*—
Lindblom, Karl A. H. 2,770,067.

Rodoni, Francis F. Knife sharpener. 2,770,153, 11–13–56, Cl. 76—89.1.

Roedter, Henry E., to Avco Mfg. Corp. Automatic ice maker. 2,770,102, 11–13–56, Cl. 62—7.

Rogal, Edward H., and A. Martynse, to Du Pont Co. of Canada Ltd. Tube cooling blower. 2,770,009, 11–13–56, Cl. 18—14.

Rohm & Haas Co.: *See*—
Bortnick, Newman M., and Fegley. 2,770,628.
McKeever, Charles H., and Nemec. 2,770,641.

Rola Co., The: *See*—
Perry, Charles A. 2,770,681.

Roll-O-Matic Chain Co.: *See*—
Eddy, Glen M. 2,770,281.

Romanowski, Albert F., and L. A. Weinecke, to Bowser, Inc. Magnetic flow meter. 2,770,180, 11–13–56, Cl. 73—194.

Rosenzweig, Philip, to Triangle Specialties Inc. Drapery supports. 2,770,299, 11–13–56, Cl. 160—348.

Ross, Ira G.: *See*—
Olmsted, Elisabeth P., Francis, and Ross. 2,770,164.

Rosser, Charles M., and W. O. Brillhart, to American Viscose Corp. Method for producing pellicles, films, and sheets. 2,770,015, 11–13–56, Cl. 18—57.

Rosser, Charles M., and W. O. Brillhart, to American Viscose Corp. Method for producing pellicles, films, and sheets. 2,700,053, 11–13–56, Cl. 34—12.





Roth, Robert I., to International Business Machines Corp. Methods and apparatus for measuring angular movement. 2,770,798, 11–13–56, Cl. 340—206.

Rowden, Robert S. Tool sharpener. 2,770,078, 11–13–56, Cl. 51—34.

Rowe, Harry C., to Stewart-Warner Corp. Ultrahigh frequency tuner. 2,770,723, 11–13–56, Cl. 250—20.

Rowe, Lancelot W.: *See*—
Anderson, William E., and Rowe. 2,770,529.

Ruderman, Manuel L. Device for expanding bags for filling. 2,770,084, 11–13–56, Cl. 53—189.

Runde, Kenneth R., to James R. Kearney Corp. Electrical protective devices. 2,770,667, 11–13–56, Cl. 174—5.

Runton, Leslie A., and W. G. Bejeuhr, to Alexander Smith, Inc. Apparatus for making pile fabric. 2,770,283, 11–13–56, Cl. 154—1.1.

Russell, John A. Weighted lure retriever. 2,770,062, 11–13–56, Cl. 43—17.2.

Rust, David J., and J. H. Jensen, to Rylock Co., Ltd. Door frame structure. 2,770,334, 11–13–56, Cl. 189—46.

Ryan, Daniel W.: *See*—
Longstreth, Murrey O., and Ryan. 2,770,007.

Ryckman, George E., to The Homer Laughlin China Co. Cup handle stroking machine. 2,770,214, 11–13–56, Cl. 118—242.

Ryde, John L., to McCulloch Motors Corp. Liquid delivering device. 2,770,363, 11–13–56, Cl. 210—46.

Rylock Co., Ltd.: *See*—
Rust, David J., and Jensen. 2,770,334.

Sacc-Lowell Shops: *See*—
Gwaltney, Eugene C. 2,700,093.

Sacre, Leo D., to Motorola, Inc. Coupling mechanism. 2,770,137, 11–13–56, Cl. 74—10.33.

St. Regis Paper Co.: *See*—
Lane, Gardiner. 2,770,406.

Salvin, Victor S.: *See*—
Conciatori, Anthony B., and Salvin. 2,770,518.

Sanders, Tillmon J. Electrically actuated burglar alarm and circuit closer therefor. 2,770,690, 11–13–56, Cl. 200—61.61.

Sauerman, Edward E. Device for dispensing measured quantities of coffee. 2,770,398, 11–13–56, Cl. 222—181.

Saunders, James H.: *See*—
Slocombe, Robert J., Hardy, and Saunders. 2,770,639.

Saurenman, Dean F., to Schlumberger Well Surveying Corp. Borehole apparatus operated by the well fluid. 2,770,308, 11–13–56, Cl. 166—65.

Saxton, Millard F.: *See*—
Comey, Charles S., Saxton, and Stuerzl. 2,770,003.

Schenley Industries, Inc.: *See*—
Schraufstätter, Ernst, and Bock. 2,770,619.

Scheurich, John S., to Northern Pump Co. Transducer. 2,770,703, 11–13–56, Cl. 201—63.

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Treves, Gino R. 2,770,647.

Schinske, William G., to Ideal Industries, Inc. Adjustable bite wire strippers. 2,770,154, 11–13–56, Cl. 81—9.5.

Schlesinger, Kurt, and V. Graziano, to Motorola, Inc. Deflection system. 2,700,748, 11–13–56, Cl. 313—78.

Schluchter, Alfred W., to General Motors Corp. Bearing. 2,700,031, 11–13–56, Cl. 29—197.

Schlumberger Well Surveying Corp.: *See*—
Krasnow, Shelley. 2,770,736.
Saurenman, Dean F. 2,770,308.
Schuster, Nick A. 2,770,771.

Schmidt, Gustav: *See*—
Korkowski, Eberhard, and Schmidt. 2,770,098.

Schmidt, Lewis W. Beet impelling device. 2,770,273, 11–13–56, Cl. 146—85.

Schnider, Otto.: *See*—
Frombera, Konrad, Gruessner, and Schnider. 2,770,569.

Schock, Alfred, to Alexander Smith, Inc. Spraying apparatus for web material. 2,770,216, 11–13–56, Cl. 118—323.

Schollenberger, Charles S., to The B. F. Goodrich Co. Elastomeric diisocyanate-modified polyesters. 2,770,612, 11–13–56, Cl. 260—75.

Schraufstätter, Ernst, and M. Bock, to Schenley Industries, Inc. Substituted 8-quinolinols. 2,770,619, 11–13–56, Cl. 260—240.

Schreffler, Robert Z. Aircraft construction. 2,770,427, 11–13–56, Cl. 244—2.

Schuck, Oscar H., and B. H. Ciscel, to Minneapolis-Honeywell Regulator Co. Automatic control systems. 2,770,429, 11–13–56, Cl. 244—77.

Schults, Ignatius C. Outlet box. 2,770,385, 11–13–56, Cl. 220—3.6.

Schurman, Jack V., to Colgate-Palmolive Co. Preparation of hydroxybenzoic esters by alcoholysis. 2,770,648, 11–13–56, Cl. 260—474.

Schuster, Nick A., to Schlumberger Well Surveying Corp. Well logging methods and apparatus. 2,770,771, 11–13–56, Cl. 324—1.

Schutte, Charles E. Semi-spherical compensating washer. 2,770,161, 11–13–56, Cl. 85—50.

Schuylkill Products Co., Inc.: *See*—
Bassett, Cecil E., and Bradfield. 2,770,374.

Schwartz, Martin W., and M. J. Marks. Electrical lighting fixture. 2,770,717, 11–13–56, Cl. 240—78.

Schwenninger, Earnest N., and J. H. Hoffman, to Celanese Corp. of America. Recording tensiometer. 2,770,127, 11–13–56, Cl. 73—143.

Scott, Harry E. Hold-down bar. 2,770,471, 11–13–56, Cl. 280—179.

Sears, Wesley E. Vehicle headlight. 2,770,713, 11–13–56, Cl. 240—7.1.

Seaton, Max Y., and R. D. Pike, K. B. Ray and The Stamford Trust Co., executors of said R. D. Pike, deceased, said Seaton assor. to Food Machinery and Chemical Corp. Production of pure sodium carbonate from Wyoming Trona. 2,770,524, 11–13–56, Cl. 23—63.

Sebac Nouvelle S. A.: *See*—
Coanda, Henri. 2,770,501.

Sebardt, Wilhelm, to International Ytong-Stabalite Co. Ltd. Portioning device for viscous masses. 2,770,395, 11–13–56, Cl. 222—28.

Seda, Edward C. Agricultural implement wheel scraper assembly. 2,770,469, 11–13–56, Cl. 280—158.

Sedlacek, Frank. Meter reading card container. 2,770,473, 11–13–56, Cl. 281—44.

Seegmiller, Walter R., to General Electric Co. Push-pull magnetic amplifier. 2,770,769, 11–13–56, Cl. 323—89.

Segesman, Louis E., to The Hoover Co. Suction cleaner having agitator drive in air stream and unobstructed fan inlet. 2,700,000, 11–13–56, Cl. 15—333.

Seibert, John W., to Borg-Warner Corp. Window structure. 2,700,018, 11–13–56, Cl. 20—52.2.

Seligman, Eustace: *See*—
Cohn, Edwin J. 2,770,616.

Seneca Falls Machine Co.: *See*—
Dinsmore, Arthur S. 2,770,141.

Serduke, James T., to the United States of America as represented by the United States Atomic Energy Commission. Reactor circulating system. 2,770,590, 11–13–56, Cl. 204—193.

Settineri, Thomas J., Sr., to Shapiro & Son Curtain Corp. Universal tufting machines. 2,770,205, 11–13–56, Cl. 112—79.

Sewell, Frederick R., to Percy Jones (Twinlock) Ltd. Loose leaf filing trays or binders. 2,770,238, 11–13–56, Cl. 129—16.

Seybold, Frederick W., to E. P. Lawson Co., Inc. Back gauge-planetary gear-brake disconnect for hydraulic drive. 2,770,301, 11–13–56, Cl. 164—39.

Shafer, Joseph R., and A. Waxman, to Hagan Corp. Multiple cam load devices for pressure regulators. 2,770,246, 11–13–56, Cl. 137—85.

Shalvoy, John C., and P. O. Rawson, Jr., to General Electric Co. Mobile vacuum cleaner having a hose adapted to be used as a pushing or pulling means therefor. 2,769,996, 11–13–56, Cl. 15—323.

Shapiro & Son Curtain Corp.: *See*—
Settineri, Thomas J., Sr. 2,770,205.

Sharwen, Theo, to Massey-Harris-Ferguson (Sales) Ltd. Control means for selective operation of valves. 2,770,249, 11–13–56, Cl. 137—333.

Sheahan, Robert E., to General Electric Co. Electric cord arrangement for vacuum cleaners. 2,769,997, 11–13–56, Cl. 15—324.

Sheahan, Robert E., to General Electric Co. Suction cleaner hose and handle arrangement. 2,769,999, 11–13–56, Cl. 15—327.

Sheard, William G., to General Container Corp. Carton. 2,770,357, 11–13–56, Cl. 206—7.

Sheffield Corp., The: *See*—
Laemmel, Charles H. 2,769,991.

Shell Development Co.: *See*—
Bergstrom, Roland F., Hodgson, and Hook. 2,770,530.

Shen, Yuin C., and H. D. Adkins, to the United States of America as represented by the Secretary of the Air Force. Hermetically sealed torque transmission system. 2,770,139, 11–13–56, Cl. 74—18.1.

Sherred, John A., to Monsanto Chemical Co. Process for the preparation of 2-amino-4,6-diphenoxy-s-triazine. 2,770,621, 11–13–56, Cl. 260—249.5.

Shivers, Paul F., to Robertshaw-Fulton Controls Co. Thermostatic control device. 2,770,699, 11–13–56, Cl. 200—138.

Shontz, Loran A., Jr.: *See*—
Andrews, Boley A., and Shontz. 2,770,343.

Sieglitz, Adolf, L. L. Berlin, and H. Hamal, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Sensitising dyestuffs. 2,770,620, 11–13–56, Cl. 260—240.4.

Sierra Electronic Corp.: *See*—
Turner, Thomas F. 2,770,779.

Sievers, Eldred D., to Unit Mfg. Co. Filter cartridge. 2,770,426, 11–13–56, Cl. 242—123.

Silver Engineering Works, Inc., a division of the Silver Corp.: *See*—
Morrison, Robert L. 2,770,052.

Silverman, Daniel, to Stanolind Oil and Gas Co. Seismic wave generation. 2,770,312, 11–13–56, Cl. 181—.5.

Simjian, Luther G., to The Reflectone Corp. Photographic system. 2,770,719, 11–13–56, Cl. 250—59.

Simpson, Duncan W.: *See*—
Stern, Robert G., and Simpson. 2,770,054.

Singleton, Richard H., to National Research Corp. Method of producing titanium. 2,770,541, 11–13–56, Cl. 75—84.5.

Skirvin, Chester C., to Trimble, Inc. Dressing table screen guard supporting means for infant's bath stand. 2,769,983, 11–13–56, Cl. 4—177.

Skirvin, Chester C., to Trimble, Inc. Screen guard structure for metal dressing table of infant's bath stand. 2,769,984, 11–13–56, Cl. 4—177.

Skirvin, Chester C., to Trimble, Inc. Article pocket for infant's folding bath stand. 2,769,985, 11–13–56, Cl. 4—177.

Skirvin, Chester C., to Trimble, Inc. Dressing table supporting means for infant's bath stand. 2,769,986, 11–13–56, Cl. 4—177.

Skoglund, Bertil J.: *See*—
Doering, Charles and H. 2,770,039.

Skoglund, Bertil J., to C. and H. Doering. Automatic feed synchronising mechanism for substances preparatory to processing. 2,770,038, 11–13–56, Cl. 31—8.

Skolnik, Marvin, to The Weldon Tool Co. Vacuum pump. 2,770,414, 11–13–56, Cl. 230—149.

Slaght, William W., to Cleveland Steel Products Corp. Universal joint assembly. 2,770,114, 11–13–56, Cl. 64—17.

Sloan Valve Co.: *See*—
Filliung, Jacques J., and Campbell. 2,770,498.
Filliung, Jacques J., and Swarts. 2,770,497.

Slocombe, Robert J., E. E. Hardy, and J. H. Saunders, to Monsanto Chemical Co. Method of producing aliphatic and alicyclic carbonates. 2,770,639, 11–13–56, Cl. 260—463.

Smith, Alexander, Inc.: *See*—
Runton, Leslie A., and Bejeuhr. 2,770,283.
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Smith, Allen E., A. W. Feldman, and G. M. Stone, to United States Rubber Co. N-1-naphthylphthalamic acid herbicidal compositions. 2,770,537, 11–13–56, Cl. 71—2.4.

Smith, Baynard R., to Steatite Research Corp. Multiple solder-seal bushing. 2,770,669, 11–13–56, Cl. 174—152.

Smith, Carlisle F., to J. I. Case Co. Baling machine. 2,770,184, 11–13–56, Cl. 100—19.

Smith, Eldred T., and A. F. Maclean, to Celanese Corp. of America. Purification of acids containing 2 to 6 carbon atoms. 2,770,585, 11–13–56, Cl. 202—59.

Smith, Harry F., to Mansfield Sanitary Pottery, Inc. Inlet valve for flush tanks. 2,770,250, 11–13–56, Cl. 137—426.

Smith, Keith L., to Union Carbide and Carbon Corp. Soil conditioning with alkenyl succinic compounds. 2,770,077, 11–13–56, Cl. 47—58.

Smith, Richard J., to McGill Mfg. Co., Inc. Cam follower bearing. 2,770,506, 11–13–56, Cl. 308—187.1.

Smith, Robert F., to Chrysler Corp. Brake shoe adjuster and release mechanism. 2,770,333, 11–13–56, Cl. 188—216.

Smith, Victor W., to C. V. Hill & Co., Inc. Refrigerated display case. 2,770,101, 11–13–56, Cl. 62—4.

Smith Welding Equipment Corp.: *See*—
Falk, Tage. 2,770,231.
Falk, Tage. 2,770,232.

Smith, Wesley A., to Tilt-A-Door Corp. Improved mounting construction for overhead door latch. 2,770,005, 11–13–56, Cl. 16—146.

Smithe, F. L., Machine Co., Inc.: *See*—
Novick, Abraham. 2,770,176.

Smits, Wytse B., to Smitswonk N. V. Low tension surface discharge spark plug. 2,770,750, 11–13–56, Cl. 313—131.

Snow, John E., to Acme Precision Products, Inc. Aircraft barrier. 2,770,431, 11–13–56, Cl. 244—110.

Socony Mobil Oil Co., Inc.: *See*—
Bourguet, Jean M. 2,770,503.
Bourguet, Jean M. 2,770,504.
Brooks, Frank W., Jr., and Duval. 2,770,581.
Eastwood, Sylvander C. 2,770,582.
Haddad, James H. 2,770,583.
Ray, Frederick E., and Drew. 2,770,584.

Soden, Joseph A. Garment carrying rack. 2,770,371, 11–13–56, Cl. 211—104.

Solloway, Norman J., to Feridax Ltd. Twist-grip controls for operating bowden cables. 2,770,125, 11–13–56, Cl. 70—185.

Somers, Richard M., to Thomas A. Edison, Inc. Signaling systems for dictating machines. 2,770,680, 11–13–56, Cl. 179—100.1.

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Sommer, Alfred H., to Radio Corp. of America. Photoelectric cathode and method of producing same. 2,770,561, 11–13–56, Cl. 117—211.

Sommer, Leo H., to Dow Corning Corp. Organosilicon esters. 2,770,633, 11–13–56, Cl. 260—448.2.

Sparling, Ray C. Flowmeter. 2,770,131, 11–13–56, Cl. 73–231.

Specialties Development Corp.: *See*—
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Sperry Rand Corp.: *See*—
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Spiegler, Louis, to the United States of America as represented by the United States Atomic Energy Commission. Separation of uranium from mixtures. 2,770,521, 11–13–56, Cl. 23—14.5.

Splendor, Inc.: *See*—
Hiatt, Wilbur L. 2,770,298.

Springs, Inc.: *See*—
Gauci, Joseph. 2,770,262.

Stackpole Carbon Co.: *See*—
Holm, Ragnar and E. M. K. 2,770,700.

Stafford, Neil S., and G. A. Worley, to Food Machinery and Chemical Corp. Apparatus for filling powdered or granular materials into bags. 2,770,439, 11–13–56, Cl. 249—60.

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Northcutt, Roy C., and Staggs. 2,770,061.

Stamford Trust Co., The: *See*—
Seaton, Max Y., and Pike. 2,770,524.

Standard Brands Inc.: *See*—
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Standard Oil Co. (Ill.): *See*—
McCaulay, David A., and Lien. 2,770,662.

Standard-Thomson Corp.: *See*—
Woods, John E. 2,770,440.

Stanolind Oil and Gas Co.: *See*—
Clarke, Roscoe C., Jr. 2,770,306.
Cooley, Elihu H. 2,770,773.
Eisler, Joseph D. 2,770,193.
Hujsak, Karol L., and Mungen. 2,770,635.
Pirson, Sylvain J. 2,770,305.
Silverman, Daniel. 2,770,312.
Steitz, Alfred, Jr. 2,770,636.
Walker, Scott W. 2,770,536.

Stanton, Austin N. Mechanical vibrator. 2,770,760, 11–13–56, Cl. 317—182.

Stanton, Walter H., to Monsanto Chemical Co. Process for the production of vinyl esters. 2,770,650, 11–13–56, Cl. 260—498.

Starr, Harriet. Baby diaper. 2,770,237, 11–13–56, Cl. 128—287.

State of Iowa, for the use and benefit of the State University of Iowa, an educational institution of the State of Iowa, The: *See*—
Wood, Walter F. 2,770,044.

Statham, Noel. Track for adjustable fastening devices. 2,770,024, 11–13–56, Cl. 24—206.

Stauber, Francis C. Smoker's pipe. 2,770,240, 11–13–56, Cl. 131—203.

Stauffer, Chemical Co.: *See*—
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Steatite Research Corp.: *See*—
Smith, Baynard R. 2,770,669.

Stecher, Henry D. Weatherproof and vapor-tight fixture. 2,770,715, 11–13–56, Cl. 240—11.2.

Steits, Alfred, Jr., to Stanolind Oil and Gas Co. Method for purification of oil-soluble alcohols. 2,770,636, 11–13–56, Cl. 260—450.

Stern, Robert G., and D. W. Simpson, to Curtiss-Wright Corp. Simulated water injection system. 2,770,054, 11–13–56, Cl. 35—12.

Stevens, John C., to Leupold & Stevens Instruments, Inc. Liquid level indicating apparatus. 2,770,133, 11–13–56, Cl. 73—305.

Stevenson, Herbert A.: *See*—
Greenwood, Douglas, and Stevenson. 2,770,568.

Stevinson, Harry T., to the National Research Council. Parachute with rotating canopy. 2,770,432, 11–13–56, Cl. 244—145.

Stewart-Warner Corp.: *See*—
Rowe, Harry C. 2,770,723.

Stibits, George R. Function unit. 2,770,145, 11–13–56, Cl. 74—393.

Stieglitz, Hermann W.: *See*—
Moore, Charles D., and Stieglitz. 2,770,709.

Stiles, Richard C.: *See*—
Johnston, Leith, McCreary, and Stiles. 2,770,675.

Stokes, Jacob L., and W. W. Osborne, to the United States of America as represented by the Secretary of Agriculture. Selective enrichment medium for salmonella. 2,770,574, 11–13–56, Cl. 195—100.

Stone, Gracie M.: *See*—
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Stossel, Ernest. Process of separating microcrystalline waxes from crude oil. 2,770,577, 11–13–56, Cl. 196—18.

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Comey, Charles S., Saxton, and Stuesrl. 2,770,003.

Stutsman, Guy R.: *See*—
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Suciu, Mary. Hot water bottle cover. 2,770,275, 11–13–56, Cl. 150—52.

Sullivan, William J. Animated display device. 2,770,073, 11–13–56, Cl. 46—239.

Sun Oil Co.: *See*—
Honeycutt, Earl M., and Wallin. 2,770,580.
Jezl, James L. 2,770 594.
Jezl, James L. 2,770,595.
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Jezl, James L. 2,770,598.

Sun Rubber Co., The: *See*—
Rekettye, Paul. 2,770,213.

Sundstrand, Oscar J., and O. W. Swanson, to Underwood Corp. Line-space control mechanism for flat platen typewriter or the like. 2,770 344, 11–13–56, Cl. 197—124.

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Mishcon, Sam and L., and Aguinek. 2,770,117.

Sutton, Otis B., to The Hoover Co. Wax applicators. 2,769,994, 11–13–56, Cl. 15—98.

Swanson, Oscar W.: *See*—
Sundstrand, Oscar J., and Swanson. 2,770,344.

Swanson, Oscar W., to Underwood Corp. Check writing accounting machine. 2,770,187, 11–13–56, Cl. 101—93.

Swarts, James J.: *See*—
Filliung, Jacques J., and Swarts. 2,770,497.

Sweynor, Stanley J. Defrosting evaporators in refrigeration systems. 2,770,104, 11–13–56, Cl. 62—117.55.

Sylvan, Joseph. Window frame assembly. 2,770,019, 11–13–56, Cl. 20—52.2.

Sylvan, Joseph. Window frame assembly. 2,770,335, 11–13–56, Cl. 189—75.

Symonds, Albert E., Jr., to E. I. du Pont de Nemours and Co. Polyethylene-oleamide composition. 2,770,609, 11–13–56, Cl. 260—32.6.

Szinger, Eugen, to Amalgamated Limestone Corp. Ltd. Method and apparatus for burning cement. 2,770,450, 11–13–56, Cl. 263—28.

Tarcici, Adnan. Solar heating apparatus. 2,770,229, 11–13–56, Cl. 126—270.

Tarcici, Adnan. Solar heating apparatus. 2,770,230, 11–13–56, Cl. 126—270.

Taylor, Keith M.: *See*—
McDonald, David W., and Taylor. 2,770,645.

Teeters, Wilber O.: *See*—
Passino, Herbert J., Teeters, and Mantell. 2,770,660.

Teeters, Wilber O., H. J. Passino, and A. L. Dittman, to The M. W. Kellogg Co. Solutions of copolymers of a perfluorochloroethylene and a fluoroethylene. 2,770,606, 11–13–56, Cl. 260—31.2.

Tegge, Bruce R., and F. W. Banes, to Esso Research and Engineering Co. Novel petroleum resin process. 2,770,613, 11–13–56, Cl. 260—82.

Teletype Corp.: *See*—
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Teletypesetter Corp.: *See*—
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Temco, Inc.: *See*—
Nordholt, Louis R., and Wilhoite. 2,770,228.

Tennessee Valley Authority: *See*—
Almond, Lawrence H. 2,770,451.

Tenney, William L. Space heater. 2,770,226, 11–13–56, Cl. 123—142.5.

Tessaro, Nicholas. Supplemental lens-positioning means. 2,770,168, 11–13–56, Cl. 88—41.





Testor, Nils F.: *See*—
Bast, Nathan G. 2,770,072.

Textron Inc.: *See*—
Anderson, Albert E. 2,770,036.

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# TRADEMARKS

## NOTICES

Notices under 15 U. S. C. 1116: Trademarks Act of July 5, 1946

**TM 144,021 (SCHWEPPES),** Schweppes (Overseas) Limited, Mineral waters; **TM 304,177,** same, Natural mineral and aerated drinking waters and ginger beer, filed Oct. 6, 1956, D. C., E. D. N. Y., Doc. 113/258, *Schweppes (Overseas) Limited* v. *Mayo Liquor Store, Inc.*

**TM 304,177.** (See TM 144,021.)

**TM 341,999, TM 552,704** ("Ballantine's," etc. and design), **TM 556,704** (Ballantine's), George Ballantine & Son Limited, Whisky, filed June 22, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1062, *George Ballantine & Son, Ltd.* v. *Irving Berlin & Co. et al.* By stipulation: cause dismissed Sept. 11, 1956. Same, filed Jan. 27, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16213, *George Ballantine & Son, Ltd.* v. *Silver Hill Products, Inc.* Case dismissed Oct. 10, 1956.

**TM 261,468** ("Amerock" and design), American Cabinet Hardware Corp., Drawer and door pulls, knobs, and hinges; **TM 261,714,** same, Door catches; **TM 324,964,** same, Cabinet Hardware—namely, door and drawer pulls and knobs, etc., filed July 9, 1956, D. C., N. D. Ill. (Chicago, Doc. 56c1153, *Amerock Corp.* v. *American-Moriette Co.* Order dismissing cause with[illegible] 1956.

**TM 261,714** (See TM 261,468.)

**TM 324,964** (See TM 261,468.)

**TM 556,211** (trademark design), Sylvania Electric Products Inc., Photo-flash lamps, filed May 7, 1956, D. C. N. J. (Newark), Doc. 335/54, *Sylvania Electric Products, Inc.* v. *Dure Electric Lamp Co., Inc. et al.* Judgment declaring trademark void; complaint dismissed Sept. 27, 1956.

**TM 556,704.** (See TM 341,330.)

**TM 261,621** (Hollywood), National Bakers Services, Inc., Bread, filed Oct. 5, 1956, D. C., E. D. Pa. (Philadelphia), Doc. 21443, *The Parkway Baking Co., Inc. et al.* v. *Freihofer Baking Co., Inc.*

## CONDITION OF TRADEMARK APPLICATIONS AS OF SEPTEMBER 28, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] ..... 7,683
Date of oldest new application ..... Jan. 30, 1956
Date of oldest amended application ..... Feb. 3, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

| TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION | Oldest Application | |
|---|---|---|
| | New | Amended |
| I. STERBA, J. R., Classes 1, 2, 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 44, 52 and Certification Marks (Goods) Class A | 1-30-56 | 2-3-56 |
| II. SHROCK, R. F., Classes 6, 18, 45, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200 and Certification Marks (Services) Class B | 2-20-56 | 2-16-56 |
| III. WENDT, C. [illegible], Classes 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 35, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50 | 4-19-56 | 2-6-56 |
| Renewals (All Classes) | 2-20-56 | 2-16-56 |
| Sec. 12 (c) Publications (All Classes) | 2-20-56 | 2-16-56 |

Applications Filed During the Month of September 1956—3,586

Registrations Issued ..... 3[illegible]
Renewals Issued ..... 77

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# MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

## CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

SN 691,474. Honeymead Products Company, Mankato, Minn. Filed July 18, 1955.

**LAMISOY**

For Defatted Soy Flour Used for General Industrial Purposes.
First use Apr. 22, 1955.

SN 693,131. Carl Freudenberg Kommanditgesellschaft auf Aktien, Weinheim an der Bergstrasse, Germany. Filed Aug. 16, 1955.

**HARRA**

Priority claimed under Sec. 44(d) on German application No. F 5581, filed Feb. 16, 1955; Reg. No. 679,282, dated July 19, 1955.
For Synthetic Leather and Synthetic Guts, Made Out of Synthetic Fiber Materials.

SN 697,831. E. H. Pratt, d. b. a. Kel-Min Distributing Co., Kansas City, Mo., to Kelp Minerals, Inc., Kansas City, Mo. Filed Nov. 7, 1955.

**KEL-MIN**

For Raw Ground Marine Vegetation Sold as Such for Use as an Ingredient in Fertilizers and in Livestock and Poultry Feed.
First use Oct. 24, 1955.

SN 698,274. Elkins-Ewall Rubber Co., Inc., Philadelphia, Pa. Filed Nov. 15, 1955.

**TRANSILFOAM**

For Synthetic Sponge-Like Material for Use as a Cushioning Agent.
First use Oct. 7, 1955.

SN 699,020. United Rubber & Chemical Company, Charleston, W. Va. Filed Nov. 28, 1955.

SYNTHETIC BAYTOWN RUBBER

No claim is made to the words "Synthetic Rubber" apart from the mark as shown.
For Synthetic Rubber.
First use Oct. 27, 1955.

SN 699,504. Ketchikan Pulp Company, Ketchikan, Alaska. Filed Dec. 6, 1955.

**TONGACELL**

For Cellulose Pulp in Either Bulk or Sheet Form.
First use Oct. 19, 1955.

SN 699,506. Alfred Klugmann, Inc., New York, N. Y. Filed Dec. 6, 1955.

ALKUSMAND

For Bristles and Hair Tufts.
First use September 1955.

SN 1,477. Scranton Lace Company, Scranton, Pa. Filed Jan. 25, 1956.

**LAMIPLEX**

For Sheet Materials for Laminating—Namely, Vinyl-P. V. C., Vinyl Acetate, Mylar, Cellulose Acetate, Cellulose Butyrate Acetate; and Woven Materials—Namely, Cotton, Rayon, Nylon, Fortisand, Paper, Burlap, and Woven Glass.
First use June 26, 1955.

SN 3,519. Copolymer Rubber & Chemical Corporation, Baton Rouge, La. Filed Feb. 28, 1956.

CRCC

For Bulk Synthetic Rubber.
First use Apr. 24, 1955.





SN 3,520. Copolymer Rubber & Chemical Corporation, Baton Rouge, La. Filed Feb. 28, 1956.

CRCC

For Bulk Synthetic Rubber.
First use Apr. 24, 1955.

SN 4,841. Rayonier Incorporated, New York, N. Y. Filed Mar. 19, 1956.

**GEORGIANIER**

Owner of Reg. Nos. 275,076, 311,937, and others.
For Cellulose Pulp.
First use Feb. 7, 1956.

SN 6,063. The Stamford Rubber Supply Company, Stamford, Conn. Filed Apr. 9, 1956.

**FACTEX**

Owner of Reg. No. 321,475.
For Rubber Substitutes—Namely, Vulcanized Fatty Oils and Vulcanized Fatty Acids.
First use on or before Apr. 23, 1940.

SN 6,168. Grocery Store Products Co., West Chester, Pa. Filed Apr. 11, 1956.

**GREEN HILL**

Owner of Reg. No. 538,420.
For Potting Soil.
First use Mar. 22, 1956.

SN 7,876. Superior Tanning Company, Chicago, Ill. Filed May 7, 1956.

**KAYBEE**

For Leather Made From Cattlehides and Horsehides.
First use in 1934.

SN 8,250. Superior Tanning Company, Chicago, Ill. Filed May 14, 1956.

**MAJESTIC**

For Leather Made From Cattlehides and Horsehides.
First use 1936.

SN 8,382. Wm. T. Burnett & Co., Incorporated, Baltimore, Md. Filed May 16, 1956.

COMFORT THROUGH SCIENCE

For Polyurethane Foam.
First use Nov. 19, 1954.

SN 8,566. General Reduction Company, Chicago, Ill. Filed May 18, 1956. Sec. 2(f).

**PIKES PEAK**

Owner of Reg. No. 536,157.
For Clay, Used Primarily as a Chemical Carrier, Diluent, Coagulant, Absorbent, Conditioner, Filler Material, and Bleach.
First use 1908.

## CLASS 2

### RECEPTACLES

SN 11,449. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.

Owner of Reg. Nos. 356,100, 533,798, and others.
For Small Boxes for Holding Invoices; Metal Containers for Chemical Compounds of High Volatility; and Fiberboard Cartons.
First use June 15, 1956, on invoice holders.

## CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 12,412. Charles Doppelt & Co., Inc., Chicago, Ill. Filed July 19, 1956.

**PIC-A-PURSE**

For Wallets.
First use July 5, 1956.

## CLASS 4

### ABRASIVES AND POLISHING MATERIALS

SN 691,929. Rosina A. Byrum, d. b. a. R. J. Byrum Products, Grand Forks, N. Dak. Filed July 20, 1955.

Home Tone YOUR FURNITURE WITH WASH-GLO

For Chemical Compound, in Liquid Form, With a Fine Oil Base, Used as a Furniture Polish, for Application With a Cotton Cloth.
First use May 12, 1955.

SN 11,446. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Floor Waxes.
First use May 29, 1956.

CLASS 5

SN 682,128. Columbia Cement Co. Inc., Brooklyn, N. Y. Filed Feb. 23, 1955.

**Kwikstik**

For Adhesive Foam Cements.
First use November 1951.

SN 698,299. Norton Company, Worcester, Mass. Filed Nov. 15, 1955. Sec. 2(f) as to "Norton."

**NORTON**

For Adhesives—Namely, Protein Base Adhesives, Rubber Base Adhesives, Resin Base Adhesives, and Inorganic Base Adhesives, and Adhesive Tapes.
First use on or about Apr. 17, 1954.

SN 2,815. Raybestos-Manhattan, Inc., Passaic, N. J. Filed Feb. 16, 1956.

**RAY-BOND**

Owner of Reg. No. 438,541.
For Liquid Thermo-Setting and Thermo-Plastic Adhesive Compositions and Solvent Cements, and Primers Therefor.
First use Jan. 10, 1956.

SN 12,852. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Adhesive Binders Used in the Manufacture of Paper and Fibreboard Products.
First use June 11, 1956.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 683,418. Mutual Products Co., Minneapolis, Minn. Filed Mar. 14, 1955.



The words "Surekill Brand" are disclaimed apart from the mark. The drawing is lined for red.
For Insecticide Sprays in Liquid Form and in Dry Granular Form.
First use Mar. 2, 1955.

SN 687,799. National Lead Company, New York, N. Y. Filed May 18, 1955.

**CLARITE**

For Organic or Metallo-Organic Material for Use in Stabilization of Clear Vinyl and Vinylidene Chloride Polymers and Copolymers.
First use Feb. 6, 1953.

SN 692,139. Hidalgo Chemical Company, Tulsa, Okla. Filed July 29, 1955.

**HI-SOL**

For Chemicals of the Type Produced by the Fischer-Tropsch Synthesis, for Example, Methanol, Ethanol, Acetone, Propyl Alcohols, Butyl Alcohols, Acetic Acid, Propionic Acid, and Ethyl Acetate for Industrial Use.
First use June 16, 1955, on acetone.

SN 692,141. Hidalgo Chemical Company, Tulsa, Okla. Filed July 29, 1955.

**HIDALGO**

For Chemicals of the Type Produced by the Fischer-Tropsch Synthesis, for Example, Methanol, Ethanol, Acetone, Propyl Alcohols, Butyl Alcohols, Acetic Acid, Propionic Acid, and Ethyl Acetate for Industrial Use.
First use June 16, 1955.

SN 693,845. Guy Laboratories, Inc., Laboratories, Harrison, N. Y. Filed Aug.

**GERMATIZE**

For Sanitising Agent for Rendering Cottons, Woolens, and Textiles Sterile and To Eliminate Static Electricity in Textiles.
First use Aug. 11, 1955.



SN 694,539. Taylor Chemical Company, Aberdeen, N. C. Filed Sept. 12, 1955. Sec. 2(f).

**SUPER KILL**

Owner of Reg. No. 341,274.
For Agricultural Pesticides.
First use January 1935.

SN 694,856. Chemical Research, Inc., Detroit, Mich. Filed Sept. 19, 1955.

**FUMI-SOIL**

For Soil Fumigant Capsule.
First use May 9, 1947.

SN 694,973. Curtis-Squire, Incorporated, Minneapolis, Minn. Filed Sept. 20, 1955.

**Squire Junior**

For Germicidal Preparation for Use on Baby Diapers To Prevent Odor and Diaper Rash.
First use on or about Jan. 1, 1949.

SN 695,013. Panogen, Inc., Ringwood, Ill. Filed Sept. 20, 1955.

**PANORAM**

For Seed Disinfectant and Protectant.
First use Dec. 29, 1954.

SN 695,014. Panogen, Inc., Ringwood, Ill. Filed Sept. 20, 1955.

**PANODRIN**

For Compositions for Disinfecting and Protecting Seeds and Controlling Plant Diseases.
First use Mar. 9, 1955.

SN 695,901. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Oct. 5, 1955.

**PANALON**

Owner of Reg. No. 572,028.
For Composition Containing Resins or Polymer-Forming Materials for Use in Treating Fibrous Materials Such as Paper, Leather, or Textiles for the Purpose of Improving Their Appearance, Crease Resistance or Dimensional Stability.
First use May 20, 1955.

SN 699,338. National Starch Products Inc., New York, N. Y. Filed Dec. 2, 1955.

**CATO**

For Chemically Treated Starch, Sold in Dry Form, for Use as a Headbox or Beater Additive in the Manufacture of Paper.
First use Sept. 15, 1955.

SN 699,900. General American Transportation Corporation, Chicago, Ill. Filed Dec. 13, 1955.

**KANIGEN**

Owner of Reg. Nos. 256,044 and 612,040.
For Chemical Plating Solution.
First use Oct. 28, 1955.

SN 700,926. N. V. Hollandsche Melksuikerfabriek, Uitgeest, Netherlands. Filed Nov. 16, 1955.

**HMS**

Owner of Dutch Reg. No. 13,661, dated Apr. 17, 1899.
For Lactose, as a Chemical Product.

SN 1,678. General Aniline & Film Corporation, New York, N. Y. Filed Jan. 30, 1956.

**KATAPOL**

Owner of Reg. No. 400,253.
For Cationic Emulsifying Scouring Agent for Treatment of Textile Fiber and Emulsifying Mineral Oils.
First use Oct. 30, 1941.

SN 1,679. General Aniline & Film Corporation, New York, N. Y. Filed Jan. 30, 1956.

**KATAPONE**

Owner of Reg. No. 400,253.
For Quaternary Ammonium Chloride Compound for Inhibiting Metal Corrosion.
First use June 6, 1955.

SN 5,937. Oakite Products, Inc., New York, N. Y. Filed Apr. 6, 1956.

**RINSITE**

For Chemical Preparation To Be Used as a Final Rinse, After Cleaning, of Metal Surfaces for the Purpose of Accelerating the Dry-Down, Leaving a Water-Break Free Surface, and Preventing Water Spotting and Rapid Oxidation.
First use Jan. 10, 1956.

SN 6,007. Fred E. Hummel, d. b. a. Drilling Fluid Service and Materials, Ventura, Calif. Filed Apr. 9, 1956.

**AGUASAL**

For Drilling Fluid Additive.
First use Feb. 14, 1954.

SN 6,963. Miller Products Company, Portland, Oreg. Filed Apr. 12, 1956.

## SPRADUSTO

For Combination Foliage Insecticide-Fungicide Wettable Dust.
First use September 1945.

SN 6,749. Proxite Products, Inc., Brooklyn, N. Y. Filed Apr. 19, 1956.

## BONNIE

Owner of Reg. No. 562,280.
For Bleach, Ammonia, Plastic Starch, and Disinfectant.
First use Apr. 15, 1956, on disinfectant.

### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

SN 10,432. Horning-Cooper, Incorporated, Monrovia, Calif. Filed June 18, 1956.

## WASP

For Wireless Atmospheric Sounding Projectile or Rocket.
First use Jan. 25, 1956.

SN 10,517. Cody Manufacturing Corp., Springfield, Mass. Filed June 19, 1956.

## THUNDERBIRD

For Pistols and Revolvers.
First use June 4, 1956.

### CLASS 10

### FERTILIZERS

SN 695,831. Mid-South Chemical Corporation, Memphis, Tenn. Filed Oct. 4, 1955.



The letter "N" is disclaimed apart from the mark as shown.
For Ammonia Fertilizers.
First use on or about July 16, 1955.

SN 10,863. Federal Chemical Company, Louisville, Ky. Filed June 25, 1956.

## EVER-DRILL

For Fertilizer.
First use June 13, 1956.

SN 10,897. Maxicrop Limited, Holdenby, Northampton, England. Filed June 25, 1956.

## MAXICROP

Owner of British Reg. No. 731,101, dated June 10, 1954.
For Fertilizers.

SN 11,063. The Colorado Fuel and Iron Corporation, Denver, Colo. Filed June 27, 1956.

## DAPUR

Owner of Reg. No. 626,747.
For Fertilizing Compound.
First use Apr. 15, 1955.

SN 11,064. The Colorado Fuel and Iron Corporation, Denver, Colo. Filed June 27, 1956.

## DAPAL

Owner of Reg. No. 626,747.
For Fertilizing Compound.
First use May 15, 1956.

### CLASS 11

### INKS AND INKING MATERIALS

SN 685,509. Manifold Supplies Company, New York, N. Y. Filed Apr. 15, 1955.

## BLACK PEARL

For Carbon Paper, Typewriter Ribbons, and Inked Ribbons.
First use Mar. 15, 1955.

### CLASS 12

### CONSTRUCTION MATERIALS

SN 693,642. Yetter Homes, Inc., Savannah, Ga. Filed Aug. 24, 1955.

## Jamico-Dor

For Ventilated Doors Particularly Suited for Closets.
First use May 1955.

SN 697,316. Pennington Manufacturing Company, Addison, Ill. Filed Oct. 28, 1955.

## THE CRIB THAT CORN DESIGNED

For Corn Cribs.
First use Oct. 12, 1955.

SN 697,409. Pleatwood Doors, Inc., Snohomish, Wash. Filed Oct. 31, 1955.

## PLEATWOOD

For Folding Doors and Panels.
First use Mar. 8, 1955.

SN 699,235. Ingram-Richardson Manufacturing Company, Beaver Falls, Pa. Filed Dec. 1, 1955.

## PORCELPANELS

For Insulated and Non-Insulated Panels—Namely, Porcelain Enameled Steel and/or Aluminum Panels for Exterior Wall Panels and Interior Wall Panels, Porcelain Enameled Chalkboards, Toilet Partitions, Bathroom Enclosures, Bathroom Wainscoting, and Elevator Cabs.
First use July 1954.



SN 699,503. Johns-Manville Corporation, New York, N. Y. Filed Dec. 7, 1955.

## ROCK-SHAKES

For Asbestos-Cement Shingles.
First use Oct. 28, 1955.

SN 699,723. Hannapel Door & Plywood Company, Chicago, Ill. Filed Dec. 9, 1955.




No claim is made to the wording "Approved Millwork" and "Finest Quality" apart from the mark as shown.
For Millwork.
First use Jan. 24, 1952.

SN 700,245. Michigan Moulding Company, Oak Park, Mich. Filed Dec. 19, 1955.

## SASH KING

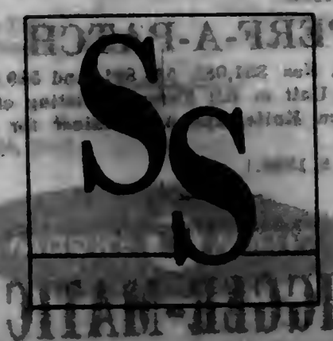
For Aluminum Weatherstrips, Moldings, Parts and Accessories for Use With Removable Window Sash.
First use Dec. 1, 1955.

SN 420. Lilco Manufacturing Company, New Cassel, N. Y. Filed Jan. 10, 1956.

## LILCO

For Aluminum Windows and Doors.
First use Dec. 10, 1955.

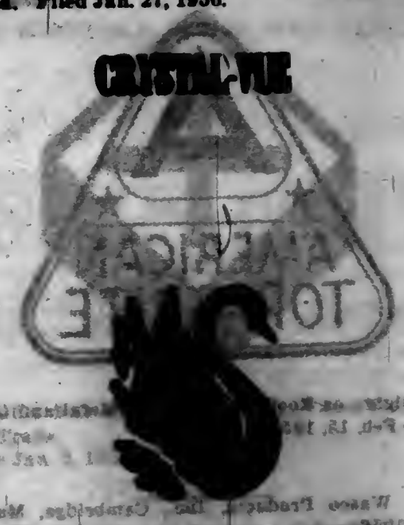
SN 1,517. General Plywood Corporation, Louisville, Ky. Filed Jan. 26, 1956.




For Wooden Doors for Home Building.
First use Dec. 28, 1955.

SN 1,571. Crystal-Vue Sliding Door Manufacturing Company, Miami, Fla. Filed Jan. 27, 1956.

## CRYSTAL-VUE



For Sliding Glass Doors for Enclosing Porches, Patios, Showers, Tubs, and Other Living Areas.
First use June 15, 1955.

SN 1,583. Great West Lubricants, Inc., Fort Worth, Tex. Filed Jan. 27, 1956.

## RAWHIDE

For Asbestos Roof Coating, Plastic Cement, Aluminum Fibered Roof Coating, Sealing Compound, Fly Cement, and Boiler Wall Cement.
First use Mar. 5, 1955.

SN 2,381. Wm. A. Reynolds & Co., Inc., Cleveland, Ohio. Filed Feb. 9, 1956.

## WARFLEX

Owner of Reg. No. 525,122.
For Caulking Tape.
First use Jan. 17, 1955.

SN 3,195. Samuel H. Keane, Philadelphia, Pa. Filed Feb. 23, 1956.

## WINDOW-SCOPE

For Combination Awning, Storm, Screen, and Shade Panel Windows, and Jalousie Windows and Awnings of Aluminum, Glass, and Other Materials.
First use Dec. 28, 1955.

SN 4,555. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## insul-fil

For Insulation Mixture Composed Essentially of Expanded Perlite Coated and Mixed With a High Softening Point Hydrocarbon To Enclose Conduits and the Like.
First use on or about Mar. 5, 1956.



SN 4,556. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE

For Adhesives.
First use Feb. 1, 1956.

SN 4,557. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-WELD

For Adhesives.
First use Feb. 1, 1956.

SN 4,558. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-SEAL

For Adhesives.
First use Feb. 1, 1956.

SN 4,559. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-BOND

For Adhesives.
First use Feb. 1, 1956.

SN 4,560. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-GRIP

For Adhesives.
First use Feb. 1, 1956.

SN 4,561. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-TAPE

For Adhesives.
First use Feb. 1, 1956.

SN 4,562. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-SEAM

For Adhesives.
First use Feb. 1, 1956.

SN 4,563. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-FOAM

For Adhesives.
First use Feb. 1, 1956.

SN 4,564. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-FLEX

For Adhesives.
First use Feb. 1, 1956.

SN 4,565. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-SET

For Adhesives.
First use Feb. 1, 1956.

SN 4,566. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-FIX

For Adhesives.
First use Feb. 1, 1956.



SN 4,567. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-PLASTIC

For Adhesives.
First use Feb. 1, 1956.

SN 4,568. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-PATCH

For Adhesives.
First use Feb. 1, 1956.

SN 4,569. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-GLAZE

For Adhesives.
First use Feb. 1, 1956.

SN 4,570. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-CAULK

For Adhesives.
First use Feb. 1, 1956.

SN 4,571. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-PAINT

For Adhesives.
First use Feb. 1, 1956.

SN 4,572. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-WOOD

For Adhesives.
First use Feb. 1, 1956.

SN 4,573. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-TILE

For Adhesives.
First use Feb. 1, 1956.

SN 4,574. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-CEMENT

For Adhesives.
First use Feb. 1, 1956.

SN 4,575. Miracle Adhesives Corporation, New York, N. Y. Filed Mar. 14, 1956.

## MIRACLE-MASTIC

For Adhesives.
First use Feb. 1, 1956.

SN 4,753. American 3-Way-Luxfer Prism Co., Chicago, Ill. Filed Mar. 19, 1956.




For Toplights or Roofscape Units of Metal and Glass.
First use Feb. 15, 1954.

SN 4,867. Wasco Products, Inc., Cambridge, Mass. Filed Mar. 19, 1956.

**WASCOSEAL**

Owner of Reg. Nos. 335,851 and 531,595.
For Permanent, Plastic Vapor Barrier Flashing.
First use Jan. 16, 1956.

SN 4,935. Birmingham Industries, Inc., Miami, Fla. Filed Mar. 21, 1956.




The words "Fold-Down" and "All Aluminum" are disclaimed apart from the mark as shown.
For Metal Awnings.
First use Mar. 1, 1956.

SN 5,092. Fordyce Wood Products, Inc., Fordyce, Ark. Filed Mar. 23, 1956.

**TRIM - N - ALL**

For Millwork—Namely, Jambs and Moldings.
First use at least as early as November 1955.

SN 5,093. Fordyce Wood Products, Inc., Fordyce, Ark. Filed Mar. 23, 1956.

**ROSEMARY**

For Millwork—Namely, Jambs and Moldings.
First use at least as early as November 1955.

SN 5,288. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Mar. 27, 1956.

**MOLTOPREN**

Owner of German Reg. No. 656,314, dated Apr. 14, 1954.
For Linings Formed of Foam- and Light-Artificial Substances for Acoustic and Thermal Insulation Purposes.

SN 5,305. The Celotex Corporation, Chicago, Ill. Filed Mar. 29, 1956. Sec. 2(f).

**TRIPLE SEALED**

For Saturated, Fiber Based Roofing Products—Namely, Asphalt Shingles; Asphalt Sidings; and Both Mineral Surfaced and Smooth Surfaced Roll Roofings.
First use Sept. 1, 1938.

SN 6,571. U. S. Industries, Inc., New York, N. Y. Filed Apr. 17, 1956.




For Mortar Lined and Covered Pipe and Pipe Joints.
First use Feb. 29, 1956.

SN 6,572. U. S. Industries, Inc., New York, N. Y. Filed Apr. 17, 1956.




For Mortar Lined and Covered Pipe and Pipe Joints.
First use Feb. 29, 1956.

SN 6,707. The Flintkote Company, New York, N. Y. Filed Apr. 19, 1956.

**FLINTWOOD**

For Asbestos-Cement Siding.
First use on or about May 17, 1951.

SN 6,709. The Flintkote Company, New York, N. Y. Filed Apr. 19, 1956.

**STICK-TAB**

For Caulking and Sealing Cement.
First use on or about Jan. 6, 1950.

SN 6,771. United States Gypsum Company, Chicago, Ill. Filed Apr. 19, 1956.

**PERF-A-PATCH**

Owner of Reg. Nos. 351,062, 533,891, and 599,611.
For Patching Unit in Kit Form Consisting of a Cement, Tape, Application Knife, and a Container for Mixing the Materials.
First use Mar. 8, 1955.

SN 6,807. Inventors Sales Corporation, Salt Lake City, Utah. Filed Apr. 20, 1956.

**TRIGGER-MATIC**

For Thresholds.
First use Jan. 7, 1955.



SN 11,418. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 356,109, 533,795, and others.
For Asphalt Mastic Roof Surfacing or Underlayment Compositions.
First use June 6, 1946.

SN 12,855. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.



Owner of Reg. Nos. 356,109, 533,795, and others.
For Bituminous Construction and Surfacing Compositions—Namely, Asphalt, Asphaltic Binders, Asphaltic Emulsions, Pavement Materials, and Bituminous Compounds and Emulsions Miscible in Water.
First use June 11, 1956.

**CLASS 13**

**HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES**

SN 696,154. Manufacturers Corporation of Mansfield, Ohio, Mansfield, Ohio. Filed Oct. 26, 1955.

**COPPER-LINE**

For Plastic Pipe.
First use June 15, 1954.

SN 697,178. A. R. Moore Company, Inc., Waupaca, Wis. Filed Oct. 26, 1955.



For Gasket Door Operators.
First use June 28, 1955.

TM 712 O. G.—5

SN 706. Ekco-Alcoa Containers Inc., River Grove, Ill. Filed Jan. 16, 1956.



For Metallic Foil Products—Namely, Pans, Plates, Dishes, Cups, and Trays.
First use Jan. 3, 1956.

SN 5,020. The B & T Metals Company, Columbus, Ohio. Filed Mar. 22, 1956.

**GRIPTAC**

For Metal Edging and Binding Strips for Securing Carpets to Floors.
First use Feb. 1, 1954.

SN 8,910. Dalmine S. p. A., Milan, Italy. Filed Apr. 30, 1956.



Owner of Italian Reg. No. 99,025, dated Nov. 18, 1950.
For Metals and Metal Castings and Forgings—Namely, Tubes and Piping.

SN 8,943. Weldon C. Erwin, d. b. a. W. C. Erwin Company, Southgate, Calif. Filed May 24, 1956.

**VIBRA-SHOWER**

For Shower Head.
First use Feb. 27, 1950.

SN 10,063. Skyline Plastic Pipe, Inc., Titusville, Pa. Filed May 31, 1956.

**BI-LINE**

For Pipe and Pipe Fittings Made of Plastic Materials.
First use on or about Sept. 1, 1954.

## CLASS 14

### METALS AND METAL CASTINGS AND FORGINGS

SN 696,227. Fansteel Co. Inc., Detroit, Mich. Filed Oct. 11, 1955.

FICO

For Titanium [illegible] Particles, and Pulverized or Finely Divided [illegible] Particles for Use as a Secondary Metal in Smelting Processes.
First use Oct. 6, 1953.

## CLASS 15

### OILS AND GREASES

SN 12,194. Paul K. Horstman, d. b. a. Paul K. Horstman, Fort Wayne, Ind. Filed July 16, 1956.

Stix

For Petroleum and Synthetic Lubricants and Oleaginous Materials—Namely, Grease, Transmission Oils, and Transmission Fluid.
First use April 3, 1940.

SN 12,751. Socony Mobil Oil Company, Inc., New York, N. Y. Filed July 24, 1956.

VISREX

For Rough Machinery Lubricating Oils and Compounds.
First use at least as early as May 28, 1956.

SN 13,008. Arius Laboratories, Inc., New York, N. Y. Filed July 30, 1956.

VISAR

For Additives for Lubricating Oil, Petroleum, and Hydraulic Fluids.
First use July 21, 1952.

## CLASS 16

### PROTECTIVE AND DECORATIVE COATINGS

SN 7,685. Linmar, Inc., Cambridge, Mass. Filed May 4, 1956.

WAW-KING

For Wood Finish.
First use Apr. 2, 1956.

SN 7,974. Benjamin Foster Company, Philadelphia, Pa. Filed May 9, 1956.

INSULFAS

For Fire Retardant Insulating Coatings for Metal Surfaces.
First use Feb. 9, 1955.

SN 12,856. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.

Owner of Reg. Nos. 356,169, 563,795, and others.
For Waterproofing and Protective Coatings for Concrete, Steel, Wood, Plaster, Masonry, and Surfaces in General, and Paint Driers.
First use June 11, 1956.

## CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 652,100. Chase Chemical Company, Newark, N. J. Filed Aug. 21, 1953.

HISTAPHEN

For Analgetic, Antipyretic, and Antiallergic Preparation for the Relief of Colds, Headaches, Allergies, and Minor Menstrual Pains.
First use December 1949.

SN 674,983. Mattox and Moore, Inc., Indianapolis, Ind. Filed Oct. 18, 1954.

M & M 511

For Veterinary Composition Containing Procaine Penicillin-G and Dihydrostreptomycin.
First use Mar. 9, 1954.

SN 682,172. National Drug Distributors, Mineola, N. Y. Filed Feb. 23, 1955.

For Vitamins, Hormones, and Pharmaceutical Preparations for Use Orally, Locally, or by Means of Injection, and Sterile Sponges, Hypodermic Syringes, and Hypodermic Needles.
First use May 4, 1954.

SN 534. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Jan. 12, 1956.

VALMORIN

Owner of German Reg. No. 684,888, dated Oct. 29, 1954.
For Sedative and Hypnotic Preparations.



SN 535. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Jan. 12, 1956.

VEGETOPAN

Owner of German Reg. No. 683,970, dated Feb. 6, 1954.
For Preparation for the Treatment of Autonomic Nervous (Vegetative) Dystonia.

SN 1,411. Dr. Karl Thomae GMBH, Biberach an der Riss, Germany. Filed Jan. 24, 1956.

BELCALOID

Owner of German Reg. No. 674,739, dated Apr. 29, 1955.
For Medicinal Preparation for the Treatment of Autonomic Nervous Dystonia.

SN 2,482. Alex B. Del Buono, d. b. a. Dell & Holtz, Plainfield, N. J. Filed Feb. 2, 1956.

SAGAR

For Medicated Ointment for Skin Irritations, Itching, Chafing, and Burns.
First use May 1, 1955.

SN 5,663. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Apr. 5, 1956.

TERRA-STREP

Owner of Reg. No. 585,114.
For Antibiotic Preparation.
First use Mar. 23, 1956.

SN 6,269. Louis A. Paparelli, d. b. a. San Antonio Drug Store, Albuquerque, N. Mex. Filed Apr. 13, 1956.

LINIMENTO VOLATICO

The word "Liniments" is the Spanish word for "Liniment" and such is disclaimed apart from the mark as shown. "Volatico" is a coined Spanish word and has no English translation.
For Liniment for the Relief of Muscular Aches and Pains Resulting From Over-Exertion and Fatigue.
First use in October 1952.

SN 7,042. Schenley Laboratories, Inc., New York, N. Y. Filed Apr. 24, 1956.

Rutaminal-RQ

Owner of Reg. Nos. 509,933 and 512,405.
For Cardio-Vascular Adjuvant.
First use Dec. 27, 1955.

SN 7,460. Bristol Laboratories Inc., New York, N. Y. Filed May 2, 1956.

DIASEPT

For Antibiotic Pharmaceutical Preparation.
First use Dec. 20, 1955.

SN 7,521. Arthur H. Meyerhoff, d. b. a. Tryzol Products Company, Chicago, Ill. Filed May 3, 1956.

TRYZOL

For Preparation Used for Warming Poultry and Animals.
First use Mar. 15, 1956.

## CLASS 19

### VEHICLES

SN 4,564. Phil's Way, Inc., Youngstown, Ohio. Filed Mar. 14, 1956.

SAFTRAC

The drawing is lined to indicate the color red, although the mark is not limited to such color.
For Vehicles—Namely, Tractor Drawn Trailers for Hauling Freight.
First use in or about January 1947.

SN 4,565. Phil's Way, Inc., Youngstown, Ohio. Filed Mar. 14, 1956.

PHILS-WAY

For Vehicles—Namely, Tractor Drawn Trailers for Hauling Freight.
First use in or about January 1947.

SN 6,457. North American Aviation, Inc., Los Angeles, Calif. Filed Apr. 16, 1956.

Navaho

The drawing is lined for red and gray.
For Unmanned Aircraft.
First use Apr. 7, 1956.

SN 8,193. Coachcraft, Ltd., Hollywood, Calif. Filed May 14, 1956.

COACHCRAFT

Owner of Reg. No. 616,116.
For Non-Electrical Automobile Accessories, and Particularly: Headrests for Automobile Seats, Reclining-Type Hardware for Automobile Seats, Top of Car Luggage Carriers, and Spare Wheel Assemblies (Continental Kits).
First use August 1948 on top of car luggage carriers.

SN 8,194. Coachcraft, Ltd., Hollywood, Calif. Filed May 14, 1956.

Coachcraft

The drawing is lined for blue, but the mark is not limited as to color. Owner of Reg. No. 616,116.
For Non-Electrical Automobile Accessories, and Particularly: Headrests for Automobile Seats, Reclining-Type Hard-

ware for Automobile Seats, Top of Car Luggage Carriers, and Spare Wheel Assemblies (Continental Kits).
First use January 1956.

SN 8,257. The Neilson Wheel Company, Milwaukee, Wis. Filed May 14, 1956.

CRACKER BOX DERBY

For Vehicle Wheels and Wheel Mounting Brackets and Axles.
First use on or about Apr. 13, 1956, on wheel kits comprising wheels, mounting brackets, and axles.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 677,984. Radeico Manufacturing Company, Cleveland, Ohio. Filed Dec. 8, 1954.

DRAGNET

For Television Antennas.
First use June 24, 1954.

SN 692,959. Sparks-Withington Company, Jackson, Mich. Filed Aug. 12, 1955.

SPARTON COLORMATIC

For Television Receivers.
First use May 16, 1955.

SN 4,328. International Business Machines Corporation, New York, N. Y. Filed Mar. 12, 1956.

IBM

Owner of Reg. Nos. 529,943, 616,548, and others.
For Magnetic Recording Tape, Tape Reels, Tape Reel Containers, Magnetic Tape Markers, Magnetic Tape File Protection Rings.
First use Aug. 5, 1955.

SN 5,500. Happ Corporation, Detroit, Mich. Filed Mar. 27, 1956. Sec. 2(f).

Perfection

The drawing is lined for red. Owner of Reg. Nos. 618,223, 184,730, and 184,706.
For Electric Ranges, Electric Water Heaters, and Electric Radiant Heaters.
First use on or about July 28, 1914.

SN 6,684. Avco Manufacturing Corporation, Connersville, Ind. Filed Apr. 19, 1956.

For Electrically Operated Garbage Disposers and Electrically Operated Dishwashers.
First use Jan. 26, 1956.

SN 6,701. Duro-Test Corporation, North Bergen, N. J. Filed Apr. 19, 1956.

VIS-A-RAY

The word "Ray" is disclaimed apart from the mark as shown. Owner of Reg. No. 535,209.
For Incandescent and Fluorescent Lamps.
First use Apr. 27, 1948.

SN 6,880. Waikiki Equipment Company, Honolulu, Territory of Hawaii. Filed Apr. 20, 1956.

FATHOMLITE

For Waterproof Flashlight Covers.
First use Oct. 28, 1955.

SN 6,976. Acra Electric Corporation, Franklin Park, Ill. Filed Apr. 24, 1956.

ACRAWATT

For Electric Heating Elements.
First use Apr. 19, 1940.

SN 6,982. Chas. D. Briddell, Inc., Crisfield, Md. Filed Apr. 24, 1956.

Carvel Hall

Owner of Reg. Nos. 521,685, 619,459, and 632,659.
For Electric Knife Sharpeners.
First use January 1955.



SN 6,986. Cornell-Dubilier Electric Corporation, South Plainfield, N. J. Filed Apr. 24, 1956.

DYKANOL

For Electrical Condensers.
First use Apr. 19, 1935.

SN 6,987. Cornell-Dubilier Electric Corporation, South Plainfield, N. J. Filed Apr. 24, 1956.

BEAVER

For Electrolytic Condensers.
First use Jan. 17, 1938.

SN 6,988. Cornell-Dubilier Electric Corporation, South Plainfield, N. J. Filed Apr. 24, 1956.

SERVICE-MIKE

For Electrolytic Condensers.
First use Sept. 28, 1939.

SN 7,149. Ark-Les Switch Corporation, Watertown, Mass. Filed Apr. 26, 1956. Sec. 2(f).

ARK-LES

Owner of Reg. No. 507,640.
For Terminals of Metal and Terminal Boards of Metal and Plastic.
First use May 1, 1950.

SN 7,180. Duro-Test Corporation, North Bergen, N. J. Filed Apr. 26, 1956.

ARC-ESCENT

For Electric Lamps.
First use Apr. 4, 1956.

SN 7,188. In-Sink-Erator Manufacturing Company, Racine, Wis. Filed Apr. 26, 1956.

Garb-away

For Garbage Disposal Units.
First use Mar. 21, 1956.

SN 7,482. Brumberger Co. Inc., Brooklyn, N. Y. Filed May 2, 1956.

Selectro-Com

For Electronic Inter-Communication Systems.
First use Mar. 1, 1956.

SN 7,636. Signal-Stat Corporation, Brooklyn, N. Y. Filed May 3, 1956.

CYCLOSTAT

For Directional Signal Lamps and Clearance Lamps, and Parts Thereof.
First use Oct. 7, 1955.

SN 7,825. Oakton Engineering Corporation, Evanston, Ill. Filed May 7, 1956.

robotape

For Automatically Operated Tape Reproducer and Controlling Device.
First use Feb. 9, 1956.

SN 7,838. Philco Corporation, Philadelphia, Pa. Filed May 7, 1956.

Audipage

For Magnetic Paging Apparatus.
First use Apr. 11, 1956.

SN 8,074. Chris P. Hoefer, d. b. a. J. D. D. Lubricants Company, Sioux City, Iowa. Filed May 10, 1956.

J-D-D

The lining on the drawing designates the color green.
Owner of Reg. No. 440,026.
For Storage Batteries.
First use July 1, 1952.

SN 8,393. Electro Silv-A-Ring Corporation, Chicago, Ill. Filed May 16, 1956.

POLYCUBE

For Plastic Louver for Lighting Fixtures.
First use Jan. 1, 1955.

SN 8,433. Ohmite Manufacturing Company, Skokie, Ill. Filed May 16, 1956.

"TAN-O-MITE"

For Capacitors.
First use Feb. 1, 1956.

SN 8,852. Infra Electronic Corporation, Roseland, N. J. Filed May 23, 1956.

DIRECTOR

For Dictation Machines.
First use Apr. 19, 1956.
Subj. to Intf. with SN 9,065.

SN 8,912. Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filed May 24, 1956.

SYNDUCTION

For Electric Motors.
First use Sept. 20, 1954.

SN 9,047. Multnomah Battery Manufacturing Co., Portland, Oreg. Filed May 25, 1956.

MULTNOMAH Quality BATTERIES

The drawing is lined to indicate the color yellow. The words "Quality" and "Batteries" are disclaimed from the mark as shown.
For Electric Batteries.
First use Jan. 2, 1956.

SN 9,055. Roto-Chef, Inc., Dallas, Tex. Filed May 25, 1956.

Roto-Chef

For Electric Barbecue Grills.
First use Mar. 20, 1956.

SN 9,056. Royal Electric, Inc., Xenia, Ohio. Filed May 25, 1956.

ROTOSOL

For Solenoid Motors.
First use May 2, 1956.

SN 9,317. Edwin L. Wiegand Company, Pittsburgh, Pa. Filed May 29, 1956.

THE NAME IN ELECTRIC HEAT

The drawing is lined for the color red, but it is not intended that the mark be limited to any color. Owner of Reg. No. 246,652.
For Electric Heating Apparatus and Parts Thereof.
First use Feb. 1, 1956.

SN 9,368. Littelfuse, Inc., Des Plaines, Ill. Filed May 31, 1956. Sec. 2(f).

SLO-BLO

For Time Delay Fuses.
First use 1938.

## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

SN 7,469. John C. Backe, Gaylord, Mich. Filed May 2, 1956.

SONIZED ACTION

For Fish Lure.
First use May 1, 1956.

SN 7,683. Johnson-Machulda, Fergus Falls, Minn. Filed May 4, 1956.

SKIM

For Game Including Pins and Striker.
First use Apr. 19, 1956.

SN 7,793. Globe Rubber Products Corp., Philadelphia, Pa. Filed May 7, 1956.

SEA DRAGON

For Swimming Accessories—Namely, Goggles, Masks, Snorkel Masks, Swim Fins, Snorkels, Ear Plugs and Nose Clips; and Beach Games—Namely, Horseshoe Sets.
First use Apr. 16, 1956.

SN 7,883. Universal Bowling & Golf Corporation, Chicago, Ill. Filed May 7, 1956.

CHARMED CIRCLE

For Golf Balls.
First use on or about Oct. 31, 1955.

SN 7,884. Universal Bowling & Golf Corporation, Chicago, Ill. Filed May 7, 1956.

WORTHMORE

For Golf Balls.
First use on or about Oct. 31, 1955.

SN 7,949. Sears, Roebuck and Co., Chicago, Ill. Filed May 8, 1956.

SPIN-HED

For Fishing Lines.
First use on or about Jan. 2, 1955.

SN 8,052. Burke Golf Equipment Corporation, Newark, Ohio. Filed May 10, 1956.

THUNDERBIRD

For Golf Clubs.
First use Apr. 18, 1956.
Subj. to Intf. with SN 9,575.

SN 8,101. Viking Sports Products, Inc., Westwood, N. J. Filed May 10, 1956.

Flite-n-Float

For Golf Balls.
First use May 2, 1955.



## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 681,898. John Ahlin and Sons, Incorporated, Bridgeport, Conn. Filed Feb. 18, 1955.

"KIDDYKUT"

For Scissors.
First use Nov. 29, 1954.

SN 682,577. Zip Products Co., Los Altos, Calif. Filed Mar. 1, 1955.

Zip

Owner of Reg. No. 526,101.
For Staple Removers.
First use December 1952.

SN 690,094. The Foley-Irish Corporation, Brooklyn, N. Y. Filed July 5, 1955. Sec. 2(f).



The words "Silver Washer & Drier" are disclaimed apart from the mark as shown. Owner of Reg. No. 525,818.
For Washing Machines for Silverware.
First use June 1, 1937.

SN 691,843. Durex Hardware Manufacturing Corp., New York, N. Y. Filed July 25, 1955.

durex

For Wrenches, Trowels, Pliers, Ratchet Braces, Glass Cutters, Screwdrivers, Pruning Shears, Files, Hammers, Reamers, Steel Tapes, Rulers, Levels, Planes, Vises, Nutdrivers, and Saws.
First use Sept. 22, 1953.

SN 695,461. J. Wiss & Sons Co., Newark, N. J. Filed Sept. 27, 1955.

METALMASTER

For Compound Action Snips, Aviation Type.
First use February 1936.

SN 696,823. Leeder Manufacturing Co., Inc., Keyport, N. J. Filed Oct. 4, 1955.

LEEDER

For Fire Extinguishers.
First use July 24, 1953.

SN 699,471. Bristol Repetition Limited, Bristol, England. Filed Dec. 6, 1955.

COMPASS

Owner of British Reg. No. 732,346, dated July 20, 1954.
For Lathes, Capstan and Turret Lathes, Automatic Lathes (Horizontal and Vertical), Milling Machines, Boring Machines, Drilling Machines, Tapping Machines, Grinding Machines of All Classes, Multi-Operation Machines, Other Special Purpose Machines, Machines and Machine-Tools for Automation Processes.

SN 1,142. Gelis Bentolila, Paris, France. Filed Jan. 20, 1956.

DYNAMATIC

Owner of French Reg. No. 451,249, dated May 27, 1955 (Seine); Natl. Inst. No. 57,470.
For Hand Knitting Machines.

SN 1,380. Midland Products Co., Midland Park, N. J. Filed Jan. 24, 1956.

IRONMASTER

For Machines for Bending and Cutting Metallic Rods, Bars, and Pipes.
First use Mar. 28, 1955.

SN 1,722. Reed Roller Bit Company, Houston, Tex. Filed Jan. 30, 1956.

R

For Roller Type Earth Drilling Bits; Scrape Type Earth Drilling Bits; Bit Break Out Plates for Receiving and Holding Earth Drilling Bits While Connecting and Disconnecting Them From Drill Stems; Steel Facing for Earth Drilling Bits; Earth Drilling Core Bits and Wire Line Retractable Core Barrels Therefor, Both Protruding and Non-Protruding Types; Drill Collars; Drilling Substitutes Such as Threaded Coupling Joints or Members; Earth Bore Hole Reamers; Earth Drilling Pilot Bits; Earth Drilling Core Bits and Non-Retractable Core Barrels for Use Therewith; Earth Drilling Basket Bits Adapted To Trap and Remove Lost Non-Drillable Parts From an Earth Bore Hole; and Parts Therefor.
First use 1927.

SN 3,109. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Feb. 21, 1956.

3M BRAND

For Machine for Treating Moldy Material Used in Printing.
First use Mar. 28, 1955.

SN 3,928. Archie W. Beeman, d. b. a. Eagle Claw Tool Company, Odessa, Tex. Filed Mar. 6, 1956.

EAGLE CLAW

For Well Drilling Tong Dies.
First use Mar. 20, 1955.

SN 5,146. Allen Electric and Equipment Company, Kalamazoo, Mich. Filed Mar. 26, 1956.

ADJUST-A-KIT

For Tool Kit Comprising Hand Tools for Servicing and Adjusting Distributors and Regulators of Internal Combustion Engines and for Setting Spark Plug Gaps.
First use Mar. 5, 1956.

SN 5,374. Allen Electric and Equipment Company, Kalamazoo, Mich. Filed Mar. 29, 1956.

ARMTRU

For Lathe for Servicing Automotive Electrical Equipment.
First use Mar. 7, 1956.

SN 5,474. Vaill Brothers Corporation, Chicago, Ill. Filed Mar. 29, 1956.

E-Z 45

Owner of Reg. No. 613,050.
For Detachable Blade Barber Shears.
First use Aug. 1, 1955.

SN 5,584. Bingham Brothers Company, New York, N. Y. Filed Apr. 2, 1956.

NU-CLEAR

For Printers' and Lithographers' Rollers.
First use Feb. 16, 1956.

SN 7,600. International Standard Trading Corporation, New York, N. Y.

For Pneumatic Tube Dispatch Systems and Accessories Therefor.
First use Jan. 8, 1953.

SN 7,819. J. Curry Mendes Corp., Canton, Mass. Filed May 7, 1956.

FORM KING

For Collators.
First use Oct. 16, 1955.

SN 8,133. Huesmann Refrigerator Co., St. Louis, Mo. Filed May 11, 1956.

AUTO-FLO

For Automatic Checkout Devices for Stores, Especially Food Stores.
First use Apr. 20, 1956.

SN 8,511. Spencer-Kennedy Laboratories, Inc., Boston, Mass. Filed May 17, 1956.

SKL

For Radio and Television Equipment and Parts Thereof.
First use Jan. 31, 1956.

SN 8,630. Choker Machinery Corporation, Philadelphia, Pa. Filed May 21, 1956.

CHOKER

For Apparatus for Restricting the Vascular Tract of a Ham or the Like Preliminarily to Injecting the Same With Curing Liquid.
First use in November 1955.

SN 8,676. Manex Machinery Corporation, New York, N. Y. Filed May 21, 1956.

MANEX

For Machine Tools—Namely, High Speed Electrical Vertical Milling Machines and Rotary Milling Tables and Parts and Accessories Therefor.
First use on or about June 1, 1952, on high speed vertical milling machines.

SN 8,782. Gertrude Lee, d. b. a. Lee Products Company, Carl Junction, Mo. Filed May 22, 1956.

Ranchmaster

For Power-Driven Lawnmowers and Small Tractors.
First use Mar. 12, 1956.



SN 4,822. Coal Bit Company, Prestonsburg, Ky. Filed May 23, 1956.

HILLBILLY BITS

For Coal Cutting Machine Bits.
First use July 15, 1955.

SN 9,065. Underwood Corporation, New York, N. Y. Filed May 25, 1956.

DIRECTOR

For Typewriters and Parts Thereof.
First use Apr. 9, 1956.
Subj. to Intf. with SN 8,868.

SN 9,146. Hill Novelties Mfg. Corp., New York, N. Y. Filed May 28, 1956.

TIDAX JUPITER

For Knives, Pocket Knives, Combination Knife and Screw Driver.
First use January 1956.

SN 11,452. Standard Oil Company of California, San Francisco, Calif. Filed July 18, 1956.

Owner of Reg. Nos. 564,109, 630,265, and others.
For Embossing and Printing Machines and Auxiliary Devices for Introducing a Priming Fuel, Other Than the Normal Running Engine Fuel, Into Internal Combustion Engines.
First use June 2, 1950, on auxiliary devices.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 636,314. Jarrell-Ash Company, Newtonville, Mass. Filed Apr. 26, 1955.

OY-OY ARITHMOMETER

For Instrument for Counting Blood Cells.
First use Feb. 28, 1955.

SN 688,889. Avia[illegible] Woodside, N. Y. Filed June 6, 1955.

For Voltage Reference Sources.
First use Mar. 30, 1955.

SN 691,127. The General Fireproofing Company, Youngstown, Ohio. Filed July 12, 1955.

Draftamatic

Owner of Reg. No. 216,941.
For Drafting Tables.
First use May 2, 1955.

SN 692,919. George H. Gardiner, Brooklyn, N. Y. Filed Aug. 12, 1955.

STA FAST

For Eyeglass Case or Protector.
First use May 14, 1955.

SN 694,642. Davenport Manufacturing Co., Chicago, Ill. Filed Sept. 14, 1955.

For High-Voltage Electrical Testing Equipment, Resistance-Measurement Instruments, Laboratory-Standard Electrical Metering Instruments, A.-C. Current Transformers, and Energy-Discharge Lighting Equipment for Photography.
First use Aug. 25, 1955.

SN 700,395. Universum-Film A. G., Berlin-Tempelhof, Germany. Filed Dec. 21, 1955.

UNIVERSUM

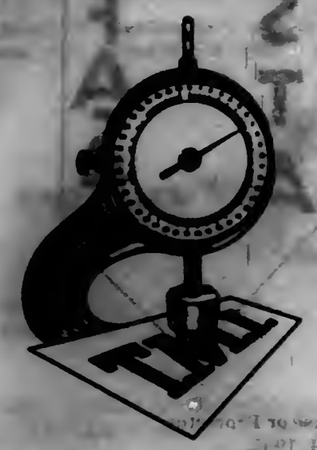
Owner of German Reg. No. 321,035, dated Apr. 15, 1919.
For Cinematographical Goods, Devices and Apparatus and Parts of the Apparatus, Projection Apparatus and Projection Screens, Unexposed Films and Plates, Photographic Apparatus and Unexposed Photographic Papers and Photographic Plates, and Photographic Utensils.

SN 709,266. Universum-Film Akt.-Ges., Berlin-Tempelhof, Germany. Filed Dec. 21, 1955.



Owner of German Reg. No. 322,767, dated Oct. 20, 1924.
For Cinematographs and Parts Thereof, Projection Apparatus, Projection Screens, and Unexposed Films and Plates.

SN 925. Testing Machines, Inc., New York, N. Y. Filed Jan. 17, 1956.



No claim is made to the representation of the goods apart from the mark as shown.
For Precision Testing and Measuring Machines and Instruments for Testing and Measuring Paper, Textiles, Metals, Plastics, Rubber, and Other Materials.
First use October 1951.

SN 1,889. Motometer, M. G., Stuttgart, Germany. Filed Feb. 1, 1956.

MOTEST

For Recording Compression Testers for Testing Pressures in Engine Cylinders.
First use on or about Feb. 1, 1954.

SN 2,832. Telefonbau und Normalzeit G. m. b. H., Frankfurt am Main, Germany. Filed Feb. 16, 1956.

POSTALIA

For Postage Meters and Postal Metering Machines.
First use Apr. 9, 1940.

SN 3,910. Carl Zeiss, Oberkochen, Wurttemberg, Germany. Filed Mar. 5, 1956.

Kipronar

Owner of German Reg. No. 429,281, dated Feb. 16, 1951.
For Optical Instruments and Their Component Parts—Namely, Projection Apparatus and Objectives.

SN 3,911. Carl Zeiss, Oberkochen, Wurttemberg, Germany. Filed Mar. 5, 1956.

Hypar

Owner of German Reg. No. 842,686, dated Aug. 14, 1953.
For Optical Systems for Photographic Cameras, Reproduction Cameras and Equipment Used in Connection Therewith.

SN 4,413. American Safety Razor Corporation, New York, N. Y. Filed Mar. 13, 1956.

SHARPOMETER

For Blade Testing Device.
First use on or about Dec. 23, 1955.

SN 4,789. Electrodata Corporation, Pasadena, Calif. Filed Mar. 19, 1956.

DATATRON

For Electronic Data Processing Machines.
First use Dec. 21, 1954.

SN 6,058. Societe Industrielle de Lunetterie, Paris, France. Filed Apr. 9, 1956.

GRAND PRIX

Priority claimed under Sec. 44(d) on French Reg. No. 454,552, dated Dec. 15, 1955 (Seine); Natl. Inst. No. 65,831.
For Spectacles—Namely, Eye Glasses, Sun Glasses, Frames for Spectacles Made of Metal, Plastic, and Other Suitable Substances, and Combined Frames for Spectacles, Lenses for Spectacles.

SN 6,059. Societe Industrielle de Lunetterie, Paris, France. Filed Apr. 9, 1956.

SORBONNE

Priority claimed under Sec. 44(d) on French Reg. No. 453,597, dated Oct. 28, 1955 (Seine); Natl. Inst. No. 63,679.
For Spectacles—Namely, Eye Glasses, Sun Glasses, Frames for Spectacles Made of Metal, Plastic, and Other Suitable Substances, and Combined Frames for Spectacles, Lenses for Spectacles.

SN 6,426. Helipot Corporation, South Pasadena, Calif. Filed Apr. 16, 1956.

YO-YO

For Potentiometers.
First use Feb. 29, 1956.

SN 6,549. Peerless Camera Stores, Inc., New York, N. Y. Filed Apr. 17, 1956.



For Strobescopic Apparatus for Photographic Purposes and Parts Thereof.
First use Dec. 27, 1955.



SN 12,855. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.



Owner of Reg. Nos. 354,109, 533,798, and others.
For Instrument for Measuring Odor in Gas.
First use Aug. 1, 1956.

SN 13,503. Wollensak Optical Company, Rochester, N. Y. Filed Aug. 28, 1956.

FASTAIR

Owner of Reg. Nos. 402,334 and 532,841.
For Photographic Cameras and Parts Thereof.
First use on or about Aug. 17, 1956.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 695,265. Axel Bros., Inc., Long Island City, N. Y. Filed Sept. 26, 1955.

Columbia

Owner of Reg. No. 676,457.
For Finger Rings.
First use January 1932.
Subj. to Inst. with Reg. No. 617,828.

SN 9,445. Coro Inc., New York, N. Y. Filed June 1, 1956.

"QUIK-TRIK"

For Earrings.
First use May 22, 1956.

CLASS 31

FILTERS AND REFRIGERATORS

SN 671. Faraday Engineering Company, York, Pa. Filed Jan. 13, 1956.

FARAVAC

For Filters.
First use July 28, 1955.

SN 1,143. Borg-Warner Corporation, Chicago, Ill. Filed Jan. 20, 1956.

FOOD-STOR

The word "Food" is disclaimed apart from the mark as shown.
For Refrigerators and Parts Thereof for Replacement and Repair.
First use Oct. 30, 1955.

SN 1,149. Borg-Warner Corporation, Chicago, Ill. Filed Jan. 20, 1956.

Tri-Level

For Refrigerators and Parts Thereof for Replacement and Repair.
First use Oct. 30, 1955.

SN 3,680. Marquette Appliances, Inc., Minneapolis, Minn. Filed May 21, 1956.

MARQUETTE

Owner of Reg. No. 426,892.
For Freezer Machinery and Cabinets, Refrigerators, and Water Coolers.
First use April 1945.

SN 8,893. Dole Refrigerating Company, Chicago, Ill. Filed May 22, 1956.

FREZE-CEL

For Refrigeration Units.
First use Dec. 28, 1955.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 640,269. Decorative Cabinet Corp., New York, N. Y. Filed May 4, 1953.

E-Z-DO

For Furniture—Namely, Cabinets, Wardrobes, Chests, Trays, Table Tops, Collapsible Tables, Folding Floor Screens.
First use 1933 on all items except table tops and collapsible tables.

SN 676,125. Meredith Galleries, Inc., New York, N. Y. Filed Nov. 5, 1954. Sec. 2(f).

MEREDITH GALLERIES

For Chairs, Tables, Dressers, Commodes, Couches, Desks, Beds.
First use Jan. 1, 1939.

SN 692,228. Hamilton Manufacturing Company, Two Rivers, Wis. Filed Aug. 1, 1955.



For Dental Furniture—Namely, Filing Cabinets; Printers' and Composing Room Furniture—Namely, Metal and Wooden Cabinets, Tables and Desks, Lead, Slug, Type and Chase Cases, Racks, Galley Shelving; Drafting and Engineering Room Furniture—Namely, Engineers' Desks, Filing Cabinets for Drawings, Filing Trays for Drawings, Filing Drawers for Drawings, and Drafting Chairs and Stools; Laboratory Furniture—Namely, Work Benches, Desks, Chairs, Stools, Filing Cabinets; and Library and School Room Furniture—Namely, Book Stacks, Shelf Units, Magazine and Newspaper Racks, Portable Book Display Racks, Card Catalog Cabinets, Dictionary Stands, Book Display Cases, Large Sheet Filing Cabinets, and Work Counter Storage Cases.
First use on or about Oct. 25, 1954, on dental furniture.

SN 696,824. P. B. R. Manufacturing Co., Philadelphia, Pa. Filed Oct. 20, 1955.

## MITEY-LITE

For Portable Folding Metal Tables Having Folding Legs and Having a Top Which Folds To Enclose the Legs.
First use on or about Sept. 12, 1955.

SN 1,103. Mutual Furniture Associates, Inc., Chicago, Ill., by change of name Morley Furniture Corporation. Filed Jan. 19, 1956.

## flota-Steel

For Upholstered Furniture—Namely, Sofas, Chairs, Love Seats, Sectional Furniture, Sofa Beds, Couches, Davenports, Bed Davenports, Foot Stools, and Ottomans.
First use Oct. 17, 1955.

SN 8,127. American Seating Company, Grand Rapids, Mich. Filed May 14, 1956.



Except for tonality, color is not a feature of the mark; the background of the lettering may be any color or black, and the shaded area represents a tint or a half-tone of the same color. Owner of Reg. Nos. 552,531 and 570,927.
For Various Types of Chairs, Seating and Other Furniture, Specifically: Folding Chairs; Seating for Theaters, Auditoriums, Stadiums, Shoestores, Waiting Rooms, and Courtrooms; Church Pews and Furniture; and Classroom Furniture Comprising Chairs, Desks, Combination Chair-Desks and Tables.
First use at least as early as Apr. 9, 1956.

SN 8,446. Sel-O-Rak Corporation, Miami, Fla. Filed May 16, 1956.

## FLEX-O-RAK

For Garment Display Fixtures Such as Trouser Racks and Skirt Racks.
First use Apr. 1, 1955.

SN 8,695. Record Files, Inc., Wooster, Ohio. Filed May 21, 1956.



Owner of Reg. No. 609,099.
For Filing, Storage, and Transfer Cabinets, Including Shells, Drawers, Shelves, Tops, and Bases Therefor.
First use Apr. 9, 1954.

SN 11,159. Elgin Metalformers Corporation, Elgin, Ill. Filed June 28, 1956.

## EMCOR

For Cabinets and Parts Thereof—Namely, Cabinet Frames, Panels, Drawers, Doors, and Case and Cradle Slides.
First use June 5, 1951.

SN 11,239. The Englander Company, Inc., Chicago, Ill. Filed June 29, 1956.



For Mattresses, Box Springs, and Convertible Couches.
First use Feb. 9, 1956.

SN 11,670. Dean Industries, Inc., Pontotoc, Miss. Filed July 6, 1956.

## Dean Foamers

For Chairs.
First use Mar. 7, 1956.

SN 11,917. The Dayton Rubber Company, Dayton, Ohio. Filed July 11, 1956.

## DREAM STRIPE

For Cushions, Pillows, and Mattresses.
First use May 25, 1956.

### CLASS 34

### HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 696,131. Elliott Engineering Company, Inc., Lynwood, Calif. Filed Oct. 10, 1955.

## Cond-Air

For Air Conditioners.
First use Feb. 9, 1955.

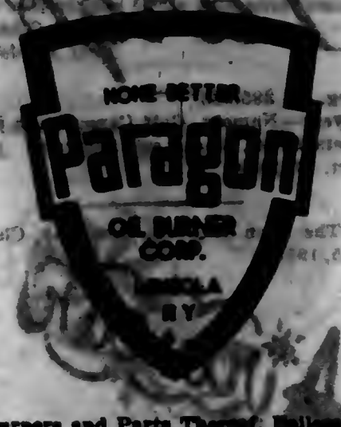


SN 700,234. Keystone Lamp Manufacturing Corporation, New York, N. Y. Filed Dec. 19, 1955.



The lining on the drawing is an integral part of the mark.
For Portable Outdoor Barbecues.
First use Dec. 2, 1955.

SN 700,934. Paragon Oil Burner Corp., Minneola, N. Y. Filed Dec. 27, 1955.



For Oil Burners and Parts Thereof, Boilers and Warm-Air Conditioners.
First use Apr. 1, 1925.

SN 3,802. American Refrigeration Export Corp., New York, N. Y. Filed Mar. 5, 1956.

## COOL-FLO

For Air Conditioners.
First use Mar. 1, 1956.

SN 5,180. Electric Furnace-Man, Inc., Emmaus, Pa. Filed Mar. 26, 1956.

## e-f-m

FIRE-JET

For Stokers.
First use Sept. 12, [illegible]

SN 6,442. Norman F. [illegible], Tex. Filed Apr. 16, 1956.

## MOONGLOW GAS LIGHT

The words "Gas Li[illegible]rt from the mark.
For Outdoor Gas Il[illegible]
First use July 10, 1[illegible]

SN 8,12[illegible] May 11, 1956.

For Ventilating System for Commodes.
First use Mar. 6, 1956.

### CLASS 33

### BELTING, HOSE, MECHANICAL PACKING, AND NONMETALLIC TIRES

SN 7,945. Sears, Roebuck & Co., Chicago, Ill. Filed May 8, 1956.

## METROPOLITAN

For Automobile Tires and Tubes.
First use on or about Nov. 26, 1954.

### CLASS 37

### PAPER AND STATIONERY

SN 699,201. Columbia Envelope Company, Melrose Park, Ill. Filed Dec. 1, 1955.

## FROST-TONE

For Envelopes.
First use Aug. 10, 1955.

SN 6,563. Sitrue Inc., New York, N. Y. Filed Apr. 17, 1956.

## EVE

For Facial Tissues.
First use May 26, 1938.

SN 6,704. A. W. Faber-Castell Pencil Co., Inc., Newark, N. J. Filed Apr. 19, 1956.

## BLACK SABLE

For Wood Encased Lead Pencils, Crayons, Ink Pencils, Mechanical Pencils, and Leads for Lead Pencils.
First use Jan. 13, 1956.

SN 6,958. St. Regis Paper Company, New York, N. Y. Filed Apr. 23, 1956.

## LUSTERGRIP

For Paper Bags.
First use Mar. 24, 1956.

SN 6,993. Daniels Manufacturing Company, Rhinelander, Wis. Filed Apr. 24, 1956.

## PAQUATUF

For Wrapping Paper for Cured Meats and Like Food Products.
First use June 4, 1954.

### CLASS 38

### PRINTS AND PUBLICATIONS

SN 8,173. Teleslide, Inc., New York, N. Y. Filed May 11, 1956.

## TELESLIDE

For Photographic Slides.
First use Mar. 8, 1956.



SN 1,238. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed



SN 7,763. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed

SN 8,658. Edward A. Gastine, d. b. a. Handy-Capper, Los Angeles, Calif. Filed May 21, 1956.

[redacted]

For Horse Racing Information Guide Cards.
First use Apr. 4, 1956.

SN 8,825. The Construction Specifications Institute, Incorporated, Washington, D. C. Filed May 28, 1956.

For Periodical.
First use July 21, 1949.

SN 8,932. Robert B. Cutler, d. b. a. Cutler Designs, Boston, Mass. Filed May 24, 1956.

**WEATHERSCOPE**

For Maps and Weather Charts Issued at Irregular Intervals.
First use May 10, 1956.

SN 9,397. Rice Leaders of the World Association, New York, N. Y. Filed May 31, 1956.

**INSPIRATION**

For Publication Issued From Time to Time.
First use May 25, 1956.

SN 9,477. The Maytag Company, Newton, Iowa. Filed June 1, 1956.

**LINDA MARSHALL**

Owner of Reg. No. 501,488.
For Home Economic Information Publications—Namely, Laundry Guides, Menus, Cooking Guides, and Food Freezing Guides.
First use Aug. 3, 1948.

## CLASS 39

## CLOTHING

SN 681,411. James Allan Clark, Coral Gables, Fla. Filed Feb. 10, 1955.




The wording "The Perfect Eye Shade" is disclaimed apart from the mark as shown.
For Eye Shades.
First use on or about Dec. 15, 1954.

SN 688,070. Palm Beach Company, Sanford, Maine. Filed May 23, 1955.

**CELEBRITY**

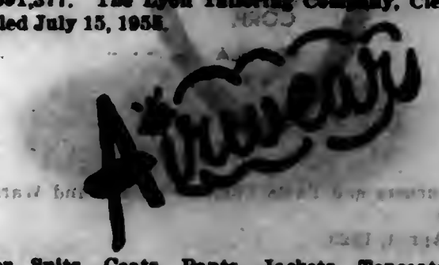
Owner of Reg. No. 660,640.
For Sport Coats.
First use Mar. 22, 1955.

SN 690,842. E. J. Smith & Sons Company, Charlotte, N. C. Filed July 6, 1955.

*Pargo*

Owner of Reg. No. 385,568.
For Sportswear—Namely, Golf Caps, Sport Shirts, Sweaters, Rain Jackets, Socks, Slacks, and Shorts.
First use Oct. 12, 1949.

SN 691,377. The Lyon Tailoring Company, Cleveland, Ohio. Filed July 15, 1955.




For Suits, Coats, Pants, Jackets, Topcoats, Raincoats, Shirts, Ties, Caps, Gloves, Socks, and Belts.
First use June 27, 1955.

SN 697,834. Proban Limited, London, England. Filed Nov. 7, 1955.

**PROBAN**

Priority claimed under Sec. 44(d) on British Reg. No. 745,073, dated Aug. 9, 1955.
For Men's Jackets, Shirts, Trousers, Raincoats, Overcoats, Gloves, and Headwear, and Women's and Children's Coats, Jackets, Dresses, Raincoats, Shirts, Blouses, Gloves, and Headwear.

SN 5. Atlas Underwear Corporation, Piqua, Ohio. Filed Jan. 3, 1956.



For Men's, Women's, and Children's Knit Underwear.
First use Aug. 28, 1953.



SN 1,228. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Jan. 24, 1956.

**MAYFAIR**

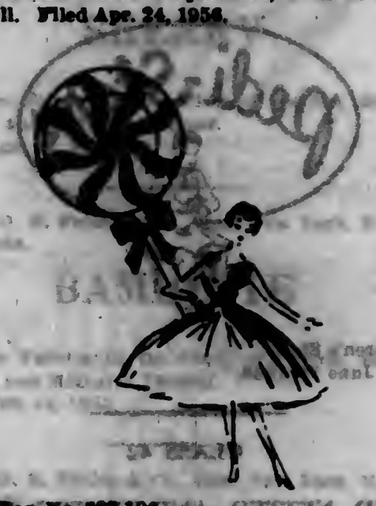
Owner of Reg. No. 188,171.
For Neckwear.
First use January 1950.

SN 3,356. Richard J. Cole, Inc., New York, N. Y. Filed Feb. 27, 1956.

**DIMINUETTE**

For Ladies' and Misses' Dress Ensemble Consisting of Dress and Jacket, and Dresses.
First use Feb. 16, 1956.

SN 7,048. Adrian Tabin Corporation, d. b. a. Candy Jrs., Chicago, Ill. Filed Apr. 24, 1956.



Owner of Reg. No. 662,104.
For Junior and Ladies' Dresses.
First use Jan. 3, 1955.

SN 7,501. L. Greif & Bro., Inc., Baltimore, Md. Filed May 2, 1956.

*Normandy*

For Suits, Top Coats, Overcoats, Slacks, Sport Coats, and Jackets for Men, Boys, and Youths.
First use Mar. 1, 1956.

SN 7,622. Pendleton Woolen Mills, Portland, Oreg. Filed May 3, 1956.

**SUNWEIGHT**

For Woolen Shirts.
First use Mar. 1, 1956.

SN 7,677. Robert Hall Clothes, Inc., New York, N. Y. Filed May 4, 1956.

**TROPIC-HALL**

For Men's and Boys' Suits, Jackets, Slacks, Sports Coats, and Raincoats.
First use on or about July 1, 1950.

SN 7,763. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 7, 1956.

**ANCHOR JAC**

For Beach Shirts.
First use Jan. 16, 1956.

SN 7,764. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 7, 1956.

**BRIEF ZIP**

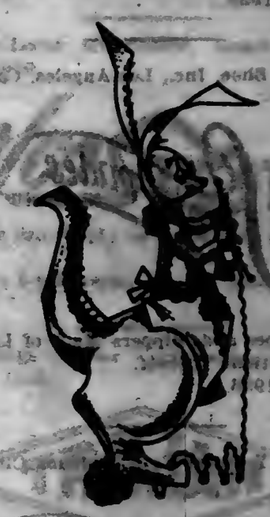
For Swim Wear.
First use Jan. 16, 1956.

SN 7,769. Coopers Incorporated, Kenosha, Wis. Filed May 7, 1956.

**JOCKEY JR.**

For Boys' Briefs and Boys' T-Shirts.
First use Feb. 22, 1956.

SN 7,816. Lisle Mills, Inc., Allentown, Pa. Filed May 7, 1956.



For Men's, Women's, Infants', and Children's Outer and Under Garments—Namely, Suits, Creepers, Undershirts, Briefs, Polo Shirts, Pants, Panties, Cardigans, Shirts, Overalls, Blouses, and Pajamas.
First use on or about Mar. 13, 1955, on children's suits.

SN 8,174. Tellabire, Inc., New York, N. Y. Filed May 11, 1956.

**HELIO**

For Raincoats, Sport Suits and Coats, Suits, Top Coats, Overcoats, Golf Jackets, Weatherproofed Shirts and Pants, Ponchos, and Beach Pants for Men, Women, and Children, and Golf Shirts, Beach Capes, and Hats for Women and Girls.
First use in January 1934.

SN 10,123. S. Augstein & Co., Inc., College Point, N. Y. Filed June 13, 1956.

**TOUCH OF GENIUS**

For Brassieres.
First use on or about May 28, 1956.

SN 10,164. Robert Hall Clothes, Inc., New York, N. Y. Filed June 13, 1956.

**FELLINA**

For Ladies', Misses', and Children's Coats, Toppers, Suits, and Skirts.
First use on or about May 9, 1956.

SN 10,522. Corona Corset Corporation, Corona, N. Y. Filed June 19, 1956.

**SU-O-LETTE**

For Ladies' and Misses' Brassieres, Corsets, and Corselettes.
First use Feb. 1, 1956.

SN 10,523. H. & J. Halbetsky Co., Inc., Philadelphia, Pa. Filed June 19, 1956.

**NALLO**

For Dresses for Women, Misses, and Juniors.
First use June 10, 1954.

SN 11,134. Belk Stores Services, Inc., Charlotte, N. C. Filed June 28, 1956.

**Reigning Beauty**

For Hosiery.
First use Apr. 2, 1935.

SN 11,428. Vogue Shoe, Inc., Los Angeles, Calif. Filed July 2, 1956.

**Stride-mates**

For Women's Shoes and Slippers Made of Leather, Plastic, Fabrics, or Combinations Thereof.
First use Apr. 5, 1956.

SN 11,632. T G & Y Stores Co., Oklahoma City, Okla. Filed July 5, 1956.

**Golden Rose**

For Hosiery.
First use Mar. 28, 1956.

SN 11,637. Virginia Maid Hosiery Mills, Inc., Pulaski, Va. Filed July 5, 1956.

**GAY STEP**

For Women's Hosiery.
First use Aug. 17, 1950.

SN 11,906. Bernardo Sandals, Inc., New York, N. Y. Filed July 11, 1956.

**Bernardo**

Owner of Reg. Nos. 427,711 and 616,066.
For Men's, Women's, and Children's Sandals.
First use October 1950.

SN 12,054. Tricnit Hosiery Mills, Inc., New Ipswich, N. H. Filed July 12, 1956. Sec. 2(f).

**Tricnit**

Owner of Reg. Nos. 404,320 and 524,573.
For Hose for Men.
First use July 1, 1941.

SN 12,183. Goldblatt Bros., Inc., Chicago, Ill. Filed July 16, 1956.

**Pedi-Stars**

For Children's Shoes.
First use June 15, 1956.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 9,834. Thomas Wilson & Co., Inc., New York, N. Y. Filed June 7, 1956.

**LANOLACE**

For Lace in the Piece.
First use Mar. 7, 1956.

SN 10,529. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 19, 1956.

**ANTIGUA**

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Mar. 15, 1955.

SN 10,571. Aldean Mills Co., Bellevue, Wash. Filed June 20, 1956.

**TIE-ME HANDY**

For Towels.
First use Oct. 30, 1954.

SN 10,628. Rugby Rug Mills Inc., New York, N. Y. Filed June 20, 1956.

**HILGAR**

For Hooked Rugs.
First use Jan. 23, 1951.



SN 10,724. Wonsetta Mills, New York, N. Y. Filed June 21, 1956.

**REVERSATILE**

For Piece Goods and Yarns, Made Wholly or in Part of Synthetic Fibres.
First use Dec. 8, 1954.

SN 10,902. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 26, 1956.

**FROSTLINE**

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 4, 1955.

SN 10,903. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 26, 1956.

**SKERRY**

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 25, 1955.

SN 11,241. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 29, 1956.

**BAMBETTE**

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Feb. 14, 1955.

SN 11,243. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 29, 1956.

**SOJOURN**

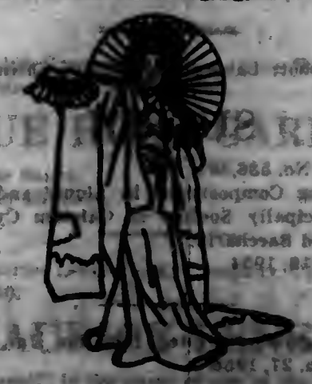
For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 11, 1955.

## CLASS 43

## THREAD AND YARN

SN 11,721. Toyo Rayon Co., Ltd., Chuo-ku, Tokyo, Japan. Filed July 6, 1956.

MADAME BUTTERFLY



Owner of Japanese Reg. No. 287,951, dated Oct. 5, 1954.
For Rayon Yarn.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 692,865. Rex Cutlery Corporation, New York, N. Y. Filed Aug. 11, 1955.

**JOY of Paris**

Owner of Reg. Nos. 469,038, 512,443, and others.
For Tweezers, Shaping and Cutting Scissors for Nails, Nail Files, Manicure Implements and Sets Thereof.
First use January 1954.

SN 699,508. Carroll W. Johnson and John T. Clark, Batavia, Ill. Filed Dec. 7, 1955.

**DENTA-GARD**

For Flexible Protectors for the Teeth of a Human Being.
First use Jan. 10, 1956.

SN 84. Albert-Louis Münshuter, Neuchatel, Switzerland. Filed Jan. 3, 1956.

**alco STOP**

Priority under Sec. 44(d) on Swiss Reg. No. 187,171, dated July 5, 1955.
For Apparatus for Determining the Alcohol Content of the Blood.

SN 6,668. Youngs Rubber Corporation, New York, N. Y. Filed Apr. 10, 1956.

**TROJAN**

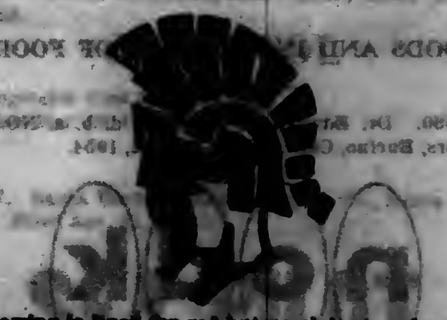
For Prophylactic Rubber Articles for the Prevention of Contagious Diseases.
First use December 1916.

SN 7,432. The William Gots Corporation, Chicago, Ill. Filed May 1, 1956.

**PERMA . SOFT**

For Material for Relining Dentures.
First use Apr. 24, 1956.

SN 7,553. Youngs Rubber Corporation, New York, N. Y. Filed May 2, 1956.



The drawing is lined for red but no claim to color is made.
Owner of Reg. No. 582,898.
For Prophylactic Rubber Articles for the Prevention of Contagious Diseases.
First use Mar. 15, 1951.

SN 7,747. The Birtcher Corporation, Los Angeles, Calif. Filed May 7, 1956.

HEARTPACER

For Apparatus for Generating and Applying Electrical Impulses to Body Muscles.
First use Mar. 30, 1956.

SN 7,772. The Dahlberg Company, Minneapolis, Minn. Filed May 7, 1956.

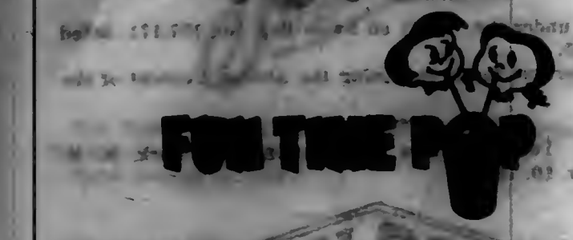
Optic-ear

For Hearing Aids.
First use Feb. 24, 1956.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

SN 8,252. Julius M. Meister, d. b. a. Vineyard Company, Redlands, Calif. Filed May 14, 1956.




The word "Pop" is disclaimed apart from the mark as shown.
For Artificially Flavored Wafers for Making Soft Drinks.
First use Mar. 26, 1956.

SN 12,905. Sheffield Bottling Co., d. b. a. Coach'n Four Products Co., Philadelphia, Pa. Filed July 26, 1956.

Coach'n Four

For Maltless Soft Drinks and Carbonated Waters.
First use June 26, 1956.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 676,460. Dr. Edward M. Feldman, d. b. a. NO.DK Distributors, Encino, Calif. Filed Nov. 12, 1954.

nodk

For Sugar-Free Chewing Gum.
First use on or about July 28, 1954.

SN 677,938. Central Soya Company, Inc., Fort Wayne, Ind. Filed Dec. 8, 1954.

Mike Master

For Stock and Poultry Feeds.
First use Sept. 15, 1954.

SN 690,622. John E. Howe, Yuma, Ariz. Filed July 1, 1955. Sec. 2(f).




Owner of Reg. No. 509,483.
For Fresh Vegetables and Fresh Melons.
First use October 1946 on fresh vegetables.

SN 694,127. Crescent Health Food Company, Pontiac, Mich. Filed Sept. 2, 1955.




For Health Food Containing Bran-Olive Oil, Flax Seed, Nuts, and Crescent Plant Leaves.
First use June 1, 1955.

SN 699,188. Abbott Laboratories, North Chicago, Ill. Filed Dec. 1, 1955.

SUCARINE

Owner of Reg. No. 536,391.
For Sweetening Compositions in Liquid and Solid Forms Containing Principally Sodium or Calcium Cyclohexylsulfamate With Added Saccharin.
First use Jan. 19, 1954.

SN 699,191. Abbott Laboratories, North Chicago, Ill. Filed Dec. 1, 1955.

SUCRIN

Owner of Reg. No. 536,391.
For Sweetening Compositions in Liquid and Solid Forms, Containing Principally Sodium or Calcium Cyclohexylsulfamate With Added Saccharin.
First use Jan. 19, 1954.

SN 1,602. Langendorf United Bakeries, Inc., Wilmington, Del. Filed Jan. 27, 1956.

NUTRO

For Bread.
First use Jan. 19, 1956.



SN 1,603. Langendorf United Bakeries, Inc., Wilmington, Del. Filed Jan. 27, 1956.

NUTRO-LAX

For Bread.
First use Jan. 19, 1956.

SN 2,075. Marion Barron, d. b. a. Rex Sales Co., San Francisco, Calif. Filed Feb. 6, 1956.

Merry Maid

For Canned Figs, Canned Shallots, Olives in Glass, Peppers in Glass, Onions in Glass.
First use October 1954.

SN 2,850. Atalanta Trading Corp., New York, N. Y. Filed Feb. 17, 1956.

CELEBRITY

For Canned Ham.
First use Oct. 6, 1955.

SN 3,007. Theodorus Niemeyer Ltd., d. b. a. Theodorus Niemeyer Ltd., Groningen, Netherlands. Filed Feb. 20, 1956.

Niemeyers
MILL-HOUSE

Owner of Reg. No. 629,654.
For Coffee.
First use Dec. 26, 1955.

SN 3,186. Henry & Henry, Inc., Buffalo, N. Y. Filed Feb. 23, 1956.

KAKOLATE

For Chocolate Flavor Icing Mix.
First use on or about May 1, 1936.

SN 3,211. Mead Johnson & Company, Evansville, Ind. Filed Feb. 28, 1956.

Instum

For Precooked Cereal.
First use Feb. 1, 1956.

SN 3,923. Ralph Brennecke, d. b. a. Blue Hole Garden, Cape Girardeau, Mo. Filed Mar. 6, 1956.

BLUE HOLE GARDEN

For Barbecue Sauce.
First use May 15, 1934.

SN 4,461. Maurice Lenell Cooky Company, Chicago, Ill. Filed Mar. 13, 1956.

MAURICE LENELL

"Maurice Lenell" is the name of one of the limited partners in the applicant firm, consent of record.
For Cookies.
First use on or about Jan. 26, 1956.

SN 4,661. The Haseret Company, Cleveland, Ohio. Filed Mar. 14, 1956.

HASCO

Owner of Reg. No. 343,685.
For Canned Pineapple and Canned Pineapple Juice.
First use Dec. 1, 1955.

SN 5,018. American Stores Company, Philadelphia, Pa. Filed Mar. 22, 1956.

OLD MUNICH

For Rye Bread.
First use Feb. 27, 1956.

SN 5,830. Fischer-Spiegel Inc., Geneva, Ohio. Filed Apr. 5, 1956.

VINE QUEEN

For Bottled and Canned Grape Juice, Grape Juice Concentrate.
First use Dec. 25, 1955.

SN 6,519. Grandma Penny's Old Fashioned Candies, Inc., d. b. a. Grandma Penny's Old Fashioned Candy Company, West Orange, N. J. Filed Apr. 17, 1956.



For Hard Candy.
First use about Jan. 1, 1956.

SN 6,611. General Mills, Inc., Minneapolis, Minn. Filed Apr. 18, 1956.

SUPERCOL

For Vegetable Gum for Food Use.
First use Mar. 23, 1956.

SN 6,837. Santa Barbara Central Lemon Co., Santa Barbara, Calif. Filed Apr. 20, 1956.

SEA PILOT

For Fresh Lemons.
First use Apr. 4, 1956.

SN 7,139. D. R. Wineberenner Company, Inc., Hanover, Pa. Filed Apr. 23, 1956.

DEWCO

Owner of Reg. Nos. 320,978 and 377,540.
For Canned Vegetables, Canned Vegetable Juices, and Canned Fruit Juices.
First use Jan. 1, 1934, on canned vegetables.

SN 9,227. Davis Bakery, Inc., Cleveland, Ohio. Filed May 16, 1956.

SODEX

For Salt-Free Bread.
First use Jan. 2, 1948.

CLASS 47

WINES

SN 1,677. E. & J. Gallo Winery, Modesto, Calif. Filed Jan. 30, 1956.



GALLO

Owner of Reg. Nos. 304,057, 309,169, and others.
For Wines.
First use September 1933; 1909 as to "Gallo."

SN 12,589. John Cuccio, d. b. a. Big Tree Wines Distributors, Los Angeles, Calif. Filed July 23, 1956.

Excello

For Wines.
First use Nov. 27, 1941.

CLASS 48

MALT BEVERAGES AND LIQUORS

SN 7,234. Duquesne Brewing Company of Pittsburg, Pittsburgh, Pa. Filed Apr. 30, 1956.



For Beer.
First use July 10, 1954.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 11,726. Hiram Walker & Sons Inc., Peoria, Ill. Filed July 6, 1956.

Pride of Peoria

For Whiskey.
First use June 22, 1956.

SN 12,489. Jas. Barclay & Co. Limited, Peoria, Ill. Filed July 20, 1956. Sec. 2(f).

Niagara

Owner of Reg. No. 350,140.
For Whiskey.
First use on or about Oct. 26, 1934.

SN 12,548. Hiram Walker & Sons Inc., Peoria, Ill. Filed July 20, 1956. Sec. 2(f).

OLD DOUGLAS

Owner of Reg. No. 347,178.
For Whiskey.
First use on or about Mar. 2, 1936.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 699,927. Rubber Corporation of California, Garden Grove, Calif. Filed Dec. 13, 1955.

AIR BLOCK

For Rug and Carpet Sponge Underlay.
First use Oct. 15, 1955.

SN 7,913. The Felters Company, Boston, Mass. Filed May 8, 1956.

TWIN FELT

No claim is made to the word "Felt" except in connection with the mark as shown.
For Felt in the Piece.
First use Apr. 17, 1956.



SN 7,914. The Felters Company, Boston, Mass. Filed May 8, 1956.

SPINDRIFT FELT

No claim is made to the word "Felt" apart from the mark as shown.
For Felt in the Piece.
First use Apr. 17, 1956.

SN 7,916. The Felters Company, Boston, Mass. Filed May 8, 1956.

TIP TOP FELT

No claim is made to the word "Felt" except in connection with the mark as shown.
For Felt in the Piece.
First use Apr. 17, 1956.

SN 10,410. Durkee-Atwood Company, Minneapolis, Minn. Filed June 18, 1956.

DOR-TITE

For Sponge Rubber Strip Adhesively Coated on One Face.
First use Sept. 1, 1932.

SN 10,690. Walter Valentine Kassel, d. b. a. Kassel Export Company, New York, N. Y. Filed June 21, 1956.

STEELAN

For Tinsel and Decorative Metal Ribbons or Strands.
First use in or about October 1952.

SN 10,731. U. S. Packaging Corporation, Bridgeport, Conn. Filed June 21, 1956.

ARCTIC

For Composition for Decorative Purposes in the Nature of Artificial Snow Flakes Applied by Spraying.
First use May 28, 1952.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 691,049. Kenge Chemical Company, Inc., New York, N. Y. Filed July 11, 1955.

Lingerlene

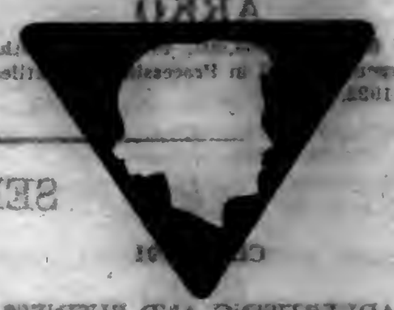
For Cosmetic Preparations—Namely, Hair Straightening Preparations, Hair Dressing, Edge Stick for Straightening and Moisture Proofing Hair, Pressing Oil, Hair Conditioner, Hair Wax, and Hair Coloring Cream.
First use Sept. 1, 1945.

SN 695,100. Robert H. Miller, Dayton, Ohio. Filed Sept. 21, 1955.



For Combined Color and Creme Rinse Concentrate for White and Gray Hair.
First use Dec. 7, 1954.

SN 695,101. Robert H. Miller, Dayton, Ohio. Filed Sept. 21, 1955.



For Combined Color and Creme Rinse Concentrate for White and Gray Hair.
First use Dec. 7, 1954.

SN 698,080. Revlon Products Corporation, New York, N. Y., to Revlon, Inc., New York, N. Y. Filed Nov. 10, 1955.

SPRAY-PERM

For Liquid Hair Setting Spray.
First use Oct. 25, 1955.

SN 5,944. Helena Rubinstein, Inc., New York, N. Y. Filed Apr. 6, 1956.

SKIN DEW

For Cosmetic Skin Lotion.
First use Mar. 1, 1956.

CLASS 52

DETERGENTS AND SOAPS

SN 690,519. Wonce-Oba Co., New York, N. Y. Filed June 29, 1955.

WONCE-OBA

For Soap Loaded Pads for Washing Purposes, Such as Dish Washing, and Bathing.
First use May 17, 1955.

SN 697,243. Westfield Industries, Inc., Westfield, N. J. Filed Oct. 27, 1955.



For Chemical Compounds Used for Cleaning Cesspools, Sinks, and Toilets and for Deodorizing Cesspools.
First use Oct. 3, 1955.

SN 699,050. Arkansas Company, Inc., Newark, N. J. Filed Nov. 29, 1955.

## LANITOL

Owner of Reg. No. 403,459.
For Anionic Alkyl Aryl Sulphonates Useful as Detergents for All Types of Textile Fibers and Fabrics.
First use January 1938.

SN 699,051. Arkansas Company, Inc., Newark, N. J. Filed Nov. 29, 1955. Sec. 2(f).

## ARKO

Owner of Reg. Nos. 558,601, 441,639, and others.
For Detergents Useful in Processing of Textiles.
First use 1922.

SN 8,324. Eversharp, Inc., Chicago, Ill. Filed May 15, 1956.

## EVERSHARP SCHICK

For Shampoo.
First use Jan. 24, 1956.

SN 11,451. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Cleaning Compounds for General, Household, Professional, Industrial, and Commercial Cleaning.
First use May 29, 1956.

# SERVICE MARKS

### CLASS 101

### ADVERTISING AND BUSINESS

SN 675,765. Cluett, Peabody & Co., Inc., New York, N. Y. Filed Nov. 1, 1954.

## NANCY DIXON

For Title of Radio Programs for Advertising the Goods of Others.
First use Dec. 26, 1953.

### CLASS 103

### CONSTRUCTION AND REPAIR

SN 688,346. Montgomery Elevator Company, Moline, Ill. Filed May 26, 1955.

## MONTGOMERY P.M.

For Maintenance, Safety Testing and Repair of Passenger and Freight Elevators and Elevator Systems.
First use December 1950.

### CLASS 104

### COMMUNICATION

SN 696,385. Joe L. Smith, Jr., Inc., Beckley, W. Va. Filed Oct. 13, 1955.

## THE PERSONALITY STATIONS

Owner of Reg. No. 524,252.
For Radio Program Broadcasting.
First use Jan. 7, 1947.

### CLASS 105

### TRANSPORTATION AND STORAGE

SN 687,484. National Automobile Association, Inc., Atlanta, Ga. Filed May 13, 1955.



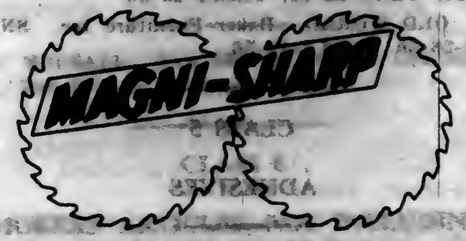

The drawing is lined for blue.
For Providing Emergency Road Services and Travel Counseling Services for Automobile Travelers, Such as Routings of Trips, With Information as to Weather, Accommodations, and Points of Interest; Also Making Arrangements in Connection With Foreign Automobile Travel, Such as Obtaining International Driving Permits, Arranging for the Hire or Purchase of Automobiles Abroad.
First use Jan. 1, 1954.



### CLASS 106

### MATERIAL TREATMENT

SN 688,957. North American Products Corp., Edwardsville, Ill. Filed June 6, 1955.




The illustration of saws in outline is disclaimed apart from the mark as shown.
For Reconditioning and Sharpening Saws.
First use June 15, 1952.

### CLASS 107

### EDUCATION AND ENTERTAINMENT

SN 679,002. Edward Michelman, Honolulu, Territory of Hawaii. Filed Dec. 27, 1954.

## NA LEI O HAWAII

The words "Na Lei o Hawaii" mean in English "Song of the Islands."
For Title of a Radio Broadcasting Program Consisting of Music, Commentaries, and Interviews With Celebrities.
First use on or about Feb. 1, 1954.

# TRADEMARK REGISTRATIONS ISSUED

## PRINCIPAL REGISTER

### CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

636,978. MARLUX. Marlux Corporation. SN 682,623. Pub. 8–28–56. Filed 8–8–55.

636,979. POLAR PARTY-PAK AND DESIGN. Riverside Ice Co. SN 697,322. Pub. 8–28–56. Filed 10–28–55.

636,980. HO-BOE. A. H. Ross & Sons Co. SN 697,948. Pub. 8–28–56. Filed 11–4–55.

636,981. KANGROSS. A. H. Ross & Sons Co. SN 697,949. Pub. 8–28–56. Filed 11–4–55.

636,982. FARMERS HYBRID AND DESIGN. Farmers Hybrid Hogs. SN 697,951. Pub. 8–28–56. Filed 11–8–55.

636,983. M-W-M IN DIAMOND DESIGN. Midwest Waste Material Company. SN 698,448. Pub. 8–28–56. Filed 11–17–55.

636,984. UNI-GUM AND DESIGN. Uni-Gum Corporation. SN 222. Pub. 8–28–56. Filed 1–5–56.

636,985. GOLDEN FOAM. The General Tire & Rubber Company. SN 326. Pub. 8–28–56. Filed 1–9–56.

636,986. REGALITE. The Lushan Company. SN 809. Pub. 8–28–56. Filed 1–16–56.

636,987. BRINEGEL. Mud Control Laboratories, Inc. SN 901. Pub. 8–28–56. Filed 1–17–56.

### CLASS 2

### RECEPTACLES

636,988. UTI-CASE. Ziegler Metal Products Company. SN 694,400. Pub. 8–28–56. Filed 9–8–55.

636,989. STACKIT. Marathon Corporation. SN 6,261. Pub. 8–28–56. Filed 4–12–56.

636,990. FASHION HOME. Universal Producing Company. SN 6,488. Pub. 8–28–56. Filed 4–16–56.

636,991. PATIOASIS. Louisville Tin and Stove Company, Incorporated. SN 6,536. Pub. 8–28–56. Filed 4–17–56.

### CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

636,992. JET-SET. Gateway Luggage Manufacturing Company, Inc. SN 5,992. Pub. 8–28–56. Filed 4–9–56.

636,993. LARUE. Nash Inc. SN 7,211. Pub. 8–28–56. Filed 4–26–56.

636,994. CABIN. Charles W. Field. SN 7,246. Pub. 8–28–56. Filed 4–27–56.

636,995. FORMA. Pioneer Suspender Company. SN 7,692. Pub. 8–28–56. Filed 5–4–56.

636,996. REALITE. Reliable Luggage, Inc. SN 7,847. Pub. 8–28–56. Filed 5–7–56.

### CLASS 4

### ABRASIVES AND POLISHING MATERIALS

636,997. SPIN-BRITE. S. M. Arnold, Inc. SN 293. Pub. 8–28–56. Filed 1–9–56.



636,998. BAR-KEEPER'S "FRIEND." Gisler Polish, Inc. SN 1,234. Pub. 8–28–56. Filed 1–23–56.

636,999. OLD WORLD. Baker Furniture Inc. SN 4,764. Pub. 8–28–56. Filed 2–10–56.

### CLASS 5

### ADHESIVES

637,000. KWIKY-DOT AND DESIGN. By-Buk Company. SN 682,326. Pub. 8–28–56. Filed 2–25–55.

637,001. TRELLO GLAB. Earl S. Hoffman, d. b. a. Trello Development Company. SN 698,870. Pub. 8–28–56. Filed 11–25–55.

637,002. REX ETC. AND DESIGN. Patent Cereals Company. SN 700,118. Pub. 8–28–56. Filed 12–16–55.

637,003. MELLOWOOD. National Veneer and Lumber Company. SN 700,385. Pub. 8–28–56. Filed 12–21–55.

637,004. MAGIC THREAD. John H. Myers, d. b. a. Utility Products Company. SN 700,743. Pub. 8–28–56. Filed 12–28–55.

637,005. HERO ETC. AND DESIGN. Paisley Products, Inc. SN 700,893. Pub. 8–28–56. Filed 12–30–55.

637,006. SINEW AND DESIGN. Mid-States Gummed Paper Co. SN 4,140. Pub. 8–28–56. Filed 3–8–56.

637,007. TRULOK. Mid-States Gummed Paper Co. SN 4,141. Pub. 8–28–56. Filed 3–8–56.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

637,008. LENRA. American Aniline Products, Inc. SN 686,714. Pub. 8–28–56. Filed 5–3–55.

637,009. KROMAD. Mallinckrodt Chemical Works. SN 689,728. Pub. 8–28–56. Filed 6–17–55.

637,010. A AND DESIGN. Advance Solvents & Chemical Corporation, to Carlisle Chemical Works, Inc. SN 694,179. Pub. 5–1–56. Filed 9–6–55.

637,011. SURE-KLEAN. F. Uddo & Sons Company. SN 697,057. Pub. 8–28–56. Filed 10–24–55.

637,012. SEA MIST. Trager Manufacturing Co., Inc. SN 697,342. Pub. 8–28–56. Filed 10–28–55.

637,013. HARCHEM CENTURY BRAND AND DESIGN. Wallace & Tiernan Incorporated. SN 697,344. Pub. 8–28–56. Filed 10–28–55.

637,014. PROCALOY. Mechanite Metal Corporation. SN 697,687. Pub. 8–28–56. Filed 11–4–55.

637,015. KELLOGG'S. W. C. Jeffries, d. b. a. Kellogg's Insecticide Co. SN 697,794. Pub. 8–28–56. Filed 11–7–55.

637,016. T-H CHEMICAL CO. QUALITY SERVICE AND DESIGN. Thompson-Hayward Chemical Company. SN 699,263. Pub. 8–28–56. Filed 12–1–55.

637,017. M50. National Lead Company. SN 210. Pub. 8–28–56. Filed 1–5–56.

637,018. INSTA PLATE. Knapp-Monarch Company. SN 339. Pub. 8–28–56. Filed 1–9–56.

637,019. COMOX. Peter Spence & Sons Limited. SN 1,396. Pub. 8–28–56. Filed 1–24–56.

637,020. COMOL. Peter Spence & Sons Limited. SN 1,397. Pub. 8–28–56. Filed 1–24–56.

637,021. EMERSOFT. Emery Industries, Inc. SN 2,770. Pub. 8–28–56. Filed 2–16–56.

637,022. LEXAN. General Electric Company. SN 3,291. Pub. 8–28–56. Filed 2–24–56.



637,023. GRAPH-O-GUM. Philip A. Hunt Company. SN 3,294. Pub. 8–28–56. Filed 2–24–56.

### CLASS 7

### CORDAGE

637,024. TOPSAIL. New Bedford Cordage Company. SN 1,618. Pub. 8–28–56. Filed 1–27–56.

### CLASS 8

### SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

637,025. AYLON. British & Foreign Tobacco Co. Ltd. SN 3,266. Pub. 8–28–56. Filed 2–20–56.

637,026. THUNDERBIRD. Aristocrat Leather Products, Inc. SN 3,978. Pub. 8–28–56. Filed 3–7–56.

### CLASS 10

### FERTILIZERS

637,027. NITROFORM. Woonsocket Color & Chemical Company. SN 693,780. Pub. 8–28–56. Filed 8–26–55.

### CLASS 12

### CONSTRUCTION MATERIALS

637,028. THURO-BILT. Thuro Bilt Products, Inc. SN 672,548. Pub. 8–28–56. Filed 8–31–54.

637,029. NO GLARE. The National Plastic Products Company. SN 677,341. Pub. 8–28–56. Filed 11–26–54.

637,030. SUNBONNET. Frederick E. Nelson, d. b. a. Nelson Industries. SN 684,230. Pub. 8–28–56. Filed 3–28–55.

637,031. TREMFIX. The Tremco Manufacturing Company. SN 687,018. Pub. 8–28–56. Filed 5–5–55.

637,032. EZY-MIX. Southern Ezy-Mix Co. SN 694,262. Pub. 8–28–56. Filed 9–6–55.

637,033. GLOBE. Globe Roofing Products Co., Inc. SN 694,994. Pub. 8–28–56. Filed 9–20–55.

637,034. TREEKOTE. Walter R. Clark, Jr., d. b. a. Walter & Clark & Son. SN 695,269. Pub. 8–28–56. Filed 9–27–55.

637,035. HM AND DESIGN. Canadian Forest Products Ltd. SN 698,838. Pub. 8–28–56. Filed 11–25–55.

637,036. WASCOLITE DOUBLE DOME. Wasco Products, Inc. SN 700,406. Pub. 8–28–56. Filed 12–21–55.

637,037. ARMACRETE. John J. Widmayer, d. b. a. Widmayer Steel Company. SN 700,919. Pub. 8–28–56. Filed 12–30–55.

### CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

637,038. RUBBERMAID. The Wooster Rubber Company. SN 689,538. Pub. 8–28–56. Filed 6–14–55.

637,039. VAREC. Vapor Recovery Systems Company. SN 689,615. Pub. 8–28–56. Filed 6–27–55.

637,040. FLUSH-LOK. Set Screw & Mfg. Company. SN 699,842. Pub. 8–28–56. Filed 12–12–55.



637,041. M-D MACKLANBURG-DUNCAN CO. AND DESIGN. Macklanburg-Duncan Company. SN 155. Pub. 8–28–56. Filed 1–4–56.

637,042. FABRI. Fabri-Valve Company, of America. SN 3,603. Pub. 8–28–56. Filed 2–29–56.

637,043. RUBBAIR. Stic-Klip Manufacturing Co., Inc. SN 3,898. Pub. 8–28–56. Filed 3–5–56.

637,044. TR. The Tire and Rim Association, Incorporated. SN 6,482. Pub. 8–28–56. Filed 4–16–56.

637,045. QUIK-PAC. Quik-Pac, Inc. SN 6,553. Pub. 8–28–56. Filed 4–17–56.

637,046. WATERBOR. Scovill Manufacturing Company. SN 6,561. Pub. 8–28–56. Filed 4–17–56.

637,047. USH AND DESIGN. U. S. Industries, Inc. SN 6,574. Pub. 8–28–56. Filed 4–17–56.

637,048. USI. U. S. Industries, Inc. SN 6,575. Pub. 8–28–56. Filed 4–17–56.

### CLASS 14

### METALS AND METAL CASTINGS AND FORGINGS

637,049. RESMETAL. American Resinous Chemicals Corporation, to The Borden Company. SN 700,555. Pub. 8–28–56. Filed 12–27–55.

### CLASS 16

### PROTECTIVE AND DECORATIVE COATINGS

637,050. CUL-DUR. Culligan, Inc. SN 691,439. Pub. 8–28–56. Filed 7–18–55.

637,051. ZO-GLO. Southwestern Petroleum Company, Inc., also d. b. a. The Zone Company. SN 699,100. Pub. 8–28–56. Filed 11–29–55.

637,052. REX ETC. AND DESIGN. Patent Cereals Company. SN 700,119. Pub. 8–28–56. Filed 12–16–55.

637,053. LUCITE. E. I. du Pont de Nemours and Company. SN 700,440. Pub. 8–28–56. Filed 12–22–55.

637,054. THERMOCLAD. The Sherwin-Williams Company. SN 1,020. Pub. 8–28–56. Filed 1–18–56.

637,055. KEM CATI-COAT. The Sherwin-Williams Company. SN 1,023. Pub. 8–28–56. Filed 1–18–56.

637,056. TWINKLE-TONES. Lasting Products Company. SN 2,709. Pub. 8–28–56. Filed 2–15–56.

### CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

637,057. TIMESULE. Professional Drug Service, Inc., d. b. a. A A Storck Pharmaceuticals. SN 686,690. Pub. 8–28–56. Filed 5–2–55.

637,058. FENO. The Feno Corporation. SN 689,476. Pub. 8–28–56. Filed 6–14–55.

637,059. ASTENUL. Giuseppe de Domenico. SN 691,017. Pub. 8–28–56. Filed 7–11–55.

637,060. EY-ZONE. Stayner Corporation. SN 694,339. Pub. 8–28–56. Filed 9–7–55.

637,061. ANERGEX. Mulford Colloid Laboratories. SN 696,167. Pub. 8–28–56. Filed 10–10–55.

637,062. DIATHAL. Schering Corporation. SN 699,102. Pub. 8–28–56. Filed 11–29–55.

637,063. ECUANIL. American Home Products Corporation, d. b. a. Wyeth Laboratories. SN 699,690. Pub. 8–28–56. Filed 12–9–55.

637,064. MINTRATED. Amion, Inc. SN 689,691. Pub. 8-28-56. Filed 12-9-55.

637,065. PORTERS LINIMENT PL AND DESIGN. The George H. Rundle Company. SN 689,234. Pub. 8-28-56. Filed 12-12-55.

637,066. ENTELLA. Buffington's, Incorporated. SN 568. Pub. 8-28-56. Filed 1-12-56.

637,067. DR. LE GEAR'S BOVEXTRA AND DESIGN. Dr. L. D. Le Gear Medicine Company. SN 1,884. Pub. 8-28-56. Filed 2-1-56.

637,068. DESIGN OF MAN ON HORSEBACK. Albert F. A. Beck, d. b. a. Beck Products Company. SN 2,004. Pub. 8-28-56. Filed 2-7-56.

637,069. SEBGYMOL. B. F. Ascher & Company, Inc. SN 2,005. Pub. 8-28-56. Filed 2-6-56.

637,070. PACATAL. Chemische Fabrik Promonta G. m. b. H. SN 2,091. Pub. 8-28-56. Filed 2-6-56.

637,071. CARDIOSERP. Madison Pharmaceutical Laboratories, Inc. SN 2,146. Pub. 8-28-56. Filed 2-6-56.

637,072. ASMASERP. Madison Pharmaceutical Laboratories, Inc. SN 2,147. Pub. 8-28-56. Filed 2-6-56.

637,073. MEPHESERP. Madison Pharmaceutical Laboratories, Inc. SN 2,148. Pub. 8-28-56. Filed 2-6-56.

637,074. ANDRODURIN. American Home Products Corporation, d. b. a. Ayerst Laboratories, Division of American Home Products Corporation. SN 2,331. Pub. 8-28-56. Filed 2-9-56.

637,075. ESTRADURIN. American Home Products Corporation, d. b. a. Ayerst Laboratories, Division of American Home Products Corporation. SN 2,332. Pub. 8-28-56. Filed 2-9-56.

637,076. THERUHISTIN. American Home Products Corporation, d. b. a. Ayerst Laboratories, Division of American Home Products Corporation. SN 2,333. Pub. 8-28-56. Filed 2-9-56.

637,077. CATHOMYCIN. Merck & Co., Inc. SN 2,440. Pub. 8-28-56. Filed 2-10-56.

637,078. DESONCONE. Reversin Co. SN 2,450. Pub. 8-28-56. Filed 2-10-56.

637,079. NEOTINIC. The Stuart Company. SN 2,928. Pub. 8-28-56. Filed 2-17-56.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

637,080. PRESIDENT. Dictaphone Corporation. SN 690,690. Pub. 8-28-56. Filed 7-5-55.

637,081. SILENT-FLEX. Advance Machine Company. SN 695,514. Pub. 8-28-56. Filed 9-29-55.

637,082. FLEXA-GEAR. The Hobart Manufacturing Company. SN 696,889. Pub. 8-28-56. Filed 10-21-55.

637,083. SWIVELIER DO-IT-ALL. Swiveller Company, Inc. SN 529. Pub. 8-28-56. Filed 1-11-56.

637,084. ANOCUT. Anocut Engineering Company. SN 3,137. Pub. 8-28-56. Filed 2-23-56.

637,085. AUTO-LITE. The Electric Auto-Lite Company. SN 3,165. Pub. 8-28-56. Filed 2-23-56.

637,086. PAK AND DESIGN. Pak Industries, Inc. SN 3,451. Pub. 8-28-56. Filed 2-27-56.

637,087. LUMICON. Bendix Aviation Corporation. SN 3,569. Pub. 8-28-56. Filed 2-29-56.

## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

637,088. WONDER. Wonder Products Company (firm), to Wonder Products Company (Tennessee corporation). SN 679,623. Pub. 8-28-56. Filed 1-7-55.

637,089. EDUCATOR BEN-G PUZZLES. A. Harold Bengtsfield, d. b. a. H. W. Acton Company. SN 681,984. Pub. 8-28-56. Filed 2-21-55.

637,090. SLI-KI. Tri-Lare Company. SN 688,685. Pub. 8-28-56. Filed 6-1-55.

637,091. TODDLE LINE. J. L. Weiner Co. SN 688,980. Pub. 8-28-56. Filed 6-6-55.

637,092. "BANZA." Jerry Scanlan, Inc. SN 689,875. Pub. 8-28-56. Filed 6-20-55.

637,093. VIKING AND DESIGN. Viking Sports Products, Inc. SN 689,901. Pub. 8-28-56. Filed 6-20-55.

637,094. WALKER CUP. Wilson Sporting Goods Co. SN 690,517. Pub. 8-28-56. Filed 6-29-55.

637,095. ALCIONE. Pirelli Societa per Azioni. SN 691,957. Pub. 8-28-56. Filed 7-26-55.

637,096. MATADOR AND DESIGN. Johann Korbely. SN 694,234. Pub. 8-28-56. Filed 9-6-55.

637,097. GEECHEE BRAND ETC. AND DESIGN. Oglethorpe Sports Distributors Incorporated. SN 695,175. Pub. 8-28-56. Filed 9-22-55.

637,098. SPARKLE MASTER HI-KER ETC. AND DESIGN. W. H. Schlee, Inc. SN 695,496. Pub. 8-28-56. Filed 9-28-55.

637,099. TEE DEE LURE. James L. King. SN 696,040. Pub. 8-28-56. Filed 11-10-55.

637,100. NADCO. National Die Casting Company. SN 698,073. Pub. 8-28-56. Filed 11-10-55.

637,101. "PROLITE." Canada Cycle and Motor Company Limited. SN 698,770. Pub. 8-28-56. Filed 11-23-55.

637,102. TACKABERRY. Canada Cycle and Motor Company Limited. SN 698,771. Pub. 8-28-56. Filed 11-23-55.

637,103. LUCKY KAT AND DESIGN. Dan Brechner & Company. SN 696,833. Pub. 8-28-56. Filed 11-25-55.

637,104. GIGGLE POOL. Endlaco, Inc. SN 698,964. Pub. 8-28-56. Filed 11-28-55.

637,105. INDESTRUCTO AND DESIGN. Wilson Sporting Goods Co. SN 699,037. Pub. 8-28-56. Filed 11-28-55.

637,106. PIN-POOL. Bally Manufacturing Company. SN 699,197. Pub. 8-28-56. Filed 12-1-55.

637,107. CLEMENTINE ETC. J. Warren Gillon, d. b. a. Gillon Products. SN 145. Pub. 8-28-56. Filed 1-4-56.

637,108. FLEX-A-BOARD. Fun-Craft, Inc. SN 1,231. Pub. 8-28-56. Filed 1-23-56.

637,109. SCORE CADDY. Healthways. SN 1,689. Pub. 8-28-56. Filed 1-30-56.

637,110. SOOGI. The Mickey Vernon Game Co. SN 3,299. Pub. 8-28-56. Filed 2-24-56.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

637,111. LYN. John Lynch, d. b. a. J. Lynch Company. SN 630,603. Pub. 8-28-56. Filed 6-2-52.

637,112. SUNDSTRAND AND DESIGN. Sundstrand Machine Tool Co. SN 656,341. Pub. 8-28-56. Filed 11-13-53.

637,113. TOURNATRACTOR. Le Tourneau-Westinghouse Company. SN 678,792. Pub. 8-28-56. Filed 12-22-54.

637,114. UTA. George Schoenborn-Buchheim, d. b. a. Garvenswerke. SN 684,071. Pub. 8-28-56. Filed 3-23-55.

637,115. SPIN-PIK. Pickwick Company. SN 684,462. Pub. 8-28-56. Filed 3-29-55.

637,116. WHIRL-PIK. Pickwick Company. SN 684,463. Pub. 8-28-56. Filed 3-29-55.

637,117. DELTA ETC. AND DESIGN. Delta Tank Manufacturing Company, Inc. SN 690,072. Pub. 8-28-56. Filed 6-23-55.

637,118. STRIPPIT. Wales-Strippit Corporation. SN 1,924. Pub. 8-28-56. Filed 2-1-56.

637,119. HYDRA STRIP. Wales-Strippit Corporation. SN 1,925. Pub. 8-28-56. Filed 2-1-56.



637,120. WINKIE. Wink Corporation. SN 1,930. Pub. 8-28-56. Filed 2-1-56.

637,121. KEENERBRIDGE AND DESIGN. C. M. McClung & Co., Inc. SN 2,547. Pub. 8-28-56. Filed 2-13-56.

637,122. FERGUSON FLEXITILLER. Massey-Harris-Ferguson Inc. SN 2,642. Pub. 8-28-56. Filed 2-14-56.

637,123. OLIVER AMES. McDonough Co., d. b. a. O. Ames Co. SN 2,891. Pub. 8-28-56. Filed 2-17-56.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

637,124. PRUFREX. Prufrex-Elektro-Apparatebau G. m. b. H. SN 662,292. Pub. 8-28-56. Filed 2-24-55.

637,125. VUOMATIC. Bernard Niesenbaum, d. b. a. Vumatic Company. SN 692,286. Pub. 8-28-56. Filed 8-1-55.

637,126. ROLLEIKIN. Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate. SN 693,906. Pub. 8-28-56. Filed 8-30-55.

637,127. ROLLEI F & H AND DESIGN. Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate. SN 693,909. Pub. 8-28-56. Filed 8-30-55.

637,128. IONOFLUX. Badische Anilin- & Soda-Fabrik Aktiengesellschaft. SN 696,101. Pub. 8-28-56. Filed 10-10-55.

637,129. DYNA-VISION. Heyer Industries Incorporated. SN 677. Pub. 8-28-56. Filed 1-13-56.

637,130. MINIDAPTER. Photographic Importing & Distributing Corp. SN 1,268. Pub. 8-28-56. Filed 1-23-56.

637,131. PROPIPETTES. Instrumentation Associates. SN 2,358. Pub. 8-28-56. Filed 2-9-56.

637,132. "MICROMIL." Nuclear Instrument and Chemical Corporation. SN 2,443. Pub. 8-28-56. Filed 2-10-56.

637,133. POROSIMETER. The Sheffield Corporation. SN 2,526. Pub. 8-28-56. Filed 2-16-56.

637,134. OPTILITE. United States Safety Service Co. SN 8,293. Pub. 8-28-56. Filed 5-14-56.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

637,135. PIERRE LE BLANC. Marks Bros. Jewelers, Inc. SN 6,180. Pub. 8-28-56. Filed 4-11-56.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

637,136. KING AND DESIGN. Aropax Corporation. SN 692,038. Pub. 8-28-56. Filed 7-28-55.

637,137. GEMGRAVURE. Alvin H. Cohen, d. b. a. Gemgravure. SN 5,412. Pub. 8-28-56. Filed 3-29-56.

## CLASS 30

## CROCKERY, EARTHENWARE, AND PORCELAIN

637,138. CARIBE. Caribe China Corporation. SN 954. Pub. 8-28-56. Filed 1-18-56.

637,139. CHARPINX. Shenango China, Inc. SN 1,816. Pub. 8-28-56. Filed 1-31-56.

637,140. PLATE MATE. Shenango China, Inc. SN 1,817. Pub. 8-28-56. Filed 1-31-56.

637,141. SWEET GRASS. Shenango China, Inc. SN 1,819. Pub. 8-28-56. Filed 1-31-56.

637,142. APRIL. Shenango China, Inc. SN 1,821. Pub. 8-28-56. Filed 1-31-56.

637,143. BALI. Shenango China, Inc. SN 1,822. Pub. 8-28-56. Filed 1-31-56.

637,144. GLENWOOD. Castleton China, Inc. SN 2,083. Pub. 8-28-56. Filed 2-6-56.

637,145. CAPTIVA. Castleton China, Inc. SN 2,084. Pub. 8-28-56. Filed 2-6-56.

637,146. CAPRICE. Castleton China, Inc. SN 2,085. Pub. 8-28-56. Filed 2-6-56.

637,147. CONSTELLATION. Castleton China, Inc. SN 2,086. Pub. 8-28-56. Filed 2-6-56.

637,148. CORSAGE. Castleton China, Inc. SN 2,087. Pub. 8-28-56. Filed 2-6-56.

637,149. FRENCH GARDEN. Castleton China, Inc. SN 2,088. Pub. 8-28-56. Filed 2-6-56.

637,150. BELROSE. Castleton China, Inc. SN 2,089. Pub. 8-28-56. Filed 2-6-56.

637,151. CAVEAUX. Castleton China, Inc. SN 2,090. Pub. 8-28-56. Filed 2-6-56.

637,152. LYANA. Castleton China, Inc. SN 3,146. Pub. 8-28-56. Filed 2-23-56.

637,153. REFLECTIONS. Castleton China, Inc. SN 3,148. Pub. 8-28-56. Filed 2-23-56.

637,154. MUSEUM WHITE. Castleton China, Inc. SN 3,150. Pub. 8-28-56. Filed 2-23-56.

637,155. MANDALAY. Castleton China, Inc. SN 3,151. Pub. 8-28-56. Filed 2-23-56.

637,156. SUNNYVALE. Castleton China, Inc. SN 3,985. Pub. 8-28-56. Filed 3-7-56.

637,157. SEVERN. Castleton China, Inc. SN 3,989. Pub. 8-28-56. Filed 3-7-56.

637,158. SAKARRA. Castleton China, Inc. SN 3,991. Pub. 8-28-56. Filed 3-7-56.

637,159. ROYAL MEDALLION. Castleton China, Inc. SN 3,992. Pub. 8-28-56. Filed 3-7-56.

## CLASS 31

## FILTERS AND REFRIGERATORS

637,160. SURFAMAX. Micro Metallic Corporation. SN 687,795. Pub. 8-28-56. Filed 5-18-55.

637,161. GRAVITAIN. Micro Metallic Corporation. SN 687,796. Pub. 8-28-56. Filed 5-18-55.

637,162. RIGIMESH. Micro Metallic Corporation. SN 687,797. Pub. 8-28-56. Filed 5-18-55.

637,163. PSS. Micro Metallic Corporation. SN 687,798. Pub. 8-28-56. Filed 5-18-55.

637,164. CPS. David B. Pall, d. b. a. Porous Plastic Filter Co. SN 687,803. Pub. 8-28-56. Filed 5-18-55.

637,165. TAF. American Viscose Corporation. SN 692,696. Pub. 8-28-56. Filed 8-9-55.

637,166. RP AND DESIGN. Research Products Corporation. SN 1,280. Pub. 8-28-56. Filed 1-23-56.

637,167. FLEX-A-PRENE, ETC. AND DESIGN. Flexo Products, Inc. SN 3,170. Pub. 8-28-56. Filed 2-23-56.

## CLASS 32

## FURNITURE AND UPHOLSTERY

637,168. VERTI-FILE. Royal Metal Manufacturing Company. SN 680,036. Pub. 8-28-56. Filed 1-17-55.

## CLASS 33

## GLASSWARE

637,169. HOUZE ART. L. J. House Convex Glass Company. SN 663,790. Pub. 8-28-56. Filed 4-2-54.

637,170. HOUZE ART ETC. AND DESIGN. L. J. House Convex Glass Company. SN 663,792. Pub. 8-28-56. Filed 4-2-54.

637,171. TP ETC. AND DESIGN. The Toledo Plate & Window Glass Company. SN 5,371. Pub. 8-28-56. Filed 3-28-56.

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

637,172. TATCH-A-CLEAT. Theodore H. Hinchcliffe. SN 697,791. Pub. 8-28-56. Filed 11-7-55.

637,173. CORNELL CAVALCADE AND DESIGN. The Pep Boys—Manny, Moe & Jack. SN 3,019. Pub. 8-28-56. Filed 2-20-56.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

637,174. LIGHTHOUSE AND DESIGN. Good Time Jazz Record Co., Inc. SN 687,279. Pub. 8-19-56. Filed 5-11-55.

## CLASS 37

## PAPER AND STATIONERY

637,175. T. V. MINDER. Central States Specialties Inc. SN 657,330. Pub. 8-28-56. Filed 12-3-53.

637,176. SIFTITE. Crown Zellerbach Corporation. SN 673,062. Pub. 8-28-56. Filed 9-13-54.

637,177. SELF SEAL. United States Envelope Company. SN 678,935. Pub. 8-28-56. Filed 12-24-54.

637,178. EXECUDEX. Cory Corporation. SN 684,639. Pub. 8-28-56. Filed 3-31-55.

637,179. STANSEAL. Standard Packaging Corporation. SN 688,866. Pub. 8-28-56. Filed 6-3-55.

637,180. SORITE. The Sorg Paper Company. SN 690,655. Pub. 8-28-56. Filed 7-1-55.

637,181. DESIGN OF LAMB. Max Levinson, d. b. a. Newburgh Tissue Company. SN 690,719. Pub. 8-28-56. Filed 7-5-55.

637,182. PERPETUAL BOND. Goldsmith Bros. SN 690,879. Pub. 8-28-56. Filed 7-7-55.

637,183. TRANS-VEL. Neypaco Paper Corporation. SN 693,519. Pub. 8-28-56. Filed 8-24-55.

637,184. THERMOGLIA. Papierfabrik Oberschmitten W. & J. Moufang Aktiengesellschaft. SN 694,906. Pub. 8-28-56. Filed 9-19-55.

637,185. PLASTI-LEAD. Scripto, Inc. SN 700,758. Pub. 8-28-56. Filed 12-28-55.

637,186. TRU-RAY. Riverside Paper Corporation. SN 700,811. Pub. 8-28-56. Filed 12-29-55.

## CLASS 38

## PRINTS AND PUBLICATIONS

637,187. CARTOCRAFT. Denoyer-Geppert Company. SN 667. Pub. 8-28-56. Filed 1-13-56.

637,188. DRI-CAL. Master Craft Decalcomania Co. SN 4,655. Pub. 8-28-56. Filed 3-15-56.

637,189. DOUBLE DATER. Western Lithograph Company. SN 4,687. Pub. 8-28-56. Filed 3-15-56.

637,190. CITADEL. John C. Mitchell. SN 4,732. Pub. 8-28-56. Filed 3-16-56.

## CLASS 39

## CLOTHING

637,191. EASY FIT HUBBARD SLACKS. Hubbard Pants Company, Inc. SN 677,316. Pub. 8-28-56. Filed 11-26-54.

637,192. INTERKNIT. Augusta Knitting Corporation. SN 685,808. Pub. 8-28-56. Filed 4-19-55.

637,193. GOLF KING AND DESIGN. The H. C. Godman Company. SN 685,904. Pub. 8-28-56. Filed 4-20-55.

637,194. EAR FLUFFS. Bernard Millinger. SN 689,148. Pub. 8-28-56. Filed 6-8-55.

637,195. "AIR-LINER" AND DESIGN. The H. D. Lee Company, Incorporated. SN 689,294. Pub. 8-28-56. Filed 6-13-55.

637,196. CLEVER-TOTS. J. J. Newberry Co. SN 691,879. Pub. 8-28-56. Filed 7-25-55.

637,197. GLEAMETTE. Kuhoff Manufacturing Corporation. SN 692,234. Pub. 8-28-56. Filed 8-2-55.

637,198. JUNIOR LOOK AND DESIGN. Junior Look, Inc. SN 692,477. Pub. 8-28-56. Filed 8-4-55.

637,199. BY SIRA NEW YORK. Green Bird Co. SN 698,279. Pub. 8-28-56. Filed 11-15-55.

637,200. RED KNIGHT AND DESIGN. Wallach's, Inc. SN 699,177. Pub. 8-28-56. Filed 11-30-55.

637,201. CHEMISE LACOSTE. La Chemise Lacoste. SN 699,405. Pub. 8-28-56. Filed 12-5-55.

637,202. SANDOLIS. Heyman E. Weiss Shoe Manufacturers. SN 700,067. Pub. 8-28-56. Filed 12-15-55.

637,203. PAUL REVERE. L. M. Eddy Manufacturing Co., Inc. SN 700,200. Pub. 8-28-56. Filed 12-19-55.

637,204. SUSSEX. Cluett, Peabody & Co., Inc. SN 700,575. Pub. 8-28-56. Filed 12-27-55.

637,205. CM AND DESIGN. Countess Mara, Incorporated. SN 700,882. Pub. 8-28-56. Filed 12-30-55.

637,206. DALCAP ETC. AND DESIGN. Dallas Uniform Cap & Emblem Mfg., Inc. SN 36. Pub. 8-28-56. Filed 1-3-56.

637,207. VALIANT. Ace Manufacturing Company. SN 1,307. Pub. 8-28-56. Filed 1-24-56.

637,208. VALIANT AND DESIGN. Ace Manufacturing Company. SN 1,309. Pub. 8-28-56. Filed 1-24-56.

637,209. ROYALTY. Cluett, Peabody & Co., Inc. SN 1,336. Pub. 8-28-56. Filed 1-24-56.

637,210. ALPINE ELEGANCE. Cluett, Peabody & Co., Inc. SN 1,339. Pub. 8-28-56. Filed 1-24-56.

637,211. SHOW CASE. Cluett, Peabody & Co., Inc. SN 1,340. Pub. 8-28-56. Filed 1-24-56.

637,212. A CLOTHESLINE COTTON. Boris Kroyler & Sons, Inc. SN 1,900. Pub. 8-28-56. Filed 2-1-56.

637,213. LACRO-LITE. LaCrosse Rubber Mills Company. SN 2,144. Pub. 8-28-56. Filed 2-6-56.

637,214. SKIVVETTES. Norwich Mills, Inc. SN 2,714. Pub. 8-28-56. Filed 2-15-56.

637,215. C'EST BON BY BREATHINESA. Plantform Foundations, Inc. SN 3,223. Pub. 8-28-56. Filed 2-23-56.

637,216. ETHAN ALLEN AND DESIGN. Dunham Brothers Company. SN 3,284. Pub. 8-28-56. Filed 2-24-56.



637,217. KAYDOE. Julius Kayser & Co. SN 6,728. Pub. 8-28-56. Filed 4-19-56.

637,218. SILVERCREST. Silvercrest Hosiery Co., Inc. SN 6,840. Pub. 8-28-56. Filed 4-20-56.

637,219. HAWAIIAN WALK. Ray J. Pastene, d. b. a. Pastene & Co. SN 7,269. Pub. 8-28-56. Filed 4-30-56.

637,220. PONYTAILS. Somersworth Manufacturing Company, Inc. SN 7,540. Pub. 8-28-56. Filed 5-2-56.

637,221. SHIRLEY SHEER. Chapman & Sons Hosiery Company. SN 7,569. Pub. 8-28-56. Filed 5-3-56.

637,222. TRIPLE LIFE. Albrecht's Retail Stores, Inc. SN 7,898. Pub. 8-28-56. Filed 5-8-56.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

637,223. ELYSIUM. Malcolm Kenneth Co. SN 663,805. Pub. 8-28-56. Filed 4-2-54.

637,224. RAYCO. Rayco Mfg. Co. SN 688,264. Pub. 8-28-56. Filed 5-23-55.

637,225. KNOLL INTERNATIONAL K AND DESIGN. Knoll Associates Inc. SN 694,807. Pub. 8-28-56. Filed 9-16-55.

637,226. PERSIALAMA ETC. AND DESIGN. Frederic J. Dormer. SN 696,639. Pub. 8-28-56. Filed 10-18-55.

637,227. SUMITOMO. Sumitomo Shoji Kabushiki Kaisha. SN 697,716. Pub. 8-28-56. Filed 11-4-55.

637,228. BEMARON. Bemis Bro. Bag Company. SN 698,336. Pub. 8-28-56. Filed 11-16-55.

637,229. LINDA SATIN. Arthur Beir & Co., Inc. SN 698,683. Pub. 8-28-56. Filed 11-22-55.

637,230. COBOND. McCampbell & Company, Inc. SN 3,622. Pub. 8-28-56. Filed 2-29-56.

637,231. MERNIZED. The Millville Manufacturing Company. SN 5,539. Pub. 8-28-56. Filed 3-30-56.

637,232. COMFORTONE. D. B. Fuller & Co., Inc. SN 5,631. Pub. 8-28-56. Filed 4-2-56.

637,233. FULLERGLOW. D. B. Fuller & Co., Inc. SN 5,632. Pub. 8-28-56. Filed 4-2-56.

637,234. WESTERNAIRE. Monarch Rug Mills. SN 5,736. Pub. 8-28-56. Filed 4-3-56.

637,235. LIGANTI. Haymaker Sports, Inc. SN 5,774. Pub. 8-28-56. Filed 4-4-56.

## CLASS 43

## THREAD AND YARN

637,236. DESIGN OF ANGEL AND SWEATER. Delaware Mills, Inc. SN 694,479. Pub. 8-28-56. Filed 9-12-55.

637,237. SUMITOMO. Sumitomo Shoji Kabushiki Kaisha. SN 697,715. Pub. 8-28-56. Filed 11-4-55.

637,238. JUDY. Eastyarn, Inc. SN 4,077. Pub. 8-28-56. Filed 3-27-56.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

637,239. ARTY NAIL. Artel Cosmetics, Inc. SN 684,796. Pub. 8-28-56. Filed 4-4-55.

637,240. MIDGET. Stephenson Corporation. SN 1,025. Pub. 8-28-56. Filed 1-18-56.

637,241. SIERRA. Sierra Engineering Co. SN 4,378. Pub. 8-28-56. Filed 3-12-56.

637,242. SIERRA. Sierra Engineering Co. SN 4,379. Pub. 8-28-56. Filed 3-12-56.

637,243. KORO-FLEX. Holland-Rantos Company, Inc. SN 4,445. Pub. 8-28-56. Filed 3-13-56.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

637,244. THIRSTY DEER AND DESIGN. Arthur P. MacArthur, d. b. a. Thirsty Deer. SN 3,296. Pub. 8-28-56. Filed 2-22-56.

637,245. JOLLY TREAT. The Chelmsford Company, Inc. SN 5,167. Pub. 8-28-56. Filed 3-26-56.

637,246. BEL-AIR AND LEAF DESIGN. Safeway Stores, Incorporated. SN 5,674. Pub. 8-28-56. Filed 4-2-56.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

637,247. BAMA BISCUIT. E. H. Hardin, d. b. a. Hardin & Co. SN 682,013. Pub. 1-31-56. Filed 2-21-55.

637,248. PREBASKIN. American Processing and Sales Company, d. b. a. Hawthorn-Mellody Farms. SN 685,549. Pub. 8-28-56. Filed 4-15-55.

637,249. COCK WALK FARMS. E. P. Houghton, Jr., d. b. a. Cock Walk Farms. SN 688,419. Pub. 8-28-56. Filed 5-27-55.

637,250. NV PROTEIN. Gunther Products, Inc. SN 688,926. Pub. 8-28-56. Filed 6-6-55.

637,251. SACARASA. Red Star Yeast and Products Company. SN 688,962. Pub. 8-28-56. Filed 6-6-55.

637,252. "AMORA." Societe Apoxyme Specialites Alimentaires Bourguignonnes. SN 688,973. Pub. 8-28-56. Filed 6-6-55.

637,253. UNTER DEN LINDEN. Anton A. Coreth, d. b. a. The Anton Von Coreth Co. SN 691,196. Pub. 8-28-56. Filed 7-13-55.

637,254. MOUNT CROSS AND DESIGN. The Morey Mercantile Company. SN 691,228. Pub. 8-28-56. Filed 7-13-55.

637,255. HAM LOGS. Braun Brothers Packing Company. SN 692,119. Pub. 8-28-56. Filed 7-29-55.

637,256. DIAMONDS. Standard Brands Incorporated. SN 692,965. Pub. 8-28-56. Filed 8-12-55.

637,257. FINCA. Guava Products, Inc. SN 694,712. Pub. 8-28-56. Filed 9-15-55.

637,258. BEST O' BREED. Southern Canning Company, Inc., to Southern Canning Sales Inc. SN 695,039. Pub. 8-28-56. Filed 9-20-55.

637,259. POUR. Anderson, Clayton & Co. SN 695,375. Pub. 8-28-56. Filed 9-27-55.

637,260. FLOR DE ORO. Marichal-Kenes. SN 696,559. Pub. 8-28-56. Filed 10-17-55.

637,261. BALL O' FIRE. Leaf Brands, Inc. SN 697,485. Pub. 8-28-56. Filed 11-1-55.

637,262. VANITY. A. Kickbusch Grocery Company. SN 697,790. Pub. 9-4-56. Filed 11-7-55.

637,263. RED WING ETC. AND DESIGN. Sanger Fruit Growers Association. SN 697,854. Pub. 8-28-56. Filed 11-7-55.

637,264. WINK. The Humko Company. SN 698,356. Pub. 8-28-56. Filed 11-16-55.

637,265. VIRGINIA PLANTATION AND DESIGN. The Smithfield Packing Company, Incorporated, d. b. a. Virginia Packers. SN 699,257. Pub. 8-28-56. Filed 12-1-55.

637,266. IOWA PRIDE. John Morrell & Co. SN 699,335. Pub. 8-28-56. Filed 12-2-55.

637,267. GOLD CROWN AND DESIGN. The Capital City Products Company. SN 301. Pub. 8-28-56. Filed 1-9-56.

637,268. JOHN G. Peters & Garabedian. SN 362. Pub. 8-28-56. Filed 1-9-56.

637,269. JOHN D. Peters & Garabedian. SN 363. Pub. 8-28-56. Filed 1-9-56.

637,270. COCONUT MUNCHETTES AND DESIGN. Venus Foods. SN 930. Pub. 8-28-56. Filed 1-17-56.

637,271. BRIGHT AND EARLY. Duncan Coffee Company. SN 971. Pub. 8-28-56. Filed 1-18-56.

637,272. PINE FLAT. Lewis Nielsen, d. b. a. Nielsen Packing Co. SN 1,166. Pub. 8-28-56. Filed 1-20-56.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

637,273. DINTY'S. Continental Distilling Corporation. SN 694,050. Pub. 8-28-56. Filed 9-1-55.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

637,274. 3-D AND DESIGN. Plastic Industrial Products, Inc. SN 699,163. Pub. 8-28-56. Filed 5-11-56.

637,275. LADR-LEVL. H-B Industries, Inc. SN 5,924. Pub. 8-28-56. Filed 4-6-56.

## CLASS 51

## COSMETICS AND TOILET PREPARATIONS

637,276. MITSUBISHI. Mitsubishi Shoji Kaisha, Ltd. SN 677,725. Pub. 8-28-56. Filed 12-3-54.

637,277. DIADERMINE. Bonetti Freres. SN 685,163. Pub. 8-28-56. Filed 4-8-55.

637,278. TRAITAL. Societe Monsavon-L'Oreal. SN 690,844. Pub. 8-28-56. Filed 7-6-55.

637,279. NEOGENOL. Albert Verley & Company. SN 692,662. Pub. 8-28-56. Filed 8-8-55.

637,280. THREE GENDARMES. Leatheric, Inc. SN 695,923. Pub. 8-28-56. Filed 10-5-55.

637,281. WEDDING NITE. Philip Paregian, d. b. a. Paregian. SN 697,014. Pub. 8-28-56. Filed 10-24-55.

637,282. SWIGS. Trammel A. Wise, d. b. a. Swigs Company. SN 698,321. Pub. 8-28-56. Filed 11-15-55.

637,283. MELROSE. Vernon Furlow, d. b. a. Vernon Furlow Company. SN 698,598. Pub. 8-28-56. Filed 11-21-55.

637,284. ROSATINT. Undertakers Supply Company. SN 698,815. Pub. 8-28-56. Filed 11-23-55.

637,285. PROFESSIONAL WOMAN. Nina L. Baker, d. b. a. Professional Woman. SN 699,693. Pub. 8-28-56. Filed 12-9-55.

## CLASS 52

## DETERGENTS AND SOAPS

637,286. SHULTON—AS A CALLIGRAPH. Shulton, Inc. SN 698,468. Pub. 8-28-56. Filed 8-27-55.

637,287. MULTI-POWER. Klemade Products, Incorporated. SN 691,048. Pub. 8-28-56. Filed 7-11-55.

637,288. SHER-WILL-CLEAN. The Sherwin-Williams Company. SN 1,907. Pub. 8-28-56. Filed 2-1-56.

637,289. KUMAR KLEENAR AND DESIGN. Kumar Kompany, Inc. SN 2,486. Pub. 8-28-56. Filed 2-16-56.

637,290. DELVE. Judson Dunaway Corporation. SN 5,843. Pub. 8-28-56. Filed 4-5-56.

# Service Marks

## CLASS 100

## MISCELLANEOUS

637,291. DOANE AGRICULTURAL RESEARCH AND DESIGN. Doane Agricultural Service, Inc. SN 690,075. Pub. 8-28-56. Filed 6-28-55.

637,292. FOODLINER. Independent Grocers' Alliance Distributing Co. SN 696,985. Pub. 8-28-56. Filed 10-24-55.

## CLASS 101

## ADVERTISING AND BUSINESS

637,293. RAND ETC. AND DESIGN. Rand Development Corporation. SN 693,334. Pub. 8-28-56. Filed 8-18-55.

637,294. TELEDISPLAYS. Robert A. Bories, d. b. a. Robert A. Bories Company. SN 3,729. Pub. 8-28-56. Filed 3-2-56.

## CLASS 102

## INSURANCE AND FINANCIAL

637,295. M-F-A INSURED AND DESIGN. M. F. A. Mutual Insurance Company. SN 698,067. Pub. 8-28-56. Filed 11-10-55.

637,296. COLORADO INSURANCE GROUP AND DESIGN. Colorado Insurance Group, Inc. SN 1,849. Pub. 8-28-56. Filed 2-1-56.

# Collective Membership Mark

## CLASS 200

637,297. JUNCTI JUVANT AND DESIGN. Theta Xi Fraternity. SN 693,706. Pub. 8-28-56. Filed 8-25-55.

# SUPPLEMENTAL REGISTER

**These registrations are not subject to opposition.**

## CLASS 12

## CONSTRUCTION MATERIALS

637,298. Natural Products Corporation, Oxford, Mich. SN 687,878. Filed P. R. 5-19-55. Am. S. R. 7-5-56.




For Simulated Stone and Brick Siding.
First use May 2, 1955.

## CLASS 18

## MEDICINES AND PHARMACEUTICAL PREPARATIONS

637,299. Morton Manufacturing Corporation, d. b. a. Chap Stick Co., Lynchburg, Va. SN 691,955. Filed P. R. 7-26-55. Am. S. R. 9-11-56.

LIP-EZE

For Preparation To Relieve Cold Sores and Fever Blisters.
First use July 13, 1955.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

637,300. Jack Keefe, Jr., Tulsa, Okla. SN 690,827. Filed P. R. 7-6-55. Am. S. R. 6-29-56.



For Portable Electric Pot and Cans Used for Making and Serving Coffee.
First use June 25, 1955.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

637,301. Firma W. Clauberg, Solingen, Germany. SN 670,555. Filed P. R. 7-26-54. Am. S. R. 9-15-56.

W CLAUBERG

For Cutlery—Namely, All Kinds of Knives, Scissors and Shears, Forks, Spoons, Carving Sets, All Sorts of Striking and Spearing Weapons, Letter Openers, Cork Screws of All Kinds, Bottle Openers, Nut Sheilers, Nut Crackers, Cigar Box Openers, Hair Cutters, and Cigar Clippers.
First use 1895.

637,302. U. S. Electrical Motors, Inc., Los Angeles, Calif. SN 673,317. Filed P. R. 9-16-54. Am. S. R. 9-27-56.

FEEDBAK

For Stand for Testing Aircraft Alternators and Equipped With a Variable Speed Transmission.
First use Aug. 6, 1954.

637,303. Hi-Test Twist Drill Works, Inc., New York, N. Y. SN 5,098. Filed P. R. 3-23-56. Am. S. R. 9-11-56.



The drawing is lined for gold.
For Mechanic's Tools—Namely, Twist Drills, Taps, Chisels, Pliers, Power Bits, Axes, Hammers, Screw Drivers, and Vises.
First use Oct. 20, 1954.

## CLASS 32

## FURNITURE AND UPHOLSTERY

637,304. The May Department Stores Company, New York, N. Y. SN 695,098. Filed P. R. 9-21-55. Am. S. R. 9-10-56.

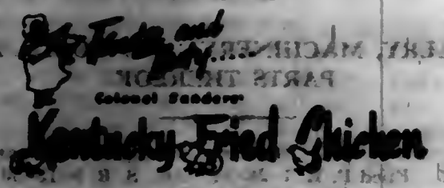
CALVERT

For Mattresses, Down Filled Pillows, Foam Rubber Pillows, and Pillows Stuffed With Synthetic Fibers.
First use March 1951.

CLASS 46

## FOODS AND INGREDIENTS OF FOODS

637,305. Harland Sanders, Corbin, Ky. SN 687,325. Filed P. R. 5–11–55. Am. S. R. 9–5–56.



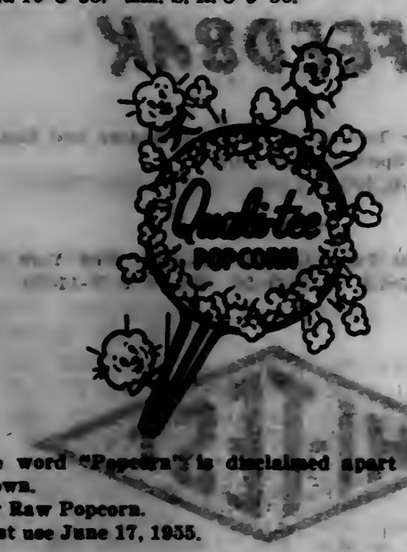

For Freshly Prepared Fried Chicken and Gravy.
First use August 1950.

637,306. The Naas Corporation of Indiana, d. b. a. The Naas Corporation, Peru, Ind., now by change of name Naas Foods, Inc. SN 689,040. Filed P. R. 6–7–55. Am. S. R. 4–17–56.




For Tomato Catsup and Chili Sauce.
First use Apr. 5, 1955.

637,307. Bube Bros., Palmyra, Ind. SN 695,691. Filed P. R. 10–3–55. Am. S. R. 8–9–56.




The word "Popcorn" is disclaimed apart from the mark as shown.
For Raw Popcorn.
First use June 17, 1955.

637,308. California Prune and Apricot Growers Association, San Jose, Calif. SN 743. Filed 1–16–56.

**WHIP-PRUNE**

For Prepared Prune Product—Namely, Strained Prunes.
First use May 18, 1934.

637,309. Veteran Food Products Company, Detroit, Mich. SN 2,463. Filed P. R. 2–10–56. Am. S. R. 8–16–56.



A description of the color lining of the accompanying drawing is as follows: blue and yellow.
For Potato Chips.
First use Feb. 1, 1946.

CLASS 51

## COSMETICS AND TOILET PREPARATIONS

637,310. The Nestle-Lemur Company, New York, N. Y. SN 694,084. Filed P. R. 9–1–55. Am. S. R. 8–28–56.

**SOFT 'N' SMOOTH**

For Hair Dressing.
First use Aug. 22, 1955.

637,311. Johnson & Johnson, New Brunswick, N. J. SN 694,464. Filed P. R. 9–26–55. Am. S. R. 7–2–56.

Johnson

Johnson & Johnson

For Dusting Powder, Baby Cream, Baby Lotion, and Baby Oil, All Being Used for Protecting, Soothing or Lubricating the Surface of the Body.
First use at least as early as 1896.

# TRADEMARK REGISTRATIONS RENEWED

111,952. UNIVERSAL. Cl. 21. 8–15–16.
112,557. NO STREAK AND DESIGN. Cl. 34. 9–12–16.
112,565. JAVELIN. Cl. 46. 9–12–16.
112,831. TANG-LEAF. Cl. 18. 9–26–16.
113,245. TOBY. Cl. 39. 10–17–16.
113,742. NUGGET AND DESIGN. Cl. 46. 10–31–16.
114,230. BOSS. Cl. 39. 12–5–16.
114,274. O'SHANNON IRISH WHISKEY AND DESIGN. Cl. 49. 12–5–16.
114,618. REJUVENO. Cl. 39. 12–26–16.
114,828. SANISPOON. Cl. 23. 1–2–17.
114,894. EL-BE AND DESIGN. Cl. 39. 1–9–17.
115,126. KOH-I-NOOR. Cl. 40. 1–23–17.
115,222. CHOISA. Cl. 46. 1–30–17.
115,644. BLUE FLAG. Cl. 14. 2–27–17.
332,396. CADET. Cl. 6. 2–11–36.
332,503. WINSOME FROCKS. Cl. 39. 2–18–36.
335,761. TI-SCOT. Cl. 34. 6–16–36.
336,003. CLAIR DE LUNE. Cl. 34. 6–23–36.
336,171. ARISTOCRAT AND DESIGN. Cl. 40. 6–30–36.



338,206. NU-STAR AND DESIGN. Cl. 21. 9–1–36.
338,216. TOWNCRAFT. Cl. 6. 9–1–36.
338,466. DE FLECTO. Cl. 39. 9–8–36.
338,467. MANSPATTER. Cl. 39. 9–8–36.
338,588. PORT-O-MATIC. Cl. 21. 9–8–36.
338,590. CLARENDUN. Cl. 39. 9–8–36.
338,607. SUPREMA. Cl. 23. 9–8–36.
338,762. DETURBO. Cl. 15. 9–15–36.
338,837. L B. Cl. 38. 9–15–36.
338,862. UNIVERSAL. Cl. 37. 9–15–36.
338,872. IRELYN. Cl. 18. 9–15–36.
339,170. SEMI-THIK. Cl. 12. 9–29–36.
339,172. MASTER. Cl. 23. 9–29–36.
339,313. KING OF SCOTS. Cl. 49. 10–6–36.
339,358. THERMOSPEED. Cl. 26. 10–6–36.
339,564. VI-SYNERAL. Cl. 18. 10–13–36.
339,565. CEREGEN. Cl. 18. 10–13–36.
339,629. GAYTIME. Cl. 39. 10–13–36.
339,964. AROSET. Cl. 39. 10–27–36.
339,965. TRIGGERSILK. Cl. 39. 10–27–36.
340,096. PHENOVAL. Cl. 18. 11–3–36.
340,116. TELESCOPE SYSTEM AND DESIGN. Cl. 13. 11–3–36.
340,118. MELCHIOR, ETC. AND DESIGN. Cl. 34. 11–3–36.
340,151. PERMAX. Cl. 26. 11–3–36.
340,242. CHEEZE KIST. Cl. 46. 11–3–36.
340,336. UNIVERSAL. Cl. 21. 11–3–36.
340,388. SMOOTHIE. Cl. 51. 11–10–36.
340,396. RD AND DESIGN. Cl. 42. 11–10–36.
340,780. ANGOSTURA. Cl. 46. 11–24–36.
341,141. SOPHISTOCRAT. Cl. 39. 12–1–36.
341,244. SAMCO AND DESIGN. Cl. 34. 12–1–36.
341,300. STYLED BY KAY DUNHILL AND DESIGN. Cl. 39. 12–1–36.
341,372. LAGONDA. Cl. 19. 12–8–36.
341,573. BATHIT AND DESIGN. Cl. 18. 12–15–36.
342,112. OLIVE. Cl. 46. 1–5–37.
342,167. K'CEMO. Cl. 16. 1–5–37.
342,266. NUTRALKA AND DESIGN. Cl. 18. 1–12–37.
342,499. MILO. Cl. 32. 1–19–37.
342,526. RYZAMIN-B. Cl. 18. 1–19–37.
342,551. ROAMER. Cl. 39. 1–19–37.
342,558. NOROL. Cl. 13. 1–19–37.
342,615. W. B. Cl. 39. 1–19–37.
342,700. FIRESTONE. Cl. 5. 1–26–37.
342,763. GYCOTAN. Cl. 6. 1–26–37.
342,915. SEL-VI-LAP. Cl. 12. 2–2–37.
343,167. COURAGE. Cl. 46. 2–9–37.
343,168. ENDURANCE. Cl. 46. 2–9–37.
343,169. STALWART. Cl. 46. 2–9–37.
343,170. STRENGTH. Cl. 46. 2–9–37.
343,195. AIR-CITY AND DESIGN. Cl. 21. 2–9–37.
343,313. DURA-ZINC. Cl. 24. 2–16–37.
343,314. DURA-ZINC. Cl. 26. 2–16–37.
343,315. DURA-ZINC-ALLOY. Cl. 26. 2–16–37.
343,346. ADAMTONE. Cl. 22. 2–16–37.
343,518. WYEX. Cl. 6. 2–23–37.
343,584. SIRIL. Cl. 18. 2–23–37.
343,684. TORQ. Cl. 23. 2–2–37.
343,731. MARLO. Cl. 35. 3–2–37.

# TRADEMARK REGISTRATIONS CANCELED

Section 8

51,166. B AND DESIGN. Cl. 1. 4–3–06.
127,264. KICKPROOF. Cl. 39. 11–4–19.
221,189. NO. 1 PRESERVATIVE. Cl. 16. 11–23–26.
382,784. SMACKERS. Cl. 38. 12–24–40.
410,568. PEROXOTONE. Cl. 51. 12–5–44.

*The following registrations issued Aug. 15, 1939*

528,929. INSPECT-O-SCOPE. Cl. 26.
528,930. TWEED. Cl. 28.
528,931. COMPLEXION TEXTURE. Cl. 37.
528,935. WB WEISMAN. Cl. 39.
528,936. MARGIE LYNN ORIGINALS. Cl. 39.
528,939. MEMPHIS. Cl. 26.
528,943. KEMART. Cl. 11.
528,944. K AND DESIGN. Cl. 11.
528,957. DOUBLE TANNED WEAR. Cl. 1.
528,959. STANDARD. Cl. 34.
528,966. ARCH-JAX. Cl. 44.
528,968. JELL-E-SEAL. Cl. 50.
528,969. WALK-ON-AIRE. Cl. 39.
528,971. ANDRE DALLIOUX. Cl. 3.
528,972. "GERBER PLUMBING FIXTURES" AND DESIGN. Cl. 13.
528,973. FIRE BOY TRADEMARK AND DESIGN. Cl. 6.
528,976. LOUNGIE'S. Cl. 39.
528,977. PLAYTOPS. Cl. 39.
528,979. KARLEE BY DE HARMON. Cl. 39.
528,981. PATTI PARIS. Cl. 39.
528,982. PERMASURF. Cl. 12.
528,985. TEL-FIL. Cl. 13.
528,988. SPENDOMETER. Cl. 26.
528,989. POLARTRON. Cl. 26.
528,991. MARTIN. Cl. 34.
528,996. DEVON. Cl. 37.
529,000. POLYVAL. Cl. 18.
529,001. LIGHTEES. Cl. 39.
529,002. JAY DEE. Cl. 1.
529,004. REGALETTE'S. Cl. 39.
529,005. TARRIGANS. Cl. 39.
529,006. GREENWOOD FORMULA. Cl. 1.
529,009. STAIGREEN. Cl. 1.
529,012. CHIPPY ORIGINALS. Cl. 39.
529,015. DIVIDED + TOP. Cl. 34.
529,020. KOOL-KROME. Cl. 26.
529,023. MINI-STOVE. Cl. 34.
529,024. KEMART. Cl. 26.

529,025. GOLDCREST AND DESIGN. Cl. 50.
529,033. BLU PAK. Cl. 1.
529,034. STONSULATE. Cl. 12.
529,037. TRI-MOR. Cl. 51.
529,038. ALURASUEDE IN DESIGN. Cl. 3.
529,041. DIAL-AIR. Cl. 34.
529,045. "THE PENNYWISE SHOP" B AND DESIGN. Cl. 38.
529,046. EMERALD-TOES. Cl. 39.
529,049. FLUTA. Cl. 39.
529,051. "LAFRANCE" AND DESIGN. Cl. 37.
529,052. PERMA-GLAZE. Cl. 12.
529,054. ROCKDALE. Cl. 46.
529,055. TRICON. Cl. 26.
529,060. "GLOBE" AND DESIGN. Cl. 26.
529,062. THUMLOK. Cl. 37.
529,070. BUSY BOY. Cl. 39.
529,071. EAZENE. Cl. 18.
529,076. FRANCY-J. Cl. 39.
529,081. GRAMISOL. Cl. 18.
529,091. "RAMILON." Cl. 43.
529,112. T. M. CIRCLE DESIGN. Cl. 44.
529,118. "RANDOM BRAND" AND DESIGN. Cl. 1.
529,123. LARJACHROME. Cl. 26.
529,125. ATOLAK. Cl. 52.
529,126. PERMA GLAZE. Cl. 6.
529,129. CLINI-B. Cl. 18.
529,130. GLOSSINE. Cl. 11.
529,131. SNAP. Cl. 11.
529,132. TOM THUMB. Cl. 29.
529,139. ON-OFF RUB ON-WIPE OFF. Cl. 52.
529,141. UNITED WORLD. Cl. 26.
529,145. ART TYE IN DESIGN. Cl. 7.
529,150. CHROMETTE. Cl. 26.
529,151. TELE-BEAUTS WITHIN A DESIGN. Cl. 26.
529,154. "SHO'NUFS." Cl. 40.
529,158. "ABBREVIETTES." Cl. 39.
529,160. ORIGINAL FAYTOB OF MIAMI. Cl. 39.
529,161. F. Cl. 1.
529,162. GREAT LAKES AND DESIGN. Cl. 1.
529,163. "OSCAR" AND DESIGN. Cl. 39.
529,168. PETI-LIGNE. Cl. 40.
529,172. FASTEMP. Cl. 34.
529,173. FLUFFIT AND DESIGN WITHIN EACH LETTER. Cl. 1.
529,174. HI-CARB. Cl. 1.
529,175. PURECARB. Cl. 1.

529,181. DODIVITE. Cl. 18.
529,182. X-ESS AND ENTIRE LABEL. Cl. 18.
529,184. ENNY MEENY MINY MOE WITHIN A DESIGN. Cl. 51.
529,186. THIADYL. Cl. 18.
529,190. "FILMERINE." Cl. 18.
529,192. PRACSIT DEUS NOBIS AND DESIGN. Cl. 34.
529,193. CRENPEN. Cl. 37.
529,196. BARBARA BRENT. Cl. 39.
529,198. HARVEY A. JR. DAILY SPORTS DIGEST AND ENTIRE DESIGN. Cl. 38.
529,201. ARTIST MODEL. Cl. 39.
529,207. CALSCORB. Cl. 18.
529,210. "UEC." Cl. 18.
529,212. BENZYCHLORAMINE. Cl. 18.
529,213. BURKHARDY. Cl. 39.
529,214. GLECTOL. Cl. 18.
529,215. "NORMA GAY." Cl. 39.
529,216. "PRINTEMPS." Cl. 43.
529,219. ORIGINATOR. Cl. 26.
529,230. TRIPLE SEC. Cl. 45.
529,231. CARROLL BRAND. Cl. 39.
529,232. SHADOWCOUNT. Cl. 26.
529,233. TO-DERM. Cl. 18.
529,234. LITHO TONE. Cl. 39.
529,235. RULITER. Cl. 8.
529,238. LIGHTFUL. Cl. 42.
529,239. INSTANTANEOUS. Cl. 26.
529,241. ICE DESTROY. Cl. 6.
529,242. "SHERIDAN KLEEN-BURN COAL" AND DESIGN. Cl. 1.
529,245. KENNY. Cl. 37.
529,246. "DESIGNER'S TRIMMINGS" AND DESIGN. Cl. 40.
529,250. DIREC-LINER. Cl. 26.
529,255. "MATSUNAMI." Cl. 26.
529,257. SEA FLAVOR. Cl. 46.
529,260. COLORFUSE. Cl. 42.
529,261. TONEBLENDE. Cl. 42.
529,262. WIND-O-PLANE. Cl. 22.
529,265. FLARELINE. Cl. 19.
529,266. BRITISHERS. Cl. 39.
529,275. NORMA ORIGINALS "THE DOLL WITH AN EDUCATIONAL STORY." Cl. 22.
529,276. THE ORIGINAL MCGINNIS RUBBERLEGS FLY. Cl. 22.

# TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

107,789. PEPTOMINT ETC. AND DESIGN. Cl. 46. 12–28–15. L. F. Larson Jr. Company. Wm. Wrigley Jr. Company, Chicago, Ill. Amended to appear:

PEPTOMINT

338,642. ZEPHYR. Cl. 23. 9–15–36. The Eclipse Lawn Mower Co., Prophetstown, Ill. Corrected: In line 7 of the renewal certificate, "Illinois" (second occurrence) should be *New York*.

365,944. DAREX. Cl. 50. 3–21–39. Dewey and Almy Chemical Company. W. R. Grace & Co., Cambridge, Mass. Amended to appear:

DAREX

627,782. DANFOSS. Cl. 26. 5–29–56. Danfoss ved Mads Clausen, Nordborg, Als, Denmark. Corrected: In line 4 of the certificate and in line 2 of the printed copy of the registration, "Alas" should be *Als*.

629,271. TAB SEAL. Cl. 50. 8–19–56. American Flange & Manufacturing Co. Inc., New York, N. Y. Amended to appear:

Tab-Seal

630,256. DANFOSS. Cl. 13. 7–10–56. Danfoss ved Mads Clausen, Nordborg, Als, Denmark. Corrected: In the last line of column 2 of the printed copy of the registration, "149/52" should be *1489/52*.

633,428. RES-I-GLAS. Cl. 7. 8–28–56. Chicago Printed String Company, Chicago, Ill. Corrected: In column 2, line 1, "typing" should be *tying*.

634,006. VIBRASWITCH. Cl. 26. 9–4–56. The Beta Corporation, Forest Ave. and Ridge Road, Henrico County, Va. Corrected: In the printed copy of the registration, "633,006" should be *634,006*.

# REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

## CLASS 6

## CHEMICALS AND CHEMICAL COMPOSITIONS

351,669. Nov. 2, 1937. Takamine Laboratory, Inc., Clifton, N. J. Pub. by Miles Laboratories, Inc., Elkhart, Ind.

KATOZYME

For Preparation in Powdered Form for Use in Desizing Textile Goods.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

113,897. Nov. 7, 1916. National X-Ray Reflector Company, Chicago, Ill. Pub. by Curtis Lighting, Inc., Chicago, Ill.

X-Ray

For Electric Illuminating Apparatus Consisting of Direct, Indirect, and Semi-Indirect Lighting Fixtures; Show-Case Lighting Fixtures, Show-Window Lighting Fixtures, Flood-Lighting Fixtures, Industrial Lighting Fixtures, Bank-Screen Lighting Fixtures, and Automobile Headlights.



444,079. July 11, 1950. Unimax Switch Corporation, New York, N. Y., to The W. L. Maxson Corporation. Pub. by The W. L. Maxson Corporation, New York, N. Y.

UNIMAX

For Electrical Snap Switches for Sale to Manufacturers for Incorporation in Products Such as Motors, Ventilators, Fans, and Other Finished Products.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

114,526. Dec. 19, 1916. National X-Ray Reflector Company, Chicago, Ill. Pub. by Curtis Lighting, Inc., Chicago, Ill.

X-Ray

For Glass Reflectors.

## CLASS 39

## CLOTHING

335,532. June 9, 1936. Tower Hosiery Mills, Inc., Burlington, N. C. Pub. by Textile Industries, Inc., Thomasville, N. C.

Clarity

The word "Clarity" is disclaimed.
For Hosiery.

382,812. Nov. 12, 1940. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.



For Baby Pants.

410,105. Nov. 7, 1944. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

Randtex

For Baby Pants.

411,067. Jan. 2, 1945. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

Randseal

For Baby Pants.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

338,618. Sept. 8, 1936. Vereinigte Gummiwaren-Fabriken Wimpassing vormals Meaier—J. N. Reithoffer, Vienna, Austria. Pub. by "Semperit" Osterreichisch-Amerikanische Gummiwerke Aktiengesellschaft, Vienna, Austria.

MATADOR

For Rubber Combs.

378,672. June 11, 1940. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

MERMAID

For Dress Shields.

396,161. June 30, 1942. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

Duchess

For Dress Shields.

396,955. Aug. 11, 1942. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

REPELLENT RS SHIELDS

For Dress Shields.

411,836. Feb. 6, 1945. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

Randtex

For Dress Shields.

426,147. Dec. 17, 1946. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

Joy

For Dress Shields.

### CLASS 42

### KNITTED, NETTED, AND TEXTILE FABRICS AND SUBSTITUTES THEREFOR

337,223. Aug. 4, 1936. Atlas Mills Inc., New York, N. Y. Pub. by Atlas Fabrics Corp., New York, N. Y.

CREAM OF THE CROP

For Silk, Rayon, and Cotton.

411,407. Jan. 16, 1945. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

*Randseal*

For Crib Sheets and Waterproof Sheeting.

### CLASS 46

### FOODS AND INGREDIENTS OF FOODS

339,940. Oct. 27, 1936. Fred Marolf, d. b. a. County Line Cheese Factory, Auburn, Ind. Pub. by County Line Cheese Co. Inc., Fort Wayne, Ind.

**County Line**

For Cheese.

### CLASS 50

### MERCHANDISE NOT OTHERWISE CLASSIFIED

414,725. June 26, 1945. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

*Randtex*

For Plastic Crib Sheets, Plastic Waterproof Sheeting, and Plastic Sheeting.

422,644. Aug. 6, 1946. Rand Rubber Company, Inc., Brooklyn, N. Y. Pub. by registrant.

*Randflex*

For Plastic Sheet Material in the Nature of a Leather Substitute.

### CLASS 51

### COSMETICS AND TOILET PREPARATIONS

210,971. Mar. 30, 1923. M. Naef & Cie., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

HELIOTROPOL

For Artificial and Synthetical Perfumes and Essential Oils for the Production of Perfumes.

210,972. Mar. 30, 1923. M. Naef & Cie., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

OLNICERA

For Artificial and Synthetical Perfumes and Essential Oils for the Production of Perfumes.

236,145. Dec. 6, 1927. M. Naef & Co., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

EXALTONE

For Artificial and Synthetic Perfumes and Essential Oils.

236,146. Dec. 6, 1927. M. Naef & Co., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

CEDAROME

For Artificial and Synthetic Perfumes and Essential Oils for the Production of Perfumes.

236,240. Dec. 6, 1927. M. Naef & Co., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

"MAGNOLYS"

For Artificial and Synthetical Perfumes and Essential Oils for the Production of Perfumes.

### CLASS 52

### DETERGENTS AND SOAPS

177,032. Dec. 11, 1923. Takamine Laboratory, Inc., Clifton, N. J., and New York, N. Y. Pub. by Miles Laboratories, Inc., Elkhart, Ind.

LAUNDR-AID

For Starch Solvents for Use in Washing Clothes, Cloths, Fabrics, and Linens.

# LIST OF REGISTRANTS OF TRADEMARKS

## REGISTERED NOVEMBER 13, 1956

Abbott Laboratories, North Chicago, Ill. 529,186, canc. Cl. 18.

Ace Mfg. Co., San Antonio, Tex. 637,207, pub. 8-28-56. Cl. 39.

Ace Mfg. Co., San Antonio, Tex. 637,208, pub. 8-28-56. Cl. 39.

Acton, H. W., Co.: *See*— Bengeyfield, A. Harold.

Adam Hat Stores, Inc., to Miller Bros. Hat Co. Inc., New York, N. Y. 343,343, ren. 2-16-57. Cl. 22.

Advance Machine Co., Minneapolis, Minn. 637,081, pub. 8-28-56. Cl. 21.

Advance Solvents & Chemical Corp., New York, N. Y., to Carlisle Chemical Works, Inc., Reading, Ohio. 637,010, pub. 5-1-56. Cl. 6.

Albert, Samuel, New York, N. Y. 410,568, canc. Cl. 51.

Albrecht's Retail Stores, Inc., New York, N. Y. 637,222, pub. 8-28-56. Cl. 39.

Amalgamated Sales, San Francisco, Calif. 529,139, canc. Cl. 52.

American Aniline Products, Inc., New York, N. Y. 637,068, pub. 8-28-56. Cl. 6.

American Flange & Mfg. Co. Inc., New York, N. Y. 629,271. Am. 7(d). Cl. 50.

American Home Products Corp., d. b. a. Wyeth Laboratories, Philadelphia, Pa. 637,043, pub. 8-28-56. Cl. 18.

American Home Products Corp., d. b. a. Ayerst Laboratories, Division of American Home Products Corp., New York, N. Y. 637,074, pub. 8-28-56. Cl. 18.

American Home Products Corp., d. b. a. Ayerst Laboratories, Division of American Home Products Corp., New York, N. Y. 637,075, pub. 8-28-56. Cl. 18.

American Home Products Corp., d. b. a. Ayerst Laboratories, Division of American Home Products Corp., New York, N. Y. 637,076, pub. 8-28-56. Cl. 18.

American Processing and Sales Co., d. b. a. Hawthorn-Mellody Farms, Libertyville, Ill. 637,240, pub. 8-28-56. Cl. 46.

American Resinous Chemicals Corp., Peabody, Mass., to The Borden Co., New York, N. Y. 637,049, pub. 8-28-56. Cl. 14.

American Viscose Corp., Philadelphia, Pa. 637,165, pub. 8-28-56. Cl. 31.

American Lady Corset Co., Detroit, Mich. 529,201, canc. Cl. 39.

Amer. O., Co.: *See*— McDonough Co.

Amlon, Inc., Lake Villa, Ill. 637,064, pub. 8-28-56. Cl. 18.

Anderson, Clayton & Co., Sherman, Tex. 637,259, pub. 8-28-56. Cl. 46.

Angostura Bitters (Dr. J. G. B. Siegert & Sons) Ltd., Port of Spain, Trinidad, British West Indies. 340,780, ren. 11-24-56. Cl. 46.

Anocut Engineering Co., Chicago, Ill. 637,084, pub. 8-28-56. Cl. 21.

Arch-Jax Co., The, Detroit, Mich. 528,998, canc. Cl. 44.

Ardsley Curtain Co., Inc., New York, N. Y. 529,238, canc. Cl. 42.

Aristocrat Leather Products, Inc., New York, N. Y. 637,026, pub. 8-28-56. Cl. 6.

Aristocrat Narrow Fabric Co.: *See*— Sidebotham, Horace W.

Aristocrat Narrow Fabrics: *See*— Sidebotham, Horace W.

Arnold, S. M., Inc., St. Louis, Mo. 636,997, pub. 8-28-56. Cl. 4.

Aropax Corp., New York, N. Y. 637,136, pub. 8-28-56. Cl. 28.

Artol Cosmetics, Inc., New York, N. Y. 637,230, pub. 8-28-56. Cl. 44.

Artistic Mfg. Co., Inc., New York, N. Y. 529,145, canc. Cl. 7.

Ascher, B. F., & Co., Inc., Kansas City, Mo. 637,069, pub. 8-28-56. Cl. 18.

Athletic Shoe Co., The, Chicago, Ill. 529,005, canc. Cl. 39.

Atlas Fabrics Corp.: *See*— Atlas Mills Inc.

Atlas Mills Inc., by Atlas Fabrics Corp., New York, N. Y. 337,223, 12(c) pub. 11-13-56. Cl. 42.

Atomic, Inc., Mt. Cuba, Del. 529,126, canc. Cl. 52.

Augusta Knitting Corp., Utica, N. Y. 637,192, pub. 8-28-56. Cl. 39.

Autotron Co., The, Danville, Ill. 529,232, canc. Cl. 26.

Avery, Charles H., Detroit, Mich. 528,978, canc. Cl. 6.

Ayerst Laboratories, Division of American Home Products Corp.: *See*— American Home Products Corp.

Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. 637,128, pub. 8-28-56. Cl. 26.

Baker Furniture Inc., Holland, Mich. 636,999, pub. 8-28-56. Cl. 6.

Baker, Nina L., d. b. a. Professional Woman, Chicago, Ill. 637,288, pub. 8-28-56. Cl. 51.

Bally Mfg. Co., Chicago, Ill. 637,106, pub. 8-28-56. Cl. 22.

Barrett Mfg. Co., New York, N. Y. 51,166, canc. Cl. 1.

Bates, C. J., & Son: *See*— Bates, Hamilton C.

Bates, Hamilton C., d. b. a. C. J. Bates & Son, to C. J. Bates & Son, Chester, Conn. 340,283, ren. 11-16-56. Cl. 51.

Beck, Albert F. A., d. b. a. Beck Products Co., Pittsburgh, Pa. 637,066, pub. 8-28-56. Cl. 18.

Beck Products Co.: *See*— Beck, Albert F. A.

Beir, Arthur & Co., Inc., New York, N. Y. 637,229, pub. 8-28-56. Cl. 42.

Bemis Bro. Bag Co., St. Louis, Mo. 637,228, pub. 8-28-56. Cl. 42.

Bendix Aviation Corp., Detroit, Mich. 637,087, pub. 8-28-56. Cl. 21.

Bengeyfield, A. Harold, d. b. a. H. W. Acton Co., New York, N. Y. 637,089, pub. 8-28-56. Cl. 22.

Berger Brothers Co., The, New Haven, Conn. 114,618, ren. 12-26-56. Cl. 39.

Berger Hosiery Co., Inc., Philadelphia, Pa. 529,046, canc. Cl. 39.

Berkshire Knitting Mills, Wyomissing, Pa. 339,629, ren. 10-13-56. Cl. 39.

Beta Corp., The, Henrico County, Va. 634,006, cor. Cl. 26.

Bissell Varnish Co., The, Bridgeport, Conn. 221,189, canc. Cl. 16.

Blue Anchor Beverage Co., Philadelphia, Pa. 529,230, canc. Cl. 45.

Benetti Freres, Malakoff, France. 637,277, pub. 8-28-56. Cl. 51.

Bordon Co., The: *See*— American Resinous Chemicals Corp.

Borg-Warner Corp., Chicago, Ill. 529,172, canc. Cl. 34.

Borieo, Robert A., d. b. a. Robert A. Borieo Co., New York, N. Y. 637,294, pub. 8-28-56. Cl. 101.

Boss Mfg. Co., The, Kewanee, Ill. 113,345, ren. 10-17-56. Cl. 39.

Boss Mfg. Co., The, Kewanee, Ill. 114,219, ren. 12-5-56. Cl. 39.

Braun Brothers Packing Co., Troy, Ohio. 637,255, pub. 8-28-56. Cl. 46.

Brechner, Dan, & Co., New York, N. Y. 637,103, pub. 8-28-56. Cl. 22.

Briegel, Theodore W., Moline, to The Briegel Method Tool Co., Galva, Ill. 340,116, ren. 11-3-56. Cl. 13.

Briegel Method Tool Co., The: *See*— Briegel, Theodore W.

British & Foreign Tobacco Co. Ltd., London, England. 637,025, pub. 8-28-56. Cl. 6.

Brouwer, S. J., Shoe Co., Milwaukee, Wis. 127,264, canc. Cl. 39.

Bube Bros., Palmyra, Ind. 637,307. Cl. 46.

Buffington's, Inc., Worcester, Mass. 637,066, pub. 8-28-56. Cl. 18.

Bump, George A., Park Ridge, Ill. 528,985, canc. Cl. 13.

Burkhardt Bros. Co., The, Cincinnati, Ohio. 529,213, canc. Cl. 39.

Burroughs Wellcome & Co. (U. S. A.), Inc., Tuckahoe, N. Y. 342,528, ren. 1-19-57. Cl. 18.

By-Buk Co., Los Angeles, Calif. 637,000, pub. 8-28-56. Cl. 6.

Cabot, Godfrey L., Inc., Boston, Mass. 529,174, canc. Cl. 1.

Cabot, Godfrey L., Inc., Boston, Mass. 529,175, canc. Cl. 1.

California Prune and Apricot Growers Association, San Jose, Calif. 637,306. Cl. 46.

Canada Cycle and Motor Co., Ltd., Weston, Toronto, Ontario, Canada. 637,101, pub. 8-28-56. Cl. 22.

Canada Cycle and Motor Co., Ltd., Weston, Ontario, Canada. 637,102, pub. 8-28-56. Cl. 22.

Canadian Forest Products Ltd., Vancouver, British Columbia, Canada. 637,035, pub. 8-28-56. Cl. 12.

Capital City Products Co., The, Columbus, Ohio. 637,287, pub. 8-28-56. Cl. 46.

Caradine Hat Co., St. Louis, Mo. 338,466, ren. 9-8-56. Cl. 39.

Carey, Philip, Mfg. Co., The, Lockland, Cincinnati, Ohio. 529,034, canc. Cl. 12.

Caribe China Corp., Vega Baja, Puerto Rico. 637,138, pub. 8-28-56. Cl. 30.

Carlisle Chemical Works, Inc.: *See*— Advance Solvents & Chemical Corp.

Case, Harold, d. b. a. The Marie Co., to The Marie Co., Inc., New York, N. Y. 343,731, ren. 2-3-57. Cl. 35.

Castleton China, Inc., New Castle, Pa. 637,144, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,145, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,146, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,147, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,148, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,149, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,150, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,151, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,152, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,153, pub. 8-28-56. Cl. 30.

Castleton China, Inc., New Castle, Pa. 637,154, pub. 8–28–56. Cl. 30.
Castleton China, Inc., New Castle, Pa. 637,155, pub. 8–28–56. Cl. 30.
Castleton China, Inc., New Castle, Pa. 637,156, pub. 8–28–56. Cl. 30.
Castleton China, Inc., New Castle, Pa. 637,157, pub. 8–28–56. Cl. 30.
Castleton China, Inc., New Castle, Pa. 637,158, pub. 8–28–56. Cl. 30.
Castleton China, Inc., New Castle, Pa. 637,159, pub. 8–28–56. Cl. 30.
Celluloid Corp., Newark, N. J., to Paul Hanson Co., Inc., New York, N. Y. 336,008, ren. 6–23–56. Cl. 34.
Central States Specialties Inc., Chicago, Ill. 637,175, pub. 8–28–56. Cl. 37.
Century Engineering Corp., Cedar Rapids, Iowa. 529,041, canc. Cl. 34.
Chapman & Sons Hosiery Co., Shreveport, La. 637,221, pub. 8–28–56. Cl. 39.
Chap Stick Co.: *See*—
Morton Mfg. Corp.
Chelmsford Co., Inc., The, New York, N. Y. 637,245, pub. 8–28–56. Cl. 45.
Chemical Development Corp., Newark, N. J. 529,241, canc. Cl. 6.
Chemische Fabrik Promonta G. m. b. H., Hamburg, West Germany. 637,070, pub. 8–28–56. Cl. 18.
Chicago Printed String Co., Chicago, Ill. 633,428. Am. 7(d). Cl. 7.
Chips 'N Twigs, Inc.: *See*—
Haspel Brothers, Inc.
Clark, Walter E., Jr., d. b. a. Walter & Clark & Son, Orange, Conn. 637,034, pub. 8–28–56. Cl. 12.
Clausen, Danfoss ved Mads, Nordborg, Als, Denmark. 627,782, Am. 7(d). Cl. 26.
Clausen, Danfoss ved Mads, Nordborg, Als, Denmark. 630,256, cor. Cl. 13.
Cleveland-Cliffs Iron Co., The, Cleveland, Ohio. 529,002, canc. Cl. 1.
Clinical Products Ltd., Richmond, England. 529,000, canc. Cl. 18.
Cluett, Peabody & Co., Inc., Troy, N. Y. 339,984, ren. 10–27–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 637,204, pub. 8–28–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 637,209, pub. 8–28–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 637,210, pub. 8–28–56. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 637,211, pub. 8–28–56. Cl. 39.
Cock Walk Farms: *See*—
Houghton, E. P., Jr.
Cohen, Alvin H., d. b. a. Gemgravure, New York, N. Y. 637,137, pub. 8–28–56. Cl. 28.
Cohen, Oscar, Chicago, Ill. 529,163, canc. Cl. 39.
Cole Chemical Co., St. Louis, Mo. 529,207, canc. Cl. 18.
Colorado Insurance Group, Inc., Boulder, Colo. 637,296, pub. 8–28–56. Cl. 102.
Comfort Paper Corp., San Francisco, Calif. 528,931, canc. Cl. 37.
Continental Distilling Corp., Philadelphia, Pa. 637,273, pub. 8–28–56. Cl. 49.
Coreth, Anton A., d. b. a. The Anton Von Coreth Co., Larchmont, N. Y. 637,233, pub. 8–28–56. Cl. 46.
Cory Corp., Chicago, Ill. 637,178, pub. 8–28–56. Cl. 37.
Countess Mara, Inc., New York, N. Y. 637,205, pub. 2–28–56. Cl. 39.
County Line Cheese Co. Inc.: *See*—
Marolf, Fred.
County Line Cheese Factory: *See*—
Marolf, Fred.
Crown Zellerbach Corp., San Francisco, Calif. 637,176, pub. 8–28–56. Cl. 37.
Culligan, Inc., Northbrook, Ill. 637,050, pub. 8–28–56. Cl. 16.
Cummins, Morris A., d. b. a. The Larjachrome Co., New York, N. Y. 529,123, canc. Cl. 26.
Curtis Lighting, Inc.: *See*—
National X-Ray Reflector Co.
Cyr Pharmacal Regd.: *See*—
Cyr, Raymond.
Cyr, Raymond, d. b. a. Cyr Pharmacal Regd., Shawinigan Falls, Quebec, Canada. 529,214, canc. Cl. 18.
Dallas Uniform Cap & Emblem Mfg. Inc., Dallas, Tex. 637,206, pub. 8–28–56. Cl. 39.
Dallioux, André J., Paris, France. 528,971, canc. Cl. 3.
Dan River Mills, Inc.: *See*—
Riverside & Dan River Cotton Mills, Inc.
Delaware Mills, Inc., New Castle, Del. 637,236, pub. 8–28–56. Cl. 43.
Delia Bros., Brooklyn, N. Y. 529,118, canc. Cl. 1.
Delta Tank Mfg. Co., Inc., Baton Rouge, La. 637,117, pub. 8–28–56. Cl. 23.
De Domenico, Giuseppe, Bolzano, Italy. 637,059, pub. 8–28–56. Cl. 18.
Denoyer-Geppert Co., Chicago, Ill. 637,187, pub. 8–28–56. Cl. 38.
Dewey & Almy Chemical Co. W. R. Grace & Co., Cambridge, Mass. 365,944. Am. 7(d). Cl. 50.
Dictaphone Corp., Bridgeport, Conn. 637,060, pub. 8–28–56. Cl. 21.
Doane Agricultural Service, Inc., St. Louis, Mo. 637,291, pub. 8–28–56. Cl. 100.
Dormer, Frederic J., Bloomfield, N. J. 637,226, pub. 8–28–56. Cl. 42.
Dorr Co., Inc., The, New York, N. Y., to Dorr-Oliver Inc., Stamford, Conn. 343,664, ren. 3–2–57. Cl. 23.
Dorr-Oliver Inc.: *See*—
Dorr Co., Inc., The.
Dunaway, Judson, Corp., Dover, N. H. 637,290, pub. 8–28–56. Cl. 52.
Duncan Coffee Co., Houston, Tex. 637,271, pub. 8–28–56. Cl. 46.
Dunham Brothers Co., Brattleboro, Vt. 637,216, pub. 8–28–56. Cl. 39.
Dunhill, Kay, Inc., Long Branch, N. J., to Kalison-Michenberg, Inc., New York, N. Y. 341,300, ren. 12–1–56. Cl. 39.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 637,053, pub. 8–28–56. Cl. 16.
Eagle Products Co., Bradford, Pa. 529,071, canc. Cl. 18.
Eakins, Herbert W., d. b. a. Long Eakins Co., Springfield, Ohio. 340,242, ren. 11–3–56. Cl. 46.
East Moline Builders, East Moline, Ill. 529,265, canc. Cl. 19.
Eastyarn, Inc., Brooklyn, N. Y. 637,238, pub. 8–28–56. Cl. 43.
Eclipse Lawn Mower Co., The, Prophetstown, Ill. 338,642, cor. Cl. 23.
Eddy, L. M., Mfg. Co., Inc., Framingham, Mass. 637,208, pub. 8–28–56. Cl. 39.
Electric Auto-Lite Co., The, Toledo, Ohio. 637,085, pub. 8–28–56. Cl. 21.
Emery Industries, Inc., Cincinnati, Ohio. 637,021, pub. 8–28–56. Cl. 6.
Em-Bee Blouse Co., New York, N. Y. 529,195, canc. Cl. 39.
Endlaco, Inc., Milwaukee, Wis. 637,104, pub. 8–28–56. Cl. 22.
Endo Laboratories Inc.: *See*—
Endo Products, Inc.
Endo Products, Inc., New York, to Endo Laboratories Inc., Richmond Hill, N. Y. 342,266, ren. 1–12–57. Cl. 18.
Eudy, Fluta H., d. b. a. Fluta Sew Service, Fairfield, Calif. 529,049, canc. Cl. 39.
Fabri-Valve Co. of America, Portland, Oreg. 637,042, pub. 8–28–56. Cl. 13.
Faleck & Lamkay Co., New York, N. Y. 529,001, canc. Cl. 39.
Farmers Hybrid Hogs, Hampton, Iowa. 636,982, pub. 8–28–56. Cl. 1.
Federated Department Stores, Inc.: *See*—
Filene's, Wm., Sons Co.
Feno Corp., The, Rayne, La. 637,058, pub. 8–28–56. Cl. 18.
Field, Charles W., Minneapolis, Minn. 636,994, pub. 8–28–56. Cl. 3.
Filene's, Wm., Sons Co., Boston, Mass., to Federated Department Stores, Inc., Cincinnati, Ohio. 529,161, canc. Cl. 1.
Firestone Tire & Rubber Co., The, Akron, Ohio. 342,700, ren. 1–26–57. Cl. 5.
Firma W. Clauberg, Sollingen, Germany. 637,301. Cl. 23.
Firmenich, Inc.: *See*—
Naef, M., & Cie.
Fleetway Inc., Burbank, Calif. 529,257, canc. Cl. 46.
Flexo Products, Inc., Cleveland, Ohio. 637,167, pub. 8–28–56. Cl. 31.
Fluta Sew Service: *See*—
Eudy, Fluta H.
Flynn, Daniel G., Quincy, Mass. 529,192, canc. Cl. 34.
Frank Brothers Footwear, Inc., New York, N. Y. 341,141, ren. 12–1–56. Cl. 39.
Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany. 637,126, pub. 8–28–56. Cl. 26.
Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany. 637,127, pub. 8–28–56. Cl. 26.
Freydberg Bros.-Strauss, Inc., New York, N. Y. 529,216, canc. Cl. 43.
Fuller, D. B., & Co., Inc., New York, N. Y. 637,232, pub. 8–28–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 637,233, pub. 8–28–56. Cl. 42.
Fun-Craft, Inc., Winamac, Ind. 637,108, pub. 8–28–56. Cl. 22.
Furlow, Vernon, d. b. a. Vernon Furlow Co., Amarillo, Tex. 637,283, pub. 8–28–56. Cl. 51.
Garvenswerke: *See*—
Schoenborn-Buchheim, George.
Gateway Luggage Mfg. Co., Inc., Kansas City, Mo. 636,992, pub. 8–28–56. Cl. 3.
Geigy Chemical Corp.: *See*—
Geigy Co., Inc.
Geigy Co., Inc., to Geigy Chemical Corp., New York, N. Y. 342,763, ren. 1–26–57. Cl. 6.
Gemgravure: *See*—
Cohen, Alvin H.
General Electric Co., Schenectady, N. Y. 637,022, pub. 8–28–56. Cl. 6.
General Tire & Rubber Co., The, Akron, Ohio. 528,929, canc. Cl. 26.
General Tire & Rubber Co., The, Akron, Ohio. 636,985, pub. 8–28–56. Cl. 1.
Gillon, J. Warren, d. b. a. Gillon Products, San Mateo, Calif. 637,107, pub. 8–28–56. Cl. 22.
Gillon Products: *See*—
Gillon, J. Warren.
Gimbel Brothers, Inc., New York, N. Y. 529,215, canc. Cl. 39.
Gisler Polish, Inc., Indianapolis, Ind. 636,993, pub. 8–28–56. Cl. 4.
Globe Auto Glass Co., Chicago, Ill. 529,060, canc. Cl. 26.
Globe Jewelry and Chain Mfg. Co., Providence, R. I. 528,980, canc. Cl. 28.
Globe Roofing Products Co., Inc., Whiting, Ind. 637,083, pub. 8–28–56. Cl. 12.
Godman, H. C., Co., The, Columbus, Ohio. 637,193, pub. 8–28–56. Cl. 39.
Goerlich's Inc., Toledo, Ohio. 339,172, ren. 9–29–56. Cl. 23.
Goldcrest Ceramics Corp., Trenton, N. J., and New York, N. Y. 529,025, canc. Cl. 50.
Goldsmith Bros., New York, N. Y. 637,162, pub. 8–28–56. Cl. 37.



Good Time Jass Record Co., Inc., Hollywood, Calif. 637,174, pub. 8–19–56. Cl. 36.
Gordon, Eleanor: *See*—
Gordon, Wilmer I.
Gordon, Wilmer I., to E. Gordon, to E. Gordon, Cleveland, Ohio. 341,573, ren. 12–15–56. Cl. 16.
Grand Bag & Paper Co. Inc., New York, N. Y. 529,051, canc. Cl. 37.
Grant, W. T., Co., New York, N. Y. 529,070, canc. Cl. 39.
Great Lakes Mink Association, Salem, Wis. 529,162, canc. Cl. 1.
Green Bird Co., New York, N. Y. 637,199, pub. 8–28–56. Cl. 39.
Greenebaum, J., Tanning Co., Chicago, Ill. 528,957, canc. Cl. 1.
Grinnell Lithographic Co., Inc., New York, N. Y. 529,224, canc. Cl. 39.
Guava Products, Inc., Hato Rey, Puerto Rico. 637,257, pub. 8–28–56. Cl. 46.
Gunther Products, Inc., Galesburg, Ill. 637,250, pub. 8–28–56. Cl. 46.
H-B Industries, Inc., Oakland, Calif. 637,275, pub. 8–28–56. Cl. 50.
Haddock, Urban R., Springdale, Ark. 529,210, canc. Cl. 18.
Hall, Frances G., Co., New York, N. Y. 529,054, canc. Cl. 46.
Hanson, Paul, Co. Inc.: *See*—
Celluloid Corp.
Hardin & Co.: *See*—
Hardin, R. H.
Hardin, R. H., d. b. a. Hardin & Co., Gadsden, Ala. 637,247, pub. 8–28–56. Cl. 46.
Haspel Brothers, Inc., New Orleans, La., to Chips 'N Twigs, Inc., Philadelphia, Pa. 339,986, ren. 10–27–56. Cl. 39.
Hastings, Addison R.: *See*—
Hastings, Margaret R.
Hastings, Margaret R., Irvington, N. Y., from A. B. Hastings. 529,235, canc. Cl. 8.
Hat Corp. of America, Norwalk, Conn. 342,551, ren. 1–19–57. Cl. 39.
Hawthorn-Mellody Farms: *See*—
American Processing and Sales Co.
Haymaker Sports, Inc., New York, N. Y. 637,235, pub. 8–28–56. Cl. 42.
Healthways, Los Angeles, Calif. 637,109, pub. 8–28–56. Cl. 22.
Heyer Industries Inc., Belleville, N. J. 637,129, pub. 8–28–56. Cl. 26.
Hinchcliffe, Theodore H., Pasadena, Calif. 637,172, pub. 8–28–56. Cl. 35.
Hi-Test Twist Drill Works, Inc., New York, N. Y. 637,303. Cl. 23.
Hobart Mfg. Co., The, Troy, Ohio. 637,082, pub. 8–28–56. Cl. 21.
Hoffman, Earl S., d. b. a. Trello Development Co., Philadelphia, Pa. 637,001, pub. 8–28–56. Cl. 5.
Hoffman, W. C., Maywood, Ill. 333,784, canc. Cl. 38.
Holland-Rantos Co., Inc., New York, N. Y. 637,243, pub. 8–28–56. Cl. 44.
Hollander's Auto Stores, to Hollander's Home and Auto Suppliers, Inc., York, Pa. 339,206, ren. 9–1–56. Cl. 21.
Hollander's Home and Auto Suppliers, Inc.: *See*—
Hollander's Auto Stores.
Houghton, E. P., Jr., d. b. a. Cock Walk Farms, La Grange, Tex. 637,249, pub. 8–28–56. Cl. 46.
House, L. J., Convex Glass Co., Point Marion, Pa. 637,169, pub. 8–28–56. Cl. 23.
House, L. J., Convex Glass Co., Point Marion, Pa. 637,170, pub. 8–28–56. Cl. 23.
Hubbard Pants Co., Inc., Bremen, Ga. 637,191, pub. 8–28–56. Cl. 39.
Huber, J. M., Corp.: *See*—
Huber, J. M., Inc.
Huber, J. M., Inc., New York, N. Y., to J. M. Huber Corp., Red Bank, N. J., and New York, N. Y. 343,518, ren. 2–23–57. Cl. 6.
Humko Co., The, Memphis, Tenn. 637,264, pub. 8–28–56. Cl. 46.
Hunt, Philip A., Co., Palisades Park, N. J. 637,023, pub. 8–28–56. Cl. 6.
I. B. Corp., Cambridge, Mass. 338,837, ren. 9–15–56. Cl. 38.
Independent Grocers' Alliance Distributing Co., Chicago, Ill. 637,292, pub. 8–28–56. Cl. 100.
Instrumentation Associates, New York, N. Y. 637,131, pub. 8–28–56. Cl. 26.
Interchemical Corp., New York, N. Y. 529,130, canc. Cl. 11.
Interchemical Corp., New York, N. Y. 529,131, canc. Cl. 11.
Irolyn Laboratories: *See*—
Movitt, Louis.
Iten Biscuit Co., Omaha, Neb., to National Biscuit Co., New York, N. Y. 113,742, ren. 10–31–56. Cl. 46.
Jacobs, Fred, Shoe & Slipper Corp., New York, N. Y. 528,976, canc. Cl. 39.
Jacobs, Fred, Shoe & Slipper Corp., New York, N. Y. 528,977, canc. Cl. 39.
Jamieson Pharmacal Co., Detroit, Mich. 529,129, canc. Cl. 18.
Jeffries, W. C., d. b. a. Kellogg's Insecticide Co., Los Angeles, Calif. 637,015, pub. 8–28–56. Cl. 6.
Jell-E-Seal Sales Co.: *See*—
Odend'Hal, Lucille J.
Johns-Manville Corp., New York, N. Y. 339,170, ren. 9–29–56. Cl. 12.
Johnson & Johnson, New Brunswick, N. J. 529,112, canc. Cl. 44.
Johnson & Johnson, New Brunswick, N. J. 637,311. Cl. 51.
Junior Look, Inc., New York, N. Y. 637,196, pub. 8–28–56. Cl. 39.
Kahn-Halbreich, Abe, Co., to Abe Kahn-Halbreich Corp., New York, N. Y. 332,593, ren. 2–18–56. Cl. 39.
Kahn-Halbreich, Abe, Corp.: *See*—
Kahn-Halbreich, Abe, Co.
Kalison-Michenberg, Inc.: *See*—
Dunhill, Kay, Inc.
Kayser, Julius, & Co., New York, N. Y. 637,217, pub. 8–28–56. Cl. 39.
Keefe, Jack, Jr., Tulsa, Okla. 637,300. Cl. 21.
Kellogg's Insecticide Co.: *See*—
Jeffries, W. C.
Kemart Corp., San Francisco, Calif. 528,943, canc. Cl. 11.
Kemart Corp., San Francisco, Calif. 528,944, canc. Cl. 11.
Kemart Corp., San Francisco, Calif. 529,024, canc. Cl. 26.
Kenneth, Malcolm Co., Boston, Mass. 637,223, pub. 8–28–56. Cl. 42.
Kickbusch, A., Grocery Co., Wausau, Wis. 637,262, pub. 9–4–56. Cl. 46.
King, James L., Turlock, Calif. 637,099, pub. 8–28–56. Cl. 22.
Klenzade Products, Inc., Beloit, Wis. 637,287, pub. 8–28–56. Cl. 52.
Knapp-Monarch Co., St. Louis, Mo. 637,018, pub. 8–28–56. Cl. 6.
Knoll Associates Inc., New York, N. Y. 637,225, pub. 8–28–56. Cl. 42.
Knott, William T., Co., Inc., New York, N. Y., to Mercantile Stores Co., Inc., Wilmington, Del. 338,590, ren. 9–8–56. Cl. 39.
Kokomo Sanitary Pottery Corp., Kokomo, Ind., and Chicago, Ill. 528,972, canc. Cl. 13.
Korbuly, Johann, Pfaffstaetten-Vienna, Austria. 637,096, pub. 8–28–56. Cl. 22.
Kuffof Mfg. Corp., New York, N. Y. 637,197, pub. 8–28–56. Cl. 39.
Kumar Kompany, Inc., Thomasville, Ga. 637,289, pub. 8–28–56. Cl. 52.
L. G. Motors (Staines) Ltd., Staines, to Lagonda Ltd., London, England. 341,372, ren. 12–8–56. Cl. 19.
La Chemise Lacoste, Paris, France. 637,201, pub. 8–28–56. Cl. 39.
Lacrosse Rubber Mills Co., Lacrosse, Wis. 637,213, pub. 8–28–56. Cl. 39.
Lagonda Ltd.: *See*—
L. G. Motors (Staines) Ltd.
Landers, Frary & Clark, New Britain, Conn. 111,952, ren. 8–15–56. Cl. 21.
Landers, Frary & Clark, New Britain, Conn. 340,336, ren. 11–3–56. Cl. 21.
Larjachrome Co., The: *See*—
Cummins, Norris A.
Larson, L. P., Jr. Co., Wm. Wrigley, Jr., Co., Chicago, Ill. 107,789. Am. 7(d). Cl. 46.
Lase Fountain Pen Corp., New York, N. Y. 529,245, canc. Cl. 37.
Lasting Products Co., Baltimore, Md. 637,056, pub. 8–28–56. Cl. 16.
Lauer, Max, New York, N. Y. 529,004, canc. Cl. 39.
Lax & Burgheimer, Inc.: *See*—
Lax & Burgheimer Inc.
Lax & Burgheimer Inc., to Lax & Burgheimer, Inc., New York, N. Y. 114,894, ren. 1–9–57. Cl. 39.
Leaf Brands, Inc., Chicago, Ill. 637,261, pub. 8–28–56. Cl. 46.
Lee, H. D., Co., Inc., The, Kansas City, Mo. 637,195, pub. 8–28–56. Cl. 39.
Le Gear, Dr. L. D., Medicine Co., St. Louis, Mo. 637,067, pub. 8–28–56. Cl. 18.
Lehman, Meyer: *See*—
Lehman Radio Salon, Inc.
Lehman Radio Salon, Inc., to M. Lehman, New York, N. Y. 338 588, ren. 9–8–56. Cl. 21.
Lentheric, Inc., New York, N. Y. 637,280, pub. 8–28–56. Cl. 51.
Le Tourneau-Westinghouse Co., Peoria, Ill. 637,113, pub. 8–28–56. Cl. 23.
Levinson, Max, d. b. a. Newburgh Tissue Co., Newburg, N. Y. 637,181, pub. 8–28–56. Cl. 37.
Levoy, Monroe B., New York, N. Y., to Tura, Inc. 529,020, canc. Cl. 26.
Little Jean Togs Inc., New York, N. Y. 528,936, canc. Cl. 39.
Logan, Frances J., Lawrence, Kans. 529,076, canc. Cl. 39.
London & Co., Inc., Elisabeth, N. J. 339,313, ren. 10–6–56. Cl. 49.
Long-Eakins Co.: *See*—
Eakins, Herbert W.
Louisville Tin and Stove Co., Inc., Louisville, Ky. 636,991, pub. 8–28–56. Cl. 2.
Lufkin Rule Co., The, Saginaw, Mich. 529,239, canc. Cl. 26.
Lushan Co., The, Boston, Mass. 636,986, pub. 8–28–56. Cl. 1.
Lynch, J., Co.: *See*—
Lynch, John.
Lynch, John, d. b. a. J. Lynch Co., New York, N. Y. 637,111, pub. 8–28–56. Cl. 23.
M. F. A. Mutual Insurance Co., Columbia, Mo. 637,295, pub. 8–28–56. Cl. 102.
Mabry, Thomas, Chicago, Ill. 529 091, canc. Cl. 43.
MacArthur, Arthur P., d. b. a. Thirsty Deer, Milford, Pa. 637,244, pub. 8–28–56. Cl. 45.
Machlanburg-Duncan Co., Oklahoma City, Okla. 637,041, pub. 8–28–56. Cl. 13.
Macy, R. H., & Co., Inc., New York, N. Y. 338,467, ren. 9–8–56. Cl. 39.
Madden Co., The, to Poor & Co., Chicago, Ill. 116,644, ren. 2–27–57. Cl. 14.
Madison Pharmaceutical Laboratories, Inc., New York, N. Y. 637,071, pub. 8–28–56. Cl. 18.
Madison Pharmaceutical Laboratories, Inc., New York, N. Y. 637,072, pub. 8–28–56. Cl. 18.
Madison Pharmaceutical Laboratories, Inc., New York, N. Y. 637,073, pub. 8–28–56. Cl. 18.
Mallinckrodt Chemical Works, St. Louis, Mo. 637,009, pub. 8–28–56. Cl. 6.
Marathon Corp., Menasha, Wis. 636,989, pub. 8–28–56. Cl. 2.

Margolis, Bernard A., d. b. a. The Margolis Co., Kansas City, Mo. 529,182, canc. Cl. 18.
Margolis Co., The: *See*—
Margolis, Bernard A.
Marichal-Kenes, New York, N. Y. 637,269, pub. 8-28-56. Cl. 46.
Marks Bros. Jewelers, Inc., Chicago, Ill. 637,135, pub. 8-28-56. Cl. 27.
Marlo Co., The: *See*—
Case, Harold.
Marlo Co., Inc., The: *See*—
Case, Harold.
Marlux Corp., Somerville, Mass. 636,978, pub. 8-28-56. Cl. 1.
Marolf, Fred, d. b. a. County Line Cheese Factory, Auburn, by County Line Cheese Co. Inc., Fort Wayne, Ind. 339,940, 12(c) pub. 11-13-56. Cl. 46.
Martin Stamping and Stove Co., Madison County and Huntsville, Ala. 528,901, canc. Cl. 34.
Massey-Harris-Ferguson Inc., Racine, Wis. 637,122, pub. 8-28-56. Cl. 23.
Master Craft Decalcomania Co., Chicago, Ill. 637,188, pub. 8-28-56. Cl. 38.
Matson, W. L., Corp., The: *See*—
Unimax Switch Corp.
May Department Stores Co., The, New York, N. Y. 637,304. Cl. 32.
McCampbell & Co., Inc., New York, N. Y. 637,230, pub. 8-28-56. Cl. 42.
McClung, C. M., & Co., Inc., Knoxville, Tenn. 637,121, pub. 8-28-56. Cl. 23.
McDonough Co., d. b. a. O. Ames Co., Parkersburg, W. Va. 637,123, pub. 8-28-56. Cl. 23.
McGinnis, Frank, Glendive, Mont. 529,276, canc. Cl. 22.
McLellan, E. W., Co., San Francisco, Calif. 529,033, canc. Cl. 1.
Mechanite Metal Corp., New Rochelle, N. Y. 637,014, pub. 8-28-56. Cl. 6.
Melchior, Armstrong, Dessau Co. of Delaware, Inc., New York, N. Y. 340,118, ren. 11-3-56. Cl. 34.
Mercantile Stores Co., Inc.: *See*—
Knott, William T., Co., Inc.
Merck & Co., Inc., Rahway, N. J. 637,077, pub. 8-28-56. Cl. 18.
Miami Publishing Co., Miami, Fla. 529,196, canc. Cl. 38.
Micro Metallic Corp., Glen Cove, N. Y. 637,160, pub. 8-28-56. Cl. 31.
Micro Metallic Corp., Glen Cove, N. Y. 637,161, pub. 8-28-56. Cl. 31.
Micro Metallic Corp., Glen Cove, N. Y. 637,162, pub. 8-28-56. Cl. 31.
Micro Metallic Corp., Glen Cove, N. Y. 637,163, pub. 8-28-56. Cl. 31.
Mid-States Gummed Paper Co., Chicago, Ill. 637,006, pub. 8-28-56. Cl. 5.
Mid-States Gummed Paper Co., Chicago, Ill. 637,007, pub. 8-28-56. Cl. 5.
Midwest Waste Material Co., Detroit, Mich. 636,983, pub. 8-28-56. Cl. 1.
Miles Laboratories, Inc.: *See*—
Takamine Laboratory, Inc.
Miller Bros. Hat Co. Inc.: *See*—
Adam Hat Stores, Inc.
Miller, Herman F., Los Angeles, Calif. 529,150, canc. Cl. 26.
Millinger, Bernard, New York, N. Y. 637,194, pub. 8-28-56. Cl. 39.
Millville Mfg. Co., The, Philadelphia, Pa. 637,231, pub. 8-28-56. Cl. 42.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. 528,969, canc. Cl. 26.
Mitchell, John C., San Leandro, Calif. 637,190, pub. 8-28-56. Cl. 38.
Mitsubishi Shoji Kaisha, Ltd., Chuo-Ku, Tokyo, Japan. 637,276, pub. 8-28-56. Cl. 51.
Modes & Fabrics, New York, N. Y. 529,246, canc. Cl. 40.
Mohawk Carpet Mills, Inc., Amsterdam, N. Y. 529,260, canc. Cl. 42.
Mohawk Carpet Mills, Inc., Amsterdam, N. Y. 529,261, canc. Cl. 42.
Monarch Rug Mills, Dalton, Ga. 637,234, pub. 8-28-56. Cl. 42.
Morey Mercantile Co., Denver, Colo. 637,254, pub. 8-28-56. Cl. 46.
Mor-Hair, Inc., Brooklyn, N. Y. 529,037, canc. Cl. 51.
Morrell, John, & Co., Ottumwa, Iowa. 637,266, pub. 8-28-56. Cl. 46.
Morton Mfg. Corp., d. b. a. Chap Stick Co., Lynchburg, Va. 637,290. Cl. 18.
Movitt, Louis, d. b. a. Irelyn Laboratories, Chicago, Ill. 338,872, ren. 8-15-56. Cl. 18.
Mud Control Laboratories, Inc., Oklahoma City, Okla. 636,987, pub. 8-28-56. Cl. 1.
Mulford Colloid Laboratories, Philadelphia, Pa. 637,061, pub. 8-28-56. Cl. 18.
Mutual-Rosenbloom Co., New York, N. Y. 529,158, canc. Cl. 39.
Myers, John H., d. b. a. Utility Products Co., Valatie, N. Y. 637,004, pub. 8-28-56. Cl. 5.
Naas Corp., The: *See*—
Naas Corp. of Indiana, The.
Naas Corp. of Indiana, The, d. b. a. The Naas Corp., now by change of name Naas Foods, Inc., Portland, Ind. 637,306. Cl. 46.
Naas Foods, Inc.: *See*—
Naas Corp. of Indiana, The.
Naef, M., & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 210,971, 12(c) pub. 11-13-56. Cl. 51.
Naef, M., & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 210,972, 12(c) pub. 11-13-56. Cl. 51.
Naef, M., & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 236,145, 12(c) pub. 11-13-56. Cl. 51.
Naef, M., & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 236,146, 12(c) pub. 11-13-56. Cl. 51.
Naef, M., & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 236,240, 12(c) pub. 11-13-56. Cl. 51.
Nash, Inc., Jersey City, N. J. 636,993, pub. 8-28-56. Cl. 3.
National Biscuit Co.: *See*—
Iten Biscuit Co.
National Blank Book Co., Holyoke, Mass. 528,996, canc. Cl. 37.
National Die Casting Co., Chicago, Ill. 637,100, pub. 8-28-56. Cl. 22.
National Glass Co., Inc., Providence, R. I. 528,982, canc. Cl. 12.
National Lead Co., New York, N. Y. 637,017, pub. 8-28-56. Cl. 6.
National Plastic Products Co., The, Odenton, Md. 637,020, pub. 8-28-56. Cl. 12.
National Veneer and Lumber Co., Seymour, Ind. 637,009, pub. 8-28-56. Cl. 5.
National X-Ray Reflector Co., by Curtis Lighting, Inc., Chicago, Ill. 113,807, 12(c) pub. 11-13-56. Cl. 21.
National X-Ray Reflector Co., by Curtis Lighting, Inc., Chicago, Ill. 114,522, 12(c) pub. 11-13-56. Cl. 21.
Natural Products Corp., Oxford, Mich. 637,268. Cl. 12.
Nelson, Frederick E., d. b. a. Nelson Industries, Pittsburgh, Pa. 637,090, pub. 8-28-56. Cl. 12.
Nelson Industries: *See*—
Nelson, Frederick E.
Nestle-Lemur Co., The, New York, N. Y. 637,310. Cl. 51.
New Bedford Cordage Co., New Bedford, Mass. 637,024, pub. 8-28-56. Cl. 7.
Newberry, J. J., Co., New York, N. Y. 637,196, pub. 8-28-56. Cl. 38.
Newburgh Tissue Co.: *See*—
Levinson, Max.
Neyraco Paper Corp., New York, N. Y. 637,183, pub. 8-28-56. Cl. 37.
Nielsen, Lewis, d. b. a. Nielsen Packing Co., Salinas, Calif. 637,272, pub. 8-28-56. Cl. 46.
Nielsen Packing Co.: *See*—
Nielsen, Lewis.
Nissenbaum, Bernard, d. b. a. Vumatic Co., Brooklyn, N. Y. 637,125, pub. 8-28-56. Cl. 26.
Nocsting Pin Ticket Co., Inc., Mount Vernon, N. Y. 338,862, ren. 8-15-56. Cl. 37.
Norma Mfg. Co., New York, N. Y. 529,275, canc. Cl. 22.
Norwich Mills, Inc., Norwich, N. Y. 637,214, pub. 8-28-56. Cl. 39.
Novocol Chemical Mfg. Co., Inc., Brooklyn, N. Y. 529,190, canc. Cl. 18.
Nuclear Instrument and Chemical Corp., Chicago, Ill. 637,132, pub. 8-28-56. Cl. 26.
Odend'Hal, Lucille J., d. b. a. Jell-E-Seal Sales Co., Seattle, Wash. 528,968, canc. Cl. 50.
Oglethorpe Sports Distributors Inc., Savannah, Ga. 637,097, pub. 8-28-56. Cl. 22.
Olive Hillside Groves, Olive, Calif. 342,112, ren. 1-5-57. Cl. 46.
Originator Patterns Inc., New York, N. Y. 529,219, canc. Cl. 26.
Paisley Products, Inc., New York, N. Y. 637,005, pub. 8-28-56. Cl. 5.
Pak Industries, Inc., St. Louis, Mo. 637,086, pub. 8-28-56. Cl. 21.
Pall, David B., d. b. a. Porous Plastic Filter Co., Glen Cove, N. Y. 637,164, pub. 8-28-56. Cl. 31.
Paneva Corp., Grand Rapids, Mich. 529,132, canc. Cl. 29.
Papierfabrik Oberschmitten W. and J. Moufang Aktiengesellschaft, Oberschmitten/Oberhessen, Germany. 637,184, pub. 8-28-56. Cl. 37.
Paregian, Philip, d. b. a. Paregian, Glen Olden, Pa. 637,281, pub. 8-28-56. Cl. 51.
Park & Tilford, to Park & Tilford Distillers Corp., New York, N. Y. 114,274, ren. 12-5-56. Cl. 49.
Park & Tilford Distillers Corp.: *See*—
Park & Tilford.
Pastene, Ray J., San Francisco, Calif. 637,219, pub. 8-28-56. Cl. 39.
Patent Cereals Co., Geneva, N. Y. 637,002, pub. 8-28-56. Cl. 5.
Patent Cereals Co., Geneva, N. Y. 637,052, pub. 8-28-56. Cl. 16.
Pavloff, Alfred, New York, N. Y. 528,981, canc. Cl. 39.
Penney, J. C., Co., New York, N. Y. 338,216, ren. 9-1-56. Cl. 3.
Pep Boys—Manny, Moe & Jack, The, Philadelphia, Pa. 637,173, pub. 8-28-56. Cl. 35.
Peters & Garabedian, Fresno, Calif. 637,268, pub. 8-28-56. Cl. 46.
Peters & Garabedian, Fresno, Calif. 637,269, pub. 8-28-56. Cl. 46.
Photographic Importing & Distributing Corp., Valley Stream, N. Y. 637,130, pub. 8-28-56. Cl. 26.
Pickwick Co., Cedar Rapids, Iowa. 637,115, pub. 8-28-56. Cl. 23.
Pickwick Co., Cedar Rapids, Iowa. 637,116, pub. 8-28-56. Cl. 23.
Pierce, S. S., Co., Boston, Mass. 115,222, ren. 1-30-57. Cl. 46.
Pioneer Suspender Co., Darby, Pa. 636,995, pub. 8-28-56. Cl. 3.
Pirelli Societa per Azioni, Milan, Italy. 637,095, pub. 8-28-56. Cl. 22.
Plastic Industrial Products, Inc., Somerville, Mass. 637,274, pub. 8-28-56. Cl. 50.
Plantiform Foundations, Inc., New York, N. Y. 637,215, pub. 8-28-56. Cl. 39.



Plymouth Wholesale Dry Goods Corp., New York, N. Y. 529,221, canc. Cl. 26.
Pollak, Henry, Inc., New York, N. Y. 529,166, canc. Cl. 40.
Pomona Tile Mfg. Co., Los Angeles, Calif. 529,082, canc. Cl. 12.
Porous Plastic Filter Co.: *See*—
Pall, David B.
Post, Frederick, Co., The, Chicago, Ill. 529,065, canc. Cl. 26.
Prise Battery Corp.: *See*—
Red-Star Battery Co.
Princess Hand Bag Co., New York, N. Y. 529,035, canc. Cl. 3.
Professional Drug Service, Inc., d. b. a. A A Sterek Pharmaceuticals, St. Louis, Mo. 637,057, pub. 8-28-56. Cl. 18.
Propper Mfg. Co., Inc., Long Island City, N. Y. 529,255, canc. Cl. 26.
Prufrex-Elektro-Apparatebau G. m. b. H. Cadolzburg/ober. Furth (Bay), Germany. 637,124, pub. 8-28-56. Cl. 26.
Quik-Pac, Inc., Auburn, Maine. 637,045, pub. 8-28-56. Cl. 12.
Rand Development Corp., Cleveland, Ohio. 637,293, pub. 8-28-56. Cl. 101.
Rand Rubber Co., Inc., Brooklyn, N. Y. 378,672, 12(c) pub. 11-13-56. Cl. 40.
Rand Rubber Co., Inc., Brooklyn, N. Y. 382,612, 12(c) pub. 11-13-56. Cl. 39.
Rand Rubber Co., Inc., Brooklyn, N. Y. 396,161, 12(c) pub. 11-13-56. Cl. 40.
Rand Rubber Co., Inc., Brooklyn, N. Y. 396,955, 12(c) pub. 11-13-56. Cl. 40.
Rand Rubber Co., Inc., Brooklyn, N. Y. 410,105, 12(c) pub. 11-13-56. Cl. 39.
Rand Rubber Co., Inc., Brooklyn, N. Y. 411,087, 12(c) pub. 11-13-56. Cl. 39.
Rand Rubber Co., Inc., Brooklyn, N. Y. 411,407, 12(c) pub. 11-13-56. Cl. 42.
Rand Rubber Co., Inc., Brooklyn, N. Y. 411,836, 12(c) pub. 11-13-56. Cl. 40.
Rand Rubber Co., Inc., Brooklyn, N. Y. 414,725, 12(c) pub. 11-13-56. Cl. 50.
Rand Rubber Co., Inc., Brooklyn, N. Y. 422,644, 12(c) pub. 11-13-56. Cl. 50.
Rand Rubber Co., Inc., Brooklyn, N. Y. 426,147, 12(c) pub. 11-13-56. Cl. 40.
Rayco Mfg. Co., Paterson, N. J. 637,224, pub. 8-28-56. Cl. 42.
Red-Star Battery Co., Dayton, Ohio, to Prise Battery Corp., Hamburg, Pa. 563,195, ren. 2-5-57. Cl. 21.
Red Star Yeast and Products Co., Milwaukee, Wis. 637,251, pub. 8-28-56. Cl. 46.
Regal Shoe Co., Whitman, Mass. 529,304, canc. Cl. 39.
Reliable Luggage, Inc., West Pittsburg, Pa. 636,996, pub. 8-28-56. Cl. 3.
Research Products Corp., Madison, Wis. 637,166, pub. 8-28-56. Cl. 31.
Reversin Co., Chicago, Ill. 637,078, pub. 8-28-56. Cl. 18.
Rexall Drug Co.: *See*—
United Drug Co.
Richter, F. Ad., & Co., Inc., Brooklyn, N. Y. 343,584, ren. 2-22-57. Cl. 18.
Riverside & Dan River Cotton Mills, Inc., to Dan River Mills, Inc., Danville, Va. 340,296, ren. 11-10-56. Cl. 42.
Riverside Ice Co., Fort Worth, Tex. 636,979, pub. 8-28-56. Cl. 1.
Riverside Paper Corp., Appleton, Wis. 637,186, pub. 8-28-56. Cl. 37.
Rock Island Register Co., Rock Island, Ill. 112,857, ren. 9-12-56. Cl. 34.
Ross, A. H., & Sons Co., Chicago, Ill. 636,989, pub. 8-28-56. Cl. 1.
Ross, A. H., & Sons Co., Chicago, Ill. 636,991, pub. 8-28-56. Cl. 1.
Royal Metal Mfg. Co., Chicago, Ill. 637,168, pub. 8-28-56. Cl. 32.
Rundle, George H., Co., The, Piqua, Ohio. 637,043, pub. 8-28-56. Cl. 18.
Safeway Stores, Inc., Oakland, Calif. 637,246, pub. 8-28-56. Cl. 46.
Samuel Stamping & Enameling Co., Chattanooga, Tenn. 341,244, ren. 12-1-56. Cl. 34.
Sanders, Harland, Corbin, Ky. 637,205. Cl. 46.
Sands Mfg. Co., The, Cleveland, Ohio. 529,023, canc. Cl. 34.
Sanger Fruit Growers Association, Sanger, Calif. 637,262, pub. 8-28-56. Cl. 46.
Sanitogen Co., The, Boston, Mass., to Sanitary Products Corp. of America, Plainfield, N. J. 114,523, ren. 1-2-57. Cl. 25.
Sanitary Products Corp. of America: *See*—
Sanitogen Co., The.
Santa Paula Orange Assn., Santa Paula, Calif. 343,167, ren. 2-9-57. Cl. 46.
Santa Paula Orange Assn., Santa Paula, Calif. 343,168, ren. 2-9-57. Cl. 46.
Santa Paula Orange Assn., Santa Paula, Calif. 343,169, ren. 2-9-57. Cl. 46.
Santa Paula Orange Assn., Santa Paula, Calif. 343,170, ren. 2-9-57. Cl. 46.
Scanlan, Jerry, Inc., Chicago, Ill. 637,092, pub. 8-28-56. Cl. 22.
Schering Corp., Bloomfield, N. J. 529,061, canc. Cl. 18.
Schering Corp., Bloomfield, N. J. 637,082, pub. 8-28-56. Cl. 18.
Schlee, W. H., Inc., Lockport, N. Y. 637,096, pub. 8-28-56. Cl. 22.
Schoenbern-Buchheim, George, d. b. a. Garvenswerke, Vienna, Austria. 637,114, pub. 8-28-56. Cl. 22.
Scovill Mfg. Co., Waterbury, Conn. 637,046, pub. 8-28-56. Cl. 13.
Scriota, Inc., Atlanta, Ga. 637,165, pub. 8-28-56. Cl. 37.
Scull, William S., Co., Camden, N. J. 112,568, ren. 9-12-56. Cl. 46.
Security Fur Seal Co., Inc., New York, N. Y. 529,126, canc. Cl. 6.
"Semperit" Osterreichisch-Amerikanische Gummiwerke Aktiengesellschaft: *See*—
Vereinigte Gummiwaren-Fabriken Wimpassing Vormals Mentor J. N. Reithoffer.
Set Screw & Mfg. Co., Bartlett, Ill. 637,040, pub. 8-28-56. Cl. 13.
Sharp & Dohme, Inc., Philadelphia, Pa. 529,181, canc. Cl. 18.
Sheffield Corp., The, Dayton, Ohio. 637,133, pub. 8-28-56. Cl. 26.
Shelbro Inc., New York, N. Y. 528,979, canc. Cl. 39.
Shenango China, Inc., New Castle, Pa. 637,139, pub. 8-28-56. Cl. 29.
Shenango China, Inc., New Castle, Pa. 637,140, pub. 8-28-56. Cl. 29.
Shenango China, Inc., New Castle, Pa. 637,141, pub. 8-28-56. Cl. 29.
Shenango China, Inc., New Castle, Pa. 637,142, pub. 8-28-56. Cl. 29.
Shenango China, Inc., New Castle, Pa. 637,143, pub. 8-28-56. Cl. 29.
Sheridan-Wyoming Coal Co., Inc., Monarch, Wyo. 529,242, canc. Cl. 1.
Sherton Co., The, Pittsburgh, Pa. 529,194, canc. Cl. 51.
Sherwin-Williams Co., The, Cleveland, Ohio. 637,054, pub. 8-28-56. Cl. 16.
Sherwin-Williams Co., The, Cleveland, Ohio. 637,055, pub. 8-28-56. Cl. 16.
Sherwin-Williams Co., The, Cleveland, Ohio. 637,288, pub. 8-28-56. Cl. 52.
Shinton, Inc., Clifton, N. J. 637,286, pub. 8-28-56. Cl. 52.
Sidebotham, Horace W., d. b. a. Aristocrat Narrow Fabric Co., to Aristocrat Narrow Fabrics, Philadelphia, Pa. 336,171, ren. 6-30-56. Cl. 40.
Sierra Engineering Co., Sierra Madre, Calif. 637,241, pub. 8-28-56. Cl. 44.
Sierra Engineering Co., Sierra Madre, Calif. 637,242, pub. 8-28-56. Cl. 44.
Silvercrest Hosiery Co., Inc., New York, N. Y. 637,216, pub. 8-28-56. Cl. 39.
Sloane, W. & J., New York, N. Y. 529,045, canc. Cl. 22.
Smith, Kline & French Laboratories, Philadelphia, Pa. 529,212, canc. Cl. 18.
Smithfield Packing Co., Inc., The, d. b. a. Virginia Packers, Smithfield, Va. 637,295, pub. 8-28-56. Cl. 46.
Smoler, Boris & Sons, Inc., Chicago, Ill. 637,212, pub. 8-28-56. Cl. 39.
Societe Anonyme Specialites Alimentaires Bourgeaisonnaise, Dijon, Cote-D'Or, France. 637,252, pub. 8-28-56. Cl. 46.
Societe Messayon-L'Orcat, Paris, France. 637,278, pub. 8-28-56. Cl. 51.
Soldner, Jack O., d. b. a. Crespen Co., Willoughby, Ohio. 529,193, canc. Cl. 37.
Somersworth Mfg. Co., Inc., Somersworth, N. H. 637,220, pub. 8-28-56. Cl. 39.
Sorg Paper Co., The, Middletown, Ohio. 637,189, pub. 8-28-56. Cl. 37.
Southern Canning Co., Inc., Highlands, Tex., to Southern Canning Sales Inc. 637,253, pub. 8-28-56. Cl. 46.
Southern Canning Sales, Inc.: *See*—
Southern Canning Co., Inc.
Southern Bay-Mix Co., Memphis, Tenn. 637,032, pub. 8-28-56. Cl. 12.
Southwestern Petroleum Co., Inc., d. b. a. The Zone Co., Fort Worth, Tex. 637,051, pub. 8-28-56. Cl. 16.
Spence, Peter, & Sons Ltd., Widnes, England. 637,019, pub. 8-28-56. Cl. 6.
Spence, Peter, & Sons Ltd., Widnes, England. 637,020, pub. 8-28-56. Cl. 6.
Squibb, Paul, Los Olivos, Calif. 528,983, canc. Cl. 34.
Standard Brands Inc., New York, N. Y. 637,296, pub. 8-28-56. Cl. 46.
Standard Oil Co. of California, San Francisco, Calif. 338,782, ren. 9-15-56. Cl. 15.
Standard Packing Corp., Chicago, Ill. 637,179, pub. 8-28-56. Cl. 37.
Standard Stoker Co., Inc., The, New York, N. Y. 528,960, canc. Cl. 34.
Stationers Loose Leaf Co., Milwaukee, Wis. 529,063, canc. Cl. 37.
Stayner Corp., Berkeley, Calif. 637,060, pub. 8-28-56. Cl. 18.
Steubenseen Corp., Red Bank, N. J. 637,240, pub. 8-28-56. Cl. 44.
Stic-Klip Mfg. Co., Inc., Cambridge, Mass. 637,042, pub. 8-28-56. Cl. 13.
Storck, A A, Pharmaceuticals: *See*—
Professional Drug Service, Inc.
Street, R. E., & Co., Inc., Chicago, Ill. 342,489, ren. 1-19-57. Cl. 52.
Stuart Co., The, Pasadena, Calif. 637,079, pub. 8-28-56. Cl. 18.
Stumpp & Walter Co., New York, N. Y. 529,060, canc. Cl. 1.
Stumpp & Walter Co., New York, N. Y. 529,059, canc. Cl. 1.
Sumitomo Shoji Kabushiki Kaisha, Higashi-Ku, Osaka, Japan. 637,227, pub. 8-28-56. Cl. 42.
Sumitomo Shoji Kabushiki Kaisha, Higashi-Ku, Osaka, Japan. 637,237, pub. 8-28-56. Cl. 42.
Sundstrand Machine Tool Co., Rockford, Ill. 637,112, pub. 8-28-56. Cl. 23.
Sussman Dress Corp., Miami, Fla. 529,160, canc. Cl. 39.
Swisga Co.: *See*—
Wise, Trammel A.
Swivelier Co., Inc., New York, N. Y. 637,063, pub. 8-28-56. Cl. 21.
Takamine Laboratory, Inc., Clifton, N. J., and New York, N. Y., by Miles Laboratories, Inc., Elkhart, Ind. 177,062, 12(c) pub. 11-13-56. Cl. 52.

Tahamine Laboratory, Inc., Clifton, N. J., by Miles Laboratories, Inc., Elkhart, Ind. 351,000, 12(c) pub. 11-15-56. Cl. 6.
Tappan Stove Co., The, Mansfield, Ohio. 529,015, canc. Cl. 34.
Taylor Instrument Companies, Rochester, N. Y. 339,358, ren. 10-6-56. Cl. 26.
Taylor Instrument Companies, Rochester, N. Y. 340,151, ren. 11-3-56. Cl. 26.
Textile Industries, Inc.: *See*—
Tower Hosiery Mills, Inc.
Theta Xi Fraternity, St. Louis, Mo. 637,297, pub. 8-28-56. Cl. 200.
Thirsty Deer: *See*—
MacArthur, Arthur P.
Thompson-Hayward Chemical Co., Kansas City, Mo. 637,016, 8-28-56. Cl. 6.
Thoro Mfg. Products, Inc., Fairbury, Ill. 637,023, pub. 8-28-56. Cl. 12.
Tire and Rim Association, Inc., The, Akron, Ohio. 637,044, pub. 8-28-56. Cl. 13.
Titusville Iron Works Co., The, Titusville, Pa. 335,761, ren. 8-16-56. Cl. 34.
To-Derm Products Co., d. b. a. To-Derm Prods. Co., New York, N. Y. 639,236, canc. Cl. 18.
Toledo Plate & Window Glass Co., The, Toledo, Ohio. 637,171, pub. 8-28-56. Cl. 53.
Tower Hosiery Mills, Inc., Burlington, by Textile Industries, Inc., Thomasville, N. C. 335,532, 12(c) pub. 11-13-56. Cl. 39.
Trager Mfg. Co., Inc., Scranton, Pa. 637,012, pub. 8-28-56. Cl. 6.
Trolle Development Co.: *See*—
Hoffman, Earl S.
Truness Mfg. Co., The, Cleveland, Ohio. 637,031, pub. 8-28-56. Cl. 12.
Tri-Lure Co., Mill Rift, Pa. 637,090, pub. 8-28-56. Cl. 22.
Troy Chemical Co., Binghamton, to The Troy Chemical Co., Inc., New York, N. Y. 112,531, ren. 8-26-56. Cl. 18.
Troy Chemical Co., Inc., The: *See*—
Troy Chemical Co.
Tura, Inc.: *See*—
Levey, Monroe B.
Turf, Jack, & Co. Inc., New York, N. Y. 529,012, canc. Cl. 39.
Udo, F. & Sons Co., New Orleans, La. 637,011, pub. 8-28-56. Cl. 6.
Ulrici Medicine Co., Inc., The, New York, N. Y. 339,565, ren. 10-13-56. Cl. 18.
Undertakers Supply Co., Chicago, Ill. 637,284, pub. 8-28-56. Cl. 51.
Uni-Gum Corp., New York, N. Y. 636,984, pub. 8-28-56. Cl. 1.
Unimax Switch Corp. to The W. L. Maxson Corp., by The W. L. Maxson Corp., New York, N. Y. 444,079, 12(c) pub. 11-13-56. Cl. 21.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles, Calif. 340,696, ren. 11-3-56. Cl. 18.
U. S. Electrical Motors, Inc., Los Angeles, Calif. 637,302. Cl. 22.
United States Envelope Co., Springfield, Mass. 637,177, pub. 8-28-56. Cl. 37.
United States Gypsum Co., Chicago, Ill. 342,167, ren. 1-5-57. Cl. 16.
United States Gypsum Co., Chicago, Ill. 342,915, ren. 2-2-57. Cl. 12.
U. S. Industries, Inc., New York, N. Y. 637,047, pub. 8-28-56. Cl. 13.
U. S. Industries, Inc., New York, N. Y. 637,048, pub. 8-28-56. Cl. 13.
United States Safety Service Co., Kansas City, Mo. 637,134, pub. 8-28-56. Cl. 26.
U. S. Vitamin Corp., Dover, Del. 339,564, ren. 10-13-56. Cl. 18.
United World Films, Inc., New York, N. Y. 529,141, canc. Cl. 26.
Universal Producing Co., Fairfield, Iowa. 636,900, pub. 8-28-56. Cl. 2.
Utility Products Co.: *See*—
Myers, John H.
Vapor Recovery Systems Co., Compton, Calif. 637,039, pub. 8-28-56. Cl. 13.
Venus Foods, Los Angeles, Calif. 637,270, pub. 8-28-56. Cl. 46.
Vereinigte Gummiwaren-Fabriken Wimpassing Vormals Meier J. N. Reithoffer, by "Semperit" Oesterreichisch-Amerikanische Gummiwerke Aktiengesellschaft, Vienna, Austria. 338,618, 12(c) pub. 11-13-56. Cl. 40.
Verley, Albert, & Co., Linden, N. J. 637,279, pub. 8-28-56. Cl. 51.
Vernon, Mickey, Game Co., The, Bethesda, Md. 637,110, pub. 8-28-56. Cl. 22.
Veteran Feed Products Co., Detroit, Mich. 637,309. Cl. 46.
Viking Sports Products, Inc., Westwood, N. J. 637,093, pub. 8-28-56. Cl. 22.
Virginia Packers: *See*—
Smithfield Packing Co., Inc.
Von Coreth, Anton, Co., The: *See*—
Coreth, Anton A.
Vumatic Co.: *See*—
Nissenbaum, Bernard.
W. B. Foundations, Inc., Newark, N. J. 342,615, ren. 1-19-57. Cl. 39.
Wagner Electric Corp., St. Louis, Mo. 342,553, ren. 1-19-57. Cl. 13.
Waldes & Co., New York, to Waldes Koh-I-Noor, Inc., Long Island City, N. Y. 115,126, ren. 1-22-57. Cl. 40.
Waldes Koh-I-Noor, Inc.: *See*—
Waldes & Co.
Wales-Strippit Corp., North Tonawanda, N. Y. 637,115, pub. 8-28-56. Cl. 23.
Wales-Strippit Corp., North Tonawanda, N. Y. 637,119, pub. 8-28-56. Cl. 23.
Walkomaire Corp., Knox, Ind. 528,969, canc. Cl. 39.
Wallace & Tiernan Inc., Belleville, N. J. 637,013, pub. 8-28-56. Cl. 6.
Wallach's, Inc., New York, N. Y. 637,200, pub. 8-28-56. Cl. 39.
Walter & Clark & Son: *See*—
Clark, Walter E., Jr.
Warner, Mary Jane, Fairfield, Conn. 529,154, canc. Cl. 40.
Wasco Products, Inc., Cambridge, Mass. 637,036, pub. 8-28-56. Cl. 12.
Weiner, J. L., Co., St. Louis, Mo. 637,091, pub. 8-28-56. Cl. 22.
Weisman Bros., Co., New York, N. Y. 528,935, canc. Cl. 39.
Weiss, Herman E., Shoe Manufacturers, Overland, Mo. 637,202, pub. 8-28-56. Cl. 39.
Wellmade Feather Products Co., Chicago, Ill. 529,173, canc. Cl. 1.
Western Lithograph Co., Los Angeles, Calif. 637,189, pub. 8-28-56. Cl. 20.
Whiting-Adams Co., Inc., Boston, Mass. 528,939, canc. Cl. 29.
Wickes Corp., The, Saginaw, Mich. 529,250, canc. Cl. 26.
Widmayer, John J., d. b. a. Widmayer Steel Co., Mount Rainier, Md. 637,067, pub. 8-28-56. Cl. 12.
Widmayer Steel Co.: *See*—
Widmayer, John J.
Wheeling Corrugating Co., Wheeling, W. Va. 342,213, ren. 2-16-57. Cl. 24.
Wheeling Corrugating Co., Wheeling, W. Va. 342,214, ren. 2-16-57. Cl. 26.
Wheeling Corrugating Co., Wheeling, W. Va. 342,215, ren. 2-16-57. Cl. 26.
Whittemore Bros. Corp., Cambridge, Mass., to Whittemore Bros. Corp., Baltimore, Md. 332,894, ren. 2-11-56. Cl. 6.
Wilbroco, Inc., Arcadia, Calif. 529,262, canc. Cl. 22.
Wilson Sporting Goods Co., Chicago, Ill. 637,105, pub. 8-28-56. Cl. 22.
Wilson Sporting Goods Co., Chicago, Ill. 637,094, pub. 8-28-56. Cl. 22.
Wink Corp., Milwaukee, Wis. 637,120, pub. 8-28-56. Cl. 23.
Wise, Trammel A., d. b. a. Swigs Co., Emory University, Ga. 637,282, pub. 8-28-56. Cl. 51.
Wonder Products Co., Collierville, Tenn., to Wonder Products Co. 637,088, pub. 8-28-56. Cl. 22.
Wood Shovel and Tool Co., The, Piqua, Ohio. 338,607, ren. 9-8-56. Cl. 23.
Woonsocket Color & Chemical Co., Woonsocket, R. I. 637,027, pub. 8-28-56. Cl. 10.
Wooster Rubber Co., The, Wooster, Ohio. 637,038, pub. 8-28-56. Cl. 13.
Wyeth Laboratories: *See*—
American Home Products Corp.
Ziegler Metal Products Co., Concord, Mich. 636,968, pub. 8-28-56. Cl. 2.
Zimmerman, Jay V., St. Louis, Mo. 529,151, canc. Cl. 26.
Zone Co., The: *See*—
Southwestern Petroleum Co., Inc.

U. S. GOVERNMENT PRINTING OFFICE:O—1956

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November 20, 1956 Volume 712 Number 3

# PATENTS

## NOTICES

### Adjudicated Patents

(D. C. Wis.) Tautz Patent No. 2,040,718 (143—132), for a trunnion. Claims 1 to 4, 10, and 11 *Held* invalid and not infringed. *Rockwell Manufacturing Company* v. *Yates-American Machine Company*, 143 F. Supp. 96; 110 USPQ 188.

(D. C. N. Y.) Drew Patent No. 2,177,627 (117—72), for adhesive sheets having a backing with a nonfibrous surface and a coating of normally tacky and pressure-sensitive adhesive united thereto, *Held* valid and infringed. *Technical Tape Corporation* v. *Minnesota Mining and Manufacturing Company*, 143 F. Supp. 429; — USPQ —.

(D. C. N. C.) Dewees Patent No. 2,322,350 (8—137), for a process for reconditioning yarn cones. Claims 1 and 5 *Held* invalid and not infringed. *Alvin G. Dewees* v. *George L. Whisenant, doing business as Whisenant Cone Company*, 142 F. Supp. 205; — USPQ —.

(C. A. Mo.) Steffan Patent No. 2,538,925 (189—46), for a door jamb. Claim 2 *Held* not infringed. *Steffan et al.* v. *Len A. Maune Company et al.*, 234 F.2d 750; 110 USPQ 7.

(D. C. Ind.) Krisman Patent No. 2,628,796 (248—43), for an antenna mounting base, *Held* valid but not infringed. *Krisman* v. *Bouchard, doing business as Radio Distributing Company et al.*, 142 F. Supp. 269; 110 USPQ 111.

(C. A. Mo.) Steffan Patent No. 2,661,084 (189—46), for a door frame. Claim 4 *Held* invalid. *Steffan et al.* v. *Len A. Maune Company et al.*, 234 F.2d 750; 110 USPQ 7.

(D. C. N. J.) Porter Patent No. 2,668,328 (18—58), for a method of casting patterned plastic sheets, *Held* invalid. *U. S. Chemical Corporation et al.* v. *Plastic Glass Corporation*, 142 F. Supp. 840; 110 USPQ 18.

(D. C. N. J.) Cusick Patent No. 2,698,009 (66—169), for a fluted fabric and method of making the same, *Held* invalid. *Vanity Fair Mills, Inc.* v. *Cusick et al.*, 143 F. Supp. 452; 110 USPQ 222.

(D. C. N. Y.) Gould Design Patent No. 164,922 (D92—1), for a textile fabric, *Held* invalid. *Trojan Textile Corp.* v. *Crown Fabrics Corp.*, 143 F. Supp. 48; 110 USPQ 231.

(D. C. N. Y.) Peck Design Patent No. 174,054 (D20—2), for an ornamental design for a panty girdle, *Held* invalid. *The H. W. Gossard Co. et al.* v. *The Nestform Co., Inc., et al.*, 143 F. Supp. 139; — USPQ —.

### Adverse Decisions in Interferences

In the designated interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed.

Pat. 2,596,920, W. M. Smith, W. D. Luening, and S. C. Lane, Synthesis of oxygenated organic compounds, decided June 21, 1956, Interference No. 87,118, claims 16 and 19.

Pat. 2,606,826, L. Jacolev and L. P. Gaucher, Conversion of hydrocarbonaceous material into synthesis gas, decided July 11, 1956, Interference No. 87,197, claim 5.

Pat. 2,621,238, W. Palmer, Phase shift timer, decided Oct. 19, 1956, Interference No. 87,146, claims 1, 3, and 6.

Pat. 2,621,704, N. Langer, Heat sealing device, decided May 28, 1956, Interference No. 87,250, claims 3, 4, 5, 10, and 11.

Pat. 2,636,001, G. V. Browning and G. M. Webb, Grease preparation, decided Oct. 12, 1956, Interference No. 87,785, claims 1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 16, and 17.

Pat. 2,648,804, O. L. Steigerwalt, H. I. Oshry, Multiple element circuit components, decided June 15, 1956, Interference No. 87,134, claim 1.

Pat. 2,668,140, K. G. Arabian, Preparation of paraffin waxes, decided Oct. 17, 1956, Interference No. 87,588, claims 1 and 2.

Pat. 2,691,940, F. R. McFarland, Transmission, decided Oct. 17, 1956, Interference No. 87,780, claim 1.

### Disclaimer

2,684,398.—*Kenith G. Strunk*, East Orange, N. J. CONDUIT FERRULE. Patent dated July 20, 1954. Disclaimer filed Oct. 26, 1956, by the inventor; the assignee, *Breese Corporations, Inc.*, consenting.

Hereby enters this disclaimer to claims 3 and 4 of said patent.

### Classification Order No. 265

The following transfers are hereby ordered to take effect on Thursday, November 1, 1956:

From Division 60 to Division 31
Class 260, Chemistry, Carbon Compounds, Subs. 80 through 94.9
From Division 50 to Division 60
Class 260, Chemistry, Carbon Compounds, Subs. 18 through 27

M. C. ROSA,
Oct. 30, 1956. *Director, Patent Examining Operation.*

### Patents Available for Licensing or Sale

2,712,896. Centrifugal Separating Device. Luigi Boldrin, 8 Via M. Giustiniani—Marghera, Venice, Italy. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,749,698. Ring Traveller (Made of a Laminated Formaldehyd Condensation Product). Joh. Jacob Rieter & Co. Ltd., Winterthur, Switzerland.

2,750,773. Thread-Feeding Attachment for Knitting Frames. Paul Virchaux, Vigner 3, Saint-Blaise, Switzerland.

2,760,514. Ash Tray With Extinguisher. Roy C. Guthrie, 1737 S. Barrington, Los Angeles, Calif.

### New Applications Received During September 1956

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|---|---|
| Patents | 5,343 |
| Designs | 336 |
| Plants | 11 |
| Reissues | 10 |
| Total | 5,700 |

### Issue

| | | | |
|---|---|---|---|
| Patents | 804 | No. 2,770,804 to No. | 2,771,607, incl. |
| Designs | 43 | No. 179,233 to No. | 179,275, incl. |
| Plants | 2 | No. 1,528 to No. | 1,529, incl. |
| Reissues | 1 | No. 24,239 | |
| Total | 850 | | |





## CONDITION OF PATENT APPLICATIONS AS OF SEPTEMBER 28, 1956

2,709,526. De-Sheller for Hard Boiled Eggs. P. J. Peritano, 42 Stephenson St., West Seneca 24, N. Y., and J. Palmieri, 116 Woodside Ave., Buffalo, N. Y.

2,766,070. Automatic Water Sprinkler Control Valve. Alexander C. Park, 2224 Eastern Ave., Sacramento 21, Calif.

2,766,077. Adjustable Railroad Journal Bearing Liner. Walter J. Walstad, 821 West 2nd St., Flint 3, Mich.

Design Pat. 178,868. Snow Scoop. C. H. Cook, 726 Crestview Drive, Youngstown 12, Ohio.

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Arnold Silverman offers the following two patents. Inquiries concerning the patents should be directed to Arnold Silverman, 222 East 56th St., New York, N. Y.

2,540,644. Device for Mixing Materials.

2,712,316. Cigarette Ejector Holder.

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### Patents Removed From Register

The following three patents are hereby withdrawn from the Register of Patents Available for Licensing or Sale. They were listed by General Electric Company in the Register section of the OFFICIAL GAZETTE, the first and second in the issue of Dec. 18, 1951, and the third in the issue of Jan. 18, 1955.

2,493,601. Fuse Link.

2,503,911. Protective Device.

2,685,013. Circuit Interrupting Device.

## CONDITION OF PATENT APPLICATIONS AS OF SEPTEMBER 28, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217,262 |
| Total number of pending Design applications | 6,321 |
| Total number of applications awaiting action (excluding Designs) | 120,204 |
| Total number of Design applications awaiting action | 2,772 |
| Date of oldest new application | Apr. 29, 1955 |
| Date of oldest amended application | May 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, I. G., CHEMICAL AND RELATED ARTS | 6, 31, 36, 42, 46, 50, 55, 59, 60, 63, 64. |
| II. STRACHAN, C. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 16, 23, 25, 37, 43, 44, 45, 51, 54, 69, 70. |
| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 39, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 8, 20, 29, 33, 38, 40, 41, 52, 66. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 5, 9, 10, 15, 22, 26, 45, 47. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 28, 30, 32, 49, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Oldest Application: Amended |
|---|---|---|
| 1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders | 10-21-55 | 11-9-54 |
| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 12-23-55 | 6-7-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 1-23-56 | 11-9-54 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 12-28-55 | 1-20-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates | 12-12-55 | 5-3-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-1-55 | 3-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-9-55 | 1-3-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 7-14-55 | 9-22-54 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 12-30-55 | 12-14-54 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 9-21-55 | 1-17-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Cleaning and Liquid Treatment of Solids | 2-3-56 | 4-6-55 |
| 12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls | 10-10-55 | 7-12-54 |
| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 12-5-55 | 10-4-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 9-20-55 | 9-17-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 1-9-56 | 9-22-54 |
| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 9-26-55 | 7-30-54 |
| 17. (IV) LEIGHEY, R. A. (HOFFMAN, R. J., acting), Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 11-14-55 | 1-7-55 |
| 18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices | 11-16-55 | 11-20-54 |
| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 12-14-55 | 4-25-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 1-10-56 | 1-3-55 |
| 21. (III) MADER, R. C., Textiles | 12-6-55 | 1-12-55 |
| 22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling | 11-25-55 | 11-9-54 |
| 23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education | 8-8-55 | 5-18-54 |
| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 1-9-56 | 10-14-54 |
| 25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus | 10-27-55 | 1-3-55 |
| 26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 1-31-56 | 7-26-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 1-9-56 | 3-11-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Cleats, Skid, Guide and Way Conveyors; Fluid Current Conveyors; Pressure Modulating Relays; Pneumatic Dispatch Store Service; Wheel Substitutes | 10-10-55 | 1-10-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Basket, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 11-22-55 | 3-21-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Electricity; Incinerating Burners; Miscellaneous Heating | 4-9-56 | 5-9-55 |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application | |
|---|---|---|
| | New | Amended |
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 9-9-55 | 5-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 1-9-56 | 6-13-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 12-13-55 | 9-14-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 11-22-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Fluent Material Handling, Filling; Toilet, Kitchen and Table Articles | 1-18-56 | 8-16-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 9-26-55 | 9-6-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 10-14-55 | 2-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 1-5-56 | 6-6-55 |
| 39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-3-56 | 10-1-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 1-9-56 | 8-1-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffords | 7-20-55 | 9-3-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 4-29-55 | 10-19-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus) | 9-29-55 | 1-26-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar, Sonar; Torpedoes | 6-2-55 | 6-18-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 10-26-55 | 2-9-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 7-26-55 | 1-10-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 1-10-56 | 7-20-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 8-12-55 | 9-13-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 9-1-55 | 2-21-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 12-30-55 | 9-7-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 12-29-55 | 8-24-54 |
| 52. (V) NEFF, F. R., Supports Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 10-24-55 | 11-15-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 12-2-55 | 3-30-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 10-24-55 | 10-4-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors | 7-28-55 | 11-15-54 |
| 56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 12-22-55 | 9-13-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 3-19-56 | 2-2-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittons | 10-17-55 | 11-4-54 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 9-30-55 | 1-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 8-2-55 | 9-30-54 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 12-6-55 | 3-4-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 1-9-56 | 7-5-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbonhydrate Derivatives; Fats and Metal Containing Carbocyclic or Acyclic Carbon Compounds | 11-28-55 | 12-15-54 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 12-27-55 | 12-20-54 |
| 65. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics | 10-27-55 | 6-21-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-6-55 | 2-18-55 |
| 69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators | 11-17-55 | 6-15-54 |
| 70. (II) BREWRINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 9-14-55 | 4-8-55 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 1-16-56 | 10-14-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-9-56 | 7-5-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 12-2-55 | 2-14-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 2-6-56 | 3-1-55 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 2-27-56 | 2-27-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 2-2-56 | 2-13-56 |

The following divisions have been abolished: 65 and 66

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during November 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,178,536 to 2,181,557, inclusive
Plant Patent ..... Numbers 346 to 348, inclusive



# PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,285,840, S. A. Scherbatskoy, Well survey method and apparatus; 2,289,926, J. Neufeld, same; Re. 24,226, 2,303,693, R. E. Fearon, Well surveying method and apparatus; 2,349,712, same, Well logging method and device; 2,626,994, J. Neufeld, Spectrometer, included by amended complaint filed Oct. 9, 1956, D. C., S. D. Tex. (Houston), Doc. 9617, *Well Surveys, Inc.* v. *McCullough Tool Co.*

2,289,926. (See 2,285,840.)

2,303,693. (See 2,285,840.)

2,349,712. (See 2,285,840.)

2,477,443, S. Friedman, Fur conditioning machine, filed Apr. 19, 1956, D. C. N. J. (Newark), Doc. 353/56, *Reliable Machine Works, Inc.* v. *Glenview Metal Products Co.* Stipulation and order of dismissal Sept. 28, 1956.

2,494,397, R. J. Lusk, Electric generating system; 2,534,895, B. O. Austin et al., Auxiliary power system for aircraft; 2,599,365, J. D. Miner, Jr. et al., Control and protection of electric power system; 2,627,602, same, Electrical power system for aircraft, filed Oct. 12, 1956, Ct. Cls., Doc. 440/56, *Westinghouse Electric Corp.* v. *The United States.*

2,534,895. (See 2,494,397.)

2,568,567, M. Perlman, Humidifier; 2,709,427, same, Humidifier for air heating furnaces; 2,709,428, same, Humidifiers having supporting arms for evaporator plates; 2,709,429, same, Humidifiers having basket means for pan and plates, filed Oct. 17, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1716, *Auto Flo Corp.* v. *M. Brucker, Inc.*

2,599,365. (See 2,494,397.)

2,627,602. (See 2,494,397.)

2,626,994. (See 2,285,840.)

2,627,999, R. C. Sharp, Method of making a prepared sweet potato flour mix and product, filed Oct. 3, 1956, D. C., N. D. Calif. (San Francisco), Doc. 30873, *Ruth C. Sharp* v. *Stiefvater's.*

2,709,427. (See 2,568,567.)

2,709,428. (See 2,568,567.)

2,709,429. (See 2,568,567.)

2,718,674, C. E. Hinds, Siding panel, filed Sept. 26, 1956, D. C., N. D. Ind. (South Bend), Doc. 2123, *Bird & Son, Inc.* v. *Mastic Asphalt Corp.*

2,741,221, Weiskopf and Ferrari, Automatic immersion apparatus, filed Apr. 30, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16507, *Technicon International, Ltd.* et al. v. *American Hospital Supply Corp.* Case discontinued Oct. 16, 1956.

Re. 23,416, C. W. Kinnear, Drill, filed Apr. 6, 1953, D. C., E. D. Tex. (Beaumont), Doc. 2363, *Kinnear-Wood Corp.* v. *Humble Oil and Refining Co.* Judgment for defendant; patent held invalid and not infringed Oct. 10, 1956.

Re. 24,226. (See 2,285,840.)

Des. 168,974, J. H. Spaulding, Fluorescent lighting fixture, filed Oct. 11, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1694, *Whiteway Mfg. Co.* v. *Guardian Light Co., Inc.*

# REISSUES

## NOVEMBER 20, 1956

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

### 24,239

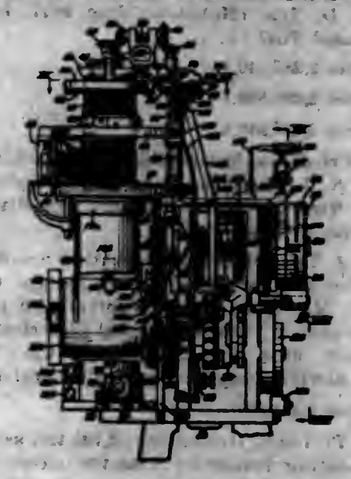
### AUTOMATIC STITCH LENGTH CONTROL MECHANISM FOR KNITTING MACHINES

Vernon Thomas Stack, Winston-Salem, N. C., assignor, by mesne assignments, to Wilkes Hosiery Mills Company, North Wilkesboro, N. C., a corporation of North Carolina

Original No. 2,685,786, dated August 10, 1954, Serial No. 332,900, January 23, 1953. Application for reissue October 5, 1955, Serial No. 539,818

34 Claims. (Cl. 66—55)

*27. In automatic stitch length control mechanism for a knitting machine having independent needles and sinkers cooperative with the needles in forming fabric loops from yarn fed to the needles, regulating means for varying the operative relationship between the needles and the sinkers during the knitting of successive portions of the fabric for increase or decrease in the size of the loops to shape the fabric, said regulating means including detector means responsive to the size of the fabric loops produced; and means responsive to the detector means and influential upon the regulating means to vary the operative relationship between the needles and the sinkers as may be*



*necessary for loop control within the successive portions so formed.*

# PLANT PATENTS

## GRANTED NOVEMBER 20, 1956

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

### 1,528

### ROSE PLANT

Paul B. Begonia, San Jose, Calif., assignor to Germain's, Inc., Los Angeles, Calif., a corporation of California

Application December 5, 1955, Serial No. 551,187

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the climbing hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by being substantially identical with its parent variety "Chrysler Imperial" (Plant Patent No. 1167), but essentially being distinguished therefrom by its vigorous and climbing habit of growth.



### 1,529

### ROSE PLANT

Eugene S. Boerner, Newark, N. Y., assignor, by mesne assignments, to C. W. Stuart & Co., Newark, N. Y., a corporation of New York

Application January 4, 1956, Serial No. 557,423

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the everblooming large-flowered climber class, substantially as herein shown and described, characterized particularly as to novelty by its continuity of bloom, its habit of bearing flowers in large clusters on long and vigorous stems, the semi-double form of its flowers in which the central petals are recurved and hide the stamens and pistils and thereby give the flowers a double appearance, and the distinctive Tyrian Rose general color tonality of the flowers which does not fade, even in hot weather, until the petals fall.

# PATENTS

## GRANTED NOVEMBER 20, 1956

## GENERAL AND MECHANICAL

### ERRATUM

For Class 1—44.5 see: Patent No. 2,771,607

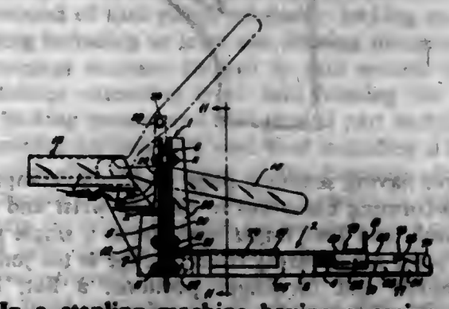
### 2,770,804

### STAPLING MACHINE

Werner Schaffrath, Carson, Nev.

Application June 23, 1954, Serial No. 438,679

10 Claims. (Cl. 1—49)



1. In a stapling machine having a casing with movable anvils therein, each of said anvils having a relatively narrow throat portion, a relatively long lower cutting edge, and an inner clinching surface, means mounting said anvils for downward movement from said casing for first cutting and penetrating the material to be stapled with said lower cutting edges and then moving said throat portions of said anvils inwardly along the cuts so formed into final clinching position, and means for forcing a staple from said casing through said material, said inner clinching surfaces of said anvils guiding and bending said staple into clinched position.

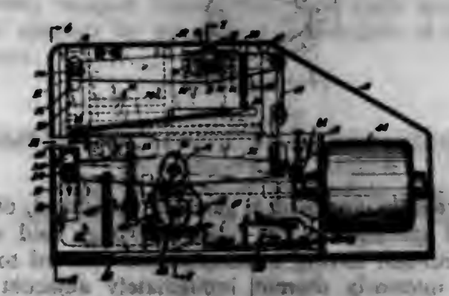
### 2,770,805

### STAPLING MACHINES

Philip Elser, Rudolf Sommerfeld, and Theodore Anthony, Pittsburgh, Pa.

Application February 25, 1955, Serial No. 490,586

4 Claims. (Cl. 1—101)



1. A power driven stapling machine comprising a base, a frame on said base, upper and lower drive members on separate shafts, said shafts being intermediate the ends of the drive members and rotatable and reciprocable in slots in the frame, adjustable connecting means connecting one end of each drive member to one end of the other drive member, separate resilient means on the frame acting on each drive member to force the other unconnected ends of the two drive members apart, a staple driver mounted on one of said unconnected ends, cooperating anvil means on the other unconnected end, cam means rotatably mounted in the frame and engaging one of the drive members at its shaft whereby upon complete rotation of the cam means the shaft is raised and lowered and the staple driver and anvil are brought together and then separated thereby setting a staple placed between them, electrically actuated power means on the base operatively connected to the cam for rotating the cam, a movable abutment adjacent the staple driver and anvil means for contacting a group of papers to be stapled and contactor means for introducing an electrical current to the power means when a group of papers to be stapled is brought into contact with the abutment and current interrupting means for interrupting the current when the cam means has made a complete rotation.

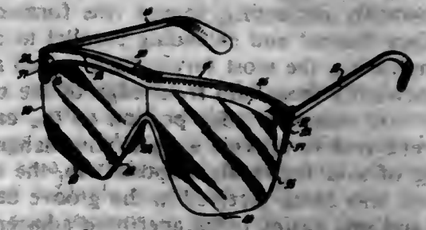
### 2,770,806

### PARTIAL FRAME TYPE SPECTACLES HAVING REMOVABLE SHIELD SECTION

William C. Moeller, Kansas City, Mo., assignor to Parmalee Plastics Company, Kansas City, Mo., a corporation of Missouri

Application September 7, 1954, Serial No. 454,376

1 Claim. (Cl. 2—12)



In a spectacle assembly, an elongated, relatively flexible, transparent eye shield having a nose-receiving notch in the normally lowermost, longitudinal edge thereof and a web-receiving notch of major, substantially circularly segmental configuration in each end edge thereof respectively, said web-receiving notches being disposed between the longitudinal edges of the shield, each end edge being convexly curved between said web-receiving notch thereof and the normally uppermost, longitudinal edge of the shield; and a resilient, inverted U-shaped frame having an elongated, bight portion substantially coextensive in length with said uppermost edge of the shield and a pair of depending leg portions, said frame being provided with a continuous, inwardly-facing groove intermediate its thickness, that part of said groove disposed within said bight portion being substantially complemental to a marginal portion of the shield disposed along said uppermost edge of the latter, those parts of said groove disposed within said leg portions being substantially complemental to marginal portions of the shield disposed along corresponding end edges of the latter, there being an integral web of substantially circular cross-section and of diameter slightly greater than the distance across the open extremity of a corresponding web-receiving notch into which it is adapted to be snapably received extending transversely across said groove in each of said leg portions respectively, said webs being disposed for seating in said web-receiving notches when said uppermost edge and a portion of said end edges of the shield are substantially fully seated within said groove of the frame, the lowermost extremities of said leg portions being transversely bifurcated to provide guide notches adapted to slide along said curved portion of the end edges during assembly of the shield into the frame.

2,770,807
SAFETY GOGGLE
Norman J. Taylor, Kenmore, and Roy A. Bright, North Tonawanda, N. Y., assignors to Virginia I. Du Bois, Snyder, Lauriane T. Holzworth, Rita C. Sterne, and Eileen Silbert, Buffalo, and Florence E. Taylor, Kenmore, N. Y.
Application January 13, 1954, Serial No. 403,689
2 Claims. (Cl. 2—14)



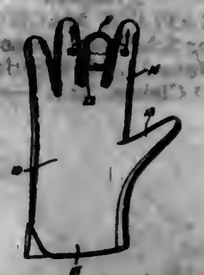
1. A goggle comprising a lens formed of transparent sheet material of generally continuous rounded profile form being outwardly distended into a conical nose rest portion medially of the bottom edge thereof, the bottom marginal edge of said lens having a pair of downwardly projecting, integrally formed hook members located immediately adjacent to and on opposite sides of said nose rest portion, each hook member presenting a retaining slot having its open end adjacent said nose rest portion, and a unitary casing formed of elastic sheet material of generally C-shaped configuration having its rear edge shaped to generally conform to the facial features of the goggle wearer and having its forward portion embracing the periphery of said lens member, said casing having a pair of inwardly projecting, spaced ribs formed on the inner surface thereof and extending parallel to the front edge of the casing, the most forwardly disposed rib being spaced rearwardly from said front edge of the casing so that a forward marginal edge portion of the casing extends therebeyond to provide a rigidifying flange inhibiting flexing of said forwardly disposed rib, the marginal edge of said lens being received in the groove defined by said ribs, and said casing being apertured adjacent its opposite ends in the region between said ribs and receiving said hook portions of the lens, the casing portions immediately beyond such apertures and between said ribs being received in said retaining slots formed by said hook members, the opposite ends of the rear edge of said casing having outwardly projecting flanges formed integrally therewith to present smooth, flat surfaces where the casing contacts the wearer's face, and the terminal portion of each flange at its corresponding end of the casing extending back upon itself to present a generally U-shaped cross-sectional configuration embracing its corresponding hook member.

2,770,808
DEPOSITED RUBBER UNDERGARMENT WITH VARIEGATED SURFACES
Harry F. Bader, Harry J. Barth, and Paul E. Ambrose, Dover, Del.
Application February 13, 1953, Serial No. 336,836
1 Claim. (Cl. 2—37)



A shaped undergarment made of deposited latex forming a wall having a filamented inner and an outer mat surface, said filamented inner surface having filaments embedded in the inner surface of the wall so as to space said inner surface from the skin and permit perspiration to circulate therebetween and evaporate, said outer mat surface being a replica of the mat finish of the form on which the undergarment was deposited, whereby the generation of static electricity is limited.

2,770,809
GLOVE WITH SEAMLESS PALM AND BACK
Frank W. Howard, Idaho Falls, Idaho
Application September 23, 1954, Serial No. 457,928
2 Claims. (Cl. 2—169)



1. A glove having seamless palm and back, comprising a flat, palm-forming blank cut to provide wrist and palm proper, thumb, and four finger portions as a single piece, said blank being slit inwardly from its edge at the juncture between thumb and forefinger portions; a flat, back-forming blank cut to provide glove wrist and back proper and four finger portions as a single piece; a flat, thumb-insert blank cut to provide thumb back, longitudinal wrist, and tie-in tab portions as a single piece, and being inset between said palm-forming and said back-forming blanks to complete the thumb of the glove; fourchette-providing blanks of widespread V-formation inset between said palm-forming and said back-forming blanks, laterally of corresponding finger portions thereof, to complete the fingers of the glove; and seams joining the several blanks together about their contiguous marginal edges.

2,770,810
VENTILATING WAISTBAND
Joseph De Grazia, Washington, D. C.
Application June 9, 1954, Serial No. 435,650
3 Claims. (Cl. 2—236)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. The combination with a garment waistband, of first and second spaced belt slits formed through said waistband, a semi-belt having a tethered end secured to said waistband interiorly thereof immediately adjacent said first slit, securing means at least partially on said waistband beyond said second slit, said semi-belt having a free end, said semi-belt being shorter than that portion of said waistband lying between said tethered end and said securing means to provide a gathering in said portion of said waistband, said semi-belt at times extending to said securing means through said first slit so as to overlie and flatten said gathering, and means between said slits for readily releasably connecting at least one intermediate portion of said semi-belt to said waistband interiorly thereof when said semi-belt extends through said second slit to said securing means.



2,770,811
ARTIFICIAL LIMBS
Charles Philip Steeper, Rochampton, London, England
Application April 29, 1952, Serial No. 284,943
8 Claims. (Cl. 3—22)



1. In an elbow joint of the class described, in combination, a pair of co-operating parts, one part consisting of a first steel, a housing formed at one end of said first steel, a bearing formed in said housing for rotatively supporting the second of said parts, releasable locking means in said housing including at least one locking plunger adapted to interengage recesses formed in said second part, instrumentalities extending from said housing for controlling said locking means, and said second part including a steel, an annulus formed with said steel including a bearing surface engaging the bearing of the housing aforesaid, and the recesses mentioned being formed in said housing, wherein the releasable lock means includes a cam comprising a cam disc mounted on a driving disc and movable relatively thereto, said cam disc including a ratchet wheel, and a pawl mounted on the driving disc and adapted to engage said ratchet wheel to effect rotation of said cam disc under the control of said controlling instrumentalities.

2,770,812
BODY SUPPORTING AND BATHING DEVICE
Richard H. Whiteside, Corcoran, Calif.
Application June 7, 1954, Serial No. 434,693
12 Claims. (Cl. 4—145)



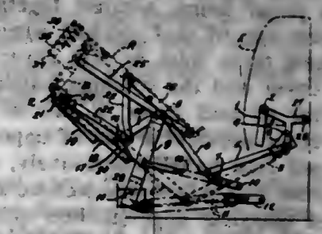
1. An article of furniture comprising an open frame of hollow tubular construction, body support means of sheet material tensioned within the frame, the frame having orifices therein for directing a spray of fluid over the body support means, and fluid inlet means in the frame adapted for connection to a source of fluid under pressure.

2,770,813
COMBINATION WARDROBE, UPENDING BED, AND DRESSING TABLE
Paul A. Mercillier, Milwaukee, Wis.
Application June 14, 1948, Serial No. 32,986
7 Claims. (Cl. 5—2)



1. A device of the character described comprising the combination with a cabinet having side walls having forward margins and a bottom projecting forwardly of said margins, of pintle receptacles located on the bottom forwardly of said margins and each provided with a transversely extending pintle, a bed having a head portion and provided with legs pivoted upon the respective pintles for movement between a stored position in said cabinet and a horizontal position for use, the head portion of the bed being vertically aligned with said legs whereby in the latter position the head portion is wholly forward of said margins, and doors pivotally connected by hinges with the cabinet contiguous to said forward margins of the side walls, said doors comprising box sections having side walls with edges to which said door hinges are mounted, said sections further comprising front panels offset from said hinges sufficiently to extend substantially flush with said bottom and to enclose said pintle receptacles when closed, the location of the pivotal connection of the doors with the cabinet being sufficiently rearwardly offset from said receptacles so that said doors leave the head portion of the bed substantially fully exposed when the doors are fully opened.

2,770,814
FOLDING DAVENPORT BEDS
Fred G. Schindler, Affton, Mo., assignor to Smith & Davis Manufacturing Company, St. Louis, Mo., a corporation of Missouri
Application September 14, 1953, Serial No. 379,975
7 Claims. (Cl. 5—13)



1. In a davenport bed, a folding structure, comprising, a series of articulated sections including a foot section and second and third sections provided with a mattress-receiving area movable with said sections to extended position and foldable to closed position with the mattress between said sections, a lever pivoted to said third section, a link connecting one end of said lever with said foot section, and means coacting with the other end of said lever when said sections are being closed to press the foot section down.

2,770,815
ARTICLE OF FURNITURE
Francis Jackson Keys, Pasadena, Calif.
Application September 6, 1952, Serial No. 308,264
5 Claims. (Cl. 5—37)

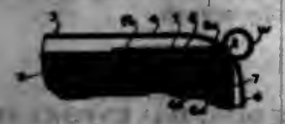


1. An article of furniture capable of serving as a divan and a bedstead, comprising a pair of spaced apart head boards, a base-member connecting the same, a seat-member and a back-member above the base-member extending through the space between the head boards, a pivotal connection on each head board located at the level of the upper sides of the seat member and the back-member common to the seat-member and the back-member connecting the same to the head-boards, said pivotal connections located adjacent to, and inwardly with respect to the rear edge of the base-member, and at a sufficient height above the base-member to enable the back-member to rest in a horizontal position above the upper side of the base member, and supported in that position by said pivotal connections and the portion of the upper side

of the base-member located to the rear of the axis of the pivotal connection, and disconnectible means including a coupling part on the seat-member and a coupling part on the back-member; and a single coupling part mounted on each head-board cooperating with each of said first named coupling parts to hold either the back-member or the seat-member in an inclined position.

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**2,770,816**
**CUSHIONS AND METHOD OF MAKING THE SAME**
**Michael Reisner, Port Chester, N. Y.**
**Application September 6, 1955, Serial No. 532,434**
**9 Claims. (Cl. 5—355)**



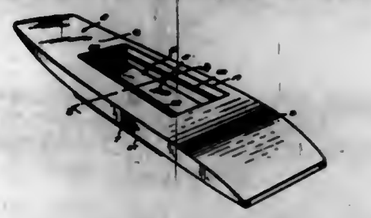
1. A cushion having a foam elastomer core enclosed within a fabric cover, said cover comprising top and bottom face panels and an intermeditae border panel, edges of said face panels and correspondingly adjacent edges of said border panel being secured together by stitched seams, at least one of said stitched edges of said seams around at least three sides of said cover being disposed within said cover and the stitching passing therethrough to the interior of said cover, a pair of tapes disposed within said cover adjacent a pair of opposite edge seams of one of said face panels respectively, said tapes each having an inner face adhesively secured to said core and an outermost marginal edge stitched to a panel edge of the respectively adjacent seam, the outer faces of said tapes throughout their extent inwardly from said adjacent edge seams being free of attachment to said cover.

5. The method of making a cushion having a foam elastomer core and a fabric cover which comprises providing a plurality of fastening tape each having on one face an adhesive coating extending lengthwise thereof intermediate uncoated marginal edge zones and provided with a mask covering said adhesive, stitching an uncoated marginal edge zone of each said tape at a respectively adjacent seam connecting an edge of a face panel to a corresponding edge of the border panel of said cover by stitching passing through at least one of said cover edges and releasably securing the opposite uncoated marginal edge of said tape to the inner face of said fabric cover, said tape being positioned with its masked adhesive coating facing inwardly of said cover, thereafter inserting the core within the cover casing through an open mouth of said casing with the edge seams of the cover aligned with the corresponding edges of the core, detaching the masking strip so as to expose the adhesive coating on the tape and pressing the tape into intimate engagement with the core so as to adhesively secure the tape to the core, detaching the innermost marginal uncoated edge of the tape from the cover and closing the mouth of the cover through which the core has been inserted.

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**2,770,817**
**WATER CRAFT**
**Warner Woodworth, Hollywood, and Arthur Orr, North Miami, Fla.**
**Application June 13, 1955, Serial No. 515,054**
**3 Claims. (Cl. 9—3)**

1. A water craft comprising a buoyant hull that is composed of a bottom and an elevated deck and with the bottom and the deck being formed each of single sections of material, the hull including a bow portion and a stern portion and with the deck being downwardly curved at the stern portion for connection with an upwardly curved portion of the bottom and whereby the terminal end of the stern terminates at the water-line of the craft, the bottom and the deck being connected along their longitudinal edges by side panels, the deck being provided with a rectangular opening intermediate its ends, a cock-pit forming frame disposed within the craft and underlying the opening of the deck and with



the frame being connected to the bottom and the deck in a water-tight manner, the said hull and the said cock-pit frame forming air chambers for the craft along its sides and fore and aft of the cock-pit frame, grab rails disposed within the frame and vent openings formed in the cock-pit frame whereby to vent the air chambers.

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**2,770,818**
**METHOD OF FORGING A SLOTTED BOLT**
**Marvin Lee, Wilton, and Christian V. Pellier, Westport, Conn., assignors to Barnaby Engineering Co., Inc., a corporation of New York**
**Application May 2, 1955, Serial No. 505,239**
**2 Claims. (Cl. 10—27)**



1. The method of producing without scrap a slotted bolt provided with a head portion and two extending partially cylindrical threaded leg portions forming a slot therebetween, which comprises forming a continuous rod of suitable material having a uniform cross-sectional area corresponding to the exact cross-sectional area of one of the bolt portions, cutting off a length of the rod having the exact volume of the completed slotted bolt, applying pressure to the two ends of the cut-off piece, causing the metal to flow and be redistributed to form a longitudinally extending blank provided with two end portions having the exact cross-sectional area of the leg portions of the slotted bolt, and an intermediate portion of greater cross-section than the end portions; laterally swedging two sides of the entire length of the blank to provide a plurality of concave faces therein, the axes of which are perpendicular to the longitudinal axis of the blank, and simultaneously reshaping each of the leg portions to provide a partially cylindrical surface on one side and a flat surface on the other, all of said surfaces and faces being the original worked surfaces of the rod, thereafter bending the intermediate portion at the concave faces to form the slotted bolt, and finally threading the rounded partially cylindrical surfaces of the leg portions for receiving a nut.

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**2,770,819**
**THREADING ATTACHMENT FOR MULTIPLE SPINDLE MACHINE**
**Arthur H. Jobert, New Britain, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut**
**Application November 6, 1952, Serial No. 319,911**
**23 Claims. (Cl. 10—89)**

1. In an attachment-operating mechanism of the character indicated, three mutually supporting elongated



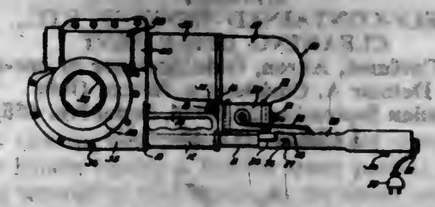
members slidable longitudinally with respect to each other, cooperating abutment means on two adjacent of said members for providing a limit of relative longitudinal feed of said two adjacent members with respect to each other, means for fixedly mounting one of said two



adjacent members to a machine frame, feed-thrust means carried by the remaining of said three members for translating feed thrusts from a driving member to a driven member, and connecting means between said remaining member and the other of said two adjacent members.

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**2,770,820**
**PORTABLE PIPE THREADING TOOL**
**Louis Adolph Wiegel and Dave Wilson Wiegel, El Dorado, Ark., said Louis Adolph Wiegel assignor to Carol Mary Wiegel, El Dorado, Ark.**
**Application October 1, 1953, Serial No. 383,482**
**1 Claim. (Cl. 10—89)**

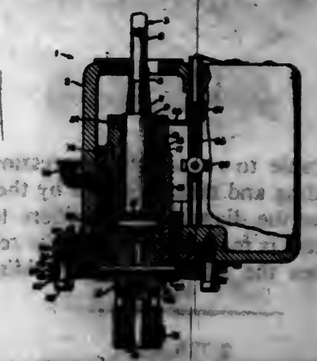


A portable pipe threading tool comprising a gear housing, a worm rotatable in said housing, a worm gear rotatable in said housing meshing with said worm, a die stock secured to said worm gear, a motor housing extending from said gear housing, a forward portion of said motor housing being supported in a recess in the gear housing, said recess being concentric with the worm gear and said motor housing supporting a reversible electric motor having a driving element for clutching engagement with the worm gear, a switch member controlling the motor, means securing said switch member to said motor housing, a pair of lugs carried by said switch member, a looped handle between said gear housing and said switch, a disc at the forward end of said handle, means securing said disc to said gear housing, a lug carried by said handle engaging between said pair of lugs, a bolt extending through said pair of lugs and said latter named lug, an elongated handle extension, and means detachably securing said handle extension to said handle.

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**2,770,821**
**LEAD SCREW TAPPING ATTACHMENT HAVING TORQUE RESPONSIVE FEED NUT**
**William J. Adlof, North Riverside, Ill., assignor to Boyar-Schultz Corporation, Chicago, Ill., a corporation of Illinois**
**Application March 24, 1954, Serial No. 418,385**
**1 Claim. (Cl. 10—135)**

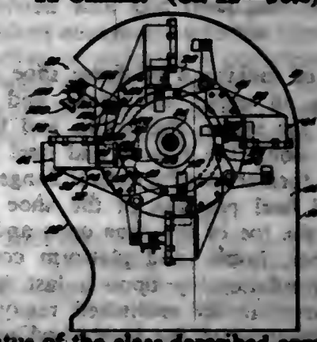
A lead screw tapping attachment comprising a driver assembly, a lead screw connected to the driver assembly, means securing the two against relative rotation, a nut assembly into which the lead screw threads, said nut assembly having a peripheral flange, friction disks engaging opposite faces of the flange, one of said disks bearing against a stationary bearing surface, means for forcing the other friction disk toward the said one friction disk for frictionally holding the nut assembly against turning but permitting such turning when the turning torque applied thereto exceeds the holding force of the friction disks, said last-mentioned means including a friction disk spring forcing said other disk against said flange for maintaining pressure between the disks and the flange in an amount determined by the setting of the spring, a stationary housing, and means mounting the assembly of the driver assembly and the nut assembly in the housing, said mounting means including at least one shoulder screw having a head bearing against the



friction disk spring and a shank threaded into the housing and a shoulder limiting the threading of the shoulder screw into the housing, the distance between the shoulder and the head of the screw being correlated to the spring tension to cause the spring to exert the required pressure between the friction disks and the flange when the screw is threaded to a position limited by the shoulder of the shoulder screw.

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**2,770,822**
**SOLE ATTACHING MACHINE**
**Jacob Simon Kamberian, West Newton, Mass.**
**Application October 16, 1952, Serial No. 315,031**
**12 Claims. (Cl. 12—36.8)**



8. Apparatus of the class described comprising a frame provided with bearings for a horizontal shaft, means for turning the shaft continuously, a plurality of rigid supports radiating from the shaft, a pressure box mounted on each respective support, each pressure box having rigid side and bottom walls and a top wall which consists of an impervious elastically stretchable diaphragm, each box containing a fluid, a rigid, hollow cylinder fixed to the inner side wall of each box, the interior of each cylinder communicating with the interior of its respective box, a piston in each cylinder, a shoe-clamping lever associated with each box, each clamping lever having an arm which overhangs its respective box and which is operative to hold a shoe downwardly against the diaphragm, and cam means fixed relatively to the frame and which is operative, as the shaft turns, to actuate each clamping lever and each piston thereby to clamp a shoe to the diaphragm and thereafter to increase the fluid pressure in each successive box.

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**2,770,823**
**MAGNETIC PAD BOX**
**Jacob S. Kamberian, West Newton, Mass.**
**Application January 28, 1953, Serial No. 333,739**
**11 Claims. (Cl. 12—33)**

3. In an apparatus for applying conforming pressure to a shoe bottom, a box having a yieldingly impression-

able material therein susceptible of receiving an impression, a diaphragm subtending the box and the material, said diaphragm being elastically yieldable to take the shape of an object pressed into the impressionable mate-



rial, means operable to render the impressionable material rigid or yielding and means carried by the diaphragm operable to cause the diaphragm to adhere to the material when the latter is made rigid and to be released from the material when the latter is made yielding.

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2,770,824
METHOD OF MAKING PLATFORM SHOES
John W. Murphy, St. Louis, Mo., assignor to Hamilton Shoe Company, St. Louis, Mo., a corporation of Missouri
Application October 12, 1953, Serial No. 385,549
1 Claim. (Cl. 12—142)



The method of making a platform shoe which comprises providing an upper, an insole, and a platform cover, stitching the upper, the insole, and the platform cover together along the lateral and heel portions of the shoe in the formation of a lateral flange around the ball, shank and heel portions of the shoe leaving the portion around the toe of the shoe open and unstitched, placing the upper, insole, and platform cover in such stitched-together relationship upon a last, pulling back the platform cover in its unstitched region to expose the unstitched margins of the insole and upper, lasting such exposed unstitched margins of the insole and upper, adhesively securing the exposed lasted margins of the insole and toe portion together, thereupon stitching the loose margin of the platform cover to the lasted margin of the upper and insole in the region of the toe portion of the shoe in the provision of a forwardly projecting common flange, and trimming said lateral flange and lasted margin to form a continuous marginal flange of substantially uniform width around the joined upper, insole, and platform cover.

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2,770,825
CARPET SWEEPER AND BRUSH CLEANING COMBS THEREFOR
Fred W. Pullen, Grand Rapids, Mich., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich.
Application September 10, 1951, Serial No. 245,830
4 Claims. (Cl. 15—48)

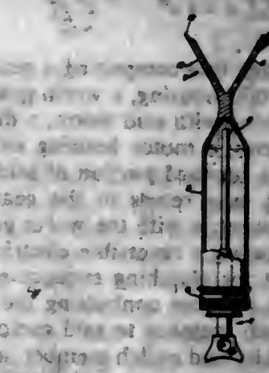
4. In combination, a carpet sweeper including a casing, a rotatively mounted brush, floor wheels drivingly associated with the brush, and a dustpan disposed at one side of the brush, of a comb mounted at the side of the brush above and adjacent to the dustpan to discharge thereto, said comb having a series of relatively long longitudinally curved and uniformly spaced teeth, and at least one short tooth disposed between adjacent long teeth, said long and short teeth being of substantially the same curvature and positioned to present their concaved sides to the brush, the long teeth being positioned so that only the outer end portions thereof penetrate the outer ends of the brush bristles as they are carried past the comb



on the rotation of the brush, the short teeth being positioned relative to the brush so that they do not substantially penetrate the brush bristles but brushingly coact with the ends thereof to remove material carried on the ends of the bristles as they sweep downwardly on the downward stroke of the bristles.

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2,770,826
SELF-CONTAINED WINDOW, ETC., CLEANING IMPLEMENT
Budd G. Curfman, Akron, Ohio, assignor of one-sixth to Delmar A. Christensen, Akron, Ohio
Application September 28, 1954, Serial No. 458,734
1 Claim. (Cl. 15—105)



A cleaner of the character described comprising: a tubular handle for the reception of a cleaning fluid, a manually operable spray pump for the fluid on one end of said handle, and a substantially V-shaped head on the other end of the handle integral therewith, said head comprising a pair of integral, transversely elongated, rigid, divergent blades including parallel free transverse edges on the outer ends thereof, one of said blades carrying a cleaning element.

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2,770,827
BATH BRUSH
Charlotte Brandenburg, San Antonio, Tex.
Application July 5, 1955, Serial No. 520,687
1 Claim. (Cl. 15—128)



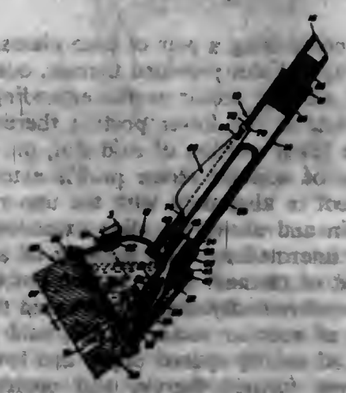
A bath brush comprising a head, a handle extending from said head, a liquid conduit in said head, said conduit being a spirally shaped tube having its internal end at the center portion of said head and its external end integral with an inlet tube, said inlet tube extending longitudinally through said handle and terminating in an



inlet coupling, said spirally shaped tube being rectangular in cross-section and being provided with closely-spaced, alternating bristle tufts and spray openings in the bottom wall thereof, said head comprising a top imperforate wall having a peripheral depending skirt, said skirt having an inwardly extending flange at the lower rim thereof, said flange and skirt embracing said spirally shaped tube at its outer coil.

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2,770,828
CLEANING DEVICE, INCLUDING FLUID DISPENSING MEANS
Jacob L. Ellman, Chicago, Ill.
Application September 26, 1952, Serial No. 311,651
3 Claims. (Cl. 15—131)



1. A cleaning and polishing implement comprising an upright handle having a hollow lower portion, a hollow housing secured to said handle at the lower end thereof, said housing having an open lower end, a plate secured to said housing and normally closing said open lower end to form in combination with said housing a liquid reservoir, a wiping element underlying said plate, fastening means detachably securing said wiping element to said plate, a liquid pump assembled with said plate as a unit, said liquid pump including a valve assembly and a pump member, said valve assembly being disposed within said housing and adapted to communicate with both the interior of said housing for receiving liquid therefrom and with said wiping element for distributing liquid thereto, said pump member being disposed in said hollow lower portion, means carried by said handle for actuating said pump member.

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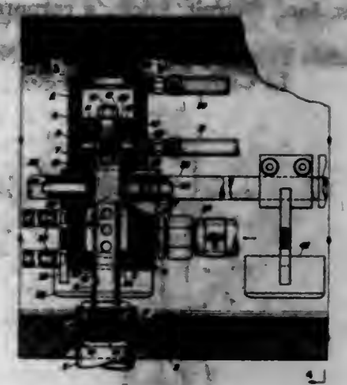
2,770,829
SCRAPER
Holly L. Williams, Warrenville, S. C.
Application March 15, 1954, Serial No. 416,250
2 Claims. (Cl. 15—236)



2. A combination scoop and scraper of substantially semicircular shape including a substantially flat semicircular bottom and a semicylindrical wall having a longitudinal bottom edge joined to and rising from said bottom, said bottom having a straight front edge forming a scraping edge having ends disposed adjacent the ends of the wall, and the ends and top edge of said wall constituting scraping edges, said top edge constituting a semicircular scraping edge all portions of which are disposed coplanar and in a plane parallel to the plane of the bottom.

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2,770,830
AIR LANCE FOR BLOWING OUT SUPERHEATER ELEMENTS AND THE LIKE
William J. Vogel, Upper Montclair, N. J., Emil Kanstz, Hartsdale, N. Y., and Paul J. Kiefer, Chattanooga, Tenn., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application January 9, 1951, Serial No. 205,136
5 Claims. (Cl. 15—406)



2. A lance for use in a boiler header to blow out the tubes connected therewith comprising a generally vertically disposed body portion bounding a chamber, a generally vertical hollow shaft extending through the body portion, being guided at the opposite ends thereof and having its interior in communication with said chamber, a motor connected to the upper end of said shaft operative to effect longitudinal movement of the shaft, the lower end of said shaft being adapted to be associated with one of said tubes when the shaft occupies its lower position, means associated with said body portion and including support members engageable with the interior of the header wall effective to maintain a predetermined minimum distance between the lower end of the body portion and the header wall therebelow into which distance the lower end of the shaft retracts when in its upper position.

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2,770,831
RETRACTABLE BALL-TYPE CASTERING DEVICE
Wilbert W. Angelica, Cicero, and Robert T. Miller, Clarendon Hills, Ill.
Application June 13, 1955, Serial No. 515,124
6 Claims. (Cl. 16—24)



6. A caster device adapted to be attached to objects to be moved from one place to another, comprising: a casing having an inner wall, said casing having a lower portion provided with an opening, a carrier movably disposed within said casing, a recess disposed in the wall, said recess having at least one tapered surface a roller connected to said carrier in relative rolling relation, a resilient stop carried by said carrier, said stop being normally urged laterally outwardly independently of said carrier into engagement with the recess and tapered surface, a resilient means within said casing adapted to urge said carrier to an operative position whereby said roller projects outwardly of said casing, and whereby said stop is engaged in said recess for locking said carrier in position relative to said casing, said carrier being movable

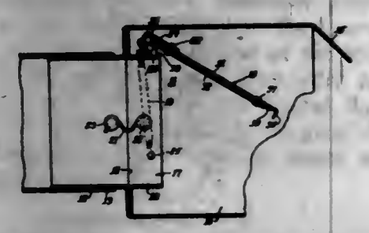
to position said roller in a retracted position upon a predetermined downward thrust upon said caster device whereby said stop moves on said tapered surface and is disengaged from said recess.

2,770,832
SWIVEL WHEEL DAMPER
Claude Martin, Buffalo, N. Y., assignor to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan
Application February 11, 1953, Serial No. 336,240
12 Claims. (Cl. 16—35)



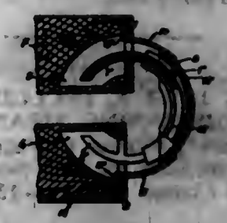
1. A shimmy damper installation for damping oscillations of a wheel assembly mounted in a relatively fixed support structure comprising, in combination, damping means attached to the support structure, first collar means journaled on said support structure, means operatively connecting said damping means with said collar means, second collar means journaled on said support structure and connected to oscillate with said wheel assembly, means for interconnecting said first and second collar means for joint movement within a preselected range of positions of said wheel assembly to damp oscillations of said wheel assembly, and means for disengaging said interconnecting means outside the preselected range of positions of said wheel assembly to disconnect said damping means from said wheel assembly.

2,770,833
SEPARABLE HINGE
Fred E. Drechsel, Chicago, Ill., assignor to Ilg Electric Ventilating Co., Chicago, Ill., a corporation of Delaware
Application January 15, 1953, Serial No. 331,420
5 Claims. (Cl. 16—172)



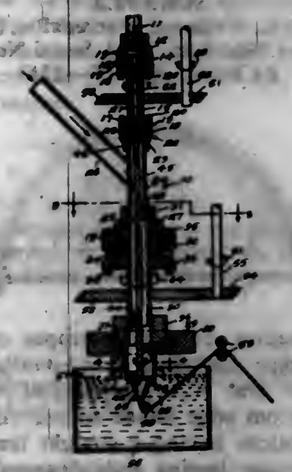
1. A pair of cooperating hinge members comprising a first hinge member having a hook portion with a slot therein, the end of said hook portion being pointed so as to form a knife edge, a second hinge member having a vertical flange portion which includes a V-shaped notch at its base portion and an overlying hook portion, said first hinge member being interengageable with said second hinge member with said overlying hook portion of said second hinge member extending through the slot in said first hinge member and with said knife edge seating in said notch in said second hinge member, and said first hinge member being free to pivot on said knife edge relative to said second hinge member when said hinge members are interengaged.

2,770,834
CONCEALED HINGE OF SLIDABLE EXTENSIBLE TYPE
Saverio Jannace, Milan, Italy, assignor to Italo Rizzieri, Milan, Italy
Application April 30, 1951, Serial No. 223,718
Claims priority, application Italy May 4, 1950
2 Claims. (Cl. 16—179)



1. A hinge comprising a pair of base plates, each plate having an elongated slot provided therein, one plate having a slide of annular sector profile extending from one face of the plate in the lower portion thereof in alignment with the lower portion of said slot, the other plate having a slide of annular sector profile extending from one face thereof in alignment with the upper portion of the slot therein and above the slide extending from the first plate, an intermediate slide member of annular sector profile and of channel cross section embracing each slide and circumferentially slidably mounted thereon, and a guide body of annular sector profile, said guide body having a pair of axially spaced upper and lower parallel annular grooves formed therein and opening through annular slots in the inner surface of the body, said slots being of an axial width less than the axial width of the grooves, said guide body having the intermediate slide member embracing the slide of one plate slidably mounted in the lower groove and the intermediate slide member embracing the slide of the other plate mounted in the upper groove, said elongated slots in the plates being long and wide enough to enable the guide body and the intermediate slide members to pass therethrough during relative annular sliding motion of the slides, intermediate slide members and the guide body.

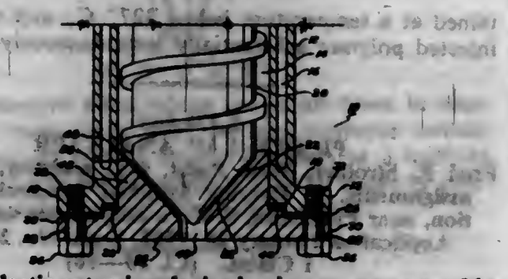
2,770,835
APPARATUS AND METHOD FOR THE MANUFACTURE OF SPUN SYNTHETIC THREADS AND/OR YARNS
Claude B. Williams, Narrows, Va.
Application March 6, 1953, Serial No. 340,885
8 Claims. (Cl. 18—8)



1. A process for the manufacture of spun synthetic threads and yarns, consisting in simultaneously extruding a plurality of fibers through extrusion orifices of a rotating member into a coagulating bath while intermittently and successively, at regulated intervals, interrupting the extrusion of the fibers momentarily through the different extrusion orifices for accomplishing breaks in the different filaments in regulated spaced sequence prior to coagulation thereof to produce a yarn or thread of uniform cross sectional size and which is devoid of thick and thin portions.



2,770,836
PRESSURE HEAD FOR EXTRUDERS
Ernest H. Hankey, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application June 10, 1953, Serial No. 360,678
6 Claims. (Cl. 18—12)



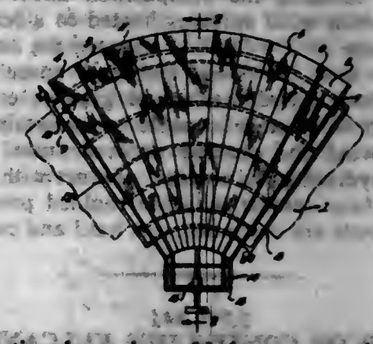
1. In a plastic extrusion device having a screw rotatably mounted in the bore of a casing, the improvement which comprises a conical tip on the discharge end of the screw, said conical tip having a base diameter substantially equal to the root diameter of the screw and a slant height equal to less than about twice the altitude thereof, and a casing-closure member adjustably mounted on the discharge end of the casing, said casing-closure member having a cylindrical portion in the bore of the casing, the cylindrical surface of said portion being in sliding engagement with the wall of said bore, said cylindrical portion being provided at the inner end thereof with a frustro-conical recess spaced from and parallel with the conical tip of the screw, the surface of said frustro-conical recess converging with the said cylindrical surface to define a sealing lip therebetween.

2,770,837
EXTRUDING PRESS
Hans Reifenhäuser, Troisdorf, Rhineland, Germany, assignor to Hugo Stinnes Verwaltung G. m. b. H., Mulheim an der Ruhr, Germany
Application February 24, 1953, Serial No. 338,476
Claims priority, application Germany February 23, 1952
1 Claim. (Cl. 18—12)



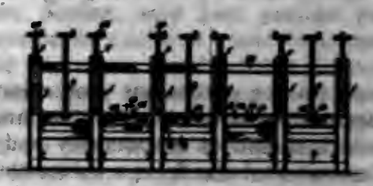
An extruding press comprising, in combination, an elongated tubular casing having an elongated first inner cylindrical surface portion and an elongated second inner cylindrical surface portion next to said first surface portion, coaxial therewith, and of a larger diameter than the same, said casing being formed only at said first inner surface portion thereof with a plurality of relatively closely spaced axial grooves each of which has one side surface portion making approximately a right angle with a tangent to said first inner surface portion and an opposite side surface portion making an acute angle substantially smaller than a right angle with a tangent to said first inner surface portion, said one side surface portion of each groove being located next to said opposite side surface portion of the next groove, and said casing being formed with an opening in said second surface portion thereof; a worm screw coaxial with said casing turnably carried by the latter for rotation therein and having an outer helical periphery located closely adjacent to said first and second inner surface portions of said casing; and hopper means connected to said casing at said opening thereof to supply material to the interior of said casing.

2,770,838
SECTIONAL REPAIR MOLD FOR PNEUMATIC TIRES
William Cryar, Compton, Calif.
Application February 16, 1953, Serial No. 337,055
4 Claims. (Cl. 18—18)



1. A sectional repair mold for pneumatic tires comprising a plurality of substantially wedge shaped segments arranged in juxtaposition and abutting one another, a pair of frame plates arranged one on each side of the outermost segments of the mold, a stirrup on the lower end of said plates, clamp means engaging the stirrups and bearing against the pneumatic tire to hold the mold on the tire, means holding said segments in assembled position, and conduit means extending through all of said segments to heat the same, said conduit means extending from one side of the mold to the other.

2,770,839
VULCANIZING MACHINE
Lendall Orea Boice, Bluefield, W. Va.
Application September 17, 1953, Serial No. 380,690
8 Claims. (Cl. 18—18)



1. In a machine for vulcanizing repair of strip material comprising, a frame, a vulcanizing unit having top, bottom and edge heater plates fixed upon the frame longitudinally thereof, and a second vulcanizing unit having top, bottom and edge heater plates mounted upon the frame parallel to the first unit and movable transversely of the frame toward and from the fixed unit.

2,770,840
METHOD FOR PRODUCING MOLDED PRODUCTS COMPRISING MELAMINE FORMALDEHYDE RESIN AND GYPSUM
Lawrence P. Biefeld, Granville, and Richard F. Shannon, Lancaster, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware
No Drawing. Application April 24, 1952, Serial No. 284,201
6 Claims. (Cl. 18—47.5)

1. A method for producing molded products comprising loading a mold space with a composition consisting essentially of a water soluble melamine formaldehyde resin in an intermediate stage of polymeric growth and calcined gypsum present in the ratio of 1 part by

weight resin to 2–8 parts by weight gypsum, water in amounts greater than 16 parts by weight per 100 parts by weight of gypsum to impart flow of the desired character but not more than that theoretically required to combine with the gypsum to form a cured cement, a water soluble alkali metal salt present in amounts ranging from 0.25–4 parts by weight per 100 parts by weight of gypsum to seed the cement cure, an acidic substance to adjust the pH of the composition to between 5 and 7, a retarder for the gypsum cement, and glass fibers of reinforcing lengths present in amounts ranging from 1–20 percent by weight based upon the solids in the molding composition, molding the composition under heat and pressure between mold surfaces heated to a temperature within the range of 220–300° F. whereby the composition is caused to flow for filling the mold space until the melamine formaldehyde resin and gypsum components are advanced to a stage capable of maintaining mold shape, removing the molded product from the mold space, and hydrating the molded product with a film of water in surface contact with the molded product until said components are converted to a hard and cured stage.

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2,770,841
**METHOD OF CONTINUOUS VULCANIZING OF RUBBER**
Giles B. Cooke and Mordecai N. Timbs, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application September 4, 1952, Serial No. 307,868
5 Claims. (Cl. 18—53)

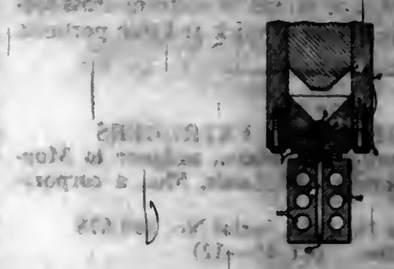


1. A process for the continuous production of cured tubes of vulcanizable material of precise and uniform dimensions which comprises continuously and uniformly extruding in uncured tubular form a substantially rapidly curable rubber composition, so compounded as to cure in not over about one half a minute when exposed to a temperature of 400–450° F., said extrusion being at an elevated temperature but below the curing temperature, and thereafter immediately and without pause, drawing the uncured tube through a zone maintained at a constant elevated curing temperature while in sliding internal contact with a supporting mandrel to cure the tubular article, and continuously and uniformly withdrawing the cured tubular article from the curing zone at said temperature into the open air.

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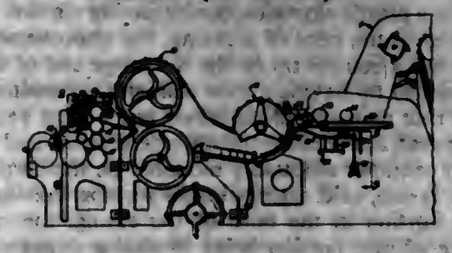
2,770,842
**INJECTION MOLDING OF POLYTETRAFLUOROETHYLENE**
Oliver M. Hahn and Robert S. Mallouk, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application January 22, 1954, Serial No. 405,654
1 Claim. (Cl. 18—55)

A process for injection molding polytetrafluoroethylene which comprises the steps of heating granulated polymer to a preliminary temperature in the range of 327 to 400° C. under a pressure effective to prevent melting thereof, injecting the heated polymer into a closed mold maintained at a temperature below 327° C., and melting the injected polymer substantially instantaneously thereafter.



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2,770,843
**PICKER LAP ANALYZER**
Fred P. Strother, West Point, Ga., assignor, by mesne assignments, to Deering Milliken Research Corporation, near Pendleton, S. C., a corporation of Delaware
Application January 26, 1952, Serial No. 268,435
1 Claim. (Cl. 19—70)



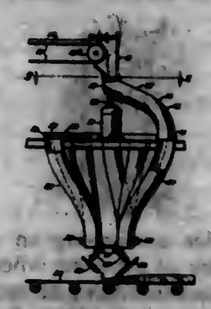
In combination with a picker machine including lap moving rolls cooperating to wind the lap at the exit of said machine, and a series of smooth calender rolls arranged in a vertical plane for rolling contact between adjacent rolls, said calender rolls being mounted adjacent said lap moving rolls and functioning to deliver calendered lap to said lap moving rolls, a plurality of pivotally mounted, yoked arms, a plurality of rollers journaled in the yokes carried by said arms adjacent one of said smooth rolls, said rollers being adapted to contact the lap on the side opposite to that contacted by said one smooth roll, spring means adapted to bias said rollers into contact with said lap, whereby said lap is pressed between one smooth roll and said rollers, a plurality of rotatable sheaves carried on the ends of said arms opposed to said yokes, a row of rotatable sheaves fixedly mounted on said picker machine equidistant from and in horizontal alignment with said sheaves carried by said arms, said fixedly mounted sheaves being in staggered relationship with the sheaves carried by said arms, a flexible member, secured at one end to said picker machine passed from one end of said row to the other successively about said fixedly mounted sheaves and the sheaves carried by said arms thereby coupling said sheaves in a zig-zag manner, and means responsive to movement of the free end of said flexible member to thereby indicate the algebraic sum of the movement of said sheaves carried by said arms.

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2,770,844
**METHOD AND MEANS FOR FELTING FIBROUS ELEMENTS**
Robert D. Lambert, Sandpoint, Idaho, assignor, by mesne assignments, to Changewood Corporation, Chicago, Ill., a corporation of Illinois
Application July 29, 1953, Serial No. 371,885
13 Claims. (Cl. 19—156)

1. A method of depositing fibrous elements upon a collecting surface to manufacture continuous layers with the fibrous elements in uniform distribution comprising the steps of advancing the said collecting surface continuously past a plurality of conveyor outlets which are positioned above and mutually aligned across said collecting surface, moving a distributor outlet uniformly to bring it successively into communication with a plurality of conveyor inlets which are at all times in communication respectively with the said conveyor outlets, and continuously feeding fibrous elements at a uniform rate into a distributor inlet which is at all times in communication with the said distributor outlet.





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2,770,845
**TUBE GEAR FOR SLIVER COILERS**
Gordon C. Andersen, Biddeford, and Paul R. West, Kennebunk, Maine, assignors to Saco-Lowell Shops, Boston, Mass., a corporation of Maine
Application February 11, 1954, Serial No. 409,762
4 Claims. (Cl. 19—159)

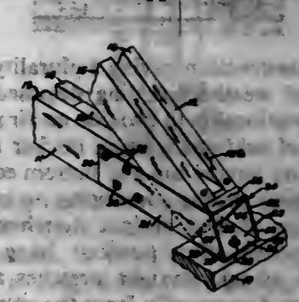


4. In a sliver coiler, a tube gear comprising a base member mounted for rotation in a horizontal plane about a vertical axis, said base member having a first generally flat upper surface portion and having spaced from the axis of rotation thereof a second surface portion extending at an angle to said first portion and merging therewith and having also spaced from said axis of rotation thereof a generally vertical passage of circular cross section extending through said base member and through said second surface portion, and a tube member mounted in fixed position on said base member extending upwardly from the upper face of said base member and radially inwardly with its lower end opening positioned above and adjacent to said passage and its upper end positioned adjacent said axis of rotation of said base member.

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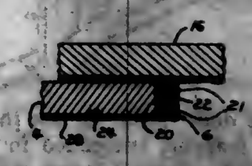
2,770,846
**TRUSS SHOE**
Ronald James Finelleton, Lafayette, Calif., assignor to Raybow Engineering & Research Co., Oakland, Calif., a corporation of California
Application September 29, 1951, Serial No. 248,914
11 Claims. (Cl. 20—5)

1. In a truss adapted to be secured to vertical support members and having a horizontal lower chord and a sloping upper chord whose ends lie just beyond the ends of the lower chord, the ends of said upper chord being cut off substantially perpendicularly to said upper chord, the combination therewith of a metal truss shoe at each end of said truss for securing the truss chords together and for securing said truss to said vertical support members closely adjacent the ends of said upper chord, each said shoe comprising a pair of parallel side members lying against the vertical outside faces of said lower chord and bolted to said lower chord, said members having outer portions that extend beyond the end of said lower chord, whereby the tension of said lower chord is transferred effectively to said side members substantially centrally therealong; and a transverse member in between and joining said outer plate portions, said transverse member having a horizontal base portion connecting the lower edges of said outer plate portions, having its inboard end out beyond the end of said lower chord, and having at least one bolt opening therethrough for connection to said vertical support member, which underlies substantially the entire said base portion, said transverse member also having an inclined bearing-plate portion in between said side members extending upwardly and outwardly from the inboard end of said base portion and bearing against the perpendicularly cut end of said upper chord, the end face of said upper chord being supported on the level of the lower chord in a pocket provided by said side members and said bearing-plate portion, said upper chord thrust therefore being resolved substantially centrally against said inclined bearing-plate portion, the main bearing area of said base portion on said vertical support member lying directly below said bearing-plate portion, said base portion being shorter than the area on its level that would be formed by a continuation of said upper chord, so that the point of intersection of said upper chord thrust and said lower chord tension lies directly above said vertical support member, whereby all the three forces of the truss, the upper chord thrust, the lower chord tension, and the reaction of the vertical support, are resolved concentrically in said shoe.



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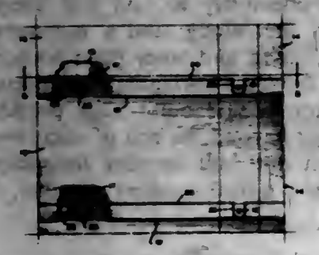
2,770,847
**BUILDING CORNER CONSTRUCTION**
William R. Wright, Westwood, Mass., assignor to Bird & Son, Inc., East Walpole, Mass., a corporation of Massachusetts
Application April 19, 1952, Serial No. 283,167
3 Claims. (Cl. 20—5)



1. A building element having a normally exposed outer edge comprising a sheet of fiberboard having an extended outer edge, a groove extending along said edge between the side surfaces of said fiberboard sheet, said groove forming webs on either side thereof, said webs being saturated with a sealing composition of asphalt, resin or the like, and coating composition of asphalt,

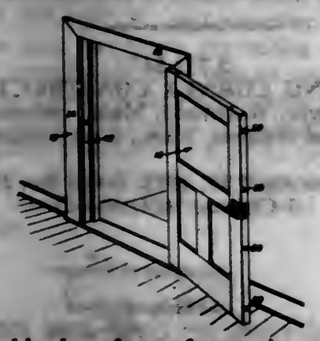
resin or the like in said groove and covering said outer edge for providing a substantially flush weatherproof strengthened outer edge on said building element, said edge being covered with said coating composition, and said groove providing a reservoir of said coating composition.

2,770,848
MOISTURE RELEASE AND ALIGNING DEVICE
Patrick Dolan, Richmond, Va.
Application April 28, 1953, Serial No. 351,675
9 Claims. (Cl. 20—5)



1. In a wall construction having a plurality of elongated rows of strips of weatherboarding disposed horizontally in overlapping relationship to provide an air pocket behind each row, each of said strips being thicker at the bottom than at the top and having top and bottom edges, moisture release and aligning means comprising an elongated strip of material having aligned straight stretches separated by horizontally disposed offset portions lying in the same horizontal plane as said straight stretches and a spacing portion depending downwardly from the extremity of each of said offset portions, the straight stretches resting upon the upper edge of a strip of weatherboarding and the downwardly depending spacing portions being positioned between the front face of said strip of weatherboarding and the overlapping portion of the next higher strip of weatherboarding to provide elongated spaces between the overlapped portions of said strips of weatherboarding furnishing communication between the atmosphere and the air pocket behind said next higher strip of weatherboarding, the bottom edge of said next higher strip of weatherboarding being located in alignment with the extremities of said spacing portions to align said strip of weatherboarding horizontally and control the degree of overlap.

2,770,849
VARIABLE DOOR FRAME
Warren A. Gavey, Orfordville, Wis.
Application March 2, 1954, Serial No. 413,505
6 Claims. (Cl. 20—11)



1. A variable door frame for use in combination with a door having magnets embedded in one edge thereof, said frame having a vertical frame member with a vertically extending slot therein, a vertical member of substantially U-shape in cross section resiliently mounted in said slot, resilient means urging said vertical member into said slot, said magnets attracting said vertical member into engagement with said edge of said door when said door is closed.

2,770,850
CURVED CLOSURE DEVICE
Phillip Graham, Pittsburgh, Pa.
Application January 8, 1952, Serial No. 265,465
14 Claims. (Cl. 20—35)



1. A closure device comprising an outwardly curved thin panel, a plurality of elements whose extremities are fastened adjacent the extremities of said panel on opposite sides thereof, and a plurality of ribs, each having spaced anchoring points secured to one side of said panel there being spaces between said ribs and said one side of the panel, between said anchoring points, for allowing said panel to freely expand or contract at intermediate unfastened portions between said anchoring points.

2,770,851
POSITIVE LATCH FOR AWNING TYPE WINDOWS
Arthur H. Soule, Beverly Hills, Calif., assignor to Dalmo Continental, Inc., Los Angeles, Calif., a corporation of California
Application September 2, 1954, Serial No. 453,803
6 Claims. (Cl. 20—42)



1. A latch mechanism for the upper sashes of a multiple sash window construction having a vertically movable traveling bar for actuating said sashes for opening and closing movement thereof, a pivotal connection between the upper portion of said sashes and said traveling bar, said connection including a bracket on said traveling bar, a vertically extending slot in said bracket, an outwardly extending pin on the upper end of said sash extending through said slot thereby providing a lost motion mechanism to permit initial downward movement of said traveling bar relative to said upper sashes without causing opening movement thereof, said latch comprising means connected to the lower portion of the side edges of each of said upper sashes and extending outwardly therefrom, means connected with said traveling bar and adapted to interengage with said first means to prevent opening movement of said upper sashes when said traveling bar is in its uppermost position and adapted to disengage from said first means upon initial downward movement of said traveling bar relative to said upper sashes to permit opening movement of said upper sashes upon further downward movement of said traveling bar.



2,770,852
COMBINATION AWNING AND SHUTTER FOR WINDOW OPENING
Roland D. Goodwin, Lakewood, Ohio
Application March 30, 1954, Serial No. 419,706
1 Claim. (Cl. 20—57.5)



A combination awning and shutter for a window opening, comprising in combination, a tubular rail member having laterally extending center and end brackets for securing said rail above the window opening in spaced relation thereto; two similar frame members pivotally and slidably suspended from said rail between the center brackets and each end bracket thereof, each of the frame members comprising spaced and parallel side bars, joined at their lower ends by an angle iron cross bar, each of said side bars being curved upon itself at its upper end to form a tubular shoe adapted to slidably engage the tubular rail, and a plurality of transversely extending and overlapping louvers tiltably mounted on said side bars, including means for simultaneously tilting and holding the louvers in adjusted position; each of said cross bars having a notched lock strap pivotally mounted thereon, movable between a retracted position against the cross bar to an extended position wherein its notched portion extends beyond the end of the cross bar, and a lock pin mounted on the cross bar in spaced alignment with the pivot point of the lock strap; said frames being slidable of the rail between a first position wherein they are positioned against the end bracket thereof, clear of the window opening and at either side thereof in the manner of a shutter, and a second position wherein said frames abut the center brackets to cover the window opening with their cross bars abutting and with the lock straps extended so that the notches therein engage the lock pins of the abutting cross bars to secure the frames against lateral separation; and means for pivoting and holding the locked frames at an angle to the window opening in the manner of an awning.

2,770,853
LOUVERED WINDOW FRAME
Dana M. Groff and Charles S. Stanley, Tampa, Fla.; said Stanley assignor to said Groff
Application March 3, 1954, Serial No. 413,836
7 Claims. (Cl. 20—62)



1. In combination a window frame having parallel side walls with rear edge portions reversely bent upon themselves and providing spaced substantially parallel forward extending walls, a series of louvers between said side walls, supports for said louvers at the ends of the same, each support comprising a holder with front, rear, top, bottom and end portions for receiving the end of the louver and rearwardly extending spaced wall portions, and means pivotally mounting said holder through the upper part of said end portion so that the spaced wall portions will be disposed on opposite sides of the wall formed by the adjacent reversely bent portion of the side of the frame and providing a weather-tight joint.

2,770,854
INCENSE BRIQUETTE
Victor J. Mianulis, Chicago, Ill., assignor to Hinde Incense Mfg. Co., Chicago, Ill., a corporation of Illinois
Application December 4, 1952, Serial No. 323,969
2 Claims. (Cl. 21—116)



1. A conically-shaped briquette of neutral carbon impregnated with incense ingredients volatilizable at elevated temperatures, a central portion of said briquette formed with a longitudinally-extending cavity of substantial dimension opening to the base of the same, upon ignition of the briquette said cavity adapted to conduct the volatile products of combustion into the atmosphere, a substantial portion of said volatile products of combustion being released into the atmosphere at points sufficiently removed from the ignited portions of the briquette to prevent the reabsorption and recombustion thereof, said base having a transverse open slot extending diametrically across the same.

2,770,855
APPARATUS FOR MAKING LINER SLEEVES AND REFRACTORY SHELL TYPE MOLDS
Garnet P. Phillips, La Grange, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application November 14, 1952, Serial No. 320,417
8 Claims. (Cl. 22—9)



7. A foundry mold manufacturing apparatus comprising a cylindrical casing having upper and lower open ends, upper and lower pattern sections respectively connected over the upper and lower open ends of said casing, the upper pattern sections having openings providing for communication with the interior of the casing, a tubular member connected to one of said pattern sections, said tubular member projecting into said casing, a sleeve connected to the other pattern section, said sleeve and said tubular member being disposed in relative telescoping and laterally spaced relation to provide first and second

concentric chambers, one of said pattern sections including a post substantially coextensive within said tubular member to provide a third chamber in communication with said openings, and means adapted to direct mold material through said openings into said chamber, said first and second pattern sections being relatively displaceable from the mold material thereby leaving a cylindrical shell-type mold in said casing.

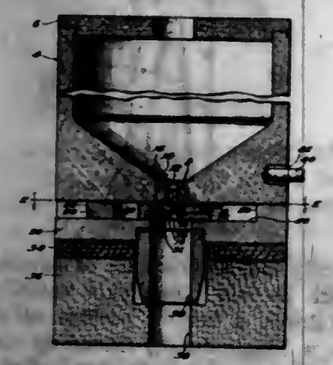
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2,770,856

## CRUCIBLE AND STOPPER THEREFOR

Adam W. Becher, Oxford, Ohio, and Alfred W. Woker, St. Louis, Mo., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application December 4, 1952, Serial No. 324,021
6 Claims. (Cl. 22—57)



1. The combination with a crucible having a hole in its bottom, of a frangible stopper mounted in the crucible hole so as to protrude from the bottom of the crucible, the stopper having a blind bore extending from an upper end within the crucible to a region spaced from the lower end and near the bottom of the crucible and an annular notch around the body in a plane substantially normal to the bore and around the bottom of the bore, and a slide member having two spaced openings, one opening being provided with a shoulder, and means supporting the slide member adjacent the bottom of the crucible with the protruding end of the stopper in the shoulder opening whereby the slide member may be shifted to convert the stopper to a nozzle by breaking the said protruding end from the stopper at the annular notch and to carry said protruding end out of the way on the shoulder of the one opening and bring the other opening into alignment with the nozzle.

2. The combination with a crucible having a hole in its bottom, of a stopper composed of a nozzle portion positioned in the hole, a cap protruding from the bottom and a frangible section between the cap and the nozzle portion, and a slide member mounted at the bottom so as to be shiftable therealong for breaking the stopper at the frangible section and taking the cap out of the way to facilitate unimpeded flow from the crucible through the nozzle portion.

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2,770,857

## MOULD FOR THE CENTRIFUGAL CASTING OF PIPES AND OTHER PIECES

Pierre Boisseau, Pamiers, France, assignor to Societe Metallurgique Ariegeoise et Lorraine, Pamiers, France, a French body corporate

Application April 28, 1953, Serial No. 349,695
Claims priority, application France April 21, 1952
7 Claims. (Cl. 22—65)

1. In a mould rotative about an axis of revolution, for the centrifugal casting of an elongated metallic tubular piece with protection against atmospheric air, said piece being susceptible of undergoing a relatively important longitudinal shrinkage, in combination: a rotative tubular mould shell having two ends and an internal surface concentric to said axis, said internal surface emerging at both of said ends and forming a casting chamber; a hollow distributor chamber attached to one of said ends; said distributor chamber forming a passageway for the molten metal to be cast, and being adapted to impart to the molten metal an angular speed of rotation equal to that of said shell before the metal passes from said distributor chamber into said casting chamber; a first transverse plug device, internal to said internal surface comprising a screen disposed between and separating said casting chamber and said distributor chamber; apertures in said screen for the passage of the molten metal and for communication between said chambers, said apertures being so disposed that they are entirely immersed in the molten metal; housing means for said screen, attached to said shell between said distributor and casting chambers, and fusible means disposed between said housing means and the periphery of said screen and adapted to connect temporarily said screen to said housing means, in such a maner that said screen is released at the end of the casting; whereby said screen, then held fast, relative to the cast piece, by the metal frozen in said apertures, is adapted to follow during the cooling of the cast piece the shrinkage of the latter; at the other end of the shell, a second transverse plug device, at least partially movable to close the casting chamber, and a pushing device operable from the outside of said shell and adapted to move said second plug device longitudinally towards said screen during the cooling of the cast piece, whereby the latter is maintained under longitudinal compression in spite of its shrinkage.



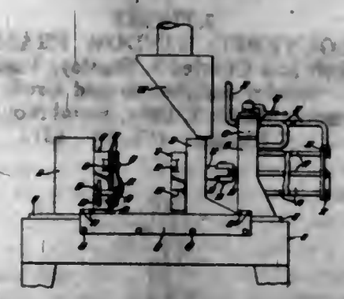
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2,770,858

## SUPPORTING SHELL MOLDS DURING METAL POURING OPERATIONS

Arthur J. Anderson, Bedford, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 12, 1952, Serial No. 282,030
2 Claims. (Cl. 22—90)



1. An assembly of a shell mold and support therefor for use during metal pouring operations, said assembly comprising a base, a pair of mold-supporting plates mounted on said base, each of said plates being provided with a plurality of spatially separated projections of varying longitudinal extension with respect to the plane of said plate, a thin-walled shell mold formed of sand and thermosetting resin binder mounted on one of said plates against the projections on said plate, at least one of said plates being reciprocably mounted on said base and movable relative to the other of said plates so as to cause the projections on said plates to apply pressure to opposite exterior surfaces of said mold supported between said plates, and means associated with the plate on which said mold is mounted for maintaining said mold in position against the projections on said plate prior to contact between the other of said plates and said mold.



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2,770,859

## METHOD OF TREATING A METALLIC PATTERN FOR SHELL MOLDING

Donald J. Henry, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application July 20, 1951, Serial No. 237,825
7 Claims. (Cl. 22—193)

1. A method of treating a metallic pattern for effecting the release of a shell-type and sand-resin mold therefrom which comprises heating said pattern to at least 250° F. and coating the molding surface of said hot metallic pattern with a mixture of minor proportions of carnauba wax and emulsifier and a major proportion of water for distributing said wax on said molding surface.

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2,770,860

## CASTING READILY OXIDIZABLE ALLOYS

Fred J. Webbere, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application July 23, 1952, Serial No. 300,512
7 Claims. (Cl. 22—214)

6. A method of treating a nickel base alloy containing titanium and aluminum during pouring operations so as to prevent the formation and occlusion of titanium and aluminum nitride and oxide films, said method comprising melting said nickel base alloy and pouring it in an atmosphere consisting essentially of a mixture of an inert gas and dichlorodifluoromethane.

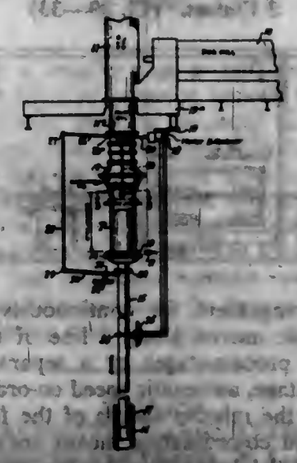
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2,770,861

## APPARATUS FOR FORMING CYLINDERS OF PLASTIC MATERIAL

John D. Schlumm, Findlay, Ohio, assignor to The Hancock Brick and Tile Company, Findlay, Ohio, a corporation of Ohio

Application September 16, 1952, Serial No. 309,799
7 Claims. (Cl. 25—39)



1. Apparatus of the character described, comprising means for vertically forming a continuous tube of plastic clay-like material, support means for the lower end of the tube, means including said support means for up and down movement, said support means moving downwardly as the tube advances, normally inactive tube severing means, means mounting said severing means for up and down movement, mechanism for imparting limited downward movement to said tube severing means, and means responsive to predetermined downward movement of said support means for activating the tube severing means and substantially simultaneously actuating the mechanism so as to impart limited downward movement of the severing mechanism, the last named means operating so as to actuate the knife while continuing the downward motion of the tube severing means and tube.

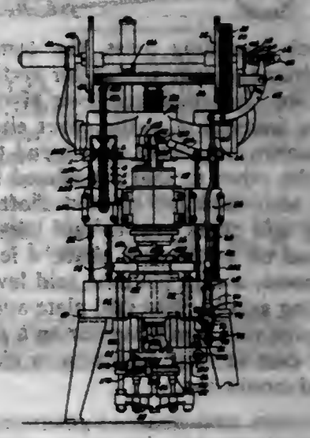
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2,770,862

## AUTOMATIC CONTROL FOR SCREW OPERATED PRESS

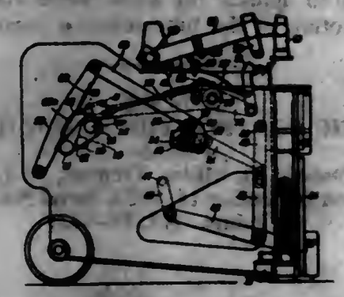
Donald M. Miller, Trenton, N. J.

Application December 14, 1953, Serial No. 397,895
5 Claims. (Cl. 25—42)



1. In a screw operated press of the type including a base, a pair of power driven horizontally shiftable friction disks journaled on said base, a horizontally arranged friction wheel mounted on said base between the opposed faces of said disks and carrying an axially aligned screw threadedly mounted in said base for rotary and reciprocal axial movement therein, said screw carrying a ram, a tile forming die member on said base axially opposed to said ram, means for supplying clay dust to said die member, a plurality of mechanical elements connected in series with and adapted for alternately shifting said friction disks into and out of contact with the periphery of said fraction wheel to effect reciprocal movement of said screw and ram, an air pressure cylinder mounted on said base and having therein a piston connected with and adapted for actuating said mechanical elements in shifting said disks, as aforesaid, automatic control for the axial movements of said screw and ram comprising in combination an electrical circuit, a source of electric current therefor, an electrically actuated valve in the electrical circuit connected with said air pressure cylinder for controlling the movements of the piston therein, a sequence relay in said circuit for sequentially controlling the operation of said electrically actuated valve, a plurality of electrical switches in said circuit mounted on said base, a switch contact member movably mounted on said base in opposed relation to the lower side of said friction wheel and adapted for vertical movement by contact with the lower side of said wheel upon downward movement thereof, said contact member being provided with a contact element adapted for alternately actuating each of said switches in the operation of said relay and valve in effecting automatic predetermined reciprocal sequential movements of said ram in the operations of pressing a supply of clay dust in said die member into a tile, and resilient means mounted on said base and engaging said contact member for automatically returning said member to its uppermost position when said friction wheel moves to its uppermost position.

2,770,863
**PRESSES FOR MOULDING PLASTIC SUBSTANCES**
William Herbert Smith, East Molesey, England
Original application December 18, 1951, Serial No. 262,257, now Patent No. 2,716,796, dated September 6, 1955. Divided and this application January 13, 1953, Serial No. 330,944
5 Claims. (Cl. 25—83)



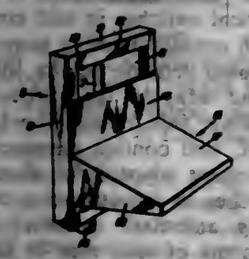
1. In a block moulding press, the combination of a mould box, a frame, a ram guided for vertical movement in said mould box, an articulated lever pivoted at one end to the machine frame and at the other end to said ram, a toggle mechanism connected at one end to the machine frame and at the other to said articulated lever, a rotary shaft, a crank arm mounted on said shaft, a connecting rod connecting said crank arm to said toggle mechanism, a plate mounted on said rotary shaft, a lever pivoted to the machine frame, a cam plate on said lever, link mechanism connecting said lever to said plate and a rotary cam adapted to engage said cam plate during a partial rotation of said rotary cam to raise said ram to eject a moulded block from said mould box.

2,770,864
**METHOD FOR PRODUCING A SURFACE OF DESIRED CONTOUR ON A MOLDABLE SUBSTANCE**
Harry Weese, Chicago, Ill.
Application December 10, 1952, Serial No. 325,099
1 Claim. (Cl. 25—155)



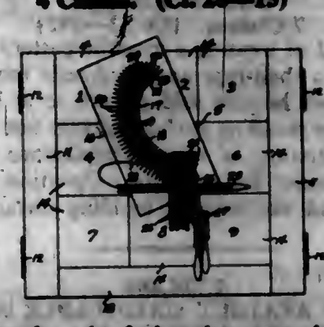
A method for producing a plane surface on structures made of self-rising concrete which comprises pouring the concrete into a mold, allowing the concrete to rise and extrude through a plane perforated surface, wiping the extrusions, redistributing the extruded concrete to hollow places and removing excess concrete.

2,770,865
**EMBALMER'S ARM SUPPORT**
Larry D. Krouch, Nampa, Idaho
Application January 20, 1955, Serial No. 483,029
1 Claim. (Cl. 27—21)



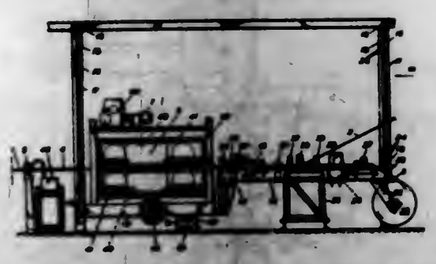
An embalmer's arm support comprising: a substantially flat, rectangular upright including a back having a slot therein, side walls, a top, a bottom having a drainage opening therein, and a front having an opening therein, feet depending from the bottom for supporting the upright in an elevated position, and a bracket mounted for vertical sliding and rotary adjustment on the upright, said bracket including a vertical plate engaged with the front of the upright, a platform fixed on said plate and projecting horizontally therefrom, a bolt fixed on the bracket and extending through the opening in the front and the slot, and a hand nut threaded on the bolt for frictionally securing the bracket in adjusted position on the upright.

2,770,866
**PIN-UP BOARD**
Marguerite G. Brooks, Darien, Conn.
Application May 24, 1954, Serial No. 431,650
4 Claims. (Cl. 28—15)



1. A pin-up board of the character described comprising a base portion and an upper portion on top of the base portion, said upper portion comprising elongated sections secured to the base portion at its opposite side and lower edges forming a central open rectangular space, a series of rectangular blocks on the base portion side by side in said open space and unattached to the base so they may be shifted to different relative positions in said space, and said blocks being of a material adapted for ready insertion of pins to facilitate pinning a pattern to the upper surface thereof.

2,770,867
**ARRANGEMENTS FOR CARRYING OUT CONTINUOUS PROCESSES ON LONG RIGID ARTICLES**
James Arthur Spencer, Northumberland Heath, Erith, England, assignor to British Insulated Callender's Cables Limited, London, England, a British company
Application November 17, 1951, Serial No. 256,946
Claims priority, application Great Britain December 1, 1950
3 Claims. (Cl. 29—33)



1. In an arrangement for continuously processing a long rigid article moved along a line of travel through two successive process-stages by a separate forwarding device in each stage, automatic speed co-ordinating means for controlling the relative speeds of the forwarding devices, said speed co-ordinating means comprising a carriage for one of the forwarding devices, suspending members supporting the carriage from fixed supports, centralizing springs incorporated in the suspending members, the springs being adapted to centralize the carriage and the suspending members being adapted to permit displacement of the carriage from the central position in the said line of travel under the action of tension and compression forces set up in the article between the two stages against the centralizing springs, a speed regulator for one of said forwarding devices, and control means for said speed regulator, said control means being adapted for operation by displacement of the carriage to adjust the speed regulator in the sense required to correct the condition which has caused the displacement.



2,770,868
**SELF LOCKING ROLLER, TIRE, AND TREAD FOUNDATION**
John G. Streckfus and Harry Godwin, Baltimore, Md.
Application July 2, 1952, Serial No. 296,840
3 Claims. (Cl. 29—129)



1. In a device of the kind described, a foundation having a longitudinal axis and a circular cross-section normal to said axis, said foundation having slots on the periphery thereof, a resilient tread peripherally secured to said foundation, and straps separate and independent from the foundation and extending longitudinally and internally of said tread and longitudinally and externally of said foundation, said straps being attached to the outer face of the foundation and directly abutting the foundation of said straps preventing the disengagement of the tread from the slots.

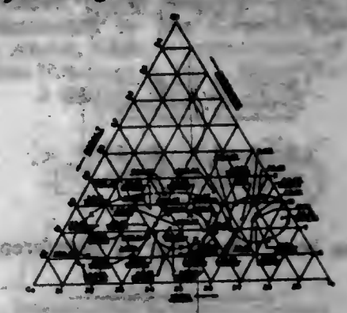
2,770,869
**METHOD OF MAKING ROLLER BEARING CAGE**
William J. Harley, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis., a corporation of Wisconsin
Application December 21, 1953, Serial No. 399,529
8 Claims. (Cl. 29—148.4)



1. A method of bearing cage manufacture which comprises pre-fabrication of separate annuli, at least one of which is sufficiently thick in its axial dimension solely to provide dividers between bearing pockets, radially milling pockets in the last mentioned annulus, leaving portions of such annulus to constitute said dividers between successive pockets, the other annulus comprising a ring having a continuous annular face, and securing said other annulus to the last mentioned annulus with the ends of said dividers abutting said face, the face portions between said dividers closing such pockets.

2,770,870
**THERMOSENSITIVE LAMINATED METALS**
Victor G. Mocarski, East Orange, N. J., assignor to The H. A. Wilson Company, Newark, N. J., a corporation of New Jersey
Application May 31, 1952, Serial No. 290,963
7 Claims. (Cl. 29—195.5)

1. Thermosensitive laminated metal in which a layer of metal of relatively low coefficient of thermal expansion consisting essentially of 55½% to 61% cobalt, 8% to 10½% chromium, and 30½% to 35½% is bonded to a layer of metal of relatively high coefficient of thermal expansion, the coefficient of thermal expansion of said low expanding layer being substantially unaffected by small



variations in the degree of cold working and by variations up to about ¼% in the amount of any of the above specified ingredients.

2,770,871
**FILLER METAL PIECE FOR THE WELDING OF SPHEROIDAL GRAPHITE CAST IRON**
Roger Demalander, Pont-a-Mousson, France, assignor to The Compagnie de Pont-a-Mousson, Nancy, France, a French body corporate
Application March 9, 1953, Serial No. 341,043
Claims priority, application France March 12, 1952
8 Claims. (Cl. 29—196.1)



8. A unit comprising two cast iron members united by welding, the cast iron of said members comprising spheroidal particles of graphite and the weld deposit comprising cast iron in which the carbon is grouped in the form of uniformly distributed spheroidal particles of graphite, the micrographs of the cast iron of said deposit being identical to those of said members, said cast iron members having the following approximate composition by weight, in addition to the iron:

| | Percent |
|---|---|
| Total carbon | 3.52 |
| Silicon | 2.94 |
| Manganese | 0.34 |
| Phosphorus | 0.10 |
| Sulphur | 0.008 |
| Magnesium | 0.065 |

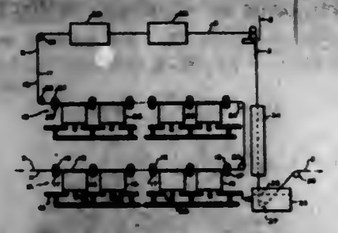
whereas the weld deposit has the following approximate composition by weight in addition to the iron:

| | Percent |
|---|---|
| Total carbon | 3.49 |
| Silicon | 3.02 |
| Manganese | 0.27 |
| Phosphorus | 0.07 |
| Sulphur | 0.004 |
| Magnesium | 0.08 |

2,770,872
**MARKED ELECTROLYTIC TINPLATE AND METHOD FOR PRODUCING SAME**
Alfred E. Kadell, Steubenville, Ohio, assignor to National Steel Corporation, a corporation of Delaware
Application April 10, 1952, Serial No. 281,574
28 Claims. (Cl. 29—196.4)

24. Electrolytic sheet tinplate having on at least one side a coating of electroplated tin in the flow brightened condition, the tin coating having a marking zone on the surface covering less than the entire surface area of the tin coating, the physical condition of the surface of the tin coating in the marking zone being different from and characterized by visibly different light-reflecting charac-

aristics than the surface of the tin coating outside of the marking zone, the physical condition of the surface of the



marking zone being the result of interference with flow brightening.

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2,770,873
**DEVICE FOR FACILITATING MOUNTING AUTOMOBILE WHEELS**
Robert C. Ramsey, Oklahoma City, Okla.
Application February 26, 1953, Serial No. 339,195
1 Claim. (Cl. 29—273)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A device for facilitating mounting of automobile wheels comprising: a handle having a pair of transverse parallel holes; a length of flexible cable slidably extending through each hole and adapted to pass through the mounting holes of an automobile wheel; a female threaded member secured at one end of each of said cables and a male threaded member secured at the other end of each of said cables, both male threaded members being on the same side of the handle and each pair of male and female threaded members having the same thread direction, the threaded members being larger than the holes in the handle whereby when said threaded members are secured to the ends of the cables a unitary structure is obtained in which sliding movement of the handle is restricted to between the ends of the cables, said threaded members being adapted to be secured to a wheel hub in place of those normally used to secure the wheel to the hub.

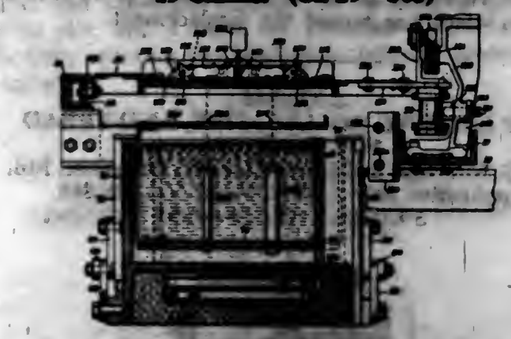
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2,770,874
**METHOD OF LOCALLY EXPANDING TUBING**
Arthur L. Lindow, Macedonia, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio
Application April 27, 1953, Serial No. 351,412
2 Claims. (Cl. 29—421)



1. The method of forming local expansion of tubing consisting of filling the portion of the tubing to be expanded with molten metal having a melting point lower than that of the tubing, causing said molten metal to flow radially outward to expand said tubing by applying equal opposed pressure thereon through two opposed plungers slidable in said tubing and forming therewith a slight clearance surrounded by walls colder than the melting point of said metal while confining the tubing around said plunger to maintain the slight clearance, said clearance being filled by said pressurized molten metal which solidifies therein to arrest escape of molten metal therethrough.

2,770,875
**SOLDERING MACHINE**
Jack J. Zimmerman, Riverside, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application June 9, 1952, Serial No. 292,424
19 Claims. (Cl. 29—583)



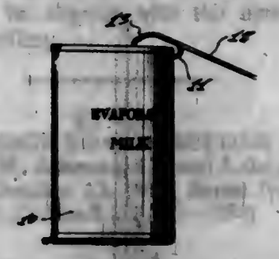
1. A machine for applying solder to parts of the surface of a printed circuit panel which comprises a thin flat insulated panel having a plurality of thin metal conductors secured thereon and substantially flush therewith and having a plurality of holes with metal therein, said machine including a container for molten solder, conveyor means having supporting portions for each of a plurality of insulated panels and movable intermittently to position successive ones of said supporting portions and the panel carried thereon horizontally over said container, solder-carrying means positioned within said container and movable vertically to carry the solder into soldering contact with a panel supported thereover, elevator means supporting said solder-carrying means for movement from a lower position below the level of solder in said container to an upper position adjacent to the underside of the panel, said solder-carrying means having a plurality of rims defining a selected solder surface configuration such that the solder contacts selected portions of the panel, and means to move said elevator means progressively upward to position said solder-carrying means adjacent the underside of a printed circuit panel positioned thereover with the solder in contact with the metal conductors thereon while maintaining a convex upwardly extending solder surface on said solder-carrying means.

4. The method of contact soldering selected metal portions on a printed circuit panel comprising a thin insulated panel with a circuit pattern of thin metal conductors on a side thereof, which includes the steps of providing a solder-carrying means having a shape operable to support solder for selective application to selected portions of a printed circuit panel, moving said solder-carrying means upwardly from below the surface of a quantity of molten solder to form at least one convex solder meniscus supported on and projecting above said solder-carrying means and to move said meniscus toward the underside of said panel, decelerating the upward movement of said solder-carrying means after it emerges from the molten solder so as to prevent destruction of said solder meniscus, and thereafter completely arresting the movement of said solder-carrying means in a position adjacent the underside of the panel and with said solder meniscus in contact with selected metal portions on the underside of the panel.

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2,770,876
**CAN OPENER AID**
Murray Tabakman, Bronx, N. Y.
Application July 30, 1954, Serial No. 446,938
4 Claims. (Cl. 30—10)

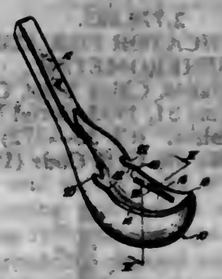
1. An article of the class described comprising a substantially L-shaped flat bar having a horizontal and a vertical portion adapted to receive thereagainst the bottom and sides of a rimless can, the outside of said vertical arm near the upper end thereof being formed with a ledge adapted to receive thereunder the hook of a conventional can opener, said horizontal and vertical arms being of different length whereby to adopt the device by



inverting the same to both short and tall cans, said horizontal arm on the outside thereof near the free end thereof being provided with a ledge adapted to receive thereunder the depending hook of a can opener.

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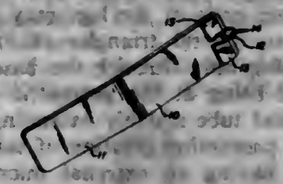
2,770,877
**COMBINATION CAN OPENER AND MEASURING CUP**
Alyce L. Bird, Mission, Kans.
Application September 15, 1955, Serial No. 534,565
2 Claims. (Cl. 30—123)



1. A combination can opener and measuring cup comprising a hollow, substantially semi-ovoidal bowl provided with a handle at one end thereof and a pair of concave cutting edges converging toward the opposite end of the bowl and terminating in a can-piercing point.

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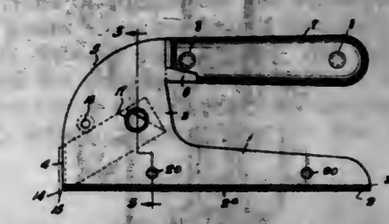
2,770,878
**GOUGING TOOL**
George D. Rosenberger, Youngstown, Ohio
Application April 27, 1954, Serial No. 426,001
1 Claim. (Cl. 30—280)



A tool for gouging an undercut channel in a plaster wall comprising an elongated metal plate, a portion of which is disposed at an angle to the remainder thereof so as to form a handle, a cutter comprising a section of thin flat metal having a U-shaped portion intermediate its ends, said ends being outturned and disposed on a common plane, the arms of said U-shaped portion positioned in converging relation to one another so that the area therebetween is greater at the base of the U-shape than at the ends of the arms of said U-shape, the ends of said cutter secured to the bottom surface of said metal plate adjacent the end thereof opposite said angularly disposed portion so that said U-shaped portion of said cutter is offset with respect to said metal plate, the opposite edges of said U-shaped portion of said cutter being sharpened.



2,770,879
**COMBINED PRESSING, CREASING, AND CUTTING TOOL FOR SEMI-FLEXIBLE MATERIAL**
Malcolm Seymour, North Andover, Mass., assignor, by mesne assignments, to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application February 4, 1953, Serial No. 335,138
2 Claims. (Cl. 30—293)



2. In a device of the character described, a body formed of abutting plates, said plates having elongated bottom straight edge portions defined by angular faces forming uninterrupted creasing elements throughout the length of the straight edge portions, a recess formed between abutting plates of the structure for receiving a cutting element having a cutting edge, the cutting edge of the cutting element lying at an angle to the straight edge portions of the body and in a medial plane therewith, means for adjusting the cutting element for projection below the straight edge, means securing the plates together at their upper and lower marginal edge portions, and manual means for clamping the plates together adjacent said cutting element, whereby said cutting element may be secured in adjusted position.

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2,770,880
**FLEXIBLE DENTURE**
Ed C. Sherred, Bishop, Calif.
Application January 17, 1955, Serial No. 482,090
4 Claims. (Cl. 32—2)



1. A flexible denture comprising a resilient, flexible spring steel wire formed into a substantial dental arch, said wire being shaped to the dental arch, artificial teeth having aligned apertures through their anterior-posterior minor axes, said wire extending through said aligned apertures in said artificial teeth, and a flexible base material covering all exposed portions of said wire and the base of said artificial teeth, and forming the denture saddle.

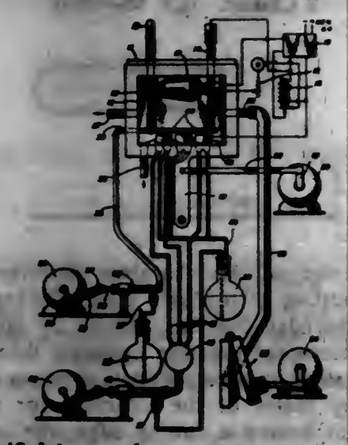
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2,770,881
**PROSTHETIC DENTURE STABILIZER MEANS**
Emilio Lodi, Bologna, Italy, assignor of one-half to Paul Giacobbe, Medford, Mass.
Application November 24, 1954, Serial No. 471,044
10 Claims. (Cl. 32—4)



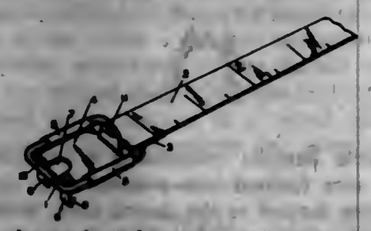
1. A prosthetic denture pair including an upper denture, a lower denture, stabilizer means for securing the upper and lower dentures in hinged relationship, said stabilizer means comprising pairs of opposed hinged spring elements embedded in the dentures and constructed and arranged to normally force the dentures apart from one another.

2,770,882
ARTIFICIAL MOUTH APPARATUS
Bernard A. Yocke, Great Lakes, Ill., William J. Carter, Kansas City, Mo., and Walter L. White, Aurora, Ill.
Application June 29, 1955, Serial No. 519,011
6 Claims. (Cl. 32—71)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An artificial mouth apparatus comprising an enclosed chamber for mounting teeth therein, means for controlling the temperature within said chamber, means associated with the mounted teeth for circulating a physiological solution therethrough, means for maintaining a predetermined level of salivary fluid within said chamber in contact with the mounted teeth, breathing means for said chamber, and means for oscillating the chamber within a restricted arc of motion.

2,770,883
END TERMINALS FOR TAPE LINES
Floyd Hackney, Portland, Oreg.
Application April 5, 1955, Serial No. 499,320
3 Claims. (Cl. 33—137)



1. An end terminal for a tape line comprising a substantially rectangular loop member for attachment to one end of the tape, a plate having rolled side edges slidably and frictionally embracing the opposite sides of the loop member, fingers projecting downwardly from one edge of the plate below the loop member and an upturned ear projecting upwardly from the other edge of the plate for moving the plate forward and backward on the loop member, thereby sliding the fingers forwardly or rearwardly of the front branch of the loop member.

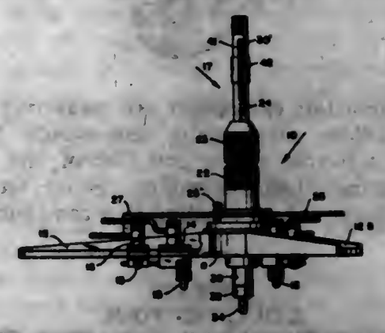
2,770,884
MEASURING INSTRUMENT
Joseph F. Eckert, North Charleston, and Aloysius L. Szymanski, Charleston, S. C.
Application August 3, 1953, Serial No. 371,963
1 Claim. (Cl. 33—150)

In a measuring instrument, a pair of side-by-side arms having measuring means on corresponding ends thereof and ruling pens on the other ends, said arms having longitudinal slots therein, and means pivotally connecting said arms together intermediate their ends comprising a pair of rectangular slide plates opposed to said arms and having corner legs theron extending at right angles therefrom and straddling said arms, a pair of slide blocks in said slots with which said slide plates are engaged, a pivot spindle extending through said plates and slide blocks and connecting said plates and blocks, a nut on one end of the spindle, a rectangular bowed leaf spring



opposed to one side plate between said nut and plate, and keeper lugs extending from said one plate at a right angle thereto and at opposite sides of said spring to prevent said spring from turning on said one plate.

2,770,885
CONTACT INDICATOR FOR ADJUSTABLE SPHEROMETER
Joe M. Magee, China Lake, Calif.
Application August 31, 1953, Serial No. 377,741
3 Claims. (Cl. 33—172)
(Granted under Title 35, U. S. Code (1952), sec. 266)

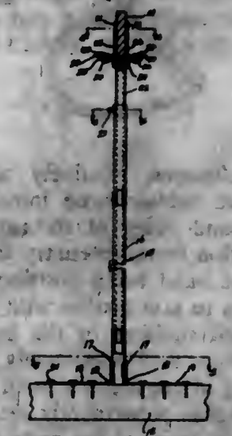


1. A spherometer comprising a generally horizontal base member having three equiangularly spaced outwardly directed arms, a downwardly supporting leg carried by each arm mounted for adjustment therealong, whereby the lower ends of the legs may be disposed at the corners of equilateral triangles of various sizes, a vertically extending bore through the base member, the axis of the bore being at the geometric center of said triangles, a vertical tube slidably extending through said bore, means for preventing rotation of said tube in said bore, said tube having an external micrometer thread thereon, a sleeve surrounding said tube having an internal thread engaging said external thread, means mounting said sleeve on said base member for rotation relative thereto and for preventing axial movement of said sleeve in a direction of the axis of said bore, a circular plate mounted for rotation with said sleeve having equiangularly spaced fine micrometer graduations thereon adapted to be aligned with a stationary pointer, a capillary disposed within said tube affixed to and communicating with a bellows disposed adjacent its lower end, liquid filling said bellows and partially filling said capillary, a pilot pin slidably carried by said tube at the lower end thereof, one end of said pin adapted to abut the lower end of the belolws and the other end to contact a surface upon which the lower ends of said legs are adapted to abut, means for limiting axial movement of said pin to prevent



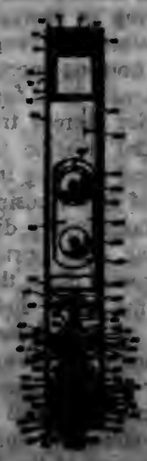
application of pressure to said bellows sufficient to rupture same, said tube being apertured to permit viewing of the upper end of the liquid in said capillary, and an axially slidable member carried by said tube having indicia adapted to be aligned with the upper end of the liquid in said capillary.

2,770,886
RIDGE BOARD HOLDER
Bruce W. Johnson, Crystal Lake, Ill.
Application October 23, 1953, Serial No. 388,022
3 Claims. (Cl. 33—180)



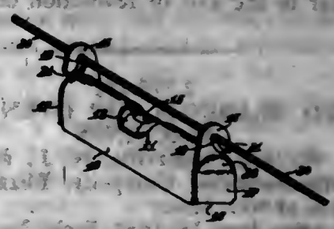
1. A ridge board holder comprising a tubular support, means for securing said support in an upstanding vertical position on a building frame element, a tubular rod slidably received in said support, a set screw threaded through a top portion of said support and being engageable with said rod for clamping said rod in an adjusted elevated position projecting from the top end of said support, an annular collar threadedly engaged on the top end of said rod, a horizontal annular flange on said collar, and a pair of spaced upstanding parallel arms adjustably secured on said flange and being adapted to receive a ridge board therebetween, said tubular rod being provided with an inch scale extending along its length and the tubular support being provided with a foot scale along its length, for setting said collar to a desired height above said building frame element.

2,770,887
DIRECTIONAL INCLINATION RECORDING APPARATUS
Arthur R. Barnett and Oswald Suter, Los Angeles, and Alfred J. Abz, Van Nuys, Calif., assignors to Technical Oil Tool Corporation, Ltd., Los Angeles, Calif., a corporation of California
Application January 9, 1951, Serial No. 205,091
15 Claims. (Cl. 33—205.5)



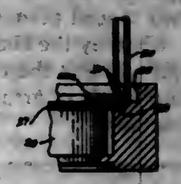
3. An instrument for surveying well bores which includes: an elongated housing; pendulum means mechanically suspended in said housing; compass means rotatably carried by said pendulum means; marking means mounted in said pendulum means for rotation with said compass means and responsive to movement thereof; a chart holder mounted for reciprocating movement within said housing and normally spaced from said marking means; operating means for reciprocating said chart holder through cycles of engagement and withdrawal from said marking means to record indicia indicating the relative inclination between said housing and said pendulum means and the orientation in azimuth of said compass means; and timing means operatively associated with said operating means and controlling the time of operation thereof.

2,770,888
LINE LEVELS
Harrison M. Von Duyke, Wilmington, Del., assignor to Modern Products Manufacturing Corporation, Wilmington, Del., a corporation of Delaware
Application May 4, 1954, Serial No. 427,587
2 Claims. (Cl. 33—207)



1. A line level comprising a housing consisting of two members each punched and formed from sheet metal, one of said members being of an inverted U-shaped channel formation initially open at the bottom before the parts are assembled, and the other of said members comprising a longitudinally extending plate secured between the side walls of the channel member to constitute a bottom closure member, the closure member also having integral upwardly bent end portions closing the ends of the channel member and having portions projecting above the channel member to provide hook-like extensions for mounting the device on a line, a bubble glass unit fixedly secured within the channel member, the channel member also having a central opening at the top for viewing the bubble glass therethrough, and the ends of the closure member having inwardly projecting lip portions complemental to the ends of the channel member for positioning the hook-like extension with respect to the bubble glass unit and for locating the bottom closure member in the channel member.

2,770,889
ADJUSTABLE CONTROL RING
Dante M. Allegretti and Louis P. Brunetto, New Britain, Conn.
Application January 24, 1955, Serial No. 483,627
2 Claims. (Cl. 33—214)



2. In a builder's tool comprising a combined square and level, an adjustable mounting for a bubble tube including a ring member having uniformly spaced teeth on the periphery thereof rotatably mounted on said tool, said tool being provided with a conically bottomed recess adjacent said peripheral teeth to guide the end of a screw driver for engagement with said peripheral teeth to rotate

said ring member, and means to adjustably frictionally hold said ring member in a plurality of said rotated positions.

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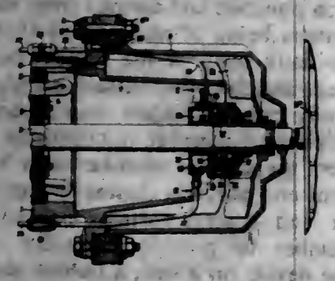
2,770,890
MAGNETIC ELEMENT FOR APPARATUS DESIGNED TO DETERMINE THE DIRECTION OF A MAGNETIC FIELD
François Baptistin Bellon, Paris, and Jacques Louis Marie Henry Lenoir, Viroflay, France
Application November 24, 1953, Serial No. 394,132
7 Claims. (Cl. 33—222)



1. A magnetic field sensing or measuring element having the form of a body of revolution and presenting throughout its entire volume a magnetization of the same intensity and of the same direction, said direction being perpendicular to the axis of revolution of said magnetic element.

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2,770,891
COOLED BEARINGS FOR OVEN DRYING MACHINES
Lorenz A. Wendel, Somerville, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 28, 1952, Serial No. 296,117
1 Claim. (Cl. 34—215)



In a fan for circulating air within an oven of a drying machine having a casing provided with an aperture, a member for surrounding the aperture and for extending into the oven, an anti-friction bearing carried by said member and being spaced from and axially alined with said aperture, a driven shaft extending through said aperture and journaled in said bearing, a fan fixed to the free end of said shaft within said oven, means for confining lubricant about said bearing comprising bearing covers surrounding said shaft upon opposite sides of said bearing and being secured to opposite faces of said member about said bearing, one of said bearing covers being provided with a coolant chamber having two pairs of diametrically opposed apertures formed therein, and conduits for conducting coolant to and from said jacket through said apertures, one aperture of each of said pairs being arranged in each of two spaced planes normal to the axis of said bearing cover, whereby the coolant may enter said jacket from a low point and exit therefrom at a vertically higher point when said shaft is arranged vertically and when arranged horizontally.

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2,770,892
HEEL FOR SHOES
Fred Fay, Kansas City, Mo.
Application August 22, 1951, Serial No. 243,049
1 Claim. (Cl. 36—35)

A heel for shoes and the like comprising a relatively thin, one-piece, highly resilient, sponge rubber body having substantially flat, parallel top and bottom walls, and a side wall disposed perpendicularly to said top and bottom walls, said side wall including a convexly arcuate, rear face portion and a concavely arcuate, forward face portion, there being a continuous, peripheral groove in the body between the side wall and the bottom wall, said groove being L-shaped in cross section, said body having a vertical face extending upwardly from the bottom wall approximately half the thickness of said body, and a horizontal face extending inwardly from the side wall a distance approximately equal to said thickness of the body, said faces forming the top and side of the groove;



a one-piece, continuous, relatively non-resilient, wear-resistant, synthetic rubber band initially separate from the body, said band being of rectangular cross section and of configuration complementary to the configuration of the groove, the band being positioned on the body in filling relationship to said groove with the outermost and lowermost exposed surfaces of the band flush with the side wall and bottom wall respectively, the inner surfaces of the band being in engagement with the body; and adhesive bonding means permanently securing said surfaces of the band to said faces of the body throughout the entire zone of their interengagement.

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2,770,893
ROTARY SNOW PLOW
Joseph H. Jacobs, Minneapolis, Minn., assignor to Jacobs Wind Electric Company, Minneapolis, Minn., a corporation of Montana
Application June 11, 1951, Serial No. 230,933
1 Claim. (Cl. 37—43)

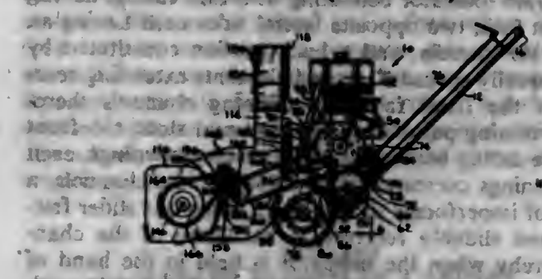


A rotary type snow plow particularly designed for hand guided operation, said plow comprising a support structure, a rotor housing having a generally segmental cylindrical lower portion terminating on one side in a free edge portion and having an upwardly inclined discharge portion disposed substantially tangentially to the other side of the lower housing portion, a bladed rotor journaled on a horizontal axis for rotation within said housing with the blades thereof traveling in a path disposed in closely spaced relation to the cylindrical portion of the housing and rotating in a direction to travel downwardly from said free housing edge and upwardly with respect to said tangentially disposed discharge portion, said free housing edge portion being disposed at least as low as a horizontal plane through the axis of said rotor so that all of the snow discharged by said rotor will pass freely out of said housing laterally thereof, a pair of lower forwardly extending segmental scoop elements having the rear portions thereof connected in fixed relation to the lower cylindrical housing portion and having their lateral extremities spaced apart only a distance equal to the diameter of the lower cylindrical housing portion, said lateral extremities extending downwardly into the same horizontal plane as the bottom of said housing to form a scraping edge adjacent the ground surface extending the full width of the housing, the inner edges of said scoop element converging rearwardly so that the lowered curved portions thereof hold down the housing to maintain engagement with the ground surface.



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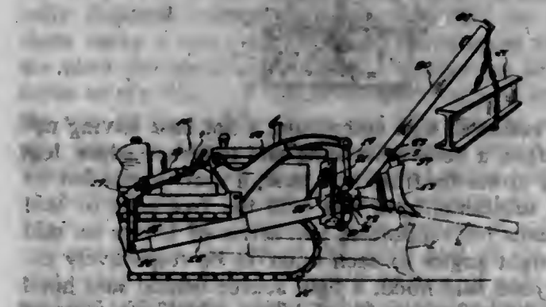
2,770,894
SNOW REMOVER OF THE ROTARY TYPE
Robert O. Gettelman, Pewaukee, Wis., assignor to Wisconsin Marine Company, Pewaukee, Wis., a corporation of Wisconsin
Application July 3, 1952, Serial No. 297,020
9 Claims. (Cl. 37—43)



1. A snow remover adapted for forward movement along a normal line of travel, a high speed rotor for ejecting snow having an axis of rotation transverse of said line of travel, a housing for said rotor having a discharge opening, a lower speed feeder reel having a substantially horizontal axis of rotation transverse of said line of travel, said feeder reel having its axis positioned forwardly of the peripheral circumferential path of travel of said rotor and close enough thereto so that in operation said feeder reel overlaps said rotor to deliver snow directly to the side of said rotor, and a housing for said feeder reel having a snow receiving opening, there being an opening between said housings.

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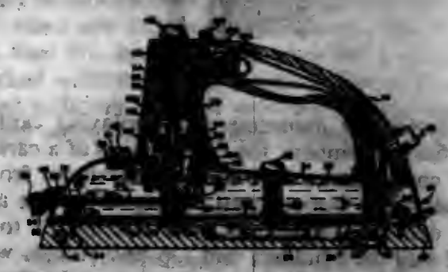
2,770,895
COMBINED CRANE AND BULLDOZER
Arnold S. Rymkovitch, Roseville, N. Y.
Application December 9, 1954, Serial No. 474,192
3 Claims. (Cl. 37—117.5)



1. A bulldozer comprising a tractor and an earth moving blade attached to the forward extremity of a pair of longitudinally extending push arms, the rearward extremity of each said push arms being pivoted to said tractor, the portion intermediate the forward and rearward extremities of said push arms being connected to a power actuating mechanism, a boom, a bracket comprising an arcuate portion secured to the front end of said tractor having a pair of fixed longitudinally extending ears, one end of said boom being pivotally connected between said ears for fixed pivotal movement relative to said tractor, a support affixed to an upper surface of said blade comprising a guide bracket having a pair of spaced legs and a roller rotatably supported therebetween, said roller being adapted to support said boom for longitudinal rolling engagement thereon intermediate the longitudinal extremities of said boom, said arcuate bracket further comprising reinforcing struts secured to said ears and extending below said arcuate portion into securing engagement with said tractor at a point beneath said arcuate portion.

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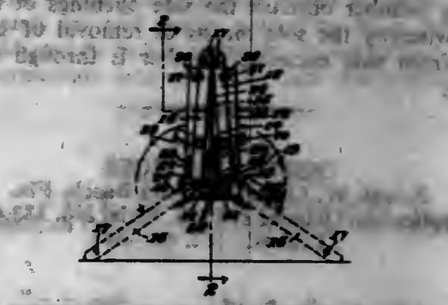
2,770,896
SPRAY FLATIRON
Stanton W. Holmberg, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application July 19, 1954, Serial No. 444,154
8 Claims. (Cl. 38—78)



1. A combination spray and dry iron comprising a sole plate, an electrical heating element associated therewith for heating the sole plate, electrical leads connected to common supply leads for supplying electricity to said heating element, a reservoir connected to the iron to supply fluid for a spray, a spray apparatus having an electrical power driving means, electrical leads for the driving means connected to said common supply leads, a pump connected to the driving means and adapted to pump water from the reservoir, and a spray nozzle mounted on the iron and connected to the pump to spray water on the material being ironed.

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2,770,897
FOLDING IRONING BOARD
Anthony J. Oldefield, Kalamazoo, Pa.
Application November 24, 1954, Serial No. 470,849
3 Claims. (Cl. 38—124)



1. In combination, a U-shaped support member including a horizontally disposed base and a pair of spaced parallel side walls extending upwardly from said base, said base extending between the lower ends of said side walls and serving as a brace member there being registering cutouts in said side walls, a pair of legs pivotally connected to the lower portions of each of said side walls, said legs being arranged contiguous to the outer surface of said side walls, cross pieces interconnecting opposed legs together, a latch mechanism for each pair of legs comprising a bracket secured to the outer surface of each of said walls and including an intermediate offset portion defining a channel, a shank slidably mounted in said channel, a latch secured to the lower end of said shank and provided with a pair of recesses defining a lug therebetween, a keeper secured to each of said legs and including an offset section terminating in an angularly arranged finger for engagement with the recesses in said latch, an apertured ear extending inwardly from said shank through the cutout in each of said side walls, and a chain connected to the pair of ears.

**2,770,898**
**CARD HOLDER**
Harry Henrik Lutz, Bronx, and William Groenberger, New York, N. Y., assignors to The Hopp Press Incorporated, New York, N. Y., a corporation of New York
Application February 9, 1952, Serial No. 270,814
1 Claim. (Cl. 40—10)



In a device for mounting and displaying cards having interfitting members, the combination of a card holder member comprising a rear wall, an apertured front wall, a top wall and a bottom wall joining said front and rear walls to define a passageway open at the ends to the interior of said card holder, said top and bottom walls being substantially parallel to each other and substantially coterminous with said front and rear walls; an encasing member for receiving said card holder comprising a rear wall, an apertured front wall, providing an opening substantially complementary to the opening of said card holder, a bottom wall joining said front and rear walls substantially coterminous therewith and a top opening formed in said encasing member by said rear, front, end and bottom walls to receive said card holder entirely within said encasing member, a protuberance and recess interengagement between said card holder and said encasing member at the rear wall thereof and an access passage through the bottom wall of said encasing member permitting contact from the exterior with the bottom wall of said card holder whereby in the interfitting position of said card holder and encasing member the height and width of the holder place the upper wall of the holder within the encasing member and obstructing the top opening of said encasing member while the end walls of said encasing member obstruct the side openings of the card holder whereby the sole means of removal of said card holder from said encasing member is through said top opening.

**2,770,899**
**DISPLAY DEVICES**
Joseph W. Litman, Miami Beach, Fla.
Application October 1, 1953, Serial No. 383,495
5 Claims. (Cl. 40—36)




1. A changeable display device comprising a housing having a front window, cam members in said housing at opposite sides of said window, similar cam grooves in opposed faces of said cam members, said cam grooves including arcuate groove portions connected by chordal groove portions aligned with said window, reversible display elements having central side projections seated in said grooves, means for selectively engaging projections of a foremost display element and move the same around said grooves, a guide in said housing engageable with a display element to constrain rotation thereof in its movement to effect approximately 180° rotation of said foremost display element whereby each display element is reversed in its movement through said arcuate portions.

**2,770,900**
**PROGRAM INDICATOR**
Robert E. Smith, Baltimore, Md.
Application October 31, 1951, Serial No. 254,070
1 Claim. (Cl. 40—65)



A program indicator consisting of a thin casing, having a flat front face, two opposite lateral sides each having an extended slot therein, and a back portion constituted by aligned, equally spaced T-shaped elements extending rearwardly of the front face and defining channels therebetween running parallel to the aforesaid slots, the front face of the casing having a row of viewing openings, each of the openings corresponding to each of the channels, a plurality of imperforate sliders, there being one slider frictionally and slidably received in each one of the channels, whereby when the indicator is held in the hand of the user with the channels in a substantially upright position, the sliders will remain in place until forcibly moved by the user, said sliders bearing indices visible through the openings, a handle on each of the sliders protruding outwardly of the casing, a bar extending transversely of the back of the casing, said bar terminating at both ends into a hook fitted in and guided by the aforesaid slots, said bar cooperating with the handles for resetting them to a starting position after use, said hooks being operable from either end of the indicator for actuating the bar.

**2,770,901**
**ANIMATED ADVERTISING SIGNS**
Richard N. Morton, Yakima, Wash.
Application October 9, 1953, Serial No. 385,199
4 Claims. (Cl. 40—77)



1. An animated sign comprising a flat base having upturned edges, a hood embracing said upturned edges, legs extending upwardly from said base, a shaft journalled on said legs substantially in line with the free edge of said hand, means for supporting two series of letters on said shaft at right angles to each other to be respectively exposed beyond said hood, a light source behind said hood for illuminating the series of letters which are exposed above the hood, means including a crank arm and a star wheel mounted on the base for oscillating said shaft to successively expose said two series of letters above the hood, and a counterweight on the shaft to maintain said crank arm against the star wheel.

**2,770,902**
**SEMI-AUTOMATIC PERPETUAL CALENDAR**
Karl Otto Schmidt, Idar-Oberstein, Germany
Application January 24, 1955, Serial No. 483,515
1 Claim. (Cl. 40—111)

Inside a semi-automatic desk calendar in desk form, two supports or legs resting on springs movable parallel to their long-axis and provided with two pins each, one of said pins mounted slightly aside from the long axis of said supports, two pinions provided with 7 and 10 teeth

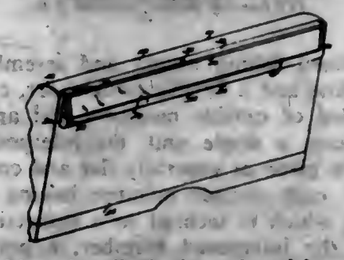


respectively adapted to be rotated by said pins one tooth by the up and down movement of said supports and then arrested, two rollers rigidly connected each to one of said pinions and marked respectively with the days of the week and the unit figures; a third roller marked with twice the succession of numbers 0 or blank, 1, 2, 3, rotated by a gear



consisting of 8 pins on the inside of said third roller, a coupling disc, a star wheel and a feed wheel both with four cogs mounted with a common axis eccentrically to the roller axis on said coupling disc, and a projection on the inside of said first-numbered roller; a fourth roller marked with the names of the months and rotatable independently from said three rollers, and spring devices for arresting said third and fourth rollers.

**2,770,903**
**TAXI SIGN DISPLAY CABINET**
Don Lawrence Schmidt, Coeur d'Alene, Idaho
Application December 22, 1955, Serial No. 554,858
4 Claims. (Cl. 40—125)



4. In a cabinet for displaying advertising matter in taxi cabs or the like, a housing including a curved bottom wall, a pair of vertically disposed spaced parallel side walls each provided with a flange, a portion of said housing being cutaway to define a window, a casing secured within said housing and including a horizontally disposed lower lip, a plate portion extending upwardly from said lip, a vertically disposed transparent plate supported on said lip, there being a space between said transparent plate and the plate portion of said casing for receiving advertising cards or the like, and means for securing said cabinet to the rear portion of the front seat of a vehicle such as a taxi cab, said means comprising brackets secured to said bottom wall and adapted to be secured to the rear portion of the back seat of the vehicle, and a horizontally disposed top wall extending from the plate portion of said casing and secured to the top of the front seat of the vehicle, and a cap detachably mounted on top of said cabinet, said cap comprising a top portion extending longitudinally across the top of said cabinet and terminating in a rear curved portion frictionally engaging the flanges on said side walls, said cap further including a downwardly extending portion terminating in a transverse section for engagement beneath the top wall section.

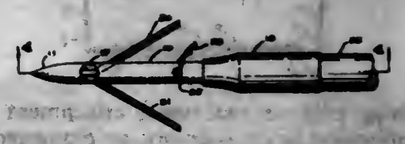
**2,770,904**
**GRENADE LAUNCHING DEVICE FOR A FIREARM HAVING A MUZZLE BRAKE**
Willi Weiss, Vernier-pres-Geneve, Switzerland, assignor to Brevets Aero-Mecaniques, S. A., Geneva, Switzerland, a society of Switzerland
Application October 22, 1951, Serial No. 252,462
Claims priority, application Luxembourg October 24, 1950
1 Claim. (Cl. 42—1)

In combination, an automatic firearm having a barrel, a muzzle brake mounted on said barrel at the extremity thereof, said muzzle brake comprising a plurality of discharge ports, a tubular member associated with a grenade to be launched at least at the time of positioning and launching the grenade on the firearm, said tubular member having an internal diameter slightly greater than the external diameter of the muzzle brake, said tubular mem-



ber extending over all of said discharge ports to provide a gas-tight fit between said muzzle brake and said tubular member when said tubular member is slid into launching position over the muzzle brake whereby a grenade can be launched without loss of pressure due to the muzzle brake and sufficient recoil is provided for the firearm to permit any automatic operations thereof to occur.

**2,770,905**
**FISHING ARROWHEAD**
Arvo H. Ehrainson, Syracuse, N. Y.
Application April 8, 1955, Serial No. 500,134
2 Claims. (Cl. 43—6)



1. An arrowhead comprising a cylindrical solid body having a conically shaped point at one end thereof and a socket at the other end adapted to receive an end portion of a shaft, said body being provided with a pair of apertures arranged in spaced longitudinal relation and extending through said body adjacent said point, a single strand of formable material extending through said apertures and bent to substantially a V-shape with its apex on one side of said body and with its legs on the other side of said body extending longitudinally thereof and in diverging relation and forming a pair of barbs, the diverging ends of said barbs extending to a point adjacent said socket, and a retrieving line attached to said body intermediate said apertures and said socket.

**2,770,906**
**FISHING DEVICE**
Carl E. Hood, Darrouzett, Tex.
Application October 17, 1955, Serial No. 540,984
4 Claims. (Cl. 43—16)

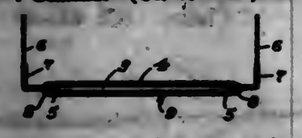


1. In a fishing device, a support member including means for positioning it in a desired fishing location, a bearing frame member carried by and offstanding from said support member, a fishing rod receiving socket member pivoted on said frame member for oscillation with respect thereto and to said support member from a depressed position to an elevated position and vice versa, resilient means interposed between said socket member and frame member and serving normally to bias said socket member to its elevated position, a latch member carried by said socket member, a latch bar pivotally mounted in said frame member for oscillation therein

and serving for engagement by said latch member to releasably retain said socket member in its depressed position, a fishing line engaging trigger member carried by and adapted to impart oscillation to said latch bar in response to movement imparted to said trigger member by a pull on said fishing line to cause release of said latch member from said latch bar, and means serving normally to bias said trigger member and latch bar to engaged-latch position, including spring means having end connections with said frame member and a trigger member and means for varying the biasing effect of said spring means including a rock lever pivoted to said frame member and to which said spring means are connected and means for varying the angular position of said rock lever upon its pivot to thereby vary the biasing effect of said spring means.

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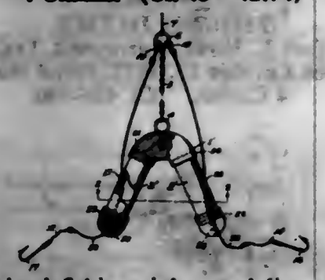
**2,770,907**
**FISHING POLE SIGNAL ATTACHMENT**
Lawrence J. Shaver, Davis, Ill.
Application June 30, 1952, Serial No. 296,484
4 Claims. (Cl. 43—17)



1. A fishing pole or rod signal attachment comprising, in combination in an assembly, an elongated rod-like element that is luminous in the dark, a tubular transparent protective covering thereon that extends beyond both ends thereof, and a pair of easily bendable, non-springy wires anchored by their one ends in the opposite ends of the tubular covering next to the end of the luminous rod and extending therefrom and being of appreciable length to wind several turns around the small outer end portion of said fishing pole or rod to fasten the attachment by its ends to said pole or rod in closely spaced parallel relationship thereto.

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**2,770,908**
**COMBINED FISHING SINKER AND LINE SPREADER**
Charles Hessert, Jr., Camden, N. J.
Application December 19, 1952, Serial No. 326,819
4 Claims. (Cl. 43—42.74)



1. A combined fishing sinker and line spreader comprising a body having laterally spaced sockets therein, the axes of the sockets being in diverging relationship and lying in a plane common with the plane containing the body, hollow tubular members connected within and removable from each socket, and the wall of each tubular member having an aperture therein along the outer side thereof and through which a leader can be passed.

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**2,770,909**
**FISHERMAN'S ANTI-FOULING SINKER**
Karl Hagner, Tonawanda, N. Y.
Application January 3, 1956, Serial No. 556,888
3 Claims. (Cl. 43—43.14)

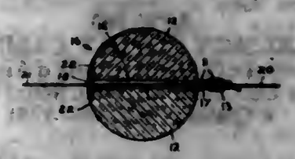
1. A fisherman's sinker comprising a weighted body, a threaded stud projecting from the body, said stud being formed with axial slots, resilient wires disposed in the slots and diverging outwardly from and around the body, at least one of said wires being formed with a bail extending



beyond the end of the stud, and a nut threaded on the stud and around said bail to retain the wires in position, the end of the bail thereby providing an accessible eye for the attachment of a fishing line.

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**2,770,910**
**COMBINED FISHING WEIGHTS AND ASSEMBLY BODIES**
Walter Gehrig, Flint, Mich.
Application November 30, 1953, Serial No. 395,105
9 Claims. (Cl. 43—44.9)



1. A combined fishing weight and assembly member for a fishing line and a flexible hookleader, comprising a body assembled of outside members and an interposed member to form a single unit, the interposed member consisting of a piece of generally flat and comparatively thin material, each outside member having a generally flat joint-face which is secured to a respective side and joint-face of the interposed member, a portion of the interposed member protruding from between the outside members and constituting the normal leading end of the assembled body, said interposed member having a comparatively long narrow leader passageway-slot formed therein with the slot-sides opening through both joint-faces of the interposed member and the outside members covering and closing the slot-sides, one end of the passageway-slot opening from between the outside members and forming an exposed line aperture beyond the outside members through said protruding portion of the interposed member to secure the end of a fishing line to the remaining leading end portion of the interposed member, the other end of the passageway-slot opening from between the trailing portions of the outside members and being flared to blend into the adjacent matched outer surface of the body-members, the body and surface forming said leader passageway being adapted to receive and circum-restrict the connective end-portion of a hookleader, and a leader retaining means being associated with said protruding portion of the interposed member to secure the connective end of the hookleader in the passageway thereto with the remainder of the hookleader protruding from the flared end of the passageway.

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**2,770,911**
**ANT AND INSECT TRAPS**
Curtis Joseph Hetzel, Belle Chasse, La.
Application September 8, 1954, Serial No. 454,780
4 Claims. (Cl. 43—121)

1. A trap of the character described comprising an upright stand composed of a plurality of legs having portions disposed in diverging relation, a plate connecting said legs in spaced relation having a central opening, a tray adapted to support a bait receptacle mounted on the upper ends of said legs in vertical spaced relation



to said plate, a cup adapted to hold grease surrounding each of said legs above said plate, a receptacle adapted to hold poison depending from said plate beneath the central opening, and a runway extending between said

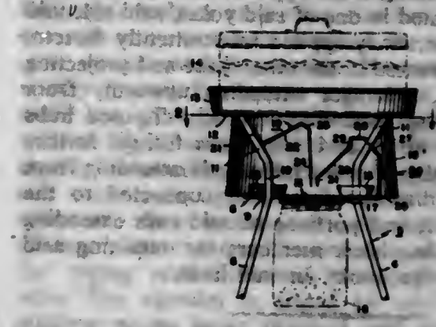
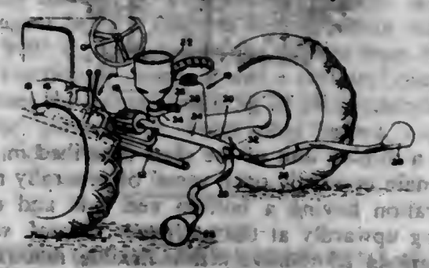


plate and one of said legs composed of a pair of narrow strips, each of said strips having a pointed end portion disposed in perpendicular relation to said plate above the central opening, the pointed end portions being spaced apart in parallel relation to provide a gap in the runway.

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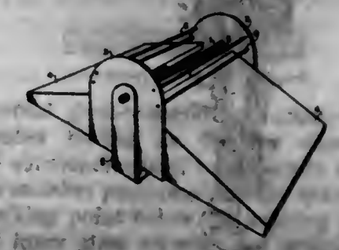
**2,770,912**
**DUSTING ATTACHMENT**
Charles M. Deem, Saugus, Calif.
Application July 15, 1955, Serial No. 522,289
4 Claims. (Cl. 43—147)



1. A dusting attachment comprising a hopper, a chamber connected to said hopper, an inlet conduit extending from one side of said chamber and adapted to connect said chamber to an engine exhaust pipe, an agitator in said hopper, a flexible cable connected, at one end, to said agitator and the other end extending through said chamber and adapted to be connected to a rotatable drive means, a multiperforated stationary plate between said hopper and said chamber, adjustment means comprising a slidable plate adjacent said stationary plate for adjusting the size of the perforations in said stationary plate, and an outlet conduit extending from the opposite side of said chamber.

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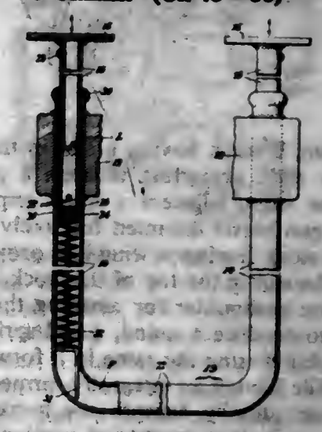
**2,770,913**
**BOOK RACK**
Walter Easter Hankin, New York, N. Y., assignor to Pressed and Welded Steel Products Company, Inc., Long Island City, N. Y., a corporation of New York
Application November 19, 1954, Serial No. 469,907
2 Claims. (Cl. 45—58)



1. In a book rack a fixed cradle, a pivot rod supported by said cradle, a pendulous shelf mounted at its center on said rod and free to oscillate relative to said cradle, a plurality of book mounting means pivotally secured to said shelf and disposed transversely thereof above the rod whereby any one of the books and book mounting means may be readily positioned for use by tilting the shelf.

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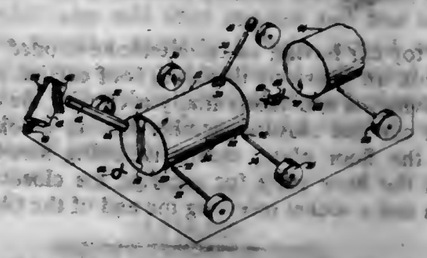
**2,770,914**
**HYDRAULIC LEVELING DEVICE**
Samuel Arthur Hooker, Marlinsville, Va.
Application November 2, 1954, Serial No. 466,341
3 Claims. (Cl. 45—86)



1. A hydraulic leveling device comprising a base, a pair of hollow legs extending upwardly from said base, said legs containing a hydraulic fluid, a pair of pistons extending telescopically into the tops of said legs, said pistons being hollow providing spaces therein, said spaces containing a compressible fluid, platforms fixed on top of the pistons, hydraulic means connecting said legs to one another below said pistons, and compression springs anchored adjacent the bottoms of said legs extending upwardly inside said legs bearing on the bottoms of said pistons, whereby a movement of one platform in a predetermined direction causes a corresponding movement of the other platform in the opposite direction.

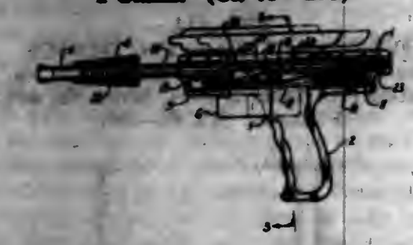
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**2,770,915**
**WHEELED TOY WITH TIN CAN BODY**
George L. Hicks, Prairie Village, Kans., assignor of one-half to Roy E. Weinzettel, Overland Park, Kans.
Application March 8, 1954, Serial No. 414,557
2 Claims. (Cl. 46—22)



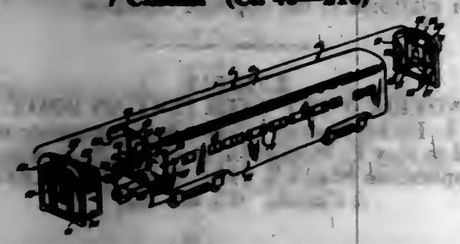
1. A wheeled figure toy comprising an elongated metal can having a cylindrical wall and a pair of closed ends, said wall being provided with a front pair of transversely spaced openings adjacent one end and a rear pair of transversely spaced openings adjacent the opposite end; axles extending through said openings; a pair of wheels on each axle respectively; an elongated tail member, said wall being provided at its top with an opening above said rear openings receiving said member; an elongated neck member, said one end of the can being provided with an opening receiving said neck member and the neck member extending for a substantial distance into the can; and a head member mounted on one end of the neck member exteriorly of the can, said neck member being provided with a hole adjacent the opposite end thereof, said tail member extending into said hole within said can to secure the assembly together.

2,770,916
**TRIGGER MECHANISM FOR TOY GUNS**
Joseph A. Slay, Pittsburgh, Pa.
Application November 28, 1952, Serial No. 322,912
1 Claim. (Cl. 46—175)



In a toy gun, a stock having a slot in the top thereof, and a trigger slide projecting through a portion of the bottom of the stock adjacent a hand grip provided on said stock, a gun barrel mounted for freely sliding movement in said stock having a wing-like projection extending through the slot in the top of the stock, said wing-like element having a shoulder for abutting the forward end of the stock to produce a sound, a coil spring at the rear of the barrel for biasing the same in a forward direction, said trigger slide having an integrally formed spring finger extending longitudinally beneath the barrel notched for engaging a complementary shaped portion of the barrel to retract the latter, and means in the path of rearward movement of said spring finger for displacing the same to release the barrel, said trigger slide being biased by a spring in a forward direction.

2,770,917
**END CONSTRUCTIONS FOR TOY CARS**
Moses Zion, Brooklyn, N. Y., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application October 26, 1953, Serial No. 388,326
7 Claims. (Cl. 46—216)



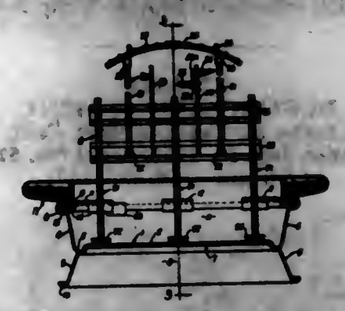
1. A toy car having an open ended extruded body provided with an interiorly disposed, roof carried rib, a floor plate having its end substantially even with the end of the body, a car end closure member having brackets which overlie the floor plate, means including screws passing through the floor plate for securing the closure plate in position and a socket receiving the end of the rib.

2,770,918
**ELECTRO-MECHANICAL BIRD DEVICE**
William Eugene Polk, New York, N. Y.
Application June 25, 1953, Serial No. 364,919
1 Claim. (Cl. 46—245)



In a power actuated toy, a body, a pair of wings pivotally connected to said body, links secured to the upper surface of said wings, hooks connected to said links, a spring coil having arms extended therefrom, a yoke on each of said arms, a solenoid, a band surrounding said solenoid, pins extending from opposite sides of the band and pivotally mounted in one of said yokes, said solenoid adapted to have electricity applied intermittently thereto, a core pivotally mounted in the other yoke and projecting into said solenoid, a hanger extending upwardly from said coil, cross fittings including vertically disposed hubs connected to said arms, and said cross fittings further including horizontally disposed hubs, rods extending from said horizontally disposed hubs and connected to the hooks on said links, end portions of said rods extending transversely to define hook members for retaining said rods connected to the hooks on said links.

2,770,919
**DISPLAY UNIT**
James J. Shumaker, Wickliffe, Ohio
Application June 2, 1953, Serial No. 359,187
9 Claims. (Cl. 47—39)



1. In a display unit of the class described in combination, a main upwardly open vessel of generally rectilinear configuration having a bottom and side and end walls extending upwardly at the periphery thereof, said vessel being formed of relatively thin flexible material, transverse stiffening members extending across the opening and engaged with certain of said walls, a stiffening and supporting unit mounted on said vessel including spaced columns inter-engaged with said vessel and stiffening members, said columns extending above said vessel and brace means mounted on said columns and extending therebetween.

2,770,920
**TREE INOCULATOR**
Rosel W. Little, Meadill, Okla.
Application July 26, 1954, Serial No. 445,845
9 Claims. (Cl. 47—57.5)



1. A tree deadener comprising an elongated barrel, a valve body secured to the lower end of said barrel in communication therewith, said valve body having a valve seat at the upper end thereof and having a recess therein terminating at an upper wall of said valve body, a bark penetrating blade attached to said valve body, a valve rod extending through said barrel and said valve body, a valve disc member adjustably secured on said valve rod and adapted to seat on said valve seat, means extending normal to said barrel and outwardly thereof for raising said valve rod to raise said valve disc off from said valve seat, said means including a valve lifter foot secured to said valve rod, a shaft rotatably mounted in said barrel, and a cam attached to said shaft engaging said valve lifter foot to raise said valve rod upon rotation of said shaft, said valve rod having resilient means mounted concentrically thereon for urging said valve rod to a position wherein said valve disc member is seated on said valve seat, said resilient means being received said recess and yielding engaging said upper wall.



2,770,921
**SOIL CONDITIONING**
Lyle D. Goodhue, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application January 24, 1955, Serial No. 483,833
4 Claims. (Cl. 47—58)

1. A method of improving the condition of a soil which comprises applying to the soil an amount sufficient to condition the soil of a conditioning agent, said conditioning agent being a fraction boiling within the range of 185 to 900° C. consisting of the effluent from the condensation reaction of ammonia with a carbonyl compound selected from the group consisting of acetalydehyde, crotonaldehyde, paraldehyde, butyl ethyl ketone, n-caproaldehyde, and acetone.

2,770,922
**RADIATION COLORABLE CHROMIUM GLASS**
John V. Fitzgerald and George S. Buchanan, New Kensington, Pa., assignors to Pittsburgh Plate Glass Company
No Drawing. Application May 19, 1952, Serial No. 288,748
10 Claims. (Cl. 49—68)

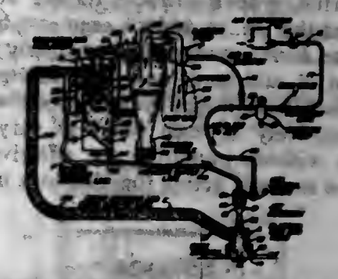
5. The method of making fade-resistant colored glass comprising the steps of forming a radiation-colorable glass substantially free from substances that inhibit coloration of the glass by high energy radiation and containing between 0.02 and 2.0 percent chromium oxide, and exposing said glass to high energy radiation sufficient to produce significant coloration thereof.

2,770,923
**INTERNAL GLASS-TO-METAL SEAL**
Robert H. Dalton and Raymond O. Voss, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a corporation of New York
Application September 4, 1951, Serial No. 244,988
5 Claims. (Cl. 49—92.5)



1. An internal glass-to-metal seal comprising an aluminum member having an opening extending therethrough and surrounding and hermetically united with a unitary glass member positioned in said opening, the glass having a working point below the melting point of aluminum, said inner glass member not protruding beyond the outer aluminum member at the area of sealing thereto, the aluminum member extending more than 7 mils in a direction substantially normal to the glass-aluminum interface.

2,770,924
**INSTANT STOP AND START BLASTING DEVICE**
William H. Mead, Oakland, Arthur A. Zambrano, San Mateo, and Alexander L. Jett, Menlo Park, Calif., assignors, by mesne assignments, to William H. Mead, Oakland, Calif.
Application April 1, 1954, Serial No. 420,254
18 Claims. (Cl. 51—8)



1. A surface treating device comprising a supply source for the treating material; a reclaimer separator having an inlet, an air outlet, and a connection to said supply source and adapted to deposit cleaned treating material in the latter; a blasting gun for directing said material at said surface; control means for activating and inactivating said gun; a hood enclosing said gun, said hood having an open end with a pervious maze bordering said end to enclose a portion of said surface around the area being treated; a source of suction connected to said air outlet from said reclaimer; a first conduit connecting said hood to the inlet on said reclaimer; a second conduit connecting said supply to source to said gun; means for producing simultaneously a suction in said second conduit and an impelling force in said blasting gun whereby treating material will be caused to flow in said second conduit to said gun; a third conduit connecting said second conduit and said supply source to the inlet end of said reclaimer and therethrough to said source of suction; whereby upon activation of said gun, the suction in said second conduit will move said treating material to said gun as needed, and the suction in said first conduit will remove from the surface area enclosed by the hood the spent treating material and loosened scale; and upon inactivation of said gun, the suction in said third conduit will be extended into said second conduit inducing a flow of air from said hood through said second conduit thereby moving out of said second conduit into said third conduit and into said reclaimer any treating material in said second conduit; and so long as the source of suction is connected to said reclaimer and said gun is inactivated, said treating material will be cycled through said third conduit, said reclaimer and said supply source.

2,770,925
**FORM DRESSING TOOL**
Donald J. Wallace and Leo Catillo, Detroit, Mich., assignors to Wheel Trueing Tool Company, Detroit, Mich., a corporation of Delaware
Application October 19, 1954, Serial No. 463,087
2 Claims. (Cl. 51—184.1)

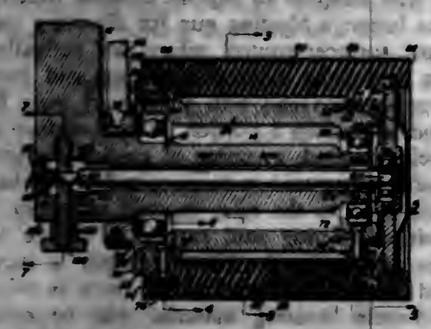


1. An adjustable form dressing tool comprising a base, a first abrading block segment fixedly secured thereto, a second abrading block segment positioned on said base laterally of and movable with respect to said first block

segment, cooperating means associated with said second block segment and said base for fastening said second block segment to said base in the desired laterally spaced relation to said first block segment, each of said block segments having a longitudinally extending raised land surface and a partial groove surface depressed from but laterally adjacent to the corresponding land surface, said land and partial groove surfaces having abrasive particles embedded therein, said block segments having spaced opposed plane surfaces extending obliquely to the longitudinal extent of said lands and from said partial groove surfaces to said base, whereby said block segments may be moved relatively to each other to vary the spacing therebetween without impairing the effectiveness of said partial groove surfaces acting together as a unitary abrading surface.

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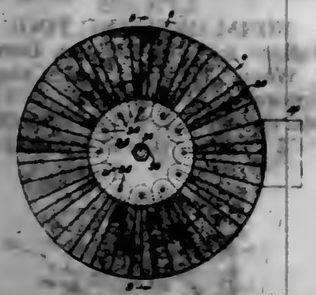
2,770,926
**EXPANDABLE SANDING DRUM**
Evar A. Heikkinen, Jamestown, N. Y.
Application December 19, 1955, Serial No. 553,907
5 Claims. (Cl. 51—190)



4. In an abrading machine, a power driven rotary hub journaled on a longitudinally bored support spindle, an expansible cylinder circumposed on said rotary hub, the hub and cylinder respectively including complementary tapered peripheral surface portions whereby relative reciprocable movement therebetween results in expansion and contraction of said cylinder, a pressure plate secured to one end of said cylinder, a force transmitting rod secured at one end to said plate, and cam means secured on said spindle in engagement with the other end of said rod for rotating the rod and reciprocating the same relative to the spindle.

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2,770,927
**COATED ABRASIVE WHEEL ELEMENT**
Fritz E. Hendrickson, South Elgin, Ill., assignor to Norton Company, Troy, N. Y., a corporation of Massachusetts
Application October 17, 1955, Serial No. 540,853
4 Claims. (Cl. 51—193)



1. In a polishing wheel having a hub for removably mounting polishing elements, the improvements in a polishing element therefor comprising a sheet of fibrous material, pleats in said sheet forming a wave-like edge, a fold medially of said pleated sheet whereby the sheet is folded upon itself, and a substantially uniform abrasive coating bonded on at least one face of the sheet, said face on which the coating is applied being uncoated throughout a relatively narrow band extending about and along the medial fold.

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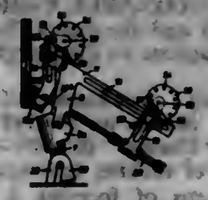
2,770,928
**ABRASIVE ARTICLE**
William K. Van Orsner and Joseph B. Aust, Niagara Falls, N. Y., assignors to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware
Application June 15, 1951, Serial No. 231,744
9 Claims. (Cl. 51—195)



3. An abrasive article comprising (*a*) a backing, (*b*) an anchoring layer comprising at least one course of textile fiber braided strand adhesively impregnated and bonded to said backing by means of a flexible rubber base adhesive and containing a plurality of vertically extending spaced textile fiber reinforcing pile members secured therein with the free ends projecting above the top surface of said anchoring layer, and (*c*) a layer of resin-bonded abrasive material imposed upon said anchoring layer and filling the space between said spaced pile members so as to form a substantially continuous grinding face.

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2,770,929
**APPARATUS FOR THE GRINDING OF TWIST DRILLS**
Eugen Nädelin, Ebingen, Württemberg, Germany, assignor to Gottlieb Gühring, Ebingen, Württemberg, Germany
Application July 9, 1954, Serial No. 442,348
Claims priority, application Germany August 25, 1953
10 Claims. (Cl. 51—219)



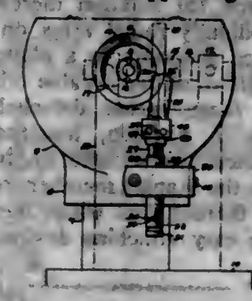
1. Apparatus for the grinding of twist drills comprising a housing, a grinding disc rotatably supported on a horizontal shaft extending from said housing, a first slide mounted on said housing and adjustable in a vertical direction parallel to the grinding disc plane, two supporting bars extending horizontally and outwardly from said first slide in parallel relationship, a second slide slidably mounted on said supporting bars, an axle mounted on said second slide and extending parallel to the grinding wheel plane, a bifurcated bearing member mounted for tilting movement about said axle, a swivel pin mounted on said bearing member and inclined towards the grinding wheel, a drill support pivotally mounted on said swivel pin, and adjusting means mounted on said supporting bars and permitting adjustment of the point of intersection of the swivel axis and the drill axis in relation to the grinding disc plane for certain groups of drills and various drill diameters.

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2,770,930
**TOOL REST FOR USE IN GRINDING MILLING CUTTERS**
Albert J. Norman, deceased, late of Santa Monica, Calif., by Ruth R. Norman, executrix, Venice, Calif.
Application January 15, 1954, Serial No. 404,214
6 Claims. (Cl. 51—225)

1. In an apparatus for grinding the tips of alternate teeth of a milling cutter wherein the forward faces of such alternate teeth have opposite inclinations with reference to radial planes of the cutter axis, and wherein the cutter is supported for rotation on an axis properly related to the grinding wheel so that the teeth of the cutter may be successively brought, by rotation of the cutter, into positions for proper grinding registry of the teeth tips with the face of a grinding wheel; an improved tool rest for supporting the successive teeth at proper intervals of rotation of the cutter so as to determine a desired angle of relief for the teeth tips as ground by the face of the grinding wheel comprising: a supporting head having means for adjustably mounting the same in a selected position relative to the mounted cutter; a blade having a free end provided with a pair of laterally opposed end faces for respective supporting engagement with the forward faces of alternate cutter teeth and having at its opposite end a pivot connecting it to said supporting head for tilting of





the blade in its own plane to alternate positions on respective sides of a vertical median line intersecting said pivot; stop members carried by said supporting head in positions spaced from opposite sides of the median vertical axis of said head extending through said pivot, and engageable by respective sides of said blade for determining respective limit positions of said blade on opposite sides of said median axis, said end faces being inclined at symmetrical acute angles to the central longitudinal axis of the blade and intersecting at said longitudinal axis, the angle of inclination of said end faces being somewhat greater than the angle of inclination of said forward faces of the cutter teeth, whereby in the tilted positions of the blade the angles of inclination of said end faces to the horizontal will correspond to the angles of inclination of said forward faces of the cutter teeth to provide full width support therefor.

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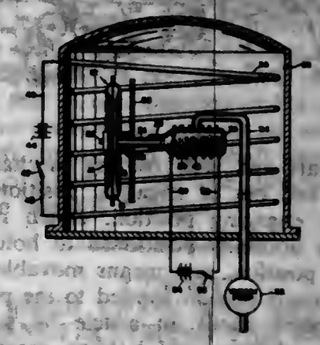
2,770,931
**LIQUID COOLED ABRASIVE GRINDER**
Warren M. Mansfield and Albert W. Olitt, Jr., Glendale, Calif.
Application April 13, 1953, Serial No. 348,482
4 Claims. (Cl. 51—267)



1. In cooling means for abrasive cutters including a grinding wheel having a shaft, the improvement which comprises a cup member coaxial with said shaft at each side of the wheel, each of said cup members having an outer flange, a gasket between the outer margin of each of said flanges and the wheel, each of said members providing a chamber at the central portion of the wheel, said shaft having an abutment and having an outer end having threads, a hollow nut for said threads for clamping said cup members and said wheel together against said abutment and conduit means including a passage extending through said nut and connecting with said chambers for supplying a liquid coolant to said chambers, one of said cup members being an outer cup member adjacent said nut, the extent of said gasket for said outer cup member over the inner portion of the outer side of said wheel being greater than the extent of said other gasket over the central portion of the other side of said wheel to equalize liquid intake by said wheel.

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2,770,932
**METHOD FOR FABRICATING PRESSURE SENSITIVE DEVICES**
William R. Polye, River Edge, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application May 25, 1953, Serial No. 357,280
9 Claims. (Cl. 53—6)



4. The method of producing and maintaining a high vacuum in an expansible and contractible pressure sensitive device, comprising the steps of permanently communicating the device with a container having a gas adsorbing medium therein, evacuating the device and container whereby all gases except residual gases are removed therefrom, heating the gas adsorbing medium during evacuation to drive adsorbed gases therefrom, and thereafter sealing the container whereby the gas adsorbing medium adsorbs the residual gases.

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2,770,933
**METHOD OF FORMING BALLOONS CONTAINING MESSAGES**
Raymond L. Hakomaki, Minneapolis, and William F. Hack, St. Paul, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application June 25, 1951, Serial No. 233,450
6 Claims. (Cl. 53—29)



1. The method of making a series of sealed object-containing balloon envelopes comprising the steps of placing a plurality of objects within a length of tubular stock, moving the entirety of said objects except one along within the tubular stock, and cross sealing the flattened opposed layers of the tubular material between said one object and the remainder of objects.

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2,770,934
**WRAPPER FEED MECHANISM FOR WRAPPING MACHINES**
Arthur A. Kottmann, Davenport, Iowa, assignor, by mesne assignments, to American Machine & Foundry Company, New York, N. Y., a corporation of New Jersey
Application October 29, 1952, Serial No. 317,462
20 Claims. (Cl. 53—66)

1. In a wrapping machine, a feed mechanism for advancing articles to be wrapped, means for supporting

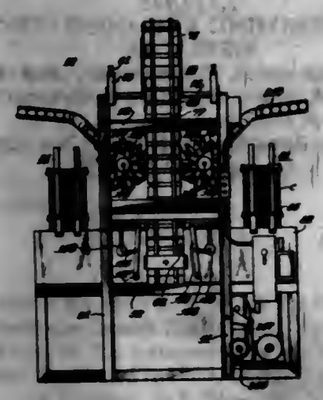
a web of wrapping material with an end thereof suspended in the path of an article advanced by said feed mechanism, a wrapping mechanism including means for clamping the web to said article and for moving said article to wind the web about the article and to exert a pull on said web, mechanism for feeding said web toward the wrapping mechanism, means for driving said web feeding mechanism comprising a continuously driven shaft and a driving connection including a clutch be-



tween said shaft and web feeding mechanism that is movable into and out of engaging position and that is biased toward engaging position, clutch releasing and holding means normally positioned to hold said clutch in disengaged position, and means movable in response to a predetermined tension applied to the portion of the web being wound about an article by said wrapping mechanism for shifting said holding means to release said clutch and permit it to move to engaging position.

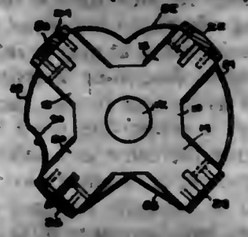
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**2,770,935**
**CARTON LOADING MACHINE**
**Biagio J. Nigrelli, Stubbs, Ill., assignor to Ralph W. Johns, Biagio J. Nigrelli, and Robert R. Johns, Chicago, Ill., doing business as Johns, Nigrelli, Johns, a copartnership**
**Application September 21, 1955, Serial No. 535,548**
**27 Claims. (Cl. 53—168)**



1. In a machine for placing cans in open end cartons of the sleeve type, a vertically disposed conveyor adapted to be driven at substantially constant speed, members carried by said conveyor defining pockets adapted to receive erected cartons, a turret member rotatably mounted on a horizontal axis in tangential proximity to said conveyor pockets and formed with radially disposed pairs of notches each adapted to receive a can, supply means including an inclined chute adapted to roll cans on their chimes by gravity into successive pairs of notches of the turret member, resilient members carried by and disposed radially of the turret member adjacent each notch thereof and adapted to engage and retain the cans in said notches, means to rotate said turret member at the tangential speed of the conveyor and fixed cam means adapted to roll each can in succession out of its notches and into the carton carried by the tangentially adjacent pocket.

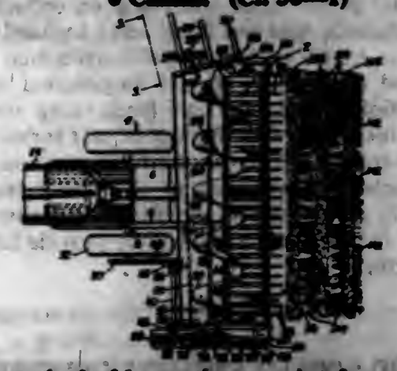
**2,770,936**
**ROTARY FORMING, SEALING, AND CUTTING APPARATUS FOR CONTAINERS**
**Peter H. Clark, Worcester, Mass.**
**Application February 9, 1951, Serial No. 210,142**
**1 Claim. (Cl. 53—180)**



A container making apparatus comprising a cylindrical crimping and shaping tool including an arbor, a cylindrical body thereon for rotation therewith, a series of elongated longitudinally radial arms on the body, each arm having a face generally in a plane parallel to the arbor axis, a longitudinal replaceable crimping device on each of selected faces, means detachably securing the crimping devices in position, longitudinal detachable shaped shaping members secured to the body between each pair of arms, the shaping members being shorter than the body axially thereof, and wings thereon at the ends thereof providing easy attaching devices to the body of the tool.

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**2,770,937**
**METHOD OF HARVESTING AND CURING FORAGE CROPS**
**Edwin F. Huddle, Elmwood Park, Ill., assignor to International Harvester Company, a corporation of New Jersey**
**Application March 17, 1952, Serial No. 277,034**
**6 Claims. (Cl. 56—1)**



1. A method of harvesting growing forage plants composed of stems with leafy matter at the head ends which compriaes cutting down the plants at the stems in progressive parallel lines of cutting and to leave a stubble, then immediately crushing the plants of each line of cutting, then immediately laying the plants in a swath upon the field with each line of cutting laid upon the preceding in shingle-fashion and with the leafy heads of each line of cutting laid upon the stems of the preceding line of cutting, then immediately picking and elevating successive lines of cutting, while turning the same sidewise and conveying them laterally of the swath with the head ends of the plants end first in the direction of movement, and then depositing each line of cutting into a windrow by dropping each plant head end first into the stubble so as to bury the head end between the stubble and position the stem end up out of the stubble.

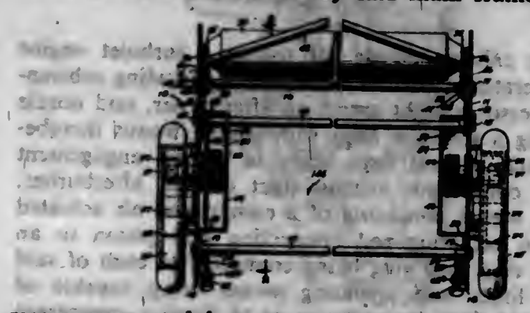
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**2,770,938**
**POWER TOOL FOR LAWN MAINTENANCE**
**Edward T. Kiernan, Long Hill, Conn.**
**Application May 4, 1953, Serial No. 352,703**
**5 Claims. (Cl. 56—2)**

1. A power tool of the character described, comprising a main frame including a pair of side frame mem-



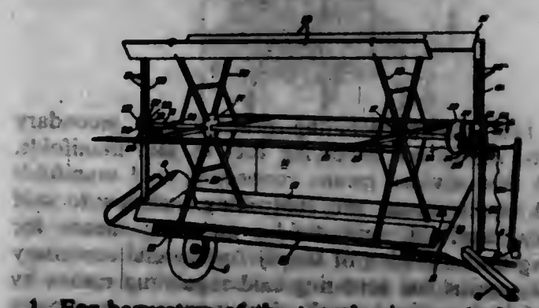
bers, a pair of ground engaging traction wheels, a stub shaft rotatably mounting one traction wheel on the outer side of one side frame member, a stub shaft rotatably mounting the other traction wheel on the outer side of the other side frame member, gearing carried by said one side frame member connected to said one traction wheel for rotation of said wheel and gearing through turning of one by the other and including a transverse horizontal shaft rotatable in said one side frame member and a spur gear carried by said shaft at the inner side of said one frame member, gearing carried by said other side frame member connected to said other traction wheel for rotation of said wheel and gearing through turning of one by the other and including a transverse horizontal shaft rotatable in said other side frame member and a spur gear carried by said shaft at the inner side of said other side frame member, said horizontal shafts being axially aligned and laterally spaced from each other to provide a free space between them, a motor driven shaft carried by said main frame, driving



means connected between said motor driven shaft and said gearing carried by said one side frame member to drive said gearing, a pair of tool supports, one mounted on one of said side frame members and the other mounted on the other side frame member at the respective sides of said free space, and a tool unit removably engageable in said free space and including a frame having transversely spaced sides, a pair of tool support engaging means carried by said respective sides of said unit removably engageable with said respective tool supports, a transverse horizontal shaft rotatably mounted in said sides of said tool unit frame, and a pair of spur gears, one mounted upon each end of said transverse horizontal shaft of said unit outwardly of said sides of said tool unit frame, said last mentioned spur gears being laterally spaced apart a substantially corresponding distance to the lateral spacing of said first mentioned spur gears and adapted to respectively mesh and unmesh with said respective first mentioned spur gears upon respective engagement and removal of said tool unit relative to said free space.

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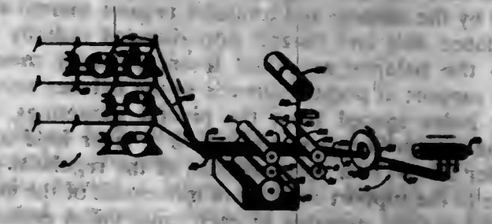
**2,770,939**
**POWER ACTUATED REEL OPERATING MEANS**
**Elmer W. Berg, Wheaton, and Edward J. Johnston, Chicago, Ill., assignors to International Harvester Company, a corporation of New Jersey**
**Application November 12, 1953, Serial No. 391,420**
**15 Claims. (Cl. 56—222)**



1. For harvesters of the type having a platform above which is carried for vertical adjustment a support on which is mounted a reel structure including a rotatable reel having an outwardly projecting shaft and a reel-driving element concentric with the reel and shaft for rotating the reel relative to the shaft and wherein vertical adjustment of the reel is effected by a rack connected to the platform and extending upwardly adjacent to the shaft and in axially spaced relation to the reel driving element, the improvement comprising: means including a pinion fixed to the shaft in meshing engagement with the rack for rotation with said shaft relative to the reel driving element; a continuous ruaning driving countershaft journaled on said support; means continuously drivingly interconnecting said reel driving element with said driving countershaft in counterrotating relationship; and a selectively connectable drive transmitting means on said element and said shaft for rotating the shaft therewith and said pinion in one direction on said rack for moving said reel in one direction and a selectively connectable drive transmitting means on said countershaft and said shaft for rotating said shaft and said pinion in the reverse direction to said one direction for moving the reel in an opposite direction.

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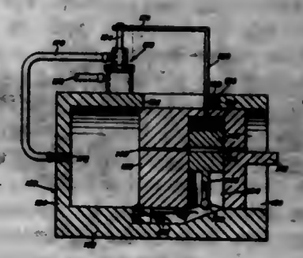
**2,770,940**
**GLASS FIBER TWINE AND METHOD OF MANUFACTURING THE SAME**
**Albert R. Morrison and Harland E. Fargo, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware**
**Application July 12, 1952, Serial No. 298,506**
**5 Claims. (Cl. 57—156)**



1. A paper-glass fiber twine consisting in a core of adhesive bonded, laterally compacted, paper and an exterior sheath of spirally parallel continuous filament glass fiber strands adhered together and to said core by a flexible adhesive.

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**2,770,941**
**AIR OPERATED CLOCK**
**Vincent A. Flagiello, New Haven, Conn.**
**Application May 10, 1955, Serial No. 507,362**
**7 Claims. (Cl. 58—42)**

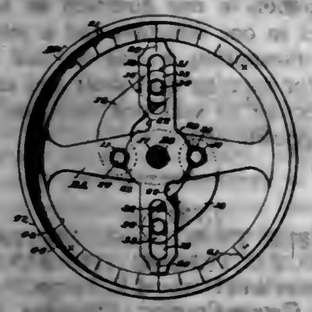


1. A clock comprising a spring device for driving a clock mechanism, and means for automatically tensioning said spring device at intervals, said means including a fluid pressure actuating piston and cylinder, and control means for controlling the movement of the actuating piston, said control means including a fluid pressure supply line, said actuating piston having a transverse bore, a spring loaded control piston slidably positioned in said transverse bore, a piston rod on said control piston engaging the inner

surface of the cylinder, said cylinder having recessed means for controlling the transverse movement of the piston rod and control piston during longitudinal movement of the actuating piston, and means actuated by transverse movement of the control piston for admitting air into the cylinder for extending said actuating piston.

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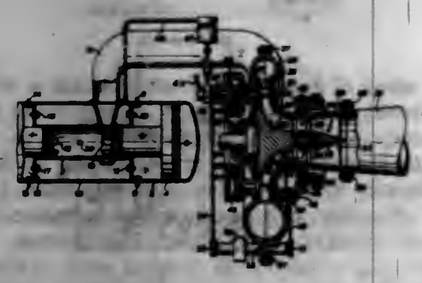
2,770,942
**HOROLOGICAL BALANCE WITH ADJUSTABLE MOMENT OF INERTIA**
Maxime Favret, Elgin Ill., assignor to Elgin National Watch Company, Elgin, Ill., a corporation of Illinois
Application March 3, 1953, Serial No. 340,111
8 Claims. (Cl. 58—107)



1. A balance for a horological instrument, comprising a support, a system of masses individually movable relatively toward and from the balance axis, a regulator piece carried by the support and rotatable relative thereto about the balance axis and having slots directed radially relative to the balance axis, and levers pivotally mounted on the support at points eccentric to the balance axis and having holes spaced from the pivotal mountings, each mass having projections engaged in a lever hole and a regulator slot so that upon rotation of the regulator piece relative to the support concurrent movement of the masses are produced by swinging of each mass under control of its associated lever and regulator slot.

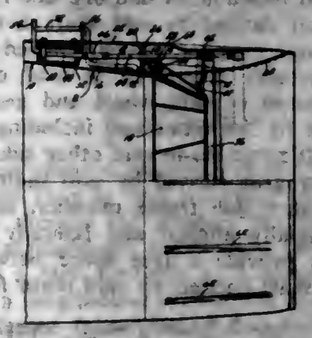
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2,770,943
**TURBINES OPERATED BY FREE-PISTON GAS GENERATORS**
Evelyn Stewart Lansdowne Beale, Wraysbury, England, assignor to Alan Muntz & Company Limited, Hounslow, England, a company of Great Britain
Application March 18, 1952, Serial No. 277,209
Claims priority, application Great Britain March 21, 1951
15 Claims. (Cl. 60—13)



1. A power unit comprising, in combination, a free-piston gas-generator, an inward flow, radial flow turbine, said turbine having variable nozzle blades in the inlet thereof, gas-delivery means connecting said gas-generator with said turbine inlet, and nozzle blade-actuating means responsive to the pressure of the gas supplied to said turbine to increase automatically the areas between said nozzle blades with reduction in the pressure of said gas at least over a range of relatively low gas pressures.

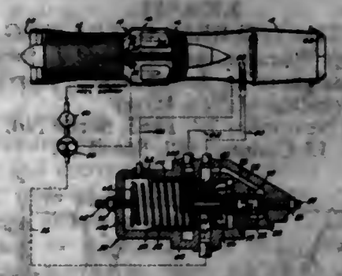
2,770,944
**VARIABLE AREA REACTION NOZZLE MOVABLE FROM CONVERGENT TO CONVERGENT-DIVERGENT FORM**
Donald J. Jordan, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application April 26, 1952, Serial No. 284,511
19 Claims. (Cl. 60—35.6)



14. An exhaust nozzle for use in a turbojet engine which operates at various flight speeds including substantially supersonic flight speed, an afterburner, said nozzle comprising a series of flaps with sealing means therebetween, each of said flaps being in pivotal engagement with the convergent exhaust duct of said afterburner, actuating means consisting of a compressed air actuated piston, an actuating rod connecting said piston to an actuating ring, said ring being connected to each of said flaps by links, said actuating means being capable of moving said flaps inwardly so as to form a convergent exhaust nozzle for optimum thrust generation during non-afterburning operation of said engine when the velocity of the exhaust gases relative to said convergent nozzle is substantially subsonic and said actuating means also being capable of moving said flaps outwardly so as to form a convergent-divergent exhaust nozzle with said convergent exhaust duct and a divergent exhaust duct which is attached to said convergent nozzle and downstream thereof, said convergent-divergent exhaust nozzle affording optimum thrust generation during afterburner operation when the speed of the exhaust gases relative to said convergent-divergent nozzle is substantially supersonic.

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2,770,945
**JUMP-TYPE FLOW DIVIDER FOR GAS TURBINE POWER PLANT FUEL SYSTEM**
Hugh S. Crim, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application August 17, 1953, Serial No. 374,490
12 Claims. (Cl. 60—39.09)



1. A fuel system including primary and secondary manifolds, means for supplying fuel to said manifolds, and fuel flow divider means connecting said manifolds and said supply means and controlling fuel flow to said secondary manifold, said divider including means for regulating the admission of supply fuel to said secondary manifold, means for actuating said regulating means by supply fuel pressure, supply fuel pressure responsive means for controlling the admission of supply fuel to actuate said regulating means to admit supply fuel to said secondary manifold, and means for terminating said supply fuel to said secondary manifold at a supply fuel pressure lower than the value initially actuating said regulating means.



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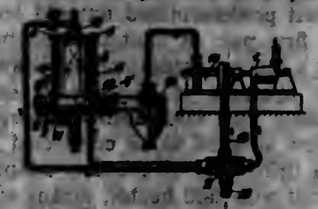
2,770,946
**BRAKE FOR TURBINE ROTOR**
Bennett S. Sevin, Jr., Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Original application March 21, 1950, Serial No. 150,858, now Patent No. 2,747,367, dated May 29, 1956. Divided and this application December 9, 1953, Serial No. 397,065
3 Claims. (Cl. 60—39.14)



1. In a gas turbine power plant, a multistage compressor having independently rotatable high and low pressure rotors, a multistage turbine having independently rotatable high and low pressure rotors, the low pressure compressor and turbine rotors being connected together to rotate as a unit, and the high pressure compressor and turbine rotors being connected together to rotate as a unit, said low pressure rotors and said high pressure rotors forming independently rotatable spools, the high pressure spool being located axially between the low pressure compressor rotor and the low pressure turbine rotor, brake means, a gear connection from one of said spools to said brake means for stopping the rotation of one of said spools, and a starting means for rotating the other spool in starting the power plant.

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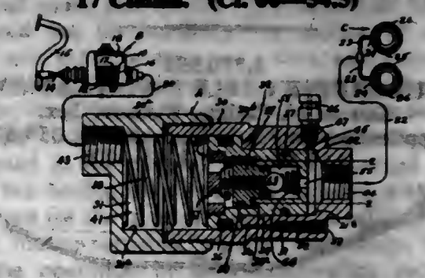
2,770,947
**GAS TURBINE PLANT FOR PULVERIZED FUEL WITH COMBUSTION CHAMBER SURROUNDED BY AIR COOLING DUCTS**
Max Ledinegg, Vienna, Austria, assignor of one-half to Simmering-Graz-Pauker Aktiengesellschaft für Maschinen-Kessel- und Waggonbau, Vienna, Austria, a company working under the laws of Austria
Application November 16, 1949, Serial No. 127,724
Claims priority, application Austria November 26, 1948
3 Claims. (Cl. 60—39.46)



1. In a gas turbine plant, in combination, an upright combustion chamber for burning pulverized fuel whereby combustion gases and liquid slag are produced, said combustion chamber including a heat insulating wall means, and having a top portion formed with a fuel inlet and a bottom portion formed with a slag outlet for discharging liquid slag; a plurality of substantially parallel upright pipes located outside of said combustion chamber on said heat insulating wall means and extending between said top and bottom portions of said combustion chamber, said plurality of upright pipes including a first set of pipes and a second set of pipes; reversing chamber means at said top portion of said combustion chamber and communicating with the top ends of said first and second sets of pipes, the bottom ends of said first set of pipes being adapted to receive air as a cooling medium; an annular mixing chamber surrounding said bottom portion of said combustion chamber and communicating therewith so as to receive combustion gases therefrom, said mixing chamber also communicating with the bottom ends of said second set of pipes whereby combustion gases from said combustion chamber and air from pipes are mixed in said mixing chamber, said mixing chamber being formed with an outlet for the mixture of air and combustion gases.

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2,770,948
**ASSISTER UNIT FOR HYDRAULIC BRAKE SYSTEMS**
Gilbert E. Porter, Los Angeles, Calif.
Application November 6, 1951, Serial No. 255,051
17 Claims. (Cl. 60—54.5)



1. In an hydraulic assister for a fluid control system, the combination comprising: a housing with an internal cylinder having a larger diameter portion with a fluid inlet and a smaller diameter portion with a fluid outlet; a differential piston movable within the cylinder and dividing the cylinder into a larger diameter chamber and a smaller diameter chamber, the piston having two end faces of different effective areas exposed respectively to fluid pressures in the larger and smaller diameter chambers; a single fluid passage means extending between the two chambers; check valve means associated with the passage means for closing the passage to fluid flow from the smaller diameter into the larger diameter chamber but opening in response to excess pressure in the larger diameter chamber, said check valve means including a seat member and a valve member movable relative to each other to an open position; and valve operating means for opening said valve means in response to a decrease in fluid pressure in the larger diameter chamber below a predetermined value, said valve operating means including a pressure responsive member carried on the differential piston and exposed to fluid pressure in the larger diameter chamber to move relative to the piston in response to said fluid pressure, said pressure responsive member being operatively associated with one of said members of the check valve means to transmit motion thereto to move said one member of the valve means relative to the other.

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2,770,949
**POWER-ASSISTED OPERATING MECHANISM FOR HYDRAULIC PRESSURE SYSTEMS**
Glenn T. Randol, Mountain Lake Park, Md.
Application August 20, 1952, Serial No. 305,460
11 Claims. (Cl. 60—54.6)

9. In hydraulic pressure-producing mechanism comprising an operator-operated member having a normal

released position, a hydraulic cylinder having a chamber for displacing liquid under pressure through a discharge port and a liquid reservoir therefor, power means having a movable member with a portion thereof operably projectable into said chamber, and a source of operating power for said power means: liquid passageway means normally open between the chamber and reservoir afore-



said; and control means including a pair of elements movable relatively to said movable member to effect closure of said passageway means to condition said chamber to displace liquid under pressure as aforesaid, and to subsequently cause operation of said power means to effect in part said liquid displacement, respectively, responsive to operating said operator member from released position.

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2,770,950
SUBMARINE CABLE INSTALLATION
Samuel V. Collins, Victoria, Tex.
Application June 5, 1953, Serial No. 359,871
11 Claims. (Cl. 61—72)

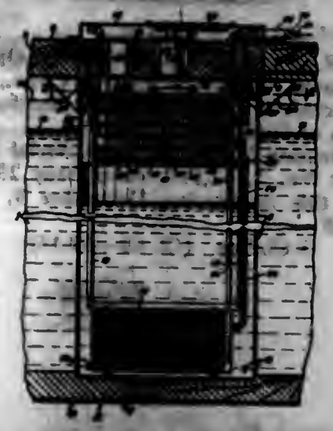


1. The method of laying a continuous length of conduit on the floor of a body of water, comprising fastening by releasable connections to the conduit in selected longitudinal spacing, a series of pontoons of size and number in relation to conduit weight to suspend the conduit below the water surface adjacent the floor of the body of water, joining the releasable connections each to a guide buoy by a length of line at least as long as the distance of pontoon submergence, tying the buoys for submergence with the conduit by releasable hold-down connections, joining all the last mentioned connections to a connection releasing jerk line extending along the length of the conduit, launching and maneuvering the conduit in the body of water into its desired resting place on the floor, then exerting tension on the jerk line to break in succession the guide buoy hold down connections and finally exerting tension on the connecting line of each surfaced guide buoy to release the first mentioned connections and unfasten the submerged pontoons for dropping the conduit.

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2,770,951
APPARATUS FOR UNLOADING IN GASEOUS FORM FROM A LIQUEFIED GAS STORAGE BODY
Willard L. Morrison, Lake Forest, Ill., assignor to Union Stock Yards & Transit Company of Chicago, Chicago, Ill., a corporation of Illinois
Application December 31, 1952, Serial No. 328,862
8 Claims. (Cl. 62—1)

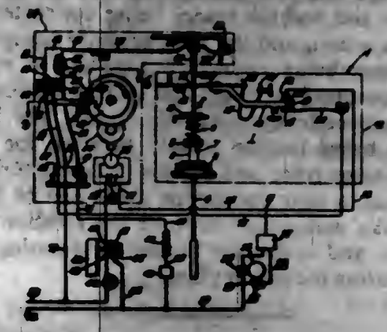
1. The combination with a container for a cargo of liquefied gas maintained at a predetermined pressure and subatmospheric temperature, of means for progressively converting such cargo to gaseous form and delivering it from said container at a pressure at least as great as said predetermined pressure, said means comprising: (*a*) an enclosure supported in said container with at least the lower portion thereof below the level of liquefied gas in such container, said enclosure divided into lower and upper compartments and provided with (i) a first passage for the entrance of liquefield gas into said lower compartment, (ii) a second restricted passage connecting said



compartments, and (iii) a third passage for the discharge of the vaporized gas from the upper compartment; (*b*) heat exchange coils in said upper and lower compartments respectively; and (*c*) means for circulating a heat exchange fluid, which is initially warmer than said liquefied gas, through said heat exchange coils.

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2,770,952
REFRIGERATOR CONTROL SYSTEM
Edwin B. Judd, Morrison, Ill., assignor to General Electric Company, a corporation of New York
Application June 30, 1953, Serial No. 365,158
13 Claims. (Cl. 62—4)



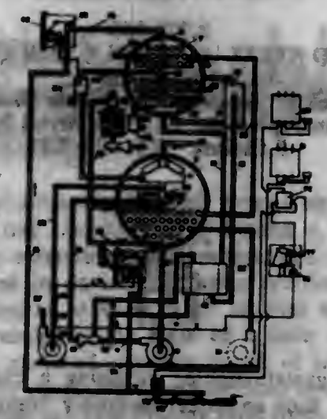
1. In a refrigerator having a door, a compressor motor adapted to be connected to an external source of power, and a heater arranged to defrost said refrigerator and adapted to be connected to said source of power; a temperature control device comprising temperature responsive means including means adapted to sense a temperature in said refrigerator, a first pair of contacts adapted to be connected in circuit with said motor, operating means actuated by said temperature responsive means arranged to close said first pair of contacts thereby energizing said motor at a first predetermined upward temperature and to open said first pair of contacts thereby deenergizing said motor at a second predetermined lower temperature, timing means operable in response to said door being open at the same time said motor is energized, a second pair of contacts adapted to be connected in circuit with said motor, a third pair of contacts adapted to be connected in circuit with said heater, means actuated by said timing means arranged to open said second pair of contacts thereby deenergizing said motor and to close said third pair of contacts thereby energizing said heater after a predetermined period of operation of said timing means, and tripping means actuated by said operating means arranged to again close said second pair of contacts thereby energizing said motor and to open said third pair of



contacts thereby deenergizing said heater at a third predetermined upper temperature above said first predetermined temperature.

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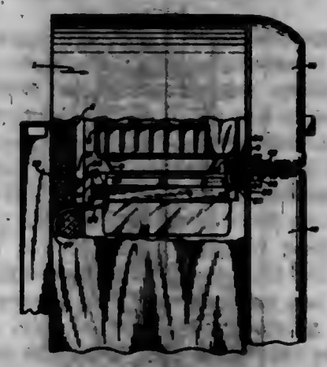
2,770,953
CONTROL ARRANGEMENTS FOR ABSORPTION REFRIGERATION SYSTEMS
Louis Howell Leonard, Jr., East Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application April 8, 1955, Serial No. 500,140
13 Claims. (Cl. 62—5)



1. In an absorption refrigeration system, the combination of an absorber, an evaporator, a generator and a condenser, said generator including tubes to which steam or other vapor is supplied in heat exchange relation with solution exteriorly of the tubes, and means for rendering at least a number of the tubes ineffective to extract latent heat from the steam responsive to a change in load imposed upon the system.

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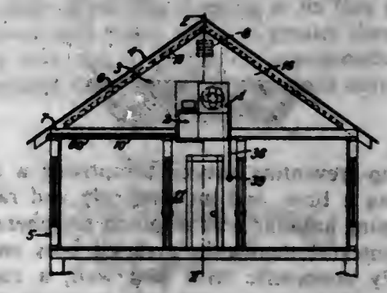
2,770,954
BAFFLE AND MOUNTING MEANS IN REFRIGERATOR
Robert Alexander Jansen, Cincinnati, Ohio, assignor to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware
Application November 28, 1951, Serial No. 258,665
7 Claims. (Cl. 62—117.3)



7. In combination, a refrigerator cabinet including interior walls, an evaporator within said cabinet surrounded by said interior walls, a defroster-heater contacting said evaporator and having portions disposed beneath said evaporator substantially parallel thereto, an adjustable bracket secured to one of said interior walls for adjustment vertically relative to said evaporator and said defroster-heater, a relatively fixed bracket secured to one of said interior walls remote from said adjustable bracket, and a baffle in supported engagement with said brackets, adjustment of said adjustable bracket varying the vertical position of said baffle for bringing it into close proximity with said parallel portions of said defroster-heater.

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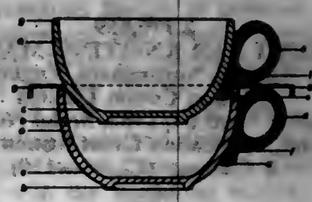
2,770,955
AIR-CONDITIONING DEVICE FOR AN ATTIC
Allan W. Lundstrom, Columbus, Ohio
Application May 17, 1954, Serial No. 430,364
13 Claims. (Cl. 62—129)



1. An air-conditioning unit comprising a ventilating unit for transferring air in a confined stream optionally from either of two separate spaces into an independent space; a refrigerating unit for cooling the air of one of said separate spaces while the ventilating unit is transferring air from the other to said independent space, said ventilating unit having a ventilating fan for drawing air from said separate spaces and discharging it into said independent space and having valve means at the intake side of said fan for confining the suction of said fan to one of said separate spaces at a time, said valve means being positionally adjustable for transferring the suction of said fan from one to the other of said separate spaces at will, and said refrigerating unit having a condensing coil disposed in the path of the air discharged by said fan, said fan having an air-moving capacity greater than that required for the necessary cooling of said condensing coil; and, means actuable by said valve means for controlling the operation of said refrigerating unit in response to the position of said valve means.

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2,770,956
CUP WITH HANDLE
Christoph Achtziger, Weiden, Germany, assignor to Porzellanfabrik Weiden Gebrueder Bauscher, Zweigniederlassung der Lorenz Hutschenreuther Aktiengesellschaft in Selb, Weiden, Germany, a firm
Application September 12, 1952, Serial No. 309,245
Claims priority, application Germany November 15, 1951
1 Claim. (Cl. 65—13)



A flared bowl-shaped cup having a loop-formed handle of the same material as the cup and attached to the bowl, the handle of said cup having a vertical prolongation at the bottom end thereof with a vertical surface slightly above its lowermost end and a substantially horizontal surface of a length equal to the approximate width of the handle and spaced from the bowl so that when a plurality of the cups are stacked the rim of a lower cup will contact the bowl and the horizontal surface of the handle of the cup immediately above, with the vertical prolongation of the handle of an upper cup extending into the bowl of the lower cup, said handle above the vertical prolongation projecting upwardly and outwardly to provide a small space between adjacent handles one above the other, and said rims of the cups when stacked being substantially horizontal.

2,770,957
**DRIP-PREVENTING SAUCER**
Earl D. Bronson, San Diego, Calif.
Application September 27, 1954, Serial No. 458,460
2 Claims. (Cl. 65—15)



1. A drip-preventing saucer comprising a dished element having a base, and an upwardly and radially outwardly sloping annular wall disposed peripherally of said base and integral therewith, a raised boss on said base substantially concentric with said wall, a cup-receiving socket in said boss, a depressed reservoir within said socket, said socket having a cup-supporting shelf sloping inwardly and downwardly to the top of said reservoir, an annular trough substantially concentric with said reservoir and laterally defined by said boss and said wall, and a plurality of open-topped channels in said boss interconnecting said trough and said reservoir.

2,770,958
**MAGNETIC HOLDER FOR PAPER CUPS**
Herman Carew, Easton, Pa., assignor to Dixie Cup Company, Easton, Pa., a corporation of Delaware
Application July 16, 1952, Serial No. 299,287
9 Claims. (Cl. 65—61)



1. In a holder for a paper cup, a tubular body part having a passage therethrough and having a cavity therein to receive a paper cup, and a magnet mounted in said holder and having a portion thereof fronting into said cavity to attract magnetic material on a received cup.

2,770,959
**STRAIGHT BAR KNITTING MACHINES**
Ernest Start, Willford, Nottingham, England, assignor to William Cotton Limited
Application April 24, 1953, Serial No. 350,846
Claims priority, application Great Britain June 23, 1952
8 Claims. (Cl. 66—110)



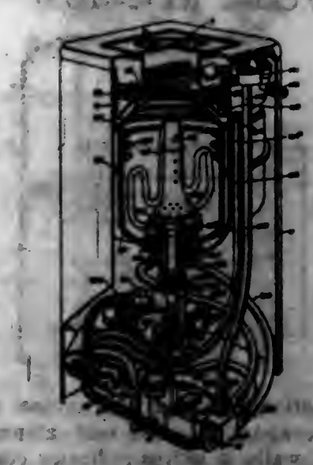
1. In a Cotton's patent or other straight bar knitting machine having jack sinkers and a row of jacks therefor movable forwardly and rearwardly behind the jack sinkers and between extreme limits, the combination of abutment means on the jacks, movable stop means operable to engage behind said abutment means and positively locate the jacks in a position intermediate said extreme limits, means for operating the movable stop means, a slurcock movable behind the jacks along the row thereof, and forward shallow concave jack-engaging edges on the slurcock which are in such relation to said intermediate position that, when the slurcock moves along the jacks positively located by the stop means in said intermediate position, the jacks are substantially uniformly accelerated by the slurcock from rest.

2,770,960
**FLINT AND STEEL ASSEMBLY FOR CIGARETTE LIGHTER**
Frederick W. Renwick, Sr., Maple Shade, N. J.
Application September 19, 1955, Serial No. 535,038
5 Claims. (Cl. 67—7.1)



1. In a cigarette lighter including a casing having a top panel, a flint and steel assembly comprising a steel in the form of an abrasive wheel fixedly mounted in said casing and having a portion projecting above said top panel, a pair of spaced brackets upstanding from said panel, and a flint unit rotatably and slidably mounted in said brackets, said unit including a rotary flint disc and a thumbwheel in driving relation with respect to said disc.

2,770,961
**WASHING MACHINE**
Evan Hartley Stevenson, John W. Ramore, and Griffith J. Hughes, Fergus, Ontario, Canada, assignors, by mesne assignments, to Graham and Barker, Ridgewood, N. J., a limited partnership of New Jersey composed of George C. Graham, Donald B. Graham, and George H. Barker
Application August 11, 1951, Serial No. 241,416
5 Claims. (Cl. 68—21)



1. A washing machine for clothes and the like comprising a container in which the clothes, washing and rinsing liquids are maintained during the washing, rinsing and drying operation, means for agitating the clothes in the container during washing and rinsing, a drain outlet in the upper portion of the container through which liquids and suspended and floating foreign matter can be discharged from the container, means for admitting rinse water into the lower portion of said container to discharge said washing liquid and suspended and floating foreign matter through the drain outlet and to rinse the clothes, means retarding the mixing of the rinsing liquid with the washing liquid and means for expelling liquids from the clothes, after rinsing and to damp dry the clothes.

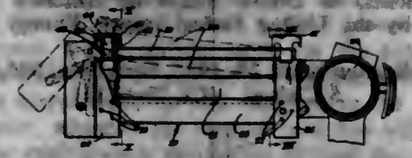


2,770,962
**THREAD-ADVANCING REEL**
Kenneth M. McLellan, Cleveland, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware
Application May 15, 1952, Serial No. 287,909
3 Claims. (Cl. 68—205)



1. A thread-advancing reel for processing thread comprising, two reel members each having a periphery of longitudinally extending bar members, said reel members being arranged in an interdigitating relation about axes that are eccentric to each other so that upon rotation thread is advanced in the form of a helix over the reel periphery, an enclosed chamber in one of said reel members, means for supplying a treating fluid to said chamber, exhaust passages for said treating fluid from said chamber having outlet openings along the sides of the bar members, said outlet openings directing the flow of the treating fluid from the chamber along the sides of the bar members to thread on the reel.

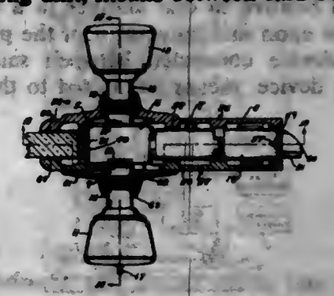
2,770,963
**WRINGER**
Nicholas L. Etten, Waterloo, Iowa, assignor, by mesne assignments, to Chamberlain Corporation, Waterloo, Iowa, a corporation of Iowa
Application January 23, 1953, Serial No. 332,841
7 Claims. (Cl. 68—262)



1. In a wringer including a frame and upper and lower rolls thereon relatively movable between a roll pressure released position and a roll pressure applied position, a roll-support member acting at one end of said upper roll, a link between said roll-support member and said frame, a reset member pivotally connected to said link, a second link between said reset member and said frame, said reset member being actuatable between a roll pressure releasing position and a roll pressure-applied position with the axes of pivotal connection between said first link and said frame and between said reset member and said first and second links lying in over-center locking relation, and release means supported with said upper roll for pivotal movement about the axis thereof and engageable with said reset member to actuate the same in a direction toward said pressure-releasing direction.

2,770,964
**ADAPTER HOUSING FOR DOOR LOCKS**
Lyford C. Bigelow, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a corporation of Connecticut
Application October 29, 1953, Serial No. 388,956
20 Claims. (Cl. 70—461)

2. For a cylindrical door lock including an operating unit and a latch with the said operating unit including a case having an inner and an outer sleeve extending coaxially therefrom; an adapter housing for mounting said door lock on a door that is thinner than the case, said adapter housing including an inner and an outer plate having co-axial openings therein to receive said sleeves and each plate containing a recess in its face providing a space between said plates which is greater than the thickness of the door and is adapted to accommodate the case of the operating unit, means between said outer plate and



the outer sleeve securing the operating unit to the outer plate, means on each of said plates co-axial with said openings for aligning the plates and containing the case of the operating unit, means for securing the latch unit between said plates and in operative position relatively to the operating mechanism in said case, and means cooperating with a threaded portion on the inner sleeve for urging the inner plate against the door to thereby force both of said plates securely against the opposite sides of the door through tension applied to the operating unit.

2,770,965
**INSULATED HOLLOW BUILDING PANEL**
David Engel, Hyattsville, Md.
Application August 4, 1952, Serial No. 302,580
2 Claims. (Cl. 72—41)

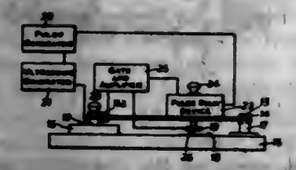


2. In a building structure unit, a hollow panel embodying a pair of confronting precast hollow sections, laterally extended marginal flanges formed on said hollow sections, the marginal flanges of adjacent sections being disposed in alignment and fused together along their contacting edges, layers of insulating material lining the inner surfaces of said precast hollow sections, socket members circular in cross section having tapered inner surfaces, extending from and forming a part of the insulating lining of one section, solid cone-shaped extensions integral with the insulating material of the other hollow section, and said extensions of said other section extending within and bearing against the walls of said socket members of the cooperating section bracing said sections with respect to each other.

2,770,966
**APPARATUS FOR NON-DESTRUCTIVE TESTING OF SOLID BODIES BY ACOUSTIC OSCILLATIONS**
William Halliday and Herbert Martin Jefferys, Bottingdale, England, assignors to Kelvin and Hughes Limited, Glasgow, Scotland, a company of Great Britain
Application December 12, 1952, Serial No. 325,982
Claims priority, application Great Britain December 13, 1951
12 Claims. (Cl. 73—67.9)

1. Recording apparatus for use in recording non-destructive acoustic tests of bodies comprising, a probe for

transmitting pulses of acoustic oscillations to a body to be tested and for receiving reflected oscillations, an oscillation generator connected to said transducer for energization thereof to produce said pulses of acoustic oscillations, means for moving said probe over the surface of such a body, a marking device including a pen, a recording material, means drivably connected with said probe moving means for moving said recording material and said pen relative to one another in a first direction in dependence upon said movement of the probe, an electronic gate device connected between said probe and said marking device, means connected to the gate device



for applying thereto a gating pulse for each transmitted pulse of acoustic oscillations, each gating pulse being capable of opening the gate to permit the passage therethrough from the probe to the marking device of reflected oscillations having a time of occurrence coinciding with said gating pulse, means for varying the phase of gating pulses relative to the respective pulses of acoustic oscillations, and means drivably connected with said phase varying means for moving the recording material and said pen relative to one another in a second direction transverse to said first direction in dependence upon changes in the phase of the gating pulse.

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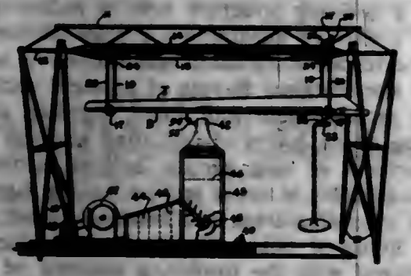
2,770,967

**DEVICE FOR MEASURING THE AERODYNAMIC PITCHING MOMENTS OF A SHORT LENGTH OF A FULL SIZED AIRFOIL**

Stephen du Pont, Westport, Conn., assignor to Doman Helicopters, Inc., Danbury, Conn., a corporation of Delaware

Application November 16, 1953, Serial No. 392,330

14 Claims. (Cl. 73—147)



1. A device, for measuring the aerodynamic pitching moment of an airfoil section of a full sized airfoil having an aerodynamic center, comprising a frame, supporting mechanism for the airfoil section carried by the frame including at least two spaced support cradles to support the full sized and full length airfoil horizontally and having freedom of movement laterally with respect to the airfoil and angularly about the approximate aerodynamic center of the airfoil section, means to adjust the angular position of one of the supporting means about the aerodynamic center of the airfoil, means to measure the turning moment of the airfoil section in its supporting means, a jet mechanism having a nozzle of narrow width with respect to the airfoil length directed towards the leading edge of the airfoil, and means mounting one mechanism relatively to the other for movement to present the length of the airfoil to the jet from the nozzle.

2,770,968

**MASS FLOW MONITOR**

John Constantine Grey, Isleworth, England, assignor to Power Jets (Research & Development) Limited, London, England, a British company

Application June 6, 1952, Serial No. 292,085

Claims priority, application Great Britain June 18, 1951

2 Claims. (Cl. 73—205)



1. In a fluid mass flow monitor having separate means for responding to changes in absolute pressure of the fluid passing through a duct, to changes in absolute temperature of that fluid and to changes in pressure difference across a constriction in said duct adjacent the points from which the pressure and temperature responses are initiated, each of which responsive means incorporates a member moved substantially linearly by any change in the appropriate monitored variable, a symmetrical three-legged floating beam pivotally attached at the outer end of each leg to a different one of said members, the pressure and pressure difference responsive members affecting the beam in the opposite sense to the temperature responsive member, an indicating arm pivotally attached to the center point of said beam so that it moves substantially linearly an amount equal to the algebraic sum of the movements of the three members incorporated in the responsive means.

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2,770,969

**FLUID FLOW METER AND CONTROLLER**

Rogers S. Cannell, Palo Alto, Calif., assignor, by mesne assignments, to United States of America as represented by the United States Atomic Energy Commission

Application April 29, 1955, Serial No. 505,073

5 Claims. (Cl. 73—211)



1. In combination with a cross type pipe fitting, a bore tube bridging opposed inlet and outlet horizontal arms of said fitting, a vertical pressure tube extending transversely through said bore tube to form a flow restriction therein, first port means disposed in said pressure tube transverse to said bore tube at said flow restriction, second port means disposed in said bore tube adjacent said inlet arm and communicating with the lower arm of said fitting, a closed end tubular means extending downwardly from said lower arm of said fitting, and an opened end tubular means extending downwardly from said pressure tube in coaxial relation with said closed end tubular means with a conducting liquid partially filling both tubular means to form a manometer for indicating pressure differentials between said bore tube and said pressure tube.

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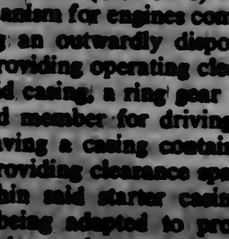
2,770,970

**LUBRICATING DEVICE FOR GAS METERS**

Heinrich Wlotzfeld, Munich, Germany, assignor to Kenneth Robert Marston

Application July 7, 1953, Serial No. 366,589

2 Claims. (Cl. 73—272)



1. In a gas meter, a casing having an upper portion, a doubly inclined intermediate bottom having passages for the gas to be metered, said intermediate bottom being fixed inside of said casing, pins on said intermediate bottom, each being disposed adjacent one of said passages, slide plates rotatably arranged upon said pins, driving means connected with said slide plates to cause them to oscillate in such a manner as to uncover said passages alternately, a reducing gear train connected with said driving means, an upper bottom fixed inside said casing in the upper portion thereof to form a container for a lubricant, a lubricant outlet valve disposed in said upper bottom, opening means for said valve connected with said reducing gear train to lift said valve periodically to permit a predetermined portion of the lubricant to escape from said container, said opening means including a rotating disc coupled to said reducing gear train and operated thereby, said rotating disc having a groove in the circumference thereof, a cam fixed to said disc and rotating therewith, said valve being provided with an extension projecting therefrom and having a spiral groove along its circumference, and a hollow guide for the extension of said valve and fixed to said upper bottom, said rotating disc being disposed below and adjacent to the extension of said valve, whereby the cam of said disc will lift said valve once during each revolution of said disc to admit lubricant to said spiral groove, said rotating disc being further disposed to direct the lubricant in the form of droplets to lubricate said slide plates.

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2,770,971

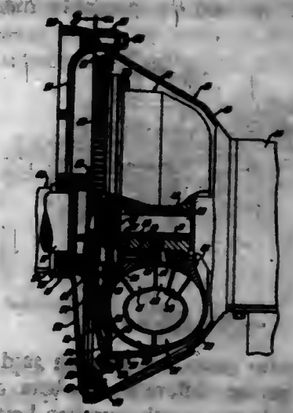
**FLYWHEEL, CLUTCH AND STARTER HOUSING DRAIN**

Harry C. Deane, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 7, 1951, Serial No. 260,419

5 Claims. (Cl. 74—6)

1. A driving mechanism for engines comprising a rotatable member having an outwardly disposed casing disposed thereon and providing operating clearance between said member and said casing, a ring gear associated with the periphery of said member for driving said member, an engine starter having a casing containing the mechanism thereof and providing clearance space around said mechanism and within said starter casing, one end of said starter casing being adapted to project within an opening in said member casing and being provided with an opening at one side of said end and within said member casing through which the driving pinion of said mechanism extends into engagement with said ring gear, and a passage formed in said casing and extending between the lower extremities of said starter casing and the interior of said member casing for draining fluid



from the interior of said starter casing into said member casing.

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2,770,972

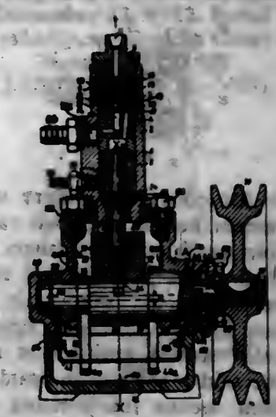
**CRANKPIN-PISTON CONNECTING MEANS**

Jean Louis Gratzmuller, Paris, France

Application February 3, 1954, Serial No. 408,008

Claims priority, application France February 5, 1953

3 Claims. (Cl. 74—49)



1. A driving connection between a crankshaft and an elongated reciprocatory member of circular cross-section having one end portion provided with a diametrical perforation, comprising a disc-shaped member provided with two axially extending parallel bores one of which is adapted to engage the crank of said shaft, a pivot pin positioned in the other bore and provided with a diametrical hole adapted to receive said perforated end portion of the reciprocatory member with lateral play therebetween, a tangential slot in said disc-shaped member extending transversely to said pivot pin to permit insertion of said perforated end portion through said slot into said hole, said slot having such a length as to permit arcuate oscillation of said disc-shaped member with respect to said reciprocatory member, a second diametrical hole in said pivot pin extending at right angles to the first-mentioned hole thereof, and a gudgeon pin adapted to be thrust through said second hole and through said perforation to connect the reciprocatory member to said disc-shaped member for driving purposes while permitting relative swivel motion of said members for adjusting purposes.

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2,770,973

**MECHANICAL MOTION MECHANISM**

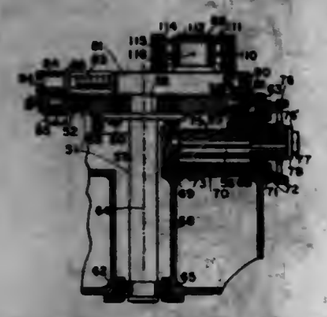
Ernest Wildhaber, Brighton, N. Y.

Application May 24, 1954, Serial No. 431,733

26 Claims. (Cl. 74—89)

1. In combination, a reciprocable member, and means for reciprocating said member comprising a rotary crank

member, a crank pin adjustable thereon to different distances from the axis of said crank member and operatively connected to said reciprocable member, and a



pair of varying ratio gears for turning said crank member, said gears having different numbers of teeth, and the gear with the larger tooth number being rigidly secured to said crank member.

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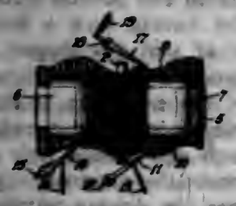
**2,770,974**
**DEVICE FOR PRODUCING RECIPROCATING MOVEMENT FROM ROTARY**
Werner Jacobs, Kitzingen am Main, Germany
Application June 14, 1952, Serial No. 293,615
4 Claims. (Cl. 74—84)



1. In a device for converting rotary motion into reciprocating movement having two ball races and a plurality of revoluble antifriction members interposed between the two ball races, a plain ball race, means for imparting movement to the said plain ball race, an undulated ball race loosely positioned opposite said plain ball race, mutually spaced antifriction members interposed between the said plain and the said undulated ball races, and resilient means for pressing said undulated ball race in the direction of said plain ball race.

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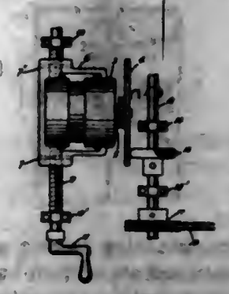
**2,770,975**
**SERVO MECHANISMS**
Gordon William Galley, Wavertree, Liverpool, England, assignor to Unilever Limited, Port Sunlight, England, a British company
Application November 8, 1954, Serial No. 467,471
Claims priority, application Great Britain
November 10, 1953
9 Claims. (Cl. 74—96)



1. A servo mechanism comprising in combination a rotatable member having a plurality of channels substantially equally spaced on a substantially common pitch circle, a plurality of rods one situated in each channel, means for securely holding the rods in their channels to prevent axial displacement of the rods over an arc of said pitch circle, said rods being capable of axial displacement over the remaining arc of said pitch circle, signal input means arranged to displace the rods axially in said remaining arc, signal output means arranged to be displaced by the rods in the securely held arc, and aligning means in line with or in front of the signal input means to move the rods axially in said remaining arc towards the signal input means.

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**2,770,976**
**VARIABLE SPEED DRIVE MECHANISM**
Frederick H. Frantz, Binghamton, and Werner O. Schink, Johnson City, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application August 29, 1955, Serial No. 531,163
3 Claims. (Cl. 74—194)



1. A variable speed friction drive including a motor having a shaft and a friction disk attached to the front end thereof, means for suspending said motor for pivotal movement in a direction perpendicular to said shaft and for displacement in a direction horizontal thereto, a driven wheel frictionally engaging said disk by virtue of the weight and pivotal movement of said motor, a driven shaft keyed to said wheel and extending in a direction parallel to the displacement of said motor whereby upon said displacement the position of said wheel may be altered along the radius of said disk for varying the speed of said driven shaft, the direction of rotation of said disk being such as to produce a force tending to move said motor on said pivotal support toward engagement with said wheel, thereby increasing the frictional contact therewith.

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**2,770,977**
**BELT TRANSMISSIONS**
Richard Beckadolph, Grasdorf Hannover, and Walter Niclas, Altwarmbuchen Uber Hannover, Germany, assignors to Continental Gummi-Werke Aktiengesellschaft, Hannover, Germany
Application November 27, 1953, Serial No. 394,840
4 Claims. (Cl. 74—229)

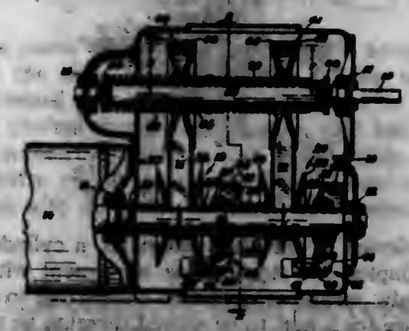


1. In combination with an endless flat belt of rubber or rubber-like material: a rotatable pulley engaging said belt and having its circumferential area provided with a plurality of rows of teeth, said teeth respectively extending substantially parallel to the axis of rotation of said pulley, and the teeth of one row being in alignment with the teeth of another row, said rows of teeth being separated from each other by a circumferential central groove extending in a continuous uninterrupted manner around the entire pulley, said belt having its inner surface provided with permament teeth evenly spaced from each other in circumferential direction and respectively extending substantially perpendicular to the longitudinal direction of said belt for meshing with the teeth of said pulley, the inner surface of said belt being provided with a central permanent bead directly intersecting the teeth of said belt and extending in longitudinal direction of said belt in substantial alignment with said circumferential groove, said bead and the teeth of said belt being integral with each other and with said belt and consisting of the same material as the latter.



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**2,770,978**
**MEANS FOR BALANCING THE LOADS ON PARALLEL BELTS**
Walter H. Troemel, Columbus, Ind., assignor to Reeves Pulley Company, Columbus, Ind., a corporation of Indiana
Application July 21, 1953, Serial No. 369,472
13 Claims. (Cl. 74—230.17)

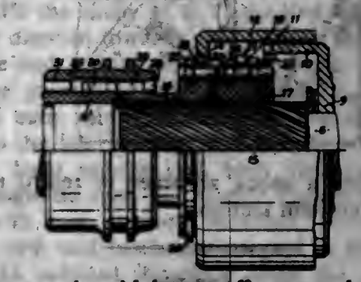


1. In a device of the class described, a first shaft, a first pair of mating coned discs keyed on said shaft, an abutment element threadedly adjustably mounted on said shaft and engaged by one disc of said first disc pair to restrain said one disc against axial movement away from its mate, the other disc of said disc pair being axially movable toward and away from its mate, a second pair of mating coned discs keyed on said shaft adjacent said other disc of said first disc pair, that one disc of said second disc pair adjacent said other disc of said first disc pair being axially fixed on said shaft, and the other disc of said second disc pair being axially movable toward and away from its mate, a second shaft substantially parallel to said first shaft but spaced therefrom, a third pair of mating coned discs keyed on said second shaft in substantial radial alignment with said first disc pair, that one disc of said third disc pair opposite said other disc of said first disc pair being axially fixed on said second shaft and the other disc of said third disc pair being axially movable toward and away from its mate, means resiliently engaging the last-named disc to urge it toward its mate, a fourth pair of mating coned discs keyed on said second shaft in substantial radial alignment with said second disc pair, a second abutment element threadedly adjustably mounted on said second shaft and engaged by that one disc of said fourth disc pair opposite said other disc of said second disc pair to restrain the same against axial movement away from its mate, the other disc of said fourth disc pair being axially movable toward and away from its mate, means resiliently engaging the last-named disc to urge it toward its mate, a first edge-active belt providing a driving connection between said first and third disc pairs, and a second edge-active belt providing a driving connection between said second and fourth disc pairs, and means providing an operative connection between said other discs of said first and second disc pairs for synchronous adjustment of said discs toward and away from their mates.

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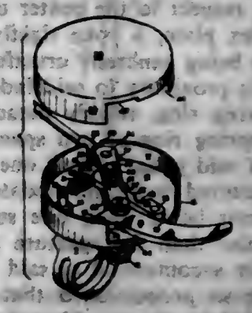
**2,770,979**
**CHANGE-SPEED GEARING**
Harold Sinclair, Windsor, England
Application January 22, 1954, Serial No. 405,574
Claims priority, application Great Britain
January 9, 1951
9 Claims. (Cl. 74—339)

1. Change-speed gearing comprising at least two first toothed members, a second member and two intermediate toothed members associated one with each of said first members and constrained for helical movement on said second member for engaging their teeth with and disengaging their teeth from the teeth of the respective first members for selectively establishing power paths of different ratios, each said intermediate member being provided with a ratchet drive for establishing driving engagement of the intermediate member with the respective first member without clashing, and the ratchet drives of the two intermediate members being of opposite hand.



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**2,770,980**
**VARIABLE SPEED GEAR CONTROL LEVER MECHANISM FOR BICYCLES AND LIKE VEHICLES**
Edward Arthur Millward, Smethwick, Birmingham, England, assignor to J. A. Phillips and Company Limited, Birmingham, England, a British company
Application December 22, 1952, Serial No. 327,180
Claims priority, application Great Britain
November 7, 1952
3 Claims. (Cl. 74—489)



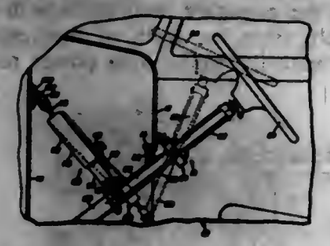
1. Variable speed gear control lever mechanism for bicycles and like vehicles comprising a support, a bar fixed on said support, a series of notches along an edge of the bar, a lever pivoted about a fixed point on the support, a link having one end thereof pivotally connected to said lever and the other end thereof extending to the side of said bar remote from said lever, means for attaching said other end of said link to the transferring element of a variable speed gear, notch-engaging means carried by said link, and means for resiliently drawing said notch-engaging means into engagement with the notched edge of said bar whereby said notch-engaging means can be selectively engaged in any one of the notches by angular movement of the lever about its fixed pivot and relatively to the fixed bar.

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**2,770,981**
**ADJUSTABLE STEERING COLUMN**
Herman P. Fisher, Toledo, Oreg.
Application August 3, 1955, Serial No. 526,108
5 Claims. (Cl. 74—493)

1. An adjustable steering column assembly comprising a lower column section, means for anchoring said lower column section, an upper column section, a pivotal fitting connecting said upper column section to said lower column section, a lower steering shaft section journaled in said lower column section, an upper shaft section journaled in said upper column section, a universal fitting connecting said upper shaft section to said lower

shaft section, and means connected to said pivotal fitting to retain said upper column in a selected position, said



means including a shock absorber to retard movement of said upper column section.

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2,770,982
INDEX MECHANISM
Edward J. Mastney, Berwyn, and John H. Williams, Barrington, Ill., assignors to Oak Mfg. Co., a corporation of Illinois
Application December 6, 1952, Serial No. 324,586
1 Claim. (Cl. 74—527)



An index mechanism comprising an index plate having a number of index deformations disposed along the arc of a circle with respect to the center of a shaft passing through the index plate, a yoke rigidly attached to the shaft, said yoke being generally cruciform in shape and being disposed in proximity to said index plate, a generally circular spring ring, readily detachable means for mounting said spring ring at two spaced points on two opposed arms of said yoke, at least one of the remaining arms being apertured to accommodate a ball bearing, said opposed arms being on a line substantially closer to the shaft center than the aperture in one of the remaining arms for accommodating said ball bearing, said yoke arm being so proportioned that the ball bearing rides the index deformations, said spring ring passing underneath the two ring attaching fingers of the yoke and lying over the remaining two arms of the yoke.

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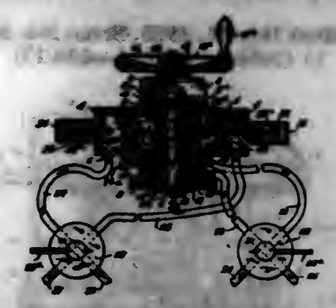
2,770,983
KNOB
John Hatala, Flushing, N. Y.
Application October 7, 1955, Serial No. 539,176
7 Claims. (Cl. 74—553)



1. A control knob for use with an electronic instrument control shaft, comprising an inner body portion of insulating material having slight resilience, the body portion having a cylindrical hole axially therethrough for a reception of a complementary end of the control shaft, a pair of ears defined by a slot perpendicular to the shaft axis of the hole and extending to the outside of one end of the body portion, screw means arranged in the ears for drawing them together to effect a consequent reduction in the diameter of the hole and a clamping grip of the wall of the hole upon the shaft that may have been received in the hole, and an outer portion fronting the body portion, the outer portion having one end integral with the body portion and the other end extending over the body portion in parallel relation thereto in close proximity to the hole and to the pair of ears.

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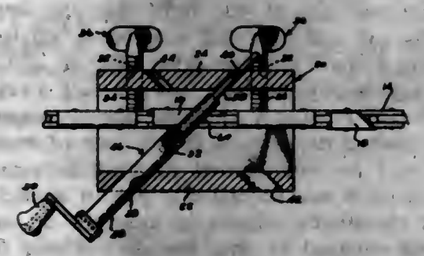
2,770,984
HYDRAULIC INFEED UNIT
Joseph Leecy, Jr., Euclid, Ohio
Application May 10, 1954, Serial No. 428,727
8 Claims. (Cl. 74—815)



1. In a device of the class described, a cylinder body, a piston adapted for straight-line movement within said cylinder body, means of operative connection to one end of said piston for a part to be moved thereby, an auxiliary piston adapted for straight-line movement to different predetermined positions of adjustment within said cylinder body and transversely of the axis of said first-named piston and having an inclined portion adapted for correspondingly predetermined positions of adjustment for operative engagement by the other end of said first-named piston for determining the length of stroke of said first-named piston, and fluid means adapted for application to said pistons for effecting actuation of said pistons.

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2,770,985
CHAIN SAW SHARPENER
Arthur W. Pearce, Libby, Mont.
Application February 11, 1955, Serial No. 487,599
2 Claims. (Cl. 76—37)



1. In a chain saw sharpener, a channel-shaped frame comprising a web and first and second side walls serving as guides, said guides having free edges remote from the web, a first pair of aligned bores in the guides arranged diagonally with respect to the length of the frame, a second pair of aligned bores in said guides disposed at right angles to the first pair of bores, said pairs of bores being positioned between the web and the free edges of the guides, a jaw on said first guide between the bores and the free edge of the first jaw, a screw threaded through the second guide opposite said jaw, and a rotary abrading implement journaled in a selected one of the pairs of bores carrying an abrading cylinder between the guides.

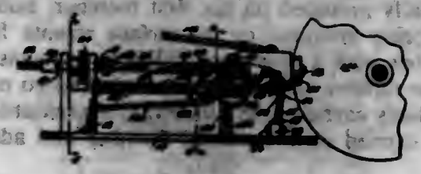
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2,770,986
AGRICULTURAL DISC SHARPENER
Charles S. Bass, Plainview, Tex.
Application March 13, 1953, Serial No. 342,091
5 Claims. (Cl. 76—82.2)

1. A disc sharpener for discs which are rotatably supported by an implement frame comprising a frame, a



head pivotally mounted on the frame, rotary shafts mounted in the head at a slightly divergent angle, a pair of side by side pressure rollers on said shafts adapted to straddle a disc and engage the opposing faces thereof adjacent its edge, said head being pivotable about an axis substantially transverse to the axis of rotation of the



rollers to move the rollers nearer to and away from the edge of the disc, and means for moving said rollers bodily toward and away from each other to adjust the pressure exerted thereby on the disc, said last means including eccentric sleeves in said head within which the roller shafts rotate, gears on said sleeves, and worms enmeshed with the gears to rotate the sleeves.

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2,770,987
SPINNERETTE MANUFACTURE
John A. Cupler II, Cumberland, Md.
Application December 31, 1953, Serial No. 401,601
7 Claims. (Cl. 76—107)



1. A method of finishing the discharge surface of a spinnerette containing an orifice and having a composition whose grain size is reduced by cold working, comprising inserting a plug having a complementary cross section through said orifice to project beyond said surface, applying a compacting force to said surface contiguous to said plug sufficient to deform said surface, abrading said plug and said surface contiguous thereto until they become substantially coplanar, and mechanically removing said plug from a surface opposed to the discharge surface.

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2,770,988
MISFIRED PROJECTILE EXTRACTOR
Joseph Raymond Jasse, Paris, France, assignor to Societe Nouvelle des Etablissements Brandt, Paris, France, a French body corporate
Application July 17, 1953, Serial No. 368,559
Claims priority, application France July 24, 1952
3 Claims. (Cl. 81—3.05)



1. Device for extracting after a misfire a projectile and its fuse from the tube of a muzzle-loaded mortar or other arm, comprising in combination: a cylindrical body having a forward plane transverse face and a transverse rear face; said body having a central cavity opening at least on said forward face, the walls of said cavity being adapted to surround said fuse without contacting it, even when said walls contact said projectile; said body having a plurality of radial slots between said cavity and the lateral outer wall thereof; the walls of each of said slots forming an outward shoulder; a gripping pawl in each slot and pivotable around an axis within said slot; the axis of all said pawls being located in a single transverse plane parallel to said forward face; each said pawl having substantially the shape of a T, the first branch of which is radially directed towards, and projects into, said central cavity, the end of said first branch being formed into a sharp edge parallel to said transverse plane; the second branch of each said T-shaped pawls being substantially parallel to the lateral outer wall of said body, and being accessible from outside said body through said slot; a heel extension on each said second branch adapted to cooperate with said outward shoulder; elastic means cooperating with said pawls and adapted to force said heels against said outward shoulders when the device is idle; said sharp edges of said pawls being located, when the device is idle, on a transverse plane located slightly rearwards toward the rear face of the body relative to the transverse plane of the axis of said pawls; whereby said sharp edges abut the fuse when said cavity receives said fuse and said projectile, and grippingly wedge against said fuse when said body is removed by traction from the tube.

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2,770,989
WIRE CUTTING AND STRIPPING TOOL
Louis Bologna, Bronx, N. Y.
Application November 2, 1953, Serial No. 389,518
4 Claims. (Cl. 81—9.5)



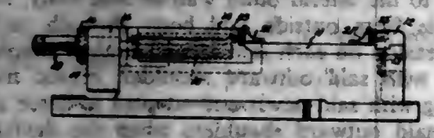
1. A cutting tool comprising a handle and a shaft downwardly extending therefrom, a first tubular cylinder rigid with said shaft, a second tubular cylinder telescopically disposed with respect to said first cylinder and supported thereby, coupling means between said cylinders providing limited relative vertical movement therebetween and simultaneous rotational movement, a pair of opposed apertures in one of said cylinders forming guide means for a wire passed therethrough, cutting means depending from the other said cylinder in juxtaposition to one of said apertures, the limited relative vertical movement of said cylinders providing corresponding limited relative movement between the cutting means and the juxtaposed aperture from an open aperture position to a closed aperture position, said handle providing vertical control over said limited relative vertical movement, and a substantially flat member in downward dependence from one said cylinder adapted to be placed in a stationary slot to prevent rotation of said tool and to provide support therefor.

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2,770,990
HOLD-DOWN VISE
Edward G. Rix, Wilmette, Ill., assignor to Stanley L. Shelter and Edward G. Rix, a copartnership doing business as Illinois Metal Products
Application July 13, 1955, Serial No. 521,733
7 Claims. (Cl. 81—38)

1. A vise for holding work on a work-supporting table of a machine tool, said vise comprising a pair of members movable inwardly toward and outwardly

away from each other, a pair of jaws, each having a work-engaging face, said jaws being pivotally mounted on respective ones of said members whereby each is freely pivotable inwardly and upwardly from an initial work-engaging position to a retracted position, the pivotal axes of said jaws being generally parallel to said work-supporting table and substantially above said work-engaging faces of said jaws when said jaws are in said initial work-engaging position, each of said jaws also being pivotable outwardly from said initial work-en-



gaging position to a full work-engaging position, spring means associated with said members, said spring means being arranged to resist movement of said jaw members from said initial work-engaging position to said full work-engaging position, means for preventing movement of said spring means beyond the position corresponding to the initial work-engaging position of said jaws, and a face on each of said members engageable by said jaws to prevent outward movement of said jaws beyond said full work-engaging position.

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2,770,991

**SPANNER WRENCH FOR CALKS**

Robert E. Myers, Bangkok, Thailand

Application May 2, 1955, Serial No. 505,418

3 Claims. (Cl. 81—90)



1. A wrench for threadedly mounted calks, comprising, in combination, a spindle having a turning handle on one end portion and an integral enlarged cylindrical head on the other end portion, said head having a pair of diametrically opposite slots extending longitudinally of said spindle, like interchangeable I-shaped spanner dogs mounted one in each of said slots with the upright portion thereof in said slots and with transverse end portions of said dogs projecting in opposite directions and spaced from said head, said transverse end portions of said dogs being interchangeable, arcuate on the outer face, tapered on the outer end portions thereof and insertable in diametrically opposite openings in a convexo-concave calk, and a sleeve member threadedly and adjustably mounted on said spindle fitting over said head and retaining said spanner dogs in said slots, said wrench upon turning with said dogs in said calk openings adapted to seat and unseat said calks with said transverse end portions of said dogs between the calk body and sole bushing, locking said wrench in place.

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2,770,992

**COPYING DEVICE FOR EXECUTING ARCUATE CUTS IN A PLANE PASSING THROUGH THE AXIS OF REVOLUTION OF A SLIDE LATHE**

Francois Retornaz, Marseille, France

Application February 6, 1952, Serial No. 270,248

Claims priority, application France January 29, 1951

2 Claims. (Cl. 82—11)

1. A copying device for coupling to the usual tool holder of a lathe for constraining the tool to produce arcuate cuts in a work piece in the horizontal plane passing through the axis of revolution of a slide lathe, comprising a stationary bed plate adapted to be secured to the bed of the lathe, a first member carried by the bed plate and adapted to revolve thereon about an axis perpendicular to the axis of the lathe and passing through said last-mentioned axis, a second member revolvably and coaxially mounted on the first member, said second member being provided on its surface remote from the first member with a diametrical slideway, means for adjusting the relative angular position of the two members, a rule slidably carried in the slideway, a releasable clamping plate carried on the second member and adapted to



engage longitudinally along one edge of the rule parallel to its direction of movement to clamp the rule in fixed position in the slideway, a block adjustably carried by the rule and having a threaded bore the axis of which is parallel to the plane of the rule, a worm carried by the second member and engaged in said bore, said worm being rotatable with respect to the second member but prevented from axial movement with respect thereto, an upstanding spindle carried on the rule, and a link pivotably connecting the spindle to the usual tool holder to constrain the tool holder and tool, when actuated by the usual cross and axial feed means, to follow the movement of the spindle as determined by the position of the rule with respect to the axis of the lathe.

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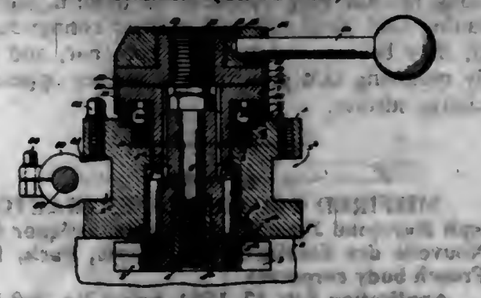
2,770,993

**TOOL SUPPORTING STRUCTURE**

Gordon L. Olson, Arlington, Mass.

Application March 25, 1953, Serial No. 344,568

2 Claims. (Cl. 82—36)



1. An improved tool support comprising a base presenting a center support extending upwardly therefrom and an intermediate portion of the center support provided with a cylindrical elongated splined surface, said base further having a turret seating surface constructed at the lower portion thereof, an indexing sleeve formed with a cylindrical splined internal surface which is secured in sliding relationship with the splined surface of the center support, said indexing sleeve having an upper annular gear portion forming a part thereof, a turret body rotatably mounted on the said seating surface and around the said indexing sleeve, a second annular indexing gear fixed to the turret body in a position to mesh with the said upper annular gear portion, spring means for moving said indexing sleeve and upper indexing plate out of engagement with the said lower indexing plate to provide for rotative indexing movement of the turret body while the latter member is retained in seated relationship upon the said seating surface, a cap member including an operating handle operatively connected with the upper end of the center support and adapted to move the upper and lower annular gear portions into engagement with one another.



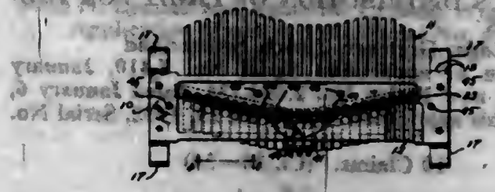
2,770,994

**MUSICAL INSTRUMENTS WITH CAPACITATIVE PICKUP**

Jacob T. Kunz, North Hills, Pa., assignor to Schulmerich Electronics, Incorporated, Sellersville, Pa., a corporation of Pennsylvania

Application September 21, 1951, Serial No. 247,585

5 Claims. (Cl. 84—1.14)



1. In an electric music instrument, the combination including an elongated supporting block having a plurality of fixed-free rods mounted at longitudinally spaced points on said block, a plurality of apertures therein at predetermined locations over the length of the block, striker mechanism for selectively striking said vibrators, electric pick-up means adjacent each of said rods, amplifying means connected to said pick-up means, loudspeaker means connected to said amplifying means, and means selectively placeable in said apertures for detuning undesired resonant vibrations in any part of said block to control tone interference patterns.

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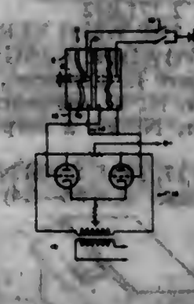
2,770,995

**WAVE FORM GENERATOR**

George R. Stibitz, Burlington, Vt.

Application July 14, 1952, Serial No. 298,669

10 Claims. (Cl. 84—1.28)



1. A tone generator comprising a sound track consisting of a thin layer of conducting material in the form of an elongated strip longitudinally divided to produce two laterally displaced track components of substantially equal areas, the differential lateral extent of said components varying along the track in accordance with a desired tone output, means for applying an electric field to a discrete portion of said track laterally coextensive with said track, means for producing relative longitudinal motion between said track and said electric field, and a differential push-pull amplifier having two 180° out-of-phase circuit elements one of which is connected to each said track component in hum-balancing arrangement, whereby hum picked up by the total respective areas of said track components is balanced out, and the amplifier output is a function only of the differential variation in the laterally displaced areas of said discrete portion due to said relative motion.

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2,770,996

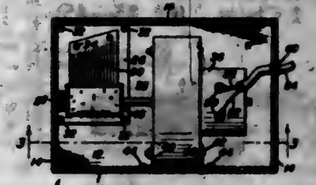
**ELECTRICALLY DRIVEN MUSIC BOX**

Barbara A. Brodie, Las Cruces, N. Mex.

Application March 19, 1954, Serial No. 417,248

1 Claim. (Cl. 84—99)

An electrically driven music box comprising a housing having an open top, a cover pivotally mounted on said housing for selectively closing the same, a frame mounted in said housing, a plurality of musical projections mounted on said frame, a pin roll disposed within said housing and engageable with said projections, an electric



motor mounted in said housing, said electric motor having a driving shaft extending therefrom, said pin roll being fixedly secured to said drive shaft for rotation therewith.

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2,770,997

**THREAD ARRANGEMENT FOR ENGAGED MALE AND FEMALE MEMBERS HAVING DIFFERENT COEFFICIENTS OF THERMAL EXPANSION**

Alfred J. Hansen, Milwaukee, Wis., now by change of name John A. Hansen, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application January 16, 1952, Serial No. 266,682

5 Claims. (Cl. 85—1)



1. A separable rigid structure including rigid frangible and rigid infrangible portions effectively combined for eliminating destructive stresses on said frangible portion throughout a wide temperature range, said structure comprising a female portion having a threaded section, a male portion having an enlargement at one end thereof and a complementary threaded section threadingly engaged with said female section, said male and female threaded sections respectively presenting helical first surfaces sloping radially inward and being axially inclined toward said enlargement, said first surfaces having parts clampingly interengaged at a substantially uniform clamping pressure throughout said temperature range, said male and female threaded sections also respectively presenting helical second surfaces sloping radially outward and being axially inclined away from said enlargement, said second surfaces being spaced radial and axial distances from each other when said parts of said first surfaces are clampingly interengaged at the lower end of said temperature range, said radial and axial distances being respectively equal to at least the difference between the radial and axial expansions of said threadingly engaged sections of said male and female portions within said temperature range, and a rigid intermediate portion disposed between said enlargement on said male portion and said threadingly engaged section of said female portion, said intermediate portion having substantially the same thermal coefficient of expansion as said thermal coefficient of expansion of said female portion and presenting an inner surface radially spaced from the opposed surface of said male portion, said intermediate portion further having an axial length substantially equal to the maximum radius of said threaded section of said male portion multiplied by the tangent of the angle defined between a perpendicular to the longitudinal axis of said male threaded section measured in an axial plane and one of said helical surfaces of an individual thread of said male threaded section.

2,770,998
**TAMPER-PROOF SCREW HAVING FRUSTO-CONICAL HEAD WITH FLAT TOOL ENGAGING FACETS THEREON**
Robert F. Schwartz, New York, N. Y.
Application December 15, 1954, Serial No. 475,372
1 Claim. (Cl. 85—45)



A substantially tamper-proof screw, comprising a solid threaded shank with a solid conical head integrally formed thereon, said head being generally in the form of a frustum of a cone with a flat top and a flat base, said threaded shank projecting axially from said base, and three non-parallel flat facets formed on said conical side of the head immediately adjacent said base in equally spaced relation to each other and occupying a relatively small portion of the height of the head, said facets being disposed on planes which are parallel to the longitudinal axis of said threaded shank, said facets merging throughout their entire length with the conical side of the head of the screw, said conical side of the head of the screw being disposed at an angle of approximately 55 degrees to the base of the head.

2,770,999
**AFTER-IMAGE APPARATUS**
Harry J. Older, Landover, Md.
Application August 6, 1952, Serial No. 302,860
2 Claims. (Cl. 88—28)



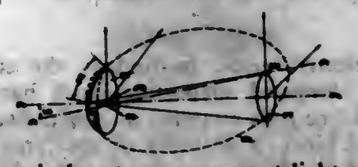
1. Apparatus for producing a predetermined and definitely intelligible visual after-image resulting from a continuation of receptor and neural processes after the discontinuance of a stimulus to the human eye, said apparatus comprising a pair of opaque panel areas having target openings for the penetration therethrough of light rays, a light source behind each of said opaque panel areas, said opaque panel areas being adjacently disposed whereby they may be successively viewed by an observer, the target openings in each of said opaque panel areas being arranged in a pattern which produces unintelligible indicia when said panels are viewed individually, but being so constructed with respect to each other that, when said panel areas are viewed in sequence, the target openings therein thereafter present an intelligible indicia due to said after-image effect.

2,771,000
**GREASE SPOT PHOTOMETER**
George D. Crookston, Cleveland Heights, Ohio
Application May 19, 1954, Serial No. 430,809
3 Claims. (Cl. 88—23)



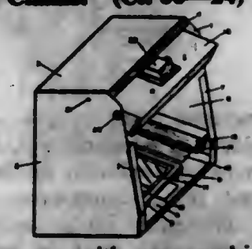
1. A portable photometer comprising a box with a window in the first of two opposite sides for admitting the light to be measured, an aperture in the second opposite side for observing the admitted light, a light source near one corner of the box adjacent the aperture, a light shield between the light source and the aperture, and a vertical partition in the box between the window and aperture comprising an indicator strip positioned opposite said corner and at an acute angle with the line of sight between the window and aperture.

2,771,001
**OPTICAL ILLUMINATION SYSTEM WITH HOMOGENEOUS DISTRIBUTION OF LIGHT FOR PROJECTORS**
Edgar Gretener, Zurich, Switzerland
Continuation of application Serial No. 5,410, January 30, 1948, now Patent No. 2,624,234, dated January 6, 1953. This application September 29, 1952, Serial No. 312,119
10 Claims. (Cl. 88—24)



1. In an optical system, a compact light source having a substantial area located substantially on the optical axis of the system, an area to be illuminated, a concave reflecting light condensing means having a surface formed by the revolution of a segment of a conic section having an eccentricity other than zero so positioned that the principal axis of the conic section is displaced from the axis of rotation of the system, said light condensing means having a focal area corresponding roughly to the light emitting area of said source and acting to direct the elementary light beams originating in said source and impinging on said reflecting surface toward said area to be illuminated to form overlapping circles of confusion yielding uniform high efficiency illumination.

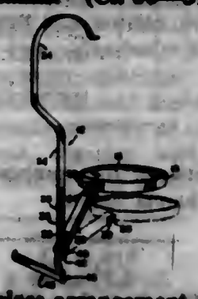
2,771,002
**APPARATUS FOR USE WITH XEROGRAPHIC X-RAY POWDER IMAGES**
Clyde R. Maye, Herbert E. Crumrine, and Joseph F. Rosenthal, Rochester, N. Y., assignors to The Haloid Company, Rochester, N. Y., a corporation of New York
Application June 17, 1954, Serial No. 437,526
3 Claims. (Cl. 88—24)



1. Apparatus for use with xerographic X-ray powder images comprising a cabinet having top, bottom, side and rear walls, said walls preventing external light from entering the cabinet and being reflected from the plate, xerographic plate-supporting means located above said bottom wall, lighting means consisting of tubular lamps arranged slightly above said plate-supporting means in spaced parallel relation to the side edges thereof and between said side walls and a central vertical plane parallel thereto, light shields located over said lamps in proximity and parallel relation thereto and extending from the side walls downwardly toward said plate-supporting means acting to direct light onto a xerographic plate and powder image on said plate-supporting means in a direction at a slight angle to the plate thereby preventing light from being reflected away from the plate in a direction perpendicular thereto, a camera located above the plate-supporting means with its longitudinal axis in the aforesaid vertical plane and perpendicular to the plane of said plate, a camera support movable from an inoperative position at the upper rear portion of the cabinet to an operative position at the upper front portion of the cabinet, and a curtain mounted on said camera support and positionable in the opening at the front of the cabinet when the camera is in operative position.

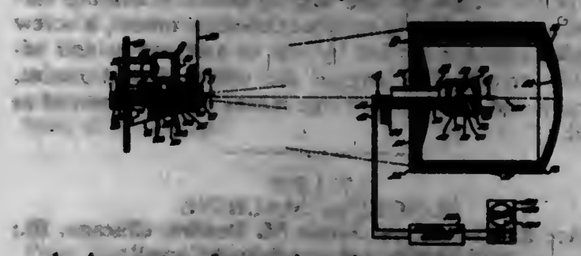


2,771,003
**MAGNIFYING GLASS ARRANGEMENT**
John N. Lyndall and Agnes M. Lyndall, Wyoming, Del.
Application March 4, 1954, Serial No. 414,158
5 Claims. (Cl. 88—39)



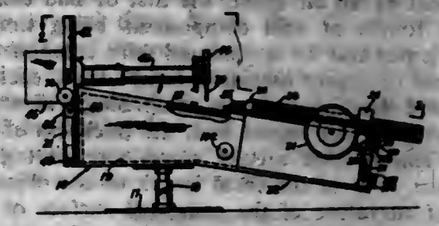
1. A magnifying glass arrangement, comprising, structure including an arm having one end thereof shaped to fit the general contour of the neck of a user, the other end of said arm having a slot provided therein along its longitudinal direction, slidably mounted supporting means in said slot, a magnifying glass, a second arm including structure for adjustably mounting said magnifying glass at one end thereof, with the other end of said second arm being pivotally mounted to said slidably mounted supporting means, a support bar having one end thereof pivotally mounted to said slidably mounted supporting means and so shaped that the other end thereof rests against the body of the user to properly space said magnifying glass to inhibit lateral movement thereof.

2,771,004
**APPARATUS FOR AND METHOD OF TESTING A PROJECTION OPTICAL SYSTEM**
Lawrence T. Sachtleben, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 29, 1953, Serial No. 351,983
13 Claims. (Cl. 88—56)



1. Apparatus for testing the quality of an axially aligned optical system adapted to project an image at its focal surface onto an image surface, said apparatus comprising an opaque plate, means to mount said plate in said focal surface, said plate being formed with a plurality of transparent slits, photoelectric means adjustably mounted on said mounting means in a position to receive light from said image surface, through said optical system, and through a selected one of said slits, a hollow drum formed with a plurality of parallel slots in its periphery, means to mount and to rotate said drum so that each slot passes through selected portions of said image surface when each of said slots is at its nearest distance to said optical system, a light source extending within said drum, means to project light from said source through said slots, through said optical system, and through said selected one of said slits, signal indicating means, and means to couple said photoelectric means to said indicating means, whereby to display the signal response of said photoelectric means to the light projected through said selected one of said slits.

2,771,005
**LENS-MEASURING APPARATUS**
Weldon R. Cozzell, Ellensburg, Wash.
Application October 4, 1955, Serial No. 538,337
3 Claims. (Cl. 88—56)

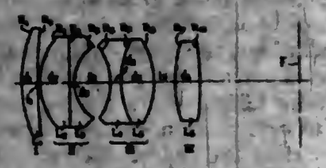


1. A lens-measuring apparatus comprising a base, a standard rising from said base, a horizontally-disposed platform supported intermediate its ends on said standard for rotational movement about said standard as an axis, a pedestal rising from said platform adjacent one end thereof, said platform having the portion between said standard and the other end thereof sloping in a direction upwardly from the other end, a focusing tube positioned above said platform sloping portion and extending parallel to said portion, means carried by said platform and supporting the end of said tube adjacent said standard for rocking movement about a horizontal axis parallel to said platform sloping portion, means carried by said platform and supporting said tube intermediate its ends for limited swinging back and forth horizontal movement and up and down vertical movement about said horizontal axis, a viewing and measuring screen spaced above and connected in communication with the interior of said tube intermediate its ends and extending parallel to said tube, a projecting mirror fixedly mounted in said tube for cooperation with said screen, a lens system mounted in said tube between said one end and said mirror, said system including a lens mounted in said tube for movement toward and away from said mirror, a pair of upstanding side walls rising from said platform inwardly of said pedestal, the upper edges of said walls sloping in a direction upwardly complemental to the sloping direction of said platform portion and being spaced below said tube, a light-projecting assembly including an upstanding casing, a horizontally-disposed tunnel member positioned so as to project from the front face of said casing and having one end connected in communication with said front face, and a light-projecting source connected in communication with the back face of said casing positioned so that the tunnel member extends horizontally over and spaced above the sloping upper edges of said walls, said assembly being connected to said pedestal for movement of the assembly from the position in which the tunnel member is horizontally above and spaced from the upper edges of said side walls to a position in which the tunnel member is in the space above the upper edges of said side walls with its other end in alignment with said one end of said tube, cooperating means carried by said side walls and said tunnel member for releasably holding the tunnel member in its end aligned position, support means inwardly of and adjacent said axis and carried by said platform for receiving a lens to be measured, and a lens carrying an astigmatic chart positioned in said casing and movable into position bridging said tunnel member adjacent said one end of the latter.

2,771,006
**HIGHLY CORRECTED PHOTOGRAPHIC OBJECTIVES COMPRISING FOUR AXIALLY AIR SPACED COMPONENTS**
Arnold Werfeli, Yverdon, Switzerland, assignor to Paillard S. A., Sainte-Croix, Switzerland, a corporation of Switzerland
Application April 12, 1955, Serial No. 500,937
Claims priority, application Switzerland May 5, 1954
3 Claims. (Cl. 88—57)

1. A photographic objective of high luminosity cor-

rected for spherical and chromatic aberrations, coma, astigmatism, distortion, and field curvature, comprising, in combination, four components in axial alignment, each of said components being separated from its adjacent component by an air space, the first of said components and the fourth of said components being simple convergent lenses and the second and third components being compound divergent meniscus components, each of said second and third components comprising a divergent lens cemented to a convergent lens, the thickness of the convergent lens of said second component having a value of at least 18% of the focal length of the objective, the radius of curvature of the cemented surface of the said second component having an absolute value greater than twelve times the focal length of the objective, the radius of curvature of the cemented surface of the third com-



ponent having an absolute value between 55% and 75% of the focal length of the objective, the index of refraction of the divergent lens of the said third component being greater than the index of refraction of the convergent lens of said third component, the index of refraction of said convergent lens of said third component being at least equal to the index of refraction of the said fourth component, the index of refraction of said fourth component having a value greater than 1.70, the arithmetical average of the indices of refraction of said fourth component and of the divergent lens and convergent lens of said third component having a value of at least 1.72, whereby the spherical aberration is remarkably well corrected and does not exceed 0.1% of the focal length for a relative aperture of the objective having an equivalent focal length of at least 1.3.

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**2,771,007**

**OBJECTIVES COMPRISING TWO OUTER POSITIVE DOUBLETS ENCLOSING A MIDDLE NEGATIVE COMPONENT FOR AERIAL PHOTOGRAPHY**

James G. Baker, Winchester, Mass., assignor to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York

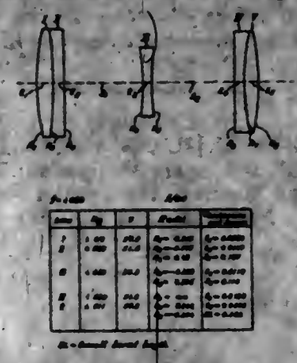
Application January 15, 1953, Serial No. 331,349
2 Claims. (Cl. 88—57)

1. A lens having numerical data substantially as follows:

$f/=1.000 \quad f/6.0$

| Lens | $N_D$ | V | Radii | Thicknesses and Spaces |
|---|---|---|---|---|
| I | 1.611 | 57.2 | $R_1=0.315$ | $t_1=0.0629$ |
| | | | $R_2=-0.819$ | $t_2=0.0147$ |
| | | | $R_3=2.40$ | $S_1=0.107$ |
| II | 1.589 | 61.6 | $R_4=0.285$ | $t_3=0.0110$ |
| | | | $R_5=0.265$ | $S_2=0.114$ |
| III | 1.639 | 38.2 | $R_6=\infty$ | $t_4=0.0139$ |
| | | | $R_7=0.202$ | $t_5=0.0399$ |
| IV | 1.589 | 61.6 | $R_8=-0.304$ | $BL=0.262$ |
| V | 1.611 | 57.2 | | |

in which $R_1$, $R_2$, . . . represent radii of surfaces beginning at the left, $t_1$, $t_2$, . . . represent the axial thicknesses of the individual elements, $S_1$ and $S_2$ represent the axial



air separations between the components, and BL represents the overall barrel length.

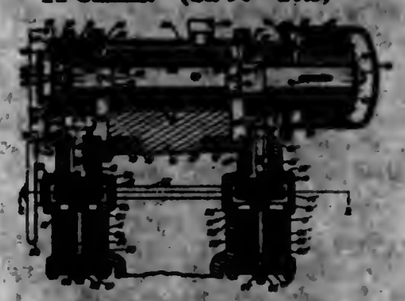
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**2,771,008**

**MILLING MACHINES**

William F. Huck, Forest Hills, N. Y., assignor to Huck Co., New York, N. Y., a partnership of New York

Original application January 25, 1949, Serial No. 72,631, now Patent No. 2,658,424, dated February 10, 1953. Divided and this application November 6, 1952, Serial No. 319,150
11 Claims. (Cl. 90—20.5)



1. In a milling machine especially adapted for machining the reverse side of a flat printing plate, a milling cutter, a bearing-shaft means for supporting at least a part of the weight of said milling cutter, a bearing cartridge means enclosing said bearing-shaft means, a screw threaded member carried by one of said means and adjustably arranged to engage the other of said means, whereby said bearing cartridge means can be removed as a unit.

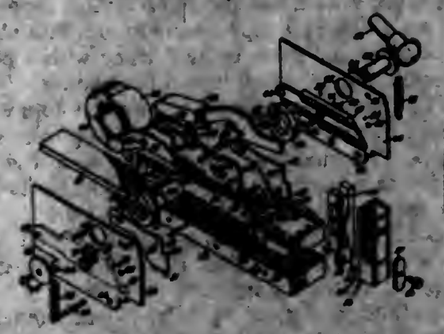
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**2,771,009**

**PUNCHING MACHINE**

Wallace E. Carroll and James M. Bowles, Chicago, Ill.; said Bowles assignor to said Carroll

Application June 3, 1952, Serial No. 291,444
15 Claims. (Cl. 93—1)



1. In a machine of the character described, comprising means mounting a rolled web of adhesive tape; means to advance said tape a pre-determined distance with respect to a severing means; said tape advancing means comprising a movable jaw adapted to grip said tape therebetween to unwind the same from said roll and advance the pre-determined portion to be severed, a tape hold-down jaw adapted to hold said advanced tape in position during severance and until said movable jaw returns to initial tape gripping position, and a tape wiper member adapted to remove said tape from said hold-down jaw when the same adheres thereto; severing means adapted to sever a pre-determined end portion of said tape; punching and compression means adapted to receive a sheet of paper and the pre-determined end portion of said tape in overlying relation, and to punch holes through said sheet and end portion of said tape, and to compress the same into adhesively fixed relation; and means adapted to actuate said tape advancing means, and said severing, punching and compression means, in order substantially simultaneously to sever said tape portion, punch the same, together with said paper, and adhesively to secure them to each other.



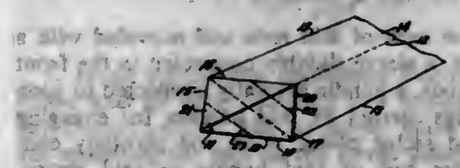
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**2,771,010**

**BAGMAKING**

Thomas E. Plarre, Mount Vernon, Ohio, assignor, by mesne assignments, to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application December 20, 1950, Serial No. 201,830
7 Claims. (Cl. 93—35)



6. A method of fabricating a bag from plain tubular material which is capable of having juxtaposed edges joined by a bead seam upon application of heat thereto, which method comprises transversely sealing with a bead seam one end of a length of said material, folding the length of material to bring the walls of the body thereof into flattened superimposed relation with the portions adjacent said bead seam being flattened into the plane of the flattened body portion by folding about a transverse line at right angles to said beam seal, dividing off triangular end portions of the bottom formation at opposite ends of said bead seam along spaced parallel lines extending at right angles to said bead seam, and providing bottom edge portions along said last mentioned lines whereby when said bag is opened up the bottom edges are in the form of a rectangle.

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**2,771,011**

**BLANK COUNTING MECHANISM**

Peter Zernov, Milwaukee, Wis., assignor to Mercury Engineering Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application September 21, 1953, Serial No. 381,355
5 Claims. (Cl. 93—93)



4. In a carton blank forming apparatus, the combination of an endless delivery conveyor for finished blanks, means for continuously driving said conveyor to advance the finished blanks along the same including a continuously rotating feed roll and an overrunning clutch, a settable predetermined number type counter, means for driving said counter, an angularly movable member, a one way clutch connection between said member and the shaft for said roll, a reciprocatory member, a link operatively connecting said reciprocatory member with said angularly movable member, a separate power source for said reciprocatory member to effect movement of said link, angular member and clutch to move said feed roll at a rate several times faster than the normal movement of said roll by said drive means and in the same direction to speed up the movement of said roll to produce a separation of blanks on said conveyor into readily separated batches, and means controlled by said counter to control said separate power source to provide batches of blanks of predetermined number.

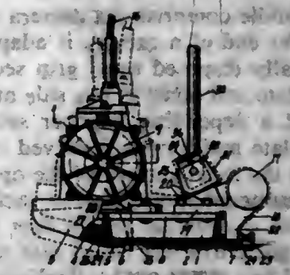
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**2,771,012**

**COMPACTOR FOR ASPHALTIC AND OTHER COMPACTABLE MATERIALS**

Corwill Jackson, Ludington, Mich., assignor to Jackson Vibrators, Inc., Ludington, Mich.

Application April 6, 1953, Serial No. 346,887
8 Claims. (Cl. 94—48)



1. In a machine of the class described, the combination of a vibratory shoe including a flat rear portion and a flat horizontally disposed front impact portion, the rear end of the impact portion being offset downwardly relative to the front end of the flat rear portion to provide a rearwardly facing shoulder extending transversely across the shoe in substantially spaced relation to its rear edge, vibratory means comprising an electric motor supportedly mounted on the shoe and having an unbalanced rotor disposed with its axis transversely of the shoe and in approximately the vertical plane of the front edge of said impact portion, said shoe having a plurality of openings therein adjacent the rear edge of its said impact portion positioned to discharge air forced therethrough by the vibratory movement of the shoe relative to the material treated against the motor to constitute a cooling medium therefor, and weighting means supportedly mounted on said shoe with its center of gravity substantially rearwardly of the rear end of the shoe.

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**2,771,013**

**STEREOSCOPIC CAMERA**

Gifford M. Mast, Davenport, Iowa, assignor to Mast Development Company, Inc., Davenport, Iowa, a corporation of Iowa

Application November 30, 1953, Serial No. 395,015
3 Claims. (Cl. 95—18)

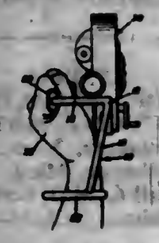


1. In a stereoscopic camera, a casing, a pair of lenses carried thereby in relatively fixed interocular spacing, a film carrier including a forwardly extending section lying between the axes of said lenses, means guiding a film around said section, shield means forming a pair of film apertures carried by the film carrier and lying closely adjacent the film at opposite sides of said forwardly extending carrier section, means lying behind said lenses and reflecting the images formed by the respective lenses upon

the film behind said film apertures, and means for moving the film carrier and shield means in a direction substantially parallel to said forwardly extending carrier section to move the film and film apertures relative to the reflected axes of the pair of lenses.

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2,771,014
CAMERA HANDLE
John M. Telcher, Denver, Colo.
Application July 21, 1953, Serial No. 369,491
3 Claims. (Cl. 95—86)



1. A camera handle comprising a camera support plate on which the lower end of a camera is adapted to be secured, a horizontally disposed hand grip secured to said camera support plate and offset at one side of said camera support plate and a depending member secured to said camera support plate and having a curved lower portion adapted to engage the inner surface of the operator's forearm to steady the camera handle.

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2,771,015
FILM DEVELOPING DEVICE
William J. Hall, Fort Worth, Tex.
Application February 19, 1954, Serial No. 411,455
3 Claims. (Cl. 95—90.5)



3. A film supporting device for use in a daylight developing tank comprising a generally circular box having an outer upstanding peripheral wall, an upstanding spiral rib similar in height to said outer peripheral wall and rigidly secured to the bottom wall of said box, said rib being substantially concentric with the box and having a substantial number of spiral turns spaced from each other to receive a strip of film to be developed and to support said strip between the turns, said bottom wall being apertured at its central and at its outer portions to allow developing liquid to enter the box, the surface of the bottom wall being arcuately curved upwardly from the lower end of one turn of the spiral rib to the lower end of the next adjacent turn to engage the bottom edge of the film strip and to prevent contact of the emulsion surface of the film strip with the surface of said next adjacent turn of the spiral rib, a circular cover engaged on the top rim of said box, said cover having a depending peripheral flange frictionally engaging over the top portion of said outer wall, said cover having a central aperture, and a handle member loosely secured in said last-named aperture.

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2,771,016
CULTIVATOR ATTACHMENT FOR TRACTORS
Jerome Fillip, Ammansville, Tex.
Application August 5, 1954, Serial No. 447,968
1 Claim. (Cl. 97—47.34)

In combination, a tractor including a body, front wheels and rear wheels, a horizontally disposed mounting bar of cylindrical shape positioned rearwardly of said tractor and provided with a plurality of apertured ears, said ears being arranged in pairs, a yoke extending upwardly from said mounting bar and including a pair of angularly arranged legs, a lever having one end pivotally connected to said legs and its other end connected to said tractor body, a plurality of vertically disposed posts depending from said mounting bar, support members secured to the lower ends of said posts and adapted to support earth working implements, hydraulically actuated links connected to the tractor body, a pair of angularly arranged arms pivotally connected to the ears on said mounting bar, and pivotally connected to said tractor body, fingers extending between said links and said arms, a pin extending transversely with respect to each of said links, a pair of rods arranged on opposite sides of the tractor body and pivotally connected to said pins, a sector

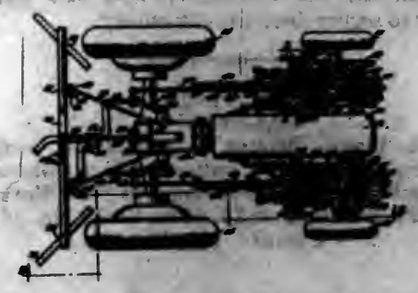
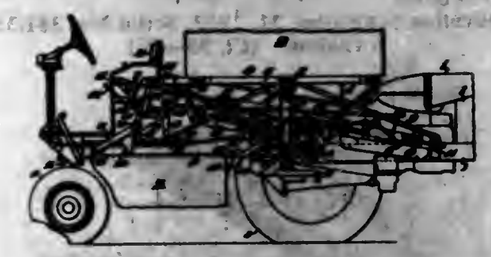


plate mounted on each of said rods and provided with a plurality of teeth, a sleeve slidably connected to the front of each of said rods, a handle pivotally connected to each of said rods, dogs carried by said handles for engaging the teeth of said sector plates, a tie rod pivotally connecting the lower end of said handle to said sleeve, brackets pivotally connected to the front of said sleeves, a base pivotally connected to the lower end of each of said brackets and said bases being secured to the tractor, a standard connected to each base, a strap secured to the lower end of each standard, an angle bar adjustably connected to each strap, a collar positioned below each angle bar, a substantially U-shaped body member having a web portion pivotally mounted in each collar and including rearwardly extending spaced apart fingers, lift rods extending from said brackets to said fingers, and earth working implements connected to said fingers.

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2,771,017
IMPLEMENT SUSPENSION FOR AGRICULTURAL MACHINES
Rector C. Ferguson, Gadsden, Ala., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Original application September 10, 1949, Serial No. 114,969. Divided and this application March 4, 1954, Serial No. 414,015
2 Claims. (Cl. 97—47.64)



1. A suspension system for agricultural implements comprising, in combination, a mobile support, an implement unit, means connecting said implement unit in guided vertically movable relation to said support, said means including a link member pivotally connected at one end with said implement unit, pivot means connecting said link at its other end with said support for swinging movement relative thereto about a fixed pivot center, an actuating rocker member pivotally mounted on said support on an axis in spaced relation to said fixed pivot center, a cam element rigidly connected with one of said members, a cam follower element connected with the other of said members and engageable with said cam element, and a counterbalancing spring operatively interposed between said actuating rocker and said support so as to bias said link for swinging movement about said fixed pivot center in implement raising direction.



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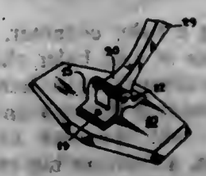
2,771,018
SPRING MOUNTED TOOL SHANK
Karl Martin Zahn, Stockton, Calif., assignor to International Harvester Company, a corporation of New Jersey
Application August 17, 1953, Serial No. 374,611
2 Claims. (Cl. 97—47.24)



1. In an agricultural implement including a transverse frame and an earth working tool having a lower earth penetrating portion and an upper shank portion, means for mounting the tool on the frame comprising a channel member removably secured to the upper end of the shank including depending flanges straddling the shank and extending beyond the upper end thereof to resist lateral movement of the shank relative thereto and provided with transversely aligned apertures, a pivot pin received in said apertures, a bracket affixed to the frame including spaced lugs adapted to straddle said channel and pivotally mounted on said pin, a second pivot pin mounted in said channel spaced from the first mentioned pin longitudinally of the shank, a spring pressure device connecting said second pin to the frame, said spring pressure device comprising a rod pivotally connected at one end to the second pin and said frame having an opening to slidably receive the rod, and a spring surrounding the rod and operatively engageable with the frame to yieldably resist pivoting of the channel and tool relative to the frame.

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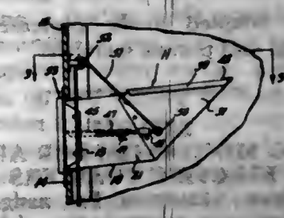
2,771,019
WEEDING HOE
Frederick H. Zeitz, Lubbock, Tex., assignor of one-half to John D. Smith, Jr., Lubbock, Tex.
Application November 22, 1954, Serial No. 470,179
2 Claims. (Cl. 97—68)



2. A weeding hoe comprising a relatively flat elongated blade tapering from its center toward its ends, a clevis having a webbed portion mounted on said blade adjacent the central portion thereof with the web of the clevis being relatively thin but of sufficient strength to rigidify the blade, said clevis having a longitudinal slot through its central portion providing a passageway for dirt, said clevis including a pair of upstanding arms providing a handle-receiving recess therebetween with the handle-receiving recess communicating with said slot to provide for the disposal of dirt accumulating therein, a handle having a head for snug reception within said handle receiving recess, means to pivot said head to the arms of said clevis for limited oscillating movement whereby the angle between said blade and said handle may be changed in accordance with the direction of force applied by said handle on said blade, cooperating stop means on said clevis and said head to limit the extent of oscillation of the blade with respect to said head, said stop means being in close juxtaposition to said slot whereby dirt cannot accumulate to interfere with the movement between said handle and said blade.

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2,771,020
VENTILATOR
Peter T. Shanahan, Jamaica, N. Y.
Application December 6, 1955, Serial No. 551,381
1 Claim. (Cl. 98—37)



In a building, a ventilator comprising a frame mounted in a vertical wall of the building, a duct rigidly secured at one end in said frame and extending into the building, said duct being inclined upwardly and inwardly at a relatively small angle, a channel member secured to the inner end of said duct, said channel member having a bottom wall inclined upwardly and away from the bottom wall of the duct at a relatively large angle and having side walls secured to the side walls of the duct, defining an upwardly opening outlet for the duct, horizontal shaft means rotatably mounted in the side walls of the duct, a damper plate elongated longer than the vertical height of said duct and transversely mounted on said shaft means, a lever member having one end fixedly secured to said shaft means externally of the duct in substantially the same plane as said damper plate, a counterweight adjustably mounted on said lever member, a stop member mounted on the side wall of the duct subjacent said lever member between the counterweight and said shaft means, limiting downward movement of the lever member to substantially a horizontal position thereof, a control cable secured to the free end of said lever member, and pulley means on the building wall above said frame, said cable passing over said pulley means, whereby said damper plate may be rotated to a substantially vertical position by exerting downward force on the control cable.

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2,771,021
DOOR WITH BUILT-IN DEODORIZER
James L. Buckley, Scarsdale, N. Y., assignor to Georgia-Pacific Plywood Company, Olympia, Wash., a corporation of Georgia
Application October 16, 1953, Serial No. 386,538
5 Claims. (Cl. 98—87)

4. A door unit having means for use in modifying odors between an area having unpleasant odors and another area, comprising a panel member having a substantially imperforate surface adapted to be presented toward said another area, a foraminous member supported in close spaced relation with said panel member and on the side thereof away from said imperforate surface and adapted to be presented toward said first mentioned area, means including a porous member for modifying the odor of said first mentioned area in the space between said panel member and said foraminous member, and means adjacent to said panel member and having

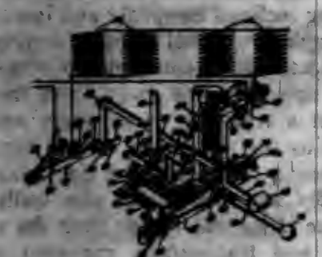
channels formed therein, said channels establishing communication between the atmosphere on the side of said



panel member adapted to be presented toward said another area and said porous member.

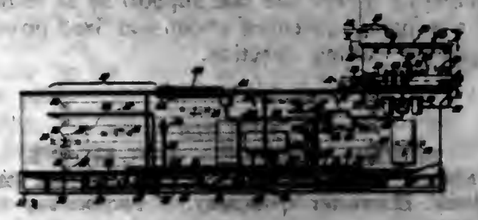
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2,771,022
**OPERATING MECHANISM FOR AUTOMATIC ELECTRIC TOASTERS**
Edwin S. Hollister, Allentown, Pa., assignor to General Electric Company, a corporation of New York
Application October 5, 1951, Serial No. 249,962
13 Claims. (Cl. 99—329)



3. In an automatic electric toaster having electric heating units, a carriage, means biasing the carriage to non-toasting position, means for moving the carriage from non-toasting to toasting position against the action of said biasing means and means for holding the carriage in toasting position, timing means for releasing said holding means to permit the carriage to return to non-toasting position comprising a bimetallic element, means supporting the bimetallic element at one end about which it turns, the other end being free, a support for such free end, the bimetallic element being so arranged that when heated its free end tends to flex toward the support whereby the bimetallic element tends to bow in a direction away from such support, holding means positioned adjacent the central portion of said bimetallic element and operatively connected to said moving means which after the bimetallic element has bowed a certain amount engages it to hold it against return movement whereby upon cooling its free end flexes in a direction away from its support, heating means for the bimetallic element, a switch which closes a circuit through said heating means, means operated by the bowing of said bimetallic element to effect opening of said switch and the movement of said bimetallic element holding means into engagement with the bimetallic element, means actuated by the free end of said bimetallic element when it flexes away from its support for actuating said carriage holding means to permit movement of the carriage from toasting to non-toasting position, and means actuated by movement of the carriage from toasting to non-toasting position for moving said bimetallic element holding means from engagement with the bimetallic element.

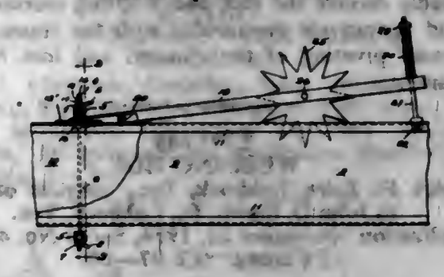
2,771,023
**APPARATUS FOR STERILIZATION OF CANNED FOODS**
Thomas J. Kearney, Detroit, Mich., assignor to Detrex Corporation, Detroit, Mich., a corporation of Michigan
Application July 25, 1950, Serial No. 175,728
11 Claims. (Cl. 99—330)



1. In apparatus for sterilizing food in sealed containers with heated heavier than air mixed chlorinated hydrocarbon vapors; an enclosed elongated chamber having an upwardly extending throat at the top at one end, at least one well in the bottom of the chamber for receiving a mixture of said chlorinated hydrocarbons, means for feeding the hydrocarbons to the well and means for heating and vaporizing the hydrocarbons, condensing means extending around the inner periphery of the throat wall between the top and bottom thereof, a similarly arranged trough for hydrocarbon condensate below the condenser and arranged to catch the condensate from the condenser and throat wall, means for supplying cooling fluid to the condenser, a water separator; means for conducting the condensate from the trough to the separator, a distributing sump and means for conducting the hydrocarbon liquid from the separator to the sump and from the sump to the well; an endless food conveyor passing downwardly through the throat opening, travelling back and forth through the chamber in a circuitous path and emerging through the throat opening, means for operating the conveyor, and conveyor carried means for transporting sealed food containers through the chamber.

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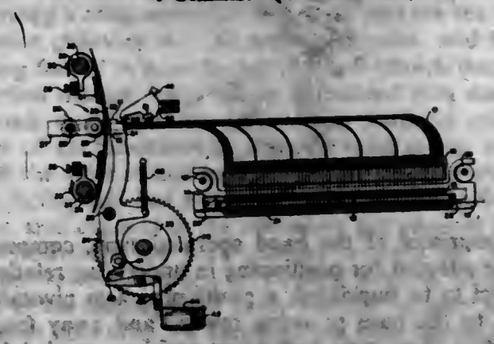
2,771,024
**TENSIONING ADJUSTING DEVICE FOR THE BALING CHAMBERS OF BALING PRESSES**
Walter Maxwell, Marshfield, Wis., assignor of one-half to Glenn W. Maxwell, Marshfield, Wis.
Application April 15, 1954, Serial No. 423,337
1 Claim. (Cl. 100—43)



A baler comprising a baler chamber, movable tension rails forming the sides of said baler chamber, a tension rail adjusting device comprising a horizontal adjusting bar, a pivot bolt extending through an end of said adjusting bar whereby said bar may have both pivotal and sliding movement, a fulcrum lug extending laterally from said adjusting bar adjacent to the pivoted end thereof, said fulcrum lug having pressure engagement with the tension rail at one side of the baler chamber, a yieldable member connecting the other end of the adjusting bar to said baler and a star wheel mounted on said adjusting bar, extending into the baling chamber adapted to contact material moving through the baling chamber effecting lateral movement of the adjusting bar and tension rail, increasing or decreasing the baling area of said baling chamber.



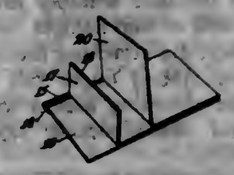
2,771,025
**PRINT IMPRESSION MECHANISM**
Harold J. Kleiner and Otto F. Menneggie, Endicott, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 2, 1953, Serial No. 389,621
4 Claims. (Cl. 101—93)



1. A print impression mechanism of the class described in a cyclically operable printer for printing characters on a record sheet comprising a movable printer head having a cluster of loosely held print elements arranged so that the ends thereof define a character pattern at a printing face, a movable platen, means for moving said printer head towards and away from said platen once each printer cycle at a rate of speed insufficient to provide value of printing stroke energy which is sufficient to effect good quality printing, and means for simultaneously therewith moving said platen towards and away from said printer head a plurality of times each printer cycle at a rate of speed insufficient to provide a value of printing stroke energy which is sufficient to effect good quality printing, said moving means effectively moving said printer head and said platen simultaneously into a common printing zone once each printer cycle to cause said loosely held print elements and said platen to simultaneously engage the record sheet positioned in the printing zone between the printing face of said printer head and said platen, whereby the ends of said loosely held print elements are aligned by the impact of the aforesaid engagement in a common printing plane at a value of printing stroke energy which is sufficient to effect a good quality print impression of said character pattern on the record sheet.

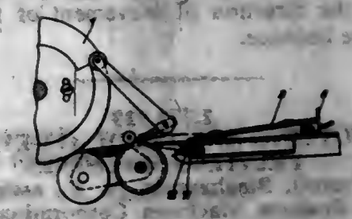
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2,771,026
**STENCIL ASSEMBLY**
Lawrence R. Mooney, St. Paul, Minn.
Application February 6, 1950, Serial No. 142,565
3 Claims. (Cl. 101—128.2)



1. A stencil assembly comprising a relatively narrow securing strip having a non-drying pressure sensitive adhesive coating of a type to permit the same to be removably adhered to another sheet, a stencil sheet affixed along one marginal edge portion to only a portion of said adhesively coated strip, a separate carbon sheet affixed along one marginal edge portion to only a part of the remaining exposed adhesive coating on the bottom side of said strip to leave a portion of the underlying coating exposed for removable attachment to a selected part of a larger sheet whereby cutting of the stencil will produce a similar carbon impression on said larger sheet and thereafter said stencil may be removed to be further used in a duplicating operation.

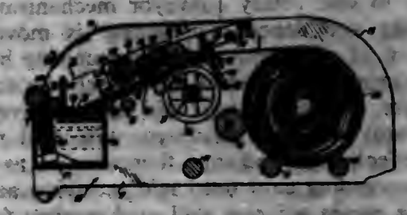
2,771,027
**SHEET FEEDING AND BUCKLING DEVICE FOR ROTARY DUPLICATORS**
Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany
Application January 21, 1953, Serial No. 332,431
3 Claims. (Cl. 101—132)



1. For use with a printing machine, a sheet feeding arrangement, comprising, in combination, supporting means; transporting roller means located adjacent said supporting means; a feeding table mounted on said supporting means movable in one direction toward and away from said transporting roller means; a plurality of first abutment means on said feeding table spaced from each other in a direction transverse to said one direction, each of said first abutment means extending in said one direction and adapted to engage the lateral edge of one sheet of a pile of sheets which partly overlap each other in said transverse direction; an adjustable stop means on said supporting means engaging and blocking said feeding table spaced a predetermined distance from said transporting roller means in a position in which said transporting roller means are adapted to engage and stop one transverse edge of each of said sheets so as to form a bulge in said sheets; and second abutment means secured to said feeding table projecting from the same, extending transverse to said one direction and adapted to engage the other transverse edges of said sheets so as to prevent sliding of said sheets in said one direction off said feeding table and to provide endwise pressure on said sheets during formation of the bulge.

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2,771,028
**TAPE DISPENSING AND PRINTING DEVICE**
Charles P. Taylor, Belleville, Ill., assignor to Ideal Stencil Machine Company, Belleville, Ill., a corporation of Illinois
Application September 29, 1952, Serial No. 312,057
13 Claims. (Cl. 101—227)

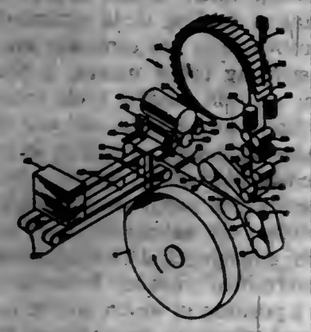


1. In a tape dispensing and printing device, a frame having formed therein a holder for a supply roll of the tape, feed rolls between which the tape is movable, a tape chute beyond the feed rolls in the direction of movement of the tape toward a dispensing region, the tape chute including a channel member and a weight-plate lying adjacent to the channel member in spaced relation, the plate extending rearwardly of at least one of the feed rolls and having an aperture through which said one feed roll may extend to engage the tape, the weight plate being provided with a second aperture, a printing device carried entirely by and above the weight plate and including a type-bearing roll adapted to extend through the second said aperture of the weight plate into engagement with the tape as same passes through the tape chute, the printing device including an inking

element normally engaging the type-bearing roll, and spring means operatively connecting said type roll and said inking element so as to urge said type roll and said inking element into mutual engagement, and to bias the type roll depthwise of said second aperture, means for actuating at least one of the feed rolls, and a tape severance knife located beyond the weight plate and printing device, in the direction of movement of the tape to a zone of tape issuance.

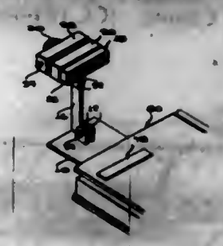
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2,771,629
**WEB CUTTING AND FEEDING DEVICE FOR PRINTING MACHINES**
Fred M. Carroll, Binghamton, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application April 30, 1952, Serial No. 285,134
3 Claims. (Cl. 101—227)



1. In a machine for forming record cards from a web having means for printing successive impressions on one face of the web, and means for cutting the web into separate cards, each bearing a single impression; the combination of a card receiver having a receiving bed and a pivotally mounted card stripping and depressing element arranged to be oscillatable over said receiving bed; a continuously operating rotary conveying mechanism for gripping one edge of a card after being cut and, during turning, correspondingly turning the card into position for reception by said receiver, said receiving bed thereof arranged in the plane of rotation of said conveyor mechanism so that each card gripped thereby is moved directly into said card receiver; means for oscillating said card stripping and depressing element in a timed relationship to said rotary conveyor mechanism so that said stripping and depressing element is moved away from and out of alignment with said receiving bed to be ineffective during the period of movement of a card from said conveyor mechanism into said card receiver and is moved towards and into alignment with said receiving bed to be effective immediately thereafter so as to position each succeeding card onto said receiving bed; a rotary printing means adjacent said card receiver for printing impressions on the reverse face of each succeeding card; card feeding means including reciprocable card pushers for acting upon the trailing edge of a card in said card receiver so as to advance the card from said card receiver to said rotary printing means; means for rendering said card feeding means operative in a timed relationship to said rotary conveyor mechanism so that a card is pushed from said card receiver during the period that said stripping and depressing element is effective to position the card onto said receiving bed; means for normally maintaining said pushers above the surface of said receiving bed; and means for moving said pushers below the surface of said receiving bed during the period said card stripping and depressing element is ineffective to position a card on the card receiving bed, to thereby permit a next following card to be moved from said rotary conveyor mechanism onto said receiving bed.

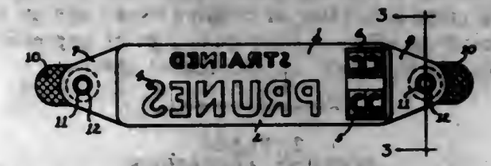
2,771,630
**DEVICE FOR PRINTING AND CUTTING CHARACTERS**
David B. Jones, Athens, Ohio
Application October 17, 1952, Serial No. 315,364
7 Claims. (Cl. 101—298)



1. An imprinter of the hand operated type, comprising: a base adapted for positioning in underlying relation to an object to be imprinted; a positioning arm pivotally connected to the base to swing toward and away from said object; a type case containing openings carried by said arm to swing therewith against said object, said type case providing cutting means defining the outline of a character to be formed; a series of type cores secured together for simultaneous movement relative to said case, having reduced ends received in said openings, slidably carried within the case and having imprinting faces adapted to be projected beyond said case and forced into said object on swinging movement of the case thereagainst; deformable resilient material supporting said cores in retracted positions relative to said case; and means interengaging between the case and said cores to hold the same assembled with one another; said cutting means and cores being adapted to engage said object in sequence.

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2,771,631
**SNAP-ON RADIAL MOUNTED PRINTED DIE**
Rudolph W. Knapp, Chicago, Ill., assignor to The Premier Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 25, 1953, Serial No. 338,803
3 Claims. (Cl. 101—415.1)




1. A flexible printing die comprising a flexible inelastic rubber base, a flexible stiffener member secured to said rubber base, printing characters on said rubber base above said flexible inelastic stiffener member, an elastic ear on at least one end of said flexible rubber base beyond said stiffener member, die attaching means carried by said ear, and a separate ribbed finger tab attached to said ear beyond said die attaching means to stretch said ear for connecting and disconnecting said die attaching means.

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2,771,632
**MATERIAL BREAKING SAFETY CARTRIDGE**
Oscar L. Callahan, West Frankfort, Ill., assignor to Cardox Corporation, Chicago, Ill., a corporation of Illinois
Application February 23, 1951, Serial No. 212,364
10 Claims. (Cl. 102—25)



1. In combination, a material breaking cartridge having a body formed of a chambered section, for receiving a compressed gas charge, and a discharge section connected end-to-end, means forming a valve seat between said body sections, said discharge section having lateral gas charge release ports and a control chamber, a main valve cooperating with said valve seat for controlling the release of the gas charge from the receiving section chamber to the release ports, means in the discharge section for forming a compressed gas flow path between the receiving section chamber and the control chamber, said flow path being forked to provide two separate branch ducts in one portion thereof, valve means associated with one of said branch ducts and adjusted to only partially restrict the flow of gas therethrough, separate valve means associated with the other of said branch ducts for opening and closing the latter, said last mentioned valve means having a surface area exposed to the maximum gas pressure to which said cartridge has been charged to hold the last mentioned valve means in a fully closed position during charging of the cartridge and being movable to open said other branch duct after the cartridge has been charged and the restricted flow of gas through said one branch duct has increased the pressure of the gas in said control chamber to one predetermined value relative to said maximum pressure, and differential pressure operated means, subjected to said maximum pressure and to the control chamber pressure, for moving the main valve off of its seat when the gas pressure built up in the control chamber reaches a second and higher predetermined value relative to said maximum gas pressure.



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**ERRATUM**

For Class 102—34 see:
Patent No. 2,771,212

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2,771,633
**VENTLESS DELAY ELECTRIC INITIATORS**
Idwal O. Lewis, Ardrowman, and Robert D. J. Owens, Saltcoats, Scotland, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain
Application August 22, 1952, Serial No. 305,906
Claims priority, application Great Britain November 22, 1951
3 Claims. (Cl. 102—28)



1. A ventless short delay electric detonator comprising an electrically actuated igniting charge, an initiating charge and an interposed short delay element enclosed in a ventless container essentially of copper wherein the said short delay element comprises a cut-off length of fuse comprising a flexible textile envelope around a core comprising a dry crumbly graphite-glazed nitrocellulose bonded granular mixture of silicon and red lead, said red lead being in amount of from about 65% to 95% by weight, the silicon in amount of from about 5% to 35% by weight, and the nitrocellulose in amount up to about 5% by weight of the red lead and silicon.

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2,771,634
**BLASTING CAP**
Thomas Gaynor Blake, Webster Groves, Mo., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application December 29, 1951, Serial No. 264,099
1 Claim. (Cl. 102—28)

An electric blasting cap having an ignition composition comprising lead ethylenediaminenitrate, a lead azide initiator charge, and a base charge selected from the group of



explosives consisting of cyclotrimethylenetrinitramine, trinitrotoluene, ethylenedinitramine, picric acid and tetryl.

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2,771,635
**PROPELLANT**
John D. Clark, Webster Groves, Mo., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application March 5, 1953, Serial No. 340,663
6 Claims. (Cl. 102—98)

6. A nitrocellulose base propellent powder grain having up to as much as about 5 percent potassium nitrate in discrete, particulate crystals of less than 30 microns along their major axis and bound to the surface of the propellent grain.

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2,771,636
**ROTARY PUMPS AND THE LIKE**
Guillermo Federico Benz, Buenos Aires, Argentina
Application January 19, 1955, Serial No. 482,815
4 Claims. (Cl. 103—90)



1. A device for lifting or compressing fluids, which comprises a casing having an inlet opening and an outlet opening; a first rotor mounted within said casing and provided with a plurality of blades adapted to move the fluid from said inlet opening towards said outlet opening; a second rotor mounted within said casing between said first rotor and said outlet opening, and provided with a plurality of blades extending in a direction opposite to that of the blades of the first rotor; a motor; and a mechanism for transmitting motion from said motor to said rotors in order to drive said first rotor in such a direction that the fluid is moved from said inlet towards said outlet and to drive said second rotor at the same speed as said first rotor but in an opposite direction, the pitch of the blades of said second rotor at the end adjacent the first rotor corresponding to the equation

$$a_2 = \frac{V_{a_2}}{n'_2 + n'_3}$$

wherein
$a_2$ is the pitch of said blades;
$V_{a_2}$ is the axial velocity at the outlet end of said second rotor;
$n_3$ is the tangential velocity of the counter-rotation; and
$n'_2$ is $\sqrt{V_{a_2}^2 - V_{a_2}^2}$

wherein

$Ve_1$ is the velocity of the admission of fluid at the inlet end of the first rotor; and

$Ve_2$ is the velocity of the fluid at the discharge end of said first rotor.

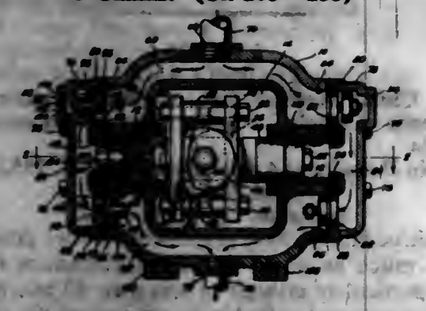
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2,771,037

## TWIN CYLINDER SPRAY PUMP

Douglas Johnston, Huntsville, Ala., assignor to John Blue Company, Incorporated, Huntsville, Ala., a corporation of Alabama

Application June 11, 1952, Serial No. 292,914
3 Claims. (Cl. 103—153)



3. In a pump the combination comprising: a cylinder block forming an open-ended cylinder for reciprocation of a piston therein, said block having suction and discharge passageways therein each having a terminal end opening to the exterior of said block adjacent an open end of said cylinder; a cylinder head detachably connected to said block and covering said cylinder open end and said passageway ends, said head having a chamber therein provided with ports aligned with said cylinder open end and said passageway ends; means defining an annular recess between said block and head at each of said passageway ends; inlet and outlet check valves at said suction and discharge passageway terminal ends, respectively, each of said valves having a circumferential flange of smaller diameter than the corresponding recess, disposed therein, and clamped between said head and said block; and an O-ring packing disposed between the periphery of each of said flanges and the outer wall of their corresponding recesses.

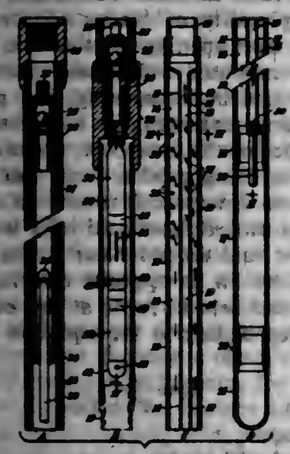
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2,771,038

## OIL AND WATER WELL PUMPING PLANT

Aladalr Seaton Cameron, Guayaquil, Ecuador

Application June 1, 1954, Serial No. 433,726
4 Claims. (Cl. 103—203)



1. In pumping apparatus for oil and water wells comprising a tubing string and a pump having a barrel fitted to the lower end of the tubing string and including at its lower end a standing valve, which is withdrawable upwardly from said barrel and tubing string, the combination of a gas and sand trap constituted by a long tube closed at its lower end, attached at its upper end to the pump barrel and divided by longitudinal partitions into three segmental compartments, namely a central compartment open at the top and closed at the bottom and two outer compartments closed at their upper ends and communicating at their lower ends, one of said outer compartments being of larger cross sectional area than the other outer compartment and having one or more large inlets near its upper end through which liquid can flow downwardly through said larger outer compartment and thence upwardly, through said smaller outer compartment and the central compartment having, near its upper end, one or more inlets through which liquid can flow into the central compartment from said smaller outer compartment, and a tubular flow control device disposed within said long tube above the upper open end of said central compartment, said flow control device being closed at its lower end, having an open upper end attached to the standing valve so that it may be withdrawn upwardly from the tubing string with said standing valve and having in its wall at least one adjustable slot for controlling the flow of liquid from said central compartment to said pump.

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2,771,039

## SAFETY SUPPORT FOR TRUCK-MOUNTED ARTICLES

Albert G. Dean, Narberth, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application July 1, 1954, Serial No. 440,795
2 Claims. (Cl. 105—217)



1. A safety support for a power device on a car truck, comprising in combination, a wheeled truck turnably connected to a car body, a power device mounted on the truck and having a drive connection with the car wheels; a transverse support bar secured beneath the car body, a member slidable on said support when the truck turns, and flexible and normally slack supporting means connected to said member and said power device to provide a safety support if the power device should break away from its support on the truck.

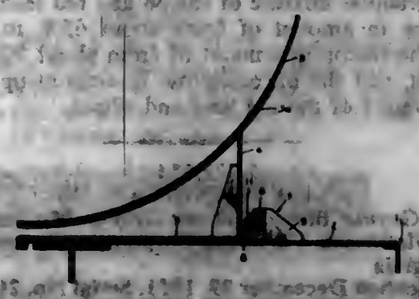
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2,771,040

## TANK ANCHOR MEANS FOR TANK CARS

Clyde H. Folmsbee, Charlevoix, Mich., assignor to Union Tank Car Company, Chicago, Ill., a corporation of New Jersey

Application July 16, 1953, Serial No. 368,279
3 Claims. (Cl. 105—362)



3. In a tank car incorporating an underframe and a longitudinally arranged tank, the improvement which comprises: a cradle secured to the tank and adapted to seat on the underframe; a plurality of anchor means secured to the underframe alongside the cradle on each side thereof; each of said anchor means including a longitudinally extending key overlying a portion of the cradle; the cradle, anchor means and keys having opposed surfaces adapted to block the cradle and tank against lateral and vertical movement only, whereby the tank is free to expand longitudinally.



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2,771,041

## PANEL STRUCTURE, PARTICULARLY LETTER-BOARD FOR RAILWAY CARS

Reinhard Fuchs, Philadelphia, and Edward J. Hochreiter, Cynwyd, Pa., assignors to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application December 28, 1950, Serial No. 203,132
1 Claim. (Cl. 105—401)



In a railway car, a wall structure comprising spaced frame members, said members having a first wall extending in the general direction of said structure and an adjoining second wall extending transversely thereto, said first wall being outwardly crowned to a shallow depth over part of its length and over part of its width to the exclusion of a narrow strip along the meeting edge between said two walls, and an outwardly smooth panel secured to said members throughout said crowned parts thereof.

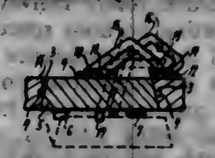
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2,771,042

## VAULT DOORS FOR BANKS AND BUSINESS INSTITUTIONS

Charles U. Deaton, Crestwood, Mo., assignor to Diebold, Incorporated, Canton, Ohio, a corporation of Ohio

Application March 19, 1953, Serial No. 343,368
8 Claims. (Cl. 109—64)



1. A safety and protective doorway for vaults, safes, and the like comprising a wall having exterior and interior faces and a door-opening therein, the front and rear peripheral margins of the door-opening lying in parallel planes, a substantially flat door sized and shaped for snug-fitting closure-forming engagement within the door-opening, said door having an interior and an exterior face, a link pivotally secured at one end to the interior face of the door and pivotally secured at its other end to the interior face of the wall whereby the door can be swung into and out of closure-forming position, said link integrally comprising a long leg and a short leg transversely connected in spaced parallel relationship by an intermediate member, said link being so shaped as to fit conformably around the edges of the doorway when the door is open, another link also shaped so as to fit conformably around the edges of the doorway when the door is open and being pivotally connected at its ends respectively to the interior faces of the door and wall at points which are laterally spaced in relation to the hinge points of the first-named link to hold the door substantially parallel to its initial position throughout its arc of swing, one of said links being provided with a projecting tooth, a shaft rotatably mounted in the door and projecting at its rear end from the interior face of the door adjacent to said projecting tooth, and means rigidly mounted on the projecting end of the shaft for optionally engaging the tooth as the door approaches closed position whereby to draw the door tightly into such closed position.



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2,771,043

## TRACTOR PARALLEL ROW PRODUCING GUIDE MEANS

Clarence J. Carlson, Marshalltown, Iowa

Application July 2, 1952, Serial No. 296,880
2 Claims. (Cl. 111—1)



1. In combination with a tractor, an implement attachment including a main frame extended transversely of the tractor and pivotally supported on the front end of the tractor for swinging movement in a plane substantially parallel to the ground travelled by the tractor, a first indicator member fixed on said frame and having a rearwardly extended portion arranged normal to the frame, a second indicator member pivotally mounted on said frame for horizontal swinging movement about a vertical axis, said second indicator member including a first portion extended transversely of the frame and arranged in a plane substantially parallel thereto and a second portion for engaging the ground to maintain said second indicator member parallel to the path of travel of the tractor, and means for moving said frame relative to said tractor to maintain said rearwardly extended portion and said transverse portion in vertical alignment.

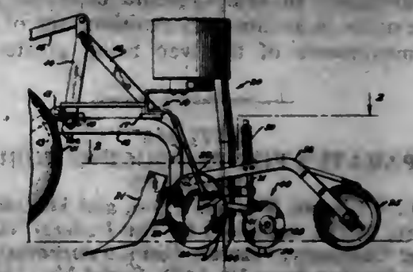
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2,771,044

## UNIFORM SEED COVERER ATTACHMENT FOR LISTERS

Robert E. Puttfer, Burrton, Kans.

Application June 9, 1953, Serial No. 360,487
5 Claims. (Cl. 111—85)



3. In a lister planter comprising furrow opening means for forming a furrow and seed depositing means for dropping seeds into said furrow, uniform seed covering means for covering seeds deposited along the bottom of a furrow formed in uneven ground, comprising a U-shaped frame pivotally mounted adjacent its ends to said lister planter for movement about a horizontal axis transverse to said furrow, said frame extending rearwardly from said ends, a depth gauge depending from the rear portion of said frame, said depth gauge having a foot adapted to ride on the bottom of said furrow behind said seed depositing means with its bottom surface a fixed

distance below said frame, and a pair of seed covering tools one on each side of and approximately abreast said depth gauge, said tools depending from the rear portion of said frame, the bottom of each of said tools being at a fixed distance above said foot of said depth gauge, whereby when said lister planter is operated over uneven ground each said seed covering tool will be maintained respectively at the same height relative to the adjacent bottom of said furrow and said seeds will be covered to a substantially uniform depth independently of vertical movements of said furrow opening means.

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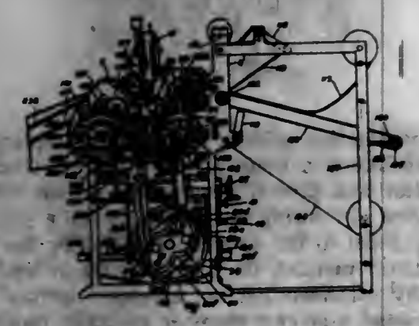
2,771,045

## METHOD AND APPARATUS FOR SEWING MULTI LAYERS OF MATERIAL

James A. Cash, Jr., Louisville, Ky., assignor to American Mattress Machine Co., Louisville, Ky., a corporation of Kentucky

Application March 9, 1953, Serial No. 341,199

42 Claims. (Cl. 112—2)



1. The method of stitching a web of material which comprises: sewing said web with a needle moving transversely while moving said web longitudinally with a generally rectilinear movement in one direction to produce a line of stitches extending generally transversely of the web from one longitudinal edge to the other; moving said web longitudinally in the opposite direction while said needle remains in a stationary position to produce a line of stitches extending generally longitudinally of the web; then moving said web longitudinally in said one direction while moving said needle transversely to produce a line of stitches extending generally diagonally of the web and intersecting the first line of stitches; then moving said web longitudinally with a generally rectilinear movement in said opposite direction while said needle remains in a stationary position; one of said longitudinal movements of the web being greater than the other.

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2,771,046

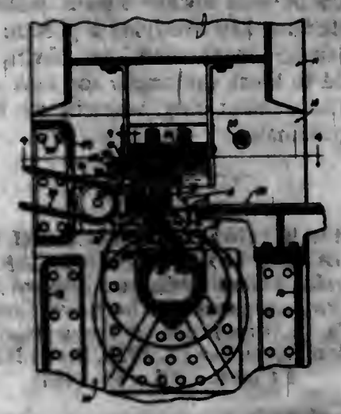
## APPARATUS FOR PRODUCING TUBULAR MEMBERS

Arthur L. Williams, Warren, Ohio, and Donald F. Brace, Berkley, Mich., assignors to The Federal Machine and Welder Company, Warren, Ohio, a corporation of Ohio

Application June 29, 1951, Serial No. 234,238

1 Claim. (Cl. 113—11)

In apparatus for forming sheet stock, the combination comprising a pair of rolls forming a pass for said stock and rotatable to drive said stock through said pass, deflector means engageable with said stock to bend the latter as it leaves said pass, a pin transversely carried by one of said rolls and yieldably urged to project beyond the periphery thereof, said pin being held inwardly of the periphery of said one roll by engagement with the stock moving through said pass and said pin projecting outwardly of the periphery of said one roll when clear of said stock to engage the trailing edge of said stock and move such trailing edge away from said rolls, and means to prevent interference between said pin and the other roll of said pair of rolls and comprising a circumferential



groove formed in the periphery of said other roll in axial alignment with said pin.

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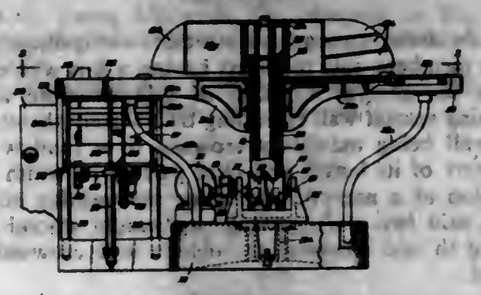
2,771,047

## AUTOMATIC SOLDERING MECHANISM

Jack J. Zimmerman, Riverside, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application August 11, 1954, Serial No. 449,119

9 Claims. (Cl. 113—59)



1. A machine for applying solder to parts of the surfaces of successive ones of printed circuit panels adapted to be movably carried in the machine from one work station to another with each panel comprising a thin insulated member with a circuit pattern of thin metal conductors on a side thereof, said machine including a container for molten solder, rotary conveyor means having a plurality of supporting portions spaced at equal angular distances around the circumference and adjacent the outside thereof with the supporting portions adapted to be stopped at work positions for the machine, said supporting portions each being adapted to have a printed circuit panel removably positioned thereon for assembly of electrical components thereon and for soldering of the components thereto, means to rotate said conveyor means intermittently to position successive ones of said supporting portions and the panels carried thereon horizontally over said container, solder-carrying means positioned within said container and movable vertically to carry solder into soldering contact with a panel supported thereover, elevator means supporting said solder-carrying means for movement from a lower position below the level of the solder in said container to an upper position adjacent to the underside of the panel, said solder-carrying means having a plurality of rims defining a selected solder surface configuration such that the solder contacts only selected portions of the panel, and means to move said elevator means progressively upward to position said solder-carrying means adjacent the underside of a printed circuit panel positioned thereover with the solder in contact with the metal conductors thereon while maintaining a convex upwardly extending solder surface on said solder-carrying means.



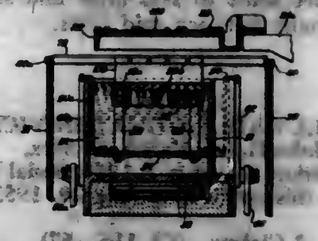
2,771,048

## AUTOMATIC SOLDERING MACHINE

Jack J. Zimmerman, Riverside, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application February 1, 1955, Serial No. 485,561

13 Claims. (Cl. 113—59)



1. In a machine for applying solder to selected areas on the underside of a printed circuit panel comprising a thin insulated panel having a circuit pattern of thin metal conductors on a side thereof and having selected parts which must not be contacted with solder, and which includes a container for molten solder, conveyor means having a panel supporting portion and movable to hold a printed circuit panel horizontally in a selected position over the molten solder container; a solder-carrying tray positioned in said container, means to move said solder-carrying tray upwardly in said molten solder container from below the surface of a quantity of molten solder therein to a position adjacent the underside of the printed circuit panel to carry a quantity of molten solder for selective soldering of the underside of the printed circuit panel, said solder-carrying tray being of a size and shape operable to carry solder for contacting substantially the entire underside of the panel, and said solder-carrying tray having an aperture therein with an upstanding rim extending around the periphery thereof, said aperture and rim being adapted to be aligned with a selected part of a panel positioned thereover which must not be contacted with solder and thereby providing a selected surface configuration for solder in said tray for contact with selected areas on the underside of the panel.

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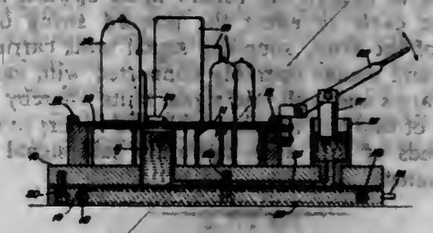
2,771,049

## SOLDERING DEVICE

James L. Fish, Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application March 1, 1955, Serial No. 491,489

4 Claims. (Cl. 113—59)



1. A device for selective application of solder to a plurality of prelocated localized areas on a printed circuit panel assembly, including in combination, a base structure, a plurality of open-ended tubes extending upwardly from said base structure, means for supporting a panel assembly in a fixed position over the tops of said tubes, a well for molten solder positioned on said base structure and extending upwardly therefrom, a channel extending through said base structure to interconnect said well and said tubes, a solder displacing member positioned for movement in said well for displacing molten solder upwardly in said tubes into soldering contact with selected areas of the panel assembly supported thereover, and said tubes being of sufficient diameter and being capable of holding a quantity of molten solder therein operable to transfer sufficient heat to the selected areas on the panel assembly to maintain said areas above the minimum temperature required for soldering and thereby being the only source of heat required for soldering.

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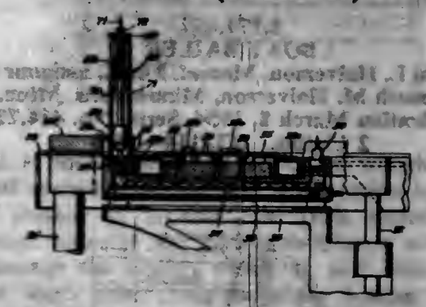
2,771,050

## AUTOMATIC SOLDERING MACHINE

Jack J. Zimmerman, Riverside, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application March 8, 1955, Serial No. 492,949

9 Claims. (Cl. 113—59)



1. A machine for applying solder to parts of the surface of a printed circuit panel which comprises a thin insulated panel with a circuit pattern of thin metal conductors on a side thereof, said machine including an enclosed container for molten solder having a plurality of open-ended tubes extending upwardly therefrom and terminating in a common horizontal plane, conveyor means having supporting portions for each of a plurality of insulated panels and movable intermittently to position successive ones of said supporting portions and the panels carried thereon horizontally over said container, said container being supported for reciprocal motion between a lower position and an upper position adjacent the underside of a panel positioned thereover, means to move said container and tubes to said upper position with the upper end of said tubes positioned adjacent the underside of a printed circuit panel positioned thereover, and means for displacing molten solder in said container when said container is in said upper position to cause solder to rise in said tubes to contact selected points on the panel positioned thereover.

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2,771,051

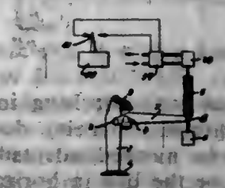
## AUTOMATIC SEA-DAMPING GEAR FOR HYDROFOIL BEARING WATERCRAFT

Hanns von Schertel, Wiesbaden, Germany, assignor to Supramar A. G., Zug, Switzerland

Application October 7, 1952, Serial No. 313,405

Claims priority, application Switzerland October 23, 1951

20 Claims. (Cl. 114—66.5)

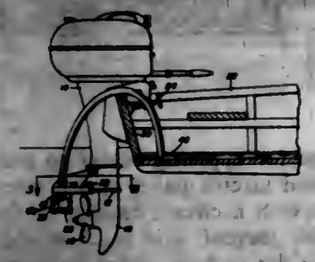


1. A hydrofoil arrangement for watercraft having a hull comprising, in combination, a double armed supporting lever mounted on said watercraft for turning movement about a horizontal axis; a supporting means turnably mounted on one arm of said supporting lever and being movable in vertical direction with the same; a hydrofoil means supported on said supporting means downwardly spaced from the hull, said supporting means and said hydrofoil means being movable between a normal position and a plurality of displaced positions; a control link member turnably mountable at one end thereof on said watercraft and pivotally connected at the other end thereof to said supporting means at a point spaced from said arm of said supporting lever, said control link member and

said arm of said supporting lever being inclined with respect to each other so that said control lever member turns said hydrofoil means into an angularly displaced position in which the angle of attack of the same is changed in such sense as to compensate the change of lifting forces acting on the hydrofoil means during passage through a wave when said hydrofoil means is moved by a wave out of said normal position into a displaced position.

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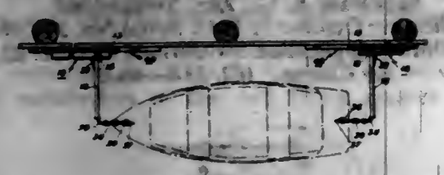
2,771,052
BOAT BAILER
Merlin L. Halverson, Mound, Minn., assignor to Kenneth M. Halverson, Minneapolis, Minn.
Application March 8, 1954, Serial No. 414,728
2 Claims. (Cl. 114—185)



1. In combination with a boat and outboard motor therefor, said motor being provided with a propeller and a cavitation plate, a bilge water bailer of said boat comprising a bracket receivable on the cavitation plate, a tubular venturi projecting below said plate and positioned rearwardly of said propeller, and a flexible tube having one end secured to and in communication with the venturi and the other end terminating in the bilge of the boat for providing passage of the bilge water, said bracket formed integrally with the venturi and providing passage between the tube and venturi and including an elongated slot for receiving the cavitation plate, one side of the slot being provided with screw threaded openings, and clamp screws in said opening for selectively clamping said bracket to the cavitation plate.

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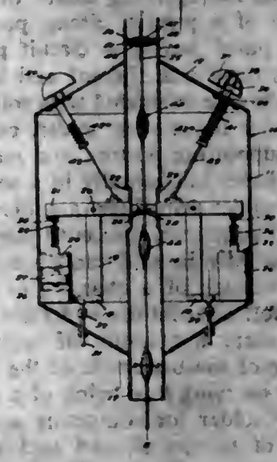
2,771,053
BOAT MOORING MEANS
Eric W. Gustafson, Salem Springs, Wis.
Application April 1, 1953, Serial No. 346,221
6 Claims. (Cl. 114—230)



1. Boat mooring apparatus comprising, in combination, a pair of oppositely disposed mooring devices, one for each end of a boat to be moored, adapted to be affixed to the side of a dock or the like in horizontally spaced relation, each said mooring device including a housing-link mounting member, an elongated, horizontally disposed mooring arm normally housed in said member, and vertical pivot means operatively connecting said arm near one end thereof to said mounting member and for swinging movement in a fixed horizontal plane outwardly from and thence inwardly toward the side of the dock, said pivot means connecting the adjacent ends of the mooring arms to their respective mounting members whereby said arms are swingable outwardly towards one another and being horizontally spaced a distance at least as great as the length of said boat to be moored, means for limiting the outward swinging movement of the mooring arms to approximately 90° whereby said arms may be swung outwardly from the dock only to a position in which they extend substantially normal thereto, and extensible connector means carried by and extending from the free ends of the mooring arms adapted upon the arms being swung outwardly as aforesaid to be separably connected to the ends of said boat to be moved, thereby to secure same to said arms and so that it extends longitudinally between said arms.

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2,771,054
WELL CABLE SIGNAL DEVICE
John Goins, Hobbs, N. Mex.
Original application February 7, 1950, Serial No. 142,819. Divided and this application July 29, 1953, Serial No. 370,957
2 Claims. (Cl. 116—67)

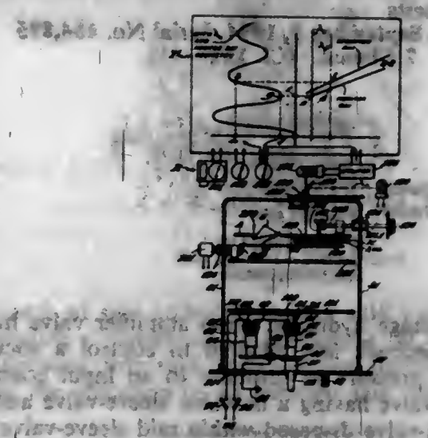


1. The combination with a well drill cable, of a cylindrical housing, a pipe extending axially through the housing for connection with the top end of a well casing and the passage of the cable therethrough, said pipe having opposite vertically slotted openings intermediate the ends of the portion thereof enclosed by the casing, posts rising vertically within the lower portion of said casing, a pair of radially disposed rocker arms pivotally mounted on the upper end of said posts with the opposed inner ends of said arms extending into said pipe through said openings, means for yieldably retaining said arms in a substantially horizontal position, a roller carried on each of the opposed inner ends of said arms for engaging said cable passing therebetween, a trip member carried by the cable to engage the rollers upon upward movement of the cable to effect the upward swing of the inner ends of the arms, sounding signal units carried by said casing and means operably connected with each of said rocker arms and with said signal units whereby upon engagement of said trip member with said rollers to swing the inner ends of said arms upwardly said signal units will be actuated.

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2,771,055
APPARATUS FOR COATING OPTICAL INTERFERENCE LAYERS
Donald H. Kelly and Frank C. Rock, Jr., Los Angeles, Calif., assignors to Technicolor Corporation, Hollywood, Calif., a corporation of Maine
Application April 25, 1952, Serial No. 284,410
11 Claims. (Cl. 118—9)

3. Apparatus for the controlled evaporation coating of superimposed layers of a plurality of optical media, comprising: two containers for the respective media; means for selectively heating one of said media in said containers; means for supporting above said containers a specimen to be coated; means for rotatably supporting a monitor plate at approximately the distance of a specimen surface from the heated medium; an attenuating mask having an aperture rotatably arranged between said containers and said supporting means; means for rotating said mask to control layer deposit thickness distribution; aperture means between said mask and said monitor plate for exposing only a portion of the plate; and

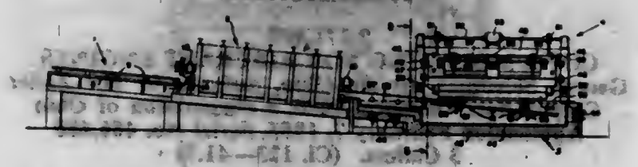


means for rotating said monitor plate supporting means so as to permit exposure of different portions thereof through said aperture means to said heated materials.



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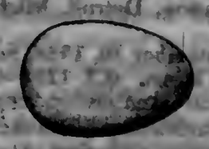
2,771,056
APPARATUS FOR COATING PIPES
Frederic O. Hess, Philadelphia, Pa., assignor to Seiss Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application June 6, 1951, Serial No. 230,166
5 Claims. (Cl. 118—64)



1. Apparatus for galvanizing pipes comprising in combination a furnace having a substantially cylindrical closed chamber therein, means to heat said chamber located around the exterior thereof, means forming an entrance at one end of said chamber and an exit, displaced circumferentially from said entrance, at the opposite end of said chamber, rotary conveying means in said chamber to move pipe circumferentially from said entrance to said exit whereby the pipe can be heated as it is moving, a galvanizing tank located axially beyond the exit of said chamber, a tunnel extending between said exit and said tank below the level of zinc therein, and means to move pipe axially into said chamber and axially from said chamber through said tunnel into said tank.

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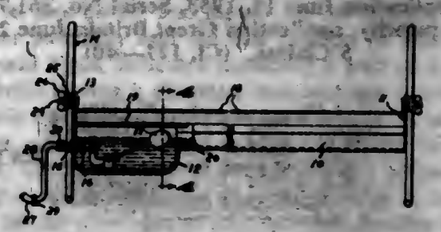
2,771,057
ARTIFICIAL NEST EGGS
Clayton E. Quinn, Roebuck, S. C.
Application November 14, 1955, Serial No. 546,721
4 Claims. (Cl. 119—45)



2. An artificial nest egg to be pecked by a fowl whereby small particles of the same enter the mouth of the fowl, said nest egg being about as hard as chalk, said nest egg comprising a mass including plaster of Paris forming the major portion of said mass and relatively small amounts of mustard oil, capsicum, pine oil, pine rosin and aminonitrothiazole, all ingredients being thoroughly mixed.

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2,771,058
POULTRY WATERING DEVICE
Clayton W. Howard, Thomaston, Maine
Application March 20, 1952, Serial No. 277,625
3 Claims. (Cl. 119—78)



1. In a poultry watering device, a trough including first and second portions, said first portion being of V-shaped section to provide that grain introduced into the trough water by the poultry is linearly concentrated to encourage the poultry to eat it, said second section being a water inlet chamber whose bottom is located below the bottom of said first section, a barrier in said first section adjacent said second section to retain entrant grain in said first section, and a cover for said second section including a portion overlying said barrier.

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2,771,059
NON-FLOODING FOUNTAIN PEN
Benjamin F. Miesmer, Morristown, N. J.
Application April 6, 1954, Serial No. 421,300
7 Claims. (Cl. 120—48)



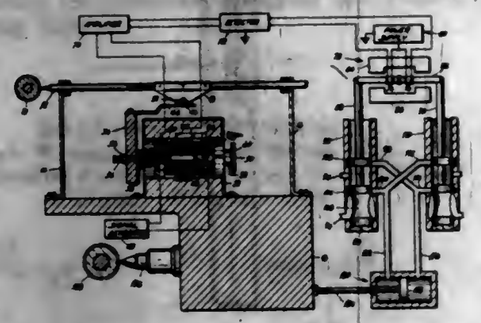
4. A fountain pen having a hood with a plurality of bores therein of different lengths and arranged in tandem alignment in order of the diameter of the bores with the widest bore outermost, a pen point having a shank located in a bore in the hood next to the widest bore, a tube having a pointed opening positioned close to the pen nibs and extending through a bore in the hood of larger diameter than itself to a point near the inner extremity of the hood where it fits tightly into the hood, said tube having a plurality of transverse holes closely adjacent and before the point where it enters a tight fitting bore in the hood, the length and diameter of all of these bores with respect to the diameter of the parts fitting in them being proportioned so capillarity and gravity acting on the ink will balance each other to give the maximum writing efficiency, a two part air and ink tube extending from a point closely adjacent the pen nibs to a point near the inner free end of the reservoir, said two parts being joined at the inner end of the hood by a flexible hollow coupling, and means carried by the hood for acting on the coupling to close it as and for the purpose described.

2,771,860
LOCKING MECHANISM FOR FLUID PRESSURE OPERATED DEVICES
Dennis Howard Allbright, Foleshill, Coventry, England, assignor to Dunlop Rubber Company Limited, London County, England, a British company
Application June 15, 1953, Serial No. 361,750
Claims priority, application Great Britain June 27, 1952
5 Claims. (Cl. 121—40)



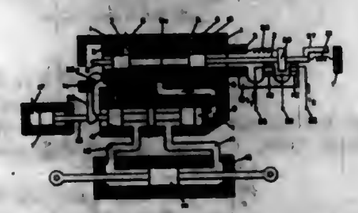
1. A locking mechanism for two members movable relative to each other which comprises one member having an annular recess coaxial with the line of movement of said members, and a second member having a circular flange coaxial with the line of movement of said members, separate, individual, locking elements arranged at intervals about the line of movement of said elements, each having a rocking engagement in said recess and having a lipped catch to engage the flange of said second member and having a shoulder and a tail portion, and a sliding member spring pressed in one direction to about said shoulder and movable in the opposite direction to engage said tail portion and to rock said locking element to disengage said lipped catch from said second element.

2,771,861
LATCHING MECHANISM FOR POSITIONING APPARATUS
John R. Farron, Oak Park, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application September 14, 1953, Serial No. 379,926
8 Claims. (Cl. 121—41)



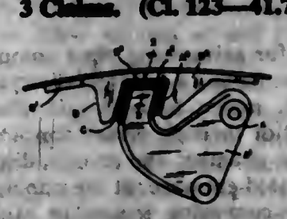
1. In combination, input means, a motion sensor including first and second members movable relative to each other from a null position to generate a signal, means on the first member of the motion sensor to prevent a relative displacement between the first and second members of more than a predetermined magnitude within the signal generating limits of the sensor, means for providing a cooperative coupling between the input means and the first member of the motion sensor for movement of the first member in accordance with the movements of the input means, output means connected to the second member of the motion sensor for movement of the second member in accordance with the signal generated by the motion sensor, means operative upon the predetermined relative displacement between the first and second members of the motion sensor to actuate the coupling means for a free movement of the input means relative to the first member, and means operative upon actuation of the coupling means to position the first member to one side of its null position relative to the second member to produce a signal in the sensor for moving the output means in the direction of disposition of the first member.

2,771,862
TWO-STAGE DIFFERENTIAL SERVO VALVE
Paul F. Haynes, Nashua, N. H., assignor to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Massachusetts
Application September 9, 1954, Serial No. 454,895
7 Claims. (Cl. 121—41)



1. In a two-stage hydraulic servo amplifier valve having internal feedback and adapted to control a source of fluid under pressure in response to an input control signal, a pilot valve having a movable sleeve-valve and a movable piston-valve disposed within said sleeve-valve; a control valve having a second movable piston-valve; fluid passageways coupling said pilot-valve and control-valve whereby displacement of said first piston-valve effects displacement of said second piston-valve; means coupling said second piston-valve and said sleeve-valve for displacing said sleeve-valve in response to displacements of said second piston-valve for discontinuing the motion of said second piston-valve; and motor means connected to and carried by said sleeve-valve and said first piston-valve, for movement therewith, for effecting relative displacement therebetween.

2,771,863
COWL MOUNTING FOR AIRCRAFT ENGINES
George Skidmore, Bryan, Ohio, assignor to The Zeller Corporation, Defiance, Ohio, a corporation of Ohio
Application February 7, 1955, Serial No. 486,480
3 Claims. (Cl. 123—41.7)



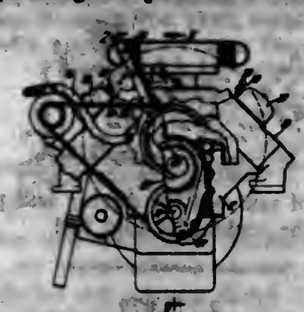
1. In a cowl mounting for radial type multi-cylinder engines including socket members and lug members for engaging the same with clearance therebetween, each lug member being recessed on opposite sides thereof, a resilient cushion cap for said lug formed of rubber like material externally fitting said socket and attachably and detachably engaging said lug being provided with inwardly projecting portions adapted to be sprung into engagement with the recesses of said lug to retain its attachment thereto.

2,771,864
CRANKCASE VENTILATION
Gilbert Burrell, Lansing, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 30, 1954, Serial No. 459,392
14 Claims. (Cl. 123—41.86)

1. In an internal combustion engine having spaced rocker arm compartments, a crankcase ventilating system adapted to prevent the entry of crankcase fumes into said rocker arm compartments and to permit the entry of air directly into said compartments and thence to other parts of the crankcase of said engine with which said compartments communicate, said system comprising means associated with each of said rocker arm compartments for collecting and filtering air including the air driven by the engine fan and carrying said air into each

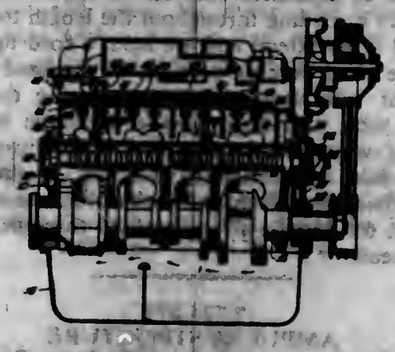


of said rocker arm compartments of said engine, said collecting means being formed and positioned to include means for equalizing the quantities of clean air received



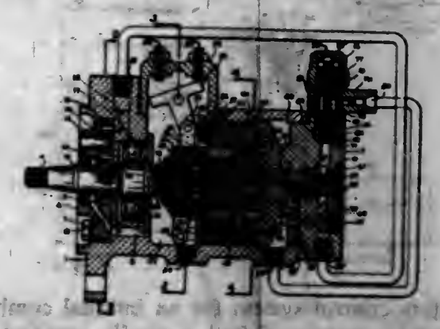
by each of said collecting means, said ventilating system including a non-breathing lubricating oil filler tube communicating with said crankcase and having a cap to prevent the induction of air through said filler tube.

2,771,865
CRANKCASE VENTILATING MEANS
Robert H. Malcolm, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application September 18, 1953, Serial No. 381,012
2 Claims. (Cl. 123—41.86)



1. In a ventilating system for V-type internal combustion engines or the like comprising a substantially hollow block structure having a pair of upwardly diverging cylinder banks and a rectangularly shaped, downwardly facing opening, said upwardly diverging cylinder banks forming a substantially V-shaped pocket having an upwardly facing opening, an oil pan secured to said block structure over said downwardly facing opening, a longitudinally extending wall defining the juncture of said banks and the bottom of said pocket, said wall further separating said pocket from a crankcase chamber partially defined by said oil pan and a portion of said block structure, one end of said wall being provided with an opening therethrough for establishing communication between said crankcase chamber and the interior of said pocket; a cover assembly mounted on said block structure over said upwardly facing opening, said cover assembly including a cover having its marginal edges engaging said block structure and a central longitudinal section bulged upwardly, an end portion of said section having a semi-cylindrical depression formed therein, and a substantially horizontal plate secured to the underside of said cover whereby said plate and cover form a longitudinally extending passage, said cover having a pair of longitudinally spaced openings therethrough, one of said openings being located in said depression and being of a larger diameter than the other opening, said plate having a pair of openings therein in alignment with the openings in said cover; means for establishing communication between the opposite end of said passage and the end of said pocket opposite said opening in said longitudinally extending wall; means for introducing air under pressure greater than atmospheric pressure at the end of said crankcase chamber opposite said opening in said longitudinally extending wall; a tubular exhaust pipe having a closed end portion adapted to seat in said depression, said end portion having a pair of diametrically disposed apertures therethrough, one of said apertures being enlarged and being registrable with the enlarged opening in said cover; and means for detachably securing said cover assembly and the end portion of said exhaust tube to said block structure including a pair of bolts, one of said bolts having a diameter substantially equal to and extendable through a pair of aligned openings in said cover and plate respectively into engagement with said block structure, the other of said bolts having a diameter substantially equal to the other of said openings in said plate and one of the apertures in said tube but smaller than the enlarged opening and aperture in said cover and tube respectively, said last mentioned bolt being extendable through said tube apertures, enlarged cover opening and the plate opening in alignment therewith into engagement with said block structure.

2,771,866
FUEL INJECTION PUMP
Waldemar O. Bischoff, South Hadley Falls, Mass., assignor to American Bosch Arma Corporation, a corporation of New York
Application January 30, 1953, Serial No. 334,330
4 Claims. (Cl. 123—139)



1. In a device of the character described, a positive pressure supply pump, an injection pump, said supply pump being driven in direct ratio to the speed of said injection pump, a fuel path between said supply pump and said injection pump, an automatic variable pressure regulating valve in the fuel path between the supply pump and injection pump, a plurality of outlets and means for distributing fuel pumped by said injection pump to said outlets in desired sequence, means for controlling the quantity of fuel delivered by said injection pump, said means comprising a fuel bypass passage communicating with said fuel distributing means, a fuel control valve for controlling the quantity of fuel bypassed through said bypass passage, a linkage connected to said fuel control valve, a hydraulically actuated governor lever connected to said linkage for actuating said linkage according to the pressure regulated by said pressure regulating valve and resilient means opposing said actuating of said linkage by said hydraulic means.

2,771,867
ENGINE STARTING MECHANISM
Romeo M. Nardone, Teaneck, N. J., assignor to Joseph J. Maranch, Maplewood, N. J.
Application April 1, 1952, Serial No. 279,886
8 Claims. (Cl. 123—179)

1. In an engine starting mechanism, an engine-engaging element constantly in driving connection with a engine part, a turbine rotor in axial alignment with said engine-engaging element, means drivably connecting said rotor and element, said connecting means including a carrier, fixed to the said element a planetary gear train comprising planet gears rotatably mounted upon the carrier and driven

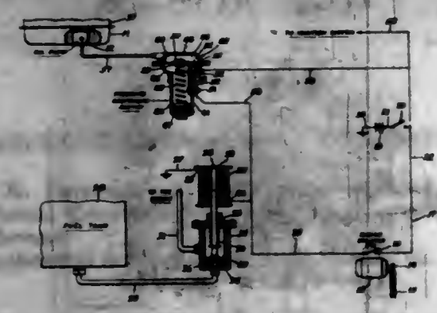
by the rotor and an orbital gear surrounding said planet gears, said orbital gear being normally free to rotate with said planet gears about the common axis of rotation of



said turbine rotor and engine-engaging element, and means responsive to admission of pressure fluid into said mechanism to both energize said rotor and simultaneously lock said orbital gear against rotation.

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2,771,068
STARTER-CONTROLLED FUEL SUPPLY FOR INTERNAL COMBUSTION ENGINE
Paul F. Jettinghoff, Grosse Pointe Woods, Mich., assignor to International Harvester Company, a corporation of New Jersey
Application March 27, 1953, Serial No. 345,114
4 Claims. (Cl. 123—179)



1. A safety control system for an internal combustion engine having a source of fuel normally supplied under pressure, a fuel supply conduit and an engine-operated pressure lubricating oil system; a valve in said conduit for controlling the supply of fuel to said engine, said valve being biased to its closed condition; a solenoid cooperable with said valve, said solenoid being effective when energized to open said valve against the force of said bias; a source of electrical energy; an electrical circuit interconnecting said solenoid and said source of electrical energy; an engine starter switch in said circuit; an ignition switch in said circuit in series with said starter switch, said circuit being completed to energize said solenoid when said switches are in their closed conditions; a pressure responsive switch operatively connected to said pressure lubricating oil system and being actuatable to its closed condition upon the attainment of a predetermined fluid pressure in said engine-operated pressure lubricating oil system; a conductor leading from one side of said pressure responsive switch to said solenoid; and a second conductor leading from the other side of said pressure responsive switch to said electrical circuit at a point between said starter switch and said ignition switch.

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2,771,069
ROCKING BED STRUCTURE AND SYNCHRONIZED RESPIRATOR
Charlotte M. Baron, Toledo, Ohio
Application November 7, 1951, Serial No. 255,219
3 Claims. (Cl. 128—29)

2. The combination with a rockable bed for a patient to be treated, a respiratory gas supply, motor means connected to the bed for rocking said bed, a breathing mask for the patient, a gas connection between said mask and said supply, a reciprocating pump in said connection, and means connecting said pump to said bed and operated



by the rocking of said bed for driving said pump in synchronism with the rocking of said bed.

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2,771,070
FOUNTAIN SYRINGE AND SWAB
Earl M. Saxon, Oklahoma City, Okla., assignor to Earl M. Saxon, Jr., Wichita, Kans.
Application April 20, 1955, Serial No. 502,614
4 Claims. (Cl. 128—231)



1. A combined syringe and swab comprising an outer tube, an inner tube slidably mounted within the outer tube extending beyond the ends of the outer tube, a head constructed of absorbent material having a central longitudinal bore extending throughout the length thereof, into which said tubes extend and are held, a cord tightly fitted around the head, forcing portions of the head into close engagement with the outer tube, securing the head to the outer tube, said head having discharge bores communicating with said longitudinal bore through which cleansing fluid is directed to the wall of the canal in which the head is inserted, and a bulb on one end of said inner tube, for forcing cleansing fluid through said inner tube and head.

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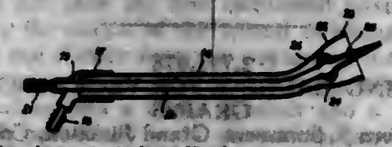
2,771,071
AMPULLA STRUCTURE
Gerhard Mann, Berlin-Charlottenburg, Germany
Application September 8, 1954, Serial No. 454,681
Claims priority, application Germany September 12, 1953
1 Claim. (Cl. 128—232)



A disposable plastic ampulla construction comprising a hollow front member having a substantially cylindrical outer surface terminating in an upwardly and outwardly flaring end portion, said end portion being provided with a cylindrical contact face and with an annular welt located rearwardly of and upwardly beyond said cylindrical contact face, a cylindrical and elongated rear member terminating in an end portion having an upwardly and outwardly directed flange terminating in a free outermost end edge extending beyond said end portion of said front member and projecting with said free end toward said rear member, said end portion of said rear member including a recess and a cylindrical contact face forwardly of said recess in tight fitting engagement with said welt and said cylindrical contact face of said front member respectively, the front face of said flange being substantially aligned with the corresponding outer surface of said flaring end portion of said front member to thereby form a shield-shaped prolongation of the latter for protecting the fingers of an operator when squeezing said cylindrical rear member in cross-wise direction of its longitudinal axis to discharge the contents therefrom through an opening in said front member.



2,771,072
MEDICAL APPARATUS FOR INJECTION, INSUFFLATION, AND THE LIKE
Jacques Antoine de Montangé, Paris, France
Application December 24, 1952, Serial No. 327,733
Claims priority, application France December 26, 1951
1 Claim. (Cl. 128—241)



An injection and insufflation cannula comprising in combination, an outer tube of a transparent material having a deflected end portion flared in the form of a cup element conforming with the shape of the uterine cervix, an inner tube of a transparent material extending through said outer tube coaxially therewith and formed with a thickened portion within the cup element and a taper projecting beyond said element, said thickened portion of the tube being welded to the wall of the cup element adjacent the inner end of said element, a sealed end piece secured to the opposite end of the outer tube and providing with an angularly extending connector communicating with said tube, an axial boss on said end piece, having a hole adapted to receive the opposite end of the inner tube, a connector on said boss communicating with the tube, and means for sealing said tubes in said end piece, the outer tube being adapted for connection with a suction line, and the inner tube adapted for connection with an injection line.

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2,771,073
ADAPTOR FOR HANDLING A NURSING NIPPLE
Jim Wharton Mills, Bellflower, Calif., assignor to Glendon Homer Jailes, Bellflower, Calif.
Application December 20, 1952, Serial No. 327,066
2 Claims. (Cl. 128—252)



2. A device applicable to the neck of a thermally insulated bottle including, an elongate vertically disposed tubular plug insertable into the neck of the bottle and having a passageway extending longitudinally through it, sealing means carried by the plug adapted to seal between the plug and the neck, a nipple having a mounting flange overlying and engageable with the upper end of the plug, and depending into said passageway, a retainer releasably holding the nipple on the plug, the plug having a channel extending around its lower end portion and said sealing means including a ring of rubber-like material carried in the channel and projecting from the exterior of the plug to be engageable with a neck, the fastener including a collar threaded onto the plug at the upper end thereof and a lip carried by the collar and overlying the flange, and an inverted cup-shaped disc closure releasably carried by the fastener to overlie the upper end of the device and enclosing the nipple in the passageway.

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2,771,074
AMPOULE ATTACHMENT
Christian Landsperger and Norman I. Applebaum, Burbank, Calif.
Application July 8, 1955, Serial No. 520,685
2 Claims. (Cl. 128—276)

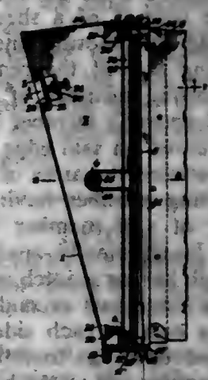
1. In combination, an ampoule having a reduced top neck and a closure of penetrable material engaged in said top neck, a hypodermic needle having a shank, a hub secured on one end of said shank, and a reduced portion on said hub, said shank being engaged through said closure, an annular cap member having a depending skirt portion, said cap member being centrally secured on said



reduced portion and defining a protective further closure and being sealingly engaged over said first-named closure, and a further cap member removably secured over said hub and sealingly engaging the top surface of said first-named cap member.

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2,771,075
BINDER
Walter Easter Haskin, New York, N. Y., assignor to Pressed and Welded Steel Products Company, Inc., Long Island City, N. Y., a corporation of New York
Application November 19, 1954, Serial No. 470,083
5 Claims. (Cl. 129—1)



1. In a book binder the combination of two major elements, the first element comprising a rigid hollow metal backbone formation including a flat back plate formed with perpendicular triangular side walls terminating in hinge knuckles at their free edges, said back plate being formed at one end with an angular end wall extension which together with the said back plate and side walls constitutes a wedge-shaped structure, flanged reinforcing and supporting end brackets positioned inside and attached to the said end and side walls of the back plate, said brackets each having formed on its upper edge a central inwardly projecting primary flange, a secondary flange having a slot therein at the center and positioned below the said primary flange and inwardly projecting ears formed in the upper edges of the flanged ends, side covers mounted on complementary metal hinge leaves attached to the said side wall hinge knuckles by loose hinge pins each having a U shaped extension at one end which when rotated to lie flat against and inside the said side walls is prevented from longitudinal movement by the said ear of an end bracket, and the second major element comprising an inner platform plate positioned inside the backbone member and removably attached thereto, having a notch and a downwardly projecting lip at each end and a folded under flange along each side to form a socket into which the primary flange of the end bracket is projected at each end to secure and prevent accidental removal of the platform plate, the said folded under flanges are seated at each end upon the said secondary

slotted flange with the projecting lip entered in the said slot to prevent lateral movement of the platform plate so that when the two major elements are thus assembled in operative engagement the platform plate bears against and prevents further rotation of the said loose hinge pins extensions and whereby when the two major elements are disassembled the hinge pins and side covers may be removed from the binder for repairs.

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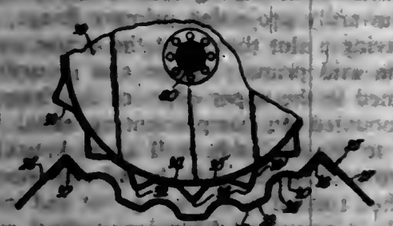
**2,771,076**
**RECORD FILING JACKET**
Rudolph A. Peter, Hollywood, Calif.
Application February 15, 1954, Serial No. 410,063
6 Claims. (Cl. 129—16.7)



4. In a phonograph record holding and identifying device: an envelope formed of a sheet material folded to provide sides, said fold closing one edge of the envelope; means closing two of the remaining edges, including a tab supporting member of sheet material at one edge, said tab supporting member being U-shaped in cross section and secured on said edge with a portion of the envelope edge between the arms of the U, the closed edge of the supporting member having notches spaced apart longitudinally of said member thereby providing hinge parts spaced longitudinally apart along said supporting member; a tab having a notch in one edge portion adapted to receive a hinge part of said supporting member, said tab having ears at each side of the notch in said tab with aligned openings therethrough; a pin received in the tab openings and in the hinge part to which the tab is attached; and an enlargement along the free edge of the tab parallel to the tab supporting member.

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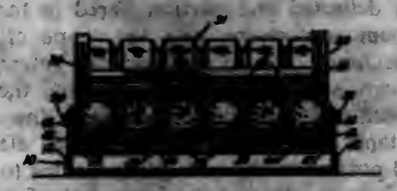
**2,771,077**
**SHEET METAL FABRICATED CYLINDER BAR AND CONCAVE**
Elof K. Karlsson and Frank De Ford, Moline, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application August 13, 1953, Serial No. 373,952
2 Claims. (Cl. 130—27)



1. A sheet metal fabricated grain threshing cylinder and concave comprising a sheet metal concave with surface conformations defining transversely disposed raised rib portions and said sheet metal concave having a plurality of apertures therethrough, at least some of said apertures disposed at an acute angle with respect to and located in said raised rib portions, and a sheet metal cylinder including a rib formed thereon and having a plurality of apertures therethrough, said apertures in the cylinder rib disposed at an acute angle with respect to said rib and in a direction opposite to the angular disposition of the apertures in the concave raised rib portions whereby when the rib portions on the concave and the ribs of the cylinder cooperate in opposition to each other grain is effectively threshed therebetween.

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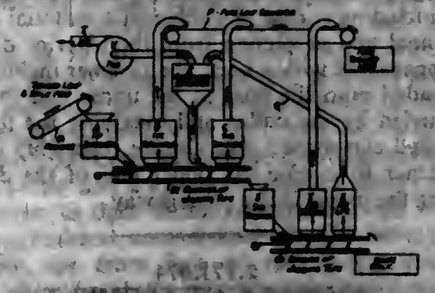
**2,771,078**
**THRESHING MACHINE FOR VEGETABLES AND GRAINS**
Sebern S. Summers, Grand Junction, Colo.
Application September 9, 1955, Serial No. 533,380
4 Claims. (Cl. 130—30)



1. A threshing machine for beans and like vegetables comprising a frame: a threshing drum rotatably mounted on said frame and including a plurality of side by side, pneumatically tired wheels connected for joint rotation, said wheels each having an outwardly convex peripheral wall, the side walls of the several tires of the wheels being in contact, whereby to define on the drum a side wall having circumferentially extending corrugations from end to end of the drum with each corrugation being defined by the outwardly convex wall of a tire; and a chute including a main trough longitudinally curved over its full length about the axis of rotation of the drum and extending in close proximity to the outwardly convex walls of the tires, said trough being curved only in a longitudinal direction, so as to have a straight cross sectional configuration at all locations along the length thereof, the chute further including a liner soft, resilient material curved longitudinally correspondingly to the trough, said liner being fixedly secured along its opposite side edges to the corresponding sides of the trough, the liner being formed with longitudinally extending corrugations each of which in width is substantially equal to the width of a tire adjacent thereto, the midwidth portion of each corrugation of the liner bearing against the surface of the trough so as to be engaged thereby against movement away from the periphery of the adjacent tire.

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**2,771,079**
**METHOD AND APPARATUS FOR SEPARATING MATERIALS**
Laurie E. R. Unney, Guildford, Surrey, England, assignor to Vokes Limited, Guildford, England
Application November 12, 1953, Serial No. 391,694
6 Claims. (Cl. 131—146)



1. A comminuting system for vegetable or leafy products, such as tobacco leaf, and for separating the mixture material into a wanted product, such as tobacco particles, and a waste product, such as stalk, comprising a threshing or reduction apparatus for breaking up the material into a mixture of large and small particles, means for feeding said mixture output to at least one separator apparatus, means in said separator apparatus separating said output into a useful product and a residue including a waste product and a potentially useful product, means for feeding the residue to a second threshing apparatus for breaking up said residue into a mixture of particles smaller in size than the first mentioned mixture, means for feeding the output of the second threshing apparatus to at least one further separator apparatus, means in said second separator apparatus for separating said last mentioned mixture into a useful product and a residue including still potentially useful particles or product, means for collecting the useful product from each of said separator apparatus, and means for recirculating the potentially useful product from one separator apparatus to the inlet side of the threshing apparatus from which it is fed.



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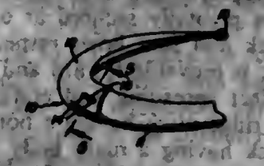
**2,771,080**
**ASH TRAY**
Edmund J. Cole, Meade, Pa.
Application August 27, 1952, Serial No. 306,545
1 Claim. (Cl. 131—240)



An ash tray formed from a substantially circular block of non-inflammable material and comprising a substantially circular ash receiving compartment located at substantially the center of the block, a plurality of angularly spaced apart wells arranged in a generally hexagonal configuration around said compartment and spaced outwardly therefrom, and wall portions separating adjacent wells from one another and from said compartment, each of said wall portions having in its upper surface a groove for receiving and supporting a cigarette, the opposite ends of each groove opening into adjacent wells, and radially extending grooves located at the juncture between each wall portion and the adjacent wall portion for receiving a cigarette and each having its opposite ends opening into said compartment and one of said wells respectively.

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**2,771,081**
**HAIR BANG MOLD**
Maxine R. Shirmeyer and Madonna R. Adams, Fort Wayne, Ind.
Application May 31, 1955, Serial No. 511,883
1 Claim. (Cl. 132—53)



A hair bang mold of the character described comprising: a substantially U-shaped, resilient member adapted to be mounted circumferentially on the forehead beneath the hair to be molded, said member including a female section comprising integral, inturned guide flanges on its longitudinal edges and having longitudinally spaced openings in its inner end portion, said member further including a male section telescopically adjustable in said female section and having its longitudinal edges slidably engaged in the guide flanges, said male section having an aperture in its inner end portion for registry with the openings, a resilient latch on said inner end portion of the male section engageable selectively in the openings through the aperture for positively securing said male section in adjusted position, and means for securing the member in position on the forehead.

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**2,771,082**
**FINGER NAIL PAINT GUARD**
Miriam J. Sawyer, Los Angeles, Calif.
Application November 6, 1953, Serial No. 390,448
1 Claim. (Cl. 132—73)



In a finger tip guard for use in painting the finger nails, a flat circular base, a cylindrical spacer member of a compressible material centered on the base, a circular disk of a flexible material centered on said spacer member and having a series of substantially arcuate recesses formed in equidistantly spaced relation along the edge thereof to be engaged by the tips of the fingers with the edge portions of the nails bearing on the edge portions of the recesses and means securing said base, the spacer member and the disk together, the downward pressure of the edges of the nails on the edge portions of the recesses causing the latter to pull the flesh away from the edges of the nails to prevent any smearing of the flesh with the paint.

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**2,771,083**
**RETRACTABLE MIRROR DEVICE**
Samuel Darvie, New York, N. Y., assignor to Elegante Accessories, Inc., New York, N. Y., a corporation of New York
Application July 19, 1955, Serial No. 522,904
8 Claims. (Cl. 132—79)



1. In a combination retractable mirror and lipstick holder, a mirror movable between projected and retracted limiting positions, a housing therefor, spring means normally urging said mirror into its said projected limiting position, an open portion at the rear of said housing, a spring catch disposed in said open portion and having a forwardly extending lip proportioned to extend into said housing and a rearwardly extending portion protruding rearwardly from said housing, a lipstick holder behind said housing and movable along a path intercepting said rearwardly extending portion, said holder being slidably engageable with said rearwardly extending portion to yieldably urge said catch forwardly to a predetermined locking position, a container attached to the rear of said housing and slidably accommodating therein thereof an aperture in substantial registry with said open said holder, said container having in the forward portion portion of said housing, a lug at the rear of said mirror

and positioned in the path of said lip when said catch is in said locking position, said lip being positioned above said lug when the mirror is in its said retracted position, said spring catch being yieldably held in a rearwardly retracted position when operatively out of engagement with said actuating member, said lip being out of the path of said lug and said rearwardly extending portion of the catch protruding rearwardly through said aperture in said container when the catch is in its said retracted position.

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**2,771,084**
**DENTAL CLEANER**
Margaret E. Fleming, Niagara Falls, N. Y., assignor to John S. Fleming, Niagara Falls, N. Y.
Application September 29, 1953, Serial No. 382,987
6 Claims. (Cl. 132—89)



1. A self-cushioned dental cleaner, consisting of a narrow ribbon of flexible paper having longitudinal edges, one of said longitudinal edges being a soft self-cushioned edge resulting from tearing said ribbon from and along a weakened tear line of a sheet of said paper, said soft edge being beveled upon one side thereof and of approximately the same breadth throughout its length, said ribbon being movable between adjacent teeth with its soft edge pressed vertically against the gums, said soft edge having a brushing action during such movement.

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**2,771,085**
**DENTAL CLEANER**
Margaret E. Fleming, Niagara Falls, N. Y., assignor to John S. Fleming, Niagara Falls, N. Y.
Application September 25, 1953, Serial No. 382,366
7 Claims. (Cl. 132—89)

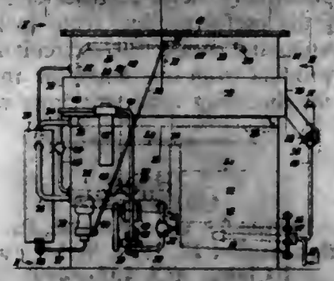


1. A self-cushioned dental cleaner, consisting of a plurality of superposed identical layers of flexible paper, the peripheral portions of said layers comprising a set of superposed tongues, each of said tongues having a soft self-cushioned edge beveled upon one side thereof resulting from tearing the related layer from and along a weakened tear line of a sheet of said paper, and paper fold means for connecting said layers together back of said tongues, said tongues having their adjacent surfaces free of connection with one another, said set of tongues being movable between adjacent teeth with their soft edges pressed against the gums, the soft edges of the plural tongues having collectively a brushing action during such movement.

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**2,771,086**
**APPARATUS FOR TREATMENT WITH SOLVENTS**
Thomas J. Kearney, Detroit, Mich., assignor to Detrex Corporation, Detroit, Mich., a corporation of Michigan
Application October 12, 1954, Serial No. 461,871
3 Claims. (Cl. 134—69)

1. Apparatus for treating a work object with a chlorinated hydrocarbon comprising, a housing, a boiling well mounted within the housing and containing a liquid chlorinated hydrocarbon, heating means arranged to boil said liquid to form a vapor, an ultrasonic well mounted within the housing and containing a liquid chlorinated hydrocarbon, a piezoelectric transducer submerged in the liquid of the ultrasonic well and adapted for emitting ultrasonic energy, said transducer being energized by an electrical circuit independent of said liquid, an overflow dam positioned between said boiling and ultrasonic wells and adapted for allowing said liquid to overflow from said ultrasonic well into said boiling well, cooling means positioned on the housing above said wells for condensing said vapor into a condensate, collecting means mounted beneath said cooling means for catching said condensate,



condensate receiver means connected to said collecting means for storing said condensate, and conduit means connecting said condensate receiver means with said ultrasonic well, whereby a continuous circulating cycle is maintained, said liquid being vaporized in the boiling well, then condensed, collected, stored and returned to the ultrasonic well, then overflowing into the boiling well to again be vaporized, a spray lance having a spray nozzle, and flexible conduit means connecting said condensate receiver means with said spray lance whereby to feed said condensate to said spray nozzle for flushing over the work object and returning said condensate to said wells.

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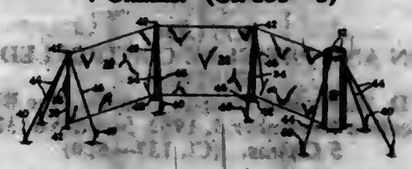
**2,771,087**
**PORTABLE SCREEN**
Lyle E. Simonsen, Thermopolis, Wyo.
Application September 28, 1953, Serial No. 382,592
2 Claims. (Cl. 135—4)



1. A portable shelter comprising a plurality of resilient bows, a ridge piece, said bows being pivotally secured at one end to said ridge piece, a latching block, a plurality of brace members pivotally secured at opposite ends to said latching block and said bows respectively whereby the latching block is movable toward and away from the ridge piece to effect spreading and collapsing the bows respectively, said ridge piece having a bore therethrough, said latching block having a main body portion and an end portion of reduced diameter, said reduced end portion of the latching block being received in said bore with the main body thereof in engagement with said ridge piece, a cylindrical cap secured to said reduced end portion and projecting therefrom through said bore when the shelter is open, said cap having a closed free end and diametrically opposed slots in the longitudinal central portion thereof, a spring received in said cap, said spring having a coiled bight portion nested within the closed end of said cap and a pair of substantially parallel leg members, each provided with an offset projecting through one of said slots to overlie and engage upon the upper end of said ridge piece.



**2,771,088**
**SHIELD**
Lewis E. Soldan, San Diego, Calif.
Application November 7, 1951, Serial No. 255,231
7 Claims. (Cl. 135—5)



1. An extensible and retractible shield that can provide shelter against the elements and that comprise a hollow housing, a relatively impervious wall, said wall being long and wide but being thin and being readily bendable, said housing having a support therein, said wall being bendable to wind around and be held by said support in retracted position within said housing, one end of said wall being secured to said support to be inseparable from said housing, the other end of said wall being extendable from said housing to intercept the elements, a second support for said wall when said wall is in extended position, said second support being securable to and readily separable from said wall, and a plurality of support-engaging elements on said wall to selectively hold or free said second support, the first said support being hollow and having a removable closure for one end thereof, said second support being dimensioned to fit within the first said support.

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**2,771,089**
**CRUTCH**
Herbert N. Magida, Chicago, Ill.
Application January 14, 1954, Serial No. 404,068
12 Claims. (Cl. 135—59)

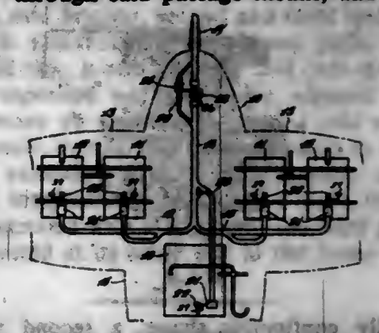


1. In combination with a walking crutch frame having a ground-engaging end, auxiliary supporting means having a bottom supporting end, means for pivotally connecting said auxiliary supporting means to said crutch frame at a point spaced a substantial distance from both ends of the crutch frame, locking means for fixing the angle between said crutch frame and said auxiliary supporting means, and means for selectively varying the distance between the bottom end of the auxiliary supporting means and the pivot axis thereof.

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**2,771,090**
**LIQUID FLOW CONTROL SYSTEMS**
Peter Stevens Macgregor, Upton, Poole, England, and Charles Harry Smith, Duxbury, Conn., assignors to Flight Refuelling Limited, Tarrant Rushton Airfield, near Blandford, England
Application December 28, 1951, Serial No. 263,896
Claims priority, application Great Britain October 12, 1951
12 Claims. (Cl. 137—399)

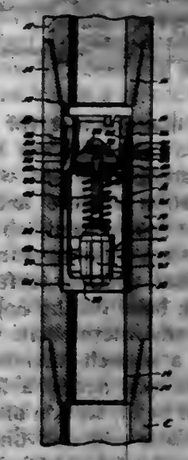
1. A liquid flow control system comprising a tank, liquid passage means in communication with said tank for supplying liquid under pressure to said tank, a shut-off valve in said passage means and operable between open position permitting maximum flow and closed position stopping all flow through said passage means, a flow-control valve in said passage means and operable between open position permitting maximum flow through said passage means and a closed position establishing a reduced flow through said passage means, and means for



opening and closing said valves and including float means in said tank and connected with said shut-off valve for closing such valve when the tank is full and means connecting said float means with said flow-control valve for closing said latter valve as the liquid level rises in the tank and prior to the closing of the shut-off valve to reduce flow through said passage means and prevent liquid hammer when said passage means is closed by said shut-off valve.

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**2,771,091**
**DRILL PIPE FLOAT VALVE**
Reuben C. Baker, Coalinga, and Thomas M. Ragan, Downey, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application February 23, 1954, Serial No. 411,991
7 Claims. (Cl. 137—542)



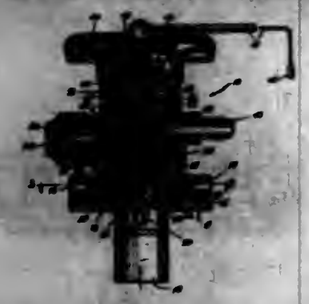
2. In a drill pipe float valve: a valve body having a valve seat and an inner hub below said valve seat; a guide in said hub and having a flange engaging the upper end of said hub; a member threaded on said guide and engaging the lower end of said hub; a valve stem slidable in said guide; valve means on said stem movable upwardly into engagement with said seat; and a spring engaging said flange and said valve means to urge the latter upwardly into engagement with said seat.

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**2,771,092**
**MULTI-OUTLET EXPANSION VALVE**
John A. Schenk, Clayton, Mo., assignor to Alco Valve Company, University City, Mo., a corporation of Missouri
Application January 23, 1953, Serial No. 332,899
4 Claims. (Cl. 137—561)

1. In a multi-outlet valve construction: a body member having an inlet and a plurality of outlets, the outlets

being generally circularly arranged about the inlet but being axially displaced therefrom; a partition wall providing a valve port adjacent the inlet, the valve port being transverse to the axis about which the outlets are disposed, the wall on the outlet side of the valve port diverging from the valve port outwardly and axially around the axis of the outlets to adjacent the outlets in a smooth,



substantially continuous shape; a second wall spaced from the first, extending from adjacent the port to adjacent the outlets, and of a shape corresponding to the first so that the two provide a distribution passage flaring outwardly from the valve port to the outlets; a valve movable toward and from the valve port; and the total area of the outlets being from 1.5 to 4.5 times the effective area of the valve port when fully opened.

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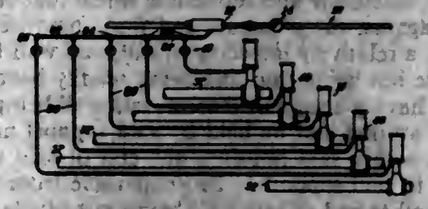
**2,771,693**
**BLEEDER VALVE FOR HYDRAULIC BRAKE SYSTEMS**
Harry O. Wilson, Seattle, Wash.
Application December 26, 1952, Serial No. 328,073
1 Claim. (Cl. 137—614.17)



As an article of manufacture for use as a permanent part of a hydraulic brake system having an internally threaded outlet opening provided with an internal seat therein, a combination closure and bleeder valve assembly adapted for permanent, shiftable mounting in said opening, said assembly comprising an elongated body having a frusto-conical, external surface on one end thereof, a horse-receiving head on the opposite end thereof, a set of external threads intermediate the ends thereof adjacent said surface, a wrench-receiving section intermediate said threads and said heads, a longitudinal bore extending through said head, section and threads and terminating in spaced relation to said one end, and a lateral bore extending into the body between said surface and said threads to a point of communication with said longitudinal bore, said longitudinal bore being provided with a set of internal threads within the head and the section, an intermediate seat-presenting shoulder within said external threads and a smooth stretch between said shoulder and said internal threads; a valve element within the longitudinal bore and provided with a conical face adapted for engagement with said shoulder to close said longitudinal bore; a tubular plug having a passage therethrough, said plug being externally threaded and adjustably and removably received with said longitudinal bore by said internal threads of the latter; and a coil spring within said stretch, said spring extending between and being secured to the plug and the element for yieldably biasing the latter into seated engagement on the shoulder, whereby the assembly may be permanently installed in said opening of said system by engagement of said external threads of the body with the internal threads of said opening and may be alternately shifted between a closing position disposing said surface in sealing engagement with said seat and a bleeding position disposing said lateral bore in communication with said opening.

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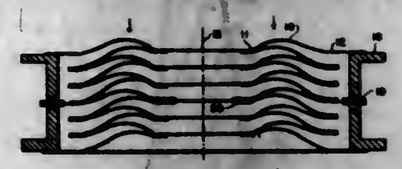
**2,771,694**
**SUCTION AND PRESSURE CONTROLLED VALVE SYSTEM**
William D. Bailey and John T. Cooper, Pine Bluff, Ark.
Application December 3, 1952, Serial No. 323,835
5 Claims. (Cl. 137—620)



1. A valve control system comprising a plurality of valves each controlling an individual pipe line, individual operating means for each valve comprising a self-contained unit detachably secured to the valve, each unit being responsive to pressure for opening its respective valve and responsive to vacuum for closing its respective valve, a pressure control line entirely separate from and independent of said individual pipe lines and said units, jet means in said control line, valve means in said control line, and conduit means connecting said jet means with said operating units, said valve means being operable to subject said conduit means and operating units selectively to vacuum and pressure whereby simultaneous operation of the plurality of valves in both opening and closing direction can be positively effected.

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**2,771,695**
**METAL BELLOWS FORMATION**
Melville F. Peters, East Orange, N. J.
Application January 2, 1951, Serial No. 203,901
2 Claims. (Cl. 137—796)



2. A high pressure bellows consisting of a plurality of flanged bellows membranes having flat flanges at their edges, said flanges of each membrane lying in a common plane and alternately secured together at their flanged portions, each membrane consisting of a single sheet of metal and the aforesaid flanges and an asymmetrically curved portion joining said flanges, the curve being generally arcuate and tangent at one point to a line drawn parallel to the plane of the flanges and said point of tangency lying intermediate the midpoint of said curve and the juncture of the inner flange and curved portion.

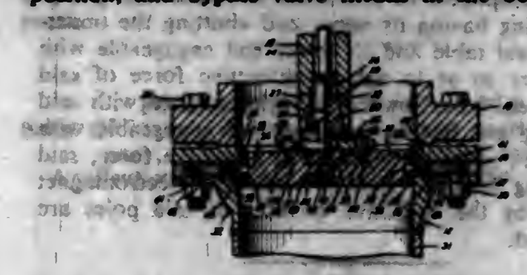
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**2,771,696**
**FLUID TIGHT CLOSURE**
Burton Ver Nooy, Tulsa, Okla., assignor to T. D. Williamson, Inc., Tulsa, Okla., a corporation of Oklahoma
Application May 5, 1954, Serial No. 427,700
18 Claims. (Cl. 138—89)

1. A fluid tight closure for a connecting conduit between pressure vessels, wherein the conduit is provided with locking means, said closure comprising a body insertable from one of the vessels into a locked position within the conduit, locking means on the body for cooperation with the conduit locking means in said locked position, seal means about the body and positioned relative to the locking means for sealing engagement with



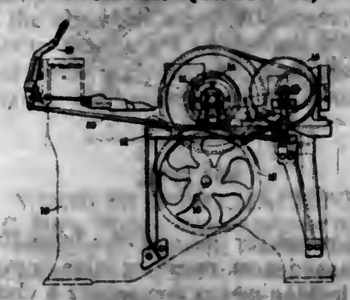
the conduit during insertion of the body into locked position, and bypass valve means in the body adapted



to be opened to permit communication between said vessels during insertion of the body and to be closed after said insertion to prevent said communication.

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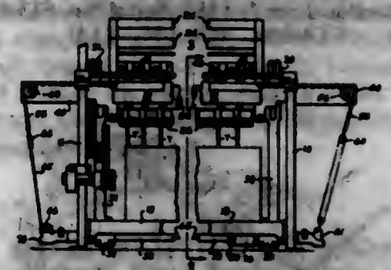
**2,771,697**
**LOOM DRIVE MEANS**
Clifford G. Mecn, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application October 12, 1953, Serial No. 385,434
2 Claims. (Cl. 139—1)



1. In a loom the combination of a loomside, a crankshaft and a camshaft carried in bearings in said loomside, gears interconnecting said crankshaft and camshaft thereby to drive one from the other and means for driving one of said shafts which comprises an electric motor supported at said loomside, said motor having an end shield, a shaft and pinion, a second shaft fixed in said end shield in laterally spaced, parallel relationship to said motor shaft and an internally toothed gear rotatably carried by said second shaft with which said pinion is in mesh, V-belt pulleys, one on that first mentioned driven shaft and a second which forms a part of said internally toothed gear and a V-belt running over said pulleys.

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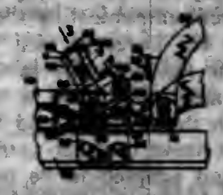
**2,771,698**
**PICKING MOTION FOR A LOOM**
Edgar A. Ross, Anderson, S. C.
Application November 8, 1954, Serial No. 467,438
4 Claims. (Cl. 139—138)



1. In a loom having a frame, a lay, a reed, a driven cam shaft, a plurality of oscillatable shuttles, a rack movable longitudinally of said lay, gear means engaging said rack for transmitting movement to said shuttles and swords supporting said lay, shuttles and reed; the combination of a tubular rock shaft journaled in the lower portion of said frame and supporting said swords, first and second sprocket wheels journaled on opposite ends of said lay, first and second sprocket chains connected to opposite ends of said rack and passing over and partially around the respective first and second sprocket wheels, a tension spring connected at one end to the end of the first chain remote from the rack and having its other end connected to one end of said rock shaft, a first pulley in the other end of said rock shaft, a bracket loosely mounted on said rock shaft and spaced substantially from said first pulley, said rock shaft having a slot therein adjacent said bracket, second and third spaced pulleys journaled in said bracket, the second pulley projecting through said slot, a cam fixed on said cam shaft, a lever pivotally suspended on said frame adjacent said cam, follower means on said lever engaging said cam, and a pliable element having one end connected to the second chain and extending downwardly, partially around the first pulley, longitudinally in said rock shaft, through said slot in engagement with said second and third pulleys and being connected at its other end to the lower portion of said lever.

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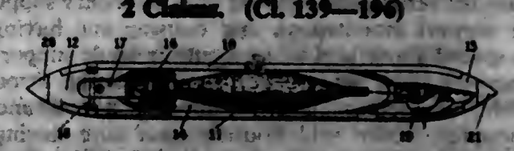
**2,771,699**
**CHECK FOR PICKING MECHANISM**
George W. Pearce, Danvers, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application July 28, 1954, Serial No. 444,582
13 Claims. (Cl. 139—147)



1. In checking mechanism for a loom picking shaft having a thrust member moving therewith, stationary support means, a primary plunger slidable on said support means and positioned for engagement with and movement by the thrust member during a checking operation of the mechanism, a secondary plunger also slidable on said support means but in a direction transverse of the direction of sliding movement of the primary member, coacting surfaces on said plunger at least one of which is inclined to the direction of movement of the primary plunger, said coacting surfaces effective due to movement of the primary plunger by the thrust member to cause movement of the secondary plunger in a direction away from said primary plunger, and resilient means resisting movement of the secondary plunger away from said primary plunger, said resilient means comprising two sets of coacting rings, the rings for one set being subjected to a force tending to expand them and the rings of the other set being subjected to a force tending to compress them when the secondary plunger has said movement in a direction away from the primary plunger.

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**2,771,100**
**SHUTTLE**
Paul C. Consoletti, Milford, Mass., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application June 11, 1953, Serial No. 361,028
2 Claims. (Cl. 139—196)



1. A shuttle for looms having side and end members bonded into a unitary structure defining a bobbin cavity in which the said side members are formed as a laminate and the end members are a macerate type of molded plastic material, said side members comprising reinforcing lamina bonded by a phenolic resin, said lamina comprising a

fabric in which components extending in the direction of the length of the shuttle are predominantly of a synthetic resin such as nylon and those components directed transversely to those first mentioned are predominantly of cotton.

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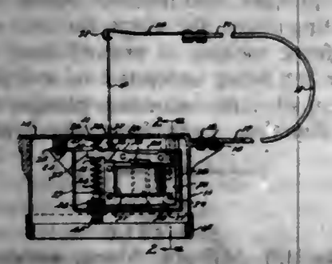
2,771,101
**STORAGE BATTERY FILLER**
Niles J. Thompson, Williamsville, N. Y., assignor to Gould-National Batteries, Inc., St. Paul, Minn.
Application March 12, 1954, Serial No. 415,882
5 Claims. (Cl. 141—57)



3. A device for filling a storage battery with electrolyte comprising a body member having dual bores leading thereinto from an open end battery connection portion thereof, said body member having an air passageway at its other end intercommunicating the ambient atmosphere with one of the bores of said body member, a source of electrolyte liquid supply in open communication with said last mentioned bore, a vacuum source in communication with the other of said bores, and a normally open resilient valve member carried by said other end of the body and adapted to be manually movable into air passageway sealing position whereby vacuum forces within said bores will cause electrolyte to be drawn into said device and delivered therefrom at the open end thereof until such time as the level of electrolyte in said battery reaches the bottom ends of said bores whereupon the vacuum forces drawing electrolyte into said device will be interrupted.

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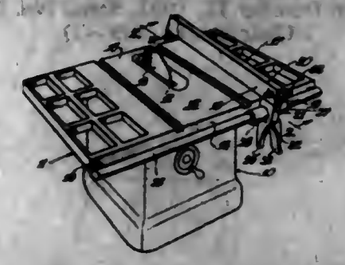
2,771,102
**VIBRATORY ELECTRIC CUTTING TOOL**
Thomas Frazer Carmichael, Plymouth, Mich., assignor to Syncro Corporation, Oxford, Mich., a corporation of Michigan
Application August 24, 1950, Serial No. 181,272
1 Claim. (Cl. 143—73)



In a cutting tool, a housing having a work table thereon, means for resting said housing on a stationary support, a blade support mounted on said housing and having a portion spaced above said table, a cutting blade supported at its upper end by said support and extending through said table, an electromagnet comprising a coil and a core mounted within said housing, said core having a plurality of spaced poles, an armature of rigid construction disposed between said electromagnet and said table and mounted for vibratory movement to and from said table about a fixed pivotal axis adjacent one of said poles, the lower end of said blade being operatively connected to said armature, the armature being inclined upwardly from said pivotal connection toward said table, whereby operative movement of said armature will impart a slight transverse component of movement to said blade, an upper coil spring having its upper end abutting the undersurface of said table and its lower end engageable with said armature so as to aid the attractive force of said electromagnet, and a lower coil spring aligned with said upper spring and having its upper end engageable with said armature so as to oppose said attractive force, said springs being laterally spaced from said electromagnet poles whereby the operative surfaces of said poles are uninterrupted.

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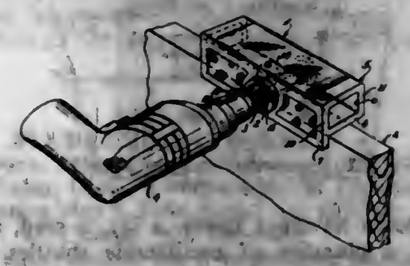
2,771,103
**FENCE FOR THE WORK-SUPPORTING TABLE OF A POWER TOOL**
William H. Odlum, Wilmette, and William F. Hosford and Clarence C. Wiesse, Chicago, Ill., assignors to Duro Metal Products Co., Chicago, Ill., a corporation of Illinois
Application February 23, 1954, Serial No. 411,796
3 Claims. (Cl. 143—174)



1. A locking means for one end of a fence for a power tool having a flanged work-receiving table in proximity to the fence, said locking means comprising a clamping element having a hook at one end adapted to engage the free edge of the flange, a first cam surface on the element, a stationary follower for the cam disposed on the fence, resilient means for drawing the cam against the follower, the cam and follower being arranged to raise and hold the hook against the flange under the drawing action of the resilient means, means mounting said fence over the table for oscillatory movement toward and away from the top of the table and for movement substantially parallel to the edge of the table, and a second cam disposed on the outside of the hook to strike the edge of the table and to move the element out of the way of said table edge to permit the hook to pass around and latch against the free edge of the flange when the fence is oscillated toward the table.

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2,771,104
**PLANER ATTACHMENT FOR ELECTRIC DRILLS OR THE LIKE**
Raymond J. Saxe, Akron, Ohio
Application June 3, 1955, Serial No. 513,052
5 Claims. (Cl. 144—114)



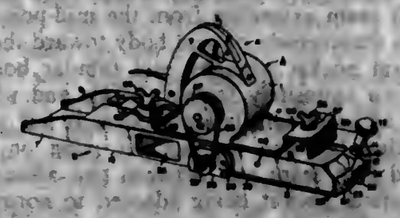
3. A plane comprising a tubular one-piece frame having a pair of opposed recesses provided in opposite side walls thereof and a base portion with an opening therein extending intermediate said recesses, a cutter cylinder, shaft means for said cutter cylinder engaged with and extending from said cutter cylinder, bearing means engaging said shaft means to journal said cutter cylinder



at opposite ends thereof in said frame, and means for securing said cutter cylinder and bearing means in said frame.

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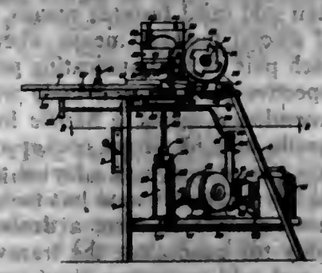
2,771,105
**POWER DRIVEN HAND TOOLS**
Boris G. Motoff, Dallas, Tex., assignor to Rotex Company, Dallas, Tex., a corporation of Texas
Application September 14, 1953, Serial No. 534,217
12 Claims. (Cl. 144—117)



1. For use with a power driven hand tool having a housing, an electric motor and a shaft; a jointer and planer attachment comprising a body-member having a downwardly opening transverse chamber, a cutter operatively mounted in the chamber, means for operatively connecting the cutter to the shaft, a work-contacting shoe adjustably mounted on the body-member, and means for detachably securing the body-member to the housing.

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2,771,106
**WOOD SHAPING MACHINE**
Clarence C. Sigle, Wabbaseka, Ark., assignor of one-half to William H. Boswell, Wabbaseka, Ark.
Application July 19, 1955, Serial No. 522,978
6 Claims. (Cl. 144—134)



2. A machine for shaping the ends of elongated pieces of wood, comprising a pattern cutter rotatable about an axis, a work carrier, an elongated work supporting backing-up bar supported on said carrier and disposed transversely of said axis, said backing-up bar having a contoured end surface conforming with said cutter and disposed in the cutting path thereof, means for effecting relative movement of said cutter and said work carrier transversely of said axis with the cutting action of said cutter being opposed to said backing-up bar, and means for supporting an elongated wood piece on said backing-up bar with an end thereof projecting slightly beyond said contoured end surface for contour cutting action thereon by said cutter and with said wood piece being fully supported adjacent said cutting path.

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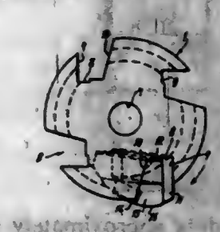
2,771,107
**SHAKE SPLITTING MACHINES**
John G. Vassy, Portland, Oreg.
Application May 17, 1955, Serial No. 509,035
6 Claims. (Cl. 144—193)



3. In a shake splitting machine the combination of a pair of spaced apart freely floating knife plates which have their adjacent edges oppositely bevelled to form a splitting wedge on each knife plate and a cam bar upon which a knife plate is freely and teeterably supported.

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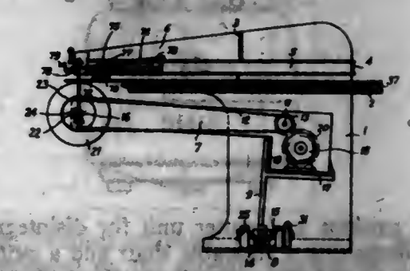
2,771,108
**CUTTER FOR WOODWORKING MACHINE**
Momir Babunovic, St. Louis, and Norris D. Dalton, Affton, Mo., assignors to Quirk Machinery Company, St. Louis, Mo., a corporation of Delaware
Application May 26, 1954, Serial No. 432,587
3 Claims. (Cl. 144—229)



1. A cutter for a woodworking machine, comprising a head having end faces and a bore normal thereto adapted for mounting the same on a shaft for rotation, said head having a substantially straight blade-receiving slot in its peripheral portion, said slot extending at an angle to a plane through the axis of said bore and crossing such plane between said end faces, and a flat cutter blade secured in said slot, said blade having a cutting edge and a warped surface adjacent said edge formed to provide a positive rake angle at any point along said edge.

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2,771,109
**WOOD-BENDING MACHINE**
Karl Michaelis, Paris, France
Application November 8, 1952, Serial No. 319,587
7 Claims. (Cl. 144—254)



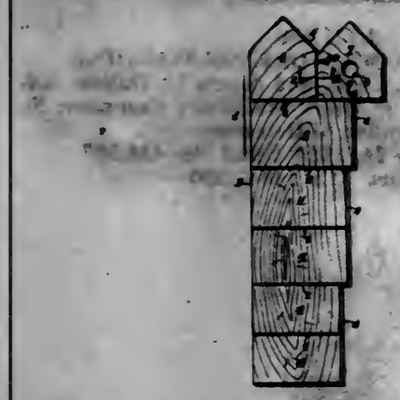
1. In a wood-bending machine the combination, with a machine bed, of a drum shaft, a former-drum on said shaft and an abutment member positioned in opposed relation to the drum for cooperation with the drum to contact opposite sides of the work extending between them, a lever pivoted to said machine bed on a horizontal axis for rocking movement in a vertical plane and supporting, lifting and lowering said shaft, mounted at one end, in exactly horizontal position, means at the rear end of said lever for fixing said lever and shaft at any level determined by the drum radius and means for rotating said drum.

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2,771,110
**STRUCTURAL ASSEMBLY KIT**
Ruth Gebhardt Tuck, Coatesville, Pa.
Application December 1, 1953, Serial No. 395,487
5 Claims. (Cl. 144—309)

1. A blank composed of wood or like material of a character and thickness adapted for division by hand cutting operation, said blank being designed to yield by division and subsequent assembly of the component parts thereof a structure of pre-determined form and being shaped in accordance with the requirements of said structure, and means for indicating on a face of said

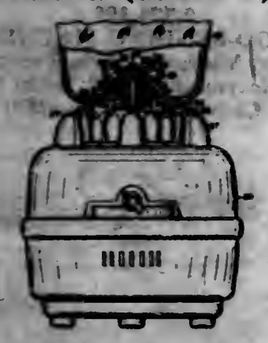
blank the lines of division on which the blank may be separated into said component parts, said indicating means comprising weakened portions having sufficient depth and width to receive the cutting edge of a cutting blade



of a width corresponding approximately to the width of said weakened portions to thus direct the cutting blade in the desired course and to afford support for the sides of the cutting blade during the dividing operation.

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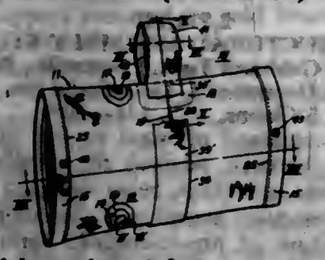
**2,771,111**
**AGITATOR AND CUTTER UNIT FOR DISINTEGRATING FOOD MIXERS**
Arthur W. Seyfried, Racine, Wis., assignor to Scovill Manufacturing Company, Waterbury, Conn., a specially chartered corporation of Connecticut
Application September 30, 1955, Serial No. 537,803
11 Claims. (Cl. 146—68)



1. An agitator and cutter unit for disintegrating food mixers comprising a rotatable shaft and a cutter member comprising a radially upwardly inclined blade having an annularly concave upper surface and a convex lower surface, and a radially downwardly inclined blade having an annularly convex upper surface and a concave lower surface, said blades being mounted on the shaft to rotate therewith and conforming to the surface of a frusto-conical section whose axis is coincident with the axis of rotation of said blades.

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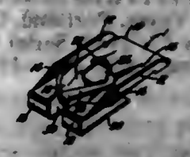
**2,771,112**
**SHOPPING AND TRAVELING BAG PURSES**
Elizabeth Alleen Ingram, Cincinnati, Ohio
Application February 7, 1955, Serial No. 486,352
4 Claims. (Cl. 150—35)



1. A hand bag adapted for use as a purse and as a shopping and traveling bag, said bag comprising a plurality of substantially rectangular members joined together in registry by first and second seams along a pair of opposite parallel edges to form a tubular body having multi-ply walls joined together by said seams, one of said walls having at least a cover ply, an inter ply, and a lining ply, third and fourth seams securing the end edges of the several plies in each wall of the body together in registry annularly of the mouths of said body, a structure whereby a pocket is formed projecting laterally into said tubular body with its mouth disposed centrally of said first seam with its bottom spaced from the second seam, a fifth seam extending from the mid-point of said second seam transversely of said body toward the bottom of said lateral pocket whereby said tubular body is divided into two oppositely facing pockets and whereby a passageway adjacent said lateral pocket is left providing communication between the pockets lying on opposite sides of said fifth seam and between two adjacent body plies, said lateral pocket being adapted to normally and substantially close the communicating passageway and being movable into substantially non-obstructing relation thereto, first and second slide fastener means for respectively closing the mouth of each of said oppositely facing pockets, said fastener means extending substantially between the first and second seams, and adjacent and parallel to the third and fourth seams, respectively, a third slide fastener means parallel to and between said fifth seam and said second mouth closing fastener means and adapted for closing an aperture in the lining ply of said body intermediate said first and second seams, a fourth slide fastener means adjacent said second fastener means and adapted for closing an aperture in said inter ply of said body disposed adjacent said lining ply and between said lining ply and the cover ply of said body, said fourth fastener means being spaced farther from said fifth seam than said third fastener means, and nearer thereto than said second fastener means whereby access may be had to each pair of communicating pockets lying between said respective plies of said body wall and between said first mentioned seams, a handle loop secured to said body laterally of said lateral pocket and projecting perpendicularly to said body and adapted to be folded for storing in said lateral pocket, said handle loop having extensions which co-operate to form a decorative band encircling said body for concealing the transverse seam, said handle loop and said encircling band portion being of substantially flattened tubular cross section and having apertures closable by slide fastening means in the wall thereof facing said body to provide concealed access to storage pockets therein, said body being foldable along a line parallel to said encircling band portion, and means for securing said body in folded relation with the mouths of the oppositely facing pockets disposed in side-by-side relation whereby said means is adapted for use as a purse.

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**2,771,113**
**SHEET METAL LOCK NUT WITH SPRING LOCKING ARM**
Laurence H. Flora, Cleveland, Ohio, assignor to Thanerman Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application August 18, 1953, Serial No. 374,950
4 Claims. (Cl. 151—11)

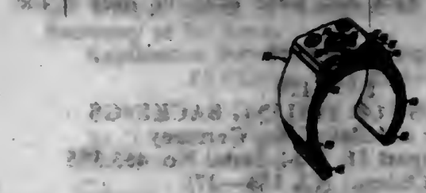


1. A fastener comprising a piece of sheet metal having a return bent portion defining a pair of spaced slightly converging body portions extending in the same general direction and adapted to receive therebetween in attached relation any of several apertured parts of different thicknesses between the limits of a thin part of considerably less thickness than the spacing of said body portions to a thick part having a thickness slightly less than the spacing of said body portions, one of said body portions being provided with a yieldable base stamped therefrom having a free end extending toward said return bent portion of the fastener, said yieldable base having an opening and thread engaging means on the periphery of said opening for threadedly engaging a bolt or screw, said yieldable base being bent bodily inwardly toward the other body portion such that said free end thereof is spaced from said other body portion a distance less than the thickness of any part with which the fastener is intended to be used, said inwardly bent yieldable base being adapted to yield in accordance with the thickness of the part to which the fastener is applied to cooperate with said other body portion of the fastener in engaging opposite sides of said part in the attached position of the fastener thereon, said yieldable base in such attached position of the fastener being adapted to lie substantially parallel to the part to which the fastener is applied with said other body portion in surface engagement with said part regardless of the thickness of said part and with said thread engaging means on said yieldable base in position for even and uniform threaded engagement with a bolt or screw to be applied to said thread engaging means with the axis of said bolt or screw in normal relation to said part, said return bent portion and said other body portion having a partially severed area therein extending lengthwise of the fastener from the free end of said yieldable base and defining an elongate spring arm integral with said free end of said yieldable base, said spring arm being return bent in overlying generally parallel relation to said yieldable base and having its inner longitudinal edge adjacent said opening in said base for engaging a bolt or screw in cooperation with said thread engaging means.



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**2,771,114**
**TIRE TREAD CONSTRUCTION**
Martin Negrete Laborale, Madrid, Spain
Application December 15, 1953, Serial No. 398,384
Claims priority, application Spain February 20, 1953
4 Claims. (Cl. 152—209)

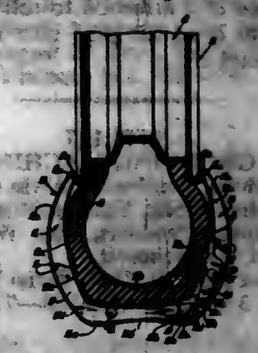


1. An elastic tire construction comprising a carcass, side walls and a tread surface, said tread surface including a plurality of substantially cylindrical cavities, a concentric ring surrounding each said cavity, and an annular incision defining the outer periphery of each said concentric ring.

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**2,771,115**
**TIRE LUG**
Edmund V. Brown, St. Catharines, Ontario, Canada
Application July 30, 1953, Serial No. 371,271
10 Claims. (Cl. 152—228)

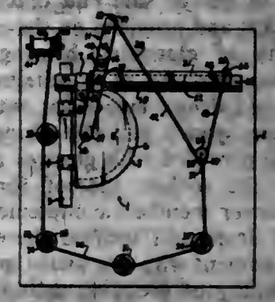
1. A traction lug for a tire and wheel rim assembly which comprises a pair of L-shaped clamp members each having a curved upright leg adapted to embrace the side wall of a tire and a bottom leg adapted to underlie the tread of a tire, said upright legs having abutment shoulders extending inwardly therefrom for overlying a wheel rim, a pivot connecting said clamp members adjacent the free end of the bottom leg portion of one clamp member and at the junction between the side and bottom legs of the other clamp member, said clamp members having depending knee portions at the junctions between their side and bottom legs thereof to provide ground engaging abutments projecting outwardly from the bottom legs, one of said clamp members having ratchet teeth on the free end thereof, the other of said clamp members having a dog pivoted on the side leg thereof adapted to engage said ratchet teeth, and said dog having a head portion adapted



to be engaged by the side wall of a tire to hold the dog in one of said teeth whereby the weight of a tire and wheel rim assembly on said knees will urge the abutment shoulders of the clamp members toward each other over the wheel rim and the side wall of the tire will automatically urge the dog into locking position to hold the clamp members tightly around the tire on the wheel rim.

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**2,771,116**
**PIPE BENDING MACHINE FOR INDUSTRIAL PIPING**
Sam L. Ballard, Houston, Tex.
Application October 26, 1951, Serial No. 253,336
8 Claims. (Cl. 153—45)



1. A pipe bending machine comprising a support, a rigid die anchored on the support and having a working face with a bend forming portion shaped to conform to the curvature of the inside of the bend to be produced in a pipe, a rockably mounted holding shoe on the support opposed to the curved die adjacent one end thereof and movable toward and away from the curved die, a separate independently mounted rigid bending shoe shaped to conform to the shape of the pipe before bending and in initial position before bending of the pipe having a first part directly opposed to the bend forming portion of the working face of the curved die and extending past the central point of the face of the die toward the holding shoe and a second part located and extending a substantial distance beyond the bend forming portion of said face in a direction away from said holding shoe, shackle means pivotally connected inwardly to said support and including means thereon adapted to maintain rolling contact with the surface of said shoe first part opposite the bend forming face portion thereof, a line connected at a first end to said shoe at substantially the end of said second part, a bridle block, said line extending from said first end through said bridle block and connected at the other end thereof to said shackle outwardly of said rolling contact means, and power means connected to said bridle block and adapted to pull upon said bridle block as said bridle block slides along said line, the pull of said power means as transmitted through said bridle block to said

other end causing said rolling contact means of said shackle to force said shoe first part toward the die to cause the bending shoe and die to tightly embrace a pipe at the locus of bending during the bending operation while permitting the bending shoe to roll in contact with said die, said pull of said power means as transmitted through said bridle block to said first end acting transversely of said bending shoe in a direction to roll said bending shoe along said die to bend the pipe into said bend forming face portion of said die.

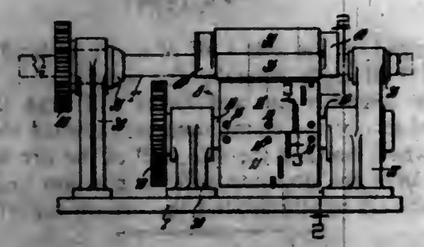
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2,771,117

## GROOVING MACHINE

Alfred L. Le Febvre, Southwick, Alvin O. Johnson, Westfield, and Walter J. Sitz, Easthampton, Mass., assignors to Stanley Home Products, Inc., Westfield, Mass., a corporation of Massachusetts

Application May 19, 1955, Serial No. 509,588
3 Claims. (Cl. 153—73)



1. Apparatus for forming longitudinally spaced annular grooves along an elongated tubular handle or the like comprising in combination, a support, relatively spaced end brackets and an intermediate bracket extending upwardly from said support, an elongated drum having a shaft rotatable in one of said end brackets and said intermediate bracket and provided on the outer face thereof with a plurality of elongated bearing sockets having longitudinal axes disposed in parallelism with the axis of rotation of said drum, means for rotating said drum, the sockets being spaced helically along said drum and said drum being provided with grooves at opposite transverse sides of the sockets thereof for grooving rolls, relatively thin cover members complemental to the outer surface of said drum and secured thereto and provided with slots in alignment with the socket grooves for grooving rolls, a plurality of grooving rolls in the grooves of said drum and extending through and beyond the slots of said cover members having journals rotatable in said sockets and held therein by said cover members, driving means for rotating a tubular handle adjacent said drum on an axis parallel to that of said drum, and guide means for guiding a handle during rotation thereof.

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2,771,118

## METHOD AND APPARATUS FOR MAKING UNWOVEN FABRIC FROM BAST FIBERS

Emilian Bobkowicz, Montreal, Quebec, Canada

Application October 3, 1952, Serial No. 312,968
Claims priority, application Canada August 28, 1952
3 Claims. (Cl. 154—1.75)



1. A method of making non-woven fabric from fleece of crude bast fibers which comprises feeding the fleece forward continuously, dividing the fleece into side-by-side portions, carrying one portion through a circuitous path and another portion through a direct path, said circuitous path being in a direction transverse to the width of the fleece, spreading both portions laterally to substantially the same width, and bringing the portions together whereby the ends of the fibers making up an individual stalk of the bast plant fall in different areas longitudinally of the resulting sheet.

2. An apparatus of the type described, comprising in combination means for conveying a fleece of long fibers in a substantially direct path and means for conveying a portion of the fleece through a circuitous path out of the plane of travel of the fleece, means for spreading the portions of the fleece in their respective paths in a lateral direction in the plane of travel of the fleece and for bringing the respective portions together again in the plane of travel of the fleece.

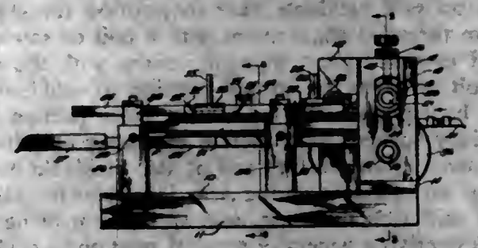
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2,771,119

## APPARATUS FOR PLEATING PAPER

Carl G. Heckett, Uxbridge, Mass., Walter V. Kennedy, Central Falls, R. I., and Chester A. Vander Pyl, Jr., North Attleboro, Mass., assignors to Frank Corporation, East Providence, R. I., a corporation of Rhode Island

Application February 11, 1955, Serial No. 487,642
12 Claims. (Cl. 154—30)



1. Apparatus for pleating an advancing sheet of filter paper, comprising a pair of feed rolls each having a sheet engaging outer surface, scoring blades extending longitudinally of the rolls and protruding slightly from the roll surface in staggered relation one to the other so that when the rolls are rotated they continuously engage and advance the sheet and score it at first one face and then the other, a guide way for the pleated sheet delivered by the rolls, and means for retarding the advancing movement of the pleats along the guide way to thereby cause the paper to bend back and forth near the rolls at the score lines.

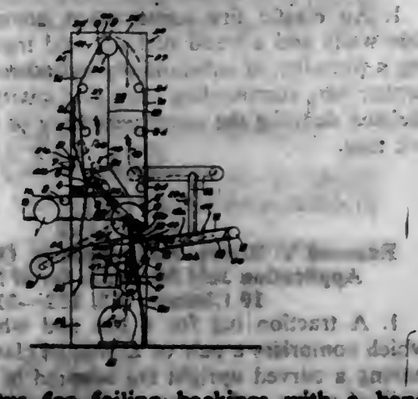
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2,771,120

## APPARATUS FOR FOILING BACKINGS

Werner Achilles, Celle, Germany

Application August 31, 1954, Serial No. 453,395
12 Claims. (Cl. 154—37)



1. An apparatus for foiling backings with a band-shaped foil containing a cellulose compound comprising, in combination, a housing having a front wall, a top wall, and a rear wall, a cylinder arranged outside said housing opposite to said front wall thereof, said cylinder being adapted to carry a roll of band-shaped foil, means for pulling said band-shaped foil from said cylinder through a first opening in said front wall of said housing, a glue-applying device arranged inside said housing near said first opening in said front wall thereof, said glue-applying device applying glue to said band-shaped foil after the same has passed said first opening in said front wall of said housing, means for guiding said band-shaped foil covered with glue upwards in said housing near said front wall thereof, wall means arranged substantially vertically in said housing between said front and rear walls thereof, so as to separate said housing into a front part and a rear part, said wall means having an upper edge arranged at a distance from said top wall of said housing, a roller arranged above said upper edge of said wall means and separated by a gap from said top wall of said housing, said roller guiding said band-shaped foil through said gap so that the same descends in said rear part of said housing, a first foil-spreading roller arranged in said front part of said housing in contact with said roller separated by said gap from said top wall of said housing, means for guiding said band-shaped foil downwards through said rear part of said housing, a heatable pressure roller arranged near the lower part of said rear wall of said housing below said means for guiding said band-shaped foil downwards, a second foil-spreading roller arranged above said pressure roller in contact therewith, a counterpressure roller arranged below said pressure roller near said lower part of said rear wall of said housing, a device arranged outside said housing opposite said rear wall thereof for leading a backing into said housing through an opening arranged in said rear wall thereof opposite the common edge of said pressure roller and said counterpressure roller whereby said backing and said band-shaped foil are passed between said pressure roller and said counterpressure roller, so as to form a back foil, and take-up cylinder arranged outside said housing opposite said front wall thereof, said take-up cylinder spooling said backed foil after the same has passed a second opening in said front wall of said housing.



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2,771,121

## METHOD AND MACHINE FOR ADHESIVELY LAP SEAMING FABRIC

Rex Stuart MacCaffrey, Boiling Springs, Pa., assignor to the United States of America as represented by the Secretary of the Army

Application July 23, 1954, Serial No. 445,491
15 Claims. (Cl. 154—42)



3. In a machine for lap seaming together side edge portions of two stripe of textile material, means mounting said stripe in longitudinally spaced and laterally offset relation with adjacent side edge portions in slightly overlapping relation, means for moving said strips toward each other, means for applying adhesive coatings to the same surface of each of said edge portions, means for directing said strips unidirectionally with said coated edge portions in abutting relation, and said last-named means including means for pressing said abutting edge portions together to form a lap seam.

9. In a method of continuously adhesively lap seaming together side edge portions of two strips of textile material, the steps of continuously and slowly moving said strips toward each other, applying a narrow strip-like coating of adhesive to the same surface of a side edge portion of each strip, allowing said coatings to be conditioned desirably as said strips move toward each other, positioning said moving strips in overlapping relation with said coated edge surfaces abutting, and pressing said abutted edge surfaces together to form a lap seam.

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2,771,122

## REMOVABLE COVER LAWN CHAIR

Carl Straub, Nebraska City, Nebr.

Application August 28, 1953, Serial No. 377,033
3 Claims. (Cl. 155—84)



2. In a lawn chair, a frame comprising a first C-shaped bottom portion normally horizontally disposed and resting on the floor with its open side facing forwardly, a pair of upright portions attached to the forward ends respectively of said bottom portion, a second approximately horizontally disposed C-shaped portion having its open end facing forwardly and with its forward ends attached to said upright members respectively, a support disposed transversely between said upright members and attached to the upright members at points approximately mid-way of their lengths, an inverted U-shaped upright frame portion disposed within said second C-shaped portion and forming a back frame portion for the chair and having upright side portions, substantially horizontal seat supporting side members disposed at the sides of the chair and extending forwardly from and attached to said side portions respectively of said upright U-shaped back frame portion, the forward ends of said side members being pivotally secured to said support whereby the said back frame portion and seat supporting side members may be pivoted and swung forward, and means attached to said upright U-shaped portion for forming a back and means attached to said side members for forming a seat.

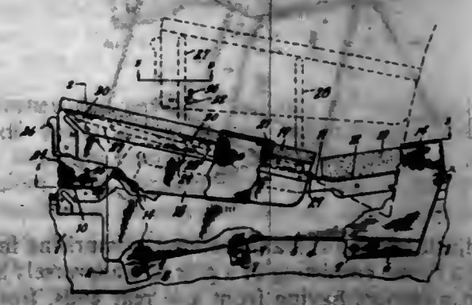
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2,771,123

## COLLAPSIBLE ARMRESTS FOR AUTOMOBILE SEAT CUSHIONS AND THE LIKE

Ivan Freeman Clark, Lyons, Mich., assignor to Ivan Clark Manufacturing Company, Lyons, Mich.

Application September 13, 1954, Serial No. 455,636
7 Claims. (Cl. 155—112)

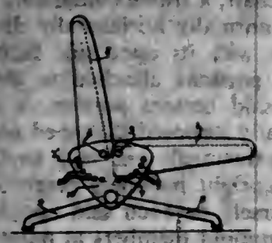


1. An arm rest comprising a base of downwardly facing channel section adapted to embrace a longitudinally extending raised portion of a motor vehicle body structure, the base having an upwardly facing recess at its front end, a rearwardly inclined front top portion at the rear of the recess and a forwardly inclined rear top portion, an arm rest of downwardly facing channel section provided with a front wall, a pair of loop-like arm rest supporting links pivotally mounted on the rearwardly inclined front portion of said base and pivotally connected in parallel relation to the underside of the top of said

arm rest to be swung rearwardly to an erected position or to collapse forwardly upon the base with the arm rest in embracing relation to the base and with its front wall constituting a closure for said recess, a pair of oppositely facing catches pivotally mounted on the inner side of said front wall to fit within said recess, a link pivotally connected to said catches and constituting a catch actuating finger piece which is accessable from beneath the arm rest when it is in erected position, and a spring acting to bias said catches into engagement with the forward arm rest supporting link when the arm rest is in erected position.

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2,771,124
**DIVAN WITH INDEPENDENTLY ADJUSTABLE BACK AND SEAT**
Osvaldo Bersani, Milan, Italy
Application January 10, 1955, Serial No. 480,925
Claims priority, application Italy September 14, 1954
5 Claims. (Cl. 155—118)



1. An article of furniture comprising a base support, a back member, first means pivotally mounting the back member on the base support for vertical swinging movement of said back member, a seat member, second means pivotally mounting the seat member on the base support for vertical swinging movement independent of the movement of the back member, said first and second means being disposed in the same horizontal plane and cooperative means on the base support concentric to said first and second means and on each of the back and seat members for locking said members in selected positions of relative angularity.

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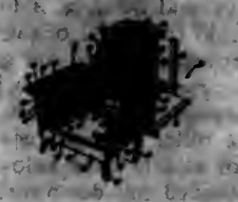
2,771,125
**ADJUSTABLE AND FOLDABLE CANOPY**
Albert L. Debbins, Kansas City, Mo.
Application April 6, 1954, Serial No. 421,318
1 Claim. (Cl. 155—154)



An adjustable and foldable canopy, comprising in combination a frame consisting of a pair of transversely spaced rigid top members having front and rear ends, front and rear cross members connected to and extending between the respective front and rear end portions of said top members, front and rear pairs of downwardly extending legs pivotally attached at their upper ends to the respective front and rear ends of the top members and having pointed lower end portions adapted for insertion in the ground, the front and rear legs in each pair being mutually downwardly divergent and movable toward and away from each other whereby the height and angularity of said top members relative to the ground may be adjusted, a pair of side members having upper ends pivotally attached to the rear end portions of said top members, lower ends of said side members being adapted to rest on the ground in an adjusted relation to the top members, a cross piece connected to and extending between the lower ends of said side members, and an elongated sheet of flexible material anchored at one end thereof to the front cross member, said sheet extending continuously over the rear cross member and under said cross piece and forwardly of the latter, whereby to constitute the top and the back and the bottom of the canopy.

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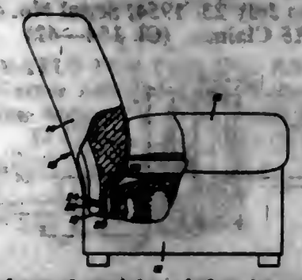
2,771,126
**FURNITURE CONSTRUCTION AND METHOD**
Charles Steil, Great Neck, N. Y.
Application June 7, 1956, Serial No. 589,956
6 Claims. (Cl. 155—184)



1. A frame for a piece of upholstered furniture comprising marginal members of bent metal defining the general outline of said piece of furniture, a plurality of spaced apart reinforcing members arranged in criss-cross relation and joined at their cross over points and to said marginal members to provide a body for said frame, said marginal and reinforcing members being shaped and contoured to attain the prescribed line for said piece of furniture, relatively flat tacking strips arranged inwardly of and adjacent said marginal members, and means extending through said tacking strips and engaging said body for fixing said tacking strips in position against said body, said tacking strips following the line of said piece of furniture as prescribed by the shape and contour of said members and affording a support to receive tacking for upholstering said frame.

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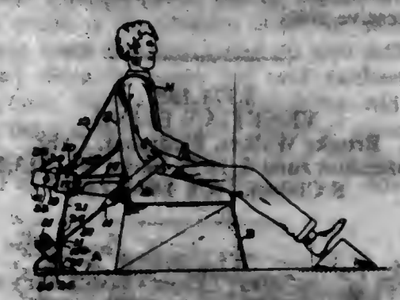
2,771,127
**RECEPTACLE FOR UPHOLSTERED FURNITURE**
Clifford C. Cole, Hayward, Calif.
Application September 15, 1953, Serial No. 380,932
1 Claim. (Cl. 155—188)



In an upholstered article of furniture having a back and a seat forming a crevice therebetween, an elongated open top and flexible receptacle for foreign matter removably inserted downwardly in said crevice, said receptacle comprising a closed bottom and ends, and side walls provided with top edges normally yieldingly bowed outwardly for frictional engagement with said back and seat, the bottom of the receptacle comprising a thickened solid portion of wedge shape in cross-section with a transversely rounded leading edge for facilitating insertion of the receptacle downwardly in said crevice, said bottom portion having a resilient reinforcing rib embedded longitudinally therein to yieldingly oppose deformation of said portion when the receptacle is being inserted, and a pair of handles attached to one side wall adjacent said ends and extending upwardly out of the receptacle for grasping to remove said receptacle.



2,771,128
**RIBBON BRAKE UNIT WITH INERTIA CONTROL**
Donald B. Deeblide, Wilmington, Del., assignor, by mesne assignments, to All American Engineering Company, Wilmington, Del., a corporation of Delaware
Continuation of application Serial No. 141,563, January 31, 1950. This application August 15, 1952, Serial No. 304,483
4 Claims. (Cl. 155—189)



2. Shock absorbing means for vehicle carried seats comprising an elongated flexible member movable in response to forward forces imparted from the shoulder straps and waist straps of an occupied safety harness to which one end of said member is connected, said flexible member having its opposite end resiliently and yieldably connected to a fixed element of the vehicle, brake shoes mounted in a brake housing fixed with respect to said flexible member and on each side of the member, power means comprising a fluid actuated piston and a source of uniform fluid pressure, an accelerometer responsive to crash developed acceleration forces for releasing said fluid pressure to said piston to actuate the brake shoes into slipping engagement with said flexible member under predetermined load, said member absorbing energy by said slipping action, to thereby restrain the forward movement of the wearer of the harness and occupant of the associated seat below the threshold of a maximum tolerable acceleration.

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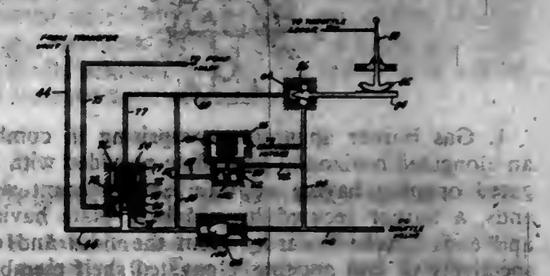
2,771,129
**ARMREST STRUCTURE FOR FURNITURE**
John G. Platt, Carthage, Mo., assignor to Flex-O-Lators, Inc., Carthage, Mo., a corporation of Missouri
Application February 27, 1953, Serial No. 339,231
1 Claim. (Cl. 155—196)



An arm rest structure comprising a fixed base, a series of coil springs anchored at their lower ends to said base, an open frame member disposed about the margin of said series of springs at the upper ends thereof and secured thereto, a series of parallel, spaced apart transverse wires extending across and secured at their opposite ends to said frame, a pliable strand extending transversely to said wires and connected to each of said wires intermediate its ends, fabric members secured in said frame along their upper edges by reason of the piercing of said fabric by said transverse wires, and secured along their lower edges to said base, said fabric members being tensioned whereby to pre-load said springs, padding disposed over said spring assembly, and upholstery fabric disposed over said padding and secured to said base, said transverse wires being closely spaced whereby to prevent said padding from working downwardly into or around said springs, said upholstery fabric being relatively slack as compared to said spring-loading fabric members.

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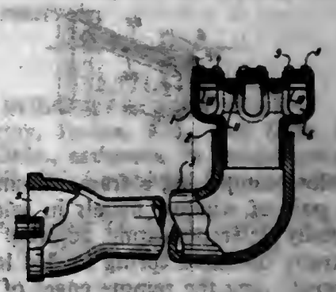
2,771,130
**EMERGENCY FUEL CONTROL SYSTEM**
Stanley G. Best, Jr., Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application December 30, 1952, Serial No. 328,767
16 Claims. (Cl. 158—36.3)



1. In combination, a power plant having a combustion chamber, a source of fuel under pressure, a throttle valve operatively connected between said source and said combustion chamber, said valve being resiliently biased toward a closed position, at least one other valve operatively connected in parallel with said throttle valve, means for metering the amount of flow to said other valve, means for maintaining the pressure drop across said metering means at a constant, and means for varying the opening of said other valve thereby varying the pressure on the downstream side of said throttle valve and automatically modifying the effect of the resilient bias and varying the opening of said throttle valve.

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2,771,131
**BURNERS FOR GAS FIRED BOILERS**
Charles Howard Hoak and Wallace W. Miller, Pittsburgh, Pa.
Original application November 4, 1948, Serial No. 58,242. Divided and this application March 29, 1951, Serial No. 218,286
1 Claim. (Cl. 158—114)



A burner for gas-fired furnaces of the type having rows of boiler tubes spaced immediately above the burner structure comprising burner heads of a plurality of parallel duct sections with air spaces therebetween and constituting an integral casting, said sections being connected by a cross web having an inlet neck portion centrally of the ends and sides thereof forming a gas inlet and distributing chamber communicating with said ducts, a venturi tube adapted to lead fuel from a gas manifold and connected to said inlet neck portion at the other end thereof, each of said burner ducts having pairs of rows of closely spaced jet openings except in the area above the gas distributing chamber with the openings of adjacent rows staggered and divergently inclined at a slight angle, said area being imperforate and baffle plates disposed in said gas inlet and distributing chamber, said plates substantially extending from the center duct to the outer walls of the outside ducts of the burner heads.

2,771,132
RADIANT GAS BURNER APPARATUS
Homer D. Du Pont, Easthampton, Mass.
Application May 25, 1953, Serial No. 357,688
2 Claims. (Cl. 158—113)



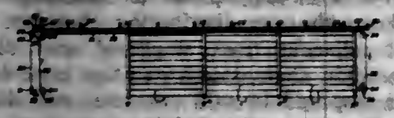
1. Gas burner apparatus comprising in combination, an elongated horizontal base plate provided with an elongated opening having opposite and adjacent sides and ends, a burner secured to said base plate having sides and ends spaced inwardly from the sides and ends respectively of said opening, elongated shelf members having lower portions secured to said base plate along opposite sides of the opening therein and extending upwardly from said base plate, elongated supporting shelves on upper portions of said shelf members disposed above the plane of the upper side of said burner and base plate, and an elongated dome member formed from ceramic material to have a transversely convexed wall between and above said shelf members and provided with opposite transversely spaced longitudinal lower edges disposed on said supporting shelves, said wall of the dome, shelf members and upper side of the burner cooperating to form an elongated open ended horizontally disposed combustion chamber therebetween, said wall of the dome provided with transversely spaced rows of longitudinally spaced openings and the upper side of said burner provided with upwardly directed gas ports.

2,771,133
WINDOW
Alden H. Haskell, Lexington, Ky.
Application September 25, 1953, Serial No. 382,363
3 Claims. (Cl. 160—99)



1. A window comprising a frame mounted in a building wall, a pair of window panels in said frame, hinge means pivotally interconnecting adjacent edges of said panels, centrally operated spring loaded latch means for adjustably positioning the remote edges of said panels on said frame, a removable storm window member secured to the outer surface of each panel in spaced sealed relation, and a removable awning member secured to one of said panels for protection from direct sun rays, said storm window members and awning member being accessible from the interior of a building in which the frame is mounted.

2,771,134
BLIND FOR STRAIGHT OPENINGS
Francisco Jose Lattanzio Baroni, Buenos Aires, Argentina
Application June 28, 1954, Serial No. 439,823
3 Claims. (Cl. 160—115)



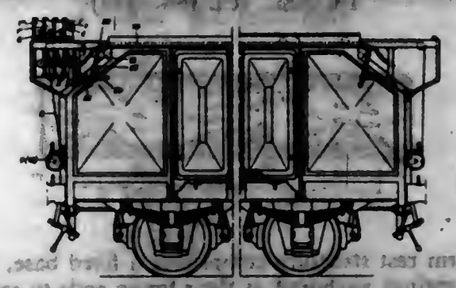
1. A blind for a window and the like having a straight opening, the blind being formed from a plurality of interconnected horizontal slats, a plurality of vertical supporting members suspended from the top of the window opening, the slats being pivotally connected to the vertical supporting members, the vertical supporting members being slidably mounted, means for sliding the vertical supporting members and the slats horizontally across the window opening to vary the width of the blind, and means for pivotally and manually turning the slats to vary the inclination of the slats and the openings between successive slats.

2,771,135
VENETIAN BLIND
Brooks Walker, Piedmont, Calif.
Application June 6, 1955, Serial No. 513,219
5 Claims. (Cl. 160—168)



1. A Venetian blind, including a rotating tilt rod, a tilt cord lock, tilt cords, ladder tapes, slats, lift cord turns, fascia slats, said fascia slats being supported one at each side of said tilt rod, supporting brackets, each said fascia slat hanging from at least one said bracket, said bracket being supported from said tilt rod, said tilt rod being free to rotate inside said bracket while said bracket supports said fascia slats, said fascia slats being free to rotate independently relative to each other for a substantial angle of swing about said tilt rod.

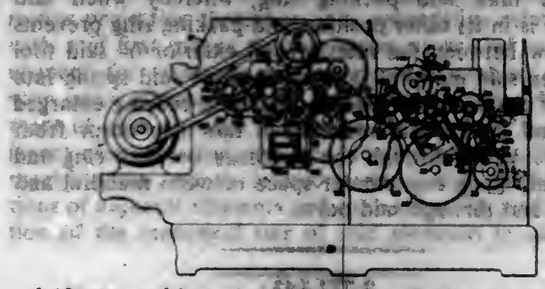
2,771,136
HATCH-COVER
Claude Lecomte, Fontenay Aux Roses, France, assignor to International Mac Gregor Organization (I. M. G. O.), Casablanca, Morocco, a corporation of Morocco
Application March 28, 1955, Serial No. 497,330
Claims priority, application France July 21, 1954
9 Claims. (Cl. 160—189)



1. A closing arrangement for a railway truck or the like comprising back, front and side walls said walls forming together an opening, an open guiding surface on the upper portion of said side walls flanking said opening, at least one series of longitudinally aligned movable panels, lateral roller means on said panels freely resting and rolling on said guiding surface in order to easure a longitudinal displacement of said panels to open or close the truck, rigid link means for pivotally interconnecting two longitudinally adjacent panels, a stowage space at least at one of the ends of said space located substantially adjacent the respective back or front side, adapted to contain the different panels arranged side by side and in an upended position, inclined guideway portions extending inside said stowage space and constituting an extension of said guiding surface on which said roller means are adapted to move, further guiding means parallel with said inclined guideway portion but somewhat offset with respect thereto extending along the stowage space, lateral protrusions provided on each of said panels for positive cooperation with said further guiding means, the combined action of said protrusions along the said further guiding means together with the rolling of said rollers on said inclined guideway portions causing each panel to be tilted to and from the vertical upended position they occupy in said stowage space, pulling means connected to the panel which is the farthest from the stowage space and winding control means acting on said pulling means for causing them to move the said farthest panel in both directions, thereby either closing the said space and spreading thereupon a complete sheet of adjacent panels or opening the said space and causing the said panels to be located in the upended position in said stowage space.



2,771,137
RECORD CONTROLLED PUNCH WITH PROVISION FOR SERIAL NUMBERING
Paul V. Babel, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application April 30, 1953, Serial No. 352,267
7 Claims. (Cl. 164—115)



1. In a machine of the class described, means to feed a succession of records having designations representing the quantity of separate records to be serially number punched, means to sense said designations one record at a time, a quantity counter, a serial number counter, means to enter a unit in each of said counters for each of said separate records, means controlled by the feeding of one of said first named records to cause resetting of said quantity counter, means controlled by the sensing means for entering the quantity in the quantity counter when one of said first records is sensed, a record perforating mechanism, a cyclically operable emitter, means for initially placing said perforating mechanism under control of said emitter to punch the first of said separate records with a predetermined intial serial number, means for setting said serial number counter one unit higher than said initial number, means for thereafter placing said perforating mechanism under control of said serial number counter to serial number punch a succession of said separate records beginning with the next higher serial number above said initial number, and means controlled by the quantity counter when the last record of said separate series is serial number perforated to render the feeding means effective to feed another of the first named records to the sensing means.

2,771,138
WATERFLOODING METHOD OF SECONDARY RECOVERY
Donald M. Bossen, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application June 13, 1955, Serial No. 515,264
9 Claims. (Cl. 166—9)

1. A method of recovering oil from a subterranean oil reservoir which comprises injecting an aqueous solution within the reservoir, the aqueous solution containing dissolved sugar and a water-soluble salt of a metal selected from the class consisting of aluminum, lithium and beryllium, the amounts of sugar and salt within the solution being sufficient to provide the solution with a viscosity of from 0.1 to one times the viscosity of the oil but less than 500 centipoises, the amount of the aqueous solution injected constituting from about 0.05 to 0.5 the volume of hydrocarbon within the reservoir, thereafter injecting water into the reservoir so as to drive the aqueous solution through the reservoir in the form of a bank, and withdrawing fluids including oil from the reservoir at a point removed from the point of injection.

2,771,139
MULTIPLE SOLVENT SECONDARY RECOVERY PROCESS
Edward F. Johnson and George G. Binder, Jr., Tulsa, Okla., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application July 22, 1953, Serial No. 369,706
5 Claims. (Cl. 166—9)

1. A secondary recovery process for recovering oil from an underground oil reservoir which is in communication with an injection well and a producing well which comprises injecting a first oil solvent down the injection well and into the oil reservoir, said first solvent being a hydrocarbon containing from 3 to 5 carbon atoms, thereafter injecting a second oil solvent down the injection well and into the reservoir, said second solvent also being a hydrocarbon containing from 3 to 5 carbon atoms; the combined amounts of the two solvents being greater than 15 percent by volume of the hydrocarbon pore volume of the reservoir and the second solvent being more volatile than the first solvent, maintaining the pressure of the reservoir at a value greater than the vapor pressures which the solvents normally possess under the conditions that prevail within the reservoir, thereafter injecting a drive gas down the injection well into the oil reservoir, said gas being non-condensible under the conditions that prevail within the reservoir, and removing from the reservoir through the producing well oil that is swept from the reservoir.

2,771,140
SUBSURFACE IGNITER
Harry A. Barclay, Dallas, Tex., and Dean P. Nichols, Comanche, Okla., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
Application August 28, 1953, Serial No. 377,155
9 Claims. (Cl. 166—60)



1. In an apparatus for supplying heat to a subterranean formation adjacent a bore hole, the combination which comprises a plurality of spiral heating elements oriented in an end-to-end array to form an elongated heating unit, supporting structure for said plurality of elements including three metallic rods electrically insulated one from the other and spaced uniformly around the periphery of a circle within and smaller than the dimension

of said spiral heating elements, and electrical connections between the two extremities of each of said heating elements and selected pairs of said rods.

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2,771,141
JET WALL CLEANER
Farral Francis Lewis, Shreveport, La., assignor of one-half to Gem Oil Tool Company, Inc., Lafayette, La., a corporation of Louisiana
Application September 3, 1953, Serial No. 378,332
6 Claims. (Cl. 166—222)



1. In a well tubing tool for jetting a high velocity fluid stream from within the well tubing and in a swirling path over the side wall of a well bore in which the tubing may be fitted, a tube section having a series of circumferentially spaced external bosses which terminate at their upper ends in upwardly facing shoulders projecting outwardly of the tube section wall and a pressure fluid jetting passage extending upwardly through each boss from the tube section interior and terminating in an upwardly directed discharge mouth in the upwardly facing shoulder of the boss and said passage extending on an axis which lies in a plane parallel to a longitudinal plane containing the axis of the tube section and is outwardly divergently related to the longitudinal extent of the tube section wall.

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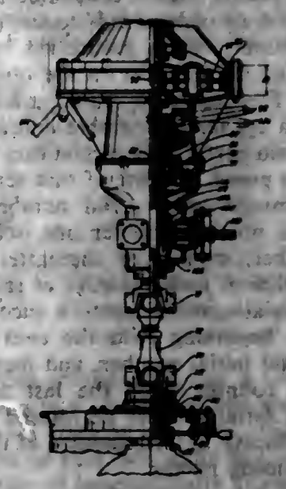
2,771,142
TUBING DRAINS
Oliver Charles Sloan, Odessa, and Joe Webb Gibbs, Houston, Tex.
Application March 18, 1953, Serial No. 343,212
6 Claims. (Cl. 166—226)



1. A pressure equalizing tool adapted for placing in a string of tubing for use in a well, which comprises a tubular body, a bottom sub attached to one end thereof and having thread connections for attachment of the tool into a tubing string, a top sub attached to the other end of said body, a tubular mandrel slidably extending into said body through said top sub and having thread connections at the free end thereof for attachment of the tool into a tubing string, said mandrel being of sufficiently smaller external diameter than the smallest internal diameter of said body through which it moves axially as to allow clearance for fluid flow between mandrel and body, an enlarged bottom end of said mandrel within said body having an upper circular shoulder, said body having within its upper end a corresponding circular internal shoulder adapted for engagement with said shoulder on said enlarged end of said mandrel to limit outward motion of said mandrel, a helical compression spring within said body secured at its bottom by said bottom sub and pressing against the bottom of said enlarged bottom end of mandrel biasing said mandrel towards its outermost position, at least one drain port in said body between said internal shoulder and said top sub, at least one packing ring around said enlarged bottom end of said mandrel making a seal by contact with the inner circumference of said body below the aforesaid shoulders, and a cylindrical recess within the bottom portion of said body longer than the enlarged bottom end of said mandrel and of greater diameter than said packing ring, whereby when said mandrel is in its outer position said packing ring prevents fluid flow between the interior and exterior of said tool and when said mandrel is forced against said spring into its inner position with said packing-ring-bearing enlarged lower end within said recess fluid flow can occur from within said tool through the clearance between ring and recess and along the annular space between mandrel and body to and through said ports.

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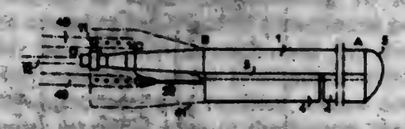
2,771,143
TRANSMISSION SYSTEM FOR ROTATING WING AIRCRAFT
Harris S. Campbell, Bryn Athyn, Pa.
Application March 29, 1948, Serial No. 17,707
10 Claims. (Cl. 170—135.22)



6. A helicopter transmission system having a two speed unit, an input shaft thereto, an output shaft therefrom, a freewheel device in said input shaft, a gear reduction mechanism incorporated in said two speed unit, a one way reaction device in the gear reduction mechanism, a tail rotor drive geared to the input shaft between said freewheel device and said gear reduction mechanism and an automatically engageable mechanism located between said output shaft and said tail rotor drive to operate the tail rotor drive when power is removed from said input shaft.



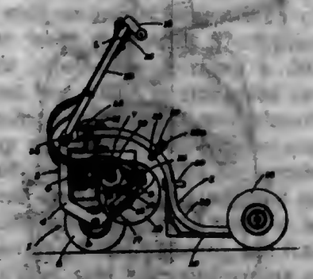
2,771,144
BLADES FOR ROTARY-WING AIRCRAFT
Gaston M. Lalouette, Boulogne-sur-Seine, André H. Laville, Puteaux, and Paul H. L. Morain, Paris, France, assignors to Société Nationale de Constructions Aeronautiques du Sud-Ouest (Société Anonyme), Paris, France, a company of France
Application October 28, 1952, Serial No. 317,366
Claims priority, application France December 28, 1951
3 Claims. (Cl. 170—159)



1. A propeller or sustaining rotor blade assembly for aircraft comprising a tubular metal spar member adapted to define a leading edge of the blade and having longitudinally extending first means projecting therefrom towards the rear edge of the blade, a trailing edge structure adapted to complete the airfoil contour of the blade and consisting of a plurality of separate elements, a profiled section attached to the leading side of each of said elements and having second longitudinally extending means projecting therefrom into cooperative relationship with said first means, keying means associated with said element for retaining said elements assembled to said spar while allowing limited independent sliding displacement of each element relative to the spar and to the adjacent elements, and separate traction-resisting displacement-limiting means interconnecting said profiled sections of adjacent elements and connecting the profiled section of the innermost one of said elements to said hub.

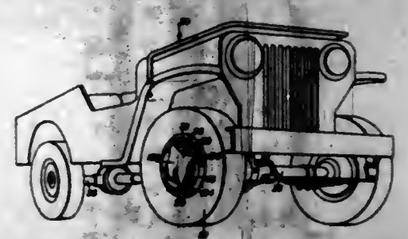
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2,771,145
FOLDABLE THREE-WHEEL POWER DRIVEN VEHICLE
Byron M. Polen, Ladera, Calif.
Application August 30, 1954, Serial No. 453,005
4 Claims. (Cl. 180—26)



1. A self-propelled vehicle comprising a front power unit which includes a central ground-engaging drive wheel, a trailer behind the power unit and having a pair of transversely spaced ground engaging wheels symmetrically disposed relative to the first named wheel when the power unit and trailer are longitudinally alined, means on the trailer to support a driver, means connecting the trailer and power unit for relative rotation about a vertical axis, and a steering handle structure on the power unit arranged for actuation by the driver; said connection means comprising a vertical socket on the power unit and a pin on the front end of the trailer detachably seated in the socket and then maintaining the trailer and power unit in cooperating relationship; and another pin fixed on the trailer and engageable in said socket when the first named pin is withdrawn therefrom, said other pin being positioned so that when engaged in the socket, the trailer will be disposed alongside and close to the power unit with the axial line of the trailer wheels extending lengthwise of the power unit.

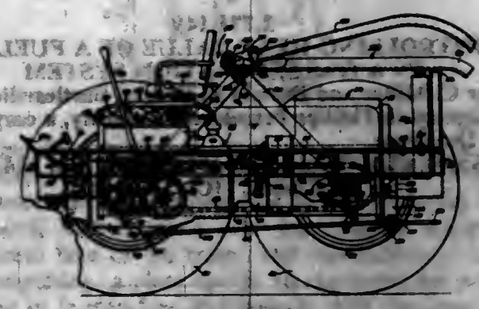
2,771,146
SAFETY DEVICE FOR FOUR WHEEL DRIVE VEHICLES HAVING FRONT AND REAR AXLE DIFFERENTIALS
Salvatore Fago, Madera, Calif.
Application October 7, 1952, Serial No. 313,397
6 Claims. (Cl. 180—44)



1. A vehicle including front and rear wheel assemblies, each of said wheel assemblies including differential gearing assemblies drivingly connected to respective front and rear axle assemblies through impeller shafts drivingly connected to a common power source, and a safety device operably connected to a wheel and driving axle of one of said wheel assemblies providing an over-load torque relieving means between the power source, differential gearing assemblies and axle assemblies, said safety device including a slipping over-load release coupling, said coupling being operatively interposed between said wheel and its driving axle, said wheel being maintained in fixed axial position with respect to said driving axle.

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2,771,147
FOUR-WHEEL DRIVEN TRACTOR
Charles S. Ash, Detroit, Mich.
Application May 18, 1950, Serial No. 162,617
2 Claims. (Cl. 180—49)



1. A self-propelled wheeled tractor vehicle comprising a main frame structure, a hollow forward wheel support mounted forwardly on said main frame structure, a rearward wheel support mounted rearwardly on said main frame structure in longitudinally-spaced relationship with said hollow forward wheel support, a wheel hub loosely and rotatably mounted on each end of each wheel support, ground-engaging wheels mounted on said hubs, an axle rotatably mounted in said hollow wheel support and drivingly connected at its outer ends to the wheel hubs mounted thereon, an engine mounted rearwardly on said frame structure, power-transmitting mechanism extending forwardly from said engine to said axle and drivingly connecting said engine to said axle, toothed driving members mounted on and fixedly secured to said hubs, and a plurality of endless flexible driving elements, each element extending between and engaging the corresponding longitudinally-spaced driving members secured to the associated hubs.

2,771,148
**INSTRUMENT PANEL FOR MOTOR VEHICLES**
Friedrich K. H. Nallinger, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application September 4, 1952, Serial No. 307,789
Claims priority, application Germany September 8, 1951
3 Claims. (Cl. 188—90)



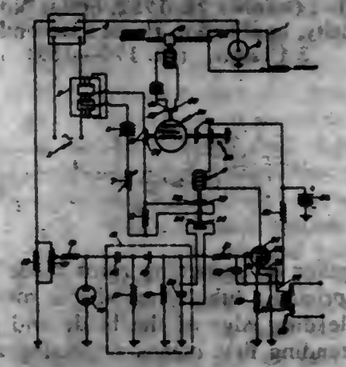
1. An instrument panel for motor vehicles comprising a panel provided with a window, a pane closing said window, a supporting plate, a frame fixed to said panel and surrounding said supporting plate over the edge thereof on the side of said supporting plate opposite said panel, a strip of sound-absorbing material interposed between said frame and the marginal zone of said plate, a spacing element of resilient material coextensive with the periphery of said plate and inserted between the marginal zone thereof and said panel to keep said plate spaced from said panel and sealing the space therebetween, and instruments carried by said plate behind said pane being visible therethrough.

2,771,149
**CONTROLLING HEAT VALUE OF A FUEL GAS IN A GAS SEPARATION SYSTEM**
Elmer C. Miller and Donald E. Berger, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application October 13, 1952, Serial No. 314,464
12 Claims. (Cl. 183—2)



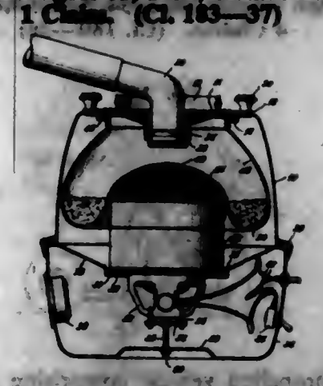
1. A process for separating from a stream of natural gas comprising a mixture of normally gaseous paraffins a gaseous product stream consisting essentially of a mixture of at least three normally gaseous paraffins and containing a larger proportion of paraffins of low molecular weight than said natural gas stream, which comprises passing a feed stream of such natural gas to a separating means and separating from said natural gas feed stream such a gaseous product stream, measuring the refractive index of said product stream, and controlling the operation of said separating means with respect to the proportion of paraffins of higher molecular weight in said product stream to maintain said measured refractive index constant, whereby the heating value of said product stream is maintained constant.

2,771,150
**PROTECTIVE RELAY CIRCUITS**
Jeremy Wells, Waltham, Mass., assignor, by mesne assignments, to AFRA Electronics Corporation, New York, N. Y., a corporation of Delaware
Application July 22, 1954, Serial No. 445,092
2 Claims. (Cl. 183—7)



1. In a gas cleaning system, means for ionizing a gaseous medium to be cleaned, a source of input voltage for said ionizing means, integrating means adapted to register the frequency of current pulses which may occur in said ionizing means, first switching means controlled by said integrating means and adapted to operate when said current pulses exceed a predetermined frequency, means in circuit with said input voltage source and adapted to reduce said input voltage when said first switching means function, washing means connected to said ionizing means, and second switching means adapted to sequentially remove said input voltage from said ionizing means, actuate said washing means, and restore said first switching means to its pre-functioning condition.

2,771,151
**VACUUM CLEANER**
Ralph C. Osborn, Bloomington, Ill.
Application August 11, 1953, Serial No. 373,541
1 Claim. (Cl. 183—37)

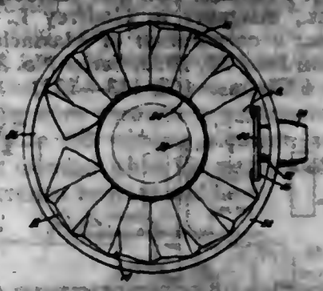


A device of the character described comprising an upstanding wall provided with a top having an inlet opening disposed centrally thereof and provided with an annular bottom wall presenting an outlet opening in register with the inlet opening, an imperforate, open ended cylindrical fan housing extending axially upwardly from the inner marginal edge portion of said bottom wall defining the outlet opening therein with the outer surface of said housing being spaced inwardly from the inner surface of said upstanding wall, a fan mounted within said housing for discharging air through said outlet to create a subatmospheric pressure within the chamber defined by said top, bottom and upstanding walls, a generally hemispherical member having its marginal edge secured to the open upper end of said fan housing, said member being effectively foraminous only throughout the portion thereof extending above the open upper end of the fan housing, a porous cleaner bag positioned within said chamber with the central portion of the bottom thereof resting upon



and covering said foraminous member and with the remainder of the bottom of the bag extending below the open upper edge of the fan housing and below the said effective foraminous portion to encompass a substantial portion of the upper end of the fan housing, and the neck of the bag being secured in depending relation from said top wall of the chamber whereby that portion of the bag which encompasses the upper end of the imperforate fan housing forms an annular dust collecting space, and an inlet fitting projecting through said inlet opening and directed downwardly to discharge incoming air toward and through the center of the effective foraminous portion of said member and axially through said fan housing whereby the dust collecting space is disposed within an area of relative quiescence, and resilient means disposed between said inner marginal edge of the bottom wall and said fan housing, whereby vibrations of said fan will be transmitted from the fan housing to said foraminous member to shake said collecting bag and deposit accumulated dirt within said annular dust collecting space.

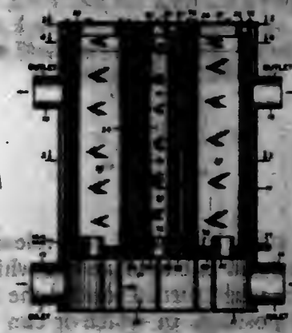
2,771,152
**SUCTION CLEANER AND DISPOSABLE DUST BAG THEREFOR**
George H. Bramhall, Chagrin Falls, and Warren N. Kemnitz, Willoughby, Ohio, assignors to General Electric Company, a corporation of New York
Application February 18, 1954, Serial No. 411,056
9 Claims. (Cl. 183—37)



1. A suction cleaner comprising a casing, an air flow producing means, an annular filtering chamber, a removable end wall on said casing which exposes the annular chamber when removed, a coupling member on said casing for removably securing a dust bag in said chamber, a dust bag which is elongated and substantially flat prior to being positioned in said chamber, said member comprising a trackway having an entrance portion facing said removable end wall for receiving a portion of said bag, said dust bag being adapted to be positioned in said chamber when said end wall is removed by inserting said portion of said bag into said trackway through it entrance portion, said bag conforming to the shape of said chamber when positioned therein.

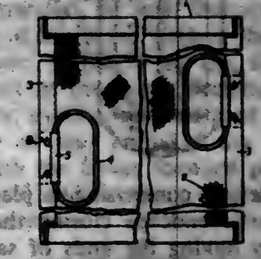
2,771,153
**FILTER APPARATUS**
Ralph R. Heath, New York, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application April 29, 1948, Serial No. 502,595
6 Claims. (Cl. 183—46)

1. Apparatus for separating entrained liquid particles from a gas stream containing the same, said apparatus comprising a casing formed of gas impermeable material and having side walls, a bottom wall, and a top wall having an opening therein; an open-bottomed filter unit comprising top and side walls adapted to form an interiorly disposed gas chamber, said top being gas impermeable and at least a portion of said unit walls being permeable to gas and substantially impermeable to liquid particles, said unit having (a) cross-sectional dimensions less than those of said casing and of said casing top wall opening whereby said unit is readily insertable in and removable from said casing and is adapted to form with the interior walls thereof a peripherally disposed gas chamber and (b) longitudinal dimensions sufficient so that the lower periphery of said unit side walls and said casing bottom are adapted to be maintained in substantially contiguous but non-fixed relation, means for attaching the top of



said unit to said casing top in gas-tight relation, means for forming a liquid gas-seal, comprising liquid particles coalesced and collected during operation, between said casing bottom and the lower periphery of said unit side walls, a gas conduit through said casing communicating with said interior gas chamber, and a gas conduit through said casing communicating with said peripheral gas chamber.

2,771,154
**FILTER FRAME HANDLE CONSTRUCTION**
Dan J. Gonzalez, Louisville, Ky., assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware
Application September 12, 1952, Serial No. 309,342
6 Claims. (Cl. 183—49)

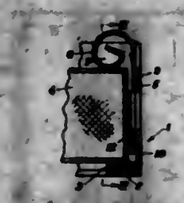


1. A handle retaining structure for an open-faced filter frame having perimetric walls and face flanges to retain a filter medium, at least one face flange extending from a perimetric wall laterally over the adjacent margin of the adjacent face of the frame and terminating in a free edge, comprising: a plate having an apertured flat portion extending in face-to-face engagement with the inner face of said one face flange and a handle carrying portion projecting laterally therefrom beyond the free edge of said one face flange; and a tab in said face flange, turned inwardly into the aperture of said plate, an edge of said inturned tab providing a cam engaging an edge of said aperture and, through such engagement, urging said plate laterally along the underside of said face flange in the direction of the adjacent perimetric wall.

2,771,155
**UNIT FILTER LATCH**
Robert A. Palmore, Louisville, Ky., assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware
Application December 14, 1953, Serial No. 397,981
7 Claims. (Cl. 183—49)

6. An article of manufacture comprising: an auxiliary frame having a front opening to receive a filter cell and a rear sealing flange; a latch arm having a stem and a laterally extending resilient head; and means pivotally

mounting the stem on the frame between the side wall of the frame and the adjacent cell receiving space for twisting movement about the long axis of the stem from a latching position in which the head extends over the cell receiving space to a cell releasing position in which the head extends at least partially into the space between the side wall in which it is mounted and the cell receiving space; said resilient head being outwardly springable



relatively to the stem from said cell releasing position, toward which the head is biased and in which if can not clear the cell space when turned toward the latching position, to an outer position, in which it can clear and be moved over the cell space, said head being operable, when moved over the cell space and released, to engage a front margin of the cell in the cell space and urge the cell rearwardly into engagement with the sealing flange.

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2,771,156

**FILTER**

Walter Kasten and Abbett M. Rohn, Detroit, Mich., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application October 22, 1953, Serial No. 387,734
3 Claims. (Cl. 183—71)



1. A filtering device comprising a pleated filter element, resilient plastic endcaps closing the ends of said pleated element by having the ends of said filter pleats embedded therein, and a groove formed in the outer face of each of said endcaps, said groove having two side walls, said walls extending substantially the same distance from the bottom of the groove to a common plane.

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2,771,157

**METHOD OF CONVERTING KINETIC ENERGY TO PRESSURE ENERGY AND A DEVICE FOR CARRYING OUT THE METHOD**

Karl Axel Göran Gustavsson, Enköping, Sweden, assignor to Aktiebolaget E. A. Hjorth & Co., Stockholm, Sweden, a corporation of Sweden

Application May 26, 1953, Serial No. 357,491
Claims priority, application Sweden July 11, 1952
4 Claims. (Cl. 183—83)



1. In a device for converting kinetic energy present in a whirl formed by an inwardly spiralling fluid flow into pressure energy, in which said whirl is formed in a housing including a chamber, said device comprising a discharge duct for the fluid centrally disposed within said chamber and said whirl, said discharge duct including a throat portion at the inlet end thereof and a diffuser portion at the outlet end thereof a plurality of deflection blades curved in one plane and mounted in said discharge duct in circumferential spacing, the leading edge of said blades forming a convex curve in the direction of the fluid flow and having an inlet angle conforming to the axial and tangential resultant of the fluid flow along the entire radius of rotation within the whirl whereby the blades deflect fluid spiralling into said duct approximately perpendicular to the general plane of said fluid whirl and the angle of impingement of the fluid flow upon the blades is about 0 at each point of the leading edge of the blades, said blades and said throat being disposed in a spatial relationship such as to form channels between adjacent blades having a cross-sectional area remaining substantially uniform perpendicular to the middle line of the curvature of said channels along the entire deflecting part of said blades, said diffuser portion communicating with the outlet side of said throat for reducing the velocity of the fluid flow thereby converting the kinetic energy of the fluid flow into pressure energy after the deflection of the fluid flow.

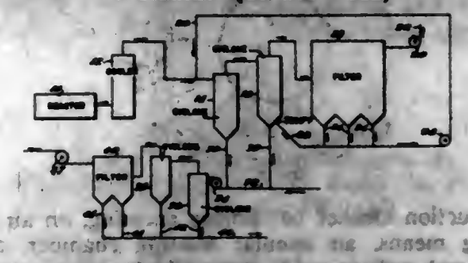
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2,771,158

**RECOVERY OF PIGMENTS FROM AEROSOLS**

Richard L. Bray, Franklin, La., and Randolph Antonsen, Boston, Mass., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application June 30, 1953, Serial No. 365,020
6 Claims. (Cl. 183—122)



1. A process for recovering finely-divided solids from aerosols comprising the steps of flowing the aerosol through a series of cyclonic separation zones, thereby separating in each zone a portion of the solids content of the aerosol, separating the attenuated aerosol leaving the last of the series of cyclonic separation zones into portions of unequal volume, conducting the portion of larger volume to a filtration zone and taking up the solids discharge of the filtration zone in the smaller volume portion of the aerosol, separating substantially all of the remaining solids from the aerosol in the filtration zone and discharging the separated solids into the aerosol stream thereby increasing the solids content of said aerosol, conducting the aerosol thus loaded to the first of the series of cyclonic separation zones, thereby increasing the grain loading of the aerosol being treated, and recovering the solids separated therein from the cyclonic separation zones.

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2,771,159

**MOTOR-SPRING WINDING MECHANISM**

Ernest Meef, La Chaux-de-Fonds, Switzerland

Application February 9, 1955, Serial No. 487,134
Claims priority, application Switzerland January 5, 1955
8 Claims. (Cl. 185—39)

1. In an apparatus the combination of: a rotatable driven element having a sleeve coaxial to its axis of rotation; a rotatable winding element having a sleeve coaxial to its axis of rotation; a cylindrical coil-spring having its ends encompassing each one of said sleeves so as to exert a torque on said driven element upon a rotation of said winding element in the winding direction corresponding to that in which the turns of said coil-spring are coiled up; a flexible core fixed at one end to said driven element and extending within the turns of said coil-spring throughout the whole spring for preventing overlapping and entangling of said turns, the other end of said core passing freely through said winding element; means for preventing said winding element from rotating in the direction opposite to the winding direction; and a mechanism for driving said winding element in the winding direction, thereby increasing the number of turns of the coil-spring until first said turns come in contact with one another and then the coil-spring becomes longer thus displacing the free end of said core axially relative to said winding ele-





ment, said winding mechanism comprising: a member mounted for rotation, spring means urging said member in one direction, power means for driving said member in the other direction, against the action of said spring means, transmitting means connecting said member to said winding element and so arranged that this member drives said element in the winding direction when said member is actuated by said power means, latching means controlled by said core for locking said member when the number of turns of said coil-spring increases beyond such a limit that said spring has already displaced said free end of the core through a predetermined distance axially relative to the winding element, and means for unlocking said member when the number of turns of said coil-spring decreases beneath said limit.

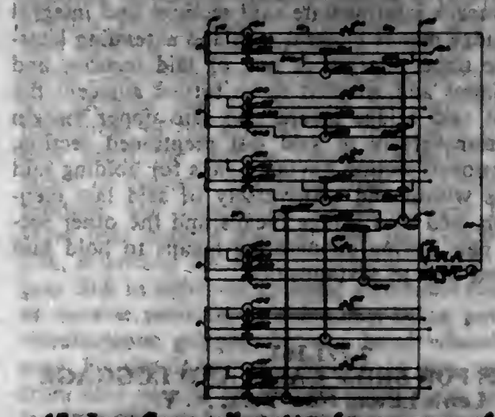
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2,771,160

**MEANS FOR DISTRIBUTING ELEVATOR SERVICE ACCORDING TO DEMAND**

Joseph H. Borden, Toledo, Ohio, and Edward F. Vlasak, Long Island City, N. Y., assignors to Haughton Elevator Company, Toledo, Ohio, a corporation of Ohio

Application February 19, 1954, Serial No. 411,434
17 Claims. (Cl. 187—29)



17. In a floor call system for a group of elevators, in combination, means for registering floor calls, floor selecting machines one driven by each elevator, means on said machines cooperating with said call storing means for canceling stored calls as they are answered, timers operatively connected to the storing means corresponding to floors to receive preferential service for timing the interval that a call is stored, a stopping circuit for each elevator including a bank of contacts on the corresponding floor selecting machine, circuits including contacts of said call storing means for energizing contacts of said bank of contacts, a relay, contacts operated by the relay for opening the stopping circuits for floors higher than the preferred floors, and timers connected to the storing means for said higher floors, said timers having contacts to reestablish the stopping circuits for said higher floors.

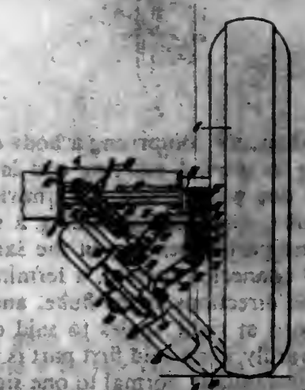
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2,771,161

**ANTI-SKID APPARATUS**

John Jesionowski, Schenectady, N. Y.

Application December 13, 1954, Serial No. 474,711
3 Claims. (Cl. 188—4)



1. The combination with a vehicle chassis having a pneumatic tired road wheel of anti-skid apparatus for said tire comprising, a carrier having an anti-skid wheel rotatable thereon provided with a pneumatic anti-skid tire, pivotal connections and other pivotal and yieldable connections between said carrier and chassis swingably mounting said carrier on said chassis for movements of the carrier between inner inoperative and outer operative anti-skid position, said connections constructed and arranged to position the axis of the anti-skid wheel in a vertical plane parallel to and forwardly of a vertical plane extending through the axis of the road wheel and position the inner periphery of the anti-skid tire in a plane above that of the outer periphery thereof in all positions of the carrier and adapted to position said outer periphery of said anti-skid tire in wedging anti-skid relation with the lower forward portion of the tire of the road wheel and roadway thereunder in operative position of the carrier.

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2,771,162

**ADJUSTABLE WHEEL CHOCK**

John C. Marsh, Willow Grove, Pa., assignor to Eastern Rotorcraft Corporation, Neshaminy, Pa., a corporation of Pennsylvania

Application April 14, 1952, Serial No. 282,189
3 Claims. (Cl. 188—32)



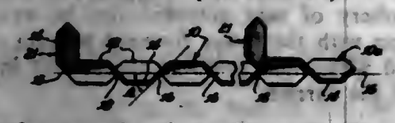
1. An adjustable wheel chock having two wheel engaging members, a frame, the end of one of said members being attached to said frame to extend from one side thereof, a sliding element supported on said frame, said element being attached to the end of the second wheel engaging member on the same side of said frame as the first member, a latch mechanism attached to said element including a plunger cylinder, a plunger having a part projecting from the wall thereof, said plunger being supported in said cylinder, a cylindrical cap proportioned to fit over the upper end of said plunger, a helical spring reacting between said cap and said projecting part to apply a spring load to said plunger, and a swingable rod support to hold said cap in position against the spring force.

2,771,163
GROUND ANCHORS
Guy Mafera, Jr., Westwood, Mass.
Application August 26, 1954, Serial No. 452,297
2 Claims. (Cl. 189—31)



1. A ground anchor comprising a body of right angular section having its ground entering end in the form of a point, at least one wall of said body having a transverse slot, and a fluke, said fluke including a supporting arm including a first part, extending in the same direction as said fluke and connected thereto, a terminal part extending in the same directions as the fluke, and an intermediate part disposed at right angles to said other parts and extending upwardly when said first part is in said slot and said fluke is substantially normal to one side of said body, the length of said first part being such that when said fluke is in said position said intermediate part is parallel with and in contact with the other side of said stake, and the length of said intermediate part being such that when the fluke is parallel with and in contact with said one side of said stake the terminal part is parallel with and in contact with said other side of said stake.

2,771,164
WALL CONSTRUCTION
James C. Scurlock, Los Angeles, Calif., assignor to Western Engineering Associates, Los Angeles, Calif., a limited partnership
Application January 27, 1949, Serial No. 73,147
8 Claims. (Cl. 189—34)



1. A surface member for wall construction comprising a relatively dense thin rigid sheet member provided over an extended area with a plurality of hollow polyhedral indentations extending in opposite directions from a medial surface of said sheet member, said indentations comprising one group of similarly oriented congruent indentations having polygonal outer wall portions located in uniformly spaced relation to and at one side of such medial surface and a second group of similarly oriented congruent indentations having polygonal outer wall portions located in uniformly spaced relation to and at the other side of such medial surface, each indentation having a plurality of inclined substantially planar side wall portions extending divergently from the respective sides of its outer wall portion to said medial surface and each such inclined side wall portion of each indentation of one group being coplanar with a similar side wall portion of an adjacent indentation of the other group to define a substantially flat plane extending between polygonal outer wall portions of adjacent oppositely oriented indentations, and side wall portions of a set of adjacent indentations of each group meeting at a common point substantially at said medial surface, the inclined side wall portions of said indentations intersecting said medial surface along a plurality of straight lines about which the sheet has a minimum resistance to bending, and a reinforcing flange extending transversely to said medial surface and attached to the indented area of the sheet along one of said lines, whereby the sheet is reinforced against bending about any of said lines intersecting said reinforcing flange and is stiffened for a substantial distance away from the reinforcing flange.

2,771,165
SECURING STRIP
Elva L. Bell, Spokane, Wash.
Application September 29, 1952, Serial No. 312,037
2 Claims. (Cl. 189—76)



2. A corner construction for angularly meeting sections of securing strip having front and rear transversely diverging leaves shaped to define jaws at its free edges comprising mitered cooperating ends formed on said front leaf of each said section, said rear leaf being folded longitudinally in covering relation with said front leaf and having a cutaway portion adapted to receive the jaw of said front leaf, and said rear leaf folded portion being spaced from the balance of said rear leaf to form a socket to slidably receive the free end of the cooperating section.

2,771,166
HANDLES FOR BRIEF CASES AND LUGGAGE
Lewis Lifton, New York, N. Y.
Application August 2, 1954, Serial No. 447,174
16 Claims. (Cl. 190—57)



1. As a new article of manufacture for a handle, comprising a one piece substantially ring shaped member embodying a pair of spaced ring sections adapted to be shifted towards each other and having spaced exteriorly convex surfaces and spaced internally concaved surfaces, spaced web means intermediate said sections and integral therewith, bridge means integral with and extending laterally from the upper margin of one of said sections and outside the latter and adapted to be turned adjacent the confluence of said bridge means and said upper margin within and transversely of said last mentioned section, said last mentioned section having means for holding said bridge means within and transversely of said last mentioned section, and said bridge means and the other section of said pair having cooperating means to hold said sections closed and in juxtaposition.

2,771,167
HANDLES FOR BRIEF CASES AND LUGGAGE
Lewis Lifton, New York, N. Y.
Application August 2, 1954, Serial No. 447,175
6 Claims. (Cl. 190—57)

1. A hollow handle, comprising; a one piece substantially ring shaped member embodying a pair of ring sections each having spaced inner and outer rims and having spaced exteriorly convexed surfaces and spaced internally concaved surfaces, spaced web means intermediate said sections and integral therewith, a flexible wrapper having a centrally arranged opening and defining a closed intermediate portion secured to said convexed surfaces and having an outer margin turned over said outer rims and secured against said concaved surfaces and having an inner interrupted margin turned into said opening and over said inner rims and secured against said concaved surfaces adjacent said opening, said wrapped ring shaped member being foldable along said web means to define said pair of ring sections, substantially U-shaped keeper means integral with and extending inwardly from the outer rim of one of said sections to overhang the con-



caved surface thereof, and a tongue integral with and inwardly extending from the outer rim of the other section of said pair to overhang the concaved surface thereof and adapted pursuant to folding of said ring shaped member along said web means to be frictionally received by said keeper means to interlock therewith to hold said ring sections closed and in juxtaposition.



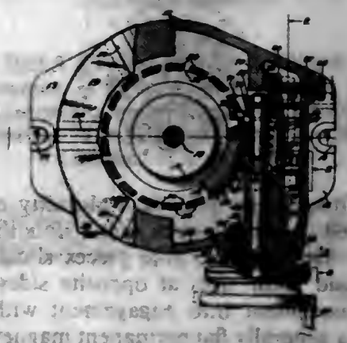
2,771,168
CLUTCH AND THROTTLE CONTROL FOR ENGINE
Erwin J. Panish, Bridgeport, Conn.
Application June 27, 1952, Serial No. 295,955
21 Claims. (Cl. 192—.096)



1. For use with a primer mover, having a throttle for controlling its speed of rotation and having a clutch-reverse gear for controlling the direction of rotation of the prime mover's output shaft; a combined throttle and clutch control device comprising a base; a pair of throttle and clutch control members having handles for manual operation; means for mounting said members on the base, whereby the operating handles are movable in adjacent, substantially parallel paths, said control members and associated handles being movable in either of opposite directions from a common neutral or normal position; push-pull links for connecting said control members with the clutch-reverse gear and the throttle of the prime mover; connecting means between the throttle control member and the throttle link providing for axial movement of the throttle link in throttle opening direction when the throttle control member is moved in either of opposite directions from its neutral or normal position; and connecting means between the clutch-reverse gear control member and the clutch-reverse gear link, providing for axial movement of the clutch-reverse gear link in either of opposite directions from its neutral or normal position, said handles being positionable for simultaneous gripping by one hand whereby they both may be simultaneously moved in the same direction from said neutral or normal position by said one hand to either forward or reverse position to simultaneously engage the clutch-reverse gear and open the throttle.

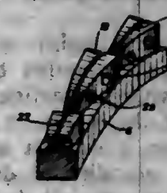
2,771,169
ROTARY WORK TABLE
Magnus Wahlstrom, Easton, Conn., assignor to The Bridgeport Machines, Inc., Bridgeport, Conn., a corporation of Connecticut
Application October 6, 1953, Serial No. 384,443
20 Claims. (Cl. 192—4)

1. Mechanism inclusive of disconnectable gearing for setting and holding an angularly adjustable rotary member in selective rotary positions, comprising gear tooth clash preventive interlocking devices including in combination with the rotary member and a base structure rotatably supporting the same, driven gear teeth connected to transmit rotary movement to said member when impelled, a drive disconnecting gear carrier mounted on said base structure in shiftable relation thereto, a driving gear rotatably mounted on said carrier in a manner to be shifted body therewith into and out of driving mesh with said driven teeth, a check connected to be moved in a



predetermined path by gear shifting movement of said gear carrier, and a barrier connected to be impelled into and out of said path of check movement by rotary movement of said member to and from at least one predetermined position thereof relative to said base structure, together with a brake drum carried by said member in fixed relation thereto, a brake band anchored on said base structure encompassing said drum at least in part, and means to tighten and loosen said band with respect to said drum when said driven teeth and said driving gear are either in mesh or out of mesh.

2,771,170
CENTRIFUGAL POWDER CLUTCHES
Ferdinand Badin, Paris, France
Application March 28, 1951, Serial No. 217,927
Claims priority, application France July 5, 1950
4 Claims. (Cl. 192—58)



1. A centrifugal powder clutch comprising a hollow casing member and a rotor member within said casing and coaxial therewith, the casing having an inner peripheral wall shaped as a surface of revolution, the rotor having in the peripheral zone thereof a plurality of circumferentially spaced protruding portions lying in a surface of revolution coaxial with and spaced from the inner peripheral wall of the casing, each of the peripheral portions having a peripheral side inclined with a component toward the hub of the rotor member, and a powder-guiding peripherally directed groove in each of the said peripheral sides.

2,771,171
MAGNETICALLY ACTIVATED TORQUE COUPLING
Oswald C. Schultz, St. Joseph, Mich., assignor to Laboratory Equipment Corporation, St. Joseph, Mich., a corporation of Michigan
Application July 6, 1955, Serial No. 520,196
9 Claims. (Cl. 192—84)

1. A magnetically activated torque limiting coupling adapted for use between two structural members rotatable one with respect to the other, comprising, in combination, drum means defining an annular interior surface facing

radially inward toward the axis of said surface, said drum means including magnetic material immediately backing up said annular surface thereon, said drum means being adapted for connection to one of the structural members, a circular rotor body of nonmagnetic material adapted for connection to the other structural member and shaped and dimensioned to fit at least partially within the space encircled by said annular drum surface, said rotor body as such being freely turnable with respect to said drum



means, said rotor body defining a plurality of circumferentially spaced outwardly open radial slots therein, a pair of generally flat magnetic pole pieces slidably mounted in each of said rotor slots at opposite sides thereof for free radial movement into engagement with said drum surface, and a generally flat permanent magnet sandwiched between each pair of pole pieces, each magnet having magnetic poles of opposite polarity on opposite sides thereof immediately contiguous to the respective pole pieces adjacent thereto.

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**2,771,172**
**TRANSFER TABLES**
**Richard H. Bergstrand, Moline, Ill., assignor to The Moline Tool Company, Moline, Ill., a corporation of Illinois**
**Application February 12, 1954, Serial No. 409,826**
**6 Claims. (Cl. 198—19)**

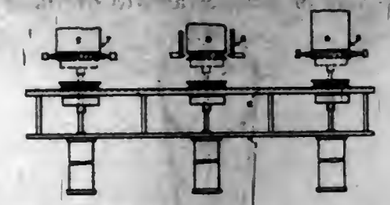


1. In power actuated mechanism adapted to transfer pieces from one position to another by a reciprocating member at high speed while preventing the moving piece from travelling beyond the range of the reciprocating member, in combination, a support at each of several stations for one of a plurality of duplicate pieces, a guiding element extending over all the supports and engaging all of the pieces in a manner to assure the movement of all pieces along the same path, a bar axially movable parallel to said path, power means adapted to rapidly move said bar through a fixed distance in either direction, devices carried by said bar that are adapted to engage each of said pieces on opposite sides, automatic means which will cause said devices to engage each of said pieces when moving in one direction and bringing the pieces to rest when the bar reaches the end of its travel and disengaging from said pieces when the bar moves in the opposite direction.

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**2,771,173**
**TRANSFER MECHANISM**
**Frederick P. Sharpe, Dearborn, Mich., assignor to Kelsey-Hayes Wheel Company, Detroit, Mich., a corporation of Delaware**
**Application February 25, 1952, Serial No. 273,187**
**4 Claims. (Cl. 198—19)**

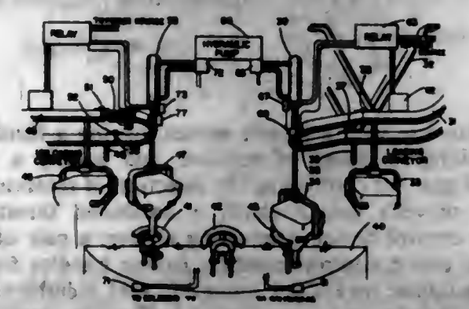
1. Mechanism for transferring wheel body and rim assemblies to successive work stations spaced from each other comprising a reciprocable member extending through the work stations for engaging the rims and supporting the assemblies, devices on said member spaced from each other the same distances as the corresponding work stations are spaced from each other, said devices each having a pair of opposed abutment bars for engaging the rims and positioning the assemblies and a pair of spring urged pins on one bar of each pair of opposed bars and movable transversely of said one bar for engag-



ing the rims and holding the same on said member, and means operatively connected to said member for reciprocating the same from a position at the rearward end of the stroke locating said devices in positions registering the assemblies with the work stations to a position at the forward end of the stroke locating said devices in positions to engage the rims of the adjacent forwardly located assemblies.

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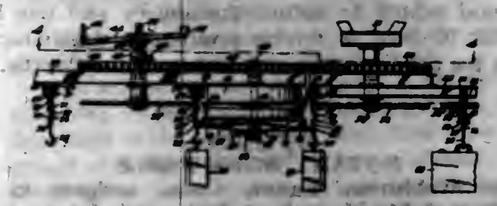
**2,771,174**
**CONVEYOR TRANSFER**
**James Christoffersen, West Newbury, Mass., assignor to Columbia Broadcasting System, Inc., Danvers, Mass., a corporation of New York**
**Application February 16, 1953, Serial No. 337,046**
**4 Claims. (Cl. 198—21)**



1. A self-loading conveyor for products comprising, a track, an endless movable chain carried on said track, a plurality of spaced saddles depending from said belt, said track being formed into at least one semicircular loop, hinges connecting the ends of said loop to said track, power means operative on said semicircular loop, and switching means for triggering said power means as one of said saddles reaches said loop, whereby said one of said saddles is lowered to pick up or deposit a product.

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**2,771,175**
**OVERHEAD CONVEYOR**
**James Starr Da Costa, Merchantville, N. J., assignor to Samuel Olson Mfg. Company, Inc., Chicago, Ill., a corporation of Illinois**
**Application May 25, 1951, Serial No. 228,316**
**14 Claims. (Cl. 198—25)**

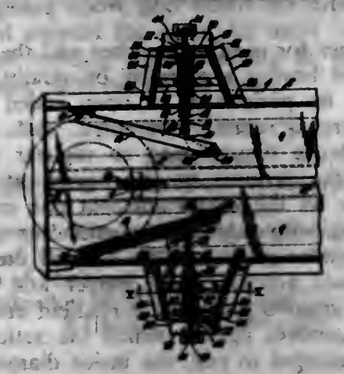


8. In combination, a plurality of conveyors, means for driving one of said conveyors and for driving another of said conveyors from said first-mentioned conveyor, each conveyor shaped to receive removably a plurality of load carriers, means for transferring said load carriers from one conveyor to another, said means comprising a rotary transfer member positioned between adjacent parts of two conveyors, and means for raising and lowering opposite ends of said transfer member simultaneously and to move them in opposite directions simultaneously, each end of said transfer member being shaped to engage a load carrier, the raising movement of said transfer member being effective to remove a load carrier from one conveyor and the lowering movement of said transfer member being effective to deposit a load carrier on the other conveyor.



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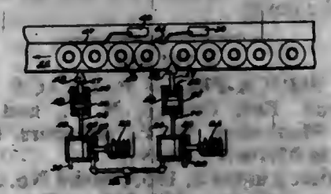
**2,771,176**
**CONDITIONING DEVICE FOR BUNDLES OF COILED MATERIAL**
**Robert Clark, Parma, and William H. Johns, Gates Mills, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey**
**Application February 25, 1955, Serial No. 490,540**
**5 Claims. (Cl. 198—29)**



1. In a drag conveyor including a frame, a supporting surface on said frame having an entry end and an exit end, and means for moving a bundle of coiled material along said supporting surface from the entry end to the exit end thereof, the improvement therewith of a pair of spaced upright conditioning plates each pivoted at one end to said frame adjacent said entry end and extending therefrom toward said exit end along said supporting surface, the inner face of each of said conditioning plates having a concave surface along its length extending to a point short of the free end thereof and a plane surface extending from said point to said free end, resilient means detachably and pivotally connected with each plate at a point adjacent the end thereof remote from said pivoted end for yieldably urging said plates toward each other, and a bracket pivotally mounted on each side of said frame rigidly supporting one of said resilient means, each of said brackets being adapted to be pivoted away from said frame when the resilient means associated therewith is detached from the plate to remove said resilient means from the vicinity of said supporting platform.

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**2,771,177**
**ARTICLE GROUPING APPARATUS**
**Richard W. Cutter, Berkeley, Kazimer A. Strzala, Walnut Creek, and William L. Fry, Lafayette, Calif., assignors to Owens-Illinois Glass Company, a corporation of Ohio**
**Application July 30, 1953, Serial No. 371,308**
**15 Claims. (Cl. 198—34)**



10. The combination of means for conveying articles in succession along a predetermined path, means for confining the articles within said path, a stop, a feeler projecting into said path and momentarily held in a retracted position by each passing article, means controlled by the feeler for projecting the stop into the path of the articles, means for preventing said projecting of the stop when the feeler is only held momentarily in said retracted position, and article arresting means in advance of said stop for causing accumulation of a group of the articles in position to hold the feeler in retracted position and thereby causing the stop to be projected.

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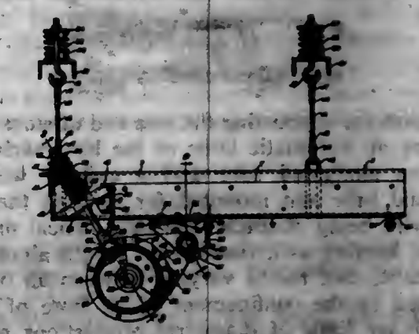
**2,771,178**
**BELT CONVEYOR TAKE-UP**
**Max Holmburger, Chicago, Ill., assignor to Link-Belt Company, a corporation of Illinois**
**Application May 9, 1952, Serial No. 287,053**
**6 Claims. (Cl. 198—139)**



1. In a belt conveyor having an endless conveyor belt, means for supporting the load carrying and return runs of the belt, and means for driving said belt, the improvement of a take-up for automatically maintaining the proper tension in the belt during operation of the conveyor which comprises a reversing pulley and a bend pulley mounted for rotation about fixed axes, spaced from each other longitudinally of and located at vertically stepped levels beneath said conveyor, about which the return run of the conveyor belt is trained for defining a take-up loop portion of said run, an elongated frame mounted for rectilinear movement longitudinally of said conveyor beneath said reversing pulley and toward and away from said bend pulley, a take-up pulley mounted on the outer end of said frame about which the take-up loop of the belt is trained, said take-up pulley being so located and having such a diameter as to position the two runs of said loop in parallel relationship with the direction of movement of said frame, means mounted longitudinally along said frame for movement therewith to continuously support the variable length of belt in the upper run of the take-up loop in said parallel relationship, means mounted along and below the path of movement of the frame for continuously supporting the variable length of belt in the lower run of the take-up loop in said parallel relationship, and means for applying a constant force to said frame to urge the latter in a direction to increase the length of the take-up loop.

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**2,771,179**
**OSCILLATING FEEDERS**
**Albert Musschoot, Park Ridge, Ill., assignor to Link-Belt Company, a corporation of Illinois**
**Application September 27, 1955, Serial No. 536,830**
**10 Claims. (Cl. 198—220)**

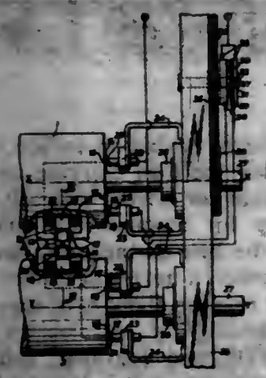


1. A vibratory feeder, comprising a material supporting pan, resilient means supporting said pan for vibra-

tory movement, a drive arm connected to said pan for pivotal movement relative thereto, an unbalanced shaft mounted on said arm for rotation about an axis in spaced parallel relationship with the axis of said pivotal connection, said arm being connected to said pan with the axes of said shaft and said pivotal connection lying in a plane which is inclined relative to the plane of the pan bottom and passes substantially through the center of gravity of the pan and the material thereon, and drive means mounted on said arm for rotating said unbalanced shaft.

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2,771,180
**APPARATUS FOR TREATING THREADS**
Sydney W. Barker, Colne, England, assignor to Lastrafil Limited, Nelson, England, a British company
Application July 7, 1953, Serial No. 366,598
Claims priority, application Great Britain July 9, 1952
23 Claims. (Cl. 203—65)



1. Apparatus for laying a thread in figure-8 loops around a pair of oppositely rotating rollers whose working surfaces are mutually inclined and provide means for storing and advancing thread thereon, comprising in combination a shuttle-member to which the thread can be attached, said shuttle-member being capable of being carried on the periphery of said rotating rollers, each of said rollers having gripping means mounted thereon adjacent the point where the thread is discharged therefrom for releasably securing said shuttle-member thereto, and actuating means for controlling said gripping means to position and carry said shuttle-member on the surface of one of said rotating rollers and then on the other oppositely rotating roller and to transfer said shuttle-member from one roller to the other as it passes between said rollers.

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2,771,181
**STOCK TUBE**
Donald H. Montgomery and Clarence D. Pulsifer, Farmington, Conn., assignors to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut
Application January 14, 1953, Serial No. 331,221
8 Claims. (Cl. 203—92)



1. Means for supporting the free end of stock rotatably carried by an automatic lathe or the like machine, comprising an elongated tube and a coil of wire wound within said tube and mounted for rotation therein, said coil of wire being characterized by a helical progression of radius varying as a function of length along the axis of said tube, said radius varying between an outer limit determined by the confinement of the bore of said tube and an inner limit of diametral proportions no greater than at least the maximum diametral extent of stock to be accommodated therein whereby the stock may carry said coil of wire for rotation so that lubricant within said tube may be dispersed and distributed by movement of said coil over the inner wall of said tube and so that coil-to-tube frictional drag may be kept to a minimum, further whereby the stock may not be marred as it is rotated within and fed through said tube.

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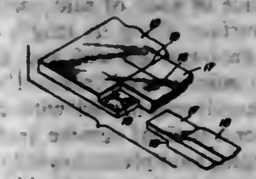
2,771,182
**DISPENSING CONTAINER FOR NEEDLES, PUNCHES, AND THE LIKE**
Robert C. Messmer, Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application November 23, 1954, Serial No. 470,780
5 Claims. (Cl. 206—17)



1. A container for needles, punches and the like comprising a barrel having a plurality of axially extending grooves along its periphery, an open ended sleeve in which said barrel is rotatably mounted, walls defining a slot in said sleeve dimensioned to register selectively with each of the grooves on the barrel, at least one annular groove on the barrel adjacent one end thereof and intersecting with said axially extending grooves, a cooperating annular groove in the bore of the sleeve in registry with said groove on the barrel, and a resilient O-ring in said grooves providing a resilient end wall for all the axiall grooves against which the articles in the container are adapted to rest, the inside diameter of the O-ring being less than the root diameter of the barrel at said axial grooves.

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2,771,183
**MATCH BOOK**
Eugene C. Carter, Lamar, S. C.
Application May 19, 1955, Serial No. 509,538
1 Claim. (Cl. 206—34)



A match book of the character described comprising: a cover comprising an elongated strip having its end portions folded transversely on itself to provide a back, a front and a closure flap engageable on the said front, match cards mounted in the cover and including outwardly and reversely folded end portions anchored between the front and the back, said cards having longitudinal slits therein extending to the free ends thereof defining flat faced detachable matches, said matches having transversely extending, longitudinally staggered incisions in the opposite faces thereof adjacent the anchored ends of the cards, igniting heads adjacent one end on the outer faces only of the matches, and friction surfaces on the opposed faces of the front and back engageable by the heads for igniting same as the matches are withdrawn from the cover.

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2,771,184
**SHOCK-PROOF PACKAGE**
Earle R. Ryno, East Orange, N. J., and William M. McKillop, Manhasset, N. Y., assignors, by mesne assignments, to Merle M. Hoover
Application August 3, 1953, Serial No. 371,784
1 Claim. (Cl. 206—46)

A shock-proof container comprising a tubular member of polygonal cross section, a pair of rings having approximately the same diameter as said tubular member and each rotatably supported on an end of said member, a plastic tube member within said polygonal member having its ends extending through and down over the outside of said rings and secured thereto, the plastic tube being adapted to

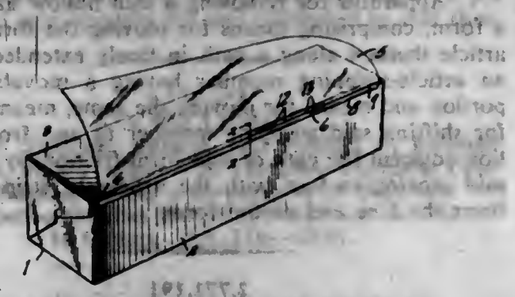




contain an article and being of a length to permit it being twisted together above and below the article thereby to enclose and support the same, an outer casing for supporting and holding said members in alignment, and means closing each end of the casing.

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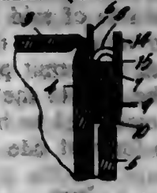
2,771,185
**DISPENSING CARTONS PROVIDED WITH CUTTERS**
James Edward Annen, Kalamazoo, Mich., assignor to Sutherland Paper Company, Kalamazoo, Mich., a corporation of Michigan
Application May 5, 1954, Serial No. 427,718
6 Claims. (Cl. 206—58)



1. A dispensing carton including a front wall and cover therefor having a closure flap adapted to be positioned on the inner side of the front wall, a cutter of downwardly facing U-shape having a bight portion and substantially parallel arms terminating in inwardly converging flange-like edge portions, a series of teeth struck out from the bight portion with their bases spaced and merging into one arm of the cutter with their tips projecting above the bight thereof, the portions of said bight portion intermediate the spaced bases of the teeth integrally connecting the parallel arms of the cutter to each other, said cutter being of a length substantially that of the front wall and being embracingly disposed over the edge of the front wall with the arms thereof in fixedly clamped engagement therewith, and with the flange-like edge portions of the arms in embedded engagement with the front wall, said cutter constituting a reinforcing and binding element for the edge of the front wall and having the portion thereof intermediate the ends of the cutter bowed longitudinally of the cutter and inwardly relative to the carton and towards the closure flap disposed on the inner side of the front wall whereby the central portion of the cutter is normally in springable thrust engagement with the dispensed material between it and the closure flap and whereby the cutter counteracts outward bending of the central portions of the cutter and front wall when the dispensed material is pulled out of the carton and over the cutter preparatory to and while severing the material.

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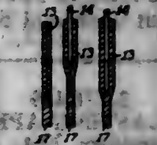
2,771,186
**DISPENSING CARTON, CUTTER AND METHOD OF MAKING**
Wendell T. Burbank, Three Rivers, Mich., assignor to Sutherland Paper Company, Kalamazoo, Mich., a corporation of Michigan
Application October 24, 1952, Serial No. 316,593
8 Claims. (Cl. 206—58)



5. An elongated strip of U-section adapted to be disposed over a carton wall formed of a strip of ductile metal folded longitudinally upon itself into a general U-shape and having a curved bight, the arms of the cutter being spaced to receive the wall of a carton between them and terminating in inwardly converging was clamping flanges, said cutter having a series of teeth spaced at their bases struck out from its bight and disposed in the plane of an arm of the cutter to project beyond the bight portion thereof, the arms of the cutter being integrally connected between the bases of the teeth.

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2,771,187
**NEEDLE PACKET**
Clement Halle, North Hollywood, Calif., assignor to Free Sewing Machine Co., Beverly Hills, Calif., a corporation of Illinois
Continuation of application Serial No. 231,743, June 15, 1951. This application May 9, 1955, Serial No. 506,810
2 Claims. (Cl. 206—66)



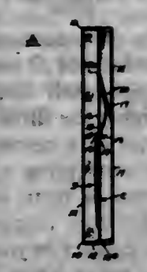
1. In combination, a plurality of sewing needles having blunt butt portions and sharply pointed ends, and a needle packet comprising a cover made of relatively stiff cardboard providing a back portion with a folded end portion defining a transverse narrow channel, and a front flap portion foldable and unfoldable relative to the other end of the back portion and adapted to have its free end portion retained behind said folded end portion, and an elongated needle containing envelope made of a relatively pliable waterproof material closed at one end and open at the other, the closed end being disposed in the aforesaid channel in the cover and fastened in place therein in more or less compressed condition by a staple passed through the folded end portion of the cover and the closed end portion of the envelope therein, the open end portion of said envelope having a needle retaining flap foldable and unfoldable with respect thereto, the sewing needles being disposed lengthwise in said envelope with their sharply pointed ends held frictionally between the otherwise tightly abutting front and back walls of the envelope in the aforesaid channel of the cover while their blunt butt ends are disposed toward the open end of the envelope.

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2,771,188
**DISPLAY CARD**
William B. Coulter, Southport, Conn., assignor to Manufacturers Box Company, Inc., Bridgeport, Conn., a corporation of Connecticut
Application November 1, 1954, Serial No. 465,863
4 Claims. (Cl. 206—75)

1. A card for holding and displaying a spoon, fork or similar article having a head and a handle connected

by a neck, and wherein said head and handle lie at opposite sides of a flat plane and said neck traverses said plane, said card comprising a planular panel having a longitudinal dimension greater than the length of said article for receiving said article along a longitudinal line between its ends, and having a neck receiving slot at an intermediate point of said line, a head receiving portion longitudinally at one side of said slot and a handle receiving portion longitudinally at the other side of said slot, said slot adapted to permit passage of said handle therethrough from the rear to the front of said card to engage said neck therein and to bring said handle into engagement with the forward side of said handle receiving portion, and said head receiving portion having a U-shaped cut substantially conforming to the outline shape of the head of said article and centrally aligned with said longitudinal line with its closed end adjacent to and longitudinally spaced from said slot, the portion of said card between said slot and said cut being unbroken to provide a neck holding band, said cut defining a tab bendable from the plane of said card to its rearward side about a transverse hingle line extending across the open end of said cut for supporting engagement with the rearward side of the head of said article with the forward side of said head received and displayed in the opening defined by said cut upon said bending of said tab.



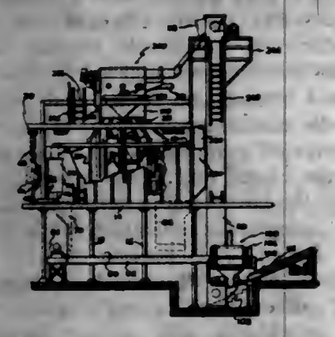
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2,771,189

## WORK BLASTING APPARATUS

Adolph J. Kriz, Hagerstown, Md., assignor to Pangborn Corporation, Hagerstown, Md., a corporation of Maryland

Application November 8, 1952, Serial No. 319,550
4 Claims. (Cl. 209—21)



1. In a work blasting apparatus, a recycling system for collecting particles resulting from a blasting operation, separating re-usuable blastant particles from non-reusable particles, removing the non-reusable particles, and returning the blastant particles to a blasting position where they are again available for use in a blasting operation, said recycling system comprising a hopper positioned to receive the particles resulting from a blasting operation, conveying means to convey said particles to a first separating device, said first separating device comprising a rotatable, perforated, open-ended, hollow drum, an advancing mechanism in said drum for advancing the particles, axially of said drum, from one open end to the second open end thereof, while it rotates, said drum acting to sift particles, of a size determined by the perforations therein, through said perforations while it rotates and, at the same time, actuating said advancing mechanism to convey larger particles axially therethrough, means at said second open end to convey said larger particles away from said separating device, transfer means to transfer those particles which are sifted through the perforations of said drum, to a second separating device, fluid-pressure means in said second separating device for separating the particles therein into predetermined size classifications, means to separately collect the particles of each of said size classifications, and means for returning the particles of one of said size classifications, comprising the blastant particles, to said blasting position.

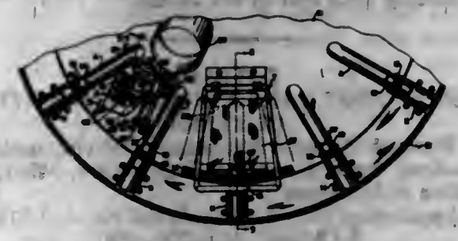
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2,771,190

## APPARATUS FOR TESTING AND SORTING THIN RUBBER ARTICLES

John R. Gammeter, Akron, Ohio

Original application June 10, 1949, Serial No. 98,332, now Patent No. 2,649,966, dated August 25, 1953. Divided and this application March 16, 1953, Serial No. 342,525
7 Claims. (Cl. 209—74)



1. Apparatus for removing a thin hollow article from a form, comprising means for moving the form with an article thereon along a path in freely extended position, an article-stripping member having a movable surface portion and means for moving the same, means operable for shifting said stripping member to and from a position adjacent the path of said form frictionally to engage said moving surface with the article to strip the same from the free end of the form.

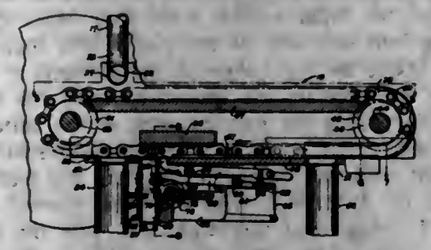
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2,771,191

## CAPSULE SELECTOR AND RECTIFIER MECHANISM

Alfred W. Kath, Cleveland, Ohio, assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

Application January 19, 1953, Serial No. 331,873
8 Claims. (Cl. 209—75)



5. In a machine of the class described, means for continuously feeding capsules to a conveyor, said conveyor having means for individually orienting the capsules one from another and transporting said capsules in horizontally disposed condition, a bed plate associated with said conveyor, said bed plate having an opening therein of such size as will permit the passage therethrough of only separated cap or body components of a capsule and thus cause their rejection, means for sensing the lateral disposition of the caps and bodies of joined capsules as they come into association with said sensing means, a pair of cap and body fulcrum blades each being movable into and out of fulcruming position in timed relation to the advance of said capsules through said sensing means, and latch means associated with and operable by said sensing means effective to latch and maintain a selected one of said fulcrum blades corresponding to the lateral disposition of the cap of the particular capsule being sensed by said sensing means whereby each capsule is uprighted solely by the force of gravity.



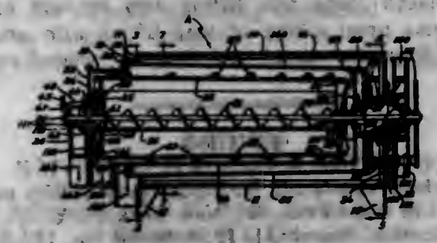
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2,771,192

## GRAIN CLEANING APPARATUS

Harry A. Lindahl and Karl Gustaf Strandberg, St. Paul, Minn., assignors to Ideal Grain Cleaner Company, St. Paul, Minn., a corporation of Minnesota

Application June 30, 1951, Serial No. 234,512
6 Claims. (Cl. 209—95)



1. A grain separator including a separating cylinder, means rotatably supporting said cylinder, a retarder at one end of said cylinder, said retarder comprising an arcuate shoe arranged in surface contact with the inner surface of said cylinder at one end thereof, means supporting said shoe for movement longitudinally of said cylinder, an arm connected at one end to said shoe and hinged intermediate its ends, said arm supporting said shoe for radial movement, and a counter-weight on the end of said arm opposite the end connected to said shoe.

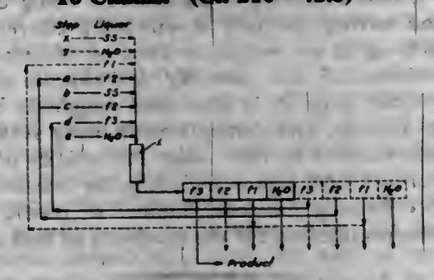
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2,771,193

## ION EXCLUSION

Donald W. Simpson, Auburn, and William C. Bauman, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application October 19, 1953, Serial No. 386,782
16 Claims. (Cl. 210—42.5)



13. In a method for treating an aqueous starting solution containing a highly ionized solute having an ionization constant at least as great as $5 \times 10^{-2}$ and a less extensively ionized solute that is capable of being absorbed by an ion exchange resin and that has an ionization constant not greater than $2 \times 10^{-1}$ and not more than 70 percent as great as that of the highly ionized solute to separate a liquor fraction containing the less ionized solute in a concentration higher than in the starting solution and in a form substantially free of the highly ionized solute, wherein there is carried out a first cycle of operations of feeding to a bed of an ion exchange resin, having an ion identical with an ion of the highly ionized solute, a sufficient amount of such aqueous starting solution, containing the highly ionized solute in at least as high as l-normal concentration, so that part of the less ionized solute is preferentially absorbed by the resin leaving the highly ionized solute and the remainder of the less ionized solute in surrounding liquor, feeding water to the bed to displace liquid therefrom, collecting successive fractions of the displaced effluent liquid, whereby there are obtained a fraction *f1* of the effluent liquid containing the highly ionized solute in a form substantially free of the less ionized solute, a mixed fraction *f2* of the effluent liquid containing both of the solutes, and a fraction *f3* of the effluent liquid containing the less ionized solute in a form substantially free of the highly ionized solute, the steps of carrying out a second operating cycle which comprises feeding a fore-portion of said effluent liquor fraction *f2* to the bed of ion exchange resin, then feeding a further amount of the starting solution, containing both of the solutes with the highly ionized solute in at least as high as l-normal concentration, to the bed, next feeding to the bed a later portion of the effluent liquor fraction *f2*, next feeding to the bed at least a portion of said effluent liquor fraction *f3*, and next again feeding water to the bed and, collecting successive portions of the effluent liquor similar in kind to those collected in the first cycle, including a portion of effluent liquor containing the less ionized solute in a concentration higher than in the starting solution, repeating at least once this second cycle of operations and withdrawing a portion of the effluent liquor fraction *f3* which contains the less ionized solute in a concentration higher than in the starting solution.

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2,771,194

## METHOD OF FILTERING

Thomas D. Baxter, East Petersburg, and Alexander A. McIntyre, Lancaster, Pa., assignors, by direct and mesne assignments, to Baxter Filtration Corporation, Lancaster, Pa., a corporation of Pennsylvania

Application September 14, 1953, Serial No. 379,784
5 Claims. (Cl. 210—150)



4. The method of filtering a liquid containing suspended solids which comprises the steps of forcing the liquid under pressure through a filter medium, and relieving the pressure while the liquid is still flowing through the medium to discontinue the flow and permit the liquid to fall away from the medium.

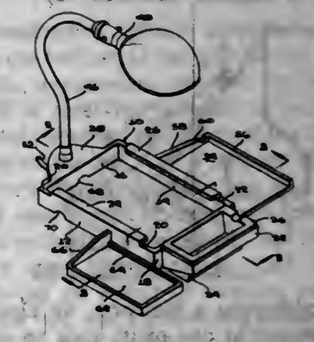
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2,771,195

## UTILITY ATTACHMENT FOR TELEPHONES

Adlai E. Rhea, Shreveport, La.

Application November 6, 1953, Serial No. 390,645
2 Claims. (Cl. 211—86)



2. In combination, a telephone base having a top, a bottom, sides and ends, an open frame having side walls and end walls, said side walls being removably engaged with said base sides and said end walls being removably

engaged with said base ends, said side walls having upper and lower edges, and laterally inwardly extending flanges on and extending along said side walls in the regions of their upper edges, said flanges resting upon the base top and having ends spaced longitudinally inwardly from said end walls, said flanges having free inner longitudinal edges spaced from each other crosswise of the frame, and a lamp supporting flange on and projecting laterally outwardly from one of said end walls.

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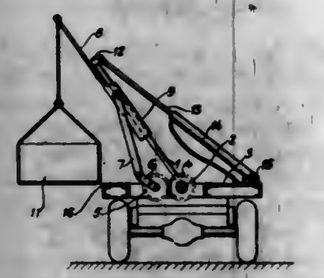
**2,771,196**
**SUSPENSION DEVICES FOR SUPPORTING ARTICLES OF WEARING APPAREL**
**Albert Scheuermann, Friedrichshafen, Germany, assignor to August Enders Aktiengesellschaft, Oberrahmede, Westphalia, Germany**
**Application November 18, 1953, Serial No. 392,793**
**1 Claim. (Cl. 211—94)**



A device for supporting articles of wearing apparel and the like suspended on a hanger provided with a hook, comprising a guide rail provided with a longitudinal slot along the bottom surface thereof, the edges of the rail being turned up to provide trackways along opposite sides of the slot, a suspension member comprising a flat sheet metal body portion with the lower portion provided with an opening therein to receive the hook of the hanger, said body portion having at least two upstanding, flat, spaced-apart lugs integral therewith and positioned in the same plane thereof and which extend into said slot, the upper portion of each lug being provided with an opening, an axle disposed in each opening, wheels mounted on opposite ends of said axles for supporting said body portion on said trackways, and an annular bumper and spacer member mounted on each of said axles between said wheels and extending outwardly beyond both sides of the axle, each member comprising an eye portion which engages the axle and a body portion in the form of a loop, said eye portion and said body portion being provided with slots through which a lug of the suspension member extends.

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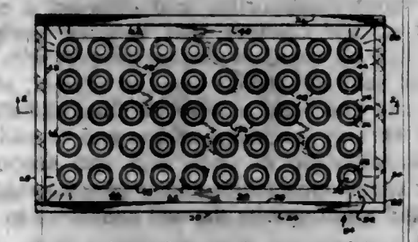
**2,771,197**
**HOISTS**
**Ulf Edvin Leffler, Kinna, Sweden**
**Application August 3, 1951, Serial No. 240,169**
**9 Claims. (Cl. 212—8)**



1. A hoist comprising a platform, an elongated lifting arm tiltably mounted at one of its ends on said platform, a first rotatable member connected to said lifting arm adjacent said platform, said first rotatable member being movable with said lifting arm whereby the angular position of said first member varies with variations in the tilt position of said lifting arm, a second rotatable member mounted on said platform adjacent said first member and operatively interconnected with said first rotatable member whereby the angle of rotation of said second member is dependent upon the angle of rotation of said first rotatable member, a first rigid link radially connected to said second rotatable member, a load suspension member slidably displacable along said lifting arm, a second rigid link pivotally connected at one of its ends to said suspension member and pivotally connected at the other of its ends to said first rigid link at a pivot point displaced from the center of rotation of said second member, and means for selectively tilting said lifting arm whereby said suspension member is automatically variably displaced along said lifting arm by said first and second links upon tilting of said lifting arm and upon corresponding rotation of said first and second rotatable members.

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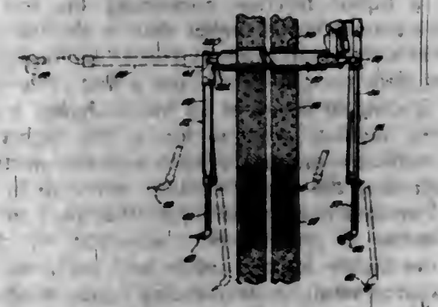
**2,771,198**
**COUNTING AND SORTING DEVICE**
**Ira Danchig, New York, N. Y., assignor of fifty percent to Peter Fries, Jr., New York, N. Y.**
**Application August 31, 1950, Serial No. 182,522**
**4 Claims. (Cl. 214—1)**



1. A counting and sorting device comprising a housing having a recess formed therein defined by upstanding enclosing side walls, matrix means in said recess, with a plurality of article receiving compartments formed in a surface of said matrix means, said article receiving compartments being constructed and arranged to receive one said article in each article receiving compartment, each of said article receiving compartments being circular in plan, and having inwardly downwardly convergent wall surfaces lying in an imaginary cone of one altitude, and other portions of said inwardly downwardly convergent wall surfaces lying in at least one imaginary cone of a different altitude, said compartments being vertically differentially stepped to form seats for articles of differing cross sections, and means including an outstanding wall adjustably limiting the total number of article receiving compartments opening for the reception of said articles.

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**2,771,199**
**REMOTE CONTROL MANIPULATOR**
**Demetrius G. Jelatis, Red Wing, Minn., assignor to the United States of America as represented by the United States Atomic Energy Commission**
**Application April 12, 1955, Serial No. 501,006**
**6 Claims. (Cl. 214—1)**

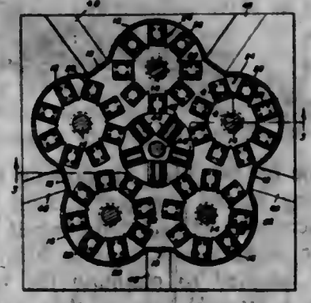


1. A remote-control manipulator comprising a horizontal support, master and slave arms connected to the support at regions spaced lengthwise thereof for pivoting with respect to the support, a handle and a grasper connected with the master and slave arms, respectively, tie means interconnecting the handle and the grasper for causing movements of the handle to be reproduced by the grasper, link means interconnecting the arms for causing the arms to pivot conjointly with respect to the support, means for adjusting the link means to vary the angular relationship between the arms for adjusting the spacing between the handle and the grasper and to enable the slave arm to be angularly shifted into alignment with the support for installation and removal of the manipulator, and a special counterweight for the slave arm located adjacent the connection of the master arm and the support and being connected with the slave arm so as to move conjointly therewith during angular shifting of the slave arm with respect to the master arm.



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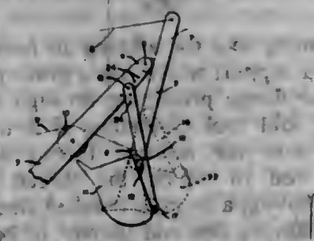
**2,771,200**
**CAR PARK**
**Joseph W. Gilliard, Phoebus, Va.**
**Application April 12, 1954, Serial No. 422,437**
**7 Claims. (Cl. 214—16.1)**



1. A building for parking cars comprising a floor, a continuous side wall forming an enclosure, and a roof, a plurality of circularly arranged, circumferentially spaced supporting columns extending between said floor and said roof and supporting the latter, a series of vertically stacked parking platforms disposed in each column and independently rotatable thereon, an elevator assembly disposed centrally of said columns, said building having a radially extending driveway disposed between each pair of columns, an elevator platform having a plurality of spoke portions corresponding to the number of said driveways, means for independently rotating each one of said parking platforms, and means for rotating said elevator platform between a position, when lowered, in which its spokes are in alignment with said driveways to a position, immediately upon the start of its ascent, wherein its spokes project in the direction of the centers of said columns.

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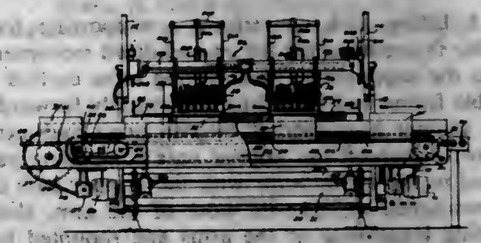
**2,771,201**
**TRENCH HOE**
**Ralph H. Slater, Duluth, Minn.**
**Application September 4, 1953, Serial No. 378,513**
**4 Claims. (Cl. 214—138)**



1. In a trench hoe machine for excavating material having a boom, the combination of a dipper stick pivotally mounted intermediate the ends thereof to the end portion of said boom for pivotal movement about a horizontal axis, cable means connected to said stick adjacent the opposite ends thereof for pivotally moving said stick alternately in opposite directions about the horizontal axis, a bucket pivotally mounted adjacent the leading end thereof to the lower end of said stick, and a longitudinally extending brace pivotally mounted at one end thereof to said bucket adjacent the trailing end thereof, said brace at the opposite end being pivotally secured to said boom in inwardly spaced relation to the mounting of said dipper stick on said boom.

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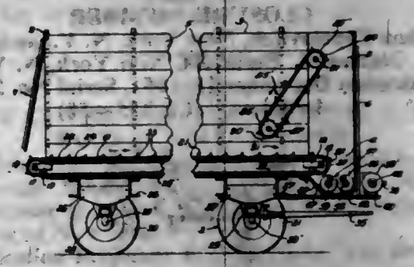
**2,771,202**
**CASE UNLOADERS**
**George L. N. Meyer, Milwaukee, Wis., assignor to Geo. J. Meyer Manufacturing Co., Cudahy, Wis., a corporation of Wisconsin**
**Application June 6, 1951, Serial No. 230,110**
**6 Claims. (Cl. 214—309)**



1. In a case unloader for pick up, elevation and transfer of case contents from a case to a table conveyor, a pick-up head beam having a beam swinging mounting including a beam support and a beam swing frame comprising spaced frame members each having a guideway, said swing frame being mounted for oscillation of the beam in said guideways over the case and the support being mounted for movement of the beam in a separate path of movement provided by said guideways in said swing frame.

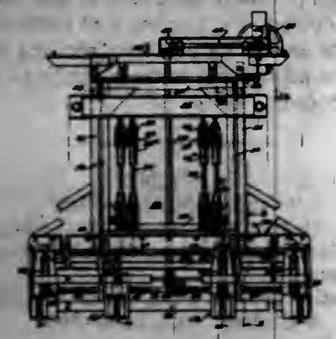
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**2,771,203**
**VEHICLE WITH SELF-UNLOADING MECHANISM**
**William F. Collins and John H. Bing, Downers Grove, Ill., assignors to International Harvester Company, a corporation of New Jersey**
**Application February 24, 1955, Serial No. 490,173**
**6 Claims. (Cl. 214—519)**



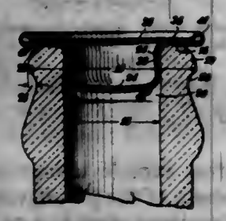
1. A self-unloading vehicle comprising a box, a bed conveyor on the bottom of the box having first and second discharge ends, a transverse conveyor on the bottom of the box disposed in receiving relation to said first discharge end of said bed conveyor and discharging through an opening in the side of the box, and a stripper elevator conveyor carried between the sides of the box and having a lower pick-up end spaced above said bed conveyor between said first and second discharge ends and defining a limited load passage space therebetween, said stripper elevator conveyor having an upwardly running rectilinear stretch facing into the box and terminating in an upper discharge end disposed in substantially vertically aligned and discharging relation to said transverse conveyor whereby a portion of the material is adapted to be discharged over said stripper elevator conveyor and a portion beneath the stripper elevator conveyor.

**2,771,204**
**LIFTING FORK FOR STACKED ARTICLES**
Francis A. McCormick, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application June 8, 1955, Serial No. 513,995
3 Claims. (Cl. 214—655)



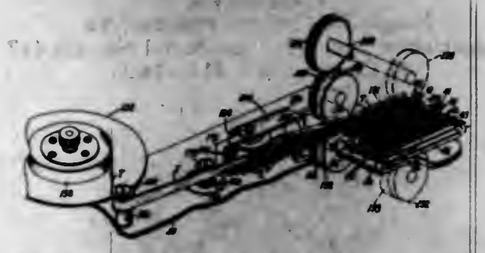
1. A lifting fork comprising a supporting frame, a movable frame mounted for up-and-down movement relative to the supporting frame, lifting arms carried by the movable frame and extending horizontally forward therefrom, gripper bars carried by said arms and extending lengthwise thereof, the gripper bars comprising pairs individual to the lifting arms with the gripper bars of each pair positioned at opposite sides of the arm, slide bars extending lengthwise of the arms and mounted between the gripper bars, parallel links between the gripper bars and the slide bars including pairs of links individual to the gripper bars each link being pivotally connected at one end to its gripper bar and pivotally connected at its opposite end to the lifting arm, and means providing operating connections between the links and slide bars including coil springs and slidable frames, one link of each said pair being formed within an extension engaging one of said slidable frames, the springs being interposed between the slidable frames and slide bars, thereby providing a yielding connection by which the gripper bars when in article gripping position are yieldingly held against the articles, said springs permitting continued movement of the slide bars after the gripper bars are arrested by contact with said articles.

**2,771,205**
**CLOSURE MEMBER**
Nathan Zepelovitch, New York, N. Y., assignor to Nahum A. Bernstein, New York, N. Y.
Application December 11, 1951, Serial No. 260,980
4 Claims. (Cl. 215—52)



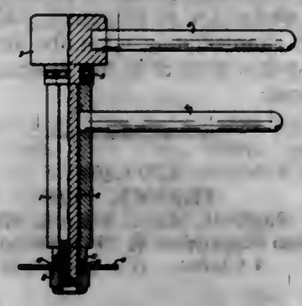
3. A reusable metallic closure member for containers having a predetermined internal neck diameter, a predetermined locking ring diameter and contoured locking ring area comprising an outwardly flanged and substantially horizontally disposed upper portion sized to outwardly terminate at a location adjacent the extent of said locking ring diameter, an integral frusto-conically shaped resilient body portion of substantially uniform thickness sized to pressure fit internally within the neck of said container and within the locking ring area thereof, an integral elastically deformable bottom portion concavo-convex in shape over at least a portion of its extent in such a manner as to be downwardly convex and upwardly concave, and a thin film of resilient deformable plastic material disposed at least on the container contacting surface of said body portion, said body portion, deformable bottom portion and thin film of plastic material thereon being sized so as to have an external diameter in undeformed condition greater than the internal neck diameter of the container and said metallic material being of a character so that longitudinal elastic depression of said bottom portion cooperatively effects a radial elastic deformation of said body portion sufficient to permit insertion of said body portion within the neck of the container within the locking ring area thereof.

**2,771,206**
**MACHINES FOR BUNDLING COMPONENTS**
Richard W. Daniels, Wenham, Hammond P. Diggle, Hamilton, and Bruce N. Smith, Essex, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application October 18, 1954, Serial No. 463,022
16 Claims. (Cl. 216—9)



1. A machine for bundling components having coaxial leads comprising means engageable with the leads for conveying a succession of said components in spaced side by side relation along a path, a guide block extending in said path and adapted to maintain the bodies of said components in a straight row as they are fed by said means, and taping means arranged adjacent to the ends of the leads progressively to bind them, said taping means respectively including a folder for successively receiving the end portions of the leads to envelope them in a longitudinal fold of the tape being applied.

**2,771,207**
**CLINCH NUT SPINNING TOOL**
Fred D. Ott, Boalsburg, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 20, 1954, Serial No. 431,070
1 Claim. (Cl. 218—38)



A spinning tool for affixing an internally threaded element to a support which has a preformed hole to contain a circular flange projecting through the hole from said element; said tool consisting of a thread course to be screwed into the internal thread of said element, a handled rod of which the thread course is a part, said rod having a head, a handled sleeve revoluble on the rod and having one end thereof in bearing support confronting said head, and a forming structure at the other end of the sleeve, said structure comprising a diametrically opposed pair of convexly rounded projections the end surfaces of which are shaped to produce concavities



therein and are inclined both forwardly and inwardly for engaging the inner edge of said flange to expand and upset said flange pursuant to turning of the rod and sleeve relative to said threaded element.

**2,771,208**
**PAINT CAN EXTENSION COLLAR**
Joseph Chovanec, Hazleton, Pa.
Application June 9, 1955, Serial No. 514,281
4 Claims. (Cl. 220—4)



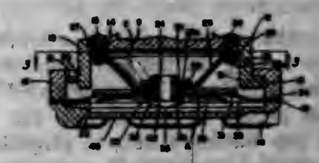
1. A paint can extension collar comprising a flat rectangular strip bent into a substantially cylindrical configuration upon bringing the free ends thereof together, means for securing said free ends together in adjustable relationship to fit paint cans of varying size, means for mounting the lower edge of said strip on the open upper end of a paint can or the like, means for imparting rigidity to the upper edge of said strip, and unitary means for preventing spillage through the collar and for limiting the downward displacement thereof through the paint can, said adjustable locking means comprising said strip at one free end thereof having a pair of laterally spaced, longitudinally extending elongated slots, said strip at the other end thereof having a pair of oppositely disposed laterally extending slots defining a pair of tongues bent through said elongated slots across the outer face of said strip whereby to slidably connect the free ends thereof and to adjust the cylindrical formation to paint cans of varying size as well as permitting the strip to be shipped in knockdown condition.

**2,771,209**
**ASH TRAY**
John B. Flynn, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 2, 1951, Serial No. 239,943
3 Claims. (Cl. 220—18)



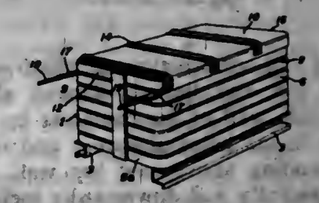
3. An ash tray comprising a frame having a receptacle receiving opening provided therein, a receptacle positioned in said opening, cooperating trunnion means on said receptacle and said frame for permitting said receptacle to swing into and out of said openings, a substantially cylindrical cover having the forward side thereof secured to said frame adjacent said opening to position said cover substantially concentric with said bearing means, forwardly tapering projections extending circumferentially along the opposite ends of said cover away from said forward side to form a pair of wear receiving surfaces, each of said projections terminating adjacent the rear side of said cover to form shoulder means, said receptacle having members projecting therefrom to slidably engage said wear receiving surfaces during movement of said receptacle into and out of said opening, said members being positioned to engage said shoulder means when said receptacle is in the fully closed position, a recess extending circumferentially along the center of said cover between said tapered projections, a stop extending from said cover into said recess adjacent said frame, said cover having slots extending axially inwardly from each of said ends towards said recess, said slots being positioned adjacent said forward edge and between said wear receiving surfaces and said frame, and a resiliently deflectable detent on said receptacle projecting into said recess in spaced relation to said cover and being positioned to normally engage said stop when said receptacle is in the fully opened position, said detent being adapted when depressed to permit said receptacle to swing out of said opening and be lifted clear of said trunnion means.

**2,771,210**
**SAFETY CAPS FOR AIRCRAFT FUEL TANKS**
Owen H. Griswold, Paramus, N. J.
Application May 5, 1953, Serial No. 353,215
10 Claims. (Cl. 220—40)



9. In combination with an adapter or filler neck having a radially-inwardly extending flange defining a filler opening of substantial diameter, the lower edge of said flange providing a seat, a safety cap comprising a housing removably secured to said adapter, a hollow pin disposed centrally of said housing, a member encircling said pin and having sealing means secured to the periphery thereof, means supporting said member, a flexible diaphragm supporting said last-named means, and means resiliently supporting said pin, member, supporting means and diaphragm to cause said sealing means to engage said seat, said hollow pin having a passageway therethrough communicating the space above said member with the space below said diaphragm, whereby pressure from said first-named space may be transferred through said pin to the lower surface of said diaphragm, said housing being rotatable relatively to said member, whereby to permit rotation of the housing without rotating said member or sealing means.

**2,771,211**
**SLIDE COVER FOR CONVERTING A BOX INTO A FEED HOPPER**
George Schrader, Sr., deceased, late of Waukegan, Ill., by George Schrader, Jr., administrator, Waukegan, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 9, 1954, Serial No. 409,084
8 Claims. (Cl. 220—41)



1. A container and hopper unit comprising a box having a bottom with upwardly projecting side and end walls defining an opening at its top, said side walls each having a groove spaced from and parallel to its upper edge, a closure for said opening having lateral edges projecting beyond said sidewalls and flanges depending from said edges, and a pair of rods respectively secured to the inner surfaces of said flanges, each of said rods be-

ing received in and having sliding engagement in one of said grooves and mounting said closure for movement to and from a position covering said opening, said rods having extensions which project beyond one of said end walls when said closure is in its said covering position and are effective to actuate said closure to a position partially uncovering said opening when it is placed endwise on a supporting surface with said one end wall resting on said supporting surface.

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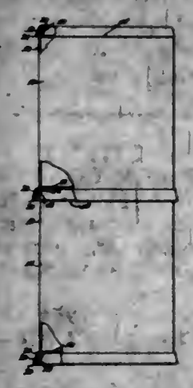
**2,771,212**
**ROCKET POWER UNIT**
William L. Ellinger, Jr., Glen Cove, N. Y.
Application February 8, 1955, Serial No. 486,752
6 Claims. (Cl. 102—34)



3. In a jet rocket power unit for a model airplane, a cylindrical case having an integral dome-shaped closure at its front end, said case being adapted to receive a cylindrical fuel pellet, a cap closing the rear end of said case, said cap having a central projecting nozzle, a spring yoke extending across said cap, said yoke having an opening fitting over said nozzle and diametrically opposite resilient arms projecting beyond the periphery of said cap and a U-shaped wire clip comprising a curved central portion engaging the front end of said case, and integral leg portions extending rearwardly along opposite sides of said case with its ends affixed to the arms of said yoke, said clip cooperating with said yoke to hold said cap resiliently on said case.

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**2,771,213**
**STACKING CAN**
James R. Lewis, Brayton, Iowa
Application November 25, 1953, Serial No. 394,309
1 Claim. (Cl. 220—97)



In a stacking can construction, a cylindrical container provided with top and bottom flanged closure walls secured to the side wall of the container by double fold seams, the top flange being inwardly and upwardly inclined and extending above said top wall, the bottom flange being outwardly and downwardly inclined and extending below said bottom wall, the inclination of the top flange being the same as the inclination of the bottom flange and the exterior diameter of the top flange being the same as the interior diameter of the bottom flange to facilitate the stacking of a series of cans, said flanges each comprising an extension of the cylindrical wall of the container overlapped by a reverted double fold of a corresponding flange of its associated top or bottom wall.

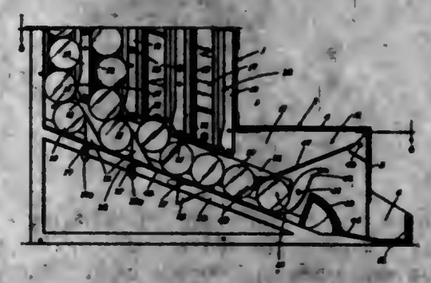
**2,771,214**
**DISPENSING CARTON FOR PACKAGE STRIPS**
Frank J. Lefebvre, Caldwell, N. J., assignor to Ivers-Lee Company, Newark, N. J., a corporation of Delaware
Application September 14, 1953, Serial No. 379,920
6 Claims. (Cl. 221—25)



1. A dispensing carton for a flexible package strip that has commodity-containing compartments forming protuberances spaced longitudinally thereof and is severable between said compartments, said carton having walls forming a storage chamber for a plurality of layers of said package strip with two of said walls meeting at an angle and providing a discharge opening at the zone of intersection of said walls through which said package strip must move longitudinally out of said chamber, one of said walls having a hole through which a member may be inserted for pushing said strip through said discharge opening, and a guide-support within said chamber having a wall which underlies the first-mentioned wall beneath said hole and has a guide opening at the opposite side of said hole from said discharge opening through which said strip must pass from said chamber and between said guide support and the first-mentioned wall, there being a guide lip connected at one end to said wall of the guide support at the edge of said guide opening over which said package strip must slide during its movement from the chamber to said discharge opening, said guide lip extending from said guide opening toward said discharge opening with its free edge adjacent to the inner edge of said hole, said guide lip normally being biased toward said top wall thereby pressing said package strip against said inner edge of said hole and applying friction to the package strip to restrain accidental movement of the strip into and out of the carton.

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**2,771,215**
**CONTAINER VENDING MACHINE**
John E. Oppenorth and Hazel M. Hanson, Los Angeles, Calif.
Application November 24, 1952, Serial No. 322,282
3 Claims. (Cl. 221—251)



1. A dispensing machine, for cylindrical containers, comprising, with a cabinet, an inclined chute for a longitudinal row of transversely disposed containers, a magazine assembly above the chute rearwardly of the lower end of the latter adapted to feed containers into said row, a container receiving trough in front of said lower end of the chute, said trough opening exteriorly of the cabinet, a controlled cross shaft above the lower end of the chute, an S-shaped rotary feeder on the shaft adapted, upon turning of the latter in a predetermined direction, to engage, lift, and discharge forwardly over the shaft the lowermost container of the row, and means spacing the lowermost container of the row from the next container thereof, said container spacing means comprising a longitudinal, downwardly urged but upwardly yieldable swing arm extending above and from ahead of the lowermost container to adjacent the rear thereof, and a down-turned tip on the rear of said swing arm normally engaging said adjacent container from the front, spacing the same from said lowermost container; the swing arm being swung upward and then released downward, upon dispensing of said lowermost container, whereby to permit forward travel of the row and movement of said adjacent container to the lowermost position on the chute; the feeder including diametrally opposed arms each arranged to engage and hold back said adjacent container when one arm is lifting said lowermost container until after the swing arm has been released by the container being dispensed.



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**2,771,216**
**PAPER CUP DISPENSING CARTON**
George Reiner, New York, N. Y.
Application January 23, 1953, Serial No. 332,858
3 Claims. (Cl. 221—302)



1. For use with a plurality of cups which taper upwardly and have rims on their upper ends, said cups being nested in a stack, a shipping and dispensing carton comprising an elongated body adapted to house a stack of such cups and having a closure flap forming the lower end wall thereof, and on which the bottom of the lowermost cup in the stack is adapted to seat, said end wall having a removable section of a diameter at least slightly greater than the diameter of the tops of the cups so that the cups can pass downwardly through the end wall as they are being dispensed, and a tubular dispensing element freely positioned in the carton and adapted to surround the lowermost cups in the stack, the walls defined by said tubular dispensing element being downwardly and defining a minor lower end and a major upper end, said upper end being of an external diameter greater than the diameter of the removable section and said minor end being of a lesser external diameter than the diameter of the removable section so that it can pass downwardly through the end wall and protrude slightly therebelow, said minor end being resilient and having an internal diameter which is slightly less than the external diameter of the upper ends of the cups.

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**2,771,217**
**MEASURING AND DISPENSING DEVICE**
James W. Brown and Robert L. Weintraub, Frederick, Md., assignors to the United States of America as represented by the Secretary of the Army
Application July 20, 1953, Serial No. 369,257
8 Claims. (Cl. 222—43)
(Granted under Title 35, U. S. Code (1952), sec. 266)

5. A measuring and dispensing device comprising a cylinder having an axial passageway, means for removably securing a delivery tip in the lower end of said passageway, an ejecting piston mounted in said passageway, an internally threaded portion in the upper end of said passageway, an external threaded portion on said ejecting piston cooperating with said internally threaded portion, an inwardly extending annular shoulder in said passageway below said threaded portions, a vent leading from said passageway above said shoulder, a removable bushing in said passageway below and abutting said shoulder, a collar threaded in said passageway below and abutting said bushing, a smoothly cylindrical piston portion on said ejecting piston extending past said shoulder and into said bushing, said bushing having a bore the upper portion of which is in fluid-tight engagement with said piston; said means for removably securing a delivery tip in said



lower end comprising an elastic compressible ring abutting the lower side of said collar, and a plug for compressing said elastic ring against said collar, said plug having a central aperture to receive the delivery tip; a control knob on the upper end of said piston. and cooperating detent means on said knob and cylinder constructed and arranged to detain said knob at a plurality of evenly divided points during rotation thereof.

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**2,771,218**
**CLOSURE ASSEMBLY**
Edward Henderson, Montclair, N. J.
Application May 19, 1954, Serial No. 430,827
7 Claims. (Cl. 222—83)



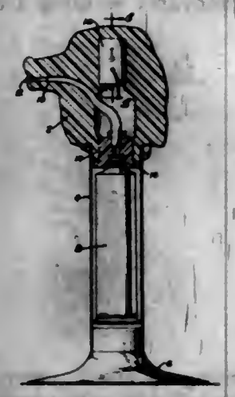
1. A container closure assembly comprising: a container having an externally threaded tubular dispensing nozzle with a dispensing aperture extending therethrough; a diaphragm made from a non-shattering relatively soft fluid impervious material extending across the dispensing aperture in the nozzle to seal the same; an internally threaded removable closure cap engageable with the threaded nozzle to close the same, the said cap having a completely enclosed top portion serving as a sealed closure for said container and said closure cap having a piercing plug depending downwardly from the top of the cap and engageable with the diaphragm to pierce the same when the cap is fully applied but being spaced from the diaphragm when the cap is only partially applied; and frangible stop means between the cap and container and connected to one of said parts and being engageable with the other part when the cap is only partially applied to limit the further application thereof, said stop means being frangible so as to break when sufficient torque force is applied to the cap in the direction of further application of the cap whereby the cap can be fully applied and the diaphragm pierced.

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**2,771,219**
**INTEGRATED HOLDER AND DISPENSER**
Roberta L. Dewey, New York, N. Y.
Application December 28, 1954, Serial No. 478,114
1 Claim. (Cl. 222—93)

A device of the type described comprising a dispensing member of artistic configuration, a hollow stem of elastic

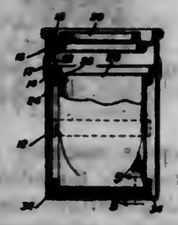
material attached thereto and designed to receive a compressible tube containing a fluid substance to be dispensed, a plug between the dispensing member and the hollow stem and having a passage therethrough screw threaded at the end adjacent the stem to receive the screw threaded end of the toothpaste tube, a passageway extending



through the dispensing member from the passageway in the plug to a discharge orifice in the dispensing member, and one or more retractable cords mounted within and extending through the wall of said dispensing member and carrying implement connecting means at their ends outside of said member.

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**2,771,220**
**CONTAINER WITH ROLLER TYPE COLLAPSIBLE TUBE**
**Louis Clapa, Levittown, N. Y.**
**Application June 16, 1954, Serial No. 437,109**
**3 Claims. (Cl. 222—100)**

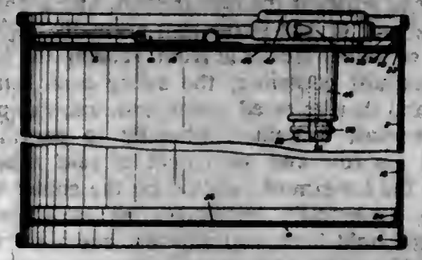


1. An adjustable container comprising a lower outer receptacle, an upper outer receptacle, means supporting said upper outer receptacle with a portion of said upper outer receptacle extending into said lower outer receptacle, an inner receptacle carried by said upper outer receptacle within said lower outer receptacle, said inner receptacle comprising a collapsible tube, and a cover engaging said upper outer receptacle to seal said container, said upper outer receptacle having a hook-like flange extending about the lower peripheral edge thereof, said inner container having an upper flange engaging said hook-like flange.

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**2,771,221**
**LIQUID CONTAINER**
**Cecil Featherstone Hammond and William Shackleton, London, England, assignors of one-half to Lining Components Limited, London, England, a British company; said Cecil Featherstone Hammond, administrator of said William Shackleton, deceased**
**Application January 2, 1953, Serial No. 329,334**
**6 Claims. (Cl. 222—111)**

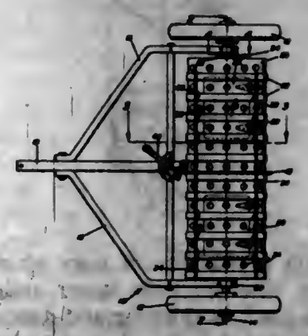
1. A drum for the transport and storage of liquid comprising a sheet metal shell, including a body, a head and a bottom, in combination with a lining in the form of a bag of flexible material, said shell being formed with an opening, and said bag including a tubular part integral with said bag and aligned with said opening and adapted



to be completely inverted through said opening to form a spout and to be returned through said opening.

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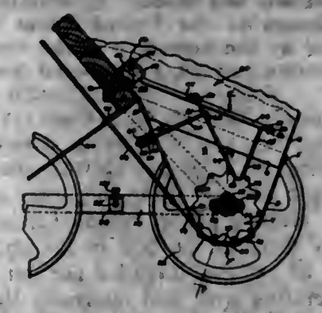
**2,771,222**
**LIME SPREADER**
**Herman Orne, Pepin, Wis., assignor of thirty-three and one-third percent to Donald Orne and thirty-three and one-third percent to Wilbur Orne, Pepin, Wis.**
**Application August 11, 1953, Serial No. 373,481**
**2 Claims. (Cl. 222—171)**



2. A spreading device for finely ground material comprising a mobile support frame, a cylindrical drum mounted on said frame for rotation, means providing access to the interior of the drum for replenishing the supply of material being spread, means for rotating said drum, said drum having a plurality of apertures in the wall thereof with the apertures being disposed in longitudinally spaced circumferential rows for discharging the material, a plurality of rings encircling said drum and disposed for longitudinal sliding movement thereon, one of said rings being disposed adjacent each row of apertures for sliding movement into overlying relation to the adjacent row of apertures for controlling the flow of material from the drum, means rigidly interconnecting the rings for assuring simultaneous movement thereof, and means adjacent the center of said drum for simultaneously moving the rings in either direction.

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**2,771,223**
**LINE MARKING MACHINE**
**Herl J. Ryan, Los Angeles, Calif.**
**Application August 10, 1953, Serial No. 373,135**
**9 Claims. (Cl. 222—177)**



1. In a line marking apparatus: a hopper provided in its bottom with a discharge opening; a wheeled support carriage including a shaft extending transversely through said hopper and caused to rotate by the travelling movement of the carriage; and agitating mechanism comprising an agitator rotor of open squirrel-cage form, including a plurality of circumferentially spaced bars parallel to said shaft, said rotor being mounted on said shaft and secured thereto for rotation therewith, whereby said bars will sweep across said discharge opening for clearing the same; a vertically reciprocable agitator including a carrier pivoted in the hopper rearwardly of the rotor and extending forwardly thereover, and a downwardly projecting forward end part riding on the periphery of said rotor and adapted to be alternately lifted by successively passing bars of said rotor and dropped into successive spaces between said bars so as to agitate material within said hopper in a manner to feed it downwardly through said rotor while inhibiting packing of the material within the rotor and spring means connected between said lower end part and the rear wall of said hopper and exerting a downward pull on said carrier to cause it to strike the succeeding rotor bars with spring energized impact.



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**2,771,224**
**HAND CARRIED LIQUID DISPENSER**
**Earl Arthur Boerger, South Jacksonville, Fla.**
**Application February 15, 1955, Serial No. 488,253**
**9 Claims. (Cl. 222—210)**

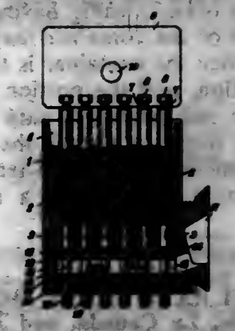


4. A dispenser for liquids comprising a container having a substantially flat side arranged to be mounted against and engage the back of the hand of a user; an elongate passage means connected with the flat side of said container and providing an orifice, said means extending laterally from the said flat side a distance commensurate with the thickness of the fingers and being adapted to extend between the fingers of the hand, said means further having a flexible and deformable normally-closed valve which opens in response to lateral pressure on and deformation of it; fastening means attached to said container, for attaching the same to the back of the hand, said container having deformable walls, and said fastening means tending to collapse the said walls and eject the contents of the container therefrom, said fastening means comprising an elastic band encircling the hand and secured to an outer wall of the container, tending to collapse the same; and means for adjustably securing the band to the said outer wall to regulate the tension of the band as the container empties.

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**2,771,225**
**PUMP CONSTRUCTION FOR CANDY DEPOSITING MACHINE**
**George S. Perkins, New York, N. Y., assignor to National Equipment Corporation, New York, N. Y., a corporation of New York**
**Application June 17, 1955, Serial No. 516,076**
**6 Claims. (Cl. 222—255)**

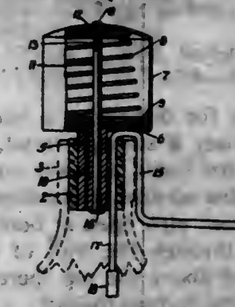
1. In a pump construction, a housing provided with a plurality of cylinders, each cylinder having a bottom discharge opening, a piston mounted for reciprocating movement in each cylinder, an outlet nozzle located below each cylinder discharge opening, a slidable hollow cut-off bar mounted in the housing between the cylinder discharge openings and the outlet nozzles, said cut-off bar having an upper wall provided with a plurality of openings all of which communicate with the hollow interior of said cut-off bar, said openings being adapted, when the cut-off bar is in a predetermined position, to establish communication between the cylinder discharge openings and the hollow interior of the cut-off bar, the cut-off bar having a plurality of tubular passages extending through it without communicating with the hollow interior of said



bar, said tubular passages being adapted to establish communication with the cylinder discharge openings and the outlet nozzles when the cut-off bar is moved to a position wherein the cylinder discharge openings are disaligned with the openings in the upper wall of said cut-off bar.

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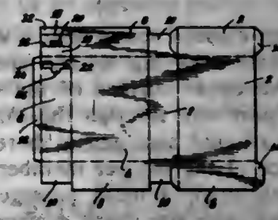
**2,771,226**
**UNIVERSAL LIQUID DISPENSER**
**Lawrence G. Bates, Shaker Heights, Ohio, assignor to Continental Say-When Corporation, Cleveland, Ohio, a corporation of Ohio**
**Application November 8, 1952, Serial No. 319,541**
**5 Claims. (Cl. 222—401)**



1. In a liquid dispenser having a pump supported on a closure for a container opening and a discharge tube in such closure which communicates between liquid in the container and a point of discharge outside, guide means for the pump relative to the closure, finger-controlled means for admitting air from outside into the pump, and means for admitting pressure air from the pump into the container and for retarding the rate of flow from the container to the pump embodiying a continually open helical connecting passageway.

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**2,771,227**
**CARTONS**
**Anthony A. Urbina, New York, N. Y.**
**Application December 14, 1954, Serial No. 475,220**
**4 Claims. (Cl. 222—455)**



1. A container of the class described having front and rear walls, side walls, and top and bottom walls, said top and bottom walls being formed of overlying flaps on the ends of the front, rear and side walls, the flap on the upper end of one of the side walls being bent on a line

spaced a distance from its inner end to form a downwardly inclined baffle having its upper end spaced from the side wall and its lower end secured to said side wall, said baffle, the opposite portion of said side wall and the inner portion of said flap forming a measuring pocket, the upper end portion of said baffle having a slot through which the contents of the container may flow by gravity into said pocket when the container is tilted downwardly to a suitable position, and the portion of the side wall opposite the lower end portion of said baffle being provided with a slot so as to permit the contents of the pocket to flow from the container when the container is tilted in the opposite direction to a suitable position.

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**2,771,228**
**CONSTANT RATE LIQUID DISPENSER**
**Thomas A. Dobbie, La Canada, and John B. Sturgess, San Gabriel, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California**
**Application February 12, 1954, Serial No. 409,860**
**8 Claims. (Cl. 222—481.5)**



1. An apparatus for dispensing a liquid at a constant rate which comprises a storage vessel, an inlet means opening thereinto for liquid, a lower outlet means opening therefrom, a flow control orifice disposed in said outlet means, and a vent pipe open at both ends and sealed at and extending through the wall of said vessel from a point outside and above the top thereof to a point inside and adjacent the bottom thereof.

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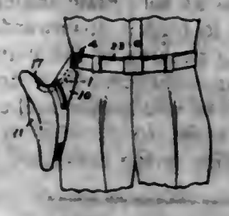
**2,771,229**
**POURING SPOUT**
**Widmer C. Sidenius, Sandy Hook, Conn., assignor to Production and Marketing Company, Newtown, Conn., a partnership**
**Application December 27, 1954, Serial No. 477,721**
**8 Claims. (Cl. 222—484)**



1. A container closure comprising a stopper member, said stopper member having an air passageway therein opening onto the upper surface of the stopper member and continuing part way through the same, said stopper member having a liquid passageway therein opening onto the lower surface of the stopper member and continuing part way therethrough, a main passageway connecting the upper surface with the lower surface of the stopper member and intersecting the liquid and air passageways, a rotatable dispensing tube member within the main passageway and sealing the same, said tube member having a partition intermediate its ends dividing it into an upper portion and a lower portion, opening adjacent this partition in both the upper and lower portions of the tube, said upper opening registering with the liquid passageway and said lower opening registering with the air passageway when the tube member is in the open position, and said openings being sealed by the stopper member when the tube member is rotated into the closed position.

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**2,771,230**
**HAT HANGER AND IDENTIFYING MEANS FOR HAT**
**Henry Fitzpatrick, Hayward, Calif.**
**Application April 12, 1954, Serial No. 422,325**
**3 Claims. (Cl. 224—5)**



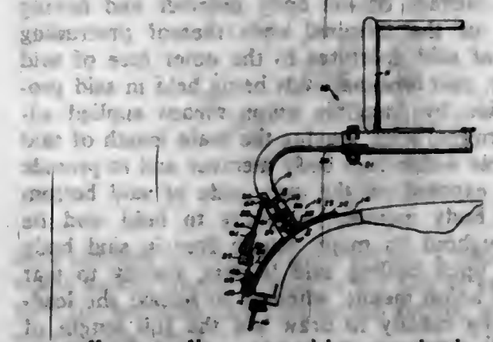
1. A hat hanger for a visor type hat having an emblem over the visor with an emblem post extending through said hat above said visor and into a space above said visor and above the head of a wearer comprising: a substantially V-shaped clip providing a pair of spaced opposed legs, a member formed with an opening adapted to pass said emblem post therethrough, an elongated uniformly wound helical spring extending from said clip to said member and secured at one end thereof to one leg of said clip and at the other end to said member with said spring terminating at its ends substantially at said clip and member whereby said member is adapted to yieldably flex uniformly in any desired direction at any point along its length under a bending force applied to said spring, said spring being relatively short with its adjacent coils in engagement with each other when said spring is collapsed, to enable it to fit within said space above the head of the wearer of such cap and the length of said spring being sufficient to enable sufficient expansion of said spring to permit full withdrawal of said clip from said cap and past its visor where said member is secured to said post, said close engagement of said adjacent coils of said spring providing a support for holding said spring substantially straight when supported horizontally from one end only, said clip being a flat piece of material with said spring pivotally connected to said one leg to enable said clip to swing relative to said spring to different positions, and the outer side of said other leg providing a flat surface adapted to carry the name of the wearer of the hat, said legs being spaced for receiving the visor of such hat therebetween at any point along the edge of the latter with said outer side at the upper side of such visor.

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**2,771,231**
**CAR TOP LUGGAGE CARRIER STRUCTURE**
**Terence G. Hare, Detroit, Mich., assignor to Miller Manufacturing Co., Detroit, Mich., a corporation of Michigan**
**Application November 10, 1954, Serial No. 467,952**
**5 Claims. (Cl. 224—42.1)**

1. A structure for mounting a luggage carrier having a downwardly extending supporting leg, on the top portion of an automobile body comprising, a plate adapted to rest upon the top portion of the automobile body, two projections extending upwardly from the plate and spaced from each other in a fore and aft direction with reference to the automobile, a pair of matching connector plates, the lower edge of each connector plate having a first concavity extending generally horizontally and constituting substantially one-half of a bearing, the central part of each plate having an upwardly extending concavity constituting substantially one-half of a socket, said connector plates being disposed in interfacial relationship with the matching first concavities constituting a bearing, the lower edges of the connector plates positioned between the projections on said plate, a pintle member passing through said projections and said bearing, the matching

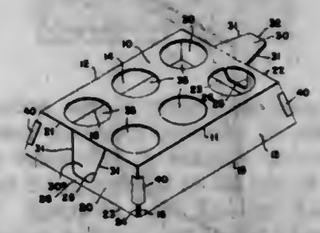




upwardly extending concavities constituting a socket, the downwardly extending supporting leg being disposed in the socket, means for securing the two connector plates together, and tightening means interposed between the downwardly extending supporting leg and a portion of the automobile body for holding said plate against the top of the automobile body.

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**2,771,232**
**STACKABLE SERVICE TRAY**
**Kenneth M. Read, Swarthmore, Pa.**
**Application August 4, 1953, Serial No. 372,219**
**1 Claim. (Cl. 224—48)**



A single service multiple purpose disposable stackable tray comprising a one piece construction of thin flexible sheet material having a central plane panel with a plurality of spaced cup receiving openings therein for the reception and retention of cups on one side thereof, a pair of oppositely spaced side panels having terminal edges, each of said side panels being joined to said central panel by a longitudinal crease line and extending outwardly and downwardly from said central plane panel, each of said side panels diverging from said longitudinal crease line and being substantially trapezoidal in shape, a pair of oppositely spaced end panels having terminal edges in the same plane as said first mentioned terminal edges, each of said end panels being joined to said central panel by a transverse crease line and extending outwardly and downwardly from said central plane panel, each of said end panels diverging from said transverse crease line and being substantially trapezoidal in shape, a flexible handle portion at each end of said central panel centrally disposed with respect thereto, each of said handle portions being in the same plane as an end panel and each of said end panels having an opening corresponding in size to the handle portion located in the same plane therewith, the flexible handle portions being adapted to be bent substantially at the transverse crease lines to rest in the same plane as said central panel, said side panels and said end panels being secured at their meeting margins, said side and end panels providing supports for the central panel and said tray being adapted to receive like trays in stacked relation.

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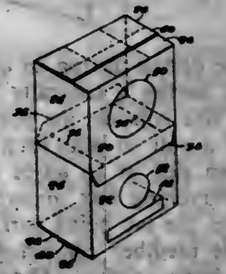
**2,771,233**
**MOLDED PULP CARTON**
**John W. Cox, Chicago, Ill., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware**
**Application June 21, 1950, Serial No. 169,460**
**20 Claims. (Cl. 229—2.5)**



1. A molded pulp carton comprising a bottom section defined by an upwardly extending wall structure and provided with a plurality of contiguous article receiving cells successively arranged in row formation, said cells having lowermost egg supporting portions defined at least in part by relatively flat walls which flare outwardly and upwardly at a predetermined angle to the vertical and merge at their topmost limit into upper egg restraining portions disposed at a lesser angle to the vertical, successive cells in a row being merged with one another substantially beneath the top of said wall structure and at the approximate elevation of the merger of said lower and upper cell portions.

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**2,771,234**
**MULTI-SECTIONAL CONTAINER**
**Oscar H. Hultin, Quincy, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts**
**Application March 8, 1952, Serial No. 275,545**
**7 Claims. (Cl. 229—15)**



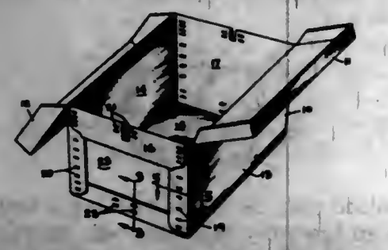
1. A package comprising a multi-sectional container comprising a plurality of duplicate sections, each section comprising a carton having two side panels, two end panels and a bottom closure, each of said end panels having inwardly folded short top flaps and one side panel only being extended beyond the top of the section to form a securing flap, two of such sections being assembled with the inwardly folded short end panel flaps of one section engaging and adhesively secured face to face with the corresponding flaps of the second section, each section being filled with a commodity and having a top closure to retain the commodity within each section, the side panel flap of each section being adhesively affixed to the exterior of the body of its opposing section, and the securing flap of one section forming a hinge upon which the opposed section may be swung to open the tops of both sections after the securing flap of the other section has been completely severed between the two sections.

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**2,771,235**
**REINFORCED CASE**
**Robert P. Stephenson, Grand Rapids, Mich.**
**Application July 11, 1949, Serial No. 104,021**
**3 Claims. (Cl. 229—23)**

1. A rectangular container, comprising: side, end, and bottom wall panels of fibrous sheet material disposed to define enclosed space, said side and bottom panels having

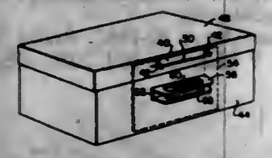
flap portions disposed to overlap the marginal portions of the adjacent end panels along the normally vertical sides and the bottom of said ends; a plate of relatively hard material in face contact with an end panel and having its vertical edge portions interposed between said flaps and said marginal portions, said plate extending



from a point adjacent the top of said container to the bottom thereof and having a flange portion disposed to rest on said bottom panel; and fastening means disposed along said normally vertical sides outside the vertical edges of said plate and securing said flaps and marginal portions together and clamping said plate therebetween.

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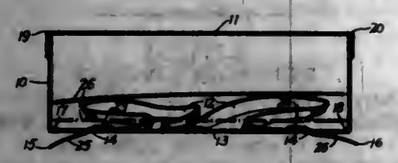
2,771,236
CARRYING PACKAGE
Clarence Lloyd Claff and Carl A. Moeller, Randolph, Mass., assignors to M. B. Claff & Sons, Inc., Randolph, Mass., a corporation of Massachusetts
Application October 14, 1953, Serial No. 386,033
1 Claim. (Cl. 229—45)



A portable shoe carton having an open-sided rectangular body portion having a centrally located slot and a securing tab in a side adjacent the open side, the securing tab consisting of a pair of slits each reaching the edge bounding the open side at an angle thereto and spaced to permit the intervening box material to be bent outwardly at an angle, the tab being narrowest adjacent said opening, a handle member consisting of a flat portion lying within the body portion adjacent said side and a handle projecting from the flat portion through said slot, and a cover having side walls joined at the edges and adapted to engage frictionally with the outer surfaces of the body walls, said cover having in a side wall a substantially straight slit adapted to receive said outwardly bent securing tab, the flat portion of the handle member extending substantially over the portion of the body side wall including the tab, and the tab having cuts adjacent said slits and substantially along the line of said bending to form end portions adapted to be bent in relation to the tab to lock the tab onto the cover.

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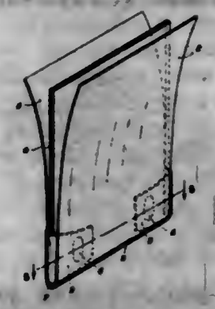
2,771,237
CARTON WITH TIE MEANS
Stanley J. Phillipson, Brooklyn, N. Y.
Application May 17, 1955, Serial No. 508,963
2 Claims. (Cl. 229—46)



1. A prepared shoe package member comprising polygonal side and bottom walls joined into a set-up box body and having a conforming cover member adapted to be tied thereto as a closure, a tie member of predetermined length to hold said cover member on said body member in position by knotting the terminal ends of the tie member to each other encircled about the body member and cover member, said body member having on the bottom wall two spaced apertures therein, said tie member lying on the inner surface of the body member and having one of each of the terminal ends thereof protruding through one of said apertures to the outer face of said body member, said terminal ends being held in said protruding position by frangible union means applied adjacent said terminal ends, leaving the main length of said tie member free within said body member and to provide short leaders exposed on the outer side of said bottom wall of said body member, whereby to hold said tie member throughout its major length free in said body member and upon pulling said leaders, readily to tear said frangible union means, whereby to release the leaders and thereby readily to draw out the full length of said tie member through the apertures, sufficient to encircle the body member and cover member, to permit joining the terminal ends into a knot, the apertures through which the tie member passes thereby serving as the sole anchoring means for the tie member.

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2,771,238
PHOTOGRAPHIC PRINT FOLDER
Ralph W. Clarke, Nashville, Tenn., assignor to Double Envelope Corporation, Roanoke, Va.
Application June 25, 1954, Serial No. 439,299
1 Claim. (Cl. 229—87)

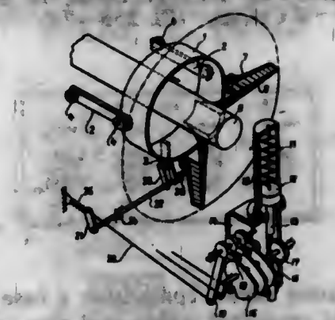


An open ended folder of relatively stiff paper comprising a blank folded transversely intermediate the ends thereof with a single sharp fold line to provide top and bottom like leaves in face to face contact, substantially square flat tabs extending from the opposite side edges of only one of said leaves adjacent said sharp fold line, one side of each tab being provided with a spot of adhesive and folded inwardly along a single fold line which has a length approximately one fourth the length of a leaf, each tab extending a distance substantially one third the width of said leaves and secured to the inner face of the other of said leaves by said adhesive adjacent said first mentioned fold line when said leaves are in folded or superimposed relation, whereby a V-shaped shallow pocket between the leaves is provided.

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2,771,239
ARRANGEMENT FOR THE TRANSPOSITION OF A HOLLOW CYLINDRICAL SLIDE
Raymond Morellon, Zurich, Switzerland, assignor to Ateliers de Construction Oerlikon, Zurich-Oerlikon, Switzerland, a corporation of Switzerland
Application May 15, 1952, Serial No. 287,991
Claims priority, application Switzerland June 8, 1951
4 Claims. (Cl. 230—114)

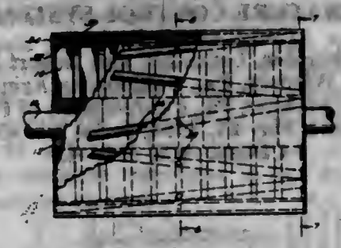
1. A compressor having the combination of a rotatable hollow wheel for receiving and impelling fluid, a shaft for carrying and driving said wheel, said wheel having an opening surrounding said shaft for suction intake of said fluid, a cylindrical shell concentric with and surrounding said shaft and movable axially into and out of said opening for regulating the extent of said suction, said



shell carrying a series of guide rollers, a housing for said wheel having tracks parallel to the axis of said shaft and shell for receiving and guiding said rollers, and means for moving said shell.

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2,771,240
AUTOMATIC DYNAMIC BALANCER
Peter J. Gurin, Ardmore, Pa.
Application August 27, 1952, Serial No. 306,745
1 Claim. (Cl. 230—134)
(Granted under Title 35, U. S. Code (1952), sec. 266)

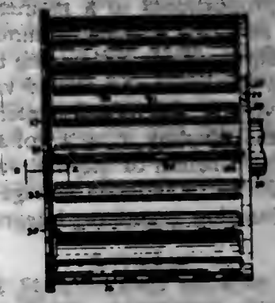


In combination with a multi-stage axial-flow gas turbine compressor having a plurality of sets of coaxially related blade assemblies, a housing enclosing the blade assemblies and being secured to the tips of the blades for joint rotation therewith, said housing having an inner wall and an outer wall concentrically related and slightly spaced about from one another to form an annularly shaped clearance therebetween, a plurality of tubes positioned in the clearance formed by the walls of the housing and each extending generally longitudinally of the compressor, said tubes at the same angle to one another and being so arranged that each tube cooperates with its neighbor on one side to form a V having its apex at one end of the housing and cooperates with its neighbor on the other side to form a V having its apex at the other end of the housing, said tubes being further arranged that at their mid-points they are equally circularly spaced around the axis of rotation of the compressor, and a ball in each tube and capable of rolling freely to assume positions therein during the rotation of the compressor acting to bring same into dynamic balance.

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2,771,241
BLOWER WHEEL
Lowell Eugene Sprouse, Columbus, Ind., assignor to Vernco Corporation, Columbus, Ind., a corporation of Indiana
Application November 25, 1953, Serial No. 394,271
4 Claims. (Cl. 230—134)

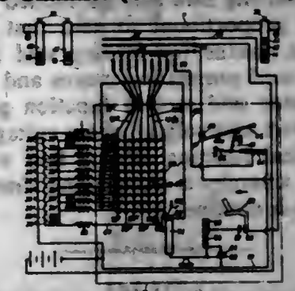
1. A blower wheel comprising a circular base plate; a plurality of blades extending normally and circumferentially of said plate; the outer end portion of each of said blades having a laterally entering notch traversing the blade to define an outer end portion extending across the blade approximately half the width of the portion leaving a neck; a finger extending laterally from each of said outer ends intermediate said notch and the outer end edge of the blade and lapping over the next adjacent



blade outer end portion; said outer end portion of one blade encircling and compressibly gripping therewithin the finger of the next adjacent blade.

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2,771,242
TYPEWRITER NUMBER-PRINTING APPARATUS CONTROLLED BY A CALCULATING MACHINE
Leo Trnka Elder von Waldbergen, Frankfurt am Main, Germany
Application September 19, 1952, Serial No. 310,487
Claims priority, application Germany September 25, 1951
5 Claims. (Cl. 235—60.12)



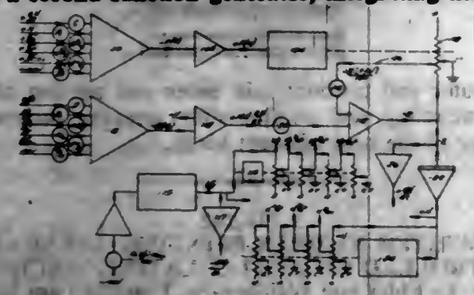
4. Actuating mechanism for a typewriter including a movable carriage and a set of key elements, said actuating mechanism comprising, in combination, a circuit including a source of current; a set of electromagnetic operating means connected in parallel in said circuit, each electromagnetic operating means including a movable operating member connected to one of said key elements for actuating the same; a plurality of contact sets, each contact set connected in said circuit in series with one of said electromagnetic operating means, at least some of said contact sets being associated with denominational orders and including a shiftable contact for selecting a digit of the respective denominational order, said shiftable contact being adapted to be moved by the register means of a calculating machine; a set of fixed contacts located adjacent the typewriter carriage; a movable contact adapted to be secured to the typewriter carriage and cooperating with said fixed contacts for successively engaging the same during movement of the typewriter carriage, said set of fixed contacts and said movable contact being connected in said circuit; a set of blocking contact means connected in series in said circuit, each blocking contact means including a movable blocking contact member mechanically connected to one of said operating members and interrupting said circuit when the corresponding movable operating member is actuated.

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2,771,243
APPARATUS FOR SIMULATING AN ENGINE
Louis Wolin, Philadelphia, and Arthur M. Carter, Jr., Rosemont, Pa.
Application September 3, 1952, Serial No. 307,725
3 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A computer device for simulating a dynamic system comprising an electrical system wherein there is pro-

vided a function generator for converting an input voltage proportional to a value of a first variable into an output voltage proportional to a mathematical function of the value of said first variable, summation means for receiving said output voltage and adding thereto a voltage proportional to a first value of a second variable to obtain a second output voltage, a divider for receiving said second output voltage and dividing it by a voltage proportional to a mathematical function of the first value of said second variable, said last mentioned voltage being obtained from a second function generator, integrating means for



receiving the output voltage of said divider, said last mentioned output voltage being proportional to a value of a third variable in the form of a mathematical differential, and converting said last mentioned output voltage into a voltage proportional to said first value of said second variable, means for feeding said last mentioned voltage both to said summation means and to said second function generator said second function generator being adapted to convert said voltage into a voltage proportional to a mathematical function of said first value to be fed to said divider, whereby a closed loop simulation of said dynamic system is obtained.

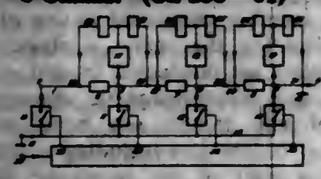
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**2,771,244**

**CODED PULSE CIRCUITS FOR MULTIPLICATION**

François Henri Raymond, Le Vesinet, France, assignor to Societe d'Electronique et d'Automatisme, Paris, France, a corporation of France

Application April 23, 1951, Serial No. 222,385
Claims priority, application France May 3, 1950
8 Claims. (Cl. 235—61)



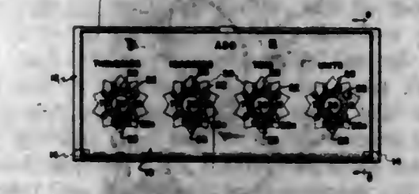
1. An operator circuit for binary-coded impulse trains, each having a fixed number of impulse periods, said operator circuit comprising: a static register for the digits of a binary quantity comprising a number of registering members equal to the number of the said impulse periods, a corresponding number of gates controlled by said members; a common application channel for all said gates; a delay transmitting channel; a plurality of taps distributed along said channel, the intervals between said taps being equal to the timing intervals of said trains, each of said taps being connected to the output of one of the said gates and the distribution of said taps along said channel being in registration with the distribution of the controls from said register to said gates; amplitude discriminators for accepting only amplitude levels greater than unity, each said discriminator having its input connected to one of said taps, with the exception of the first tap in the direction of transmission; pulse-cancelling devices coupled between the outputs of said amplitude discriminators and said same corresponding taps; and pulse carry-over devices coupled between the outputs of said amplitude discriminators and the taps in said channel which respectively immediately precede in time the said corresponding taps.

**2,771,245**

**CALCULATING DEVICE**

John T. Crowley, Atlanta, Ga.

Application May 16, 1955, Serial No. 508,586
6 Claims. (Cl. 235—74)



1. A calculating device comprising a case, a numeral wheel rotatably supported within said case, said numeral wheel being rotatable in a first direction to perform an addition operation and rotatable in the opposite direction to perform a subtraction operation, means adapted to permit manual actuation of said numeral wheel from either of the opposed side surfaces thereof, and a stop mechanism engageable with said numeral wheel to limit rotation of said numeral wheel to a clockwise direction with respect to the side surface of said numeral wheel employed for actuation.

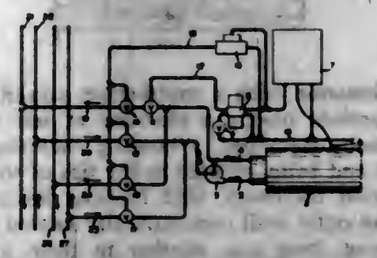
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**2,771,246**

**TEMPERATURE CONTROL SYSTEM FOR CALENDER ROLLS**

Charles F. Schneider, Lancaster, and Robert D. Turkington, Lower Windsor, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application May 21, 1954, Serial No. 431,362
3 Claims. (Cl. 236—1)



1. In a device for controlling the temperature of the working surface of a calender roll, the elements comprising a system for circulating fluid through the interior of said roll, said circulating system being connected to a closed circulating loop carrying cooling fluid and a closed circulating loop carrying heating fluid; a thermocouple in engagement with the working surface of the calender roll; a potentiometer connected to said thermocouple; a pneumatic controller in combination with said potentiometer, the arrangement of the pneumatic controller and the potentiometer being such that the set point of the potentiometer corresponds to the center of the range of the pneumatic controller so that a variance of the temperature on the surface of the roll recorded on the potentiometer changes the strength of the pneumatic signal put out by the pneumatic controller; a pneumatic throttling controller, said pneumatic throttling controller controlling the flow of air through a pressure line; a valve on the cold fluid circulating system to control the amount of cooling fluid supplied to the circulating loop in the calender roll, the adjustment of said valve being controlled by the throttling controller which is in turn controlled by the signal from the pneumatic controller; and a pair of valves on the cold fluid loop and a pair of valves on the hot fluid loop, said valves being controlled by the pneumatic controller to close the one loop and open the other loop upon a temperature drop on the surface of the roll within a predetermined limit.

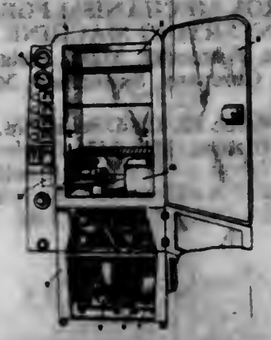


**2,771,247**

**CONSTANT HUMIDITY APPARATUS**

Henry L. Williams, Park Ridge, Ill., assignor to Food Technology, Inc., Chicago, Ill., a corporation of Illinois

Application April 4, 1952, Serial No. 280,677
3 Claims. (Cl. 236—44)



1. In a constant humidity chamber the combination with a chamber of a fan adapted to circulate air in said chamber, a spray nozzle arranged to discharge water into said fan for distribution of the water, means for supplying compressed air to said nozzle responsive to the impulse of a humidity-sensitive element in said chamber, said means being adapted to draw water to said nozzle when air is passed therethrough and intermittently operable mechanism operable in response to said impulse of said humidity-sensitive element for interrupting the operation of said first named means, said mechanism including a driven adjustable cam, a motor for driving said cam, and an electrical switch connected to said first named means for interrupting the operation thereof adapted to be actuated by rotation of said cam, said motor being operative responsive to said impulse of said humidity-sensitive element.

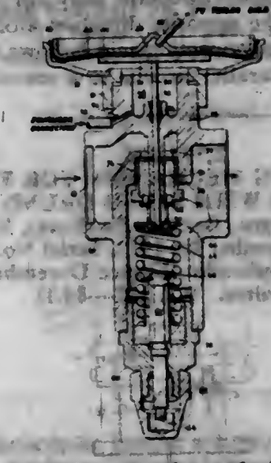
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**2,771,248**

**HIGH CAPACITY THERMOSTATIC EXPANSION VALVE**

Edward C. Ehlke, Milwaukee, Wis., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware

Application January 19, 1955, Serial No. 482,765
7 Claims. (Cl. 236—92)



1. A thermostatic expansion valve of large capacity in which the head pressure has little effect on the operating characteristics of the valve comprising, a valve body having an inlet and an outlet and a partition wall therebetween, an annular port in said partition wall, coplanar annular valve seats inside and outside the annular port on the outlet side of the port, a push pin passing centrally of the annular port through said partition, means including a diaphragm defining a variable volume chamber, means connecting said chamber to a feeler bulb subjected to temperature variations, a flat annular valve assembly on the outlet side of the port and adapted to seat on said annular surfaces, said push pin being operatively connected to said diaphragm and to said valve assembly, spring means acting on the valve assembly urging the valve assembly towards the annular seats, and means allowing communication between the center of the valve assembly and the outlet so that flow through the port when the valve is open can flow to the outlet either externally or internally of the valve assembly.

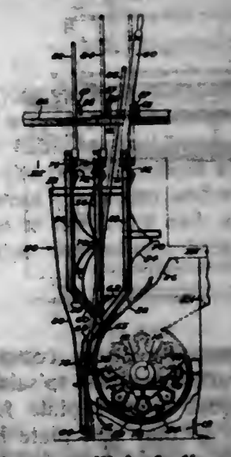
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**2,771,249**

**SLIDE TRACK MOUNTING MEANS FOR DIFFERENT MESH SIZE SCREENS IN SCREENING MILLS**

Herman D. Schutte, Williamsville, N. Y., assignor to Schutte Pulverizer Company, Inc., Buffalo, N. Y.

Application March 29, 1955, Serial No. 497,631
6 Claims. (Cl. 241—89)



1. In combination, a mill including guide track means for mounting a screen in operative position thereon, and a screen magazine device comprising a plurality of guideways adapted to separately support a plurality of screens for interchangeable mountings thereof in said mill, said guideways including convergent portions for guiding the corresponding screens to a common point of discharge from the magazine into said mill, said magazine being pivotally connected to said mill, and lever means extended from said magazine and manually operable to swing the discharge portion of magazine toward and away from said mill.

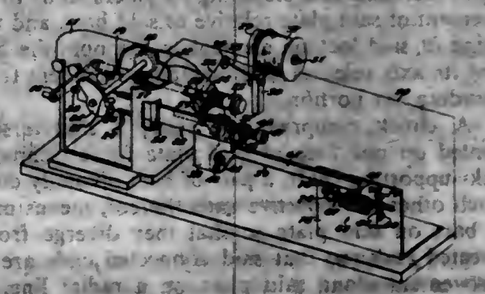
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**2,771,250**

**CORRECTOR UNIT FOR A COIL WINDING MACHINE**

Phineas J. Icenbice, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application June 9, 1953, Serial No. 360,548
4 Claims. (Cl. 242—9)

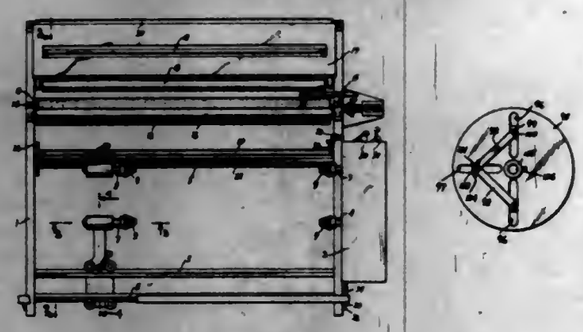


1. A corrector unit for a coil winding machine comprising, a housing, a longitudinal shaft rotatably supported in said housing and adapted to receive a coil form, a slide arm supported by said housing for motion parallel to said shaft, a cam rotatably supported by said housing

and engaging said slide arm to move it relative to the housing, said cam rotating as a function of the rotation of said longitudinal shaft, a follow arm pivotally supported on one end of said slide arm, a wire guide slideably mounted on said slide arm in engagement with said follow arm, a cam member having a profile of adjustable configuration in a plane parallel to said shaft, said cam member being fixedly mounted on said housing, one end of said follow arm engaging said cam member, and said cam member varying the advance of said wire guide as a function of said guide's advance, whereby a desired correction of the advance of said wire guide is introduced.

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2,771,251
**MACHINE FOR MEASURING CLOTH**
Morris Silverstein, Brooklyn, N. Y.
Application April 13, 1954, Serial No. 422,794
4 Claims. (Cl. 242—68)



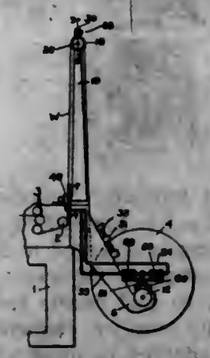


1. A chuck supporting device comprising a frame, a pair of spaced parallel bars fixed to said frame, a support plate; means attached to said plate for mounting said plate on said bars so that said plate is movable in the direction of length of said bars and is otherwise substantially immovable relative thereto, means mounted on said plate for supporting a chuck, and means for releasably locking said plate to a selected bar in a selected position of said plate relative to said bars, said locking means comprising a collar fixed to one face of said plate and extending approximately transversely thereto, the free end of said collar being open, said collar having a peripheral opening through which a portion of said selected bar extends, said selected bar being slidable within said opening and having a portion which protrudes into the interior space of said collar, clamp members respectively frictionally, axially, slidably located within the interior space of said collar on opposite sides of said protruding portion of said selected bar, and a locking element located in said collar and protruding out of the open end thereof, said locking element being coupled to said clamping members in such a way that turning of said locking member in one direction about its axis clamps said protruding portion of said selected bar frictionally between said clamping members so as to prevent movement of said plate relative to said bars, and whereby turning of said locking element in the opposite direction about its axis releases said clamping members from said protruding bar portion.

4. A chuck comprising a plate, a transverse collar mounted on one face of said plate for attachment to a chuck-supporting shaft, a pair of bars pivotally connected to each other at respective ends thereof, means mounting said bars on said plate so that they diverge from their connected ends, so that said connected ends are limited to movement along said plate on a radial line, and so that the other ends of said bars are limited to movement relative to said plate along a diametrical line, said radial line being perpendicular to said diametrical line, and sockets respectively mounted on said other ends of said bars, said sockets respectively having outer faces which are parallel to said plate, said socket faces respectively having transverse peripheral flanges, the opposed faces of said flanges being respectively cut away.

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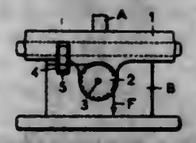
2,771,252
**WEB CONTROL MECHANISM FOR PAPER-CONVERTING MACHINE**
Albert H. Johnson, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a corporation of Maine
Application March 12, 1954, Serial No. 415,723
5 Claims. (Cl. 242—76)



4. A web control mechanism for a web-converting machine of the type adapted to operate on a continuous web of material comprising a supply roll of said material in the form of a wound web of substantially constant width, said supply roll being mounted for free rotation about a horizontal axis, means for laterally shifting said supply roll along said axis, a rotatably driven feed roll for feeding said material from said supply roll to said machine, a pair of pneumatic sensing devices spaced apart from one another at a distance approximately equal to the width of said web, said sensing devices being adapted to engage the surface of said web near the edges thereof and at a position between said supply roll and said feed roll, a port in each sensing device communicating with the surface of said web, a pair of bellows mounted and joined in end-to-end relationship, a pivotable lever attached at its free end to the juncture of said bellows, means responsive to the pivotal movement of said lever in one direction only for moving said shifting means in a given direction along said fixed axis, means responsive to the pivotal movement of said lever in the other direction only for moving said shifting means in the opposite direction along said fixed axis, and means for connecting said bellows through said sensing devices in parallel circuits to a source of suction.

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2,771,253
**LINE-WINDING MECHANISM FOR FISHING REELS WITH FIXED DRUMS**
Paul Mauborgne, Bernouville (Eure), France
Application December 18, 1952, Serial No. 326,658
Claims priority, application France December 21, 1951
2 Claims. (Cl. 242—84.1)

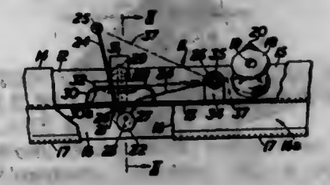


1. In a fishing reel including a reel rotor and a drum adapted to hold a fishing line and mounted for free delivery of the line therefrom substantially axially of the drum, the provision on the reel rotor of a member curved to deflect the line from a direction substantially parallel to the axis of the drum to continue in a plane substantially perpendicular to said axis, that is, in a direction substantially at right angles to the first named direction, the curve of said member having a radius of curvature substantially greater than that of a conventional size roller, and of another member curved to deflect the line in said plane to continue in a direction substantially tangential to the drum and making with the second named direction an acute angle, the curve of the second named deflecting member having a radius of curvature substantially smaller than that of the first named deflecting member.



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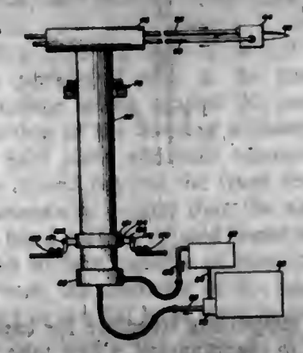
2,771,254
**YARN CONTROL DEVICE**
Harold Stanier, Radyr, Cardiff, Wales
Application June 25, 1954, Serial No. 439,306
Claims priority, application Great Britain June 27, 1953
10 Claims. (Cl. 242—150)



1. A yarn control device comprising in combination a yarn guide, a lever carrying towards one of its ends said yarn guide, a pivot for said lever arranged towards its opposite end, a first disc-like member superimposed upon a second disc-like member to form a further yarn guide with the yarn passing between the adjacent surfaces of the disc-like members, a weight, offset from and movable about said pivot, which loads said lever and is raised about the pivot as the lever turns about the latter against the loading under the varying instantaneous tension of the yarn passing through said yarn guide from a position in which the latter determines a longer path for the yarn through the device to a position in which it determines a shorter path and is lowered on reverse movement of the lever, and means, operatively associated with said lever, for raising said first disc-like member as the weight is raised to separate the disc-like members and relieve the tension applied to the yarn by these latter.

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2,771,255
**MOUNTING AND DRIVE FOR HELICOPTER ROTOR**
Raymond A. Young, Woodland Hills, Calif.
Application February 28, 1952, Serial No. 274,037
2 Claims. (Cl. 244—17.27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a helicopter having a fuselage and rotor blades, an improved drive mechanism comprising a single axially-rotatable hollow column supporting said blades; a plurality of thrust producing means each including a fluid motor and a propeller carried by said column and laterally spaced from the axis of rotation of said column; a fluid power supply circuit connected to said means through said column and including flexible conduits; and a mounting collar surrounding said column, said collar being pivotally connected to the fuselage by a spindle such that the column can be pivoted through substantially 90° either transversely of or longitudinally of the fuselage flexing the conduits accordingly, thereby decreasing the overall height of the helicopter.

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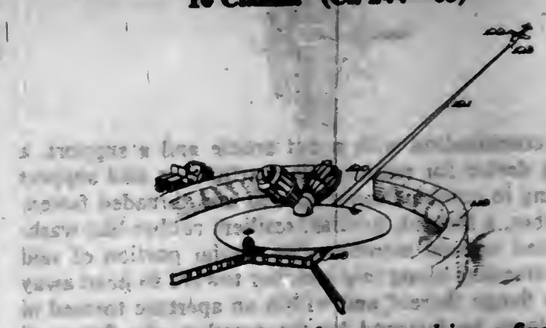
2,771,256
**BALLOON WITH LOAD SUPPORTING TAPES**
James J. Ryan, St. Paul, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application October 29, 1953, Serial No. 389,104
7 Claims. (Cl. 244—31)



1. A load carrying balloon comprising a balloon envelope formed of a plurality of elongated gores attached to each other to form vertical seams, load supporting tapes attached to the central portion of the outer surface of the gores between the seams and extending from the top of the balloon to the lower end, and means for supporting a load from the balloon being attached to said tapes.

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2,771,257
**JET POWER SYSTEM**
Donald B. Doolittle, Wilmington, Del., assignor, by mesne assignments, to All American Engineering Company, Wilmington, Del., a corporation of Delaware
Application December 29, 1951, Serial No. 264,170
16 Claims. (Cl. 244—63)



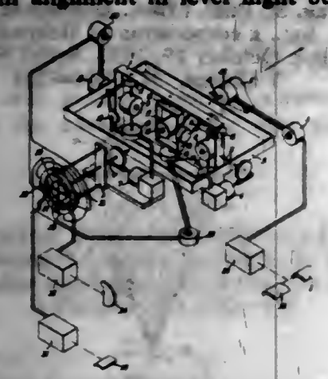
1. A jet engine power plant comprising a fixed hollow dome formed with at least one opening, a turned over flange around the perimeter of the opening, a jet engine having a hollow flanged exhaust, said engine exhaust flange being equal in area to said first mentioned flange and being secured to the same, a rotor having a hollow hub rotatably mounted to revolve around said hollow dome, said hub being adapted to receive the exhaust from said jet engine through said dome, and a plurality of rotor supported tailpipes having their terminal exhaust ends so shaped and so proportioned as to form exhaust nozzles, open tangentially of the rotor's circumference adapted to pick up the jet engine exhaust from the said hub and impart tangential thrust to the rotor.

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2,771,258
**AIRCRAFT STABILIZING APPARATUS**
Frithiof V. Johnson, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application January 31, 1950, Serial No. 141,493
9 Claims. (Cl. 244—77)

4. In an automatic pilot for an aircraft having a rudder and elevator for controlling angular movement of said

aircraft about mutually perpendicular yaw and pitch axes fixed relative to said aircraft, means defining an absolute yaw axis in space, means associated with said defining means to generate a control signal proportional to displacement of the aircraft about said space yaw axis, said yaw axis in space and said yaw axis fixed relative to said aircraft being in alignment in level flight but becoming



angularly displaced when said aircraft is banked, actuating means for positioning said rudder, actuating means for positioning said elevator, and coupling means associated with said defining means and connected to supply said control signal to energize said actuators in accordance with the cosine and sine functions of the angle of bank of said aircraft.

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**2,771,259**
**WALL MIRROR MOUNTING**
**Carl A. Laystrom, Decatur, Ill., assignor to Faries Manufacturing Company, Decatur, Ill., a corporation of Illinois**
Application April 10, 1952, Serial No. 281,568
2 Claims. (Cl. 248—28)

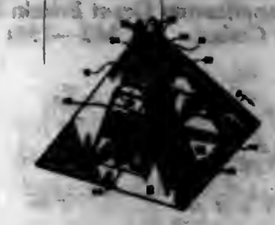


1. In combination with a flat article and a support, a fastening device for retaining said article on said support comprising in combination a headed and threaded fastening member, a flanged, tubular, resilient rubber-like washer mounted on said member, the tubular portion of said washer extending along said member toward its head away from the flange thereof and within an aperture formed in the article to be fastened by the member, the flange of said washer extending radially outwardly from said fastening member between the article to be fastened and the support whereby upon tightening of the member into said support the article to be fastened will be forced by the head of the member against said washer thereby distributing the stresses impressed by the head of the member upon the article evenly over the flange of the washer, and a second cupped washer of semi-rigid plastic material positioned between the head of said member and the article to be fastened, said cupped washer acting to yieldingly distribute loads from said head to said article whereby said washers resiliently maintain said article isolated relative to said member and said supports and whereby substantial tightening loads may be applied by the head of said member without injury to said article.

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**2,771,260**
**CHRISTMAS TREE STAND**
**Carl W. Thom, Seattle, Wash.**
Application March 20, 1951, Serial No. 216,507
1 Claim. (Cl. 248—44)

A stand for a Christmas tree, comprising: an integral body formed of a single, unitary piece of cardboard having at least three walls each having a generally triangular shape with a horizontally disposed base edge and two side edges of equal length, said walls being hingedly connected together serially side by side by score lines at adjacent side edges and the side edges at the ends of the series having joinder means forming a hinged connection therebetween, said body having an opening at its apex adapted to pass the trunk of such Christmas tree with the edges of the opening pressing there against, at least three of said sidewalls being each cut on a generally inverted U-shaped line with the lower ends of said U-shaped line being joined together by a score line close to and parallel to the base edge of the wall forming a hinge line and the



material cut out by said U-shaped line being bent inwardly forming brace arms with the innermost end portion lying adjacent the axis of the body and having tree-abutting means formed therein which includes a crotch-like edge facing and close to said body axis adapted to grip such tree trunk; said apex opening in said body being formed by having a horizontal upper score line in each of said walls spaced a short distance from the junction of its side edges, the side edges of adjacent walls being divided from body apex to the level of said upper score line whereby the wall material thereabove forms hinged tabs displaceable to pass such tree trunk and biased thereagainst in various directions.

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**2,771,261**
**TELESCOPING TRIPOD LEG**
**Carl Niggeloh, Radevormwald, Germany, assignor to Kürbi & Niggeloh, Radevormwald, Germany, a firm**
Application May 8, 1951, Serial No. 225,115
Claims priority, application Germany May 11, 1950
6 Claims. (Cl. 248—191)

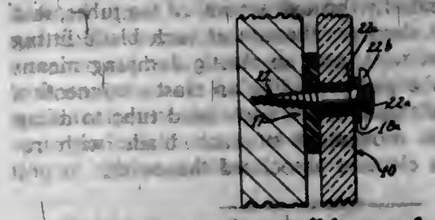


1. A leg of a supporting structure for cameras and the like, comprising in combination, a first tube of non-circular cross section having a plurality of spaced elongated channels located along its inner surface and extending outwardly from its outer surface, one of said channels having a stop means located therein, and said first tube having a projection located on its outer surface; a second tube telescopically mounted about said first tube for sliding movement thereon and having a cross-section mating with that of said first tube, said second tube having a number of spaced elongated channels located along its inner surface which is equal to one more than the number of elongated channels located in said first tube, one of said channels of said second tube having a stop means located therein and said one channel of said second tube being located over said projection of said first tube so that said projection cooperates with said stop means in said one channel of said second tube to limit the movement of said second tube with respect to said first tube; and a third tube telescopically mounted within said first tube for sliding movement therein and having a number of elongated channels located along its inner surface which is equal to one less than the number of elongated channels in said first tube, said third tube having a projection located on its outer surface and mounted in said one channel of said first tube so as to cooperate with said stop means in said one channel of said first tube to limit the movement of said third tube with respect to said first tube.



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**2,771,262**
**COMBINATION OF THREADED BOLT AND DEFORMABLE BUSHING FOR SUPPORTING FRANGIBLE PLATE ON A WALL**
**Carl A. Laystrom, Decatur, Ill., assignor to Faries Manufacturing Company, Decatur, Ill., a corporation of Illinois**
Application December 15, 1954, Serial No. 475,386
2 Claims. (Cl. 248—216)



1. In combination in a wall hanger for a frangible plate or the like having an aperture therethrough, a threaded supporting member having a shank of lesser diameter than the diameter of said aperture and a head of larger diameter than the diameter of said aperture, said member having a tapered portion between said shank and said head whereby the member becomes progressively larger in diameter as it approaches said head, a flanged tubular bushing in said aperture and having the flange thereof substantially larger in diameter than the diameter of said aperture and positioned between the back of said plate and said wall, a tubular portion on said bushing, said tubular portion having a diameter substantially the same as the diameter of said aperture and extending from said flange around said member and through said aperture beyond the front face of said plate, said bushing comprising a resilient rubber-like material, said head having a substantially flat surface extending from the outer-most end of said tapered portion to the peripheral edge of the head providing a compression surface acting against the projecting end of the tubular portion of the bushing without contacting the front face of said plate and said tubular portion being constructed to extend beyond the front face of said plate a distance substantially greater than the axial distance between the flat head surface of said member and the point on said tapered surface capable of maximum penetration into said aperture, the diameter of the tapered portion in a plane parallel to the flat head surface and spaced therefrom a distance substantially equal to the wall thickness of the tubular portion of the bushing being substantially less than the diameter of the aperture in said plate.

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**2,771,263**
**MOVABLE BRACKET FOR CAN OPENERS AND THE LIKE**
**Lawrence M. Bebo, Chicago, Ill.**
Application May 2, 1952, Serial No. 285,660
1 Claim. (Cl. 248—300)

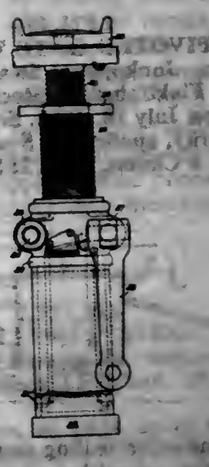
A support for kitchen and other articles adapted to be secured beneath kitchen cabinets and the like including an elongated track secured to the under portion of the cabinet transversely thereof and having its outer end facing the front of the cabinet, said track being closed at one end only, a bracket slidable in a horizontal plane in said track, the under surface of said track having a slot formed therein adjacent said outer end, a spring finger carried by the bracket and adapted to move into said slot to stop the forward movement of said bracket,



said finger including means to retract the same and free the bracket for movement and removal from said track, and a socket disposed in a vertical plane secured to and depending from the outer end of said bracket for receiving the mated end of a kitchen or other article, whereby the bracket and the article may be slid in a horizontal plane to an inoperative position beneath the cabinet and to an operative extended position forward of the cabinet with the vertically disposed socket exposed to view.

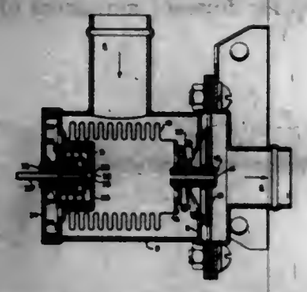
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**2,771,264**
**PIT PROP**
**John Handley, Little Mariand, Brier Hill, Purley, England, assignor of one-half to Jack Nixon Browne, London, England**
Application March 31, 1953, Serial No. 345,937
Claims priority, application Great Britain April 2, 1952
2 Claims. (Cl. 248—356)



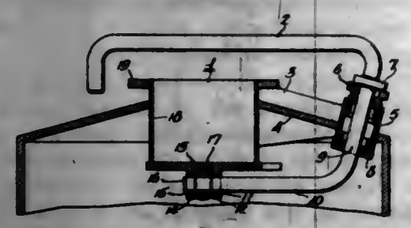
1. A telscopic pit prop including a hollow column presenting a base, a segmental contractile nut member carried by said column, a hollow screw-threaded spindle extending within said column and provided externally with screw threads of one hand and internally with screw threads of opposite hand and of different pitch, the external screw threads of the spindle engaging said contractile nut member, adjustable clamping means mounted on said nut member for clamping the nut member with adjustable pressure about the screw-threaded spindle whereby to permit the screw-threaded spindle to yield when the prop is subjected to overload, a second screw-threaded spindle projecting above and engaging with the internal schew thread of the first screw-threaded spindle, and a ceiling-engaging head mounted on the upper end of said second screw-threaded spindle.

2,771,265
PILOT OPERATED VALVE
John E. Woods, Cohasset, Mass., assignor to Standard-Thomson Corporation, Boston, Mass., a corporation of Delaware
Application February 12, 1952, Serial No. 271,216
2 Claims. (Cl. 251—28)



1. A valve assembly having, in combination, a casing, a main valve seat defining an inlet space and an outlet space in the casing, a support member dividing the inlet space into sections, said member having peripheral openings and forming a central pilot valve seat, a main valve, an expansible chamber in one of said inlet sections having a head secured to the main valve and the end opposite its head sealed to said support member intermediate said openings and the pilot valve seat, said chamber communicating exteriorly directly with said inlet space, a pilot valve situated adjacent said support member seat on the side thereof opposite to said chamber, a control bellows supported by the casing and operatively associated with the pilot valve, and means to connect the bellows to a pressure source externally of the casing, said pilot valve having provision to become open upon a contraction of the bellows to admit liquid through said pilot valve to the interior of the chamber, said chamber having a leakage opening to said outlet space through the main valve.

2,771,266
PIVOTED GATE VALVE
Gustaf Larsson, Jonkoping, Sweden, assignor to AB Svenska Flaktfabriken, Stockholm, Sweden
Application July 10, 1952, Serial No. 298,152
Claims priority, application Sweden July 12, 1951
4 Claims. (Cl. 251—87)



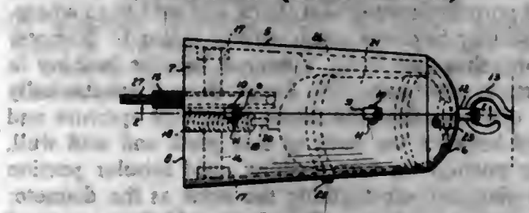
1. For a planar valve seating surface defining an opening, a closure valve comprising a plane disk having spaced apertured lugs depending from the center thereof, a rod having one resilient portion disposed substantially parallel to the plane of the seating surface and loosely mounted in the apertures of said lugs, a ring fixed to the rod portion intermediate the lugs to prevent displacement of the disk axially from the rod, said rod having another portion remote from the disk disposed at a given obtuse angle to said one resilient rod portion, and bearing means mounting said other portion of the rod against substantial axial displacement and for pivotal movement about an axis coplanar with the perpendicular center line of said opening and disposed at said given obtuse angle to the plane of said seating surface to effect sliding movement of said disk across said seating surface, said one resilient rod portion being operable to move in an arcuate path having a high point underlying said seating surface, the resilience in said one rod portion thereby providing an upward bias on said disk to sealingly engage the same against said seating surface.

2,771,267
LACING FOR COMPRESSOR BLADES
Leon J. Weymouth, Jr., Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application May 27, 1952, Serial No. 290,116
10 Claims. (Cl. 253—77)



5. A rotor having a hub and a plurality of blades extending radially outward from the hub, each of said blades having a tube extending circumferentially therethrough and secured against movement therein, a lacing wire extending circumferentially through several of the tubes, said wire having piston elements thereon at each blade fitting within the adjacent tube, and an elastic damping means secured in each tube and providing an elastic connection from each piston element to the associated tube to damp the circumferential movement of each blade with respect to the piston element associated therewith.

2,771,268
HOUSED MOTORIZED PULLEY
Roger D. Roswall, Paterson, N. J.
Application July 12, 1954, Serial No. 442,573
2 Claims. (Cl. 254—175.3)



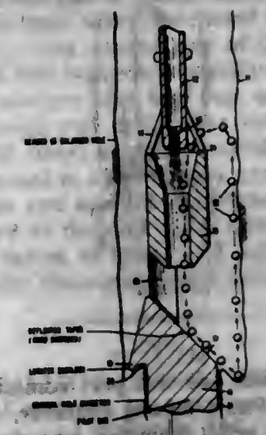
1. In a clothes line pulley assembly, an elongated housing having open and closed ends, and formed with longitudinally extending connected sections, a shaft transversing said housing and rotatably journaled in said sections in proximity to said open end, a pulley fixed to said shaft for receiving a clothes line extending out of said housing through said open end, a gear fixed to said shaft adjacent said pulley, a motor secured within said housing adjacent one of said sections and said closed end and having a drive shaft disposed in tangential relation with said gear and inclined relative to the longitudinality of said housing, said drive shaft provided with a worm meshing with said gear for operating said pulley by said motor, and a weight disposed within said housing adjacent said other section for counterbalancing said motor.

2,771,269
ENLARGING BORE HOLES BY PELLET DRILLING
John E. Eckel and Frank G. Boucher, Tulsa, Okla., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application June 30, 1953, Serial No. 365,096
3 Claims. (Cl. 255—1.5)

1. A drilling apparatus for enlarging the diameter of a bore hole in the earth comprising a tubular support member terminating at its lower end in a jet nozzle



adapted to provide a downwardly directed high velocity jet of fluid, a second tubular member positioned below said jet nozzle and supported by said first tubular member with the inner bore of said second tubular member substantially aligned with said jet nozzle, a plug element supported below said second tubular member in a manner providing access to the inner bore of said tubular member



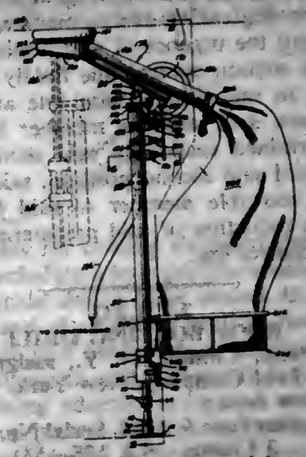
from the bore hole annulus, said plug member having an inclined upper surface whereby to deflect laterally fluids and solids impinging thereon from said second tubular member, said plug element having a diameter substantially that of the bore hole to be enlarged, and a lateral projection adjacent the upper end of said plug element whereby to position the same at the bottom of the enlarged portion of the bore hole.

2,771,270
EARTH BORING APPARATUS
John P. Selberg, Los Angeles, and Gardner D. Currie, Altadena, Calif., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application June 10, 1953, Serial No. 360,706
12 Claims. (Cl. 255—28)



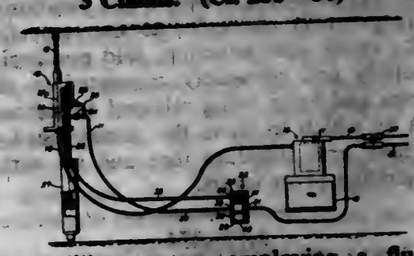
1. Acoustic mud fluid decoupling means for acoustically isolating mud fluid in the bottom portion of a well hole from a longitudinally vibrating drill rod and bit disposed in the well hole, wherein the bit is disposed in engagement with the bottom of the well hole and the drill rod and bit are adapted to vibrate at substantially the resonant vibration frequency of the drill rod and bit and the bit tends to generate energy consuming sound waves in said mud fluid, and comprising means formed on said drill rod defining annular resilient compressible chamber means disposed around said rod and located on said rod substantially less than one-quarter wave length distance in the mud fluid from said bit, said chamber means being cyclically compressible at the vibration frequency of said rod and bit in response to pressure surges in the mud fluid generated by the vibrating rod and bit and thereby being effective to absorb cyclic displacement of the mud fluid.

2,771,271
DUST COLLECTOR FOR DRILLS
Edgar Lawson, Sr., Wilcoe, W. Va.
Application September 24, 1954, Serial No. 458,101
13 Claims. (Cl. 255—50)



1. A dust collector for drills comprising a post extending upwardly from a supporting surface, a piston carried by said post and extending longitudinally upwardly therefrom, a cylinder having a closed end defining the cylinder head mounted on said piston and telescopically enclosing the piston with the head of the piston spaced from said cylinder head, said cylinder slidably mounted on said piston for movement longitudinally thereof, a first fluid seal carried by the cylinder head and a second fluid seal carried by said piston head to define a fluid receiving chamber therebetween, a floating piston carrying a fluid seal thereon at one end thereof and disposed in said chamber, spacing means for maintaining the seal on said floating cylinder in spaced relation with said first fluid seal to define an expansible fluid receiving compartment, dust collecting means mounted on said closed cylinder end for movement in an arcuate path for engagement with a surface to be drilled, and means for supplying fluid under pressure to said expansible compartment for causing expansion thereof by impingement of the fluid under pressure upon said cylinder head to move said cylinder longitudinally of said first-mentioned piston to firmly seat said dust collecting means against said surface to be drilled and for supplying fluid pressure to said dust collecting means to remove dust therefrom caused by a drilling operation.

2,771,272
DRILLING SYSTEM
Frederick B. Miller, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application October 26, 1954, Serial No. 464,801
3 Claims. (Cl. 255—50)



2. In a drilling system employing a fluid-pressure actuated rock drill, a flexible pressure conduit adapted to supply actuating fluid to said rock drill, dust receptor means carried by said rock drill for receiving cuttings and dust from a hole being drilled, a suction source, a flexible dust suction line connecting said receptor means and said suction source and having filter means therein, a valve means in said pressure conduit, said valve means includ-

ing a movable member movable between a first position wherein said movable member prevents flow through said pressure conduit and a second position wherein said movable member permits flow therethrough, biasing means urging said movable member toward said first position, means for moving said movable member to said second position against the urgence of said biasing means including a flexible suction control line fluidly connecting said valve means to said dust suction line adjacent the dust receptor means, said movable member being responsive to a predetermined suction in said suction control line to move toward said second position, said biasing means moving said movable member to said first position in response to a reduction of said predetermined suction in said suction control line.

2,771,273

## ROOF BOLTING DRILL

Benham S. Pond, Clinton, N. Y., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey

Application June 6, 1952, Serial No. 292,064
3 Claims. (Cl. 255—51)



1. In a combined mine roof bolt drilling and setting tool of the character described, a carriage frame having side portions, upwardly extending supporting levers pivotally connected to each of the side portions, a crank arm structure pivotally connected to the upper ends of the upwardly extending supporting levers having rearwardly extending lifting arms, a feed assembly connected between the frame and the crank arm structure to raise and lower the same on the upwardly extending supporting levers, a spindle head unit pivotally carried by the rearward ends of the crank lifting arms and movable with the crank arm structure up and down between the frame side portions, parallel links extending between the spindle head assembly and the supporting levers, means operatively associating the parallel links with the feed assembly for constantly pivoting the spindle head to a vertical position on the lifting arms of the crank structure as the latter is raised and lowered, and positioning levers respectively pivotally connected to the respective lifting arms of the crank arm structure, said positioning levers being pivotally and releasably connected to the frame side portions and upon being released therefrom serving as handles by which to move the spindle head assembly and the crank arm structure fore and aft with the upwardly extending pivot levers.

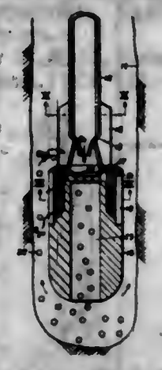
2,771,274

## RECYCLE FLUID CONTROL IN PELLET IMPACT DRILLING

Alexander B. Hildebrandt, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application October 28, 1953, Serial No. 388,756
5 Claims. (Cl. 255—61)

1. A drill bit assembly for drilling bore holes in the earth by entraining pellets in a high velocity stream of fluid, which comprises a jet nozzle adapted to eject a stream of fluid, an open-ended mixing chamber below the jet nozzle and a baffle member surrounding the upper end of said mixing chamber, said baffle member having a top central opening, substantially aligned with said jet nozzle and with the top opening of said mixing chamber, of sufficient size to permit the passage of pellets there-



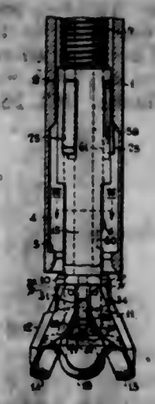
through, and at least one side port communicating with the top opening of said mixing chamber, said side port being smaller than pellet diameter, whereby a portion of the fluid in an up-flowing stream of pellets and fluid will enter said mixing chamber through said port while pellets will be directed above the top of said baffle to enter said mixing chamber through said top opening.

2,771,275

## HARD FORMATION RETRACTABLE DRILL BIT

John E. Ortloff, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application January 29, 1952, Serial No. 268,894
6 Claims. (Cl. 255—61)



1. A retractable drill bit assembly comprising in combination a vertically disposed drill collar; an elongated vertically disposed tubular element; a sleeve element surrounding and in vertical movable relation with a lower portion of said tubular element; resilient means coacting with said tubular element and said sleeve element to yieldably restrain downward movement of said tubular element relative to said sleeve element; a tubular member surrounding and in vertical movable relation with an upper portion of said tubular element; interengaging means between said tubular member and said tubular element to limit movement of said tubular member upward relative to said tubular element; means interconnecting said tubular member and said tubular element to thrust said tubular element vertically downward relative to said sleeve element; means attachable to said tubular member adapted to lower said tubular member, said tubular element and said sleeve element within said drill collar; releasable latching means disposed in a cooperative arrangement between the drill collar and the sleeve element to limit downward movement of said sleeve element relative to said drill collar; a pair of oppositely disposed downwardly depending supports fixed to said sleeve element; a first pair of cutter elements; one of said cutter elements being mounted on the lower end of each said depending support; a second pair of oppositely disposed cutter elements depending from and pivotally mounted on the lower end of said tubular element; a wedge element supported by and between said depending supports and arranged to expand said second pair of cutter elements with respect to said tubular element upon downward movement of the tubular element, said second pair of cutter elements in expanded condition being substantially at right angles to and laterally between said first pair of cutter elements; means for moving said drill collar vertically downward relative to said sleeve element; second releasable latching means disposed in a cooperative arrangement between said drill collar and said tubular element to limit downward movement of the drill collar relative to the tubular element; and means to rotate said drill collar in unison with said tubular element and said sleeve element.



2,771,276

## METALLIC RAILING STRUCTURE

Harry S. Constance, Jr., and August C. Wurtzer, Catonsville, Md.

Application February 8, 1954, Serial No. 408,792
5 Claims. (Cl. 256—22)



1. In a railing structure, a rail having a longitudinally disposed channel in one of its surfaces, the inner side walls of said channel having opposed parallel longitudinally disposed grooves, a picket disposed in angular relationship with said rail with its end engaged in said channel, said picket having a transversely disposed groove in one face thereof and disposed in the same plane with and at right angles to said wall grooves, a key plate having its side edges slidable in said grooves and engageable at one end in said transverse picket groove, and means for locking said plate against movement.

2,771,277

## FIN DAMPER INSERT

Stanley W. Cross, South Coventry, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 6, 1955, Serial No. 499,558
6 Claims. (Cl. 257—261)



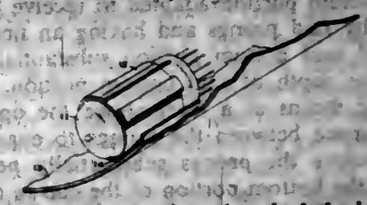
1. The combination with an engine cylinder having a plurality of cooling fins on the outer surface, of a vibration damper for two adjacent fins consisting of a slug of vibration damping material positioned substantially radially of the cylinder between adjacent fins, said slug having a wire mesh around it.

2,771,278

## COOLING APPARATUS

Robert E. Slack, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application February 23, 1954, Serial No. 411,657
3 Claims. (Cl. 257—263)



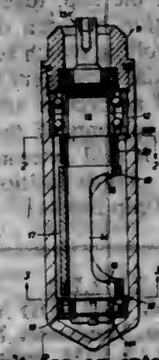
3. In apparatus for cooling electrical devices, a wrap-around shield including a loop portion which is adapted to receive an electrical device to be cooled, U-shaped flange means on one end of said loop portion, flange means on the other end of said loop portion adapted to fit within said U-shaped flange in complementary fashion, both said flange means being adapted to be bent over against the part of said loop portion adjacent said other end of said loop portion, said device to be cooled having a pressure applied thereto by said shield as the flange means are bent over against said loop portion, clip means mounted on a cold plate and including an open loop portion adapted to receive a major portion of said shield in intimate contact therewith, and extension means on at least one end of said open loop in substantial parallelism with said cold plate so that a tapered tool may be inserted between said extension means and said cold plate to open the loop from its normal size to facilitate insertion or removal of said tube shield therein.

2,771,279

## CONCRETE VIBRATORS

Brian Barton Dearden, Bramhall, England, assignor to C. H. Johnson (Machinery) Limited, Stockport, England, a British company

Application April 8, 1955, Serial No. 500,177
10 Claims. (Cl. 259—1)



1. A vibrating unit for an internal concrete vibrator comprising a casing in which two out-of-balance elements are mounted co-axially and annularly arranged so that they rotate concentrically one within the other, means for imparting rotary motion to the inner element, and a torsional spring interconnecting said elements and providing a resilient driving connection between said elements automatically to allow them to adjust themselves angularly relative to each other to vary the amplitude of vibration generated, the outer out-of-balance element being journalled on the inner out-of-balance element.

2,771,280

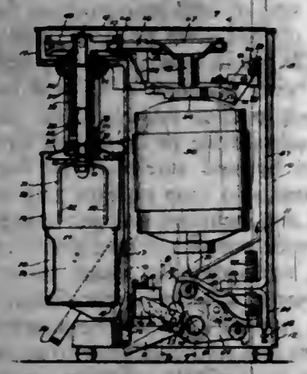
## TRITURATING AND MIXING MACHINE

Mathew Andis, Racine, Wis., assignor to Andis Clipper Co., Racine, Wis., a corporation of Wisconsin

Application July 15, 1954, Serial No. 443,569
19 Claims. (Cl. 259—108)

1. In a mixing device using a pronged mixing head for triturating material in a cup, the combination of a

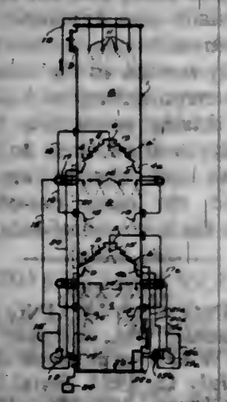
cup support and mixing head and means mounting said support and head for relative axial movement, the mixing head comprising prongs having free portions at least substantially equal in length to the full depth of immersion in the contents of the cup, the space between said prong portions being open and unobstructed and the cup having a bottom portion adapted to receive contents for trituration by said prongs and having an upward extension beyond said bottom portion substantially equal in extent to the depth of said bottom portion, the mixing head having means at a level above the open and unobstructed space between the prongs to engage the cup extension before the prongs substantially penetrate the contents of the bottom portion of the cup in the event of relative lateral displacement between the mixing head and cup, said cup support having support means spaced from the cup engaging means on the mixing head a distance



greater than the height of the cup, the mixing head being bodily receivable into the cup to engage said prong portions substantially full depth in the contents of the cup in the event the cup and mixing head are properly aligned, and means for effecting relative movement between the cup support and mixing head in an axial direction for a distance sufficient to cause the free end portions of the prongs to traverse the whole length of the extension and to penetrate to substantially full depth the contents in the bottom portion of the cup, together with means for effecting relative rotation between the mixing head and cup and having a controlling switch actuated by the means for effecting relative axial movement between the cup support and mixing head as prongs approach substantially full immersion in the contents of the cup, whereby said switch will be inactive if said extension engages the mixing head in a displaced relative position of the cup to block axial movement of said cup support.

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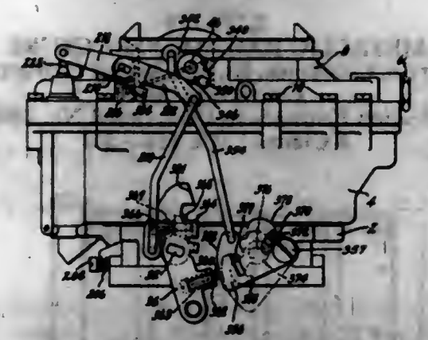
**2,771,281**
**BENZOL SCRUBBING METHOD AND APPARATUS**
**Carl Otto, Manhasset, N. Y.**
**Application April 12, 1954, Serial No. 422,478**
**12 Claims. (Cl. 261—22)**



1. Apparatus for separating vapor from a stream of coke oven gas, comprising a scrubbing tower enclosing superposed scrubbing sections, means for passing a stream of coke oven gas upward through said tower, and means for spraying a vapor absorbing scrubbing liquid into an upper section of said tower and for withdrawing downwardly moving scrubbing liquid from separate collector chambers adjacent the lower ends of two adjacent tower sections, and means for pumping from each of said chambers liquid separately collected in said two separate collector chambers and returning the liquid so pumped in spray form partly into said lower section and partly into another tower section in end-to-end relation with said lower section.

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**2,771,282**
**CARBURETOR**
**Elmer Olson and Lawrence C. Dermond, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware**
**Application December 29, 1951, Serial No. 264,136**
**26 Claims. (Cl. 261—23)**



1. A charge forming device for internal combustion engines having in combination primary and secondary mixture passages both of which are adapted to supply combustible mixture to the intake manifold of said engine, means for supplying fuel and air to each of said mixture passages, primary and secondary throttle valves controlling the quantity of combustible mixture supplied by said primary and secondary carburetors respectively, mechanism for operating said primary and secondary throttles concurrently, and means for supplying fuel for idling to the primary mixture passage only, said last named means comprising fuel supply passages for introducing fuel into the primary mixture passage for idling, said fuel supply passages being located on opposite sides of the primary mixture passage, a single fuel inlet connecting one of said fuel supply passages with the mixture passage, a plurality of fuel inlets connecting the other of said fuel passages with the mixture passage, all of said fuel inlets being closely adjacent the primary throttle valve when said valve is in closed position and a plurality of idling fuel wells, each of which supplies fuel to one of the idling fuel supply passages.

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**2,771,283**
**AIR CONDITIONING UNIT**
**John Ermocsina, Woodside, Calif.**
**Application May 5, 1955, Serial No. 506,200**
**2 Claims. (Cl. 261—30)**



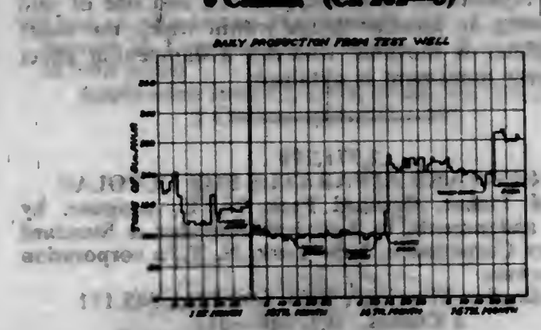
1. A device of the character described comprising a generally rectangular casing having top and bottom horizontal walls spaced from each other, side and end walls extending vertically between said top and bottom walls,



an air inlet opening in said top wall and an air outlet opening in one of said end walls, the bottom edge of said outlet opening being spaced above the said bottom wall, means for maintaining a predetermined quantity of water in the bottom of said casing, a generally rectangular filter element within said casing extending between said top and bottom walls and surrounding said inlet opening and spaced inwardly of said side and end walls, spider legs attached at one of their ends to said top wall of said casing at points spaced circumferentially about said air inlet opening, the opposite ends of said spider legs converging upwardly and inwardly from said casing, a bearing ring affixed to said opposite ends of said legs, a motor mounted in said bearing ring and extending downwardly therefrom but spaced above said air inlet opening, a fan fixed to the lower end of said motor and positioned within said casing coaxially with said air inlet opening, and a foraminous frusto-conical pump fixed to said fan extending downwardly therefrom in order that the open end thereof is disposed below the surface of the water in the bottom of said casing so that when said fan and pump are rotated the said pump will spray water onto the surface of the filter element and said fan will draw air into said casing and force said air through said filter element and out through the said outlet opening, said air being cleaned and conditioned when passing through said filter element.

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**2,771,284**
**PROCESS FOR REMOVAL OF DEPOSITS FROM SULFUR MINING PIPES USING HOT CAUSTIC SODA SOLUTION**
**John E. Monroe, Jr., Port Sulphur, La., assignor to Freeport Sulphur Company, New York, N. Y., a corporation of Delaware**
**Application April 6, 1953, Serial No. 346,968**
**6 Claims. (Cl. 262—3)**

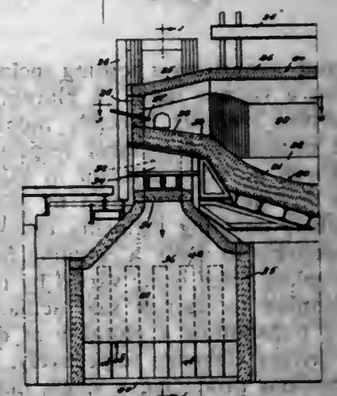



1. In connection with the mining of sulfur by the Frasch process using a concentric pipe system, a process for removing obstructive deposits accumulated within the sulfur conveying pipe, containing carbon-sulfur complexes and inorganic material which comprises flowing hot caustic soda solution down into said pipe, subjecting the deposit to the action of said hot caustic sode solution until such removal has occurred and during such action heating the pipes on which the deposit occurs by flowing hot water down the surrounding water conveying pipe and flowing the used caustic solution together with the removed deposit from the pipe up to the surface by means of water and of compressed air introduced through an air pipe down into said pipe containing the removed deposit.

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**2,771,285**
**REGENERATOR**
**Russell Pearce Heuer, Villanova, Pa., assignor to General Refractories Company, a corporation of Pennsylvania**
**Application January 13, 1955, Serial No. 481,684**
**2 Claims. (Cl. 263—15)**

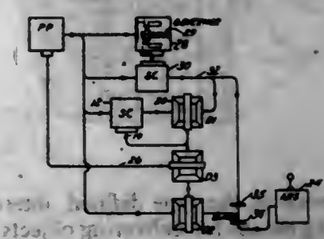
1. In a heat regenerative system for a hearth furnace discharging basic dust in its flue gases, a downtake emptying vertically into a slag pocket and having at least one inlet from the hearth and combustion chamber of said furnace, a side wall portion of said slag pocket having at least one outlet for said flue gases to pass through said downtake, over said slag pocket and through said outlet in a continuous downward and outward discharge sequence and said downtake having a basic refractory heat absorbing wall extending upward from said outlet and a heat regenerator including a portion having refractory head absorbing gas contacting surfaces reactive with said dust at a temperature somewhat below operating temperatures ordinarily maintained in said furnace and a portion having basic refractory heat absorbing gas contacting surfaces substantially inert to said dust, said regenerator portion having basic refractory gas contacting surfaces including a plurality of spaced flue elements forming



vertical flues rising immediately from said outlet, said flues having as their walls nearest the downtake, walls separated throughout most of their length from the said basic refractory wall of the downtake by an air space communicating with the air outside of said regenerative system and furnace, the gases discharging through said downtake, over said slag pocket, through said outlet and into said flues, said flues communicating with the said regenerator portion having reactive refractory gas contacting surfaces, and said regenerator portion having basic refractory gas contacting surfaces appreciably reducing the temperature of said dust to below its effective reaction temperature with said reactive refractory before said dust reaches said regenerator portion having reactive refractory.

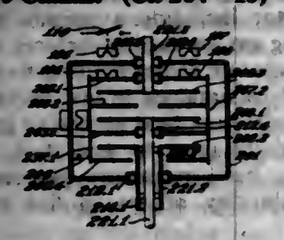
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**2,771,286**
**SPEED CONTROL MECHANISM**
**William H. Clark, Jr., Rutherford, N. J., assignor to Curtis-Wright Corporation, a corporation of Delaware**
**Application January 19, 1953, Serial No. 331,990**
**7 Claims. (Cl. 264—5)**



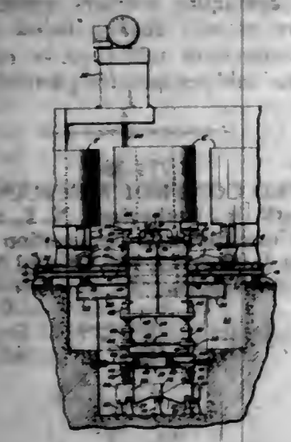
7. In a power plant speed control system, a constant speed source, a speed changer driven by the power plant, comparing means driven by the speed changer and by the constant speed source having an acceleration function output, said output being operatively connected to change the drive ratio of said speed changer, a reference speed source, comparing means driven by said reference speed source and by said power plant at a function of power plant speed and having a speed error output, and summing means connected to and driven by said two outputs, said summing means having an output operatively connected to change power plant speed.

2,771,287
**TIMING ACTUATOR WITH HYDRAULIC LINK**
George A. Winderburn, Putnam, Clarence B. Walworth, Rocky Hill, and Leroy E. Lawrence, Putnam, Conn.; said Walworth and said Lawrence assignors to said Winderburn
Application October 15, 1952, Serial No. 314,822
10 Claims. (Cl. 264—13)



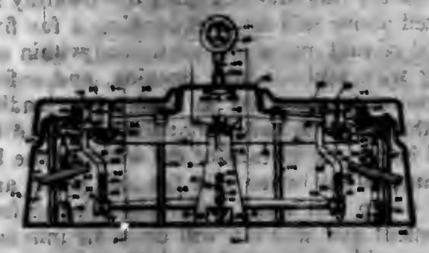
1. An actuator comprising a housing enclosing a chamber for holding a viscous liquid; a plurality of driving elements; a driven member movably mounted in said chamber, said element and member respectively having driving and driven portions adjacent to each other and adapted to be hydraulically coupled by said liquid; an actuated member; coupling elements disposed on said members respectively to apply a coupling force therebetween, said coupling force being varied by movement of said driven member to operate said actuated member; and means for transmitting a plurality of different motions to said driving elements respectively, the summation of said motions producing a single motion of said driven member, thereby to operate said actuated member according to said summation.

2,771,288
**WEIGHING DEVICE**
Robert G. Staples, Jr., Camden, N. J., and Martin W. Boogher, Sr., Montgomeryville Township, Pa., assignors to Link-Belt Company, a corporation of Illinois
Application November 17, 1953, Serial No. 392,594
10 Claims. (Cl. 265—52)



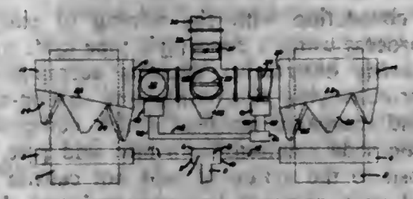
1. In a device of the type defined, intermittently operated conveying means for delivering objects successively to a location at which the weight of each object is to be determined, a weight responsive device mounted in a fixed position at said location, an object supporting frame mounted on said device for varying the response thereof in accordance with the weight of the object supported by the frame, said frame having spaced portions arranged on opposite sides of said conveying means, object engaging means mounted on each spaced frame portion for lateral movement relative thereto, means mounted on said spaced frame portions for moving said object engaging means laterally into and out of cooperating positions in readiness for engaging the objects delivered successively to said location by the delivering means, and means mounting said spaced frame portions on the remainder of the frame for movement relative to the latter and to said conveying means to cause their object engaging means to lift each object from and return it to the conveying means.

2,771,289
**WEIGHING SCALES**
Harlan A. Hadley, Burlington, Vt., assignor to Metrogram Corporation of America, Winooski, Vt., a corporation of Vermont
Application November 12, 1949, Serial No. 126,809
5 Claims. (Cl. 265—54)



1. In a weighing scale of the class described, the combination with a load-supporting lever system including an equal-arm lever, of an electrical measuring device for indicating the weight of the load on said lever system, and means, including a capacitor at each end of said equal-arm lever, for electrically connecting said lever system to said measuring device, each of said capacitors comprising a stationary plate and a movable plate, said movable plate cooperating with said stationary plate and being fixed to and movable with said equal-arm lever to vary the capacitance of said capacitors, and one of said plates having an annular flange within which the other of said plates is movable whereby a dampening effect on the lever movement is obtained.

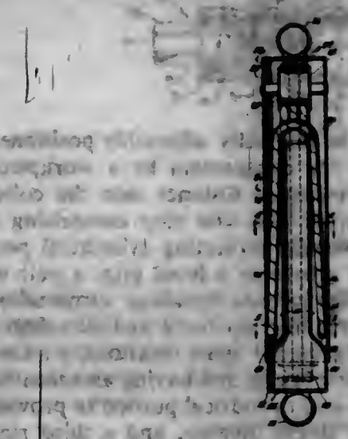
2,771,290
**GAS OFF-TAKE APPARATUS FOR CUPOLAS**
Townsend Tinker, Orchard Park, N. Y., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application March 27, 1953, Serial No. 345,171
5 Claims. (Cl. 266—31)



1. The combination with an iron melting cupola, of an annular gas off-take bustle radially spaced from and surrounding said cupola, a plurality of conduits radially interconnecting said cupola and said bustle, said bustle having an outlet, and said bustle tapering in transverse cross-sectional area from a maximum at said outlet to a minimum at a point diametrically opposite to said outlet.

2,771,291
**ELASTIC CORD SHOCK ABSORBER**
Chester H. Webb, Dayton, Ohio, and Theodore B. Holliday, Elmhurst, Ill.
Application April 10, 1951, Serial No. 220,232
7 Claims. (Cl. 267—63)

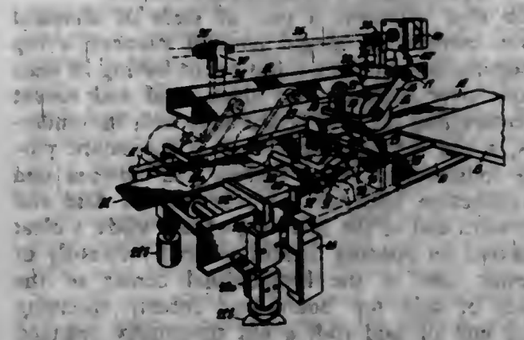
1. A shock absorber comprising a cylinder, a member therein telescopically arranged capable of linear motion for a predetermined distance, a plurality of elastic cords the axes of which are substantially parallel to the longitudinal axes of said telescoping members and interconnecting said cylinder and member, one set of elastic cords interconnecting fixed supports arranged adjacent opposite ends of said cylinder and member in order to exert a



force in one linear direction, another set of elastic cords interconnecting fixed supports on said cylinder and said member and exerting a force substantially parallel to the longitudinal axes of said telescoping members in the opposite linear direction, one of said fixed supports being located at an intermediate point on said cylinder.



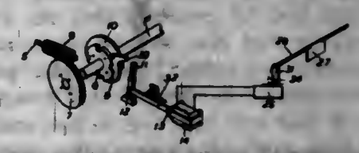
2,771,292
**SQUARING DEVICES FOR BOX CLOSING MACHINES**
William J. Emerson, Haddonfield, N. J., assignor to Samuel M. Langston Co., Camden, N. J., a corporation of New Jersey
Application June 17, 1953, Serial No. 362,242
2 Claims. (Cl. 271—50)



1. A straightening apparatus for folded blanks, including a belt conveyor for advancing the blank, a roller for pressing the blank onto the conveyor, a stop movable into and out of the path of the blank, a blank pusher movable into and out of engagement with the rear edge of the blank to force it against the stop, pneumatically actuated means for advancing and retracting said stop and said pusher and for raising and lowering said roller, and blank-actuated means for automatically synchronously operating said pneumatic means to advance the stop so as to successively interrupt the advance of the blanks with the conveyor and to simultaneously raise the roller from blank engaging position, to advance the pusher into engagement with the rear edge of the immobilized blank so as to press the blank forcibly against the stop and to straighten the blank, and to then lower the roller onto the blank so as to maintain the blank by pressure in straightened condition and to retract the stop and pusher to permit the blank to advance with the conveyor under control of said roller.

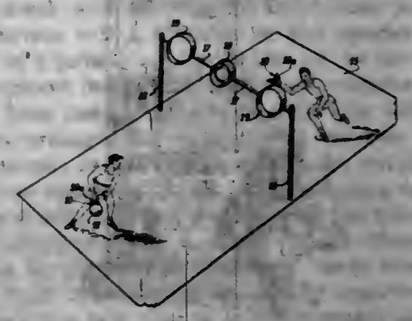


2,771,293
**RECORD CARD CONTROLLED STATISTICAL MACHINES**
Eric John Guttridge, Barnet, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company
Application August 26, 1953, Serial No. 376,710
Claims priority, application Great Britain October 20, 1952
6 Claims. (Cl. 271—88)



1. A record card controlled statistical machine comprising driving means including a normally active clutch, card feeding rollers driven by said driving means, a card receiver to receive cards delivered from the machine by the feeding rollers and including a support movable away from the position of card delivery thereto under the weight of cards delivered thereto and spring-urged towards the position of card delivery, a normally inactive clutch trip member spring-urged to the active position thereof thereby to render said clutch inactive, a solenoid cooperating with the trip member to retain the member in the inactive position thereof, a normally closed electric switch electrically connected with said solenoid, a rocking spindle, an arm secured to and depending from said spindle and spring-urged normally to close the switch, a bell crank to effect rocking of the spindle, and a rocker member carried by said support and operable on movement of the support to a predetermined distance from the position of card delivery thereto to co-operate with said bell crank and effect rocking of said spindle to a position at which said arm is movid thereby to open said switch thereby to render the solenoid inactive and permit the trip member to move to the active position thereof to render the clutch inactive.

2,771,294
**GAME USING BALL CATCHING AND RELEASING SUCTION DEVICE**
Chester M. MacChesney, Chicago, Ill.
Application June 21, 1955, Serial No. 517,021
6 Claims. (Cl. 273—96)



1. For use in a game comprising a playing surface defined by an outer boundary and divided into two courts, a pneumatic resilient ball adapted to be propelled from one court to the other, and a plurality of combined ball catching and throwing devices, each device comprising flexible suction cups adapted to engage and grip the ball for catching the same, said devices being adapted to be held by the players and having air passages therethrough extending from said suction cups and opening to the atmosphere which may be closed by the hands of the players to effect the gripping of the ball and opened to release the ball for throwing the same.

2,771,295
STYLUS AND SOCKET THEREFOR
Lloyd J. Andres, Chicago, Ill., assignor to Permo, Incorporated, Chicago, Ill., a corporation
Application February 1, 1952, Serial No. 269,406
2 Claims. (Cl. 274—37)



1. A phonograph stylus and tubular socket therefor in combination comprising a tubular socket having a flattened end portion formed with substantially parallel major and minor inner walls of predetermined resilience providing a slot-like opening therein, a stylus member having a flat shank portion at one end and a playing portion at its opposite end, said shank portion having substantially parallel edges and a predetermined width adapted to normally enter said opening a predetermined distance in close proximity with said inner walls, a rigid inclined projection on one side of said shank portion adapted to progressively engage and bend outwardly one said major inner wall when said shank is inserted in said socket whereby said socket will exert holding forces against said projection and said edges at right angles thereto.

2,771,296
CHUCKING MEANS
William B. Retz, Plainville, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut
Application March 17, 1954, Serial No. 416,780
20 Claims. (Cl. 279—74)



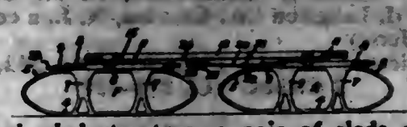
1. Chucking means, comprising a tubular body open at both axial ends and having two axially spaced, generally radially directed bores, two jaws separately guided in each of said bores, axially shiftable jaw-actuating means including a first cam surface cooperating with one of said jaws and a second cam surface cooperating with the other of said jaws, both cam surfaces being inclined in the same direction with respect to the chucking axis, said actuating means including differential connections to said jaws, whereby, upon actuation of said actuating means in a single axial direction relative to said body, both axially separate jaws may be actuated in unison.

2,771,297
ADJUSTABLE STOP FOR A COLLET OR THE LIKE
Walter Nipkow, Irvington, N. J.
Application July 7, 1953, Serial No. 367,429
6 Claims. (Cl. 279—109)



1. A stop adapted to be manually adjustably positioned in the bore of a collet for engagement by a workpiece which is extended a preselected distance into the collet from the front end thereof, the said stop comprising a stop body having a forwardly projecting cylindrical portion and a rear portion providing a hand grip, a pair of rings having eccentrically located openings surrounding the cylindrical portion of the stop body and detachably secured thereto in axially spaced apart locations, a sleeve located between said pair of rings and having an eccentric opening surrounding the said cylindrical portion to provide for free rotation of the sleeve thereon, and a third ring having an eccentric opening surrounding the said sleeve to provide for free relative rotation between said third ring and said sleeve, the stop being positioned in the collet bore by extending the stop body forwardly therein and by a quick turn of the stop body to engage the three eccentric rings with the wall of the collet bore.

2,771,298
HAND BOB SLED
Theodore Francis Crew, Baltimore, Md.
Application November 16, 1953, Serial No. 391,319
1 Claim. (Cl. 280—16)



In a bob sled structure, a pair of sleds of identical construction, comprising spaced parallel runners, a top plate connecting said runners, a top board having its ends disposed one over each of said sleds, stud and socket members connecting the said board ends with the underlying sleds, a rod disposed beneath said top board paralleling the longitudinal center thereof and between said sleds, a connection between the rear end of said rod and the forward end of the rearmost of said sleds, a cleat member having an opening therein secured forwardly of said rearmost sled in the longitudinal center of the undersurface of said top board and loosely receiving the forward end of said rod, a nut threadedly engaged with the forward end of said rod, and an expansion spring interposed between said nut and said cleat.

2,771,299
COMBINATION STOOL AND GAME CARRYING DOLLY FOR HUNTERS
Digby E. Fleshman, Rochester, Mich.
Application April 23, 1954, Serial No. 424,851
6 Claims. (Cl. 280—34)

1. A combination stool and game carrying dolly comprising a pair of peripherally flanged wheels; axle means therefor; cradle means of lesser length than the diameter of said wheels and of less thickness than the combined axial dimension of both wheel flanges; strut means of lesser length than the diameter of said wheels; said cradle means having portions thereof releasably engaged with end portions of said strut means; bracket means extending from said axle means and having portions releasably engaged with the other end portions of said strut means; means releasably locking said strut means in positions

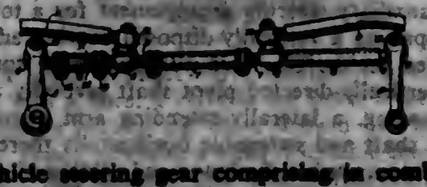


between the cradle means and bracket means; one of the wheels having peripheral inward formed to releasably engage said portions of the strut means and retain the strut means approximately parallel to the wheel axis; whereby said cradle means may be positioned within and between



said wheels in disengaged relation for transportation purposes when said wheels have their flanges engaged, and said strut means may be releasably secured on the one of said wheels in order to utilize said wheel in the formation of a stool.

2,771,300
LINKAGE ASSEMBLY FOR VEHICLE STEERING MECHANISM
Josef Latzen, Duisburg-Oberhausen, Germany, assignor to A. Hilgenstock & Cie.
Application August 26, 1953, Serial No. 375,458
Claims priority, application Germany September 5, 1952
4 Claims. (Cl. 280—93)



1. Vehicle steering gear comprising in combination a linkage including at least three longitudinal members and two joint elements disposed between and connecting said longitudinal members in axial alignment to constitute said linkage a continuous unit, a pair of pivot joints, one secured to each free end of said linkage, a guide lever, a drop arm and a pair of track rods; said guide lever and said drop arm being connected to opposite free ends of said linkage each by means of one of said pivot joints; said joint elements being separable units, each presenting a pair of connection members joining a selected two of said longitudinal members and each having a socket joint conformation between said pair of connection members, said track rods being connected to said linkage by way of said socket joints, and said connection members of said joint elements being in the form of studs extending in axial alignment from opposite sides of said joint conformation.

2,771,301
SECTIONALIZED STEERING KNUCKLE
James H. Booth, Detroit, and Albert W. Gale, Fraser, Mich., assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application February 9, 1956, Serial No. 564,499
9 Claims. (Cl. 280—96.2)



6. A steering knuckle assembly comprising a spindle support bridge structure having an inwardly extending integral boss at its upper end and an integral attachment pad at its lower end, there being integral longitudinal reinforcement ribs extending between the boss and the pad, said boss having a tapered hole therethrough for fixedly receiving the stud of an upper arm ball joint, said attachment pad having a generally V-shaped cutout at its lower end and bolt apertures therethrough arranged on either side of said cutout, a separable wheel support spindle structure including a spindle shank and an integral attachment pad at right angles thereto, there being a plurality of bolt apertures through the pad arranged for alignment with the bolt apertures of said support bridge pad, and attachment plate in said bolt apertures fixedly interconnecting said support bridge pad with said spindle structure, a lower boss fixedly interconnected with said spindle structure and so arranged that said V-shaped cutout affords access clearance to the boss, said lower boss having a tapered hole therethrough for fixedly receiving the stud of a lower arm ball joint in axial alignment with the stud of the upper arm ball joint and having a steering arm fixedly interconnected therewith for controlling said spindle.

2,771,302
STEERING ARM, SPINDLE, AND SUPPORT BRIDGE ASSEMBLY
James H. Booth, Venice, and Albert W. Gale, Fraser, Mich., assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application May 2, 1951, Serial No. 224,172
5 Claims. (Cl. 280—96.2)

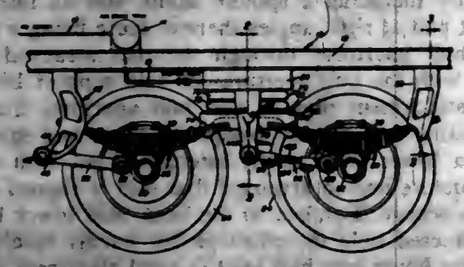


1. A steering knuckle assembly comprising a spindle support bridge having at its upper end an inwardly extending integral boss and an integral attachment pad at its lower end with integral longitudinal reinforcement ribs extending between the boss and the pad, said boss having a tapered hole therethrough for fixedly receiving the stud of an upper arm ball joint, said attachment pad having two sets of bolt apertures therethrough with a generally V-shaped lower end cutout between the bolt aperture sets, a separable wheel support spindle structure including a spindle shank and an integral attachment pad at right angles thereto with a plurality of bolt apertures through the pad in a pattern similar to that of the bolt apertures in said support bridge pad, a separable member including a lower boss and an integral steering arm with two bolt apertures arranged to register with the two lowermost bolt apertures in said attachment pads, attachment plate in said bolt apertures fixedly interconnecting said support bridge pad with said spindle structure pad and said member with said pads, said V-shaped cutout affording access clearance for said lower boss, said lower boss having a tapered hole therethrough for fixedly receiving the stud of a lower arm ball joint in axial alignment with the stud of the upper arm ball joint.

2,771,303
TANDEM AXLE SPRING SUSPENSION UNIT
Van L. Peppler, Royalton, Ill., assignor to Pioneer Tandem Systems, Royalton, Ill., a corporation of Illinois
Application September 8, 1953, Serial No. 378,820
4 Claims. (Cl. 280—104.5)

1. In a vehicle, a frame, tandem axles supporting said frame in part, a semi-elliptical spring secured to each of said axles, each of said springs having one end bearing

directly upon the vehicle frame, a variable rate springing assembly forming bearing means between the opposite ends of said springs and said frame, said spring assembly including a bracket secured to said frame, said bracket having a pair of spaced, depending legs, an abutment member slidably disposed between said legs and upon which said opposite ends of the springs directly bear, an inflatable bag disposed between the upper ends of said



bracket and said abutment member, said bracket legs being provided with vertically elongated, aligned slots, pins carried by said abutment member and projecting through said slots for guiding said abutment member in a vertical path between said bracket legs, and means for varying the volume of working fluid within said inflatable bag, said means including a control valve and an actuating arm connected between said valve and one of said pins.

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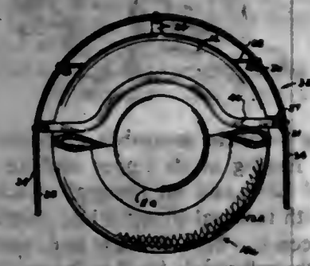
2,771,304

**COMBINED MUD-GUARD AND STONE DEFLECTOR FOR TRUCK TWO-WHEEL ASSEMBLY**

Clarence A. La Pere, Ecorse, Mich.

Application June 14, 1955, Serial No. 515,391

3 Claims. (Cl. 280—152)



1. In a two-wheel assembly at one end of the rear axle in a truck, a vertical standard supported by intermediate means upon the rear axle, a horizontal bar disposed over the axle transversely thereto and supported upon said axle by intermediate means, another or upper horizontal bar extending crosswise to the standard and affixed thereto, a transverse rod extending from each end of the first-named horizontal bar and a similar rod extending from each end of the upper horizontal bar, all the rods extending transversely over the wheels, a rock deflector consisting of a single bar attached at its ends to the lower pair of rods, intermediate their ends, the rod being disposed within the space between the two wheels in a spaced relation to the hub portion thereof, and a sheet metal guard mounted upon said rods, the guard forming a semi-circular structure over the wheels and the deflector therebetween.

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2,771,305

**MOTORCYCLE SADDLE BAG MOUNTING**

Joseph Bongiolatti, Huntington Woods, Mich.

Application June 21, 1954, Serial No. 438,267

3 Claims. (Cl. 280—289)

1. A saddle bag mounting for motorcycles of the type having a shock absorber mechanism located on the frame at a side of the rear wheel and also having a mud guard for the wheel; comprising a member having a flange extending along and secured to the corresponding side of the mud guard and conforming to the longitudinal curvature thereof, a portion of the same longitudinal curvature extending laterally outward from said flange at the top



and rear of said mud guard and a skirt portion depending therefrom in a plane clearing said shock absorbing mechanism, and means for detachably securing a saddle bag to said skirt adjacent to the outer face thereof.

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2,771,306

**POWER-ACTUATED LATERALLY AND VERTICALLY ADJUSTABLE DRAFT MEANS**

Charles S. Ash, Detroit, Mich.

Application April 28, 1952, Serial No. 284,844

2 Claims. (Cl. 280—456)



1. An auxiliary steering arrangement for a towing vehicle comprising a vertically-disposed bearing adapted to be mounted on the rearward portion of the towing vehicle, a vertically-directed pivot shaft pivotally mounted in said bearing, a laterally-extending arm connected to said pivot shaft and swingable horizontally therewith, an enlargement secured to the lower end portion of said pivot shaft and swingable horizontally therewith, a draw bar pivotally connected at its forward end to said enlargement for vertical swinging movement relatively thereto, a cylinder bracket secured to the upper end of said pivot shaft and swingable horizontally therewith, a first fluid pressure cylinder pivotally mounted on said cylinder bracket in a rearwardly and downwardly-inclined position and swingable vertically relatively to said bracket, said first cylinder having a reciprocable piston pivotally connected to said draw bar near the rearward end thereof, and a second fluid pressure cylinder having a portion thereof adapted to be pivotally connected to the towing vehicle and having a reciprocable piston therein pivotally connected to the outer end of said arm.

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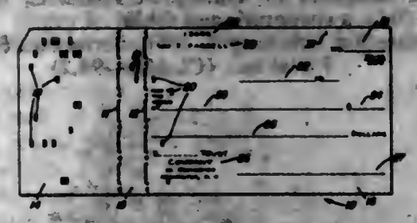
2,771,307

**BANK CHECK**

William F. Farrell, Rochester, N. Y., assignor to Security Trust Company of Rochester, Rochester, N. Y.

Application October 21, 1952, Serial No. 315,939

4 Claims. (Cl. 283—58)



1. A combined master form and bank check comprising a sheet of paper which is scored on two parallel, transverse lines to form three separable sections, one of said sections constituting a check proper having



places for the date, the name of the payee, the sum to be paid, and the signature of the drawer, and having printed matter thereon identifying the drawer, another section constituting a stub by which the check may be bound into a check book, and the third section having control indicia punched therein to control the printing of the first-named section and being adapted to be discarded after use for the printing purpose, said check section proper also being punched with control indicia, said latter control indicia identifying the account of the drawer of the check so that said latter control indicia constitutes sorting control indicia for use after the check has been cashed.

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2,771,308

**QUICK CONNECT VALVE**

James F. Vitcha, Prairie Village, and Arley C. Hemeyer, Overland Park, Kans., assignors to Puritan Compressed Gas Corporation, Kansas City, Mo., a corporation of Missouri

Application February 23, 1954, Serial No. 412,016

4 Claims. (Cl. 284—19)



1. In a quick connect valve assembly, a valve body provided with a bore; a valve in the bore; a spring in the bore normally biasing the valve toward one end of the bore to a closed position; a stem insertable into the bore at said one end thereof, said stem having an innermost end engaging the valve and holding the latter open against the action of said spring when the stem is in the bore; and double-lock mechanism for said stem including a pair of spaced, external shoulders on said stem spaced from said innermost end of the latter, presenting a pair of grooves, a radially-movable latch plate carried by the body and extending into one of said grooves when the stem is holding the valve open for locking the stem against outward movement, and a radially movable, spring-loaded, ball detent carried by the body between the plate and the valve and extending into the other of said grooves when the stem is in the bore, the detent-receiving groove being longer than the diameter of the detent and the shoulder proximal to said innermost end of the stem being spaced inwardly from the detent when the stem is locked by the latch plate whereby the valve spring closes the valve and forces said innermost shoulder against the detent when the plate is withdrawn from the plate-receiving groove.

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2,771,309

**UNIVERSAL BALL AND SOCKET JOINT**

Lancaster P. Clark, Jr., Fairfield, Conn., assignor to Clark Metal Products, Inc., Fairfield, Conn., a corporation of Connecticut

Application June 10, 1954, Serial No. 435,744

2 Claims. (Cl. 285—169)

1. A universal ball and socket joint for receiving an electric conductor wire therethrough, comprising a tubular shell member including an upper cylindrical wall portion and a lower cylindrical wall portion of smaller diameter than said upper wall portion and integrally connected thereto by an annular shoulder having its inner edge coincident to the inner surface of said lower wall portion, a coiled wire helical compression spring formed of circular cross-section wire disposed within said upper wall portion and seated upon said annular shoulder, the radius of the coils of said spring to the center of the wire being less than the radius of said inner edge of said shoulder, a socket member disposed within said upper socket portion including an upper substantially hemispherical socket portion engaged at its outer surface with the upper end of said spring, and a cylindrical tubular portion fitted within and extending below the lower end of said spring to support the coils thereof against inward displacement, the annular space between said tubular portion and the inner edge of said shoulder being of less radial dimension than the thickness dimension of said wire of said spring, and a ball member having a wire receiving passage therethrough and including a truncated



ball portion seated for swivelling movement upon the inner surface of said socket portion of said socket member and an upper externally threaded portion extending upwardly from said upper wall portion of said shell member, the upper side of said upper wall portion being extended inwardly to engage the upper surface of said ball portion along a circular line of less diameter than the diameter of said ball portion with said spring held under compression through said engagement of said inwardly extended edge with said ball portion, and said lower wall portion of said tubular shell member extending substantially below the lower end of said cylindrical portion of said socket member and having internal screw threads of matching pitch and diameter to said external screw threads of said ball member.

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2,771,310

**ROTARY SPRINKLER SWIVEL WITH THRUST BEARING ASSEMBLY**

John A. Royer, William S. Kinsbro, and Harry D. Jacoby, Fresno, Calif., assignors to Buckner Manufacturing Company, Inc., Fresno, Calif., a corporation of California

Application May 2, 1955, Serial No. 505,338

4 Claims. (Cl. 285—279)

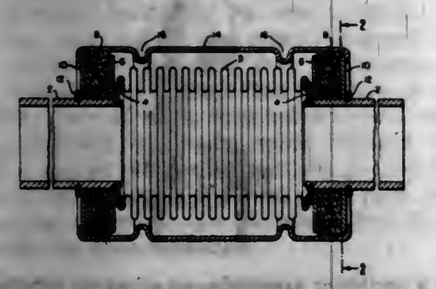


4. In a sprinkler assembly, an elongate tubular bearing housing adapted for connection at its lower end to a water supply riser, a hollow spindle journaled for rotation within said housing, said spindle having upper and lower end portions projecting beyond respective ends of said housing, the lower end of said spindle terminating in an enlarged shoulder presenting a flat, annular and upwardly facing thrust surface and the lower end of said housing presenting a flat, annular and downwardly facing thrust surface, combined bearing and sealing means sandwiched between said thrust surfaces and constituting the sole means for limiting axial upward movement of said spindle with re-

spect to said housing, a hollow discharge member secured to the upper end portion of said spindle and rotatable in response to the flow of water outwardly therethrough, said discharge member being spaced from the upper end portion of said housing to permit limited relative sliding movement between the housing and the spindle, said rotary discharge member being of the type having a restricted discharge orifice so that water under pressure passing upwardly through said spindle from the riser and forced outwardly of the discharge member through the restricted discharge orifice therein will impart a lifting force upon said spindle to compress said combined bearing and sealing means and maintain the same in sealing relation with said thrust surfaces, said combined sealing and bearing means including a pair of stacked and sealingly interengaged annular washers surrounding said spindle and effecting a seal between said thrust surfaces, said washers being of rectangular cross section and of substantially the same outer diameter, one of said washers being of soft rubber material and the other washer being of hard plastic material of Teflon or the like, said discharge member being recessed at its lower end and receiving the upper end of said housing and presenting a downwardly facing thrust shoulder surrounding such recess, said housing having an upwardly facing thrust shoulder disposed in spaced relation to the thrust shoulder on said discharge member, and an upper seal assembly embracing the upper portion of said housing and engaging the thrust shoulder of said discharge member, said upper sealing assembly including a plastic washer engaging said thrust shoulder of the discharge member, a resilient rubber washer sealingly embracing the upper portion of said housing and sealingly engaged against the undersurface of the plastic washer and a spring seated upon the thrust shoulder of said housing and bearing upon the undersurface of the rubber washer to urge the same upwardly against the plastic washer to maintain the latter in sealed engagement with the thrust shoulder of said discharge member and simultaneously urge the spindle upwardly with respect to the housing to normally effect a seal between the washers of the said combined sealing and bearing means in the absence of water under pressure in said riser.

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**2,771,311**
**BELLOWS EXPANSION JOINT WITH SEALED CASING**
**Frederick W. Hottenroth, Jr., Newton, Mass., assignor to Standard-Thomson Corporation, Boston, Mass., a corporation of Delaware**
**Application March 4, 1953, Serial No. 340,211**
**2 Claims. (Cl. 285—299)**



2. An expansion joint for a fluid conduit comprising, in combination, an expansible bellows, a pair of tubular members joined to the ends of the bellows, a fiber washer surrounding each of said tubular members adjacent an end of the bellows, said washers being formed of annular laminae of fibrous composition adapted to expand radially upon contact with the fluid in the conduit, means to constrain the washers against sliding longitudinally on said tubular members, and a tubular closure surrounding the bellows and enclosing the washers, said closure being freely slidable over the washers when the washers are dry, whereby upon occurrence of a leak in the bellows, the washers are exposed to the fluid and expand to form seals with the closure.

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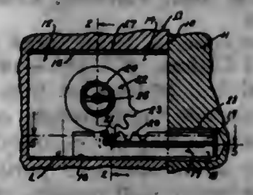
**2,771,312**
**RUBBER BUSHING**
**Leon F. Thiry, Chagrin Falls, Ohio**
**Application August 16, 1952, Serial No. 304,685**
**4 Claims. (Cl. 287—85)**



1. A resilient mounting adapted to sustain radial, axial and oscillating loads comprising an outer rigid member having at opposite ends of a cylindrical bore annular abutment surfaces extending transversely to the axis of the bore, and a co-axial longitudinally extending rigid inner member having intermediate its ends a substantially continuous cylindrical surface of uniform diameter throughout, and compression members secured to said inner member and spaced axially from said abutment surfaces of said outer member and an annular rubber-like bushing fitted between and adhering to said members in pressure friction engagement and completely filling the space between the said inner and outer members, said bushing being characterized by having intermediate its ends a tubular portion of substantial length, said tubular portion of the bushing having in its free state a bore diameter substantially less than the diameter of the cylindrical surface of the inner rigid member and having in its dilated state, prior to the application of axial pressure to the mounting, substantially a right circular lateral surface with a diameter slightly less than the diameter of the bore of the outer rigid member, and said bushing also having at one end an integral flange extending outwardly of the tubular portion and being adapted to contact an abutment surface of the outer member, said bushing having, in its dilated state upon the inner member and prior to assembly, at the end of the tubular portion opposite the flange, an annular end portion having an outer diameter less than the inner diameter of the bore of the outer member with said annular end portion having sufficient volume so that when the said compression members associated with the inner member are adjusted inwardly on said member after the inner member has been disposed within the bore of the outer member, the tubular portion of the bushing receives an additional dilation bringing it into pressure friction engagement with the bore of the outer member and with a shoulder flange being formed at the end of the tubular portion opposite the first mentioned flange.

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**2,771,313**
**CLOSURE FASTENER**
**Nicholas M. Blake, Oshkosh, Wis.**
**Application December 2, 1954, Serial No. 472,637**
**2 Claims. (Cl. 292—142)**



1. In a combination storm and screen door, a positive acting lock for securing a removable panel in said door including a casing having spaced parallel side walls and top and bottom walls, a bolt mounted in said casing



slidably mounted on the bottom wall and said bolt having a lower longitudinally extending rib and an upper offset longitudinally extending rib terminating short of the inner end of said bolt, said upper rib being provided with rack teeth, a pinion disposed in said casing having a laterally projecting bearing hub provided with a diametrically extending tool receiving slot, an apertured bearing boss struck in from one side wall of the casing rotatably receiving the hub and engaging one face of the pinion, the opposite face of said pinion engaging the other side wall of the casing, said pinion having radially extending cogs around the periphery of the pinion for a portion of the circumference of said pinion for sliding said bolt upon turning of the pinion, the inclined face of the innermost tooth of the rack teeth tending to move the pinion laterally into binding engagement with a side wall of the casing when a cog of the pinion forcibly engages said inclined face.

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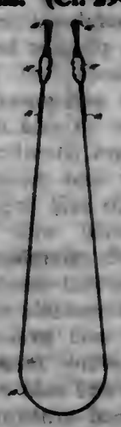
**2,771,314**
**WRAP-AROUND CAR SEAL**
**George G. Canter and Gilbert G. Canter, New York, N. Y.**
**Application August 7, 1953, Serial No. 372,878**
**2 Claims. (Cl. 292—315)**



1. A seal comprising a strap of sheet metal having a transversely slotted head at one end and a tongue adapted to pass through the slot in the head at the other end, said tongue being narrower than said strap to provide a shoulder adapted to engage said head when said tongue is fully inserted in said slot, said head having at its end an edge spaced from said slot and disposed slanted with respect to the longitudinal axis of the strap, and said tongue having a score line so located relative to said shoulder as to be in alinement with said edge when the tongue is fully inserted in said slot.

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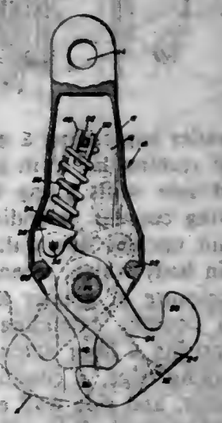
**2,771,315**
**HOISTING SLING**
**Francis F. Fenwick, South Orange, N. J.**
**Application February 18, 1955, Serial No. 489,138**
**6 Claims. (Cl. 294—74)**



1. A hoisting sling comprising a body provided by a strip of flexible material of selected length, width and thickness, said body having inwardly of its respective extremities a pair of longitudinally spaced apart slits, disposed intermediate and parallel to its side edges whereby to form separated sections bordering opposite sides of the respective slits, each end portion of the body being longitudinally folded upon itself midway of said slits therein, to form an end loop and so as to register said slits in opposed aligned relation with bordering sections at corresponding sides thereof disposed in contiguous face to face relation, and said respective face to face bordering sections being twisted upon themselves by rotating the end loop through said slits thus forming therein intertwined helical convolutions which unite the legs of the end loop in closed together and secured relation to the sling body.

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**2,771,316**
**AUTOMATIC RELEASING HOOK**
**John H. Mitchell, Montesano, Wash.**
**Application November 16, 1953, Serial No. 392,277**
**5 Claims. (Cl. 294—83)**



1. An automatic releasing mechanism for hoisting comprising a hollow frame, a hook member pivotally secured to said frame, said frame including a pair of sling lifters extending on either side of said hook, stop members in said frame, and resilient snap action means for urging said hook against a selected one of said stop members, said snap action means including a piston pivotally attached to said hook member, a stop element attached to said frame, said piston having a shoulder, and resilient means yieldably engaging and extending between said shoulder and said stop element.

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**2,771,317**
**ADJUSTABLE WAGON BOX BRACE**
**Walter H. Dohrmann, Emerson, Nebr.**
**Application November 23, 1954, Serial No. 470,763**
**2 Claims. (Cl. 296—15)**

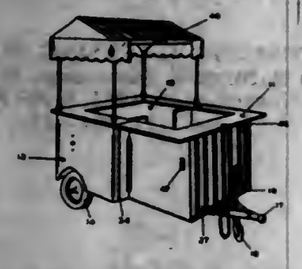


1. The combination with a vehicle supported grain holding box including a platform and a side wall carried by said platform adjacent a side edge thereof, of an upstanding brace arranged exteriorly of and abutting said side wall and secured to said wall, the lower end of said brace being spaced above said platform, a horizontally disposed foot plate secured to the lower end of said brace, a bolt supported in said foot plate and extending through said platform and adjustably secured to the latter, a second bolt spaced from said first bolt and extending

through said foot plate and having a head resting upon said platform, and a nut in threaded engagement with said second bolt and having its upper face bearing against said foot plate.

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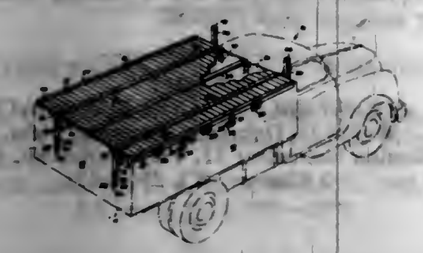
2,771,318
VENDING TRAILER
Carl F. Jagsch, Columbus, Ohio, assignor to Timmons Metal Products Co., Columbus, Ohio, a corporation of Ohio
Application December 29, 1954, Serial No. 478,309
8 Claims. (Cl. 296—22)



1. A serving trailer comprising a main body providing a compartment of rectangular form having a rectangular floor and upright side walls along three edges thereof with a fixed serving counter extending along the upper edge of all of said upright side walls, hinged extension parts on said main body which, when unfolded, will provide a service enclosure of greater area than said compartment with a counter extending completely thereabout and comprising a floor extension hinged to said floor at its remaining edge, a counter extension hinged to said fixed counter, and side wall extensions hinged to said side walls and movable between said counter extension and said floor extension to support the counter extension at the same level as said fixed counter.

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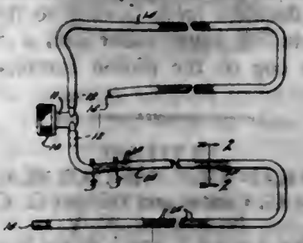
2,771,319
COMBINATION TRUCK BODY AND FLEXIBLE COVER THEREFOR
Mervin J. Rengquist, Julesburg, Colo.
Application March 7, 1955, Serial No. 492,464
4 Claims. (Cl. 296—100)



1. A combination rectangular housing and cover therefor comprising a bottom wall, parallel opposite side walls extending upwardly from said bottom wall, parallel opposite end walls joining the opposite ends of said side walls and extending upwardly from said bottom wall, a plurality of slats each having its opposite ends supported on the respective upper edge of said opposite side walls, said slats being positioned in closely adjacent side to side relation to each other whereby said housing is substantially completely covered, an elongated plate hingedly secured to the outer face of each of said side walls adjacent the upper edges thereof, an elongated member integrally secured to each of said plates and extending perpendicularly therefrom, said members being adapted to overlie the ends of said slats securing said slats against the top edge of said side walls, said plates and said members being adapted to be pivoted outwardly to a position out of contact with said slat ends, means on said side walls for releasably securing said plates and said members in slat overlying position, a flexible connector extending parallel to said side walls, said connector overlying each of said slats, means securing said connector to each of said slats, said connector extending beyond said slats to overlie one of said end walls of said container, means on said one end wall for detachably securing the end of said connector thereto, and means on the other end of said end walls for supporting said slats in rolled position.

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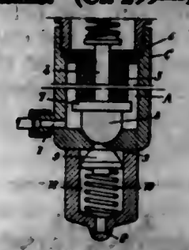
2,771,320
SPRINKLING SYSTEM
John J. Korwin, St. Clair Shores, Mich.
Application November 4, 1952, Serial No. 318,575
12 Claims. (Cl. 299—104)



10. A liquid spray sprinkling device comprising a length of flexible hose having an expansible, homogeneous, wall structure formed of a resiliently elastic compound, said wall structure having integrally formed therein and closely spaced lengthwise of and circumferentially about the hose a plurality of puncture type, expansible, self restricting, liquid spray producing orifices that are bounded and yieldably restricted by only the adjacent resiliently elastic compound of the hose wall structure.

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2,771,321
FUEL INJECTORS
Gustave Alric, Soists-Savine, France
Application September 24, 1954, Serial No. 458,036
Claims priority, application France September 26, 1952
7 Claims. (Cl. 299—107.6)

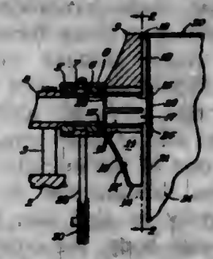


1. A fuel injector which comprises, in combination, rigid casing means shaped to form a pressure chamber adapted to be fed periodically with successive quantities of fuel, a discharge chamber provided with at least one injection orifice, and a passage between said two chambers, whereby fuel flows first through said pressure chamber, then through said passage and finally through said discharge chamber to said injection orifice, means movable in said pressure chamber to make the volume thereof variable, valve seat means forming the end of said passage adjacent to said pressure chamber, a main valve member connected with said movable means located in said pressure chamber and arranged to cooperate with said valve seat means to open said end of said passage when said movable means are moved to increase the volume of said pressure chamber, resilient means for urging said valve member toward said valve seat means, said valve and said valve seat being shaped to cause a predetermined pressure rise in said pressure chamber to lift said valve member away from said valve seat means, i. e. toward the inside of said pressure chamber, against the action of said resilient means, valve seat means forming the other end of said passage adjacent to said discharge chamber, an auxiliary valve member in said discharge chamber mounted to cooperate with said second mentioned valve seat means to control the communication between said passage and said injection orifice, and resilient means for urging said auxiliary valve member toward said second mentioned valve seat means, the force of said last mentioned resilient means being lower than the force exerted on said auxiliary valve member by the pressure existing in said passage after the opening of said main valve member by said predetermined pressure rise in said pressure chamber.



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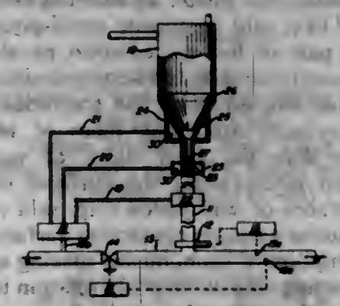
2,771,322
PNEUMATIC CONVEYOR FOR COTTON PICKERS
Ivan E. Sunsey, Memphis, Tenn., assignor to International Harvester Company, a corporation of New Jersey
Application August 26, 1955, Serial No. 530,783
10 Claims. (Cl. 302—37)



1. A pneumatic conveyor comprising a tubular duct having an outlet end portion, a rotor structure including an eye disposed in axial alignment with said end portion and having one end located in receiving relation to said duct for drawing material entrained air from said duct, a closed receptacle communicatively associated with the opposite end of said eye for receiving material moving through said eye, and said rotor structure having a plurality of blades formed and arranged to provide radial blower passage through said rotor and having inlets communicating with said eye about the periphery thereof and outlets about the outer periphery of said rotor.

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2,771,323
STANDPIPE FLOW CONTROLS
Theodore C. Taylor, Columbus, Ohio, assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application February 20, 1953, Serial No. 337,917
13 Claims. (Cl. 302—57)

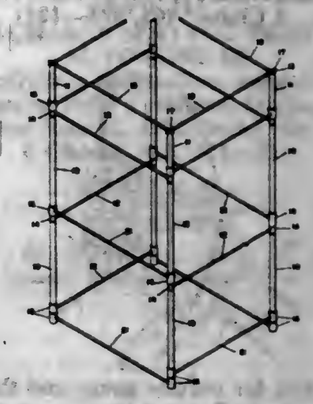


1. A system for transferring fluidized solids by means of a standpipe and a transfer line containing a carrier gas which includes a transfer line, a standpipe for fluent solids extending downwardly from a vessel and discharging into said transfer line, a control valve in said standpipe, a first pressure-sensitive controller downstream of said standpipe and actuated by pressure in said transfer line to operate said control valve, a throttle valve on said transfer line upstream from said standpipe, a second pressure-sensitive controller on said transfer line downstream of and operating said throttle valve, a pressurizing reservoir in pressure communication with said transfer line upstream of said throttle valve, a plurality of vertically spaced jackets about ports in said standpipe, and a plurality of conduits communicating between said pressurizing reservoir and said vertically spaced jackets on said standpipe.



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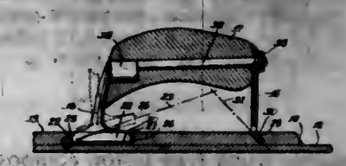
2,771,324
DEMOUNTABLE SCAFFOLD
Reginald D. Ryder, Bradner, Ohio, assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application February 26, 1954, Serial No. 412,970
4 Claims. (Cl. 304—2)



1. A scaffold of successive tiers comprising a base tier of interchangeable corner posts, first type ledger members with hub ends of an internal diameter equal to the external diameter of the corner posts positioned to receive and hold said corner posts in the hubs; and additional tiers including a pair of second type ledger members with hub ends of an internal diameter equal to the internal diameter of the corner posts placed on top of opposed pairs of corner posts, pin members extending through the hub ends extending above and below the same holding the corner posts below and positioned to receive corner posts above said hubs, and a pair of ledger members with hub ends of internal diameter equal to the external diameter of the corner posts connecting corners unconnected by said first pair of ledger members and transverse thereto, and corner posts inserted in said pair of first type ledger member hubs to embrace the pin members positioned by the pair of second type ledger members reinforcing the corners of successive tiers of the scaffold.

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2,771,325
CEMENT MASON'S FLOAT
Leigh S. Brunson, Milwaukee, Wis.
Application June 8, 1953, Serial No. 360,060
2 Claims. (Cl. 306—44)

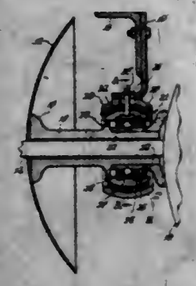


1. A cement mason's float comprising a blade portion and a handle portion, said blade portion comprising a flat blade having a central longitudinally extending upstanding reinforcing rib integrally formed on its upper surface, said rib having a front socket comprising a longitudinally extending recess and a bore extending longitudinally and downwardly from one end of said recess, and a rear socket longitudinally spaced from the front socket and comprising a bore extending downwardly and longitudinally in the opposite direction from said first-mentioned bore, said handle portion comprising a front support having a base seated in said recess and a pin projecting from one end of the base and extending into said first-mentioned

bore, a rear support having a pin on its lower end extending into said second-mentioned bore, and a handle rigidly clamped between the supper ends of said supports and holding said supports against movement relative to each other.

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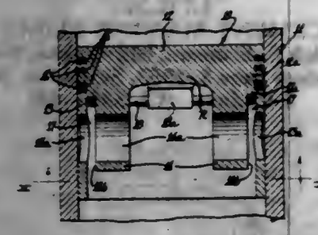
2,771,326
BEARING
Hiram P. Smith, Stockton, and Richard W. Kramer, Modesto, Calif., assignors to International Harvester Company, a corporation of New Jersey
Application April 29, 1954, Serial No. 426,405
1 Claim. (Cl. 308—181)



In a mounting for harrow gangs and the like wherein a disk-carrying spool is rotatably mounted on a supporting frame, an anti-friction bearing having an inner race surrounding the spool and mounted thereon for rotation therewith and an outer race, a metal sealing ring mounted on the outer race of said bearing having an arcuate outer periphery forming part of a sphere having its center on the axis of said bearing, a housing surrounding said metal sealing ring having an arcuate inner surface spaced from and concentric with the outer surface of the metal ring, a cylindrical rubber sleeve of uniform diameter compressed between the ring and the housing and conforming to the shape thereof, and means for securing the housing to the frame.

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2,771,327
PISTON CONSTRUCTION
William C. Reinberger, Middleburg Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application August 17, 1953, Serial No. 374,747
10 Claims. (Cl. 309—12)



1. An expansible trunk type piston composed of metal having a high rate of heat expansion which comprises a head portion, a depending ring flange portion integral with said head portion, a skirt portion thinner than the ring flange portion extending intgrally therefrom, and wrist pin bosses depending integrally from said head portion inwardly of said skirt and coacting therewith to form channels between said bosses and said skirt said piston having an internal shoulder between the ring flange and the skirt portions in communication with said channels, and a ferrous metal control ring having a lower rate of heat expansion than the piston material bottomed on said shoulder, said control ring controlling the expansion of the piston under varying temperature conditions.

2,771,328
PISTON RING GROOVE PROTECTOR
William N. Wainwright, Kirkwood, William M. Veaner, Brentwood, and Percy L. Bowser, Jr., Ladue, Mo., assignors to Sterling Aluminum Products, Inc., St. Louis, Mo., a corporation of Missouri
Application February 27, 1956, Serial No. 567,942
14 Claims. (Cl. 309—14)



14. A piston, comprising, an aluminum body provided with a packing ring-receiving groove, and an annular disc of a metal harder than aluminum and extending around said body axially adjacent said groove and radially within the aluminum body, the outer margin of said disc extending into said groove to face the same, said disc having recesses extending circumferentially therealong and therethrough and said disc being formed to cause the aluminum to flow axially through said recesses, said recesses being of sufficient dimensions circumferentially and radially of said disc to permit molten aluminum to flow therethrough and said recesses being positioned radially with respect to one of the margins of said disc and so formed that upon solidification the aluminum will shrink radially inwardly on said disc in order to cast-anchor said disc in said body, the outer margin of said disc extending radially beyond said body to locate said disc in a mold during casting of said body.

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2,771,329
COMPOSITE PISTON RING
Helmuth G. Braendel, Tredyffrin Township, Chester County, Pa., assignor to Wilkening Manufacturing Company, Philadelphia, Pa., a corporation of Delaware
Application January 24, 1951, Serial No. 207,585
4 Claims. (Cl. 309—45)



1. A composite multi-piece piston-ring for use in and with the cylinder and piston of internal combustion engines and the like, said composite multi-piece piston-ring comprising a pair of flat spaced-apart parallel conformable and circumferentially non-compressible metal cylinder-contacting ring-elements the combined axial thickness of the cylinder-contacting faces of which is substantially less than the axial width of said composite piston-ring and whose outer side-surfaces constitute the outer side-surfaces of said piston-ring, said ring-elements having continuous cylinder-contacting surfaces except for a single interruption of each, means spacing apart said flat cylinder-contacting ring-elements in relation to each other, a generally annular circumferentially compressible axially corrugated resilient non-bottoming expander interrupted at one point and formed of a flat band of spring-steel of oblong cross-section whose major dimension is disposed radially of said piston-ring and whose minor dimension is disposed at a right angle to its major dimension, said expander having axially disposed abutting tabs which are in free abutted and unconnected relationship to each other when said composite piston-ring is installed in the ring-receiving groove of a piston in a cylinder, and the radial width of said expander being substantially greater than one-half the radial clearance between the inner axially disposed wall of the ring-receiving groove of said piston and the effective inner peripheries of said cylinder-contacting ring-elements, and the length of the cycle of said corrugations being approximately of the order of the axial width of said expander and said corrugations having curved crests of generally uniform height and lying in the same general cylindrical formation in which the expander as a whole lies.



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2,771,330
TILTING MECHANISM FOR X-RAY EXAMINATION TABLE
Willem Zaalberg, Leiden, Netherlands, assignor, by mesne assignments, to Smit-Roentgen N. V., Leiden, Netherlands, a limited liability company of the Netherlands
Application July 6, 1954, Serial No. 441,513
Claims priority, application Netherlands July 8, 1953
1 Claim. (Cl. 311—6)



In an X-ray examination table the combination of a base, a support pivotally mounted on said base, a table slidable in its longitudinal direction on said support, the pivotal mounting of said support being horizontal and perpendicular to the longitudinal direction of said table and being located at a height above said base which is less than half the length of said table, an electric motor mounted on said table, a worm actuated directly by said electric motor rotatably mounted on said support, a toothed segment in the form of a sector concentric to said pivot and fixed to said base, said toothed segment comprising a ring gear having teeth on the outer circumference thereof engaged with said worm, and having teeth on the inner circumference thereof, a toothed rack mounted longitudinally of said table, a smaller and a larger pinion fixed to each other and rotatably mounted on said support, said smaller pinion engaged with the inner circumference of said toothed segment and the larger pinion engaged with said rack, whereby actuating said worm effects tilting of the table about said pivot by action on said toothed segment and rectilinear displacement of the table relative to the support in a direction tangential to the toothed segment by action on said smaller and larger pinion.

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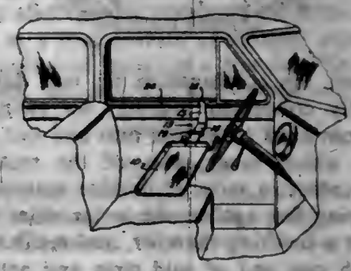
2,711,331
FOLDING TYPEWRITER DESK FOR AUTOMOBILES
Arthur Mesaman, Enid, Okla.
Application January 26, 1955, Serial No. 484,206
6 Claims. (Cl. 311—21)



1. The combination with an automobile having an instrument panel, of a foldable table having inner and outer substantially rectangular sections, a foldable Y-shaped table support including a single leg to engage the floor of the automobile, means pivotally connecting said support to the bottom of the outer section along its outer longitudinal edge for folding against the same with the leg extending longitudinally of the section, means hingedly connecting adjacent longitudinal edges of the two sections whereby the outer section may fold downwardly under the inner section with the folded leg between them, means hingedly connecting the other longitudinal edge of the inner section to the instrument panel whereby the folded sections may be swung downwardly under that panel with their hingedly connected edges lowermost, and a spring clip carried by a fixed portion of the automobile for engagement with the hingedly connected edges of the sections to hold them in such folded position under the instrument panel.

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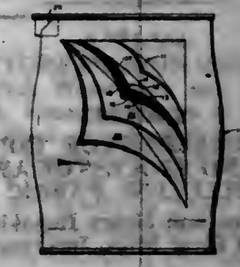
2,771,332
DETACHABLE SERVING TRAY FOR AUTOMOBILES
William L. McGinley, Dallas, Tex., assignor to American Permanent Wear Company, Dallas, Tex.
Application June 11, 1953, Serial No. 360,994
6 Claims. (Cl. 311—21)



1. In an automobile service tray, a mounting for supporting said tray in relation to a window of said automobile, comprising a single goose-neck having a first horizontal portion affixed to and extending from one end of said tray, an upwardly and outwardly extending angular portion terminating in a second horizontal portion, a hook pivotally connected to the end of said second horizontal portion and engageable in the glass channel of a window of said automobile, a bracing member comprising a flattened loop slidably embracing said first horizontal portion of said goose-neck and having a depending portion carrying spaced apart legs at right angles to said depending portion whose ends are in abutting relationship with said automobile below said window when said tray is in operative position, said loop being disposed at an angle to said depending portion to frictionally engage the upper and lower surfaces of said first horizontal portion of said goose-neck to preclude horizontal sliding displacement of said loop in tray supporting position of said bracing member.

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2,771,333
CONTAINER FOR DELIQUESCENT MATERIALS
Jack F. Eberle, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application October 16, 1951, Serial No. 251,594
7 Claims. (Cl. 312—31)

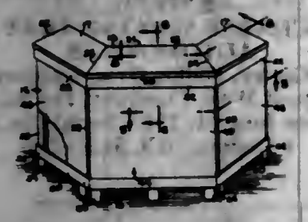


1. A fertilizer bag formed by a first and innermost wall pervious to moisture, a second wall in close spaced relation to said first wall and a third and outermost wall in close spaced relation to said second wall, an adhesive coating covering the inner surface and outer surface of

said second wall, a moisture absorbing desiccant impregnated on, and supported by, said inner surface adhesive coating, and a moisture barrier type desiccant impregnated on, and supported by, said outer surface adhesive coating.

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2,771,334
**PORTABLE BAR**
Ernest T. Wahlbom, Rockford, Ill., assignor of one-half to Bennett T. Griggs, Rockford, Ill.
Application June 11, 1953, Serial No. 360,880
8 Claims. (Cl. 312—140.4)

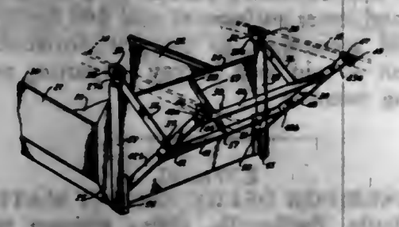


5. In a bar, the combination of, two flat frame sections pivotally connected together for swinging toward and away from each other and into and out of collapsed positions in which inner sides of the sections lie flat against each other, a strip of flexible material extending along and lying flat against the outer sides of said sections to form a covering therefor, and resilient means engageable with one end of said strip and acting between the latter and said sections to hold the strip taut against said outer section sides and urge the sections yieldably toward each other and into their collapsed positions, said strip being slidable relative to and along the outer side of one of said sections to permit swinging of the sections into said collapsed positions thereof.

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2,771,335
**REAR-END SUSPENSION SYSTEM FOR DRAWERS AND THE LIKE**
Hans W. Regenhardt, Wooster, Ohio, assignor to Record Files, Inc., Wooster, Ohio, a corporation of Ohio
Application December 8, 1954, Serial No. 473,841
12 Claims. (Cl. 312—342)

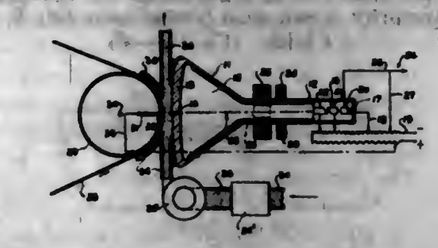
1. In a file cabinet or the like, a drawer suspension



system comprising a panel adapted for bodily movement in a direction paralleling one of the major axes of the cabinet; a moveable frame member extending transversely of said axis; parallel links coupling the frame member to the panel; ways on the panel; and, for imposing sliding movement on the adjoining portion of the frame member, means on the frame member cooperating with the ways on the panel.

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2,771,336
**IMAGE CONTROL TUBE AND METHOD OF PRINTING**
Jack E. MacGriff, Detroit, Mich.
Application February 14, 1952, Serial No. 271,579
7 Claims. (Cl. 346—74)



1. In an image control cathode ray tube, an evacuated glass envelope having an elongated cylindrical shank closed at one end and having an enlarged portion at its other end terminating in an end face at right angles to the longitudinal axis of said shank, an electron gun assembly within the closed end of said shank, a plurality of straight elongated spaced conductors within said end face parallel to said longitudinal axis and arranged in a row, a deflection yoke surrounding said shank adjacent said enlarged portion exteriorly energized electrically to produce a continuously changing field, the electron beam from said gun assembly being deflectable from a path in alignment with said longitudinal axis for transversely scanning said row of conductors throughout its length for separate transmission through each of said conductors to the exterior of said tube, a stationary electrode blade spaced from the face of said tube on its exterior and arranged parallel to and opposite from said row of conductors, a moving web of image receiving material positioned between said blade and said row of conductors in spaced relation, and a confined smoke pigment of constant density between said row of conductors and said web, whereby the scanning electron beam as it passes through said conductors successively to said blade carries particles of said pigment to said web for impingement thereon in a permanent manner, to thereby form a row of pigmented elements and a plurality of such rows upon continued movement of said web, the quantity of particles deposited in a row upon said web corresponding proportionately to the quantity of electrons passed through a particular conductor controlled by the instantaneous image signal applied to said electron gun assembly.

## CHEMICAL

2,771,337
**ACROLEIN-FORMALDEHYDE CONDENSATION PRODUCTS AND PROCESS OF APPLYING THE SAME TO CELLULOSE FABRIC**
Dmitry M. Gagarine and Henry Repokis, Danville, Va., assignors to Dan River Mills, Incorporated, a corporation of Virginia
No Drawing. Application May 3, 1952, Serial No. 286,038
11 Claims. (Cl. 8—116.4)

7. A water-soluble reaction product of about 1 to 10% by weight of a starch, one mol of acrolein, and from about one to six mols of formaldehyde condensed in the presence of a small percentage less than 5% of a basic catalyst.

11. A process of cross-linking cellulose which comprises impregnating substantially alkali-free cellulose with an aqueous solution containing from about 5% to 50% of a water-soluble reactive chemical which is the condensation product of one mol of acrolein and from about one to six mols of formaldehyde condensed in the presence of a small percentage less than 5% of a basic catalyst, said solution also containing from about .1% to 5% of an acidic catalyst, and heating the thus impregnated cellulose at a time and temperature sufficient to dry it and to cause reaction between said cellulose and said chemical.



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2,771,338
**MANUFACTURE OF URANIUM PEROXIDE**
Louis Spiegler, Woodbury, N. J., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application March 15, 1945, Serial No. 582,996
5 Claims. (Cl. 23—14.5)

1. In the recovery of uranium peroxide by precipitation from a uranyl sulfate solution containing magnesium and fluorine, the improvement which comprises effecting the uranium peroxide precipitation in the presence of dissolved ammonium sulfate and promptly separating the uranium peroxide from mother liquor.

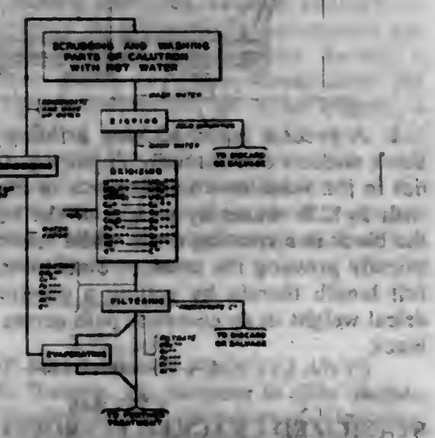
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2,771,339
**PROCESSES FOR THE RECOVERY AND PURIFICATION OF URANIUM**
Robert Q. Boyer, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application September 2, 1944, Serial No. 552,548
10 Claims. (Cl. 23—14.5)

1. In a process for reclaiming uranium values from deposits formed on the parts of a calutron during the operation thereof, the steps comprising washing said parts with an aqueous solvent to form a solution containing said values and impurities, treating said solution with ammonium hyposulfite to reduce said uranium and a portion of the impurities, treating said reduced solution with formaldehyde to complex and immobilize the sulfite formed during said reduction, then treating said solution with ammonia to precipitate uranous hydroxide away from the impurities in the solution, and separating said uranous hydroxide precipitate from the solution.

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2,771,340
**IMPROVED URANIUM RECOVERY AND PURIFICATION PROCESSES**
Martin D. Kamen, Berkeley, Calif., and Abel De Haas, Jr., Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application June 27, 1944, Serial No. 542,378
10 Claims. (Cl. 23—14.5)




7. The process for recovering metallic uranium isotope 235 values from deposits formed with a metal surface containing metals of the group consisting of iron, chromium, nickel and copper, comprising washing said surface with an aqueous solution containing about 2% of HCl and about 0.5% of $H_2O_2$ to produce an acidic chloride solution containing uranyl ions and the ions of said metals as impurities, adjusting the hydrogen ion content of the solution to the range 1N to 3N, treating said solution to reduce the uranyl ions to the uranous state, treating the reduced solution with oxalic acid to precipitate uranous oxalate away from the impurities in the solution, and separating said uranous oxalate from the solution.

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2,771,341
**METHOD FOR GAINING VANADIUM VALUES FROM VANADIUM CONTAINING IRON ORES**
Otto F. F. Barth, Stocksund, Sweden, assignor to Hoganäs-Billesholms Aktiebolag, Höganäs, Sweden, a company of Sweden
No Drawing. Application July 17, 1951, Serial No. 237,295
2 Claims. (Cl. 23—51)

1. Process for the recovery of vanadium from vanadium containing iron ore which comprises mixing ingredients consisting essentially of such iron ore in finely divided form and an alkali metal compound, sintering the resulting mixture at a temperature of at least about 1100° C. for the production of lumps of a size suitable for charging a blast furnace, and leaching said lumps with water.

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2,771,342
**PRODUCTION OF NON-CAKING COPPERAS**
Stephen A. Lamanna, Amherst, Va., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application December 2, 1953, Serial No. 395,854
3 Claims. (Cl. 23—126)

1. Process for the preparation of copperas in dry, free-flowing form from wet copperas crystals carrying dilute sulfuric acid, which comprises drying said copperas to an $FeSO_4$ content of between about 56% and 60% at a temperature below the melting point thereof, and then blending the thus-dried crystalts with a finely divided calcium carbonate in effective anti-caking amount.

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2,771,343
**METHOD FOR STABILIZING HYDRAZINE AGAINST DECOMPOSITION BY COPPER IN CONTACT THEREWITH**
Orlan M. Arnold, Grosse Pointe, and Robert M. Jamison, Detroit, Mich., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application December 23, 1953, Serial No. 400,128
6 Claims. (Cl. 23—190)

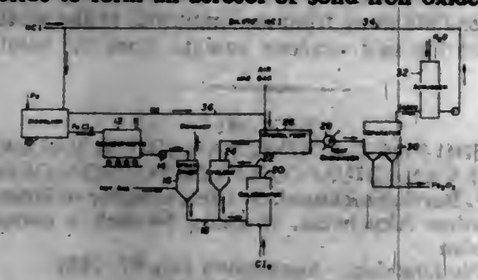
1. A method for retarding the autoxidation of hydrazine by copper in contact therewith which involves repressing the dissolution of copper in the hydrazine by including in a concentration of at least 0.001 mole a solute of a compound selected from the group consisting of alkali metal carbonates, alkali metal bi-carbonates, and mixtures thereof.

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2,771,344
**MANUFACTURE OF IRON OXIDE PIGMENT**
Laurent P. Michel, Watertown, and Thomas H. Goodgame, Ipswich, Mass., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts
Application August 5, 1954, Serial No. 448,019
9 Claims. (Cl. 23—200)

1. A process for producing finely divided iron oxide which comprises reacting metallic iron with dilute hydrochloric acid thereby producing hydrogen gas and an aqueous solution of ferrous chloride, separating the ferrous chloride thus formed as a dry solid from said solution, contacting said ferrous chloride with chlorine gas at elevated temperatures in the absence of water vapor thereby producing ferric chloride in anhydrous vapor form, conducting said anhydrous ferric chloride vapor to a hydrolysis zone and therein intimately and turbulently con-

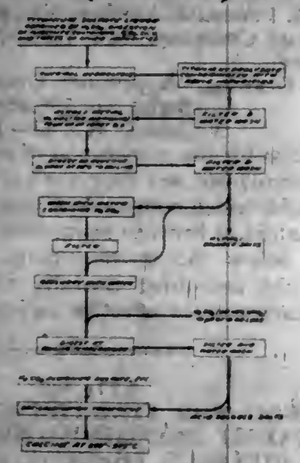
tacting said ferric chloride vapor with water vapor at elevated temperatures thereby hydrolyzing said ferric chloride to form an aerosol of solid iron oxide particles



in a gaseous medium containing by-product hydrogen chloride, and recovering directly from said aerosol a pigment grade iron oxide product having an average particle size of less than 100 millimicrons.

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**2,771,345**
**PREPARATION OF TITANIUM DIOXIDE PIGMENTS**
**Charles A. Tanner, Jr., Moorestown, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine**
**Application June 1, 1951, Serial No. 229,482**
**7 Claims. (Cl. 23—202)**

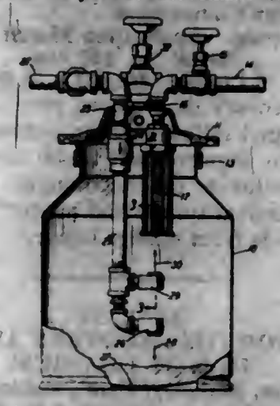


1. A method for the purification of a water-washed titania hydrolysate containing phosphatic impurities, which comprises (1) mixing an amount of an alkali metal hydroxide with an aqueous slurry of said hydrolysate sufficient to form water-soluble complexes of said impurities and adjust the pH of the slurry to at least 8.5 but insufficient to convert said hydrolysate to alkali metal titanate and digesting said mixture at a temperature between 50° C. and the boiling point thereof until solubilization of said impurities is substantially complete; (2) filtering and water-washing said alkali-treated hydrolysate thereby removing alkali-solubilized impurities including phosphatic impurities; (3) slurrying said hydrolysate with water and sufficient of a dilute mineral acid having an anion volatile at 850° C. to decrease the pH of the slurry to below 4; (4) digesting said slurry until the absorptive capacity of said hydrolysate for said acid is substantially satisfied; and (5) filtering and water-washing said acid-treated hydrolysate thereby removing acid-solubilized impurities.

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**2,771,346**
**SOLUTION DISPENSER**
**Harry Lambers, Holland, Mich.**
**Application July 8, 1953, Serial No. 376,488**
**7 Claims. (Cl. 23—271)**

1. A solution dispenser, comprising: container means; removable cover means for said container; locking means for securing said cover means to said container; outlet conduit means secured to said cover means and communicating with the interior of said container; filter means connected to the inner end of said outlet conduit means and disposed within said container; inlet conduit means secured to said cover means and communicating with the interior of said container; first nozzle means connected to said inlet conduit means adjacent the inner end thereof and disposed to direct a jet at the bottom of said container; second nozzle means connected to said inlet conduit means adjacent the inner end thereof and



disposed to direct a jet to pass in close proximity to said filter means; one-way valve means disposed in said inlet conduit means to determine the direction of flow therein; by-pass conduit means connecting said inlet and outlet conduit means independently of the contents of said container; and control valve means in at least one of either said inlet or outlet conduit means, and also in said by-pass conduit means.

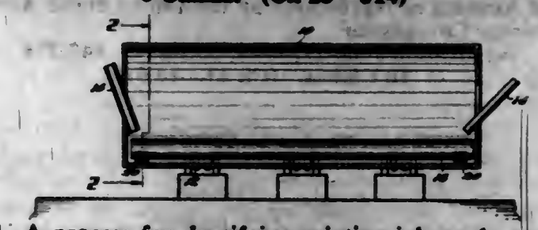
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**ERRATUM**

For Class 23—283 see:
Patent No. 2,771,460

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**2,771,347**
**DENSIFICATION OF INK GRADE CARBON BLACKS**
**Curt B. Beck, Pampa, Tex., and Charles A. Stokes, Wellesley Hills, Mass., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts**
**Application January 25, 1954, Serial No. 405,969**
**6 Claims. (Cl. 23—314)**



1. A process for densifying printing ink grade carbon black without substantially impairing its dispersion qualities in ink vehicles which consists in moistening the black with 2–12% water by weight of the black and tumbling the black in a rotating drum while intermittently and rythmically pressing the mass of black along substantially its full length therein by rolling a continuous-walled cylindrical weight in an eccentric path across the surface of the black.

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**2,771,348**
**STABILIZED CRACKED PETROLEUM FRACTIONS**
**Garbis H. Megnerian, Park Forest, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana**
**No Drawing. Application July 29, 1953, Serial No. 371,193**
**11 Claims. (Cl. 44—72)**

1. A stable cracked petroleum distillate, higher boiling than gasoline, which contains from about 0.0005 to about 0.5 percent by weight of an inhibitor selected from the



group consisting of (1) a mixture of a saturated organic amine and iodine, said mixture consisting of from about 5 to about 2000 parts by weight of amine and from about 1 to about 2000 parts by weight of iodine, said mixture affording at least about 0.0005 percent by weight of amine and at least about 0.001 percent by weight of iodine to said distillate, and (2) a saturated organic amine hydroiodide.

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**2,771,349**
**STABILIZATION OF ORGANIC COMPOUNDS**
**Ralph B. Thompson, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware**
**No Drawing. Application November 23, 1953, Serial No. 393,945**
**19 Claims. (Cl. 44—75)**

1. An organic material normally subject to oxidative deterioration containing from about 0.0001% to about 1% by weight of a 2,7-diamino-1,8-methylenedioxynaphthalene.

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**2,771,350**
**EXPLOSIVE**
**Byron C. Baldridge, East Alton, Ill., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia**
**No Drawing. Application March 25, 1954, Serial No. 418,747**
**6 Claims. (Cl. 52—5.1)**

1. As an article of manufacture, an explosive charge of non-progressive burning single base smokeless powder composed essentially of particles of gelatinized nitrocellulose having a nitrogen content of at least 12.8 percent, said particles having a surface area within the range of from about 100 to about 200 square centimeters per gram thereof with each particle having dimensions that enable it to pass through a screen opening of 0.015 inch and remain on a screen having 0.0075 inch openings, and having a gravimetric density of at least about 0.800.

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**2,771,351**
**PROPELLANT**
**Raymond S. Holmes, Hamden, Conn., and Byron C. Baldridge, East Alton, and John J. O'Neill, Jr., Alton, Ill., and Charles Earnest Silk, Stamford, Conn., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia**
**No Drawing. Application May 10, 1956, Serial No. 583,900**
**28 Claims. (Cl. 52—13)**

1. A propellant having improved ballistic characteristics composed essentially of substantially non-porous extruded nitrocellulose base propellent grains having a surface area of from about 10 square centimeters per gram to about 84 square centimeters per gram thereof, a web of from about 0.015 inch to about 0.07 inch, and having within the region of the grain which extends from each surface thereof not more than about one-sixth of the web of the propellent grain not less than about 3 percent of a deterrent having a heat of explosion constant of less than about —200 calories per gram.

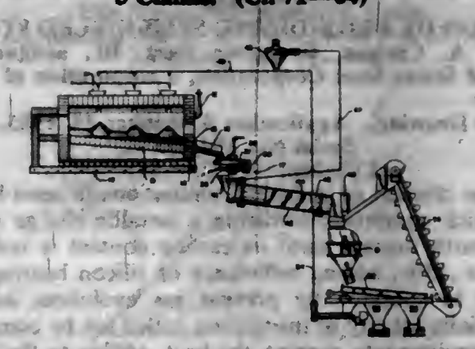
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**2,771,352**
**PROCESS OF PREPARING PROPELLANTS**
**John J. O'Neill, Jr., Roxana, Ill., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia**
**No Drawing. Application September 30, 1953, Serial No. 383,397**
**5 Claims. (Cl. 52—20)**

1. The process of reducing the gravimetric density of hardened symmetrical smokeless powder grains comprising suspending the grains in a two-phase liquid system, a non-solvent for smokeless powder base phase containing a protective colloid and a solvent for the smokeless powder base phase only partially miscible with the first said phase and having non-solvent dissolved therein, until said solvent with its non-solvent solute migrates into the grains and softens them throughout but, simultaneously, maintaining each of the grains in suspension in the non-solvent phase as a discrete body of substantially the same shape as the original grain as it is softened, removing the solvent from the resulting soft bodies thereby hardening them into smokeless powder grains of substantially the same shape and weight but of greater porosity than the original grains, and thereafter separating the hardened grains from the non-solvent phase.

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**2,771,353**
**FUSED POTASH PRODUCT AND METHOD FOR FORMING SAME**
**Emory W. Douglass and Parker S. Dunn, Carlsbad, N. Mex., assignors to Potash Company of America, a corporation of Colorado**
**Application November 16, 1950, Serial No. 196,074**
**3 Claims. (Cl. 71—64)**



1. The process of decreasing the hygroscopicity of potash material comprising at least about 95% potassium chloride mixed with lesser quantities of impurities including sodium chloride or sulfates of potassium, which comprises the steps of fusing such a material and then cooling it to form a solidified material, said cooling including contacting a thin film of the molten material with a cool horizontal metal surface to lower the temperature throughout the material from about its melting point to about 500° C. in not more than about forty seconds and scraping the solidified material from the surface to form a flaked material characterized by the absence of observable crystal structure, low hygroscopicity and reduced caking tendency.

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**2,771,354**
**CONCENTRATION OF IRON ORES**
**Olav Mokkebust, Hauge (Dalane), and Asmar Gjessing Oppegaard, Fredrikstad, Norway, assignors to National Lead Company, New York, N. Y., a corporation of New Jersey**
**No Drawing. Application June 1, 1953, Serial No. 358,982**
**1 Claim. (Cl. 75—33)**

In a process wherein iron ore selected from the types consisting of taconite and hematite is partially reduced by heating at a comparatively low temperature in the presence of a carbonaceous reducing agent and subsequently subjected to magnetic separation to produce an iron concentrate, the steps which comprise crushing said ore to a particle size less than about 50 millimeters, screening said crushed ore to produce a plurality of fine and coarse fractions, removing from the finest fraction by means of a wet classification operation material of less than about 80 mesh particle size, and furnacing said fractions separately in the presence of a carbonaceous reducing agent at temperatures between 950° C. and 1100° C., employing lower temperatures in the lower part of this range for the finest fractions, the less than about 80 mesh material removed from the finest fraction

of crushed ore being dewatered, formed into discrete lumps, the lumps baked at a temperature between 900° C. and 1000° C., and the baked lumps being added to the iron concentrate obtained from treatment of the remaining ore fractions.

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**2,771,355**
**AGGLOMERATING ORES IN THE BLAST FURNACE**
Harry Cohen, Chicago, Ill.
No Drawing. Application December 6, 1954, Serial No. 473,469
6 Claims. (Cl. 75—41)

1. The process of agglomerating iron ore inside the blast furnace which consists of adding to the iron ore being charged into the blast furnace a solution containing from one tenth to ten percent cementing agent and then charging the iron ore and cementing agent into the blast furnace.

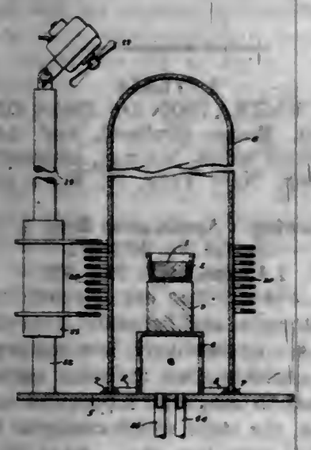
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**2,771,356**
**METHOD OF DEOXIDIZING SEMI-KILLED STEEL**
Willard A. Carlson, Evergreen Park, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
No Drawing. Application September 25, 1953, Serial No. 382,463
2 Claims. (Cl. 75—58)

1. The method of reducing laminations in semi-killed steel which comprises, oxidizing a metallic charge in an open hearth furnace until its carbon content is reduced to .12 to .15%, adding sufficiency of silicon bearing deoxidizer to substantially prevent gas evolution, adding substantially totality of manganese called for by compositional requirements, tapping the heat, adding to the ladle 0.025% to 0.045% silicon in the form of silicon carbide, teeming the heat and treating the metal in the molds with not more than 0.07 pound of aluminum per ton of steel.

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**2,771,357**
**METHOD OF MELTING METAL POWDER IN VACUO**
Donald Wroughton, Verona, N. J., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application July 27, 1944, Serial No. 546,913
10 Claims. (Cl. 75—84.1)



1. The method of refining uranium comprising the steps of melting a mass of impure uranium to concentrate nonvolatile impurities upon the surface of said uranium, allowing the mass to solidify with the impurities so concentrated, raising the temperature of the mass above the melting point of uranium, and straining the melted uranium, thereby separating solid impurities therefrom, while protecting said uranium from reactive gases.

**2,771,358**
**MACHINE ELEMENTS FOR CRUSHERS**
Warren McLellan Speer, Cranford, N. J., assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application July 16, 1954, Serial No. 443,905
6 Claims. (Cl. 75—128)



1. In a machine for crushing solid materials, a crushing element made of chilled martensitic cast iron of the definite chill type having a hard, wear-resistant outer portion and a tough, ductile inner portion containing spheroidal graphite, said cast iron containing about 3.5% to 3.8% carbon, about 0.9% to 1.1% silicon, about 4.5% to 4.8% nickel, about 0.5% to 0.7% chromium, about 0.2% to 0.6% manganese and a small amount up to about 0.09% magnesium effective to contorl the occurrence of graphite in said crushing element in a spheroidal form, and the balance essentially iron.

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**2,771,359**
**RARE EARTH MASTER ALLOYS**
Simon J. Meraza, Reading, Pa., assignor to The Beryllium Corporation, Reading, Pa., a corporation of Delaware
No Drawing. Application March 24, 1955, Serial No. 496,595
1 Claim. (Cl. 75—170)

The method of preparing a master alloy suitable for subsequent alloying with other metal or metals, wherein the master alloy contains a rare earth, magnesium and nickel, which comprises melting approximately 500 parts by weight of magnesium and adding thereto approximately 2000 parts by weight of nickel, maintaining the nickel-magnesium alloy at a temperature in the range of approximately 1233° C. to 1343° C. while adding thereto approximately 1313 parts by weight of a rare earth fluoride.

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**2,771,360**
**COBALT BASE ALLOY**
Vincent T. Malcolm, Indian Orchard, Mass., assignor to The Chapman Valve Manufacturing Company, Indian Orchard, Springfield, Mass., a corporation of Massachusetts
No Drawing. Application September 22, 1954, Serial No. 457,787
1 Claim. (Cl. 75—171)

A cobalt base alloy having excellent stress rupture characteristics at a temperature of 1500° F., said alloy consisting essentially as follows: 0.20–0.50% by weight of carbon, 0.40–1.00% by weight of manganese, 0.20–0.40% by weight of silicon, 25.00–35.00% by weight of chromium, a maximum of 4.00% by weight of nickel, 4.00–6.00% by weight of molybdenum, a maximum of 2.00% by weight of iron, 2.00–4.00% by weight of tantalum, and a balance of cobalt.

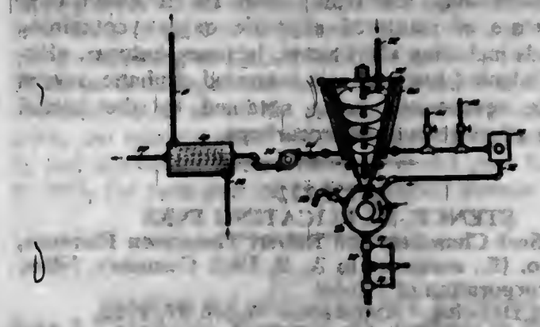
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**2,771,361**
**DEFIBRATION PROCESSES**
Clarence Birdseye, Gloucester, and Harold D. Stuck, Andover, Mass., assignors, by mesne assignments, to Process Evaluation and Development Corporation, New York, N. Y., a corporation of Delaware
Application December 7, 1951, Serial No. 260,352
3 Claims. (Cl. 92—1)

1. In a continuous defibrating process, the steps of freeing a mass of digested vegetable fibre by compression from excess digestant solution and introducing the mass



as press cake into a confined space containing hot water, breaking up the press cake by stirring and meanwhile



subjecting the aqueous mixture to superatmospheric pressure.

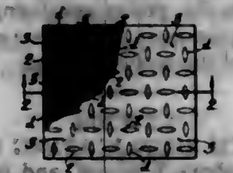
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**2,771,362**
**CELLULOSE FIBROUS PRODUCTS CONTAINING POLYMERS OF VINYLOXYETHYLUREA AND METHOD OF PRODUCING THEM**
Vincent J. Moser, Oreland, and Sidney Melamed, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application February 9, 1954, Serial No. 409,255
11 Claims. (Cl. 92—3)

1. As a new article of manufacture, a fibrous product comprising cellulosic fibers and having incorporated in the body thereof an initially water-soluble polymer selected from the class consisting of homopolymers of vinyloxyethylurea and copolymers of vinyloxyethylurea with 4-vinyl pyridine.

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**2,771,363**
**PAPER WEB WITH A SIMULATED WOVEN TEXTURE**
James Fish, Erving, Mass., assignor to The Paterson Parchment Paper Company, Bristol, Pa., a corporation of Pennsylvania
Application March 3, 1949, Serial No. 79,457
5 Claims. (Cl. 92—3)

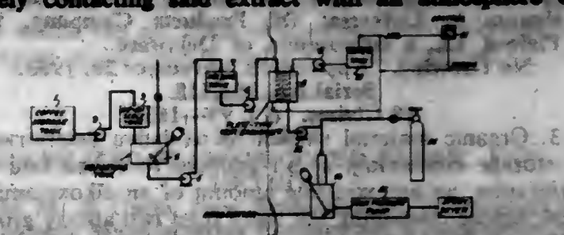


1. As a new article of manufacture, a paper web wherein the interfelted relation of the component fibers is continuous throughout said web being of basis weight materially exceeding that of tissue and having a substantially uniform pattern of small areas of tissue-like thinness, said areas constituting collectively a minor part of the total area of that portion of the web in which they occur and each being entirely surrounded by an area of greater thickness, and the said thicker areas being interconnected and constituting the continuous strength conferring portion of the web.

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**2,771,364**
**CARBONATION OF COFFEE EXTRACT**
Fletcher A. Chase, Morris Plains, and George E. Lauraon, West Orange, N. J., assignors to American House Products Corporation, New York, N. Y., a corporation of Delaware
Application June 11, 1954, Serial No. 436,124
2 Claims. (Cl. 99—71)

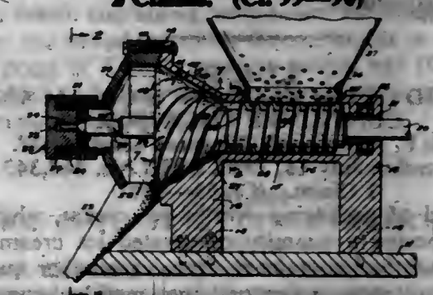
1. In a process of producing soluble solid coffee extract in which a highly concentrated aqueous coffee extract containing up to 58 percent soluble coffee solids is spray dried, the improvement which comprises absorbing carbon dioxide to saturation in said aqueous extract by intimately contacting said extract with an atmosphere of



carbon dioxide at an elevated temperature below the boiling point of the extract and at superatmospheric pressure in the range 15–150 lb. p. s. i. g., and then feeding the extract at a much higher pressure to a spray drier.

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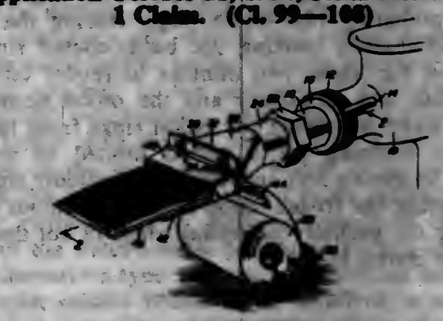
**2,771,365**
**METHOD OF MAKING BREAD FROM GRAIN KERNELS**
Nathan D. Mininberg, Stamford, Conn., assignor to Ella Mininberg, Stamford, Conn.
Application March 23, 1951, Serial No. 217,094
2 Claims. (Cl. 99—90)



1. A method of making bread from grain kernels, comprising selecting sliced and flattened kernel segments in which each of the latter is composed of several of the various portions of the grain kernels so that said segments will not be characterized by the physical characteristics of any single kernel portion, adding yeast to said segments in the ratio of approximately 6 parts of yeast to 100 parts of segments by weight, adding water to the yeast and segments and mixing them to form a dough, and then initiating a baking operation before substantial fermentation of the yeast in said dough commences.

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**2,771,366**
**METHOD OF PREPARING A MEAT PRODUCT**
Hollum B. Shadid, Oklahoma City, Okla.
Application October 11, 1954, Serial No. 461,398
1 Claim. (Cl. 99—108)



The method of preparing a cohesive strip of ground meat product from lean beef and connective tissues, said method including the steps of grinding lean beef and connective tissues, chilling the ground meat product until the ground connective tissues turn gelatinous, regrinding the chilled meat product, compressing the meat product while providing said ground meat product with longitudinal serrations so as to interweave the fibers of the ground meat thereby forming a cohesive ground meat product.

2,771,367
STABILIZATION OF ORGANIC COMPOUNDS
Ralph B. Thompson and Tol Symon, Hinsdale, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application November 20, 1953, Serial No. 393,518
18 Claims. (Cl. 99—163)

3. Organic material subject to oxidative deterioration in storage containing, as an additive to retard said deterioration, an antioxidizing amount of an alkoxy-aminonaphthalene containing not more than two alkoxy groups and not more than two amino groups.

2,771,368
STABILIZATION OF ORGANIC COMPOUNDS
Ralph B. Thompson, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application November 20, 1953, Serial No. 393,517
17 Claims. (Cl. 99—163)

1. An organic material normally subject to oxidative deterioration containing an antioxidizing amount of a 3,4,5-trialkoxyaniline.

2,771,369
METHOD OF PACKAGING ICE CREAM AND CONTAINER THEREFOR
Merle F. Allerheugh, Newport Beach, Calif.
Application July 16, 1953, Serial No. 368,343
1 Claim. (Cl. 99—180)

A method of packaging aerated ice cream, which includes: disposing a quantity of aerated ice cream in a first open-mouthed container; disposing another quantity of aerated ice cream in a second open-mouthed container, with said ice cream in said first and second containers abutting against one another in a common contacting face and said containers cooperating to form a unified confined space of normally fixed volume; and said first and second containers when moved inwardly relative to one another, reducing the volume of said confined space to increase the density of said aerated ice cream as a portion of the air is expelled therefrom.

2,771,370
FRENCH FRIED ONION RINGS AND THE METHOD OF MAKING SAME
Clyde H. Allen, Albion, Mich.
No Drawing. Application September 30, 1954, Serial No. 459,511
4 Claims. (Cl. 99—193)

1. The method of preparing fried onion rings, which comprises preparing raw onion rings, coating the rings with a thick batter, cooking the batter-coated rings in hot deep fat for about two minutes to render only the batter cooked and non-sticky and the onion rings only partially cooked, removing the onion rings from the hot fat, quickly draining for a period limited to prevent same from becoming soft and sticky, and rapidly freezing same, removing the frozen onion rings and without thawing cooking the partially precooked rings in hot deep fat until golden brown in color.

2,771,371
ANTI-RUST OILS
Edgar A. Dieman, Crown Point, and Philip H. Ravenscroft, Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application September 23, 1952, Serial No. 311,142
6 Claims. (Cl. 106—14)

4. A composition for preventing rust formation on ferrous metal surfaces which are normally exposed to atmospheric air and moisture, which composition consists essentially of a phenol extract of a petroleum oil of lubricating oil viscosity, from about 1% to about 30% of mahogany soap, and from about 1% to about 10% of a mixture of saturated aliphatic oxygen containing compounds including alkyl esters, lactones, ketones, alcohols, and alcohol ketones, said saturated aliphatic oxygen containing compounds being obtained by the partial oxidation of petroleum hydrocarbons.

2,771,372
STENCIL DUPLICATING INKS
Thomas Seal Chambers and Robert Thompson Florence, Chicago, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois
No Drawing. Application March 27, 1952, Serial No. 278,948
3 Claims. (Cl. 106—22)

1. A stencil duplicating ink consisting essentially of water as diluent, a tinctorial agent present in sufficient quantity to impart legibility to the copy, a water soluble alkylene glycol polymer present in an amount within the range of 30–60 percent by weight having a molecular weight greater than 1000 selected from the group consisting of a polyethylene glycol and a polypropylene glycol for bodying the ink composition and to provide an adherent base upon drying, and a liquid polyhydric alcohol present in an amount up to 40 percent by weight.

2,771,373
STENCIL DUPLICATING INKS
Thomas Seal Chambers, Chicago, and Robert Thompson Florence, Park Ridge, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois
No Drawing. Application March 27, 1952, Serial No. 278,947
4 Claims. (Cl. 106—24)

1. A stencil duplicating ink consisting essentially of more than 50 percent by weight of water as the principal diluent, from 3–15 percent by weight of a tinctorial agent, from 3–15 percent by weight of a protein dissolved in the aqueous medium to body the ink composition and to provide an adherent base upon drying, a liquid polyhydric alcohol present in an amount up to 40 percent by weight, 0.2–2 percent by weight of a wetting agent, and an aldehyde selected from the group consisting of glyoxal and pyruvic aldehyde present in amounts ranging from 5–20 percent by weight of the bodying agent.

2,771,374
STENCIL DUPLICATING INKS
Thomas Seal Chambers, Chicago, and Robert Thompson Florence, Park Ridge, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois
No Drawing. Application March 27, 1952, Serial No. 278,946
6 Claims. (Cl. 106—25)

1. A stencil duplicating ink consisting essentially of more than 50 percent by weight water as the principal diluent, from 3–15 percent by weight of a tinctorial agent, from 0.5–30 percent by weight of a polysaccharide dissolved in the aqueous medium to body the ink composition and to provide an adherent base upon drying, and a liquid polyhydric alcohol present in an amount up to 40 percent by weight of the ink composition.

2,771,375
GLASS-LIKE COMPOSITION AND METHOD FOR MAKING THE SAME
Robert W. Forsher, Metuchen, N. J., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application August 26, 1952, Serial No. 306,498
3 Claims. (Cl. 106—49)

1. In a $TiO_2$ opacified vitreous enamel composition prepared by maturing a mixture of a frit composition and $TiO_2$ as an opacifying agent, said frit composition containing from 45 to 65 percent $PbO$, from 20 to 40 percent $SiO_2$, from 0 to 8 percent alkali selected from the group consisting of $Li_2O$, $Na_2O$, $K_2O$ and mixtures thereof, from 0 to 8 percent $B_2O_3$, and from 0 to 9 percent dissolved $TiO_2$, all of the percentages being weight percents, the improvement which consists in having present in said frit composition from 0.01 to 0.1 part by weight of $P_2O_5$ for each part of $PbO$ contained therein.



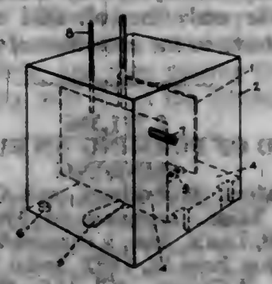
2,771,376
LINING OF REFRACTORY VESSELS
John J. Capellman, Tarentum, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
No Drawing. Application May 8, 1952, Serial No. 286,985
6 Claims. (Cl. 106—57)

1. A lining paste for lining glass tank bottom refractory blocks which consists of water and a mixture of zirconium silicate and sodium silicate, said zirconium silicate having a maximum particle size of about 100 mesh and constituting 90 to 99% by weight of the mixture of zirconium silicate and sodium silicate, said paste having a dry press consistency.

2,771,377
THERMOPLASTIC COMPOSITIONS OF WATER-SOLUBLE CELLULOSE ETHERS
George K. Greminger, Jr., Midland, and Miles A. Weaver, Ithaca, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application November 25, 1953, Serial No. 394,478
7 Claims. (Cl. 106—186)

1. A thermoplastic composition consisting of from 5 to 80 percent of a water-soluble cellulose ether selected from the group of alkyl cellulose, hydroxyalkyl cellulose, and alkyl hydroxyalkyl cellulose in which the alkyl group contains from 1 to 3 carbon atoms and the hydroxyalkyl group contains from 2 to 3 carbon atoms, and correspondingly from 95 to 20 percent of an amine selected from the group consisting of monoethanolamine, monoisopropanolamine, and triethylene tetramine.

2,771,378
METHOD OF PRODUCING MAR RESISTANT SURFACES ON THERMOPLASTIC MATERIALS
Theodore J. Motter, Lemoyne, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application April 17, 1952, Serial No. 282,789
8 Claims. (Cl. 117—47)



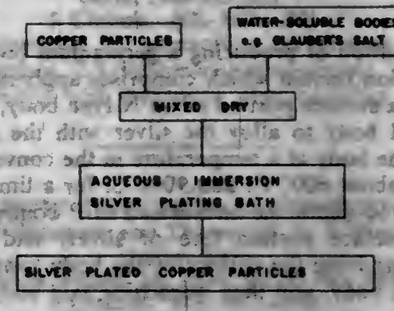
1. The method of applying a mar resistant surface to a thermoplastic material formed of polymethylmethacrylate which comprises exposing the surface of polymethylmethacrylate to vapors of a suitable volatile organic solvent which will not craze said surface and subsequently to vapors of the solvent and silicon tetrachloride.

2,771,379
STABILIZED-FLAMEPROOFED FABRIC AND METHOD
Mario M. di Dario, New Brunswick, N. J., assignor to Chicopee Manufacturing Corporation, a corporation of Massachusetts
Application December 30, 1952, Serial No. 328,554
10 Claims. (Cl. 117—76)



1. A fabric containing ammonium sulfamate as flame retarder and mixed therewith dicyandiamide in an amount in the range of 5 to 50 parts by weight per 100 parts of ammonium sulfamate sufficient to stabilize substantially said ammonium sulfamate.

2,771,380
METHOD OF PLATING COPPER PARTICLES WITH SILVER
Joseph J. Coleman and Emil M. Dittman, Freeport, Ill., assignors to Burgess Battery Company, Freeport, Ill., a corporation of Delaware
Application August 2, 1954, Serial No. 447,409
8 Claims. (Cl. 117—227)




1. The method of plating copper particles with silver which comprises dry mixing said copper particles with discrete water-soluble bodies whereby said copper particles become attached to the surfaces of said water-soluble bodies, said water-soluble bodies being of a size substantially larger than that of said copper particles and the volume of the water-soluble bodies being greater than that of the copper particles and being sufficient that the copper particles are in dispersed condition on the surfaces of the water-soluble bodies, immersing said mixture in an immersion type aqueous silver plating bath, causing said water-soluble bodies to be dissolved in said plating bath, and separating the resulting silver plated copper particles from said plating bath.

2,771,381
DRY CELL
Clarence K. Morehouse, Princeton, N. J., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application September 30, 1953, Serial No. 383,391
2 Claims. (Cl. 136—138)

1. In the manufacture of a depolarizer mix for dry

cells, the improvement which comprises intermixing with



said depolarizer a cation exchange resin in its acid condition.

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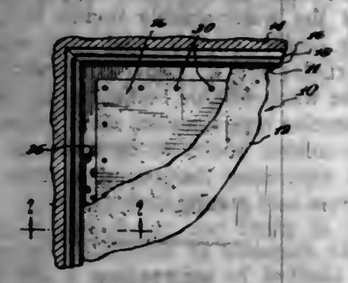
2,771,382
METHOD OF FABRICATING SEMICONDUCTORS FOR SIGNAL TRANSLATING DEVICES
Calvin S. Fuller, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 12, 1951, Serial No. 261,277
1 Claim. (Cl. 148—1.5)



The method of producing a germanium body having a PN junction therein which comprises applying a layer of silver to a surface portion of an N-type body, heating the layer and body to alloy the silver with the germanium, heating the body at a temperature in the conversion range between about 600° C. and 900° C. for a time to control to a desired depth the conversion to P conductivity type of the surface portion free of silver, said conversion progressing from the surface of the body toward the center of the body, and then quenching said body.

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2,771,383
COMBINATION FLOOR COVERING
Robert Fine, Chicago, Ill.
Application January 26, 1954, Serial No. 406,190
4 Claims. (Cl. 154—49)



4. In a readily removable floor covering, comprising a light-weight unstiffened carpet and a sponge rubber pad, said carpet overlaying said pad; a plurality of multi-membered fastening devices mounted in intermittent spaced relationship one with the other along the marginal edges of the carpet and pad, said fastening devices adapted to join said carpet and pad in cooperating relationship whereby the pad imparts stiffness to the carpet, each of said fastening devices comprising a grommet affixed in the marginal edges of the carpet, an apertured disc affixed in the marginal edge of the pad, and a tie string joining the grommet and disc together in operational relationship.

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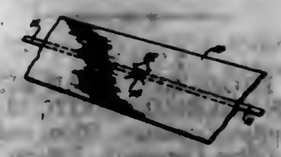
2,771,384
PROTECTIVE MATERIAL
William J. Collins, Newton, Mass., assignor to Victory Plastics Co., Hudson, Mass., a corporation of Massachusetts
Application January 31, 1955, Serial No. 484,947
3 Claims. (Cl. 154—52.5)



1. A protective structure comprising a multiplicity of layers of fabric bonded together along straight and parallel lines in staggered relation with a given intermediate layer being bonded to the layer next above it along lines substantially midway between the lines along which the said intermediate layer is bonded to the layer next below, thereby forming pockets between the said layers disposed in staggered relation, the said bond lines being substantially narrower than the distance between the same on each side of each layer whereby said pockets substantially overlap, and overlapping inserts of hard sheet material located in the outer series only of said pockets and cushioned by the inner layers of the structure.

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2,771,385
PRESSURE-SENSITIVE AND REMOISTENING DRAW TAPE
Ferdinand W. Humphner, River Forest, Ill., assignor to Mid-States Gummed Paper Co., Chicago, Ill., a corporation of Delaware
Application August 26, 1954, Serial No. 452,251
15 Claims. (Cl. 154—53.5)



1. Tear tape, comprising a tape body formed of rupturable material, adhesive on the underside of said tape, and a tear-filament extending longitudinally of the underside of said tape and united thereto, said filament being slit from side to side along a line of severance extending through said tape and part way thereacross at a point intermediate the ends thereof, said tape and filament being non-adhesive in the area thereof at said slit.

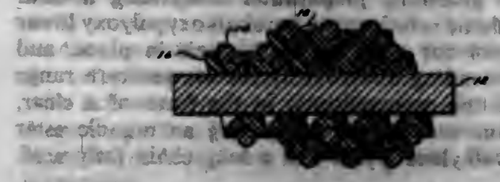
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2,771,386
METHOD OF FORMING AN ELECTRICAL WINDING
Edmund H. Merz, Wilbraham, and George E. Urban, Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application June 14, 1952, Serial No. 293,552
3 Claims. (Cl. 154—80)

1. A method for preparing an electrical winding including a core and an electrically conductive winding having a partially insulated and a partially exposed electrical conductor, which comprises the steps of completely surrounding the electrical conductor with an insulating



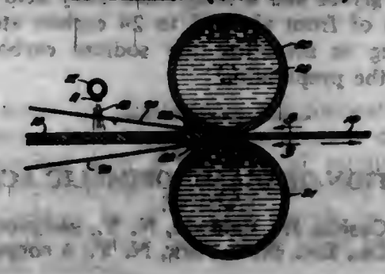
plastic composition of from about 10% to 30% by weight of a copolymer of a monovinylidene aromatic hydrocarbon with a conjugated diene and from 70% to 90% by weight of a polymerized monovinylidene hydrocarbon, hardening said composition, then winding the thus coated electrical conductor about a core, splitting the insulation surrounding the electrical conductor into a



radially outer half and a radially inner half as said conductor is initially bent around said core, and removing the radially outer half of said insulation from the wound core, said monovinylidene hydrocarbon being taken from the group consisting of styrene, side-chain substituted alkyl styrene, and ring-substituted alkyl and chlorostyrene.

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2,771,387
BITUMINOUS TREATED GLASS FIBER STRUCTURES AND METHODS OF PRODUCING THEM
Dale Kiefer, William K. Sidwell, and Ralph J. Reed, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware
Application November 21, 1951, Serial No. 257,662
13 Claims. (Cl. 154—93)



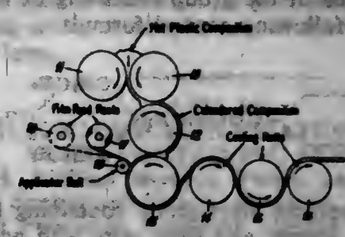
1. A composition of matter comprising a porous fabric of glass wool fibers, a bituminous compound impregnating the fabric and coating the surfaces thereof, and a plurality of glass fiber strands in closely spaced apart relation embedded within the coating of the bituminous compound.

4. The method of manufacturing a glass fiber fabric impregnated with bituminous material comprising the steps of heating a bituminous composition ordinarily solid at room temperature to fluid condition, applying the hot melt of bituminous material to a porous fabric of glass wool fibers in sufficient quantity to fill the pores of the fabric and provide a generous coating, passing the fabric with the bitumen through squeeze rolls while the bituminous composition is still in flowable form whereby puddles of bituminous material are formed at the nip, feeding a plurality of strands of continuous fibers in closely spaced apart parallel relation through the puddles and then between the squeeze rollers whereby they are fully wetted by the bituminous composition and embedded within the coating of the fabric, and then passing the impregnated mass about cooling rolls to set the bituminous material.

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2,771,388
METHOD OF LAMINATING LAYERS OF THERMOPLASTIC FOIL
Joseph F. Rocky, Union, and Frank E. Nicol, Plainfield, N. J., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application June 18, 1953, Serial No. 362,549
3 Claims. (Cl. 154—102)

1. A method for continuously preparing a homogeneous sheet comprising laminated thermoplastic foils which comprises charging a heated thermoplastic composition to the bight between two heated rolls of a calender, calendering said thermoplastic composition to a thermoplastic foil, said foil being in a heated tacky condition and adhering directly to the surface of the last heated calender roll after passage through a bight formed in part by said last calender roll, applying a previously prepared thermoplastic foil against said heated tacky thermoplastic foil after said heated tacky thermoplastic foil has passed through said bight formed in part by said



last heated calender roll and while said heated tacky thermoplastic foil remains adhered directly to and travels with the surface of said last heated calender roll, said previously prepared thermoplastic foil becoming fused to said heated tacky thermoplastic foil to form a homogeneous sheet while said heated tacky thermoplastic foil remains adhered directly to and travels with the last heated calender roll and thereafter removing said formed homogeneous sheet of fused thermoplastic foils from said last heated calender roll.

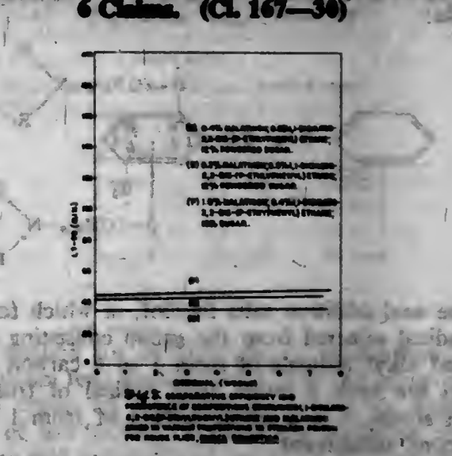
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2,771,389
COMPOSITION FOR CONTROLLING GROWTH OF FUNGI COMPRISING DICHLORONAPHTHAQUINONE AND BENTONITE SULFUR
Harry W. Dye, Medina, N. Y., assignor to Food Machinery and Chemical Corporation, San Jose, Calif.
No Drawing. Application July 31, 1951, Serial No. 239,633
5 Claims. (Cl. 167—20)

1. A composition for controlling the growth of fungi which comprises 2,3-dichloronaphthaquinone in minor amount blended with bentonite clay carrying colloidal sulfur.

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2,771,390
SYNERGISTIC INSECTICIDAL COMPOSITIONS
Byron Williamson and Thurmond A. Williamson, Dallas, Tex.
Application August 12, 1954, Serial No. 449,342
6 Claims. (Cl. 167—30)



4. A stomach poison for insects including 1,1-dichloro-2,2-bis(p-ethylphenyl)ethane, a residual type bait, and another substance selected from the group consisting of O,O-dimethyl dithiophosphate of diethyl mercaptosuccinate and O,O-diethyl-O-[2-isopropyl-4-methyl pyrimidyl (6)] thiophosphate.

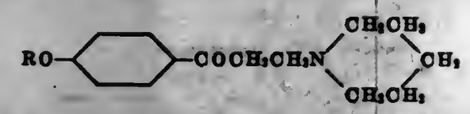
2,771,391

## PHYSIOLOGICALLY ACTIVE p-ALKOXY-BETA-PIPERIDINOPROPIOPHENONES CAUSING CNS DEPRESSANT AND ANESTHETIC EFFECTS IN ANIMALS

Earl R. Bockstahler, Indianapolis, Ind., assignor to Allied Laboratories, Inc., Kansas City, Mo., a corporation of Delaware

No Drawing. Application August 28, 1953, Serial No. 375,548
8 Claims. (Cl. 167—53)

1. A compound of the group consisting of those represented by the following general formula:



where R represents an alkyl group containing from two to eight carbon atoms, and their salts with acids being substantially free from impurities and being characterized in that they possess the physiological ability to exert a local anesthetic effect, an epidural anesthetic effect in domestic animals and the ability to control the canine tremor-rigidity syndrome.

2,771,392

## CARBOMYCIN COMPLEXES

Fred W. Tanner, Jr., and Thomas M. Lees, Baldwin, N. Y., and John B. Routien, Tenafly, N. J., assignors to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 6, 1953, Serial No. 347,152
6 Claims. (Cl. 167—65)

1. A complex of a carbomycin antibiotic selected from the class consisting of carbomycin A and carbomycin B with a compound selected from the class consisting of a liquid aromatic hydrocarbon and chlorobenzene.

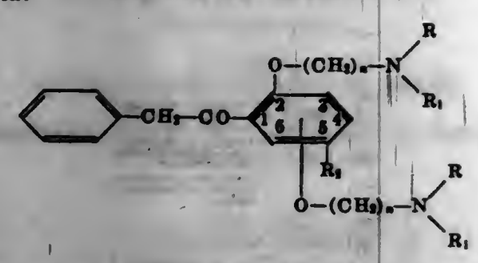
2,771,393

## NEW DERIVATIVES OF DESOXYBENZOINS AND THE PROCESS OF PREPARING THEM

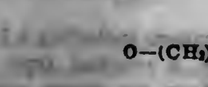
David Libermann and Maurice Moyeux, Paris, France, assignors to Chimie et Atomistique, Paris, France, a French body corporate

Application July 27, 1953, Serial No. 370,518
12 Claims. (Cl. 167—65)

1. New derivatives of desoxybenzoins selected from the group consisting of the compounds having the general formula:



and the acid addition salts thereof, in which formula $R_2$ is a radical selected from the group consisting of hydrogen and alkyl radicals of from 1 to 6 carbon atoms, R and $R_1$ are each a lower alkyl radical of from 1 to 4 carbon atoms, $n$ is a whole integer of from 1 to 3, and the second substituent



is in a position selected from the positions consisting of 4 and 6.

2,771,394

## HAIR GROOMING PREPARATION

Robert James Mahaffey, River Edge, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware

No Drawing. Application July 10, 1953, Serial No. 367,345
8 Claims. (Cl. 167—87)

1. A hair grooming preparation comprising a clear aqueous-alcoholic solution of a lower alkoxypolyoxy lower alkylene glycol for maintaining the hair in place, and means for extending downwardly the temperature range within which the preparation is in the form of a clear, stable solution, said means comprising an organic ester of a polyoxyalkylene glycol and a long chain fatty acid.

2,771,395

## AQUEOUS ALCOHOLIC HAIR GROOMING PREPARATION EMPLOYING SODIUM CARBOXYMETHYL CELLULOSE

Robert James Mahaffey, River Edge, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware

No Drawing. Application June 29, 1953, Serial No. 364,918
6 Claims. (Cl. 167—87)

1. A clear liquid hair grooming preparation comprising an aqueous alcohol mixture of sodium carboxymethyl cellulose, an ester formed from a polyoxyalkylene glycol and a long chain fatty acid having a chain length of from about 8 to 24 carbon atoms, and an ester formed from an alkylene glycol and a long chain fatty acid having a chain length of from about 8 to 24 carbon atoms, said esters serving to solubilize the sodium carboxymethyl cellulose in the preparation.

2,771,396

## PREPARATION OF DIAMINOPIMELIC ACID AND LYSINE

Lester Earl Cascio, Jr., Baldwin, N. Y., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 9, 1955, Serial No. 551,987
11 Claims. (Cl. 195—30)

1. A process for the preparation of lysine which comprises the steps: (*a*) fermenting on a nutrient medium comprising glycerol and cornsteep liquor under submerged, aerobic conditions with a mutant of *E. coli* which requires lysine for its growth and lacks the enzyme diaminopimelic acid decarboxylase, while maintaining the pH of the medium near neutrality, and (*b*) treating diaminopimelic acid with the enzymes produced by an organism selected from the group consisting of *A. aerogenes*, and those strains of *E. coli* which do not require lysine for their growth.

2,771,397

## ANTIBIOTIC AND METHOD FOR PRODUCING IT BY BACILLUS POLYMYXA

Robert G. Benedict and Frank H. Stodola, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application March 3, 1950, Serial No. 147,576
4 Claims. (Cl. 195—96)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of producing polymyxin comprising cultivating *Bacillus polymyxa* in an aqueous medium comprising a proteinaceous material and in the presence of not more than 4 percent of an assimilable carbon source, continuing said cultivation until substantially maximum yield of polymyxin is produced in the medium, substantially immediately thereafter separating the cells from the liquor and isolating the antibiotic from the cell-free liquor, said separation and isolation being carried out after not more than five days of fermentation.



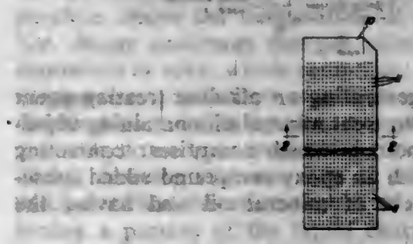
2. A process of producing polymyxin D comprising cultivating *Bacillus polymyxa* NRRL B-698 in an aqueous medium comprising a proteinaceous material and in the presence of not more than 4 percent of an assimilable carbon source, continuing said cultivation until substantially maximum yield of polymyxin is produced in the medium, substantially immediately thereafter separating the cells from the liquor, contacting the cell-free liquor with active carbon and removing the adsorbed antibiotic from the carbon by elution, said separation and isolation being carried out after not more than five days of fermentation.

2,771,398

## METHOD AND APPARATUS FOR COUNTING MICROORGANISMS

Thomas L. Sayder, Frederick, Md., assignor to the United States of America as represented by the Secretary of the Army

Application September 17, 1953, Serial No. 380,888
2 Claims. (Cl. 195—103.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A device for determining the concentration of microorganisms in a liquid which consists of a slab-like form provided with a plurality of relatively uniform openings therethrough; said openings being of a capillary size for holding liquid samples therein by capillary attraction; said slab-like form being made of polymerized tetra-fluoro ethylene.

2,771,399

## PROCESS AND APPARATUS FOR DETERMINING BIOLOGICAL POTENCY OF A SUBSTANCE IN A LIQUID SUBSTRATE

George M. Savage, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

Application October 12, 1954, Serial No. 461,864
27 Claims. (Cl. 195—103.5)



1. A process for determining the growth-affecting potency of a plurality of liquid media with respect to a selected test organism comprising the steps: arranging said liquid media in a plurality of separate containers, simultaneously transferring equal quantities of liquid media from said plurality of containers to a transfer media and then depositing same from said transfer media in a predetermined pattern on a solid substrate seeded with said test organism and then subjecting said solid substrate to conditions favorable to the growth of said test organism.

21. In a device for inverting a plurality of liquid carrying containers simultaneously onto an absorbent sheet, the combination comprising: a base member; a horizontal shaft extending from said base member; a backboard supported on said shaft and rotatably related to said base member; a bottom platform extending from said backboard at the lower end thereof and a pair of upright positioning pins extending upwardly from each end respectively of said bottom platform; a tray for holding said containers on said platform; a member extending from said backboard in the same direction as said platform and spaced therefrom, a pressure plate and means supporting said pressure plate at adjustable distances from said platform.

2,771,400

## CATALYTIC DESULPHURISATION OF MOTOR FUELS CONTAINING BENZOLE

Frederick William Bertram Porter and John Welford Hyde, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

No Drawing. Application May 27, 1953, Serial No. 357,882
Claims priority, application Great Britain June 5, 1952
2 Claims. (Cl. 196—28)

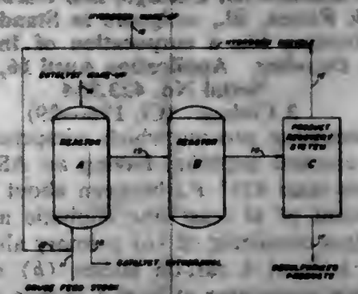
1. A process for the catalytic desulphurisation of benzole which comprises passing the benzole in vapour form at a space velocity of 0.5–3.0 v./v/.hr. and in admixture with hydrogen over a sulphur-resistant dehydrogenation-hydrogenation catalyst consisting of the oxides of cobalt and molybdenum supported on alumina at a selected temperature within the range 750–800° F. and a selected pressure within the range 100 p. s. i. ga. and equilibrium pressure, the selected temperature and pressure being correlated so that the dehydrogenation of naphthenes contained in the benzole is effected to an extent not substantially in excess of that required to produce sufficient hydrogen to convert the organically combined sulphur in the benzole into hydrogen sulphide and to maintain the vapour phase in the reaction zone, a hydrogen-rich gas being separated from the treated benzole and recycled to the reaction zone at the rate of 2000–10,000 S. C. F./B. to constitute the whole of the hydrogen supplied to said zone.

2,771,401

## DESULFURIZATION OF CRUDE OIL AND CRUDE OIL FRACTIONS

George R. L. Shepherd, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application August 5, 1954, Serial No. 447,993
2 Claims. (Cl. 196—28)

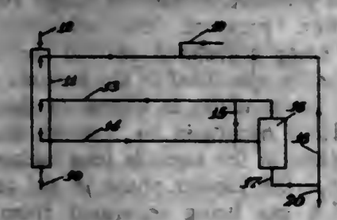


2. A method for desulfurizing a naphthenes-containing petroleum feed stock selected from the group of crude oils and crude oil fractions containing an appreciable amount of ash-forming constituents including the steps of heating said selected feed stock to a temperature within the range of 700° to 850° F. whereby at least a substantial portion of said feed stock is vaporized, contacting said heated feed stock at a temperature within said range in a first catalytic zone with a spent silica-alumina cracking catalyst in the presence of hydrogen in an amount of 2 to 40 moles per mol of oil, a pressure in the range of 0 to 500 pounds per square inch gauge and a feed rate

within the range of 0.5 to 20 volumes of liquid feed per volume of said spent catalyst per hour, removing the effluent from said catalytic zone and contacting it in a second catalytic zone with a gamma alumina-supported sulf-active hydrogenation catalyst at a temperature within the range of 700 to 850° F., a hydrogen ratio of 2 to 20 moles per mol of oil, a pressure within the range of 0 to 500 pounds per square inch gauge and a feed rate in the range of 0.2 to 10.0 volumes of liquid feed per volume of catalyst per hour, removing effluent from said second catalytic zone and recovering a desulfurized oil product, said sulf-active hydrogenation catalyst being selected from the class consisting of oxides and sulfides of V, Cr, Mn, Fe, Co, Ni, Mo and W, said first catalytic zone being maintained at a temperature within the range of 30° to 60° greater than the temperature of the second catalytic zone whereby at least a portion of said naphthenes are dehydrogenated, whereby hydrodesulfurization is maximized and whereby hydrocracking is minimized.

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**2,771,402**
**HYPOCHLORITE PROCESS FOR THE TREATMENT OF PETROLEUM DISTILLATES**
Stanley Francis Birch, Thomas Vernon Cullum, and Ronald Alfred Dean, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited
Application May 13, 1953, Serial No. 354,686
Claims priority, application Great Britain May 14, 1952
6 Claims. (Cl. 196—29)



1. A process for the treatment of a petroleum distillate boiling up to the end of the gas oil range, comprising treating the distillate with a hypochlorite solution, contacting the treated distillate countercurrently with a mixture consisting essentially of methanol and a caustic alkali solution, said caustic alkali solution having a strength of between 0.5% and 50% w./w., and then treating the distillate with caustic alkali solution alone.

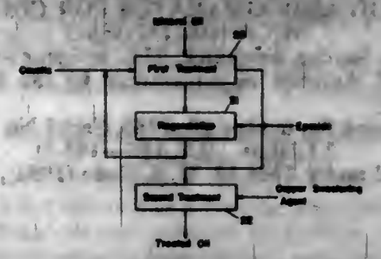
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**2,771,403**
**AIR-CAUSTIC SWEETENING**
Mathew L. Kalinowski, Chicago, and Garbis H. Megerian, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application April 16, 1954, Serial No. 423,834
3 Claims. (Cl. 196—29)

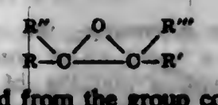
1. A sweetening process which comprises (1) adding to a sour cracked naphtha, having an ASTM endpoint of not more than 425° F., between about 0.001 and 10 weight percent of at least one aliphatic amine selected from the class consisting of (*a*) primary aliphatic amines containing at least 8 carbon atoms, (*b*) secondary aliphatic amines containing at least 5 carbon atoms in each aliphatic group, and (*c*) tertiary aliphatic amines containing at least 3 carbon atoms in each aliphatic group, (2) contacting said amine-containing sour naphtha with (i) an aqueous treating agent consisting essentially of water, caustic and alkylphenols, said agent containing at least about 5 weight percent of free caustic, at least about 2 volume percent of alkylphenols and no plumbite, said agent being present in an amount between about 10 and 200 volume percent, based on said amine-containing sour naphtha, (ii) free oxygen in an amount between about 0.2 and 2 standard cubic feet per barrel of said amine-containing sour naphtha and (iii) free sulfur in an amount to render said amine-containing sour naphtha essentially sweet to the Doctor test, (3) maintaining the contents of said contacting zone of step 2 at a temperature between about 80° F. and about 200° F. for a time at least sufficient to convert essentially all the mercaptans in the sour naphtha and to produce an essentially sweet naphtha and (4) separating an essentially sweet amine-containing naphtha from aqueous agent.

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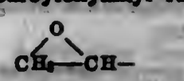
**2,771,404**
**PETROLEUM REFINING**
James L. Jezl, Swarthmore, and Abraham Schneider, Philadelphia, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application August 5, 1954, Serial No. 448,110
12 Claims. (Cl. 196—32)



1. Method for regenerating an alkaline treating agent which has been used to treat mineral oil containing objectionable sulfur compounds which comprises: contacting said treating agent with an epoxy compound added subsequent to the treatment of mineral oil and having the formula:



where R is selected from the group consisting of hydrogen, halogen radicals, hydrocarbon radicals having 1 to 5 carbon atoms, hydrocarbyloxyalkyl radicals, and



radicals, and where R', R'', and R''' are each selected from the group consisting of hydrogen, hydrocarbon radicals having 1 to 5 carbon atoms, and halogen radicals, the amount of said epoxy compound and the time of said contacting being sufficient to provide substantial conversion by the epoxy compound of reaction products of said sulfur compounds with constituents of said treating agent.

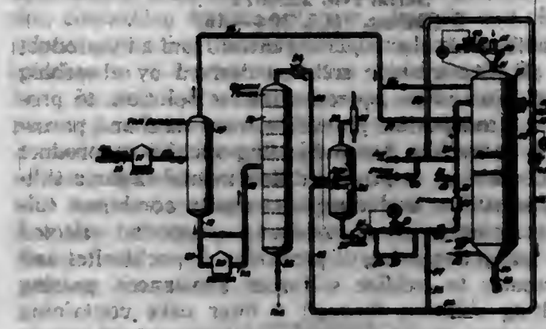
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**2,771,405**
**REDUCTION OF COPPER CORROSIVITY OF SWEET OILS**
Mathew L. Kalinowski and John A. Bolt, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application March 12, 1954, Serial No. 415,947
9 Claims. (Cl. 196—32)

1. A process for improving the copper corosivity of a doctor sweetened oil which comprises (1) intimately contacting a sour petroleum distillate boiling in the heavier-than-gasoline range with doctor solution and with free-sulfur in an amount sufficient to sweeten said distillate, at a temperature between about 60° and 175° F., for a time sufficient to substantially sweeten said distillate, (2) separating said substantially sweet distillate from doctor solution, (3) contacting said substantially sweet distillate with water soluble alkanolamine agent in an amount sufficient to form separate distillate and alkanolamine phases, at a temperature between about 60° and about 150° F., for a time between about 15 minutes and 90 minutes and (4) separating a sweet distillate of improved copper corrosivity from an alkanolamine agent phase.



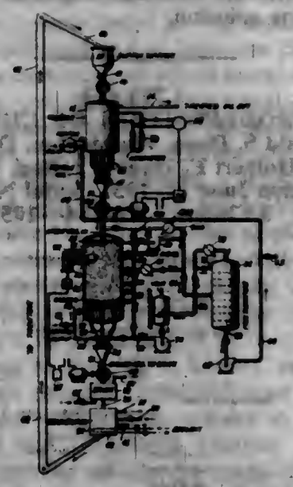
**2,771,406**
**METHOD AND APPARATUS FOR SUPPLYING LIQUID CHARGE TO HYDROCARBON REACTORS**
Frederick E. Ray, Glen Rock, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application May 25, 1953, Serial No. 357,292
13 Claims. (Cl. 196—52)



3. A process for continuously supplying liquid hydrocarbon charge to a reaction bed of hot solid contact material maintained within a confined reaction zone at a temperature above the temperature at which the hydrocarbon charge undergoes thermal conversion with resultant deposition of coke, which comprises: passing hydrocarbon charge to a phase separator and separating the charge therein into a liquid hydrocarbon charge fraction and a vapor hydrocarbon charge fraction, passing the liquid charge fraction into one side of a liquid manifold embedded within the reaction bed of contact material, injecting a portion of the liquid charge fraction from the manifold into the reaction bed, removing the remaining portion of the liquid charge fraction from the opposite side of the manifold and returning said remaining portion to the phase separator, and controlling the temperature of the liquid charge within the manifold below the temperature at which substantial thermal conversion occurs by controlling the temperature of supply of hydrocarbon charge to the phase separator and the residence time of the liquid in the manifold.

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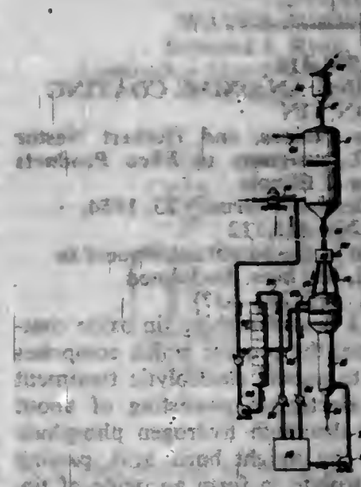
**2,771,407**
**CONTINUOUS PERCOLATION PROCESS**
Joe E. Penick, Augusta, Kans., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application November 19, 1952, Serial No. 321,373
15 Claims. (Cl. 196—147)



1. In a continuous cyclic process for decolorization of mineral oils wherein a fresh mineral oil feed is passed upwardly through a columnar mass of gravitating adsorbent of palpable particulate form in a confined treating zone at a rate and elevated temperature adjusted for effecting the decolorization of the oil without disruption of the columnar mass due to the oil flow therethrough and wherein the spent adsorbent bearing carbonaceous contaminant including color bodies and cycle oil is subjected to washing for removal of the cycle oil with a suitable washing solvent capable of also removing substantial amounts of the color bodies from the spent adsorbent when contacted therewith at the elevated treating temperature and wherein the washed adsorbent is dried, regenerated by burning, cooled and recycled to the treating zone for resuse, the improvement which comprises, withdrawing the spent adsorbent bearing carbonaceous contaminant including color bodies and a substantial amount of cycle oil from the lower section of said treating zone, still at an elevated temperature near said treating temperature, cooling the adsorbent to a temperatuer level below that at which said solvent will remove substantial amounts of the color bodies therefrom and then passing the adsorbent downwardly as a columnar mass countercurrently to a stream of said solvent in a confined washing zone so as to effect removal of the cycle oil from the adsorbent while leaving the color bodies and carbonaceous contaminant on the spent washed adsorbent, withdrawing the solvent and removed oil from the upper section of said washing zone and subjecting the same to fractionation to separate the solvent from the oil, leaving a recycle oil having a color not substantially darker that that of the fresh mineral oil feed to the treating zone and recycling said oil to said treating zone along with the fresh mineral oil feed, the aforesaid cooling of said adsorbent being effected at least in a part sufficient to reduce the adsorbent from a substantially higher treating temperature to a temperature below the boiling temperature of said washing solvent by passing a cooling fluid from a location of heat extraction other than said washing zone and comprised to at least a substantial extent of wash solvent of the same type as that supplied to said washing zone into direct contact with said hot, spent adsorbent in a region where the adsorbent is freely flowing downwardly to effect rapid cooling of the adsorbent before it reaches said columnar mass in said washing zone.

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**2,771,408**
**METHOD FOR WASHING ADSORBENTS**
Joe E. Penick, Augusta, Kans., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application November 19, 1952, Serial No. 321,371
7 Claims. (Cl. 196—147)



1. A continuous process for washing hot, spent adsorbent of palpable particulate form, having been used for purifying liquid hydrocarbon oils and bearing car-

bonaceous contaminants, color bodies and cycle oil, which comprises: maintaining a downwardly gravitating columnar mass of adsorbent within the lower section of a confined washing zone, maintaining a column of liquid solvent of sufficient height to disengage adsorbent from the liquid solvent above said columnar mass within the upper section of the washing zone, passing cool washing solvent upwardly through said columnar mass to remove cycle oil from the adsorbent therein, passing washing solvent after passage through the columnar mass upwardly through said liquid column, introducing additional cool washing solvent at an intermediate level in said liquid column, passing a plurality of streams of hot, spent adsorbent downwardly through the liquid column and in heat exchange relationship therewith to effect cooling of the adsorbent and vaporize a portion of the solvent, discharging said streams of adsorbent onto the upper surface of said columnar mass, removing liquid solvent from the upper section of said column, maintaining the adsorbent streams out of lateral communication with that portion of the liquid solvent column from which liquid solvent is removed during that portion of the heat exchange wherein solvent is vaporized, removing vaporized solvent from the upper section of said zone at a level above the upper surface of said column, and removing washed adsorbent from the lower section of said columnar mass.

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2,771,409

## METHOD OF MAKING GRID BEARINGS

Charles T. Cross, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 19, 1953, Serial No. 337,768
7 Claims. (Cl. 204—35)



1. A method of forming a grid bearing which comprises the steps of depositing silver onto a backing member, applying a thin coating of tin to the silver, forming a tin-silver alloy diffusion zone by heat treatment, die forming a multiplicity of grid pits in the resulting surface, filling said grid pits with a soft bearing material, and thereafter removing a portion of said diffusion zone and soft bearing material.

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2,771,410

## METHOD OF FORMING AN OXIDE COATING ON TIN

John James Russell, Des Plaines, and Herbert Nestor Headland, Chicago, Ill., assignors to Ekco Products Company, a corporation of Illinois

No Drawing. Application February 23, 1954, Serial No. 412,112
The portion of the term of the patent subsequent to August 31, 1971, has been disclaimed
4 Claims. (Cl. 204—37)

1. In the formation of a heat absorbing tin oxide coating on a tin surface article, the process which comprises subjecting the tin article to anodic electrolytic treatment in an aqueous alkaline electrolyte consisting of about 1.5% to 12% by weight disodium hydrogen phosphate and about 1.5% to 12% by weight boric acid, passing current through said electrolyte to form an oxide of tin, removing the oxidized tin article from the electrolyte and then subjecting the anodized article to an elevated temperature from about 180° C. to 230° C. to convert said oxide to green oxide of tin.

2,771,411

## CYANIDE COMPOSITIONS SUITABLE FOR ELECTROPLATING BATHS AND METHOD FOR THE PREPARATION THEREOF

Allen E. Chester, Highland Park, Ill., and Joseph T. Irwin, Lakewood, Ohio, assignors to Poor & Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application May 10, 1951, Serial No. 225,671
9 Claims. (Cl. 204—46)

1. A method for electroplating metal from a by-product aqueous alkaline cyanide solution derived by absorbing coke oven gases in an aqueous alkaline solution, to produce an electrodeposited plate free from stain and porosity, which comprises first subjecting such a by-product solution containing as produced detrimental organic substances and sulfur, including organically combined sulfur, to treatment with an oxidizing compound selected from the group consisting of peroxides, hypochlorites and permanganates to oxidize sulfurous substances, passing the resulting solution through a filter cake containing activated carbon, thereby removing detrimental substances from said by-product solution, providing a metal platable from an alkaline cyanide bath in the resulting purified by-product solution in a soluble form, and electroplating said metal from the resulting plating solution.

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2,771,412

## CYANIDE COMPOSITIONS SUITABLE FOR ELECTROPLATING BATHS AND METHOD FOR THE PREPARATION THEREOF

Allen E. Chester, Highland Park, Ill., and Joseph T. Irwin, Lakewood, Ohio, assignors to Poor & Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application May 4, 1951, Serial No. 224,661
6 Claims. (Cl. 204—46)

1. A method for electroplating metal from a by-product aqueous alkaline cyanide solution derived by absorbing coke oven gases in an aqueous alkaline solution, to produce an electrodeposited plate free from stain and porosity, which comprises first subjecting such a by-product solution containing as produced detrimental organic substances and sulfur, including organically combined sulfur, to treatment with an alkali soluble inorganic compound of a metal selected from the group consisting of lead, copper, cadmium, and bismuth to precipitate sulfurous substances, passing the resulting solution through a filter cake containing activated carbon, thereby removing detrimental substances from said by-product solution, providing a metal platable from an alkaline cyanide bath in the resulting purified by-product solution in a soluble form, and electroplating said metal from the resulting plating solution.

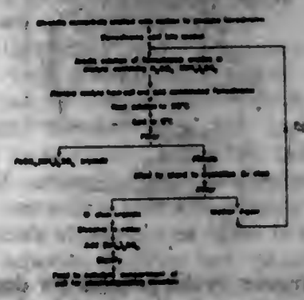
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2,771,413

## ELECTRODEPOSITION OF CHROMIUM

Reginald S. Dean, Washington, D. C., and Holbert E. Dean, Crafton, Pa.

Application June 27, 1951, Serial No. 233,786
3 Claims. (Cl. 204—105)



1. The method of producing from chromite ores and the like, a solution suitable for electrodepositing chromium, which comprises smelting the ore with carbon to form an alloy of iron, chromium and carbon and a slag containing most of the other ingredients of the ore, separating the alloy from the slag, casting the alloy into thin slabs which cool rapidly, dissolving the cast alloy by making it an anode in a solution of sulphuric acid and ammonium sulphate under conditions to form a solution containing ferrous sulphate, chromic and chromous sulphates, adding ferrochrome to adjust the pH of the solution to 1–3 and to reduce the iron to the ferrous state, heating said solution having a pH of 1–3 to a temperature sufficient to stabilize the chromium in the green chromic modification, then cooling said solution to crystallize a ferrous ammonium sulphate product, removing said ferrous ammonium sulphate product from the solution, crystallizing and removing ammonium chromic sulphate from its mother liquor, and redissolving the ammonium chromic sulphate.



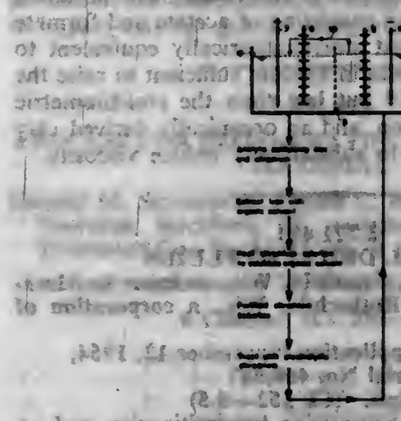
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2,771,414

## METHOD OF MAKING ELECTROLYTIC CHROMIUM

Reginald S. Dean, Washington, D. C.

Application June 27, 1951, Serial No. 233,785
5 Claims. (Cl. 204—105)



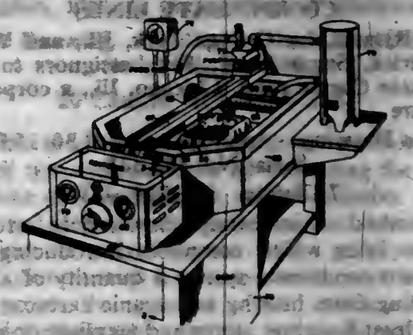
1. The method of making electrolytic chromium from an iron-chromium-carbon alloy, which comprises making such alloy an anode in the anode compartment of a compartment cell separated by an ion-permeable diaphragm and having an insoluble cathode in the cathode compartment, said anode compartment having an electrolyte containing hydrochloric acid and at least one chloride selected from the class consisting of alkali metal chlorides, ammonium chloride, and alakline earth metal chlorides, said cathode compartment having an electrolyte containing hydrochloric acid, chromium chloride and at least one of the aforesaid chlorides, passing a unidirectional current through said cell from said anode to said cathode whereby to dissolve the alloy at the anode and deposit electrolytic chromium at the cathode, withdrawing from the cell the anolyte containing the metals, including iron, dissolved from the anode, extracting the iron from said withdrawn anolyte at a pH of 1–3 by a volatile organic solvent containing at least 80% ketone, said withdrawn anolyte containing chloride from said class in an amount sufficient to render said organic solvent at least partially immiscible with said withdrawn anolyte, removing dissolved solvent from the solution by evaporation and using the so treated solution as the electrolyte in the cathode compartment for the deposition of chromium, and then using the solution so depleted of chromium for the electrolyte in the anode compartment whereby to replenish the chromium content thereof.

2,771,415

## ELECTROLYTIC APPARATUS

Aylmer O. Ross, York, Pa., assignor to The National Electroform Mold Co., Baltimore, Md., a corporation of Maryland

Application October 28, 1952, Serial No. 317,229
4 Claims. (Cl. 204—238)



1. An electrolytic apparatus for electroforming of a metal product, comprising, a tray for containing an electrolyte, a sump for containing excess electrolyte, conduit means located between said sump and tray, means for pumping said electrolyte through said conduit means, nozzle means cooperating with said conduit means for continuously and uniformly introducing said electrolyte into said tray from the top thereof, an electric circuit including an anode element and a cathode contact element, a source of electric power for said circuit, and a non-conducting basket arrangement for containing the metal to be electrodeposited to form said metal product, said arrangement including at least top and bottom sections, a first pin means for holding said sections together, said top section including at least two spaced sidewalls, said bottom section being formed of spaced members arranged in alignment with said sidewalls of said top section, said members defining a space for accommodating said cathode contact element and the product to be electroformed, said top section having a plurality of spaced truss members for interconnecting said sidewalls, a second pin means positioned on said top section, and screening means supported by said second pin means and resting against said plurality of spaced truss members, said anode element being positioned on top of said screening means and arranged to support the metal to be electrodeposited, said screening means being utilized to screen impurities from the electrolyte during the electroforming of said metal product.

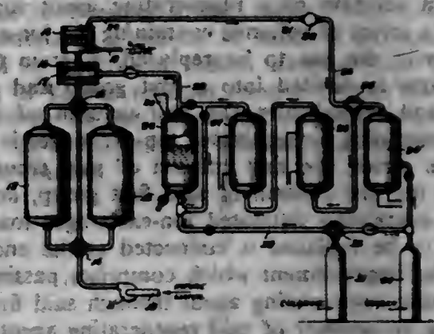
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2,771,416

## WATER PURIFICATION

Edmund J. Ryan, Miami, Fla.

Application March 6, 1950, Serial No. 147,923
23 Claims. (Cl. 210—16)



1. The method of purifying water comprising passing into the water a gas comprising a halogen activated polymeric oxygen, said polymeric oxygen consisting essentially of gas which has been polymerized by treating the same under conditions to convert a substantial proportion of the oxygen to ozone and higher polymerized

forms of oxygen, and being halogen activated by contact of the polymeric oxygen gas with elemental halogen and salts thereof.

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2,771,417

## INHIBITION OF CORROSION IN RETURN STEAM CONDENSATE LINES

John W. Rymer, La Grange Park, Ill., and Willard H. Kirkpatrick, Sugar Land, Tex., assignors to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application April 30, 1952, Serial No. 285,322

7 Claims. (Cl. 210—23)

1. A method of inhibiting corrosion in return steam condensate lines which comprises introducing into the return steam condensate system a quantity of a composition resulting from heating an organic carboxy acid containing at least 8 carbon atoms and an aliphatic polyamine containing at least two amino groups from the group consisting of primary and secondary amino groups, at a temperature of at least 115° C. and the elimination of an aqueous distillate, the proportions of said carboxy acid being sufficient to acylate at least one mol of nitrogen in said polyamine and the molar ratio of nitrogen in the amino groups to carboxy in the organic carboxy acid being within the range of 4:1 to 1:2, said quantity being sufficient to inhibit corrosion in said steam condensate system.

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2,771,418

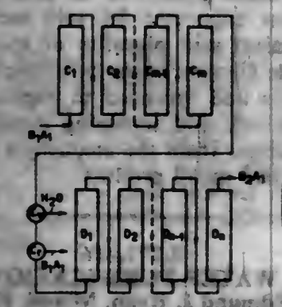
## PROCESS OF CONVERTING SUBSTANCES IONIZED IN SOLUTION, WITH THE HELP OF ION EXCHANGERS

Johannes A. Zeegers, Sittard, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands

Application October 15, 1952, Serial No. 314,832

Claims priority, application Netherlands October 24, 1951

5 Claims. (Cl. 210—24)



1. In a process for regenerating an ion-exchanger by passing a solution of a regenerating agent successively through a series of columns containing the ion-exchanger loaded with the ion to be replaced, wherein the series of columns is divided into a first group and a second group, and periodically the first column of said first group containing a regenerated ion-exchanger is removed from the series, the first column of said second group is made the last column of said first group, and a new column containing untreated ion-exchanger loaded with the ion to be replaced is connected at the end of said series, the improvement which comprises passing an excess of said regenerating agent through said first group, removing an amount of said regenerating agent substantially equal to that originally present as excess from the effluent discharged from said first group, and thereafter passing said effluent free from excess regenerating agent through said second group whereby a solution of spent, substantially completely converted regenerating agent is withdrawn from the last column of said series.

2,771,419

## AQUEOUS STARCH-CONTAINING DRILLING MUDS HAVING A REDUCED FILTRATION RATE

Richard A. Salathiel, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

No Drawing. Application August 15, 1955, Serial No. 528,541

4 Claims. (Cl. 252—8.5)

1. A drilling mud comprising at least 5% by weight of finely divided solids and water having about 2 to 15 percent by weight of salt dissolved therein to which has been added amounts of starch and glyoxal sufficient to substantially reduce the water filtration loss rate of said drilling mud, said drilling mud containing from about 0.5 to 5 pounds of glyoxal and about 1 to 15 pounds of starch per 42-gallon barrel of drilling mud.

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2,771,420

## DRILLING FLUID

David A. Rowe, Houston, Tex., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application February 24, 1953, Serial No. 338,591

14 Claims. (Cl. 252—8.5)

1. A drilling fluid comprising an aqueous dispersion of hydratable clay in which the following have been incorporated: calcium ions in sufficient amount to convert the clay substantially into its calcium base form, an anion selected from the group consisting of acetate and formate ions in amount at least stoichiometrically equivalent to the calcium, caustic soda in amount sufficient to raise the pH value to above 10 but less than the stoichiometric equivalent of said anion, and an organically derived clay dispersant in amount to substantially reduce viscosity.

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2,771,421

## OIL WELL DRILLING FLUIDS

William C. Browning, Schofield, Wis., assignor to Marathon Corporation, Rothschild, Wis., a corporation of Wisconsin

No Drawing. Application November 12, 1954, Serial No. 468,587

3 Claims. (Cl. 252—8.5)

1. A drilling fluid comprising bentonitic clay and an agent for controlling the viscosity and gel characteristics of the drilling fluid, said agent being an aluminum lignosulfonate complex wherein the aluminum is present in anionic and cationic form, said agent being made by treating basic calcium lignosulfonate with aluminum sulfate, then with a solution of an organic acid selected from the group consisting of oxalic, acetic, formic, lactic and tartaric acid having the property of replacing lignosulfonate in the aluminum complex, filtering said reaction mixture and drying the filtrate.

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2,771,422

## POLYMETHYLPOLYSILOXANE THICKENED PHENYLMETHYL SILICONE OIL

George V. Browning, Schenectady, N. Y., and Cecil G. Brannen, Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application April 29, 1952, Serial No. 285,089

5 Claims. (Cl. 252—49.6)

1. The method of preparing a homogeneous thermally stable organo-silicone polymer grease consisting essentially of a thermally stable organo-silicone polymer having a viscosity in the lubricating oil range of from about 10 to about 600 centistokes at 100° F. thickened to grease consistency with a gelled polymethylpolysiloxane, comprising mixing from about 40% to 98% of a liquid polymethylpolysiloxane substantially free of unreacted —OH groups with from about 2% to about 60% of a liquid organo-silicone polymer, other than said polymethylpolysiloxane, thermally stable at temperatures up to about 550° F. and having a viscosity in the lubricating oil range of from about 10 to about 600 centistokes at 100° F., heating said mixture to a temperature in the range of from about 400° F. to about 550° F. for a period of from about 1 hour to about 72 hours to form a gelled mixture, and milling the resultant gelled mixture with a sufficient amount of a thermally stable organo-silicone polymer having a viscosity in the lubricating oil viscosity range of from about 10 to about 600 centistokes at 100° F. to form a homogeneous grease containing from about 10% to about 80% of said gelled mixture.



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2,771,423

## EXTREME PRESSURE LUBRICANTS CONTAINING DIESTERS OF CHLORENDIC ACID

Amos Dorbeson, Park Forest, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 28, 1955, Serial No. 526,981

2 Claims. (Cl. 252—54.6)

1. A metal-working oil composition consisting essentially of mineral oil and a diester of chlorendic acid in which the ester groups contain from 4 to 8 carbon atoms; the amount of diester present constituting about 10 to 75 percent of the composition by weight and being sufficient to impart extreme pressure properties to the composition.

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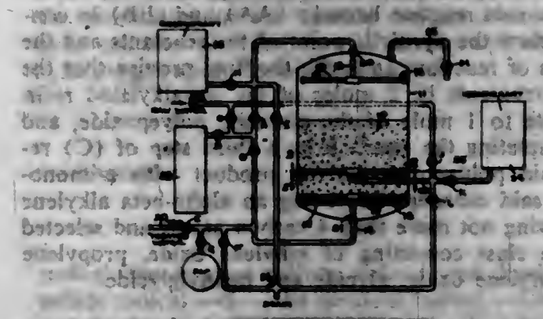
2,771,424

## PROCESS FOR REGENERATING ION EXCHANGE MATERIAL

Donald M. Stronquist, August C. Reents, and Marvin E. Vermum, Rockford, Ill., assignors to Illinois Water Treatment Co., Rockford, Ill., a corporation of Illinois

Application August 25, 1949, Serial No. 112,352

6 Claims. (Cl. 252—182)



1. In the process of regenerating a mixed-bed column of anion-exchange and cation exchange materials of different densities, the steps of backwashing the exhausted mixed bed upwardly through the column to stratify the bed into an upper layer of the lighter of said exchange materials and a lower layer of the heavier material, regenerating the upper one of said exchange layers by passing a regenerating solution therefor downwardly through the layer, passing water upwardly through said lower layer while said regenerating solution is being passed down through said upper layer whereby to block substantial migration of the regenerating solution into the lower layer, withdrawing from the stratified column the mixture of said regenerant and water as the two meet near the inner ends of said layers, and thereafter passing water downwardly through the upper layer as the upward flow of water through the lower layer and withdrawal of the combined volumes of liquids from the intermediate part of said column is continued.

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2,771,425

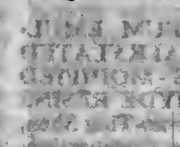
## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

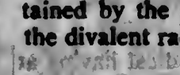
No Drawing. Application June 26, 1953, Serial No. 364,501

20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first manufacturing process being a step of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of tri-functional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical

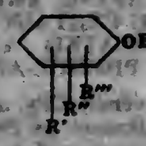


the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —CH₂SCH₂—, and the divalent disulfide radical —S—S—; said phenolic

portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive amine-modified resin condensates (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of oxyalkylation- and acylation-susceptible solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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2,771,426

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

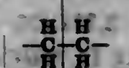
Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 26, 1953, Serial No. 364,502
20 Claims. (Cl. 252—336)

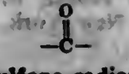
1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first manufacturing process being a step of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage, phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and an aldehyde having not over 8 carbon atoms and in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparations of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive amine-modified resin condensate (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of oxyalkylation- and acylation-susceptible solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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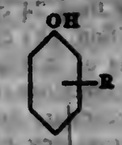
2,771,427

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

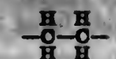
Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 26, 1953, Serial No. 364,503
20 Claims. (Cl. 252—336)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first manufacturing process being a step of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical, and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive amine-modified resin condensates (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of oxyalkylation- and acylation-susceptible solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point



of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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2,771,428

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

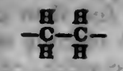
No Drawing. Application June 26, 1953, Serial No. 364,504
20 Claims. (Cl. 252—336)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first manufacturing process being a step of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom

and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive amine-modified resin condensates (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of oxyalkylation- and acylation-susceptible solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha, beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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## 2,771,429

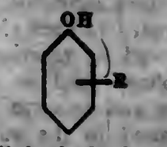
## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

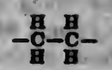
No Drawing. Application June 26, 1953, Serial No. 364,505

20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first manufacturing process being a step of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



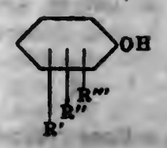
in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and substituted tetrahydropyrimidines in which there is present at least one basic secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where tht phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive amine-modified resin condensates (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of oxyalkylation- and acylation-susceptible solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.



## 2,771,430

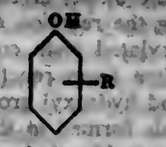
## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED DERIVATIVES OBTAINED BY REACTION OF MONOEPOXIDES WITH RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

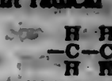
No Drawing. Application April 22, 1953, Serial No. 350,531

20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier; said demulsifier being obtained by a three-step manufacturing process involving (1) condensation; (2) oxyalkylation with a monoepoxide; and (3) oxyalkylation with a polyepoxide; said first manufacturing step being a method of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



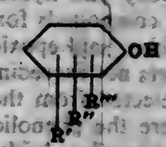
in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) oxyalkylation by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and then completing the reaction by a third step of (C) reacting said oxyalkylated resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive monoepoxide-derived compounds (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide.

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## 2,771,431

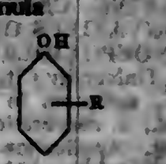
## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED DERIVATIVES OBTAINED BY REACTION OF MONOEPOXIDES WITH RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 22, 1953, Serial No. 350,532

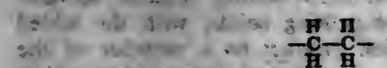
20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier; said demulsifier being obtained by a three-step manufacturing process involving (1) condensation; (2) oxyalkylation with a monoepoxide; and (3) oxyalkylation with a polyepoxide; said first manufacturing step being a method of (A) condensing (*a*) an oxyalkylation susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) oxyalkylation by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and then completing the reaction by a third step of (C) reacting said oxyalkylated resin condensate with a

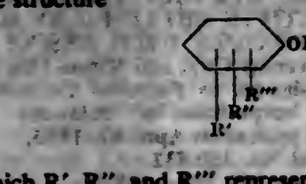
phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues fromed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—, said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive monoepoxide-derived compounds (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide.

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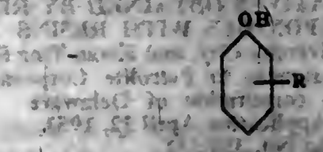
**2,771,432**

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED DERIVATIVES OBTAINED BY REACTION OF MONOEPOXIDES WITH RESINS

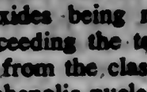
Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 22, 1953, Serial No. 350,533
20 Claims. (Cl. 252—338)

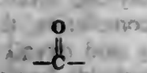
1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier; said demulsifier being obtained by a three-step manufacturing process involving (1) condensation; (2) oxyalkylation with a monoepoxide; and (3) oxyalkylation with a polyepoxide; said first manufacturing step being a method of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



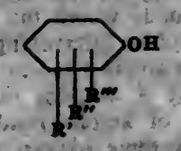
in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical, and any substituted tetrahydropyrimidine radical; and (c) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) oxyalkylation by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and then completing the reaction by a third step of (C) reacting said oxyalkylated resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$— and the divalent disulfide radical —S—S—; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive monoepoxide-derived compounds (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the



pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide.

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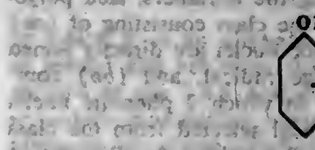
**2,771,433**

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED DERIVATIVES OBTAINED BY REACTION OF MONOEPOXIDES WITH RESINS

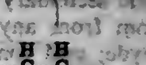
Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 22, 1953, Serial No. 350,534
20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier; said demulsifier being obtained by a three-step manufacturing process involving (1) condensation; (2) oxyalkylation with a monoepoxide; and (3) oxyalkylation with a polyepoxide; said first manufacturing step being a method of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



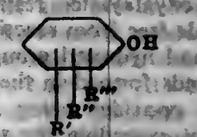
in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) oxyalkylation by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and then completing the reaction by a third step of (C) reacting said oxyalkylated resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$— and the divalent disulfide radical —S—S—; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive monoepoxide-derived compounds (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 mols of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide.

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**2,771,434**

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED DERIVATIVES OBTAINED BY REACTION OF MONOEPOXIDES WITH RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

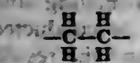
No Drawing. Application April 22, 1953, Serial No. 350,535
20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier; said demulsifier being obtained by a three-step manufacturing process involving (1) condensation; (2) oxyalkylation with a monoepoxide; and (3) oxyalkylation with a polyepoxide; said first manufacturing step being a method of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and

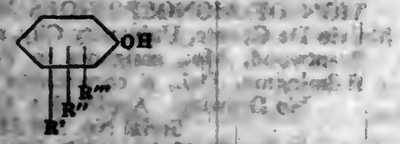
substituted tetrahydropyrimidines in which there is present at least one basic secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) oxyalkylation by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and then completing the reaction by a third step of (C) reacting said oxyalkylated resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$— and the divalent disulfide radical —S—S—; said phenolic portion of the polyepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive monoepoxide-derived compounds (AA) and aryl polyepoxides (BB) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (AA) and (BB) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the oxyalkylated resin condensate to 1 mole of the phenolic polyepoxide.

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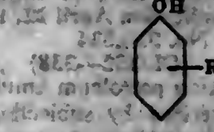
**2,771,435**

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

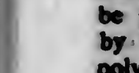
Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 24, 1953, Serial No. 338,573
20 Claims. (Cl. 252—338)

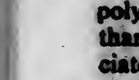
1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by first (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



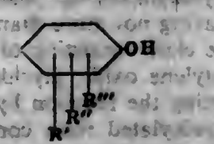
in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—; said phenolic portion of the diepoxides being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (A) and (B) be conducted below the pyrolytic point of the reactants and the resultants of



reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the phenolic polyepoxide.

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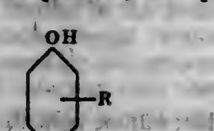
**2,771,436**

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 24, 1953, Serial No. 338,574
20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by first (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



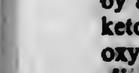
in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



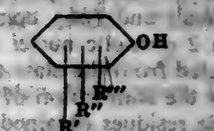
the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical —S—, the divalent radical



and the divalent disulfide radical —S—S—; said phenolic portion of the diepoxides being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (A) and (B) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the phenolic polyepoxide.

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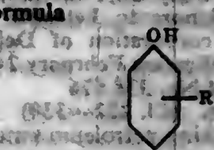
**2,771,437**

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

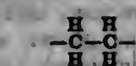
No Drawing. Application February 24, 1953, Serial No. 338,575
20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by first (A) condensing (*a*) an oxyalkylation-susceptible, fusible, nonoxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical, and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at temperatures sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalylation-susceptible; followed by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being se-

lected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—; said phenolic portion of the diepoxides being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (A) and (B) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the phenolic polyepoxide.

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**2,771,438**

**PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS**

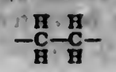
**Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware**

No Drawing. Application February 24, 1953, Serial No. 338,576
20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by first (A) condensing (*a*) an oxylation-susceptible, fusible, nonoxygenated organic solvent-soluble water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



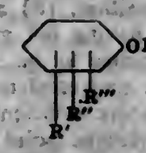
in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical —S—, the divalent radical —$CH_2SCH_2$—, and the divalent disulfide radical —S—S—; said phenolic portion of the diepoxides being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (A) and (B) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the phenolic polyepoxide.

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**2,771,439**

**PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS**

**Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware**

No Drawing. Application February 24, 1953, Serial No. 338,577
20 Claims. (Cl. 252—338)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by first (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical —S—, the divalent radical

—$CH_2SCH_2$—

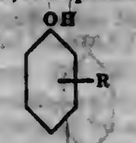
and the divalent disulfide radical —S—S—; said phenolic portion of the diepoxides being obtained from a phenol of the structure



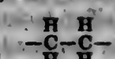
in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (A) and (B) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the phenolic polyepoxide.



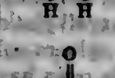
ing an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and substituted tetrahydropyrimidines in which there is present at least one basic secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by (B) reacting said resin condensate with a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said polyepoxides being selected from the class consisting of (*aa*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*bb*) compounds containing a radical in which 2 phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical —S—, the divalent radical

—$CH_2SCH_2$—

and the divalent disulfide radical —S—S—; said phenolic portion of the diepoxides being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; said reaction between (A) and (B) be conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the phenolic polyepoxide.

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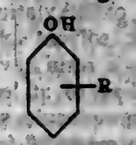
**2,771,440**

**PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESIN SALTS**

**Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware**

No Drawing. Application January 2, 1953, Serial No. 329,482
18 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low stage phenolaldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable.

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**2,771,441**

**PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESIN SALTS**

**Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware**

No Drawing. Application January 2, 1953, Serial No. 329,483
18 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage, phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at

least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable.

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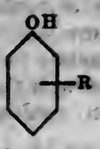
2,771,442

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESIN SALTS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 2, 1953, Serial No. 329,484
16 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical; and (c) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reactions; and with the proviso that the resinous condensation product resulting from the process be heat-stable.

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2,771,443

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESIN SALTS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 2, 1953, Serial No. 329,485
18 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and substituted tetrahydropyrimidines in which there is present at least one basic secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable.

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2,771,444

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESIN SALTS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 2, 1953, Serial No. 329,486
18 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable.

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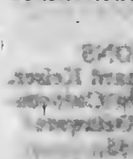
2,771,445

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING GLUCONIC ACID SALTS OF OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 26, 1953, Serial No. 333,386
36 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic oxyalkylated products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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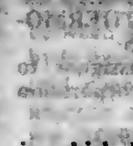
2,771,446

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING GLUCONIC ACID SALTS OF OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 26, 1953, Serial No. 333,387
36 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic oxyalkylated products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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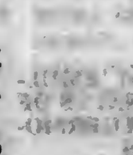
2,771,447

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING GLUCONIC ACID SALTS OF OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 26, 1953, Serial No. 333,388
36 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic oxyalkylated products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substitued tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

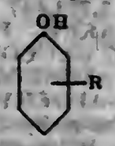
2,771,448

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING GLUCONIC ACID SALTS OF OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 26, 1953, Serial No. 333,389
36 Claims. (Cl. 252—441)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic oxyalkylated products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical, and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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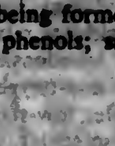
2,771,449

## PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING GLUCONIC ACID SALTS OF OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 26, 1953, Serial No. 333,390
36 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including the gluconic acid salts of the basic oxyalkylated products obtained in turn in the process of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and substituted tetrahydropyrimidines in which there is present at least one basis secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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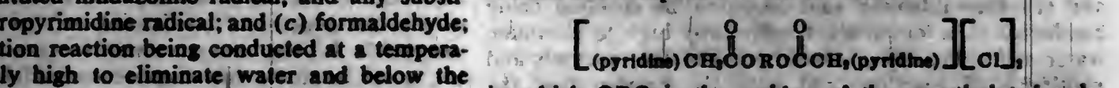
2,771,450

## PROCESS FOR BREAKING EMULSIONS

Melvin De Groote, University City, and Bernhard Keiser, Webster Groves, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 4, 1955, Serial No. 499,197
7 Claims. (Cl. 252—341)

1. A process for breaking petroleum emulsions of the water-in-oil type, characterized by subjecting the emulsion to the action of a demulsifier including a quaternary ammonium compound of the structure



in which ORO is the residue of the oxyethylated polypropyleneglycol

$$HO—(C_2H_4O)_x(C_3H_6O)_y(C_2H_4O)_{x'}—H$$

where $(C_3H_6O)_y$ equals approximately 40% to 60%, and $(C_2H_4O)_{x+x'}$ equals approximately 60% to 40% of the total weight of the compound, the molecular weight being within the range of approximately 2,000 to 6,000.

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2,771,451

## PROCESS FOR BREAKING PETROLEUM EMULSIONS, CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS AND METHOD OF MAKING SAME

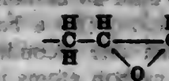
Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 30, 1953, Serial No. 371,410
20 Claims. (Cl. 252—344)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first step being that of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, nonoxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with nonaryl hydrophile polyepoxides characterized by the fact that the precursory polyhydric alcohol, in which an oxygen-linked hydrogen atom is replaced subsequently by the radical



in the polyepoxide, is water-soluble; said polyepoxides being free from reactive functional groups other than epoxy and hydroxyl groups and characterized by the fact that the divalent linkage uniting the terminal oxirane rings is free from any radical having more than 4 uninterrupted carbon atoms in a single chain; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of acylation- and oxyalkylation-susceptible solvent-soluble liquids and low-melting solids; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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2,771,452

## PROCESS FOR BREAKING PETROLEUM EMULSIONS, CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS AND METHOD OF MAKING SAME

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 30, 1953, Serial No. 371,411
20 Claims. (Cl. 252—344)

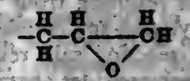
1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first step being that of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at



least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (*b*) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with nonaryl hydrophile polyepoxides characterized by the fact that the precursory polyhydric alcohol, in which an oxygen-linked hydrogen atom is replaced subsequently by the radical



in the polyepoxide, is water-soluble; said polyepoxides being free from reactive functional groups other than epoxy and hydroxyl groups and characterized by the fact that the divalent linkage uniting the terminal oxirane rings is free from any radical having more than 4 uninterrupted carbon atoms in a single chain; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting solvent-soluble liquids and low-melting solids; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methyl glycide.

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2,771,453

## PROCESS FOR BREAKING PETROLEUM EMULSIONS, CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS AND METHOD OF MAKING SAME

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

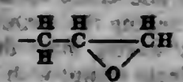
No Drawing. Application July 30, 1953, Serial No. 371,412
20 Claims. (Cl. 252—344)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said step being that of (A) condensing (*a*) an oxyalkylation-susceptible.

fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical, and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with nonaryl hydrophile polyepoxides characterized by the fact that the precursory polyhydric alcohol, in which an oxygen-linked hydrogen atom is replaced by the radical



in the polyepoxide, is water-soluble, said polyepoxides being free from reactive functional groups other than epoxy and hydroxyl groups and characterized by the fact that the divalent linkage uniting the terminal oxirane rings is free from any radical having more than 4 uninterrupted carbon atoms in a single chain; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of acylation- and oxyalkylation-susceptible solvent-soluble liquids and low-melting solids; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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2,771,454

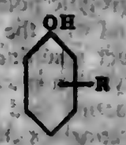
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Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

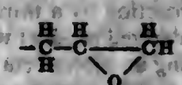
No Drawing. Application July 30, 1953, Serial No. 371,413

20 Claims. (Cl. 252—344)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first step being that of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical, and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with nonaryl hydrophile polyepoxides characterized by the fact that the precursory polyhydric alcohol, in which an oxygen-linked hydrogen atom is replaced subsequently by the radical



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2,771,455

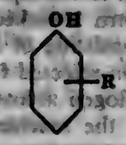
**PROCESS FOR BREAKING PETROLEUM EMULSIONS, CERTAIN OXYALKYLATED POLYEPOXIDE-TREATED, AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS AND METHOD OF MAKING SAME**

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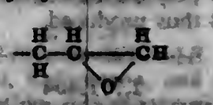
No Drawing. Application July 30, 1953, Serial No. 371,414

20 Claims. (Cl. 252—344)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier, said demulsifier being obtained by a 3-step manufacturing method involving (1) condensation; (2) oxyalkylation with a polyepoxide; and (3) oxyalkylation with a monoepoxide; said first step being that of (A) condensing (*a*) an oxyalkylation-susceptible, fusible, nonoxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and substituted tetrahydropyrimidines in which there is present at least one basic secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat stable and oxyalkylation-susceptible; followed as a second step by (B) reacting said resin condensate with nonaryl hydrophile polyepoxides characterized by the fact that the precursory polyhydric alcohol, in which an oxygen-linked hydrogen atom is replaced subsequently by the radical



in the polyepoxide, is water-soluble, said polyepoxides being free from reactive functional groups other than epoxy and hydroxyl groups and characterized by the fact that the divalent linkage uniting the terminal oxirane rings is free from any radical having more than 4 uninterrupted carbon atoms in a single chain; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class of acylation- and oxyalkylation-susceptible solvent-soluble liquids and low-melting solids; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the resultants of reaction; and with the final proviso that the ratio of reactants be 2 moles of the resin condensate to 1 mole of the polyepoxide, and then completing the reaction by a third step of (C) reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide.

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2,771,456

**FINISHING COMPOSITIONS COMPRISING AQUEOUS DISPERSIONS OF BUTADIENE-ACRYLONITRILE COPOLYMER AND POLYVINYL ALCOHOL**

Moses Kronberg, Roslyn Heights, and Frank Campo-Cassidine, Pelham, N. Y., assignors, by mesne assignments, to Jane, Wichita, Kans., a partnership

No Drawing. Application July 3, 1952, Serial No. 297,181

3 Claims. (Cl. 260—29.6)

1. A surface coating, impregnating and finishing composition consisting of a stable mixture of at least 15% of an aqueous dispersion which contains about 45% solids and in which the butadiene and acrylonitrile are co-polymerized in the proportion of 85 to 50% butadiene and 15 to 50% acrylonitrile, in mixture with not more than 75 parts of an aqueous solution containing 75% polyvinyl alcohol.

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2,771,457

**PRODUCTION OF VINYL CHLORIDE POLYMERS**

Arthur William Barnes, Tewin, Bernard Stephen Dyer, Tewin Wood, Welwyn, and Austin Atkinson Gibson, Cleveleys, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application May 14, 1951, Serial No. 226,298

Claims priority, application Great Britain June 15, 1950

7 Claims. (Cl. 260—29.6)

1. In a process for the production of aqueous dispersions of polymers and copolymers of vinyl chloride by polymerizing vinyl chloride with up to its own weight of ethylenically unsaturated copolymerizable material in the presence of water containing a dissolved peroxy polymerization catalyst, the improvement which comprises obtaining polymer particles of large uniform size by initiating the polymerization in the absence of an emulsifying agent and introducing an emulsifying agent after the polymer content of the system has reached approximately 0.5% by weight of the polymerization system but before the polymer dispersion begins to coagulate, said emulsifying agent being introduced in an amount sufficient to provide mechanical stability but insufficient to impair the properties of the polymer contained in the dispersion produced.

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2,771,458

**SOLUTIONS OF RUBBERY POLYMERS FROM PARTICLES OF UNIFORM DIAMETER**

Carli F. Van Glider, Roselle, and William C. Harvey, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application January 5, 1953, Serial No. 329,728

11 Claims. (Cl. 260—33.6)

4. A process for preparing substantially lump-free homogeneous solutions of high molecular weight rubbery polymers in lubricating oil which comprises agitating with the lubricating oil at a temperature of about 300° F., polymer particles selected from the group of rubbery polymers consisting of natural rubber, the copolymer of butadiene and styrene, the copolymer of butadiene and acrylonitrile, polyisobutylene, polyethylene, and the copolymer of isobutylene and a diolefin selected from the group consisting of butadiene and isoprene, said polymer particles being of uniform size of not over ¼ inch diameter; the agitation being until at least about 6.0 weight percent of the polymer is solvated and until the viscosity of the resulting solution attains a minimum value of at least about 3,500 centistokes at 210° F.

2,771,459

## CATIONIC DERIVATIVES OF ITACONATE-DIENE COPOLYMERS

Fred W. Bonse and Erving Arundale, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application November 24, 1952, Serial No. 322,334
6 Claims. (Cl. 260—78.5)

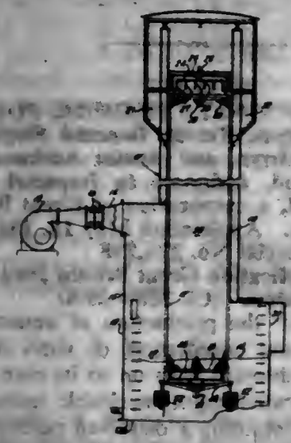
1. A product comprising a salt of a copolymer of 65 to 90 parts dimethyl itaconate and 35 to 10 parts of a diolefin of 4 to 6 carbon atoms, the cation of said salt being selected from the group consisting of metals, ammonium and basic amine radicals.

2,771,460

## RESIDUAL PULP LIQUOR OXIDIZING MEANS

Lambert F. Kooistra, Akron, and Robert V. Cobb, Sebring, Ohio, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application November 18, 1952, Serial No. 321,114
4 Claims. (Cl. 23—283)



1. In a tower for oxidizing residual liquor including means for passing air through said tower as an oxidizing medium, a reservoir in the lower portion of said tower, a plurality of upright closely horizontally spaced screens extending transversely across said tower and projecting downwardly beneath the surface of the oxidized liquor normally maintained within said reservoir, imperforated plate means embracing the upper end portion of each of said screens, each of said plate means bent in a V-shaped vertical section with the apex thereof in general vertical alignment with the upright plane of an adjacent screen and with adjacent plate means positioned in horizontally spaced nested relationship, and a plurality of spray nozzles disposed above the upper ends of said screens to deposit residual liquor on the upper end portions of said imperforated plates.

2,771,461

## PROCESS FOR COPOLYMERIZING ACRYLONITRILE AND ACRYLATE ESTERS

Harry H. Weinstock, Jr., Madison, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application April 30, 1952, Serial No. 285,310
5 Claims. (Cl. 260—85.5)

1. In a process for copolymerizing an ester of acrylic acid and a normal aliphatic alcohol of the homologous series methanol through n-nonyl alcohol with acrylonitrile in an acidic, aqueous reaction medium containing separate monomer phase dispersed therein, in the presence of hydrogen peroxide as a catalyst for the polymerization reactions, that improvement which comprises preparing a reaction mixture containing a ratio, by weight, of 25/75 to 90/10 of the acrylic acid ester/acrylonitrile, to which is added hydrogen peroxide and a copper salt soluble therein as the sole material present which can act as a reducing agent, in amounts such that said reaction mixture initially contains about 0.1% to about 6% $H_2O_2$, based on the total ester and nitrile, at least ¼ part per million of dissolved copper and a maximum of 6 parts per million dissolved copper, by weight of the reaction mixture, for every 1% of $H_2O_2$ present, and copolymerizing said ester and nitrile in the presence of the dissolved copper.

2,771,462

## METHOD FOR MAKING CERTAIN N-SUBSTITUTED POLYVINYL HETEROCYCLICS

Kwan-Ting Shen, Brentwood, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 8, 1952, Serial No. 324,812
8 Claims. (Cl. 260—88.3)

1. A method for preparing polymeric quaternary ammonium salts from nitrogen-containing vinyl-substituted heterocyclic compounds which comprises slowly adding a carbon-vinyl-substituted heterocyclic compound selected from the class consisting of vinyl pyridine, vinyl pyrazine, vinyl piperidine, vinyl quinoline, alkylated vinyl pyridine, alkylated vinyl pyrazine, alkylated vinyl piperidine, and akylated vinyl quinoline to a monocarboxy acid having a reactive halogen attached to the alpha carbon atom which alpha carbon atom in turn is linked to a third atom selected from the class consisting of hydrogen and carbon atoms, and a fourth atom selected from the class consisting of hydrogen and halogen atoms, the reaction system consisting essentially of the reactants and the resultants of reaction.

2,771,463

## CATALYTIC PROCESS FOR ETHYLENE EMPLOYING NICKEL ON CARBON AND ALKALI METAL

Edmund Field, Chicago, and Morris Feller, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application August 20, 1953, Serial No. 375,560
17 Claims. (Cl. 260—94.9)

1. A process for the preparation of an ethylene polymer having a molecular weight of at least about 300, which process comprises contacting ethylene with catalytically effective amounts of an alkali metal and a catalyst comprising essentially a minor proportion of nickel supported upon a major proportion of an active carbon at a temperature between about 25° C. and about 250° C., and separating an ethylene polymer having a molecular weight of at least about 300 thus produced.

2,771,464

## NOVEL SIZING AGENTS FOR PAPER

Randall Hastings, Stamford, Erhart K. Drechsel, Springdale, and Edward Straughn, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 3, 1953, Serial No. 359,445
11 Claims. (Cl. 260—101)

1. A fortifying agent for rosin size, consisting essentially of the Diels-Alder reaction product of (*a*) rosin, (*b*) a material selected from the group consisting of maleic anhydride, maleic acid, and fumaric acid, and (*c*) dehydrated citric acid in molar ratio between about 10:8.5:1.5 and about 10:5:5 respectively, said agent being at least partly neutralized with an alkali metal alkali said dehydrated citric acid corresponding to the product obtained by heating citric acid at a temperature between about 175° C. and 200° C.

3. A fortified size consisting essentially of a minor proportion of the Diels-Alder reaction product of (*a*) rosin, (*b*) a material selected from the group consisting of maleic anhydride, maleic acid, and fumaric acid; and (*c*) dehydrated citric acid in molar ratio between about 10:8.5:1.5 and 10:5:5 respectively, and a major proportion of rosin, said reaction product and said rosin being at least partly neutralized with an alkali metal alkali said dehydrated citric acid corresponding to the product obtained by heating citric acid at a temperature between about 175° C. and 200° C.



2,771,465

## ADSORPTION PROCESS FOR SEPARATING ELEMENTARY SULFUR FROM SULFURIZED DIARYL ALKANES

William B. Whitney, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application October 9, 1951, Serial No. 250,565
10 Claims. (Cl. 260—139)

1. The removal of elementary sulfur from its admixture with a sulfurized diaryl alkane which has been prepared by sulfurizing a diaryl alkane under sulfurizing conditions which result in the presence of elementary sulfur in the sulfurized diaryl alkane which is produced, which comprises at ordinary temperatures, contacting said sulfurized diaryl alkane with silica gel thus causing the adsorption of said sulfurized diaryl alkane within the pores of said silica gel while at the same time elementary sulfur remains unadsorbed, washing said gel with a light paraffinic hydrocarbon thereby physically removing said elementary sulfur and any excess sulfurized diaryl alkane from the gel and then desorbing the sulfurized diaryl alkane from the gel by passing a desorbing agent into contact with said gel.

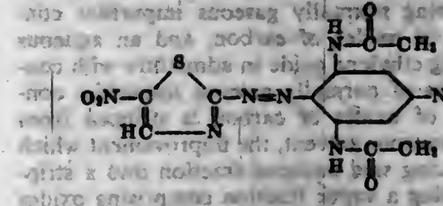
2,771,466

## 5-NITROTHIAZOLEAZO-N,N-DISUBSTITUTED M-ALKACYLAMINOANILINE COMPOUNDS

Edmund B. Towne and Joseph B. Dickey, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 13, 1953, Serial No. 336,671
3 Claims. (Cl. 260—158)

2. The azo compound having the formula:



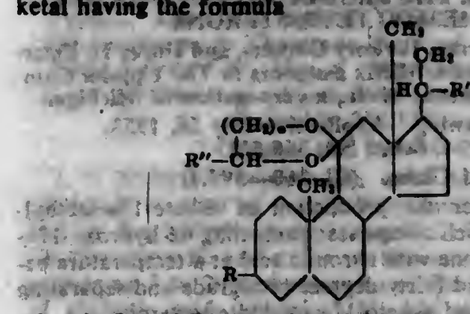
2,771,467

## STEROID KETALS

Barney J. Magerlein, Kalamazoo, and Robert H. Levin, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 31, 1954, Serial No. 453,445
16 Claims. (Cl. 260—239.55)

1. 3,20-dioxygenated-pregnane-11-one 11-cyclic monoketal having the formula



wherein R and R′ are selected from the group consisting of hydroxy, keto, and acyloxy of the formula AcO, Ac being the acyl radical of a hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive; and wherein R″ is selected from the group consisting of hydrogen and lower-alkyl radicals containing from one to six carbon atoms, inclusive; and wherein *n* is an integer from one to two, inclusive.

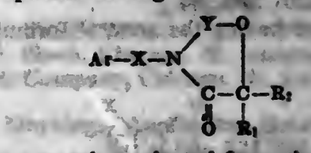
2,771,468

## 4-ARALKYL-3-MORPHOLONES, 4-ARALKYL-3-HOMOMORPHOLONES AND THEIR PREPARATION

Alexander R. Surrey, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 19, 1954, Serial No. 411,551
20 Claims. (Cl. 260—247.7)

1. A compound having the formula



where Ar is a member selected from the group consisting of phenyl, naphthyl, biphenylyl, furyl, pyridyl and thienyl radicals, X is a lower alkylene radical having one to four carbon atoms, Y is a lower alkylene radical having two to six carbon atoms and having its free valences separated by two to three carbon atoms, and $R_1$ and $R_2$ are each selected from the group consisting of hydrogen and lower alkyl radicals.

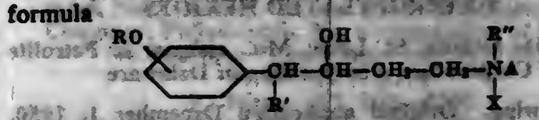
2,771,469

## QUATERNARY AMMONIUM SALTS OF DELTA-HYDROCARBYOXYPHENYL GAMMA-HYDROXY AMINES

Everett M. Schultz, Ambler, Pa., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 30, 1953, Serial No. 401,390
6 Claims. (Cl. 260—247.7)

1. A quaternary ammonium salt having the structural formula



wherein R is selected from the group consisting of lower alkyl, mononuclear carbocylic aryl-lower alkyl and mononuclear carbocyclic aryl radicals; R′ is selected from the group consisting of lower alkyl, unsubstituted mononuclear carbocyclic alicyclic and mononuclear carbocyclic aryl-lower alkyl radicals; R″ is selected from the group consisting of lower alkyl, mononuclear carbocyclic aryl-lower alkyl, allyl and cinnamyl radicals, the aryl and alicyclic moieties of the radicals represented by R, R′ and R″ being unsubstituted and containing six atoms in the ring nucleus; NA is selected from the group consisting of di-lower alkyl amine, piperidyl and morpholinyl radicals; and X is an anion.

6. 4-(3-hydroxy-4-p-phenoxyphenyl-4-benzylbutyl)-4-methylmorpholinium iodide.

2,771,470

## POLYHALO-2,3-EPOXY-BICYCLO (2.2.1) HEPTANES

Victor Mark, Evanston, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application June 16, 1954, Serial No. 437,281
20 Claims. (Cl. 260—327)

1. A process for the preparation of a saturated bicyclic compound which comprises reacting an unsaturated bi-

cyclic compound with an epoxidizing agent, and recovering the resultant epoxy-substituted saturated bicyclic compound, said unsaturated bicyclic compound having the general formula:



in which V is selected from the group consisting of hydrogen, alkyl and halogen radicals, W and X are selected independently from the group consisting of halogen and hydrogen radicals, Y is selected from the group consisting of halogen, haloalkyl, alkyl and hydrogen radicals, and Z is selected from the group consisting of nitro, nitroso, cyano and thiocyano radicals.

10. A compound having the general formula:



in which A is selected from the group consisting of oxygen and sulfur radicals, V is selected from the group consisting of hydrogen, alkyl and halogen radicals, W and X are selected independently from the group consisting of halogen and hydrogen radicals, Y is selected from the group consisting of halogen, haloalkyl, alkyl and hydrogen radicals, and Z is selected from the group consisting of nitro, nitroso, cyano and thiocyano radicals.

15. The compound 2,3 - epithia - 5 - nitro-6-trichloromethylbicyclo[2.2.1]-heptane.

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2,771,471

## POLYCARBOXY ACID ESTERS OF OXYPROPYLATED HEXIDES

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, a corporation of Delaware

No Drawing. Original application December 1, 1950, Serial No. 198,756. Divided and this application December 2, 1952, Serial No. 323,732

8 Claims. (Cl. 260—347.4)

1. Hydrophile synthetic products, said hydrophile synthetic products being characterized by the following formula



in which R' is a hexide radical; $n$ and $n'$ are numerals with the proviso that $n$ and $n'$ equal a sum varying from 15 to 80, and R is the radical of a dicarboxy acid selected from the group consisting of acyclic and isocyclic dicarboxy acids having not more than 8 carbon atoms and composed of carbon, hydrogen and oxygen of the formula:



and with the further proviso that the parent dihydroxylated compound prior to esterification be water-insoluble.

2,771,472

## EPOXYOCTADECYL ADIPATES

Arthur W. Ritter, Jr., Haddon Heights, N. J., and Stanley P. Rowland, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 30, 1954, Serial No. 453,119

5 Claims. (Cl. 260—348)

1. As a new composition of matter, an epoxidized ester of (*a*) adipic acid and (*b*) at least one unsaturated alcohol from the class consisting of oleyl, linoleyl and linolenyl alcohols, said epoxidized ester containing an average of at least 70 epoxy groups for every hundred alcohol moieties in said ester.

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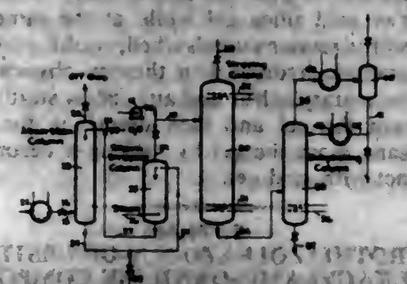
2,771,473

## ETHYLENE OXIDE RECOVERY

Martin L. Courter, Walnut Creek, Calif., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application January 11, 1954, Serial No. 403,337

6 Claims. (Cl. 260—348)



1. In a process for separating ethylene oxide from a gaseous mixture containing ethylene oxide in admixture with normally gaseous materials comprising oxides of carbon wherein ethylene oxide is separated from said mixture by absorption in an aqueous solvent thereby forming a fat aqueous solvent rich in dissolved ethylene oxide and containing normally gaseous impurities consisting essentially of oxides of carbon, and an aqueous fraction comprising ethylene oxide in admixture with contaminating amounts of normally gaseous impurities consisting essentially of oxides of carbon is stripped from said resulting fat aqueous solvent, the improvement which comprises introducing said aqueous fraction into a stripping zone, separating a vapor fraction comprising oxides of carbon from a liquid fraction consisting essentially of aqueous ethylene oxide free of any substantial amount of oxides of carbon in said stripping zone, passing said liquid fraction from said stripping zone into a dehydrating zone, and distilling a vapor fraction consisting essentially of ethylene oxide from said liquid fraction in said dehydrating zone.

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2,771,474

## PROCESS FOR THE PRODUCTION OF 6-KETO-17α-METHYLTESTOSTERONE

Herbert C. Murray, Hickory Corners, and Darey H. Peterson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 16, 1953, Serial No. 368,521

1 Claim. (Cl. 260—397.4)

A process for the production of 6-keto-17α-methyltestosterone which comprises: contacting 6β-hydroxy-17α-methyltestosterone with chromic acid at a temperature between fifteen and thirty degrees centigrade and separating the thus-produced 6-keto-17α-methyltestosterone.



2,771,475

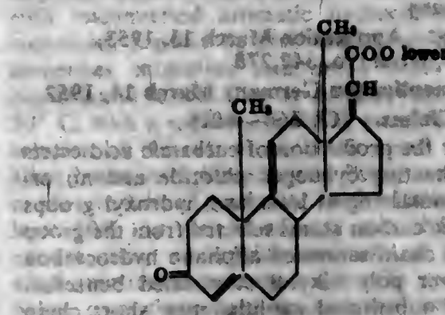
## STEROIDS

John A. Hogg, Kalamazoo Township, Kalamazoo County, Philip F. Beal, Portage Township, Kalamazoo County, and Alan H. Nathan and Frank H. Lincoln, Jr., Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 17, 1954, Serial No. 476,057

3 Claims. (Cl. 260—397.1)

1. Lower-alkyl 3 - keto - 4,9(11),17(20)-pregnatriene-21-oate having the formula:



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2,771,476

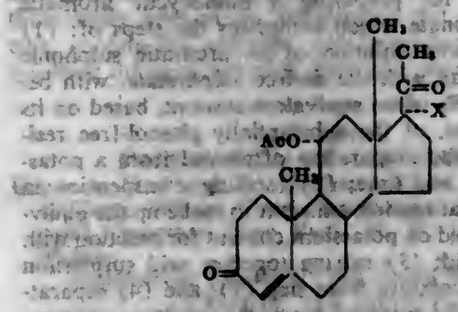
## 11α-ACYLOXY-17α-HALO-4-PREGNENE-3,20-DIONE AND PROCESS

Douglas A. Lyttle and Robert H. Levin, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 27, 1953, Serial No. 376,908

14 Claims. (Cl. 260—397.45)

1. An 11α - acyloxy - 17α - halo - 4 - pregnene - 3,20-dione of the formula:



wherein Ac is the acyl radical of a hydrocarbon carboxylic acid containing not more than eight carbon atoms and wherein X is selected from the group consisting of chlorine and bromine.

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2,771,477

## LOW VOLATILE HERBICIDAL COMPOSITIONS

Lindley S. De Ady, Kansas City, Mo., Edwin T. Upton, Mission, Kans., and John D. Howland, Kansas City, Mo., assignors to Thompson-Hayward Chemical Company, Kansas City, Mo., a corporation of Missouri

No Drawing. Application June 6, 1952, Serial No. 292,186

3 Claims. (Cl. 260—404)

1. A herbicidal composition containing as an active ingredient an ester of a polyalkanolamine having a portion of the hydroxy groups esterified with an aryloxyalkane-carboxylic acid and a portion esterified by an acid containing 7 to 20 carbon atoms of the group consisting of aliphatic acids, olefinic acids and naphthenic acids.

2,771,478

## PRODUCTION OF CARBOXYLIC ACID ESTERS

Walter Reppe, Ludwigshafen (Rhine), Herbert Friedrich, Worms, and Klaus Wiebusch, Heidelberg, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application August 12, 1952, Serial No. 304,018

Claims priority, application Germany September 8, 1951

7 Claims. (Cl. 260—486)

1. In the production of carboxylic acid esters by the interaction of olefinic hydrocarbons with carbon monoxide and aliphatic alcohols in the presence of compounds of carbonyl-forming metals, the step which comprises carrying out the reaction in a liquid medium having dissolved a catalyst comprising both nickel carbonyl and a member selected from the group consisting of alkali metal cyanides and ammonium cyanide.

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2,771,479

## INSECTICIDAL COMPOUNDS

Herman S. Bloch, Chicago, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application October 17, 1949, Serial No. 121,890

11 Claims. (Cl. 260—407)

1. The condensation product of a polyhalogenated cyclic diene selected from the fluoro and chloro poly substituted cyclopentadienes and cyclohexadienes containing not more than 10 carbon atoms per molecule with a compound selected from the fatty acids containing at least one double bond per molecule, and from their alcohol esters, amides and metallic, ammonium and substituted ammonium salts, said fatty acid compound containing at least 8 carbon atoms per molecule.

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2,771,480

## PURIFICATION OF GLYCERIDE OILS BY MEANS OF ION-EXCHANGE RESINS

Martin G. Chiznov, Newport, Del., Robert Kunin, Trenton, N. J., and Morris Mattikow and Benjamin H. Thurman, New York, N. Y., assignors of one-half to Benjamin Clayton, doing business as Redskin, Unincorporated, New York, N. Y., and one-half to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application July 29, 1953, Serial No. 371,174

9 Claims. (Cl. 260—420)

1. The process of refining a glyceride oil containing free fatty acids and color-bodies which comprises bringing said oil in contact with particles of a strongly basic anion-exchange resin containing quaternary ammonium hydroxide groups, adsorbing said fatty acids and said color-bodies on said resin, separating the oil and resin, removing adsorbed color-bodies from said resin by treating the resin with a solution of an oxidizing agent which is a member of the class consisting of aqueous solutions of inorganic hypochlorites and of hydrogen peroxide and removing said adsorbed fatty acids from said resin by treating the resin with a solution of a caustic alkali.

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2,771,481

## CATALYTIC CARBON MONOXIDE HYDROGENATION

Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft für Wärmetechnik m. b. H., both German corporations

No Drawing. Application March 7, 1951, Serial No. 214,423

Claims priority, application Germany April 20, 1950

6 Claims. (Cl. 260—449.6)

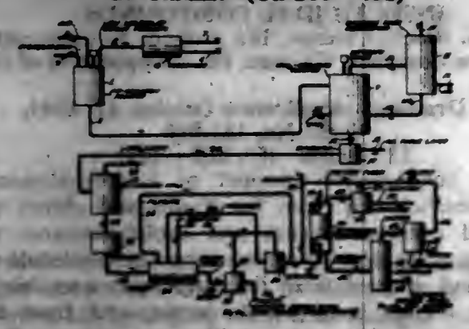
1. In the hydrogenation of carbon monoxide using a catalyst selected from the group consisting of iron,

nickel and cobalt, the improvement which comprises thoroughly drying the catalyst for 6 to 24 hours at temperatures of 150 to 350° C., contacting the dried catalyst in layers of more than 100 cm. high within a synthesis zone with a gas selected from the group consisting of carbon monoxide, hydrogen and mixtures thereof at a linear flow speed of about 100 to 200 cm./sec. and thereafter intimately contacting said treated catalyst with a carbon monoxide hydrogenation synthesis gas mixture in said synthesis zone.

## 2,771,482
## NITRIC ACID OXIDATION OF HYDROCARBONS

George P. Brown, Jr., West Deer Township, Allegheny County, Edgar L. Crowley, Pittsburgh, and Norman W. Franke, Penn Township, Allegheny County, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application August 26, 1953, Serial No. 376,616
17 Claims. (Cl. 260—452)



1. A process for the production of dibasic acids from a charge stock consisting essentially of saturated aliphatic hydrocarbons boiling above about 250° F. and having at least eight carbon atoms, comprising subjecting the charge stock to oxidation with an oxygen-containing gas for a time sufficient to obtain a product having a saponification number above about 100 and thereafter subjecting said product to further oxidation at an elevated temperature of about 50° C. to about 150° C. with nitric acid having a concentration above about 50 percent for a time sufficient to obtain substantial amounts of dibasic acids while admixing with the gaseous mixture comprising nitrogen oxides formed during said nitric acid reaction an oxygen-containing gas in amounts and for a time sufficient to regenerate said nitrogen oxides, and employing the products resulting from said regeneration in said nitric acid reaction.

## 2,771,483
## METHOD OF PREPARING ALKYL ISOCYANATES FROM INORGANIC CYANATES

Theodore L. Bieber, Kew Gardens, N. Y.

No Drawing. Application August 12, 1953, Serial No. 373,887
6 Claims. (Cl. 260—453)

1. The process of preparing an alkyl isocyanate by reacting at temperatures around 200° C. an alkali metal cyanate with a trialkyl phosphate having the formula $(RO)_3PO$, where R is an alkyl group having from one to eight carbon atoms therein.

## 2,771,484
## SULFONATION OF ORGANIC HYDROXY COMPOUNDS

Bruno Blaser, Duesseldorf-Urdenbach, and Gunther Tischbirek, Duesseldorf-Benrath, Germany, assignors to Henkel & Cie. G. m. b. H., Duesseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application September 14, 1953, Serial No. 380,083
Claims priority, application Germany September 19, 1952
14 Claims. (Cl. 260—459)

1. Process for the sulfonation of organic hydroxy compounds, the hydroxy groups being located at non-aromatic carbon atoms which comprises intimately contacting said hydroxy compounds with a polyether chlorosulfonic acid addition compound containing individual chlorosulfonic acid molecules molecularly bound to at least 3 ether oxygen atoms present in the polyether and recovering a sulfonated organic hydroxy compound.

## 2,771,485
## PRODUCTION OF CARBAMATE COMPOUNDS

Adolf Welke, Kronberg (Taunus), and Ulrich Hoffmann, Bad Homburg, Germany, assignors to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

No Drawing. Application March 13, 1953, Serial No. 342,278
Claims priority, application Germany March 14, 1952
7 Claims. (Cl. 260—482)

1. A process for the production of carbamic acid esters which comprises heating cyanogen chloride and an organic compound containing at least two hydroxyl groups attached to aliphatic carbon atoms selected from the group consisting of short chain saturated aliphatic hydrocarbon poly alcohols, lower poly alkylol substituted benzenes, lower poly alkylol substituted naphthalenes, short chain alkylene ether glycols and short chain alkylene thioether glycols to a reaction temperature between 60 and 120° C.

## 2,771,486
## PREPARATION OF AROMATIC POTASSIUM SULPHONATES

Petrus J. C. Kassenbrood, Geleen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands

Application December 7, 1953, Serial No. 396,549
Claims priority, application Netherlands December 11, 1952
8 Claims. (Cl. 260—505)

1. A process for preparing a monocyclic aromatic potassium sulphonate which comprises the steps of: (1) treating an aqueous solution of an aromatic sulphonic acid corresponding with the desired sulphonate, with between 70 and 95% of an equivalent amount, based on its potassium content, of the substantially phenol-free residue obtained in the preparation of phenol from a potassium sulphonate and lime; (2) forming a suspension in water of additional residue sufficient to make up the equivalent amount based on potassium content for reaction with the sulphonic acid; (3) mixing together said suspension and the reaction mixture from step (1); and (4) separating suspended solid material from the resulting mixture.

## 2,771,487
## TERTIARY ALKYL SUBSTITUTED CYCLOHEXANE CARBOXYLIC ACIDS, DERIVATIVES THEREOF, AND METHOD FOR PRODUCING THE SAME

Rupert C. Morris, Berkeley, and Vernon W. Buls, Walnut Creek, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application December 26, 1950, Serial No. 202,810
6 Claims. (Cl. 260—514)

5. A process for preparing a tertiary alkyl-substituted cyclohexane carboxylic acid wherein the ring carbon atom bearing the tertiary alkyl group is at least one carbon atom removed from the ring carbon atom bearing the carboxyl group which comprises hydrogenating an alkaline aqueous solution of a relatively water soluble salt of a corresponding aromatic acid at a temperature above 150° C., and converting the resulting salt of the cyclohexanecarboxylic acid to the desired cyclohexane carboxylic acid.



## 2,771,488
## RECOVERING TERTIARY-ALKYL SUBSTITUTED BENZOIC ACID

Harry Sello, Berkeley, Calif., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application July 20, 1953, Serial No. 369,029
6 Claims. (Cl. 260—525)

1. The process for recovering a tertiary-alkyl substituted benzene carboxylic acid in a high state of purity from the crude oxidation products obtained by oxidizing the corresponding tertiary-alkyl substituted alkyl benzene, which crude oxidation products comprise said tertiary-alkyl substituted benzene carboxylic acid in admixture with unconverted aromatic hydrocarbons and oxygen-containing organic by-products of said oxidation, which comprises subjecting said crude oxidation products to liquid-liquid extraction at a temperature above about 50° C. with a solvent consisting essentially of an aqueous solution of the salt of an alkali metal with the tertiary-alkyl benzene carboxylic acid being recovered from said crude oxidation products, said solution containing at least 20% by weight of said salt, thereby forming an extract phase comprising said solvent and said tertiary-alkyl substituted benzene carboxylic acid and a raffinate phase comprising said unconverted aromatic hydrocarbons and said oxygen-containing organic by-products, and recovering said tertiary-alkyl substituted benzene carboxylic acid from said extract phase.

## 2,771,489
## CHEMICAL PROCESS

Ludwig F. Audrieth, Urbana, Ill., and Earle S. Scott, Amherst, Mass., assignors to University of Illinois Foundation, Urbana, Ill., a corporation of Illinois

No Drawing. Application November 14, 1955, Serial No. 546,834
3 Claims. (Cl. 260—552)

1. The process which comprises heating under reflux an aqueous solution containing ammonium thiocyanate and hydrazine in the ratio of from about two to about three mols ammonium thiocyanate per mol of hydrazine, cooling the solution, and thereafter separating the resulting thiosemicarbazide from the reaction liquor.

## 2,771,490
## PRODUCTION OF ACRYLAMIDE

Edgar A. Stoddard, Jr., Brighton, Mass., and Stewart F. Williams, Wilton, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

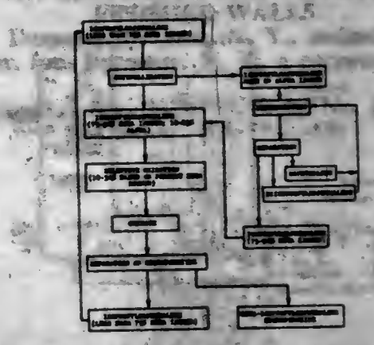
Application August 3, 1955, Serial No. 526,138
2 Claims. (Cl. 260—561)

1. In a continuous process for recovering monomeric acrylamide from acrylamide sulfate which comprises neutralizing acrylamide sulfate with ammonia in an aqueous medium thereby precipitating ammonium sulfate giving an aqueous slurry comprising dissolved acrylamide and crystalline ammonium sulfate; the amount of ammonia being such as to neutralize substantially the entire sulfuric acid content of said acrylamide sulfate, and the amount of said acrylamide sulfate being such as to provide after neutralization an aqueous slurry substantially saturated with acrylamide at a temperature of at least 20° C.; maintaining the hydrogen ion concentration during neutralization at a range equivalent to a pH of about 2 to about 7; separating precipitated ammonium sulfate at a temperature of at least 20° C.; and treating residual liquor to recover an acrylamide product, the improvement in combination therewith which comprises: prior to said treatment, dividing said residual liquor into several streams, and recycling one stream to the neutralization step whereby the density of the aqueous ammonium sulfate slurry is maintained below a predetermined density while maintaining said slurry substantially saturated with acrylamide.

## 2,771,491
## SELECTIVE OXIDATION OF β-ISOPROPYLNAPHTHALENE TO β-ISOPROPYLNAPHTHALENE HYDROPEROXIDE

Joshua C. Conner, Jr., Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

Application September 21, 1953, Serial No. 381,488
5 Claims. (Cl. 260—610)



1. The process which comprises contacting a mixture of α- and β-isopropylnaphthalene containing 75% to 90% β-isopropylnaphthalene with elementary oxygen under hydroperoxide-forming conditions until a hydroperoxide content is attained in the range of 10–30% and determined by the equation

$$X=4/3(Y-75)+10$$

where X=percent conversion and Y is the percent β-isopropylnaphthalene in the mixture, whereby the β-isopropylnaphthalene is selectively oxidized to β-isopropylnaphthalene hydroperoxide, recovering unreacted isopropylnaphthalene impoverished in β-isopropylnaphthalene from the oxidation reaction and cooling to a temperature in the range of −70 to 10° C. such that crystals form, separating crystalline isopropylnaphthalene containing at least about 75% β-isopropylnaphthalene and recycling to the oxidation reaction.

## 2,771,492
## PRODUCTION OF DODECANOYL PEROXIDE

James Chapman and William Allenby Wynne, Widnes, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application July 28, 1954, Serial No. 446,404
Claims priority, application Great Britain August 7, 1953
7 Claims. (Cl. 260—610)

1. A process for the manufacture of dodecanoyl peroxide which comprises reacting dodecanoyl chloride ($C_{11}H_{23}COCl$) with 0.4 to 4 moles of hydrogen peroxide and 0.9 to 1.5 moles of a caustic alkali selected from the group consisting of sodium hydroxide and potassium hydroxide, the hydrogen peroxide being in the form of an aqueous solution containing 20% to 60% by weight of hydrogen peroxide and the hydroxide being in the form of an aqueous solution containing 10% to 45% by weight of hydroxide when the latter is sodium hydroxide and 14% to 50% by weight of hydroxide when the latter is potassium hydroxide, at a temperature in the range of −10° C. to 5° C.

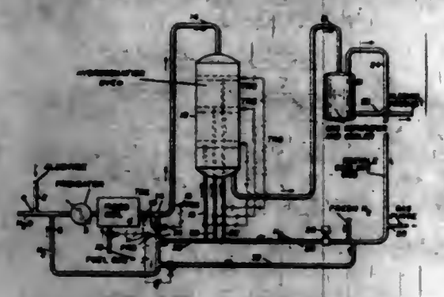
## 2,771,493
## ALDEHYDE HYDROGENATION QUENCH

Robert L. Jacks, James E. Moles, and Edward W. S. Nicholson, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application March 23, 1953, Serial No. 343,992
13 Claims. (Cl. 260—638)

1. In the process wherein aldehydes are hydrogenated to alcohols in a catalytic hydrogenation zone at elevated temperatures and pressures and wherein said aldehydes

are heated to hydrogenation temperatures in a heating zone and said heated aldehydes passed to said hydrogenation zone, the improvement which comprises maintaining an extraneous cooling fluid at a pressure above and a temperature below those obtaining in said hydrogenation zone, continuously passing a minor portion of said fluid into the aldehyde-comprising stream passing



from said heating zone into said hydrogenation zone, and passing a further portion of said fluid into said stream when the temperature of said stream exceeds a predetermined maximum, said added quantity being in amounts sufficient to decrease the temperature of said aldehyde-comprising stream to less than said predetermined maximum.

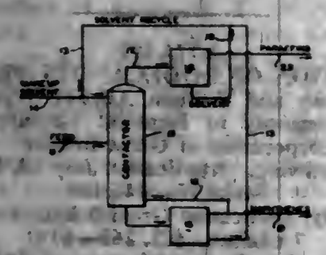
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2,771,494

## SELECTIVE SOLVENT EXTRACTION OF NAPHTHENE HYDROCARBONS EMPLOYING 2-PYRROLIDONE

John A. Woodhams, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application March 12, 1953, Serial No. 341,943
12 Claims. (Cl. 260—666)



1. A process for the separation and recovery of a naphthene hydrocarbon from an aromatic-free mixture of naphthene hydrocarbons and paraffin hydrocarbons having similar boiling points, which comprises contacting said mixture with liquid 2-pyrrolidone at a temperature in the range 100 to 350° F.; recovering a solvent phase; and recovering a naphthene hydrocarbon from said solvent phase.

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2,771,495

## DEHYDROALKYLATION OF UNSATURATED CYCLIC HYDROCARBONS

Herman Pines and Jerome A. Vesely, Evanston, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application November 13, 1953, Serial No. 392,046
13 Claims. (Cl. 260—668)

1. A process for the dehydroalkylation of an unsaturated cyclic hydrocarbon containing a six-membered geminal carbon atom free ring and at least two double bonds per molecule, at least one of said double bonds being in said ring, said hydrocarbon containing at least one substituent selected from the group consisting of alkyl and alkenyl radicals, attached to said ring which comprises reacting said hydrocarbon with an aliphatic olefin in the presence of a catalyst selected from the group consisting of alkali metals and hydrides thereof, under hydrogen transfer conditions.

8. A process for the dehydroalkylation of d-limonene which comprises reacting said limonene with ethylene in the presence of a catalyst consisting of sodium and o-chlorotoluene at temperatures ranging from about 100° C. to about 300° C.

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2,771,496

## PROCESS FOR THE PRODUCTION OF SECONDARY ALKYLARYL HYDROCARBONS

George L. Hervert, Downers Grove, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application May 26, 1951, Serial No. 228,538
7 Claims. (Cl. 260—671)

1. A process for the production of an alkylaryl hydrocarbon having an alkyl substituent containing from about 9 to about 18 carbon atoms per substituent joined to the aryl nucleus through a secondary carbon atom of said alkyl substituent which comprises reacting an alkyl halide containing from about 7 to about 16 carbon atoms per molecule with ethylene to form a primary alkyl halide containing from about 9 to about 18 carbon atoms per molecule, and condensing said primary alkyl halide with an aromatic hydrocarbon containing a nuclearly displaceable hydrogen atom to form said alkylaryl hydrocarbon.

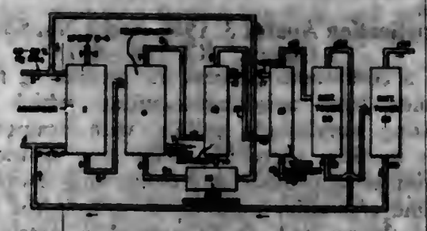
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2,771,497

## METHOD OF PURIFYING ISOBUTYLENE

John C. Hunt, Linden, Stanley E. Jaros, Watchung, and Joseph F. Nelson, Rahway, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application November 19, 1952, Serial No. 321,328
2 Claims. (Cl. 260—677)



1. In a process for the preparation of pure isobutylene suitable for the preparation of solid polymers wherein an isobutylene stream containing methyl mercaptan is absorbed in about 65% sulfuric acid at a temperature of 70–100° C. to produce an acid extract and wherein isobutylene is regenerated from the acid extract by heating it to a temperature of about 250° C. in the presence of water, whereby isobutylene containing small amounts of methyl mercaptan is obtained, the improvement which comprises distilling the isobutylene stream in a first distillation zone to remove overhead the methyl mercaptan as an isobutylene-methyl mercaptan distillate by virtue of its property of forming a minimum boiling azeotrope with isobutylene and a methyl mercaptan free bottoms, recycling the distillate to the acid absorption step.

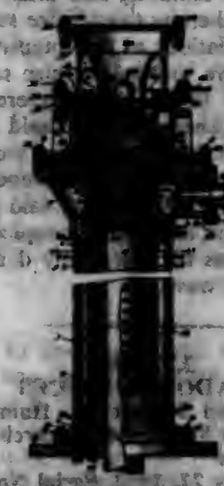
# ELECTRICAL

2,771,498

## ELECTRODE FEED OR DRIVE MECHANISM

Kurt R. Breitschädter and Frank M. Ozak, Chicago, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois

Application April 18, 1955, Serial No. 502,070
18 Claims. (Cl. 13—14)



1. In an electrode drive for an arc melting furnace or the like, the combination of an internally threaded driven cylinder, a drive bushing engaged with the said driven cylinder, head means for the electrode having means depending therefrom including an insulation pin engageable with said drive bushing for supporting the electrode, the said driven cylinder having oppositely disposed portions for receiving the said insulation pin, and means for cooling said cylinder.

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2,771,499

## ELECTRIC BATTERY PLATE AND METHOD OF PRODUCING THE SAME

Arthur Fletcher, Northampton, Mass., assignor to Nickel Cadmium Battery Corporation, Easthampton, Mass., a corporation of Delaware

No Drawing. Application December 9, 1952, Serial No. 325,037
10 Claims. (Cl. 136—24)

3. A secondary electric battery comprising a porous, active material carrier composed essentially of nickel and having functionally active material within its pores consisting essentially of cadmium with a portion of indium amounting to between ½% to 2% of the amount of cadmium.

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2,771,500

## STORAGE BATTERY PLATE

Howard J. Strauss, Philadelphia, and Harold C. Riegg, Lansdowne Manor, Pa., assignors to The Electric Storage Battery Company, a corporation of New Jersey

No Drawing. Application December 29, 1951, Serial No. 264,281
8 Claims. (Cl. 136—30)

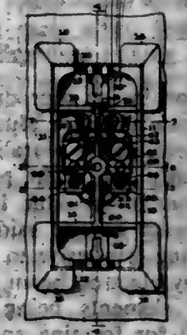
In a silver oxide-zinc battery containing an alkaline electrolyte, the improvement consisting of a positive plate characterized by an enclosing sheath consisting of magnesium oxide and magnesium carbonate, said sheath being sufficiently porous to permit the passage of electrolyte therethrough, said said sheath having been produced by dipping said plate in an aqueous suspension of magnesium hydroxide, and air drying the plate so dipped.

2,771,501

## CONVENIENCE OUTLET FOR INSTALLATION IN FINISHED WALLS

Victor R. Despard, Syracuse, N. Y., assignor to Pass & Seymour, Inc., Syracuse, N. Y., a corporation of New York

Application June 25, 1951, Serial No. 233,313
15 Claims. (Cl. 174—53)



1. An electric wiring box for mounting from the room side in a rectangular opening in a finished wall and be held therein by straps engaging the wall back, passing along the edges of the opening and bent over the front edges of the box walls, said box being of integral moulded plastic insulation having ends and sides forming a rectangular configuration open at the front and a wall closing the back, an integral flange ear on each front corner of the box projecting to engage the room face of the wall adjacent both an end and a side of the opening, the ears being spaced apart on each of the ends of the box for the passage of a mounting strap therebetween, a partition integral with said box adjacent each end thereof to provide a compartment to receive the bent-in portion of a mounting strap to isolate it from the central compartment between said partitions and plug blade receiving contact means permanently mounted in said last compartment.

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2,771,502

## SPLICE CLOSURE FOR SHEATHED CABLE

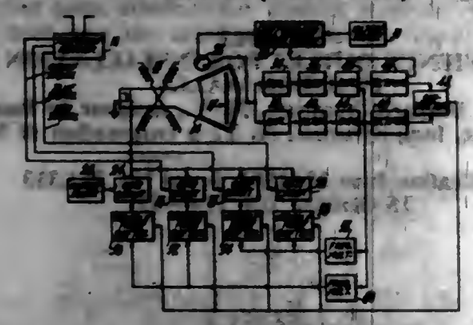
John H. King, Chatham, and Walter C. Kleinfelder, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 10, 1951, Serial No. 225,576
15 Claims. (Cl. 174—92)



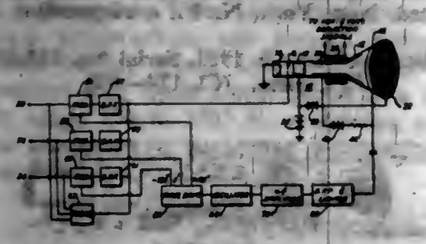
3. A splice closure for joints in sheathed cable and the like comprising an elongated housing, a cable confined in said housing and extending from each end thereof, the sheath of the confined cable, adjacent the ends of said housing, slit longitudinally to provide outwardly extending tab portions, clamping means in the ends of said housing for gripping therebetween said tab portions, means in the ends of said housing comprising resilient bushings, for sealing the ends thereof and longitudinally extending bolts passing through said clamping means and said bushings for simultaneously causing the deformation of said sealing means and the compression of said clamping rings.

2,771,503
COLOR TELEVISION SYSTEM
James W. Schwartz, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 25, 1954, Serial No. 464,500
15 Claims. (Cl. 178—5.4)



1. A color television image reproducing system comprising an image screen having a plurality of light producing strip-like elements and a plurality of signal generating strip-like elements, said light producing strip-like elements being responsive to emit light energy when excited by electron beam energy, said signal generating strip-like elements being responsive to generate a control signal when excited by electron beam energy, said signal generating strip-like elements being of at least two different areas, means for forming an electron scanning beam for exciting said strip-like elements, controlled modulating means for intensity modulating said electron beam with different signals during different intervals of modulation, each of said intervals of modulation substantially coinciding in time with a particular impinging time interval when said electron beam excites certain of said strip-like elements, sensing means for sensing said control signal, filtering means for selecting certain frequency components of said control signal to generate frequency component signals, signal combining means for combining certain of said frequency component signals to form a restoration signal, varying means connected to receive said restoration signal, said varying means for varying said interval of modulation with respect to said impinging time interval according to said restoration signal.

2,771,504
COLOR TELEVISION INDEXING SYSTEM
Robert C. Moore, Erdenheim, and Richard G. Clapp, Haverford, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application December 11, 1951, Serial No. 261,014
11 Claims. (Cl. 178—5.4)



1. A cathode ray tube system comprising a cathode ray tube having a source of an electron beam, control means for varying the intensity of the beam and a beam intercepting member, said beam intercepting member comprising a plurality of first portions arranged in a given geometric configuration and adapted to produce a given response upon electron impingement, said first portions recurring over the surface of said intercepting member at a given periodicity, said member further comprising a plurality of second portions arranged in a second given configuration indicative of said first configuration and adapted to produce a second given response different from said first response upon electron impingement, said second portions recurring over the surface of said member at a periodicity fractionally related to the periodicity of said first portions by the value

$$\frac{2}{2n+1}$$

where $n$ is a whole number greater than zero, means for producing a wave having variations indicative of desired variations of the response of said first portions and having a component with a frequency spectrum arranged about a frequency having a value substantially proportional to the number of said periodically arranged first portions, means for applying said wave to said beam intensity control means, means for scanning said beam across said first and second portions thereby to energize said first portions proportionally to variations of the intensity of said beam produced by said wave and to energize said second portions, means coupled to said beam intercepting member and responsive to the energization of said second portions by said scanning beam for producing a second wave comprising a component having a frequency spectrum as determined by the rate of scanning said periodically arranged second portions, and means coupled to said second wave producing means for selectively deriving said component of said second wave.

2,771,505
READOUT DEVICES
Harold T. Avery and Robert W. Hampton, Oakland, Calif., assignors to Marchant Research, Inc., a corporation of California
Application July 21, 1953, Serial No. 369,483
8 Claims. (Cl. 178—23)

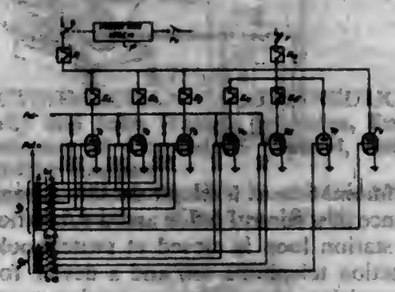


1. In a device of the class described having, ordinally spaced cyclically movable members bearing ordinal characters formed of magnetically permeable material, ordinally spaced pulsing shoes disposed in spaced relation to the cyclic path of said characters, and a movable magnetic tape; the combination of, means for continuously moving said members at a uniform cyclic speed, means for continuously moving said tape between said members and said pulsing shoes at a uniform speed in timed relation to the cyclic speed of said members, means for producing ordinal signals corresponding to ordinally selected ones of said characters, and a circuit operable under control of the signal producing means for independently energizing each pulsing shoe synchronously with the alignment of each ordinally selected character and a predetermined transverse line on said tape.

2,771,506
TELEPRINTER SYSTEMS
Jules Coquelet, Jumet-sur-Marcinelle, Belgium, assignor to Ateliers de Constructions Electriques de Charleroi, Brussels, Belgium, a company of Belgium
Application February 1, 1955, Serial No. 485,490
Claims priority, application France February 2, 1954
5 Claims. (Cl. 178—51)

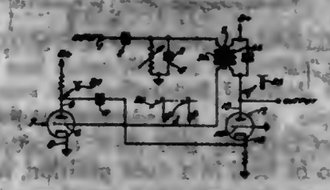
1. In a teleprinter system, an automatic tape transmitter having five contacts for sensing a tape perforated according to a five unit code, transmitting means connected to said contacts for producing in response to each five unit code group a first current having any one of eight different characteristics corresponding to three units of said code, and a second current having any one of four different characteristics corresponding to the other two units, means for receiving said first and second currents comprising twelve channels each including a tuned mechanically vibrating element for selecting a current having one of said characteristics, five electron tubes, a relay winding connected between the anode and cathode of each tube, means connecting said channels to the control electrodes of said tubes for controlling the biases of the control electrodes of three of said tubes selectively in response to said first current and the biases of the other two tubes selectively in response to said second current so that said tubes energize the relay windings





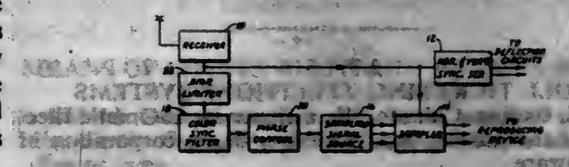
corresponding to the transmitted code group, a voltage control relay has its winding connected in series with the anode of each of said three tubes, said relay having contact means for applying anode voltage to said two tubes, a sixth tube, said means for controlling the biases being connected to the control electrode of the sixth tube for controlling said tube in response to a characteristic of the first current representing the absence of a pulse in said three units, the anode of the sixth tube being connected to said winding of the voltage control relay, a printing and control relay having a winding connected in series with the anode of each of said two tubes for operating said printing mechanism.

2,771,507
SELF-GATING SYNCHRONIZING CIRCUIT
Arnold M. Levine, River Edge, and Harry Altman, Belleville, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application October 2, 1953, Serial No. 386,810
4 Claims. (Cl. 178—69.5)



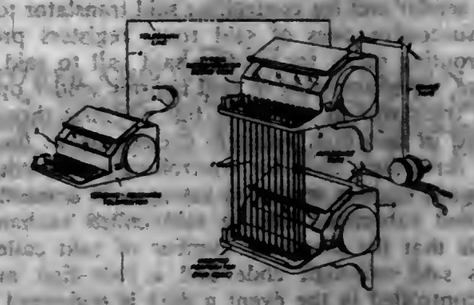
1. In a television system having synchronizing signals, a blocking oscillator circuit to generate pulse signals having a rate of occurrence comparable to said synchronizing signals comprising a first electron discharge device having at least a cathode, an anode and a grid, a circuit for said grid, a time constant circuit having capacitive and resistive elements coupled to said grid circuit, means to couple said synchronizing signals to said grid circuit, a second electron discharge device having at least a cathode and an anode, means to couple the output from the anode of said first electron discharge device to the cathode of said second electron discharge device and inductive means to couple the output of the anode of said second electron discharge device to said grid circuit of said first electron discharge device.

2,771,508
COLOR SAMPLER SYNCHRONIZING SYSTEM
Edgar M. Creamer, Jr., Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application April 27, 1951, Serial No. 223,245
4 Claims. (Cl. 178—69.5)



1. A color television receiving system, comprising input means for a video wave having color signal components recurring at a given frequency and having a marker signal component having a frequency equal to said given frequency and having a given amplitude variation at spaced time intervals at a repetition rate substantially smaller than said given frequency, said marker signal component being characterized by a carrier component at said given frequency and sideband components closely related to said carrier component both in frequency and amplitude, means to sample said video wave at said given frequency to derive therefrom said color signal components, means for actuating said sampling means, said actuating means being responsive to signal energy at frequencies in the neighborhood of said given frequency and therefore being subject to possible operation at the frequency of one of said sideband components, means coupled to said input means for selecting said marker signal component from said video wave to the exclusion of said color signal components, and narrow band filter means connected between said selecting means and said actuating means for transmitting to the latter signal energy at the frequency of said carrier component and for attenuating signal energy at the frequencies of said sideband components, thereby to effect actuation of said sampling means at the frequency of said carrier component and to preclude actuation of the sampling means at the frequency of one of said sideband components.

2,771,509
SYNTHESIS OF SPEECH FROM CODE SIGNALS
Homer W. Dudley, Summit, N. J., and Cyril M. Harris, New York, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 25, 1953, Serial No. 357,062
8 Claims. (Cl. 179—1)



1. Apparatus for the artificial production of speech-like sounds which comprises for each sound of speech a plurality of records of said speech sound as spoken under a like plurality of conditions which differ from each other in respect of the character of the possible preceding and following sounds, means for generating a succession of discrete code signals each of which is representative of one sound to be reproduced, means for simultaneously examining three successive ones of said code signals, means responsive to the identity of the second one of said recognized signals for selecting all of said plurality of

records corresponding to said second of said three successive signals, means for further selecting a single one among said plurality in dependence on the recognized character of the first and third of said code signals, and means for reproducing said finally selected record as an artificial speechlike sound.

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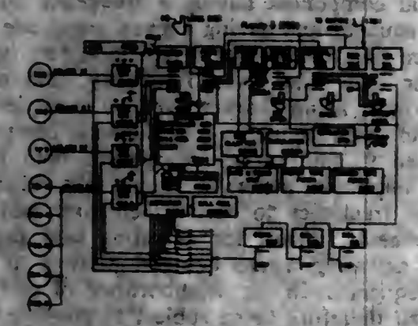
2,771,510

## TOLL TICKETING TELEPHONE SYSTEMS

John E. Outline, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware

Original application January 11, 1951, Serial No. 205,460. Divided and this application July 15, 1953, Serial No. 368,097

21 Claims. (Cl. 179—27)



1. In an automatic telephone system, a calling exchange, a single called exchange identified by both a two-digit and a three-digit code wherein the first digit of the two-digit code and the first digit of the three-digit code are identical and wherein the second digit of the two-digit code and the second digit of the three-digit code are identical, subscriber lines terminating in said called exchange identified by four-digit numbers wherein the first digit of said four-digit numbers assigned to subscriber lines utilizing said two-digit code as part of the directory number are identical to the third digit of said three-digit code, a register sender in said calling exchange including seven-digit registers and a plurality of route registers and a sender, means for registering in successive ones of said digit registers the two-digit code or the three-digit code identifying said called exchange and a four-digit number identifying a desired called subscriber line in said called exchange, a common translator, a translator assigner, means controlled by the registration of said first three digits in said digit registers for controlling said assigner to connect said translator to said register sender and for controlling said translator to register in successive ones of said route registers predetermined routing digits for routing said call to said called exchange, a register relay in said register sender operated by said translator in the event that the first three digits registered in said digit registers correspond to the digits of said three-digit code for controlling said sender portion of said register sender to set up said connection to said called subscriber line in said called exchange on the basis that the directory number of said called line includes said two-digit code and a four-digit number, means controlled in the event a digit is registered in the last register of said seven-digit registers for restoring said register relay so that said sender portion of said register sender is controlled to set up said connection to said called subscriber line in said called exchange on the basis that the directory number of said called line includes said three-digit code and a four-digit number, and means in said register sender operated by the registration of at least one digit in said route register for controlling said sender to transmit all of said predetermined digits registered in said route register and then the four-digit number identifying said called line registered in said digit registers.

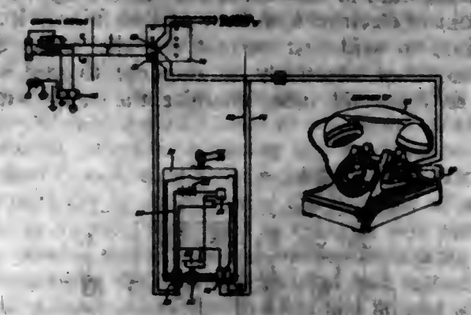
2,771,511

## LINE CLEARING DEVICE FOR RECEIVER-OFF-HOOK CONDITION

Richard S. Morris, Jr., Columbia, S. C., assignor to American Telephone and Telegraph Company, a corporation of New York

Application August 11, 1955, Serial No. 527,681

7 Claims. (Cl. 179—36)



1. The combination of a telephone line having a terminal appearance at a central office and a substation thereon and whose station loop is closed at switchhook contacts of the substation telephone set, and a device for clearing the line comprising an attachment having terminal connectors whereby said attachment may be inserted in said line between the central office appearance thereof and said substation and including a relay, a battery and a manually operable switch, switching means controlled by said relay when said attachment is inserted in said line for completing a connection between the closed switchhook contacts at said substation and the central office terminal appearance of said line by way of a conductor of said line, and means including said battery and said manually operable switch for operating said relay whereby said switching means functions to interrupt the connection completed thereby.

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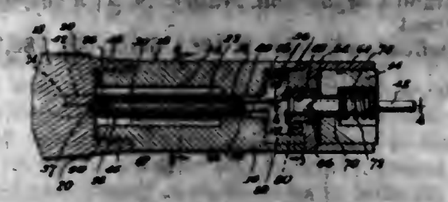
2,771,512

## TRANSDUCER

David J. Munroe, Racine, Wis., assignor to Webster Electric Company, Racine, Wis., a corporation of Delaware

Application May 12, 1951, Serial No. 225,968

8 Claims. (Cl. 179—100.41)



8. A multiple stylus transducer comprising a first transducer part carrying said styli, a second transducer part adapted to be held in a fixed position, means mounting said first part for unlimited rotation relative to said second part, and combined contact and positioning means carried on said first and second parts spaced one hundred eighty degrees from each other and movable into engagement with each other both to locate said first and second parts at angularly spaced predetermined positions relative to each other and to complete electrical connections between said first and second parts.

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2,771,513

## TRANSDUCER

Clarence F. Jones, Racine, Wis., assignor to Webster Electric Company, Racine, Wis., a corporation of Delaware

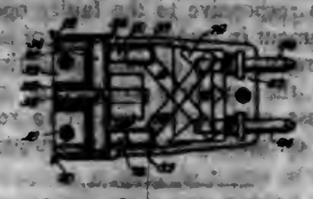
Application August 15, 1951, Serial No. 241,909

9 Claims. (Cl. 179—100.41)

1. A transducer, including in combination, a stylus actuated element having a generally vertically extending



portion adapted to be actuated by a stylus, means supporting said element for movement in a plane substantially perpendicular to a horizontal axis, and a pair of



bender type transducer elements connected to said vertically extending portion at points spaced on opposite sides of said horizontal axis.

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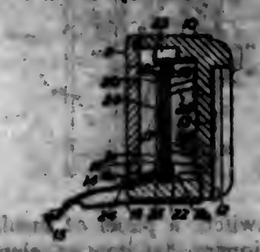
2,771,514

## ELECTROMECHANICAL TRANSDUCERS

Stanley Kelly and John Watson Brownlee, Enfield, England, assignors to Connocord Limited, Enfield, England, a British company

Application March 10, 1952, Serial No. 275,776

6 Claims. (Cl. 179—100.41)



1. A gramophone pickup comprising a casing, a piezo-electric element mounted, aligned first and second pivot means at opposite edges of said element for mounting said element for pivotal movement in said casing, a cantilever arm, having a stylus thereon, connected to said element adjacent said first pivot means for transmission of motion to said element in response to motion imparted to said stylus in a desired direction by a record groove, and a rigid member extending longitudinally of and adjacent said element between said pivot means, said rigid member being secured rigidly to said element and only in the vicinity of said first pivot means for transmitting reaction forces imparted to said element in response to movement of said stylus in a direction generally at right angles to the said desired direction through said rigid member to said second pivot means.

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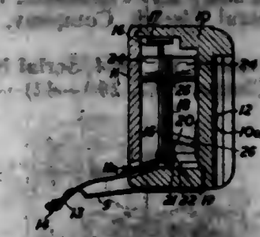
2,771,515

## ELECTROMECHANICAL TRANSDUCERS

Stanley Kelly and John Watson Brownlee, Enfield, England, assignors to Connocord Limited, Enfield, England, a British company

Application March 10, 1952, Serial No. 275,775

8 Claims. (Cl. 179—100.41)



1. A gramophone pickup comprising a casing, a relatively rigid rod, pivot means mounting said rod at its end portions in said casing to render said rod capable of movement about its longitudinal axis, a cantilever arm extending laterally of said rod and secured at one end thereof to an end portion of said rod, a stylus secured to the other free end of said arm, said arm having a relatively low compliance for movement of the stylus in a radial direction about the longitudinal axis of said rod to follow the excursions of a record groove and said arm having a relatively high compliance in the direction of said longitudinal axis, and a piezo-electric crystal element secured to said rod only at the same end thereof as is said cantilever arm.

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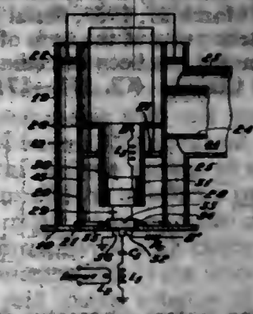
2,771,516

## MEANS OF COUPLING ENERGY TO OR FROM A COAXIAL RESONATOR

Arnold M. Buchsbaum, Grinnell, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application June 7, 1952, Serial No. 292,341

2 Claims. (Cl. 179—171)



2. Means for efficiently coupling an electron tube to an output coaxial line comprising, a ground plate, a first hollow conducting cylindrical member attached to said ground plate, a second hollow conducting cylindrical member mounted concentrically within said first cylindrical member, an annular dielectric member attached between an end of said second cylindrical member and said ground plate, a disc mounted within said second hollow cylindrical member, an inner conducting cylindrical member attached to said disc and extended toward said ground plate, a first tuning plunger generally annular in shape mounted between said first and second cylindrical members, a second tuning plunger annular in shape mounted between said second cylindrical member and said inner cylindrical member, the outer conductor of said output coaxial line connected transversely to said first cylindrical member, and the inner conductor of said output coaxial line connected transversely to said second cylindrical conductor, said electron tube coaxially supported with its plate connected to said inner cylindrical member and its grid connected to said ground plate, whereby an impedance match is obtained between said coaxial line and the plate of said tube by tuning said plungers.

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2,771,517

## POWER AMPLIFIER FOR TELEVISION

Charles W. Harrison, Gillette, and George Nielsen, Jr., Bernardsville, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 28, 1953, Serial No. 400,561

8 Claims. (Cl. 179—171)

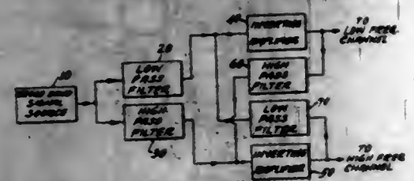


1. An amplifier including an input terminal, means for applying a varying signal to said input terminal, means including a multiple feed arrangement for providing current to said amplifier, said current means being selected so that in the absence of said signal substantially all of

the current to said amplifier is carried in a first arm of said feed arrangement and in the presence of said signal the differential current resulting therefrom is carried in the second arm of said feed, said second arm comprising a plurality of impedances connected in series, feedback means connected between a junction of said impedances and said input terminal, and a bias means connected to said input terminal whereby an additional current may be caused to flow in said second arm.

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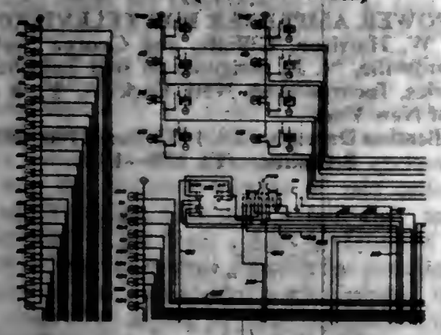
2,771,518
FREQUENCY BAND SEPARATION AMPLIFIER SYSTEM
George C. Sziklai, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 27, 1953, Serial No. 345,014
The terminal fifteen years of the term of the patent to be granted has been disclaimed
8 Claims. (Cl. 179—171)



1. In a signaling system, apparatus for separating the high frequency components of a signal from the low frequency components of said signal, said apparatus comprising in combination a low pass network, a high pass network, means for cophasally applying said signal to said low pass network and to said high pass network, a pair of phase inverters each having respective input and output circuits, the input circuit of one of said pair of phase inverters being coupled to said low pass network, the input circuit of the other of said pair of phase inverters being coupled to said high pass network, a feedback circuit coupling the output circuit of said one phase inverter to the input circuit of said other phase inverter, a second high pass network being included in said feedback circuit, and an additional feedback circuit coupling the output circuit of said other phase inverter to the input circuit of said one phase inverter, a second low pass network being included in said additional feedback circuit.

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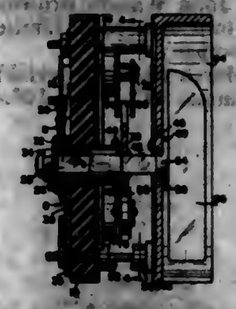
2,771,519
ROUTINE TRUNK TEST CIRCUIT
Robert C. Nance, Wood-Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 29, 1955, Serial No. 518,769
11 Claims. (Cl. 179—175.2)



1. A routine testing circuit for testing a plurality of pieces of automatic telephone equipment, means in said testing circuit to connect with said pieces of equipment in succession, means responsive to the connection of said testing circuit with one of said pieces of equipment to make a plurality of tests of the connected piece of equipment, means in said testing circuit responsive to the correct operation of said piece of equipment in response to said plurality of tests to cause said connecting means to connect said test circuit with another piece of equipment, class of trouble indicating means in said testing circuit, means responsive to the faulty operation of said piece of equipment in response to one of said plurality of tests for operating one of said indicating means, and means under the selective control of said indicating means to cause said testing circuit to repeat said plurality of tests on said one piece of equipment.

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2,771,520
ROTARY SWITCH
Arthur Myron Stevens, Middletown, Ohio, assignor to The Barkelew Electric Manufacturing Co., Middletown, Ohio, a corporation of Ohio
Application November 1, 1952, Serial No. 318,208
9 Claims. (Cl. 200—15)



1. In a rotary switch; a panel of insulating material, a plurality of stationary flat contact elements mounted in circumferentially spaced relation on the back side of said panel, a rotary contact arm also on the back side of said panel, adapted for successively engaging said contact elements, said contact arm comprising a pair of elements spaced apart the thickness of a stationary contact in order to receive the contacts in a successive manner as the arm is rotated, the elements of said pair being coincidentally positioned one over the other so as to wipe only one contact at any one time, a shaft supporting said arm and extending through said panel and journalled on said panel, a star wheel carried by the shaft on the front side of said panel, a pair of arms pivoted to spaced points on the front side of said panel, said arms extending beyond the star wheel, a spring interconnecting the free ends of said arms for urging them toward said star wheel, and a roller carried by each arm and engaging the periphery of said star wheel, each of said rollers being annularly grooved and the grooves in the said rollers being of such a width as to receive therein the periphery of the said star wheel.

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2,771,521
REMOTE CONTROL KEY SWITCH
Robert C. Creasman and Earl F. Rollman, Warwick, R. I., assignors to General Electric Company, a corporation of New York
Application November 30, 1954, Serial No. 471,976
2 Claims. (Cl. 200—42)

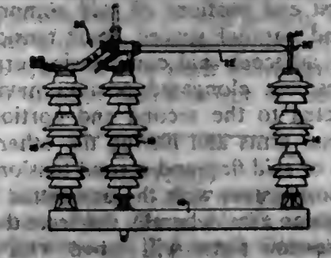


1. A low voltage momentary-contact key switch comprising a hollow housing with a center contact and one or more side contacts mounted therein, the center contact having an aperture to receive a portion of a key member so that the key may pivot therein to make contact with one or the other of the side contacts, and a centering spring supported in the housing and adapted to hold a key member in a neutral open circuit position when the key is left in the switch, the said centering spring being supported by an anchoring leg from the bottom portion of the housing, while the main portion of the spring encompasses a boss formed as an integral part of the top portion of the housing to provide a pair of spring fingers adapted to engage and resist any turning movement of the key.



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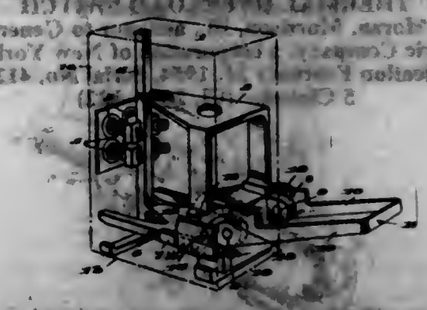
2,771,522
DISCONNECTING SWITCH
Peder B. Hoye, Maywood, Ill., assignor to Electrical Engineers Equipment Co., Melrose Park, Ill., a corporation of Illinois
Application May 17, 1955, Serial No. 516,670
6 Claims. (Cl. 200—48)



1. In a disconnecting switch having a switch blade rotatable about its own axis and arcuately movable between two end positions, operating mechanism for the blade comprising a frame, a blade hinge pivotally mounted on the frame, a blade carriage rotatably mounted on the hinge, and a rotatable operating crank operatively connected to the carriage, the pivot axis of said hinge and the axes of rotation of said carriage and said crank in one end position of the blade each being disposed substantially at right angles to the other two axes, one of said axes of rotation substantially intersecting the pivot axis of said hinge and the other being substantially offset from said pivot axis; said carriage including a rigid angular extension and said crank including a complementary extension, said extensions being operatively connected for relative sliding, rotating and swiveling movement.

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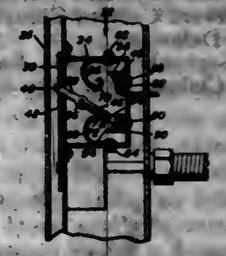
2,771,523
DISCONNECTABLE RELAY APPARATUS
Josef Stocklin, Ennetbaden, and Mario Lura, Baden, Switzerland, assignors to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application July 18, 1955, Serial No. 522,646
Claims priority, application Switzerland February 18, 1955
4 Claims. (Cl. 200—50)



1. Disconnectable relay apparatus comprising a casing having a front opening, fixed contact means disposed on the inside of the rear wall of said casing, a relay frame adapted to be slidably inserted in said casing through said front opening, said relay frame including relay contact means at the rear thereof for connection with and disconnection from said fixed contact means, a U-shaped lever, the outer ends of the leg portions of said lever being pivotally mounted on the front portion of said frame on co-axially arranged pivot means for rotation about a horizontal axis and means responsive to pivotal movement of said lever for forcibly moving said relay frame and hence said relay contact means towards or away from said fixed contact means to connect or disconnect said contact means, respectively, depending upon the direction of movement of said lever, last said means including horizontal co-axially placed pins at opposite sides of said casing, and open-ended like spiral slots at the outer leg portions of said lever arranged spirally about the axis of rotation of said lever for cooperation with said pins, the open ends of said spiral slots being further away from the axis of rotation of said lever than the opposite closed ends thereof, said pins being engaged in said slots through the open ends thereof upon a horizontal insertion of said relay frame into said casing with said lever in a substantially horizontal position and subsequent rotation of said lever into a vertical position serving to move said spiral slots along said pins thereby to effect a pulling movement of said lever and relay frame and the contact means at the rear thereof inwardly of said casing for connection with said fixed contact means at the inner side of the vertical rear wall of said casing, rotation of said lever from the vertical position toward the horizontal position serving to move said slots in the opposite direction along said pins thereby pushing said relay frame and retracting said contact means thereon from said fixed contact means.

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2,771,524
SPEED ALARM
Carl B. Flasher, Los Angeles, Calif.
Application March 30, 1954, Serial No. 419,697
2 Claims. (Cl. 200—56)



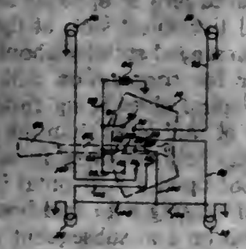
1. An actuation device adapted to be used with a hood mounted visual signal device and actuated by the indicator of a speedometer comprising a casing, a switch handle rotatably mounted in said casing and having an end portion extending outwardly of said casing for engagement by the speedometer indicator, a pair of opposed resilient seats in said casing, one of said seats being electrically conductive, and a resilient contact on said switch handle adapted to resiliently engage and seat in one of said seats when said switch handle is actuated by said indicator, and a pair of springs partially overlying said seats and engageable by said switch handle, said springs being stressed to permit said indicator to pass over said switch handle, said springs returning said switch handle into position for subsequent engagement by said indicator.

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2,771,525
SIGNAL DEVICE FOR MOTOR VEHICLES
Morris Sivak, Brooklyn, N. Y.
Application November 19, 1954, Serial No. 469,286
1 Claim. (Cl. 200—61.27)

In a directional and stop signal device for vehicles, switching mechanism including a casing having "left" and "right" sets of contacts adapted to close circuits to the left and right signal lamps respectively of a vehicle when

bridged, an insulating switch handle pivoted in the casing, a conducting sleeve on said handle constituting a bridge adapted to bridge said sets in opposite extreme "left" and "right" positions to which the handle is shifted, a third set of contacts between the first and second sets bridged by the bridge in a third position of the handle and arranged to close a circuit to both the left and right signal lamps of a vehicle simultaneously, and a fourth set of contacts closed by the handle in a fourth position thereof and also arranged to close the circuit to both the left and



right signal lamps simultaneously, the "left" and "right" sets of contacts being disposed in a common horizontal plane, said switch handle being pivoted about a first axis to swing in said plane, the third set of contacts being disposed above said plane, the switch handle being pivoted to swing upwardly in a plane normal to the first plane to bridge said third set of contacts, the fourth set of contacts being disposed below the horizontal plane, said switch handle when swung about the second axis thereof being shiftable downwardly to close said fourth set of contacts.

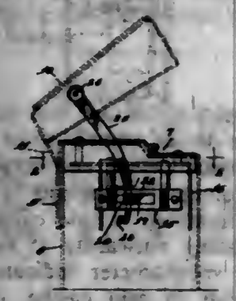
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2,771,526

## SWITCH ACTUATOR APPARATUS

Carl W. Clarus and Theodore Wickstrom, Chicago, Ill., assignors to Revere Camera Company, Chicago, Ill., a corporation of Delaware

Application September 1, 1954, Serial No. 453,599
5 Claims. (Cl. 200—61.62)



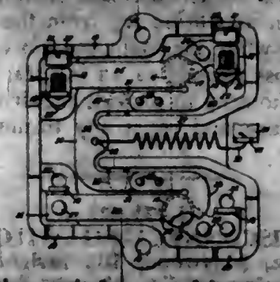
1. In combination, a case, a cover, a hinge between said case and said cover, said hinge providing random-direction movement and dimensionally irregular relation between said cover and said case, a switch mounted within said case, a switch actuator extending laterally from a face of said switch, a fixed element in close proximity to said actutor, said actuator being biased toward said fixed element, a keeper spaced from said switch face and an elongated combination cover stay and switch operator having one end attached to said cover in a pivotal manner, said stay and operator being curvilinear and tapering in width from said one end and having a stop element at the other end, said stay and operator extending through the space bounded by said switch face, said switch actuator, said fixed element and said keeper, whereby longitudinal movement of said stay and operator when said cover is opened and closed is effective, respectively, to close and open said switch.

2,771,527

## SNAP ACTION SWITCH

George M. Hausler, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application July 16, 1954, Serial No. 443,523
7 Claims. (Cl. 200—67)



1. A snap action switch comprising a pair of parallel spaced apart elongated compression arms each having opposite first and second end portions which are movable in a transverse direction, relatively rigid means interconnecting the first end portions of said compression arms, first and second parallel spaced apart tension arms disposed laterally adjacent said compression arms and each including a resilient elongated portion having one end flexibly connected to the second end portion of one of said compression arms and having the other end fixedly mounted, each of said first and second tension arms forming a snap action system with the associated flexibly connected compression arm, whereby the second end portions of said compression arms will move with snap action whenever the compression centerline of said compression arms is moved through a position of alignment with the tension centerline of said first and second tension members in response to transverse movement of said interconnecting means, a third elongated tension arm disposed intermediate and in parallel relationship to said compression arms and having one end movable in a transverse direction and the other end pivotally connected to said interconnecting means to form with said compression arms another snap action system, whereby said interconnecting means will move with snap action whenever the tension centerline of said third tension arm is moved through a position of alignment with the compression centerline of said compression arms in response to transverse movement of said one end of said third tension arm, a movable actuating member connected to said one end of said third tension arm and disposed to apply tensile stress to said third tension arm while moving in a transverse path thereby to actuate the snap action systems, a pair of movable switch contacts mounted for movement with the second end portions of said compression arms, and a pair of stationary switch contacts fixedly mounted in cooperating relationship with said movable switch contacts.

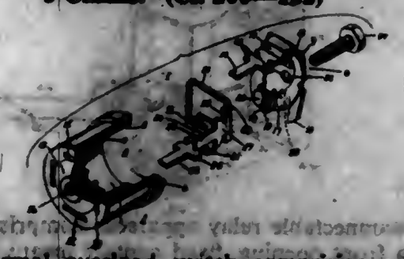
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2,771,528

## THERMAL OVERLOAD SWITCH

Don E. Moran, Morrison, Ill., assignor to General Electric Company, a corporation of New York

Application February 25, 1954, Serial No. 412,468
5 Claims. (Cl. 200—122)



1. A thermal overload switch comprising a housing member of insulating material having a cavity formed therein, a metallic mounting member positioned in said cavity spaced from the bottom thereof and extending



substantially across the same, said mounting member having a portion extending through said housing member bottom to form an external terminal, a bimetallic element in said cavity intermediate said housing member bottom and said mounting member and having a point thereon secured to said mounting member adjacent one end thereof, a movable contact mounted on said bimetallic element opposite from said point and facing said housing member bottom, a terminal member having one end in said cavity and extending through said housing member bottom to form a second external terminal, a stationary contact mounted on said one end of said terminal member and cooperating with said movable contact, another terminal member having one end in said cavity and extending through said housing member bottom to form a third external terminal, a heater positioned in said cavity and having its ends respectively connected to said one end of said terminal members, said mounting member being normally longitudinally bowed away from said housing member bottom, and means for selectively deflecting said mounting member toward said bottom thereby to set one characteristic of said switch, said mounting member having a portion extending toward said bimetallic element and adapted to limit movement of the same thereby to set another characteristic of said switch.

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2,771,529

## COAXIAL LINE SWITCH

John A. Kostrisa, New Dorp, N. Y., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application March 29, 1954, Serial No. 419,267
1 Claim. (Cl. 200—153)



A coaxial electric switch comprising inner and outer conductors, said inner conductor having a section movable radially to break conduction along said inner conductor while maintaining said outer conductor stationary, a bead of dielectric material disposed in said outer conductor to support said inner conductor axially thereof, said bead having a recess in one side thereof to receive said section, said outer conductor having an opening therethrough in alignment with said recess, and means extending through said opening for moving said section radially out of alignment with said inner conductor and into said recess.

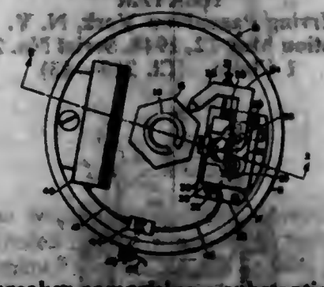
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2,771,530

## CIRCUIT BREAKER

Louis P. Trombetta, Miami, Fla.

Application February 9, 1953, Serial No. 335,717
1 Claim. (Cl. 200—166)



A circuit breaker comprising a substantially rectangular housing, a chamber in said housing, said chamber forming an opening in at least two sides of said housing, a spherical member contained in said chamber, a pair of roller members pivotally mounted within said chamber, a spring



having one end secured to said housing and its other end extending across one of said openings yieldingly urging said spherical member into contact with said roller members, an operating lever extending through said other opening in said housing to a position adjacent said spherical member, and pivot means mounting said operating lever whereby upon the pivotal movement of said operating lever said spherical member is moved out of contact engagement with said rollers while substantially simultaneously effecting a rotational movement of said spherical and roller members.

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2,771,531

## ELECTRIC SWITCH CONTACT CONSTRUCTION

Wilhelm A. Strauss, Mount Prospect, Ill., assignor to Oak Mfg. Co., Chicago, Ill., a corporation of Illinois

Application February 15, 1954, Serial No. 410,355
2 Claims. (Cl. 200—166)



1. A multi-contact switch construction for television turret tuners or the like comprising a stator carrying at least one elongated insulating stator strip with a plurality of contacts rigidly secured thereon, said contacts being disposed in side-by-side relation along the length of said strip, a rotor carrying a plurality of elongated rotor strips, said rotor axis, stator strip and rotor strips being parallel, the rotor strips being movable with rotor movement past the stator strip, each rotor strip carrying a plurality of rotor contacts rigidly secured thereto, each rotor contact having a cooperating stator contact, a pair of cooperating rotor and stator contacts having the following construction: one of said cooperating contacts having as the active part a blade whose plane should be perpendicular to the rotor axis, the other cooperating contact having a pair of spring jaws extending toward the blade contact when a pair of contacts are in circuit-closing condition, the blade and jaws cooperating so that the leading edge of the blade is a side edge and the cooperating jaw edges are also side edges, said jaw side edges being flared away from each other so that the blade may enter properly, said jaws being springable to separate when said blade enters between said jaws, the other cooperating contact having a mounting portion for securing to the insulating strip and having in intermediate portion between each jaw and mounting portion, the intermediate portion for one jaw being apertured and the intermediate portion for the other jaw having a tongue cut out therefrom and extending through the aperture of the one jaw with the tongue bent over to lock the two jaws together, said jaws extending substantially straight from their intermediate portions, the tongue and aperture for the jaw contacts being substantially midway between the sides of each jaw portion, said contacts during assembly being susceptible to misalignment whereby any blade entering between the open jaw tips of a cooperating contact even though out of alignment will finally make firm contact between the contact-making portions of the jaws, the tongue and slot arrangement serving to maintain the jaws together, said blades and jaws being free for accommodation.

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2,771,532

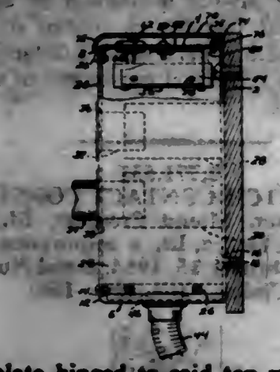
## SAFETY SWITCH ASSEMBLY

Louis M. Bellis, East Boston, Mass.

Application June 24, 1954, Serial No. 439,088
3 Claims. (Cl. 200—168)

1. A switch assembly comprising a switch box defined by front, back, top, bottom and side walls, two switches

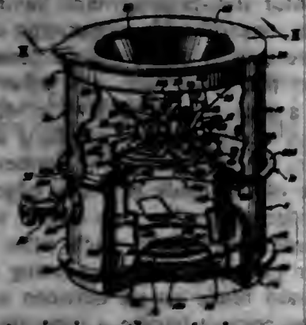
mounted within said box, one of said switches being normally open and the other of said switches being normally closed, said normally open switch having an actuating button extending through an opening in said front wall, said normally closed switch having a spring-loaded actuating member extending through an opening in said top



wall, and a plate hinged to said top wall and overlying said actuating member, said plate when depressed acting to open said normally closed switch, said actuating button and said hinged plate being sufficiently proximate each other to be simultaneously actuated by the thumb and one of the fingers of a human hand.

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2,771,533
**WASTE DISPOSAL DEVICE**
Chester F. Ostberg, San Diego, Calif., and Clifford B. Cooper, Fort Worth, Tex., assignors, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application September 3, 1953, Serial No. 378,362
17 Claims. (Cl. 219—19)



11. A waste incinerating device comprising a first receptacle for receiving waste, said first receptacle having an inlet opening and an outlet opening, a second receptacle having an opening communicating with said outlet opening of said first receptacle, means within said second receptacle for incinerating waste, a first door means adapted for normally closing said outlet opening of said first receptacle whereby waste may be accepted within said first receptacle, a second door means arranged in the plane of and normally biased to sealing relation with said opening of said second receptacle, actuable means for moving both said first door means and said second door means to an open position whereby the waste passes from a position in said first receptacle to said second receptacle, and exhaust means associated with said second receptacle for ejecting incinerated waste products therefrom.

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2,771,534
**ROTATING NYLON BELT CUTTER**
Joseph L. Schwaiss, Philadelphia, Pa.
Application July 19, 1955, Serial No. 523,131
1 Claim. (Cl. 219—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)

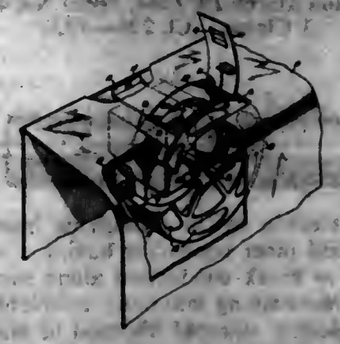
A cutting device for cutting a synthetic belting material in specified lengths comprising a pair of closely spaced drums mounted on separate shafts, means to rotate one of said drums, synchronizing meshing gear means mounted on said shafts to thereby rotate the drums at the same speed, a plurality of longitudinal wells set into the periphery of one of the drums, a similar plurality of mating longitudinal wells set into the periphery of the other of said drums, a heating wire mounted in each of the wells of the one of said drums, a set of copper end plates



mounted on the ends of the one of said drums, said plates connected to an electrical source and to the terminals of said wires, a plurality of pins mounted on the periphery of the other of said drums, rotation of said drums causing said belting to pass between the drums with the pins engaging said belting and aiding the drums to pass said belting between the drums and said wire heated by the electrical current passed therethrough cutting and fusing the belting on its travel through the drums.

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2,771,535
**ROTARY SWITCH**
Donald G. Kimball, Stratford, Conn., assignor to General Electric Company, a corporation of New York
Application November 19, 1954, Serial No. 469,593
6 Claims. (Cl. 219—37)



2. An electric switch assembly comprising a rotary switch having a rotatable control shaft projecting outwardly therefrom, a control drum mounted on said control shaft, a pilot lamp socket fixedly positioned with respect to said rotary switch on the interior of said control drum, and an access door in the periphery of said control drum, said access door providing an opening to the interior of said drum for removing and replacing the pilot lamp mounted in said socket.

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2,771,536
**AUTOMATIC PRESSURE COOKER AND ELECTRIC HEATER**
Irving Page, New York, N. Y.
Application May 22, 1948, Serial No. 28,627
1 Claim. (Cl. 219—43)



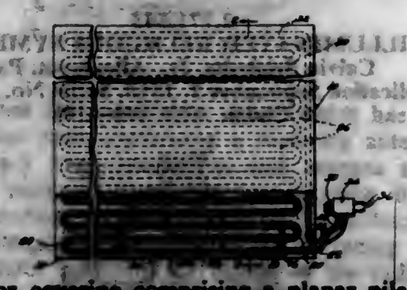
1. In a pressure cooker having a heating pot into which it rests and an electric heater, a removable pressure tight



cover having electric control means secured thereto, wires and contact terminals secured to said cover, connected to said electric control means and said heater removable with said cover, a stand secured to said cooker having contact terminals disposed vertically in its top for breaking the circuit to said control means and for mating with said terminals secured to said cover and for supplying electric current to said control means, said contact terminals being electrically disconnected and separable by raising said cooker from said heating pot and by raising said cover, as when removed from said cooker.

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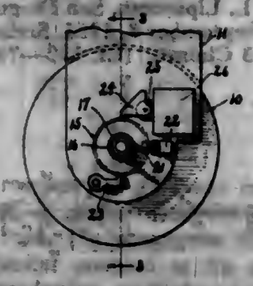
2,771,537
**THERMAL FLOOR COVERING**
Morris D. Lichtenstein, Chicago, Ill.
Application June 4, 1954, Serial No. 434,469
2 Claims. (Cl. 219—46)



1. A floor covering comprising a planar pile surface portion, a fabric backing supporting said pile surface portion, a resilient base element secured to said fabric backing, a heating element disposed within said floor covering, said heating element comprising two elongated electrical resistance elements following side by side tortuous paths whereby the area of said planar surface is subdivided into a plurality of small uniform areas, flexible conductor means extending from each of said resistance elements, and switch means terminating said flexible conductors, said switch means comprising a housing, a plurality of wall socket engaging prongs extending from said housing, and a movable switch element mounted in said housing to selectively connect one of said resistance elements to said prongs, both of said elements to said prongs in series, or both of said resistance elements in parallel relationship.

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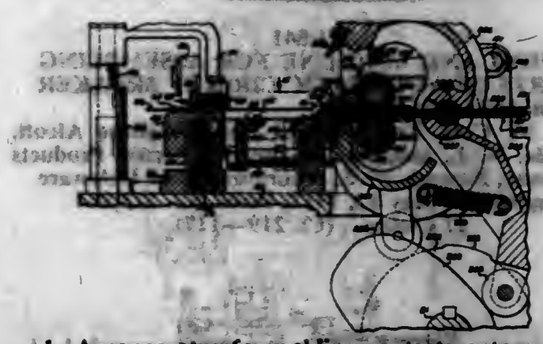
2,771,538
**WELDING APPARATUS**
Arthur L. Williams, Warren, Ohio, assignor to The Federal Machine and Welder Company, Warren, Ohio, a corporation of Ohio
Application June 16, 1953, Serial No. 362,069
12 Claims. (Cl. 219—78)



1. A seam welder construction, comprising a support, a shaft journaled in said support for both rotational and axial movement, a weld wheel fixedly secured to said shaft and movable therewith, means having a cam-like surface carried by said shaft and movable axially therewith, said means and said shaft being rotatable relative to one another, follower means secured to said support and engageable with said cam-like surface, and means for selectively rotating the means having a cam-like surface for shifting said shaft in an axial direction to distribute wear evenly across the face of said wheel.

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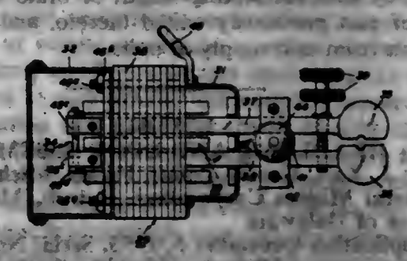
2,771,539
**APPARATUS FOR WELDING CONTACTS ONTO WIRE SPRING RELAYS**
Hubert A. Myers, Los Angeles, Calif., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 19, 1953, Serial No. 386,742
23 Claims. (Cl. 219—79)



1. An apparatus for welding contacts onto a plurality of springs of a relay part comprising a pair of welding stations, feed means for intermittently moving relay parts successively to and from said welding stations, means at said welding stations for positioning the relay part and the springs thereon in a predetermined position at said stations, means at said welding stations for feeding a plurality of contact tapes onto the ends of one set of alternate springs of the said relay part in one of said stations and onto the ends of the other set of alternate springs of the relay part in the other station, means at said welding stations for welding the ends of the tapes to the ends of said springs, and means for severing the welded ends of the tapes from the tapes to form the contacts on the springs.

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2,771,540
**SOLDERING TRANSFORMER FOR SPLICING COAXIAL CABLES**
Ray H. Dittmore, Milwaukee, Walther Richter, Whitefish Bay, Daniel Shadd and James A. McMillan, Milwaukee, and Russell W. Trichle, Jr., Janesville, Wis., assignors to Dittmore-Prudworth Corp., Milwaukee, Wis., a corporation of Wisconsin
Original application June 28, 1954, Serial No. 439,752. Divided and this application February 1, 1955, Serial No. 485,004
6 Claims. (Cl. 219—85)

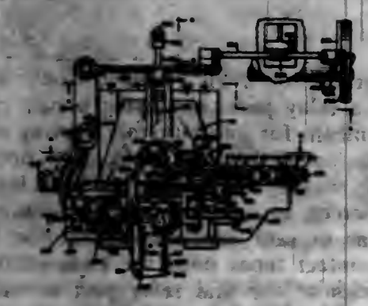


1. In a transformer for use in soldering the abutting ends of conductors in axially alined lengths of electrical or electronic cable with the insulating sheaths on the conductors extending close to the ends of the latter, the combination of a portable body containing a primary winding, a split secondary winding associated with the latter and including a first pair of substantially parallel terminal arms and a second pair of substantially parallel terminal arms, the arms of the two pairs being in laterally opposed relation and all of said arms projecting out of the body and being resiliently yieldable in lateral direc-

tions at right angles to each other, a conductor clamping jaw at the outer extremity of each of said arms, said jaws being arranged in coacting pairs to grip the alined conductors between them, one pair of jaws being on each of the opposed arms of said first and second pairs, separate adjustable means between the laterally opposed arms of said first and second pairs to move the coacting jaws into gripping engagement with alined conductor ends, and spring means associated with the intermediate portions of all of said arms to bias the pairs of jaws toward each other to hold the gripped conductor ends in contact.

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**2,771,541**
**METHOD AND MACHINE FOR ASSEMBLING PARTS OF AUTOMATIC CIRCUIT BREAKER SUB-ASSEMBLIES**
Herbert M. Cole, Teaneck, and David Wallace Alcott, Hillside, N. J., assignors to Federal Electric Products Company, Newark, N. J., a corporation of Delaware
Application May 12, 1951, Serial No. 225,954
17 Claims. (Cl. 219—117)

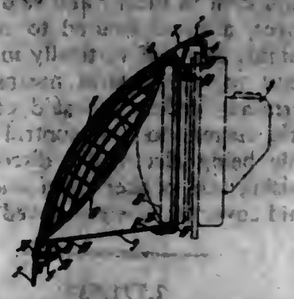


10. The method of making subassemblies for circuit breakers or the like, each subassembly having two metal parts of different forms united to a piece of flexible metallic braid and with said parts separated from each other by a connecting length of said braid, said method including the steps of uniting a series of metal parts of one of said forms to a continuous length of flexible metallic braid at intervals long enough to provide each said united part with a said connecting length of braid and the thus united metal parts and braid constituting a supply of units each including one of said united parts and a connecting length of braid, mechanically feeding said supply of units successively to a uniting device, mechanically presenting a series of metal parts of the second form individually and sequentially to said uniting device, operating said uniting device to unite each of said second form of parts to each respective unit of said supply at a point spaced by said connecting length of braid from the first form of part previously united thereto, and cutting each said unit from said supply of units.

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**2,771,542**
**HEADLAMP AND DOOR ASSEMBLY**
Harley J. Earl, Grosse Pointe Farms, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 8, 1953, Serial No. 396,943
6 Claims. (Cl. 240—8.1)

1. A headlamp door assembly adapted for use with a standard sealed beam headlamp mounted within an aperture in the streamlined body of a vehicle comprising a tubular spacer element obliquely truncated on its outer end and adapted to conceal the headlamp mounting and adjusting structure, a groove formed on the inner end of said spacer, a resilient sealing gasket positioned in said groove for establishing a weatherseal with the headlamp, a finish ring adapted to blend-in flush with the vehicle surface about the headlamp aperture, the outer end of said spacer being secured to the inner surface of said ring, and means secured to the upper portion of the assembly for supporting the assembly in the aperture,



the assembly being adapted to be removably secured within the aperture.

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**2,771,543**
**ILLUMINATED RELIGIOUS SYMBOL**
Calvin Seidholtz, Jr., Allentown, Pa.
Application September 2, 1953, Serial No. 378,156
1 Claim. (Cl. 240—10)



A lamp including a standard of translucent material and of generally cruciform configuration, the meeting edges of the faces of said standard being rounded to permit uninterrupted refraction of light therethrough, the surface area of said faces being provided with contiguous frusto-pyramidal projections permitting interrupted transmission of light therethrough, a hollow base connected to said standard, said base including a continuous depending skirt and a substantially centrally located dome-shaped interior surface, the upper outer surface of said base comprising a plurality of stepped surfaces of progressively reduced surface areas, a bracket mounted within said base upon an inner surface of said depending skirt, a source of illumination carried by said bracket and positioned to direct light rays upwardly against said dome-shaped surface to illuminate said standard, a reflecting cover plate below said hollow base, and a ventilating aperture located in one wall of said depending skirt and providing communication between said hollow base and the outer atmosphere.

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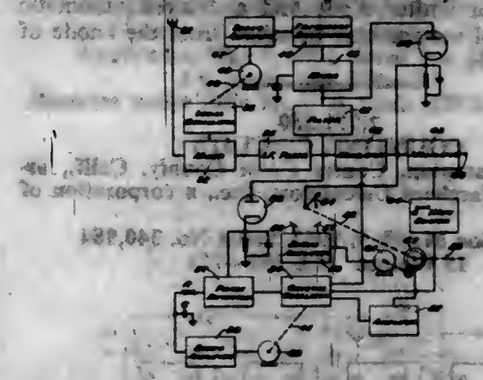
**2,771,544**
**COLLAPSIBLE CONCENTRIC RING LUMINAIRE**
Willis L. Lipscomb, San Diego, Calif.
Application September 8, 1953, Serial No. 378,799
3 Claims. (Cl. 240—78)



1. In a luminaire comprising a hanger-supported member, a plurality of horizontally spaced light-shielding rings concentric with said member and a plurality of sets of flexible linear elements suspending said rings from said member, each linear element of each set being secured to only one ring, said elements being removable from said member, and removable retainer elements securing said linear elements to said rings, said rings being collapsible within the confines of the largest ring.



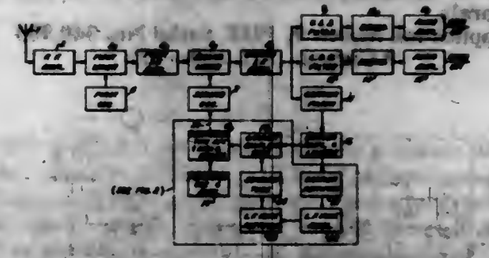
**2,771,545**
**MULTIPLE FREQUENCY COMMUNICATION SYSTEM**
Melvin L. Doolo, Glendale, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application November 3, 1951, Serial No. 254,756
4 Claims. (Cl. 250—5)



2. A receiver for receiving a signal which has a low signal to noise ratio comprising a receiving antenna, a radio frequency stage attached to said antenna and receiving said incoming signal and heterodyning it down to an intermediate frequency, a crystal oscillator synchronized with the modulation of the incoming signal, a first modulator receiving the output of the radio frequency stage, said first modulator receiving an input from said crystal oscillator which has a shape fulfilling the mathematical function of cosine squared and modulating the output of the radio frequency stage, a wave shaper receiving an input from said crystal oscillator and producing an output which has a shape fulfilling the mathematical function of an exponential curve, a second modulator receiving the output of the first modulator and the output of said wave shaper and modulating the signal with the wave of exponential shape, a plurality of mechanical resonators each tuned to a different frequency receiving the output of said second modulator, and resolving means connected to the mechanical resonators to determine which one of them is energized.

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**2,771,546**
**SQUELCH CIRCUIT**
Robert Eldon Schock, Riverhead, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application August 16, 1955, Serial No. 527,587
14 Claims. (Cl. 250—20)



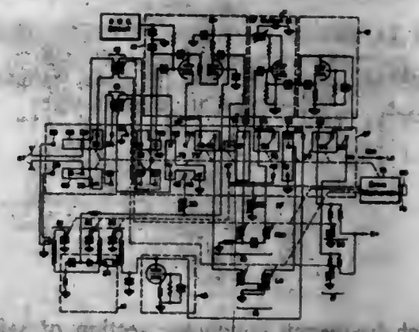
1. In a receiver receptive of sideband intelligence and also a carrier signal, a carrier filter for separating out the carrier signal from the composite received signal, an amplifier and limiter coupled to the output of said filter, a local heterodyning oscillator in said receiver for determining the frequency of said separated carrier signal, an automatic frequency control circuit coupled to the output of said amplifier and limiter and normally operating to maintain the frequency of said oscillator at a value such that said separated carrier signal has substantially a predetermined frequency, and means responsive to variations in the amplitude level of the separated, amplified, and limited carrier signal for opening



the coupling between said frequency control circuit and the amplifier and limiter output, thereby rendering ineffective said frequency control circuit.

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**2,771,547**
**MULTIBAND FREQUENCY SELECTOR AND FREQUENCY CONVERTER**
John F. Bell, Glenview, and Roger M. Nordby, Evanston, Ill., assignors to Zenith Radio Corporation, a corporation of Illinois
Application August 5, 1955, Serial No. 526,710
8 Claims. (Cl. 250—20)



1. A frequency-selective device for tuning a television receiver to each of a plurality of different frequency channels located within a low frequency range, a middle frequency range, and a high frequency range, said device comprising: an electrical signal-translating network including an amplifier, a first oscillator, a first mixer circuit, a second oscillator, and a second mixer circuit; first tunable circuit means for adjusting said amplifier, said first oscillator, and said first mixer for operation within said low frequency range; second tunable circuit means for adjusting said amplifier, said first oscillator, and said first mixer for operation within said middle frequency range; third tunable circuit means for adjusting said second oscillator and said second mixer for operation within said high frequency range and for adjusting said amplifier and said first mixer for operation as amplifiers at a predetermined intermediate frequency; switching means for selectively individually intercoupling said tunable circuit means with said signal-translating network; and a unicontrol mechanism, operated by continuous rotation of a single shaft, for actuating said switch means and for tuning each of said tunable circuit means in predetermined sequence to condition said signal-translating network for operation throughout said three frequency ranges.

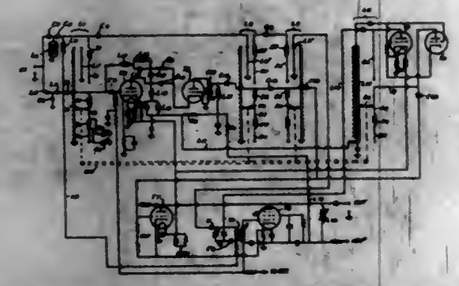
8. In a frequency selective apparatus for tuning a television receiver to any of a plurality of different frequency channels located within a predetermined frequency range, a heterodyning stage comprising: an oscillator circuit, including a pair of output terminals; a mixer circuit, including an asymmetrically conductive device and an output lead coupled to said device; and coupling means for electrically coupling said oscillator circuit to said mixer circuit, said coupling means comprising a conductive feed-through capacitor member encompassing a predetermined portion of said output lead of said mixer circuit, the opposite ends of said feed-through capacitor member being individually coupled to respective output terminals of said oscillator.

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**2,771,548**
**RECEIVER TUNABLE OVER V. H. F. AND U. H. F. TELEVISION BANDS**
Sid Deutsch, Brooklyn, N. Y., assignor to Polytechnic Research & Development Co., Inc., Brooklyn, N. Y., a corporation of New York
Application July 8, 1952, Serial No. 297,706
11 Claims. (Cl. 250—20)

5. A receiver for short radio waves comprising a shielded transmission line having a short-circuiting slider

movable throughout the length thereof, the transmission conductor of said line being divided into two linear sections comprising a low-frequency section and a high-frequency section, means for applying received waves to each of said conductor sections, an output circuit, detector circuits connecting said conductor sections to said output circuit, a second shielded transmission line having a short-circuiting slider movable throughout the length thereof and having its transmission conductor divided into two linear sections comprising a low-frequency section and a high-frequency section, means connecting said sliders for ganged operation, an electronic tube connected



to the high-frequency conductor section of said second transmission line and producing oscillations of a frequency determined by the length of the high-frequency conductor section of the second line, a second electronic tube connected with the low-frequency conductor section of the second line and producing oscillations of a frequency determined by the length of the connected low-frequency conductor section, connections for supplying oscillations from said electronic tubes to the respective detector circuits, and connections for selectively supplying anode current to said electronic tubes through the short-circuiting slider of said second transmission line.

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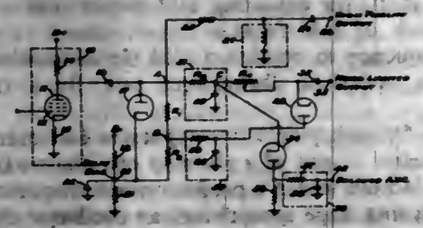
2,771,549

**SIGNAL RECEIVING CIRCUIT**

Domenick P. Viteral, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application February 10, 1955, Serial No. 487,387

3 Claims. (Cl. 250—20)



1. A receiving circuit connected to a source of modulated radio-frequency energy providing an output with one side grounded, the circuit comprising, a charging capacitor having one side connected to the ungrounded side of said signal output, a detector diode having its anode connected to the other side of the charging capacitor, a pair of resistors connected in series across the detector diode, a B plus source, a voltage divider connected between the B plus source and ground, the cathode of the detector diode connected to an intermediate point on the divider, a third resistor with one end connected to the point common to the pair of resistors, a noise limiter diode with its anode connected to the other end of the third resistor, a second capacitor connected between ground and the anode of the limiter diode to provide a low pass filter with the third resistor having a cut-off frequency above the modulation frequency, a second pair of resistors connected between the anode of the detector diode and the cathode of the limiter diode, a third capacitor connected between ground and the common point of the second pair of resistors to comprise a modulation blocking low pass filter with the resistor connected to the detector diode, a delay diode having its cathode connected to the ungrounded side of said third capacitor, and another resistor connected serially between ground and the anode of the delay diode, whereby a noise limited signal may be taken from the cathode of the limiter diode and a delayed automatic volume control voltage may be taken from the anode of the delay diode.

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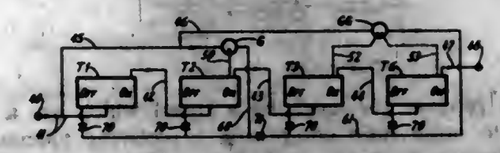
2,771,550

**COUNTING CIRCUITS**

Robert W. Hampton, Contra Costa County, Calif., assignor to Marchant Calculators, Inc., a corporation of California

Application March 9, 1953, Serial No. 340,984

15 Claims. (Cl. 250—27)



1. The combination of: four stages of circuitry, each stage having a first and a second stable condition of operation and each stage being initially in its first condition of operation; means for applying input signals to the first stage; means interconnecting said stages for setting a respective unique combination of said stages to their respective second conditions of operation in response to each number, 0–9, of applied signals; a circuit, including said interconnecting means, for preventing more than two of said stages from standing in their respective second conditions of operation in response to the application of any number, 0–9, of input signals to said first stage; a circuit, including said interconnecting means, for establishing a permanent relationship between the second condition of operation of each of said stages and a single number of input signals; and a reset circuit comprising normally disabled means connected to the third and fourth stages and controlled thereby, when the third and fourth stages are concurrently in respective predetermined conditions of operation, for resetting all four stages to their respective first conditions of operation.

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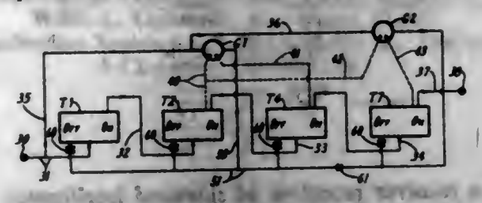
2,771,551

**COUNTING CIRCUITS**

Robert W. Hampton, Contra Costa County, Calif., assignor to Marchant Calculators, Inc., a corporation of California

Application March 9, 1953, Serial No. 340,983

9 Claims. (Cl. 250—27)



1. In a counting circuit, the combination of: first, second, third and fourth counting stages, each stage having a first and a second stable state of operation and each stage being initially in its first state; an input pulse source connected to the first stage; means coupling the stages in cascade and operable in response to the input pulses for causing the stages to alternate between their two states in binary progression; a modifying circuit, including said coupling means, for preventing more than two of said stages from standing in their respective second states of operation in response to the application of any single number, 0–9, of input pulses to said first stage; and a



circuit, including said modifying circuit, for establishing a permanent relationship between the second state of operation of each of said stages and the application of 1, 2, 4 and 7 input pulses, respectively, to said first stage.

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2,771,552

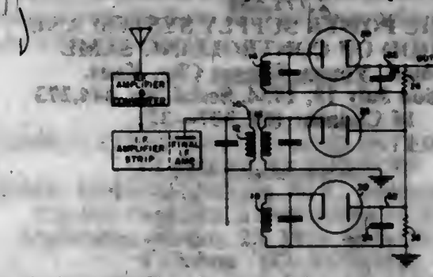
**DISCRIMINATING DETECTOR**

Donald W. Lynch, Washington, D. C.

Application May 9, 1951, Serial No. 225,437

3 Claims. (Cl. 250—27)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A detector circuit comprising in combination, a first detector channel operative to provide demodulated output signals of one polarity, second and third detector channels operative to provide demodulated output signals of a polarity opposite to the polarity of the output of said first detector channel, each of said detector channels having a predetermined bandpass; said second and third detector channels having bandpass center frequencies within the bandpass of said first detector channel and at the high and low ends thereof respectively, the bandpass of each of said second and third detector channels being less than one half the bandpass of said first detector channel, and means combining the outputs of said detector channels whereby the resultant demodulated output of all of said channels is the algebraic sum of the individual outputs of said detector channels.

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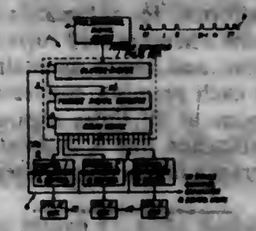
2,771,553

**MULTIPLEX DEMODULATOR**

Sidney Metzger, Bergenfield, Robert W. Hughes, Mountain Lakes, and Bruce McAdams, North Arlington, N. J., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland

Application November 3, 1952, Serial No. 318,456

4 Claims. (Cl. 250—27)



1. In a multiplex pulse communication system wherein a marker signal is followed by a train of interleaved time modulated channel pulses; detector means to detect said marker signal, means responsive to said detected marker signal to produce a plurality of differently timed gating pulses each synchronized for the time modulated pulses of a different channel, a plurality of blocking oscillator circuits each having a first and second conduction condition to separate from and demodulate the corresponding channel pulses of said train of pulses, means including an RC time constant network to normally maintain each of said oscillator circuits at said first conduction condition for a time interval greater than the time interval between successive pulses of each channel, means to apply the gating pulses to respective ones of said oscillator circuits to trigger said oscillator circuits into said second conduction condition to establish a substantially constant time positioned leading edge for corresponding channel width modulated output pulses, means to apply the said train of pulses to each of said oscillator circuits, the pulses of the corresponding channel returning said oscillator to said first conduction condition to establish the trailing edge for said width modulated output pulses in accordance with the time modulated condition of the pulses of said corresponding channel, and extraction means coupled to the output of each of said oscillator circuits for direct removal of the audio intelligence from said width modulated output pulses.

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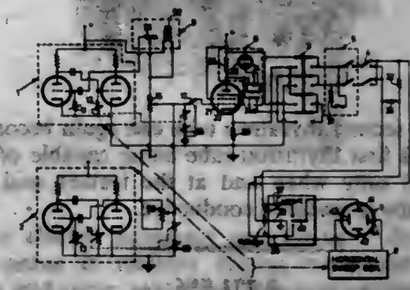
2,771,554

**IMPULSE GENERATOR FOR MEDICAL USE**

Kurt Gratzl, Vienna, Austria

Application April 11, 1950, Serial No. 155,154

18 Claims. (Cl. 250—27)



1. In a therapeutic apparatus for the generation if electrical impulses, in combination, an input stage comprising a source of impulses, an output stage comprising an electronic device having a cathode, a grid and a plate, circuit means for applying said impulses to said grid, control means for varying the amplitude of said impulses, a load circuit having a pair of terminals for transmitting impulses from said output stage to the body of a patient, said load circuit including a first and a second resistance connected, respectively, to said cathode and to said plate, and switch-over means inserted between said load circuit and said electronic device for selectively connecting the latter across said load circuit as a constant-current device or as a constant-voltage device, said switch-over means having a first position short-circuiting said first resistance while connecting said terminals across said second resistance and a second position short-circuiting said second resistance while connecting said terminals across said first resistance, said first resistance being small and said second resistance being large compared to the body resistance of the patient.

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2,771,585

**APPARATUS FOR INDICATING AND/OR RECORDING PRESSURE CONDITIONS**

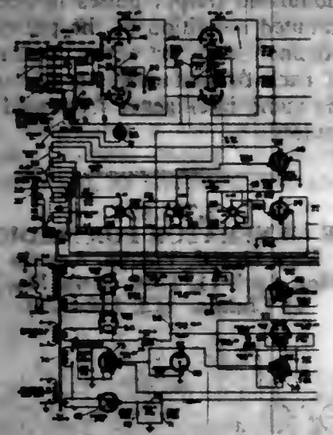
Maurice W. Harrell, Detroit, Mich., assignor to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan

Continuation of application Serial No. 787,586, November 22, 1947. This application October 9, 1951, Serial No. 250,541

3 Claims. (Cl. 250—27)

1. In electrical oscilloscope voltage measuring and indicating apparatus comprising a time base generator direct coupled to a push-pull amplifier and in which the time base generator includes a thyratron tube and a resistance capacity charging circuit, a triggering circuit for controlling the operation of the time base generator, said triggering circuit comprising a second thyratron tube and a selector switch, said selector switch including contacts connected with the grid and the cathode of the first and the second thyratron tubes, respectively, and including an adjustable contactor for electrically connecting said contacts, a re-set switch included in the anode circuit of said second thyratron tube for rendering said second tube non-conductive, said first thyratron tube being then incapable of receiving a signal, means for applying negative

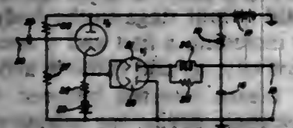
bias to the grid of the second thyratron tube, said bias being effective to maintain said second thyratron tube non-conductive when said re-set switch is again closed, and means for rendering said negative grid bias ineffective



so that said second thyratron tube can again become conductive, said first thyratron tube being capable of receiving a signal only when and at the instant said second thyratron tube is rendered conductive.

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2,771,556
SAW-TOOTH GENERATOR
William A. Anderson, Middletown, and Charles W. Harrison, Gillette, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 31, 1953, Serial No. 401,528
5 Claims. (Cl. 250—36)



4. A saw-tooth wave generator comprising a constant potential source having a positive terminal and a negative terminal, a charging condenser, means for connecting one plate of said condenser to said positive terminal and the other plate of said condenser to said negative terminal for charging said condenser at a constant rate, and means responsive to an external source of signals for discharging said condenser at a sinusoidal rate, said means comprising an inductor, an asymmetrically conducting device and a resistance connected in series between said one plate and the negative terminal of said source, and a low impedance signal generator connected in series between said asymmetrically conducting device and said positive terminal for causing said asymmetrically conducting device to conduct whereby said charging condenser is discharged.

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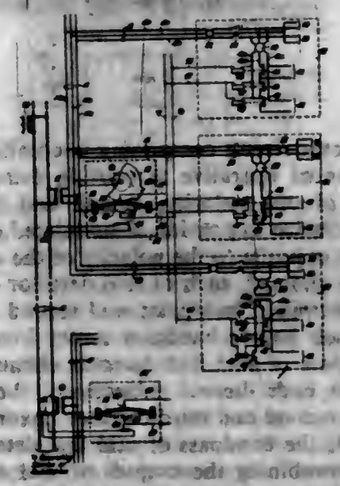
2,771,557
COLOR TELEVISION SYNCHRONIZATION
Edward S. Rogers, Trenton, and Reginald A. Hackley, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application February 5, 1953, Serial No. 335,286
8 Claims. (Cl. 250—36)



3. Apparatus for controlling the frequency of an oscillator whose output is compared in phase with a reference frequency signal to derive a controlling voltage which is applied to a reactance tube across said oscillator, comprising means coupled to said oscillator for preventing the phase comparison of said reference signal and the output of said oscillator in response to a deviation of said oscillator of more than a predetermined number of cycles from its resonant frequency, and means adapted to control said reactance tube in response to said frequency deviation of said oscillator.

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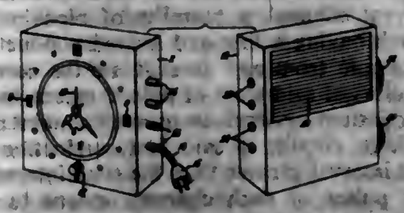
2,771,558
ELECTRIC POWER SUPPLY SYSTEM AND METHOD OF CONTROLLING SAME
Glenn S. Young, Kansas City, Kans.
Application July 19, 1954, Serial No. 444,273
16 Claims. (Cl. 307—35)



13. In a distribution system for supplying electric power to utilization equipment at different consumers' premises, a common feeder having branch lines extending to the different consumers' premises, a main feeder, a transformer connecting said common feeder to said main feeder for receiving power therefrom, each premises having thereat a primary utilization line, at least one of said premises also having a secondary utilization line normally connected to the branch line at that premises but having means operable to disconnect same therefrom, current sensitive means controlled in accordance with the magnitude of the current flowing in said main feeder at a point ahead of said transformer for automatically operating said disconnecting means whenever said current flow exceeds a predetermined value, and means maintaining the primary utilization line at each premises connected to the branch line at that premises at all times regardless of whether said secondary utilization line is connected to or disconnected from the branch line at its premises.

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2,771,559
PORTABLE CLOCK RADIO
Richard Montanari, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application January 25, 1956, Serial No. 561,196
7 Claims. (Cl. 307—154)



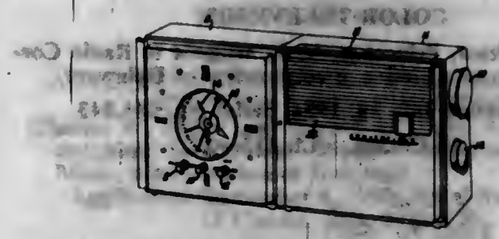
7. A clock-receiver combination comprising: a first housing, an electric clock mounted in said first housing, a power-supply device mounted in said first housing and adapted to develop operating potentials for a receiver,



conductors coupling potentials to said clock and to said power-supply device, a switch interposed in a conductor leading to said power-supply device, said switch being connected to said clock whereby said clock may actuate said switch at predetermined times and permit operation of said power-supply device; a second housing, a receiver mounted in said second housing, a circuit in said second housing adapted to furnish operating potentials for said receiver from a battery power-supply or from said power-supply device; and cooperating means on said first and said second housings whereby they may be selectively joined to one another and the receiver operating potentials from said power-supply device may be coupled to said circuit.

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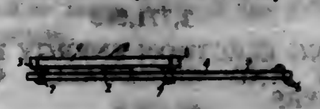
2,771,560
COMBINATION SWITCH AND INTERLOCK FOR ELECTRICAL DEVICES
Lyle P. Cretsman, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application January 25, 1956, Serial No. 561,195
6 Claims. (Cl. 307—156)



4. A clock-receiver combination comprising a self-contained clock unit including a power supply, a self-contained receiver unit including a battery power supply unit; means for releasably attaching said units to one another, said means including a plate slidably mounted in said receiver unit, said clock unit having an opening provided therein, said opening being disposed adjacent said receiver unit when said units are to be attached, said plate being slidable through said opening into said clock unit, movable latch means in clock unit engageable with said plate when said units are attached, connectors in said receiver unit to couple operating potential thereto, busses on said plate engageable with said connectors and said clock unit power supply when said units are assembled and engageable with said connectors and said battery power supply when said units are not assembled.

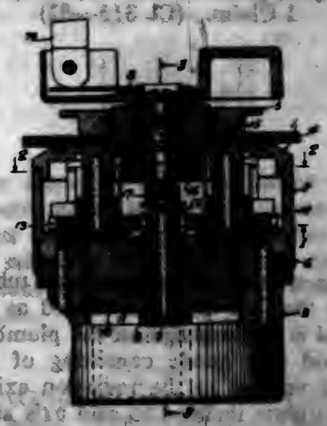
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2,771,561
QUARTZ CRYSTAL UNITS
Dennis Quintrell Feller, Cambridge, England, assignor to Pye Limited, Cambridge, England, a British company
Application March 17, 1952, Serial No. 276,900
4 Claims. (Cl. 310—9.6)



1. A quartz crystal unit comprising a support plate of insulating material, two elongated electrical contact tracks of a conducting metal paste arranged side-by-side, but spaced apart, in contact with said plate throughout the length of the track, a quartz crystal plate parallel to said plate of insulating material, conducting electrodes on the two opposite faces of said quartz crystal plate, each of said electrodes having a part of its surface on the same side of said quartz crystal plate, and electrical connections between said contact tracks and said electrode parts on said same side of said quartz crystal plate.

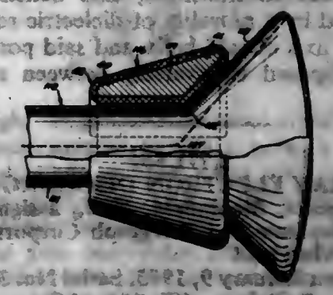
2,771,562
TELEPHONE RINGING GENERATOR
George F. McCarthy, Teaneck, and Adalen N. Gabbard, Palisades Park, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application April 11, 1955, Serial No. 500,506
4 Claims. (Cl. 310—69)



1. An electric generator comprising a drive shaft, a rotor, means to transfer driving movement from said shaft to said rotor, said transfer means having a first cam element, a driving gear having a second cam element and a driven gear disposed in cooperation with the gear teeth of said driving gear, said first cam element being fixed to said drive shaft and said driving gear being rotatably carried by said shaft and movable axially on said shaft by a given amount, the teeth of said driving gear being maintained in mesh relation with respect to the teeth of said driven gear throughout the axial movement of said driving gear, means to normally bias said driving gear with said second cam element axially toward said first cam element, a switching element disposed adjacent said second cam element for actuation thereby when said second cam element is moved by cam action axially away from said first cam element.

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2,771,563
CATHODE RAY DEFLECTION COILS
Wolfgang Reinhard, Pforzheim, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 8, 1951, Serial No. 255,353
Claims priority, application Germany November 10, 1950
5 Claims. (Cl. 313—76)



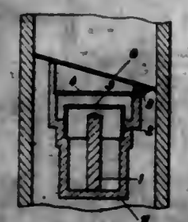
1. In a cathode ray tube of the electromagnetic deflection type, the combination with an envelope including an elongate neck portion leading into an enlarged end portion, a toroidal core of magnetic material positioned circumferentially of said envelope with a substantial portion thereof extending both along said neck portion and along said enlarged end portion, and a plurality of deflection coil windings operatively associated with said core.

2,771,564

**RADIATION GENERATION SYSTEM FOR ELECTRONIC RADIATION VALVES WITH IONIC TRAP**

Bernhard Hensel, Berlin-Friedenau, Germany, assignor to Loewe Opta Aktiengesellschaft, Berlin-Steglitz, Germany, a company of Germany

Application February 15, 1954, Serial No. 410,103
Claims priority, application Germany February 16, 1953
1 Claim. (Cl. 313—82)



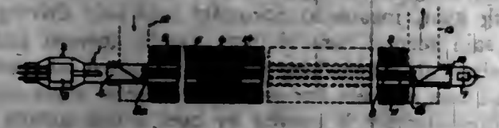
An electrode system for electron beam tubes with ionic trap in which the first anode is shaped as a perforated diaphragm and is inclined against the plumb level of the beam axis, said first anode consisting of a perforated plate arranged vertical to the radiation axis and a second perforated plate inclined to said axis and connected with the first plate by an electrical conductor, said first perforated plate being arranged inside a cylindrical ceramic carrier, the face of which pointing in the direction of radiation is bevelled and carries said second perforated plate.

2,771,565

**TRAVELING WAVE TUBES**

John H. Bryant, Nutley, and Billy D. McNary, Pompton Lakes, N. J., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland

Application August 19, 1952, Serial No. 305,151
6 Claims. (Cl. 315—3.5)



1. In a traveling wave electron discharge device having a conductor in the form of a helix for transmission of radio frequency energy and means to project a beam of electrons parallel to the axis of said helix having interaction with the electromagnetic field of the radio frequency energy transmitted by said conductor; an attenuator disposed along certain of the turns of said helix, said attenuator comprising a concentrated body of resistive material having its central portion only in direct contact with at least one of said certain turns for maximum attenuation and spaced relative to other of said certain turns for impedance transition, said helical conductor being supported by a plurality of dielectric rods disposed parallel to the axis of said helix and said portion of said body being disposed transversely between at least two of said rods.

2,771,566

**CATHODE RAY ELECTRON DISCHARGE DEVICE**

Albert J. Baracket, Bloomfield, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application January 9, 1953, Serial No. 330,524
7 Claims. (Cl. 315—16)



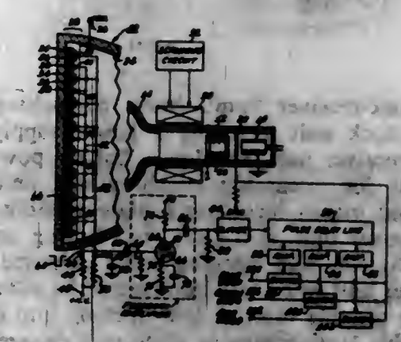
1. An automatic focus system for an electrostatic cathode ray electron discharge device having an envelope containing therein at least an electron emitter, a control electrode, a screen electrode, an accelerating electrode and a focusing electrode, comprising a low voltage power supply for supply of a predetermined D.-C. potential to certain ones of electron beam forming electrodes of said cathode ray device, a high voltage power supply for supply of a predetermined D.-C. potential to other ones of said electron beam forming electrodes, and a focusing unit located within the envelope of said cathode ray device, said focusing unit being coupled to said high voltage power supply and to said accelerating and said focusing electrodes for automatic maintenance of optimum electron beam focusing, said focusing unit including a series resistance coupled between said accelerating electrode and said focusing electrode to establish a D.-C. potential at said focusing electrode related to the D.-C. potential at said accelerating electrode by a predetermined fraction thereof, said series resistance comprising a layer of resistive material of predetermined configuration adhering to the inner surface of said envelope.

2,771,567

**COLOR TELEVISION**

Paul K. Weimer, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application July 30, 1954, Serial No. 446,843
14 Claims. (Cl. 315—21)



1. In a cathode ray tube having means for producing an electron beam, a target comprising a plurality of groups of strip-like elements, each element of a group being definitive of a different selected component color of an image being televised and each group including at least three of said strip-like elements; a strip-like layer of conductive material on each of said color-definitive strip-like elements representative of a first color; and a strip-like layer of conductive material in each of said groups coextensive with at least a part of each of those strip-like color-definitive elements in that group other than that element representative of said first color.

2,771,568

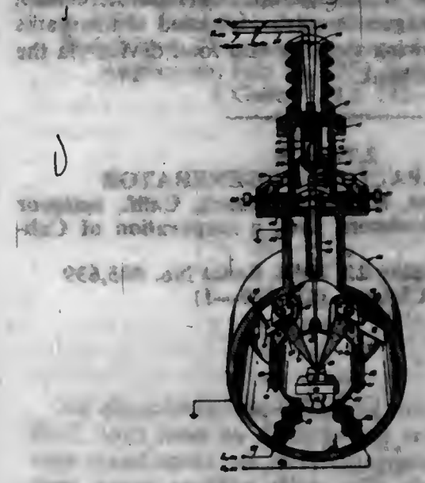
**UTILIZING ELECTRON ENERGY FOR PHYSICALLY AND CHEMICALLY CHANGING MEMBERS**

Karl Heinz Steigerwald, Meabach, Germany, assignor, by mesne assignments, to Carl Zeiss, Wurttemberg, Germany

Application November 28, 1951, Serial No. 258,671
6 Claims. (Cl. 315—31)

3. In an electron gun, a source of electrons, means for causing said electrons to move in a given direction, a control electrode adjacent said source of electrons at a point at which said electrons have relatively low velocity in the given direction, said control electrode comprising a conical and a cylindrical section, said conical section having its apex positioned downstream with respect to its base, said cylindrical section extending external of said conical section from the base thereof toward and beyond the said apex.



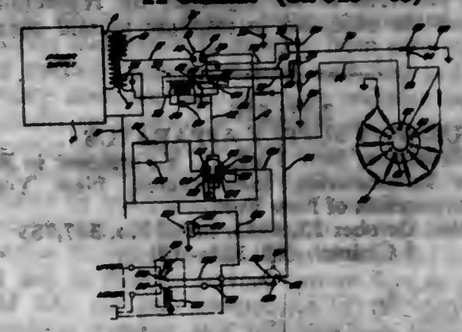


2,771,569

**AUTOMATIC HEADLIGHT DIMMER SYSTEM—HIGH VOLTAGE SWITCHING**

Charles W. Miller and Harold E. Todd, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 4, 1952, Serial No. 307,818
11 Claims. (Cl. 315—83)



1. In a control system for multibeam headlamps, a source of power, switching means connected to the source and to the headlamps alternately connecting said source to the different filaments of the headlamps, control means actuating the switching means connected to the source of power and including a light sensitive means, potentiometer means connected between the sources of power and the light sensitive means to supply voltage to the light sensitive means and additional switching means actuated by the control means connected in shunt to a portion of the potentiometer means between the source of power and the light sensitive means to vary the voltage supplied to the light sensitive means between the different filament energizing positions.

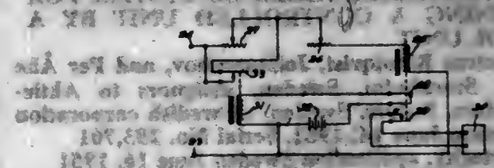
2,771,570

**ADJUSTABLE CIRCUIT CONTROL APPARATUS**

Charles H. Fishecker, Chicago, Ill., assignor to Cook Electric Company, Chicago, Ill., a corporation of Illinois

Application April 5, 1952, Serial No. 280,825
1 Claim. (Cl. 317—139)

Circuit control apparatus for controlling external circuits in accordance with the magnitude of a controlling voltage comprising electromagnetic means to be energized by said controlling voltage, contact means controlled by said electromagnetic means for completing such external circuits, first resistance means in series with said electromagnetic means to determine a first control voltage of such external circuits, normally closed contact means to be opened by said electromagnetic means at said first control voltage, second electromagnetic means including time delay means to be energized when said normally closed contact means are closed, normally open contact means to be closed by the energization of said second electromagnetic means, and second resistance means connected across said normally open contact means and in series with said first resistance means and first electromagnetic means to determine a second control voltage for such apparatus.



2,771,571

**MAGNETIC CHUCK FACE PLATE**

George J. Carson, West Boylston, and Elmer B. Hallberg, Holden, Mass.

Application April 8, 1952, Serial No. 281,282
1 Claim. (Cl. 317—162)



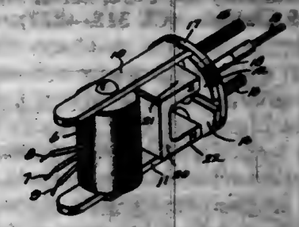
In a magnetic chuck, a face plate having a magnetic work-supporting surface and having a grooved clearance recess in said surface, and said grooved recess having a facing of non-magnetic material lining the sides and bottom thereof and effective to prevent magnetic adherence to any part of the structure enclosing said grooved recess of any ferrous object inserted in said recess.

2,771,572

**POLARIZED SELF-NEUTRALIZING SERVOMOTOR**

Frank R. Adams, Janesville, Wis.

Application November 16, 1953, Serial No. 392,168
4 Claims. (Cl. 317—172)

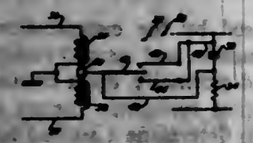


1. A light weight and compact servo-motor comprising an electromagnet having a core, a winding on the core, substantially parallel polar arms connected to the ends of the core, said arms extending laterally from the core and having inturned ends with spaced apart margins comprising pole pieces for said electromagnet, a non-magnetic plate mounted on said pole pieces and spanning the space therebetween, said plate constituting a connector for tying together the ends of said arms, said plate being provided with a bearing between said pole pieces, a rock shaft rotatable in said bearing on an axis transverse to said core, and a polarized armature mounted on the rock shaft and having the form of a channel with elongated polar flanges rotatable in a plane substantially parallel to that of the pole pieces and adapted inherently to span the gap between the pole pieces when the

coil is de-energized, the flanges of the polarized armature being adapted to align themselves at opposite sides of the gap with particular pole pieces when the coil is energized.

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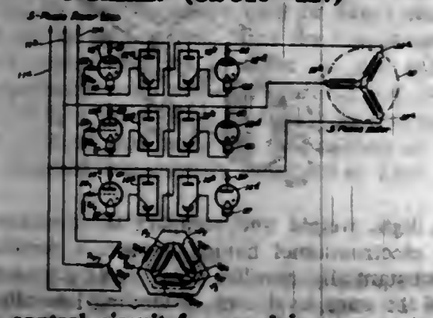
2,771,573
**REMOTE CONTROL FOLLOW-UP SYSTEM FOR POSITIONING A CONTROLLED UNIT BY A CONTROL UNIT**
Åke Hugo Petrus Blomqvist, Johannesfred, and Per Åke Lindegren, Stockholm, Sweden, assignors to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation
Application June 14, 1952, Serial No. 293,701
Claims priority, application Sweden June 16, 1951
9 Claims. (Cl. 318—30)



1. A follow-up system for positioning a controlled unit by a control unit situated at a remote point, the said system comprising electric signal means operatively connected with the control unit and the controlled unit and arranged to generate an error signal variable in strength corresponding to the position of the control unit and the controlled unit relative one to the other, amplifying means including filter network means connected in circuit with the signal means for feeding the said error signal to the input side of the amplifying means, reversible drive means operatively connected with the controlled unit for moving the latter, electric regulating means connected in circuit with the drive means for operational and directional control of the same and with the output side of the amplifying means for control of the regulating means by the signal output of the amplifying means as passed by the filter network means, the said filter network means including components sensitive to the signal strength and impeding the normal operation of the system in response to a signal having a strength above a predetermined value, and electric control means responsive to the signal strength and arranged electrically to inactivate the said components in response to a signal above the said predetermined value.

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2,771,574
**MOTOR-CONTROL APPARATUS**
Charles Weller, Geneva, Ill., assignor to National Electronics, Inc., Geneva, Ill., a corporation of Illinois
Application January 19, 1956, Serial No. 560,162
5 Claims. (Cl. 318—227)



1. In a control circuit for supplying power to a load device from a three-phase power line, said load device having a plurality of input terminals, the combination which comprises two banks of ignitron tubes connected between said line and said input terminals to provide going and return current paths for load current, adjustable phasing means connected in circuit with the ignitor electrodes of the ignitrons in one of said banks for initiating the conduction periods of such ignitrons in predetermined phase relation to the power-line voltage, and charge-responsive means connected in circuit respectively between said input terminals and the ignitor electrodes of the ignitrons in said other bank operative to initiate conduction periods of said other ignitrons in automatic response to the accumulation of charge on said input terminals, whereby said other ignitrons provide timed return paths for load current flowing through said load device via the ignitrons in said first bank.

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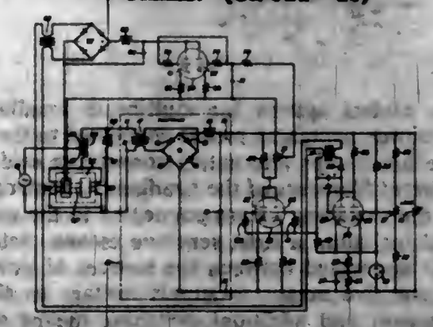
2,771,575
**DIODE CAPACITOR REGENERATOR**
Robert W. Hampton, Richmond Annex, Calif., assignor to Marchant Calculators, Inc., a corporation of California
Application January 22, 1954, Serial No. 405,639
13 Claims. (Cl. 320—1)



3. A capacitor charge regenerator comprising: a precharged capacitor; a normally nonconducting gas-filled diode having first and second electrodes; means for establishing a pulse circuit from the capacitor to said first electrode for causing conduction of said diode if at least a predetermined minimum absolute value of charge resides on said capacitor; means for changing the potential of said second electrode in response to said conduction; and means for establishing a D. C. circuit from said second electrode to the capacitor for regenerating the charge on the capacitor in response to said change of potential.

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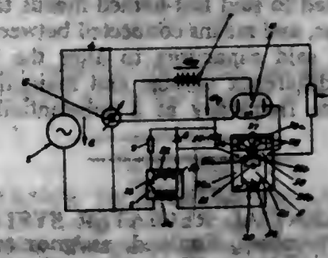
2,771,576
**CURRENT SUPPLY APPARATUS**
George W. Mesmore, New York, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 22, 1953, Serial No. 387,753
6 Claims. (Cl. 321—18)



1. In combination, rectifying means having an input and an output, said rectifying means having resistance, a load connected across said output, means for impressing an alternating voltage from an alternating-current supply source upon said input to cause direct current to be supplied to said load, a space current device having a space current path and control means for controlling the resistance of said space current path in response to a control voltage impressed upon said control means, a shunt current path including said space current path connected across said output in parallel with said load, means for impressing upon said control means a control voltage which varies in response to load voltage changes for substantially instantaneously controlling the current in said shunt current path to minimize said changes of load voltage, and means responsive to average current changes in said shunt current path for controlling the alternating voltage impressed upon said input to minimize changes of average current in said shunt current path.



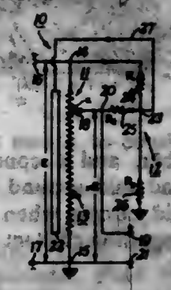
2,771,577
**ELECTROMAGNETIC SWITCHING CIRCUITS**
Fritz Kesselring, Zollikon-Zürich, Switzerland, assignor to FKG Fritz Kesselring Gesellschaft A. G., Bachtobel-Wetzikon, Thurgau, Switzerland
Application July 24, 1951, Serial No. 237,721
1 Claim. (Cl. 321—48)



An electromagnetic switching circuit for energizing a D.-C. load from an A.-C. source comprising a saturable core transformer, an electromagnetic switch and a mercury vapor rectifier tube; said electromagnetic switch comprising a core assembly, a switching element and an energizing coil; said energizing coil being wound on said core assembly, said core assembly having a first and second portion; said first and second portions being positioned to form a magnetic loop with first and second series connected air gaps; the opposed surfaces of said first and second portions forming said first air gap comprising a first and second stationary contact for bridging contact cooperation with said switching member; a resilient restraining means; said resilient restraining means being operatively connected to said switching member; said resilient restraining means being constructed to resiliently restrain said switching member from entering into bridging contact engagement with said first and second stationary contacts; said switching member being at least partially constructed of magnetic material; said switching member being movable into contact engagement with said first and second contacts responsive to the magnetic field created by energization of said energizing coil; said second air gap being positioned to prevent electrical conduction through the core material adjacent to said second air gap to thereby prevent current flow in parallel with said first air gap irresponsive of the position of said switching member; said saturable core transformer comprising a magnetic core having an air gap therein and a primary and secondary winding; said A.-C. source, D.-C. load, second portion of said electromagnetic switch core assembly, switching element, first portion of said electromagnetic switch core assembly, energizing winding and said saturable transformer primary winding being connected in series; said rectifier tube comprising a plate, a control grid and a hot cathode; said rectifier tube having a saturating current of at least one ampere; a rectifier and a capacitor; said rectifier and said capacitor being connected in parallel with one another and in series with said first air gap and said plate and cathode of said rectifier tube; said parallel connection of said rectifier and said capacitor being connected in series with said saturable transformer secondary winding; a source of grid voltage for said rectifier tube; said source of grid voltage for said rectifier tube being constructed to impress an alternating potential having a positive direct component between said grid and cathode of said rectifier tube; said source of said grid voltage being further constructed to adjustably shift the phase of the alternating voltage component with respect to the phase of the voltage of said A.-C. source to thereby control the time of contact engagement with respect to said A.-C. source; said saturable core transformer supplying the plate potential for said rectifier tube during the interval immediately preceding contact disengagement to that the current through said contacts is substantially smaller than the current through said energizing coil.



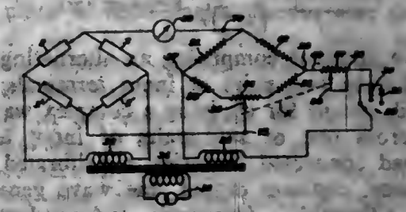
2,771,578
**POTENTIAL DIVIDER COUPLING CIRCUITS**
James L. West and Meaven H. Hayes, Binghamton, N. Y., assignors to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York
Application January 11, 1954, Serial No. 403,400
21 Claims. (Cl. 323—79)



1. A coupling circuit comprising as a voltage source a potential divider having impedance means and a conductive body located in capacitive relation to said impedance means, and a summing and dividing network connected between said voltage source and said conductive body to minimize phase shift between said impedance means and said conductive body.

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2,771,579
**NON-LINEARITY COMPENSATION MEANS**
Arthur C. Rupp, Cambridge, Mass., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application July 23, 1953, Serial No. 372,829
8 Claims. (Cl. 324—62)



1. A measuring circuit comprising at least one potentiometer network responsive to a condition to be measured and said network having two input and two output terminals whereby the electrical output of said network is responsive to the condition, a voltage source for energizing the potentiometer network, said voltage source being connected in series wiht said input terminals, means responsive to the said condition and means controlled by said condition responsive means for causing the voltage acting across said input terminals to vary automatically as a predetermined function of both the magnitude of said condition and of the magnitude of said voltage source, said last-named means having an element connected in series with said voltage source whereby the output of said potentiometer network in response to the condition is caused to vary non-linearly in a predetermined manner from the output of the network when energized only from a constant voltage source, and measuring means responsive to the output of said potentiometer network.

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2,771,580
**TEST PROBE**
John T. Schott, Plainfield, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 27, 1953, Serial No. 351,301
5 Claims. (Cl. 324—72.5)

4. A test probe comprising a tubular metallic housing member, a test electrode insulatedly mounted in said member and protruding therefrom, a movable coaxial insulating sleeve enclosing said electrode and slid-

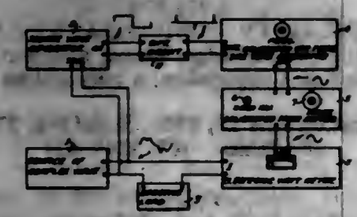
ably mounted thereon, a spring member in said housing biasing said sleeve outwardly to an extended position protruding beyond the tip of said electrode, a conductive circuit terminating in said electrode for connecting to an associated indicating device, a ground terminal mounted



on said housing member, and a conductive circuit between said electrode and said ground terminal including means for opening said circuit when said sleeve is retracted, said means comprising contact members mounted in said movable sleeve.

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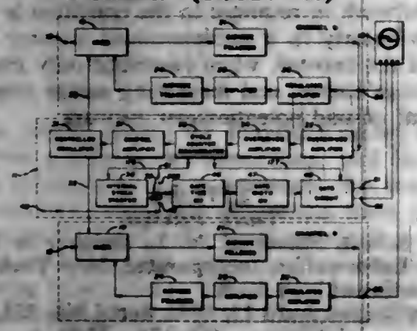
2,771,581
WAVE ANALYZER
Robert W. Stahmbach, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application October 14, 1955, Serial No. 540,658
4 Claims. (Cl. 324—77)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A wave analyzer comprising an alternating current wattmeter having two pairs of input terminals; a non-reactive load; means for applying a complex wave to be analyzed across one of said pairs of input terminals and said load connected in series; a calibrated, adjustable frequency, constant output sine wave generator; a calibrated, adjustable, frequency independent phase shifter; means coupling the output of said generator through said phase shifter to the other of said pairs of terminals; and means responsive to said complex wave and connected to said generator for synchronizing said generator with said complex wave.

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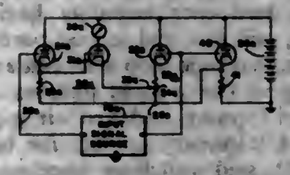
2,771,582
PHASE METER
Chester N. Winningstad, San Lorenzo, and Quentin A. Kerns, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application December 9, 1953, Serial No. 397,288
2 Claims. (Cl. 324—85)



1. In a radio-frequency phase meter having an oscillator with biased voltage-sensitive capacitors in a frequency-determining tank circuit and means developing a voltage at a frequency equal to the difference frequency between an input voltage and the voltage of said oscillator, the combination comprising amplifier means developing a square wave voltage in response to said voltage of difference frequency, means connected to said amplifier means developing a voltage having a magnitude proportional to said difference frequency, voltage means having a valve of voltage proportional to the bias of said capacitors connected to said last-named means to provide a difference voltage, and means connected between said voltage means and said capacitors to alter the bias in response to said difference voltage and maintain the voltage of difference frequency at a substantially constant frequency.

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2,771,583
DIFFERENTIAL REPEATER SYSTEM
Alfred Bloch, Wembley, England, assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application June 28, 1952, Serial No. 296,233
Claims priority, application Great Britain July 2, 1951
4 Claims. (Cl. 324—123)



1. A differential repeater system comprising: two electron-discharge devices having substantially identical electrical characteristics and including individual anodes, cathodes, and control electrodes; individual cathode resistors having first terminals connected to individual ones of said cathodes and having interconnected second terminals; a source of potential having a positive terminal coupled to said anodes and a negative terminal coupled to a fixed potential point; an alternating-potential source comprising an impedance bridge circuit including a first pair of conjugate terminals, one thereof being connected to said point, and including a second pair of conjugate terminals coupled between said control electrodes for supplying thereto an input signal having a value small with reference to potentials developed between said control electrodes and said point thereby to control anode-cathode electron discharges in said devices; an output circuit including an alternating-current meter coupled to said two devices and responsive to the difference between the magnitudes of said anode-cathode electron discharges therein for deriving an output signal representative of said input signal and the difference between the magnitudes of said discharges; and a control apparatus including a cathode-follower repeater having an input circuit connected between one of said control electrodes and said interconnected terminals and having one terminal of the cathode resistor thereof connected to said point for deriving between said interconnected terminals and said point a control potential substantially equal to said developed potentials, whereby said output signal is substantially unaffected by the value of said developed potentials.

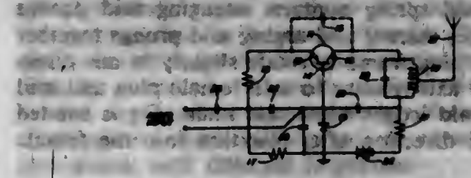
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2,771,584
FREQUENCY-CONTROLLED TRANSISTOR OSCILLATORS
Donald E. Thomas, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 15, 1953, Serial No. 348,991
19 Claims. (Cl. 332—29)

1. In combination, a transistor, means to produce self-oscillations by said transistor, and means to vary the c



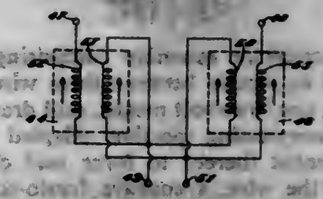
cut-off frequency of said transistor under the control of



an input signal, whereby the oscillation frequency of said transistor is varied under the control of the input signal.

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2,771,585
IMPEDANCE TRANSFORMER NETWORK
Vincent R. De Long, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Original application April 26, 1951, Serial No. 223,090, now Patent No. 2,669,698, dated February 16, 1954. Divided and this application October 6, 1952, Serial No. 313,243
3 Claims. (Cl. 333—32)

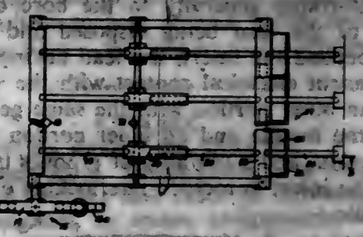


1. An impedance transformer for obtaining a nine-to-one impedance transformation at high impedance levels comprising first and second inductance coils, each coil including first and second input terminals and first and second output terminals, each coil also having a pair of separate windings, with one of said windings being connected between the first input and output terminals, and the other of said windings being connected between the second input and output terminals of the respective coil, each of said windings having two groups of turns wound in the same direction, two closely-wound turns forming each of said groups, with said groups being spaced widely apart relative to the spacing of the turns within a group, each coil having the groups of one winding interleaved with the groups of its other winding in spaced relationship, said transformer having first and second input points, with one input point connected to the first input terminal and the second output terminal of said first coil and to the first input terminal of said second coil, the second input point being connected to the second input terminal of said first coil and to the second input terminal and the first output terminal of said second coil, and output points for said transformer being provided by the first output terminal of said first coil and the second output terminal of said second coil.

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2,771,586
NOISE SUPPRESSION DEVICE
Michael J. Di Toro, Bloomfield, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application May 20, 1952, Serial No. 288,903
3 Claims. (Cl. 333—71)

2. A noise suppression circuit for electrical signals having a wide band of frequencies comprising means to convert said electrical energy into equivalent mechanical energy, means to separate said mechanical energy into a plurality of channels having different predetermined frequency sub-bands, means in each channel to impart a non-linear characteristic to the energy transmitted through subject channel comprising a cam having curved surfaces, means to couple said cam to said separating means, and means to couple energy from the curved surface of said cams, means to reduce distortion due to the imparting of the non-linear characteristic in each



channel and output means to combine the energy of all channels.

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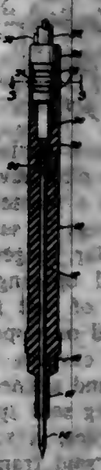
2,771,587
INDUCTIVE DEVICE
Wayne L. R. Henderson, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application November 12, 1953, Serial No. 391,612
14 Claims. (Cl. 336—160)



1. An inductive device comprising a first generally O-shaped wound core member, a second wound core member formed of two generally U-shaped portions respectively arranged on either side of said first core member and in a plane at right angles thereto with the ends of the legs of said U-shaped portions being respectively magnetically adjacent opposite sides of said first core member, the laminations of the ends of said legs being respectively in the same planes as the laminations of said opposite sides of said first core member, and at least two coils respectively arranged on only one of said core members on either side of the other of said core members.

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2,771,588
PROD CONSTRUCTION FOR VOLTAGE TESTERS AND THE LIKE
William G. Schlaebe and Lee B. Mitchell, Sycamore, Ill., assignors to Ideal Industries, Inc., Sycamore, Ill., a corporation of Delaware
Application August 24, 1953, Serial No. 376,056
3 Claims. (Cl. 339—102)



1. In an electric prod structure, an elongated handle composed of an insulating moldable material, an elongated metal spike molded and imbedded in the handle and projecting from one end, a plug insert imbedded in the

other end of the handle having a central bore generally aligned with the spike, an insulated lead extending through and conforming generally to the bore of the insert, a portion of the lead being disposed and molded in the handle beyond the insert, the lead having a stripped end in permanent electrical contact with the spike, the insert having an outer portion with the same general cross section as the handle and an inner portion with a reduced cross section, and a plurality of grooves in the inner portion of the insert in molded interlocking engagement with the handle.

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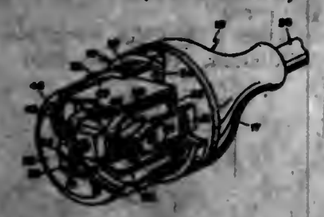
2,771,589
**END CAP FOR FLUORESCENT LAMP**
Ralph Burgess Thomas, Salem, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application December 14, 1954, Serial No. 475,221
4 Claims. (Cl. 339—144)



1. In combination with a high voltage tubular fluorescent lamp having a glass envelope and filament lead-in wires projecting from one end thereof, a cap mounted on the end of said glass envelope around said lead-in wires comprising a base, an upstanding elongated boss integral with said base, said boss having an upper end wall, internal walls defining an open passage from the outside through said boss and said base to said envelope, the upper end wall of said boss being indented to form a longitudinal slot therein, a pocket in said slot on each side of said passage, said lead-in-wires extending upwardly through said passage and laterally adjacent to the bottom wall of said slot, one of said lead-in wires terminating in each of said pockets, and an eyelet in frictional engagement with each of said lead-in wires and the walls of one of said pockets.

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2,771,590
**INTERLOCKING ELECTRICAL PLUG ASSEMBLY**
Benjamin F. Nassler, San Diego, Calif.
Application May 15, 1953, Serial No. 355,299
1 Claim. (Cl. 339—168)



An interlocking electrical plug assembly including a female plug and a male plug having a common axis, said female plug comprising a frame having a central pillar, a pair of slotted openings in said frame spaced on opposite sides of said pillar, ledges within said frame disposed laterally of said openings and defining arcuate cavities with the walls of said frame, a pair of looped spring contacts disposed on opposite sides of said pillar and positioned in said cavities, the loops thereof being opposed to each other and aligned with said openings, insulated plates supporting said spring contacts and holding them in said cavities, a screwed electrically conductive cap secured to said frame and having a central terminal insulated from the cap, one of said spring contacts being connected to said cap and the other of said spring contacts being connected to said terminal, said male plug comprising a frame having a pair of prongs spaced to align with said openings, said prongs each having a projecting lip, said lips being on opposite sides of said prongs, said spring contacts engaging said prongs on opposite sides thereof and urging said prongs together with said male plug frame to rotate slightly in one direction about said axis relative to said female plug and said lips engaging said ledges when said male plug is rotated slightly in said direction after insertion into the female plug.

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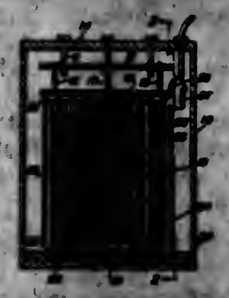
2,771,591
**ELECTRICAL DRAWBOLT TYPE CONNECTOR WITH CONSTANT LOAD WASHER**
Oliver A. Verdriede, St. Louis, Mo., assignor to A. B. Chance Company, Centralia, Mo., a corporation of Missouri
Application May 25, 1953, Serial No. 357,323
3 Claims. (Cl. 339—263)



1. A wire connector assembly comprising two clamp means adapted to receive between them wire to be connected, at least one drawbolt means, said drawbolt means including a compressing portion adapted upon rotation of an element thereof to force said clamp means together upon the wire, a concave frusto-conical spring washer located around the draw-bolt means and also between said compressing portion and one of the clamp means, said washer being characterized in that it has a load-deflection curve including a substantially flat portion over which the load does not substantially change for a substantial range of deflection of the spring washer, whereby the washer may be forced by said compressing portion to a deflection under which relaxing wire movement may occur under a substantially constant pressure on the wire.

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2,771,592
**DETECTING AND RECORDING SYSTEM FOR SEISMIC WAVES**
Jack W. E. Edmonson, San Antonio, Tex.
Application January 9, 1953, Serial No. 330,568
4 Claims. (Cl. 346—17)



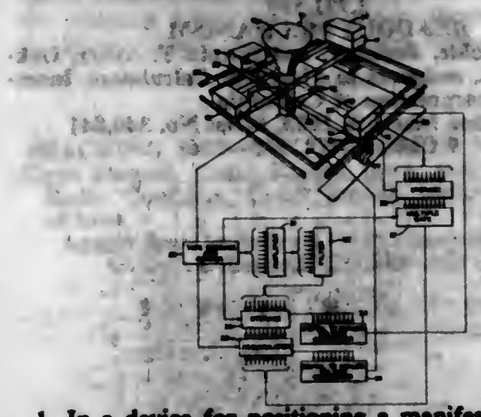
1. A capacitive seismometer comprising a stationary housing, a condenser having condenser electrodes facing each other across a dielectric, each electrode consisting of a series of spaced electrically connected electrode strips, a stationary condenser electrode carrier, carrying one series of spaced electrode strips, means for mounting the stationary condenser electrode carrier fixedly in the stationary housing, a movable electrode carrier, carrying a series of spaced electrode strips facing the aforesaid series carried by the fixed electrode carrier, means for mounting the said movable condenser electrode carrier resiliently for free oscillation in a plane parallel to the fixed electrode carrier, said spaced electrode strips extending substantially transversely with respect to the direction of said oscillatory movement, the width of the individual



electrode strips of each series in the direction of movement differing from each other, pairs of facing strips being of substantially equal width so that equal displacement from any point in its normal range of movement of the resiliently mounted electrode carrier indexes different capacity changes in the pairs of electrode strips carried by the condenser electrode carriers facing each other, resulting in a more uniform rate of capacity change for movements with different amplitude.

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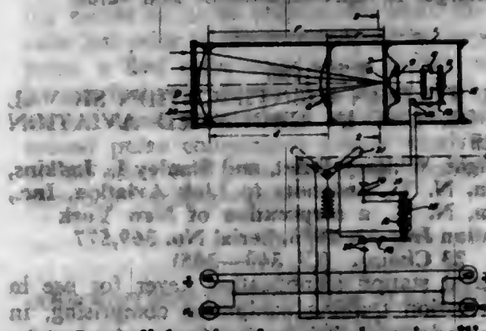
2,771,593
**ERROR POSITION INDICATOR FOR TARGET MANIFESTATION DEVICE**
Robert N. Strandt, Binghamton, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 20, 1954, Serial No. 405,071
7 Claims. (Cl. 340—24)



1. In a device for positioning a manifestation, means for providing said manifestation, means mounting the last-named means for translation over an area, motive means operatively associated with said mounting means for causing translation thereof, means for receiving position data to control said motive means, means for providing an output signal which is a function of the error in the present position of said mounting means in relation to the position data input, and means for moving said manifestation relative to said mounting means under the control of said output signal.

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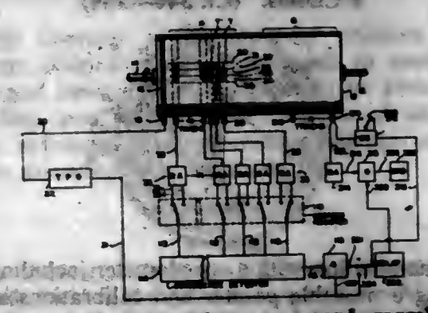
2,771,594
**PASS-SIGNAL DEVICE FOR ROAD VEHICLES**
Charles Gourdon, St. Mandé, France, assignor to Avertisseurs Roulers Silencieux, Paris, France, a company of France
Application January 8, 1952, Serial No. 265,498
Claims priority, application France March 1, 1951
8 Claims. (Cl. 340—34)



1. In a light signal responsive signalling system for vehicles, a receiver device, comprising, in combination, an elongated casing open at one end thereof, convergent lens means mounted in said opening, a photo electric cell located in said casing at the other end thereof, a partition in said casing located intermediate said lens means and said photo electric cell and formed with a rectangular horizontal slot located in the focal point of said lens means; and a convergent lens mounted between said partition and said photo-electric cell and adapted to project light rays passing through said slot on substantially the entire light sensitive surface of said photo electric cell while extraneous light is blocked by said partition.

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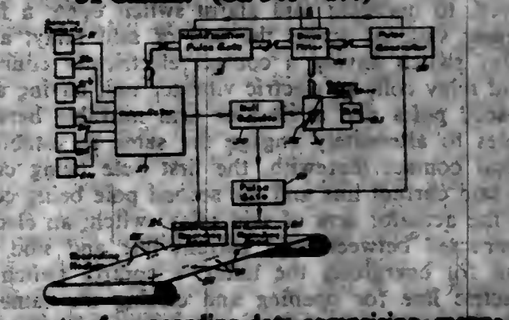
2,771,595
**DATA STORAGE SYSTEM**
Arnold P. Hendrickson, Minneapolis, and William R. Keye, St. Paul, Minn., and John H. Howard, Springfield, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application December 30, 1950, Serial No. 203,612
1 Claim. (Cl. 340—174)



In data storage apparatus, a record member, magnetic transducer locator scanning means positioned to scan a plurality of magnetizable locator tracks along the record member, means for imparting relative movement between the member and said scanning means for causing said scanning, an area of the record member apart from the locator tracks for containing information, and means for locating predetermined points along said area for a transducing operation therein by an information scanning means, the locating means including coincidence detection means connected to said locator transducer means for comparing binary digital signals generated in said locator transducer means from binary digital signals recorded in said locator tracks with pre-set binary signals for generating an output signal upon occurrence of detection of coincidence between said generated and pre-set binary signals, the apparatus further including a timing transducer positioned to scan a timing track along the member, the timing transducer being responsive to uniformly arrayed repetitive timing indicia on the timing track for generating timing signals having predetermined time occurrence in relation to the positions of said binary digital signals recorded in said locator tracks, and means for gating out said output signals of said coincidence detection means only during the existence of a timing signal.

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2,771,596
**METHOD AND APPARATUS FOR RECORDING AND REPRODUCING DATA**
John C. Rabbany, Chicago, Ill., assignor to Cook Electric Company, Chicago, Ill., a corporation of Illinois
Application June 2, 1950, Serial No. 165,844
31 Claims. (Cl. 340—177)



1. Apparatus for recording data comprising, means for sensing the value of said data in terms of voltage, a re-

corder, a pulse generator for supplying a continuous series of pulses to said recorder, potentiometer means for cyclically sweeping through a voltage varying between certain values and for comparing said sweep voltage with said data voltage, and means for completing a circuit for supplying said pulses from said generator to said recorder when said sweep voltage is at one of said certain values and interrupting said circuit when compared value of voltage is equal to zero.

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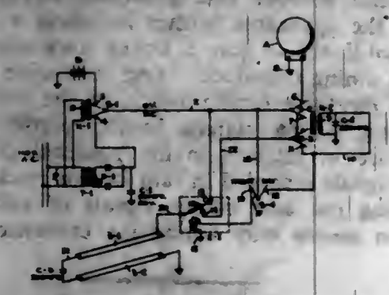
**2,771,597**
**SPEED WARNING**
Louis H. Freedman, Fort Worth, Tex.
Application December 1, 1955, Serial No. 550,333
6 Claims. (Cl. 340—266)



1. In combination with a speedometer including a case and having a movable pointer and calibrations arranged near the pointer tip, a speed warning device comprising a light emitter in said case mounted to move with said pointer, means in said case activating said light emitter, a photosensitive cell arranged to receive light from said emitter at a speed indicating position of said pointer relative to said calibrations, an electrical signal, and means electrically connecting said signal with said photosensitive cell.

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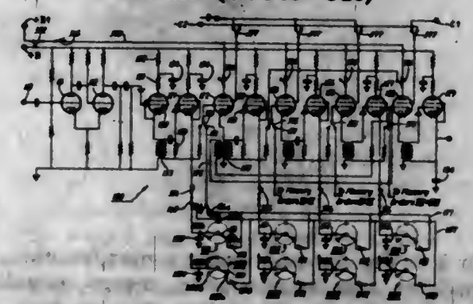
**2,771,598**
**ALARM SYSTEM**
Harry Gerber, Glendale, Calif., assignor to Simplex Industrial Products, Inc., Glendale, Calif., a corporation of California
Application June 16, 1955, Serial No. 515,951
4 Claims. (Cl. 340—276)



1. An electric alarm system, comprising: a low voltage D. C. line; an alarm device and circuit therefore, said circuit being energizable from said current line; an alarm switch interposed between said circuit and said current line, closing of said switch effecting energization of said alarm device; a relay operative, when energized, to maintain said alarm switch open; a first condenser shunted across the coil of said relay; a second, relay switch having a contact electrically connected to said relay coil; an electric vibrator unit having a pair of spaced poles and a vibrator arm movable between the poles to alternately engage the same to establish electrical contact therewith, the first pole being connected to said current line and the second pole being connected to the actuator arm of said relay switch; an electric line connected between said current line and said vibrator unit for energizing the latter; a control switch in said electric line for opening and closing the same; a first metallic strip electrically connected to said vibrator arm; a second metallic strip connected to ground; and a second condenser connected between said strips, closing of said control switch causing current flow to said vibrator unit to energize the same, engagement of said vibrator arm with said first pole causing current flow through said tapes and charging of said second condenser, disengagement of said vibrator arm from said first pole and subsequent engagement of this arm with said second pole effecting discharge of the electric potential from said second condenser and current flow to said first condenser and said relay coil so as to energize said relay and thus maintain said alarm switch open and said relay switch closed, breaking or aborting of either of said metallic strips resulting in opening or shorting the circuit between said condensers and thus rendering said relay inactive to allow closing of said alarm switch and energization of said alarm device.

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**2,771,599**
**READOUT MECHANISM**
George V. Noble, Berkeley, and Harold T. Avery, Oakland, Calif., assignors to Marchant Calculators, Incorporated, a corporation of California
Application March 6, 1953, Serial No. 340,841
9 Claims. (Cl. 340—316)



1. The combination of: a plurality of capacitors capable of storing electrical charges; means for impressing a selected one of a plurality of combinations of charges on said capacitors, the selected combination of charges representing a respective numeral value and each charged capacitor representing an increment of said value; a sensing circuit; switching means for connecting the sensing circuit to the various capacitors in a predetermined sequence for temporarily energizing the sensing circuit in response to each sensing of a charged capacitor; a movable indicia-bearing member; and mechanism connected to the sensing circuit and responsive to each energization of the latter for imparting to said member a movement proportional to the increment of said value represented by the charged capacitor to which the sensing circuit is connected, whereby the cumulative movement of said member in response to the sensing of said selected combination of charges is representative of said value.

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**2,771,600**
**UNIVERSAL STATION IDENTIFICATION SIGNAL KEYER FOR USE IN GROUNDED AVIATION TRAINERS**
Leroy D. Wright, Whitney Point, and Stanley L. Judkins, Binghamton, N. Y., assignors to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York
Application July 22, 1953, Serial No. 369,577
23 Claims. (Cl. 340—365)

1. A universal station identification keyer for use in grounded navigation training equipment comprising, in combination, a selector switch having four wafers or the like representing the first, second, third and fourth characters of Morse code letters, each of said wafers having a separate contact for each letter of the alphabet having a Morse code character represented by the wafer, each of said contacts being connected to dot or dash regulating means according to whether the Morse code character represented by the contact is a dot or a dash, a control



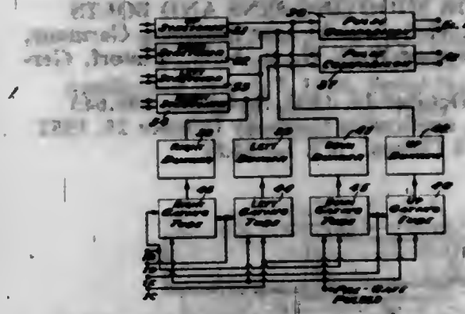
for selecting the contacts of the wafers according to the Morse code pattern of any letter of the alphabet, a signal emitter, keying means for activating the signal emitter, a plurality of sequentially operable relays for scanning the selected contacts of the respective wafers to control the




activated periods of the emitter by said dot or dash regulating means in accordance with the potentials on the selected contacts of the wafers, and a bi-stable switching means responsive to said regulating means for activating the scanning relays and alternately therewith disabling the keying means to provide spaces between characters.

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**2,771,601**
**TRACKING AND SYNCHRONIZING MECHANISM**
Clyde Stewart, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 8, 1951, Serial No. 260,747
6 Claims. (Cl. 343—11)



1. Means for producing elevation and azimuth tracking signals for a radar set comprising, a radar receiver, a master timer supplying pregate pulses immediately preceding received pulses, a four horn antenna receiving the received pulses, switching means connected between the receiver and said antenna, dividing means receiving an output from the master timer and supplying inputs to said switching means, four pulse stretching circuits having their inputs connected to the output of said receiver, said pulse stretching circuits receiving outputs from said dividing means so that each circuit receives every fourth received pulse, dunking means connected to said pulse stretching circuits and receiving inputs from said dividing means so as to respectively dunk the stretcher circuits just prior to the reception of its respective received pulse, a first pulse comparison circuit receiving inputs from a first pair of said stretching circuits to produce an output signal proportional to the azimuth error, and a second pulse comparison circuit receiving the outputs of the other two pulse stretching circuits to produce an elevation tracking signal.

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**2,771,602**
**ABSORPTION DEVICE FOR ELECTRO-MAGNETIC WAVES**
Rudolf Kühnhold, Braunschweig, Germany, assignor to Electroacustic Gesellschaft mit beschrankter Haftung, Kiel, Germany, a corporation of Germany
Application February 12, 1954, Serial No. 409,988
Claims priority, application Germany February 16, 1953
12 Claims. (Cl. 343—18)

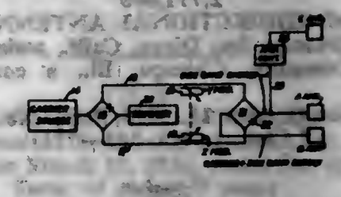
1. An absorption device for electro-magnetic waves comprising a plurality of electrically-conductive grid structures, each grid structure comprising a first plurality of mutually parallel elongated grid elements crossed with a second plurality of mutually parallel elongated grid elements, said grid structures being arranged in spaced relation behind one another, the average conductance of the front one of said grid structures being equal to the



dielectric constant of the material between said grid structures divided by the wavelength in centimeters of the longest electro-magnetic wave to be absorbed, each succeeding front to back grid structure of said plurality of grid structures being of greater average conductance than its preceding grid structure.

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**2,771,603**
**INSTRUMENT LANDING SYSTEMS**
Sidney B. Pickles, Tarrytown, and Anthony M. Casabona, Hawthorne, N. Y., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application January 13, 1953, Serial No. 331,090
8 Claims. (Cl. 343—108)



1. Glide path apparatus for instrument landing of aircraft comprising first antenna means and second antenna means disposed generally above said first antenna means, a source of carrier frequency energy, first means to modulate said carrier frequency energy with a first given frequency, and second means to modulate said carrier frequency energy with a second given frequency to produce sideband energy, means to couple said carrier energy and said sideband energy to said first antenna means, means to couple said sideband energy to said second antenna means, third antenna means disposed generally above said first and second antenna means, and means to couple said sideband energy to said third antenna means.

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**2,771,604**
**VEHICULAR SHORT-WAVE ANTENNA**
Samuel E. Goldstein, Los Angeles, Calif.
Application April 3, 1951, Serial No. 219,044
1 Claim. (Cl. 343—749)

A short-wave antenna of the linear radiator type comprising a pair of relatively lengthy colinear conductive radiator elements having their proximate ends formed to provide threaded studs, and an inductance coil assembly connecting the proximate ends of said elements to constitute the sole mechanical and electrical connection therebetween, said inductance assembly comprising an insulating cylindrical form, an internally threaded metallic collar within each end of said form, an inductance coil wound upon the outside of said form and having each of its opposite ends secured by a conductive screw passing radially through the form and threaded into the respective metallic collar thereof, whereby said screws serve to connect the ends of the coil to the respective collars and to maintain said collars mechanically in position within the ends of said form, a cylindrical metallic

shield open at one end and bell-shaped at the other, said shield encompassing said form and coil with the threaded stud of one of said radiator elements passing through an aperture in the bell shaped end of the shield and threaded



into one of said collars, an insulating spacer disc disposed snugly within the other and open end of said shield, and the threaded stud of the other of said radiator elements passing through an aperture in said spacer disc and threaded into the other of said collars.

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2,771,605
OMNIDIRECTIONAL ANTENNA
Robert A. Kirkman, San Diego, Calif., assignor to Cook Electric Company, Chicago, Ill., a corporation of Illinois
Application October 11, 1954, Serial No. 461,355
7 Claims. (Cl. 343—771)

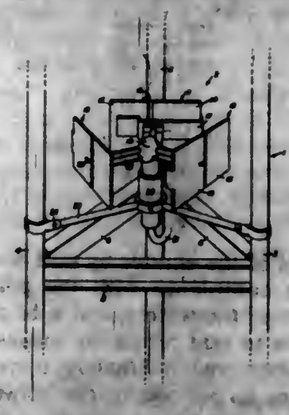


6. Microwave apparatus comprising a vertically disposed cylindrical wave guide, energizing means for feeding to said guide a transverse electrical wave of dominant mode polarized in a horizontal plane, means in said guide for circularly polarizing said wave in a horizontal plane, and antenna means at the exit of said wave guide for transmitting said wave into space uniformly in all substantially horizontal directions with a vector orientation fixed in a predetermined angular relationship to the axis of said wave guide and the horizontal plane.

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2,771,606
ULTRA-HIGH FREQUENCY ANTENNA SYSTEM
Arnold G. Kandoian, Glen Rock, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application February 11, 1953, Serial No. 336,396
1 Claim. (Cl. 343—890)

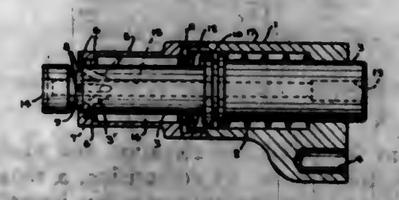
An antenna array comprising a support structure including a plurality of vertical support members disposed about a central vertical axis to form a substantially closed geometric pattern having a given horizontal cross-sectional area and horizontal brace members interconnecting said vertical support members in vertically spaced planes to form a sturdy tower construction, a plurality of horizontally polarized loop radiators of loop area smaller than said cross-sectional area, each of said loop radiators having an axially disposed hub and a plurality



of spoke supports disposed radially thereof and means coupling said spoke supports to said support structure to locate the radiator within the zone defined by said vertical support members and two adjacent planes formed by horizontal brace members.

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2,771,607
DEVICE FOR SHOOTING PINS AND BOLTS
Max Skumawitz, Tiefenbroich, near Ratingen, Germany, assignor to Bozong-Werk G. m. b. H., Lintorf, Germany
Application October 16, 1953, Serial No. 386,643
Claims priority, application Germany October 25, 1952
3 Claims. (Cl. 1—44.5)

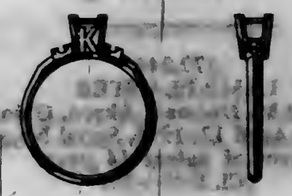


1. A device for shooting pins and bolts into solid material aggregates, such as concrete and stone walls, comprising, in combination, an outer casing, a barrel having a rear portion, a middle portion and a front portion, said casing being axially displaceable with respect to said barrel, an abutment forming part of said barrel, a recoil spring located between said abutment of said barrel and the end wall of said casing so as to hold in the expanded position of said recoil spring said barrel and said casing in a relative position wherein said middle and front portions of said barrel protrude beyond said casing, a sleeve connected to the front portion of said casing and surrounding said middle portion of said barrel, said sleeve forming a gas release chamber surrounding said middle portion of said barrel so as to act as a recoil buffer, and a flange forming the front end of said sleeve, said barrel having a longitudinal bore connected with gas exit openings arranged between said front and middle portions of said barrel, said flange cooperating with said gas exit openings arranged between said front and middle portions of said barrel so that in said expanded position of said recoil spring said barrel protrudes with said gas exit openings beyond said flange arranged at the front end of said sleeve whereas when said recoil spring is compressed said openings communicate with said gas release chamber formed inside said sleeve.

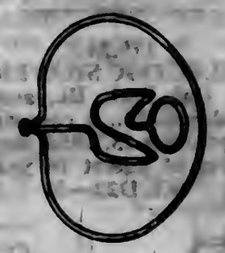
# DESIGNS

## NOVEMBER 20, 1956

179,233
RING
Edward Abrams, Toronto, Ontario, Canada
Application January 30, 1956, Serial No. 39,960
Term of patent 14 years
(Cl. D45—10)



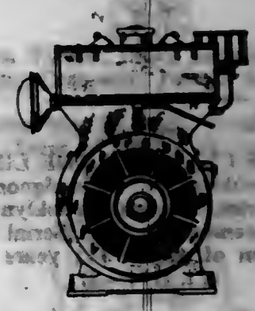
179,234
NURSING BOTTLE HOLDER
Paul B. Adee, Denver, Colo.
Application March 7, 1956, Serial No. 40,500
Term of patent 14 years
(Cl. D63—1)



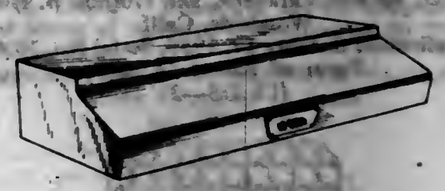
179,235
LEAFLET DISPENSING PULPIT
Gustave Edwin Anderson, La Crosse, Wis.
Application May 23, 1955, Serial No. 36,183
Term of patent 14 years
(Cl. D52—2)



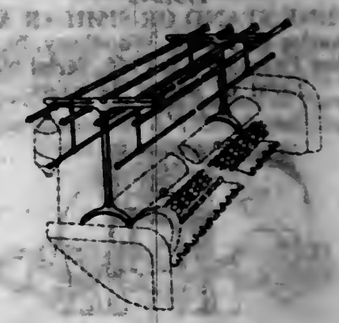
179,236
MOTOR
Jacques Bernard, Paris, France, assignor to Societe Bernard-Moteurs, S. A., Paris, France, a society of France
Application March 22, 1956, Serial No. 40,736
Claims priority, application France October 19, 1955
Term of patent 7 years
(Cl. D77—1)



179,237
VENTILATING RANGE HOOD
Samuel M. Bernstein, Winnetka, Ill.
Application March 14, 1956, Serial No. 40,613
Term of patent 7 years
(Cl. D61—25)



179,238
LINT FREE CREEL
David L. Bohannon, Charlotte, N. C., assignor to Pennmill Corporation, Charlotte, N. C., a corporation of Delaware
Application August 24, 1955, Serial No. 37,640
Term of patent 14 years
(Cl. D92—15)



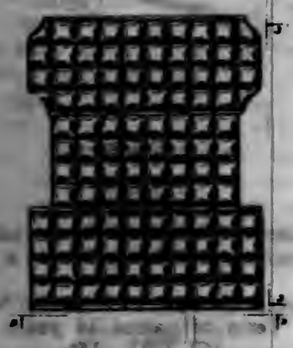
179,239
**BOBBIN HOLDER**
David L. Bohannon, Charlotte, N. C., assignor to Pneumatil Corporation, Charlotte, N. C., a corporation of Delaware
Application April 2, 1956, Serial No. 40,869
Term of patent 14 years
(Cl. D92—15)



179,240
**PAPER CLAMP OR THE LIKE**
Samuel Beker, Brooklyn, N. Y., assignor to Novo-Plas Manufacturing Co., Inc., Brooklyn, N. Y.
Application December 19, 1955, Serial No. 39,382
Term of patent 3½ years
(Cl. D74—2)



179,241
**INFLATABLE MATTRESS**
Edward D. Burton, Lafayette, and Gordon B. Holcombe, Woodside, Calif.
Application October 17, 1955, Serial No. 38,403
Term of patent 14 years
(Cl. D5—2)



179,242
**SHOE SHINE STAND OR SIMILAR ARTICLE**
Charles G. Dallas, Woodbury, N. J.
Application February 13, 1956, Serial No. 40,153
Term of patent 14 years
(Cl. D9—2)



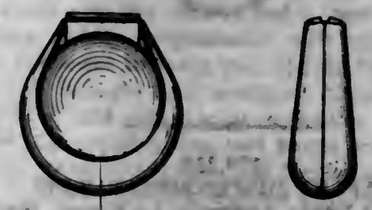
179,243
**DRINK MIXER**
Harry E. Dumon, Jr., Winchester, Mass.
Application November 16, 1955, Serial No. 38,914
Term of patent 14 years
(Cl. D44—1)



179,244
**LAMP PLANTER**
Elbert M. Dorman, Akron, Ohio
Application April 13, 1956, Serial No. 41,065
Term of patent 14 years
(Cl. D48—20)



179,245
**ELECTRIC SHAVER**
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 13, 1955, Serial No. 37,968
Term of patent 14 years
(Cl. D22—3)



179,246
**GOLF CLUB HEAD**
John Warren Gillon, San Mateo, Calif.
Application January 23, 1956, Serial No. 39,874
Term of patent 14 years
(Cl. D34—5)

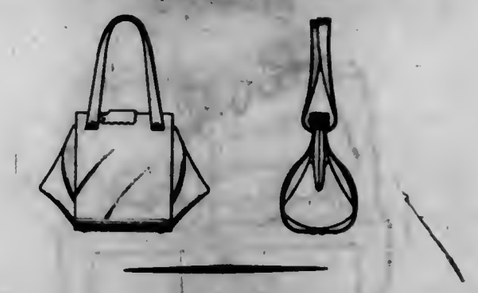




179,247
**INDOOR ANTENNA CABINET**
Henry D. Halperin, New York, N. Y., assignor to General Bronze Corporation, Garden City, N. Y., a corporation of New York
Application July 15, 1955, Serial No. 36,984
Term of patent 3½ years
(Cl. D26—14)



179,248
**HANDBAG**
William H. Hardy, River Edge, N. J.
Application July 31, 1956, Serial No. 42,466
Term of patent 3½ years
(Cl. D67—5)



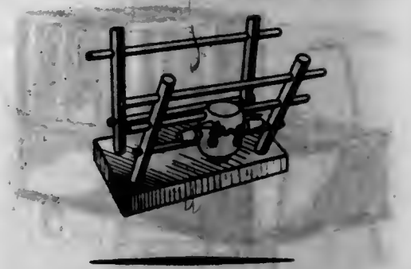
179,249
**TOY BANK**
Walter F. Heat, Royal Oak, Mich.
Application July 22, 1955, Serial No. 37,093
Term of patent 14 years
(Cl. D34—11)



179,250
**GLOVE**
Julius A. Higier, Johnstown, N. Y.
Application June 19, 1956, Serial No. 41,963
Term of patent 7 years
(Cl. D3—11)



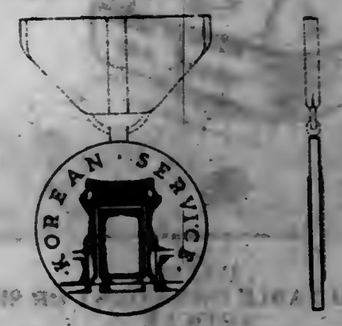
179,251
**NAPKIN HOLDER**
Severus Hilton, Wilton, Maine, assignor to Meneelik-Goldman Company, New York, N. Y., a partnership
Application July 16, 1956, Serial No. 42,286
Term of patent 3½ years
(Cl. D44—24)



179,252
**CHAIR**
James E. Jones, Toledo, Ohio, assignor to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application May 18, 1955, Serial No. 36,061
Term of patent 14 years
(Cl. D15—1)



179,253
**MEDAL OR SIMILAR ARTICLE**
Thomas H. Jones, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Army
Application January 27, 1956, Serial No. 39,954
Term of patent 14 years
(Cl. D29—19)




179,254
**LINK CHAIN FOR A NECKLACE OR THE LIKE**
Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
Application December 8, 1955, Serial No. 39,229
Term of patent 7 years
(Cl. D45—16)



179,255
PHONOGRAPH CABINET
Harry C. Kline, Jr., Buffalo, N. Y., assignor to Wondt-Sparkrat, Inc., Cheektowaga, N. Y.
Application December 8, 1955, Serial No. 39,244
Term of patent 3½ years
(Cl. D56—4)



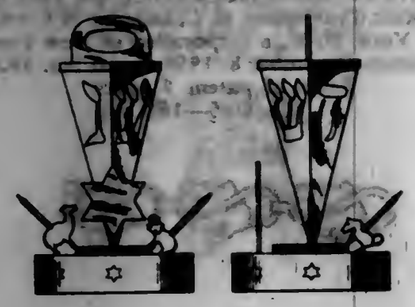
179,256
COMBINED CLOSURE CAP AND DISPENSING SPOUT
Harry A. Mart, Los Angeles, Calif.
Application January 24, 1955, Serial No. 34,160
Term of patent 14 years
(Cl. D58—26)



179,257
COMBINED SWING FAUCET AND DISHWASHING FIXTURE
Herbert Carvel Moore, West Los Angeles, Calif., assignor to Electro-Way Corporation, Los Angeles, Calif., a corporation
Application March 19, 1956, Serial No. 40,672
Term of patent 14 years
(Cl. D91—3)



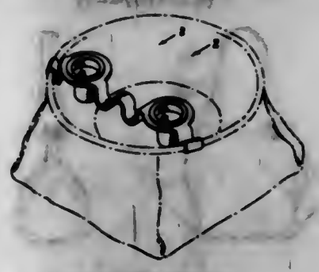
179,258
CHANUKAH TABLE ORNAMENT OR SIMILAR ARTICLE
Sara Rae Naimon, Milwaukee, Wis.
Application March 12, 1956, Serial No. 40,566
Term of patent 14 years
(Cl. D29—23)



179,259
PARTY CONFECTIONERY BASKET
Sara Rae Naimon, Milwaukee, Wis.
Application March 12, 1956, Serial No. 40,568
Term of patent 14 years
(Cl. D52—4)



179,260
COMBINED CIGARETTE HOLDER AND EXTINGUISHER ATTACHMENT FOR AN ASH TRAY OR SIMILAR ARTICLE
Donald J. O'Connor, East Hartford, Conn.
Application May 28, 1956, Serial No. 41,689
Term of patent 14 years
(Cl. D85—2)



179,261
COFFEE PERCOLATOR
Ernest H. Orr, Toronto, Ontario, Canada, assignor to Supreme Aluminum Industries Limited, Toronto, Ontario, Canada, a corporation
Application June 11, 1956, Serial No. 41,853
Term of patent 7 years
(Cl. D44—26)



179,262
WATCH OR SIMILAR ARTICLE
Heinz Pauli, Bettlach, Switzerland, assignor to Ed. Kummer S. A., Bettlach, Switzerland, a Swiss firm
Application November 25, 1955, Serial No. 39,037
Term of patent 3½ years
(Cl. D42—8)

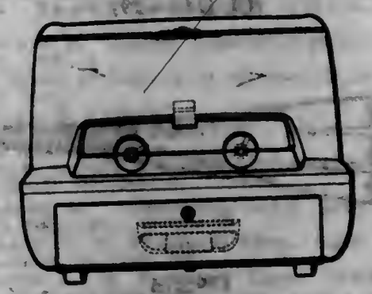




179,263
COMBINED BRUSH HOLDER AND MIRROR ATTACHMENT FOR SUN VISORS OR SIMILAR ARTICLE
Lester R. Pallet and Irving Mark, Chicago, Ill.
Application October 26, 1955, Serial No. 38,569
Term of patent 14 years
(Cl. D14—6)



179,264
COMBINATION TOASTER AND OVEN OR SIMILAR ARTICLE
Paul O. Rawson, Jr., Trumbull, and John A. Russo, Bridgeport, Conn., assignors to General Electric Company, a corporation of New York
Application March 15, 1956, Serial No. 40,622
Term of patent 14 years
(Cl. D61—10)



179,265
CAN OPENER
Idus L. Rhodes, St. Louis, Mo., assignor to Swing-A-Way Manufacturing Company, St. Louis, Mo., a corporation of Missouri
Application April 8, 1955, Serial No. 35,426
Term of patent 14 years
(Cl. D22—2)



179,266
COMBINED CRASH PAD AND TRAY
Arthur Rich, Flushing, N. Y.
Application January 18, 1956, Serial No. 39,837
Term of patent 14 years
(Cl. D14—6)



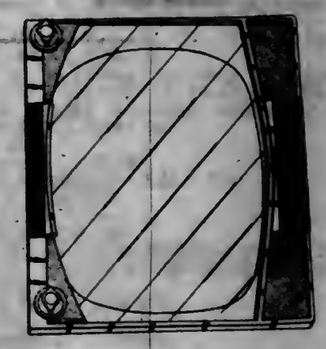
179,267
EXHAUST EXTENSION
Lloyd E. Russell, Springfield, Ohio, assignor to Peters & Russell, Inc., Springfield, Ohio, a corporation of Ohio
Application April 5, 1954, Serial No. 29,868
Term of patent 14 years
(Cl. D14—6)



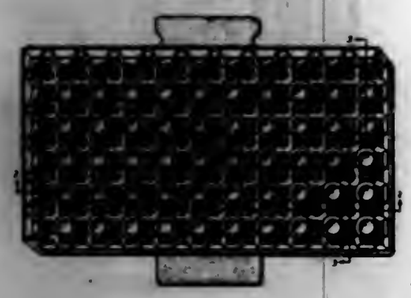
179,268
SWING-SHELF DISPLAY RACK OR THE LIKE
Charles F. Schaiper, Cincinnati, Ohio, assignor to The Coca-Cola Bottling Works Company, Cincinnati, Ohio, a corporation of Ohio
Application May 3, 1956, Serial No. 41,322
Term of patent 14 years
(Cl. D60—9)



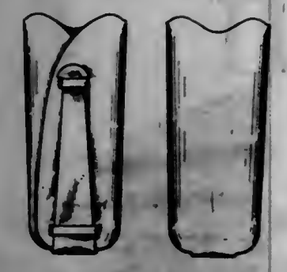
179,269
COMBINED ESCUTCHEON AND FACEPLATE FOR A TELEVISION RECEIVER CABINET
Kenneth P. Schory, Park Ridge, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application May 28, 1956, Serial No. 41,670
Term of patent 7 years
(Cl. D56—4)



179,270
**PACKING TRAY FOR LAMP BULBS**
Ernest L. Shepard, Fairfield, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application May 2, 1955, Serial No. 35,780
Term of patent 14 years
(Cl. D58—13)



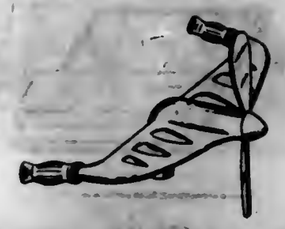
179,271
**SPECTACLE CASE**
Raymond F. E. Stegeman, Greece, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application April 15, 1955, Serial No. 35,536
Term of patent 7 years
(Cl. D57—1)



179,272
**TILE OR SIMILAR ARTICLE**
Robert W. Sterrett, Park Ridge, Ill., assignor to Zonolite Company, Evanston, Ill., a corporation of Montana
Application May 14, 1956, Serial No. 41,485
Term of patent 14 years
(Cl. D18—2)



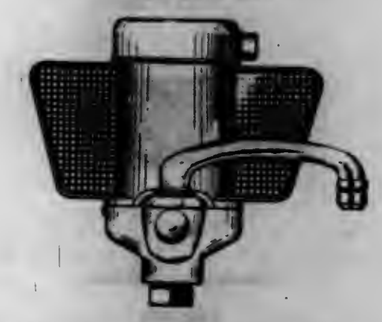
179,273
**TRICYCLE HANDLE-BAR OR SIMILAR ARTICLE**
Clifford Brooks Stevens, Milwaukee, Wis., assignor to Junior Toy Corporation, a corporation of Delaware
Application February 13, 1956, Serial No. 40,152
Term of patent 14 years
(Cl. D34—15)



179,274
**SALAD HANDLING IMPLEMENT OR THE LIKE**
Joseph B. Stier, New York, N. Y.
Application June 19, 1956, Serial No. 41,964
Term of patent 14 years
(Cl. D44—29)



179,275
**SINK ATTACHED DISHWASHER UNIT**
George William Walker, Bloomfield Hills, Mich., assignor to Gerity-Michigan Corporation, Adrian, Mich., a corporation of Michigan
Application January 13, 1956, Serial No. 39,756
Term of patent 14 years
(Cl. D91—3)



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NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Stack, Vernon T., to Wilkes Hosiery Mills Co. stitch length control mechanism for knitting machines. Re. 24,239, 11–20–56, Cl. 66—55.

Wilkes Hosiery Mills Co.: *See*— Stack, Vernon T. Re. 24,239.

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Begonia, Paul B., to Germain's, Inc. Rose plant. 1,528, 11–20–56, Cl. 47—61.

Boerner, Eugene S., to C. W. Stuart & Co. Rose plant. 1,529, 11–20–56, Cl. 47—61.

Germain's, Inc.: *See*— Begonia, Paul B. 1,528.

Stuart, C. W., & Co.: *See*— Boerner, Eugene S. 1,529.

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Abrams, Edward. Ring. 179,233, 11–20–56, Cl. D45—10.

Aden, Paul B. Nursing bottle holder. 179,234, 11–20–56, Cl. D83—1.

Anderson, Gustave E. Leaflet dispensing pulpit. 179,235, 11–20–56, Cl. D52—2.

Army, United States of America as represented by the Secretary of the: *See*— Jones, Thomas H. 179,253.

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Bernard, Jacques, to Society Bernard-Moteurs, S. A. Motor. 179,236, 11–20–56, Cl. D77—1.

Bernstein, Samuel M. Ventilating range hood. 179,237, 11–20–56, Cl. D61—25.

Bohannon, David L., to Pneumafil Corp. Lint free creel. 179,238, 11–20–56, Cl. D92—15.

Bohannon, David L., to Pneumafil Corp. Bobbin holder. 179,239, 11–20–56, Cl. D92—15.

Boker, Samuel, to Novo-Plas Mfg. Co., Inc. Paper clamp or the like. 179,240, 11–20–56, Cl. D74—2.

Burton, Edward D., and G. B. Holcombe. Inflatable mattress. 179,241, 11–20–56, Cl. D5—2.

Coca-Cola Bottling Works Co., The: *See*— Schaiper, Charles F. 179,268.

Coro, Inc.: *See*— Katz, Adolph. 179,254.

Dallas, Charles G. Shoe shine stand or similar article. 179,242, 11–20–56, Cl. D9—2.

Damon, Harry E., Jr. Drink mixer. 179,243, 11–20–56, Cl. D44—1.

Dorman, Elbert M. Lamp planter. 179,244, 11–20–56, Cl. D48—20.

Electro-Way Corp.: *See*— Moore, Herbert C. 179,257.

Ernest, Robert O., to Sunbeam Corp. Electric shaver. 179,245, 11–20–56, Cl. D22—3.

General Bronze Corp.: *See*— Halperin, Henry D. 179,247.

General Electric Co.: *See*— Rawson, Paul O., Jr., and Russo. 179,264.

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Halperin, Henry D., to General Bronze Corp. Indoor antenna cabinet. 179,247, 11–20–56, Cl. D26—14.

Hardy, William H. Handbag. 179,248, 11–20–56, Cl. D87—5.

Hess, Walter F. Toy bank. 179,249, 11–20–56, Cl. D34—11.

Hettrick Mfg. Co., The: *See*— Jones, James E. 179,252.

Higier, Julius A. Glove. 179,250, 11–20–56, Cl. D3—11.

Hilton, Severns, to Menschik-Goldman Co. Napkin holder. 179,251, 11–20–56, Cl. D44—24.

Holcombe, Gordon B.: *See*— Burton, Edward D., and Holcombe. 179,241.

Jones, James E., to The Hettrick Mfg. Co. Chair. 179,252. 11–20–56, Cl. D15—1.

Jones, Thomas H., to the United States of America as represented by the Secretary of the Army. Medal or similar article. 179,253, 11–20–56, Cl. D29—19.

Junior Toy Corp.: *See*— Stevens, Clifford B. 179,273.

Katz, Adolph, to Coro, Inc. Link chain for a necklace or the like. 179,254, 11–20–56, Cl. D45—16.

Keyes Fibre Co.: *See*— Shepard, Ernest L. 179,270.

Kline, Harry C., Jr., to Wendt-Squires, Inc. Phonograph cabinet. 179,255, 11–20–56, Cl. D86—4.

Kummer, Ed., S. A.: *See*— Pauli, Heins. 179,262.

Mark, Irving: *See*— Pellet, Lester R., and Mark. 179,263.

Mart, Harry A. Combined closure cap and dispensing spout. 179,256, 11–20–56, Cl. D58—26.

Menschik-Goldman Co.: *See*— Hilton, Severns. 179,251.

Moore, Herbert C., to Electro-Way Corp. Combined swing faucet and dishwashing fixture. 179,257, 11–20–56, Cl. D91—3.

Naimon, Sara R. Chanukah table ornament or similar article. 179,258, 11–20–56, Cl. D29—23.

Naimon, Sara R. Party confectionery basket. 179,259, 11–20–56, Cl. D58—4.

Novo-Plas Mfg. Co., Inc.: *See*— Boker, Samuel. 179,240.

O'Connor, Donald J. Combined cigarette holder and extinguisher attachment for an ash tray or similar article. 179,260, 11–20–56, Cl. D85—2.

Orr, Ernest H., to Supreme Aluminum Industries Ltd. Coffee percolator. 179,261, 11–20–56, Cl. D44—26.

Pauli, Heins, to Ed. Kummer S. A. Watch or similar article. 179,262, 11–20–56, Cl. D42—6.

Pellet, Lester R., and I. Mark. Combined brush holder and mirror attachment for sun visors or similar article. 179,263, 11–20–56, Cl. D14—6.

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Rawson, Paul O., Jr., and J. A. Russo, to General Electric Co. Combination toaster and oven or similar article. 179,264, 11–20–56, Cl. D61—10.

Rhodes, Idus L., to Swing-A-Way Mfg. Co. Can opener. 179,265, 11–20–56, Cl. D22—2.

Rich, Arthur. Combined crash pad and tray. 179,266, 11–20–56, Cl. D14—6.

Russell, Linus E., to Peters & Russell, Inc. Exhaust extension. 179,267, 11–20–56, Cl. D14—6.

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Schaiper, Charles F., to The Coca-Cola Bottling Works Co. Swing-shelf display rack or the like. 179,268, 11–20–56, Cl. D60—9.

Schory, Kenneth P., to Zenith Radio Corp. Combined escutcheon and faceplate for a television receiver cabinet. 179,269, 11–20–56, Cl. D56—4.

Shepard, Ernest L., to Keyes Fibre Co. Packing tray for lamp bulbs. 179,270, 11–20–56, Cl. D58—13.

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Sterrett, Robert W., to Zonolite Co. Tile or similar article. 179,272, 11–20–56, Cl. D18—2.

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Stier, Joseph B. Salad handling implement or the like. 179,274, 11–20–56, Cl. D44—29.

Sunbeam Corp.: *See*— Ernest, Robert O. 179,245.

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Zonolite Co.: *See*— Sterrett, Robert W. 179,272.

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APRA Precipitator Corp.: *See*—
Welts, Jeremy. 2,771,150.

Abs, Alfred J.: *See*—
Barnett, Arthur R., Suter, and Abs. 2,770,887.

Achilles, Werner. Apparatus for felling backings. 2,771,120, 11–20–56, Cl. 154—37.

Achtsig, Christoph, to Porzellanfabrik Weiden Gebrueder Bauscher, Zweigniederlassung der Lorenz Hutschenreuther Aktiengesellschaft in Selb. Cup with handle. 2,770,956, 11–20–56, Cl. 63—13.

Adams, Frank R. Polarized self-neutralizing servomotor. 2,771,572, 11–20–56, Cl. 317—172.

Adams, Madonna R.: *See*—
Shirmeyer, Maxine R., and Adams. 2,771,061.

Adlaf, William J., to Boyar-Schultz Corp. Lead screw taping attachment having torque responsive feed nut. 2,770,821, 11–20–56, Cl. 10—135.

Aerosquip Corp.: *See*—
Horrell, Maurice W. 2,771,555.

Afferbaugh, Merle F. Method of packaging ice cream and container therefor. 2,771,369, 11–20–56, Cl. 99—180.

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Benedict, Robert G., and Stodola. 2,771,397.

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Doolittle, Donald B. 2,771,128.
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Allbright, Dennis H. to Dunlop Rubber Co. Ltd. Locking mechanism for fluid pressure operated devices. 2,771,060, 11–20–56, Cl. 121—40.

Allegretti, Dante M., and L. P. Brunette. Adjustable control ring. 2,770,889, 11–20–56, Cl. 33—214.

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Allied Chemical & Dye Corp.: *See*—
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Allied Laboratories, Inc.: *See*—
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Allis-Chalmers Mfg. Co.: *See*—
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Hansen, Alfred J. 2,770,997.

Alric, Gustave. Fuel injectors. 2,771,321, 11–20–56, Cl. 239—107.6.

Altman, Harry: *See*—
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American Hardware Corp., The: *See*—
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American Home Products Corp.: *See*—
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American Mattress Co.: *See*—
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American Radiator & Standard Sanitary Corp.: *See*—
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American Telephone and Telegraph Co.: *See*—
Morris, Richard S., Jr. 2,771,511.

American Viscose Corp.: *See*—
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Anderson, Arthur J., to General Motors Corp. Supporting shell molds during metal pouring operations. 2,770,858, 11–20–56, Cl. 22—90.

Anderson, Gordon C., and P. B. West, to Saco-Lowell Shops. Tube gear for sliver oilers. 2,770,845, 11–20–56, Cl. 19—159.

Anderson, William A., and C. W. Harrison, to Bell Telephone Laboratories, Inc. Saw-tooth generator. 2,771,556, 11–20–56, Cl. 250—36.

Andis Clipper Co.: *See*—
Andis, Mathew. 2,771,280.

Andis, Mathew, to Andis Clipper Co. Triturating and mixing machine. 2,771,280, 11–20–56, Cl. 259—108.

Andres, Lloyd J., to Permo, Inc. Stylus and socket therefor. 2,771,295, 11–20–56, Cl. 274—37.

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Annen, James E., to Sutherland Paper Co. Dispensing cartons provided with cutters. 2,771,185, 11–20–56, Cl. 206—58.

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Arnold, Orlan M., and R. M. Jamison, to Olin Mathieson Chemical Corp. Method for stabilizing hydrazine against decomposition by copper in contact therewith. 2,771,343, 11–20–56, Cl. 23—190.

Arundale, Erving: *See*—
Banes, Fred W., and Arundale. 2,771,459.

Ash, Charles S. Four-wheel driven tractor. 2,771,147, 11–20–56, Cl. 180—49.

Ash, Charles S. Power-actuated laterally and vertically adjustable draft means. 2,771,806, 11–20–56, Cl. 280—456.

Ateliers de Constructions Electriques de Charleroi: *See*—
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Koolstra, Lambert F., and Cobb. 2,771,460.

Babel, Paul V., to International Business Machines Corp. Record controlled punch with provision for serial numbering. 2,771,137, 11–20–56, Cl. 164—115.

Babunovic, Momir, and N. D. Dalton, to Quirk Machinery Co. Cutter for woodworking machine. 2,771,108, 11–20–56, Cl. 144—229.

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Bader, Harry F., H. J. Barth, and P. E. Ambrose. Deposited rubber undergarment with variegated surfaces. 2,770,808, 11–20–56, Cl. 2—37.

Badin, Ferdinand. Centrifugal powder clutches. 2,771,170, 11–20–56 Cl. 192—58.

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Reppe, Walter, Friederich, and Wiebusch. 2,771,478.

Baes, Guillermo F. Rotary pumps and the like. 2,771,036, 11–20–56, Cl. 103—90.

Bailey, William D., and J. T. Cooper. Suction and pressure controlled valve system. 2,771,094, 11–20–56, Cl. 137—620.

Baker, James G., to The Perkin-Elmer Corp. Objectives comprising two outer positive doublets enclosing a middle negative component for aerial photography. 2,771,007, 11–20–56, Cl. 88—57.

Baker Oil Tools, Inc.: *See*—
Baker, Reuben C., and Ragan. 2,771,091.

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Ballard, Sam L. Pipe bending machine for industrial piping. 2,771,116, 11–20–56, Cl. 153—48.







Banes, Fred W., and E. Arundale, to Esso Research and Engineering Co. Cationic derivatives of itaconate-diene copolymers. 2,771,459, 11–20–56, Cl. 260—72.6.

Barnacket, Albert J., to International Telephone and Telegraph Corp. Cathode ray electron discharge device. 2,771,566, 11–20–56, Cl. 315—16.

Barclay, Harry A., and D. P. Nichols, to Socony Mobil Oil Co., Inc. Subsurface igniter. 2,771,140, 11–20–56, Cl. 166—60.

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Barker, Sydney W., to Lastrafil Ltd. Apparatus for treating threads. 2,771,180, 11–20–56, Cl. 202—65.

Barnes, Arthur W., R. S. Dyer, and A. A. Gibson, to Imperial Chemical Industries Ltd. Production of vinyl chloride polymers. 2,771,457, 11–20–56, Cl. 260—92.8.

Barnett, Arthur R., O. Suter, and A. J. Abs, to Technical Oil Tool Corp., Ltd. Directional inclination recording apparatus. 2,770,887, 11–20–56, Cl. 33—206.5.

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Beale, Evelyn S. L., to Alan Muntz & Co. Ltd. Turbines operated by free-piston gas generators. 2,770,943, 11–20–56, Cl. 60—13.

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Beckadolph, Richard, and W. Niclas, to Continental Gummi-Werke Aktiengesellschaft. Belt transmissions. 2,770,977, 11–20–56, Cl. 74—229.

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Beeson, Donald M., to Esso Research and Engineering Co. Waterflooding method of secondary recovery. 2,771,138, 11–20–56, Cl. 166—9.

Bell, Elva L. Securing strip. 2,771,165, 11–20–56, Cl. 189—76.

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Anderson, William A., and Harrison. 2,771,556.
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Bellamy, John C., to Cook Electric Co. Method and apparatus for recording and reproducing data. 2,771,596, 11–20–56, Cl. 340—177.

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Farron, John R. 2,771,061.
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Berg, Elmer W., and E. J. Johnston, to International Harvester Co. Power actuated reel operating means. 2,770,939, 11–20–56, Cl. 56—222.

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Best, Stanley G., Jr., to United Aircraft Corp. Emergency fuel control system. 2,771,130, 11–20–56, Cl. 158—36.3.

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Biefeld, Lawrence P., and R. F. Shannon, to Owens-Corning Fiberglas Corp. Method for producing molded products comprising melamine formaldehyde resin and gypsum. 2,770,840, 11–20–56, Cl. 18—47.5.

Bigelow, Lyford C., to The American Hardware Corp. Adapter housing for door locks. 2,770,964, 11–20–56, Cl. 70—451.

Binder, George G., Jr.: *See*—
Johnso, Edward F., and Binder. 2,771,139.

Bing, John H.: *See*—
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Bloch, Alfred, to Hazeltine Research, Inc. Differential repeater system. 2,771,583, 11–20–56, Cl. 324—122.

Bloch, Herman S., to Universal Oil Products Co. Insecticidal compounds. 2,771,479, 11–20–56, Cl. 260—407.

Blomqvist, Åke H. P., and P. A. Lindegren, to Aktiebolaget Bofors. Remote control follow-up system for positioning a controlled unit by a control unit. 2,771,573, 11–20–56, Cl. 318—30.

Blue, John, Co. Inc.: *See*—
Johnston, Douglas. 2,771,037.

Bobkowicz, Emilian. Method and apparatus for making unwoven fabric from bast fibers. 2,771,118, 11–20–56, Cl. 154—1.75.

Bockstahler, Earl R., to Allied Laboratories, Inc. Physiologically active p-alkoxy-beta-piperidinopropiophenones causing cns depressant and anesthetic effects in animals. 2,771,391, 11–20–56, Cl. 167—53.

Boerger, Earl A. Hand carried liquid dispenser. 2,771,224, 11–20–56, Cl. 222—210.

Boho, Lawrence M. Movable bracket for can openers and the like. 2,771,263, 11–20–56, Cl. 248—298.

Boice, Lendall O. Vulcanising machine. 2,770,839, 11–20–56, Cl. 18—18.

Boisson, Pierre, to Societe Metallurgique Ariegeoise et Lorraine. Mould for the centrifugal casting of pipes and other pieces. 2,770,857, 11–20–56, Cl. 22—65.

Bologna, Louis. Wire cutting and stripping tool. 2,770,969, 11–20–56, Cl. 81—9.5.

Bolt, John A.: *See*—
Kalinowski, Mathew L., and Bolt. 2,771,405.

Booth, James H., and A. W. Gair, to Thompson Products, Inc. Sectionalised steering knuckle. 2,771,301, 11–20–56, Cl. 280—96.2.

Booth, James H., and A. W. Gair, to Thompson Products, Inc. Steering arm, spindle, and support bridge assembly. 2,771,302, 11–20–56, Cl. 280—96.2.

Borden, Joseph H., and H. F. Vlasak, to Haughton Elevator Co. Means for distributing elevator service according to demand. 2,771,160, 11–20–56, Cl. 187—29.

Borg-Warner Corp.: *See*—
Selberg, John P., and Currie. 2,771,270.

Borsani, Osvaldo. Divan with independently adjustable back and seat. 2,771,124, 11–20–56, Cl. 155—118.

Bosong-Werk G. m. b. H.: *See*—
Skumawitz, Max. 2,771,607.

Boswell, William H.: *See*—
Sigle, Clarence C. 2,771,106.

Boucher, Frank G.: *See*—
Eckel, John E., and Boucher. 2,771,269.

Bougher, Martin W., Sr.: *See*—
Staples, Robert G., Jr., and Bougher. 2,771,268.

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Carroll, Wallace E., and Bowles. 2,771,069.

Bowser, Percy L., Jr.: *See*—
Wainwright, William N., Venner, and Bowser. 2,771,328.

Boyar-Schultz Corp.: *See*—
Adlaf, William J. 2,770,821.

Boyer, Robert Q., to the United States of America as represented by the United States Atomic Energy Commission. Processes for the recovery and purification of uranium. 2,771,339, 11–20–56, Cl. 23—14.5.

Brace, Donald F.: *See*—
Williams, Arthur L., and Brace. 2,771,044.

Braendel, Helmuth G., to Wilkening Mfg. Co. Composite piston ring. 2,771,329, 11–20–56, Cl. 309—45.

Bramhall, George H., and W. N. Kemnitz, to General Electric Co. Suction cleaner and disposable dust bag therefor. 2,771,152, 11–20–56, Cl. 183—37.

Brandenburg, Charlotte. Bath brush. 2,770,827, 11–20–56, Cl. 15—128.

Brannen, Cecil G.: *See*—
Browning, George V., and Brannen. 2,771,422.

Bray, Richard L., and R. Antonsen, to Godfrey L. Cabot, Inc. Recovery of pigments from aerosols. 2,771,158, 11–20–56, Cl. 183—122.

Bredtschneider, Kurt B., and F. M. Onak, to Crane Co. Electrode feed or drive mechanism. 2,771,495, 11–20–56, Cl. 13—14.

Brevets Aero-Mecaniques S. A.: *See*—
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Bridgeport Machines, Inc., The: *See*—
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Bright, Roy A.: *See*—
Taylor, Norman J., and Bright. 2,770,807.

British Insulated Callender's Cables Ltd.: *See*—
Spencer, James A. 2,770,867.

British Petroleum Co. Ltd., The: *See*—
Birch, Stanley F., Cullum, and Dean. 2,771,402.
Porter, Frederick W. B., and Hyde. 2,771,400.

Brodie, Barbara A. Electrically driven music box. 2,770,996, 11–20–56, Cl. 84—95.

Bronson, Earl D. Drip-preventing saucer. 2,770,957, 11–20–56. Cl. 65—15.

Brooks, Marguerite G. Pin-up board. 2,770,866, 11–20–56, Cl. 28—15.

Brown, Edmund V. Tire lug. 2,771,115, 11–20–56, Cl. 152—228.

Brown, George P., Jr., E. I. Crowley, and N. W. Franke, to Gulf Research & Development Co. Nitric acid oxidation of hydrocarbons. 2,771,482, 11–20–56, Cl. 260—452.

Brown, James W., and R. L. Weintraub, to the United States of America as represented by the Secretary of the Army. Measuring and dispensing device. 2,771,217, 11–20–56, Cl. 222—43.

Browne, Jack N.: *See*—
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Browning, George V., and C. G. Brannen, to Standard Oil Co. Polymethylpolysiloxane thickened phenylmethyl silicone oil. 2,771,422, 11–20–56, Cl. 252—49.6.

Browning, William C., to Marathon Corp. Oil well drilling fluids. 2,771,421, 11–20–56, Cl. 252—8.5.

Brownlee, John W.: *See*—
Kelly, Stanley, and Brownlee. 2,771,514.
Kelly, Stanley, and Brownlee. 2,771,515.

Brunette, Louis P.: *See*—
Allegretti, Dante M., and Brunette. 2,770,889.

Brunson, Leigh S. Cement mason's float. 2,771,325, 11–20–56, Cl. 306—44.

Bryant, John H., and B. D. McNary, to International Telephone and Telegraph Corp. Traveling wave tubes. 2,771,565, 11–20–56, Cl. 315—3.5.

Buckley, James L., to Georgia-Pacific Plywood Co. Door with built-in-deodorizer. 2,771,021, 11–20–56, Cl. 98—87.

Buckner Mfg. Co., Inc.: *See*—
Boyer, John A., Kimbro, and Jacoby. 2,771,310.

Bucksbaum, Arnold M., to Collins Radio Co. Means of coupling energy to or from a coaxial resonator. 2,771,516, 11–20–56, Cl. 179—171.

Budd Co., The: *See*—
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Fuchs, Reinhard, and Hochreiter. 2,771,041.

Buegeleisen, Joseph. Motorcycle saddle bag mounting. 2,771,305, 11–20–56, Cl. 280—289.

Bula, Vernon W.: *See*—
Morris, Rupert C., and Bula. 2,771,487.

Burbank, Wendell T., to Sutherland Paper Co. Dispensing carton, cutter and method of making. 2,771,186, 11–20–56, Cl. 206—58.

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Lee, Marvin, and Pellier. 2,770,818.

Burrell, Gilbert, to General Motors Corp. Crankcase ventilation. 2,771,064, 11–20–56, Cl. 123—41.86.

Cabot, Godfrey L., Inc.: *See*—
Beck, Curt B., and Stokes. 2,771,347.
Brav, Richard I., and Antonsen. 2,771,158.
Michel, Laurent P., and Goodgame. 2,771,344.

Callahan, Oscar L., to Cardox Corp. Material breaking safety cartridge. 2,771,032, 11–20–56, Cl. 102—25.

Cameron, Alaistair S. Oil and water well pumping plant. 2,771,038, 11–20–56, Cl. 103—203.

Campbell, Harris S. Transmission system for rotating wing aircraft. 2,771,143, 11–20–56, Cl. 170—135.22.

Campe-Campina, Frank: *See*—
Konigsberg, Moses, and Campe-Campina. 2,771,456.

Cannell, Rogers S., to United States of America as represented by the United States Atomic Energy Commission. Fluid flow meter and controller. 2,770,969, 11–20–56, Cl. 73—211.

Canter, George G. and G. G. Wrap-around car seal. 2,771,314. 11–20–56, Cl. 292—315.

Canter, Gilbert G.: *See*—
Canter, George G. and G. G. 2,771,314.

Capellman, John J., to Pittsburgh Plate Glass Co. Lining of refractory vessels. 2,771,376, 11–20–56, Cl. 106—57.

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Van Ormer, William K., and Aust. 2,770,928.

Cardox Corp. *See*—
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Carew, Herman, to Dixie Cup Co. Magnetic holder for paper cups. 2,770,958, 11–20–56, Cl. 65—61.

Carlson, Clarence J. Tractor parallel row producing guide means. 2 771 043, 11–20–56, Cl 111—1.

Carlson, Willard A., to United States Steel Corp. Method of deoxidising semi-killed steel. 2,771,356, 11–20–56, Cl. 75—58.

Carmichael, Thomas F., to Syncro Corp. Vibratory electric cutting tool. 2,771,102, 11–20–56, Cl. 143—73.

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Carroll, Fred M., to International Business Machines Corp. Web cutting and feeding device for printing machines. 2,771,029, 11–20–56. Cl. 101—227.

Carroll, Wallace B., and J. M. Bowles; said Bowles assor. to said Carroll. Punching machine. 2,771,009, 11–20–56, Cl. 83—1.

Carson, George J., and E. B. Hallberg. Magnetic chuck face plate. 2 771,571, 11–20–56, Cl. 317—162.

Carter, Arthur M., Jr.: *See*—
Wolin, Louis, and Carter. 2,771,243.

Carter, Eugene C. Match book. 2,771,183, 11–20–56, Cl. 206—34.

Carter, William J.: *See*—
Yocke, Bernard A., Carter, and White. 2,770,882.

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Pickles, Sidney B., and Casabona. 2,771,603.

Cash, James A., Jr., to American Mattress Machine Co. Method and apparatus for sewing multi layers of material. 2,771,045, 11–20–56, Cl. 112—2.

Casida, Lester E., Jr., to Chas. Pfizer & Co., Inc. Preparation of diaminopimelic acid and lysine. 2,771,396, 11–20–56, Cl. 195—30.

Catallo, Leo: *See*—
Wallace, Donald J., and Catallo. 2,770,925.

Chamberlain Corp.: *See*—
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Chambers, Thomas S., and R. T. Florence, to A. B. Dick Co. Stencil duplicating inks. 2,771,372, 11–20–56, Cl. 106—22.

Chambers, Thomas S., and R. T. Florence, to A. B. Dick Co. Stencil duplicating inks. 2,771,373, 11–20–56, Cl. 106—24.

Chambers, Thomas S., and R. T. Florence, to A. B. Dick Co. Stencil duplicating inks. 2,771,374, 11–20–56, Cl. 106—25.

Chance, A. B., Co.: *See*—
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Chapman Valve Mfg. Co., The: *See*—
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Chasanov, Martin G., R. Kunin, M. Mattikow, and B. H. Thurman, ¼ to B. Clayton, d. b. a. Refining, Unincorporated, and ½ to Rohm & Haas Co. Purification of glyceride oils by means of ion-exchange resins. 2,771,480, 11–20–56, Cl. 260—420.

Chase, Fletcher A., and G. E. Laursen, to American Home Products Corp. Carbonation of coffee extract. 2,771,364, 11–20–56, Cl. 99—71.

Chester, Allan E., and J. T. Irwin, to Poor & Co. Cyanide compositions suitable for electroplating baths and method for the preparation thereof. 2,771,411, 11–20–56, Cl. 204—46.

Chester, Allan E., and J. T. Irwin, to Poor & Co. Cyanide compositions suitable for electroplating baths and method for the preparation thereof. 2,771,412, 11–20–56, Cl. 204—46.

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Di Dario, Mario M. 2,771,379.

Chimie et Atomistique: *See*—
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Chovanes, Joseph. Paint can extension collar. 2,771,208, 11–20–56, Cl. 220—4.

Christensen, Delmar A.: *See*—
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Christofferson, James, to Columbia Broadcasting System, Inc. Conveyor transfer. 2,771,174. 11–20–56. Cl. 198—21.

Claff, Clarence L., and C. A. Moeller, to M. B. Claff & Sons, Inc. Carrying package. 2,771,236, 11–20–56, Cl. 229—45.

Claff, M. B., & Sons, Inc.: *See*—
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Clapp, Richard G.: *See*—
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Claps, Louis. Container with roller type collapsible tube. 2,771,220, 11–20–56, Cl. 222—100.

Claras, Carl W., and T. Wickstrom, to Revere Camera Co. Switch actuator apparatus. 2,771,526, 11–20–56, Cl. 200—61.62.

Clark, Ivan F., to Ivan Clark Mfg. Co. Collapsible armrests for automobile seat cushions and the like. 2,771,123. 11–20–56, Cl. 155—112.

Clark, Ivan, Mfg. Co.: *See*—
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Clark, Lancaster P., Jr., to Clark Metal Products, Inc. Universal ball and socket joint. 2,771,309, 11–20–56, Cl. 285—169.

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Clark, Peter H. Rotary forming, sealing, and cutting apparatus for containers. 2,770,936, 11–20–56, Cl. 53—180.

Clark, Robert, and W. H. Johns, to United States Steel Corp. Conditioning device for bundles of coiled material. 2,771,176, 11–20–56. Cl. 198—29.

Clark, William H., Jr., to Curtiss-Wright Corp. Speed control mechanism. 2,771,286, 11–20–56. Cl. 264—5.

Clarke, Ralph W., to Double Envelope Corp. Photographic print folder. 2,771,238, 11–20–56, Cl. 229—87.

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Cobb, Robert V.: *See*—
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Cohen, Harry. Agglomerating ores in the blast furnace. 2,771,855, 11–20–56. Cl. 75—41.

Cole, Clifford C. Receptacle for upholstered furniture. 2,771,127 11–20–56, Cl. 155—188.

Cole, Edmund J. Ash tray. 2,771,080, 11–20–56, Cl. 131—240.

Cole, Herbert M., and D. W. Alcott, to Federal Electric Products Co. Method and machine for assembling parts of automatic circuit breaker sub-assemblies. 2,771,541, 11–20–56, Cl. 219—117.





Coleman, Joseph J., and E. M. Dittman, to Burgess Battery Co. Method of plating copper particles with silver. 2,771,380, 11–20–56, Cl. 117—227.

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Mehaffey, Robert J. 2,771,395.

Collins Radio Co.: *See*—
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De Long, Vincent R. 2,771,585.
Doels, Melvin L. 2,771,545.
Icenbice, Phineas J. 2,771,250.
Stewart, Clyde. 2,771,601.
Viteriel, Domenick P. 2,771,549.

Collins, Samuel Y. Submarine cable installation. 2,770,950, 11–20–56, Cl. 61—72.

Collins, William F., and J. H. Blug, to International Harvester Co. Vehicle with self-unloading mechanism. 2,771,203, 11–20–56. Cl. 214—519.

Collins, William J., to Victory Plastics Co. Protective material. 2,771,384, 11–20–56, Cl. 154—52.5.

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Conner, Joshua C., Jr., to Hercules Powder Co. Selective oxidation of β-isopropylnaphthalene to β-isopropylnaphthalene hydroperoxide. 2,771,491, 11–20–56. Cl. 260—610.

Consoletti, Paul C., to Draper Corp. Shuttle. 2,771,100, 11–20–56, Cl. 139—196.

Constance, Harry S., Jr., and A. C. Wurtzer. Metallic railing structure. 2,771,276, 11–20–56, Cl. 256—22.

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Continental Gummi-Werke Aktiengesellschaft: *See*—
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Continental Say-When Corp.: *See*—
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Flubacker, Charles H. 2,771,570.
Kirkman, Robert A. 2,771,605.

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Cooper, Clifford B.: *See*—
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Corning Glass Works: *See*—
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Correll, Weldon E. Lens-measuring apparatus. 2,771,005, 11–20–56, Cl. 88—56.

Cosmocord Ltd.: *See*—
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Kelly, Stanley, and Brownlee. 2,771,515.

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Coulter, William B., to Manufacturers Box Co., Inc. Display card. 2,771,188, 11–20–56, Cl. 206—75.

Courter, Martin L., to Shell Development Co. Ethylene oxide recovery. 2,771,473, 11–20–56. Cl. 260—348.

Cox, John W., to The Diamond Match Co. Molded pulp carton. 2,771,233, 11–20–56, Cl. 229—2.5.

Crane Co.: *See*—
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Creamer, Edgar M., Jr., to Philco Corp. Color sampler synchronising system. 2,771,508, 11–20–56, Cl. 178—69.5.

Creelman, George D. Grease spot photometer. 2,771,000, 1–20–56, Cl. 88—23.

Creiman, Lyle F., to General Electric Co. Combination switch and interlock for electrical devices. 2,771,560, 11–20–56, Cl. 307—136.

Creseman, Robert C., and E. F. Reihman, to General Electric Co. Remote control key switch. 2,771,521, 11–20–56, Cl. 200—42.

Crew, Theodore F. Hand bob sled. 2,771,298, 11–20–56, Cl. 280—16.

Crim, Hugh S., to United Aircraft Corp. Jump-type flow divider for gas turbine power plant fuel system. 2,770,945, 11–20–56, Cl. 60—39.09.

Crompton & Knowles Loom Works: *See*—
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Cross, Charles T., to General Motors Corp. Method of making grid bearings. 2,771,409, 11–20–56, Cl. 204—35.

Cross, Stanley W., to United Aircraft Corp. Fin damper insert. 2,771,277, 11–20–56, Cl. 257—261.

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Crowley, John J. Calculating device. 2,771,245, 11–20–56, Cl. 235—74.

Crown Cork & Seal Co., Inc.: *See*—
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Crumrine, Herbert E.: *See*—
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Cryar, William. Sectional repair mold for pneumatic tires. 2,770,838, 11–20–56, Cl. 18—18.

Cullum, Thomas V.: *See*—
Birch, Stanley F., Cullum, and Dean. 2,771,402.

Cuplet, John A., II. Spinnerette manufacture. 2,770,867, 11–20–56, Cl. 76—107.

Curfman, Budd G., ½ to D. A. Christensen. Self-contained window, etc., cleaning implement. 2,770,836, 11–20–56, Cl. 15—105.

Currie, Gardner D.: *See*—
Selberg, John P., and Currie. 2,771,270.

Curtiss-Wright Corp.: *See*—
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Cutter, Richard W., K. A. Strasala, and W. L. Fry, to Owens-Illinois Glass Co. Article grouping apparatus. 2,771,177, 11–20–56, Cl. 198—34.

Da Costa, James S., to Samuel Olson Mfg. Co., Inc. Overhead conveyor. 2,771,175, 11–20–56, Cl. 198—25.

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Dalton, Norris D.: *See*—
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Dalton, Robert H., and R. O. Voss, to Corning Glass Works. Internal glass-to-metal seal. 2,770,923, 11–20–56, Cl. 49—92.5.

Danchig, Ira, 50% to P. Fries, Jr. Counting and sorting device. 2,771,198, 11–20–56, Cl. 214—1.

Daniels, Richard W., H. P. Diggle, and B. N. Smith, to United Shoe Machinery Corp. Machines for bundling components. 2,771,206, 11–20–56, Cl. 216—9.

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Dean, Albert G., to The Budd Co. Safety support for truck-mounted articles. 2,771,039, 11–20–56, Cl. 105—217.

Dean, Reginald S., and H. E. Dunn. Electrodeposition of chromium. 2,771,413, 11–20–56, Cl. 204—105.

Dean, Reginald S. Method of making electrolytic chromium. 2,771,414, 11–20–56, Cl. 204—105.

Dean, Ronald A.: *See*—
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Dearden, Brian B., to C. H. Johnson (Machinery) Ltd. Concrete vibrators. 2,771,279, 11–20–56, Cl. 256—1.

De Atley, Lindley S., E. T. Upton, and J. D. Howland, to Thompson-Hayward Chemical Co. Low volatile herbicidal compositions. 2,771,477, 11–20–56, Cl. 260—404.

Deaton, Charles U., to Diebold, Inc. Vault doors for banks and business institutions. 2,771,402, 11–20–56, Cl. 109—64.

Deem, Charles M. Dusting attachment. 2,770,912, 11–20–56, Cl. 43—147.

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De Ford, Frank: *See*—
Karlsson, Elof K., and De Ford. 2,771,077.

De Grazia, Joseph. Ventilating waistband. 2,770,810, 11–20–56, Cl. 2—236.

De Groote, Melvin, to Petrolite Corp. Process for breaking petroleum emulsions employing certain amine-modified thermoplastic phenol-aldehyde resin salts. 2,771,440, 11–20–56, Cl. 252—341.

De Groote, Melvin, to Petrolite Corp. Process for breaking petroleum emulsions employing certain amine-modified thermoplastic phenol-aldehyde resin salts. 2,771,441, 11–20–56, Cl. 252—341.

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De Groote, Melvin, to Petrolite Corp. Process for breaking petroleum emulsions employing gluconic acid salts of oxyalkylated amine-modified thermoplastic phenol-aldehyde resins. 2,771,445, 11–20–56, Cl. 252—341.
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De Groote, Melvin, to Petrolite Corp. Process for breaking petroleum emulsions employing gluconic acid salts of oxyalkylated amine-modified thermoplastic phenol-aldehyde resins. 2,771,446, 11–20–56, Cl. 252—341.

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De Groote, Melvin, and K.-T. Shen, to Petrolite Corp. Process for breaking petroleum emulsions employing certain oxyalkylated polyepoxide-treated amine-modified thermoplastic phenol-aldehyde resins. 2,771,429, 11-20-56, Cl. 252—338.

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Demalander, Roger, to The Compagnie de Pont-A-Mousson. Filler metal piece for the welding of spheroidal graphite cast iron. 2,770,871, 11-20-56, Cl. 29—196.1.

De Montagut, Jacques A. Medical apparatus for injection, insufflation, and the like. 2,771,072, 11-20-56, Cl. 128—241.

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Dittmore, Ray H., W. Richter, D. Shadd, J. A. McMillan, and R. W. Trickle, Jr., to Dittmore-Freimuth Corp. Soldering transformer for splicing coaxial cables. 2,771,540, 11-20-56, Cl. 219—85.

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Doane, Harry C., to General Motors Corp. Flywheel, clutch and starter housing drain. 2,770,971, 11-20-56, Cl. 74—6.

Dobbie, Thomas A., and J. B. Sturgess, to Union Oil Co. of California. Constant rate liquid dispenser. 2,771,228, 11-20-56, Cl. 222—481.5.

Dobbins, Albert L. Adjustable and foldable canopy. 2,771,125, 11-20-56, Cl. 155—154.

Doelz, Melvin L., to Collins Radio Co. Multiple frequency communication system. 2,771,545, 11-20-56, Cl. 250—6.

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Dolan, Patrick. Moisture release and aligning device. 2,770,848, 11-20-56, Cl. 20—5.

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Doolittle, Donald B., to All American Engineering Co. Jet power system. 2,771,257, 11-20-56, Cl. 244—63.

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Edmonson, Jack W. E. Detecting and recording system for seismic waves. 2,771,592, 11-20-56, Cl. 340—17.

Effinger, William L., Jr. Rocket power unit. 2,771,212, 11-20-56, Cl. 102—34.

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Faso, Salvatore. Safety device for four wheel drive vehicles having front and rear axle differentials. 2,771,146, 11-20-56, Cl. 180—44.

Favret, Maxime, to Elgin National Watch Co. Horological balance with adjustable moment of inertia. 2,770,942, 11-20-56, Cl. 58—107.

Fay, Fred. Heel for shoes. 2,770,892, 11-20-56, Cl. 36—35.

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Fillip, Jerome. Cultivator attachment for tractors. 2,771,016, 11-20-56. Cl. 97—47.34.

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Fine, Robert. Combination floor covering. 2,771,383, 11-20-56, Cl. 154—49.

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Fish, James, to The Patterson Parchment Paper Co. Paper web with a simulated woven texture. 2,771,363, 11-20-56, Cl. 92—3.

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Gagarine, Dmitry M., and H. Repokis, to Dan River Mills, Inc. Acrolein-formaldehyde condensation products and process of applying the same to cellulose fabric. 2,771,337, 11-20-56, Cl. 8—116.4.

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Gavey, Warren A. Variable door frame. 2,770,849, 11-20-56, Cl. 20—11.

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Gratzl, Kurt. Impulse generator for medical use. 2,771,554, 11–20–56, Cl. 250—27.
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Greminger, George K., Jr., and M. A. Weaver, to The Dow Chemical Co. Thermoplastic compositions of water-soluble cellulose ethers. 2,771,377, 11–20–56, Cl. 106—186.
Gretener, Edgar. Optical illumination system with homogeneous distribution of light for projectors. 2,771,001, 11–20–56, Cl. 88—24.
Grey, John C., to Power Jets (Research & Development) Ltd. Mass flow monitor. 2,770,968, 11–20–56, Cl. 73—205.
Griggs, Bennett T.: *See*—
Wahlbom, Ernest T. 2,771,334.
Griswold, Owen H. Safety caps for aircraft fuel tanks. 2,771,210, 11–20–56, Cl. 220—40.
Groff, Dana M., and C. S. Stanley; said Stanley assor. to said Groff. Louvered window frame. 2,770,853, 11–20–56. Cl. 20—62.
Guhring, Gottlieb: *See*—
Nidelin, Eugen. 2,770,929.
Gulf Research & Development Co.: *See*—
Brown, George P., Jr., Crowley, and Franke. 2,771,482.
Gulnick, Adrien N.: *See*—
McCarthy, George F., and Gulnick. 2,771,562.
Guris, Peter J. Automatic dynamic balancer. 2,771,240, 11–20–56, Cl. 230—134.
Gustafson, Eric W. Boat mooring means. 2,771,053, 11–20–56, Cl. 114—230.
Gustavsson, Karl A. G., to Aktiebolaget B. A. Hjorth & Co. Method of converting kinetic energy to pressure energy and a device for carrying out the method. 2,771,157, 11–20–56, Cl. 183—83.
Guttridge, Eric J., to Powers-Samas Accounting Machines Ltd. Record card controlled statistical machines. 2,771,293, 11–20–56, Cl. 271—88.
Hackley, Reginald A.: *See*—
Rogers, Edward S., and Hackley. 2,771,557.
Hackney, Floyd. End terminals for tape lines. 2,770,883, 11–20–56, Cl. 33—137.
Hadley, Harlan A., to Metrogram Corp. of America. Weighing scales. 2,771,289, 11–20–56, Cl. 265—54.
Hahn, Oliver M., and R. S. Mallouk, to E. I. du Pont de Nemours and Co. Injection molding of polytetrafluoroethylene. 2,770,842, 11–20–56, Cl. 18—55.
Haile, Clement, to Free Sewing Machine Co. Needle packet. 2,771,187, 11–20–56, Cl. 206—66.
Hakomaki, Raymond I., and W. F. Huch, to General Mills, Inc. Method of forming balloons containing messages. 2,770,933, 11–20–56, Cl. 53—29.
Hall, William J. Film developing device. 2,771,015, 11–20–56, Cl. 95—90.5.
Hallberg, Einar B.: *See*—
Carson, George J., and Hallberg. 2,771,571.
Halliday, William, and H. M. Jefferys, to Kelvin and Hughes Ltd. Apparatus for non-destructive testing of solid bodies by acoustic oscillations. 2,770,966, 11–20–56, Cl. 73—67.9.
Halold Co., The: *See*—
Mayo, Clyde R., Crumrine, and Rosenthal. 2,771,002.
Halverson, Kenneth M.: *See*—
Halverson, Merlin L. 2,771,052.
Halverson, Merlin L., to K. M. Halverson. Boat bailer. 2,771,052, 11–20–56, Cl. 114—185.
Hamilton Shoe Co.: *See*—
Morphy, John W. 2,770,824.
Hammond, Cecil F., and W. Shackleton, deceased (C. F. Hammond, administrator), ½ to Lining Components Ltd. Liquid container. 2,771,221, 11–20–56, Cl. 222—111.
Hampton, Robert W.: *See*—
Avery, Harold T., and Hampton. 2,771,505.
Hampton, Robert W., to Marchant Calculators, Inc. Counting circuits. 2,771,550, 11–20–56, Cl. 250—27.
Hampton, Robert W., to Marchant Calculators, Inc. Counting circuits. 2,771,551, 11–20–56, Cl. 250—27.
Hampton, Robert W., to Marchant Calculators, Inc. Diode capacitor regenerator. 2,771,575, 11–20–56, Cl. 320—1.
Hancock Brick and Tile Co., The: *See*—
Schmunk, John D. 2,770,861.
Handley, John, ½ to J. N. Browne. Pit prop. 2,771,264, 11–20–56, Cl. 248—356.
Hankey, Ernest H., to Monsanto Chemical Co. Pressure head for extruders. 2,770,836, 11–20–56, Cl. 18—12.
Hansen, Alfred J., now by change of name J. A. Hansen, to Allis-Chalmers Mfg. Co. Thread arrangement for engaged male and female members having different coefficients of thermal expansion. 2,770,997, 11–20–56, Cl. 85—1.
Hansen, John A.: *See*—
Hansen, Alfred J. 2,770,997.
Hanson, Hasel M.: *See*—
Openorth, John E., and Hanson. 2,771,215.
Hare, Terence G., to Miller Mfg. Co. Car top luggage carrier structure. 2,771,231, 11–20–56, Cl. 224—42.1.
Harley-Davidson Motor Co.: *See*—
Harley, William J. 2,770,869.
Harley, William J., to Harley-Davidson Motor Co. Method of making roller bearing cage. 2,770,869, 11–20–56, Cl. 29—148.4.
Harney, William C.: *See*—
Van Gilder, Carll F., and Harney. 2,771,458.
Harris, Cyril M.: *See*—
Dudley, Homer W., and Harris. 2,771,509.
Harrison, Charles W.: *See*—
Anderson, William A., and Harrison. 2,771,556.
Harrison, Charles W., and G. Nielsen, Jr., to Bell Telephone Laboratories, Inc. Power amplifier for television. 2,771,517, 11–20–56, Cl. 179—171.
Haskell, Alden H. Window. 2,771,133, 11–20–56, Cl. 160—89.
Haskin, Walter E., to Pressed and Welded Steel Products Co., Inc. Book rack. 2,770,913, 11–20–56, Cl. 45—58.
Haskin, Walter E., to Pressed and Welded Steel Products Co., Inc. Binder. 2,771,075, 11–20–56, Cl. 129—1.
Hastings, Randall, E. K. Drechsel, and E. Strasdins, to American Cyanamid Co. Novel sizing agents for paper. 2,771,464, 11–20–56, Cl. 260—101.
Hatala, John, Knob. 2,770,983, 11–20–56, Cl. 74—553.
Haughton Elevator Co.: *See*—
Borden, Joseph H., and Vlasak. 2,771,160.
Hausler, George M., to General Electric Co. Snap action switch. 2,771,527, 11–20–56, Cl. 200—67.
Hayes, Monson H.: *See*—
West, James L., and Hayes. 2,771,578.
Hayner, Paul F., to Sanders Associates, Inc. Two-stage differential servo valve. 2,771,062, 11–20–56, Cl. 121—41.
Haseltine Research, Inc.: *See*—
Bloch, Alfred. 2,771,583.
Headland, Herbert N.: *See*—
Russell, John J., and Headland. 2,771,410.
Hemeyer, Arley C.: *See*—
Vitcha, James F., and Hemeyer. 2,771,308.
Henderson, Edward. Closure assembly. 2,771,218, 11–20–56, Cl. 222—83.
Henderson, Wayne L. R., to General Electric Co. Inductive device. 2,771,587, 11–20–56, Cl. 336—160.
Hendrickson, Arnold P., W. R. Keye, and J. H. Howard, to Sperry Rand Corp. Data storage system. 2,771,595, 11–20–56, Cl. 340—174.
Hendrickson, Fritz E., to Norton Co. Coated abrasive wheel element. 2,770,927, 11–20–56, Cl. 51—193.
Henkel & Cie. G. m. b. H.: *See*—
Blaser, Bruno, and Tischbirek. 2,771,484.
Hennig, Ralph R., to Allied Chemical & Dye Corp. Filter apparatus. 2,771,153, 11–20–56, Cl. 183—46.
Henry, Donald J., to General Motors Corp. Method of treating a metallic pattern for shell molding. 2,770,859, 11–20–56, Cl. 22—193.
Hensel, Bernhard, to Loewe Opta Aktiengesellschaft. Radiation generation system for electronic radiation valves with ionic trap. 2,771,564, 11–20–56, Cl. 313—82.
Hercules Powder Co.: *See*—
Conner, Joshua C., Jr. 2,771,491.
Hervert, George L., to Universal Oil Products Co. Process for the production of secondary alkylaryl hydrocarbons. 2,771,496, 11–20–56, Cl. 260—671.
Hess, Frederic O., to Selas Corp. of America. Apparatus for coating pipes. 2,771,056, 11–20–56, Cl. 118—64.
Hessert, Charles, Jr. Combined fishing sinker and line spreader. 2,770,908, 11–20–56, Cl. 43—42.74.
Heuer, Russell P., to General Refractories Co. Regenerator. 2,771,285, 11–20–56, Cl. 263—15.





Hicks, George L., ½ to R. E. Weinsettel. Wheeled toy with tin can body. 2,770,915, 11–20–56, Cl. 46—22.
Hildebrandt, Alexander B., to Esso Research and Engineering Co. Recycle fluid control in pellet impact drilling. 2,771,274, 11–20–56, Cl. 255—61.
Himel, Curtis J. Ant and insect traps. 2,770,911, 11–20–56, Cl. 43—121.
Hinchman, Digby R. Combination stool and game carrying dolly for hunters. 2,771,299, 11–20–56, Cl. 280—30.
Hindu Incense Mfg. Co.: *See*—
Misseika, Victor J. 2,770,854.
Hochreiter, Edward J.: *See*—
Fuchs, Reinhard, and Hochreiter. 2,771,041.
Hockett, Carl G., W. V. Kennedy, and C. A. Vander Pyl, Jr., to Fram Corp. Apparatus for pleating paper. 2,771,119, 11–20–56, Cl. 154—30.
Hoffmann, Ullrich: *See*—
Weihe, Adolf, and Hoffmann. 2,771,485.
Hoganis-Billesholms Aktiebolag: *See*—
Barth, Otto F. F. 2,771,341.
Hogg, John A., P. F. Beal, A. H. Nathan, and F. H. Lincoln, to The Upjohn Co. Steroids. 2,771,475, 11–20–56, Cl. 260—397.1.
Holliday, Theodore B.: *See*—
Webb, Chester H., and Holliday. 2,771,291.
Hollister, Edwin S., to General Electric Co. Operating mechanism for automatic electric toasters. 2,771,022, 11–20–56, Cl. 99—329.
Holmberg, Stanton W., to General Mills, Inc. Spray flatiron. 2,770,896, 11–20–56, Cl. 38—78.
Holmburger, Max, to Link-Belt Co. Belt conveyor take-up. 2,771,178, 11–20–56, Cl. 198—139.
Holmes, Raymond S., B. C. Baldridge, J. J. O'Neill, Jr., and C. E. Silk, to Olin Mathieson Chemical Corp. Propellant. 2,771,351, 11–20–56, Cl. 52—13.
Holmlund, Evar A. Expandable sanding drum. 2,770,926. 11–20–56, Cl. 51—190.
Holzworth, Lauriene T.: *See*—
Taylor, Norman J., and Bright. 2,770,807.
Hood, Carl E. Fishing device. 2,770,906, 11–20–56, Cl. 43—16.
Hook, Charles H., and W. W. Miller. Burners for gas fired boilers. 2,771,131, 11–20–56, Cl. 158—114.
Hooker, Samuel A. Hydraulic leveling device. 2,770,914, 11–20–56, Cl. 45—86.
Hoover, Merle M.: *See*—
Ryno, Earle R., and McKillop. 2,771,184.
Hopp Press Inc., The: *See*—
Luts, Harry H., and Greenberger. 2,770,898.
Horrell, Maurice W., to Aeroquip Corp. Apparatus for indicating and/or recording pressure conditions. 2,771,555, 11–20–56, Cl. 250—27.
Hosford, William F.: *See*—
Odlum, William H., Hosford, and Wieser. 2,771,103.
Hottenroth, Frederick W., Jr., to Standard-Thomson Corp. Bellows expansion joint with sealed casing. 2,771,311, 11–20–56, Cl. 285—299.
Houdaille Industries, Inc.: *See*—
Martin, Claude. 2,770,832.
Howard, Clayton W. Poultry watering device. 2,771,058, 11–20–56. Cl. 119—78.
Howard, Frank W. Glove with seamless palm and back. 2,770,809, 11–20–56, Cl. 2—169.
Howard, John H.: *See*—
Hendrickson, Arnold P., Keye, and Howard. 2,771,595.
Howland, John D.: *See*—
De Atley, Lindley S., Upton, and Howland. 2,771,477.
Hoye, Peder B., to Electrical Engineers Equipment Co. Disconnecting switch. 2,771,522, 11–20–56, Cl. 200—48.
Huch, William F.: *See*—
Hakomaki, Raymond I., and Huch. 2,770,933.
Huck Co.: *See*—
Huck, William F. 2,771,008.
Huck, William F., to Huck Co. Milling machines. 2,771,008, 11–20–56, Cl. 90—20.5.
Huddle, Edwin F., to International Harvester Co. Method of harvesting and curing forage crops. 2,770,937, 11–20–56, Cl. 56—1.
Hughes, Griffth J.: *See*—
Stevenson, Evan H., Ramore, and Hughes. 2,770,961.
Hughes, Robert W.: *See*—
Metsger, Sidney, Hughes, and McAdams. 2,771,553.
Hultin, Oscar H., to Pneumatic Scale Corp. Multi-sectional container. 2,771,234, 11–20–56, Cl. 229—15.
Humphner, Ferdinand W., to Mid-States Gummed Paper Co. Pressure-sensitive and remoistening draw tape. 2,771,385, 11–20–56, Cl. 154—53.5.
Hunt, John C., S. E. Jaros, and J. F. Nelson, to Esso Research and Engineering Co. Method of purifying isobutylene. 2,771,497, 11–20–56, Cl. 260—677.
Hyde, John W.: *See*—
Porter, Frederick W. B., and Hyde. 2,771,400.
Icenbice, Phineas J., to Collins Radio Co. Corrector unit for a coil winding machine. 2,771,250, 11–20–56, Cl. 242—9.
Ideal Grain Cleaner Co.: *See*—
Lindahl, Harry A., and Strandberg. 2,771,192.
Ideal Industries, Inc.: *See*—
Schinske, William G., and Mitchell. 2,771,588.
Ideal Stencil Machine Co.: *See*—
Taylor, Charles P. 2,771,028.
Ilg Electric Ventilating Co.: *See*—
Drechsel, Fred E. 2,770,833.
Illgner, Karl. Fisherman's anti-fouling sinker. 2,770,909, 11–20–56, Cl. 43—43.14.
Illinois Metal Products: *See*—
Rix, Edward G. 2,770,900.
Illinois Water Treatment Co.: *See*—
Stromquist, Donald M., Rosato, and Veerman. 2,771,424.
Imperial Chemical Industries Ltd.: *See*—
Barnes, Arthur W., Dyer, and Gibson. 2,771,457.
Chapman, James, and Wynne. 2,771,492.
Lewis, Idwal O., and Owens. 2,771,033.
Industrial Rayon Corp.: *See*—
McLellan, Kenneth M. 2,770,962.
Ingram, Elizabeth A. Shopping and traveling bag purses. 2,771,112, 11–20–56. Cl. 150—35.
International Business Machines Corp.: *See*—
Babel, Paul V. 2,771,137.
Carroll, Fred M. 2,771,029.
Kistner, Harold J., and Moneagle. 2,771,024.
Slack, Robert E. 2,771,278.
Straehl, Robert N. 2,771,593.
International Harvester Co.: *See*—
Berg, Elmer W., and Johnston. 2,770,939.
Collins, William F., and Bing. 2,771,203.
Huddle, Edwin F. 2,770,937.
Jettinghoff, Paul F. 2,771,068.
Karlsson, Elof K., and De Ford. 2,771,077.
Malcolm, Robert H. 2,771,065.
Phillips, Garnet P. 2,770,855.
Smith, Hiram P., and Kramer. 2,771,326.
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Zahn, Karl M. 2,771 018.
International MacGregor Organization (I. M. G. O.): *See*—
Lecomte, Claude. 2,771,136.
International Nickel Co., Inc., The: *See*—
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International Standard Electric Corp.: *See*—
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International Telephone and Telegraph Corp.: *See*—
Baracket, Albert J. 2,771,566.
Bryant, John H., and McNary. 2,771,565.
Di Toro, Michael J. 2,771,586.
Kandolan, Armig G. 2,771,606.
Kostriza, John A. 2,771 529.
Levine, Arnold M., and Altman. 2,771,507.
McCarthy, George F., and Gulnick. 2,771,562.
Metzger, Sidney, Hughes, and McAdams. 2,771,553.
Pickles, Sidney B., and Casabona. 2,771,603.
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Chester, Allan E., and Irwin. 2,771,412.
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Lefebvre, Frank J. 2,771,214.
Jacks, Robert L., J. E. Moise, and E. W. S. Nicholson, to Esso Research and Engineering Co. Aldehyde hydrogenation quench. 2,771,493. 11–20–56. Cl. 260—638.
Jackson, Corwill, to Jackson Vibrators, Inc. Compactor for asphaltic and other compactable materials. 2,771,012, 11–20–56 Cl. 94—48.
Jackson Vibrators, Inc.: *See*—
Jackson, Corwill. 2,771,012.
Jacobs, Joseph H., to Jacobs Wind Electric Co. Rotary snow plow. 2,770,893, 11–20–56, Cl. 37—43.
Jacobs, Werner. Device for producing reciprocating movement from rotary. 2 770 974, 11–20–56, Cl. 74—54.
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Jacobs, Joseph H. 2,770,893.
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Jagach, Carl F., to Timmons Metal Products Co. Vending trailer. 2,771,318, 11–20–56, Cl. 296—22.
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Konigsberg, Moses, and Camps-Campins. 2,771,456.
Jamison, Robert M.: *See*—
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Jannace, Saverio, to I. Rizzieri. Concealed hinge of slidable extensible type. 2,770 834, 11–20–56, Cl. 16—179.
Jansen, Robert A., to Avco Mfg. Corp. Baffle and mounting means in refrigerator. 2,770,954, 11–20–56, Cl. 62—117.5.
Jaros, Stanley E.: *See*—
Hunt, John C., Jaros, and Nelson. 2,771,497.
Jasse, Joseph R., to Societe Nouvelle des Etablissements Brandt. Misfired projectile extractor. 2,770,988, 11–20–56, Cl. 81—3.05.
Jefferys, Herbert M.: *See*—
Halliday, William, and Jefferys. 2,770,966.
Jelatis, Demetrius G., to the United States of America as represented by the United States Atomic Energy Commission. Remote control manipulator. 2,771,199, 11–20–56, Cl. 214—1.
Jensen, Clarence F., to Webster Electric Co. Transducer. 2,771,513. 11–20–56, Cl. 179—100.41.
Jesionowski, John. Anti-skid apparatus. 2,771,161, 11–20–56, Cl. 188—4.
Jett, Alexander L.: *See*—
Mead, William H., Zambruno, and Jett. 2,770,924.
Jettinghoff, Paul F., to International Harvester Co. Starter-controlled fuel supply for internal combustion engine. 2,771,068, 11–20–56, Cl. 123—179.
Jezl, James L., and A. Schneider, to Sun Oil Co. Petroleum refining. 2,771,404, 11–20–56, Cl. 196—32.
Jobert, Arthur H., to The New Britain Machine Co. Threading attachment for multiple spindle machine. 2,770,819, 11–20–56, Cl. 10—89.
Johns, Nigrelli, Johns: *See*—
Nigrelli, Biagio J. 2,770,935.
Johns, Ralph W.: *See*—
Nigrelli, Biagio J. 2,770,935.
Johns, Robert R.: *See*—
Nigrelli, Biagio J. 2,770,935.
Johns, William H.: *See*—
Clark, Robert, and Johns. 2,771,176.
Johnson, Albert H., to United States Envelope Co. Web control mechanism for paper-converting machine. 2,771,262, 11–20–56, Cl. 242—76.

Johnson, Alvin O.: *See*—
Le Febvre, Alfred L., Johnson, and Stiz. 2,771,117.
Johnson, Bruce W. Ridge board holder. 2,770,886, 11–20–56, Cl. 33—180.
Johnson, C. H., (Machinery) Ltd.: *See*—
Dearden, Brian B. 2,771,279.
Johnson, Edward F., and G. G. Binder, Jr., to Esso Research and Engineering Co. Multiple solvent secondary recovery process. 2,771,139, 11–20–56, Cl. 166—9.
Johnson, Frithiof V., to General Electric Co. Aircraft stabilizing apparatus. 2,771,258, 11–20–56, Cl. 244—77.
Johnston, Douglas, to John Bisset Co., Inc. Twin cylinder spray pump. 2,771,037, 11–20–56, Cl. 103—153.
Johnston, Edward J.: *See*—
Berg, Elmer W., and Johnston. 2,770,939.
Jones, David B. Device for printing and cutting characters. 2,771,030, 11–20–56, Cl. 101—298.
Jordan, Donald J., to United Aircraft Corp. Variable area reaction nozzle movable from convergent to convergent-divergent form. 2,770,944, 11–20–56, Cl. 60—35.6.
Judd, Edwin B., to General Electric Co. Refrigerator control system. 2,770,952, 11–20–56, Cl. 62—4.
Judkins, Stanley L.: *See*—
Wright, Leroy D., and Judkins. 2,771,600.
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Mills, Jim W. 2,771,073.
Kaasenbrood, Petrus J. C., to Stamicarbon N. V. Preparation of aromatic potassium sulphonates. 2,771,486, 11–20–56, Cl. 260—505.
Kadell, Alfred E., to National Steel Corp. Marked electrolytic tinplate and method for producing same. 2,770,872, 11–20–56, Cl. 29—196.4.
Kalinowski, Mathew L., and G. H. Meguerian, to Standard Oil Co. Air-caustic sweetening. 2,771,403, 11–20–56, Cl. 196—29.
Kalinowski, Mathew L., and J. A. Bolt, to Standard Oil Co. Reduction of copper corrosivity of sweet oils. 2,771,405, 11–20–56, Cl. 196—32.
Kamborian, Jacob S. Magnetic pad box. 2,770,823, 11–20–56, Cl. 12—38.
Kamborian, Jacob S. Sole attaching machine. 2,770,822, 11–20–56, Cl. 12—36.8.
Kamen, Martin D., and A. De Haan, Jr., to the United States of America as represented by the United States Atomic Energy Commission. Improved uranium recovery and purification processes. 2,771,340, 11–20–56, Cl. 23—14.5.
Kandoian, Armig G., to International Telephone and Telegraph Corp. Ultra-high frequency antenna system. 2,771,606, 11–20–56, Cl. 343—890.
Karlsson, Elof K., and F. De Ford, to International Harvester Co. Sheet metal fabricated cylinder bar and concave. 2,771,077, 11–20–56, Cl. 130—27.
Kasten, Walter, and A. M. Rohn, to Bendix Aviation Corp. Filter. 2,771,156, 11–20–56, Cl. 183—71.
Kath, Alfred W., to Eli Lilly and Co. Capsule selector and rectifier mechanism. 2,771,101, 11–20–56, Cl. 209—75.
Kearney, Thomas J., to Detrex Corp. Apparatus for sterilization of canned foods. 2,771,023, 11–20–56, Cl. 99—330.
Kearney, Thomas J., to Detrex Corp. Apparatus for treatment with solvents. 2,771,086, 11–20–56, Cl. 134—60.
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Kelly, Stanley, and J. W. Brownlee, to Cosmocord Ltd. Electromechanical transducers. 2,771,514, 11–20–56, Cl. 179—100.41.
Kelly, Stanley, and J. W. Brownlee, to Cosmocord Ltd. Electromechanical transducers. 2,771,515, 11–20–56, Cl. 179—100.42.
Kelsey-Hayes Wheel Co.: *See*—
Sharpe, Frederick P. 2,771,173.
Kelvin and Hughes Ltd.: *See*—
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Kemnits, Warren N.: *See*—
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Keys, Francis J. Article of furniture. 2,770,815, 11–20–56, Cl. 5—37.
Kiefer, Paul J.: *See*—
Vogel, William J., Knauts, and Kiefer. 2,770,830.
Kiernan, Edward T. Power tool for lawn maintenance. 2,770,938, 11–20–56, Cl. 56—2.
Kimball, Donald G., to General Electric Co. Rotary switch. 2,771,535, 11–20–56, Cl. 219—37.
Kimbro, William S.: *See*—
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King, John H., and W. C. Kleinfelder, to Bell Telephone Laboratories, Inc. Splice closure for sheathed cable. 2,771,502, 11–20–56, Cl. 174—92.
Kirkman, Robert A., to Cook Electric Co. Omnidirectional antenna. 2,771,605, 11–20–56, Cl. 343—771.
Kirkpatrick, Willard H.: *See*—
Rysnar, John W., and Kirkpatrick. 2,771,417.
Kistner, Harold J., and O. F. Moneagle, to International Business Machines Corp. Print impression mechanism. 2,771,025, 11–20–56, Cl. 101—93.
Kleinfelder, Walter C.: *See*—
King, John H., and Kleinfelder. 2,771,502.
Kleist, Dale, W. K. Sidwell, and R. J. Reed, to Owens-Corning Fiberglas Corp. Bituminous treated glass fiber structures and methods of producing them. 2,771,387, 11–20–56, Cl. 154—93.
Knapp, Rudolph W., to The Pannier Corp. Snap-on radial mounted printed die. 2,771,031, 11–20–56, Cl. 101—415.1.
Knauts, Emil: *See*—
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Konigsberg, Moses, and F. Campe-Campins, to Jam. Finishing compositions comprising aqueous dispersions of butadiene-acrylonitrile copolymer and polyvinyl alcohol. 2,771,456, 11–20–56, Cl. 260—29.6.
Kooistra, Lambert F., and R. V. Cobb, to The Babcock & Wilcox Co. Residual pulp liquor oxidising means. 2,771,460, 11–20–56, Cl. 23—283.
Korwin, John J. Sprinkling system. 2,771,320, 11–20–56, Cl. 299—104.
Kostrisa, John A., to International Telephone and Telegraph Corp. Coaxial line switch. 2,771,529, 11–20–56, Cl. 200—153.
Kottmann, Arthur A., to American Machine & Foundry Co. Wrapper feed mechanism for wrapping machines. 2,770,934, 11–20–56, Cl. 53—66.
Kramer, Richard W.: *See*—
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Kris, Adolph J., to Pangborn Corp. Work blasting apparatus. 2,771,189, 11–20–56, Cl. 209—21.
Kroush, Larry D. Embalmer's arm support. 2,770,865, 11–20–56, Cl. 27—21.
Kühnhold, Rudolf, to Electroacustic Gesellschaft mit beschrankter Haftung. Absorption device for electro-magnetic waves. 2,771,602, 11–20–56, Cl. 343—18.
Kunin, Robert: *See*—
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Kuns, Jacob T., to Schulmerich Electronics, Inc. Musical instruments with capacitative pickup. 2,770,994, 11–20–56, Cl. 84—1.14.
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Labernic, Martin N. Tire tread construction. 2,771,114, 11–20–56, Cl. 152—209.
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Lamanna, Stephen A., to American Cyanamid Co. Production of non-caking copperas. 2,771,342, 11–20–56, Cl. 23—126.
Lambert, Harry. Solution dispenser. 2,771,346, 11–20–56, Cl. 23—271.
Lambert, Robert D., to Changewood Corp. Method and means for felting fibrous elements. 2,770,844, 11–20–56, Cl. 19—155.
Landsperger, Christian, and N. I. Applebaum. Ampoule attachment. 2,771,074, 11–20–56, Cl. 128—276.
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La Pere, Clarence A. Combined mud-guard and stone deflector for truck two-wheel assembly. 2,771,304, 11–20–56, Cl. 280—152.
Larsson, Gustaf, to AB Svenska Flaktfabriken. Pivoted gate valve. 2,771,266, 11–20–56, Cl. 251—87.
Lasserre, Gaston M., A. H. Laville, and P. H. L. Morain, to Societe Nationale de Constructions Aeronautiques du Sud Ouest (Societe Anonyme). Blades for rotary-wing aircraft. 2,771,144, 11–20–56, Cl. 170—159.
Latzen, Josef, to A. Ehrenreich & Cie. Linkage assembly for vehicle steering mechanism. 2,771,300, 11–20–56, Cl. 280—95.
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Laville, André H.: *See*—
Lasserre, Gaston M., Laville, and Morain. 2,771,144.
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Winterburn, George A., Walworth, and Lawrence. 2,771,287.
Lawson, Edgar, Sr. Dust collector for drills. 2,771,271, 11–20–56, Cl. 255—50.
Laystrom, Carl A., to Faries Mfg. Co. Wall mirror mounting. 2,771,259, 11–20–56, Cl. 248—28.
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Lecomte, Claude, to International MacGregor Organisation (I. M. G. O.). Hatch-cover. 2,771,138, 11–20–56, Cl. 160—188.
Ledinegg, Max, ½ to Simmering-Graz-Pauker Aktiengesellschaft fur Maschinen-Kessel-und Waggonbau. Gas turbine plant for pulverised fuel with combustion chamber surrounded by air cooling ducts. 2,770,947, 11–20–56, Cl. 60—39.46.
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Lefebvre, Frank J., to Ivers-Lee Co. Dispensing carton for package strips. 2,771,214, 11–20–56, Cl. 221—26.
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Levine, Arnold M., and H. Altman, to International Telephone and Telegraph Corp. Self-gating synchronising circuit. 2,771,507, 11–20–56, Cl. 178—69.5.
Lewis, Farral F., ½ to Gem Oil Tool Co., Inc. Jet wall cleaner. 2,771,141, 11–20–56, Cl. 166—222.
Lewis, Idwal O., and R. D. J. Owens, to Imperial Chemical Industries Ltd. Ventless delay electric initiators. 2,771,033, 11–20–56, Cl. 102—28.
Lewis, James R. Stacking can. 2,771,213, 11–20–56, Cl. 220—97.
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Lichtenstein, Morris D. Thermal floor covering. 2,771,537, 11–20–56, Cl. 219—46.
Lifton, Lewis. Handles for brief cases and luggage. 2,771,186, 11–20–56, Cl. 190—57.
Lifton, Lewis. Handles for brief cases and luggage. 2,771,187, 11–20–56, Cl. 190—57.
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Wright, Leroy D., and Judkins. 2,771,600.
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Holmburger, Max. 2,771,178.
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Littman, Joseph W. Display devices. 2,770,899, 11–20–56, Cl. 40—36.
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Loecy, Joseph, Jr. Hydraulic infeed unit. 2,770,984, 11–20–56, Cl. 74—815.
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Lutz, Harry H., and W. Greenberger, to The Hopp Press Inc. Card holder. 2,770,898, 11–20–56, Cl. 40—10.
Lynch, Donald W. Discriminating detector. 2,771,552, 11–20–56, Cl. 250—27.
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Lyndall, John N. and A. M. 2,771,008.
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MacCaffray, Rex S., to the United States of America as represented by the Secretary of the Army. Method and machine for adhesively lap seaming fabric. 2,771,121, 11–20–56, Cl. 154—42.
MacChesney, Chester M. Game using ball catching and releasing suction device. 2,771,294, 11–20–56, Cl. 273—96.
Macgregor, Peter S., and C. H. Smith, to Flight Refuelling Ltd. Liquid flow control systems. 2,771,090, 11–20–56, Cl. 137—390.
MacGriff, Jack E. Image control tube and method of printing. 2,771,336, 11–20–56, Cl. 346—74.
Mafera, Guy, Jr. Ground anchors. 2,771,163, 11–20–56, Cl. 189—31.
Magerlein, Barney J., and R. H. Levin, to The Upjohn Co. Steroid ketals. 2,771,467, 11–20–56, Cl. 260—239.55.
Magida, Herbert N. Crutch. 2,771,089, 11–20–56, Cl. 135—50.
Malcolm, Robert H., to International Harvester Co. Crankcase ventilating means. 2,771,065, 11–20–56, Cl. 123—41.86.
Malcolm, Vincent T., to The Chapman Valve Mfg. Co. Cobalt base alloy. 2,771,360, 11–20–56, Cl. 75—171.
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Mann, Gerhard. Ampulla structure. 2,771,071, 11–20–56, Cl. 128—232.
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Martin, Claude, to Houdaille Industries, Inc. Swivel wheel damper. 2,770,832, 11–20–56, Cl. 16—35.
Marzuller, Paul A. Combination wardrobe, upending bed, and dressing table. 2,770,813. 11–20–56, Cl. 5—2.
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Mast, Gifford M., to Mast Development Co., Inc. Stereoscopic camera. 2,771,013, 11–20–56, Cl. 95—18.
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Mauborgne, Paul. Line-winding mechanism for fishing reels with fixed drums. 2,771,253, 11–20–56, Cl. 242—84.1.
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Maxwell, Walter, ½ to G. W. Maxwell. Tensioning adjusting device for the baling chambers of baling presses. 2,771,024, 11–20–56, Cl. 100—43.
Mayo, Clyde R., H. E. Crumrine and J. F. Rosenthal, to The Haloid Co. Apparatus for use with xerographic X-ray powder images. 2,771,002, 11–20–56, Cl. 88—24.
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McCarthy, George F., and A. N. Gulnick, to International Telephone and Telegraph Corp. Telephone ringing generator. 2,771,562, 11–20–56, Cl. 310—69.
McCormick, Francis A., to Owens-Illinois Glass Co. Lifting fork for stacked articles. 2,771,204, 11–20–56, Cl. 214—655.
McGinley, William L., to American Permanent Wear Co. Detachable serving tray for automobiles. 2,771,332, 11–20–56, Cl. 311—21.
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Mead, William H., A. A. Zambruno, and A. L. Jett, to W. H. Mead. Instant stop and start blasting device. 2,770,924, 11–20–56, Cl. 51—8.
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Mehaffey, Robert J., to Colgate-Palmolive Co. Aqueous alcoholic hair grooming preparation employing sodium carboxymethyl cellulose. 2,771,395, 11–20–56, Cl. 167—87.
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Messman, Arthur. Folding typewriter desk for automobiles. 2,771,331, 11–20–56, Cl. 311—21.
Messmer, Robert C., to American Viscose Corp. Dispensing container for needles, punches, and the like. 2,771,192, 11–20–56, Cl. 206—17.
Meszaros, George W., to Bell Telephone Laboratories, Inc. Current supply apparatus. 2,771,576, 11–20–56, Cl. 321—18.
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Meyer, George L. N., to Geo. J. Meyer Mfg. Co. Case unloaders. 2,771,202, 11–20–56, Cl. 214—309.
Michaelis, Karl. Wood-bending machine. 2,771,109, 11–20–56, Cl. 144—254.
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Miessner, Benjamin F. Non-flooding fountain pen. 2,771,059, 11–20–56, Cl. 120—48.

Miller, Charles W., and H. E. Todd, to General Motors Corp. Automatic headlight dimmer system high voltage switching. 2,771,569, 11–20–56, Cl. 315—83.

Miller, Donald M. Automatic control for screw operated press. 2,770,862, 11–20–56, Cl. 25—42.

Miller, Elmer C., and D. E. Berger, to Phillips Petroleum Co. Controlling heat value of a fuel gas in a gas separation system. 2,771,149, 11–20–56, Cl. 183—2.

Miller, Frederick B. to Goodman Mfg. Co. Drilling system. 2,771,272, 11–20–56, Cl. 255—50.

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Mills, Jim W., to G. H. Julien. Adaptor for handling a nursing nipple. 2,771,073, 11–20–56, Cl. 128—252.

Millward, Edward A., to J. A. Phillips and Co. Ltd. Variable speed gear control lever mechanism for bicycles and like vehicles. 2,770,980, 11–20–56, Cl. 74—489.

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Montmeat, Richard, to General Electric Co. Portable clock radio. 2,771,559, 11–20–56, Cl. 307—156.

Moon, Clifford G., to Draper Corp. Loom drive means. 2,771,097, 11–20–56, Cl. 139—1.

Mooney, Laurence R. Stencil assembly. 2,771,026, 11–20–56, Cl. 101—128.2.

Mooradian, Victor G., to The H. A. Wilson Co. Thermosensitive laminated metals. 2,770,870, 11–20–56, Cl. 29—195.5.

Moore, Robert C., and R. G. Clapp, to Philco Corp. Color television indexing system. 2,771,504, 11–20–56, Cl. 178—5.4.

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Morehouse, Clarence K. to Olin Mathieson Chemical Corp. Dry cell. 2,771,381, 11–20–56, Cl. 136—138.

Moreillon, Raymond, to Ateliers de Construction Oerlikon. Arrangement for the transposition of a hollow cylindrical slide. 2,771,239, 11–20–56, Cl. 230—114.

Morf, Ernest. Motor-spring winding mechanism. 2,771,159, 11–20–56, Cl. 185—39.

Morphy, John W., to Hamilton Shoe Co. Method of making platform shoes. 2,770,824, 11–20–56, Cl. 12—142.

Morris, Richard S., Jr., to American Telephone and Telegraph Co. Line clearing device for receiver-off-hook condition. 2,771,511, 11–20–56, Cl. 179—30.

Morris, Rupert C., and V. W. Buls, to Shell Development Co. Tertiary alkyl substituted cyclohexane carboxylic acids, derivatives thereof, and method for producing the same. 2,771,487, 11–20–56, Cl. 260—514.

Morrison, Albert R. and H. E. Fargo, to Owens-Corning Fiberglas Corp. Glass fiber twine and method of manufacturing the same. 2,770,940, 11–20–56, Cl. 57—150.

Morrison, Willard L., to Union Stock Yards & Transit Co. of Chicago. Apparatus for unloading in gaseous form from a liquefied gas storage body. 2,770,951, 11–20–56, Cl. 62—1.

Morton, Richard N. Animated advertising signs. 2,770,901, 11–20–56, Cl. 40—77.

Moser, Vincent J., and S. Melamed, to Rohm & Haas Co. Cellulose fibrous products containing polymers of vinyloxyethylurea and method of producing them. 2,771,362, 11–20–56, Cl. 92—3.

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Myers, Hubert A., to Western Electric Co., Inc. Apparatus for welding contacts onto wire spring relays. 2,771,539, 11–20–56, Cl. 219—79.

Myers, Robert E. Spanner wrench for calks. 2,770,991, 11–20–56, Cl. 81—90.

Nädelin, Eugen, to G. Gubring. Apparatus for the grinding of twist drills. 2,770,929, 11–20–56, Cl. 51—219.

Nallinger, Friedrich K. H., to Daimler-Benz Aktiengesellschaft. Instrument panel for motor vehicles. 2,771,148, 11–20–56, Cl. 180—90.

Nance, Robert C., to Bell Telephone Laboratories, Inc. Routine trunk test circuit. 2,771,519, 11–20–56, Cl. 179—175.2.

Nardone, Romeo M., to J. J. Mascuch. Engine starting mechanism. 2,771,067, 11–20–56, Cl. 123—179.

Nathan, Alan H.: *See*—
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National Lead Co.: *See*—
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Moklebust, Olav, and Oppegaard. 2,771,354.

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Nauslar, Benjamin F. Interlocking electrical plug assembly. 2,771,590, 11–20–56, Cl. 339—168.

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Harrison, Charles W., and Nielsen. 2,771,517.

Niggeloh, Carl, to Kürbi & Niggeloh. Telescoping tripod leg. 2,771,261, 11–20–56, Cl. 248—191.

Nigrelli, Biagio J., to R. W. Johns, B. J. Nigrelli, and R. R. Johns, d. b. a. Johns, Nigrelli, Johns. Carton loading machine. 2,770,935, 11–20–56, Cl. 53—168.

Nipken, Walter. Adjustable stop for a collet or the like. 2,771,297, 11–20–56, Cl. 279—102.

Nissel, Frank R.: *See*—
Rocky, Joseph F., and Nissel. 2,771,388.

Nolde, George V., and H. T. Avery, to Marchant Calculators, Inc. Readout mechanism. 2,771,599, 11–20–56, Cl. 340—316.

Nordby, Roger M.: *See*—
Bell, John F., and Nordby. 2,771,547.

Norman, Albert J., deceased, by R. R. Norman, executrix. Tool rest for use in grinding milling cutters. 2,770,930, 11–20–56, Cl. 51—225.

Norman, Ruth R.: *See*—
Norman, Albert J. 2,770,930.

Norton Co.: *See*—
Hendrickson, Frits E. 2,770,927.

Oak Mfg. Co.: *See*—
Mastney, Edward J., and Williams. 2,770,982.
Streuer, Wilhelm A. 2,771,531.

Odlum, William H., W. F. Hosford, and C. C. Wieser, to Duro Metal Products Co. Fence for the work-supporting table of a power tool. 2,771,103, 11–20–56, Cl. 143—174.

Older, Harry J. After-image apparatus. 2,770,999, 11–20–56, Cl. 88—20.

Olin Mathieson Chemical Corp.: *See*—
Arnold, Orlan M., and Jamison. 2,771,343.
Baldridge, Byron C. 2,771,350.
Blake, Thomas G. 2,771,034.
Clark, John D. 2,771,035.
Holmes, Raymond S., Baldridge, O'Neill, and Silk. 2,771,351.
Morehouse, Clarence K. 2,771,381.
O'Neill, John J., Jr. 2,771,352.

Olliff, Albert W., Jr.: *See*—
Mansfield, Warren M., and Olliff. 2,770,931.

Olshefski, Anthony J. Folding ironing board. 2,770,897, 11–20–56, Cl. 38—124.

Olson, Elmer, and L. C. Dermond, to General Motors Corp. Carburetor. 2,771,262, 11–20–56, Cl. 261—23.





Olson, Gordon L. Tool supporting structure. 2,770,993, 11–20–56, Cl. 82—36.

Olson, Samuel, Mfg. Co., Inc.: *See*—
Da Costa, James S. 2,771,175.

Onak, Frank M.: *See*—
Bredtschneider, Kurt B., and Onak. 2,771,496.

O'Neill, John J., Jr.: *See*—
Holmes, Raymond S., Baldridge, O'Neill, and Silk. 2,771,351.

O'Neill, John J., Jr., to Olin Mathieson Chemical Corp. Process of preparing propellants. 2,771,352, 11–20–56, Cl. 52—20.

Opgenorth, John E., and H. M. Hanson. Container vending machine. 2,771,215, 11–20–56, Cl. 221—251.

Oppegaard, Assur G.: *See*—
Moklebust, Olav, and Oppegaard. 2,771,354.

Orne, Donald: *See*—
Orne, Herman. 2,771,222.

Orne, Herman, 33⅓% to D. Orne, and 33⅓% to W. Orne. Lime spreader. 2,771,222, 11–20–56, Cl. 222—171.

Orne, Wilbur: *See*—
Orne, Herman. 2,771,222.

Orr, Arthur: *See*—
Woodworth, Warner, and Orr. 2,770,817.

Ortloff, John E., to Esso Research and Engineering Co. Hard formation retractable drill bit. 2,771,275, 11–20–56, Cl. 255—61.

Osberg, Chester F. and C. B. Cooper, to General Dynamics Corp. Waste disposal device. 2,771,533, 11–20–56, Cl. 219—19.

Osborn, Ralph C. Vacuum cleaner. 2,771,151, 11–20–56, Cl. 183—37.

Ostline, John E., to Automatic Electric Laboratories, Inc. Toll ticketing telephone systems. 2,771,510, 11–20–56, Cl. 179—27.

Ott, Fred D., to the United States of America as represented by the Secretary of the Navy. Clinch nut spinning tool. 2,771,207, 11–20–56, Cl. 218—38.

Otto, Carl. Bensol scrubbing method and apparatus. 2,771,281, 11–20–56, Cl. 261—22.

Owens-Corning Fiberglas Corp.: *See*—
Biefeld, Lawrence P., and Shannon. 2,770,840.
Kleist, Dale, Sidwell, and Reed. 2,771,387.
Morrison, Albert R., and Fargo. 2,770,940.

Owens-Illinois Glass Co.: *See*—
Cutter, Richard W., Straala, and Fry. 2,771,177.
McCormick, Francis A. 2,771,204.

Owens, Robert D. J.: *See*—
Lewis, Idwal O., and Owens. 2,771,033.

Page, Irving. Automatic pressure cooker and electric heater. 2,771,536, 11–20–56, Cl. 210—43.

Paillard S. A.: *See*—
Werfeli, Arnold. 2,771,006.

Palmore, Robert A., to American Air Filter Co., Inc. Unit filter latch. 2,771,155, 11–20–56, Cl. 183—49.

Pangborn Corp.: *See*—
Kris Adolph J. 2,771,189.

Panish, Erwin J. Clutch and throttle control for engine. 2,771,168, 11–20–56, Cl. 192—.096.

Pannier Corp., The: *See*—
Knapp, Rudolph W. 2,771,031.

Parmelee Plastics Co.: *See*—
Moeller, William C. 2,770,806.

Pass & Seymour, Inc.: *See*—
Despard, Victor R. 2,771,501.

Paterson Parchment Paper Co., The: *See*—
Fish, James. 2,771,363.

Pearce, Arthur W. Chain saw sharpener. 2,770,985, 11–20–56, Cl. 76—37.

Pearce, George W., to Crompton & Knowles Loom Works. Check for picking mechanism. 2,771,099, 11–20–56, Cl. 139—147.

Pellier, Christian V.: *See*—
Lee, Marvin, and Pellier. 2,770,818.

Penick, Joe E., to Socony Mobil Oil Co., Inc. Continuous percolation process. 2,771,407, 11–20–56, Cl. 196—147.

Penick, Joe E., to Socony Mobil Oil Co., Inc. Method for washing adsorbents. 2,771,408, 11–20–56, Cl. 196—147.

Perkin-Elmer Corp., The: *See*—
Baker, James G. 2,771,007.

Perkins, George S., to National Equipment Corp. Pump construction for candy depositing machine. 2,771,225, 11–20–56, Cl. 222—255.

Permo, Inc.: *See*—
Andres, Lloyd J. 2,771,295.

Peter, Rudolph A. Record filing jacket. 2,771,076, 11–20–56, Cl. 129—18.7.

Peters, Byron M. Foldable three-wheel power driven vehicle. 2,771,145, 11–20–56, Cl. 180—26.

Peters, Melville F. Metal bellows formation. 2,771,095, 11–20–56, Cl. 137—796.

Peterson, Durey H.: *See*—
Murray, Herbert C., and Peterson. 2,771,474.

Petrolite Corp.: *See*—
De Groote, Melvin. 2,771,440–2,771,449.
De Groote, Melvin. 2,771,471.
De Groote, Melvin, and Keiser. 2,771,450.
De Groote, Melvin, and Shen. 2,771,425–2,771,439.
De Groote, Melvin, and Shen. 2,771,451–2,771,455.
Shen, Kwan-Ting. 2,771,462.

Pfizer, Chas., & Co., Inc.: *See*—
Casida, Lester E., Jr. 2,771,306.
Tanner, Fred W., Jr., Loss, and Routien. 2,771,392.

Philco Corp.: *See*—
Creamer, Edgar M., Jr. 2,771,508.
Moore, Robert C., and Clapp. 2,771,504.

Phillipsen, Stanley J. Carton with tie means. 2,771,237, 11–20–56, Cl. 229—46.

Phillips, Garnet P., to International Harvester Co. Apparatus for making liner sleeves and refractory shell type molds. 2,770,855, 11–20–56, Cl. 22—9.

Phillips, J. A., and Co. Ltd.: *See*—
Millward, Edward A. 2,770,980.

Phillips Petroleum Co.: *See*—
Eberle, Jack F. 2,771,333.
Goodhue, Lyle D. 2,770,921.
Miller, Elmer C., and Berger. 2,771,149.
Weedman, John A. 2,771,494.
Whitney, William B. 2,771,465.

Piazze, Thomas E., to Continental Can Co., Inc. Bagmaking. 2,771,010, 11–20–56, Cl. 93—35.

Pickles, Sidney B., and A. M. Casabona, to International Telephone and Telegraph Corp. Instrument landing systems. 2,771,603, 11–20–56, Cl. 343—108.

Pines, Herman, and J. A. Vesely, to Universal Oil Products Co. Dehydroalkylation of unsaturated cyclic hydrocarbons. 2,771,495, 11–20–56, Cl. 260—668.

Pittsburgh Plate Glass Co.: *See*—
Capellman, John J. 2,771,376.
Fitzgerald, John V., and Bachman. 2,770,922.

Platt, John G., to Flex-O-Lators, Inc. Armrest structure for furniture. 2,771,129, 11–20–56, Cl. 155—198.

Pneumatic Scale Corp., Ltd.: *See*—
Haltin, Oscar H. 2,771,284.

Polk, William E. Electro-mechanical bird device. 2,770,918, 11–20–56, Cl. 46—245.

Polye, William R., to Bendix Aviation Corp. Method for fabricating pressure sensitive devices. 2,770,932, 11–20–56, Cl. 53—6.

Polytechnic Research & Development Co., Inc.: *See*—
Deutsch, Sid. 2,771,548.

Pond, Benham S., to Chicago Pneumatic Tool Co. Roof bolting drill. 2,771,273, 11–20–56, Cl. 255—51.

Poor & Co.: *See*—
Chester, Allan E., and Irwin. 2,771,411.
Chester, Allan E., and Irwin. 2,771,412.

Porter, Frederick W. B., and J. W. Hyde, to The British Petroleum Co. Ltd. Catalytic desulphurisation of motor fuels containing bensole. 2,771,400, 11–20–56, Cl. 196—28.

Porter, Gilbert E. Assister unit for hydraulic brake systems. 2,770,948, 11–20–56, Cl. 60—54.5.

Porzellanfabrik Walden Gebrueder Bauscher. Zweigniederlassung der Lorenz Hutschenreuther Aktiengesellschaft in Selb: *See*—
Achtsiger, Christoph. 2,770,956.

Potash Co. of America: *See*—
Douglass, Emory W., and Dunn. 2,771,353.

Power Jets (Research & Development) Ltd.: *See*—
Grey, John C. 2,770,968.

Powers-Samas Accounting Machines Ltd.: *See*—
Guttridge, Eric J. 2,771,293.

Pressed and Welded Steel Products Co., Inc.: *See*—
Haskin, Walter E. 2,770,913.
Haskin, Walter E. 2,771,075.

Process Evaluation and Development Corp.: *See*—
Birdseye, Clarence, and Stuck. 2,771,361.

Production and Marketing Co.: *See*—
Sidenius, Widmer C. 2,771,229.

Pullen, Fred W., to Bissell Carpet Sweeper Co. Carpet sweeper and brush cleaning combs therefor. 2,770,825, 11–20–56, Cl. 15—48.

Pulsifer, Clarence D.: *See*—
Montgomery, Donald H., and Pulsifer. 2,771,181.

Puritan Compressed Gas Corp.: *See*—
Vitcha, James F., and Hemeyer. 2,771,308.

Putifer, Robert E. Uniform seed coverer attachment for listers. 2,771,044, 11–20–56, Cl. 111—85.

Pye Ltd.: *See*—
Fuller, Dennis Q. 2,771,561.

Quinn, Clayton E. Artificial nest eggs. 2,771,057, 11–20–56, Cl. 119—45.

Quirk Machinery Co.: *See*—
Babunovic, Momir, and Dalton. 2,771,108.

Radio Corp. of America: *See*—
Rogers, Edward S., and Hackley. 2,771,557.
Sachtleben, Lawrence T. 2,771,004.
Schock, Robert E. 2,771,546.
Schwartz, James W. 2,771,503.
Szikiai, George C. 2,771,518.
Weimer, Paul K. 2,771,567.

Ragan, Thomas M.: *See*—
Baker, Reuben C., and Ragan. 2,771,091.

Ramore, John W.: *See*—
Stevenson, Evan H., Ramore, and Hughes. 2,770,961.

Ramsey, Robert C. Device for facilitating mounting automobile wheels. 2,770,873, 11–20–56, Cl. 29—273.

Randol, Glenn T. Power-assisted operating mechanism for hydraulic pressure systems. 2,770,949, 11–20–56, Cl. 60—54.6.

Ray, Frederick E., to Socony Mobil Oil Co., Inc. Method and apparatus for supplying liquid charge to hydrocarbon reactors. 2,771,406, 11–20–56, Cl. 196—52.

Raymond, François H., to Societe d'Electronique et d'Automatisme. Coded pulse circuits for multiplication. 2,771,244, 11–20–56, Cl. 235—61.

Ravenscroft, Philip H.: *See*—
Dieman, Edgar A., and Ravenscroft. 2,771,371.

Record Files, Inc.: *See*—
Regenhardt, Hans W. 2,771,335.

Reed, Kenneth M. Stackable service tray. 2,771,232, 11–20–56, Cl. 224—48.

Reed, Ralph J.: *See*—
Kleist, Dale, Sidwell, and Reed. 2,771,387.

Reents, August C.: *See*—
Stromquist, Donald M., Reents, and Veerman. 2,771,424.

Reeves Pulley Co.: *See*—
Troemel, Walter H. 2,770,978.

Refining, Unincorporated: *See*—
Chasanov, Martin G., Kunin, Mattikow, and Thurman. 2,771,480.

Regenhardt, Hans W., to Record Files, Inc. Rear-end suspension system for drawers and the like. 2,771,335, 11–20–56, Cl. 312—342.

Reifenhäuser, Hans, to Hugo Stinnes Verwaltung G. m. b. H. Extruding press. 2,770,837, 11–20–56, Cl. 18—12.

Reihman, Earl F.: *See*—
Cressman, Robert C., and Reihman. 2,771,521.

Reinberger, William C., to Thompson Products, Inc. Piston construction. 2,771,327, 11–20–56, Cl. 309—12.

Reiner, George. Paper cup dispensing carton. 2,771,216, 11–20–56, Cl. 221—302.

Reinhard, Wolfgang, to International Standard Electric Corp. Cathode ray deflection coils. 2,771,563, 11–20–56, Cl. 313—76.

Reisner, Michael. Cushions and method of making the same. 2,770,816, 11–20–56, Cl. 5—355.

Renquist, Mervin J. Combination truck body and flexible cover therefor. 2,771,319, 11–20–56, Cl. 296—100.

Renwick, Frederick W., Sr. Flint and steel assembly for cigarette lighter. 2,770,960, 11–20–56, Cl. 67—7.1.

Repokis, Henry: *See*—
Gagarine, Dmitry M., and Repokis. 2,771,337.

Reppe, Walter, H. Friederich, and K. Wiebusch, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of carboxylic acid esters. 2,771,478, 11–20–56, Cl. 260—406.

Retornaz, Francois. Copying device for executing arcuate cuts in a plane passing through the axis of revolution of a slide lathe. 2,770,992, 11–20–56, Cl. 82—11.

Retz, William B., to The New Britain Machine Co. Chucking means. 2,771,296, 11–20–56, Cl. 279—74.

Revere Camera Co.: *See*—
Claras, Carl W., and Wickstrom. 2,771,526.

Rhea, Adlai E. Utility attachment for telephones. 2,771,195, 11–20–56, Cl. 211—86.

Richter, Walter: *See*—
Dittmore, Ray H., Richter, Shadd, McMillan, and Trickle. 2,771,540.

Riggs, Harold C.: *See*—
Strauss, Howard J., and Riggs. 2,771,500.

Ritter, Arthur W., Jr., and S. P. Rowland, to Rohm & Haas Co. Epoxyoctadecyl adipates. 2,771,472, 11–20–56, Cl. 260—348.

Ritzerfeld, Gerhard: *See*—
Ritzerfeld, Wilhelm and G. 2,771,027.

Ritzerfeld, Wilhelm and G. Sheet feeding and buckling device for rotary duplicators. 2,771,027, 11–20–56, Cl. 101—132.

Rix, Edward G., to S. L. Shelter and E. G. Rix, a copartnership d. b. a. Illinois Metal Products. Hold-down vise. 2,770,990, 11–20–56, Cl. 81—38.

Rizzieri, Italo: *See*—
Jannace, Saverio. 2,770,834.

Rock, Frank C., Jr.: *See*—
Kelly, Donald H., and Rock. 2,771,055.

Rocky, Joseph F., and F. R. Nissel, to Union Carbide and Carbon Corp. Method of laminating layers of thermoplastic foil. 2,771,388, 11–20–56, Cl. 154—102.

Rogers, Edward S., and R. A. Hackley, to Radio Corp. of America. Color television synchronization. 2,771,557, 11–20–56, Cl. 250—36.

Rohm & Haas Co.: *See*—
Chasanov, Martin G., Kunin, Mattikow, and Thurman. 2,771,480.
Moser, Vincent J., and Melamed. 2,771,362.
Ritter, Arthur W., Jr., and Rowland. 2,771,472.

Rohn, Abbott M.: *See*—
Kasten, Walter, and Rohn. 2,771,156.

Rosenberger, George D. Gouging tool. 2,770,878, 11–20–56, Cl. 30—280.

Rosenthal, Joseph F.: *See*—
Mayo, Clyde R., Crumrine, and Rosenthal. 2,771,002.

Rosewall, Roger D. Housed motorized pulley. 2,771,268, 11–20–56, Cl. 254—175.3.

Ross, Aylmer O., to The National Electroform Mold Co. Electrolytic apparatus. 2,771,415, 11–20–56, Cl. 204—238.

Ross, Edgar A. Picking motion for a loom. 2,771,098, 11–20–56, Cl. 139—138.

Rotex Co.: *See*—
Metoff, Boris G. 2,771,105.

Rottig, Walter, to Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft fur Warmetechnik m. b. H. Catalytic carbon monoxide hydrogenation. 2,771,481, 11–20–56, Cl. 260—449.6.

Routien, John B.: *See*—
Tanner, Fred W., Jr., Lees, and Routien. 2,771,392.

Rowe, David A., to Sun Oil Co. Drilling fluid. 2,771,420, 11–20–56, Cl. 252—8.5.

Rowland, Stanley P.: *See*—
Ritter, Arthur W., Jr., and Rowland. 2,771,472.

Royer, John A., W. S. Kimbro, and H. D. Jacoby, to Buckner Mfg. Co., Inc. Rotary sprinkler swivel with thrust bearing assembly. 2,771,310, 11–20–56, Cl. 285—279.

Ruge, Arthur C., to Baldwin-Lima-Hamilton Corp. Nonlinearity compensation means. 2,771,579, 11–20–56, Cl. 324—62.

Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft fur Warmetechnik m. b. H.: *See*—
Rottig, Walter. 2,771,481.

Russell, John J., and H. N. Headland, to Ekco Products Co. Method of forming an oxide coating on tin. 2,771,410, 11–20–56, Cl. 204—37.

Ryan, Edmund J. Water purification. 2,771,416, 11–20–56, Cl. 210—16.

Ryan, Herl J. Line marking machine. 2,771,223, 11–20–56, Cl. 222—177.

Ryan, James J., to General Mills, Inc. Balloon with load supporting tapes. 2,771,256, 11–20–56, Cl. 244—31.

Ryder, Reginald D., to Sun Oil Co. Demountable scaffold. 2,771,324, 11–20–56, Cl. 304—2.

Rymkevitch, Arnold S. Combined crane and bulldoser. 2,770,895, 11–20–56, Cl. 37—117.5.

Ryno, Earle R., and W. M. McKillop, to M. M. Hoover. Shock-proof package. 2,771,184, 11–20–56, Cl. 206—46.

Rysnar, John W., and W. H. Kirkpatrick, to National Aluminate Corp. Inhibition of corrosion in return steam condensate lines. 2,771,417, 11–20–56, Cl. 210—23.

Sachtleben, Lawrence T., to Radio Corp. of America. Apparatus for and method of testing a projection optical system. 2,771,004, 11–20–56, Cl. 8—56.

Saco-Lowell Shops: *See*—
Anderson, Gordon C., and West. 2,770,845.

Salathiel, Richard A., to Esso Research and Engineering Co. Aqueous starch-containing drilling muds having a reduced filtration rate. 2,771,419, 11–20–56, Cl. 252—8.5.

Sanders Associates, Inc.: *See*—
Hayner, Paul F. 2,771,062.

Savage, George M., to The Upjohn Co. Process and apparatus for determining biological potency of a substance in a liquid substrate. 2,771,399, 11–20–56, Cl. 195—103.5.

Savin, Bennett S., Jr., to United Aircraft Corp. Brake for turbine rotor. 2,770,946, 11–20–56, Cl. 60—39.14.

Sawyer, Miriam J. Finger nail paint guard. 2,771,082, 11–20–56, Cl. 132—73.

Saxe, Raymond J. Planer attachment for electric drills or the like. 2,771,104, 11–20–56, Cl. 144—114.

Saxon, Earl M., to E. M. Saxon, Jr. Fountain syringe and swab. 2,771,070, 11–20–56, Cl. 128—231.

Saxon, Earl M., Jr.: *See*—
Saxon, Earl M. 2,771,070.

Schafroth, Werner. Stapling machine. 2,770,804, 11–20–56, Cl. 1—49.

Schenk, John A., to Alco Valve Co. Multi-outlet expansion valve. 2,771,092, 11–20–56, Cl. 137—561.

Scheuermann, Albert, to August Enders Aktiengesellschaft. Suspension devices for supporting articles of wearing apparel. 2,771,196, 11–20–56, Cl. 211—94.

Schindler, Fred G., to Smith & Davis Mfg. Co. Folding davenport beds. 2,770,814, 11–20–56, Cl. 5—13.

Schink, Werner O.: *See*—
Frantz, Frederick H., and Schink. 2,770,976.

Schinske, William G., and L. B. Mitchell, to Ideal Industries, Inc. Prod construction for voltage testers and the like. 2,771,588, 11–20–56, Cl. 339—102.

Schmidt, Don L. Taxi sign display cabinet. 2,770,903, 11–20–56, Cl. 40—125.

Schmidt, Karl O. Semi-automatic perpetual calendar. 2,770,902, 11–20–56, Cl. 40—111.

Schmunk, John D., to The Hancock Brick and Tile Co. Apparatus for forming cylinders of plastic material. 2,770,861, 11–20–56, Cl. 25—39.

Schneider, Abraham: *See*—
Jesi, James L., and Schneider. 2,771,404.

Schneider, Charles F., and R. D. Turkington, to Armstrong Cork Co. Temperature control system for calender rolls. 2,771,246, 11–20–56, Cl. 236—1.

Schock, Robert E., to Radio Corp. of America. Squelch circuit. 2,771,546, 11–20–56, Cl. 250—20.

Schott, John T., to Bell Telephone Laboratories, Inc. Test probe. 2,771,580, 11–20–56, Cl. 324—72.5.

Schrader, George, Jr.: *See*—
Schrader, George, Sr. 2,771,211.

Schrader, George, Sr., deceased, by G. Schrader, Jr., administrator, to United States Steel Corp. Slide cover for converting a box into a feed hopper. 2,771,211, 11–20–56, Cl. 220—41.

Schulmerich Electronics, Inc.: *See*—
Kung, Jacob T. 2,770,994.

Schults, Everett M., to Merck & Co., Inc. Quaternary ammonium salts of delta-hydrocarbyoxyphenyl gamma-hydroxy amines. 2,771,469, 11–20–56, Cl. 260—247.7.

Schults, Oswald C., to Laboratory Equipment Corp. Magnetically activated torque coupling. 2,771,171, 11–20–56, Cl. 192—84.

Schutte, Herman D., to Schutte Pulverizer Co., Inc. Slide track mounting means for different mesh size screens in screening mills. 2,771,249, 11–20–56, Cl. 241—89.

Schutte Pulverizer Co., Inc.: *See*—
Schutte, Herman D. 2,771,249.

Schwahn, Joseph L. Rotating nylon belt cutter. 2,771,534, 11–20–56, Cl. 219—29.

Schwartz, James W., to Radio Corp. of America. Color television system. 2,771,503, 11–20–56, Cl. 178—5.4.

Schwartz, Robert F. Tamper-proof screw having frusto-conical head with flat tool engaging facets thereon. 2,770,998, 11–20–56, Cl. 85—45.

Scott, Earle S.: *See*—
Audrieth, Ludwig F., and Scott. 2,771,489.

Scovill Mfg. Co.: *See*—
Seyfried, Arthur W. 2,771,111.

Scurlock, James C., to Western Engineering Associates. Wall construction. 2,771,164, 11–20–56, Cl. 189—34.

Security Trust Co. of Rochester: *See*—
Farrell, William F. 2,771,307.

Seisholtz, Calvin, Jr. Illuminated religious symbol. 2,771,543, 11–20–56, Cl. 240—10.

Selas Corp. of America: *See*—
Hess, Frederic O. 2,771,056.

Selberg, John P., and G. D. Currie, to Borg-Warner Corp. Earth boring apparatus. 2,771,270, 11–20–56, Cl. 255—28.

Sello, Harry, to Shell Development Co. Recovering tertiary-alkyl substituted benzoic acid. 2,771,488, 11–20–56, Cl. 260—525.

Seyfried, Arthur W., to Scovill Mfg. Co. Agitator and cutter unit for disintegrating food mixers. 2,771,111, 11–20–56, Cl. 146—68.





Seymour, Malcolm, to The General Tire & Rubber Co. Combined pressing, creasing, and cutting tool for semi-flexible material. 2,770,879, 11–20–56, Cl. 30—293.

Shackleton, William: *See*—
Hammond, Cecil F., and Shackleton. 2,771,221.

Shadd, Daniel: *See*—
Dittmore, Ray H., Richter, Shadd, McMillan, and Trickle. 2,771,540.

Shadid, Hollum B. Method of preparing a meat product. 2,771,366, 11–20–56, Cl. 99—108.

Shanahan, Peter T. Ventilator. 2,771,020, 11–20–56, Cl. 98—37.

Shannon, Richard F.: *See*—
Blefeld, Lawrence P., and Shannon. 2,770,840.

Sharer, Lawrence J. Fishing pole signal attachment. 2,770,907, 11–20–56, Cl. 43—17.

Sharpe, Frederick P., to Kelsey-Hayes Wheel Co. Transfer mechanism. 2,771,173, 11–20–56, Cl. 198—19.

Shell Development Co.: *See*—
Courter, Martin L. 2,771,473.
Morris, Rupert C., and Buls. 2,771,487.
Sello, Harry. 2,771,488.

Shelter, Stanley L.: *See*—
Rix, Edward G. 2,770,990.

Shen, Kwan-Ting: *See*—
De Groote, Melvin, and Shen. 2,771,425–2,771,439.
De Groote, Melvin, and Shen. 2,771,451–2,771,455.

Shen, Kwan-Ting, to Petrolite Corp. Method for making certain N-substituted polyvinyl heterocyclics. 2,771,462, 11–20–56, Cl. 260—88.3.

Shepherd, George R. L., to Esso Research and Engineering Co. Desulfurization of crude oil and crude oil fractions. 2,771,401, 11–20–56, Cl. 196—28.

Sherrod, Ed C. Flexible denture. 2,770,880, 11–20–56, Cl. 32—2.

Shirmeyer, Maxine R., and M. R. Adams. Hair bang mold. 2,771,081, 11–20–56, Cl. 132—53.

Shumaker, James J. Display unit. 2,770,919, 11–20–56, Cl. 47—39.

Sidenius, Widmer C., to Production and Marketing Co. Pouring spout. 2,771,229, 11–20–56, Cl. 222—484.

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Kleist, Dale, Sidwell, and Reed. 2,771,387.

Sigg, Joseph A. Trigger mechanism for toy guns. 2,770,916, 11–20–56, Cl. 46—175.

Sigle, Calrence C., ½ to W. H. Boswell. Wood shaping machine. 2,771,106, 11–20–56, Cl. 144—134.

Silbert, Eileen: *See*—
Taylor, Norman J., and Bright. 2,770,807.

Silk, Charles E.: *See*—
Holmes, Raymond S., Baldridge, O'Neill, and Silk. 2,771,351.

Silverstein, Morris. Machine for measuring cloth. 2,771,251, 11–20–56, Cl. 242—68.

Simmering-Graz-Pauker Aktiengesellschaft fur Maschinen-Kessel-und Waggonbau: *See*—
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Simonson, Lyle E. Portable screen. 2,771,087, 11–20–56, Cl. 135—4.

Simplex Industrial Products, Inc.: *See*—
Gerber, Harry. 2,771,598.

Simpson, Donald W., and W. C. Bauman, to The Dow Chemical Co. Ion exclusion. 2,771,193, 11–20–56, Cl. 210—42.5.

Sinclair, Harold. Change-speed gearing. 2,770,979, 11–20–56, Cl. 74—339.

Sinclair Refining Co.: *See*—
Dorinson, Amos. 2,771,423.

Singer Mfg. Co., The: *See*—
Wendel, Lorenz A. 2,770,891.

Sivak, Morris. Signal device for motor vehicles. 2,771,525, 11–20–56, Cl. 200—61.27.

Skistimas, George, to The Zeller Corp. Cowl mounting for aircraft engines. 2,771,063, 11–20–56, Cl. 123—41.7.

Skumawitz, Max, to Bossong-Werk G. m. b. H. Device for shooting pins and bolts. 2,771,607, 11–20–56, Cl. 1—44.5.

Slack, Robert E., to International Business Machines Corp. Cooling apparatus. 2,771,278, 11–20–56, Cl. 257—263.

Slater, Ralph H. Trench hoe. 2,771,201, 11–20–56, Cl. 214—138.

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Le Febvre, Alfred L., Johnson, and Sliz. 2,771,117.

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Daniels, Richard W., Diggle, and Smith. 2,771,206.

Smith, Charles Harry: *See*—
MacGregor, Peter S., and Smith. 2,771,000.

Smith & Davis Mfg. Co.: *See*—
Schindler, Fred G. 2,770,814.

Smith, Hiram P., and R. W. Kramer, to International Harvester Co. Bearing. 2,771,326, 11–20–56, Cl. 308—181.

Smith, John D., Jr.: *See*—
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Smith, Robert E. Program indicator. 2,770,900, 11–20–56, Cl. 40—65.

Smith, William H. Presses for moulding plastic substances. 2,770,863, 11–20–56, Cl. 25—83.

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Snyder, Thomas L., to the United States of America as represented by the Secretary of the Army. Method and apparatus for counting microorganisms. 2,771,398, 11–20–56, Cl. 195—103.5.

Societe d'Electronique et d'Automatisme: *See*—
Raymond, François H. 2,771,244.

Societe Metallurgique Ariegeoise et Lorraine: *See*—
Boissou, Pierre. 2,770,857.

Societe Nationale de Constructions Aeronautiques du Sud-Ouest (Societe Anonyme): *See*—
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Socony Mobil Oil Co., Inc.: *See*—
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Penick, Joe E. 2,771,407.
Penick, Joe E. 2,771,408.
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Spear, Warren M., to The International Nickel Co., Inc. Machine elements for crushers. 2,771,358, 11–20–56, Cl. 75—128.

Spencer, James A., to British Insulated Callender's Cables Ltd. Arrangements for carrying out continuous processes on long rigid articles. 2,770,867, 11–20–56, Cl. 29—33.

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Spiegler, Louis, to the United States of America as represented by the United States Atomic Energy Commission. Manufacture of uranium peroxide. 2,771,338, 11–20–56, Cl. 23—14.5.

Sprouse, Lowell E., to Vernco Corp. Blower wheel. 2,771,241, 11–20–56, Cl. 230—134.

Stamicarbon N. V.: *See*—
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Standard Oil Co., (Illinois): *See*—
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Standard-Thomson Corp.: *See*—
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Stanier, Harold. Yarn control device. 2,771,254, 11–20–56, Cl. 242—150.

Stanley, Charles S.: *See*—
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Stanley Home Products, Inc.: *See*—
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Staples, Robert G., Jr., and M. W. Bougher, Sr., to Link-Belt Co. Weighing device. 2,771,288, 11–20–56, Cl. 265—52.

Start, Ernest, to William Cotton Ltd. Straight bar knitting machines. 2,770,959, 11–20–56, Cl. 66—110.

Steeper, Charles P. Artificial limbs. 2,770,811, 11–20–56, Cl. 3—22.

Steigerwald, Karl H., to Carl Zeiss. Utilising electron energy for physically and chemically changing members. 2,771,568, 11–20–56, Cl. 315—31.

Stephenson, Robert P. Reinforced case. 2,771,235, 11–20–56, Cl. 229—23.

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Sterne, Rita C.: *See*—
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Stevenson, Evan H., J. W. Ramore, and G. J. Hughes, to Graham and Barker. Washing machine. 2,770,961, 11–20–56, Cl. 68—21.

Stewart, Clyde, to Collins Radio Co. Tracking and synchronizing mechanism. 2,771,601, 11–20–56, Cl. 343—11.

Stibitz, George R. Wave form generator. 2,770,995, 11–20–56, Cl. 84—1.28.

Stinnes, Hugo, Verwaltung G. m. b. H.: *See*—
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Stoddard, Edgar A., Jr., and S. F. Williams, to American Cyanamid Co. Production of acrylamide. 2,771,490, 11–20–56, Cl. 260—561.

Stodola, Frank H.: *See*—
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Stoecklin, Josef, and M. Lura, to Aktiengesellschaft Brown, Boveri & Cie. Disconnectable relay apparatus. 2,771,523, 11–20–56, Cl. 200—50.

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Beck, Curt B., and Stokes. 2,771,347.

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Stolsenbach, Robert W., to the United States of America as represented by the Secretary of the Air Force. Wave analyzer. 2,771,581, 11–20–56, Cl. 324—77.

Straehl, Robert N., to International Business Machines Corp. Error position indicator for target manifestation device. 2,771,593, 11–20–56, Cl. 340—24.

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Strauss, Howard J., and H. C. Riggs, to The Electric Storage Battery Co. Storage battery plate. 2,771,500, 11–20–56, Cl. 136—30.

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Streuer, Wilhelm A., to Oak Mfg. Co. Electric switch contact construction. 2,771,531, 11–20–56, Cl. 200—166.

Stromquist, Donald M., A. C. Reents, and M. E. Veerman, to Illinois Water Treatment Co. Process for regenerating ion exchange material. 2,771,424, 11–20–56, Cl. 252—182.

Strother, Fred P., to Deering Milliken Research Corp. Picker lap analyser. 2,770,843, 11–20–56, Cl. 19—70.

Strzala, Kazimer A.: *See*—
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Summers, Sebern S. Threshing machine for vegetables and grains. 2,771,078, 11–20–56, Cl. 130—30.

Sun Oil Co.: *See*—
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Supramar A. G.: *See*—
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Sutherland Paper Co.: *See*—
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Symon, Ted.: *See*—
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Szikiai, George C., to Radio Corp. of America. Frequency band separation amplifier system. 2,771,518, 11–20–56, Cl. 179—171.

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Tanner, Fred W., Jr., T. M. Lees, and J. B. Routien, to Chas. Pfizer & Co., Inc. Carbomycin complexes. 2,771,392, 11–20–56, Cl. 167—65.

Taylor, Charles P., to Ideal Stencil Machine Co. Tape dispensing and printing device. 2,771,028, 11–20–56, Cl. 101—227.

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Taylor, Norman J., and R. A. Bright, to V. I. Du Bois, L. T. Holsworth, R. C. Sterne, E. Silbert, and F. E. Taylor. Safety goggle. 2,770,807, 11–20–56, Cl. 2—14.

Taylor, Theodore C., to Standard Oil Co. Standpipe flow controls. 2,771,323, 11–20–56, Cl. 302—57.

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Barnett, Arthur R., Suter, and Abs. 2,770,887.

Technicolor Corp.: *See*—
Kelly, Donald H., and Rock. 2,771,055.

Teitelbaum, Murray. Can opener aid. 2,770,876, 11–20–56, Cl. 30—10.

Thiry, Leon F. Rubber bushing. 2,771,312, 11–20–56, Cl. 287—85.

Thom, Carl W. Christmas tree stand. 2,771,260, 11–20–56, Cl. 248—44.

Thomas, Donald E., to Bell Telephone Laboratories, Inc. Frequency-controlled transistor oscillators. 2,771,584, 11–20–56, Cl. 332—29.

Thomas, Ralph B., to Sylvania Electric Products Inc. End cap for fluorescent lamp. 2,771,589, 11–20–56, Cl. 339—144.

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Thompson, Niles J., to Gould-National Batteries, Inc. Storage battery filler. 2,771,101, 11–20–56, Cl. 141—57.

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Booth, James H., and Gair. 2,771,302.
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Thompson, Ralph B., and T. Symon, to Universal Oil Products Co. Stabilization of organic compounds. 2,771,367, 11–20–56, Cl. 99—163.

Thompson, Ralph B., to Universal Oil Products Co. Stabilization of organic compounds. 2,771,368, 11–20–56, Cl. 99—163.

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Timbs, Mordecai N.: *See*—
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Todd, Harold E.: *See*—
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Towne, Edmund B., and J. B. Dickey, to Eastman Kodak Co. 5-nitrothiasoleazo-N,N-disubstituted m-alkacylaminoaniline compounds. 2,771,466, 11–20–56, Cl. 260—158.

Trickle, Russell W., Jr.: *See*—
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Troemel, Walter H., to Reeves Pulley Co. Means for balancing the loads on parallel belts. 2,770,978, 11–20–56, Cl. 74—230.17.

Trombetta, Louis P. Circuit breaker. 2,771,530, 11–20–56, Cl. 200—166.

Tuck, Ruth G. Structural assembly kit. 2,771,110, 11–20–56, Cl. 144—309.

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Umney, Laurie E. R., to Vokes Ltd. Method and apparatus for separating materials. 2,771,079, 11–20–56, Cl. 131—146.

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Union Carbide and Carbon Corp.: *See*—
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Union Oil Co. of California: *See*—
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Union Stock Yards & Transit Co. of Chicago: *See*—
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Union Tank Car Co.: *See*—
Folmsbee, Clyde H. 2,771,040.

United Aircraft Corp.: *See*—
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Crim, Hugh S. 2,770,945.
Cross, Stanley W. 2,771,277.
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Kamen, Martin D., and De Haan. 2,771,340.
Spiegler, Louis. 2,771,338.
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United States Steel Corp.: *See*—
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Hervert, George L. 2,771,496.
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Upjohn Co., The: *See*—
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Van Ormer, William K., and J. B. Aust, to The Carborundum Co. Abrasive article. 2,770,928, 11–20–56, Cl. 51—195.

Vasey, John G. Shake splitting machines. 2,771,107, 11–20–56, Cl. 144—193.

Veerman, Marvin E.: *See*—
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Vesely, Jerome A.: *See*—
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Vitcha, James F., and A. C. Hemeyer, to Puritan Compressed Gas Corp. Quick connect valve. 2,771,308, 11–20–56, Cl. 284—19.

Viterisi, Domenick P., to Collins Radio Co. Signal receiving circuit. 2,771,549, 11–20–56, Cl. 250—20.

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Vogel, William J., E. Knantz, and P. J. Kiefer, to Combustion Engineering, Inc. Air lance for blowing out superheater elements and the like. 2,770,830, 11–20–56, Cl. 15—406.

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Von Duyke, Harrison M., to Modern Products Mfg. Corp. Line levels. 2,770,888. 11–20–56, Cl. 33—207.

Von Schertel, Hanns, to Supramar A. G. Automatic sea-damping gear for hydrofoil bearing watercraft. 2,771,051, 11–20–56, Cl. 114—66.5.

Von Waldbergen, Leo T. E. Typewriter number-printing apparatus controlled by a calculating machine. 2,771,242, 11–20–56, Cl. 235—60.12.

Vordtriede, Oliver A., to A. B. Chance Co. Electrical drawbolt type connector with constant load washer. 2,771,591, 11–20–56, Cl. 339—263.

Voss, Raymond O.: *See*—
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Wahlstrom, Magnus, to The Bridgeport Machines, Inc. Rotary work table. 2,771,169, 11–20–56, Cl. 192—4.

Wainwright, William N., W. M. Venner, and P. L. Bowser, Jr., to Sterling Aluminum Products, Inc. Piston ring groove protector. 2,771,328, 11–20–56, Cl. 309—14.

Walker, Brooks. Venetian blind. 2,771,135, 11–20–56, Cl. 160—168.

Wallace, Donald J., and L. Catallo, to Wheel Trueing Tool Co. Form dressing tool. 2,770,925, 11–20–56, Cl. 51—184.1.

Walworth, Clarence B.: *See*—
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Webb, Chester H., and T. B. Holliday. Elastic cord shock absorber. 2,771,291, 11–20–56, Cl. 267—63.

Webbere, Fred J., to General Motors Corp. Casting readily oxidizable alloys. 2,770,860, 11–20–56, Cl. 22—214.

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Weedman, John A., to Phillips Petroleum Co. Selective solvent extraction of naphthene hydrocarbons employing 2-pyrrolidone. 2,771,494, 11–20–56, Cl. 260—666.

Weese, Harry. Method for producing a surface of desired contour on a moldable substance. 2,770,864, 11–20–56, Cl. 25—155.

Weihe, Adolf, and U. Hoffmann, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Production of carbamate compounds. 2,771,485, 11–20–56, Cl. 260—482.

Weimer, Paul K., to Radio Corp. of America. Color television. 2,771,567, 11–20–56, Cl. 315—21.

Weinstock, Harry H., Jr., to Allied Chemical & Dye Corp. Process for copolymerising acrylonitrile and acrylate esters. 2,771,461, 11–20–56, Cl. 260—85.5.

Weintraub, Robert L.: *See*—
Brown, James W., and Weintraub. 2,771,217.

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Weiss, Willi, to Brevets Aero-Mecaniques, S. A. Grenade launching device for a firearm having a muzzle brake. 2,770,904. 11–20–56. Cl. 42—1.

Welts, Jeremy, to APRA Precipitator Corp. Protective relay circuits. 2,771,150, 11–20–56, Cl. 183—7.

Wendel, Lorenz A., to The Singer Mfg. Co. Cooled bearings for oven drying machines. 2,770,891, 11–20–56, Cl. 34—218.

Werfeli, Arnold, to Paillard S. A. Highly corrected photographic objectives comprising four axially air spaced components. 2,771,006, 11–20–56, Cl. 88—57.

West, James L., and M. H. Hayes, to Link Aviation, Inc. Potential divider coupling circuits. 2,771,578, 11–20–56, Cl. 323—79.

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Western Electric Co., Inc.: *See*—
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Western Engineering Associates: *See*—
Scurlock, James C. 2,771,164.

Wetter, Charles, to National Electronics, Inc. Motor-control apparatus. 2,771,574, 11–20–56, Cl. 318—227.

Weymouth, Leon J., Jr., to United Aircraft Corp. Lacing for compressor blades. 2,771,267, 11–20–56, Cl. 253—77.

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Whiteside, Richard H. Body supporting and bathing device. 2,770,812. 11–20–56. Cl. 4—145.

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Wiegel, Carol M.: *See*—
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## ISSUED NOVEMBER 20, 1956

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260— 30.6: 2,771,456
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78.5: 2,771,459
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262— 3: 2,771,284
263— 15: 2,771,285
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13: 2,771,287
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98.2: 2,771,301
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104.5: 2,771,303
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290: 2,771,311
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315: 2,771,314
294— 74: 2,771,315
83: 2,771,316
296— 18: 2,771,317
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100: 2,771,319
299— 104: 2,771,320
107.6: 2,771,321
302— 37: 2,771,322
57: 2,771,323
304— 2: 2,711,324
306— 44: 2,771,325
307— 35: 2,771,558
156: 2,771,559
308— 181: 2,771,326
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311— 6: 2,771,330
215: 2,771,331
2,771,333
312— 31: 2,771,333
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21: 2,771,567
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83: 2,771,569
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162: 2,771,571
172: 2,771,572
318— 30: 2,771,573
237: 2,771,574
320— 1: 2,771,575
321— 18: 2,771,576
48: 2,771,577
323— 79: 2,771,578
324— 62: 2,771,579
72.5: 2,771,580
77: 2,771,581
85: 2,771,582
123: 2,771,583
332— 29: 2,771,584
333— 32: 2,771,585
71: 2,771,586
326— 160: 2,771,587
339— 102: 2,771,588
144: 2,771,589
168: 2,771,590
263: 2,771,591
340— 17: 2,771,592
24: 2,771,593
34: 2,771,594
174: 2,771,595
177: 2,771,596
266: 2,771,597
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## Classification of Designs

D 2—11: Des. 179,250
D 5— 2: Des. 179,241
D 9— 2: Des. 179,242
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D82— 1: Des. 179,234
D85— 2: Des. 179,260
D87— 5: Des. 179,248
D91— 3: Des. 179,257
Des. 179,275
D92—15: Des. 179,238
Des. 179,239

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
November 20, 1956 Volume 712 Number 3

# TRADEMARKS

## NOTICES

### Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 260,286, TM 291,736 (Q-TIPS), Q-Tips, Inc., Swabs, etc.; TM 522,575 ("Q-CREAM" and design), same, Cold cream for infants; TM 522,999 ("Q-TALC" and design), same, Powder for infants; TM 520,700, TM 540,551 (Q-things), same, Certain toilet accessories for infants; TM 520,946 ("Q-OIL" and design), same, Rubbing oil for infants, filed July 28, 1955, D. C. N. J. (Newark), Doc. 670/55, *Q-Tips, Inc.* v. *August L. Frambe et al.* Stipulation of dismissal Oct. 17, 1956.

TM 442,906 (Anchor), Anchor Post Products, Inc., Metallic fencing, filed May 23, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 13536, *Anchor Post Products, Inc.* v. *Abbott Fence Corp. et al.* Consent judgment Oct. 16, 1956.

TM 515,882 (DIMENSIONAL), Lorec Textiles Co., Hosiery; TM 602,742, same, Women's slips and nightgowns, filed Oct. 10, 1956, D. C., S. D. N. Y., Doc. 112/362, *Lorec Inc.* v. *The American Maid Co., Inc.*

TM 522,575. (See TM 260,286.)
TM 522,999. (See TM 260,286.)
TM 520,700. (See TM 260,286.)
TM 540,551. (See TM 260,286.)
TM 520,946. (See TM 260,286.)
TM 291,736. (See TM 260,286.)

TM 602,626 ("Motor Cure" and design), S. Fick, doing business as Motor Cure Co., Motor oil additive, filed Oct. 5, 1955, D. C., N. D. Ill. (Chicago), Doc. 55c1670, *Kepro Corp.* v. *Ultra-Lube Co. et al.* Trademark held valid and infringed; injunction issued enjoining defendants from using trademark "Motor Cure" effective on or after Jan. 1, 1957; counterclaim dismissed Oct. 15, 1956.

TM 616,908 (rainfashions fifth avenue), Rainfashions Fifth Avenue, Inc., Women's, misses', and girls' raincoats, rain jackets, etc., filed Sept. 5, 1956, D. C., S. D. N. Y., Doc. 112/364, *Rainfashions Fifth Avenue, Inc.* v. *Reign Fashions, Inc.* Default judgment; defendant enjoined Oct. 15, 1956.

TM 602,742. (See TM 515,882.)

## CONDITION OF TRADEMARK APPLICATIONS AS OF SEPTEMBER 28, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] ..... 7,583
Date of oldest new application ..... Jan. 30, 1956
Date of oldest amended application ..... Feb. 3, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

| TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION | Oldest Application | |
|---|---|---|
| | New | Amended |
| I. STERBA, J. E., Classes 1, 2, 4, 5, 12, 13, 14, 16, 19, 21, 23, 26, 28, 29, 37, 38, 39, 31, 32, 33, 34, 36, 44, 49 and Certification Marks (Goods) Class A | 1-30-56 | 2-3-56 |
| II. SHEYOCK, R. F., Classes 6, 10, 40, 50; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B | 2-29-56 | 4-10-56 |
| III. WENDT, C. M., Classes 3, 7, 8, 9, 15, 17, 18, 20, 22, 25, 30, 35, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50 | 4-12-56 | 5-8-56 |
| Renewals (All Classes) | 8-30-56 | 9-10-56 |
| Sec. 12 (c) Publications (All Classes) | 8-30-56 | |

Applications Filed During the Month of September 1956—1,596

Registrations Issued ..... 256—No. 637,312 to No. 637,567
Renewals Issued ..... 47—

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

# MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

## CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

SN 684,298. Fiber Bond Corporation, Chicago, Ill. Filed Mar. 28, 1955.

FIBERBOND

For Nonwoven Batts Used for Padding and Made of Synthetic and/or Natural Fibers.
First use on or about Oct. 12, 1954.

SN 684,436. Koppers Company, Inc., Pittsburgh, Pa. Filed Mar. 29, 1955.

DYLEX

For Latex Composition—Namely, Styrene Butadiene Latex.
First use Feb. 28, 1955.

SN 692,998. Aquafil Company, Cedar Rapids, Iowa. Filed Aug. 15, 1955.

CHICK-BED

For Diatomaceous Earth for Use as Surface Covering in Poultry Yards.
First use Aug. 7, 1941.

SN 693,418. Carl Freudenberg Kommanditgesellschaft Auf Aktien, Weinheim an der Bergstrasse, Germany. Filed Aug. 18, 1955.

Marena

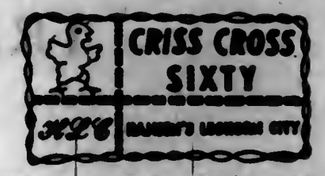
Owner of German Reg. No. 481,668, dated Jan. 3, 1936.
For Bristles, Hair, Artificial Bristles, and Artificial Hair Such as Artificial Horsehair, for Use in Upholstery Fillings, Brushes, Brooms, and the Like.

SN 695,913. The B. F. Goodrich Company, d. b. a. B. F. Goodrich Chemical Co., a division of The B. F. Goodrich Company, Akron, Ohio. Filed Oct. 5, 1955.

DARLAN

For Synthetic Fibers and Filaments in the Form of Staple Fibers, Continuous Filaments or Tow.
First use Sept. 12, 1955.

SN 696,439. Henry J. Hansen, Puyallup, Wash. Filed Oct. 14, 1955.




For Hatching Eggs, Baby Chicks, and Breeding Stock Chickens.
First use Feb. 15, 1955.

SN 697,195. Standard Insulation Company, East Rutherford, N. J. Filed Oct. 26, 1955.

STANPREG

For Paper, Glass Cloth, Glass Mat and Woven and Non-Woven Textiles Impregnated With Resins and Used in the Manufacture of Reinforced Laminates for Electrical and Structural Materials.
First use Aug. 26, 1955.

SN 697,398. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.

PINEY FORK

Owner of Reg. No. 621,949.
For Coal.
First use 1903.

SN 697,399. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.




The word "Bradford" is disclaimed apart from the mark as shown. The drawing is lined for red. Owner of Reg. Nos. 336,682, 581,289, and others.
For Coal.
First use Apr. 12, 1955.

SN 697,400. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.




The drawing is lined for red. Owner of Reg. Nos. 336,682, 581,289, and others.
For Coal.
First use June 14, 1955.





SN 697,401. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.




The drawing is lined for red. Owner of Reg. Nos. 336,682, 581,289, and others.
For Coal.
First use June 14, 1955.

SN 697,402. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.




The drawing is lined for the color red. Owner of Reg. Nos. 336,682, 581,289, and others.
For Coal.
First use June 14, 1955.

SN 697,403. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.

CROW HOLLOW

For Coal.
First use July 7, 1955.

SN 697,404. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.

GLEN CASTLE

For Coal.
First use July 7, 1955.

SN 697,405. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.

DUN GLEN

For Coal.
First use July 7, 1955.

SN 697,407. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.




The drawing is lined for red. Owner of Reg. Nos. 336,682, 581,289, and others.
For Coal.
First use Sept. 16, 1955.

SN 697,408. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Oct. 31, 1955.

WILLOW GROVE

For Coal.
First use Sept. 16, 1955.

SN 700,780. Borax Consolidated, Limited, d. b. a. Pacific Coast Borax Co., Division of Borax Consolidated, Limited, Los Angeles, Calif., now by change of name Borax (Holdings) Limited, to United States Borax & Chemical Corporation, Los Angeles, Calif. Filed Dec. 29, 1955.

20 MULE TEAM

Owner of Reg. Nos. 50,383, 327,847, and 574,007.
For Elemental Boron in Amorphous Form.
First use Oct. 20, 1955.

SN 189. Borax Consolidated, Limited, d. b. a. Pacific Coast Borax Co., Division of Borax Consolidated, Limited, Los Angeles, Calif., now by change of name Borax (Holdings) Limited, to United States Borax & Chemical Corporation, Los Angeles, Calif. Filed Jan. 5, 1956.

[redacted]

Owner of Reg. Nos. 28,401, 697,749, and others.
For Elemental Boron in Amorphous Form.
First use Oct. 20, 1955.

SN 1,844. British Celanese Limited, London, England. Filed Feb. 1, 1956.

CINEMOID

Owner of British Reg. No. 584,071, dated Mar. 9, 1938.
For Flexible Plastic Sheeting.
First use Jan. 2, 1935.

SN 4,721. Industrias Gracarbon, S. A., Matanzas, Cuba. Filed Mar. 16, 1956.

GRACARBON

For Baked Carbon and Graphite Products.
First use Dec. 11, 1955; in commerce Dec. 11, 1955.

SN 5,087. L. A. Dreyfus Company, Oak Tree, N. J. Filed Mar. 22, 1956.

LADCO BUBBLE BASE

For Chewing Gum Base Not Including Chicle.
First use Aug. 12, 1930.

SN 5,770. Good Bros. Leather Company, Newark, N. J. Filed Apr. 4, 1956.

EVENING DOVE

For Leather.
First use Mar. 9, 1956.

SN 8,401. Garden State Tanning Inc., New York, N. Y. Filed May 16, 1956.

GROVETAN

For Processed Leather Hides.
First use Apr. 20, 1956.

SN 8,403. Garden State Tanning Inc., New York, N. Y. Filed May 16, 1956.

PINEGLOVE

For Processed Leather Hides.
First use Apr. 20, 1956.

SN 8,620. British Celanese Limited, London, England. Filed May 21, 1956.

TRICEL

Owner of British Reg. No. 734,988, dated Oct. 13, 1954.
For Staple Fibres Made Wholly or Partially of Cellulose Derivatives.

SN 8,946. Foam King, Inc., New York, N. Y. Filed May 24, 1956.

VIN-SO-LITE

For Synthetic Sponges Made of Polyvinyl Chloride Foam.
First use May 11, 1956.

SN 9,165. National Lead Company, New York, N. Y. Filed May 28, 1956.

PETRO BOND

For Modified Clay Composition for Molding Sands and Cores and Like Use.
First use Jan. 27, 1956.

SN 9,271. Jessall Plastics, Incorporated, Kensington, Conn. Filed May 29, 1956.

Strip-a-Tube

For Plastic Tubing.
First use Apr. 23, 1956.

## CLASS 3

## BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 700,920. Wintrim, Inc., New York, N. Y. Filed Dec. 30, 1955.

PARA-TWEET

For Pneumatic Sound Making Toy for Bird Cages.
First use Oct. 24, 1955.

## CLASS 4

## ABRASIVES AND POLISHING MATERIALS

SN 8,115. Burnishine Products Co., d. b. a. J. C. Paul & Co., Skokie, Ill. Filed May 11, 1956.

DRAGON

For Metal Polish.
First use Nov. 1, 1911.

SN 8,247. Merit Products, Inc., Culver City, Calif. Filed May 14, 1956.

ROUND-O-FACE

For Abrading Wheels.
First use Feb. 10, 1956.

## CLASS 5

## ADHESIVES

SN 688,940. Kay See Dental Manufacturing Company, d. b. a. Kay See Mfg. Co., Kansas City, Mo. Filed June 6, 1955.

Joyne

For Liquid and Powder Chemical Compositions Sold as a Unit To Form a Plastic Adhesive Material Used To Repair.
First use Aug. 16, 1954.

SN 5,981. Crown Zellerbach Corporation, San Francisco, Calif. Filed Apr. 9, 1956.

"TALKING TAPE"

For Gummed Tape.
First use Jan. 27, 1956.

SN 7,811. L. C. S. Corporation, d. b. a. Royal Sales and Manufacturing Co., Los Angeles, Calif. Filed May 7, 1956.




For Pressure Sensitive Adhesives.
First use Mar. 13, 1953.



SN 8,306. Adhesive Products Corporation, New York, N. Y. Filed May 15, 1956.

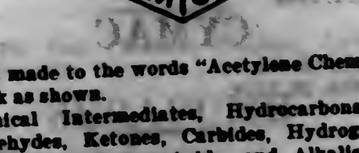
STIX-GRIP

Owner of Reg. No. 441,178.
For Adhesive Waterproof Cements Containing Natural or Synthetic Rubber.
First use Oct. 15, 1954.

## CLASS 6

## CHEMICALS AND CHEMICAL COMPOSITIONS

SN 671,007. Acetylene Chemicals Company, New York, N. Y. Filed Aug. 3, 1954.




No claim is made to the words "Acetylene Chemicals" apart from the mark as shown.
For Chemical Intermediates, Hydrocarbons, Alcohols, Amines, Aldehydes, Ketones, Carbides, Hydrogen, Oxygen, Nitrogen, and Other Gases, Acids, and Alkalis, and Salts Thereof, Hydrocarbon Oils, Metallurgical Reagents, Wetting Agents, Insecticides and Fumigants, Fungicides, Organo-Metallic Compounds, and Catalytic Agents.
First use June 30, 1954.

SN 672,437. Phillips Petroleum Company, Bartlesville, Okla. Filed Aug. 30, 1954.

PHILCURE

For Rubber Vulcanization Accelerator.
First use Feb. 8, 1954.

SN 675,360. Bridgeport Brass Company, Bridgeport, Conn. Filed Oct. 25, 1954.




For Insecticides.
First use July 27, 1954.

SN 686,929. Tex-Gas, Inc., Stillwater, Okla. Filed May 5, 1955.

TEX-GAS

For Liquefied Petroleum Gases and More Particularly To Liquefied Petroleum Gases in Sealed Containers.
First use Aug. 13, 1953.

SN 689,846. Intrusion-Prepakt, Incorporated, Cleveland, Ohio. Filed June 20, 1955.

PREPAKT

Owner of Reg. No. 530,015.
For Admixes for Cement, Concrete, and Grout.
First use March 1943.

SN 695,457. Vestal Laboratories, Inc., St. Louis, Mo. Filed Sept. 27, 1955.

Vespray

For Air Sanitizer and Deodoriser.
First use May 31, 1955.

SN 700,474. The L. Martin Company, New York, N. Y., to Columbian Carbon Company, New York, N. Y. Filed Dec. 22, 1955.




Applicant disclaims the word "Black" apart from the mark as shown.
For Lamp Black Having a General Utility in the Industrial Arts.
First use in 1902.

SN 700,524. Nott Manufacturing Co., Inc., Mount Vernon, N. Y. Filed Dec. 23, 1955. Sec. 2(f).

NOTT'S

Owner of Reg. Nos. 382,879, 411,389, and 434,353.
For Rodenticides, Herbicides, and Insecticides.
First use on or about Apr. 11, 1946, on rodenticides.

SN 700,525. Nott Manufacturing Co., Inc., Mount Vernon, N. Y. Filed Dec. 23, 1955. Sec. 2(f).

Nott's

Owner of Reg. Nos. 352,879, 443,559, 434,353, and others.
For Insecticides, Herbicides, Animal Repellents, and Rodenticides.
First use on or about Jan. 21, 1945, on insecticides.

SN 395. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Jan. 9, 1956.

FLOTE

For Formulated, Solid, Alkaline Additive for the Water Wash of Paint Spray Booths, Containing Ingredients Which, Together, Promote the Kill and Float of Oversprayed Coating Materials in Said Water Wash.
First use Dec. 15, 1953.

SN 902. Mud Control Laboratories, Inc., Oklahoma City, Okla. Filed Jan. 17, 1956.

**CONTROLOID**

For Oil Well Drilling Fluid Additives—Namely, Starches for Reducing Water Loss in Drilling Muds.
First use 1951.

SN 2,064. American Steriliser Company, Erie, Pa. Filed Feb. 6, 1956.

**SPORDEX**

For Bacterial Spore Strips Used for Culture Tests in Determining the Efficiency of Sterilization.
First use Jan. 25, 1956.

SN 2,488. Andrew Wilson, Inc., Springfield, N. J. Filed Feb. 27, 1956. Sec. 2(f) as to "Wilson's."

**Wilson's**
**O. K. PLANT SPRAY**

No claim is made to the words "Plant Spray" apart from the mark as shown.
For Insecticides.
First use May 1909.

SN 2,795. Marlowe Chemical Company, New York, N. Y. Filed Feb. 16, 1956.

**RED TOP**

For Chemical Fire Extinguishers.
First use on or about Nov. 1, 1955.

SN 2,806. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Feb. 16, 1956.



The drawing is lined for brown, but color is not an essential feature of the mark.
For Antifreeze, Cooling System Stop-Leak, and Water-Pump Lubricant and Anti-Rust, for Use in Automobile, Truck, and Tractor Engines.
First use Apr. 20, 1955.

SN 3,501. Andrew Wilson, Inc., Springfield, N. J. Filed Feb. 27, 1956.

**AWINC**

For Insecticides.
First use in May 1918.

SN 3,659. Dow Corning Corporation, Midland, Mich. Filed Mar. 1, 1956.

**SYL-MER**

For Compositions Used in the Finishing of Knitted, Netted, and Textile Fabrics.
First use Jan. 4, 1956.

SN 3,672. General Aniline & Film Corporation, New York, N. Y. Filed Mar. 1, 1956.

**EUNAPHTOL**

For Chemical Product To Be Mixed With Dyes, Dyestuffs, or Intermediates in Order To Form a Paste.
First use about Jan. 29, 1929.

SN 3,673. General Aniline & Film Corporation, New York, N. Y. Filed Mar. 1, 1956.

**AKAUSTAN**

Owner of Reg. No. 266,174.
For Solution for Rendering Fireproof Textiles of All Kinds.
First use June 1, 1929.

SN 3,723. American Cyanamid Company, New York, N. Y. Filed Mar. 2, 1956.

**CYMAC**

For Synthetic Resin.
First use Feb. 20, 1956.

SN 3,724. American Cyanamid Company, New York, N. Y. Filed Mar. 2, 1956.

**CYMEL**

For Synthetic Resin.
First use Feb. 20, 1956.

SN 3,748. Gerald Goodman, Massapequa, N. Y. Filed Mar. 2, 1956.

**MICROBACIDE**

For Chemical Preparations—Namely, Agricultural Disinfectants, Germicides, and Antiseptics for Use in the Rubber, Plastic, Leather, Paper, and Textile Industries.
First use Jan. 2, 1956.

SN 6,001. The Hamilton Metal Products Company, Hamilton, Ohio. Filed Apr. 9, 1956.

**Skotch Kooler**

For Preparation for Starting Charcoal Fires.
First use Mar. 8, 1956.

SN 6,333. J. M. Huber Corporation, New York, N. Y. Filed Apr. 13, 1956.

**DURAPEL**

For Pelletized Carbon Black.
First use Mar. 9, 1956.

SN 6,656. Valmor Products Co., Chicago, Ill. Filed Apr. 18, 1956.

**AUNT SALLY'S**

For Incense.
First use Oct. 30, 1956.



SN 6,695. The Dow Chemical Company, Midland, Mich. Filed Apr. 19, 1956.

**DOWPON**

For Weed Killing Composition.
First use Feb. 2, 1956.

SN 6,696. The Dow Chemical Company, Midland, Mich. Filed Apr. 19, 1956.

**RADAPON**

For Weed Killing Composition.
First use Jan. 17, 1956.

SN 6,697. The Dow Chemical Company, Midland, Mich. Filed Apr. 19, 1956.

**REDDON**

For Brush Killing Composition.
First use Mar. 6, 1956.

SN 6,698. The Dow Chemical Company, Midland, Mich. Filed Apr. 19, 1956.

**SERAFUME**

For Grain Fumigant Composition.
First use Mar. 6, 1956.

SN 6,883. West Disinfecting Company, Long Island City, N. Y. Filed Apr. 20, 1956.

**DYNE**

Owner of Reg. Nos. 584,224 and 552,316.
For Chemical Compositions—Namely, Iodine Plus Polyethoxy Polypropoxy Ethanol, in Liquid and Powder Form.
First use Mar. 23, 1956.

SN 6,964. Stewart-Hall Chemical Corp., Mount Vernon, N. Y. Filed Apr. 23, 1956.

**HUMIDEX**

For Chemical Composition in Tablet Form To Prevent Corrosion, Scale, Algae, Rust, and Clogging in Humidifier Tanks.
First use in October 1953.

SN 7,104. National Lead Company, New York, N. Y. Filed Apr. 25, 1956.

**LECTRO "60"**

For Basic Lead Silico-Chloride Complexes Useful as Stabilizers for Vinyl Resins.
First use June 10, 1955.

SN 7,119. The Sherwin-Williams Company, Cleveland, Ohio. Filed Apr. 25, 1956.

**DYPOL**

For Synthetic Resins.
First use Apr. 9, 1956.

SN 7,345. Happy Products Co., Kansas City, Mo. Filed Apr. 30, 1956.

**HAPPY**

For Preparation for Retarding Soiling of Rugs, Carpets, Fabrics, Upholstery, Painted Surfaces, and the Like.
First use Mar. 21, 1956.

SN 7,590. Interchemical Corporation, New York, N. Y. Filed May 3, 1956.

**VALTEX**

For Pigmented Resin Compositions for Application to Textiles and Plastic Films.
First use Mar. 20, 1956.

SN 11,445. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Chemicals Used To Prevent the Freezing of Moisture in Storage Tanks and Fuel Systems of Heating Units and Internal Combustion Engines; Insecticidal Carriers and Solvents; Liquefied Petroleum Gas; and Chemical Compounds of High Volatility Useful for Facilitating the Starting of Internal Combustion Engines at Low Temperatures.
First use June 2, 1956, on motor fuel ice preventive.

SN 12,853. Standard Oil Company of California, San Francisco, Calif. Filed Aug. 14, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Chemicals and Chemical Intermediates for General Use in the Industrial Arts—Namely, Naphthenic Acids and Their Derivatives; Metallic Naphthenates; Purified Sulfonates; Xylol; Mercaptans; Cresylic Acids; Polybutenes; Alkyl Benzenes and Dodecyl Benzenes; Phthalic Anhydride; Metaxylene; Paraxylene; Phenol; Chemical Preparations and Compounds for Use in the Manufacture of Ink, Mildew Preventives and Fungicides, Wood Preservatives, Algaecides, Paint Driers, Textile Oils, Dyestuffs, Synthetic Fibers and Films, Leather Softeners, Adhesives and Mastics, Caulking Compounds, Detergents, Alkyd Resins for Paints and Varnishes, and Plastic Molding Powder; Chemical Preparations and Compounds for Use as Wetting Agents, Water Soluble Emulsifiers, Dispersants, Surface Active Agents, Gas Odorants, Flotation Reagents, Disinfectants, Industrial Germicides, Plasticizers, and Rubber Extenders; Chemical Preparations and Compounds for Coating and Impregnating Materials Used for Electric Insulation; Chemical Preparations and Compounds for Use in Trapping Dust in Air Filters; Catalytic Agents for Use in Petroleum Refining and Chemical Dispersants for Use in Dry Cleaning; Parasiticides—Namely, Insecticides, Germicides, Fungicides, Herbicides, Fumigants, Weedicides, Ovicides, Miticides; Soil Fumigants; Chemical Preparations for the Improvement of Drainage and Water Penetration in Seepage Areas and Fields; Corrosion Inhibitors; Insecticide Deposit Builders; Dusting Sulfurs; Animal Insect Repellents

and Poisons; Sulfur; Flotation Sulfur; Dry Emulsifiers; Spreaders; Insecticidal, Germicidal, and Fungicidal Sprays; Spray Adjuvants; Seed Treating Chemical Preparations; Insecticidal Baits; and Industrial Deodorizers.
First use June 25, 1956.

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CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

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SN 659,003. Olin Industries, Inc., East Alton, Ill., now by merger and change of name Olin Mathieson Chemical Corporation. Filed Jan. 5, 1954. Sec. 2(f).

BALL POWDER

For Propellant Explosives.
First use on or about Nov. 27, 1940.

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CLASS 10

FERTILIZERS

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SN 699,056. Minnesota Farm Bureau Service Company, St. Paul, Minn. Filed Sept. 21, 1956.

Veg-E-Gro

The drawing is lined for black but no claim is made to color.
For Fertilizers.
First use Mar. 1, 1954.

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SN 700,484. The Smith Agricultural Chemical Company, Columbus, Ohio. Filed Dec. 22, 1955.

TUFF-TURF

For Fertilizers.
First use Sept. 1, 1955.

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SN 7,003. J. & L. Adikes, Inc., Jamaica, N. Y. Filed May 9, 1956. Sec. 2(f).

GRO-WELL

For Fertilizer.
First use July 1, 1932.

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CLASS 12

CONSTRUCTION MATERIALS

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SN 692,069. The Zimmerman Company, Columbus, Ohio. Filed Aug. 8, 1955.

PLASTEXPANEL

Owner of Reg. No. 530,916.
For Plastic Wallboard.
First use July 15, 1955.

SN 700,534. Seaporcel Metals, Inc., Long Island City, N. Y. Filed Dec. 23, 1955.

SEAPORCEL

Owner of Reg. Nos. 403,972 and 581,003.
For Architectural Porcelain Enamel Parts—Namely, Enamel Sheets and Panels Used as Exterior Veneer for All Types of Buildings and for Other Related Uses Such as in the Manufacture of Commercial and Neon Signs.
First use in February 1942.

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SN 5,134. Reynolds Metals Company, Richmond, Va. Filed Mar. 23, 1956.

ReyconoWall

For Insulated Field-Assembled Curtain Wall.
First use Feb. 2, 1956.

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SN 5,968. Astoria Marine Construction Company, d. b. a. Astoria Manufacturing Co., Astoria, Oreg. Filed Apr. 9, 1956.

REDLAM

For Laminated Wood Rafters and Beams.
First use Nov. 23, 1955.

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SN 7,233. Bemis Bro. Bag Company, Minneapolis, Minn. Filed Apr. 27, 1956.

BEMISWALL

For Vertically Hung Folding Partitions, Walls, and Doors, Including the Necessary Supporting Hinges, Tracks, and Trolleys.
First use Mar. 22, 1955.

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SN 7,234. Howard Roy Scott and Wallace A. Scott, d. b. a. Bord-A-Blox Company, Tampa, Fla. Filed Apr. 27, 1956.

BORD-A-BLOX

For Composition Block of Different Designs for Edging Paths, Flower Beds, and the Like.
First use Oct. 10, 1955.

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SN 7,284. Solar Aircraft Company, San Diego, Calif. Filed Apr. 27, 1956.

BRYTANEAL

For Ceramic Coatings.
First use Mar. 30, 1956.

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SN 7,388. Smith Manufacturing Company Limited, Weston, Ontario, Canada. Filed Apr. 30, 1956.

FOAMFLEX

Owner of Canadian Reg. No. N. S. 189/48066, dated May 21, 1954.
For Weatherstripping.



CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

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SN 689,312. Spence Engineering Company, Inc., Walden, N. Y. Filed June 10, 1955. Sec. 2(f) as to "Spence."

Spence

Owner of Reg. No. 619,223.
For Regulators for Steam or Other Vapors, Gases, and Liquids.
First use Feb. 28, 1955.

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SN 700,481. Safety Socket Screw Company, Chicago, Ill. Filed Dec. 22, 1955.

LED-LOK

For Self-Locking Screw Product.
First use on or about July 19, 1954.

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SN 700,834. Radiator Specialty Company, Charlotte, N. C. Filed Dec. 15, 1955.

SEAL-O-MATIC

For Toilet Bowl Flush Control Units.
First use Nov. 17, 1955; Nov. 2, 1954, as to "Seal-O-Matic."

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SN 7,296. United States Steel Corporation, Pittsburgh, Pa. Filed Apr. 27, 1956.

AMERICAN

Owner of Reg. Nos. 144,096, 297,446, and 344,080.
For Wire Fencing, Barb Wire, Tie Wire, and Poultry Netting.
First use July 1, 1898, on wire fencing.

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SN 9,851. The Everedy Company, Frederick, Md. Filed June 8, 1956.

EVEREDY Speedi-Heat

For Base Metal Hollow Cookware Consisting of Fry Pans, Saucepans, Double Boilers, Egg Poachers, Saucepots, Chicken Fryers, and Dutch Ovens.
First use Apr. 24, 1956.

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SN 9,918. International Plumbing Manufacturing Co., Inc., New York, N. Y. Filed June 11, 1956.

TUFF-BOY

For Faucet Washers.
First use June 1953.

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SN 9,939. Bonney Forge & Tool Works, Allentown, Pa. Filed June 11, 1956.

SCREWDOLET

For Unions for Welded and Threaded Connections.
First use Mar. 12, 1956.



SN 9,943. Calumet & Hecla, Inc., Chicago, Ill. Filed June 11, 1956.

CORRO-TUBE

For Metal Tubing.
First use Apr. 19, 1956.

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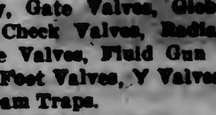
SN 9,985. Ideal Fastener Corporation, Long Beach, N. Y. Filed June 11, 1956.

EVERZIP

For Slide Fasteners and Slide Fastener Assemblies.
First use May 21, 1956.

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SN 10,013. Officine Metallurgiche Sgarbi Chiesi & C., Ferrara, Italy. Filed June 11, 1956.



Owner of Italian Reg. No. 104,426, dated Nov. 20, 1951.
For Coffee-Makers.

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SN 10,137. The Colorado Fuel and Iron Corporation, Denver, Colo. Filed June 13, 1956.

LOK-LINE

For Poultry Netting.
First use May 23, 1956.

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SN 10,150. The Enterprise Aluminum Company, Massillon, Ohio. Filed June 13, 1956.

famous chef

Owner of Reg. No. 585,428.
For Aluminum Kitchen Utensils—Namely, Combination Cookers, Covered Sauce Pans, Covered Sauce Pots, Dutch Ovens, Covered Fry Pans, Covered Chicken Fryers, Egg Poachers, and Casseroles.
First use June 1, 1956.

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SN 10,189. Novelty Tool Co., Spencer, Mass. Filed June 13, 1956.

FLEX-C-RING

For Hog Ring or C Clip.
First use Mar. 30, 1956.

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SN 10,321. Jenkins Bros., New York, N. Y. Filed June 15, 1956.




Owner of Reg. Nos. 22,238, 593,531, and others.
For Metal Valves for Fluid Conducting Installations for Conducting Steam, Water, Oil, Air, Gas, Chemicals, and Other Fluids—Namely, Gate Valves, Globe Valves, Angle Valves, Cross Valves, Check Valves, Radiator Valves, Self-Closing Valves, Whistle Valves, Fluid Gun Valves, Air Gun Valves, Safety Valves, Foot Valves, Y Valves, Filter Valves, Blow-Off Valves, and Steam Traps.
First use May 1, 1956.

SN 10,235. Mueller Co., Decatur, Ill. Filed June 15, 1956.

**EXTROSEAL**

For Gas Service Valves.
First use Apr. 11, 1956.

## CLASS 15

## OILS AND GREASES

SN 698,063. Minnesota Farm Bureau Service Company, St. Paul, Minn. Filed Sept. 21, 1956.

**GOPHER-PENN**

The drawing is lined for the color black but color is not claimed as part of the mark.
For Oils and Greases.
First use Mar. 1, 1939.

SN 698,064. Minnesota Farm Bureau Service Company, St. Paul, Minn. Filed Sept. 21, 1956.

**GOPHER BOND**

The drawing is lined for the color black but color is not claimed as part of the mark.
For Oils and Greases.
First use Mar. 1, 1939.

SN 699,597. S. A. R. O. M. Societa Azionaria Raffinazione Olii Minerali, Milan, Italy. Filed Dec. 7, 1955.

Saron **99**

Priority claimed under Sec. 44(d) on Italian application, filed June 10, 1955; Reg. No. 125,433, dated Nov. 5, 1955. The number "99" is disclaimed apart from the mark as shown.
For Motor Fuels, Diesel Oil, Gasoil, Kerosene, Stove Oil.

SN 1,612. Menorah, Rubenstein Bros., Tel-Aviv, Israel. Filed Jan. 27, 1956.



Owner of Israelian Reg. No. 13,187, dated Oct. 11, 1953.
For Candles.
First use 1936; in commerce 1949.

## CLASS 16

## PROTECTIVE AND DECORATIVE COATINGS

SN 699,740. Pratt & Lambert-Inc., Buffalo, N. Y. Filed Dec. 9, 1955.

*Calibrated Colors*

No claim is made to exclusive use of the word "Colors" apart from the mark shown.
For Colorant Added to Base Enamel, Paint, or Wall Covering, To Obtain a Finished Colored Product.
First use Sept. 8, 1955.

SN 5,851. La France Manufacturing Co., St. Louis, Mo. Filed Apr. 5, 1956.

**FRANKOTE**

For Chemical Composition in Liquid or Powder Form for Producing a Protective Coating on Metal.
First use June 1955.

## CLASS 18

## MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 644,670. Heyden Chemical Corporation, New York, N. Y., to Multibiotics Corporation of America, Baltimore, Md. Filed Apr. 3, 1953.

**MULTIBIOTIC**

For Antibiotic Impregnated Gauze Pads and Bandages for Use as Sterile Dressings, and Mixtures of Antibiotics.
First use November 1951 on antibiotic impregnated pads.

SN 669,110. General Electric Company, Milwaukee, Wis. Filed June 29, 1954.

**VERI-O-PAKE**

For Mixture of Barium Sulfate and Other Ingredients, Including Pectin.
First use in or about July 1949.

SN 669,919. Schenley Distillers, Inc., New York, N. Y. Filed July 13, 1954.

**FERMAGENE**

For Feed Supplement for Poultry and Cattle.
First use Mar. 8, 1954.

SN 693,121. Brett Pharmaceuticals, Inc., Richmond, Va. Filed Aug. 16, 1955.




The drawing is lined for red but no claim is made to the color red.
For Antispasmodic Tablets.
First use Aug. 22, 1951.



SN 698,543. The Norwich Pharmacal Company, Norwich, N. Y. Filed Nov. 18, 1955.

**SUPER-GEL**

For Laxative Preparation.
First use Nov. 4, 1955.

SN 543. C. H. Boehringer Sohn, Ingelheim am Rhine, Germany. Filed Jan. 12, 1956.

**ALCAIN**

Owner of German Reg. No. 239,888, dated Oct. 2, 1925.
For Local Anesthetic.

SN 544. C. H. Boehringer Sohn, Ingelheim am Rhine, Germany. Filed Jan. 12, 1956.

**BEROMYCIN**

Owner of German Reg. No. 650,344, dated Dec. 19, 1953.
For Medicines, i. e. Antibiotics.

SN 545. C. H. Boehringer Sohn, Ingelheim am Rhine, Germany. Filed Jan. 12, 1956.

**CENTALUN**

Owner of German Reg. No. 339,889, dated Oct. 2, 1925.
For Sedative and Hypnotic Preparations.

SN 547. C. H. Boehringer Sohn, Ingelheim am Rhine, Germany. Filed Jan. 12, 1956.

**DETORMENT**

Owner of German Reg. No. 394,016, dated Nov. 7, 1928.
For Analgesic.

SN 552. C. H. Boehringer Sohn, Ingelheim am Rhine, Germany. Filed Jan. 12, 1956.

**LONARID**

Owner of German Reg. No. 502,005, dated May 5, 1938.
For Preparation for Treating Common Colds.

SN 2,483. Alex B. Del Bueno, d. b. a. Dell & Holtz, Plainfield, N. J. Filed Feb. 2, 1956.

**NUE**

For Antiseptic Mouthwash Gargle Concentrate.
First use Feb. 2, 1948.

SN 3,444. Moorman Manufacturing Company, Quincy, Ill. Filed Feb. 27, 1956.

**MOORMABOOST**

Owner of Reg. Nos. 354,501 and 513,104.
For Livestock and Poultry Feed Supplement Containing an Antibiotic Vitamin.
First use Jan. 13, 1956.

SN 4,118. Foster-Milburn Company, Buffalo, N. Y. Filed Mar. 8, 1956.

**SEBULYTIC**

For Special Combination of Cleansing and Wetting Agents for Use in a Medicinal Preparation for the Treatment of Seborrheic Dermatitis and Acne.
First use Mar. 1, 1956.

SN 5,046. Parke, Davis & Company, Detroit, Mich. Filed Mar. 22, 1956.

**CIROTYL**

Owner of Reg. No. 618,111.
For Laxative.
First use Sept. 13, 1955.

SN 6,137. Societe des Usines Chimiques Rhone-Poulenc, Paris, France. Filed Apr. 10, 1956.

**STEMETIL**

Priority claimed under Sec. 44(d) on French Reg. No. 456,521, dated Mar. 16, 1956 (Paris); Natl. Inst. No. 70,752.
For Medicinal or Pharmaceutical Preparation for Use as a Tranquilliser, Prevention of Nausea, and Treatment of Headaches.

SN 7,479. Bristol Laboratories Inc., New York, N. Y. Filed May 2, 1956.

**POLYNIZED**

For Antibiotic Pharmaceutical Preparation.
First use Dec. 23, 1955.

SN 7,603. Lakeside Laboratories, Inc., Milwaukee, Wis. Filed May 3, 1956.

**CATRON**

For Tablet Medication Intended for the Relief of Tension.
First use Mar. 29, 1956.

SN 7,604. Lakeside Laboratories, Inc., Milwaukee, Wis. Filed May 3, 1956.

**DITRAL**

For Tablet Medication Intended for Anti-Convulsant Therapy.
First use Mar. 29, 1956.

SN 7,624. Professional Pharmacal Co., Inc., San Antonio, Tex. Filed May 3, 1956.

CELOCAINE

For Ophthalmic Preparation.
First use Apr. 3, 1956.

SN 8,717. Smith Kline & French Laboratories, Philadelphia, Pa. Filed May 21, 1956.

**COMPAZINE**

For Central Nervous System Depressant Especially Useful as an Anti-Nauseant and Sedative.
First use May 10, 1956.

SN 11,450. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 256,109, 533,796, and others.
For Chemical Preparation for Veterinary Use as an Antiseptic and Germicide.
First use June 4, 1956.

SN 15,401. A. H. Robins Company, Inc., Richmond, Va. Filed Sept. 10, 1956.

NEURAXIN

For Muscle Relaxant Medicinal Preparation.
First use May 10, 1956.

CLASS 19

VEHICLES

SN 2,468. Northern States Equipment, Inc., d. b. a. Northern States Marine, and N. S. M., Richland Center, Wis. Filed Feb. 10, 1956.

SabreCraft

For Marine Watercraft of the Small Boat Type and Boat Oars.
First use Apr. 18, 1955.

SN 9,142. Goliath-Werk G. m. b. H., Bremen, Germany. Filed May 28, 1956.

GOLIATH

For Automotive Vehicles—Namely, Passenger Vehicles, Trucks, Tricycles for Use by Adults, Truck Tractors and Structural Parts Thereof.
First use Oct. 25, 1955; in commerce Oct. 25, 1955.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 643,729. Siemens-Schuckertwerke Aktiengesellschaft, Erlangen, Germany. Filed Mar. 16, 1953.

Protos

Owner of German Reg. No. 362,212, dated Jan. 10, 1927.
For Electrical Appliances—Namely, Vacuum Cleaners, Fans, Kitchen Ranges, Hot Plates, Roasters, Toasters, Space Heaters, Immersion Heaters, Heating Pads, Flat Irons, Water Heaters, House Service Pumps, and Electric Components and Electric Wiring and Control Accessories for Said Electric Appliances.

SN 663,954. The Antenna Specialists Company, Cleveland, Ohio. Filed Mar. 22, 1955.

BASEBALL

Owner of Reg. No. 391,075.
For Antennas.
First use on or about Feb. 18, 1955.

SN 687,281. Gramer-Halldorson Transformer Corporation, Chicago, Ill. Filed May 11, 1955.

MINIFORMER

Owner of Reg. No. 596,469.
For Transformers, Particularly Transformers Adapted for Use With Transistors.
First use Apr. 18, 1955.

SN 691,002. Bourns Laboratories, Inc., Riverside, Calif. Filed July 11, 1955.

RESISTRON

For Electrical Resistance Elements.
First use Jan. 22, 1954.

SN 696,783. Electriduct Company, Casper, Wyo. Filed Oct. 20, 1955.

ELECTRIDUCT

For Electric Extension Cord.
First use July 28, 1955.

SN 697,695. Pacific Solenoids, Inc., El Segundo, Calif. Filed Nov. 4, 1955.

PACSOL

For Torque or Rotary Solenoids.
First use Oct. 4, 1955.

SN 697,751. Balanced Foods, Inc., New York, N. Y. Filed Nov. 7, 1955.

BALANCED FOOD

For Electric Juicer.
First use on or about Sept. 1, 1955.

SN 697,752. Balanced Foods, Inc., d. b. a. Extract-All Co., New York, N. Y. Filed Nov. 7, 1955.

EXTRACT-ALL

For Electric Juicer.
First use on or about Sept. 1, 1955.

SN 698,349. General Motors Corporation, Detroit, Mich. Filed Nov. 16, 1955.

WONDER BAR

For Radio Receiving Sets and Parts Thereof for Motor Vehicles.
First use Nov. 7, 1955.



SN 698,394. United States Rubber Company, New York, N. Y. Filed Nov. 16, 1955.

USCOR

For Electrical Wire and Cables.
First use Oct. 31, 1955.

SN 698,433. Integra AG. Zurich Industrietechnische Gesellschaft, Zurich, Switzerland. Filed Nov. 17, 1955.

DOMINO

Priority claimed under Sec. 44(d) on Swiss Reg. No. 156,079, dated May 18, 1955.
For Electric Control Panels Destined for Interlocking Systems for Railways, Electric Remote Control Systems for Sluices and Mines; Electric Transmitting and Electric Intercommunicating Systems.

SN 699,058. Cambridge Thermionic Corporation, Cambridge, Mass. Filed Nov. 29, 1955.

PERMA-TORQ

For Electrical Components With Mounts—Namely, Capacitors and Coil Forms.
First use Aug. 3, 1956.

SN 699,062. Krim-Ko Corporation, Chicago, Ill. Filed Nov. 29, 1955.

KRIM-KOLATOR

Owner of Reg. Nos. 267,360 and 442,075.
For Hot Beverage Dispenser With Electrically Driven Agitator.
First use on or about Sept. 17, 1954.

SN 699,361. Burndy Engineering Company, Inc., Norwalk, Conn. Filed Dec. 5, 1955.

UNILOK

For Multiple Electrical Connection Panel for Mounting in the Bulkhead of a Pressurized Aircraft.
First use July 15, 1954.

SN 699,962. Electric Power Door Company, Inc., Minneapolis, Minn. Filed Dec. 14, 1955.

Electric Doorman

For Electric Operators for Opening Garage Doors and the Like.
First use July 18, 1930.

SN 700,455. Integra Ag. Zürich Industrietechnische Gesellschaft, Zurich, Switzerland. Filed Dec. 22, 1955.

INTEGRA

Owner of Swiss Reg. No. 134,631, dated Aug. 4, 1950.
For Electric Railway Signalising and Control Apparatus, and Parts Thereof.

SN 700,653. Reeves Equipment Corporation, New York, N. Y. Filed Dec. 27, 1955.

GRAMPIAN

For Feedback Cutter Heads, Amplifiers and Power Units for Use With Cutter Heads To Reduce Distortion and To Stabilise Operation in Sound Recording Systems.
First use 1951.

SN 700,795. Kord Manufacturing Co., Inc., New York, N. Y. Filed Dec. 29, 1955.

KATON

For Electric Appliances—Namely, Pedestal Fans, Desk Fans, Hassock Fans, Window Fans, Portable Stoves, Combination Fans and Heaters, Casserole Skillets, Cooker-Fryers, and Pressing Irons.
First use Sept. 15, 1955.

SN 440. Pickering Associates, Inc., Oceanside, N. Y. Filed Jan. 10, 1956. Sec. 2(f).

PICKERING

For Sound Reproducers, Specifically Phonograph Pickup Cartridges; Styli and Styli Assemblies for Phonograph Pickup Cartridges; Amplifiers and Pre-Amplifiers; Audio Input Systems; Recording Equalisers; Phonograph and Solenoids.
First use in or about June 1948.

SN 441. Pickering Associates, Inc., Oceanside, N. Y. Filed Jan. 10, 1956.



For Sound Reproducers, Specifically Phonograph Pickup Cartridges; Styli and Styli Assemblies for Phonograph Pickup Cartridges; Amplifiers and Pre-Amplifiers; Audio Input Systems; Recording Equalisers; Phonograph Tone Arms; Loudspeakers and Solenoids.
First use in or about August 1946.

SN 442. Pickering Associates, Inc., Oceanside, N. Y. Filed Jan. 10, 1956.

FLUXVALVE

For Sound Reproducers, Specifically Phonograph Pickup Cartridges, and Styli and Styli Assemblies for Phonograph Records.
First use in or about May 1955.

SN 574. Commercial Controls Corporation, Rochester, N. Y. Filed Jan. 12, 1956.

TELEDATA

For Printing Telegraph Communication Equipments, Including Code Converters and Reconverters Therefor.
First use Nov. 11, 1955.

SN 854. Walker Electrical Company, Inc., Atlanta, Ga. Filed Jan. 16, 1956.

Uni-Pak

For Fusible Electrical Service Entrance Equipment—Namely, Fuse Panels, Switches, Circuit Makers and Breakers, Boxes, and Covers.
First use Nov. 9, 1955.

SN 1,263. Fred A. Niles Productions, Inc., Chicago, Ill. Filed Jan. 23, 1956.

CAMTRONIC

For Parallex Correction Plate, Provided With Cams and Gears, for Synchronously Coupling a Motion Picture and Tele-

vision Camera and Used in Connection With Filming Shows for Television.
First use Jan. 13, 1956.

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SN 2,363. Kourtesy Kontrol Co., Des Moines, Iowa. Filed Feb. 9, 1956.

KOURTESY KONTROL

For Electric Control Apparatus for Visually Indicating the Occupied or Vacant Status of a Public Rest Room at a Location Remote From the Rest Room and for Providing a Remote Control for the Rest Room Door.
First use on or about Jan. 24, 1956.

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SN 2,499. Carpenter Manufacturing Company, Boston, Mass. Filed Feb. 13, 1956.

AUTOMATALITE

For Battery Operated Automatic Emergency Lights.
First use Jan. 9, 1956.

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SN 2,518. Gerhard Richard Fisher, East Palo Alto, Calif. Filed Feb. 13, 1956.

Tel-O-Aid

For Telephone Amplifiers.
First use Nov. 15, 1955.

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SN 2,921. Socony Mobil Oil Company, Inc., New York, N. Y. Filed Feb. 17, 1956.

MOBILECT

Owner of Reg. Nos. 129,237, 601,132, and others.
For Electrical Insulating Oils.
First use Dec. 28, 1955.

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SN 3,002. Matsushita Denki Sangyo Kabushiki Kaisha, Kadoma-cho, Kitakawachi-gun, Osaka Prefecture, Japan. Filed Feb. 20, 1956.

PanaSonic

Priority claimed under Sec. 44(d) on Japanese application No. 27,134/1955, filed Oct. 5, 1955; Reg. No. 483,598, dated June 29, 1956.
For Loud Speakers and Microphones and Other Public Address Systems, and Magnetic Recorders.

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SN 6,484. Tweco Products Company, Wichita, Kans., to Tweco Products, Inc., Wichita, Kans. Filed Apr. 16, 1956.

TWECO-LITE

Owner of Reg. Nos. 545,200 and 545,201.
For Insulated Electrical Conduit Made of Twisted Aluminum Wire Strands.
First use Jan. 21, 1955.

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SN 9,501. Allen Ro-Tana Company, Biloxi, Miss. Filed June 4, 1956.

ALLEN RO-TANA

For Antenna Rotors.
First use Jan. 1, 1954.

SN 9,738. Phelps Dodge Copper Products Corporation, New York, N. Y. Filed June 6, 1956.

PERMA-DURE

For Electric Cables.
First use on or about Sept. 28, 1954.

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SN 9,740. Phelps Dodge Copper Products Corporation, New York, N. Y. Filed June 6, 1956.

Foamflex

For Electric Cables.
First use on or about Nov. 18, 1955.

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SN 9,923. Allen Electric and Equipment Company, Kalamazoo, Mich. Filed June 11, 1956.

TRU-CHARGE

For Battery Chargers.
First use May 2, 1956.

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SN 10,040. Trio Manufacturing Co., Griggsville, Ill. Filed June 11, 1956.

ZEPHYR

For Television Antennas.
First use May 27, 1955.

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SN 10,041. Trio Manufacturing Co., Griggsville, Ill. Filed June 11, 1956.

ZEPHYR ROYAL

For Television Antennas.
First use Aug. 19, 1955.

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SN 10,104. Radio Corporation of America, New York, N. Y. Filed June 12, 1956.

Memoplay

For Electronic Device for the Recording and Reproduction of Sounds.
First use Mar. 5, 1956.

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CLASS 22

GAMES, TOYS, AND SPORTING GOODS

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SN 673,121. Parker Brothers, Inc., Salem, Mass. Filed Sept. 13, 1954.

HOLLYWOOD GO

For Board Game Played With Movable Pieces.
First use Mar. 8, 1954.



SN 680,660. Chicago Roller Skate Company, Chicago, Ill., to The Chicago Roller Skate Company, Chicago, Ill. Filed Jan. 28, 1955.

"CHICAGO"
GOLD MEDALIST

Owner of Reg. Nos. 400,292, 511,987, and 563,043.
For Roller Skates.
First use Dec. 17, 1954.

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SN 6,735. Louis Marx & Company, Inc., New York, N. Y. Filed Apr. 19, 1956.

BIG BRAIN

For Toy Vehicles.
First use Apr. 4, 1956.

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SN 6,897. Bromo-Mint Co., Inc., d. b. a. Kenner Products Company, Cincinnati, Ohio. Filed Apr. 23, 1956.

TrickSquirt

For Water Pistols.
First use Mar. 13, 1956.

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SN 7,255. M. B. Lamar, Sr., Falls Church, Va. Filed Apr. 27, 1956.

MONEY BACK LURES

No claim is made to the word "Lures" apart from the mark as shown.
For Artificial Fish Lures.
First use in February 1955.

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SN 7,317. Chant and Allen Enterprises, Minneapolis, Minn. Filed Apr. 30, 1956.

BUMPSEY

For Board Game Employing Playing Pieces and Dice for Determining the Movement of the Pieces on the Board.
First use Apr. 24, 1956.

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SN 7,810. Bernard J. Koreen, Port Arthur, Ontario, Canada. Filed May 7, 1956.

SKIRMISH

Owner of Canadian Reg. No. 102,320, dated Jan. 6, 1956.
For Games of Skill and Chance Employing Toys and Pegs Placed in a Player's Board.

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SN 8,035. J. Chein & Company, Burlington, N. J. Filed May 10, 1956.

COL-R-TONE

For Spinning Tops.
First use Jan. 16, 1956.

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SN 8,365. Tudor Metal Products Corporation, Brooklyn, N. Y. Filed May 15, 1956.

tudor

For Football Games, Baseball Games, Basketball Games, Horse Racing Games, and Musical Toys.
First use Apr. 20, 1940, on musical toys.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

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SN 663,921. Paul Kobler, d. b. a. Kobler Shaver Co., Lynbrook, N. Y. Filed Apr. 5, 1954.



For Electric Shavers.
First use April 1950.

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SN 673,157. Arrow Tools, Incorporated, Chicago, Ill. Filed Sept. 14, 1954.

Arrow

For Chisels for Use With Pneumatic Drive Tools; Moisture and Dirt Traps, Regulators, and Lubricators for Use on Pneumatic Lines and Parts Therefor.
First use Jan. 1, 1914.

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SN 680,171. John Ahlin and Sons, Incorporated, Bridgeport, Conn. Filed Jan. 20, 1955.

PENGUIN PETE

For Scissors.
First use Nov. 29, 1954.

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SN 700,138. Union Manufacturing Company, New Britain, Conn. Filed Dec. 16, 1955.

UNION MFG. CO. NEW BRITAIN, CONN. U.S.A.

Owner of Reg. Nos. 515,620 and 125,852.
For Die Sets.
First use Nov. 1, 1955.

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SN 700,456. International Harvester Company, Chicago, Ill. Filed Dec. 22, 1955. Sec. 2(f).

ReNEWed

For Parts for Motor Vehicles Including Wheel-Brake Booster Cylinders, Carburetors, Clutch Discs, Clutch Pressure Plates, Water Pump Assemblies and Engine Crankshafts.
First use May 15, 1951.

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SN 700,917. R. Wallace & Sons Manufacturing Company, Wallingford, Conn. Filed Dec. 30, 1955.

SAYBROOK

For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons.
First use Dec. 5, 1955.

SN 460. Utica Cutlery Company, Utica, N. Y. Filed Jan. 10, 1956.

## SUMMIT

For Table Knives, Forks and Spoons, and Pie Knives, All of Base Metal.
First use Oct. 10, 1955.

SN 3,555. Sepraton (New Jersey), Inc., New York, N. Y. Filed Feb. 28, 1956.

## CAVIMAT

For Processing Machines.
First use Jan. 19, 1956.

SN 5,027. Chore-Time Equipment, Inc., Milford, Ind. Filed Mar. 22, 1956.

## EGG QUEEN

For Egg Washing Machines.
First use Nov. 3, 1955.

SN 6,470. Robins Industries Corp., Bayside, N. Y. Filed Sept. 18, 1956.

## GIBSON GIRL

For Hand-Operated Devices for Cutting and Splicing Recording Tapes.
First use Aug. 6, 1954.

SN 7,964. H. A. Astlett & Co. Inc., New York, N. Y. Filed May 9, 1956.

## JAKOPA

For Sausage Meat Cutting Knives.
First use May 25, 1955.

SN 7,972. William H. Field Co., Inc., Boston, Mass. Filed May 9, 1956.



For End Mill Grinders, Cutter Grinders, and Accessories, and Parts Thereof.
First use Mar. 6, 1956.

SN 8,047. Airosprayer Company, Neodesha, Kans., to J. Leon Fawcett, Neodesha, Kans. Filed May 10, 1956.

## SPRAYMATE

For Sprayers for Insecticide and the Like.
First use Dec. 2, 1955.

SN 8,059. Club Razor & Blade Mfg. Co., Newark, N. J. Filed May 10, 1956.




Applicant disclaims the words "Double Edge," "Highest Quality," and "Blue Razor Blades."
For Razor Blades.
First use Dec. 10, 1948.

SN 8,081. Kent-Moore Organization, Inc., Detroit, Mich. Filed May 10, 1956.

## KM

Owner of Reg. No. 557,481.
For Hand, Cutting, Reaming, Cleaning, Tightening, Bending, Driving, Pulling, Lifting, Aligning, Inserting, Compressing, Clamping, Holding and Work Piece Supporting Tools for Use in the Service and Repair of Diesel Engines, Injectors, Fuel Pumps, Water Pumps, Oil Pumps, Blowers, Clutches, Power Take-Off Devices, Governors, Torque Converters, Gear Boxes and Transmissions.
First use on or about Jan. 1, 1942.

SN 8,146. Oneida Ltd., Oneida, N. Y. Filed May 11, 1956.

## SHORELINE

For Stainless Steel Flat Tableware.
First use Apr. 17, 1956.

SN 8,279. Superior Scaffold Company, Culver City, Calif. Filed May 14, 1956.

## FEATHER ROD

For Plasterers' Hand Finishing Tool.
First use on or about Apr. 27, 1956.

SN 8,303. Floyd M. Williamson, Detroit, Mich. Filed May 14, 1956.

## Didro

For Intensifier Units for Presses and Mechanisms for Controlling Movement of Pads in Dies.
First use Dec. 12, 1955.

SN 8,304. Wilson Jones Company, Chicago, Ill. Filed May 14, 1956.

## BUDDY JR.

For Stapling Machines.
First use Sept. 12, 1955.

SN 8,380. Auto Electric & Service Corporation, Detroit, Mich. Filed May 16, 1956.

## DELMAR

For Carburetors.
First use Apr. 27, 1956.



SN 8,442. Scott-Atwater Manufacturing Company, Minneapolis, Minn. Filed May 16, 1956. Sec. 2(f).

## Scott-Atwater

For Outboard Motors.
First use 1946.

SN 8,638. The Dunham Company, Berea, Ohio. Filed May 21, 1956.

## CULTI-STUBBLE TREADER

For Agricultural Implement for Mulching.
First use on or about Apr. 1, 1954.

SN 8,696. Reed Roller Bit Company, Houston, Tex. Filed May 21, 1956.




For Roller Type Earth Drilling Bits; Scrape Type Earth Drilling Bits; Bit Break Out Plates for Receiving and Holding Earth Drilling Bits While Connecting and Disconnecting Them From Drill Stems; Tool Joints for Drill Stems; Earth Drilling Core Bits and Wire Line Retractable Core Barrels Therefor, Both Protruding and Non-Protruding Types; Drill Collars; Drilling Substitutes Such as Threaded Coupling Joints or Members; Earth Bore Hole Reamers; Earth Drilling Pilot Bits; Earth Drilling Core Bits and Non-Retractable Core Barrels for Use Therewith; Earth Drilling Basket Bits Adapted To Trap and Remove Lost Non-Drillable Parts From an Earth Bore Hole; and Parts Therefor.
First use in January 1953.

SN 8,777. E. D. Jones and Sons Company, Pittsfield, Mass. Filed May 22, 1956. Sec. 2(f).

## JONES

For Paper Making Machinery—Namely, Beaters and Rolls Therefor, Jordans and Fillings and Plugs Therefor, Refiners and Plugs Therefor, Screens, Pulpers, Disintegrators, Washers, Bleachers, Dusters, Chests, Slices, and Filters.
First use during 1947.

SN 9,210. R. Wallace & Sons Manufacturing Company, Wallingford, Conn. Filed May 26, 1956.

## KUNGSHOLM

For Stainless Steel Flatware—i. e., Knives, Forks, and Spoons.
First use May 5, 1956.

SN 9,391. Roy H. Poorman, d. b. a. Poorman Aircraft Service, Canton, Ohio. Filed May 31, 1956.

## HANGAR BOY

For Windlass for Air and Water Craft.
First use Feb. 20, 1956.

SN 9,419. Raymond Woomer, Glencoe, Minn. Filed May 31, 1956.

## GRIND-O-MIX

For Combination Hammer Mills and Mixers.
First use Mar. 24, 1956.

SN 9,915. Gardner-Denver Company, Denver, Colo. Filed May 23, 1956.

## K-MATIC

For Feeding Devices for Drills.
First use Mar. 28, 1956.

### CLASS 26

### MEASURING AND SCIENTIFIC APPLIANCES

SN 667,983. Robertson Photo-Mechanix, Inc., Chicago, Ill. Filed June 9, 1954.

## MASK-O-MATIC

For Cameras.
First use on or about May 19, 1954.

SN 672,891. Herbert George Company, Chicago, Ill. Filed Sept. 8, 1954.

## IMPERIAL GREY-REFLEX

The term "Reflex" is disclaimed when used separate and apart from the mark.
For Cameras and Parts Thereof.
First use Aug. 25, 1954.

SN 678,505. B & H Instrument Company, Incorporated, Fort Worth, Tex. Filed Dec. 17, 1954.



For Devices for Testing Heat Sensing Units.
First use Aug. 16, 1954; and on Apr. 19, 1954, as to "Takcal."

SN 679,577. Heyer Industries Incorporated, Belleville, N. J. Filed Jan. 7, 1955.

## MOTOR X-RAY

For Electrically Operated Apparatus for Testing and Indicating General Efficiency and Condition of Internal Combustion Engines in Conjunction With Adjustment and Tuning Thereof.
First use Dec. 7, 1954.

SN 4,495. Trulite Corporation, Los Angeles, Calif. Filed Mar. 13, 1956.

## TRULITE

For Automobile Headlight Aligning Units.
First use May 9, 1955.

SN 6,564. Taylor, Taylor & Hobson Limited, Leicester, England. Filed Apr. 17, 1956.

## TELE-PANCHRO

Owner of British Reg. No. 744,263, dated July 11, 1955.
For Lenses.

SN 6,565. Taylor, Taylor & Hobson Limited, Leicester, England. Filed Apr. 17, 1956.

**SPEED PANCHRO**

Owner of British Reg. No. 638,696, dated July 17, 1945.
For Photographic Lenses.

SN 6,687. The Brearley Company, Rockford, Ill. Filed Apr. 19, 1956.

**REGENT**

For Weighing Scales.
First use Oct. 28, 1955.

SN 6,781. American Speedlight Corporation, Middle Village, N. Y. Filed Apr. 20, 1956.

**ascorlight**

For Electronic Flash Apparatus in Which a Capacitor Is Charged and Thereafter Discharged Through a Gas-Filled Tube To Produce a Flash of Light.
First use Apr. 15, 1955.

SN 7,391. Summit-Roberts Products, Inc., Toledo, Ohio. Filed Apr. 30, 1956.

**CONTOUR-O-SCOPE**

For Instruments for Measuring the Dimensional Accuracy of Three-Dimensional Parts and Products.
First use Apr. 20, 1956.

SN 7,512. Kono Manufacturing Co. Inc., Woodside, N. Y. Filed May 2, 1956.

KONO K

Owner of Reg. Nos. 399,899 and 410,920.
For Eyeglass and Spectacle Frames and Parts Therefor, Including Nosepieces, Temples, and the Like.
First use April 1946.

SN 7,514. Kono Manufacturing Co. Inc., Woodside, N. Y. Filed May 2, 1956.

**KONO**

Owner of Reg. Nos. 399,899 and 410,920.
For Eyeglass and Spectacle Frames and Parts Therefor, Including Nosepieces, Temples, and the Like.
First use April 1946.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

SN 689,499. The Lux Clock Manufacturing Company, Waterbury, Conn. Filed June 14, 1955.

**VENUS**

For Clocks—Namely, Boudoir, Desk, Mantle, and Alarm Clocks.
First use May 13, 1955.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

SN 5,997. Glamour Jewelry Inc., Providence, R. I. Filed Apr. 9, 1956.

**SNAP-IT**

For Earrings.
First use Apr. 3, 1956.

SN 10,692. The Kinney Company, Providence, R. I. Filed June 21, 1956.

K

For Jewelry—Namely, Rings, Pins, Bracelets, Lockets, Chains, Buckles, Tie Clips, Cuff Links, Money Clips, Medals, and Badges, Made of Precious and Semi-Precious Metals.
First use January 1906.

## CLASS 30

## CROCKERY, EARTHENWARE, AND PORCELAIN

SN 10,868. Gladding, McBean & Co., Los Angeles, Calif. Filed June 25, 1956.

**ENCORE**

For Dinnerware of Fine China.
First use June 13, 1956.

## CLASS 31

## FILTERS AND REFRIGERATORS

SN 2,757. Cold Corporation of America, Chicago, Ill. Filed Feb. 16, 1956.

**CHIP-FREEZE**

For Commercial Ice Making Machines.
First use Nov. 4, 1954.

SN 4,806. Koch Refrigerators, Inc., Kansas City, Kans. Filed Mar. 19, 1956.

SELL-O-VISION Styling

Owner of Reg. No. 236,997.
For Refrigerated Display Cases, Cooling Safes, and Refrigerators for the Preservation of Foodstuffs.
First use Jan. 30, 1956.



SN 6,347. The National Filter Media Corporation, New Haven, Conn. Filed Apr. 13, 1956.

**POLYMAX**

For Filter Media.
First use Oct. 14, 1955.

SN 6,419. Freezette Sales Corporation, Detroit, Mich. Filed Apr. 16, 1956.

*Freez-ette*

For Refrigerators.
First use on or about Dec. 16, 1954.

## CLASS 32

## FURNITURE AND UPHOLSTERY

SN 3,938. Hagerty Company, Cohasset, Mass. Filed Mar. 6, 1956. Sec. 2(f) as to "Hagerty."

**HAGERTY MODERN**

No claim is made to the word "Modern" apart from the mark as a whole.
For Furniture—Namely, Chairs, Tables, Wall Shelves, and Book Cases, Chair Kits, Table Kits, Wall Shelf Kits, and Book Case Kits, Including Prefabricated Parts for Chairs, Tables, Wall Shelves, and Book Cases; Each of Said Kits Including Glue and/or Cement for Setting Up Said Kits.
First use Jan. 3, 1956; and October 1949 as to "Hagerty."

SN 7,062. The Basic-Witz Furniture Industries, Incorporated, Waynesboro, Va. Filed Apr. 25, 1956.



For Furniture, Case Goods—Namely, Dining Room and Bed Room Furniture.
First use Jan. 4, 1956.

SN 12,173. Louis Elliott Frey, Los Angeles, Calif. Filed July 16, 1956.

**BLANKETUCK**

For Beds, Bed Springs, and Bed Frames.
First use Jan. 10, 1956.

## CLASS 33

## GLASSWARE

SN 10,305. Ekco Products Company, Chicago, Ill. Filed June 15, 1956.

**EKCO**

For Glassware Including Beverage Making and Serving Pitchers, Drinking Vessels, and Mixing Bowls for Beater and Bowl Sets.
First use Nov. 1, 1944.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 721. Agricultural Equipment Corp., La Junta, Colo. Filed Jan. 16, 1956.

*Agri-Quip*

For Weed Burning Apparatus for Mounting on Tractors, Railway Cars, Etc., for Agricultural and Industrial Use.
First use on or about Dec. 1, 1952.

SN 7,406. Western Engineering and Manufacturing Co., Venice, Calif. Filed Apr. 30, 1956.



For Commercial and Industrial Ventilators.
First use Nov. 1, 1955.

SN 9,824. Surface Combustion Corporation, Toledo, Ohio. Filed June 7, 1956.

**JANITROL**

Owner of Reg. Nos. 278,558, 546,700, and others.
For Conversion Burners.
First use Apr. 5, 1930.

SN 10,276. Ald, Inc., Chicago, Ill. Filed June 15, 1956. Owner of Reg. No. 539,267.

**ALDHEET**

For Water Heaters.
First use Apr. 21, 1948.

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 8,557. Jordan-Rogers Company, Orange, Calif. Filed May 18, 1956.

JR

For Hose, and Particularly for Plastic Garden Hose.
First Use Feb. 8, 1955.

SN 9,375. The McCandless Corporation, New York, N. Y. Filed May 31, 1956.



The drawing is lined for red.
For Retread Material of Natural or Synthetic Rubber or Blends Thereof for Use in Retreading Automobile or Other Automotive Vehicle Tires, and Sometimes Known as "Camel-Back."
First use during 1936.

CLASS 37

PAPER AND STATIONERY

SN 680,521. C P S Manufacturing Company, Chicago, Ill. Filed Jan. 26, 1955.

CPS ROCKET SEAL

For Wrappers for Frozen Confections.
First use Oct. 28, 1954.

SN 684,986. Vereinigte Papierwerke Schickedans & Co., Nurnberg, Germany. Filed Apr. 5, 1955.



Owner of German Reg. No. 657,339, dated May 10, 1954.
For Cellulose Wiping Sheets and Tissues, Cellulose Handkerchiefs, Cellulose Napkins, and Cellulose Mats.

SN 695,479. Wilson Jones Company, Chicago, Ill. Filed Sept. 28, 1955.

ANCHOR

For Correspondence Envelopes.
First use Oct. 1, 1932.

SN 695,702. A. T. Cross Pencil Company, Providence, R. I. Filed Oct. 3, 1955.

CROSS

Owner of Reg. No. 526,855.
For Mechanical Pencils and Fountain Pens.
First use 1868.

SN 697,316. Wolf Brothers, Inc., Philadelphia, Pa. Filed Nov. 1, 1955.

SHADOW WEB

For Paper Bags.
First use Mar. 7, 1955.

SN 699,330. Lowe Paper Company, Ridgefield, N. J. Filed Dec. 2, 1955.




Owner of Reg. No. 313,200.
For Coated Boxboard, Tag Stock, Kraft Paper, Both Bleached and Natural Kraft, Wrapping Cellophane and Wrapping Laminated Foil.
First use Nov. 26, 1954.

SN 2,632. Erick A. Hahn, d. b. a. E. & H. Sales Company, Chicago, Ill. Filed Feb. 14, 1956.

STEPONS

For Sanitary Bath and Shower Mat Formed of Paper.
First use Aug. 11, 1954.

SN 3,939. International Formprint Company, New York, N. Y. Filed Mar. 6, 1956.

SNAP-RITE

For Printed Business Form Sets With Detachable Interleaved Carbon Sheets.
First use Jan. 1, 1956.

SN 4,186. Doeskin Products, Inc., New York, N. Y. Filed Mar. 9, 1956.

MAGIC

For Paper Towels.
First use Oct. 7, 1955.

SN 4,456. Island Manufacturing Company, Brooklyn, N. Y. Filed Mar. 13, 1956.

KWIK-KLIK IRRESISTIBLE

Owner of Reg. No. No. 614,436.
For Ball Point Pens Filled With Ink Having a Characteristic Odor and Smell.
First use May 2, 1955.

SN 6,527. A. Kimball Company, New York, N. Y. Filed Apr. 17, 1956. Sec. 2(f).

SUPER-MARKER

Owner of Reg. No. 540,928.
For Blank and Partially Printed Labels.
First use Sept. 22, 1947.



SN 7,416. Bemis Bro. Bag Company, St. Louis, Mo. Filed May 1, 1956. Sec. 2(f).

STAK-RITE

Owner of Reg. No. 578,930.
For Paper Bags.
First use July 19, 1950.

SN 7,534. Zellerbach Paper Company, San Francisco, Calif. Filed May 2, 1956.

POP-IN-DEX

For Loose Leaf Indexes.
First use Mar. 21, 1956.

SN 7,565. Brown Company, Berlin, N. H. Filed May 3, 1956.

PURO-FLEX

For Paper Particularly Useful as a Food Wrap.
First use Mar. 7, 1956.

CLASS 38

PRINTS AND PUBLICATIONS

SN 1,847. Israel A. Chase, d. b. a. Chase Paper Co., Worcester, Mass. Filed Feb. 1, 1956. Sec. 2(f).

The LOU-ART Line

For Wedding Invitations.
First use in January 1950.

SN 5,297. The Greenwich Junior Woman's Club, Incorporated, Greenwich, Conn. Filed Mar. 27, 1956.

The Link

For Magazine.
First use Feb. 27, 1953.

SN 5,916. The Construction Specifications Institute, Inc., Washington, D. C. Filed Apr. 6, 1956. Sec. 2(f).

THE CONSTRUCTION SPECIFIER

Owner of Reg. No. 542,499.
For Periodical.
First use July 21, 1949.

SN 6,304. United Feature Syndicate, Inc., New York, N. Y. Filed Apr. 12, 1956.

REVEREND

For Comic Drawings of a Fictitious Character, Published in Daily Newspapers.
First use Mar. 5, 1956.

CLASS 39

CLOTHING

SN 649,785. Icove & Young, Inc., New York, N. Y. Filed July 3, 1953.

Shah-Mere

For Ladies' and Misses' Suits.
First use Aug. 28, 1952.

SN 688,069. Palm Beach Company, Sanford, Maine. Filed May 23, 1955.

CELEBRITY

Owner of Reg. No. 603,040.
For Sport Shirts, Cotton Shirts, and Work Shirts.
First use Mar. 21, 1953.

SN 698,214. Laura M. Roberson and Beverly F. Pike, San Luis Obispo, Calif. Filed Nov. 14, 1955.

KARBON KOPY

For Wearing Apparel for Fathers and Sons and for Mothers and Daughters, Including Suits, Coats, Hats, and Dresses.
First use Apr. 8, 1953.

SN 699,760. James Byrd Anderson, Jr., Miami, Fla. Filed Dec. 12, 1955.

Jay Anderson

"Jay Anderson" is another name of the applicant, James Byrd Anderson, Jr.
For Women's Day Dresses, Cocktail Dresses, Sports Dresses, Evening Dresses, Belts, Swim Suits; Men's Sport Shirts, Sport Shorts, Belts, Swim Suits, Ties.
First use on or about Dec. 1, 1955.

SN 130. Jean Andy Togs Co., New York, N. Y. Filed Jan. 4, 1956.

NICKI MANN

For Misses' and Children's Sportswear—Namely, Shorts, Pedal Pushers, Slacks, Jumpers, Jackets, Skirts, Separates, Shirts, and Blouses.
First use on or about Oct. 5, 1955.

SN 2,239. Jonathan Logan, Inc., New York, N. Y. Filed Feb. 7, 1956.

## ALICE STUART

Owner of Reg. Nos. 412,750 and 601,904.
For Women's and Misses' Blouses, Skirts, Shorts, Playsuits, and Separates Consisting of Combinations of Skirts and Blouses, Shorts and Blouses, and Playsuits and Blouses.
First use June 1942.

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SN 4,227. Piedmont Shirt Company, Greenville, S. C. Filed Mar. 9, 1956.

## CLUB OXFORD

Applicant hereby disclaims the word "Oxford" apart from the mark as shown.
For Men's and Boys' Shirts, Undershirts, Under-Shorts, Pajamas, and Jackets.
First use May 6, 1955.

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SN 4,490. Sun-Dek of California Inc., San Francisco, Calif. Filed Mar. 13, 1956.

## SUN-DEK OF CALIFORNIA

Without waiving common law rights applicant makes no claim to the words "of California" apart from the mark as shown.
For Men's, Women's, Boys', and Children's Apparel—Namely, Bathing Suits, Swim Trunks, Play and Walking Shorts, Sport Shirts, Resort Sets Consisting of Shirt and Trunk Combinations, Beach Coats, Terry Cloth Jackets and Robes.
First use Apr. 8, 1955.
Subj. to Intf. with SN 698,673.

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SN 4,609. Michael Berkowitz Co., Inc., New York, N. Y. Filed Mar. 15, 1956.

Lord Berkleigh

Owner of Reg. Nos. 353,199 and 586,717.
For Men's Pajamas.
First use June 11, 1942.

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SN 4,653. The Manhattan Shirt Company, New York, N. Y. Filed Mar. 15, 1956.

## PILLOW-PAK

For Swim Wear—Namely, Bathing Trunks, Packaged in an Inflatable Bag.
First use Feb. 29, 1956.

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SN 4,934. Beryl Mills Inc., New York, N. Y. Filed Mar. 21, 1956.

Sandy Gordon

For Boys', Men's, and Children's Shirts.
First use Dec. 20, 1955.

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SN 4,939. Blue Anchor, Inc., Philadelphia, Pa. Filed Mar. 21, 1956.

## BLUE ANCHOR

For Dungarees for Men and Boys; Jeans and Shorts for Men, Women, and Children; Shirts for Women, Boys, and Girls; and Toreador Pants for Women and Girls.
First use Apr. 1, 1948.

SN 5,138. Top-O-Mart Clothes, Inc., Vineland, N. J. Filed Mar. 23, 1956.

WINTER HOUSE

Owner of Reg. No. 618,706.
For Men's Jackets, Suits, Overcoats, and Topcoats.
First use Mar. 1, 1956.

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SN 5,324. Shadowline, Inc., Morganton, N. C. Filed Mar. 27, 1956.

Shadow line

*Lingerie you'll like near you!*

The wording "Lingerie You'll Like Near You!" is disclaimed apart from the mark as shown. The drawing is lined for pink and black. Owner of Reg. No. 511,102.
For Ladies' Panties, Nightgowns, Slips, Bandeaux, Pajamas, Bed Jackets, Peignoirs, Robes, Pettiskirts, and Dressing Gowns.
First use Aug. 2, 1954.

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SN 5,934. Meyer Brothers, Paterson, N. J. Filed Apr. 6, 1956.

"Em Bee"

For Men's and Boys', Women's, Girls' and Misses', and Infants' Outer and Under Clothing, Swimwear, and Shoes.
First use Jan. 1, 1927.

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SN 6,278. Palm Beach Company, Portland, Maine. Filed Apr. 12, 1956.

## DJAKARTA

For Men's and Boys' Sport Coats.
First use Aug. 29, 1955.

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SN 6,289. Morris B. Sachs, Inc., Chicago, Ill. Filed Apr. 12, 1956.

## CRANDON

Owner of Reg. No. 401,624.
For Men's Top Coats, Men's Suits, Men's Over Coats.
First use Jan. 12, 1941.

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SN 6,367. Palm Beach Company, Portland, Maine. Filed Apr. 13, 1956.

## PANORA WEAVE

Applicant disclaims the word "Weave" apart from the mark as shown.
For Men's and Boys' Suits, Slacks, and Sport Coats.
First use Aug. 29, 1955.

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SN 6,405. Clover Knitting Mills, Inc., Philadelphia, Pa. Filed Apr. 16, 1956.

## WONDERCUNA

For Sweaters.
First use Jan. 15, 1956.



SN 6,733. Leyton Sportswear Company, New York, N. Y. Filed Apr. 19, 1956.

exclusive pheasantweeds by Leyton

The word "Exclusive" is disclaimed apart from the mark as shown.
For Ladies' Ready-to-Wear Skirts.
First use Feb. 24, 1956.

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SN 7,201. Lubin-Weeker Co., Inc., New York, N. Y. Filed Apr. 26, 1956.

## KID-SKIN

For Pajamas.
First use Apr. 12, 1956.

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SN 7,428. Louis Dekovnick, d. b. a. Cream of the Loom, New York, N. Y. Filed May 1, 1956.

Cream OF THE Loom

For Women's and Children's Panties and Slips, and Men's and Boys' Underwear—Namely, Undershirts and Undershorts.
First use Feb. 8, 1956.

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SN 7,893. Wilson Rubber Company, Canton, Ohio. Filed May 7, 1956.

## KANRY-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 7,922. Interwoven Stocking Company, New Brunswick, N. J. Filed May 8, 1956. Sec. 2(f).

Nu-Top

Owner of Reg. No. 338,396.
For Hosiery.
First use July 22, 1935.

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SN 8,064. Sarina D'Amato, d. b. a. Sarina Lingerie Co., New York, N. Y. Filed May 10, 1956.

## SARINA

For Ladies' and Girls' Petticoats and Slips.
First use Dec. 13, 1955.

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SN 8,337. Frank H. Kemper, d. b. a. Sportscot, Chicago, Ill. Filed May 15, 1956.

## SPORTSCOT

For Neckties.
First use on or about Oct. 18, 1955.

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SN 8,344. Garland Knitting Mills, Jamaica Plain, Mass. Filed May 18, 1956.

## DREAMGLOW

For Women's and Children's Sweaters.
First use Feb. 6, 1956.

SN 8,855. The Joseph Company, Chicago, Ill. Filed May 23, 1956.

## JO COE

For Women's and Children's Blouses, Sweaters, Shirts, Shorts, Pedal Pushers, Slacks, and Skirts.
First use on or about May 29, 1946, on blouses, sweaters, and shirts.

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SN 9,490. Renee Fashions, Inc., New York, N. Y. Filed June 1, 1956.

Renée Fashions

No claim is made to the word "Fashions" apart from the mark shown.
For Ladies' Coats.
First use Mar. 16, 1956.

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CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 630,924. Deering, Milliken & Co., Inc., New York, N. Y. Filed June 9, 1952. Sec. 2(f).

Look for the Silver Lining

For Textile Fabrics Made of Cotton, Rayon, Acetate, Nylon, and Mixtures Thereof.
First use Oct. 18, 1950.

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SN 690,653. Wm. Simpson, Sons & Co., Inc., New York, N. Y. Filed July 1, 1955. Sec. 2(f).

## SIMPSON'S

Owner of Reg. Nos. 45,540, 63,671, and 222,572.
For Textile Fabrics of All Types Including Sateens, Broadcloths, Poplins, Twills, and Percales.
First use in the year 1935.

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SN 695,273. Bocchese Giuseppe & Figli S. A. S., Vicenza, Italy. Filed Sept. 26, 1955.

Shantung SIMMONE Pure Silk

Applicant disclaims the words "Shantung" and "Pure Silk" apart from the mark as shown.
For Silk Fabrics.
First use March 1951; in commerce March 1953.



SN 9,500. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,501. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,502. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,503. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,504. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,505. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,506. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,507. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,508. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,509. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,510. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,511. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,512. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,513. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,514. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,515. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,516. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,517. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,518. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,519. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,520. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,521. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,522. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,523. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,524. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,525. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,526. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,527. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,528. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,529. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,530. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,531. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,532. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,533. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,534. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,535. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,536. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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For Rubber Gloves.
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SN 9,537. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

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First use on or about Oct. 1, 1936.

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SN 9,538. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,539. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
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SN 9,540. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,541. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,542. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,543. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

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SN 9,544. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,545. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,546. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

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First use on or about Oct. 1, 1936.

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SN 9,547. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

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SN 9,548. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,549. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,550. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,551. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,552. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,553. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,554. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,555. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,556. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,558. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,559. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,560. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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For Rubber Gloves.
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SN 9,561. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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SN 9,562. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,563. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

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SN 9,564. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,565. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,566. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,567. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,568. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,569. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,570. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,571. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

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First use on or about Oct. 1, 1936.

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SN 9,572. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,573. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,574. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,575. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,576. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,577. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,578. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,579. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,580. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,581. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,582. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,583. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,584. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,585. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,586. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,587. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,588. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,589. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,590. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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First use on or about Oct. 1, 1936.

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## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,593. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,594. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,595. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,596. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

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For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,597. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,598. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,599. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,600. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,601. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,602. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,603. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,604. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,605. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,606. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,607. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,608. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,609. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,610. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,611. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,612. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,613. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,614. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,615. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,616. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,617. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,618. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,619. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,620. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,621. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,622. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,623. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,624. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,625. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,626. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,627. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,628. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,629. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,630. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,631. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,632. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,633. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,634. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,635. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,636. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,637. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,638. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,639. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,640. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,641. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,642. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,643. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,644. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,645. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,646. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1, 1936.

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SN 9,647. Lee Rubber & Tire Corporation, Conshohocken, Pa. Filed June 1, 1956.

## LEE-TEX

For Rubber Gloves.
First use on or about Oct. 1,

SN 695,274. Bocchese Giuseppe & Figli S. A. S., Vicenza, Italy. Filed Sept. 28, 1955.

Shantung
SHANDA
Pure Silk

Applicant disclaims the words "Shantung" and "Pure Silk" apart from the mark as shown.
For Silk Fabrics.
First use July 1950; in commerce September 1951.

SN 695,614. Cotonificio Legler S. P. A., Ponte San Pietro, Italy. Filed Sept. 30, 1955.

## SABRINA

Priority claimed under Sec. 44(d) on Italian application filed Mar. 30, 1955; Reg. No. 124,846, dated Aug. 24, 1955.
For Printed Poplin Fabrics Made of Cotton.

SN 697,836. Proban Limited, London, England. Filed Nov. 7, 1955.

## PROBAN

Priority claimed under Sec. 44(d) on British Reg. Nos. 745,072 and 745,075, dated Aug. 9, 1955.
For Textile Piece Goods of Cotton, Wool, or Other Natural Fibres or Synthetic Fibres, Bed Sheets, Bed Covers, and Tapestries; Curtains, Pelmets, Tablecloths, Ribbons, Textile Carpets and Rugs, Floor Coverings When Made of Textile Fibres or Yarns, Lace Fabrics, and Embroidered Fabrics.

SN 698,530. Lonza Electric and Chemical Works Ltd., Basel, Switzerland. Filed Nov. 18, 1955.

## AIREX

Owner of Swiss Reg. No. 143,236, dated Aug. 7, 1952.
For Garment Lining Fabrics in the Bolt.

SN 49. John B. Ellison & Sons Co., Ltd., Los Angeles, Calif. Filed Jan. 3, 1956.

## PANAMAIRE

For Woolen Fabrics.
First use January 1942.

SN 61. The Forster-Willi Co., Columbus, Ohio. Filed Jan. 3, 1956.



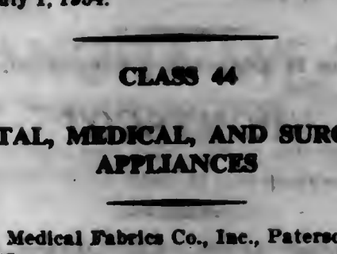
For Laces and Embroideries Sold as Piece Goods and by the Yard.
First use Jan. 31, 1947.

SN 2,235. Fieldcrest Mills, Inc., Spray, N. C. Filed Feb. 7, 1956.

## Karaleau

For Textile Rugs and Carpeting.
First use Dec. 30, 1955.

SN 7,446. Linton Tweeds Limited, Carlisle, Cumberland, England. Filed May 1, 1956.



The English equivalent of "Ornamentum Verum" is "adorn the truth." Owner of British Reg. No. 347,530, dated Nov. 29, 1912.
For Piece Goods of Wool, Worsted or Hair, or of Mixtures of These Materials.

SN 7,797. Haddad & Sons, Inc., New York, N. Y. Filed May 7, 1956.

## HADSON

For Sheets, Pillow Cases, Table Cloths, Towels, and Textile Rugs.
First use in 1921.

SN 8,454. Wamsutta Decorative Fabrics, Inc., New York, N. Y. Filed May 16, 1956.

## INNERGLOW

For Piece Goods, Made of Cotton and/or Synthetic Fibres.
First use Mar. 1, 1956.

### CLASS 43

### THREAD AND YARN

SN 3,153. Stephen H. Catron, d. b. a. Stephen H. Catron Co., New York, N. Y. Filed Feb. 23, 1956.

## NYLENE

For Yarn.
First use July 1, 1954.

### CLASS 44

### DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 697,383. Medical Fabrics Co., Inc., Paterson, N. J. Filed Oct. 31, 1955.

## FLEXIKON

For Elastic Adhesive Surgical Tape.
First use Oct. 21, 1955.



SN 698,002. John Weber, d. b. a. Permadent Laboratories, New York, N. Y. Filed Nov. 9, 1955.

## PERMADENT

For Dental Porcelains; Dental Restorations; Dental Wax Patterns; Stainless Steel Rings for Investing Wax Patterns; Gypsum Investment Compounds; Prefabricated Teeth; Sample Collection of Models Illustrating Porcelain Baked Directly to Precious Metal Alloy in Bridgework; Induction Brazer-Caster Dental Heaters and Dental Crucibles Therefor.
First use on about Jan. 1, 1953, for dental porcelains.

SN 6,296. Siemens & Halske Aktiengesellschaft, Munich, Germany. Filed Apr. 12, 1956.

## PHONOPHOR

Owner of German Reg. No. 187,974, dated Jan. 31, 1914.
For Hearing Aids.
First use on or about Sept. 12, 1913; in commerce before 1914.

SN 6,492. National Medical Pumps & Specialties Corp., Boonton, N. J. Filed Apr. 9, 1956.

## AERO-MIST

For Diaphragm Oil Free Air Compressor and Adjustable Plastic Vaporiser and Oxygen Tent.
First use Nov. 22, 1954.

SN 7,833. John Oster Manufacturing Co., Milwaukee, Wis. Filed May 7, 1956.

## Airjet

For Portable Electric Hairdryers.
First use Apr. 27, 1949.

SN 8,140. Mine Safety Appliances Company, Pittsburgh, Pa. Filed May 11, 1956.

## SUPER-GARD

For Head Supported Protective Shield.
First use on or about Dec. 15, 1950.
Subj. to Intf. with SN 8,140.

SN 8,212. Fenwal Laboratories, Inc., Framingham, Mass. Filed May 14, 1956. Sec. 2(f).

## BLOOD-PACK

Owner of Reg. No. 560,313.
For Kits and Packages of Flexible Containers, Flexible Tubing, and Hypodermic and Coupling Needles Constituting Blood Collecting Units, Blood Storing Units, and Blood Infusing Units.
First use on or about Aug. 1, 1950.

SN 8,435. Omega Precision Medical Instrument Co., Inc., Passaic, N. J. Filed May 16, 1956.

## STERISTAT

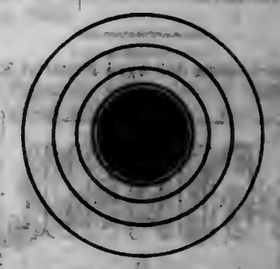
For Hypodermic Syringes.
First use Mar. 30, 1956.

SN 8,443. Sealon Products Company, Chicago, Ill. Filed May 16, 1956.

## SEALON

For Dental Material, Appliances, and Supplies—Namely, Preformed Patterns for the Construction of Dentures, Dental Wax, Rubber Wheels, Finishing Stones, Artificial Teeth (Plastic and Porcelain), Impression Material, Dental Stone, Tooth Shaded Resin, Denture Base Material, and Denture Wire.
First use Mar. 7, 1956.

SN 8,444. Sealon Products Company, Chicago, Ill. Filed May 16, 1956.



For Dental Material, Appliances, and Supplies—Namely, Preformed Patterns for the Construction of Dentures, Dental Wax, Rubber Wheels, Finishing Stones, Artificial Teeth (Plastic and Porcelain), Impression Material, Dental Stone, Tooth Shaded Resin, Denture Base Material, and Denture Wire.
First use Mar. 7, 1956, on preformed patterns for the construction of dentures.

### CLASS 45

### SOFT DRINKS AND CARBONATED WATERS

SN 697,477. House of Frothee, Inc., New York, N. Y. Filed Nov. 1, 1955. Sec. 2(f).

## FROTHEE

For Non-Alcoholic Liquid Extract Used in Preparing Cocktails and Other Beverages To Give Them a Creamy and Foamy Appearance.
First use 1945.

SN 698. Realemon-Puritan Co., Chicago, Ill. Filed Jan. 13, 1956. Sec. 2(f).

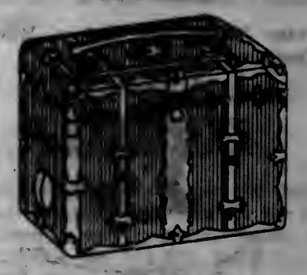
## REALEMON

Owner of Reg. Nos. 605,910, 408,150, and 526,163.
For Lemon Juice for Beverage Purposes; Orange and Lime Soft Drink, Non-Carbonated.
First use Sept. 30, 1935.

### CLASS 46

### FOODS AND INGREDIENTS OF FOODS

SN 672,639. Consolidated Tea Company, Inc., New York, N. Y. Filed Sept. 2, 1954.



The drawing is lined for red.
For Teas.
First use 1945.

SN 679,276. Anna M. De Carlo Pietropinto, d. b. a. A. D. Pietropinto, New York, N. Y. Filed Jan. 3, 1955.

PIZZETTA

For Cookies, Cakes, and Biscuits.
First use June 16, 1954.

SN 683,081. Exportadora del Agro Espanol S. A., Reus, Spain. Filed Dec. 6, 1954.




"Consul" is translated as "consul," "Espagne," "Spain"; and "Reus" is the town where applicant has its domicile. The words "Reus, Espagne" are disclaimed apart from the mark. Owner of Spanish Reg. No. 270,159, dated Sept. 5, 1953.
For Olive Oil.

SN 695,168. Vernal Merrill, d. b. a. Gordo's and/or Gordo's Mexican Food Products Company, Phoenix, Ariz. Filed Sept. 22, 1955.



For Quick Frozen Enchilada Dinner Consisting Principally of Cheese, Chilli Sauce, Water, Corn Tortillas, Olives, Re-Fried Beans, Salt, and Spices.
First use June 24, 1955.

SN 696,313. Nebraska Consolidated Mills Company, d. b. a. Alabama Flour Mills, Omaha, Nebr. Filed Oct. 12, 1955.

FERMA-GRO

For Poultry Mash Containing Poultry Growth Stimulant.
First use Sept. 8, 1955.

SN 697,629. Peter Jensen A/S, d. b. a. Milco, Copenhagen, Denmark. Filed Nov. 3, 1955.




For Dairy Products—Namely, Cheese.
First use prior to May 1, 1953; in commerce Nov. 1, 1954.

SN 697,758. Bradas & Gheens, Incorporated, Louisville, Ky. Filed Nov. 7, 1955.

MOTHERS

For Stick Candy.
First use December 1900.

SN 698,991. The J. Chas. McCullough Seed Company, d. b. a. Cincinnati Horticultural Products Co., Cincinnati, Ohio. Filed Nov. 28, 1955.

WILD BIRD DINER

For Wild Bird Seed in Dispensing Containers.
First use Sept. 9, 1955.

SN 699,656. Pasco Packing Co., Dade City, Fla. Filed Dec. 8, 1955.

OLD SOUTH

Owner of Reg. Nos. 399,470 and 556,957.
For Fresh Citrus Fruits, Fresh Frozen Citrus Juice Concentrates, Canned Citrus Fruit Juices, Fresh Frozen Grapefruit Sections, Canned Citrus Fruit Sections, and Canned Fruit Salad.
First use about 1924.

SN 661. E. Cherry Sons & Co., Inc., Philadelphia, Pa. Filed Jan. 13, 1956.

CHERRYDALE FARMS

Owner of Reg. No. 419,595.
For Candies, Salted Nuts, and Glace Fruits and Honey.
First use June 1, 1943.

SN 2,708. The Kroger Co., Cincinnati, Ohio. Filed Feb. 15, 1956. Sec. 2(f).

FRENCH BRAND

Owner of Reg. No. 110,892.
For Coffee.
First use in January 1885.

SN 2,746. California Packing Corporation, San Francisco, Calif. Filed Feb. 16, 1956.

DEL MONTE

Owner of Reg. Nos. 75,958, 286,244, and others.
For Fresh and Processed Food Products—Namely, Fresh Vegetables, Canned Fruits, Canned Vegetables, Canned Fruit Juices, Canned Fruit Nectars, Canned Fish, Dried Fruits, Raisins, Tomato Puree, Tomato Juice, Coffee; and Condiments—Namely, Tomato Catsup, Tomato Sauce, Tomato Paste, Chili Sauce, Pickles, Pickle Relishes, and Chili Peppers.
First use Oct. 1, 1891.

SN 3,422. Mavar Shrimp and Oyster Company, Ltd., Biloxi, Miss. Filed Feb. 27, 1956.

VICTOR SEA SWEET

For Shrimp, Oysters, and Crabs.
First use Dec. 28, 1955.



SN 3,740. E. F. Drew & Co., Inc., New York, N. Y. Filed Mar. 2, 1956. Sec. 2(f).

DRI-FREEZE

Owner of Reg. No. 536,833.
For Composition Containing Esters of Fatty Acids Having Hydrophyllic Properties To Be Added to Ice Cream Mixes During the Manufacture Thereof.
First use Apr. 4, 1949.

SN 4,207. Missouri Farmers Association, Inc., Columbia, Mo. Filed Mar. 9, 1956. COLLECTIVE MARK.




Owner of Reg. No. 179,476.
For Eggs—Namely, Shell Eggs, Dried Egg Solids and Frozen Liquid Eggs; and Fresh and Frozen Poultry.
First use Jan. 4, 1922.

SN 4,462. Maurice Lenell Cooky Company, Chicago, Ill. Filed Mar. 13, 1956.



"Maurice Lenell" is the name of one of the partners in the applicant firm, whose consent is of record.
For Cookies.
First use on or about Jan. 26, 1956.

SN 4,648. J. Leo Levy, Jr., d. b. a. Host Treat, Baltimore, Md. Filed Mar. 16, 1956.

HOST TREAT

For Pre-Packaged Coffee, Sugar, and Cream, Sold as a Unit.
First use Nov. 26, 1954.

SN 5,723. Dean L. Hopkins, d. b. a. Hopkins Seed Co., Oklahoma City, Okla. Filed Apr. 3, 1956.

Trofy-Dine

For Bird Food.
First use Nov. 6, 1954.

SN 5,752. White Bros. Poultry & Egg Co., Knoxville, Tenn. Filed Apr. 3, 1956.

Pride of the Flock

For Fresh Eggs and Dressed Poultry.
First use Jan. 1, 1950.

SN 5,987. Gene England, d. b. a. Santa Cruz Chili Company, Amado, Ariz. Filed Apr. 9, 1956. Sec. 2(f).

Santa Cruz

For Chili Powder, Chili Paste, Peeled Green Chili, and Hot Sauce.
First use in January 1946.

SN 6,090. Bay State Milling Co., Winona, Minn. Filed Apr. 10, 1956.

PAN ZIP

For Wheat Flour.
First use Mar. 12, 1956.

SN 6,377. A. E. Staley Manufacturing Company, Decatur, Ill. Filed Apr. 13, 1956.

STA-SWEET

For Feed for Cattle in Pellet Form.
First use Sept. 16, 1955.

SN 6,518. Grandma Penny's Old Fashioned Candies, Inc., d. b. a. Grandma Penny's Old Fashioned Candy Company, West Orange, N. J. Filed Apr. 17, 1956.

GRANDMA PENNY'S

For Hard Candy.
First use about Jan. 1, 1956.

SN 7,148. Archer-Daniels-Midland Company, Minneapolis, Minn. Filed Apr. 26, 1956.

KING OF MINNESOTA

Owner of Reg. Nos. 82,674, 226,032, and 526,883.
For Wheat Flour.
First use about Nov. 1, 1905.

CLASS 47

WINES

SN 690,881. Henkell & Co., Wiesbaden-Biebrich, Germany. Filed July 7, 1955.

HENKELL
TROCKEN

The English translation of the German word "Trocken" is "dry." Applicant disclaims the right to the exclusive use of the word "Trocken" apart from the mark in its entirety. Owner of German Reg. No. 111,387, dated Oct. 14, 1908; and U. S. Reg. Nos. 343,258 and 343,259.
For Sparkling Wines.
First use about Jan. 15, 1900; in commerce about Jan. 15, 1900.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

SN 695,084. Felton & Son, Inc., South Boston, Mass. Filed Sept. 21, 1955.

Romero

Owner of Reg. No. 331,301.
For Rum.
First use Jan. 6, 1955.

SN 8,479. Joseph S. Finch and Company, New York, N. Y. Filed May 17, 1956.

DIAMOND [illegible] 8 T

The drawing is lined to indicate the color red. Owner of Reg. No. 583,776.
For Whiskey.
First use Jan. 12, 1950.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 698,685. Binney & Smith Inc., New York, N. Y. Filed Nov. 22, 1955.

GENIE

Owner of Reg. Nos. 431,215 and 554,268.
For Ready-to-Use Paint Kits Comprising Ready-to-Use Paints in Plastic Tubes for Finger Painting, Screen Painting, and Brush Painting, Cloth Screens, Circular Frames for Holding the Cloth Screens, Crayon, Paper for Finger Painting, Paper for Making Stencils, Paper for Taking Proof of Stencils, and a Rubber Wedge for Spreading Paint.
First use Sept. 2, 1955.

SN 1,052. E. J. Brooks Company, Newark, N. J. Filed Jan. 19, 1956. Sec. 2(f) as to "Brooks."

Brooks

Owner of Reg. No. 625,790.
For Poultry Identification Tags Made of Metal.
First use Apr. 8, 1955; and as early as May 9, 1938, as to "Brooks."

SN 7,925. Lynn Innersole Co., Boston, Mass. Filed May 8, 1956.

LYNMONT

For Composition Sheet Material for Forming Innersoles for Shoes.
First use May 6, 1953.

SN 7,927. Lynn Innersole Co., Boston, Mass. Filed May 8, 1956.

BENCO

For Composition Sheet Material for Forming Innersoles for Shoes.
First use June 19, 1941.

## CLASS 51

## COSMETICS AND TOILET PREPARATIONS

SN 654,753. Pino-A. G. Chemische Fabrik Freudenstadt, d. b. a. Pino A. G. im Freudenstadt Schwarzwald, Freudenstadt, Wurttemberg, Germany. Filed Oct. 14, 1953.

Silvapin

For Bath Tablets, Bath Salts, Bath Lotions, Footbath Salts, and Bubbling Bath Preparations.
First use in the year 1936.

SN 668,739. Catherine Fishman, Detroit, Mich. Filed June 23, 1954.

Catherine's Correct Cosmetics

The words "Correct Cosmetics" are disclaimed apart from the mark as shown.
For Face, Hand, and Feet-Softening Creams; Liquid and Solid Makeup Bases for Powders and Rouges; Eyelash and Eyebrow Mascara; Talcum, Face, and Bath Powders; Hair Dressings; Scented Liquids—Namely, Lotions, Colognes, and Perfumes; Lipstick and Rouge.
First use Apr. 1, 1948.

SN 670,923. General Beauty Products, Inc., New York, N. Y. Filed Aug. 2, 1954.

DACHÉ NET

Owner of Reg. Nos. 515,144 and 337,747.
For Liquid Hair Spray.
First use July 23, 1954.



SN 670,924. General Beauty Products Inc., New York, N. Y. Filed Aug. 2, 1954.

LILLY DACHÉ COLOR SAFE

The name "Lilly Dache" identifies a particular living individual, whose consent is of record. Owner of Reg. Nos. 337,747 and 515,144.
For Hair Dye.
First use July 23, 1954.

SN 686,352. Richard E. Burt, d. b. a. Richard Steffans, Beverly Hills, Calif. Filed Apr. 27, 1955.

Richard Steffans

For All Purpose Face Cream, Deodorant Stick, Eyebrow Pencil, Eye Cream, Eye Shadow, Protective Hand and Body Lotion, Lipstick, Liquid Skin Cleanser, Liquid Facial Make-Up, Mascara, Face Powder, Cream Rouge, Dry Rouge, and Skin Freshener.
First use Dec. 1, 1954.

SN 689,899. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed June 20, 1955.

Vanzak

Owner of Reg. No. 395,133.
For Lanolin Composition Composed of Lanolin and a Filler Such as Precipitated, Hydrated Calcium Silicate To Comprise a Dry Powder for Use as an Ingredient of Cosmetics and Toilet Preparations.
First use June 10, 1955.

SN 692,512. Fleetwood Company, Chicago, Ill. Filed Aug. 5, 1955.

EasyWay-V

For Curl and Hair Waving Lotion.
First use May 10, 1954.

SN 693,284. Victor S. R. L., Milan, Italy. Filed Aug. 17, 1955.

ACQUA DI SELVA

The Italian words "Acqua di Selva" mean "water of woodland" or "woodland water." Owner of Italian Reg. No. 75,690, registered Sept. 25, 1947.
For Perfumes, Dentifrices, Cosmetic Lotions for the Hair, Shaving Creams, Brilliantines, Bath Salts, and Talcum Powder.

SN 696,515. Clairol Incorporated, Stamford, Conn. Filed Oct. 17, 1955.

COME ALIVE GRAY

For Hair Tinting and Coloring Preparations.
First use Oct. 11, 1955.

SN 6,657. Valmor Products Co., d. b. a. Famous Products Co., Chicago, Ill. Filed Apr. 18, 1956.

LUCKY

Owner of Reg. Nos. 298,129 and 605,942.
For Perfume.
First use July 21, 1955; and Oct. 15, 1929, as a portion of a mark.

## CLASS 52

## DETERGENTS AND SOAPS

SN 698,102. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Nov. 10, 1955.

H.D.C.

For Cleaning, Cleansing, and Detergent Materials for Washing Dishes, Kitchen Utensils, Pots and Pans, and Food Containers.
First use January 1931.

SN 5,959. Ajem Laboratories, Inc., Livonia, Mich. Filed Apr. 9, 1956.

JEM KLEEN

For Industrial Metal Cleaning Compounds.
First use May 1954.

SN 7,532. G. E. Renner, Fort Wayne, Ind. Filed May 2, 1956.

TAC-ALL

For Chemically Treated Rag Used for the Purpose of Cleaning and Removing Foreign Objects From Surfaces of Articles Prior to the Application of Finishes, Commonly Known in the Trade as a "Tack Rag."
First use Oct. 1, 1947.

# SERVICE MARKS

## CLASS 100

## MISCELLANEOUS

SN 687,485. National Automobile Association, Inc., Atlanta, Ga. Filed May 13, 1955.




The drawing is lined for blue.

For Disseminating Travel Information, Rating Tourist Accommodations, Cooperating With Law Enforcement Agencies and State Highway Departments in the Promotion of Safety and Protection for Motorists and Pedestrians and Supporting and Advocating Legislation Favorable to Motorists Generally.

First use Jan. 1, 1954.

SN 696,412. Circus Saints and Sinners Club of America, Inc., Washington, D. C. Filed Oct. 14, 1955.



For Charity Services—Namely, the Raising and Distribution of Funds for Charitable and Humanitarian Purposes.

First use Dec. 27, 1929.

SN 2,573. Stanley Kiehl Gambell, Philadelphia, Pa. Filed Feb. 17, 1956.

TELEPRAYER

For Offering a Religious Service of Individual Prayer Assistance Over the Telephone.

First use Sept. 17, 1955.

## CLASS 101

## ADVERTISING AND BUSINESS

SN 693,705. Theatre Network Television, Inc., New York, N. Y. Filed Aug. 23, 1955.

T N T Tele-Sessions

For Services in Making Technical Preparations and Arrangements for Televising Meetings by Business Firms, Government Agencies and Other Organizations Through Closed Circuit Television Channels.

First use July 1952.

SN 5,590. Commercial Broadcasters, Chicago, Ill. Filed Apr. 2, 1956.

CONTINENTAL TIME

For Title of a Radio Program Consisting of the Playing of Recorded Music Typical of Many Nations, and Advertising the Goods and Services of Restaurants of International Cuisine.

First use Mar. 17, 1951.

## CLASS 102

## INSURANCE AND FINANCIAL

SN 687,486. National Automobile Association, Inc., Atlanta, Ga. Filed May 13, 1955.




The drawing is lined for blue.

For Services Rendered to Motor Vehicle Owners and Motorists—Namely, Providing Bail Bond Services in the Event of an Automobile Accident and Cash Bond Services on Charges Involving Motor Vehicle Laws; Payment of Legal Fees Involved as a Result of Automobile Accidents; Arranging for the Procurement of Individual Automobile and Travel Accident Insurance; and Arranging for the Provision of Insurance for Persons Travelling Abroad.

First use Jan. 1, 1954.

SN 695,535. The County Trust Company, White Plains, N. Y. Filed Sept. 29, 1955.

bipp

For Banking Service—Namely, the Financing of Multiple Line Insurance Policies, Whereby the Policyholder Pays for All His Policies With a Single Payment Made to the Bank Each Month.

First use Aug. 2, 1955.

## CLASS 103

## CONSTRUCTION AND REPAIR

SN 680,398. Mud Control Laboratories, Inc., Oklahoma City, Okla. Filed Jan. 24, 1955.

TELEFLAW

For Inspecting Pipes, Rods, Tubes, Casings, and Other Elongated Articles To Determine Defects Therein.

First use on or about Dec. 10, 1953.

SN 691,877. Munro Dampproofings, Inc., New York, N. Y. Filed July 25, 1955. Sec. 2(f).

THE MUNRO SYSTEM

For Waterproofing Buildings, Foundations, and Other Structures.

First use Sept. 15, 1954; 1926 as to "Munro."

SN 2,985. Hill-Smith Termite Control Company, Inc., d. b. a. Hill-Smith Systems, Memphis, Tenn. Filed Feb. 20, 1956.



The drawing is lined for green and red but no claim is made to color.

For Chemical Treatment of Buildings and Wooden Structures With Toxic Chemicals for Preserving and Protecting Same Against Termites, Beetles, Decomposition, and General Deterioration.

First use Jan. 2, 1956.

## CLASS 105

## TRANSPORTATION AND STORAGE

SN 11,028. N. V. Nederlandsch-Amerikaansche Stoomvaart Maatschappij, d. b. a. Holland-America Line, New York, N. Y. Filed June 26, 1956.

*Red Star Line*

For Ocean Transportation of Passengers and Freight.

First use 1894.

## CLASS 106

## MATERIAL TREATMENT

SN 662,656. Manhattan Net Dyers & Finishers, Inc., New York, N. Y. Filed Mar. 15, 1954.



The mark consists of the letter "X" superimposed across the word "Blaze." Owner of Reg. No. 604,344.

For Flameproofing Nylon Net and Tulle.

First use Dec. 7, 1953.

SN 687,389. MacDonald Manufacturing Co., New Baltimore, Mich. Filed May 12, 1955.




For Manufacture and Fabrication of Molded Plastic Materials on a Custom Basis.

First use December 1942.

## CLASS 107

## EDUCATION AND ENTERTAINMENT

SN 659,975. Baltimore Baseball Club, Inc., Baltimore, Md. Filed Jan. 25, 1954.




For Entertainment Services in the Nature of Baseball Exhibitions Rendered Through the Medium of Radio and Television Broadcasts.

First use 1884.

SN 3,214. Musicue, Inc., Akron, Ohio. Filed Feb. 23, 1956.

Musicue

For Supplying Selected and Programmed Background Music and Transmitting It From a Central Station to Offices, Factories, Stores, Business Establishments, Homes, Etc.

First use June 3, 1955.

SN 4,484. Sergeant Preston of Yukon, Inc., Detroit, Mich. Filed Mar. 13, 1956.

Sergeant Preston of Yukon

For Title of a Dramatic Program Presented Serially Both on Radio and Television.

First use on or about Oct. 16, 1951.

# CERTIFICATION MARKS

## CLASS A

## GOODS

SN 692,467. National Combination Storm Window and Door Institute, Inc., New York, N. Y. Filed Aug. 4, 1955.



The mark certifies that said goods are manufactured, sold, and serviced in accordance with standards adopted by the Institute.

For Storm Windows and Doors.

First use Jan. 12, 1955.



# TRADEMARK REGISTRATIONS ISSUED

## PRINCIPAL REGISTER

### CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

637,312. BABOSIL. Pemco Corporation. SN 662,668. Pub. 9–4–56. Filed 3–15–54.

637,313. RISER-X-A. Chromium Mining & Smelting Corporation, Limited. SN 685,349. Pub. 9–4–56. Filed 4–12–55.

637,314. POLYPOL. West Virginia Pulp and Paper Company. SN 695,863. Pub. 9–4–56. Filed 10–4–55.

637,315. XILINA. Dr. Virgilio Gianni & C. S. p. A. SN 695,910. Pub. 9–4–56. Filed 10–5–55.

637,316. VICEFOAM AND DESIGN. L. E. Carpenter & Company. SN 697,084. Pub. 9–4–56. Filed 10–25–55.

### CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

637,317. CONTOUR-CURVE. Hartmann Luggage Company. SN 694,882. Pub. 9–4–56. Filed 9–19–55.

### CLASS 4

### ABRASIVES AND POLISHING MATERIALS

637,318. SILVER-NU. Walter Ratner, d. b. a. Silver-Nu Co. SN 691,581. Pub. 9–4–56. Filed 7–19–55.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

637,319. ROSEWELL'S LEAF-BRITE. The Rosewell Floral Company, to Chemical Specialties, Inc. SN 637,504. Pub. 8–17–54. Filed 11–1–52.

637,320. COLD TINNING. Enesa Tool & Chem. Corp. SN 677,648. Pub. 9–4–56. Filed 12–2–54.

637,321. THYLATE. E. I. du Pont de Nemours and Company. SN 685 891. Pub. 1–31–56. Filed 4–20–55.

637,322. UNICOTE. Universal Chemicals Corp. SN 694,280. Pub. 5–1–56. Filed 9–6–55.

637,323. LIQUIDOX OXYGEN SYSTEM AND DESIGN. The Liquid Carbonic Corporation. SN 698,184. Pub. 9–4–56. Filed 11–14–55.

637,324. GLADDING. B. F. Gladding & Company, Inc. SN 588. Pub. 9–4–56. Filed 1–12–56.

### CLASS 8

### SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

637,325. BERKELEY. Berkeley Industries. SN 2,015. Pub. 9–4–56. Filed 2–3–56.



### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

637,326. HOPPE'S. Frank A. Hoppe, Inc. SN 4,452. Pub. 9–4–56. Filed 3–12–56.

### CLASS 10

### FERTILIZERS

637,327. EMJEO. F. W. Berk & Co., Inc. SN 5,080. Pub. 9–4–56. Filed 3–23–56.

637,328. FLO-LIZER. Flo-Liser, Inc. SN 5,292. Pub. 9–4–56. Filed 3–27–56.

637,329. START-RITE. Soil Booster Corporation. SN 5,556. Pub. 9–4–56. Filed 3–30–56.

637,330. DESIGN OF CAT. Minden Cotton Oil & Ice Company, Ltd. SN 10,371. Pub. 9–4–56. Filed 6–7–56.

### CLASS 11

### INKS AND INKING MATERIALS

637,331. IMPERIAL AND DESIGN. Peerless Imperial Co., Inc. SN 683,541. Pub. 7–10–56. Filed 3–15–55.

637,332. IMPERIAL AND DESIGN. Peerless Imperial Co., Inc. SN 683,542. Pub. 7–10–56. Filed 3–15–55.

637,333. IMPERIAL EMPRESS AND DESIGN. Peerless Imperial Co., Inc. SN 683,543. Pub. 7–10–56. Filed 3–15–55.

637,334. IMPERIAL WRITE MASTER AND DESIGN. Peerless Imperial Co., Inc. SN 683,544. Pub. 7–10–56. Filed 3–15–55.

637,335. WORLD WIDE. Associated Stationers Supply Company. SN 4,169. Pub. 9–4–56. Filed 3–9–56.

637,336. ORCHID. Rochester Ribbon & Carbon Co., Inc. SN 5,244. Pub. 9–4–56. Filed 3–26–56.

### CLASS 12

### CONSTRUCTION MATERIALS

637,337. MURAL STONE. Sidall Industries, Inc. SN 669,815. Pub. 7–19–55. Filed 7–12–54.

637,338. HILSULUX. Hills (West Bromwich) Limited. SN 693,049. Pub. 9–4–56. Filed 8–15–55.

637,339. KLIP-LOK. Globe Roofing Products Co., Inc. SN 694,993. Pub. 9–4–56. Filed 9–20–55.

637,340. HILSULATE. Hills (West Bromwich) Limited. SN 695,477. Pub. 9–4–56. Filed 9–28–55.

637,341. AI AND DESIGN. Art Iron & Wire Works, Inc. SN 699,947. Pub. 9–4–56. Filed 12–14–55.

637,342. IONE. Gladding, McBean & Company. SN 328. Pub. 9–4–56. Filed 1–9–56.

637,343. PANEL-TEX. Wood Conversion Company. SN 389. Pub. 9–4–56. Filed 1–9–56.

637,344. GLAMADOR AND DESIGN. Harry Sanders, d. b. a. Glamador Company of America. SN 447. Pub. 9–4–56. Filed 1–10–56.

637,345. PRESLOC. The Celotex Corporation. SN 4,180. Pub. 9–4–56. Filed 3–9–56.

## CLASS 13

## HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

637,346. PYRAMID COPPER AND DESIGN. Ancient & Modern Oriental Import Co. SN 1,419. Pub. 7–24–56. Filed 1–25–56.

637,347. CANDY STRIPE. Knickerbocker Rubber Company. SN 2,407. Pub. 9–4–56. Filed 2–27–56.

637,348. TEMPINWARE. Tempinware Corporation. SN 4,403. Pub. 9–4–56. Filed 3–12–56.

637,349. HYDRALUSTER. Columbia Steel & Shafting Company. SN 6,589. Pub. 9–4–56. Filed 4–18–56.

637,350. CROWN. The Lafayette Brass Manufacturing Co., Inc. SN 6,729. Pub. 9–4–56. Filed 4–19–56.

637,351. WV WITHIN TRIANGULAR DESIGN. Worcester Valve Co., Inc. SN 6,974. Pub. 9–4–56. Filed 4–23–56.

## CLASS 15

## OILS AND GREASES

637,352. MOBILWAX. Socony Mobil Oil Company, Inc. SN 2,923. Pub. 9–4–56. Filed 2–17–56.

637,353. PROWAX. Socony Mobil Oil Company, Inc. SN 2,924. Pub. 9–4–56. Filed 2–17–56.

637,354. NAPREX. Socony Mobil Oil Company, Inc. SN 5,461. Pub. 9–4–56. Filed 3–29–56.

637,355. CEREMONIAL. A. Gross Candle Co., Inc. SN 6,423. Pub. 9–4–56. Filed 4–16–56.

637,356. PRESTIGE. Sun Oil Company. SN 6,653. Pub. 9–4–56. Filed 4–18–56.

637,357. ORPREX. Socony Mobil Oil Company, Inc. SN 6,843. Pub. 9–4–56. Filed 4–20–56.

## CLASS 16

## PROTECTIVE AND DECORATIVE COATINGS

637,358. VULCA-SEAL AND DESIGN. Lunday-Thagard Oil Company. SN 676,645. Pub. 9–4–56. Filed 11–15–54.

637,359. ANTITERRA. Byk-Gulden Lomberg, Chemische Fabrik, G. m. b. H. SN 695,524. Pub. 9–4–56. Filed 9–29–55.

637,360. TRANSPAR AND DESIGN. Baltimore Paint & Color Works. SN 696,948. Pub. 9–4–56. Filed 11–28–55.

637,361. POLYSEAL. Sun Oil Company. SN 700,761. Pub. 9–4–56. Filed 12–28–55.

637,362. KWIK-SLIK. Acme Quality Paints, Inc. SN 1,042. Pub. 9–4–56. Filed 1–19–56.

637,363. DESIGN OF MAN, WOMAN ETC. The Valspar Corporation. SN 3,636. Pub. 9–4–56. Filed 2–28–56.

## CLASS 17

## TOBACCO PRODUCTS

637,364. EL TORO. The S. Frieder & Sons Company. SN 2,113. Pub. 9–4–56. Filed 2–6–56.

637,365. SALEM. R. J. Reynolds Tobacco Company. SN 5,321. Pub. 9–4–56. Filed 3–27–56.

## CLASS 18

## MEDICINES AND PHARMACEUTICAL PREPARATIONS

637,366. MOYCO. The J. Bird Moyer Company, Inc. SN 676,745. Pub. 9–4–56. Filed 11–16–54.

637,367. ROSE BLOSSOM. Lucile Carter. SN 697,085. Pub. 9–4–56. Filed 10–25–55.

637,368. BIONOID. Henry K. Wampole & Company Incorporated. SN 698,318. Pub. 9–4–56. Filed 11–15–55.

637,369. NITENSAR. Armour and Company. SN 698,396. Pub. 9–4–56. Filed 11–17–55.

637,370. THORA-DEX. Smith Kline & French Laboratories. SN 698,557. Pub. 9–4–56. Filed 11–18–55.

637,371. DESIGN OF CADUCEUS. Abbott Laboratories. SN 699,687. Pub. 9–4–56. Filed 12–9–55.

637,372. ALTOX. George A. Roessler, d. b. a. Faulhaber Pharmacals. SN 699,926. Pub. 9–4–56. Filed 12–12–55.

637,373. KOLEPHRIN. The Pfeiffer Co. SN 700,120. Pub. 9–4–56. Filed 12–16–55.

637,374. CITROLEUM AND DESIGN. Benjamin Green, d. b. a. Citroleum Company. SN 700,447. Pub. 9–4–56. Filed 12–22–55.

637,375. A. Y. F. Bristol Laboratories Inc. SN 953. Pub. 9–4–56. Filed 1–18–56.

637,376. KEMITRACIN. Whitmoyer Laboratories, Inc. SN 2,842. Pub. 9–4–56. Filed 2–16–56.

637,377. CORONA LANTISEPTIC OINTMENT AND DESIGN. The Corona Manufacturing Co. SN 2,953. Pub. 9–4–56. Filed 2–20–56.

637,378. PROPHENE-PLUS. Protein Feed Corp. SN 3,029. Pub. 9–4–56. Filed 2–20–56.

637,379. NILEVAR. G. D. Searle & Co. SN 3,038. Pub. 9–4–56. Filed 2–20–56.

637,380. MIN-RICH. Thompson-Hayward Chemical Company. SN 3,127. Pub. 9–4–56. Filed 2–21–56.

637,381. SYNALGOS. American Home Products Corporation, d. b. a. Ives-Cameron Company Division of American Home Products Corporation. SN 3,136. Pub. 9–4–56. Filed 2–23–56.

637,382. VAPAD. Chas. Pfizer & Co., Inc. SN 3,221. Pub. 9–4–56. Filed 2–23–56.

637,383. ROLICTON. G. D. Searle & Co. SN 3,230. Pub. 9–4–56. Filed 2–23–56.

637,384. QUARZAN. Hoffmann-La Roche Inc. SN 3,684. Pub. 9–4–56. Filed 3–1–56.

637,385. MAGNAPLEX. Stanley Drug Products, Inc. SN 3,716. Pub. 9–4–56. Filed 3–1–56.

637,386. LIMINATE. Bristol Laboratories Inc. SN 3,733. Pub. 9–4–56. Filed 3–2–56.

637,387. FACTONIL. Bristol Laboratories Inc. SN 3,734. Pub. 9–4–56. Filed 3–2–56.

637,388. BACTISEPT. Bristol Laboratories Inc. SN 3,735. Pub. 9–4–56. Filed 3–2–56.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

637,389. TTS. Teletypesetter Corporation. SN 673,402. Pub. 9–13–55. Filed 9–17–54.

637,390. IDENTRA. Westinghouse Air Brake Company. SN 3,722. Pub. 9–4–56. Filed 3–1–56.

637,391. CASCADE. Whirl-A-Way Egg Washer Company. SN 3,969. Pub. 9–4–56. Filed 3–6–56.



637,392. CRESCORD. Crescent Insulated Wire and Cable Company. SN 4,104. Pub. 9–4–56. Filed 3–8–56.

637,393. DATATAPE. Consolidated Electrodynamics Corporation. SN 4,616. Pub. 9–4–56. Filed 3–15–56.

637,394. GOULD-NATIONAL. Gould-National Batteries, Inc. SN 4,633. Pub. 9–4–56. Filed 3–15–56.

637,395. RECOLITE. Marvin Electric Manufacturing Company. SN 4,726. Pub. 9–4–56. Filed 3–16–56.

## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

637,396. SPALDING. A. G. Spalding & Bros. Inc. SN 656,532. Pub. 9–4–56. Filed 11–17–53.

637,397. SEE-A-SONG. The Wal-Feld Company, Inc. SN 685,624. Pub. 9–4–56. Filed 4–15–55.

637,398. LIFE LINE. Ashaway Line & Twine Mfg. Co. SN 687,666. Pub. 9–4–56. Filed 5–17–55.

637,399. CREEK CHUB. The Creek Chub Bait Company. SN 693,443. Pub. 9–4–56. Filed 8–22–55.

637,400. MITTEN HEAD. Bayshore Industries, Inc. SN 695,600. Pub. 9–4–56. Filed 9–30–55.

637,401. ARM CHAIR QUARTERBACK. Novelty Mfg. Co. SN 698,203. Pub. 9–4–56. Filed 11–14–55.

637,402. CYCO. Canada Cycle and Motor Company Limited. SN 698,769. Pub. 9–4–56. Filed 11–22–55.

637,403. PULL-A-WAY. Game-Time, Inc. SN 2,522. Pub. 9–4–56. Filed 2–13–56.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

637,404. HURRICANE. Willys-Overland Motors, Inc., to Willys Motors, Inc. SN 592,729. Pub. 10–31–50. Filed 2–16–50.

637,405. CORNEROUNDER. Lasco Products, Inc. SN 658,791. Pub. 9–4–56. Filed 12–30–53.

637,406. "VISA-CLEAN." National Vim-Clean Corporation. SN 669,547. Pub. 11–1–55. Filed 7–7–54.

637,407. UNIPOD MAGIC POLE. Bernard E. Wallace, d. b. a. B. E. Wallace Products Co. SN 680,643. Pub. 7–31–56. Filed 1–28–55.

637,408. GELSOL. Claude Bounin. SN 698,497. Pub. 9–4–56. Filed 11–18–55.

637,409. SPEEDWALK. Passenger Belt Conveyors, Inc. SN 698,719. Pub. 9–4–56. Filed 11–22–55.

637,410. EL TORO. Schmidt & Ziegler. SN 699,665. Pub. 9–4–56. Filed 12–8–55.

637,411. TRAKLINER. Nordberg Manufacturing Company. SN 1,382. Pub. 9–4–56. Filed 1–24–56.

637,412. SWISH. Edcouco, Inc. SN 1,575. Pub. 8–7–56. Filed 1–27–56.

637,413. BOSTROM AND DESIGN. Bostrom Manufacturing Company. SN 2,276. Pub. 9–4–56. Filed 2–9–56.

637,414. VERSA-MATIC. Food Machinery and Chemical Corporation. SN 4,627. Pub. 9–4–56. Filed 3–15–56.

637,415. ECON O POWER AND DESIGN. Roger Lehman, d. b. a. Lehman Manufacturing Company. SN 4,723. Pub. 9–4–56. Filed 3–16–56.

637,416. C & S. C & S Products Company, Inc. SN 4,770. Pub. 9–4–56. Filed 3–19–56.

637,417. LUBRI-AIR. The Bellows Co. SN 5,273. Pub. 9–4–56. Filed 3–27–56.

637,418. HALF-CAB AND DESIGN. Original Tractor Cab Company, Inc. SN 5,318. Pub. 9–4–56. Filed 3–27–56.

637,419. PAY-OFF. H. F. Hameon & Company, Inc. SN 5,257. Pub. 9–4–56. Filed 3–26–56.

637,420. ARCHITEX. Albert Karellus & Sons, Inc. SN 5,363. Pub. 9–4–56. Filed 3–28–56.

637,421. LIMBEROLLER. Joy Manufacturing Company. SN 5,429. Pub. 9–4–56. Filed 3–30–56.

637,422. LIMBEROLLER AND DESIGN. Joy Manufacturing Company. SN 5,430. Pub. 9–4–56. Filed 3–29–56.

637,423. MESLES. Ch. J. Neuman Limited. SN 5,542. Pub. 9–4–56. Filed 3–30–56.

637,424. STRIP-O. Conart Industries Corporation. SN 5,591. Pub. 9–4–56. Filed 4–2–56.

637,425. SIZE MASTER. Cocker Machine and Foundry Company. SN 5,712. Pub. 9–4–56. Filed 4–3–56.

637,426. ONAN AND DESIGN. D. W. Onan & Sons Inc. SN 6,089. Pub. 9–4–56. Filed 4–9–56.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

637,427. TCA AND DESIGN. Thermometer Corporation of America. SN 676,910. Pub. 9–4–56. Filed 11–18–54.

637,428. WE CO AND DESIGN. Weinschel Engineering Co., Inc. SN 695,666. Pub. 9–4–56. Filed 11–21–55.

637,429. TELEDYNE. Taber Instrument Corporation. SN 699,174. Pub. 9–4–56. Filed 11–30–55.

637,430. ISOLAR. AGFA Camera-Werk Aktiengesellschaft. SN 699,872. Pub. 9–4–56. Filed 12–12–55.

637,431. WEBB. The Webb Corporation. SN 4,409. Pub. 9–4–56. Filed 3–12–56.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

637,432. GP. Girard Perregaux & Co. Inc. SN 2,976. Pub. 7–24–56. Filed 2–20–56.

## CLASS 30

## CROCKERY, EARTHENWARE, AND PORCELAIN

637,433. HOMER LAUGHLIN AND DESIGN. The Homer Laughlin China Company. SN 5,722. Pub. 9–4–56. Filed 4–3–56.

## CLASS 31

## FILTERS AND REFRIGERATORS

637,434. BONDED FACE. Johnson & Johnson. SN 690,951. Pub. 9–4–56. Filed 7–8–55.

637,435. GASIONIC. Illinois Water Treatment Co. SN 691,627. Pub. 9–4–56. Filed 7–20–55.

637,436. AQUA-LIFE AND DESIGN. Precision-Bilt Products Co. SN 692,952. Pub. 9–4–56. Filed 8–12–55.

637,437. LUB-AIR-ATOR AND DESIGN. Scovill Manufacturing Company. SN 695,767. Pub. 9–4–56. Filed 10–3–55.

637,438. GELSOL. Claude Bounin. SN 698,496. Pub. 9–4–56. Filed 11–18–55.

637,439. ICE STICKS. Eagle Roll Leaf Stamping Co. SN 2,026. Pub. 9–4–56. Filed 2–3–56.

637,440. SNIP IT. Carl L. Beutler, d. b. a. C. L. B. Company. SN 3,963. Pub. 9–4–56. Filed 3–7–56.

637,441. LABWAY. George S. Tarbox. SN 5,252. Pub. 9–4–56. Filed 3–26–56.

637,442. DURALIFE AND DESIGN. Donaldson Company, Inc. SN 5,604. Pub. 9–4–56. Filed 4–2–56.

## CLASS 33

## GLASSWARE

637,443. SERVOFRAX. Servo Corporation of America. SN 664,626. Pub. 11-6-54. Filed 4-15-54.

637,444. HIGGINS. Higgins Handcrafted Glass. SN 686,974. Pub. 9-4-56. Filed 5-6-55.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

637,445. UNIVERSAL. Universal Major Elec. Appliances, Inc., to Universal Major Corporation. SN 676,685. Pub. 9-4-56. Filed 11-15-54.

637,446. UNIVERSAL AND DESIGN. Universal Major Elec. Appliances, Inc., d. b. a. Universal Major Elec. Appliance Co., to Universal Major Corporation. SN 680,317. Pub. 9-4-56. Filed 1-21-55.

637,447. TUDOR. Mollie Felberg, d. b. a. Tudor Studios. SN 689,829. Pub. 9-4-56. Filed 6-20-55.

637,448. SPARKY. Roy M. Liedstrand, d. b. a. Strand. SN 691,486. Pub. 9-4-56. Filed 7-18-55.

637,449. CRAWFORD AND DESIGN. Walker & Pratt Company, Inc. SN 1,826. Pub. 9-4-56. Filed 1-31-56.

637,450. CHARKOLER. Big Boy Manufacturing Company. SN 4,277. Pub. 9-4-56. Filed 3-12-56.

637,451. DRIVENT. Shepard J. Wilder, d. b. a. Wilder Industries. SN 6,490. Pub. 9-4-56. Filed 4-16-56.

637,452. JOHN WOOD ETC. AND DESIGN. John Wood Company. SN 6,973. Pub. 9-4-56. Filed 4-23-56.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

637,453. MAGIC FINGERS ETC. AND DESIGN. Dwight L. Gribble Music Company. SN 690,705. Pub. 9-4-56. Filed 7-5-55.

637,454. AJAX DRUMS AND DESIGN. Boosey & Hawkes Limited. SN 2,081. Pub. 9-4-56. Filed 2-6-56.

637,455. CONTINENTAL AND DESIGN. Continental Records Inc. SN 2,688. Pub. 9-4-56. Filed 2-15-56.

637,456. FORMAL AND DESIGN. Formal Records, Incorporated. SN 3,290. Pub. 9-4-56. Filed 2-24-56.

637,457. SCHOOLCRAFT. Mercury Record Corporation. SN 4,554. Pub. 9-4-56. Filed 3-14-56.

637,458. HI-FILE. Betrix Company. SN 4,766. Pub. 9-4-56. Filed 3-19-56.

## CLASS 38

## PRINTS AND PUBLICATIONS

637,459. CROWN PRINTS AND DESIGN. Metropolitan Lithograph and Publishing Company. SN 694,074. Pub. 9-4-56. Filed 9-1-55.

637,460. ON THE LIGHTER SIDE. United Press Associations. SN 696,080. Pub. 9-4-56. Filed 10-7-55.

637,461. THE NATIONAL PROGRAM. The Armstrong Daily, Inc. SN 1,139. Pub. 9-4-56. Filed 1-20-56.

637,462. WESPRES. The Western Press, Inc. SN 4,496. Pub. 9-4-56. Filed 3-12-56.

637,463. INSURANCE COUNSEL JOURNAL. International Association of Insurance Counsel. SN 4,900. Pub. 9-4-56. Filed 3-20-56.

637,464. LABORGRAPH. The Bureau of National Affairs, Inc. SN 10,372. Pub. 9-4-56. Filed 6-7-56.

## CLASS 39

## CLOTHING

637,465. TOWNLEY. Goldring Inc. SN 554,309. Pub. 1-31-50. Filed 4-10-48.

637,466. "CITY SQUIRE." Broadstreet's, Inc. SN 673,426. Pub. 11-15-55. Filed 9-20-54.

637,467. GLASER. Rolf Glaeser, d. b. a. Glaser-Strumpf-Wirkerei Rolf Glaeser. SN 676,494. Pub. 1-17-56. Filed 11-12-54.

637,468. JACQUES FATH. Jacques F. Fath & Cie. SN 692 777. Pub. 9-4-56. Filed 8-10-55.

637,469. GUANALITO. Habley, Inc. SN 694,800. Pub. 9-4-56. Filed 9-16-55.

637,470. TOWN SHOP DE PINNA AND DESIGN. Brooks Brothers, Inc. SN 695,885. Pub. 9-4-56. Filed 10-5-55.

637,471. STONEFACE. Barron, Anderson Company. SN 696,407. Pub. 9-4-56. Filed 10-14-55.

637,472. CUSHIONATED. Brown Company. SN 697,211. Pub. 3-20-56. Filed 10-27-55.

637,473. CHECKERS. Catalina, Inc. SN 698,404. Pub. 9-4-56. Filed 11-17-55.

637,474. WIMBLEDON. Wimbledon Shirt Co., Inc. SN 698,564. Pub. 7-31-56. Filed 11-18-55.

637,475. WILDORADO AND DESIGN. Wilson Brothers. SN 118. Pub. 9-4-56. Filed 1-3-56.

637,476. SANACAP ETC. AND DESIGN. Keystone Adjustable Cap Co. SN 803. Pub. 9-4-56. Filed 1-16-56.

637,477. WINSTON. J. Schoeneman, Incorporated. SN 1,285. Pub. 9-4-56. Filed 1-23-56.

637,478. "SUPERFLEX." Grieco Bros., Inc. SN 1,364. Pub. 9-4-56. Filed 1-24-56.

637,479. FEELING IS BELIEVING AND DESIGN. Grieco Bros., Inc. SN 1,365. Pub. 9-4-56. Filed 1-24-56.

637,480. MAXSAM ORIGINALS. Maxsam Originals, Inc. SN 1,536. Pub. 9-4-56. Filed 1-26-56.

637,481. MR. CHIPS AND DESIGN. Wm. Schwartz & Co., Inc. SN 1,545. Pub. 9-4-56. Filed 1-26-56.

637,482. DUBL LOK. Russell Hosiery Mills, Inc. SN 4,070. Pub. 9-4-56. Filed 3-7-56.

637,483. BONDENIM. Bond Stores, Incorporated. SN 4,309. Pub. 9-4-56. Filed 3-14-56.

637,484. PEBBLE STONES. D. Zimet Inc., d. b. a. Zim-Stra. SN 5,006. Pub. 9-4-56. Filed 3-21-56.

637,485. HEIDI. Heidi Hannah Pieringer. SN 5,051. Pub. 9-4-56. Filed 3-22-56.

637,486. PHIL ROSE OF CALIFORNIA. Phil Rose of California. SN 5,059. Pub. 9-4-56. Filed 3-22-56.

637,487. COUNTY LINERS. Joyce, Inc. SN 6,806. Pub. 9-4-56. Filed 4-20-56.

637,488. BATES AND DESIGN. Bates Manufacturing Company. SN 7,306. Pub. 9-4-56. Filed 4-30-56.

637,489. "SNO-BUNNY." Buskens, a division of BGS Shoe Corporation. SN 7,313. Pub. 9-4-56. Filed 4-30-56.

637,490. FOAM-KIDS. Wellco Shoe Corporation. SN 8,103. Pub. 9-4-56. Filed 5-10-56.

637,491. ELEANORE ORIGINALS AND DESIGN. Salkin & Linoff, Incorporated. SN 10,373. Pub. 9-4-56. Filed 6-7-56.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

637,492. FEATHERLOR. Bennait Mills, Inc. SN 664,502. Pub. 5-17-55. Filed 4-14-54.



637,493. EMPRESS CHINCHILLA. Somersville Mf'g Company. SN 669,374. Pub. 7-12-55. Filed 7-2-54.

637,494. HI GLO. Wellington Sears Company. SN 683,568. Pub. 9-4-56. Filed 3-15-55.

637,495. VINALAST. Marbek Inc. SN 694,893. Pub. 9-4-56. Filed 9-19-55.

637,496. VISINET. Bemis Bro. Bag Company. SN 233. Pub. 9-4-56. Filed 1-6-56.

637,497. LESUR AND DESIGN. Societe Anonyme des Tissages Lesur. SN 3,814. Pub. 9-4-56. Filed 2-24-56.

637,498. KANMAK. Kanmak Mills, Inc. SN 3,685. Pub. 9-4-56. Filed 3-1-56.

637,499. HUBERTUS LODEN. Anglo Fabrics Company, Inc. SN 4,594. Pub. 9-4-56. Filed 3-15-56.

637,500. LINDALANA. Anglo Fabrics Company, Inc. SN 4,595. Pub. 9-4-56. Filed 3-15-56.

637,501. DESIGN OF MAN. D. B. Fuller & Co., Inc. SN 4,895. Pub. 9-4-56. Filed 3-20-56.

637,502. CALCHECKS. Dan River Mills, Incorporated. SN 5,033. Pub. 9-4-56. Filed 3-22-56.

637,503. WIFE-SAVER. McCampbell & Company, Inc. SN 5,111. Pub. 9-4-56. Filed 3-28-56.

637,504. CRYLOR. Crylor. SN 5,594. Pub. 9-4-56. Filed 4-2-56.

637,505. BRETON BAY. Altheimer & Baer, Inc. SN 5,813. Pub. 9-4-56. Filed 4-5-56.

637,506. RIBSAIL. D. B. Fuller & Co., Inc. SN 5,831. Pub. 9-4-56. Filed 4-5-56.

637,507. CARNATION FANTASY. The Associated Merchandising Corporation. SN 5,967. Pub. 9-4-56. Filed 4-9-56.

## CLASS 43

## THREAD AND YARN

637,508. FINGER LAKES KNIT YARNS AND DESIGN. Geb and Souhan Yarn Company, Inc. SN 677,056. Pub. 9-4-56. Filed 11-22-54.

637,509. VERREL. Eastman Kodak Company. SN 3,665. Pub. 9-4-56. Filed 3-1-56.

637,510. ACTIV-8. Patentex, Inc. SN 8,017. Pub. 8-28-56. Filed 5-9-56.

637,511. TRUBUTT. Coats & Clark Inc. SN 8,534. Pub. 9-4-56. Filed 5-18-56.

637,512. TEXTURSET. Ames Textile Corporation. SN 9,327. Pub. 9-4-56. Filed 5-21-56.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

637,513. SIAMESE. Baker & Company, Incorporated. SN 4,930. Pub. 9-4-56. Filed 3-21-56.

637,514. SELECT-A-HITE AND DESIGN. Shampaine Company. SN 5,063. Pub. 9-4-56. Filed 3-22-56.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

637,515. RED RAVEN. The Red Raven Corporation. SN 1,806. Pub. 9-4-56. Filed 1-31-56.

637,516. SANS. Matthias Rothstein, d. b. a. Kola Extract Company and Kola Bottling Company. SN 3,119. Pub. 9-4-56. Filed 2-21-56.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

637,517. LANGENDORF AND DESIGN. Langendorf United Bakeries, Inc. SN 663,924. Pub. 9-4-56. Filed 4-5-54.

637,518. SMITH'S TICK TOCK HEAT'N SERVE AND DESIGN. Smith's Heat'n Serve Frozen Foods, Inc. SN 672,694. Pub. 9-4-56. Filed 9-2-54.

637,519. PILGRIM. H P Coffee Company. SN 687,469. Pub. 9-4-56. Filed 5-13-55.

637,520. PERUGINA AND DESIGN. Societa per Azioni Perugina. SN 692,645. Pub. 9-4-56. Filed 8-8-55.

637,521. JUBILEE. Priebe & Sons, Inc. SN 695,446. Pub. 9-4-56. Filed 9-27-55.

637,522. NEST. Laura M. Nester, d. b. a. I. H. Nester & Co. SN 697,573. Pub. 7-31-56. Filed 11-2-55.

637,523. A AND DESIGN. Anheuser-Busch, Incorporated. SN 698,571. Pub. 9-4-56. Filed 11-21-55.

637,524. STALEY'S. A. E. Staley Manufacturing Company. SN 699,170. Pub. 9-4-56. Filed 11-30-55.

637,525. WHITE PUFF. Sands, Taylor & Wood Company. SN 699,664. Pub. 9-4-56. Filed 12-8-55.

637,526. PINK PEARLS. Fred N. Julich, d. b. a. Fort Myers Shrimp Producers Association. SN 1,699. Pub. 9-4-56. Filed 1-30-56.

637,527. PLAY PUP. Nutrition Associates, Inc. SN 1,713. Pub. 9-4-56. Filed 1-30-56.

637,528. LIL NIBBLER. A. P. Resetar, d. b. a. A. P. Resetar Co. SN 1,725. Pub. 9-4-56. Filed 1-30-56.

637,529. MAR-TAN. S. Tanimoto, d. b. a. Los Angeles Vegetable Exchange. SN 1,741. Pub. 9-4-56. Filed 1-30-56.

637,530. JI AND DESIGN. John Inglis Frozen Foods Company. SN 1,787. Pub. 9-4-56. Filed 1-31-56.

## CLASS 47

## WINES

637,531. TRESPAL. Vintage Wines, Inc. SN 2,597. Pub. 9-4-56. Filed 2-13-56.

637,532. EL MONUMENTO. Julian & Trower Limited. SN 3,756. Pub. 9-4-56. Filed 3-2-56.

## CLASS 48

## MALT BEVERAGES AND LIQUORS

637,533. EKU AND DESIGN. Erste Kulmbacher Actien-Exportbier-Brauerei. SN 666,931. Pub. 9-4-56. Filed 5-24-54.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

637,534. OLD MR. Mr. Boston Distiller Inc. SN 658,300. Pub. 9-4-56. Filed 12-21-53.

637,535. FISHING CLUB. Continental Distilling Corporation. SN 694,051. Pub. 9-4-56. Filed 9-1-55.

637,536. CHIVAS, ETC. AND DESIGN. Chivas Brothers Limited. SN 3,278. Pub. 9-4-56. Filed 2-24-56.

637,537. CHIVAS ETC. AND DESIGN. Chivas Brothers Limited. SN 3,279. Pub. 9-4-56. Filed 2-24-56.

637,538. RUMBA. Schenley Import Corporation, d. b. a. Compania Ron Carioca. SN 3,631. Pub. 9-4-56. Filed 2-28-56.

637,539. RONRICO AND DESIGN. Puerto Rico Distilling Company. SN 4,359. Pub. 9–4–56. Filed 3–12–56.

### CLASS 50

### MERCHANDISE NOT OTHERWISE CLASSIFIED

637,540. PERFECTION BRAND FELTS. Commonwealth Felt Company. SN 670,465. Pub. 9–4–56. Filed 7–23–54.

637,541. BOSTON HIGHLAND. Boston Woven Hose and Rubber Company. SN 697,528. Pub. 9–4–56. Filed 11–2–55.

637,542. BOSTON FERNBROOK. Boston Woven Hose and Rubber Company. SN 697,529. Pub. 9–4–56. Filed 11–2–55.

637,543. VARI LITH. Ralph C. Coxhead Corporation. SN 3,283. Pub. 9–4–56. Filed 3–27–56.

### CLASS 51

### COSMETICS AND TOILET PREPARATIONS

637,544. WHISPERESQUE. Coty, Inc. SN 681,420. Pub. 9–4–56. Filed 2–10–55.

### CLASS 52

### DETERGENTS AND SOAPS

637,545. KLEAR-SHIELD. Gulf Oil Corporation. SN 687,589. Pub. 9–4–56. Filed 5–16–55.

637,546. TAMPO ETC. AND DESIGN. William Webb Kimball, d. b. a. Goodwin's Cleaners. SN 695,550. Pub. 9–4–56. Filed 9–29–55.

637,547. VES-PHENE. Vestal Laboratories, Inc. SN 5,887. Pub. 9–4–56. Filed 4–5–56.

## Service Marks

### CLASS 100

### MISCELLANEOUS

637,548. KEEP AMERICA BEAUTIFUL K*A*B AND DESIGN. Keep America Beautiful, Inc. SN 685,590. Pub. 9–4–56. Filed 4–15–55.

### CLASS 101

### ADVERTISING AND BUSINESS

637,549. ESQUIRE CLUB. Esquire, Inc. SN 583. Pub. 9–4–56. Filed 1–12–56.

### CLASS 102

### INSURANCE AND FINANCIAL

637,550. CHESTIFICATE. Community Chest of Philadelphia and Vicinity. SN 680,733. Pub. 9–4–56. Filed 1–31–55.

637,551. THE PROTECTING HAND. Woodmen Accident and Life Company. SN 3,790. Pub. 9–4–56. Filed 3–2–56.

637,552. DESIGN OF MAN, WOMAN AND CHILDREN ETC. Woodmen Accident and Life Company. SN 3,791. Pub. 9–4–56. Filed 3–2–56.

### CLASS 103

### CONSTRUCTION AND REPAIR

637,553. SUNNY GLO. Lincoln Rug Company, Inc. SN 700,798. Pub. 9–4–56. Filed 12–29–55.

### CLASS 105

### TRANSPORTATION AND STORAGE

637,554. KEYSTONE AND DESIGN. Keystone Express Corp. SN 663,475. Pub. 9–4–56. Filed 3–29–54.

637,555. AETNA ETC. AND DESIGN. The Aetna Freight Lines, Inc. SN 700,075. Pub. 9–4–56. Filed 12–16–55.

### CLASS 106

### MATERIAL TREATMENT

637,556. REPRESENTATION OF FANCIFUL MAN. George Gets Corporation. SN 587. Pub. 9–4–56. Filed 1–12–56.

## SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

### CLASS 23

### CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

637,557. Hardware Products Co., New York, N. Y. SN 7,984. Filed 5–9–56.

HOWARD

For Scrapers, Sandpaper Holders, Linoleum Paste Spreaders, Corner Tools, Patching Tools, Brush Wiper Wires and for Rotary Wire Brushes for Hand-Held Motors, Powered Flexible Shafts, Grinding Heads and Drill Presses for Use To Scratch and Finish Metal and Other Hard Surfaces and for Combination Pail Openers and Hooks.
First use Oct. 30, 1945, on sandpaper holders.

### CLASS 32

### FURNITURE AND UPHOLSTERY

637,558. Kel-Art Company, Chester, Pa. SN 599. Filed 1–12–56.

CARRY CRIB

For Collapsible Combination Baby Crib and Play Pen.
First use Apr. 20, 1949.



### CLASS 36

### MUSICAL INSTRUMENTS AND SUPPLIES

637,559. Decto Products Co., Salem, Mass. SN 681,838. Filed P. R. 2–17–55. Am. S. R. 7–3–56.



For Grooved Phonograph Sound Records.
First use on or about Feb. 4, 1955.

### CLASS 38

### PRINTS AND PUBLICATIONS

637,560. Orlando A. Battista, Drexel Hill, Pa. SN 7,472. Filed 5–2–56.

QUIP TOONS

For Magazine and/or Newspaper Column.
First use May 1, 1955.

637,561. Orlando Aloysius Battista (O. A. Battista), Drexel Hill, Pa. SN 7,473. Filed 5–2–56.

JEST AROUND THE HOME

For Magazine Column.
First use Aug. 1, 1954.

637,562. The Penton Publishing Company, Cleveland, Ohio. SN 9,662. Filed 6–5–56.

AUTOMATION

For Publication Published Monthly or From Time to Time, the Subject Matter of Which Is Directed to the Operation of the Entire Scope of the Automatic Factory.
First use on or about Oct. 2, 1956.

### CLASS 39

### CLOTHING

637,563. Davids Gloves, Inc., Springfield, Ohio. SN 672,807. Filed P. R. 9–7–54. Am. S. R. 9–24–56.

"The Goliath of the Work Glove Field"

For Work Gloves Made of Leather, of Fabric, and of a Combination of Leather and Fabric and Industrial Work Gloves Partially or Wholly Impregnated With Plastic Material.
First use August 1952.

### CLASS 46

### FOODS AND INGREDIENTS OF FOODS

637,564. The Vermont Certified Seed and Potato Growers' Association, Montpelier, Vt. SN 694,532. COLLECTIVE MARK. Filed 9–12–55.

French Frypak

For Packaged Potatoes in Their Natural State.
First use Feb. 4, 1953.

637,565. Florida Juice, Inc., Miami, Fla. SN 2,409. Filed P. R. 2–10–56. Am. S. R. 9–14–56.

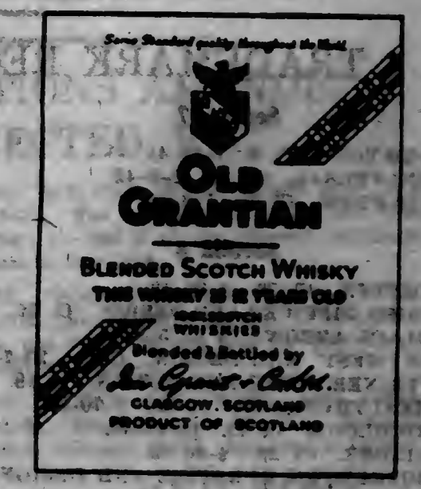
JUS-SQUEEZED

For Fresh Fruit Juices.
First use Apr. 1, 1954.

### CLASS 49

### DISTILLED ALCOHOLIC LIQUORS

637,566. Ian Grant & Company Limited, London, England. SN 689,491. Filed P. R. 6–14–55. Am. S. R. 12–2–55.




Owner of Great Britain Reg. No. B734,937, dated Oct. 12, 1954; and U. S. Reg. Nos. 314,802 and 324,827.
For Scotch Whisky.
First use Oct. 14, 1954; in commerce Oct. 14, 1954.

637,567. Courvoisier, Limited, Jarnac (Charente), France. SN 698,269. Filed 11–15–55.




Owner of French Reg. No. 13,458, dated Mar. 9, 1955 (Cognac); Natl. Inst. No. 54,201; and U. S. Reg. Nos. 308,389, 595,662, and others.
For Cognac.

# TRADEMARK REGISTRATIONS RENEWED

112,396. EXANOL AND DESIGN. Cl. 15. 9–5–16.
112,736. CIDOSECT. Cl. 6. 9–19–16.
114,280. GRANITE. Cl. 35. 12–5–16.
114,330. BOSSETTE. Cl. 39. 12–12–16.
114,581. PLASTERTOX. Cl. 12. 12–19–16.
114,619. REXO. Cl. 39. 12–26–16.
114,858. DESIGN OF WIRE ETC. Cl. 21. 1–9–17.
115,232. PEDICO. Cl. 52. 1–30–17.
333,345. ISOFLEX. Cl. 12. 3–24–36.
335,544. NYETOGEN. Cl. 18. 6–9–36.
335,725. MIOGENIC AND DESIGN. Cl. 39. 6–16–36.
335,844. NALTHER. Cl. 18. 6–16–36.
335,845. M. A. WINTER NALTHER AND DESIGN. Cl. 18. 6–16–36.
336,041. LITHOLINE. Cl. 26. 6–23–36.
336,657. BLACK DIAMOND AND DESIGN. Cl. 46. 7–14–36.
336,883. ROYAL ARCHER AND DESIGN. Cl. 49. 7–21–36.
337,585. LONDALE AND DESIGN. Cl. 49. 8–11–36.
337,598. DESIGN OF BALL OF TWINE AND WHEAT HEADS. Cl. 7. 8–11–36.
337,960. SOYETTE. Cl. 46. 8–25–36.
338,686. THE MAGAZINE OF WALL STREET ETC. Cl. 38. 9–15–36.
338,688. AURORA. Cl. 29. 9–15–36.
338,689. ATLAS. Cl. 29. 9–15–36.
338,725. ACME. Cl. 29. 9–15–36.
338,726. CHUM. Cl. 29. 9–15–36.
338,768. DESIGN OF WHITE DISK ON SHOE. Cl. 39. 9–15–36.
338,769. MERLE NORMAN MIRA-COL. Cl. 51. 9–15–36.
338,937. ANDERSON'S NEWTROZONE "B." Cl. 46. 9–22–36.
338,984. DUST MASTER. Cl. 4. 9–22–36.
339,061. OMNIS ORBIS WARNER AND DESIGN. Cl. 18. 9–22–36.
339,378. BANKERS CLUB. Cl. 17. 10–6–36.
339,406. ELK SKIN. Cl. 42. 10–6–36.
339,919. CARDINAL AND DESIGN. Cl. 11. 10–27–36.
340,001. CONTADINA. Cl. 46. 10–27–36.
340,005. FOOT SMILES. Cl. 18. 10–27–36.
340,258. THE AMERICAN JOURNAL OF SURGERY. Cl. 38. 11–3–36.
340,402. 4-C-BAR. Cl. 46. 11–10–36.
340,809. ARROW AND DESIGN. Cl. 39. 11–24–36.
340,981. THE SOVEREIGN STETSON. Cl. 39. 11–24–36.
341,124. DOHO DERMOPLAST AND DESIGN. Cl. 18. 12–1–36.
341,293. WATERFILM. Cl. 34. 12–1–36.
341,675. THE BUSINESS ANALYST. Cl. 38. 12–22–36.
342,764. SUPER-LINE. Cl. 21. 1–26–37.
342,935. HYPODOL. Cl. 15. 2–2–37.
343,080. DESIGN OF GREEN RECTANGLE. Cl. 46. 2–9–37.
343,897. TABOO. Cl. 51. 3–9–37.
343,979. ANTELAMB. Cl. 1. 3–9–37.
344,013. CO-OP. Cl. 39. 3–9–37.

# TRADEMARK REGISTRATIONS CANCELED

## Section 7

384,423. DEB-TONE. Cl. 6. 1–21–41.
393,341. UNI-VERSAL. Cl. 12. 2–3–42.
439,656. AIR-FLOW. Cl. 21. 7–6–48.

## Section 8

88,097. POINTEX. Cl. 39. 8–27–12.
253,836. "SIEN TIFFICK" AND DESIGN. Cl. 39. 3–5–29.
270,504. BLACK ARROW. Cl. 6. 5–6–30.
276,053. "HY-TEST" AND DESIGN. Cl. 1. 10–7–30.
296,555. "TRINER'S" ETC. AND DESIGN. Cl. 18. 8–9–32.
356,721. HEALTHWEIGHT. Cl. 39. 5–10–38.
426,078. RICHLOOM. Cl. 42. 12–17–46.
442,560. GLIDER. Cl. 28. 4–26–49.
443,941. BOYERTOWN DURATITE AND DESIGN. Cl. 2. 4–25–50.
505,527. SHIRTEES. Cl. 39. 1–4–49.
507,587. THEW CENTER DRIVE AND DESIGN. Cl. 23. 3–15–49.
514,237. BRUSHLESS CLEANSER AND DESIGN. Cl. 4. 8–23–49.
514,554. RONDURE. Cl. 39. 8–30–49.
516,337. CORNHILL. Cl. 46. 10–18–49.
516,458. MASTER BUCK. Cl. 39. 10–18–49.
517,036. QUALITHERM. Cl. 26. 11–1–49.
517,192. SHARNAY. Cl. 39. 11–1–49.
517,937. NUFOLENE. Cl. 6. 11–22–49.
518,610. EMBLEM DESIGN. Cl. 23. 12–13–49.
519,382. SATINGLO. Cl. 7. 12–27–49.
519,946. ZELDEEN COTTONS. Cl. 39. 1–17–50.
520,936. MATZORNAX. Cl. 46. 2–7–50.
521,976. MAMBA. Cl. 39. Cl. 3–7–50.
521,992. TRADEMARK DESIGN. Cl. 39. 3–7–50.
523,046. KB AND DESIGN. Cl. 21. 3–28–50.
523,648. NITE-PAK. Cl. 46. 4–4–50.
523,877. CRAFTON. Cl. 39. 4–11–50.
523,953. FANCIFUL FIGURE OF LADY. Cl. 6. 4–11–50.
524,456. SCULPTURED FELTS. Cl. 39. 4–25–50.
526,172. VOGUE. Cl. 32. 6–6–50.
527,243. AMIVET. Cl. 18. 7–4–50.
527,244. VETUSSIN. Cl. 18. 7–4–50.
527,306. ALPHABET POPS. Cl. 46. 7–4–50.
528,010. DIEPO. Cl. 32. 7–25–50.

*The following registrations issued Aug. 22, 1950*

529,283. ROBAN. Cl. 46.
529,291. CIRCULAR DESIGN. Cl. 46.
529,295. ANOTHER DECCA DOUBLE. Cl. 36.
529,297. LEONORA AND DESIGN. Cl. 39.
529,301. PAUL JONES AND DESIGN. Cl. 46.
529,304. CAL-REY. Cl. 46.
529,306. WRJ-WELD-ARCH. Cl. 12.
529,310. CALIFORNIA WATER COLORS. Cl. 39.
529,312. WEBSTER'S CREOLE SAUCE. Cl. 46.
529,314. THE HOLIDAY. Cl. 19.
529,315. TREASURE-FOLD. Cl. 3.
529,316. ENIWETHER. Cl. 39.
529,324. TRADEMARK DESIGN. Cl. 18.
529,326. CRYSTAL GEM. Cl. 46.
529,327. TEOFLUX AND DESIGN. Cl. 16.
529,329. POPPY AND DESIGN. Cl. 46.
529,330. CHEERY. Cl. 46.
529,331. CELO-STEEL BUILDINGS. Cl. 12.
529,334. BREATH-O-LATOR. Cl. 44.
529,335. BREATH-O-LATOR. Cl. 44.
529,338. METALUME. Cl. 12.
529,341. CHAMPAGNE. Cl. 8.
529,342. LORRAINE. Cl. 46.
529,347. MONK AND DESIGN. Cl. 36.
529,352. PY-AMO. Cl. 51.
529,353. ALLSTATE. Cl. 8.
529,361. CIRCULAR DESIGN. Cl. 46.
529,363. COFFEE-NOW. Cl. 46.
529,365. SIGNET AND DESIGN. Cl. 44.
529,367. JAC-SHEE. Cl. 39.
529,368. ARCTIC VENDOR. Cl. 23.
529,369. CRAIGMULLEN. Cl. 39.
529,372. "MIRAWAL" AND DESIGN. Cl. 12.
529,375. EAGLE PICHER. Cl. 12.
529,378. REFLEX. Cl. 44.
529,388. KRIKS AND DESIGN. Cl. 39.





529,400. CINNA-SPREAD. Cl. 46.
529,408. MAGIDIX. Cl. 6.
529,410. BLUE CORAL. Cl. 51.
529,419. LAZY-G AND DESIGN. Cl. 46.
529,430. SPALDING'S LIQUID PLASTER. Cl. 18.
529,431. LEADCO. Cl. 12.
529,442. DAIRY-MAC. Cl. 46.
529,447. ALVERENE. Cl. 39.
529,451. "RED-E." Cl. 22.
529,453. P AND DESIGN. Cl. 23.
529,454. VAN'S FAVORITE. Cl. 46.
529,455. TONY. Cl. 46.
529,460. YOUR MARRIAGE. Cl. 38.
529,483. MUTUAL. Cl. 39.
529,485. ZEST. Cl. 26.
529,496. 5 IN 1 DOLL SET AND DESIGN. Cl. 22.
529,498. GRAMEKID. Cl. 18.
529,502. TYROSUX. Cl. 18.
529,503. VIGLUTAM. Cl. 18.
529,504. AFTEX. Cl. 18.
529,506. ICHTHOLDINE. Cl. 18.
529,507. PERFECTOPAKE. Cl. 37.
529,508. BANTAM. Cl. 22.
529,509. KISSKERCHIEF. Cl. 39.
529,514. PENSCOPE. Cl. 26.
529,516. YARMOUTH. Cl. 39.
529,519. STREAMLINER. Cl. 39.
529,522. SUGAR-HEART. Cl. 39.
529,524. BACICAPS. Cl. 18.
529,525. BACITABS. Cl. 18.
529,526. ALFCO. Cl. 26.
529,549. CELCOS. Cl. 42.
529,553. KOOLOOM. Cl. 39.
529,554. KING COLE AND DESIGN. Cl. 42.
529,557. STROUD. Cl. 26.
529,561. FLASH-BAK. Cl. 39.
529,566. BOOTLEGGERS AND DESIGN. Cl. 3.
529,567. TAILORED BY LEON SANFORD AND DESIGN. Cl. 39.
529,569. CAT AND DESIGN. Cl. 40.
529,572. POSER. Cl. 39.
529,575. UNDERITE. Cl. 39.
529,579. PINBALL. Cl. 39.
529,582. TOMMIEBAG. Cl. 3.
529,583. COMBITRONE. Cl. 18.
529,584. BODAVITE. Cl. 18.
529,585. DONALVIN. Cl. 18.
529,590. OROLYN. Cl. 39.
529,591. RAM K SLIP. Cl. 39.
529,592. "DRIVE-IN." Cl. 22.
529,598. SPOOPTEE. Cl. 22.
529,599. "FM" AND STAR DESIGN. Cl. 39.
529,600. "FM" COMPOSITE". Cl. 39.
529,602. MAGIC CARPET. Cl. 3.
529,606. ELECTOMIC. Cl. 22.
529,609. ODORSTROY. Cl. 6.
529,614. OCTALOX. Cl. 6.
529,617. ROBOT. Cl. 40.
529,626. LISTEN TO CLIFF. Cl. 104.
529,632. CARTON AND DESIGN. Cl. 6.
529,634. MASKIT. Cl. 26.
529,635. TABINCERT AND DESIGN. Cl. 37.
529,638. HAIR CURLING DEVICE AND DESIGN. Cl. 40.
529,640. ASSOCIATION OF CHIROPODISTS AND DESIGN. Cl. 39.
529,644. DUBL-LOCK. Cl. 28.
529,646. CLASSIC BABE-WEAR. Cl. 39.
529,647. U-FILL-IT. Cl. 37.
529,648. RUGGED AND DESIGN. Cl. 37.
529,652. MAYO COAL. Cl. 1.
529,659. STAYERITE. Cl. 37.
529,663. ELEVATOR. Cl. 26.

## Section 18

349,067. SHAH-KASHMIR. Cl. 39. 6–17–37.
349,293. SHAH-KASHMIR. Cl. 42. 6–24–37.
567,248. ORLO-TAN. Cl. 42. 3–23–54.

# TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

209,934. NORTHERN PACIFIC AND DESIGN. Cl. 38. 3–2–26. Northern Pacific Railway Company, St. Paul, Minn. Amended to appear:




270,155. ROYAL MASTER AND DESIGN. Cl. 35. 4–29–30. United States Rubber Company, New York, N. Y. Amended to appear:

ROYAL MASTER

303,843. ICE CREAM RICCIARDI AND DESIGN. Cl. 46. 6–13–33. The Ricciardi Co., Inc., New York, N. Y. Corrected: In line 3 of the renewal certificate, "Delaware" should be *New York*.

339,603. "FOUR DOCTORS". Cl. 18. 10–13–36. Donalds Limited, Inc., Wilmington, Del. Corrected: In the certificate, line 4, and in line 3 of the statement, "New Jersey" should be *Delaware*.

546,775. KING'S RED ROSE AND DESIGN. Cl. 46. 8–21–51. King's Packing Company, Safeway Stores, Incorporated, Oakland, Calif. Amended to appear:

RED ROSE

631,075. "HI-AMP". Cl. 21. 7–17–56. Wagner Manufacturing Company, Inc., now by change of name Lenco, Inc., Jackson, Mo. Amended: In the certificate, lines 2 and 13, and in line 1 of the printed copy of the registration, after "Inc." *now by change of name Lenco, Inc.* is inserted.

633,236. "WHIPPLE HOUSE GROUP". Cl. 32. 8–7–56. Vermont Furniture Co., Inc., Winooski, Vt. Corrected: In line 2, "Union, N. J." should be *Winooski, Vt.*

# TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

325,291. PAN-AM. Cl. 46. Pankey Importing Company, Inc. 6–18–35. New Cert. Sec. 7(c), to Pan-Am Foods, Inc., Brownsville, Tex., 11–20–56.

390,528. SUSAN BAKER. Cl. 46. Union Food Products, Inc. 9–23–41. New Cert. Sec. 7(c), to Fred Fear & Co., Brooklyn, N. Y., 11–20–56.

393,611. SUSAN BAKER. Cl. 46. Union Food Products, Inc. 2–17–42. New Cert. Sec. 7(c), to Fred Fear & Co., Brooklyn, N. Y., 11–20–56.

533,563. SUSAN BAKER. Cl. 46. Susan Baker Products, Inc., assignor to Natural Sugars, Inc., now by change of name Fruit Products Corporation, 11–21–50. New Cert. Sec. 7(c), to Fred Fear & Co., Brooklyn, N. Y., 11–20–56.

558,017. SILENT MAID. Cl. 21. Silent Maid Co. 4–22–52. New Cert. Sec. 7(c), to Silent Maid, Inc., Chicago, Ill., 11–20–56.

590,590. GARBER'S RED CARPET TOURS ETC. AND DESIGN. Cl. 105. Garber's Travel Service, Inc. 6–1–54. New Cert. Sec. 7(c), to United Air Lines, Inc., Chicago, Ill., 11–20–56.

600,707. CONTROLA-TONE. Cl. 21. Harry E. Todd, doing business as Controla-Tone Company. 1–11–55. New Cert. Sec. 7(c), to Continental Manufacturing, Inc., Omaha, Nebr., 11–20–56.

# REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

## CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

161,439. Nov. 14, 1922. Chicago Flexible Shaft Company, Chicago, Ill. Pub. by Sunbeam Corporation, Chicago, Ill.

The Rain King

For Lawn Sprinklers.

## CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

444,040. June 20, 1950. Research Medications, New York, N. Y. Pub. by Research Medications, New York, N. Y.

CACODYNE

For Ampules of Sodium Cacodylate and Iodine for Treatment of Heart and Circulatory Diseases.

## CLASS 23

### CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

64,351. Aug. 6, 1907. Chicago Flexible Shaft Company, Chicago, Ill. Pub. by Sunbeam Corporation, Chicago, Ill.

Stewart

For Animal Shearing or Clipping Machines.

## CLASS 26

### MEASURING AND SCIENTIFIC APPLIANCES

112,883. Oct. 3, 1916. The Fulton Co., Knoxville, Tenn. Pub. by Robertshaw-Fulton Controls Company, Greensburg, Pa.

SYLPHON

For Hollow Expansible and Contractible Corrugated Tubular Device.

## CLASS 35

### BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

336,959. July 21, 1936. United States Rubber Products, Inc., New York, N. Y. Pub. by United States Rubber Company, Passaic, N. J.

FLEET DELIVERY

For Rubber Tires for Vehicles.

## CLASS 37

### PAPER AND STATIONERY

318,117. Oct. 16, 1934. United States Paper Mills, Inc., Chambersburg, Pa. Pub. by registrant.

LI-KA-KLOTH

For Paper Towels.





396,475. July 21, 1942. Checks, Incorporated, Minneapolis, Minn. Pub. by registrant.

Bondified

For Printed Matter—Namely, Money Order Blank Forms, Payor's Receipt Forms, Collector's Record Forms, Agent's Record Forms, Post Card Draft Forms, Money Order Forms, Remitter's Receipt Blank Forms, Check Forms or Blanks, Traveler's Blank Check Forms, Contract Blank Forms, Invoice Blank Forms, and Instruction Sheet Printed Blank Forms.

## CLASS 42

### KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

341,687. Dec. 22, 1936. Winne & Sutch Company, Los Angeles, Calif. Pub. by Winne & Sutch Company, Los Angeles, Calif.

SUNSPUN

For Bleached and Unbleached Cheesecloth.

## CLASS 44

### DENTAL, MEDICAL, AND SURGICAL APPLIANCES

432,556. Sept. 2, 1947. Telex, Inc., St. Paul, Minn. Pub. by registrant.

TELEMOLD

For Sound Reproducers of Hearing Aids Worn in the Ear of Users.

## CLASS 52

### DETERGENTS AND SOAPS

111,848. Aug. 8, 1916. Resinol Chemical Company, Baltimore, Md. Pub. by registrant.

RESINOL

For Soap.

# LIST OF REGISTRANTS OF TRADEMARKS

Abbott Laboratories, North Chicago, Ill. 637,371, pub. 9–4–56. Cl. 18.
Acme Quality Paints, Inc., Detroit, Mich. 637,362, pub. 9–4–56. Cl. 16.
Aeolian Co., The, New York, N. Y. 529,557, canc. Cl. 36.
Aetna Freight Lines, Inc., The, Warren, Ohio. 637,555, pub. 9–4–56. Cl. 105.
Aftex Laboratories, Inc., Woodmont, Conn. 529,504, canc. Cl. 18.
Agfa Camera-Werk Aktiengesellschaft, Munich, Germany. 637,430, pub. 9–4–56. Cl. 26.
Altheimer & Baer, Inc., Chicago, Ill. 637,505, pub. 9–4–56. Cl. 42.
Altman, B., & Co., New York, N. Y. 529,602, canc. Cl. 3.
American Home Products Corp., d. b. a. Ives-Cameron Co. Div. of American Home Products Corp., New York, N. Y. 637,381, pub. 9–4–56. Cl. 18.
American Instrument Co., Inc., Silver Spring, Md. 529,609, canc. Cl. 6.
American Journal of Surgery, Inc., The, New York, N. Y. 340,258, ren. 11–3–56. Cl. 38.
American-LaFrance-Foamite Corp., Elmira, N. Y. 529,526, canc. Cl. 26.
Ames Textile Corp., Lowell, Mass. 637,512, pub. 9–4–56. Cl. 45.
Ancient & Modern Oriental Import Co., New York, N. Y. 637,346, pub. 7–24–56. Cl. 13.
Anderson Chemical Co., to Anderson Chemical Co. (1948), Litchfield, Minn. 338 937, ren. 9–22–56. Cl. 46.
Anderson Chemical Co. (1948): *See*—
Anderson Chemical Co.
Anderson Tool & Die Works, Inc., Providence, R. I. 442,560, canc. Cl. 28.
Anglo Fabrics Co., Inc., New York, N. Y. 637,499, pub. 9–4–56. Cl. 42.
Anglo Fabrics Co., Inc., New York, N. Y. 637,500, pub. 9–4–56. Cl. 42.
Anheuser-Busch, Inc., St. Louis, Mo. 637,523, pub. 9–4–56. Cl. 46.
Arctic Vendor Sales Co., Inc., Appleton, Wis. 529,368, canc. Cl. 23.
Arrowhead Playclothes Corp., New York, N. Y. 529,567, canc. Cl. 39.
Art Iron & Works, Inc., Toledo, Ohio. 637,341, pub. 9–4–56. Cl. 12.
Artistic Mfg. Co., Inc., New York, N. Y. 519,382, canc. Cl. 7.
Ashby, F. S., and Braat Ltd., Leicester, England. 523,877, canc. Cl. 39.
Associated Distributors, Inc., Chicago, Ill., to Les Parfums de Dana, Inc., New York, N. Y. 343 897, ren. 3–9–57. Cl. 51.
Associated Merchandising Corp., The, New York, N. Y. 637,507, pub. 9–4–56. Cl. 42.
Associated Stationers Supply Co., Chicago, Ill. 637,335, pub. 9–4–56. Cl. 11.
Armour and Co., Chicago, Ill. 637,369, pub. 9–4–56. Cl. 18.
Armstrong Daily, Inc., The, New York, N. Y. 637,461, pub. 9–4–56. Cl. 38.
Ashaway Line & Twine Mfg. Co., Ashaway, R. I. 637,398, pub. 9–4–56. Cl. 22.
Athfolene Co., Inc., Canton, Ohio. 517,937, canc. Cl. 6.
Atlantic Insulated Wire & Cable Co., Jersey City, N. J., and Stamford, Conn., to General Cable Corp., New York, N. Y., and Perth Amboy, N. J. 114,858, ren. 1–9–57. Cl. 21.
Badger Paper Mills, Inc., Peshtigo, Wis. 529,507, canc. Cl. 37.
Baker & Co., Inc., Newark, N. J. 637,513, pub. 9–4–56. Cl. 44.
Baker, Susan, Products, Inc., to Natural Sugars, Inc., now by change of name Fruit Products Corp., to Fred Fear & Co., Brooklyn, N. Y. 533,563, new cert. Cl. 46.
Baltimore Paint & Color Works, Baltimore, Md. 637,360, pub. 9–4–56. Cl. 16.
Baltimore Porcelain Steel Corp.: *See*—
Trubey, Reginald R.
Bankers Club of America, The, New York, N. Y. 339,373, ren. 10–6–56. Cl. 17.
Barron, Anderson Co., Boston, Mass. 637,471, pub. 9–4–56. Cl. 39.
Bates Mfg. Co., Lewiston, Maine. 637,488, pub. 9–4–56. Cl. 39.
Battista, Orlando A., Drexel Hill, Pa. 637,560. Cl. 38.
Battista, Orlando A. (O. A. Battista), Drexel Hill, Pa. 637,561. Cl. 38.
Bausch & Lomb Optical Co., Rochester, N. Y. 529,485, canc. Cl. 26.
Bayshore Industries, Inc., Elkton, Md. 637,400, pub. 9–4–56. Cl. 22.
Beaunit Mills, Inc., New York, N. Y. 637,492, pub. 5–17–55. Cl. 42.
Beech-Nut Packing Co., Canajoharie, N. Y. 529,361, canc. Cl. 46.
Bellows Co., The, Akron, Ohio. 637,417, pub. 9–4–56. Cl. 23.
Bemis Bros. Bag Co., St. Louis, Mo. 637,496, pub. 9–4–56. Cl. 42.
Berk, F. W., & Co., Inc., Wood-Ridge, N. J. 637,327, pub. 9–4–56. Cl. 10.
Berkeley Industries, Jersey City, N. Y. 637,325, pub. 9–4–56. Cl. 8.
Betrix Co., Los Angeles, Calif. 637,458, pub. 9–4–56. Cl. 36.
Bibas, Edgar S., Inc., New York, N. Y. 529,516, canc. Cl. 39.
Big Boy Mfg. Co., Burbank, Calif. 637,450, pub. 9–4–56. Cl. 34.
Bischoff, Ernst, Co., Inc., Ivoryton, Conn. 527,243, canc. Cl. 18.
Bischoff, Ernst, Co., Inc., Ivoryton, Conn. 527,244, canc. Cl. 18.
Black Millwork & Lumber Co. Inc., Midland Park, N. J. 393,341, canc. Cl. 12.
Bluestone, Rebecca G., d. b. a. Spalding Drug Store, Pittsburgh, Pa. 529,420, canc. Cl. 18.
Boehler, Carl L., d. b. a. C. L. B. Co., Houston, Tex. 637,440, pub. 9–4–56. Cl. 21.
Bond Stores, Inc., New York, N. Y. 637,493, pub. 9–4–56. Cl. 39.
Boosey & Hawkes Ltd., London, England. 637,454, pub. 9–4–56. Cl. 36.
Bootleggers, Inc., Griffin, Ga. 529,566, canc. Cl. 3.
Boss Mfg. Co., The, Kewanee, Ill. 114,330, ren. 12–12–56. Cl. 39.
Boss Mfg. Co., The, Kewanee, Ill. 114,619, ren. 12–26–56. Cl. 39.
Boston White Uniform Co., d. b. a. Jackets, Ltd., Boston, Mass. 529,646, canc. Cl. 39.
Boston Woven Hose and Rubber Co., Cambridge, Mass. 637,541–2, pub. 9–4–56. Cl. 50.
Bostrom Mfg. Co., Milwaukee, Wis. 637,418, pub. 9–4–56. Cl. 23.
Bounia, Claude, Paris, France. 637,408, pub. 9–4–56. Cl. 23.
Bounin, Claude, Paris, France. 637,438, pub. 9–4–56. Cl. 31.
Boyertown Burial Casket Co., Boyertown, Pa. 443,941, canc. Cl. 2.
Brett, Leo H., El Centro, Calif. 523,645, canc. Cl. 46.
Bristol Laboratories Inc., New York, N. Y. 637,375, pub. 9–4–56. Cl. 18.
Bristol Laboratories Inc., New York, N. Y. 637,386–8, pub. 9–4–56, Cl. 18.
Broadstreet's, Inc., New York, N. Y. 637,466, pub. 11–15–55. Cl. 39.
Brooks Brothers, Inc., New York, N. Y. 637,470, pub. 9–4–56. Cl. 39.
Brown Co., Boston, Mass. 637,472, pub. 3–20–56. Cl. 39.
Buckeye Overall Co., The, Versailles, Ohio. 516,458, canc. Cl. 39.
Bureau of National Affairs, Inc., The, Washington, D. C. 637,464, pub. 9–4–56. Cl. 38.
Busken, a div. of BGS Shoe Corp., Manchester, N. H. 637,489, pub. 9–4–56. Cl. 39.
Byk-Gulden Lomberg, Chemische Fabrik, G. m. b. H., Konstanz, Germany. 637,350, pub. 9–4–56. Cl. 16.
C. L. B. Co.: *See*—
Boehler, Carl L.
C & S Products Co., Inc., Detroit, Mich. 637,416, pub. 9–4–56. Cl. 23.
Canada Cycle and Motor Co. Ltd., Weston, Toronto, Ontario, Canada. 637,402, pub. 9–4–56. Cl. 22.
Carpenter, L. E., & Co., Wharton, N. J. 637,316, pub. 9–4–56. Cl. 1.
Carter, Lucius, Detroit, Mich. 637,367, pub. 9–4–56. Cl. 18.
Catalina, Inc., Los Angeles, Calif. 637,473, pub. 9–4–56. Cl. 39.
Celanese Corp. of America, New York, N. Y. 529,549, canc. Cl. 43.
Celotex Corp., The, Chicago, Ill. 637,345, pub. 9–4–56. Cl. 12.
Checkn, Inc., Minneapolis, Minn. 306,475, 12(c) pub. 11–20–56. Cl. 37.
Cheery Cheese Products, Inc., New York, N. Y. 529,330, canc. Cl. 46.
Chemical Specialties, Inc.: *See*—
Rosewell Floral Co., The.
Chemicals, Inc., Britton, Okla. 529,431, canc. Cl. 12.
Chicago Flexible Shaft Co., by Sunbeam Corp., Chicago, Ill. 64,351, 12(c) pub. 11–20–56. Cl. 23.
Chicago Flexible Shaft Co., by Sunbeam Corp., Chicago, Ill. 161,439, 12(c) pub. 11–20–56. Cl. 13.
Chivas Brothers Ltd., Aberdeen, Scotland. 637,536–7, pub. 9–4–56. Cl. 49.
Christensen, A., Co., Inc., also d. b. a. A. Christensen Mfg. Co., Huntington Park and Los Angeles, Calif., to James Lees and Sons Co., Bridgeport, Pa. 529,617, canc. Cl. 40.
Christensen Mfg. Co.: *See*—
Christensen, A., Co., Inc.
Chromium Mining & Smelting Corp., Ontario, Canada. 637,313, pub. 9–4–56. Cl. 1.
Citroleum Co.: *See*—
Green, Benjamin.
Citrus City Growers' Association, to John S. Taylor Co., Largo, Fla. 336,657, ren. 7–14–56. Cl. 46.
Cluett, Peabody & Co., Inc., Troy, N. Y. 340,609, ren. 11–24–56. Cl. 39.
Coats & Clark Inc., New York, N. Y. 637,511, pub. 9–4–56. Cl. 43.
Cocker Machine and Foundry Co., Gastonia, N. C. 637,425, pub. 9–4–56. Cl. 23.
Cole, Anne S., New York, N. Y. 529,648, canc. Cl. 37.
Cole of California, Inc., Los Angeles, Calif. 529,510, canc. Cl. 39.
Columbia Broadcasting System, Inc., New York, N. Y. 529 626, canc. Cl.104.
Columbia Steel & Shafting Co., Pittsburgh, Pa. 637,349, pub. 9–4–56. Cl. 13.

Commonwealth Felt Co., Boston, Mass. 637,540, pub. 9–4–56. Cl. 50.
Community Chest of Philadelphia and Vicinity, Philadelphia, Pa. 637,550, pub. 9–4–56. Cl. 102.
Compania Ron Carioca : *See*—
Schenley Import Corp.
Conart Industries Corp., Glen Head, N. Y. 637,424, pub. 9–4–56. Cl. 23.
Consolidated Electrodynamics Corp., Pasadena, Calif. 637,393, pub. 9–4–56. Cl. 21.
Continental Distilling Corp., Philadelphia, Pa. 637,535, pub. 9–4–56. Cl. 49.
Continental Mfg., Inc. : *See*—
Todd, Harry K.
Continental Records Inc., Milwaukee, Wis. 637,455, pub. 9–4–56. Cl. 36.
Controls-Tone Co. : *See*—
Todd, Harry K.
Corona Mfg. Co., The, Kenton, Ohio. 637,377, pub. 9–4–56. Cl. 18.
Coty, Inc., New York, N. Y. 384,423, canc. Cl. 6.
Coty, Inc., New York, N. Y. 537,544, pub. 9–4–56. Cl. 51.
Coxhead, Ralph C., Corp., Newark, N. J. 637,543, pub. 9–4–56. Cl. 50.
Courvoisier, Ltd., Jarnac (Charente), France. 637,567. Cl. 49.
Covina Valley Orange Co., Covina, Calif. 529,455, canc. Cl. 46.
Craftint Mfg. Co., The, Cleveland, Ohio. 529,336, canc. Cl. 12.
Creek Chub Bait Co., The, Garrett, Ind. 637,399, pub. 9–4–56. Cl. 22.
Crescent Insulated Wire and Cable Co., Trenton, N. J. 637,392, pub. 9–4–56. Cl. 21.
Crylor, Paris, France. 637,504, pub. 9–4–56. Cl. 42.
Custom House Packing Co., Monterey, Calif. 529,304. Cl. 46.
Dan River Mills, Inc., Danville, Va. 637,502, pub. 9–4–56. Cl. 42.
Davida Gloves, Inc., Springfield, Ohio, 637,563. Cl. 39.
Decca Records, Inc., New York, N. Y. 529,295, canc. Cl. 36.
Decto Products Co., Salem, Mass. 637,559. Cl. 36.
Delbon, Frank G., Brooklyn, N. Y. 253,836, canc. Cl. 39.
Delmonico Foods, Inc., Louisville, Ky. 529,442, canc. Cl. 46.
Del Monte-Hickey Co., Inc., New York, N. Y. 349,057, canc. Cl. 39.
Del Monte-Hickey Co., Inc., New York, N. Y. 349,293, canc. Cl. 42.
Dermetics, Inc., New York, N. Y. 529,410, canc. Cl. 51.
Dieterich-Post Co., San Francisco, Calif. 528,010, canc. Cl. 32.
Doho Chemical Corp., The, New York, N. Y. 341,124, ren. 12–1–56. Cl. 18.
Donalds Ltd., Inc., Wilmington, Del. 339,603, cor. Cl. 18.
Donaldson Co., Inc., St. Paul, Minn. 637,442, pub. 9–4–56. Cl. 31.
Douglas, Hunter, Corp., New York, N. Y. 529,589, canc. Cl. 40.
Dunaway, Joseph, Jr., d. b. a. Red-E Model Accessories, Fort Lauderdale, Fla. 529,451, canc. Cl. 22.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 637,321, pub. 9–4–56. Cl. 6.
Dustmaster Corp. : *See*—
Ostdiek, C. J.
Eagle-Picher Co., The, Cincinnati, Ohio. 529,375, canc. Cl. 12.
Eagle Roll Leaf Stamping Co., Brooklyn, N. Y. 637,439, pub. 9–4–56. Cl. 31.
Eastman Kodak Co., Rochester, N. Y. 637,509, pub. 9–4–56. Cl. 43.
Ecusta Paper Corp., Pisgah Forest, N. C. 529,341, canc. Cl. 8.
Edconco, Inc., New York, N. Y. 637,412, pub. 8–7–56. Cl. 23.
Edison Distributing Co., Inc., Detroit, Mich., to Posees, Inc., Jersey City, N. J. 529,572, canc. Cl. 39.
Electomic Mfg. Corp., Detroit, Mich. 529,606, canc. Cl. 22.
Emees Tool & Chem. Corp., New York, N. Y. 637,320, pub. 1–31–56. Cl. 6.
Erste Kulmbacher Actien-Exportbier-Brauerei, Kulmbacher, Bayern, Germany. 637,533, pub. 9–4–56. Cl. 48.
Esquire, Inc., New York, N. Y. 637,549, pub. 9–4–56. Cl. 101.
Fath, Jacques F., & Cie, Paris, France. 637,468, pub. 9–4–56. Cl. 39.
Faulhaber Pharmacals : *See*—
Rosessler, George A.
Fear, Fred, & Co. : *See*—
Baker, Susan, Products, Inc.
Union Food Products, Inc.
Felberg, Mollie, d. b. a. Tudor Studios, Mount Vernon, N. Y. 637,447, pub. 9–4–56. Cl. 34.
Finer Foods Packing Corp., Terre Haute, Ind. 529,363, canc. Cl. 46.
Fiske, H. B., and Co. : *See*—
Fiske, Robert N.
Fiske, R. N., and Co. : *See*—
Fiske, Robert N.
Fiske, Robert N., d. b. a. R. N. Fiske and Co., Providence, R. I., from H. B. Fiske and Co. 529,283, canc. Cl. 46.
Flo-Lizer, Inc., Kingston, Ohio. 637,328, pub. 9–4–56. Cl. 10.
Florida Juice, Inc., Miami, Fla. 637,565. Cl. 46.
Food Machinery and Chemical Corp., San Jose, Calif. 637,414, pub. 9–4–56. Cl. 23.
Foot Smiles Co. : *See*—
Haughran, Frank P.
Foot Smiles Laboratories : *See*—
Haughran, Frank P.
Formal Records, Inc., Chicago, Ill. 637,456, pub. 9–4–56. Cl. 36.
Forman, Ford and Co., Minneapolis, Minn. 526,172, canc. Cl. 32.
Forsey Ice Cream Co. : *See*—
Forsey, James G.
Forsey, James G., d. b. a. Forsey Ice Cream Co., Richfield, Utah. 340,402, ren. 11–10–56. Cl. 46.
Forstner Chain Corp., Irvington, N. J. 529,644, canc. Cl. 28.
Fort Myers Shrimp Producers Association : *See*—
Julich, Fred N.
Frieder, S., & Sons Co., The, Philadelphia, Pa. 637,364, pub. 9–4–56. Cl. 17.
Fruit Products Corp. : *See*—
Baker, Susan, Products, Inc.
Fuller, D. B., & Co., Inc., New York, N. Y. 637,501, pub. 9–4–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 637,506, pub. 9–4–56. Cl. 42.
Fulton Co., The, Knoxville, Tenn., by Robertshaw-Fulton Controls Co., Greensburg, Pa. 112,883, 12(c) pub. 11–20–56. Cl. 26.
Gail Novelty Co., Inc., Brooklyn, N. Y. 529,496, canc. Cl. 22.
Game-Time, Inc., Litchfield, Mich. 637,403, pub. 9–4–56. Cl. 22.
Garber's Travel Service, Inc., to United Air Lines, Inc., Chicago, Ill. 590,590, new cert. Cl. 105.
Garin Co., The, Salinas, Calif. 529,419, canc. Cl. 46.
Geb and Bouhan Yarn Co., Inc., Seneca Falls, N. Y. 637,508, pub. 9–4–56. Cl. 43.
General Cable Corp. : *See*—
Atlantic Insulated Wire & Cable Co.
General Cable Corp., New York, N. Y. 342,764, ren. 1–26–57. Cl. 21.
Georgia-Carolina Oil Co., Macon, Ga. 342,935, ren. 2–2–57. Cl. 15.
Gerold Mfg. Co. : *See*—
Gerold, Phil.
Gerold, Phil, d. b. a. Gerold Mfg. Co., Hawthorne, Calif. 529,314, canc. Cl. 19.
Getz, George, Corp., Chicago, Ill. 637,556, pub. 9–4–56. Cl. 106.
Gevaert Photo-Producten N. V., Mortsel, Belgium. 336,041, ren. 6–23–56. Cl. 26.
Gianni, Dr. Virgilio, & C. S. p. A., Milan, Italy. 637,315, pub. 9–4–56. Cl. 1.
Gladding, B. F., & Co., Inc., South Otselic, N. Y. 637,324, pub. 9–4–56. Cl. 6.
Gladding, McBean & Co., Los Angeles, Calif. 637,342, pub. 9–4–56. Cl. 12.
Glaeser, Rolf, d. b. a. Glaeser-Strumpf-Wirkerei Rolf Glaeser, Heidelberg, Germany. 637,467, pub. 1–17–56. Cl. 39.
Glaeser-Strumpf-Wirkerei Rolf Glaeser : *See*—
Glaeser, Rolf.
Glamador Co. of America : *See*—
Sanders, Harry.
Glendale Fabrics, Inc., to United Merchants and Manufacturers Inc., New York, N. Y. 339,406, ren. 10–6–56. Cl. 42.
Globe Roofing Products Co., Inc., Whiting, Ind. 637,339, pub. 9–4–56. Cl. 12.
Goldring Inc., New York, N. Y. 637,465, pub. 1–31–50. Cl. 39.
Goodwin's Cleaners : *See*—
Kimball, William W.
Gould-National Batteries, Inc., St. Paul, Minn. 637,394, pub. 9–4–56. Cl. 21.
Grant, Ian, & Co., Ltd., London, England. 637,566. Cl. 49.
Green, Benjamin, d. b. a. Citroleum Co., Miami, Fla. 637,374, pub. 9–4–56. Cl. 18.
Gribble, Dwight L., Music Co., Kansas City, Mo. 637,453, pub. 9–4–56. Cl. 36.
Grieco Bros., Inc., Lawrence, Mass. 637,478–9, pub. 9–4–56. Cl. 39.
Gross, A., Candle Co., Inc., Linden, N. J. 637,355, pub. 9–4–56. Cl. 15.
Gulf Oil Corp., Pittsburgh, Pa. 637,545, pub. 9–4–56. Cl. 52.
H P Coffee Co., St. Louis, Mo. 637,519, pub. 9–4–56. Cl. 46.
Habley Inc., New York, N. Y. 637,469, pub. 9–4–56. Cl. 39.
Hanscom, H. F., & Co., Inc., Providence, R. I. 637,419, pub. 9–4–56. Cl. 23.
Hardware Products Co., New York, N. Y. 637,557. Cl. 28.
Hartmann Luggage Co., Racine, Wis. 637,317, pub. 9–4–56. Cl. 3.
Haughran, Frank P., d. b. a. Foot Smiles Laboratories, to K. Haughran, d. b. a. Foot Smiles Co., Columbus, Ohio. 340,005, ren. 10–27–56. Cl. 18.
Haughran, Kathryn : *See*—
Haughran, Frank P.
Healthmode Products Co. : *See*—
Nature Food Centres, Inc.
Helburn, Willard, Inc., Peabody, Mass. 343,979, ren. 3–9–57. Cl. 1.
Hershel California Fruit Products Co., San Jose, Calif. 340,001, ren. 10–27–56. Cl. 46.
Higgins Handcrafted Glass, Chicago, Ill. 637,444, pub. 9–4–56. Cl. 33.
Higgins, Robert J., Inc., New York, N. Y. 529,365, canc. Cl. 44.
Hills (West Bromwich) Ltd., West Bromwich, England. 637,338, pub. 9–4–56. Cl. 12.
Hills (West Bromwich) Ltd., West Bromwich, England. 637,340, pub. 9–4–56. Cl. 12.
Hoffmann-La Roche Inc., Nutley, N. J. 637,384, pub. 9–4–56. Cl. 18.
Hoppe, Frank A., Inc., Philadelphia, Pa. 637,326, pub. 9–4–56. Cl. 9.
Hotchkiss, E. H., Co., The, Norwalk, Conn. 529,508, canc. Cl. 23.
Hyde, A. R., & Sons Co. : *See*—
Witchell-Sheill Co.
Hyman, Julius, & Co., Denver, Colo. 529,614, canc. Cl. 6.
Illinois Water Treatment Co., Rockford, Ill. 637,435, pub. 9–4–56. Cl. 31.



Ingili, John, Frozen Foods Co., Modesto, Calif. 637,530, pub. 9–4–56. Cl. 46.
International Association of Insurance Counsel, Milwaukee, Wis. 637,463, pub. 9–4–56. Cl. 38.
Ives-Cameron Co., Div. of American Home Products Corp. : *See*—
American Home Products Corp.
Jelke, John F., Co., Chicago, Ill. 516,337, canc. Cl. 46.
Johnson & Johnson, New Brunswick, N. J. 637,434, pub. 9–4–56. Cl. 31.
Jones, Paul D., Inc., d. b. a. Paul Jones, Inc., Hollandale, Minn. 529,301, canc. Cl. 46.
Jones, Paul, Inc. : *See*—
Jones, Paul D., Inc.
Joy Mfg. Co., Pittsburgh, Pa. 637,421, pub. 9–4–56. Cl. 23.
Joy Mfg. Co., Pittsburgh, Pa. 637,422, pub. 9–4–56. Cl. 23.
Joyce, Inc., Cincinnati, Ohio. 637,487, pub. 9–4–56. Cl. 39.
Julian & Trower Ltd., London, England. 637,532, pub. 9–4–56. Cl. 47.
Julich, Fred N., d. b. a. Fort Myers Shrimp Producers Association, Fort Myers, Fla. 637,526, pub. 9–4–56. Cl. 46.
Kanmak Mills, Inc., New York, N. Y. 637,498, pub. 9–4–56. Cl. 42.
Karelius, Albert, & Sons, Inc., Alhambra, Calif. 637,420, pub. 9–4–56. Cl. 23.
Katz, Samuel, New York, N. Y. 529,591, canc. Cl. 39.
Kaylon Inc., New York, N. Y. 529,582, canc. Cl. 3.
Keep America Beautiful, Inc., New York, N. Y. 637,548, pub. 9–4–56. Cl. 100.
Kel-Art Co., Chester, Pa. 637,558. Cl. 32.
Keystone Adjustable Cap Co., Philadelphia, Pa. 637,476, pub. 9–4–56. Cl. 39.
Keystone Express Corp., New York, N. Y. 637,554, pub. 9–4–56. Cl. 105.
Kimball, William Webb, d. b. a. Goodwin's Cleaners, Waco, Tex. 637,546, pub. 9–4–56. Cl. 52.
King Cole Yarn Co. : *See*—
Leimgruber, W. R.
King, M. D., Milling Co., Pittsfield, Ill. 529,326, canc. Cl. 46.
King's Packing Co., Safeway Stores, Inc., Oakland, Calif. 546,775. Am. 7(d). Cl. 46.
Kisserchief, Inc. : *See*—
Kohler, John.
Knickerbocker Rubber Co., Chicago, Ill. 637,347, pub. 9–4–56. Cl. 18.
Kohler, John, New York, N. Y., to Kisserchief, Inc. 529,509, canc. Cl. 39.
Kooperativa Forbundet ekonomisk förening : *See*—
Kooperativa Förbundet Förening u. p. a.
Kooperativa Förbundet Förening u. p. a., to Kooperativa Förbundet ekonomisk förening, Stockholm, Sweden. 333,545, ren. 3–24–56. Cl. 12.
Lafayette Brass Mfg. Co., Inc., The, New York, N. Y. 637,350, pub. 9–4–56. Cl. 13.
La France Productions : *See*—
La France, René J.
La France, René J., d. b. a. La France Productions, San Diego, Calif. 529,624, canc. Cl. 26.
Langendorf United Bakeries, Inc., San Francisco, Calif. 637,517, pub. 9–4–56. Cl. 46.
Lasco Products, Inc., Rochester, N. Y. 637,405, pub. 9–4–56. Cl. 23.
Laughlin, Homer, China Co., The, Newell, W. Va. 637,433, pub. 9–4–56. Cl. 30.
Lees, James, and Sons Co. : *See*—
Christensen, A., Co., Inc.
Lehman Mfg. Co. : *See*—
Lehman, Roger.
Lehman, Roger, d. b. a. Lehman Mfg. Co., Newark, N. J. 637,415, pub. 9–4–56. Cl. 23.
Leimgruber, W. R., d. b. a. King Cole Yarn Co., South Hackensack, N. J. 529,554, canc. Cl. 43.
Lenco, Inc. : *See*—
Wagner Mfg. Co., Inc.
Leon, I., Co., Inc., The, Massapequa, N. Y. 529,638, canc. Cl. 40.
Leonora Silk Underwear Co., Inc., New York, N. Y. 529,297, canc. Cl. 39.
Les Parfums de Dana, Inc. : *See*—
Associated Distributors, Inc.
Liedstrand, Roy M., d. b. a. Strand, Oakland, Calif. 637,448, pub. 9–4–56. Cl. 34.
Lincoln Rug Co., Inc., Newark, N. J. 637,553, pub. 9–4–56. Cl. 103.
Liquid Carbonic Corp., The, Chicago, Ill. 637,323, pub. 9–4–56. Cl. 6.
London & Co., Inc., Elizabeth, N. J. 336,883, ren. 7–21–56. Cl. 49.
London & Co., Inc., Elizabeth, N. J. 337,585, ren. 8–11–56. Cl. 49.
Lord & Taylor, New York, N. Y. 88,097, canc. Cl. 39.
Lorraine Food Products, Inc., Yonkers, N. Y. 529,342, canc. Cl. 46.
Los Angeles Vegetable Exchange : *See*—
Tanimoto, R.
Lunday-Thagard Oil Co., South Gate, Calif. 637,358, pub. 9–4–56. Cl. 16.
Magidis Co., The, San Francisco, Calif. 529,406, canc. Cl. 6.
Marbek Inc., Brooklyn, N. Y. 637,495, pub. 9–4–56. Cl. 42.
Marvin Electric Mfg. Co., Los Angeles, Calif. 637,395, pub. 9–4–56. Cl. 21.
Maxsam Originals, Inc., Chicago, Ill. 637,480, pub. 9–4–56. Cl. 39.
McCampbell & Co., Inc., New York, N. Y. 637,503, pub. 9–4–56. Cl. 42.
McCormick & Co., Inc., Baltimore, Md. 270,504, canc. Cl. 6.
Meador, Young & Holt Coal Co., Clay, Ky. 529,652, canc. Cl. 1.
Mercury Record Corp., Chicago, Ill. 637,457, pub. 9–4–56. Cl. 36.
Merle Norman Cosmetics Inc. : *See*—
Norman, Merle.
Metropolitan Lithograph and Publishing Co., Everett, Mass. 637,459, pub. 9–4–56. Cl. 35.
Meyers, Louis, & Son, Inc., New York, N. Y. 344,013, ren. 3–9–57. Cl. 39.
Midland Coal Sales Co., Cincinnati, Ohio. 276,053, canc. Cl. 1.
Miehle Printing Press and Mfg. Co., Chicago, Ill. 523,046, canc. Cl. 21.
Miller-Bryant-Pierce Co., The, Aurora, Ill., to Smith-Corona Inc., Syracuse, N. Y. 339,919, ren. 10–27–56. Cl. 11.
Minden Cotton Oil & Ice Co., Ltd., Minden, La. 637,330, pub. 9–4–56. Cl. 10.
Mr. Boston Distiller Inc., Boston, Mass. 637,534, pub. 9–4–56. Cl. 49.
Moennig, Max, Morton Grove, Ill. 529,347, canc. Cl. 36.
Morton Packing Co., Louisville, Ky. 529,400, canc. Cl. 46.
Moyer, J. Bird, Co., Inc., The, Philadelphia, Pa. 637,366, pub. 9–4–56. Cl. 18.
Multivolor Gravure Corp., Holyoke, Mass. 529,659, canc. Cl. 37.
Munsingwear, Inc., Minneapolis, Minn. 529,522, canc. Cl. 39.
N. V. Verenigde Touwfabrieken, Rotterdam, The Netherlands. 337,598, ren. 8–11–56. Cl. 7.
Naamloose Vennootschap Vernis en Verfwarenfabriek v/h J. Wagemakers & Zonen, Breda, Netherlands. 529,327, canc. Cl. 16.
National Association of Chiropodists, New York, N. Y. 529,640, canc. Cl. 39.
National Vita-Clean Corp., Baltimore, Md. 637,406, pub. 11–1–55. Cl. 23.
Natural Sugars, Inc. : *See*—
Baker, Susan, Products, Inc.
Nature Food Centres, Inc., d. b. a. Healthmode Products Co., Cambridge, Mass. 337,980, ren. 8–25–56. Cl. 46.
Nester, I. H., & Co. : *See*—
Nester, Laura M.
Nester, Laura M., d. b. a. I. H. Nester & Co., Philadelphia, Pa. 637,522, pub. 7–31–56. Cl. 46.
Neuman, Ch. J., Ltd., South Croydon, Surrey, England. 637,423, pub. 9–4–56. Cl. 23.
New Northern Spinning & Weaving Co. Ltd., The, Belfast, Northern Ireland. 529,369, canc. Cl. 39.
Nordberg Mfg. Co., Milwaukee, Wis. 637,411, pub. 9–4–56. Cl. 23.
Norman, Merle, Ocean Park, to Merle Norman Cosmetics Inc., Los Angeles, Calif. 338,769, ren. 9–15–56. Cl. 51.
North Wear Woolen Co., Minneapolis, Minn. 529,367, canc. Cl. 39.
Northern Pacific Railway Co., St. Paul, Minn. 209,924. Am. 7(d). Cl. 38.
Novelty Mfg. Co., Richmond, Calif. 637,401, pub. 9–4–56. Cl. 22.
Nutrition Associates, Inc., Orchard Park, N. Y., 637,527, pub. 9–4–56. Cl. 46.
Ohio Valley Steel Sales Co., Steubenville, Ohio. 529,331, canc. Cl. 12.
Onan, D. W., & Sons Inc., Minneapolis, Minn. 637,426, pub. 9–4–56. Cl. 23.
Original Tractor Cab Co., Inc., Arlington, Ind. 637,418, pub. 9–4–56. Cl. 23.
Ostdiek, C. J., d. b. a. C. J. Ostdiek Mfg. Co., to Dustmaster Corp., Minneapolis, Minn. 333,984, ren. 9–22–56. Cl. 4.
Ostdiek, C. J., Mfg. Co. : *See*—
Ostdiek, C. J.
Packard Dresses, Inc., New York, N. Y. 529,599, canc. Cl. 39.
Packard Dresses, Inc., New York, N. Y. 529,600, canc. Cl. 39.
Pan-Am Foods, Inc. : *See*—
Pankey Importing Co., Inc.
Pankey Importing Co., Inc., to Pan-Am Foods, Inc., Brownsville, Tex. 325,291, new cert. Cl. 46.
Pan-Technics, Ltd. : *See*—
Tenny, Henry S.
Party Confections, Inc. : *See*—
Temptee Confections, Inc.
Passenger Belt Conveyors, Inc., Akron, Ohio. 637,409, pub. 9–4–56. Cl. 23.
Patentex, Inc., New York, N. Y. 637,510, pub. 9–28–56. Cl. 43.
Peerless Imperial Co., Inc., Newark, N. J. 637,331, pub. 7–10–56. Cl. 11.
Peerless Imperial Co., Inc., Newark, N. J. 637,332–4, pub. 7–10–56. Cl. 11.
Peerless Imperial Co., Inc., Newark, N. J. 637,333, pub. 7–10–56. Cl. 11.
Pemco Corp., Baltimore, Md. 637,312, pub. 9–4–56. Cl. 1.
Penton Publishing Co., The, Cleveland, Ohio. 637,562. Cl. 38.
Perregaux, Girard, & Co. Inc., New York, N. Y. 637,482, pub. 7–24–56. Cl. 27.
Pfeiffer Co., The, St. Louis, Mo. 637,373, pub. 9–4–56. Cl. 18.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 637,382, pub. 9–4–56. Cl. 18.
Phil Rose of California, Los Angeles, Calif. 637,466, pub. 9–4–56. Cl. 39.
Phillips Foundry Co., Bakersfield, Calif. 529,453, canc. Cl. 23.
Pieringer, Heidi H., New York, N. Y. 637,485, pub. 9–4–56. Cl. 39.
Pilgrim Sportswear, Inc., New York, N. Y. 505,527, canc. Cl. 39.
Polk Miller Products Corp., Richmond, Va. 529,633, canc. Cl. 6.
Posees, Inc. : *See*—
Edson Distributing Co., Inc.
Precision-Bilt Products Co., Brooklyn, N. Y. 637,436, pub. 9–4–56. Cl. 31.

Priebe & Sons, Inc., Chicago, Ill. 637,521, pub. 9–4–56. Cl. 46.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-phy-lac-tic Brush Co., Florence, Mass. 338,085, ren. 9–15–56. Cl. 29.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-phy-lac-tic Brush Co., Florence, Mass. 338,089, ren. 9–15–56. Cl. 29.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-phy-lac-tic Brush Co., Florence, Mass. 338,725, ren. 9–15–56. Cl. 29.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-phy-lac-tic Brush Co., Florence, Mass. 338,726, ren. 9–15–56. Cl. 29.
Protein Feed Corp., Tenneat, N. J. 637,376, pub. 9–4–56. Cl. 18.
Pycopd, Inc., Jersey City, N. J. 529,352, canc. Cl. 51.
Puerto Rico Distilling Co., Arecibo, Puerto Rico. 637,539, pub. 9–4–56. Cl. 46.
Puritan Sales Co., Inc., Atlanta, Ga. 514,237, canc. Cl. 4.
Qualitrol Corp., East Rochester, N. Y. 517,036, canc. Cl. 26.
Quick-Set, Inc., Chicago, Ill. 529,663, canc. Cl. 26.
Rabinowitz, I., d. b. a. Sharmey Hosiery Sales Co., Philadelphia, Pa. 517,132, canc. Cl. 39.
Ratner, Walter, d. b. a. Silver-Nu Co., Chicago, Ill. 637,318, pub. 9–4–56. Cl. 4.
Red-B Model Accessories: *See*—
Dunaway, Joseph H., Jr.
Red Raven Corp., The, Red Raven, Chestwick Post Office, Pa. 637,515, pub. 9–4–56. Cl. 45.
Redex Impression Corp., Glendale, N. Y. 529,378, canc. Cl. 44.
Register and Tribune Co., The, Des Moines, Iowa. 529,460, canc. Cl. 38.
Reliable Household Specialties Mfg. Co., New York, N. Y. 523,953, canc. Cl. 6.
Research Medications, by Research Medications, New York, N. Y. 444,040, 12(c) pub. 11–20–56, Cl. 18.
Resetar, A. P., d. b. a. A. P. Resetar Co., Watsonville, Calif. 637,528, pub. 9–4–56. Cl. 46.
Resetar, A. P., Co.: *See*—
Resetar, A. P.
Resinol Chemical Co., Baltimore, Md. 111,848, 12(c) pub. 11–20–56. Cl. 52.
Revere Rubber Co., Providence, R. I., and Chelsea, Mass., to United States Rubber Co., Passaic, N. J. 114,280, ren. 12–5–56. Cl. 35.
Reynolds, R. J., Tobacco Co., Winston-Salem, N. C. 637,365, pub. 9–4–56. Cl. 17.
Ricciardi Co., Inc., The, New York, N. Y. 302 863, cor. Cl. 46.
Richman, J., & Co., New York, N. Y. 426,078, canc. Cl. 42.
Robertshaw-Fulton Co.: *See*—
Fulton Co., The.
Rochester Ribbon & Carbon Co., Inc., Rochester, N. Y. 637,336, pub. 9–4–56. Cl. 11.
Rola Extract Co. and Rola Bottling Co.: *See*—
Rothstein, Matthias.
Rossetter, George A., d. b. a. Faulhaber Pharmacals, Neptune, N. J. 637,372, pub. 9–4–56. Cl. 18.
Rosewell Floral Co., The, Lincoln, to Chemical Specialties, Inc., Ogallala, Nebr. 637,319, pub. 8–17–54. Cl. 6.
Rothstein, Matthias, d. b. a. Rola Extract Co. and Rola Bottling Co., Erie, Pa. 637,516, pub. 9–4–56. Cl. 46.
Russell Hosiery Mills, Inc., Star, N. C. 637,482, pub. 9–4–56. Cl. 39.
Ryberg, Harry, Jr., San Francisco, Calif. 335,725, ren. 9–16–56. Cl. 39.
Safeway Stores, Inc.: *See*—
King's Packing Co.
Salkin & Linoff, Inc., Minneapolis, Minn. 637,491, pub. 9–4–56. Cl. 39.
Sanders, Harry, d. b. a. Glamador Co. of America, Milwaukee, Wis. 637,344, pub. 9–4–56. Cl. 12.
Sands, Taylor & Wood Co., Cambridge, Mass. 637,525, pub. 9–4–56. Cl. 46.
Schenley Import Corp., d. b. a. Compania Ron Carioca, New York, N. Y. 637,536, pub. 9–4–56. Cl. 49.
Schering Corp., Bloomfield, N. J. 529,406, canc. Cl. 18.
Schloss Bros. & Co. Inc., Baltimore, Md. 529,318, canc. Cl. 39.
Schmidt & Ziegler, Remscheid, Germany. 637,410, pub. 9–4–56. Cl. 23.
Schneider, Mitchel, Co. Inc., Brooklyn, N. Y. 519,946, canc. Cl. 39.
Schneider, Mitchel, Co. Inc., Brooklyn, N. Y. 529,590, canc. Cl. 39.
Schoeneman, J., Inc., Baltimore, Md. 637,477, pub. 9–4–56. Cl. 39.
Scholl Mfg. Co., Inc., to The Scholl Mfg. Co., Inc., Chicago, Ill. 116,232, ren. 1–30–57. Cl. 52.
Scholl Mfg. Co., Inc., The: *See*—
Scholl Mfg. Co., Inc.
Schwartz, Wm., & Co., Inc., Philadelphia, Pa. 637,481, pub. 9–4–56. Cl. 39.
Scovill Mfg. Co., Waterbury, Conn. 637,437, pub. 9–4–56. Cl. 31.
Searle, G. D., & Co., Skokie, Ill. 637,379, pub. 9–4–56. Cl. 18.
Searle, G. D., & Co., Skokie, Ill. 637,383, pub. 9–4–56. Cl. 18.
Sears, Roebuck and Co., Chicago, Ill. 529,353, canc. Cl. 8.
Sears, Wellington, Co. New York, N. Y. 637,494, pub. 9–4–56. Cl. 42.
Selchow & Righter Co., New York, N. Y. 529,502, canc. Cl. 22.
Service Tailoring Co. Ltd., The, Leeds, England. 529,388, canc. Cl. 39.
Servo Corp. of America, New Hyde Park, N. Y. 637,443, pub. 11–6–56. Cl. 33.
Shampaine Co., St. Louis, Mo. 637,514, pub. 9–4–56. Cl. 44.
Sharmey Hosiery Sales Co.: *See*—
Rabinowitz, I.
Sharp & Dohme, Inc., Philadelphia, Pa. 529,502, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 529,503, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 529,506, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 529,583, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 529,584, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 529,585, canc. Cl. 18.
Sherman, Sol, New York, N. Y. 521,976, canc. Cl. 39.
Sidell Industries, Inc., Detroit, Mich. 637,237, pub. 7–19–55. Cl. 12.
Sigma Products Corp., New York, N. Y. 529,334, canc. Cl. 44.
Sigma Products Corp., New York, N. Y. 529,335, canc. Cl. 44.
Silent Maid Co., to Silent Maid, Inc., Chicago, Ill. 558,017, new cert. Cl. 21.
Silent Maid, Inc.: *See*—
Silent Maid Co.
Silver King Corp., Chicago, Ill. 518,610, canc. Cl. 23.
Silver-Nu Co.: *See*—
Ratner, Walter.
Simon Millinery Co., San Francisco, Calif. 524,456, canc. Cl. 39.
Sinclair Refining Co.: *See*—
Union Petroleum Co.
Smith-Corona Inc.: *See*—
Miller-Bryant-Pierce Co., The.
Smith Kline & French Laboratories, Philadelphia, Pa. 637,370, pub. 9–4–56. Cl. 18.
Smith's Heat'n Serve Frozen Foods, Inc., Toledo, Ohio. 637,518, pub. 9–4–56. Cl. 46.
Smulin, Jerome, New York, N. Y., to U-Fill-It Corp. 529,647, canc. Cl. 37.
Societa per Azioni Perugina, Perugia, Italy. 637,520, pub. 9–4–56. Cl. 46.
Societe Anonyme Des Tissages Lesur, Paris, France. 637,497, pub. 9–4–56. Cl. 42.
Socony Mobil Oil Co., Inc., New York, N. Y. 637,352, pub. 9–4–56. Cl. 15.
Socony Mobil Oil Co., Inc., New York, N. Y. 637,357, pub. 9–4–56. Cl. 15.
Soil Booster Corp., Oklahoma City, Okla. 637,329, pub. 9–4–56. Cl. 10.
Somersville Mfg. Co., Somersville, Conn. 637,493, pub. 7–12–55. Cl. 42.
Spalding, A. G., & Bros. Inc., Chicopee, Mass. 637,396, pub. 9–4–56. Cl. 22.
Spalding Drug Store: *See*—
Bluestone, Rebecca G.
Staley, A. E., Mfg. Co., Decatur, Ill. 637,524, pub. 9–4–56. Cl. 46.
Stamford Clothes, San Antonio, Tex. 529,553, canc. Cl. 39.
Standard Brands Inc., New York, N. Y. 343,060, ren. 2–0–57. Cl. 46.
Standard Milling Co., Chicago, Ill. 529,291, canc. Cl. 46.
Stanley Drug Products, Inc., Portland, Oreg. 637,385, pub. 9–4–56. Cl. 18.
State Beauty and Barbers Supply Co., Charlotte, N. C. 529,447, canc. Cl. 39.
Staunch Sales Co., The, New York, N. Y. 529,635, canc. Cl. 37.
Stearns & Foster Co., The, Lockland, Cincinnati, Ohio. 529,598, canc. Cl. 22.
Stetson, John B., Co., Philadelphia, Pa. 340,981, ren. 11–24–56. Cl. 39.
Strand: *See*—
Lledstrand, Roy M.
Streamliner Pinless Diaper Co., Inc., Dallas, Tex. 529,519, canc. Cl. 39.
Strelk, Aron, Inc., New York, N. Y. 520,936, canc. Cl. 46.
Summerbell Roof Structures, Los Angeles, Calif. 529,306, canc. Cl. 12.
Sun Oil Co., Philadelphia, Pa. 637,356, pub. 9–4–56. Cl. 15.
Sun Oil Co., Philadelphia, Pa. 637,361, pub. 9–4–56. Cl. 16.
Sunbeam Corp.: *See*—
Chicago Flexible Shaft Co.
Superb Glove Co., The, Johnstown, N. Y. 514,554, canc. Cl. 39.
Superb Glove Co., The, Johnstown, N. Y. 529,561, canc. Cl. 39.
Superior Co., Inc., Piqua, Ohio. 529,575, canc. Cl. 39.
Swartzbaugh Mfg. Co., The, Toledo, Ohio. 439,650, canc. Cl. 21.
Taber Instrument Corp., North Tonawanda, N. Y. 637,429, pub. 9–4–56. Cl. 26.
Taeschner & Co.: *See*—
Taeschner, R., Chemisch-Pharmaceutische Fabrik.
Taeschner, R., Chemisch-Pharmaceutische Fabrik, Potsdam, to Taeschner & Co., Kipfenberg, Germany. 335,544, ren. 6–9–56. Cl. 18.
Tambro Fabrics Corp., New York, N. Y. 567,248, canc. Cl. 42.
Tanimoto, S., d. b. a. Los Angeles Vegetable Exchange, Los Angeles, Calif. 637,529, pub. 9–4–56. Cl. 46.
Tarbox, George S., Yonkers, N. Y. 637,441, pub. 9–4–56. Cl. 31.
Taylor, John S., Co.: *See*—
Citrus City Association.
Tea Garden Products Co., San Francisco, Calif. 529,239, canc. Cl. 46.
Teletypesetter Corp., Chicago, Ill. 637,389, pub. 9–13–56. Cl. 21.
Telex, Inc., St. Paul, Minn. 432,556, 12(c) pub. 11–20–56. Cl. 44.
Tempinware Corp., Pasadena, Calif. 637,348, pub. 9–4–56. Cl. 13.
Tempteo Confections, Inc., from Party Confections, Inc., New York, N. Y. 527,396, canc. Cl. 46.



Tenny, Henry S., d. b. a. Pan-Technics, Ltd., Encinitas, Calif. 529,514, canc. Cl. 26.
Thermometer Corp. of America, Springfield, Ohio. 637,427, pub. 9–4–56. Cl. 26.
Thew Shovel Co., The, Lorain, Ohio. 507,587, canc. Cl. 23.
Thompson-Hayward Chemical Co., Kansas City, Mo. 637,380, pub. 9–4–56. Cl. 18.
Ticker Publishing Co., New York, N. Y. 338,686, ren. 9–15–56. Cl. 38.
Ticker Publishing Co., New York, N. Y. 341,675, ren. 12–22–56. Cl. 38.
Toch Brothers, New York, N. Y., to Toch Brothers, Inc., Staten Island, N. Y. 114,561, ren. 12–19–56. Cl. 12.
Toch Brothers Inc.: *See*—
Toch Brothers.
Todd, Harry K., d. b. a. Controls-Tone Co., to Continental Mfg., Inc., Omaha, Nebr. 600,707, new cert. Cl. 21.
Treasure Co., Milwaukee, Wis. 529,215, canc. Cl. 3.
Triner, Joseph, Co., Chicago, Ill. 296,555, canc. Cl. 18.
Trubey, Reginald E., Fremont, Ohio, to Baltimore Porcelain Steel Corp., Baltimore, Md. 529,372, canc. Cl. 12.
Tudor Studios: *See*—
Felberg, Mollie.
U-Fill-It Corp.: *See*—
Smulin, Jerome.
Union Food Products, Inc., to Fred Fear & Co., Brooklyn, N. Y. 390,528, new cert. Cl. 46.
Union Food Products, Inc., to Fred Fear & Co., Brooklyn, N. Y. 393,611, new cert. Cl. 46.
Union Petroleum Co., Philadelphia, Pa., to Sinclair Refining Co., Chicago, Ill. 112,396, ren. 9–5–56. Cl. 15.
United Air Lines, Inc.: *See*—
Garber's Travel Service, Inc.
United Merchants and Manufacturers Inc.: *See*—
Glendale Fabrics, Inc.
United Press Associations, New York, N. Y. 637,460, pub. 9–4–56. Cl. 38.
United States Paper Mills, Inc., Chambersburg, Pa. 318,117, 12(c) pub. 11–20–56. Cl. 37.
United States Rubber Co.: *See*—
Revere Rubber Co.
United States Rubber Products, Inc.
United States Rubber Co., New York, N. Y. 270,155. Am. 7(d). Cl. 35.
United States Rubber Products, Inc., New York, N. Y., by United States Rubber Co., Passaic, N. J. 336,959, 12(c) pub. 11–20–56. Cl. 35.
Universal Chemicals Corp., Lonsdale, R. I. 637,322, pub. 5–1–56. Cl. 6.
Universal Major Corp.: *See*—
Universal Major Elec. Appliances, Inc.
Universal Major Elec. Appliance Co.: *See*—
Universal Major Elec. Appliances, Inc.
Universal Major Elec. Appliances, Inc., Lima, Ohio, to Universal Major Corp. 637,445, pub. 9–4–56. Cl. 34.
Universal Major Elec. Appliances, Inc., d. b. a. Universal Major Elec. Appliance Co., Lima, Ohio, to Universal Major Corp. 637,446, pub. 9–4–56. Cl. 34.
Upjohn Co., The, Kalamazoo, Mich. 529,324, canc. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 529,524–5, canc. Cl. 18.
Valspar Corp., The, Ardmore, Pa. 637,363, pub. 9–4–56. Cl. 16.
Van Drunen, Peter P., South Holland, Ill. 529,454, canc. Cl. 46.
Vermont Certified Seed and Potato Growers' Association, The, Montpelier, Vt. 637,564, Cl. 46.
Vermont Furniture Co., Inc., Winooski, Vt. 632,236, cor. Cl. 32.
Vestal Laboratories, Inc., St. Louis, Mo. 637,547, pub. 9–4–56. Cl. 52.
Vintage Wines, Inc., New York, N. Y. 637,531, pub. 9–4–56. Cl. 47.
Wagner Mfg. Co., Inc., now by change of name Lenco, Inc., Jackson, Mo. 631,075. Am. 7(d). Cl. 21.
Wal-Feld Co., Inc., The, Valley Stream, N. Y. 637,397, pub. 9–4–56. Cl. 22.
Walker & Pratt Co., Inc., Springfield, Mass. 637,449, pub. 9–4–56. Cl. 34.
Wallace, B. E., Products Co.: *See*—
Wallace, Bernard E.
Wallace, Bernard E., d. b. a. B. E. Wallace Products Co., Exton, Pa. 637,407, pub. 7–31–56. Cl. 23.
Wampole, Henry K., Co., Inc., Philadelphia, Pa. 637,368, pub. 9–4–56. Cl. 18.
Ware Valley Mfg. Co., Inc., Ware, Mass., and New York, N. Y. 356,721, canc. Cl. 39.
Warner-Lambert Pharmaceutical Co.: *See*—
Warner, William R., & Co., Inc.
Warner, William R., & Co., Inc., New York, N. Y., to Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 339,061, ren. 9–22–56. Cl. 18.
Waterfilm Boilers, Inc., Jersey City, N. J. 341,293, ren. 12–1–56. Cl. 34.
Waverly Shoes, Inc., New York, N. Y. 529,579, canc. Cl. 39.
Wear-Rite Brassiere Co., Inc., New York, N. Y. 521,902, canc. Cl. 39.
Webb Corp., The, Webb City, Mo. 637,431, pub. 9–4–56. Cl. 26.
Webster, G. L., Co., Inc., Cheriton, Va. 529,312, canc. Cl. 46.
Weinschel Engineering Co., Inc., Kensington, Md. 637,428, pub. 9–4–56. Cl. 26.
Wellco Shoe Corp., Waynesville, N. C. 637,490, pub. 9–4–56. Cl. 39.
West Disinfecting Co., Long Island City, N. Y. 112,736, ren. 9–19–56. Cl. 6.
Western Press, Inc., The, Los Angeles, Calif. 637,462, pub. 9–4–56. Cl. 38.
Westinghouse Air Brake Co., Pittsburgh, Pa. 637,390, pub. 9–4–56. Cl. 21.
West Virginia Pulp and Paper Co., Wilmington, Del. 637,314, pub. 9–4–56. Cl. 1.
Whirl-A-Way Egg Washer Co., Harrisburg, Pa. 637,291, pub. 9–4–56. Cl. 21.
Whiting-Adams Co., Inc., Boston, Mass. 529,483, canc. Cl. 29.
Whitmoyer Laboratories, Inc., Myerstown, Pa. 637,376, pub. 9–4–56. Cl. 18.
Wilder Industries: *See*—
Wilder, Shepard J.
Wilder, Shepard J., d. b. a. Wilder Industries, Concord, N. H. 637,451, pub. 9–4–56. Cl. 34.
Willer, Rose: *See*—
Winter, Ida B.
Willys Motors, Inc.: *See*—
Willys-Overland Motors, Inc.
Willys-Overland Motors, Inc., Toledo, Ohio, to Willys Motors, Inc. 637,404, pub. 10–31–50. Cl. 23.
Wilson Brothers, Chicago, Ill. 637,475, pub. 9–4–56. Cl. 39.
Wimbledon Shirt Co., Inc., Chicago, Ill. 637,474, pub. 7–31–56. Cl. 39.
Winne & Sutch Co., by Winne & Sutch Co., Los Angeles, Calif. 341,687, 12(c) pub. 11–20–56. Cl. 42.
Winter, Ida B., d. b. a. The M. A. Winter Co., Washington, D. C., to R. Willer, d. b. a. The M. A. Winter Co., Takoma Park, Md. 335,844, ren. 6–16–56. Cl. 18.
Winter, Ida B., d. b. a. The M. A. Winter Co., Washington, D. C., to R. Willer, d. b. a. The M. A. Winter Co., Takoma Park, Md. 335,845, ren. 6–16–56. Cl. 18.
Winter M. A., Co., The: *See*—
Winter, Ida B.
Witchell-Shelll Co., Chicago, Ill., to A. R. Hyde & Sons Co., Cambridge, Mass. 338,768, ren. 9–15–56. Cl. 39.
Wood Conversion Co., St. Paul, Minn. 637,343, pub. 9–4–56. Cl. 12.
Wood, John, Co., New York, N. Y. 637,452, pub. 9–4–56. Cl. 24.
Woodmen Accident and Life Co., Lincoln, Nebr. 637,551–2, pub. 9–4–56. Cl. 102.
Worcester Valve Co., Inc., Worcester, Mass. 637,351, pub. 9–4–56. Cl. 13.
Zimet, D., Inc., d. b. a. Zim-Stra, New York, N. Y. 637,484, pub. 9–4–56. Cl. 39.
Zim-Stra: *See*—
Zimet, D., Inc.

U. S. GOVERNMENT PRINTING OFFICE: 0——1956

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# PATENTS

## NOTICES

### Adjudicated Patents

(D. C. Ga.) Lawson and Green Patent No. 2,217,022 (66—43), for solid color pattern knitting machine. Claims 2, 3, 48, 50, and 52 *Held* valid and infringed. *Hemphill Co. v. Holeproof Hosiery Co.*, 143 F. Supp. 727; 109 USPQ 478.

(D. C. Calif.) Wilson Patent No. 2,464,361 (67—22), for drip candle, *Held* valid and infringed. *Wilson v. Muench-Kreuser Candle Co., Inc.*, 143 F. Supp. 648; 109 USPQ 470.

### Disclaimer

2,758,733.—*Carl H. Melle*, Fort Wayne, Ind. VALVE TAPPET ASSEMBLY. Patent dated July 31, 1956. Disclaimer filed Oct. 26, 1956, by the assignee, *International Harvester Company*.

Hereby enters this disclaimer to claims 1 to 10 inclusive of said patent.

### Patents Available for Licensing or Sale

2,596,188. Adjustable Stroke Dispensing Pump. Ernest Dale Minton, 1013 Mission, Apt. 8, South Pasadena, Calif.

2,758,643. Draw Curtain Type Awning. Harvey L. Angus, 429 6th St., Havre, Mont.

2,761,587. Automatic Timer and Shutoff Device (Control for Lawn Sprinkler and Similar Devices). Irving Schantz, 1007 Midway Ave., Lancaster, Pa.

2,761,719. Padlock Hasp and Knocker. Dr. Alberto Avila-Figueroa, San Salvador, El Salvador, Central America.

2,765,105. Fat Saver Vessel for Gravy and the Like. Harold W. Sullivan. Correspondence to: Eaton, Bell, Hunt & Seltzer, 904 Johnston Bldg., Charlotte 2, N. C.

2,765,860. Selective Wheeled or Endless Belt Supports for Self-Propelled Vehicles (Mobile Wheel Chair for Paraplegics). Robert E. Church, R. E. Church Enterprises, Elkin, N. C. Correspondence to: Eaton, Bell, Hunt & Seltzer, 904 Johnston Bldg., Charlotte 2, N. C.

General Electric Company is prepared to grant nonexclusive licenses under the following 27 patents on reasonable terms to domestic manufacturers.

Applications for license under the following 5 patents may be addressed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass. Attention: Patent Counsel.

2,248,608. Protective Device.

2,280,625. Transformer.

2,290,671. Insulated Conducting Member and Method of Applying the Insulation.

2,316,558. Transformer.

2,452,901. Electromagnetic Induction Apparatus.

Applications for license under the following 2 patents may be addressed to: General Electric Company, Component Products Division, 1635 Broadway, Fort Wayne, Ind.

2,756,013. Resilient Mounting.

2,758,228. Cast Rotor Structure.

Applications for license under the following 2 patents may be addressed to: General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio, Attention: Patent Counsel.

2,746,244. Reaction Power Plant Variable Discharge Area Nozzle Control System.

2,764,390. Anti-Icing Device.

Applications for license under the following 18 patents may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,707,085. Vibration Damping System for Automatic Washers and the Like.

2,737,573. Lighting Means for Automatic Clothes Washers.

2,738,072. Time Controlled Cover Lock for Clothes Washers and the Like.

2,742,128. Hydraulic Clutch Actuation Means for Washing Machines and the Like.

2,743,587. Control for Refrigerating Apparatus.

2,745,169. Method for Supporting a Cylinder Assembly on a Compressor Frame.

2,745,256. Evaporator of High Thermal Mass.

2,745,707. Dishwasher Rack and Supporting Frame.

2,745,937. Electric Oven Heating System.

2,746,270. Defrosting Arrangements for Refrigerating Systems.

2,746,262. Centrifugal Drainage Pump.

2,746,590. Rotating Receptacle Structure for Household Refrigerators.

2,750,782. Laundry Apparatus.

2,751,197. Refrigerator Humidifier.

2,755,157. Sliding Shelf.

2,758,446. Two Control Two-Temperature Refrigerating System.

2,758,450. Refrigerator Cabinet.

2,761,626. Auxiliary Waste Receiver for Waste Disposal Apparatus.

### Patents Removed From Register

The following patent is hereby withdrawn from the Register of Patents Available for Licensing or Sale. It was listed by General Electric Company in the Notices section of the OFFICIAL GAZETTE of June 16, 1953.

2,612,635. Induction Voltage Regulator.

### New Applications Received During September 1956

| | |
|---|---|
| Patents | 5,343 |
| Designs | 336 |
| Plants | 11 |
| Reissues | 10 |
| Total | 5,700 |

### Issues

| | | | |
|---|---|---|---|
| Patents | 807 | No. 2,771,608 to No. | 2,772,414, incl. |
| Designs | 60 | No. 179,276 to No. | 179,335, incl. |
| Plants | 2 | No. 1,530 to No. | 1,531, incl. |
| Reissues | 2 | No. 24,240 to No. | 24,241, incl. |
| Total | 871 | | |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application | |
|---|---|---|
| | New | Amended |
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 9-9-55 | 8-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 1-6-56 | 6-12-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 12-12-55 | 9-14-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 11-23-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Finant Material Handling, Filling; Toilet, Kitchen and Table Articles | 1-18-56 | 8-16-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 9-26-55 | 9-6-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 10-14-55 | 3-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 1-5-56 | 6-6-55 |
| 39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-3-56 | 10-1-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 1-3-56 | 8-1-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds | 7-20-55 | 9-3-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 4-29-55 | 10-19-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Weed Treatment Apparatus) | 9-26-55 | 1-28-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar ;Sonar; Torpedoes | 6-2-55 | 6-19-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 10-26-55 | 2-9-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., Sniomable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 7-26-55 | 1-10-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 1-10-56 | 7-20-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 8-12-55 | 8-18-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 9-1-55 | 9-21-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 12-30-55 | 9-7-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 12-29-55 | 8-24-54 |
| 52. (V) NEFF, P. R., Supports Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 10-24-55 | 11-15-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Appiratus | 12-2-55 | 3-30-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 10-24-55 | 10-4-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors | 7-26-55 | 11-15-54 |
| 56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 12-22-55 | 9-13-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 3-19-56 | 2-2-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons | 10-17-55 | 11-4-54 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 9-20-55 | 1-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 8-2-55 | 9-30-54 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 12-6-55 | 3-4-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 1-9-56 | 7-5-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbonhydrate Derivatives; Fats and Metal Containing Carbocyclic or Acyclic Carbon Compounds | 11-28-55 | 12-15-54 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 12-27-55 | 12-20-54 |
| 65. (V) LISANN, L., Geometric Instruments; Automatic Weighing Scales; Acoustics | 10-27-55 | 6-21-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-6-55 | 2-19-55 |
| 68. (II) GALVIN, D. J., Wave Guides; Electric Motors; Sound Recording; Conductors; Insulators | 11-17-55 | 9-15-54 |
| 70. (II) BREWBINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 9-14-55 | 4-8-55 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 1-16-56 | 10-14-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-9-56 | 7-5-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 12-2-55 | 2-14-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 2-6-56 | 3-1-56 |
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| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 2-2-56 | 3-13-56 |

The following divisions have been abolished: 66 and 69

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during November 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,178,536 to 2,181,857, inclusive
Plant Patent ..... Numbers 346 to 348, inclusive



## CONDITION OF PATENT APPLICATIONS AS OF SEPTEMBER 28, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217,262 |
| Total number of pending Design applications | 6,321 |
| Total number of applications awaiting action (excluding Designs) | 120,204 |
| Total number of Design applications awaiting action | 2,772 |
| Date of oldest new application | Apr. 29, 1955 |
| Date of oldest amended application | May 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, I. G., CHEMICAL AND RELATED ARTS | 5, 21, 26, 42, 46, 48, 49, 52, 53, 54, 63, 64. |
| II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 16, 23, 25, 37, 42, 44, 45, 51, 54, 68, 70. |
| III. YUNG KWAI, S., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 3, 13, 15, 16, 22, 24, 27, 33, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 39, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 2, 20, 30, 33, 35, 40, 41, 52, 65. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 5, 9, 10, 14, 32, 33, 45, 47. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 28, 32, 43, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application | |
|---|---|---|
| | New | Amended |
| 1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders | 10-21-55 | 11-9-54 |
| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 12-29-55 | 6-7-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 1-20-56 | 11-6-54 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 12-29-55 | 1-25-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates | 12-12-55 | 5-3-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-1-55 | 3-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-9-55 | 1-3-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 7-14-55 | 9-30-54 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 12-29-55 | 10-14-54 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 9-21-55 | 1-17-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cultery; Cleaning and Liquid Treatment of Solids | 2-3-56 | 4-6-55 |
| 12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls | 10-10-55 | 7-13-54 |
| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 12-6-55 | 10-4-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 9-30-55 | 9-17-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 1-3-56 | 9-28-54 |
| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 9-26-55 | 7-20-54 |
| 17. (IV) LEIGHEY, R. A. (HOFFMAN, R. J., acting), Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 11-14-55 | 1-7-55 |
| 18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices | 11-16-55 | 11-20-54 |
| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 12-14-55 | 4-25-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 1-10-56 | 1-3-55 |
| 21. (III) MADER, E. C., Textiles | 12-5-55 | 1-12-55 |
| 22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling | 11-28-55 | 11-9-54 |
| 23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education | 8-8-55 | 6-18-54 |
| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 1-9-56 | 10-14-54 |
| 26. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus | 10-27-55 | 1-3-55 |
| 28. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 1-31-56 | 7-26-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 1-9-56 | 3-11-55 |
| 29. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyors; Fluid Current Conveyors; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-10-55 | 1-10-55 |
| 30. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 11-29-55 | 2-21-55 |
| 31. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 4-2-56 | 5-9-55 |

# PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

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2,616,266, M. Davidow, Jacket construction, filed Mar. 22, 1955, D. C., S. D. N. Y., Dec. 22/242, *Davidow, Inc. Sportswear et al.* v. *Klein & Klein Sportswear, Inc.* Stipulation and order of discontinuance Oct. 19, 1956.

2,585,020, D. C. Golf, Underground insulated pipe system, filed Oct. 30, 1952, D. C., E. D. Va. (Richmond), Dec. 2452, *Zonolite Company and Insulating Concrete Corp.* v. *Richmond Redevelopment and Housing Authority.*

2,589,631, J. F. Morse, Web winding and rewinding machine, filed Oct. 16, 1956, D. C., S. D. Calif. (Los Angeles), Dec. 20594-T, *The Morse Instrument Co. et al.* v. *Gordon Enterprises et al.*

2,572,120, F. H. Magnus, Harmonica; 2,407,213, same, Plastic harmonica; 2,416,451, same, Method of and mold for making integral reed plates and reeds, appeal filed Feb. 2, 1955, C. C. A., 2nd Cir., Doc. 23512, *Magnus Harmonica Corp.* v. *Lapin Products, Inc.* Judgment of District Court reversed (notice Aug. 3, 1956). Same, filed Mar. 10, 1948, D. C., S. D. N. Y., Doc. 45/205, *Magnus Harmonica Corp.* v. *Lapin Products, Inc.* Interlocutory decree; patents held valid Sept. 3, 1953: Judgment in accordance with Mandate of U. S. C. A. reversing judgment of District Court Oct. 2, 1956.

2,407,212. (See 2,572,120.)

2,416,451. (See 2,572,120.)

2,536,721, A. H. Rinch, Pulp decoy, filed Oct. 19, 1955, D. C., E. D. Wis. (Milwaukee), Dec. 55/c/287, *Pulp Reproduction Co.* v. *Frankfurth Hardware Co. et al.* Consent judgment Oct. 2, 1956.

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2,570,282, B. Gindice, Skate clamp, filed Nov. 25, 1953, D. C., S. D. N. Y., Dec. 99/292, *Sure Grip Safety Skate Clamp Corp. et al.* v. *K & K Supply Co., Inc. et al.* Consent decree and judgment for injunction Oct. 16, 1956.

2,599,426, Bennett and Webb, Slide changing device for stereopticon projectors, filed June 3, 1955, D. C., E. D. N. Y. (Brooklyn), Dec. 15602, *Bell & Howell Co.* v. *Viewlex, Inc.* Case dismissed Oct. 22, 1956.

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2,613,103, G. E. Groesmeyer, Thermal insulation, filed Nov. 18, 1955, D. C. N. J. (Trenton), Dec. 1095/56, *Hunter Mfg. Corp.* v. *Mirror Insulation Co., Inc. et al.* Complaint and counterclaim dismissed Oct. 22, 1956.



2,648,616, J. T. Martin, Packaged popcorn kernels and popping oil, filed Oct. 10, 1956, D. C., M. D. Ga. (Thomasville), Doc. 491, *Rose Kist Popcorn Co., Inc.* v. *Winn-Dixie, Inc.*

2,697,491, W. H. Feimstone, Condensation products of trimethylhydroxyethyl ammonium hydroxide and dimethylxanthine and process of preparing same, filed Oct. 18, 1956, D. C., S. D. N. Y., Doc. 114/51, *Nopco Chemical Co., Inc.* v. *Sod Star Chemical Co., Inc.*

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2,702,960, D. R. Harwin et al., Apparatus and method for producing sponge rubber carpet underlay, included by amended complaint filed Oct. 12, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20439-T, *National Sponge Cushion Co., Inc.* v. *Rubber Corp. of Calif. et al.*

2,707,422, W. R. Canfield, Curb laying machine, filed Oct. 19, 1956, D. C., W. D. N. C. (Charlotte), Doc. 1196, *E. L. Hardin Association, Inc.* v. *E. D. Etnyre & Co. et al.*

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Des. 171,468, E. Rodriguez, Expansible link chain for a bracelet, filed Oct. 20, 1955, D. C., S. D. N. Y., Doc. 104/176, *Jacoby-Bender, Inc.* v. *Micro Fine Bracelet Corp. et al.* Consent order of dismissal without prejudice Oct. 24, 1956.

Des. 174,896, R. Ranchi, Lamp, filed Oct. 17, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20260-T, *Cafe Candle Lite Mfg. Inc.* v. *Ed Gelford et al.* Same, Doc. 20640-T, *Cafe Candle Lite Mfg. Inc.* v. *Hollywood Bar Supply Co.*

# REISSUES

## NOVEMBER 27, 1956

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

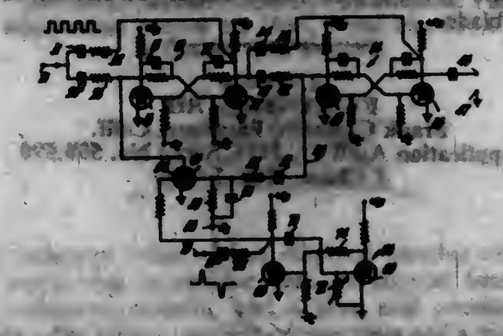
24,240

### ELECTRONIC PHASE SHIFTING SYSTEM

Arthur E. Cauhorn, Brooklyn, N. Y., assignor to Radio Corporation of America, a corporation of Delaware

Original No. 2,636,994, dated April 28, 1953, Serial No. 230,691, June 11, 1951. Application for reissue March 24, 1954, Serial No. 418,909

13 Claims. (Cl. 250—27)



1. Phase shifting apparatus comprising means to provide an alternating current input signal of square wave form, a plurality of multivibrators for performing a frequency division on said signal whereby to provide an output signal from said multivibrators, a feedback [link] *path* for feeding reset pulses from one of said multivibrators to another, and means responsive to a retarding signal for interrupting transmission of said reset pulses whereby to retard the phase of said output signal.

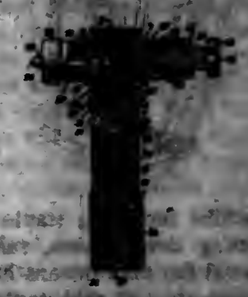
24,241

### INJECTION APPARATUS

Edwin A. May, Glen Rock, N. J., assignor to Becton Dickinson and Company, Rutherford, N. J., a corporation of New Jersey

Original No. 2,642,862, dated June 16, 1953, Serial No. 93,771, May 17, 1949. Application for reissue June 11, 1954, Serial No. 436,263

10 Claims. (Cl. 128—173)



1. An injection apparatus including in combination a casing portion to mount a unit containing a body of medicament to be discharged through an orifice at high velocity, said apparatus providing in communication with said casing portion spaces and passages to receive liquid to operatively act against the medicament to expel the same through the orifice, an accumulator comprising a spring, a piston connected to said spring and extending into one of said spaces and a valve for controlling the flow of liquid from such latter space to said casing portion.

# PLANT PATENTS

## GRANTED NOVEMBER 27, 1956

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,530

### ROSE PLANT

Louis Lens, Wavre-Notre-Dame, Belgium, assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application January 5, 1956, Serial No. 557,617

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its upright and firm growth, its stiff-petaled flowers, it floriferousness and suitability for both cut flower and out-of-door use, and the distinctive white color of its flowers.



1,531

### ROSE PLANT

Robert V. Lindquist, Hemet, Calif., assignor to Hemet Wholesale, Hemet, Calif., a partnership

Application January 5, 1956, Serial No. 557,618

1 Claim. (Cl. 47—61)

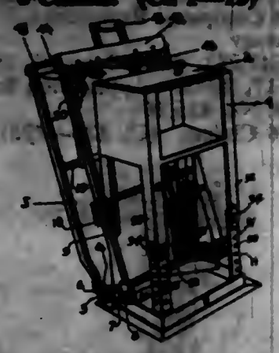
A new and distinct variety of rose plant of the climbing hybrid polyantha class, substantially as herein shown and described, characterized particularly as to novelty by being generally similar to its parent variety "Butin" (unpatented), but being essentially distinguished therefrom by its vigorous and climbing habit of growth, and its habit of producing flowers in smaller clusters and on shorter stems than those of said parent variety.

# PATENTS

## GRANTED NOVEMBER 27, 1956

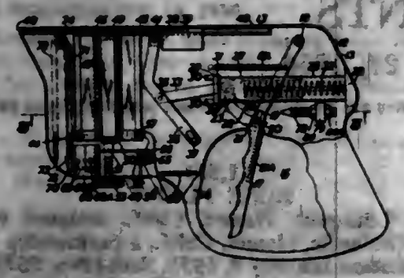
## GENERAL AND MECHANICAL

**2,771,606**
**MULTI-POINT STAPLING MACHINE WITH PLURALITY OF STAPLING UNITS**
Heinrich Mauser, Nuremberg, Germany
Application November 1, 1954, Serial No. 466,180
Claims priority, application Germany November 4, 1953
3 Claims. (Cl. 1—13)



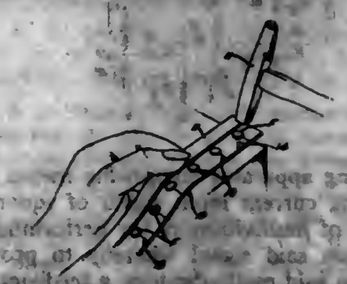
8. A stapling machine including staple driving means and a work supporting anvil means, said anvil means comprising a horizontal flat plate means having a surface extent adapted to cooperate with said staple driving means at a plurality of points in one direction transverse to the plate means, and said staple driving means being mounted for at least selective horizontal movement over said plate means in said one direction whereby stapling can be effected in any position of adjustment of said staple driving means in said one direction.

**2,771,609**
**STAPLING APPLIANCES**
Hans Klopstock, London, England
Application July 25, 1951, Serial No. 238,688
Claims priority, application Great Britain July 28, 1950
2 Claims. (Cl. 1—49)



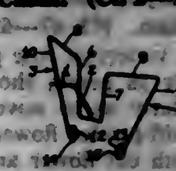
1. A stapling appliance comprising in combination a casing in the form of a pistol, a butt secured to said casing at the rearward end, a forwardly projecting pointed extension on said casing having a staple ejection opening therein, a staple guideway within said casing and said extension and aligned with said opening, an ejector blade slidably located in said guideway and normally extending substantially to said opening, a staple magazine mounted in said casing and having a staple receiving channel therein for a bank of staples, said channel being normal to said guideway and opening thereto within said casing spring biased means in said channel for normally urging the leading staple of said bank against the ejector blade and for bringing said leading staple into said guideway in front of said blade when said blade is retracted, a manually operable lever pivoted in said casing and projecting from said casing and forming with said butt a manually operable pistol grip, a strong compression spring within the casing at one end against a stationary part in said casing, a plunger on the other end of said spring, a hooked member pivoted to said lever and normally engaging said plunger whereby operation of said lever results in compression of said spring, a link operatively pivotally connected to said blade at one end and pivoted in said casing at the other end, a link pivoted at one end to said first link intermediate the ends and pivoted at the other end to said plunger, and release means for releasing engagement of said hooked member with said plunger when said spring is compressed causing an ejection stroke of said blade.

**2,771,610**
**FASTENER STRIP**
Frank G. Smith, Pasadena, Calif.
Application April 11, 1955, Serial No. 500,590
1 Claim. (Cl. 1—86)



A package of fasteners comprising an elongated tape, said tape being reversely folded along one side edge thereof with the reversely folded portion disposed on the upper side of the tape and extending only partially toward the opposite edge of the tape, fasteners having shanks extending through the tape at spaced intervals through that portion of the tape that is not covered by the reversely folded portion, said fasteners having heads disposed against the upper side of the tape and against that portion which is not covered by the reversely folded portion, and the tape being weakened on laterally extending lines extending from each shank to the edge of the tape that has not been reversely folded.

**2,771,611**
**TIE AND COLLAR HOLDER**
Stanley M. Wells, Santa Rosa, Calif.
Application October 25, 1954, Serial No. 464,240
1 Claim. (Cl. 2—132)



An invisible tie and collar holder comprising: an upwardly inclined elongated point designed to enter a tie knot from the rear to a substantial depth and to support the holder from the knot; a shank extending downwardly at an obtuse angle from the lower end of the point so as to lie behind the knot when the holder is attached thereto; two spring arms extending laterally from the shank; said spring arms having only their inner ends connected to the bottom of the shank; each arm having an upwardly extending portion leading from the shank bottom and adapted to be hidden by the knot, and a horizontal portion extending from the top of each of the upwardly extending portions and adapted to lie under a collar; whereby the upwardly extending arm portions will form a U-shaped spring saddle with the shank projecting upwardly from the middle of the saddle and extending forwardly of a plane that lies in the upwardly extending arm portions; the obtuse angle between the shank and the point, causing the point to extend upwardly at a slight angle and almost perpendicular to the said plane, and to resiliently support the tie knot; said arms having a downwardly and forwardly inclined portion extending from the outer ends of the horizontal portions and adapted to lie in back of the collar front edge and terminating in collar-engaging pins for maintaining the holder in the collar.

**2,771,612**
**CUSHIONED TOILET SEAT**
Stanley J. Samuels, Philadelphia, Pa., assignor of fifty percent to Samuel Samuels, Philadelphia, Pa.
Application August 12, 1955, Serial No. 528,079
1 Claim. (Cl. 4—237)



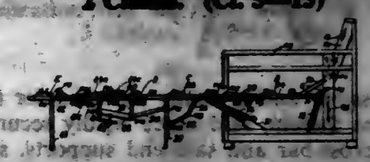
A cushioned toilet seat of elliptical annular construction comprising an annular base, an annular foam rubber cushioning element, and a skin, said annular base having a flat bottom, arcuate convex sides and a truncated top, said cushioning element being plano-convex in cross-section and being securely cemented at its plano portion to the truncated top of said base whereby the edges of the cushioning element freely overhang the arcuate convex sides, said skin being drawn taut about the convex portion of said cushioning element and the bottom of said base and heat sealed at the corners of said base.

**2,771,613**
**FLOOR PROTECTING MAT**
Anna V. Markiewicz, St. Louis, Mo.
Application June 2, 1954, Serial No. 434,985
1 Claim. (Cl. 4—252)



A floor mat for use in connection with a toilet bowl, comprising a fabric backing having a central opening adapted to receive and fit closely with a toilet bowl adjacent the floor and above any flange at the base of the bowl, the sides of said opening converging toward the rear of the mat, the backing having a sector-shaped opening from the rear of the central opening to the periphery of the mat at its rear, the sides of said sector-shaped opening being divergent from an apex at the rear of the central opening to the rear of the mat when the mat is completely flat, a border of elastic material extending completely and continuously around the inner edge of the backing on the underside of the backing and bounding the central opening from the edge of the backing on one side of the inner end of the sector-shaped opening to the edge of the backing on the other side of the inner end of the sector-shaped opening for drawing the inner edge of the backing snugly into engagement with various toilet bowl shapes, slide fastener means secured to the backing on the underside of the mat at opposite sides of the sector-shaped opening for securing together said sides, and a pile facing on the backing.

**2,771,614**
**DAVENPORT**
Robert Goodman, Philadelphia, Pa.
Application June 1, 1953, Serial No. 358,795
2 Claims. (Cl. 5—13)

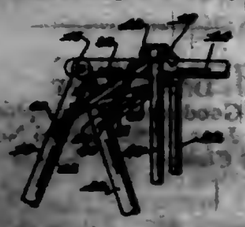


1. A foldable bed frame for a sofa bed comprising head, body, intermediate, and foot sections pivotally connected in end to end relationship and adapted to be forwardly unfolded to a bed position wherein the sections are arranged in substantial coplanar relationship with the head and foot sections at the ends of the bed, the body section adjacent the head and the intermediate section adjacent the foot section and being adapted to be rearwardly folded to a seat position wherein the foot section forms a seat cushion support and is parallel to and spaced above said body section with said head section extending upwardly and at right angles to said body section, a substantially L-shaped leg pivoted intermediate its ends to the free end of said foot section, said foot section including a short arm which extends above and rearwardly along said bed frame when in bed position, means to operate said short arm, a locking member link having one end pivoted to said foot section and having a laterally extending bolt fixed to the free end of said locking member link, a locking member actuating link having one end pivoted intermediate the ends of said locking member link and the other end pivoted to said intermediate section, a first link having an end pivotally joined to said intermediate section and its other end pivotally joined to said leg above its pivot which is connected to the foot section, said intermediate section having a slot adjacent one end, a pusher bar having one end connected to said intermediate section and one end slidable in said slot, a right angle keeper pivotally attached to said end of said pusher bar slidable in said slot, a second link having one end pivotally connected to said head section and the other end pivotally connected to said keeper whereby relative pivotal movement of said head and body sections will rock said keeper, said bolt being adapted to be hooked by said keeper when all of said sections are folded into sofa position in order to keep said foot section from accidentally moving upwardly when it forms the seat section of the sofa, said bolt being adapted to rest directly upon said body section to serve as a brace in order to prevent said foot section from moving downwardly against said body section when the sofa is formed, an L-shaped closing member pivotally mounted intermediate its end to said intermediate section, and the lower end of said L-shaped closing member being pivoted to one end of each of two links and the other end of each link having one end pivotally attached to said frame of said davenport.

**2,771,615**
**BRACE ATTACHMENT FOR PLAYGROUND APPARATUS**
Isadore Herowitz, Shreveport, La., assignor to Universal Manufacturing Co., Inc., Shreveport, La.
Application September 14, 1953, Serial No. 380,044
5 Claims. (Cl. 5—190)

1. In a playground apparatus having vertical end supports, a top horizontal bar secured to said supports, a

cross-bar of reversed U-shaped formation mounted on said horizontal bar having movable members suspended therefrom, a brace for said cross-bar and said end supports on one end of said playground apparatus, said movable members including two hangar rods suspended



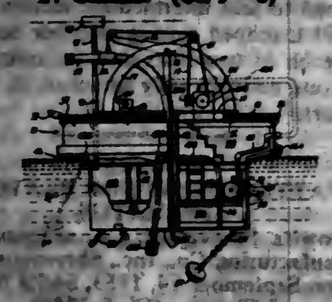
from said cross-bar and pivotally mounted for reciprocatory movement therein, said brace rigidly secured to the ends of said cross-bar and said end supports, said brace comprising two stringer members positioned in non parallel relationship, said stringer members connected by crossed struts connected to each other.

2,771,616
METAL BED RAIL CONSTRUCTION
William A. Dunean, Statesville, N. C., assignor to Acme Homes Metal Works, Inc., a corporation of North Carolina
Application May 4, 1953, Serial No. 352,861
3 Claims. (Cl. 5—286)



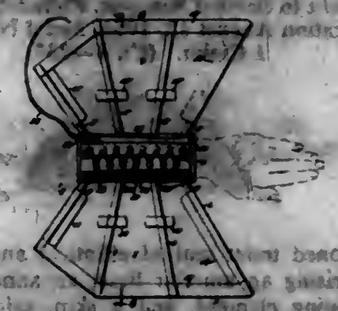
1. A metal bed rail for use with a head board and a foot board in forming a bedstead, said bed rail comprising two sheet metal plies having flat central longitudinal portions and disposed as a web portion for said bed rail, said sheet metal plies forming inner and outer faces of the web portion and being shaped to form a reinforcing bead along the top of said web portion, the lower edge of said web portion being angled in the form of a flange extending inwardly away from the outer face ply, and mounting brackets secured to said web portion at the ends thereof for assembling said bed rail with a head board and a foot board, said mounting brackets being secured to both plies of said web portion and thereby further serving to secure the structure of said bed rail in assembled relation.

2,771,617
MEANS FOR MOORING AND REFUELING BOATS, SEAPLANES, AND THE LIKE
Laurent H. J. Baudin, Woodside, N. Y., assignor, by mesne assignments, to Howard T. Jeandron, Keyport, N. J.
Application November 28, 1952, Serial No. 322,907
17 Claims. (Cl. 9—8)



13. An offshore refueling buoy which includes a floating vessel having a clear deck disposed above the surface of the water, a circular pipe shaped mooring track in the form of a wheel supported and affixed to the sides of the buoy above the water line when said buoy is in a buoyant but loaded condition, a mooring block mounted by means of rollers to pivot around the periphery of said track and to be moveable about the circumference of said track and said buoy, anchoring means provided to anchor said buoy in a predetermined non-shiftable non-rotatable position, a hollow well or bore extending through the center of said buoy from the deck to the bottom of said buoy, a hose line or conduit extending through said hollow well or bore having its upper end disposed above said deck, and means provided on deck for hoisting and supporting said upper end above said deck.

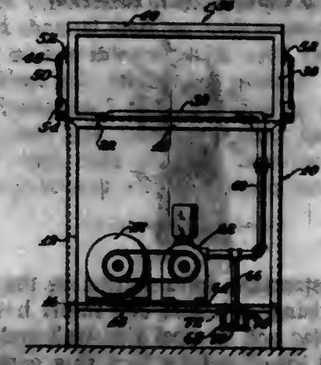
2,771,618
SWIMMING APPLIANCE
Harvey E. Cram, Santa Monica, Calif.
Application January 11, 1954, Serial No. 403,310
1 Claim. (Cl. 9—21)



A swimming appliance comprising an elongated substantially flat member adapted to be affixed lengthwise to the under portion of the forearm of a swimmer, an elongated flexible cuff affixed lengthwise to the top of said member and adapted to be laced on to said forearm, ribs movably mounted to the underside of and extending downwardly at a small angle from the horizontal from each side of said elongated member and adapted to support a web affixed to the outer edges of said ribs and adapted to move substantially in a plane of a set of said ribs on each side of said elongated member forwardly to an expanded position and backwardly to a folded position, a web forming a fin extending from the outer edges of said ribs underneath said elongated means, said web adapted to flex and ribs adapted to move and together expand and form a fin under the pressure of water thereagainst in a downward swimming stroke and to retract and fold to avoid resistance on a return swimming stroke, said elongated substantially flat member having downwardly extending edges on each side thereof extending toward said ribs with each of said downwardly extending edges having an inclined edge corresponding to each rib so that said rib can ride down the incline thereof when said rib is placed thereagainst under the pressure of a downward swimming stroke.

2,771,619
VACUUM PRESS FOR BOOT AND SHOE MANUFACTURE
James W. Stewart, Providence, R. I., assignor to Stewart Company, Providence, R. I., a corporation of Rhode Island
Application December 2, 1953, Serial No. 395,719
2 Claims. (Cl. 12—1)

1. Apparatus for operating on parts of rubber shoes comprising a support, a frame-like manifold fastened to the support in a horizontal plane, a flexible elastic diaphragm fastened to the support at the underside of the manifold so as to enclose the lower side of the manifold and to form therewith a shallow compartment wherein the manifold constitutes a wall which rises from the diaphragm substantially above the support, said manifold having interiorly thereof exhaust ports, a carrier frame of larger area than the manifold pivotally mounted on the support for movement downwardly over the upper side of the manifold into contact with the support, means on the support for limiting downward movement of the carrier frame to a position in contact with the support below the top of the manifold a second flexible elastic diaphragm stretched taut on the carrier frame and movable therewith into contact with the manifold when the car-



rier frame is seated against the limit means on the support, means for exhausting air through the ports to the manifold from the space between the diaphragms when the movable diaphragm is in contact with the manifold, means operable to break the vacuum, and means normally operating to hold the movable diaphragm in an inoperative position away from the fixed diaphragm, said means being yieldable to permit the movable diaphragm to be moved into operative position with respect to the fixed diaphragm, and automatically operable to restore the movable diaphragm when the vacuum is broken to its inoperative position.



2,771,620
ARROW CONTAINER
Wessell S. Hoffman, Lake Orion, Mich.
Application February 6, 1956, Serial No. 563,636
1 Claim. (Cl. 150—1.5)



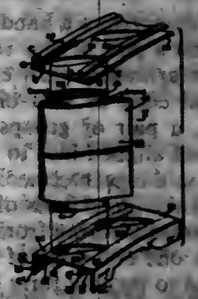
A hunting arrow quiver comprising: a lower supporting arm; a lower elongated member adapted to carry said lower arm; an upper elongated member slidably mounted on said lower elongated member; means adjustably securing said elongated members together; an upper supporting arm on the upper end of said upper elongated member; said arms having a recess on their inner adjacent sides; an elastic means in said recesses adapted to releasably retain a plurality of arrows between said arms; each of said elastic means being provided with a plurality of locating pins for retaining the arrows in predetermined positions on said supporting arms; said quiver being provided with a cover for enclosing the arrows carried thereby, which is adapted to be secured to the top supporting arm normally and adjacent to, but not in contact with said lower arm, and to be secured to said quiver along one side of said elongated members and to be in engagement with the other side of said elongated members but being free to be swung away from the quiver to permit the user to easily withdraw an arrow from the quiver.

2,771,621
POLISH REMOVER
Earl A. Robinson, Detroit, Mich.
Application May 28, 1954, Serial No. 431,186
3 Claims. (Cl. 15—21)



1. A nail polish remover comprising a vessel for holding a quantity of solvent, a cover member removably secured to the top of said vessel, and provided with a pair of openings therein, the portion of the cover element adjacent one of said openings constituting a finger rest for impinging beneath the first node of a person's finger, a sleeve member removably mounted within the other of said openings, a vertically reciprocal scrubbing element resiliently and freely mounted within said sleeve member, said scrubbing element being arranged to present its scrubbing surface for movement in a path adapted to vertically wipe the nail of a finger supported by the said finger rest, said vessel also being of greater depth than the length of that portion of the finger to be accommodated therein to an extent permitting a quantity of solvent to be accommodated below the finger tip, a plunger for manually depressing said scrubbing element into the lower portion of said vessel, and a spring resiliently mounting said scrubbing element within said sleeve member for returning said element to an upper position in said vessel, when manual pressure on said plunger is relieved.

2,771,622
DIAPHRAGM APPARATUS
Arthur G. Thorp II, Swarthmore, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 9, 1952, Serial No. 287,055
5 Claims. (Cl. 253—78)



5. Annular diaphragm structure comprising a sheet metal outer shroud member having circumferentially spaced apertures, a pair of laterally spaced sheet metal flange members flanking said apertures in the outer shroud member, a sheet metal inner shroud member having correspondingly spaced apertures, a pair of laterally spaced sheet metal flange members flanking the apertures in said inner shroud member, and a plurality of radially disposed tubular vanes, each of said vanes being formed of sheet

metal and having opposite tubular end portions of reduced cross-sectional area, said end portions extending through corresponding apertures in said inner and outer shroud members and being engaged with and secured to adjacent portions of said shroud members and of the respective flange members carried thereby.

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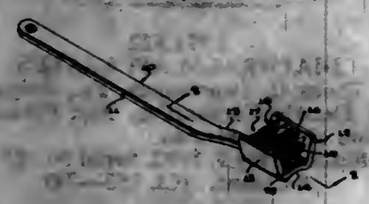
2,771,623
**ADJUSTABLE MOUNTING DEVICES FOR WINDOW CLEANING SQUEEGEE AND OTHER ARTICLES**
Edward J. Baril, Brooklyn, N. Y.
Application August 20, 1952, Serial No. 305,397
3 Claims. (Cl. 15—144)



1. A tool outfit comprising, in combination, a cleaning tool having a slotted plate including a clamping device having a pair of jaws pivotally movable toward and away from each other, integral handles on the jaws for actuating the same, spring means for holding said jaws in closed position, an elongated tubular sleeve supported on one of said handles for mounting an elongated pole, an angular block removably clamped between said jaws, a threaded pin protruding from said block for insertion through the slot in said plate, and a nut on the pin for holding the tool on the pin.

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2,771,624
**TOOTHBRUSH**
Rudolf Ripper, Washington, D. C., assignor to The Tri-Dent Corporation, a corporation of New Jersey
Continuation of application Serial No. 282,440, April 15, 1952. This application February 23, 1955, Serial No. 489,841
2 Claims. (Cl. 15—167)



1. A toothbrush comprising a handle, a U-shaped head including a bight and a pair of legs secured to said bight in diverging relation arranged transversely of said handle and having one end edge of said bight secured to one end of said handle, a pair of groups of bristle tufts arranged in longitudinal aligned face to face spaced relation positioned between said legs intermediate the ends thereof and projecting from the inner faces of said legs, the spacing between said groups tapering from the other end edge of said bight to the one end edge of said bight to which the handle is secured to thereby form between said groups a slot tapering from the other end edge of said bight to said one end edge thereof, each group embodying a plurality of longitudinally extending rows arranged in superimposed spaced relation with each row having a plurality of bristle tufts arranged in longitudinal aligned spaced relation, and another group of bristle tufts positioned between said legs adjacent said bight and arranged in intersecting relation with respect to said pair of groups and projecting from the inner face of said bight, said another group embodying a plurality of longitudinally extending rows spaced from one another with each row having a plurality of bristle tufts arranged in longitudinal aligned spaced relation, the outer face of said bight being provided with a groove extending longitudinally from said one end edge to which said handle is secured to the other end edge of said bight.

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2,771,625
**BRUSH TUFT FASTENER**
Francis H. Palmquist, Rockville, Conn.
Application April 5, 1954, Serial No. 421,184
3 Claims. (Cl. 15—190)



1. Brush construction for insertion in the opening of a holder comprising, a bristle cup insert having a relatively thin circular and vertical side wall and closed and open upper and lower ends, a lock ring within said cup having a horizontal center beam disposed transversely thereof and semi-circular yieldable side arms extending clockwise from opposite ends of the beam and frictionally engaging opposite sides of the side wall of said cup and forming with the center beam vertical openings at opposite sides of said beam, elongate bristles having intermediate portions doubled over said center beam and opposite end portions thereof extending downwardly through said openings and downwardly and outwardly of said cup, and upper and lower portions of the side wall of the cup at opposite sides thereof being displaced inwardly as lugs at upper and lower sides of the lock ring restraining said ring against axial movement relative to said cup.

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2,771,626
**SPRING ACTUATED SQUEEGEE HOLDING CLAMP**
James W. Toothman, Piedmont, Calif., assignor to Morse-Starrett Products Company, Oakland, Calif., a corporation of California
Application September 9, 1953, Serial No. 379,137
1 Claim. (Cl. 15—245)



In a squeegee construction, a handle terminating in a flat triangular portion, a substantially semicircular rib extending transverse to said handle adjacent the forward end of said triangular portion, a substantially triangular clip member pivotally fastened to said triangular portion of said handle, a substantially semicircular rib adjacent the forward edge of said clip member and complementary to the rib in the handle portion, an elongated U-shaped metal channel member having an enlarged portion at the bottom of the U adapted to be received in the said complementary ribs, said U-shaped channel member being substantially longer than the width of said triangular handle portion whereby said channel member may be shifted longitudinally in said complementary ribs, an elongated rubber blade member carried by said U-shaped channel member, said blade member having an enlarged portion received in the enlarged portion of said channel member, said clip member being provided with teeth extending along the forward edge thereof at approximately right angles to the surface thereof, said teeth extending beyond the flange of said U-shaped channel member and biting into and gripping said rubber blade member, said triangular clip member having a thumb engaging surface adjacent the rear corner thereof whereby pressure may be exerted on said thumb engaging surface in the direction toward said handle portion to pivot the forward edge of said clip member away from the forward edge of the handle portion to permit shifting movement of said channel member with respect to said handle, and spring means integral with said clip member and bearing against the triangular portion of said handle normally urging said thumb engaging surface of said clip away from said handle to urge said clip rib into engagement with said channel member and said clip teeth into engagement with said blade member.



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2,771,627
**RECESSED HANDLE FOR DRAWERS, DOORS, AND THE LIKE**
Samuel Hammer, New York, N. Y., assignor to United Metal Box Co., Inc., Brooklyn, N. Y., a corporation of New York
Application April 15, 1953, Serial No. 348,896
6 Claims. (Cl. 16—124)

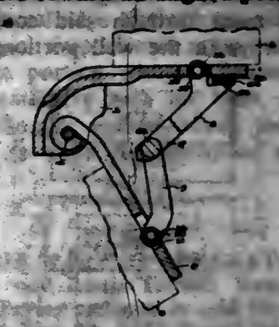


1. A recessed handle to be inserted in an opening in a wall comprising a U-shaped portion at one end thereof, the U-shaped portion having an outer and an inner leg, the legs being spaced a greater distance than the wall thickness received therein at least at the bottom of the U-shaped portion, means at the upper end of the U-shaped portion extending approximately to the plane of the outer leg of the U-shaped portion, the inner leg being longer than the outer leg and being of substantial length to provide contact for the ends of the fingers, a rearwardly extending wall projecting from the end of the inner leg of the U-shaped portion, and being relatively short approximating the thickness of the fingers, a downwardly and forwardly extending portion integral with the rearwardly extending wall providing a rear wall and a bottom wall extending forwardly, and locking means at the forward end of the bottom wall flexing toward the U-shaped portion upon inward movement thereof into an opening to secure the handle in a recess, the locking means being resiliently mounted for flexing towards the U-shaped portion.

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2,771,628
**MOTOR VEHICLE DOOR HINGE**
McFerrell Hoffmeyer, Pittsburgh, Pa., assignor to McKinney Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application July 15, 1954, Serial No. 443,525
6 Claims. (Cl. 16—138)

1. A door hinge comprising a pair of laterally spaced hinge plates, a vertical hinge pin connecting the outer ends of the plates, a pair of substantially parallel links between said plates, one end of each link being pivotally connected on a vertical axis to a different one of said plates with the links extending toward said hinge pin, means pivotally connecting the opposite ends of the links together so that when the hinge is opened the links will be swung outward toward an aligned position, means for



stopping said outward swinging of the links before they reach aligned position, said link connecting means including spring-pressed interengaging detents that resist initial inward movement of the links away from their outermost position when closing pressure is applied to the hinge.

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2,771,629
**CLOSURE HINGE**
Otto C. Gentler, Detroit, Mich.
Application March 7, 1952, Serial No. 275,263
1 Claim. (Cl. 16—190)



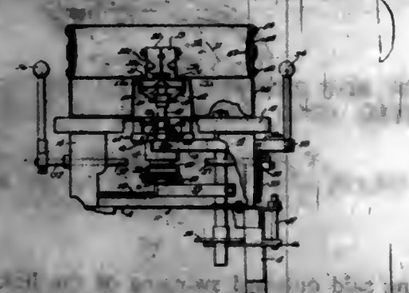
A motor vehicle body hinge comprising a hinge bracket of bent sheet metal of approximately U-shaped cross-section having a pair of laterally-spaced parallel side walls with a connecting wall integral therewith and extending therebetween and with laterally-extending attachment flanges integral therewith and extending laterally from said side walls parallel to a section of said connecting wall, and a first spring anchorage on said connecting wall; a pivot element mounted on and extending between the side walls of said hinge bracket; a hinge arm structure of bent sheet metal having laterally-spaced parallel hinge arms pivotally mounted at their outer ends on said pivot element adjacent and parallel to the side walls of said hinge bracket, and having a spring anchorage member of bent sheet metal of approximately U-shaped cross-section with substantially parallel side walls connected to said hinge arms and with an integral bridge wall extending between said side walls, said spring anchorage member having a second spring anchorage thereon aligned with said first spring anchorage; and a tension spring secured at its opposite ends to said spring anchorages and extending therebetween.

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2,771,630
**CRAB MEAT EXTRACTOR**
Everett O. Hiller, Centerville, Miss., assignor to Hartford National Bank & Trust Company, Hartford, Conn., as trustee
Application August 26, 1954, Serial No. 452,900
8 Claims. (Cl. 17—3)

1. In apparatus for centrifugally extracting the meat from crabs, the combination of a holder mounted vertically for rotation on its axis, said holder having wall portions to support the skeletal portions of a core cylindrically cut from the body of a crab, said wall portions providing support for the skeletal portions adjacent openings in the core through which crab meat is discharged when the core is rotated with the holder and said wall

portions of the holder having passageways generally aligned with the openings in the core through which meat is centrifugally discharged when the holder and crab are rotated, drive means for rotating the holder to effect discharge of crab meat through said core openings and aligned passageways in the wall portions of the holder



and manually operable clutch means for operatively connecting the drive means and the holder and wherein the holder is a multipart unit including means which automatically open the holder parts when rotation of the holder stops and which automatically close the parts to support the skeletal portions of the core when the holder is rotated.

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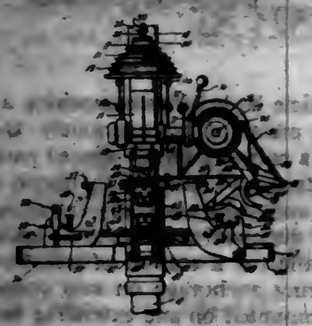
2,771,631

**APPARATUS FOR RECOVERY OF CRAB MEAT**

Everett O. Hiller, Hyannis, Mass., assignor to Hartford National Bank & Trust Company, Hartford, Conn., as trustee

Application November 12, 1953, Serial No. 391,510

12 Claims. (Cl. 17—3)



1. In a crab holding and core cutting device, a support for the carapace of an inverted crab, a first pair of prongs associated with the support and spaced to be received by the flipper sockets of the supported crab, a second pair of prongs associated with the support and movable into the eye sockets of the supported crab, spring means pressing said pairs of prongs toward each other to grip the crab therebetween, and a rotatable cylindrical cutter aligned with said crab support and movable into and out of cutting engagement with the supported and gripped crab.

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2,771,632

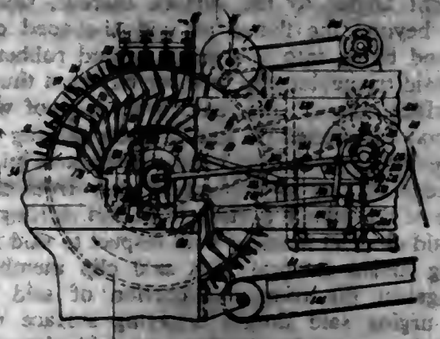
**MECHANISM FOR PREPARING FISH FOR CANNING**

Henry E. Walker, Bath, Maine, assignor to Walker's Fish-machinery, Inc., Bath, Maine, a corporation of Maine

Application January 20, 1953, Serial No. 333,668

5 Claims. (Cl. 17—4)

1. Apparatus for preparing fish for packing in cans, comprising a frame, a wheel rotatably mounted on said frame having a series of buckets at its circumference extending parallel to the axis of the wheel and each adapted to receive a single fish therein, means mounted at one side of said wheel for introducing single fish headfirst substantially simultaneously into a plurality of successive buckets near the top of the wheel, means mounted at the other side of said wheel for moving each fish rearward in its bucket into position for cutting off the head thereof, means on said frame automatically operating to clamp the body of each said fish in its bucket after being so located, two disc knives mounted on said frame adjacent to the circumference of the



wheel and rotatable about an axis parallel to the axis of the wheel, means on said frame for indexing the wheel to move the clamped fish into engagement with said knives, and means associated with said clamping means for thereafter releasing said fish bodies.

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2,771,633

**METHOD OF PREPARING FINLESS FISH FILLETS**

Alfred Friedrich Adolf Bertels and Paul Friedrich Wilhelm Johannes, Lubeck, Germany, assignors to Nordischer Maschinenbau Rud. Baader, Lubeck, Germany

Application July 27, 1953, Serial No. 370,243

Claims priority, application Germany January 20, 1953

2 Claims. (Cl. 17—46)



1. A method for the preparation of fin-free fillets of fish comprising the steps of removing the head of the fish, incising both sides of the fish by parallel cuts extending on both sides of the backbone between the anus and the caudal fin, cutting off separately the belly fins and breast fins on both sides, cutting the fish for the removal of the lower fillet from the backbone, and cutting the fish for the removal of the upper fillet from the backbone.

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2,771,634

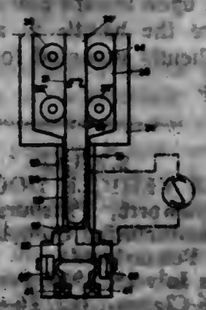
**APPARATUS FOR THE MELT-SPINNING OF SYNTHETIC LINEAR POLYMERS**

Ettore Lazzatte, Milan, Italy, assignor to Perfogit Societa per Azioni, Milan, Italy

Application June 30, 1952, Serial No. 296,351

Claims priority, application Italy July 28, 1951

5 Claims. (Cl. 18—8)



1. Apparatus for spinning synthetic linear polymers from the melt, comprising a tubular melting chamber, means for continuously advancing therethrough, at a predetermined rate, a tubular solid polymer stock having substantially the same cross-section as said melting chamber,



a high frequency oscillating electric field comprising two coaxial cylindrical condenser plates constituting the inner and outer bounding surfaces of a section of said melting chamber, for melting said tubular polymer stock in said tubular melting chamber, a closed chamber contiguous to and merging with said melting chamber for collecting the molten polymer, and spinning pumps communicating with said collecting chamber for delivering the molten polymer to spinning nozzles.

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2,771,635

**APPARATUS FOR STRETCHING FILAMENTS**

Werner Mitsch, Cesano Maderno, Italy, assignor to Perfogit Societa per Azioni, Milan, Italy

Application February 13, 1952, Serial No. 271,344

Claims priority, application Italy March 14, 1951

10 Claims. (Cl. 18—8)



1. In an apparatus for the drawing of filaments and bundles of filaments, in combination with a low speed thread advancing device for feeding the filaments and a high speed thread advancing device for drawing the same away, the ratio of the high to the low speed being such as to cause the filaments to become stretched to several times their original length, a friction device interposed between said thread advancing devices and comprising a substantially elliptical snubbing element having a sliding frictional engagement with the filaments, said snubbing elements deflecting the filaments, at the point of engagement therewith, from a straight line between said low speed thread advancing device and said high speed thread advancing device and being displaceable to vary the degree of said deflection, the deflected filaments reacting on said displaceable snubbing element by a pressure, urging the element to become so displaced as to reduce said deflection to a minimum, and means for constantly urging said displaceable snubbing element to become so displaced as to increase said deflection against the increasing reaction pressure of the filaments until said pressure has reached a predetermined equilibrium intensity.

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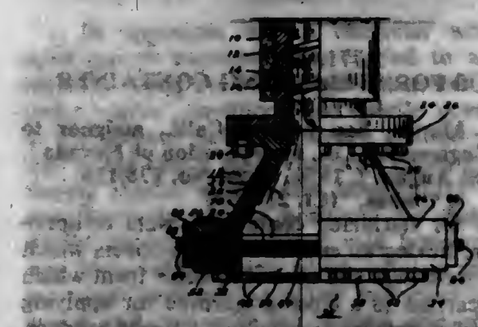
2,771,636

**APPARATUS FOR EXTRUDING THERMOPLASTIC MATERIAL**

Walter W. McIntosh, Indian Orchard, and John Mosiek and Oscar L. Smith, Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application July 22, 1953, Serial No. 369,594

4 Claims. (Cl. 18—12)



1. In combination in an extruder, an elongated casing defining a lengthwise bore therein, a rotatable screw mounted within said bore, a transverse slot of uniform cross section in the elongated casing between the end of the screw and the discharge end of the casing, said slot intersecting the entire peripheral edge of the bore, a snugly fitting breaker plate assembly slidably mounted in said slot, the length of the breaker plate assembly being less than that of the slot, but sufficient to completely intersect the peripheral edge of the bore, said breaker plate assembly having an imperforate marginal portion and a central perforate portion whose cross-sectional area is substantially coextensive with the bore, and removable stop means in the slot against which the breaker plate assembly abuts to align the perforate portion thereof with the bore.

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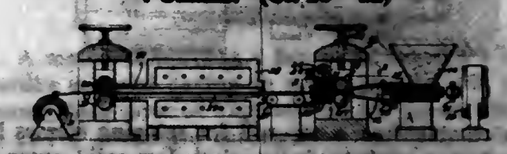
2,771,637

**STRIP MAKING APPARATUS**

John E. Silvany and Louis Taylor, Youngstown, Ohio; said Taylor assignor to said Silvany

Application June 30, 1951, Serial No. 234,524

4 Claims. (Cl. 18—12)



1. Apparatus for making continuous metal strips from powdered metal comprising a pair of pressure rolls in direct contact with the powdered metal, a conduit in contact with the rolls and extending into the space between the rolls for supplying powdered metal to said rolls, power driven means for forcing the powdered metal through said conduit into the space between said rolls, and spaced plates adjacent the opening between said rolls in frictional engagement with both sides of said strip for resisting the translation of the powdered metal between the said rolls and exerting a force in said strip opposite to the force produced by said power driven means thereby increasing the pressure in the powdered metal between said rolls, the inner ends of said plates having tapered edges in contact with the rolls and disposed adjacent the vertical plane through the axis of rotation of said rolls.

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2,771,638

**HIGH SPEED EXTRUSION COMPOSITION**

Martin Sale and Oliver W. Kaul, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 2, 1954, Serial No. 413,714

4 Claims. (Cl. 18—59)

1. A paste coating composition comprising cellulose acetate butyrate admixed with a ternary solvent mixture comprising at least 50% toluene, 10%–30% hexane and at least 10% acetone.

4. A process for high speed extrusion comprising dissolving cellulose acetate butyrate granules having about 37% butyryl content in a ternary solvent mixture comprising at least 50% toluene, 10%–30% hexane and at least 10% acetone, extruding the mixture onto a metal strip, at room temperature and curing.

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2,771,639

**SYSTEM FOR DRAFTING FIBROUS MATERIALS**

Jose Maria Booth Aymerich, Barcelona, Spain

Application May 28, 1951, Serial No. 228,256

Claims priority, application Spain July 3, 1950

2 Claims. (Cl. 19—120)



1. A drawing mechanism for a strand of textile fibers comprising a plurality of drawing units, each of said

units including a pair of feed rolls, a pair of drawing rolls and a condenser, and at least one revolving guiding roll between a drawing roll of one unit and a feed roll of the next unit, said guiding rolls forming together with the surface of said feed rolls and drawing rolls a continuous support for the strand of fibers from its exit from one drawing unit to its intake by the next drawing unit.

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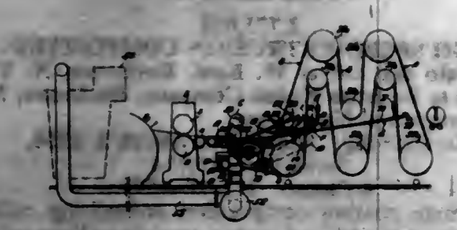
2,771,640
**TOP ROLL FOR SPINNING AND ROVING FRAMES**
Louis M. Cotchett, Whitinsville, Mass.
Application September 11, 1953, Serial No. 379,680
6 Claims. (Cl. 19—142)



3. In combination, a top roll for spinning frames having two bosses each having a pintle-less solid outer end and a recess in its inner end, a shaft fixed and terminating in the recess of each boss intermediate the length of the latter, a tubular member around the shaft, bearing balls within each recess supporting such member from the surfaces of the recesses, and a guide on the spinning frame in the form of an inverted channel member with notches in its side webs straddling the tubular member.

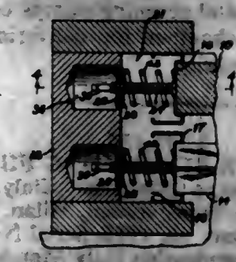
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2,771,641
**AUTOMATIC APPARATUS FOR ACCUMULATING FIBERS DELIVERED BY CONTINUOUSLY OPERATING CARDING MACHINERY**
Hubert Charles Marie Henri Desmarq, Henry, Belgium
Application January 23, 1951, Serial No. 207,393
Claims priority, application Belgium December 5, 1950
6 Claims. (Cl. 19—161)



1. A device of the class described for receiving and accumulating a thin fleecy web of carded fibers produced by continuously operating carding machinery, and forming said web into an endless wad of predetermined weight per unit of its length, said device comprising: a movable endless conveyor belt having an adherent surface to which said web of fibers will cling for receiving and retaining said web thereon; delivery means for receiving said web from said carding machinery and depositing said web on said adherent surface; controllable driving means for causing continued movement of said belt past said delivery means, repeated passages of said belt past said delivery means causing said web to accumulate thereon in superposed layers with the outer layers clinging to each other; control means for starting and stopping the operation of said driving means; means connected to said control means for starting the operation of said driving means; controllable pneumatically operated return means extending between said delivery means and said carding machinery for returning said web from said delivery means to said carding machinery for re-use; measuring means operative in accordance with a predetermined amount of continued movement of said belt past said delivery means,

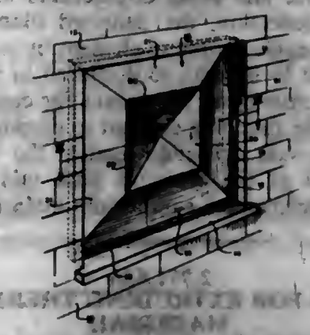
2,771,642
**ANCHOR FOR RESILIENT WINDOW STRIPS**
Albert Czys, Cicero, Ill., assignor to Durbin Metal Strip Manufacturing Company, Inc., Cicero, Ill., a corporation of Illinois
Application July 28, 1954, Serial No. 446,383
1 Claim. (Cl. 20—12)



An anchor for fastening a resilient window strip to a laterally facing surface of a window frame, comprising a flat, elongated, substantially rectangular metal plate with a pair of thin fingers partly punched out therefrom into positions at right angle thereto but left attached thereto, said plate being slightly less wide than said surface, being substantially longer than wide and having a pair of holes formed therein, one in each terminal part thereof, whereby the plate can be rigidly secured to said surface; a nut slidably held by said pair of fingers; a screw threaded into the nut from beyond the plate and a compression spring interposed between the plate and the head of the screw, whereby a window strip can be resiliently spaced from the plate and thereby from the window frame.

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2,771,643
**WINDOW CLOSURE**
Victor I. Zelov, Rosemont, Pa.
Application September 22, 1952, Serial No. 310,760
1 Claim. (Cl. 20—40)



A window closure consisting of a unitary molded sheet of reinforced plastic comprising a rectangular peripherial portion, a frusto-pyramidal intermediate portion, and a reversed pyramidal central portion whose base coincides with the top of the frusto-pyramidal intermediate portion.

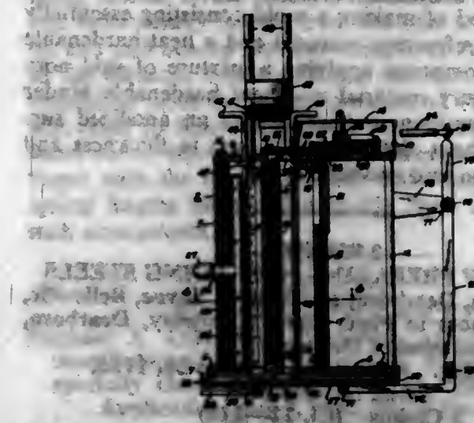
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2,771,644
**APPARATUS FOR STERILIZING CONTAINER COVERS**
William McK. Martin, San Mateo, Calif., assignor to James Dole Engineering Co., a corporation of Nevada
Application August 7, 1950, Serial No. 178,116
4 Claims. (Cl. 21—78)

1. Apparatus for sterilizing container covers comprising, an enclosure having an entrance for the covers which is open to the atmosphere and an exit therefor from which the covers are carried to a closing machine for applying the covers to sterile containers containing a sterile product, means for conveying the covers through said enclosure, said conveying means including a plurality of substantially parallel cooperable rotatable screws spaced apart a distance substantially equal to the diameter of said covers, for supporting said covers in a spaced apart columnar ar-



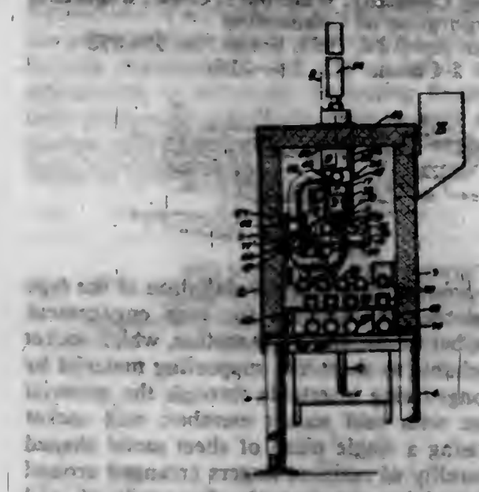
rangement and for rotating them as they are thus supported, gas distributing means adjacent to and extending in an axial direction along said screws, said gas distributing means having a plurality of gas-emitting apertures spaced axially along said gas distributing means and along said screws for directing a sterilizing gas into the spaces



between the covers and against the edges of the covers as they are rotated, and means for introducing a flow of sterilizing gas into said gas distributing means, said gas being heated to a temperature at substantially atmospheric pressure substantially in excess of 212° F. for sterilizing said covers as they are moved through said enclosure and maintaining sterile conditions in said enclosure.

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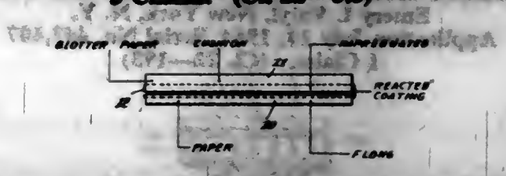
2,771,645
**APPARATUS FOR STERILIZING FOOD CONTAINERS**
William McK. Martin, San Mateo, Calif., assignor to James Dole Engineering Co., a corporation of Nevada
Application December 4, 1950, Serial No. 199,020
4 Claims. (Cl. 21—80)



1. In apparatus of the character wherein sterilized open mouth containers are carried to a filling mechanism for filling the containers with a sterile food product under sterile conditions and sterile covers are applied to the product filled containers, a food container sterilizer comprising a main enclosure housing, container conveying means within said housing for supporting the containers in upright position, gas distributing means within and extending along said housing, a hood separate from said housing which extends within said housing, said hood having a top wall over said distributing means and side walls one at each side of said conveying means thereby providing a heat confining passageway for said containers on said conveying means, said side walls of said hood providing guide means against which said containers on said conveyor can slide and said gas distributing means having orifices leading into said hood above and below said containers to inject heated sterilizing gas into the mouths of said containers to heat the inside of the containers and sweep out air therefrom, and to direct sterilizing gas against the bottoms of said containers on said conveyor.

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2,771,646
**MATRIX USED IN PRINTING AND METHOD OF MAKING THE SAME**
Eduard A. Schuman, Malverne, N. Y., assignor of one-half to Fred W. Hoch, Forest Hills, N. Y.
Application June 7, 1951, Serial No. 230,383
3 Claims. (Cl. 22—5.5)

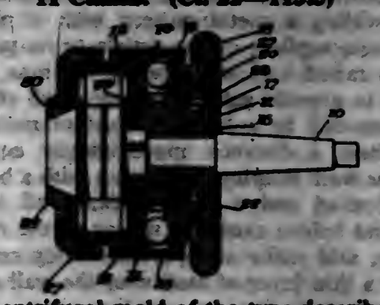



1. A matrix comprising a first flong layer of a blotting paperlike material having an upper and a lower surface, a second flong layer of like material having an upper surface and a stereotype casting lower surface, a layer of urea formaldehyde intermediate the lower surface of said first flong layer and the upper surface of said second flong layer, said urea formaldehyde partly penetrating said first flong layer through its lower surface and said second flong layer through its upper surface, said urea formaldehyde being completely reacted, said stereotype casting surface of said second flong layer carrying type impressions to be reproduced and relief portions therebetween, said relief portions being formed of said three layers, and said upper surface of said first flong layer having a contour closely following said relief portions formed of said three layers, whereby said matrix is given sufficient rigidity to withstand casting pressures.

2. The method of making a matrix which consists in subjecting a first side of a first sheet of a blotting paperlike material to urea formaldehyde for partial penetration of said first sheet, adding a catalyst to said urea formaldehyde, placing a second sheet of like material in faying relationship with said first side of said first sheet, whereby said urea formaldehyde partially penetrates said second sheet, subjecting the second side of said second sheet to pressure for forming stereotype depressions therein having relief portions therebetween and for completely reacting said urea formaldehyde to form a unitary relatively rigid member, with the said reacted urea formaldehyde between and partially penetrated into said first and said second sheet, said unitary member having a contour closely following said stereotype depressions and relief portions, whereby said member is adapted to retain the contour of said stereotype depressions and of said relief portions during the casting process.

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2,771,647
**LOCKING MEANS FOR CENTRIFUGAL MOLDS**
Albert B. Hemstreet, East Haddam, Conn.
Application June 9, 1953, Serial No. 360,547
11 Claims. (Cl. 22—113.5)

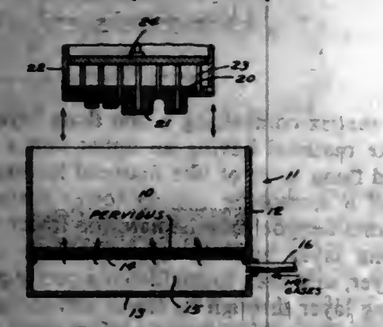


1. In a centrifugal mold of the type described, in combination, a pair of substantially cylindrical telescoping

parts forming a molding cavity when assembled, each of said parts having at least one recess in the overlapping area of the parts, a ball held in the recess of one part and radially movable under centrifugal force to project partially into the recess of the other part to lock the parts together, and means mounted on said one part and having limited rotation with respect thereto to project said ball into the recess of said other part at one extreme of the rotary movement of said means.

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2,771,648
**CURING SHELL MOLDS IN FLUIDIZED BEDS**
Emery I. Valyi, New York, N. Y.
Application July 14, 1954, Serial No. 443,497
1 Claim. (Cl. 22—193)



In a method of heat curing a mold shell, the steps of holding a partially cured mold shell, composed of a refractory material and a heat curable binder on a pattern in face downward relationship, moving said pattern with said partially cured mold shell thereon relatively to and into contact with a mass of particles of a substance inert to the material of said mold shell, passing a hot gas through said mass of particles to maintain said particles heated to curing temperature, and to cause said particles to move continuously, the presence of the gas being such as to cause the said continuously moving particles to hold said mold shell against said pattern during the heat curing of the mold shell, and the fluid condition of said particles causing said particles to come into contact with and to heat uniformly the entire surface of said mold shell, moving said mold shell relatively to and out of contact with said mass of particles after said mold shell is cured, and mechanically stripping said mold shell from said pattern.

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2,771,649
**REMOTE STRIKE OFF**
Julius M. Biesecker, Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application August 12, 1953, Serial No. 373,810
2 Claims. (Cl. 22—193)



1. The process of producing a molding element comprising providing a metal pattern with a planar sand receiving base, replicas of the article to be produced on the base, a raised wall surrounding the base, and holes in the base to provide gates and risers, each of said holes being surrounded by a boss or mass of metal elevated from the base a distance approximately equal to the height of the wall, heaping the pattern with a heat settable mixture of sand and a resin, striking off the pattern promptly and before excessive setting of the mixture has taken place, said strike off operation being conducted so as to leave a thin layer of sand over the wall and bosses, and finally applying heat to cure the mixture in the pattern and cause differential shrinkage of the mixture.

2,771,650
**SHELL MOLDING**
Philip R. White, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
No Drawing. Application February 4, 1952, Serial No. 269,909
3 Claims. (Cl. 22—193)

2. The method of making a mold consisting essentially of nonmetallic refractory material and a heat hardenable binder which comprises applying a mixture of said nonmetallic refractory material and heat hardenable binder to a heated aluminum pattern having an anodized surface layer of about .0001 to .0002 inch in thickness and carnauba wax on said anodized layer.

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2,771,651
**METHOD OF PREPARING NON-AGING STEELS**
Eric R. Morgan, Dearborn, and John C. Shyne, Belleville, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
No Drawing. Application October 28, 1955, Serial No. 543,611
3 Claims. (Cl. 22—215)

1. The process of producing a rimmed steel which is substantially non-aging under usual conditions of commercial storage comprising establishing in a mold a mass of molten steel of rimming composition and having a boron content insufficient to detrimentally affect the rimming action, permitting the rimming action to proceed until a skin has been formed and after said skin has been formed chemically capping the steel, said process being further characterized by the alloying of the steel with sufficient boron to yield a final boron content of 0.002% to 0.02%.

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2,771,652
**SNAP FASTENER SOCKET**
Jesse Barratt, Naugatuck, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a specially chartered corporation of Connecticut
Application April 24, 1953, Serial No. 350,873
1 Claim. (Cl. 24—216)



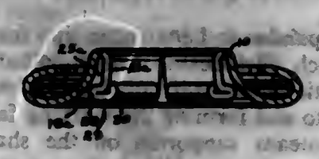
In a laundry-proof snap fastener installation of the type having a socket member adapted for snap engagement with a stud member of circular cross section, which socket member is attachable to sheet-like supporting material by means of a pronged ring insertable through the material into engagement with said socket member; said socket member comprising a single piece of sheet metal shaped to provide a plurality of resilient fingers arranged around a central stud-receiving opening, the free ends of said fingers being turned radially inwardly to form stud-gripping beads, and a breast portion surrounding said fingers and having its inner lower edge integrally joined to said fingers, said breast portion comprising a conical wall sloping upwardly and outwardly at an angle of approximately 10° to the central axis of the socket member in a straight line up to the region of said gripping beads, said breast portion extending from such point around a short curve to a prong deflecting surface which extends in an arc of relatively large radius upwardly and outwardly in the general direction of about 110° to the central axis of the socket member and directly from said arc into a U-shaped annular rim the bottom portion of which extends inwardly toward said conical wall to provide a prong-retaining ring; said fingers extending upwardly from their points of connection with the breast portion in outwardly bowed



fashion approximately parallel to said conical wall, the upper ends of the fingers terminating in rolled lips which turn inwardly toward the axis of the socket and downwardly and back so that their extreme edges are directed outwardly from the socket axis, said rolled lips providing the stud-engaging beads above referred to, said beads being closest to the socket axis at their central portions and substantially farther from the axis at each side thereof, and said beaded portions being in such close proximity to the adjacent breast wall that the side portions as distinguished from the central portions of one of the fingers will come to bear against said conical wall adjacent said short curve when undue lateral stress comes upon such finger with the result that any distortion of any of the spring fingers beyond the elastic limit is prevented by such engagement.

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2,771,653
**SNAP FASTENER SOCKET**
Michael J. Carpinella, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a specially chartered corporation of Connecticut
Application May 9, 1952, Serial No. 287,015
2 Claims. (Cl. 24—216)



2. A snap fastener socket member comprising a circular series of resilient fingers and a surrounding annular breast portion, said breast portion being in the form of a curved anvil section starting and sloping outwardly from one end of the fingers and terminating in an inturned curved clincher rim, said fingers being arranged in substantially cylindrical formation and terminating in a formed end of a character wherein inwardly formed beads are provided that define an opening adapted to have snap locking engagement with a stud head, and said beads terminating in outwardly projecting flanges having their ends positioned sufficiently close to said anvil section to prevent said fingers from being bent beyond their elastic limits by lateral stresses.

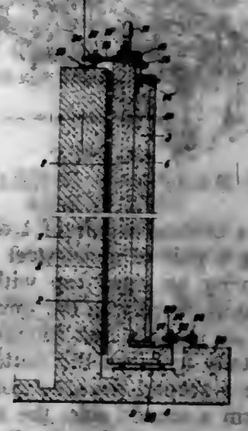
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2,771,654
**SELF-ENGAGING HOOK**
Lester B. Meiers, Dunellen, N. J.
Application June 14, 1950, Serial No. 167,970
14 Claims. (Cl. 24—230.5)



2. A hook structure having a hook portion, an erect neck portion, and a shank portion disposed between said hook and neck portions and joining them together, said hook, neck, and shank portions being formed in one single piece, said hook portion defining a partial helix, said shank portion being angularly bent relative to the axial centre of the neck portion, and said shank portion being also concavo-convexly curved substantially throughout the length thereof.

2,771,655
**PROCESS OF MANUFACTURE OF FORCED PIPINGS MADE OF PRECOMPRESSED CONCRETE, AND RELATIVE EQUIPMENT**
Pier Luigi Nervi, Rome, Italy
Application November 25, 1952, Serial No. 322,432
Claims priority, application Italy November 27, 1951
6 Claims. (Cl. 25—36)



1. A process of manufacturing reinforced precompressed concrete pipes, comprising pre-arranging a stationary central rigid core and expansible means which coaxially surround said core, arranging a pre-fabricated concrete shell consisting of a reinforcement of untensioned high tensile strength steel wires covered by a thin layer of concrete, said shell being coaxial to the said stationary core and being distanced from said expansible means to form an annular space, pouring concrete in said annular space, submitting it to a pressure from the inside of said concrete by means of said expansible means, the water contained in said poured concrete escaping through the wall of said shell and the said steel wires becoming tensioned, keeping said poured concrete under compression until the drying and the hardening thereof is completed, removing the said pressure from the inside and separating said expansible means from said hardened poured concrete, whereby the said tensioned steel wires compress said hardened poured concrete from the outside and said outer concrete shell and said hardened poured concrete form a single pipe, wherein said poured concrete is under the compression exerted by said steel wires.

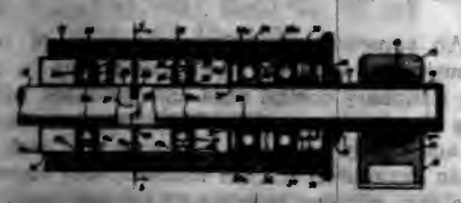
3. An apparatus for the manufacture of reinforced pre-compressed concrete pipes, comprising in combination a stationary central rigid core provided with a projecting circular base, a plurality of staves adjacent each other and tightly arranged with respect to each other to form an expansible cylinder member, said staves resting on the said circular projecting base and being radially movable on the said base with respect to the said stationary central core, a plurality of expansible bags adjacent each other between the said central core and the said plurality of staves, said bags being in communication with a hydraulic pressure source and pre-arranged to expand to radially move said staves from the said central core, hand operable means which adjustably connect said staves and said central core to limit the distance to which said staves may be moved from said central core sealing members associated with each stave at the bottom is adjacent the outer surface of the stave and the other leg of which projects outwardly from the stave.

2,771,656
CASTING FORM
Eugene M. Swanson, Hazelcrest, Ill., assignor to Calumet Flexicore Corporation, East Chicago, Ind., a corporation of Indiana
Application November 23, 1953, Serial No. 393,569
4 Claims. (Cl. 25—121)



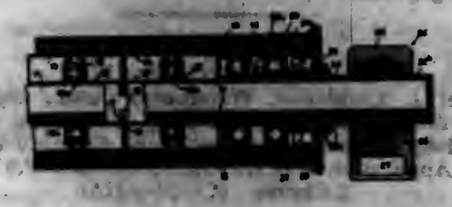
1. A form for casting a pair of L-shaped beams, said form comprising a pair of sheet steel casting units, each casting unit having an open top with a straight inside wall extending downwardly to the unit bottom, the sheet steel continuing to make a first rounded corner and continuing horizontally to make the bottom and then being shaped to make a second rounded corner and extending upwardly to form a second side, the steel of said second side being shaped to provide an offset near the top of said form, said offset extending away from the first side and the steel continuing straight up to the open top of the form, means for securing said two casting units so that the straight inner side portions are disposed in opposed parallel relation, a reinforcing plate extending along the bottom of both units up to but short of the second rounded corner of each unit, means for maintaining the top free edges of the inside walls in fixed predetermined relation, removable means across the top of said form for bolting the outer sides in predetermined relation, bulkheads for the form ends, the outer sides of the two form units being springable outwardly on their respective second corners to release the cast beam, and reinforcing means at the outer sides of each form unit, said reinforcing means extending downwardly for limiting the springing of the forms.

2,771,657
EXPANDER AND CONTRACTOR ROLL
Louis M. Gagnont, North Adams, Mass., assignor to James Hunter Machine Company, North Adams, Mass., a corporation of Massachusetts
Application August 3, 1953, Serial No. 371,887
8 Claims. (Cl. 26—63)



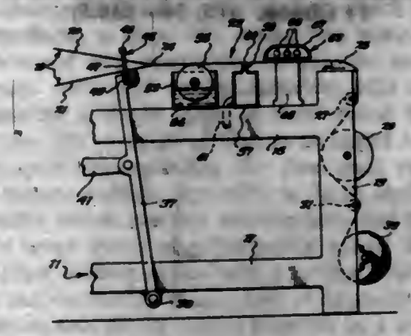
1. An expander and contractor roll for flexible sheet material, which comprises a stiff longitudinally curved shaft, generally cylindrical roll sections surrounding but spaced from the shaft and disposed in end-to-end relation, an elastic sheath closely surrounding the roll sections, a series of generally cylindrical spacers surrounding and supported on the shaft within the roll sections and rotatable relative to the shaft except as hereinafter specified, bearing means rotatably mounting the roll sections on the spacers and securing each roll section against longitudinal movement relative to the spacer within it, the spacers being slidable along the shaft but interconnected in end-to-end relation to space the roll sections from each other along at least part of their ends, an abutment on each spacer engageable with an adjacent spacer to prevent rotation of the spacers relative to each other, and means for holding one of the spacers against rotation on the shaft, whereby said one spacer and the abutments on the spacers hold all of the spacers against rotation relative to the shaft.

2,771,658
ROLL FOR EXPANDING AND CONTRACTING TEXTILES
Frank B. Merrill, North Adams, Mass., assignor to James Hunter Machine Company, North Adams, Mass., a corporation of Massachusetts
Application August 3, 1953, Serial No. 371,949
5 Claims. (Cl. 26—63)



1. In an expander and contractor roll for flexible sheet material, which includes a stiff longitudinally curved shaft, an elastic sheath surrounding the shaft in spaced relation thereto and forming the working face of the roll, and bearing means supported on the shaft within the sheath and mounting the sheath for rotation relative to the shaft, the improvement comprising, at each end portion of the shaft, a sleeve fitted closely around the shaft, a cap in sealing contact with the flexible sheath around the end thereof and rotatable with the sheath, intercontacting annular members on the cap and sleeve, respectively, forming a seal around the shaft, the sleeve having an extension projecting from said annular member on the sleeve toward the corresponding end of the shaft, and a bracket supporting said end of the shaft and clamping the sleeve extension around the shaft, whereby the bearing means are sealed at the end of the flexible sheath.

2,771,659
PROCESS OF FORMING A DURABLE OPEN MESH FABRIC
Albert L. Ball, Worcester, Mass., assignor to Bay State Abrasive Products Company, Westboro, Mass., a corporation of Massachusetts
Application July 2, 1953, Serial No. 365,641
12 Claims. (Cl. 28—73)



1. A process for making strong, durable, open mesh fabrics which comprises weaving an open mesh fabric and thereafter, prior to the occurrence of distortion of the meshes of said fabric and to such contact with said fabric as will tend to displace the filling yarns thereof, and while the warp yarns of said fabric are under loom tension, coating the yarns of said fabric with a liquid adhesive, breaking any films of said adhesive blinding the mesh openings of said fabric, and setting said adhesive.



2,771,660
MANUFACTURE OF CREPE YARNS AND FABRICS FROM NYLON
Charles Ray Eshland, Greensboro, N. C., assignor, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
No Drawing. Application September 25, 1951, Serial No. 248,283
10 Claims. (Cl. 28—76)

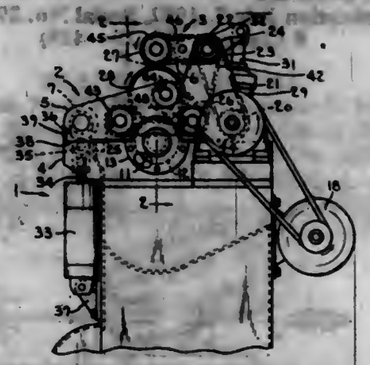
1. A method of making a crepe yarn, at least partially of nylon, which comprises twisting a yarn, setting the twist therein by heating the twisted yarn for at least one-half hour to a temperature between about 135° and 155° F. in an atmosphere of relative humidity of at least 50%, then treating the yarn by heating it for at least 15 minutes to a temperature of between 190° to 300° F., conditioning the yarn for at least 8 hours at a temperature of 60° to 80° F. in a medium of 50% to 80% relative humidity, and then untwisting the yarn.

2,771,661
RAINPROOF FABRIC
Boutwell H. Foster, Maplewood, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 15, 1953, Serial No. 386,161
10 Claims. (Cl. 28—80)



1. A rainproof fabric comprising a fabric having a water resistant coating applied to only a portion of its surface area to leave other portions thereof uncoated, said fabric being arranged so the uncoated portions thereof underlie the coated portions thereof so air may enter under said coated portions, and yarns interwoven with said fabric at spaced apart points along the length of said yarns, said yarns being shorter than said fabric whereby the yarns hold said uncoated areas underlying said coated portions.

2,771,662
RING CUTTING MACHINE
Adam Zinke, Wauwatosa, Wis.
Application August 20, 1954, Serial No. 451,214
3 Claims. (Cl. 29—70)



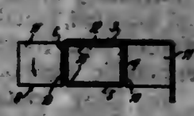
1. A ring cutting machine for simultaneously cutting a plurality of rings from a tube comprising a plurality of circular saws rigidly clamped together, all of said circular saws being of the same diameter, power means for rotating said saws, a plurality of rollers for supporting said tube and for clamping said tube between said rollers, clamping means for moving said rollers relatively to each other to clamp the tube in place and for moving the rollers relatively to each other to release the rings after they have been cut from the tube, a pair of pivotally mounted spaced heads revolubly supporting said rollers and supporting said clamping means, said heads, rollers, clamping means and tube constituting a unitary assembly with the tube clamped in place and said assembly being rockable as a unitary structure with the tube clamped in place, feeding means for rocking the assembly consisting of the heads, rollers, clamping means and tube, towards said saws until said saws have cut completely through said tube, and power means for rotating said rollers to thereby rotate said tube whereby a plurality of rings are simultaneously cut from said tube.

2,771,663
METHOD OF MAKING MODULAR ELECTRONIC ASSEMBLIES
Robert L. Henry, Jr., Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application December 4, 1952, Serial No. 324,160
17 Claims. (Cl. 29—155.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



13. The method of making modular electronic units from ceramic wafers having edge notches and a plurality of conductive risers comprising the steps of metalizing the wafer notches, printing circuit patterns on the wafers and in contact with some of the metalized notches, fixing electronic components to the wafer surfaces and in engagement with said patterns, holding the wafers spaced apart and in parallel planes, applying the risers in aligned wafer notches, and thermo-mechanically fixing the risers to the wafers to maintain the wafers spaced apart.

2,771,664
MAGNETIC CORES FOR ELECTRICAL INDUCTION APPARATUS AND THE METHOD OF PRODUCING SAME
Clarence G. Dunke, Webster Groves, Mo., assignor to Moloney Electric Company, St. Louis, Mo., a corporation of Delaware
Application March 14, 1952, Serial No. 276,618
4 Claims. (Cl. 29—155.57)



1. The method of producing a magnetic core loop from magnetic tape comprising forming the leading end of said tape into a rectangular stiffening element, winding the tape as a coil around a core form having a recess in which said stiffening element is disposed, securing the trailing end of said tape to the outside of said coil, separating said core form from said coil thereby forming a central window of said coil in which said stiffening element is disposed, one pair of oppositely facing surfaces of said stiffening element bracing opposite interior surfaces of the coil with sufficient rigidity to withstand the effects of forces produced incident to processing said coil, the remaining pair of stiffening element surfaces being spaced from the other interior surfaces of said coil,

heat treating said coil and the integral stiffening element assembly at annealing temperatures, and removing the stiffening element from said coil window.

2,771,665
FABRICATION OF BRANCHED FITTINGS
Allan W. Beaty, Franklin Township, Allegheny County, Pa., assignor to Welding Fittings Corporation, New Castle, Pa., a corporation of Pennsylvania
Application April 28, 1952, Serial No. 284,985
1 Claim. (Cl. 29—157)



In a method of fabricating a branched fitting from a length of metal tubing or pipe stock provided with a generally oval cross section, the steps comprising, in combination, pressing said tubing intermediate its ends in alignment with the major transverse axis of said oval cross section between a die outside said tubing and a die mandrel having a boss thereon inside said tubing to cause said boss to form a land in said tubing at right angles to the axis thereof, said mandrel having a cross-sectional area substantially smaller even after said pressing than the internal cross-sectional area of said tubing, withdrawing said mandrel, thereafter simultaneously compressing said tubing in the same direction as that of said pressing, said compressing being performed substantially only by dies in external contact with substantially the entire transverse external surface of said tubing, said compressing further being substantially transverse to the axis of said tubing to reduce the diameter through said axis of said tubing and to increase the height of said land, the end edges of said tubing and the outermost end of said land being free of axial abutment by said dies during said compressing, repeating such compressing with relatively smaller external dies and no internal dies until relatively circular, cross-sectioned finish dimensions of said tube and closed end land are obtained, and then removing the outermost end of said land to provide an open branch in said fitting.

2,771,666
REFRACTORY BODIES
Ivor E. Campbell, Columbus, and Bruce W. Gonser and Carroll F. Powell, Columbus, Ohio, assignors, by mesne assignments, to Fansteel Metallurgical Corporation, North Chicago, Ill., a corporation of New York
No Drawing. Application March 18, 1950, Serial No. 150,542
8 Claims. (Cl. 29—198)

1. As an article of manufacture, a refractory metal body, comprising a refractory metal base selected from the group consisting of tungsten, tantalum and columbium, having an exterior exposed layer composed predominantly of an alloy or intermetallic compound of the selected metal and silicon, the alloy containing silicon in a molecular ratio to the refractory metal of from about 1:1 to about 3:1, the body being characterized by a high resistance to oxidation at temperatures above about 1000° C.

2,771,667
METHODS OF MAKING LUBRICATING SYSTEMS AND DEVICES
Stuart O. Sanden, Noroton Heights, Conn., assignor of forty percent to Peter Fries, Jr., New York, N. Y.
Original application March 1, 1949, Serial No. 78,943. Divided and this application September 26, 1950, Serial No. 186,893
2 Claims. (Cl. 29—420.5)

1. The process of making a porous flow retarding and regulating plug, comprising the steps of briquetting copper and tin oxide powders with silica and graphite, then heating the mixture, reducing the oxides to metal and interdiffusing the formed copper and tin to yield a strong bronze matrix with an excess of graphite, forming an



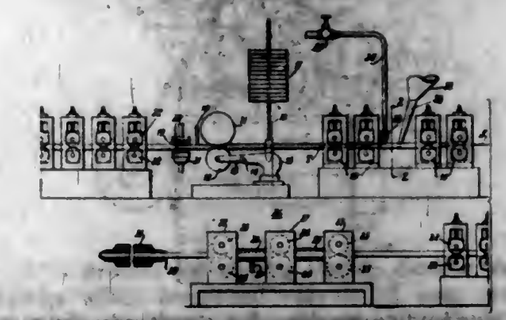
excess length of said porous metal of fluid flow retarding properties, breaking off said excess length to expose a rough and fibrous end surface, and breaking off an intermediate length of said remaining length to expose a second rough and fibrous end surface.

2,771,668
METHOD OF PREPARATION OF BAKING PANS FOR BREAD
Richard E. Lindsey, Redwood City, Calif.
Application August 19, 1953, Serial No. 375,195
1 Claim. (Cl. 29—423)



A method for providing a bread baking pan with a continuous but removable and replaceable internal coating which is repetitively non-adherent with respect to bread baked therein comprising applying to a flat web of metal having good heat conductor properties and sufficient thinness to be hand worked a polytetrafluoroethylene film 0.0003–0.009 inch thick, baking said film onto said web, deforming a portion of said web into a bread baking pan liner of slightly greater depth than a baking pan, inserting said liner into a baking pan, and removably securing said liner to said pan by manually turning down the top edge portions of said liner into clamping relation with the top edge portions of said pan.

2,771,669
METHOD OF COATING INTERIOR OF TUBING WITH ZINC
John W. Armstrong and Richard W. Spears, Rochester, and Richard D. Williams, Fairport, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 7, 1952, Serial No. 297,552
8 Claims. (Cl. 29—429)



1. In the manufacture of steel tubing which is formed continuously from a flat steel strip by bending the strip into tubular form and welding the abutting edges of the tube as it is continuously moved past a welding device; the method of coating the interior surface of the tubing during its continuous formation and while it is being



moved continuously with a non-corrosive metal such as zinc which comprises the steps of introducing particles of said metal into the tubing before the tubing is fully formed and while it is below welding temperature, introducing a non-oxidizing gas into the tube after it is fully formed and welded, subsequently heating the tube sufficiently to vaporize the coating metal, and thereafter cooling the tubing to effect condensation of the vaporized metal on the surface of the tubing.

2,771,670
METHOD FOR FORMING A RAIL ANCHOR WITH A POSITIVE APPLYING STOP
Max K. Ruppert, Chicago, Ill., assignor, by mesne assignments, to Poor & Company, Chicago, Ill., a corporation of Delaware
Application March 31, 1950, Serial No. 153,164
1 Claim. (Cl. 29—550)



The method of forming a rail anchor of the one-piece hook-jaw type with stop shoulders on the curved inner surface of the hook portion of the anchor, the method including the steps of pressing a metal bar of T-shape cross-section between breakdown dies to partially bend one end of the bar into hook form, the bending pressure being applied exclusively to the lateral arms of the T-bar, and one of said dies being formed with an open recess extending transversely of the bar, applying metal displacing pressure to the lateral arms only of the T-bar at the bend of the partially formed hook immediately preceding the completion of the breakdown operation to force metal of the lateral arms into said recess to form a pair of longitudinally aligned shoulders on the inner face of said partially formed hook, thereafter clamping the bar on an anvil die having a recess to receive said longitudinally aligned shoulders, applying bending pressure exclusively to the lateral arms of the bar to bend the partially bent end portion thereof around the anvil die, to complete the formation of the hook, and applying pressure to the outer surface of said lateral arms at the location of said shoulders simultaneously with the completion of the hook forming operation so as to further press the shoulder portions into the last mentioned recess to remove any distortions formed in the shoulders as an incident to the normal stretching of the metal during the bending of the bar around said anvil die.

2,771,671
BLADE COLLECTOR
Nicholas Testi, New York, N. Y., assignor to The Gillette Company, Boston, Mass., a corporation of Delaware
Application March 2, 1953, Serial No. 339,635
11 Claims. (Cl. 30—40)



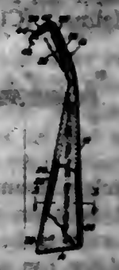
1. A blade collector comprising an elongated hollow body having a bottom which is unobstructed and curved upwardly in one portion, and a cover of sheet metal let into the bottom in substantially flush relation therewith and having a pair of thin spring prongs extending outwardly in tangential relation to the curved portion of the bottom and forming therewith a spring inlet gate for a blade, whereby a used blade may be engaged and guided into the hollow body of the collector by passing the collector in uninterrupted movement over the blade.

2,771,672
DRY SHAVER
Victor Kebler and Werner Kebler, Zurich, Switzerland
Application July 18, 1952, Serial No. 299,581
Claims priority, application Switzerland July 21, 1951
2 Claims. (Cl. 30—43)



1. In a power operated dry shaver, a shearhead having a movable cutter element, an electric motor for driving said element, means for drivingly connecting said motor with said movable element, a casing in which said motor and shearhead are mounted, said motor having a pair of relatively reciprocable contact carriers, an electrical contact on each of said carriers, screw means for adjusting said contacts relative to each other for setting the speed of operation of said motor, said screw adjustment means being mounted on one of said contact carriers, an abutment mounted in fixed relation to said casing and adjustable relative to said screw means for effecting further adjustment of said contacts for controlling the speed of operation of said motor within a certain range of speed, means for adjusting said abutment, said screw means being engageable upon said abutment.

2,771,673
RAZOR BLADE RELEASE MECHANISM
Travis H. Nash, Jonesboro, Ark.
Application January 12, 1955, Serial No. 481,435
5 Claims. (Cl. 30—64)

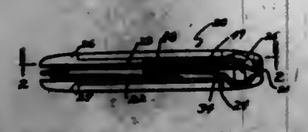


1. A razor blade release mechanism for attachment to a razor having a hollow elongated handle with an open front and a pivotal member for clamping a razor blade, said mechanism comprising a pivotal lever mounted in said handle and having a lower end projecting through the open front thereof for exerting finger pressure thereon, spring means urging the lower end of said lever outwardly, means on the upper end of said lever for engaging said pivotal blade clamping member for selectively clamping and releasing the razor blade upon pivotal movement of said lever.

2,771,674
CUTLERY DEVICE
John W. Hunt, Pontiac, Mich., and William A. Hunt, Chicago, Ill.; said William A. Hunt assignor to said John W. Hunt
Application June 12, 1953, Serial No. 361,366
4 Claims. (Cl. 30—142)

1. In a pocket cutlery device including a housing and a plurality of blades pivotally mounted in said housing

to swing out of said housing into operative position, the provision of a nail clipper mounted in said housing and comprising upper and lower flat spring members joined at one end and bent inwardly toward each other at the opposite ends to form cutting jaws, said lower member bent downwardly at a point inwardly from said jaw end and thence upwardly toward said jaw end to form a semicircular depression in said lower member, a pin passing upwardly through said depression and through said upper member, a head on said pin engaging the lower surface of said lower member, an operating arm pivotally affixed near its end to a slot near the upper end of said pin above said upper spring member so as to swing over the top of said pin and lie



back parallel to said upper member in an inoperative position, said nail clipper being pivotally mounted within said housing near the center thereof by a pin through the joined ends of said flat spring members so that said clipper may be swung out of said housing into an operative position, a recess in one end of said aforementioned housing to enclose the jaws of said clipper when the clipper is pivoted into said housing, and a recess in said housing to partially receive said operating arm of said clipper when said clipper is pivoted into said housing and said operating arm is in its inoperative position leaving a portion of said operating arm protruding from said housing to serve as a gripping means to pivot said clipper out of said housing toward the operating position of said clipper.

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2,771,675
**RUBBER DENTAL CUSHION HAVING LUBRICANT COATING**
George H. Wills, Kansas City, Mo.
Application September 25, 1953, Serial No. 382,370
2 Claims. (Cl. 32—2)



1. As a unitary article of manufacture, a dental cushion for use as an insert between an artificial denture and the associated gum, said cushion comprising an elastic body of synthetic rubber for cushioning the denture as the same is forced toward the gum, said body of synthetic rubber being substantially impermeable to aqueous fluids and impermeable to wax, a reticular flexible fabric panel completely encased within said body and completely saturated and impregnated by said synthetic rubber, and a lubricating coating of wax completely covering the body for reducing injury to the gum from friction between the body and the gum, whereby the body maintains the lubricating coating separate from and out of contact with said flexible fabric panel.

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2,771,676
**MEANS FOR EXTRACTING TEETH**
Charles F. Tully, San Diego, Calif.
Application April 6, 1953, Serial No. 346,946
5 Claims. (Cl. 32—62)

1. A shearing tooth extractor means consisting of a concave tooth-engaging member and a bifurcated shearing member of greater length than said tooth engaging member pivotally connected therewith the bifurcated members being spaced apart a sufficient height and width to pass around the opposite sides of the tooth and arranged to cut the process on the labial side of the tooth



and pass along the side walls of the tooth separating the process from said tooth.

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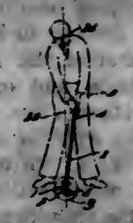
2,771,677
**DENTAL MATRIX DEVICE**
John J. Curry, Philadelphia, Pa.
Application March 9, 1953, Serial No. 341,185
22 Claims. (Cl. 32—63)



1. A dental matrix device comprising a flexible band member for being received about a tooth having first and second terminal portions, and a substantially V-shaped connecting element having first and second legs respectively secured lengthwise along the first and second terminal portions transversing said band member.

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2,771,678
**GOLFING AIDS**
Fred C. Hansen, Sr., Detroit, Mich.
Application February 15, 1952, Serial No. 271,787
13 Claims. (Cl. 33—46)

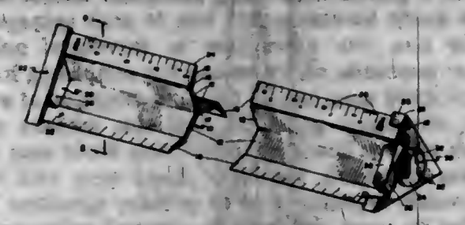


1. An attachment for a golf club comprising, a clamp adapted to be secured to such golf club adjacent to the head thereof, said clamp including a sighting device which extends at the same angle with respect to the longitudinal axis of the shaft as does the line of sight between the user's sighting eye and the ball engaging portion of the striking face of the golf club head when the club head is positioned adjacent to and rearwardly of the ball to be hit with the longitudinal axis of the club shaft directed toward the user's body and the hands of the user grasping the club shaft in stroking position, and means for adjustably securing said clamp to said golf club.

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2,771,679
**ENGINEER'S SCALE**
James E. Capp, San Diego, Calif.
Application March 30, 1956, Serial No. 575,162
4 Claims. (Cl. 33—107)

1. An engineer's scale comprising an elongated scale body of flexible and resilient material and comprising three symmetrically spaced, similar, coextensive blades radiating from the longitudinal axis of the body, said blades having substantially inflexible scaled faces constituting the elongated tip portions of the blades; triangular box-like end frames enclosing the ends of said body; and retainers secured to the ends of said body and retaining said end frames against movement longitudinally of said body; the extremities of said faces engaging the



corners of said end frames; the width of said blades measured radially of the body being slightly greater than the distance from the center of one of said end frames to a corner thereof; whereby said faces can be snapped into two alternate positions, and in each position being substantially parallel to the corresponding sides of the end frames.

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2,771,680
**NO-WIPE OIL DIP STICK**
George H. Lee, Oak Ridge, Tenn.
Application November 2, 1955, Serial No. 544,425
10 Claims. (Cl. 33—126.4)



1. An oil dip stick adapted to be inserted into an oil container through a well in the top thereof to measure the level of oil in said container comprising an elongated vertically extending member having, as its lower oil measuring portion, a pair of relatively movable legs having irregular cooperating surfaces, and means defining two possible relative positions of said legs, an open position and a closed position, in the open one of which positions the cooperating surfaces are slightly offset from one another to form a vertically extending series of oil retaining holes, and in the closed one of which positions the cooperating surfaces mate with one another to close up the said holes.

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2,771,681
**MEASURING DISC WITH TOTAL INDICATOR**
Clarence G. Reinking, San Francisco, Calif.
Application March 31, 1953, Serial No. 345,924
5 Claims. (Cl. 33—141)

3. In a measuring device of the character described the combination of a disc having a reference point and distance measuring graduations about its periphery adapted upon being rolled over a surface to indicate distance covered in a single or partial revolution thereof, a second disc of smaller diameter disposed in parallel contacting relation with said first disc having an internal ring gear connection with said first disc, said smaller disc having graduations corresponding to multiples of the



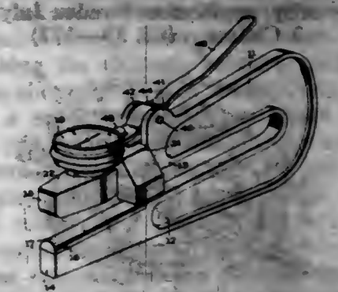
periphery of said first disc and being adapted and arranged to turn more than one revolution for each complete revolution of said first disc, whereby an indication of the total distance covered by a plurality of complete revolutions of said first disc will be directly readable



upon said second disc when adjacent said reference point, and means forming an axle for said second disc for securing said first and second discs in relative rotative relation adapted and arranged to be gripped between the thumb and forefinger of an operator at opposite sides of said discs when rolled over a surface.

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2,771,682
**PRINTING PLATE GAUGE**
Joseph P. Dorr, Silver Spring, Md.
Application August 21, 1952, Serial No. 305,548
7 Claims. (Cl. 33—147)



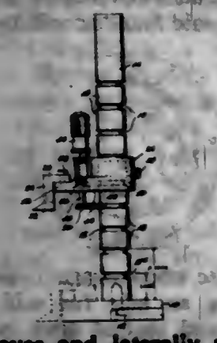
1. A portable gauge for indicating variations in the thickness of curved printing plates comprising a frame having a pair of fixed spaced substantially co-extensive arms, an abutment secured on the inner face at the end of one of said arms to engage the concave face of the printing plate, a thickness indicator carried by the other of said arms and having a plunger extending through said other arm and opposed to said abutment for contacting the convex surface of the printing plate, a clamping member slidably mounted on said other arm, means for guiding said clamping member relative to said other arm in a vertical direction toward and away from said abutment, a pair of transversely-spaced plate-engaging surfaces on said member cooperating with said abutment to orient the gauge in a plane extending radially of the printing plate, a spring normally urging said member in a direction to cause such surfaces to engage the convex surface of the printing plate, and a manually-operable lever for retracting said member to permit application of the gauge to the printing plate.

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2,771,683
**PRECISION LAYOUT AND HEIGHT GAGE**
Robert F. Kirchhof, Broad Brook, Conn.
Application April 1, 1955, Serial No. 498,648
1 Claim. (Cl. 33—170)

A gage of the type described comprising a base, a shaft upstanding from the base, a plurality of evenly axially spaced grooves formed in the shaft, a sleeve slidably disposed on the shaft, a micrometer carried by the sleeve in spaced parallel relation to the shaft, means mounting the micrometer for axial adjustment, a work instrument carried by the sleeve and depending therefrom, means for securing the sleeve in selected positions on the shaft, a horizontally disposed rest plate having means to receive the micrometer and adapted to position

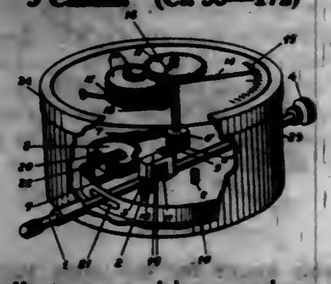
the sleeve on the shaft in accordance with the adjustment of the micrometer, said rest plate having means engageable with the grooves to selectively mount it on the



shaft in the grooves and laterally projecting from the shaft at the desired groove, said rest plate having a cut-out receivable in said grooves.

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**2,771,684**
**IMPROVEMENTS IN MEASURING INSTRUMENTS**
Tage Alfred Strömberg and Karl Gustav Leonard Hansson, Stockholm, Sweden
Application December 18, 1952, Serial No. 326,674
Claims priority, application Sweden July 28, 1952
3 Claims. (Cl. 33—172)

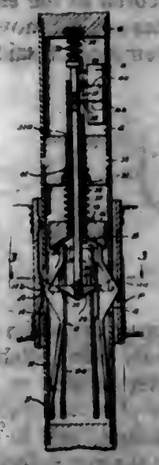


1. A test indicator comprising a casing, pointer means, a rotatable drum, means connecting said pointer means to said drum to be driven thereby, a measuring rod, and a section of flexible metal band having one end thereof connected to the said measuring rod and the other end connected to said drum, a spring device keeping said section of metal band stretched, said spring device comprising a leaf spring having one end secured to said test indicator casing, a swingably mounted eccentric sheave carried at the other end of said spring, two sections of metal band secured at one end thereof to said sheave at approximately diametrically opposed points on said sheave at different distances from the axis thereof, the other end of said latter sections of metal band being secured to said drum and connected to said measuring rod respectively.

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**2,771,685**
**INTERNAL PIPE CALIPERING TOOLS**
John C. Kinley, Houston, Tex.
Application June 12, 1952, Serial No. 294,653
3 Claims. (Cl. 33—178)

3. In a tool adapted to be placed into a pipe for calipering surface variations therein, a plurality of circumferentially spaced feelers supported for lateral movement into contact with the inside surface of the pipe, two contact members within said tool adapted to reciprocate relative to said feelers, one contact portion on each of said feelers adapted to engage one of said contact members with the feeler moved furthest outward controlling the extent of reciprocation of that contact member, and another contact portion on each of said feelers adapted to engage the other of said contact members with the feeler moved furthest inward controlling the extent of reciprocation of that other member, the two contact members having tapered surfaces in contact with the contact portions of the feelers, one of said contact members having a tubular rod thereon reciprocable therewith, the other of said contact members having a shaft thereon which



extends through the bore of said rod, a chart in said tool, and a stylus on said rod and another stylus on said shaft for making a record on said chart of the reciprocal movements of said rod and said shaft.

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**2,771,686**
**INSTRUMENT TO MEASURE THE DIAMETER OF SUBSURFACE WELL BORES**
Hugh C. Hennessy, Fritz G. Mueller, and Frederick E. Armstrong, Bartlesville, Okla.
Application August 21, 1953, Serial No. 375,843
16 Claims. (Cl. 33—178)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A well bore caliper comprising electrical indicating and control means adapted to be located at the surface of the ground near the mouth of a bore-hole, an elongated body member having a plurality of measuring arms adapted to be lowered into said bore-hole, a conductor cable connecting said body member to said surface equipment, means in said body member for selectively extending and retracting said measuring arms in response to electrical signals from said surface equipment through said conductor cable, a variable resistor in said body member for each of said measuring arms and responsive to the position thereof, and means for selectively connecting each of said variable resistors to said surface indicating means through said cable whereby the position of each of said measuring arms may be determined.

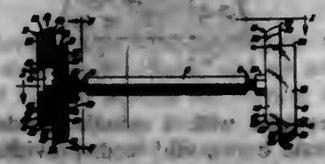
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**2,771,687**
**BORE GAGE**
Marshon C. Hoste, Jr., Muskegon, Mich.
Application July 8, 1952, Serial No. 297,698
6 Claims. (Cl. 33—178)

1. An adjustable bore gage having a major axis adapted to be brought toward concentricity with the axis of the bore in checking the diameter of the bore; comprising a



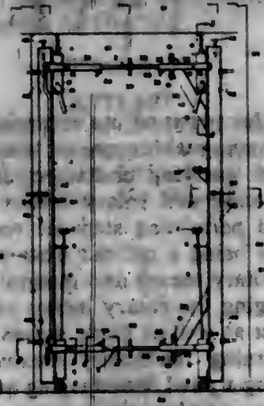
first elongated gage block having a rounding bore engaging face at one end generated about an axis extending lengthwise of said major and with the radius of generation not exceeding the minimum radius of the bore to be gaged, and said first gage block having a straight exterior side face extending lengthwise of the first gage block, a second elongated gage block having a rounding bore engaging face at one end generated about an axis extending lengthwise of said major axis and with the radius of generation not exceeding the minimum radius of the bore to be gaged, and said second gage block having a straight exterior side face extending lengthwise of said second gage block and mating with said straight side face of said first gage block to permit sliding of said gage blocks lenthwise relative to each other, a slideway and key connection between said mating faces of said gage blocks and constraining said gage blocks to so slide



lengthwise relative to each other, fastening means arranged to secure said gage blocks together in different positions of adjustment lengthwise of each other, and a fine adjustment for said positions of adjustment of said gage blocks, comprising a lateral extension projecting from said mating face of one of said gage blocks into the path of the other gage block, said lateral extension being provided with a threaded bore extending completely therethrough in a direction parallel with the direction of relative movement of said gage blocks, the end of said other gage block adjacent said lateral extension being also provided with a bore in line with and forming a continuation of said first bore, said bores being severally provided with oppositely pitched threads, and an adjusting screw having its opposite ends oppositely threaded and with said opposite ends respectively screwed into said bores.

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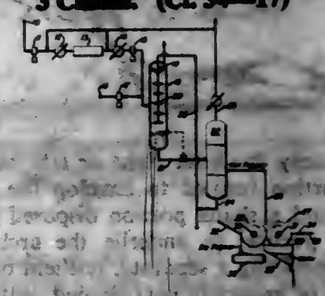
**2,771,688**
**DOOR FRAMING JIG**
Harold E. Baker, San Jose, Calif.
Application February 4, 1955, Serial No. 486,162
5 Claims. (Cl. 33—194)



1. A door framing jig comprising a pair of similar, elongated members, means for holding said members in spaced, parallel, opposed relationship, adjustable feet extending from the lower ends of said members and adapted to engage the floor for positioning said members vertically in a rough door opening, generally U-shaped elements extending from the upper ends of said members and mounted for reciprocation therefrom, and means for yieldably urging the upper arms of said elements into engagement with the header of said rough opening, and adjustable means mounted at the upper ends of said members for supporting a head jamb of a door frame whereby when said jig is so positioned in said rough opening the outer edges of said members and said adjustable means serve as accurate guides for the placement of the jambs of said door frame.

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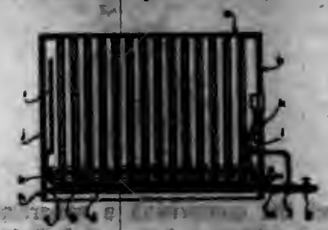
**2,771,689**
**REMOVAL OF WATER FROM SOLID POLYMERS**
Richard S. Bottz, Jr., Park Forest, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application March 26, 1953, Serial No. 344,726
3 Claims. (Cl. 34—17)



1. The process of removing physically bound water from a solid, water-laden, hydrocarbon polymer which comprises passing said water-laden polymer between two smooth counter-rotating, horizontally disposed parallel rolls, maintaining the distance between said rolls from about 0.001 to about 0.010 inch, maintaining one of said rolls cool, at a temperature between about 35° F. and about 80° F., and maintaining the other of said rolls hot, at a temperature between about 150° F., and about 225° F. whereby water is transferred from the thin polymer layer to the cool roll and the thin polymer layer adheres to the hot roll, continuously removing liquid water which is separated from said water-laden polymer from the surface of said cool roll after said water passes between said rolls and before said water can recontact polymer, and continuously removing substantially dewatered polymer from the surface of said hot roll after said polymer passes between said rolls and before said dewatered polymer can recontact water-laden polymer.

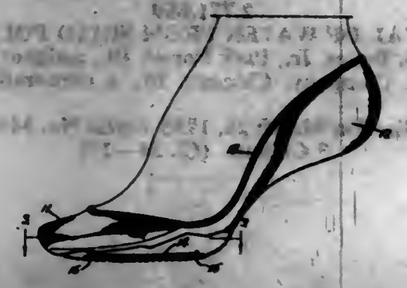
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**2,771,690**
**LINEN DRIER**
Henri Jean Frederic Jeanne, Toulouse, France
Application August 7, 1953, Serial No. 372,856
Claims priority, application France August 27, 1952
13 Claims. (Cl. 34—48)



12. A linen drier adapted to operate at high speed, comprising a plate of heat conducting material having its ends extending downwardly from its medial portion to form a hood having open sides and an outer convex surface on which articles to be dried are adapted to be laid, means closing the open sides of the hood, a steam boiler in said hood, a plurality of tubes connected to said boiler and having heat exchange contact with the inner surface of said plate, means for heating said boiler with gaseous combustion products, and means for passing the gaseous combustion products after contacting said boiler into direct heat exchange contact with the inner surface of said plate.

2,771,691
**CUSHIONED FOOT PROTECTOR**
Morton G. Lachs, New York, N. Y., assignor to J. W. Landenberger & Co., Philadelphia, Pa., a corporation of Pennsylvania
Application September 22, 1954, Serial No. 457,651
1 Claim. (Cl. 36—10)



Knitted hosiery for both right or left feet, comprising a forward portion formed to envelop the toes and ball of the foot, and a shank portion disposed rearwardly of said forward portion to underlie the arch of the foot, said hosiery including a separate, resilient pad of uniform thickness and of generally pear-shaped outline symmetric about its longitudinal axis, said pad being placed and secured interiorly of said hosiery in said forward portion with said longitudinal axis of said pad longitudinally disposed therein, and with its greatest transverse axis disposed to underlie the ball region of the foot, said pad being of sufficient width and area to support the pressure points of the bottom of the foot in the ball region thereof over a substantial range of widths of feet and terminating at its forward edge substantially at a line defined by the forward edge of said ball region, at its rearward edge in the forward region of the arch, and along its side edges short of the sides of the foot, said pad having an exposed, flat, uninterrupted surface to provide a smooth cushioning member for directly supporting the ball region of the foot, the generally pear-shaped outline of said pad, its symmetry about its longitudinal axis, and the mounting of said pad interiorly of the hosiery with its longitudinal axis longitudinally disposed within said hosiery adapting the hosiery for use on right or left feet without reversal of the hosiery.

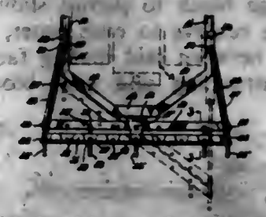
2,771,692
**HEEL PIECE, PARTICULARLY OF HARD RUBBER WITH CELLULOID COATING**
Friedrich Silbbe, Viedio (Weser), Germany
Application November 23, 1953, Serial No. 393,870
6 Claims. (Cl. 36—35)



1. A heel lift comprising a spherically curved base body of hard rubber, a layer of Celluloid on the upper face of the body, and a thin layer of soft, non-brittle material on the Celluloid layer.

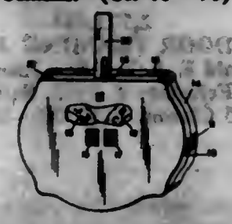
2,771,693
**LAND CLEARING IMPLEMENT**
Charles S. Bourque, St. Gedeon de Beauce, Quebec, Canada
Application June 8, 1955, Serial No. 514,054
3 Claims. (Cl. 37—2)

1. An implement for attachment to a tractor comprising a rigid frame mounted in front of said tractor said rigid frame consisting of two legs extending on each side of said tractor and pivotally connected to said tractor at their rear ends, and of a cross leg consisting of two inclined portions extending from the forward ends of said legs and of a transverse middle portion connecting said two inclined portions, a pusher plate provided with top and bottom longitudinally extending flanges, each flange provided with a plurality of spaced bores, the bores of said top and bottom flanges being vertically aligned in pairs and a transverse bar horizontally spaced and pivotally mounted on said transverse middle portion for horizontal movement, a plurality of ground engaging teeth having a substantially triangular shape and being in sliding contact with the bottom flange of said pusher plate, each of



said teeth provided with a spindle pivotally journalled in a pair of said bores, said teeth provided with a rearward extension pivotally connected to said transverse bar, and means to pivot said pusher plate and said transverse bar from a position transversely of said tractor to a position inclined relatively thereto on either side of said tractor consisting in an upper and lower actuating rods secured to the spindle of the end teeth and to the pivotal connection of said end teeth to the rear transverse bar respectively, and in a sleeve slidably mounted on the legs of said frame and to which the rear end of said actuating rods are pivotally connected.

2,771,694
**BOXES, CASES AND CONTAINERS FOR PERSONAL USE**
George Stratton Langston, Birmingham, England
Application October 9, 1953, Serial No. 385,236
Claims priority, application Great Britain August 21, 1953
5 Claims. (Cl. 46—70)



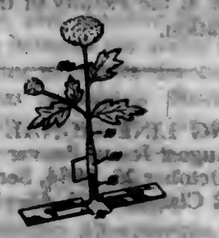
1. Container for personal use comprising main component parts and having within one of them a rotary means of circular form carrying characters such as letters, a means for mounting said rotary means within the component part and permitting stepwise rotation of it, said mounting means being a cut out plate providing bearing means for the rotary means and integral with the plate a means for engaging the rotary means and retaining it in a position of rest as well as guide means for an operating member for turning the rotary means, said operating member including a pawl for engaging any one of a series of notches in the circular rotary means and also including a limb which co-operates with the guide means and forms a stop limiting the movement of the operating member.

2,771,695
**ORNAMENT HOLDER FOR DECORATIVE PACKAGE BOWS**
Bill Y. Jensen, Bellaire, Ohio.
Application April 12, 1954, Serial No. 422,347
1 Claim. (Cl. 41—10)

A decoration for packages having tying tapes, said decoration comprising in combination an ornamental



floral spray including a stem having artificial foliage and an artificial flower; a support including a pair of elongated flat plates spaced apart with their longitudinal axes in alignment and adapted for disposition between the package and the tapes thereof; and an L-shaped bendable wire element for each plate respectively, each element having a horizontal and a vertical leg, the horizontal legs being secured rigidly to the uppermost faces of corresponding



plates on said longitudinal axes thereof, the vertical legs embracing the stem therebetween; and an adhesive tape wrapping coiled spirally around the vertical legs and the stem for attaching the spray to the support, the plates extending radially in opposite directions from a line extending downwardly beyond the longitudinal vertical axis of the stem, the horizontal legs extending beyond the proximal spaced apart ends of the plates and merging with the vertical legs adjacent said extended axis.

2,771,696
**EJECTOR FOR POWDER-ACTUATED TOOLS**
Rowland J. Kopf, Rocky River, and Roger Marsh, Hudson, Ohio, assignors to Portable Industries, Inc., Cleveland, Ohio, a corporation of Ohio
Application April 23, 1954, Serial No. 425,195
11 Claims. (Cl. 42—1)



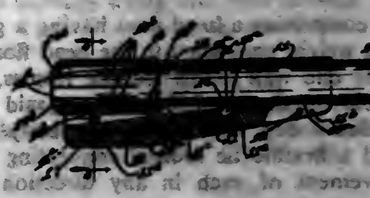
1. In powder-actuated apparatus of the type utilizing a breech plug, a cartridge-ejecting device comprising an ejecting pin mounted at one end, and an annular resilient cleaning element mounted in surrounding relationship with said pin adjacent its free end.

2,771,697
**REMOVABLE HANDGRIP FOR GUNS**
Harry A. Reising, La Grange, Ill.
Application August 10, 1953, Serial No. 373,132
2 Claims. (Cl. 42—71)



1. A handgrip adapted to be removably secured to the forearm or the like of a gun, said handgrip comprising a resilient Y-shaped body including a handle portion and curved arm portions, said body being formed by a pair of longitudinally extending half portions in face-to-face relation, each of said halves having a pair of longitudinal channels spaced one from the other and each extending from the handle portion to one of each of the arm portions of said halves, said channels forming a pair of grooves extending from said handle portion to each of said arm portions when said halves are in face-to-face relation, a pair of opposed spring members each positioned in one of said grooves, and adjusting means connecting said spring members and operative to vary the displacement therebetween whereby the distance between said curved arm portions may be regulated.

2,771,698
**AUTOMATIC CHOKE FOR SHOT GUNS**
William T. Rochelle, Atlanta, Ga.
Application December 4, 1953, Serial No. 396,155
4 Claims. (Cl. 42—79)



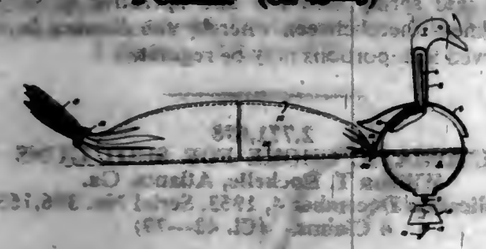
1. An automatic choke for gun barrels comprising a bore member having a bore, means for securing the bore member to the barrel of a gun with the bore in axial alignment with the gun bore, the bore member having slits at the outer end of the bore, an outer cylindrical member having a gas-impinging surface and surrounding the slitted portion of the bore member and coacting means therebetween, said coacting means comprising a forwardly converging surface on the slitted member and a ring contacting surface on the outer cylindrical member to constrict the slitted portions when the outer cylindrical member moves rotatively and axially in the rearward direction, a swinging duct member having one end of its duct connected to the bore and its other end having a direction of discharge substantially in a plane normal to the axis of the bore, the outer rotatively movable cylindrical member having a plurality of spaced abutments providing gas-impinging surfaces in position to register with and receive impulses successively from the gas discharged from the duct to revolve the outer cylinder by increments as the gun is successively discharged.

2,771,699
**QUICK DETACHABLE GUN SLING SWIVEL**
George L. Hartey, Waseca, Minn.
Application August 24, 1953, Serial No. 376,211
7 Claims. (Cl. 42—85)



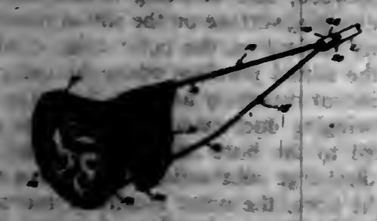
2. A tubular base having an internal annular lock channel applicable to a part of a firearm, a cylindrical swivel insertable into the base and having means for attaching a gun sling thereto, at least one depending arm pivoted relative to the swivel for swinging movement in the plane of the swivel, said arm having an outwardly projecting lock lug, a spring urging the arm outwardly to project its lock lug into the lock channel to detachably attach the swivel to the base, a turnable plunger in the swivel having a limited relative axial movement, said arm at its free end portion and said plunger having at its inner end portion contacting means operable when the plunger is pushed inwardly to operate the arm and withdraw its lock lug from the lock channel.

2,771,700
DECOY
Charles S. Rosevelt, Jr., Richmond, Calif.
Application June 15, 1954, Serial No. 436,783
2 Claims. (Cl. 43—3)



1. A decoy comprising a head float having a generally upright stem, a weight connected to the head float to immerse its lower end well below surface ripples, a head loosely rotatable on the head float about said stem, a waterproof inflated bag constituting the body float of the decoy, and a flexible tie loosely connecting the two floats for movement of each in any direction relative to the other.

2,771,701
FROG NET
George C. Harper and Carl T. Wilson, Shreveport, La.
Application September 8, 1954, Serial No. 454,887
2 Claims. (Cl. 43—7)



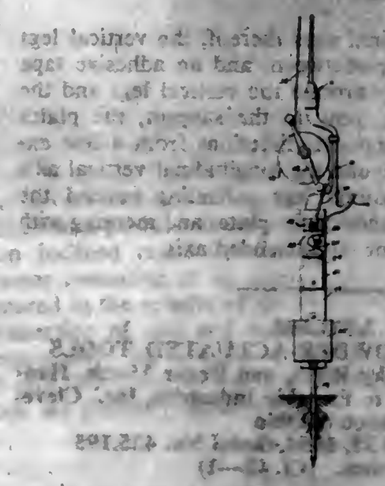
1. A frog net, comprising an elongated handle, supporting arms, bag supporting ring and flexible bag, the supporting arms extending outwardly and diverging from the end of the handle, the ring being attached to the ends of the arms in a plane transverse to the axis of the handle, and the bag being elongated and having an open end attached around the periphery of the ring.

2,771,702
FISHING TRAWLS
Agnar Gudmundsson Breidfjord, Reykjavik, Iceland
Application August 9, 1952, Serial No. 303,518
4 Claims. (Cl. 43—9)



1. A floating trawl for use in sea fishing comprising a trawl net of elongated configuration having a mouth opening of generally rectangular shape so as to present upper and lower substantially horizontal edges, a pair of main trawl wires connected at one end directly one to each of the two lower corners of the net mouth, and adapted to be connected at their opposite end to a single trawling vessel, a pair of auxiliary trawl wires connected at one end one to each of the upper corners of the net mouth, and connected at their other end one to each of the main trawl wires at a position intermediate the ends of said main trawl wires, and a trawl board disposed in each of the main trawl wires at a position intermediate the connection of the auxiliary wires thereto and the net mouth and disposed nearer the latter than to the position at which the main wires are connected to the auxiliary wires, said trawl boards being spaced away from the net mouth by a substantial distance, namely, approximately half the overall length of the elongated trawl net, said trawl boards constituting the sole means for applying through the main trawl wires the required downward and outward force to the lower edges of the net mouth to keep the same open without at the same time being sufficiently close to the net as to be calculated to scare away fish in the vicinity of the net mouth during the trawling operation.

2,771,703
FISHING LINE SIGNAL DEVICE
Edgar August Jonas, Beaver Dam, Wis.
Application October 22, 1954, Serial No. 463,980
2 Claims. (Cl. 43—17)



1. An alarm device for use with a fishing rod of the type having a handle and a rotatable reel provided with a crank located adjacent said handle, said alarm device comprising a tubular socket member arranged to telescopically receive said handle therein, means at one end portion of said socket member formed and arranged to lockingly interengage with a portion of the handle to prevent rotation of said handle in said socket, a ground-engaging stake element rigidly secured to one end of said socket member alarm element, a toggle switch mounted on said socket member, and electrically connected to said alarm element, an arm pivotally mounted to said socket member, and means operatively connecting one end of said arm to said toggle switch, said means being so positioned as to be operatively engaged by said crank as the reel rotates.

2,771,704
FISHHOOK GUARD
Glenn L. Biggs, Fayetteville, N. Y.
Application July 9, 1954, Serial No. 442,405
1 Claim. (Cl. 43—54.5)

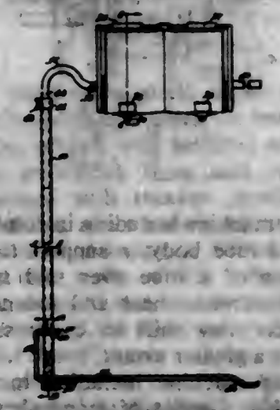


A guard for use with a single gang type fishhook comprising a relatively small, flat circular member of penetrable material in which the points of the hook may be embedded, said member being formed with a small circular hole through the center thereof adapted to receive the shank of the fishhook when the points are embedded in the member, with a relatively close fit with the shank portion of said fishhook, said member being formed with a plurality of larger circular holes arranged in uniformly spaced relationship on a circular path concentric with said center hole, the points of the fishhook being normally



embedded in said member in the portion thereof between adjacent pairs of said larger holes, said center hole acting as a bearing and a guide for the shank of the fishhook to prevent the points thereof from extending beyond the peripheral edge of the member and to locate them in the concentric path of said larger holes, said larger holes being sufficiently large to enable the points of gang hooks of various sizes to pass therethrough when the points are disengaged from the member and rotated into alignment with the holes, said member being formed with a radial slit extending between the center hole and each of the larger outer holes to enable the curved portions of the fishhook to pass completely through the member when withdrawing the hook from the guard.

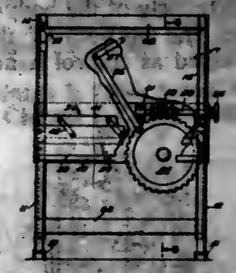
2,771,705
BOOK CADDY
Charles Rettinger, Albuquerque, N. Mex.
Application February 23, 1955, Serial No. 489,959
3 Claims. (Cl. 45—82)



1. In a stand for supporting a book in a position for reading, the combination which comprises a telescoping post, a supporting base mounted on the lower end of the post for supporting the post in an upright position, a horizontally disposed arm having a vertically disposed shank positioned with the shank extended into the upper end of the post, means for clamping the shank of the horizontally disposed arm in adjusted positions in the post, a horizontally disposed support bar pivotally mounted on the horizontally disposed arm, vertically positioned plates having extended flanges on lower ends thereof positioned adjacent the ends of the support bar, links pivotally mounted, at one of the ends thereof, in said support bar and pivotally connected, at opposite ends thereof, to said book retaining racks, book retaining clamps mounted to slide vertically on said book retaining racks and adapted to secure backs of books to said racks, page retaining clamps slidably mounted on the flanges at the lower ends of the racks, tubes carried by lower ends of said racks and springs in the tubes positioned with one of the ends thereof connected to the tubes and the other to said page retaining clamps whereby tension is applied to the clamps for retaining pages of a book positioned on the racks in extended positions.

2,771,706
DRAFTING BOARD
Henry Elmer Johnson, San Leandro, Calif.
Application September 30, 1952, Serial No. 312,263
2 Claims. (Cl. 45—129)

1. An improved drafting machine comprising a pair of rails, support means connected to said rails and maintaining same parallel in vertical position, a vertically disposed drafting board carriage extending between said rails in slidable relation thereto and adapted to carry drafting, a worm gear, means rotatably mounting said worm gear upon one of said rails, a gear wheel rotatably mounted in engagement with said worm gear, an arm pivotally secured at one end to said gear wheel adjacent the edge thereof, and a link rigidly secured to the other end of said arm and pivotally mounted upon said carriage



whereby rotation of worm gear turns said gear wheel to slide said carriage along said rails through said eccentric.

2,771,707
TOY BANK
Herbert Ginsberg, Bayside, N. Y.
Application February 12, 1954, Serial No. 409,895
2 Claims. (Cl. 46—4)



1. An article of the kind described comprising a rectangular-shaped hollow container having front, rear, top, bottom and side walls, said top and front walls terminating short of each other providing an opening therebetween, said side walls having cutaway portions at their top ends communicating with said opening, a hollow cylindrical bearing member mounted on the top wall at the center thereof, said bearing member having lateral slots communicating with the interior thereof, a substantially vertically disposed trapezoidal-shaped gameboard rockably mounted in said opening and cutaway portions and extending above the container, a forwardly extending flange around the periphery of said gameboard, the bottom end of said gameboard being of arcuate shape and being seated on the top ends of the side walls, the portion of the flange along the top of the gameboard having a central opening adapted to receive a coin, a series of vertically spaced baffles on the front of said gameboard extending outwardly therefrom with spaces on the gameboard on both sides of the baffles between the ends of the baffles and the adjacent flanged portions of the gameboard, the lowermost baffle having central slots therein, and a hollow cylindrical handle secured to the gameboard below the lowermost baffle for rocking said gameboard, said handle being open at both ends and having a transverse cutout registering with the slots in the lowermost baffle for receiving a coin dropped through the opening in the top portion of the flange and cascaded onto the lowermost baffle, a cylindrical shaft extending from the rear of the gameboard adjacent its bottom and disposed loosely in said bearing member, and a flat spring carried by said shaft with the free ends thereof extending laterally of the shaft and through the lateral slots in the bearing member whereby to resiliently limit the rocking motion of said gameboard.

2,771,708
VENTRILOQUIST'S DOLL
Marian Bakuss, New York, N. Y.
Application October 26, 1953, Serial No. 388,814
6 Claims. (Cl. 46—154)

1. A ventriloquist's doll comprising a body, arms and legs pivoted upon said body, said arms and legs all

being formed from lengths of wire material having inner end portions disposed within the body and outer end portions projecting exteriorly of the body to define the limbs thereof, the inner end portions of the lengths of wire material being shaped as control handles adapted to be



engaged by the fingers of a hand inserted within the body, and means for automatically effecting joint movement of the arms including a U-shaped bail connected at its ends to said handles constituting the inner ends of said arms and depending within the body with its bight adapted for engagement by the finger of a user.

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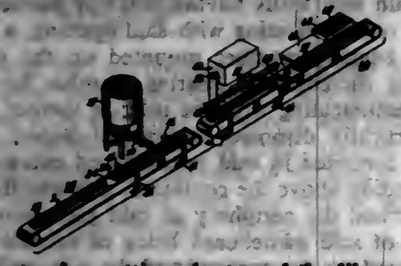
2,771,709

**PLANTING AND EQUIPMENT THEREFOR**

Alexander S. Ritter, Brielle, N. J.

Application April 9, 1954, Serial No. 422,199

5 Claims. (Cl. 47—1)



1. Apparatus for potting plants and the like comprising in combination a plant pot carrier of the type for handling a plurality of plant pots having a body and a collar, said collar being at the upper edge of the body of said pot, said collar extending beyond the body of said pot, said carrier comprising in combination a rigid rectangular frame, said frame particularly characterized in that the smaller dimension of the inside of said frame is substantially equal to a horizontal dimension of the body of said plant pot under the collar of the plant pot but less than the corresponding dimension of the collar on said plant pots, the longer dimension of the inside of said rectangular frame being slightly less than a multiple of the horizontal dimension of the collar of said pot perpendicular to said horizontal dimension of said plant pot whereby a plurality of said plant pots will rest snugly in line in said carrier; said rectangular frame having a height less than the height under the collar of said pot, and said frame having a support member across the narrow dimension of the frame and at substantially the center of the frame at its lower edge to prevent spreading of said frame; and wherein said support member is located between the location of two of said pots when said carrier is filled with said pots, means for filling said pots with soil, means for compressing said soil, means for moving said carriers continuously under said means for filling said pots with soil and means for intermittently moving said carriers under said soil compressing means.

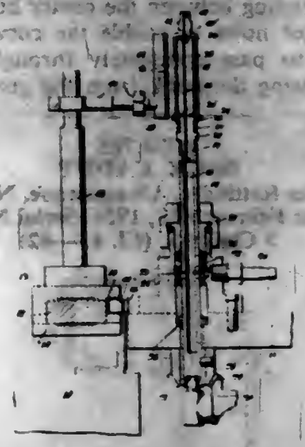
2,771,710

**GLASS SYRINGE BARREL FORMING METHOD AND MACHINE**

Henry G. Mallucci, Rutherford, and Julius V. Magnah, Woodridge, N. J., assignors to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey

Continuation of application Serial No. 150,926, March 21, 1950. This application February 18, 1953, Serial No. 337,525

24 Claims. (Cl. 49—7)



1. A forming machine including in combination a mandrel to receive a tube body, a support to limit the telescopic disposition of a tube over said mandrel, means exposing the mandrel to heat and means whereby said supporting means may shift to cause said mandrel to enter said tube to a greater extent.

11. A forming machine including in combination a rotatable turntable, a series of mandrels each to receive a tube, a carriage, tube and mandrel-heating means supported by said carriage at points adjacent said mandrels, means for coupling said carriage to move with said turntable and means periodically disconnecting said carriage from said turntable.

16. A machine to form a barrel having one open end and an opposite end closed except for a bored tip, said machine including a movable mandrel to extend through the open end of the barrel, means for pre-heating a thus supported barrel, a separate heating means for closing the tip of the same and final heating means for causing said barrel to conform to the surfaces of said mandrel.

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2,771,711

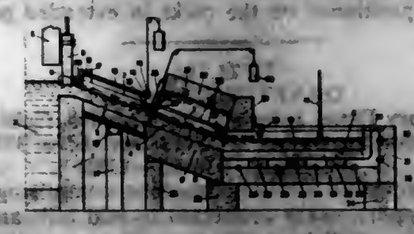
**APPARATUS FOR CONDITIONING GLASS WHICH IS TO BE CONTINUOUSLY DRAWN INTO SHEETS**

Bernard Long, Paris, France, assignor to Compagnies Reunies des Glaces & Verres Speciaux du Nord de la France, Paris, France, a corporation of France

Application August 1, 1955, Serial No. 525,729

Claims priority, application France August 27, 1954

13 Claims. (Cl. 49—55)



1. Apparatus for conditioning fined molten glass just leaving the end of the fining zone of the tank furnace immediately before it enters into the receptacle from which it is to be drawn into sheets, said apparatus comprising an inclined canal leading downwardly from said tank furnace to said drawing receptacle, said canal having a first portion provided with means for cooling the glass therein primarily by radiation and an enclosed second portion provided with means for convectively cooling said glass, the floor of the first portion of said canal being relatively thin so as to bring about an important heat loss therethrough, and the floor of the second portion of said canal being relatively thick so as to reduce heat loss therethrough.



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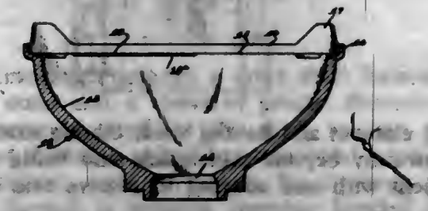
2,771,712

**CENTRIFUGAL MOLDS AND METHOD**

Clifford J. Reynolds, Sylvania, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application July 13, 1953, Serial No. 368,107

9 Claims. (Cl. 49—65)



1. A hollow mold open at its upper end and having upwardly flared inner wall surfaces, the mold being formed at the upper edge of said wall surfaces with a peripheral ledge extending outwardly from said upper edge, said ledge being formed with recesses providing means to facilitate the molding of an article within the mold.

6. The method of forming a hollow article having upwardly flared side walls, which comprises entering a charge of plastic material into an open ended mold having side walls flared toward the open end of the mold, rapidly rotating the mold about its axis and thereby spreading and molding said material over the side walls of the mold, anchoring the material to the mold adjacent to the rim thereof and thereby maintaining the material in contact with the mold during deceleration of the mold, decelerating the mold and hardening the said material.

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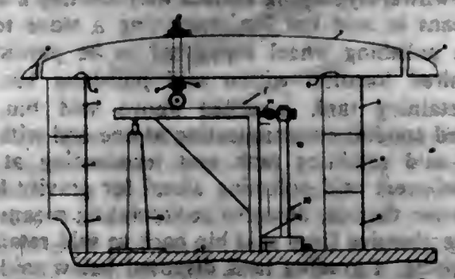
2,771,713

**APPARATUS FOR AND METHOD OF FORMING A TRUE SURFACE ARTICLE**

Samuel Charles Pechett, Toronto, Ontario, Canada

Application September 13, 1954, Serial No. 455,453

11 Claims. (Cl. 51—43)



1. The method of forming a true surface article to have at least two true surfaces, comprising erecting said article on a true surface with one surface of the article substantially parallel to said supporting true surface, grinding said substantially parallel article surface with an interrupted grinding action carried out precisely parallel to said supporting surface to reduce the article surface into a reference true surface precisely parallel to said supporting true surface, re-erecting said article to locate said reference true surface in precise relationship to said supporting true surface to bring a second surface of said article into a position substantially parallel to said supporting true surface, and grinding said second surface with said interrupted cutting action to reduce said second surface into a true surface precisely parallel to said supporting true surface and having a precisely accurate relationship to said reference surface.

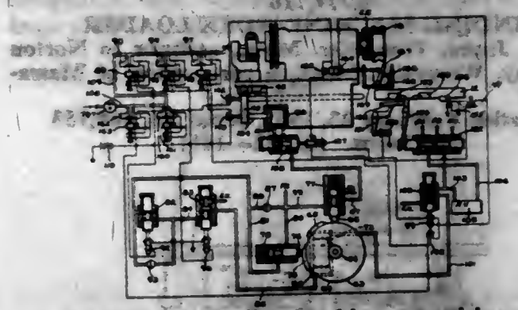
2,771,714

**INTERNAL GRINDING MACHINE**

William D. Schmidt, Holden, and Harold L. Blood, Worcester, Mass., assignors, by mesne assignments, to The Heald Machine Company, a corporation of Delaware

Application March 9, 1954, Serial No. 415,648

18 Claims. (Cl. 51—48)



1. An internal grinding machine comprising a rotatable wheel, a means for holding a workpiece having a bore to be finished by the wheel, a pneumatic gage plug, means for introducing the plug into the bore in the workpiece when the wheel is at least partially withdrawn therefrom, power means for feeding the wheel and workpiece into cutting engagement, control means including a source of air under pressure responsive to the escape of said pressure air through the space between the plug and the bore of the workpiece connected to the power means to bring about changes in the actuation of the said power means when the bore reaches predetermined sizes, means including a valve actuatable upon the introduction and removal of the plug from the bore for limiting the amount of fluctuation of the effect of the said escape of air when the plug is removed from the workpiece, and means responsive to said gage plug for discarding workpieces whose bores are excessively tapered.

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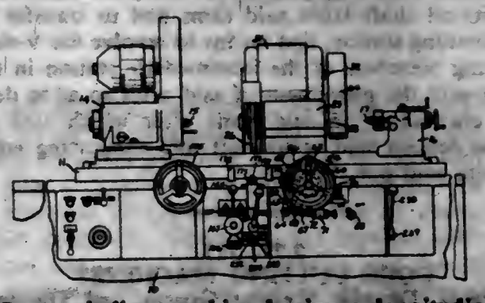
2,771,715

**GRINDING MACHINE**

Wallace H. Wood, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application November 6, 1953, Serial No. 390,631

6 Claims. (Cl. 51—95)



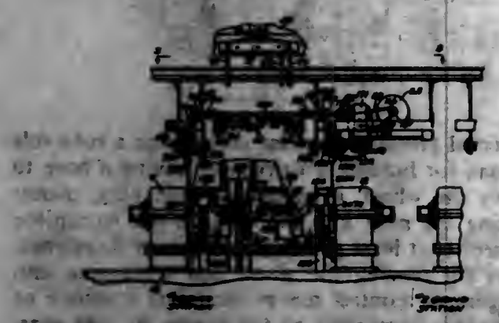
1. In a grinding machine having a longitudinally reciprocable table, a piston and cylinder to reciprocate said table, a reversing valve operatively connected to control the flow of fluid to and from said cylinder, a transversely movable wheel slide, a rotatable grinding wheel on said slide, a wheel feeding mechanism for said slide including a nut and feed screw to feed said slide in either direction, a manually operable feed wheel to rotate said feed screw, an adjustable stop abutment on said feed wheel, an oscillatable feed pawl operatively connected to actuate said feed wheel, an adjustable stop to limit movement of the pawl in one direction to facilitate adjusting the extent of the infeed, a fluid motor operatively connected to actuate said pawl, a control valve for said fluid motor, operative connections between said control valve and the table reversing valve whereby the control valve is actuated by and in timed relation with the table reversing valve so as

to impart an infeeding movement to the grinding wheel during reversal, and means including an independent stop pawl arranged to be engaged by said stop abutment positively to limit rotation of the feed wheel so as to stop the infeeding movement of the grinding wheel.

## 2,771,716
## GRINDING MACHINE-WORK LOADER

Glover C. Joyce, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application February 23, 1955, Serial No. 489,958
12 Claims. (Cl. 51—165)



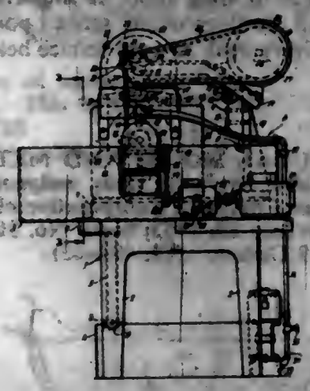
1. In a crankshaft grinding machine having a base, a transversely movable rotatable grinding wheel thereon, a pair of spaced axially aligned rotatable pot chucks for supporting the opposite ends of a crankshaft to be ground, means synchronously to rotate said pot chucks a work loading and a work unloading station, and a work loading and transferring mechanism therefor including an intermediate loading station located above the pot chucks having spaced revolvable V-shaped supporting members for supporting opposite ends of a crankshaft, a longitudinally movable work loader unit including a pair of spaced work engaging hooks which are movable through a substantially U-shaped path to facilitate picking-up a crankshaft to be ground from the loading station and depositing it in the intermediate station, means including a pair of spaced pivotally mounted work loader arms to pick up a ground crankshaft from the pot chucks and swing it into axial alignment with the intermediate station, said work engaging hooks being arranged to pick up a ground shaft from said arms and to transfer it to said unloading station, and means to revolve the V-shaped supporting members of the intermediate station in timed relation with the movement of said arms so as to deposit a new crankshaft on said arms after which said arms swing to deposit said crankshaft into supporting engagement with said pot chucks.

## 2,771,717
## CORE CUTTING MACHINES

Clarence G. Dunbe, Webster Groves, and Thomas W. Billington, Jennings, Mo., assignors to Maloney Electric Company, St. Louis, Mo., a corporation of Delaware

Application March 12, 1953, Serial No. 341,852
9 Claims. (Cl. 51—106)

1. A cutting machine comprising a supporting frame, a rotary member, a shaft on which said rotary member is supported for rotary movement, means for subjecting said rotary member to slow rotary movement, means, supported by said rotary member, for clamping to said rotary member articles to be cut by the machine, a cutting element, into cutting relation with which said articles are moved by said rotary member, and means for subjecting said cutting element to movement, said clamping means comprising a mechanism which includes an angular shaped fixed member and a pivotally movable jaw between which said articles are disposed, and spring means for drawing said movable jaw into clamping engagement with respect to said article, said fixed member and said movable jaw being disposed generally transversely of the

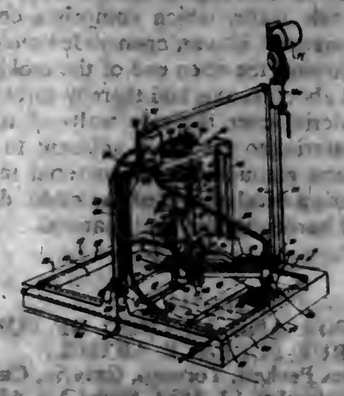


cutting element and having voids therein extending radially inwardly beyond said article and being disposed in alignment with and adapted to receive said cutting element.

## 2,771,718
## STONE POLISHING MACHINE

Aron Gustafson and Burnie E. Geno, Barre, Vt.

Application February 16, 1952, Serial No. 271,928
5 Claims. (Cl. 51—126)



1. A polishing apparatus comprising a polishing bin having a downwardly sloping bottom wall defining a drain trough, means in said bin for supporting a stone to be polished, a polishing wheel supported to be positioned at any desired location within said polishing bin, an abrasive retaining tank mounted above said bin, an abrasive feed conduit communicating at one end with the bottom of said retaining tank and terminating at the other end adjacent said polishing wheel for gravity feeding of abrasive thereto, abrasive recirculating means for recirculating abrasive from said bin back to said retaining tank comprising, a grading tank disposed below said bin and communicating with said trough to receive a stream of abrasive sludge therefrom, sprinkler means in said bin for washing the abrasive sludge therefrom into said grading tank, pump means for withdrawing abrasive from said grading tank and for delivering the abrasive to the top of said retaining tank, a perforated conduit disposed around the bottom of the retaining tank, conduit means for feeding a controlled amount of water through said perforated conduit to flow upwardly in said retaining tank to agitate and maintain the abrasive in suspension therein, an overflow conduit communicating with the abrasive tank above the bottom thereof and discharging into said bin to convey the excess water and the very fine particles of abrasive and stone to said bin, and a waste conduit communicating with said grading tank for conveying therefrom the excess water and the very fine particles of abrasive and stone.



## 2,771,719
## CRANKSHAFT GRINDING DEVICE WHEEL MOUNT

Elmer A. Fuglie, Winona, Minn., assignor to Winona Tool Manufacturing Company, Winona, Minn., a partnership

Application January 10, 1955, Serial No. 480,869
3 Claims. (Cl. 51—168)

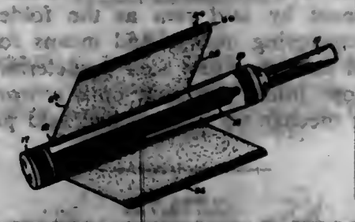


2. In a crankshaft grinder, a drive shaft formed with a threaded outer end, a sleeve of greater diameter than the shaft securely fitted on the shaft in rear of the threaded end thereof, a cylindrical bonded abrasive grinding stone formed with a relatively broad recess in one axial end thereof, a securing member bonded to the stone within said recess, said member containing an axial opening extending inwardly within the interior of the stone, the inner portion of said opening laterally threaded to receive the threaded end of the drive shaft, the outer portion of said opening formed as a smooth cylinder of greater diameter than the drive shaft, an intermediary portion of said opening formed in the same contour as the sleeve on the shaft to embrace the sleeve, and a tubular bushing encompassing the shaft and extending inwardly into the opening of said securing member to form a dust protected bearing surface between the sleeve, the securing member and the drive shaft within the interior of the abrasive stone.

## 2,771,720
## ABRADING IMPLEMENT

Albert Field, Dayton, Ohio

Application May 16, 1955, Serial No. 508,651
15 Claims. (Cl. 51—193.5)



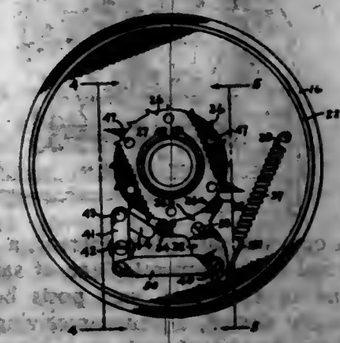
1. An abrading implement for the rotary finishing of cylinder interiors and the like, including a tripartite filler member, the parts of said member being flexible and in back to back relation with one another to enforce a bending of said parts about their center lines to define an article wherein adjacent centers of said parts form a hub from which project equilateral spaced apart vanes, and means for maintaining said parts in an assembled relation with one another to define a unitary filler member as described.

## 2,771,721
## POLISHER HEAD ABRASIVE FEED

Ralph R. Bolsinger, Indianapolis, Ind.

Application June 21, 1955, Serial No. 516,981
2 Claims. (Cl. 51—193.7)

1. For advancing flexible sheets carrying abrasive from between radially extending backing brushes of a polishing head having a drive shaft, relatively positioned front and rear plates spaced along said heads both revoluble with said shaft; and transverse pins extending between said heads, said sheets being anchored by inner ends to said pins and initially circumferentially wrapped by portions of their length around said pins; a toothed wheel rockably mounted about said shaft inside of said front plate; means drivingly interengaging said pins with said wheel for simultaneous circumferential shifting of all of said pins around said shaft; a hand wheel revolubly carried by said shaft on the outer side of said front plate; an escapement lever rockably mounted on the inside of said front plate; a pair of spaced pawls on said lever rockable



alternately in and out of the path of the teeth on said ratchet wheel; said front plate having a slot therethrough; a rock lever on said plate interconnecting the said escapement lever; a pin fixed to said rock lever and extending through said slot; and means on said hand wheel engaging said pin; the gripping of said hand wheel during turning of said shaft setting up travel between said ratchet wheel and said hand wheel advancing the ratchet wheel by one of said pawls relative to said front plate, unwrapping said sheets by that degree of advancement.

## 2,771,722
## ABRADING IMPLEMENT

Albert Field, Dayton, Ohio

Application December 13, 1954, Serial No. 474,669
2 Claims. (Cl. 51—195)



1. An abrading implement, including a multi-ply disc made up of an abrasive coated fabric material, an internally threaded grommet installed in said disc holding said plies is superposed contacting relation, one end of said grommet having a planar surface in approximately parallel contacting relation to the exposed surface of a terminal one of the superposed plies and the interior of said grommet being open to receive the threaded end of a mandrel whereby to support and to rotate said disc, and cut-outs in the periphery of said one end of the grommet opening through said planar surface to define therewith sharp edges tending to imbed themselves in the fabric of said one ply in response to relative rotation of said grommet and disc.

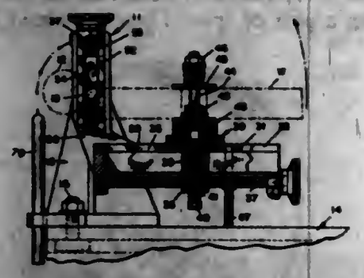
## 2,771,723
## RADIUS GRINDING FIXTURE

Robert N. Burleson, Culver City, Calif.

Application December 2, 1954, Serial No. 472,696
2 Claims. (Cl. 51—229)

1. A cutter holder fixture adapted to be mounted between centers on a grinding machine or the like for use in grinding a radius on a rotary cutter or other work, comprising an elongated body having a longitudinally

extending guideway including a slot through said body, a work support mounted on said guideway for adjusted positioning therealong and projecting through said slot, screw means carried by said body and engageable with said work support below said slot for accurately adjustably positioning said work support along said guideway, a pair of arms at the forward end of said body projecting



laterally from opposite side edges thereof, a vertical post extending normal to the general plane of said body carried at the end of each arm, said posts being parallel and longitudinally slotted, a center-receiving block slidably mounted on the slot of each post, screw adjustment means extending longitudinally of each post and including a screw threaded in each block for adjustably positioning the same vertically of the post.

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2,771,724

## TWO-COMPARTMENT CONTAINER AND METHOD OF MAKING SUCH CONTAINER

Albert E. Hosier and Robert C. Butler, Ashland, Ohio, assignors to The Fuhrless Rubber Company, Ashland, Ohio, a corporation of Ohio

Application November 9, 1953, Serial No. 390,911
6 Claims. (Cl. 53—14)



1. A method of making a two section container comprising heat sealing opposed edge portions of two layers of thin flexible plastic material, bringing the sealed edge portions into adjacent relation to form two loops from the plastic material, forming a semi-permanent seal between the two layers of plastic material adjacent the sealed edge portions and parallel to such sealed edge portions to form two compartments from the plastic material, folding the sealed edge portions over against the plastic material and flattening the plastic material, cutting a container section from the plastic material, permanently sealing one end of the container section, filling the compartments of the container section, and sealing the remaining end of the container section.

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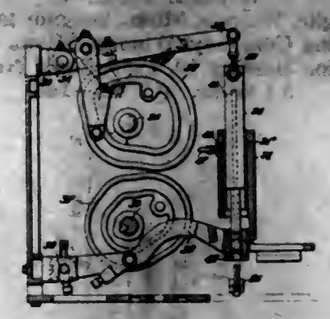
2,771,725

## METHOD OF AND APPARATUS FOR USE IN APPLYING CONTRACTIBLE BANDS TO ARTICLES

Sidney T. Carter, Shrewsbury, Mass., assignor to Geo. J. Meyer Manufacturing Co., Cudahy, Wis., a corporation of Wisconsin

Application March 16, 1954, Serial No. 416,561
25 Claims. (Cl. 53—41)

1. In combination, in a band-applying machine wherein a pre-cut contractible band of predetermined length to be placed on a circular part is held in applying position while mounted on a cylindrical plunger of a diameter closely approximating that of the part to be banded, stripping means movable longitudinally of the plunger for slipping the band downwardly from off of the plunger and onto the part to be banded and fluid pressure means for increasing the diameter of the lower margin of the band



while the band is moving in an axial direction from off the plunger and onto the part to be banded.

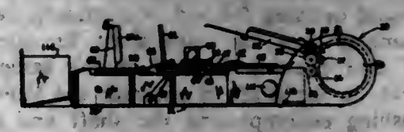
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2,771,726

## SHEET HANDLING AND ENVELOPE STUFFING MACHINE

Edwin H. Owen, Old Greenwich, Conn., and Walter J. Hanson, Port Chester, N. Y., assignors to Pitney-Bowes, Inc., Stamford, Conn., a corporation of Delaware

Application September 10, 1953, Serial No. 379,342
12 Claims. (Cl. 53—235)



1. In a device of the type described, a reciprocating ram for engaging flat workpieces, for conveying them edgewise in a path and for placing each workpiece as it approaches a loading station in said path, in an envelope positioned thereat; mechanism disposed adjacent said path for providing conveyable workpieces by taking sheets one-by-one and folding them transversely; means to receive and convey each folded workpiece in turn as it leaves said folding means, means supported in the path of the conveying means to position the workpiece in a predeterminded location in said path for engagement by said ram as the folded workpiece leaves the conveying means; and means for preventing operation of said ram past said predetermined location in an envelope filling direction until a workpiece from said folding mechanism has reached said predetermined location.

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2,771,727

## ROCK GATHERING MACHINE

Roy James Buckler, Cochrane, Alberta, Canada

Application August 26, 1953, Serial No. 376,558
1 Claim. (Cl. 55—17)



In a rock gathering machine, the combination of a wheeled U-shaped frame having a forwardly projecting hitching tongue on the bight portion thereof, a transverse axle rotatably journalled in the free end portions of said frame, a pair of tubular stub-axles rotatably mounted on the end portions of said transverse axle, a stone pick-up reel secured to said stub axles, means for rotating said reel independently of the transverse axle, a trough-shaped stone collecting cradle secured to said transverse axle for rotation therewith coaxially within said reel, said cradle



having an open top substantially co-planar with the transverse axle and of a width substantially corresponding to the width of said reel, a quadrant provided on said hitching tongue, a hand lever movable over said quadrant, a shaft secured to and extending outwardly from said lever to one side of said frame, a crank provided at the outer end of said shaft, a second crank secured to an end of said transverse axle, and a link operatively connecting said second crank to the first mentioned crank, whereby said cradle may be tilted to a stone dumping position upon actuation of said lever.

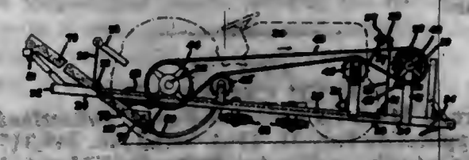
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2,771,728

## ROOT CROP HARVESTING AND CUTTING MACHINE

Robert Flay Mason, Magee, Miss.

Application June 22, 1953, Serial No. 363,035
1 Claim. (Cl. 55—51)



In a harvesting machine for root crops, a vehicle having front and rear spaced parallel axles, a rigid rectangular frame disposed beneath said vehicle with its sides disposed inwardly from the ends of said axles and with its ends projecting beyond said axles and pivoted inwardly from its rear end to said rear axle, diggers secured to and movable with said frame forwardly of said front axle, root crop elevating and cutting mechanism mounted on and movable with said frame rearwardly of and in alignment with said diggers, a sprocket wheel on said rear axle, power means on said frame for operating said elevating and cutting mechanism, a sprocket chain passing over said sprocket wheel and operatively connected with said elevating and cutting means, and means operatively associated with said frame for rocking said frame about said pivot.

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2,771,729

## DOUBLE DUTY DISK HARROW

Leo H. Winkle, Deerwater, Mo.

Application April 24, 1950, Serial No. 157,671
2 Claims. (Cl. 55—61)



1. A disk harrow comprising a pair of main frame members, a plate telescopically securing the main frame members and holding them in longitudinal alinement, axially alined spaced disk harrow gangs facing in the same direction journaled to each member of the main frame, a sub-frame disk gang swivelled to the plate to turn substantially end for end in a horizontal plane and having the axis of its disk gang alined with and the disks facing in the same direction as the axes and disks respectively of the main frame disk gangs when the main frames are telescoped together, clamping means associated with the main and sub-frames to hold the sub-frame in position when the main frames are telescoped together, and additional clamping means associated with said main and sub-frames to hold the sub-frame rotated substantially end for end when the main frames are telescoped apart.

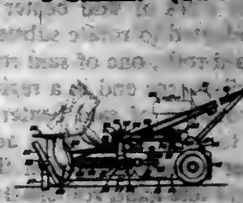
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2,771,730

## LAWN MOWER AND TRIMMER

Martin E. True, Houston, Tex.

Application June 17, 1954, Serial No. 437,343
3 Claims. (Cl. 56—25.4)



1. A lawn mower and trimmer which comprises, in combination, a wheeled carriage having at least one inset leading wheel, an elongated blade rotatably mounted under said carriage in grass-cutting relationship to cut a swath through a lawn, an elongated rotatable pivoted arm mounted laterally on said carriage on the side of said inset leading wheel, said rotatable pivoted arm being provided with means for rotating said rotatable pivoted arm about its longitudinal axis, a rotatable trimmer blade carried on said pivoted arm adjacent the inset wheel in advance of said elongated blade, power means mounted on said carriage in spaced apart relationship from said elongated blade for rotating said blades, a first belt operatively connecting said power means to said elongated blade, a second belt operatively connecting said power means to said trimmer blade, means connected to said pivoted arm for pivoting said pivoted arm upwardly in a vertical plane to loosen said second belt and disengage said trimmer blade from said power means, guide means on said carriage in operative relationship with said second belt for maintaining said second belt in operative connection with said power means comprising a roller under said second belt and a guide member above said second belt an idler pulley mounted on said carriage in rotatable contact with said first belt for maintaining said first belt in tension for rotating said elongated blade, and means connected to said idler pulley for moving said idler pulley into and out of contact with said first belt, said blades cutting a substantially continuous swath of a width greater than the width of the swath cut by said elongated blade when said trimmer blade is trimming and edging simultaneously in a common horizontal plane with the rotating elongated blade by rotating said pivoted arm about its longitudinal axis to place the trimming blade in said horizontal plane.

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2,771,731

## PICKING ROLLS WITH CLEARING BEATER

Sherman C. Heth, Norman R. Krause, and Howard E. Whitney, Racine, Wis., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application April 21, 1949, Serial No. 88,758
8 Claims. (Cl. 56—104)

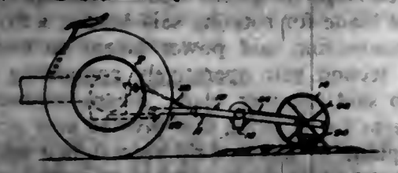


1. In a corn harvester provided with a laterally directed chute, a stalkway having a rear panel and left and right hand snapping rolls provided with roll shafts and rotating oppositely to eject stalks downwardly, in combination, a beater adapted to urge snapped ears away from

said rolls into said chute comprising a housing secured to said panel adjacent said chute, a beater shaft journaled in said housing the axis thereof being substantially parallel to the axis of said left hand roll, flexible beater paddles secured on opposite sides of said beater shaft adjacent said housing, and adapted to rotate substantially tangent to at least one of said rolls, one of said rolls being of reduced diameter at its discharge end in a region coextensive with the path of rotation of said beater paddles, a thrust member secured to said beater shaft adjacent said housing, a thrust washer intermediate said thrust member and said housing, said left hand roll shaft being rearwardly co-extensive with said beater shaft, means to rotate said beater comprising a pair of power transmitting members, one member being secured to said snapping roll shaft and the other being secured to said beater shaft and means to rotate said left and right hand rolls clockwise and counterclockwise, respectively.

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**2,771,732**
**HAY TEDDER**
**Thomas Edwin Schraeffle, Columbus, Pa.**
**Application January 15, 1954, Serial No. 404,323**
**1 Claim. (Cl. 56—372)**



A hay tedder of the kind described comprising a frame including a pair of transversely spaced apart longitudinally extending side frame members, a plurality of transverse brace members secured at their opposite ends to said side frame members, a hollow drum secured to one end of one of said brace members transversely of said frame, a rotor in said drum having the axis thereof eccentric to the axis of said drum, a bearing on each of said side frame members engaging an end of said rotor for the rotation thereof, said drum being formed with segmental peripheral slots therethrough, radially extending teeth secured at one end to said rotor, the other end of each of said teeth being extensible through a directly related one of said slots for rotation of said rotor, means connecting one end of said frame to a tractor, having a power take off, for drawing said frame over an area of ground, a drive shaft connected at one end to the power takeoff, a bearing on another one of said brace members rotatably supporting the other end of said drive shaft, a sleeve slidable on said drive shaft adjacent said other end thereof, said sleeve having a longitudinally extending slot therethrough, intermediate the ends thereof, and an outwardly extending pin on said drive shaft engaging in said last mentioned slot, manually actuated means for sliding said sleeve on axially of said shaft whereby the hay lying on the ground is to be tedded upon movement of said drum over an area of earth.

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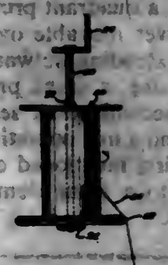
**ERRATUM**

For Class 57—157 see:
Patent No. 2,772,191

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**2,771,733**
**YARN AND METHOD OF PRODUCING THE SAME**
**William J. Leath, Charlotte, N. C., and Frank E. Bobo, Jr., Gainesville, Ga., assignors, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York**
**Application October 19, 1954, Serial No. 463,274**
**28 Claims. (Cl. 57—140)**

1. A heat set and then twisted synthetic resin yarn having a permanent pronounced tendency to untwist resulting in substantial wildness that causes the yarn to snarl when relaxed, the twist being sufficient to cause



substantial stitch distortion which imparts substantial stretchability and retractability to a fabric produced therefrom.

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**2,771,734**
**WATCH CROWN SEAL**
**Ernest Meef, La Chaux-de-Fonds, Switzerland**
**Application July 21, 1953, Serial No. 369,317**
**Claims priority, application Switzerland May 6, 1953**
**4 Claims. (Cl. 58—90)**



3. In a watertight watch, in combination, a tube carried by and projecting from the case of the watch and communicating with the interior thereof; a winding and hand-setting control button formed at its bottom face facing the watch case with a recess composed of a first large and shallow cylindrical recess portion and a second deep cylindrical recess portion of a diameter larger than the external diameter of said tube but smaller than the diameter of said first recess portion, said second recess portion extending coaxially to said first recess portion almost through the whole height of said button, said button including a cylindrical projection formed integral therewith and protruding from the bottom of said recess coaxially therewith within said tube towards said bottom face of said button, said projection being adapted for mounting said button for turning movement about said tube; a single packing disc of easily deformable material formed with a central circular opening of a diameter smaller than the outside diameter of said tube and being defined by an inner peripheral surface, said disc having opposite side faces spaced from each other a distance larger than the difference between the diameters of said second recess portion and said outside diameter of said tube when the disc is in unstressed condition, said disc having an outer annular portion seated in said first recess and an inner annular portion bent substantially normal to said outer annular portion and extending between the wall of said second recess portion and the exterior of said tube with one of said side faces engaging said tube and said inner peripheral surface spaced from and directed towards the bottom of said second recess portion, said inner annular portion being compressed between said tube and said wall of said second recess portion; and a ring pressed into said first recess portion over said outer annular portion of said disc for keeping said disc on its seat, the internal diameter of said ring being larger than the outside diameter of said tube.



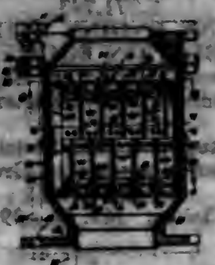
**2,771,735**
**METHOD OF WELDING THE ENDS OF A CHAIN LINK WHEREIN INITIAL POINT CONTACT IS OBTAINED BETWEEN THE ENDS**
**Thomas A. Wilson, Kenmore, Humphrey F. Parker, Buffalo, Raymond J. Kistler, Tonawanda, and Robert T. Gillette, Sardis, N. Y., assignors to Columbus McKinnon Chain Corporation, Tonawanda, N. Y.**
**Application October 24, 1953, Serial No. 388,709**
**2 Claims. (Cl. 59—35)**



1. A method of making a chain link which comprises, forming the opposite ends of a length of weldable metal bar into V-shaped form to present straight edge portions at the extremities of the bar which extend transversely thereof and which lie in separate, substantially perpendicular longitudinal planes, bending the bar into looped form so as to bring the opposite ends thereof into opposed abutting relation with the straight edge portions thereof disposed in transverse relationship to each other, and subjecting said end portions to welding temperature while pressing them together to plastically deform the V-shaped ends thereof while completing the weldment therebetween.

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**2,771,736**
**EXHAUST GAS PURIFYING APPARATUS**
**Fred E. McKinley, Paramount, Calif.**
**Application March 3, 1955, Serial No. 491,893**
**10 Claims. (Cl. 60—30)**

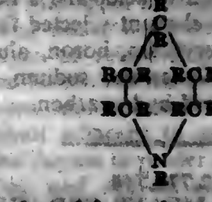


4. Exhaust gas purifying apparatus for use with an internal combustion engine having exhaust valves that discharge exhaust gas into an exhaust manifold, and an accelerator pedal that controls the speed of said engine, comprising: a housing in communication with said manifold through which said exhaust gas is passed; an air pump driven by said engine; tubing interconnecting the discharge of said air pump with said exhaust manifold adjacent each of said exhaust valves; grid means disposed within said housing in the path of said gas, said grid means defining a plurality of gaps; an induction coil connected to said grid means for producing high voltage sparks across said gaps so long as electric current is supplied to said coil; and switch means for controlling the flow of electric current to said coil, said switch means being operatively connected to said accelerator pedal whereby it will permit current to flow to said coil only when said pedal is in a raised position.

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**2,771,737**
**PIPERIDINES AS HYPERGOLIC FUELS**
**Cleveland R. Scott, Arnold L. Ayers, and John E. Mahan, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware**
**No Drawing. Application December 4, 1951, Serial No. 259,896**
**10 Claims. (Cl. 60—35.4)**

1. A method for producing immediate thrust comprising simultaneously introducing separate streams of an oxidant component and a fuel component of a bipropellant into contact with each other in a combustion chamber of a reaction motor in such proportions as to produce spontaneous ignition, said fuel component comprising a piperidine characterized by the structural formula

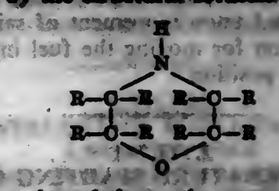


wherein R is selected from the group consisting of a hydrogen atom and a hydrocarbon radical selected from the group consisting of alkyl, alkenyl, aryl, cycloalkyl, cycloalkenyl, aralkyl and alkaryl radicals having not more than 12 carbon atoms and wherein the total number of carbon atoms present in said formula is not greater than 17.

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**2,771,738**
**MORPHOLINES AS HYPERGOLIC FUELS**
**Cleveland R. Scott and Arnold L. Ayers, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware**
**No Drawing. Application October 1, 1951, Serial No. 249,217**
**9 Claims. (Cl. 60—35.4)**

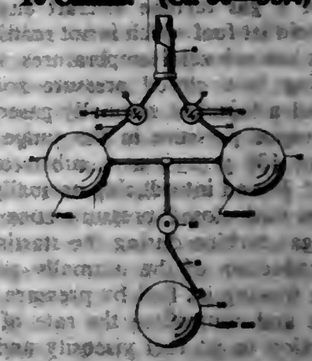
1. In the method for developing thrust by the combustion of bipropellant components in a combustion chamber of a reaction motor, the steps comprising separately and simultaneously injecting a stream of a liquid oxidant component and a fuel component into said combustion chamber in such proportion as to produce spontaneous ignition, said fuel component comprising a morpholine characterized by the structural formula



wherein R is selected from the group consisting of a hydrogen atom and a hydrocarbon radical selected from the group consisting of alkyl, alkenyl, aryl, cycloalkyl, cycloalkenyl, aralkyl, and alkaryl radicals having not more than 12 carbon atoms and wherein the total number of carbon atoms present in said formula is not greater than 16.

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**2,771,739**
**ROCKET PROPULSION METHOD**
**Frank J. Malina and John W. Parsons, Pasadena, Calif., assignors, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio**
**Original application May 8, 1943, Serial No. 486,236, now Patent No. 2,573,471, dated October 30, 1951. Divided and application September 1, 1950, Serial No. 182,742, now Patent No. 2,693,077. Again divided and this application February 3, 1953, Serial No. 342,564**
**10 Claims. (Cl. 60—35.4)**



1. The method of producing thrust which comprises ejecting from a reaction chamber the gaseous products

produced by the spontaneous combustion of an acid, selected from the group consisting of red fuming nitric acid and white fuming nitric acid, and a liquid fuel consisting essentially of an element selected from the group consisting of lithium, beryllium, boron, aluminum, magnesium, phosphorous, potassium, sodium and mixtures thereof, dispersed in liquid hydrocarbon.

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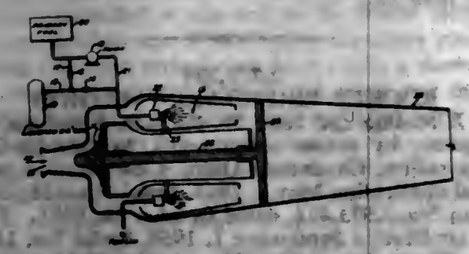
2,771,740
**AFTERBURNING MEANS FOR TURBO-JET ENGINES**
Clarence L. Johnson, Encino, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application November 16, 1950, Serial No. 196,040
12 Claims. (Cl. 60—35.6)



1. In combination; a pipe for discharging a stream of gases and air, a nozzle at the aft end of the pipe for discharging the stream in the form of a propulsive jet, a member movable axially in the pipe between a first position where it extends into the nozzle to reduce the cross sectional area of the same and a second position spaced forwardly from the nozzle, means for moving the member, movable fuel injecting means movable between a retracted position to a position projecting into the pipe, and means actuated upon movement of said member to said second position for moving the fuel injecting means to said projecting position.

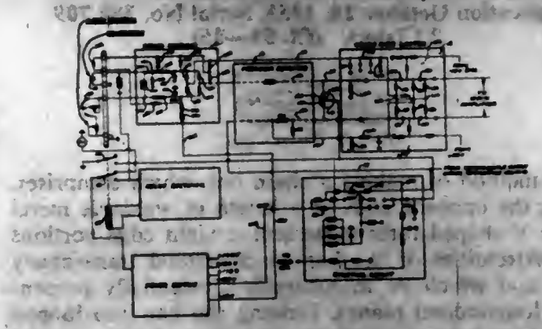
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2,771,741
**LOW-TEMPERATURE STARTING OF GAS TURBINE ENGINES**
Daniel P. Barnard 4th, Chesterton, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application May 16, 1952, Serial No. 288,355
2 Claims. (Cl. 60—39.06)



1. The method of effecting starting at low sub-zero temperatures of a gas turbine aircraft engine normally employing a liquid jet fuel which is not readily atomizable and ignitable at low sub-zero temperatures, which method comprises storing in a closed pressure zone separately from the jet fuel a liquefied normally gaseous hydrocarbon having a vapor pressure in the range of about 15 p. s. i. to about 100 p. s. i. at a sub-zero temperature of about —100° F. and introducing normally gaseous hydrocarbon from said closed pressure zone into jet fuel flowing to the gas turbine during the starting period, effecting the introduction of the normally gaseous hydrocarbon into the flowing jet fuel by pressure developed in the closed zone and controlling the rate of introduction to obtain reduction in jet fuel viscosity and the production of a fuel mixture which is atomizable and ignitable at low sub-zero temperatures.

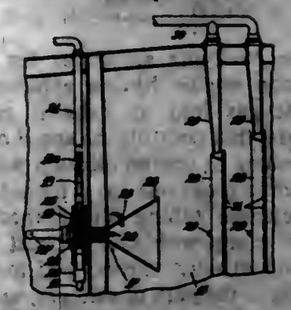
2,771,742
**SAFETY CIRCUIT FOR GENERATOR UNIT OF THE JET FUEL CONTROL**
Charles B. Bruhn, Windsor Locks, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application December 6, 1952, Serial No. 324,548
18 Claims. (Cl. 60—39.09)



10. In a speed responsive fuel control device for an engine, means for generating both a voltage varying with speed and a substantially constant voltage, means for comparing said two voltages to establish a speed error signal, a substantially constant voltage source, a connection connecting said voltage source with said first mentioned constant voltage including means for preventing the constant voltage supplied to said connection from dropping below a predetermined amount upon malfunctioning of said means for generating a substantially constant voltage.

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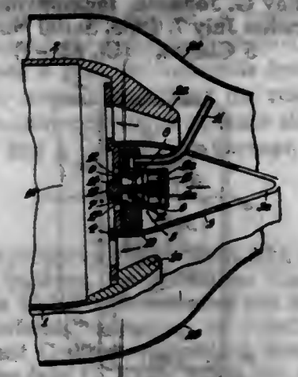
2,771,743
**GAS-TURBINE ENGINE WITH REHEAT COMBUSTION EQUIPMENT**
Alfred Cyril Lovesey, Littlemoor, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application August 4, 1952, Serial No. 302,455
Claims priority, application Great Britain August 10, 1951
10 Claims. (Cl. 60—39.72)



1. A gas turbine engine comprising main combustion equipment, wherein air is heated by the burning of fuel therewith, a turbine connected to the main combustion equipment to receive the heated air thereby to be driven, a duct connected to the outlet side of said turbine to receive gases exhausting from said turbine as a high velocity gas stream, fuel injection means to deliver fuel into said duct to be burnt therein to reheat the high velocity gas stream, a source of air under pressure separate from said high velocity gas stream, and jet-producing means located within said duct downstream of said fuel injection means including a connection to said source to receive pressure air therefrom and including outlet passage means directed substantially at right angles to the direction of flow of the high velocity gas stream thereby to inject air in jet form penetrating the high velocity gas stream substantially at right angles to its direction of flow, said jet-producing means having a small projected area on a plane within the duct at right angles to the direction of flow of the high-velocity gas stream.



2,771,744
**FUEL INJECTION MEANS OF COMBUSTION EQUIPMENT FOR GAS TURBINE ENGINES**
Francis Murray Johnson, Streatham, and Denis Richard Carlisle, Risley, England, assignors to Rolls-Royce Limited, Derby, England, a British company
Application April 27, 1953, Serial No. 351,112
Claims priority, application Great Britain May 7, 1952
6 Claims. (Cl. 60—39.74)



6. In or for combustion equipment of a gas turbine engine comprising an air casing including at least one wall adapted to define a duct through which substantially the whole of the air for combustion passes into the combustion equipment, a flame tube having at least one wall adapted to define a combustion space internally of said flame tube, said flame tube including air entry means adapted to admit air from externally of said flame tube to said combustion space, fuel injection means comprising an injector body means mounted adjacent a wall of said flame tube, said injector body means defining a passage means therethrough having an inlet end and an outlet end, said passage means opening at its outlet end to said combustion space and at its inlet end to said duct, a baffle member extending through the outlet of said passage means and extending within said passage means, said baffle member having an outwardly-extending portion at its downstream end which portion extends substantially across the axial projection of the passage means downstream of the outlet of said passage means, whereby air flowing into the combustion space through said passage means is diverted outwardly adjacent the outlet of said passage means, means defining a fuel-receiving surface adjacent the outlet of said passage means, part at least of said surface forming a boundary of said passage means, means defining a projecting lip at the downstream end of said surface, and means to supply fuel to said fuel-receiving surface.

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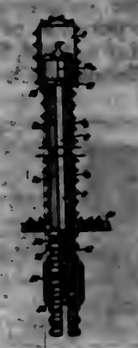
2,771,745
**ASPHALT LINING**
Lloyd F. Brumble, South Houston, Tex., assignor to Gulf States Asphalt Company, Inc., Houston, Tex., a corporation of Texas
Application August 25, 1952, Serial No. 306,159
4 Claims. (Cl. 61—7)



1. An asphaltic composite lining for use in lining ditches and the like, comprising a central non-cracking flexible asphaltic composition layer, an upper intermediate layer of reinforcing material impregnated with asphalt and bonded to the upper side of said central composition layer, an upper coating layer of essentially pure asphalt adjacent to said upper intermediate layer and bonded thereto to render said upper intermediate layer non-curling and non-shrinking under weathering conditions, a lower intermediate layer of reinforcing material impregnated with asphalt and bonded to the lower side of said central composition layer, and a lower coating layer of essentially pure asphalt adjacent to said lower intermediate layer and bonded thereto to render said lower intermediate layer non-curling and non-shrinking under weathering conditions, said central asphaltic composition layer consisting essentially of pure asphalt and fillers mixed therewith wherein the asphalt in said central layer is present in an amount of from about 40% to about 80% and the fillers are present in an amount from about 60% to about 20% and wherein substantially all of the fillers is a mixture of fibrous material and pulverized or finely ground mineral fillers, said fibrous material and said mineral filler each being present in said central layer in amounts sufficient to provide the final composite lining which shows no deflection from a horizontal position when subjected to 150° F. for two hours and which also shows no flow when placed on a 45° angle and is subjected to 200° F. for one hour, and which does not crack or shatter when subjected to the impact of a one pound steel ball dropped from a distance of three feet at 0° F., said asphalt in said asphaltic composition layer and in said substantially pure asphalt coating layers having a melting point (ball and ring) in the range of about 140° F. to about 220° F., and a penetration at 77° F. of from about 55 to about 10, whereby said asphaltic lining is substantially uniformly non-curling, non-cracking, and pliable under sustained weathering and over a temperature range from about freezing to about 200° F.

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2,771,746
**ANCHOR STRUCTURE FOR MINES, TUNNELS AND THE LIKE**
August Fischer, Dortmund-Gartenstadt, and Wilhelm Ketzler, Unna, Westphalia, Germany
Application December 11, 1952, Serial No. 325,426
Claims priority, application Germany May 5, 1952
4 Claims. (Cl. 61—45)



1. A supporting means for the roofs of mines having therein bore holes each having an enlarged chamber in the inner end thereof and a shoulder portion intermediate and between the enlarged chamber and the hole, comprising an elongated anchor in two longitudinal parts movable relative to each other and provided in the bore hole and chamber and each part having at its inner end a laterally extending and enlarged head which heads cooperate with each other to contact the shoulder portion in the bore hole to securely hold the anchor in the hole, said anchor parts both being completely secured in the bore hole in spaced relationship to each other and contacting each other at the enlarged head portions, and means extending between the two remaining parts maintaining them in spaced relationship.

2,771,747

## OFFSHORE DRILLING BARGE

Eberhardt C. Rochelle, Beaumont, Tex., assignor to Bethlehem Steel Company, a corporation of Delaware

Application July 19, 1950, Serial No. 174,691

29 Claims. (Cl. 61—46.5)



1. A barge mounted on a body of water, comprising a buoyant member and a superstructure mounted thereon and temporarily supported by the buoyant member, hollow piling guide members in telescopic relation with each other connecting the buoyant member with the superstructure, piles mounted in the hollow telescopic guide members adapted to have their lower ends driven into the bed of the body of water, means for submerging the buoyant member in the body of water to an intermediate point on the tubular guide members, yokes, each of said yokes being associated with one of said piles, means to prevent relative vertical movement between said yokes and said piles, and means to gradually arrest relative vertical movement between said yokes and said superstructure.

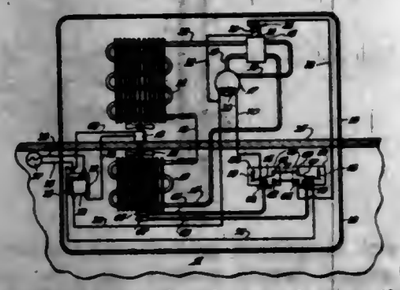
2,771,748

## AIR CONDITIONING SYSTEMS FOR AUTOMATICALLY HEATING AND COOLING AN ENCLOSED AIR SPACE

John R. Prosek and John S. Palmer, Evansville, Ind., assignors, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware

Application May 6, 1954, Serial No. 428,802

8 Claims. (Cl. 62—4)



1. In an air conditioning system for conditioning the air in an enclosed space and having a reversing valve operable to reverse the functions of the heat exchangers thereof, a solenoid mounted in cooperation with said reversing valve and operating responsive to the energization thereof for operating said reversing valve, a power source, a cooling thermostat, a heating thermostat, each of said thermostats being formed to be adjustable over certain temperature ranges, means for simultaneously adjusting each of said thermostats by the same amount over spaced apart cooperating ranges, circuit means connected in said air conditioning system to said solenoid, said power source and associated with said thermostats for causing the energization of said solenoid and the operation of said air conditioning system responsive to the operation of said heating thermostat at certain temperatures and for causing the operation of said air conditioning system responsive to the operation of said cooling thermostat at certain other temperatures.

2,771,749

## ICE MAKING APPARATUS

Albert R. Miller, Miami Beach, Fla., assignor of one-half to Fay G. Johnson, Jacksonville, Fla.

Application July 7, 1953, Serial No. 366,683

5 Claims. (Cl. 62—7)



1. A device for producing automatically successive units of frozen liquid, comprising a supply of liquid, a compartment, having front, back, side, top and bottom walls, which is subject to below freezing temperature, a generally horizontal shaft mounted for turning in one of said compartment walls, a pair of freezing containers formed of heat-conductive material and having a common bottom disposed therebetween, said freezing containers being mounted on said shaft with said shaft extending longitudinally through substantially the midpoint of said common bottom, each said container being formed with a greater volumetric capacity on one diametric side of said shaft than on the other, whereby the contents of said container will be acted upon by gravity to pivot the container about the axis of said shaft, means for holding said containers against pivotal movement, means for transferring a charge of liquid from said supply to the uppermost of said containers whereby said charge is frozen to a solid state within the container, means for withdrawing said holding means whereby said containers are gravitationally pivoted to bring the empty container to the uppermost position, means for transferring a charge of liquid to the empty container whereby the heat from the new charge is transferred through the walls of the containers to incipiently melt the container contacting portion of said charge and loosen it for discharge from said first container.

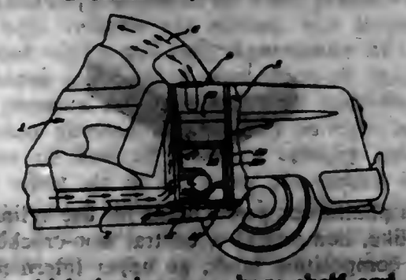
2,771,750

## PACKAGE AIR CONDITIONING UNIT FOR AUTOMOTIVE VEHICLE

Oscar Ohlberg, Huntington Woods, Mich., assignor to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan

Application April 12, 1954, Serial No. 422,308

2 Claims. (Cl. 62—117)



1. In a vehicle having a package shelf and a luggage compartment, a complete air conditioning unit mounted



in the luggage compartment beneath said shelf comprising a frame structure housing air circulating means communicating with the interior of the vehicle through said package shelf, evaporator means horizontally disposed beneath said air circulating means, a condensate catching pan in underlying spaced relationship therewith for collecting the condensate drippings from the evaporator, passage means intercommunicating the interior of said vehicle with said evaporator means above the condensate pan for providing air circulation, a condenser defining the closed bottom of the structure and having upstanding side walls forming a pan, the underside being exposed to the ambient air, means for guiding the condensate from said pan to the condenser pan to enhance the efficiency of said condenser, and a compressor between said pan and condenser.

2,771,751

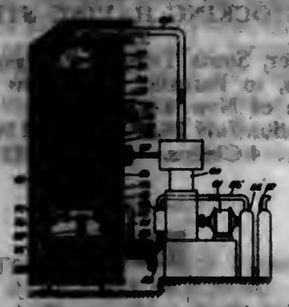
## GAS-FRACTIONATING INSTALLATION

Cornelius Otto Jonkers, Jacob Willem Laurens Kohler, August Albert Liebe, and Johannes van der Starr, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application July 15, 1954, Serial No. 443,582

Claims priority, application Netherlands July 24, 1953

5 Claims. (Cl. 62—122)



1. A gas fractionating installation of the type employed with a cold-gas refrigerator comprising a rectifying column in which the vaporous fraction of the lowest boiling point of the gaseous mixture is condensed by means of said cold-gas refrigerator, means dividing said condensate into at least two portions, one portion serving as a washing liquid for said column and means discharging the other portion from said installation, the ratio between said portions being substantially independent of the cold production of said refrigerator, an insulated housing mounting said rectifying column, a container in said housing, a supply channel for furnishing condensate to said installation, at least two discharge conduits extending in a substantially vertical direction in said housing, and means for supplying heat to the condensate in said discharge conduits whereby a vapor-bubble pumping action occurs in each of said conduits.

2,771,752

## BEER COOLING APPARATUS

Edward E. Tennant, Milwaukee, Wis., assignor to Jos. Schlitz Brewing Company, Milwaukee, Wis., a corporation of Wisconsin

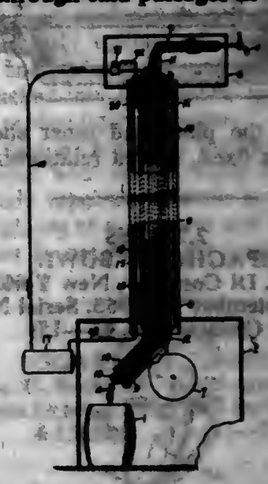
Application October 18, 1954, Serial No. 462,856

3 Claims. (Cl. 62—141)

1. In a beverage cooling system having a tap secured to a closed tap box and connected to a source of beverage in a refrigeration room remote from the tap by a beverage dispensing line extending through a shaft connecting the box and room, the combination which comprises refrigerating coils having a coolant therein and disposed to extend within said shaft from said room to the dispensing box and on either side of the beverage line, means to actuate the coolant to maintain the beverage in the line in a constant cooled condition, a passage in said shaft through which the beverage line extends, a second passage



in the shaft separate from said first-named passage, and blower means provided adjacent the shaft to circulate refrigerated air through said passages in opposite directions



and thereby in cooperation with the refrigerating coils effect cooling of the beverage flowing in the beverage line.

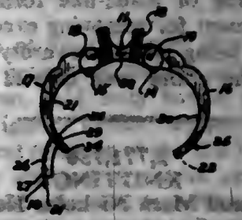
2,771,753

## SEGMENTED BAND HAVING TWO PIVOT JOINTS AND A LATCHED JOINT

Raymond Sallan, Huntington Woods, Mich.

Application September 20, 1954, Serial No. 456,977

1 Claim. (Cl. 63—19.7)



A finger ring of three (3) elements comprising a central body, a pair of oppositely arranged aligned tongues projecting outwardly from opposite ends of said body, and a pair of opposed arcuate segments, yokes upon the upper ends of said segments positioned over said tongues, pins pivotally interconnecting said tongues and yokes respectively, the lower ends of said segments being in longitudinal registry and engagement to form a finger receiving band, one of said registering ends having a bore therein, a pin projecting longitudinally from the other registering end and cooperatively nested within said bore, and a clasp on the lower end of one segment, said clasp including an elongated channelled member mounted at one end over and loosely engaging the sides and outer surface of and pivotally joined to one segment, and having a transverse aperture adjacent its other end, said other end extending over the adjacent end of the other segment snugly and retainingly engaging the sides and outer surface thereof corresponding to the curvature of both segments, and having the same internal radius as said segments forming a perfectly circular opening, a locking pin projecting radially outward from adjacent the outer end of the other segment retainingly extending through the clasp aperture, and a tongue projecting longitudinally from the free end of said channelled member with its outer end turned outwardly.

2,771,754

## DISHES OR PLATES

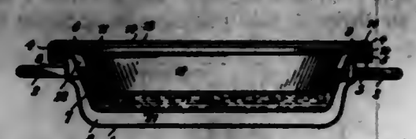
Gilbert Wilkins, West Englewood, N. J.

Application May 27, 1954, Serial No. 432,737

6 Claims. (Cl. 66—19)

5. A dish comprising, an outer shell, an inner shell within the same, a plate within the inner shell, a seat on

the rim of the outer shell, and a gasket mounted on said seat and formed with spaced annular grooves to receive



edge portions of the plate and inner shell to thereby hold these parts in fixed, spaced relationship.

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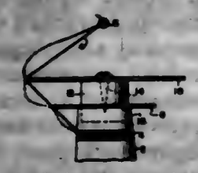
**2,771,755**
**SPAGHETTI BOWL**
Pasquale F. Di Costanzo, New York, N. Y.
Application September 14, 1953, Serial No. 379,922
3 Claims. (Cl. 65—15)



1. A spaghetti bowl comprising a dished body having a depression spaced from the bottom thereof and adapted to receive the end portions of the prongs of a fork for rotation of the end portions in said depression, and an overhang extending inwardly from the edge of the body above the depression to provide means adapted to prevent spillage of food from the bowl during rotation of the end portions of the prongs of the fork within the depression, said overhang merging into a depending lip with said lip being of blade-like formation to provide a knife-like abutment for removing excess spaghetti from the fork, the lip being offset outwardly from the depression to expose the entire area of said depression.

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**2,771,756**
**KNITTING**
Aaron Burleson and Mark Nicholas Holmes, Burlington, N. C., assignors, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
Application May 13, 1955, Serial No. 508,096
17 Claims. (Cl. 66—146)



1. For use in a knitting operation, a package of twisted nylon yarn wound on a core, which yarn possesses a tendency to kink when unwound in a relaxed condition, a member located adjacent the takeoff end of the core and having a smooth circular outer yarn-contacting surface, said member being formed from a material which sets up a static field as a result of the rubbing of the yarn over said yarn-contacting surface, thereby causing the yarn to adhere thereto while being unwound and preventing the yarn from kinking without exerting any substantial drag upon said yarn as it is drawn off said package, said member comprising the sole means for so controlling the yarn as it leaves the package.

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**2,771,757**
**STRETCHABLE STOCKING**
Aaron Burleson and Mark Nicholas Holmes, Burlington, N. C., assignors, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
Application September 3, 1954, Serial No. 454,204
10 Claims. (Cl. 66—172)

1. A stretchable, retractable stocking which is substantially shorter in length than conventional stockings when relaxed, and is stretchable to correspond to various stocking sizes, said stocking being comprised of alternating courses of nylon yarns having opposite torques, at least one of said yarns not having been heat set, said yarns having permanent substantial liveliness such that the yarn will snarl when in relaxed condition and cause the



stitches comprising the alternating courses in the stocking to incline markedly in opposite directions and thereby substantially shorten the stocking when relaxed, and said inclined stitches being adapted to be straightened and the stocking thereby lengthened when the stocking is stretched longitudinally.

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**2,771,758**
**LADY'S STOCKING HAVING STRETCHABLE ZONE**
Max F. Weller, South Temple, Pa., assignor, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
Application July 26, 1952, Serial No. 301,099
4 Claims. (Cl. 66—172)



1. A stocking having an integrally knit strain absorbing zone above the knee having a substantially greater stretch longitudinally of the stocking than the leg portion of the stocking, comprising a plurality of transverse bands knitted of relatively inelastic thread of synthetic resin, the thread of certain bands being longitudinally twisted in one direction and the thread of adjoining bands being longitudinally twisted in an opposite direction, each of said bands comprising no more than four courses so as to eliminate band effect in the appearance of said zone.

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**2,771,759**
**TEXTILE PRODUCT AND METHOD**
William J. Lamb, Charlotte, N. C., and Frank E. Bebo, Jr., Gainesville, Ga., assignors, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
Application August 3, 1954, Serial No. 447,600
36 Claims. (Cl. 66—178)



1. A stretchable, retractable stocking which is substantially shorter in length than conventional stockings when relaxed, and is stretchable to correspond to various stocking sizes, said stocking being comprised of alternating courses of oppositely twisted synthetic resin yarns having permanent substantial liveliness such that the yarns will snarl when in relaxed condition and cause the stitches comprising the alternating courses in the stocking to incline markedly in opposite directions and thereby substantially shorten the stocking when relaxed, and said inclined stitches being adapted to be straightened and the stocking thereby lengthened when the stocking is stretched longitudinally.



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**2,771,760**
**PROCESS FOR PRODUCING KNITTED FABRIC**
Aaron Burleson, Burlington, N. C., assignor, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
No Drawing. Original application July 13, 1953, Serial No. 367,776. Divided and this application May 20, 1955, Serial No. 510,042
2 Claims. (Cl. 66—201)

1. A process for producing knitted nylon fabric of substantial stretchability, which comprises presetting a continuous filament nylon yarn and then twisting said yarn to the left to impart substantial liveliness and twist torque thereto, presetting another continuous filament nylon yarn and then twisting said yarn to the right to impart substantial liveliness and twist torque thereto, to produce two oppositely twisted markedly lively but uncrimped and uncoiled continuous filament nylon yarns, applying a size to said oppositely twisted, lively, twist torque yarns to subdue temporarily the said liveliness and restrict the action of the torque imparted thereto, knitting said left and right twist yarns in alternation to form a fabric, and thereafter removing said size to release the torque in the yarn.

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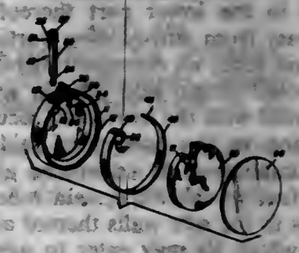
**2,771,761**
**LIGHTER STRUCTURE WITH COMPRESSIBLE, RESILIENT HOUSING**
Irving Florman, New York, N. Y.
Application June 19, 1956, Serial No. 592,350
8 Claims. (Cl. 67—7)



1. A flameless catalytic lighter for cigarettes and like smoking articles comprising a housing made of resilient and compressible plastic material, fuel receiving wick means contained in said housing, said housing terminating in a neck provided with external screw threads, a cylindrical member seated in said neck and having a bottom, said bottom being provided with an opening, a cup-shaped member for holding catalytic means and inserted in said cylindrical member, a tubular element having two ends and extending through an opening of said cup-shaped member, one of said ends terminating adjacent said catalytic means, a gasket seated on and surrounding said tubular element and being of a diameter corresponding to the inner diameter of said cylindrical member, a spring retained by the other end of said tubular element and spacing said cup-shaped member from said bottom of said cylindrical member, a cap in threaded engagement with said neck, said housing having minute perforations located adjacent said neck, said cap being provided with a flange normally overlying and closing said minute perforations when said cap is screwed down onto said neck, said cap flange freeing said minute perforations upon unscrewing said cap thereby causing said spring to urge said cup-shaped member away from said bottom of said cylindrical member, so that upon compressing and subsequent release of said resilient housing air sucked into the interior said housing through said minute perforations is pressed together with fuel vapors from said wick means through said tubular element for contact with said catalytic means, which upon contact with said vapor-air mixture becomes incandescent and enables lighting of a cigarette and like smoking article when the latter is inserted in the upper end of said cup-shaped member.

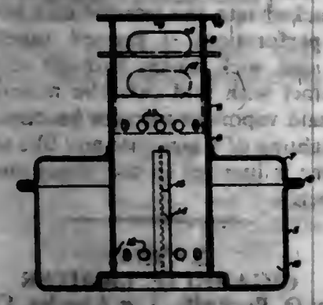
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**2,771,762**
**CIGARETTE LIGHTER**
John O. Beckwith, Los Angeles, Calif.
Application October 29, 1954, Serial No. 465,581
4 Claims. (Cl. 67—7.1)



1. In a device of the character described: an annular body including peripheral flanges extending axially in opposite directions, said body having an opening therethrough for an igniter device, an opening therethrough for a wick adjacent one side of the first mentioned opening and an opening adjacent the wick opening and at the side thereof opposite the first mentioned opening; a tubular extension on the interior of the body and aligned with the first mentioned opening, said extension having a notch therein; an igniter device having a tubular body received in the first mentioned opening and in said extension and having a portion projecting inwardly of said extension, said igniter device including a peripherally serrated wheel; a wick in the wick opening and having a short portion extending outwardly of said body; walls interiorly of the body defining a chamber in conjunction with the opening at said opposite side of the wick opening and a tubular spring retaining extension therefor; a lever pivotally mounted in said chamber and carrying a cap at the outer end thereof, said lever having a position whereat the cap covers the outer exposed end of the wick and another raised position whereat said lever abuts against one edge of the chamber wall; a coil spring in said spring retaining extension, said spring being adapted to coact with the inner end of the lever, said end being so formed that when the lever is in the first mentioned position, the spring yieldingly urges said lever toward said position and when said lever is in the other position, said spring yieldingly holds said lever in said position; a leaf spring curved to the contour of the interior of the body and having one end engageable with the spring retaining extension and the other end turned back for frictional engagement with the body of the igniter device when the latter is positioned in the first mentioned opening and the first mentioned extension; filler material within the body, said filler material comprising fiber glass in layer form cut to conform to the interior configuration of the body, the wick having the major portion thereof extending into the mass of filler material; and discs secured to the sides of the body and within the respective flanges thereof.

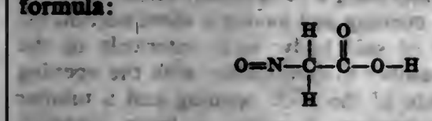
2,771,763
SOLID FUEL BURNING FLARE
Paul Krasnow, New York, N. Y., assignor to The Oraton Co., East Orange, N. J., a corporation of New Jersey
Application August 9, 1954, Serial No. 448,586
4 Claims. (Cl. 67—21)



1. A flare assembly comprising a container for a normally solid, liquifiable fuel composition, a burner tube extending upwardly from within said container and having openings in the lower part thereof through which liquid may pass from surrounding portions of said container into said tube, an elongated metallic heat transfer member disposed within said tube in spaced relation to the walls thereof with the lower end secured in heat conducting relation to the bottom of said container, said member terminating at its upper end above the normal level of the fuel in said tube, said tube being provided with openings in the side walls thereof adjacent its upper end through which air may enter to support combustion of fuel from the surface of a liquified portion thereof present in said tube.

2,771,764
ART OF PRODUCING CANDLES WITH COLORED FLAMES
Wilbur C. Meerman, Indianapolis, and Joseph C. Muhler, Bloomington, Ind.
No Drawing. Application December 2, 1953, Serial No. 395,856
2 Claims. (Cl. 67—22)

1. A candle for emanating colored light of high saturation comprising a mass of smoothly burning compatible molecules having the following general structural formula:



in which one of the hydrogen atoms is replaced by a selected metal to provide a chemical compound for producing light of a predetermined color, a wick for said candle having intimate association with the mass of material whereby said color producing metal is a constituent of the molecule itself and is distributed evenly through the mass and through the liquid produced by the melting thereof and is introduced to the wick by capillary action as an integral part of the melted combustible material.

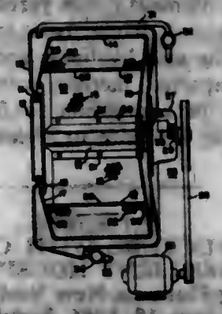
2,771,765
PHOTOFLASH LAMP
Edward G. F. Arnott, Upper Montclair, and Russell H. Atkinson, North Arlington, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 1, 1954, Serial No. 453,640
5 Claims. (Cl. 67—31)

1. A photoflash lamp comprising a radiation-transmitting bulb with a neck, a block of plastic forming a base in which the edge of said neck is embedded, a pair of spaced metallic leads traversing said base and projecting inwardly within said bulb, a dielectric coating on at least one of the inwardly projecting extremities of said leads, a paste primer supported by and between said lead inwardly projecting extremities and in contact therewith,



said dielectric coating insulating the metallic portions of the said dielectric coated lead portions from said paste primer, and a combustion supporting atmosphere contained within said bulb.

2,771,766
WASHING APPARATUS
Charles M. Dunlap, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 23, 1951, Serial No. 243,270
3 Claims. (Cl. 68—24)

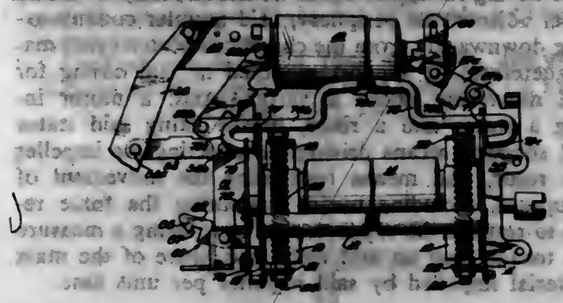


1. In apparatus for centrifuging fluid from fabrics, the combination of a perforate, generally cylindrical basket for containing the fabrics to be treated, means for rotating the basket at relatively high speed for centrifuging fluid from the fabrics, a member extending radially inwardly of the side wall of the basket and engaging the body of fabrics during a centrifuging operation, said member being of deformable construction, and means associated with the member for biasing the member to an extended position inwardly of the side wall of the basket when the basket is substantially inactive, said body of fabrics collapsing the member in opposition to the biasing means by centrifugal force during high speed rotation of the basket, the construction and arrangement being such that the member is returned to its extended position by said biasing means when high speed rotation of the fabrics is terminated for breaking the adhesive bond between the fabrics and the sidewall of the basket.

2,771,767
WRINGER CONSTRUCTION
Nicholas L. Etten, Cedar Falls, Iowa, assignor, by mesne assignments, to Chamberlain Corporation, Waterloo, Iowa, a corporation of Iowa
Application January 11, 1951, Serial No. 205,581
4 Claims. (Cl. 68—263)

1. In a wringer, a frame, a first roll on said frame, a second roll movable from a position operatively engaged with said first roll to a position spaced therefrom, a manually operable reset member for moving said second roll, a movable latch member for releasably locking said reset member in a position in which said rolls are operatively engaged, resilient means urging said latch member to locking position, a pair of levers pivotally connected to said frame at spaced points for pivotal movement in either direction about said points, a link connecting said levers for movement together, each of said levers having a portion engageable with said latch, and





movement of said levers in either direction operatively engaging one of said portions with said latch member to move it against the action of said resilient means to a release position.

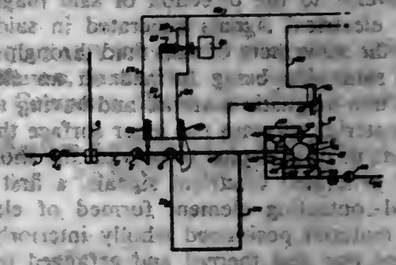
2,771,768
TORSIONALLY RESILIENT ANNULAR FASTENING MEMBER
Bert E. Tudor, San Mateo, Calif.
Application September 6, 1955, Serial No. 532,629
2 Claims. (Cl. 76—457)



1. A fastener device comprising a multi-strand braided steel cable, complemental attachment members fitted over the ends of said cable and fixedly secured thereto, one of said members having a hollow end provided with an inwardly directed locking shoulder, the other of said members having an end portion terminating in an enlarged semi-cylindrical head, said head being adapted to be inserted within said hollow end past said locking shoulder when one end of said cable is rotatably twisted to a predetermined degree with respect to the other end of said cable, said head being adapted to be retained within said hollow end by said shoulder when the twisted end of said cable is allowed to return to an untwisted condition, a pair of marking indica formed on the external surfaces of said attachment members, said indicia being offset with respect to each other to said predetermined degree when said attachment members are secured together and said cable is in an untwisted condition, and said indicia being in alignment with each other when one end of said cable is twisted to rotate said head to a position of release with respect to said locking shoulder, and a thin-walled, tough, flexible plastic covering enclosing said cable and secured against movement with respect to said cable, when said cable is twisted and untwisted, by means comprising corrugations defined by the braided strands of said cable.

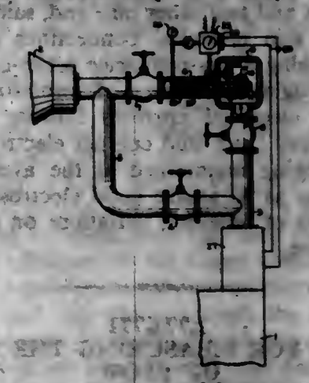
2,771,769
CLAMPING DEVICE FOR FUEL PUMP TESTER
Axel Nielsen, St. Louis, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application February 8, 1954, Serial No. 408,683
3 Claims. (Cl. 73—46)

1. Testing equipment comprising, in combination, a pneumatic system including a charging circuit, and a by-pass in said circuit having a flow indicator, a fixture for holding the device tested including a base for said fixture, a coupling on said base connected to said pneumatic system, a carriage slidable on said base for movement towards said coupling, power means for moving said carriage, control means for said power means connected to a



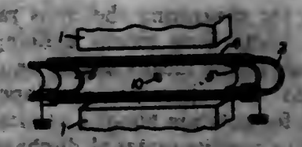
source of power to operate said carriage, means to energize said charging circuit and said by-pass sequentially, and means responsive to operation of said carriage by said power means to control the means to energize said pneumatic system.

2,771,770
VISCOMETER SYSTEM
Jan Bouman, Delft, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application June 3, 1954, Serial No. 434,242
Claims priority, application Netherlands June 8, 1953
5 Claims. (Cl. 73—55)



1. A viscometer system comprising conduit means confining a main liquid stream, a pump disposed within said conduit, a capillary tube disposed within said conduit, said pump having an intake opening to the inside of said conduit and a discharge connected to the inlet of said capillary tube, whereby a sample portion of the main stream is forced by said pump through said capillary tube while the rest of the main stream is by-passed around said pump and said capillary tube in heat-exchange contact therewith, and pressure indicating means connected to the pump discharge for indicating the pressure at the inlet of the capillary tube.

2,771,771
DETECTOR FOR AN INDUCTION LIQUID FLOW METER
Johannes Jacobus Kamp and Jacobus Laurens Smals, Amsterdam, Netherlands, assignors to Technisch Ontwikkelingsbureau voor Instrumentatie, (T. O. B. I.) N. V., Amsterdam, Netherlands
Application July 17, 1952, Serial No. 299,518
1 Claim. (Cl. 73—194)



In a detector for an induction fluid flow meter adapted to measure the flow of a conductive fluid, the combination

of a pipe for carrying said fluid, magnetic field generating structure positioned exteriorly of said pipe to produce alternating magnetic flux transversely across said pipe, a pair of contact electrodes positioned within said pipe on a line transverse to the direction of said magnetic flux to pick up electrical signals generated in said fluid in response to the movement of said fluid through said magnetic field, said pipe being formed on an electrically-conductive, non-magnetic material and having a layer of insulating material adjacent the inner surface throughout the entire length of said pipe to prevent the short-circuiting of said generated electrical signals, a first annular-shaped fluid-contacting element formed of electrically-conductive material positioned wholly interiorly of said pipe adjacent one end thereof and arranged to encircle and make contact with the fluid passing through said one end, a first portion of said insulating material being disposed between said first element and said pipe, a first electrical connection arranged to establish low-resistance electrical contact between said first element and said one pipe end, a second annular-shaped fluid-contacting element formed of electrically-conductive material positioned wholly interiorly of said pipe adjacent the other end thereof and arranged to encircle and make contact with the fluid passing through said other end, a second portion of said insulating material being disposed between said second element and said pipe, a second electrical connection wholly distinct from said first connection and arranged to establish low-resistance electrical contact between said second element and said other pipe end, said fluid-contacting elements, said electrical connections and said pipe conjointly forming a low-resistance series-connected electrical path bridging said layer of insulating material to by-pass stray electrical currents flowing in said fluid around and away from said contact electrodes, said pipe also thereby being maintained at the average potential of said fluid so as to assure good electrostatic shielding from the effects of potential variations on said field generating structure.

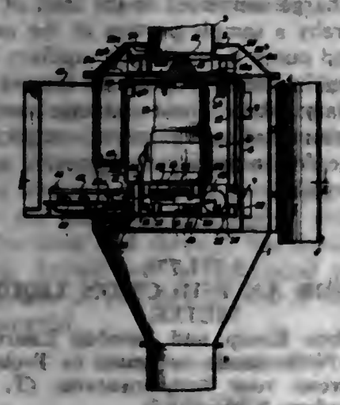
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2,771,772

## APPARATUS FOR MEASURING THE MASS RATE OF FLOW

John O. Kirwan, Livingston, N. J., assignor to Wallace & Tiernan Incorporated, a corporation of Delaware

Application April 13, 1953, Serial No. 348,148
11 Claims. (Cl. 73—194)



1. Apparatus for measuring the mass rate of flow of fluent material, comprising means defining a chamber, fluent material conveying means having an outlet opening downwardly into said chamber, an impeller mounted in said chamber for rotation about a vertical axis aligned with said outlet to receive material discharged therefrom and to impel it centrifugally toward the periphery of the chamber, a generally cylindrical casing closed at the top and located below and in alignment with said impeller, an outer cylindrical wall concentric with said casing and cooperating therewith to define an annular receiving conduit having its upper end in communication with said chamber adjacent its periphery, said annular conduit extending downwardly from the chamber for conveying material therefrom, a support mounted in said casing for pivotal movement about a vertical axis, a motor including a stator and a rotor, means fixing said stator to said support, means drivingly connecting the impeller to the rotor, and means restraining the movement of said support, including means measuring the force required to restrain the support, said force being a measure of the torque load on said rotor and hence of the mass of material impelled by said impeller per unit time.

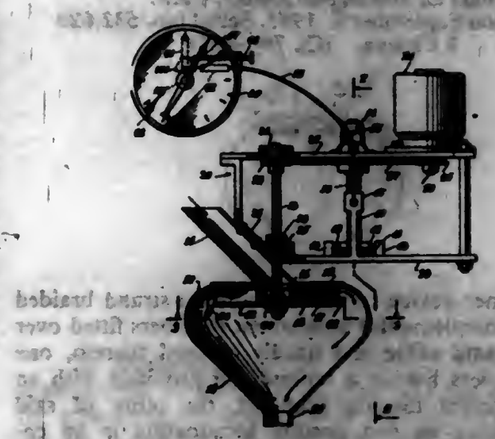
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2,771,773

## MEASUREMENT OF MASS RATE OF FLOW OF FLUENT MATERIAL

Charles F. Wallace, Westfield, N. J., assignor to Wallace & Tiernan Incorporated, a corporation of Delaware

Application May 10, 1952, Serial No. 287,137
6 Claims. (Cl. 73—194)



1. Apparatus for measuring the rate of flow of a fluent material, comprising a casing, an impeller within said casing, an inlet conduit conveying fluent material to the central portion of said impeller, said impeller having at least one radial passage extending between said central portion and the impeller periphery, an outlet conduit conveying fluent material away from the periphery of the impeller, said casing, said impeller passage, and said inlet and outlet conduits defining a path for said fluent material through said apparatus, means driving said impeller at a substantially constant speed to accelerate all the passing fluent material through a predetermined substantially constant increment of velocity as it passes from the central portion of the impeller to the periphery, said driving means comprising a motor outside said path, a mechanical driving connection from the motor through the path defining means to the impeller, and a reaction member outside said path and subject to a reaction force applied through said driving connection and varying with the load on said impeller, a stationary member movably supporting said reaction member, means to apply to said reaction member a force opposing the reaction force, and means responsive to the position of the reaction member with respect to said stationary member to control said force applying means to balance the opposing forces, and means for measuring the force of said force applying means including means calibrated to translate the force measurement into a rate of flow measurement, said stationary member, said force applying means and said force measuring means all being located outside said path.



2,771,774

## LEVEL GAUGE FOR ENCLOSED PRESSURE VESSELS

Eraldo Fornaciari, Milan, Italy, assignor to Montecatini, società generale per l'Industria Mineraria e Chimica, a corporation of Italy

Application February 8, 1954, Serial No. 408,959
Claims priority, application Italy February 12, 1953
3 Claims. (Cl. 73—319)



1. In combination with an enclosed pressure vessel for a variable quantity of liquid, a level gauge comprising a hollow float of non-magnetic material and generally annular shape having a cylindrical inner wall portion, a pressure-resistant metal tube of non-magnetic material extending from the outside downwardly into said tank, said tube being upwardly open and having its interior sealed against the interior of said tank, said cylindrical wall portion of said float surrounding said tube for guidance of said float along said tube, a permanent magnet in said float having two poles adjacent said cylindrical wall portion at diametrically opposite sides thereof, a tube of transparent material coaxially disposed in said metal tube and of greater length than said metal tube so as to have a portion projecting upwardly beyond said metal tube, a magnetizable body of slight mass movably disposed in said transparent tube between said magnet poles to magnetically follow the level-responsive displacements of said float, an indicator member joined with said body in a fixed axial distance therefrom and having a travel path completely within said portion of said transparent tube so that said member is visible from the outside in any of its positions.

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2,771,775

## SURFACE THERMOMETER WITH MAGNETIC RETAINING MEANS

George A. Argabrite, North Hollywood, Calif., assignor to Pacific Transducer Corp., Los Angeles, Calif., a corporation of California

Application May 28, 1954, Serial No. 432,983
2 Claims. (Cl. 73—343)



1. A magnetically retained surface thermometer comprising: an apertured inverted cup-shaped paramagnetic housing terminating downwardly in a lower edge adapted to contact a paramagnetic sample; a temperature responsive member within said housing and supported thereby; means above said housing for indicating the temperature of said member including an element movable in the housing aperture and responsive to movement of said member, a horizontally extending [illegible] fixed to the upper surface of the housing and in low reluctance contact therewith; and a permanent magnet fixed to said plate and extending downward therefrom and laterally spaced from the housing.

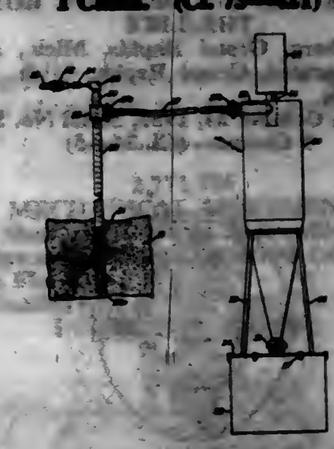
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2,771,776

## CATALYST SAMPLING SYSTEM

Allan M. Haven, Texas City, Tex., assignor to The American Oil Company, Texas City, Tex., a corporation of Texas

Application April 28, 1954, Serial No. 426,893
1 Claim. (Cl. 73—421)



An apparatus for sampling bulk finely divided solids of wide particle size distribution which comprises in combination a sampling and eductor tube means, means for sealing the upper end of said tube, a fluidizing gas inlet duct extending within said sampling tube through the upper end thereof and terminating within said tube above the lower open end thereof, the said inlet duct being substantially smaller in cross section than said tube whereby a flow passage is provided therebetween, a beveled bottom end on said tube, an outlet from said flow passage through said tube and subjacent to the upper closed end of said tube, valved conduit means communicating with the upper end of said inlet duct through the closed end of said tube, valve means in said conduit for controlling the downward flow of gas through said inlet duct, solids separator and receiver means, a flexible hose connection between said outlet from said tube and said separator and receiver means, said separator and receiver means comprising a cyclone separator having a tangentially arranged inlet into which said hose connection discharges, a gas outlet from said cyclone separator, a bag filter superposing said separator and connected to the said gas outlet exteriorly of the separator, receiver means adjacent to said cyclone separator, removable cover means on said receiver means, stand means on said cover means for removably supporting said cyclone separator means, threaded coupling means on the lower end of said cyclone separator means removably connecting said separator means to said cover of said receiver means, and hasp means securing said cover to said receiver means.

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2,771,777

## METHOD OF TESTING ANTIOZODANT CHEMICALS

Albert R. Allison and Alvin D. Delmas, New York, and Bernard B. Sheats, Franklin Square, N. Y., assignors to the United States of America as represented by the Secretary of the Navy

Application September 29, 1953, Serial No. 387,899
9 Claims. (Cl. 73—432)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A method of testing the efficacy of antiozodant materials in the inhibition of ozone degradation of elastomers which comprises the steps of passing ozone through a first solution of an elastomer having a given viscosity, the solvent thereof being non-reactive with said ozone;

indicating the viscosity of the ozonized first solution; passing ozone through a second solution of said elastomer having said given viscosity, said second solution also containing a small amount of an antiozodant material; and indicating the viscosity of the ozonized second solution whereby a relationship exists between the respective differences in viscosities of said first and second ozonized solutions from said given viscosity.

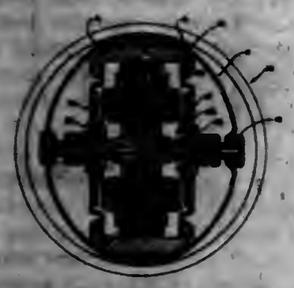
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2,771,778

**END PLATE FOR A GYROSCOPE ROTOR OR THE LIKE**

Arling W. Ryberg, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois

Application October 24, 1955, Serial No. 542,196
9 Claims. (Cl. 74—5)



1. In a gyroscope or the like having its rotating mass concentrated principally in the annular rim of a rotating member in the form of a hollow flywheel, and in which the member serves as the rotor with respect to a fixed stator mounted internally of the rotor the improvement comprising: a disc for supporting said rim on the axis of rotation, said disc having a web forming a part thereof and positioned intermediate the rim and axis, said web being constituted as a section of a hollow cylinder coaxial with said axis and merged with the adjacent sections of the disc, said web being of less radial thickness than the axial thickness of said disc sections, whereby stresses on said disc having a tendency to buckle the disc are absorbed principally by deformation of the web and the regions of merger thereof with the adjacent disc sections.

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2,771,779

**QUICK SETTING MEANS FOR GYRO STABILIZED MECHANISMS**

Max A. Schadler, Williston Park, and Elliott J. Sitz, Whitestone, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware

Application February 8, 1955, Serial No. 486,768
16 Claims. (Cl. 74—5.34)



1. A quick setting arrangement for universally mounted gyroscopic apparatus slaved to a reference device, a reference device for said apparatus adapted to produce a control signal, a gyro on said apparatus having a pick-off responsive to precession thereof, a torquer for applying a troque on said gyro about its precession axis, a torquer for applying a torque about an axis of the apparatus, said first torquer being normally controlled by said reference device signal and said second torquer by said pick-off on the gyro, and means for quickly bringing the apparatus into synchronized relationship with the reference device including means for temporarily amplifying the control signal from the reference device and applying it to the second torquer.

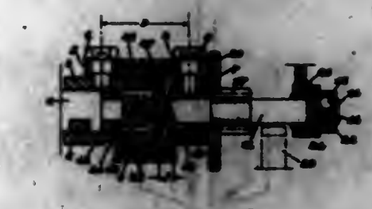
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2,771,780

**STARTING DEVICES FOR COMBUSTION ENGINES**

Theodore Jean-Baptiste Leblée, Paris, France, assignor to Bendix Aviation Corporation, Hoboken, N. Y.

Application August 13, 1954, Serial No. 449,566
Claims priority, application France August 26, 1953
6 Claims. (Cl. 74—7)



1. In an engine starter drive a motor shaft, a hollow sleeve fixedly mounted thereon, a driven shaft having a threaded portion and a toothed portion; a nut engageable with said threaded portion of the driven shaft to move said toothed portion into and out of mesh with a member of the engine to be started, a yielding means connecting the sleeve and nut, an abutment member on the driven shaft within the sleeve, and a cooperating shoulder in the sleeve positively limiting the meshing movement of the driven shaft and thereby causing said nut to move to compress said yielding means; said abutment member being also formed and arranged to engage said nut and thereby limit the compression of the yielding means.

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2,771,781

**ROTARY SEAL**

Josef Von Rassow, New Milford, Conn., assignor to Kollsman Instrument Corporation, Elmhurst, N. Y., a corporation of New York

Application July 18, 1955, Serial No. 522,700
7 Claims. (Cl. 74—18.1)



1. A moisture-proof sealed motion transmitting mechanism for transmitting motion to at least two radially displaced positions comprising: a casing, a closure member sealed to one end of said casing; a fulcrum within said casing; a rod mounted for universal rotation in said fulcrum; operating mechanism for said rod comprising a shaft rotatable around its axis and movable along its axis and a member carried by said shaft; means slidably interconnecting said last mentioned member and one end of said rod at a point displaced from the axis of rotation of said shaft; the free end of said rod extending beyond said closure member out of the casing; movement of said shaft toward the fulcrum causing said rod to displace the free end thereof further from an imaginary extension of the axis of said shaft; movement of said shaft away from the fulcrum causing said rod to displace the free end thereof closer to the axis of the shaft; said rod being translatorily rotatable in a conical path about the fulcrum as an apex on rotation of said shaft.

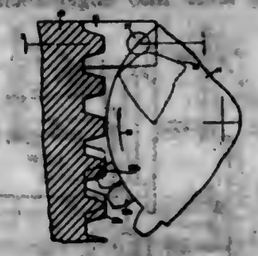


2,771,782

**RECIPROCATORY DRIVE FOR A RACK**

Walter Derby, Coventry, England, assignor to Smart Dovis Limited, Coventry, England

Application March 9, 1954, Serial No. 415,021
Claims priority, application Great Britain March 24, 1953
1 Claim. (Cl. 74—32)



In combination, a toothed rack freely movable in one direction, a rotatable toothed quadrant for moving the rack in the other direction, the rack having fast with it an abutment, the quadrant having fast with it a cam to coact with the abutment for sustaining the rack, after movement in the said other direction, until the trailing tooth of the quadrant has moved out of engagement with the rack, a second abutment fast with the rack, and a second cam fast with the quadrant to engage the second abutment after the return movement of the rack and before it is again moved in the said other direction in order to correctly position the rack so that it can be properly engaged by the leading tooth of the quadrant.

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2,771,783

**RECIPROCATING MECHANISM FOR A COIN VENDING MACHINE**

John Krachewitz, Pittsburgh, Pa.

Application December 21, 1950, Serial No. 202,047
6 Claims. (Cl. 74—98)



1. In combination with the reciprocable frame of a vending machine as described, a master plate connected therewith provided with a longitudinal shaft clearance slot and upper and lower crank pin slots, a driving crank plate having a socket, a movable member having a crank pin operable through the slotted plate to engage the socket of the crank plate, and means for engaging and disengaging the crank plate including a shiftable cam engageable with said movable member to effect withdrawal of the crank pin from said crank plate.

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2,771,784

**ADJUSTABLE SNAP ACTION MECHANISM**

Raymond Dellot, Cheektowaga, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.

Application March 2, 1953, Serial No. 339,639
4 Claims. (Cl. 74—97)

1. In a fluid motor having a power output shaft, reversing valve actuating means comprising, a first member, a second member secured to said shaft for movement therewith, and a third member extending between said first and second members for lost-motion engagement therewith, said third member being adjustable to



vary the degree of lost-motion between said third member and each of said first and second members.

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2,771,785

**MECHANICAL MOVEMENT**

Charles R. Short and George P. Bonfiglio, Clermont, Fla., assignors to Florida Industrial Laboratory, Inc., Clermont, Fla.

Application June 3, 1955, Serial No. 291,502
1 Claim. (Cl. 74—166)



In an apparatus for degumming vegetable fibres, the combination of a chain for driving a conveyor belt with mechanism for imparting progressive reciprocating motion to said chain, said mechanism including first and second crank means of different eccentricity, first and second pawl means engaging said chain from opposite directions, and link means connecting said first and second pawl means with said first and second crank means, respectively.

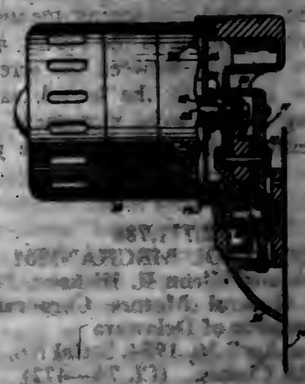
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2,771,786

**MOTOR GEAR BOX**

Jack Gilbert, Newburgh, and Henry Preble, Jr., Cross River, N. Y., assignors to General Slicing Machine Co., Inc., Walden, N. Y., a corporation of New York

Application September 9, 1955, Serial No. 533,417
6 Claims. (Cl. 74—421)

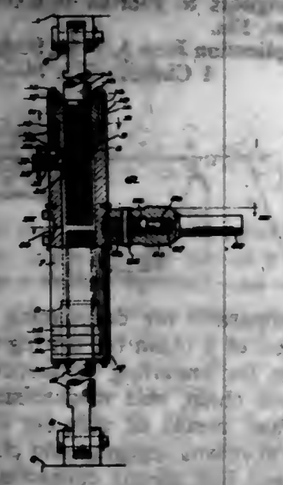


1. In combination, a casing, gearing operatively positioned therein including an output shaft extending exterior the casing; said casing being adapted to be filled with a fluid; said casing including framework presenting a seat spaced from a surface thereof about an opening into the casing through such surface, a motor having a fluid-tight bearing means for its shaft; said motor resting against said seat and the motor shaft extending into said casing through said opening, a gear carried on the

motor shaft within the casing, operatively engaging said gearing; said opening into the casing being sufficient for the entrance and exit of the motor shaft and its associated gear, a tubular member around said opening and motor shaft, communicative with the said casing and extending towards the motor, a frusto-form about the motor shaft, extending from the surface of the motor into said tubular member to form a ball-like joint structure therewith; one of the components of said joint structure having resilient quality and means to draw and hold the motor on said seat, whereby said resilient component is stressed whereupon said joint is fluid-tight.

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2,771,787
PUSH-PULL JACK
John J. Dixon, West View, Pa., assignor to Duff-Norton Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 8, 1955, Serial No. 545,747
11 Claims. (Cl. 74—424.8)

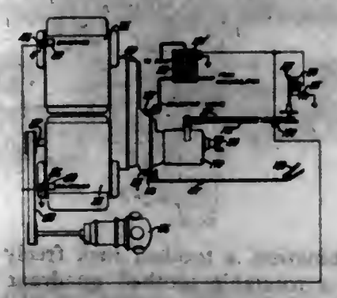


1. A push-pull jack comprising a tubular barrel having an end portion provided with an outwardly facing transverse surface, a nut slidably mounted in said end portion for axial movement only, a jack screw extending through the nut and outward from it, the nut having an inwardly facing transverse surface spaced from said barrel transverse surface, resilient cushioning means between said surfaces, the nut also having an outwardly facing transverse surface, resilient cushioning means engaging said last-mentioned surface, retaining means engaging the outer end of the second cushioning means, means connecting the retaining means to the barrel, and means for effecting relative rotation between the screw and nut to move the screw axially of the barrel, said cushioning means permitting limited axial movement of the nut in the barrel in either direction when the jack is under load.

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2,771,788
CONTROL MECHANISM
Charles H. Frick and Glenn R. Hickson, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 30, 1954, Serial No. 426,868
14 Claims. (Cl. 74—472)

1. In a power train including an engine, a fluid coupling operatively connected to said engine, a plural speed transmission driven by said engine through said fluid coupling, and means for controlling the drive ratio of said transmission, an engine control mechanism for governing the engine at a low idle speed and at a higher maximum speed with modulated manual control of intermediate speeds comprising, in combination, a floating actuating lever operatively connected to an engine fuel regulator, an operating lever movable in response to variations in the engine speed, a cam surface located adjacent the floating lever, said floating actuating lever being pivotable on said operating lever on an axis translatable relative to said cam surface, a speed and fuel supply setting lever movable freely from idle to full speed and torque position having means thereon urging the floating actuating lever into engagement with the cam



surface to modify movement of the actuating lever and fuel supplied the engine by movement of the operating lever in response to variations in the engine speed, and means being effective in one operative position of said transmission drive ratio controlling means to limit the engine to a different predetermined maximum engine speed.

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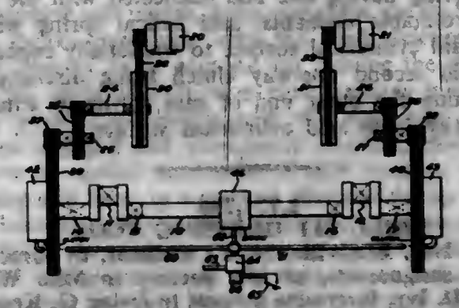
2,771,789
WINDOW REGULATING DEVICE
Peter F. Rossmann, Grosse Pointe Farms, Mich., and Karl Ruth, New York, N. Y., assignors to Happ Corporation, Cleveland, Ohio, a corporation of Virginia
Original application April 10, 1948, Serial No. 20,243, now Patent No. 2,631,926, dated December 16, 1952. Divided and this application November 5, 1952, Serial No. 318,932
3 Claims. (Cl. 74—625)



1. In a window regulator, operating mechanism for raising and lowering a window, means for controlling said mechanism comprising an electric motor with means for starting the same in either direction, a driving shaft for said mechanism, a spring clutch between said shaft and mechanism comprising a pair of interengaging sector-shape clutch members coextensive with said shaft and said mechanism, respectively, a cylindrical housing enclosing said members, a coil spring frictionally engaging the inside of said housing and having hooked ends inserted between the adjoining end faces of said members, whereby to allow rotary motion to be transmitted from said shaft to said mechanism in either sense of rotation by contraction and release of said spring from said housing and to prevent transmission of motion in the reverse direction by expansion and tightening of said spring against said housing, means for rotating said housing by said motor, and a further coil spring surrounding said shaft and having hooked ends engaging depressions in said housing, said further coil spring having a first position substantially released from said shaft when said housing is stationary, rotation of said housing by said motor causing contractual movement of said further coil spring to a second position tightened upon said shaft thereby to establish a frictional driving connection between said housing and said shaft, and control means for manually rotating said shaft, said further coil spring in its first position permitting manual rotation of said shaft.



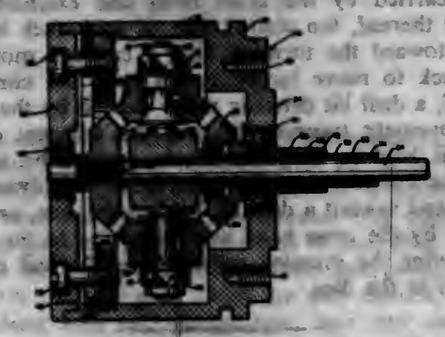
2,771,790
DOUBLE DRIVE POWER PUNCH PRESS
Frederick E. Mueschenborn, Buffalo, N. Y., assignor to Niagara Machine & Tool Works, Buffalo, N. Y.
Application July 12, 1954, Serial No. 442,848
8 Claims. (Cl. 74—665)



1. In a power press of the double crank type including a crankshaft having a pair of cranks spaced axially therealong, a pair of independent electric driving motors for applying driving torque to said crankshaft at opposite sides of said cranks, driving wheel means disposed at opposite ends of said crankshaft coaxial therewith and a clutch mechanism acting between each driving wheel means and the associated end of said crankshaft, and similar but independent intermediate transmission and speed reducing gear means acting between each driving motor and each of said clutch mechanisms.

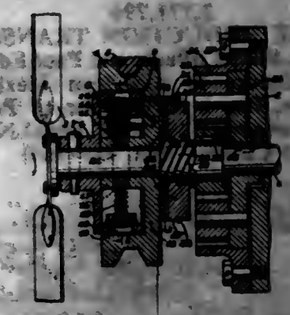
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2,771,791
DIFFERENTIAL GEARING APPARATUS
Rudolph E. Beckmann, Babylon, N. Y., assignor to Trans-American Precision Instrument Corp., Flushing, N. Y., a corporation of New York
Application December 13, 1954, Serial No. 474,677
2 Claims. (Cl. 74—675)



1. A differential gearing apparatus comprising a gear housing having opposed side walls, differential gearing within the housing including two opposed bevel gears and a rotatable spider carrying opposed bevel pinions each meshing with said bevel gears, said differential gearing being mounted on the opposed side walls of said housing by means of three concentric shafts extending through one of said side walls of said housing for their driving and driven connections, the innermost of said shafts having one of said bevel gears fixed thereto, the other two of said shafts comprising sleeves rotatable relative to said innermost shaft, one sleeve being fixed to said rotatable spider and the other sleeve being fixed to said other bevel gear, the innermost shaft being bearingly mounted in the side wall opposite to the side wall through which the shafts extend, the structure of said bevel gear and sleeve and the structure of said spider and sleeve being provided with a bearing therebetween, and the outermost sleeve being bearingly mounted on the side wall through which the shafts extend.

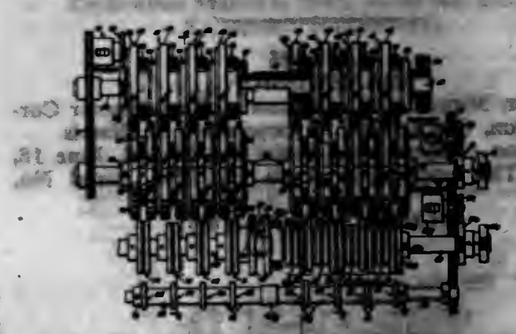
2,771,792
ENGINE COOLING FAN DRIVE GEARING
Maurice P. Whitney, Elmira, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware
Application April 23, 1954, Serial No. 425,155
5 Claims. (Cl. 74—752)



1. In a variable speed drive for engine-driven auxiliary devices, a rotatable driven shaft, a driving pulley journalled thereon having a clutch face formed on one side thereof, a high speed driven clutch member fixed on said shaft adjacent the pulley, a driving clutch member mounted on the pulley, yielding means urging the clutch members into engagement, centrifugal means for separating the clutch members, a screw shaft journalled on the driven shaft adjacent the pulley, a low speed clutch operating nut threaded on the screw shaft for clutching engagement with said clutch face of the pulley to thus be driven thereby, a sun gear fixed on the screw shaft, a planet gear meshing therewith, a carrier for said planet gear fixed on the driven shaft, and a fixed orbit gear surrounding and meshing with the planet gear.

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2,771,793
MULTIPLE SPEED TRANSMISSION MECHANISM
Azor D. Robbins, Hempstead, N. Y., assignor to The W. L. Maxson Corporation, New York, N. Y., a corporation of New York
Application July 16, 1953, Serial No. 367,201
7 Claims. (Cl. 74—753)



1. In a variable speed transmission mechanism, the combination with an input member, an output member, and denominational transmission mechanism between said members, including in each denomination a summing differential and an input differential therefor, the summing differentials serving to receive and combine the inputs from such of the input differentials as may be active, and each input differential comprising an input planet gear carrier driven from the input member and alternatively lockable parallel transmission and waste gears which include circumferential teeth, so that any input differential can be rendered active or inactive as desired, a ratio selector comprising a cam shaft, and for each of several denominations, a two disc cam fast on the cam shaft, a U-shaped cam follower, means rockably supporting the cam follower, axially offset projections on the follower engageable with the respective discs of the cam at opposite sides of the cam shaft, and axially

offset hooks carried by the follower for engagement respectively with the circumferential teeth of the transmission and waste gears of the associated input differential, and movable alternatively toward and from gear engagement.

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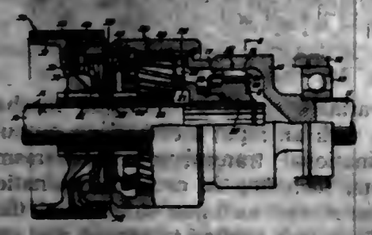
2,771,794
REVERSIBLE REDUCTION TRANSMISSION
Robert H. Shenk, State College, and Paul Edward Peathe, Erie, Pa., assignors to American Flexible Coupling Company, Erie, Pa., a corporation of Pennsylvania
Application November 20, 1952, Serial No. 321,612
13 Claims. (Cl. 74—764)



1. A reversible planetary reduction gear comprising a floating sun gear, planet members mounted on a flexible mounting in meshing engagement therewith, a planet support for carrying said planet members included in said flexible mounting, a ring gear, an annular gear coupling having the teeth on the outer side thereof engageable with the internal teeth of said ring gear and the internal teeth thereof in meshing engagement with said planets, brake means for selectively stopping said planet carrier and said ring gear, an input shaft connected to said sun gear, an output shaft, and means for selectively connecting said output shaft to said ring gear and said planet carrier to transmit rotative force therebetween, said flexible mounting for said planet members comprising a cutaway portion nesting the planet support members, said planet support members having internal splined teeth engaging teeth on said cutaway portion.

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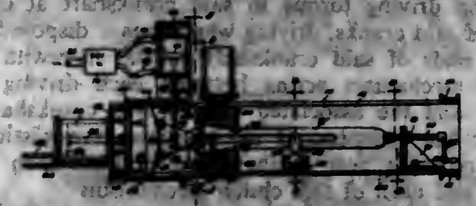
2,771,795
TRANSMISSION
Palmer Orr, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Continuation of application Serial No. 99,890, June 18, 1949. This application April 19, 1952, Serial No. 283,163
4 Claims. (Cl. 74—781)



1. In transmission mechanism, the combination of driving and driven shafts; ratio changing means operatively connected between said shafts and comprising a gear set including a pair of relatively rotatable elements, one of which, when held stationary, serves as a reaction element to complete a ratio drive between said shafts; means operatively connected between said shafts and including a one-way clutch engageable to establish a one-to-one drive from one of said shafts to the other of said shafts; said one-way clutch comprising a pair of concentric members and a plurality of wedging elements adapted to wedge between said concentric members; and a second one-way clutch operatively connected between said pair of relatively rotatable elements of said ratio changing means and engageable to establish a one-to-one drive from said other of said shafts to said one shaft; said second one-way clutch comprising a cylindrical surface formed on one of said rotatable elements and a helical spring having one end connected with the other of said rotatable elements; said helical spring winding against said cylindrical surface to frictionally engage the same; said second one-way clutch being disengageable by actuating the other end of said spring to wind the spring away from said cylindrical surface.

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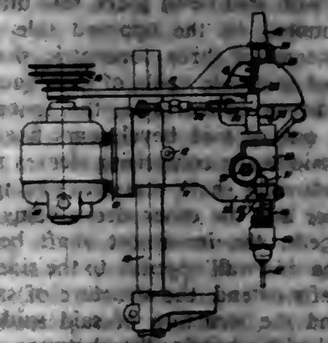
2,771,796
DRILL BIT DRESSING TOOL
Milo W. Ives, Ellenville, N. Y., assignor, by direct and mesne assignments, of fifty percent to Milo Warren Ives, Mt. Ivy, forty-nine percent to Irving G. Kennedy, Stony Point, and one percent to Alton W. Teale, Suffern, N. Y.
Application February 13, 1953, Serial No. 336,697
7 Claims. (Cl. 76—5)



1. In a drill bit dressing tool, a drill bit holder which includes a pair of spaced parallel elongated guide rails, drill bit forming dies carried by the guide rails intermediate the ends thereof, clamp means carried by the guide rails for holding a drill bit in the dies and parallel with the guide rails, a cross head mounted on the guide rails adjacent the forming dies for movement in a rectilinear path toward and away from said dies, a convex track carried by the cross head and extending transversely thereof, the convex side of said track being disposed toward the forming dies, a carriage mounted on the track to move longitudinally over the convex side thereof, a drill bit dressing roller carried by the carriage for movement transversely over the adjacent end of a drill bit held in the dies, means carried by the guide rails and connected to the cross head for advancing the cross head toward a drill bit held in the dies, and means carried by the cross head and connected to the carriage for moving the dressing roller across the end of a drill bit held in the dies.

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2,771,797
DRILL PRESS
Hardy W. Bushow, San Leandro, Calif.
Application May 5, 1952, Serial No. 285,115
11 Claims. (Cl. 77—39)



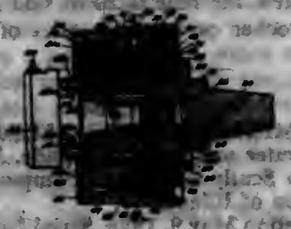
1. In a drill press, a frame, a vertical shaft carried by the frame, the lower end of the shaft being adapted for



attachment to a drill, a sleeve concentric with the shaft and through which the shaft extends, said shaft being journaled in said sleeve, a member movable vertically with respect to the frame, a pinion carried by said member, an operating lever connected to said pinion whereby the pinion is turned when the operating lever is moved in a vertical direction, a gear rack formed on said sleeve and engaging said pinion, drive means for the shaft including a sheave concentric with the shaft, friction clutch means adapted to be engaged for causing the sheave to drive the shaft, said friction clutch means including a clutch member concentric with the shaft and movable between engaged and disengaged clutching position responsive to vertical movement of said member, whereby swinging said lever in a vertical direction causes the drill to be lowered against a work piece and to cause said friction clutch means to be engaged to drive the drill when the drill is pressed against the work piece, and camming means acting between said member and said frame and serving to move the member in a vertical direction responsive to swinging said lever in a horizontal direction, whereby such movement of said member causes engagement or disengagement of said friction clutch means independently of pressure between the drill and the work piece.

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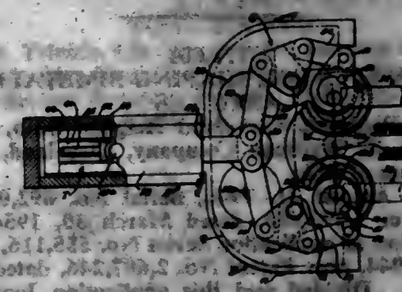
2,771,798
GROOVING OR FACING HEAD
Howard R. De Vlieg, Grosse Pointe Woods, Mich., assignor to De Vlieg Machine Company, Detroit, Mich., a corporation of Michigan
Application April 19, 1951, Serial No. 221,783
1 Claim. (Cl. 77—58)



In a grooving or facing head, in combination, a rotary cutter holder, a first gear rotating with the cutter holder coaxial with the axis of rotation thereof, a pinion gear in mesh with said first gear, an annular ring supporting said pinion gear and normally carried by the cutter holder to revolve therewith so that the pinion gear is moved in unison with the first gear about the axis thereof, a free gear meshing with said pinion gear, said ring and said free gear being coaxial with the axis of rotation of the cutter holder, said first gear being operatively responsive to rotation of the cutter holder and the retardation of said annular ring from rotation with the cutter holder to drive said pinion gear for rotation relative to the cutter holder to in turn drive the free gear for rotation relative to the cutter holder, an externally threaded lead screw revolving in unison with the rotating cutter holder, a first clutch member attached to said lead screw, a complementary second clutch member loosely mounted on said lead screw and resiliently urged into engagement with the first clutch member, said second clutch member being driven for rotation by the free gear to drive the lead screw through said first clutch member for rotation relative to the cutting holder, and a cutter-carrying slide revolving in unison with the rotating cutter holder and threadly engaging said lead screw to move lengthwise thereof upon rotation thereof about its own axis to move the cutter transversely of its axis of rotation in response to rotation of the free gear relative to the cutter holder for effecting such rotation of the lead screw.

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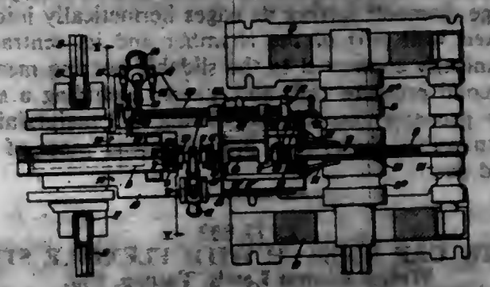
2,771,799
THREAD ROLLING TOOL
James W. Batchelder, Amesbury, Vt.
Application December 28, 1953, Serial No. 400,824
16 Claims. (Cl. 80—9)



1. A side working surface rolling tool adapted for use in a metal working machine having a work piece rotating means, a tool holder for advancing a tool radially to a work piece, and tool actuating fixed stop means, comprising: a shank adapted to be held in said tool holder; a rigid tool frame slidably mounted to said shank; resilient means operatively disposed between said shank and frame to bias the frame in one direction relative to the shank; a pair of opposed dies for roll forming the surface of a rotating work piece; means mounting the dies to said frame including rotatable spindles each having an eccentric whereon one of said dies is journalled whereby said dies are closed and opened relative to each other by spindle rotation; means on said frame to engage said stop means during tool holder advancement to effect relative motion between said shank and frame; and a mechanism on the frame connecting said spindles for simultaneous rotation of one with the other, the said mechanism including a motion converting connection to said shank whereby said relative motion rotates said spindles to close said dies.

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2,771,800
PLUG ROLLING MILL
Andrew F. Kritscher, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application March 6, 1952, Serial No. 275,119
5 Claims. (Cl. 80—11)



1. A plug rolling mill adapted to roll reheated and pierced billets comprising at least one roll stand, a trough on the entry side of said roll stand in alignment therewith and adapted to receive work for rolling, a longitudinally movable plug bar supported in alignment with said roll stand and trough, a plug carried by one end of said plug bar and having an elongated bearing surface, stop means which initially positions said plug bar and plug with the forward end of the plug within the roll stand and which limits movement of said plug bar from said roll stand, motive means for continuously advancing said plug bar and plug through said stand during a rolling operation in a direction counter to that in which the work travels therethrough and continuously presenting a fresh surface of the plug to the portion of the work which is moving within said roll stand, means for actuating said motive means and starting said plug bar and plug in motion when the work engages the forward end of the plug, and means





an abutment attached to said screw member, and a stop

for stopping the advance of said plug bar and plug when the back end of the latter is within said roll stand at the end of the rolling action, thereby preventing the work from seizing on the plug.

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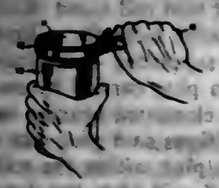
2,771,891
APPARATUS FOR SHAPING BIMETALLIC ARTICLES
Samuel K. Wellman, Cleveland Heights, Ohio, assignor to The S. K. Wellman Company, Cleveland, Ohio, a corporation of Ohio
Application August 21, 1946, Serial No. 692,064, now Patent No. 2,673,489, dated March 30, 1954, which is a division of application Serial No. 555,116, September 21, 1944, now Patent No. 2,607,245, dated August 19, 1952. Divided and this application January 25, 1954, Serial No. 406,747
2 Claims. (Cl. 80—56)



1. Apparatus for bending laminated bimetallic articles to a predetermined curved shape comprising a supporting structure; a pressure roll rigidly supported in the said structure for rotation about a fixed axis; a second cooperating pressure roll; bearing means for the second roll slidably supported in the said structure for movement toward and away from the fixed axis roll while maintaining the axis of the second roll in a fixed plane through the axis of the other roll; means for rotating at least one of said rolls; means urging the second roll toward the other roll comprising an expansible chamber having a fixed wall part rigidly mounted on the said supporting structure and a flexible sheet metal diaphragm of large diameter having its edges hermetically joined to the fixed wall part of the chamber and its central part mechanically connected to the slidable bearing means of the second pressure roll; and means, including a source of low pressure gas, for introducing and maintaining in the expansible chamber a predetermined mass of compressed gas.

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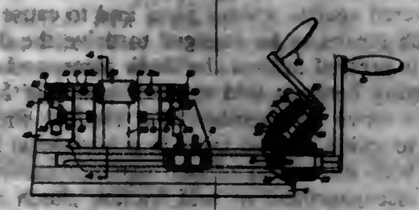
2,771,892
SCREW CAP WRENCH WITH FLEXIBLE STRAP
Walter Benton Lewis, Tampa, Fla.
Application March 11, 1955, Serial No. 493,761
1 Claim. (Cl. 81—3.43)



A tool for encircling and gripping an object in a manner to apply rotative force thereto comprising a strap, a lever composed of a length of wire or rod stock and including spaced substantially parallel side portions with transverse connecting end portions and another transverse connecting portion intermediate said end portions but nearer one of such ends, and adapted to have one end of said strap attached thereto, and the remainder of the strap located around a device to be rotated, one end portion of said lever being adapted to bear upon said strap and hold the same against the object so that when the end of the lever is swung it will first cause a binding action upon the strap about the object and thereafter cause rotational force upon said object.

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2,771,893
VISE FOR HOLDING WORKPIECES OF DIVERSE SHAPES
Gordon Francis Staples, East Kilbride, and Robert Mitchell, Castle Brunswick, Birmingham, England
Application November 23, 1953, Serial No. 393,910
5 Claims. (Cl. 81—38)



1. A vise comprising a body, a fixed jaw fixedly mounted to said body, a sliding jaw mounted for movement towards and away from said fixed jaw along said body, a lead screw journaled in said body and engaging a nut in said sliding jaw whereby movement of said sliding jaw may be effected, a pair of laterally spaced holders on the confronting face of at least one of said jaws, a locator mounted in each holder for longitudinal sliding motion, a rocker on said jaw rearwardly of said locators and being centrally pivoted, the rear faces of said locators abutting against said rocker on opposite sides of said pivot.

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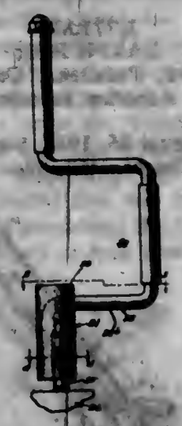
2,771,894
PREDETERMINED TORQUE RELEASE WRENCH
Bernard R. Better and John W. Lohde, Jr., Chicago, Ill., assignors to Scully-Jones and Company, Chicago, Ill., a corporation of Illinois
Application May 9, 1955, Serial No. 506,709
5 Claims. (Cl. 81—52.4)



1. In a nut setter, the combination of a driving member having a tapered bore, a driven member mounted in said driving member and having a tapered portion opposed to the tapered bore and having a plurality of longitudinal evenly spaced cams on the tapered portion with non-driving areas between the cams, a roller cage, rollers in said cage for engagement with said tapered and cam surfaces, means for adjusting the driven member axially with respect to the driving member for increasing or decreasing the driving torque, and means for connecting the driven member to the nut to be set.



2,771,895
STUD LOOSENING AND TIGHTENING TOOL
James C. Jacobsen, Redwood City, Calif., assignor to United Air Lines, Inc., Chicago, Ill., a corporation of Delaware
Application September 8, 1955, Serial No. 533,088
4 Claims. (Cl. 81—53)



1. A stud loosening and tightening tool comprising a slender housing provided with an elongated first cavity open at one end to accommodate the protruding end of a stud and an elongated second cavity arranged in spaced substantially parallel relation therewith and having an end thereof opening in substantially the opposite direction from the open end of said first cavity, the spacing between said cavities being such that a segment of each of said cavities is in overlapping relation with respect to one another, an elongated pawl having a portion thereof removably mounted within said second cavity for turning relative thereto about the longitudinal axis of said second cavity, said pawl portion being longitudinally grooved to form a pair of spaced sharp edge shoulders, only one of which protrudes into the interior of said first cavity upon relative turning of said pawl in one direction, and a pair of relatively spaced stop means mounted in fixed relation on said housing adjacent the open end of said second cavity and accommodating a portion of said pawl therebetween, said stop means being separately engageable by said pawl portion to limit the relative turning movement of said pawl to within a predetermined sector.

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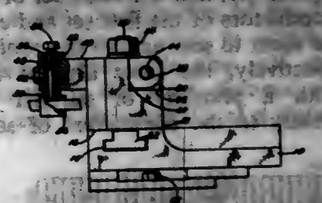
2,771,896
SCREW-CUTTING LATHES
Benjamin John Farrow, Cranborne, Wimborne, England
Application February 11, 1954, Serial No. 409,622
Claims priority, application Great Britain February 11, 1953
2 Claims. (Cl. 82—24)



1. Apparatus for use with a lathe comprising a tool carrying cross-slide, a manually operated rotary screw member for moving the cross-slide to adjust depth of cut, a rotary disc member rotatable in both directions without limit and locatable in a definite rotary position with reference to the screw member co-axially therewith, a detent device acting between said rotary disc member and the cross-slide to locate the rotary disc member in any of a large number of rotary positions, whereby the operator can move said rotary disc member by hand to cause movement relative to said screw member and relative movement in said detent device to set said disc member; an abutment attached to said screw member, and a stop pivotally mounted on said plate and adapted to be moved around its pivot into the path of said abutment.

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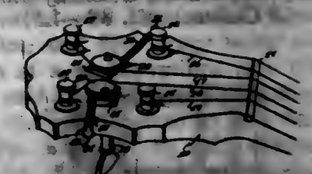
2,771,897
TOOL HOLDER
Dallas R. Trimble, Cincinnati, Ohio, assignor to The Monarch Machine Tool Company, a corporation of Ohio
Application January 22, 1953, Serial No. 336,355
1 Claim. (Cl. 82—36)



An implement holder for a machine tool having a work area, said implement holder comprising a base member adapted to be secured to the machine tool, walls in said base member defining a slot having a bottom, an open top and at least one open end, said open end being directable toward said work area, a pin mounted in one of said walls adjacent the end opposite said open end and positioned substantially perpendicularly to said one of said walls, said pin projecting away from said one of said walls toward said other wall, an elongated bar lying in said slot and being embraced by the walls thereof and resting on the bottom thereof having one end projecting beyond said open end, means on said open end for mounting a tool implement, walls in the other end of the bar defining a bore therethrough, said bore embracing said pin, the other wall defining said slot being sufficiently relieved adjacent said free projecting end of said pin, whereby when said bar is pivoted about said pin out of said slot it will provide clearance so that the other end of said bar may be translated off the end of said pin through the relieved portion of said other wall.

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2,771,898
BANJO TUNING DEVICE
George Jenkins, Jr., Liberty, N. C.
Application December 6, 1955, Serial No. 551,359
2 Claims. (Cl. 84—304)



1. A banjo of the type including playable strings, a tuning mechanism comprising a rotatable shaft mounted in the neck of said banjo, a cam engaging one of said strings and mounted on an end of said shaft, a stop mounted on said banjo engaging said cam limiting the movement of said cam in one direction, an adjustable stop on said banjo limiting the movement of said cam in the opposite direction, means for oscillating said cam between said stops, said bolt extending vertically through said banjo neck and has an axial bore through which said shaft projects, a nut threaded on said bolt with said stop being formed in said nut and said adjustable stop being threadedly carried by said nut.

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2,771,899
TUNE CARD AND INSTRUMENT USING SAME
Aaron Isaacson, Elgin, Ill.
Application April 30, 1954, Serial No. 426,747
11 Claims. (Cl. 84—477)

1. A tune card for a musical instrument of the type wherein a plurality of note indicators are energized in suc-

cession to indicate the notes to be played, the card being adapted to seat on a plurality of electrical contacts disposed in generally linear relation and divided into a first set symmetrical about a mid-point and connected to the note indicators, respectively, and a second set energized in sequence as the successive notes are played, the card comprising: an insulating sheet having a contact side with a first set of parallel conductors extending to both edges of the sheet and adapted to seat against the contacts of said first set, respectively, and a second set of conductors parallel to the conductors of the first set and extending to both edges of the sheet to seat against the contacts of said second set, respectively, the sheet also having a non-contact side with a plurality of parallel conductors oriented transversely to the conductors of said first set



and at least equal in number to the number of said first set of conductors; conductor means extending through the sheet and connecting each of said last mentioned conductors to one of said first set of conductors, whereby in use each of said last mentioned conductors is connected to one of said indicators; and conductor means extending through said sheet connecting each of said second set of conductors to at least one of said last mentioned conductors, said last conductor means being in two sequences, one sequence being positioned to indicate a tune when the card is seated with one edge on the contacts and the other sequence being positioned to indicate a compatible tune when the card is seated with the other edge on the contacts, the conductors of the second set being interrupted where they extend between said last conductor means.

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2,771,810

**REVERSIBLE VIEWFINDER FOR PHOTOGRAPHIC CAMERAS**

Richard Seemer and Richard Hofmeister, Braunschweig-Gliesmarode, Germany, assignors to Voigtländer, A. G., Braunschweig, Germany, a corporation of Germany

Application September 17, 1954, Serial No. 456,689

Claims priority, application Germany March 27, 1954

3 Claims. (Cl. 88—1.5)



1. Reversible viewfinder for photographic cameras provided with interchangeable objectives having varying focal lengths, said viewfinder comprising a casing provided with at least one lens system, said casing being rotatably arranged about a pivot which is perpendicular to the optical axis of the finder, said pivot being fastened in a slip-on member adapted to be applied to the camera; the viewfinder being capable of being used from either end, whereby the finder shows in one direction a first field of view which corresponds to the field of view of a first interchangeable camera objective of predetermined focal length and shows in a direction reversed by 180° a second field of view which corresponds to the field of view of a second interchangeable camera objective of predetermined focal length; the fields of view being inclosed by finder masks which are firmly built in in said casing; a cap provided with a viewing window, said cap being fastened to said slip-on member, said cap being tiltable about an axis which is perpendicular to said pivot and being urged to constantly lie against the finder casing, by the action of a torsion spring, said cap partially overlapping the finder casing and preventing its reversal in this position, while permitting reversal of the finder casing upon swinging aside the cap from the finder casing.

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2,771,811

**LAUNCHER**

Charles C. Lauritsen, Pasadena, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application August 25, 1945, Serial No. 612,607

3 Claims. (Cl. 89—1.7)



1. A rocket launcher comprising a supporting post, a sleeve rotatably mounted upon the upper end portion of said post, a T fitting secured to the upper end portion of said sleeve, a hollow and laterally extending launching rail supporting shaft rotatably carried within said T fitting, a depending lever arm secured to said supporting shaft, a rearwardly extending handle, means for journalling said handle to said lever arm, a quadrant secured to the side of said sleeve and having portions thereof defining an arcuate guide slot and arcuately arranged apertures, a guide pin and a latch member carried by said lever arm and respectively engageable with said guide slot and apertures, resilient means for urging said latch member into said apertures to latch the launcher rails in various positions of elevation, mating and serrated flanges respectively secured to the upper end portion and lower end portion of said sleeve, a pivotally mounted train latch member, resilient means for urging said train latch member into mating serrations of said mating flanges, a cable operatively connected at one end thereof to said train latch member and carried within said handle, a grip member pivotally mounted on the outer end portion of said handle and operatively connected to the other end of said cable, and a pair of substantially I-shaped launching rails, the upper and lower flange portions of each of said rails defining tubular portions of triangular cross sections, and each of said tubular portions defining a slot in the outermost tubular wall thereof for the accommodation of a launching lug of each rocket to be launched.

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2,771,812

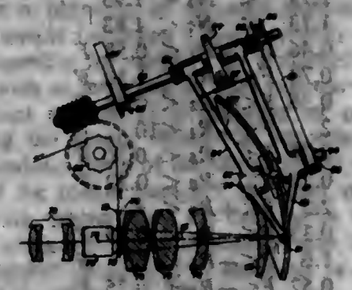
**APPARATUS FOR CONTINUOUS MOTION PICTURE PROJECTION**

Joseph Mihalyi, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application September 5, 1952, Serial No. 308,667

2 Claims. (Cl. 88—16.8)

2. A continuous motion-picture projector comprising a film gate for exposing substantially two frames of a motion-picture film, means of illuminating the film gate, means for passing film through the film gate, an optical system including a mirror disk divided into two independently mounted halves for receiving light from the film gate and for reflecting it back in the same general direction and forming an image of the film gate laterally displaced from the apparent position of the film gate as viewed from the optical system, means for rotating the mirror disk around an axis in the plane of the axis of the optical system one complete revolution for each two frames advance of the film drive, one half of the mirror disk being mounted on a bearing behind the mirrors and the other half on a bearing in front of the mirrors and the optical beam striking the mirrors below the center of the disk, a pair of rocker arms for tilting the halves of the mirror disk, one arm being in front of and one behind the mirror disk and supporting the two bearings, said rocker arms being divided into two legs below the said bearings and said legs straddling the locus of the optical beam and being mounted to rock about an axis which is



substantially a chord of the mirror disk through the axis of the optical beam and perpendicular to the plane common to the mirror bearings and the optical axis, face cam means approximately in the plane of the mirror disk and means for rotating the cam means precisely in synchronism with the film drive, the upper ends of said rocker arms being spring-urged against the said cam means at two points such that the two halves of the mirror are rocked to and fro in opposite phase during each revolution of the mirror disk, each half of the mirror being tilted at a uniform speed in the apparent direction of travel of the film while intercepting any substantial part of the optical beam and being tilted in the opposite direction to return it to its initial angle of tilt while it is out of the optical beam, whereby the image of each frame of film advancing through the film gate is imaged at a fixed position and the image of each frame is superseded by the image of the succeeding frame.

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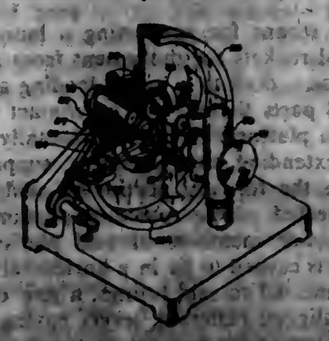
2,771,813

**APPARATUS FOR CONTINUOUS MOTION PICTURE PROJECTION**

Joseph Mihalyi, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application September 5, 1952, Serial No. 308,668

1 Claim. (Cl. 88—16.8)



A continuous motion picture projector comprising a film gate, means for illuminating the film gate, means for advancing film through the film gate, an optical system and an optical compensator [illegible]



jection objective adapted to project a relay image of the stationary image, in which the optical compensator comprises a rotationally and bilaterally symmetrical ring of from four to eight mirrors and means for rotating the ring in synchronism with the film advance, in which the optical system is axially optically aligned with an equatorial diameter of the ring and is adapted to present an image of the film gate to a spot on the ring the apparent position of said image as viewed from the ring being closer to the center of the ring than to the circumference thereof and a little to one side of the equatorial plane containing said diameter, and in which the center of curvature of a mirror occupying said spot on the ring is approximately at the same distance as the image of the film gate and is substantially at a distance

$$\frac{L'}{2 \sin \frac{180°}{N}}$$

from the center of the ring, where L' is the apparent distance from the center of one frame of the film to the next and N is the number of mirrors, whereby a stationary image of the moving film is formed at the other side of the equatorial plane.

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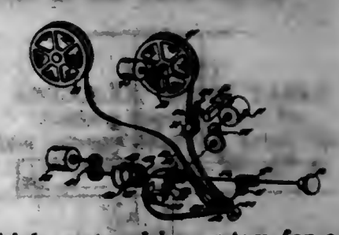
2,771,814

**MULTIPLE MOTOR DRIVE FOR CAMERAS**

Warren E. Isom, West Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application April 30, 1952, Serial No. 285,210

10 Claims. (Cl. 88—17)



1. A multiple motor drive system for advancing film, reeling said film, and driving a light-interrupting shutter comprising a film advancing mechanism, a first synchronous motor connected to said mechanism for advancing film, a light interrupting shutter, a second synchronous motor connected to said shutter for interrupting light through said film, said first motor being adapted to advance said film at a predetermined rate with respect to the rotation of said shutter by said second motor, a take-up film reel, a motor connected to said take-up reel for reeling said film advanced by said mechanism, a mechanical interlock unit including mechanical connecting means between said film advancing mechanism driven by said first motor and said shutter driven by said second motor to permit independent operation of said first and second motors within certain predetermined limits, a power supply for said motors, a circuit for each of said motors from said power supply, a switch controlled by said reel motor for connecting said second motor to said power supply over its respective circuit, and a switch controlled by said second motor for connecting said first mentioned motor to said power supply over its respective circuit.

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2,771,815

**RECTIFIER FOR AIR PHOTOGRAPHS WITH NADIR DISTANCE KNOWN AS TO DIRECTION OR SIZE**

Umberto Nistri, Rome, Italy

Application June 1, 1953, Serial No. 358,897

Claims priority, application Italy June 20, 1952

4 Claims. (Cl. 88—24)

1. An apparatus for rectifying air photograms having an identifiable nadir point position, said apparatus com-

prising, a frame for holding an unrectified photogram, means mounting said frame for rotation about a central axis perpendicular thereto, an optical system to project light through said frame, said system including a lens, a second frame for holding a sensitized sheet on which



the rectified photogram is printed, a collimator, and means mounting said collimator on said first frame, said collimator including an optical system and a grid and being arranged to project the image of said grid onto the second frame independently of the projection of the unrectified photogram onto said second frame.

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2,771,816
PORTABLE MICROFILM CAMERA
William A. Pfaff, East Norwalk, Conn., assignor to Diebold Incorporated, Canton, Ohio, a corporation of Ohio
Application August 11, 1951, Serial No. 241,418
9 Claims. (Cl. 88—24)

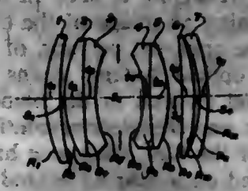


1. A camera having a casing having entrance and delivery openings through which a subject sheet of a size to be photographed may pass into the casing; means in the casing for illuminating a zone in the path of a sheet moving between said openings; means substantially in alignment with said entrance opening for propelling a subject sheet through the space between said openings and through said illuminated zone, said propelling means consisting of a single pair of cooperating feed shafts and spaced friction rollers carried on each of said shafts, said rollers being located between said entrance opening and the illuminated zone in close proximity to said zone; and means associated with said friction rollers for longitudinally bending the subject sheet as it passes between said rollers to produce corrugations to stiffen the sheet as it emerges from said rollers and cause it to pass through said illuminated zone without substantially drooping.

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2,771,817
SEVEN-ELEMENT GAUSS TYPE OBJECTIVE COMPRISING TWO NEGATIVE MENISCUS COMPONENTS ENCLOSED BY TWO POSITIVE COMPONENTS
George H. Aklin, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 31, 1955, Serial No. 498,148
2 Claims. (Cl. 88—57)

1. A seven-element photographic objective comprising the following four components: a front singlet, two inner cemented doublets and a rear slightly airspaced doublet, in which the refractive indices N of the lens elements, and the radii of curvature R of the lens sur-



faces, each numbered by subscript from front to rear are within the following limits:

$$1.70 < N_1 < 1.80$$
$$1.68 < N_2 < 1.78$$
$$1.57 < N_3 < 1.67$$
$$1.64 < N_4 < 1.74$$
$$1.83 < N_5 < 1.83$$
$$1.73 < N_6 < 1.93$$
$$1.73 < N_7 < 1.83$$
$$0.46\ F < +R_1 < 0.58\ F$$
$$0.74\ F < +R_2 < 1.10\ F$$
$$0.36\ F < +R_3 < 0.44\ F$$
$$2\ F < +R_4 < 10\ F$$
$$0.25\ F < +R_5 < 0.30\ F$$
$$0.27\ F < -R_6 < 0.32\ F$$
$$2.5\ F < +R_7 < \infty$$
$$0.33\ F < -R_8 < 0.39\ F$$
$$1.6\ F < -R_9 < 5\ F$$
$$0.52\ F < -R_{10} < 0.75\ F$$
$$0.40\ F < -R_{11} < 0.53\ F$$
$$0.52\ F < -R_{12} < 0.75\ F$$

where F is the focal length of the objective as a whole, and in which the thickness of each component is less than 0.14 F and the over-all length of the objective is between 0.46 F and 0.58 F.

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2,771,818
ROCKET LAUNCHER
Charles C. Lauritsen, Pasadena, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Continuation of application Serial No. 676,116, February 3, 1946. This application April 29, 1952, Serial No. 285,083
6 Claims. (Cl. 89—1.7)



1. Mount means for supporting a launcher assembly for elongated rockets for movement from a stowed position resting on a deck to a raised loading and firing position with all parts thereof out of contact with the deck comprising, a platform having horizontally disposed longitudinally extending side members, support mountings connected to the forward portion of said platform and fittings connected at the rearward portion of the platform to the side members of said platform such that the platform is caused to lie in a horizontal plane, latches pivotally connected to said fittings, a pair of transversely spaced and aligned bellcrank levers having L-shaped leg members connected for movement together and pivotally connected at the point of juncture of the legs of the L-shaped bellcrank to the platform support mountings for rotation in parallel vertical planes when the mount is moved from a stowed position to a firing position, one pair of upstanding bellcrank legs arranged to pivotally



engage opposite sides of a rocket launcher rail assembly near the center thereof to provide a trunnion therefor so as to permit movement of the rocket launcher rail assembly in elevation, said trunnion being located forward of the pivotal connection between the juncture point of the legs of the bellcrank levers and the platform support mountings when the rail assembly is in a stowed position and said trunnion being located above said pivotal connection between the juncture of the legs of the L-shaped bellcrank levers and the forward platform supporting mountings when the rail assembly is in firing position, the horizontal leg set of the L-shaped bellcrank extending to the rear and engaging the deck when the rocket launcher assembly is in the raised firing and loading position, said latches being provided for anchoring the latter legs to the deck during the rocket firing and loading operations, and means for locking the assembly in a plurality of elevated positions, said last-mentioned means including a link pivotally connected to said rail assembly for rotation in a vertical plane to be connected with at least one of said rearwardly extending bellcrank legs at one of a plurality of predetermined points along the length thereof in accordance with the desired elevation setting of the launcher rail assembly, the rear end of the rocket launcher assembly in the loading position being spaced from the deck so as to permit the loading of elongated rockets therein from the rear even while the rocket launcher rail assembly is in a position of extreme elevation.

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2,771,819
GAS-OPERATING FIREARM
Charles H. Morse, Herkimer, and Homer W. Young, Ilion, N. Y., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application October 12, 1953, Serial No. 385,428
6 Claims. (Cl. 89—191)



1. In a gas-operated firearm having a barrel, a receiver and a reciprocating breech bolt carrier housed therein, the combination comprising an orifice in the barrel, tubular means for conveying gas rearwardly from said orifice into said receiver, and a system of telescoping pistons within said receiver comprising a longitudinal bore with a closed rear end formed in said bolt carrier, an inner tubular piston affixed to said receiver in communication with said tubular means and extending rearwardly in axial alignment with said bore, said bore being telescoped over said inner tubular piston when the bolt carrier is in forward position, and an outer tubular piston mounted in said bore in the bolt carrier with capacity for limited forward extension relative to said bolt carrier, said outer tubular piston surrounding and being in telescoping relation to said inner tubular piston.

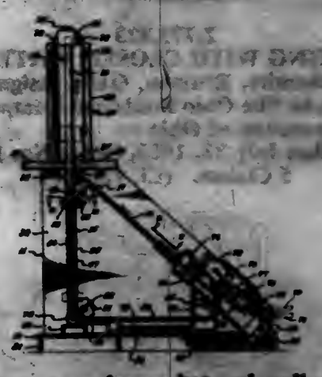
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2,771,820
KEYWAY CUTTING MACHINE
John V. Meyers, Upland, and Alger W. Fellige, Pomona, Calif., assignors to Meyers-Fellige Company, Pomona, Calif., a partnership
Application September 15, 1953, Serial No. 380,296
6 Claims. (Cl. 90—43)

1. In a fluid operable keyway cutting machine, the combination of: frame [illegible] a ported work piece support and a [illegible] therebelow; laterally spaced vertical [illegible] the support and [illegible] with [illegible]



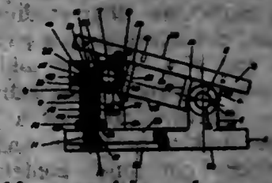
umns; cutter means carried by the cross head means between said guide columns and extending through said ported work support for cutting engagement with a workpiece supported thereby; means for reciprocally moving said crosshead means and said cutter means comprising a forwardly and upwardly inclined fluid operated piston means carried by the frame member rearwardly of the crosshead means and spaced therefrom; and a pair



of triangularly arranged sprocket and endless chain means disposed on opposite sides of the piston means and the crosshead means, each of said chain means having a portion lying in the plane defined by the axis of the cutter means and guide columns and connected to said crosshead means outwardly of the guide columns, and an inclined portion lying parallel to axis of the piston means, and yoke means connecting the piston means and the inclined portions of said chain means for causing axial movement of said cutter means.

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2,771,821
ANGULAR WORK TABLE
Andrew Bozich, Erie, Pa.
Application January 23, 1953, Serial No. 332,907
8 Claims. (Cl. 90—59)



1. A work table comprising a base, a table top swingably connected to said base, means to adjust the angularity of said table top with regard to said base, said means comprising a block swingably connected to said table top at a point spaced from said pivot point of said table top with said base, a screw threadably engaging said swinging block at one end therof and engaging said base at the other end thereof, said screw being hollow, and a stud extending through said base and into said hollow of said screw locking said table top to said base.

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2,771,822
V-BLOCK FORMATIONS
Norman S. Blackaga, Westmount, Weston, Ontario, Canada
Application November 3, 1953, Serial No. 390,837
11 Claims. (Cl. 90—59)

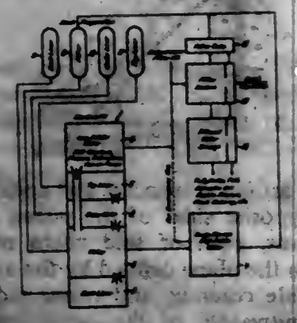


1. A V-block comprising a member having an inclined face, a second member sliding on said inclined face and

presenting an inclined face forming with the aforesaid face a V, means to lock said members in desired relative positions, and clamp means having a clamping member and a support formation engaging and co-operating with the first-mentioned members to locate said clamping member opposite the apex of said V independent of the relative position of said first-mentioned members.

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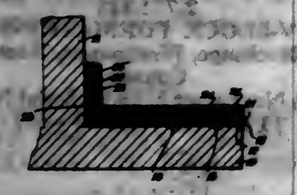
2,771,823
**PAPERMAKING WITH CLOSED WATER SYSTEM**
Edward L. Lehmbre, Rittman, Ohio, assignor, by mesne assignments, to The Ohio Boxboard Company, Rittman, Ohio, a corporation of Ohio
Application July 28, 1950, Serial No. 176,397
5 Claims. (Cl. 92—38)



1. In a paper making operation including the steps of forming a paper furnish comprising an aqueous slurry containing paper fibres, and passing such slurry to a paper web forming operation having as one result the discharge of water having a solids content including paper fibres, the method of treating such discharged water to remove therefrom its solids content and produce water reusable in the paper making operation, which comprises the steps of pumping and thereby establishing a pressure head in the said discharged water and passing it while maintaining such pressure head through a filter apparatus furnished with a particulate filter medium dissimilar to the paper fibres and not injurious to a paper web formed from such fibres and of a character and in an amount sufficient to remove from such water substantially all of its solids content, returning at least a portion of the filtrate to the paper making operation, and collecting and conserving the filtered-out solids content for reuse in the paper making operation, said filter medium being diatomaceous earth.

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2,771,824
**COMPOSITE FLOOR AND DECK COVERING CONSTRUCTION**
Harold K. Patch, Hermosa Beach, and Richard J. Grundy, San Carlos, Calif., assignors to Crossfield Products Corporation, Los Angeles, Calif., a corporation of California
Application March 9, 1950, Serial No. 148,629
9 Claims. (Cl. 94—3)



1. A permanent, substantially monolithic floor and deck covering for use on a base support which is subject to relative movement of different portions thereof, said covering being formed and applied in situ, comprising a base support which may be subject to relative movement as between different portions thereof; a supporting layer of air- and liquid-pervious felt, means adhesively cementing said supporting felt layer to said base support at the periphery of said felt layer and additionally only at spots arranged on about 15 foot centers as measured from one another and from said periphery; a relatively thin coating applied as a plastic mass over said felt layer and having a composition, the essential active ingredients of which are rubber latex, vulcanizing constituents for said rubber latex, and an hydraulic cement; a relatively thicker layer of a rubber composition applied as a plastic mass over said thin coating and being substantially integrally bonded thereto throughout the entire surface to be covered, said relatively thicker layer having a composition, the essential active ingredients of which consist of rubber in the form of a latex and vulcanizing constituents for the rubber of this layer, and this relatively thicker layer serving to render the covering impervious to water; and a wear coat above and substantially integrally bonded to said relatively thicker layer, said wear coat being applied as a plastic mass and having a composition, the essential active ingredients of which consist of a rubber latex, vulcanizing constituents therefor, an hydraulic cement, and a solid mineral aggregate filler; whereby to provide a substantially rigid, floating floor covering of seamless monolithic character, which will be substantially unaffected by such relative movement of portions of the base support as may occur in normal use.

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2,771,825
**LOCKING MEANS FOR THE BACK WALL OF ROLL FILM CAMERAS**
Helmut Naumann, Braunschweig, Germany, assignor to Voigtländer, A. G., Braunschweig, Germany, a corporation of Germany
Application December 9, 1952, Serial No. 324,975
Claims priority, application Germany December 15, 1951
3 Claims. (Cl. 95—31)



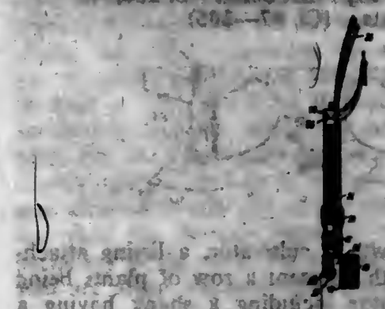
1. Means for preventing the inadvertent opening of the rear wall of a roll film camera adapted to receive a film extending between a film holder and a take-up spool within the camera, said means being arranged within the camera and comprising an elongated resilient member fastened to the body of said camera and provide with a contact portion adapted to engage a lateral portion of the film surface, said resilient member being effective at a right angle to the surface of film to urge said contact portion into engagement with the film surface, a stud carried on the inner surface of the camera rear wall, said resilient member having an aperture adapted to receive said stud, said resilient member being urged, upon contact with the film, into a position such that said stud is positioned in the aperture, said resilient member having an inclined flap adjacent the aperture to provide an abutting surface adjacent said stud.

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2,771,826
**ADJUSTABLE CAMERA-SUPPORT**
David H. Slaughter, Forest Hills, N. Y.
Application January 28, 1955, Serial No. 483,031
3 Claims. (Cl. 95—86)

1. A camera support comprising two elongated plates in side-by-side relation and spaced apart with a bridge extending therebetween and joining the plates together at one of their adjacent longitudinal edges and midway between the ends thereof, the spaces between said plates at their opposite edge being open to receive therebetween a portion of a body encircling member, at least one of said elongated plates including corrugated friction material on the inner face thereof to engage the body encircling member and hold the camera support relative thereto, support means on the bridge, and a telescopic camera-support connected at one end with said support

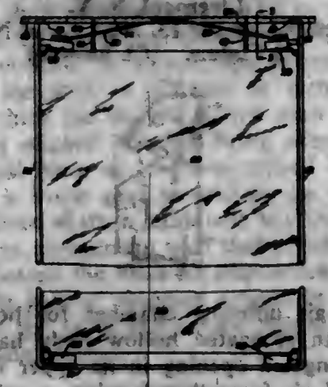




means and extending upwardly therefrom, on the other end of which a camera is mounted for supporting the camera on the body encircling member.

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2,771,827
**X-RAY PROCESSING HANGER**
Henry J. Hood, Carl F. Nowack, and Edmund M. Van Hoesen, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Original application January 25, 1952, Serial No. 268,294. Divided and this application February 2, 1953, Serial No. 334,652
1 Claim. (Cl. 95—100)

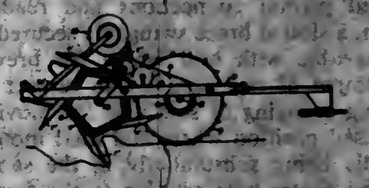


A sheet film hanger comprising, in combination, a hollow rectangular frame, a pair of film clips fixedly secured to one side of said frame to engage adjacent corners of a film sheet, a pair of resilient cantilever members secured to the opposite side of said frame, film clips mounted directly on the free ends of said members to engage an opposite pair of corners of said sheet and to cooperate with said first pair of clips to maintain said sheet in a tensioned planar relation on said hanger, means fixedly positioned on said hanger and cooperating with said cantilever members to maintain the clips thereon in the plane of said sheet, but permitting limited movement of said member relative to said means in the plane of said sheet, and means on said last mentioned means adapted to be engaged by said cantilever members to limit the movement of the clips thereon in opposite directions in the plane of said sheet.

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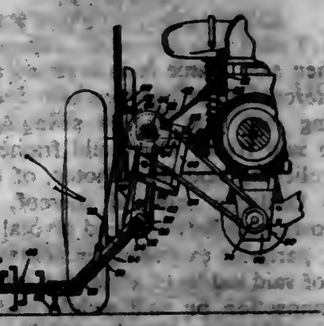
2,771,828
**FOREST CULTIVATOR**
Ivan Troeng and Georg Calles, Stockholm, Sweden
Application March 6, 1953, Serial No. 340,704
Claims priority, application Sweden March 7, 1952
4 Claims. (Cl. 97—49)

1. A cultivator comprising the combination with a supporting frame, a front traction wheel and a rear scratching member rotatably supported in said frame, said scratching member having a plurality of scratching claws movable through the ground and back through air to the ground on rotation of said scratching member, of motion-transmitting means coupling said traction wheel to said scratching member to rotate the latter in the same direction as said traction wheel and at a speed lower than that of the traction wheel and cyclically varying, with its minimum value of speed occurring when a claw is in its scratching position.



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2,771,829
**ROTARY CULTIVATOR**
Olaf A. Sahlberg, Lake Stevens, Wash., assignor of fifty percent to Leo J. Beguet, Granite Falls, Wash.
Application February 18, 1954, Serial No. 411,099
1 Claim. (Cl. 97—49)



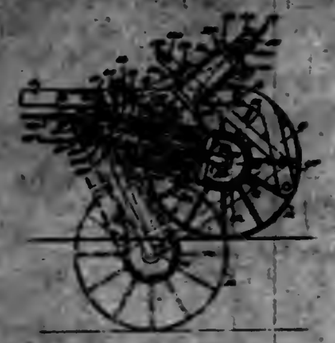
A tilling attachment for a tractor comprising a frame attachable to one side of a tractor to extend horizontally outwardly therefrom, a first cross shaft journaled in said frame and adapted to be connected to a power take-off of a tractor for drive by said power take-off, an upper elongated carriage pivoted on and suspended from said cross shaft for vertical swinging transversely of the tractor and having a second cross shaft journaled therein below said first cross shaft, driving connections from the first to the second cross shafts, a lower elongated carriage depending from the second cross shaft and swingable upwardly and downwardly thereon and vertically with the first carriage, an elongated tilling head extending outwardly from the lower end of the second carriage for vertical swinging thereby and having a rotary operating shaft at an angle to the lower carriage, a drive shaft journaled in the lower carriage and having its axis coplanar therewith, said drive shaft being universally jointed to the operating shaft, gearing between the first cross shaft and the drive shaft, and levers pivotally attachable to a tractor and operatively connected to said carriages, respectively, for swinging said carriages independently.

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2,771,830
**POWER OPERATED LIFT FOR AGRICULTURAL IMPLEMENT**
Bernard J. Schill, Rockford, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application August 30, 1951, Serial No. 244,367
4 Claims. (Cl. 97—46.31)

1. For use with an implement having a supporting frame, and a U-shaped crank axle carried by the frame and swingable in a fore-and-aft direction for raising and lowering said frame, a lifting means including a saddle pivotally secured to said frame above said axle and swingable in a substantially fore-and-aft direction, a pivotal connection on said axle and a pivotal connection on said saddle above said frame in all operative

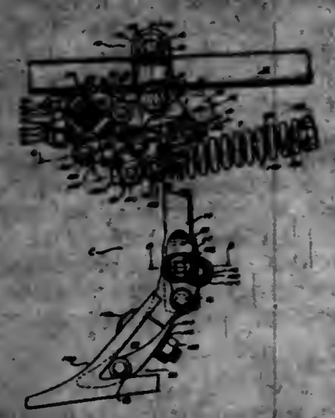
positions of said saddle, said saddle being swingable so as to move said pivotal connection on said saddle varying distances from the pivotal connection on said axle, an axially extensible fluid motor pivotally carried between said pivotal connections and readily detachable therefrom, a slotted brace swingably secured to said saddle and engageable with said frame for preventing swinging movement of said saddle with respect to said frame for causing swinging of said axle for moving said frame into a raised position when said fluid motor is actuated, said saddle being substantially in the same plane with or on dead center with relation to the force of the fluid



motor when said frame is in a raised position, and rigid means interconnected between said frame and said axle for locking said axle against swinging movement with respect to said frame when said frame is in raised position for relieving said fluid motor, of the weight of said frame to facilitate removal thereof, said fluid motor being repositioned between said pivotal connections in an extended, partially extended, or contracted condition by swinging of said saddle to adjust the distance between said pivotal connection on said saddle and the pivotal connection on said axle to be substantially equal to the length of said fluid motor.

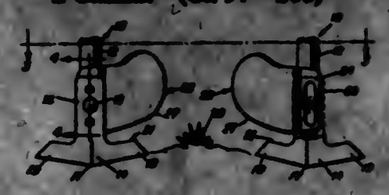
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2,771,831
SPRING-TRIP FOR CULTIVATOR SHOVELS
Henry C. Rodeghe, Moline, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application September 25, 1952, Serial No. 311,485
5 Claims. (Cl. 97—47.58)



5. A cultivator for mounting on a bar, comprising a clamp having a forward and a rearward transverse pivot portion, a shank having the axis thereof offset transversely of said bar and rearwardly of said forward pivot portion, a pressure release means comprising a fore-and-aft arm clamped to said shank and having a transverse rectangular portion forwardly of said forward transverse pivot portion, a pivot clamp secured to said rectangular portion and pivoted in said forward pivot portion, said pivot clamp having a pivot bracket, and a toggle linkage pivoted at the extremities thereof to said pivot bracket and said rearward pivot portion.

2,771,833
CULTIVATOR ATTACHMENT
Edward F. Duckett, Burlington, Tex.
Application May 21, 1953, Serial No. 356,544
2 Claims. (Cl. 97—208)



1. In combination with a cultivator, a listing attachment for directing earth adjacent a row of plants being cultivated, said cultivator including a shank having a shovel removably secured to the lower end thereof, said listing attachment being in the form of a blade including a transversely curved forward portion and a flat rearwardly and outwardly extending portion, said shovel including outwardly and rearwardly extending turning members having upper edges, said forward portion being disposed between an upper attaching portion of said shovel and said shank, said blade having a lower edge, said lower edge spaced to the rear and above the upper edge of one of said turning members.

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2,771,833
HOT AIR BASEBOARD DIFFUSER
Donald D. Halliday, Fulton, and Edward P. Halliday, Liverpool, N. Y.
Application November 13, 1953, Serial No. 391,794
3 Claims. (Cl. 98—40)



1. A hot air diffusing chamber for heating systems comprising an elongated hollow body having a longitudinally elongated opening in its upper front wall for the egress of air from the chamber, a collar extending downwardly from the bottom of the body adapted for connecting to a hot air duct, an upwardly and rearwardly sloping baffle in the body at the lower portion of the opening, an elongated damper, means swingably supporting one longitudinal edge portion of the damper internally of the body immediately above said opening and with the free longitudinal edge portion of the damper resting on the upper portion of the baffle to close the opening, and actuating means connected to the damper for raising the latter into an inclined position above the baffle for deflecting air through the opening in a downward direction when the damper is open.

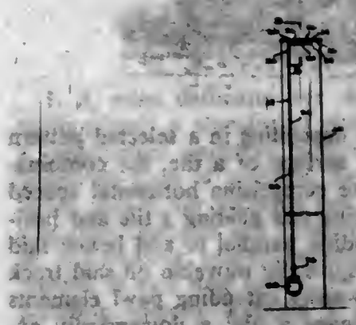
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2,771,834
SMOKE STACK COVER
Carl T. Gandy, Kokomo, Ind.
Application December 10, 1954, Serial No. 474,567
1 Claim. (Cl. 98—69)

A smoke stack cover comprising a flat lid adapted to overlie the top of a smoke stack in position covering the same, said lid in its stack-covering position lying in a horizontal plane; an arm secured fixedly to the lid and extending diametrically thereof, said arm having one end projecting radially, outwardly a substantial distance beyond the periphery of the lid, the arm including at the outer extremity of its projecting portion a depending, integral extension terminating at its lower end in a sleeve; a pair of brackets adapted for mounting upon said stack



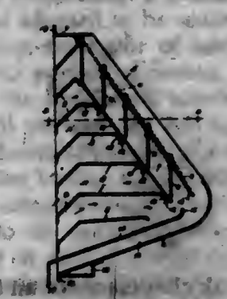
below the cover, said brackets being disposed at opposite sides of said sleeve and being formed with bearing sleeves aligned coaxially with the sleeve of the extension; a shaft journaled horizontally in the sleeves of the brackets and passing through and fixedly secured to the first named sleeve, said shaft supporting the cover upon the bracket for rotational movement about the axis of the shaft through a 270° arc from its stack-covering position to an open position in which the cover depends vertically from the shaft inwardly of the shaft to be disposed in closely spaced relation to the side wall of the stack; a gear secured to one end of the shaft and having a radius less than the distance between the shaft axis and the periphery of the cover for swinging of the cover through said arc about the gear with the periphery of the cover



spaced from the gear periphery through the full range of movement of the cover between said positions thereof; an elongated shaft extending normally to the length of the first shaft and extending downwardly from the first shaft for disposition in closely spaced relation to the side wall of the stack; a plurality of vertically aligned bearings in which the second named shaft is journaled, said vertically aligned bearings being adapted for connection to said stack at locations spaced longitudinally of the stack; a worm gear secured to the upper end of the second named shaft in mesh with the first named gear and disposed in engagement with that portion of the first named gear nearest the stack for disposition of the worm gear out of the path of swinging movement of the cover; and means at the other end of the second named shaft for rotating the same.

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2,771,835
VENTILATING DEVICE, INCLUDING VENTILATING LOUVERS
Albert J. Weyse, San Antonio, Tex.
Application March 30, 1954, Serial No. 419,861
2 Claims. (Cl. 98—99)



1. A ventilator for mounting in an opening comprising a pair of vertical side walls of substantially triangular configuration with one edge substantially vertical and the other edges obliquely disposed, one of said other edges being a lower short edge inclined downwardly and outwardly toward said vertical edge, a downwardly and outwardly inclined bottom wall secured between said side walls, the inner end of said bottom wall being upwardly curved, a plurality of louvers fixed between said side walls, each louver being formed of a horizontal intermediate portion, a downwardly and outwardly inclined outer portion and a downwardly and inwardly inclined inner portion, said inner portion constituting a baffle stop, a plurality of baffles between said side walls, means swingably securing each baffle between said side walls in horizontally and vertically spaced relation from the means swingably securing the next adjacent baffle, each baffle including an obtusely angled lower edge, a connecting rod loosely extending through said lower edges of said baffles, the width of each baffle being greater than the space between adjacent baffles whereby the lower edge of one baffle will overlap the upper portion of an adjacent baffle in the closed positions of said baffles, and an inner bottom wall fixed between said side walls and spaced upwardly from said first named bottom wall and forming a return duct with said first named bottom wall, said baffles in the vertical open position thereof substantially bearing against said stops, excessive wind pressure flowing inwardly through said louvers effecting upward and inward swinging of said baffles to overlapping closed position.

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2,771,836
CORN POPPING MACHINE
Lawrence C. Dunckle, Hayward, and John F. Shafer, San Francisco, Calif.
Application March 31, 1951, Serial No. 220,690
27 Claims. (Cl. 99—238.4)



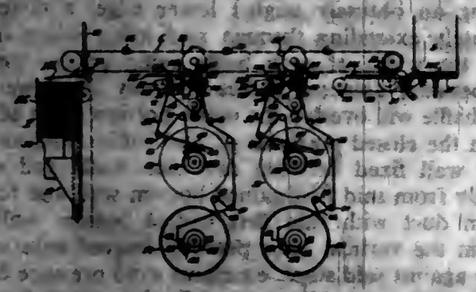
2. In a corn popping machine, a heated dispensing table, a compartment above said table, a substantially closed popping chamber in said compartment, a corn bin below said table, and means to transfer measured quantities of corn from said corn bin into said popping chamber at predetermined intervals, a rotating separator screen below said chamber and above said table with an intake opening facing toward said chamber to receive popped corn from said chamber, a device to rotate said separator screen so as to feed popped corn onto said table, means to conduct particles falling through the screen away from said table, and means selectively actuated by said rotating device for holding the chamber in popping position and for tilting the chamber for dumping the corn into said rotating screen, an agitating device in said chamber to agitate the corn therein, a drive connection between said agitating device and said screen rotating device, said screen rotating device being reversible, a connecting mechanism between said drive connection and said chamber, including a holding and tilting device for causing the chamber to move and to maintain said chamber in popping position during the rotation of said rotating device in one direction and to tilt said chamber toward said screen during the rotation of said rotating device in the reversed direction.

2,771,837

## HECTOGRAPHIC ADDRESS DUPLICATING MACHINE

Theodore A. Federwitz, Philadelphia, Pa., assignor to Scriptomatic, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application October 30, 1952, Serial No. 317,733
7 Claims. (Cl. 101—53)



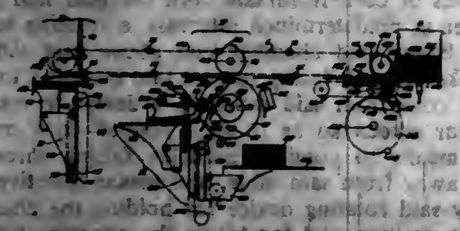
1. In a continuous automatic duplicator for transferring data from master cards to a strip, the combination with mechanism for moving the cards in succession through a pre-determined transfer station, of an oscillatory head constituting a support for said strip, take-up and supply reels for the strip supported independently of said head and operatively associated with the strip at opposite sides respectively of said head, means for oscillating the head to bring the strip intermittently into transfer relation to the cards at the said station, mechanism including feeding elements carried by the head for intermittently feeding the strip longitudinally through the head so as to present different areas of the strip to the cards for the respective transfer operations, and means responsive to the movements of the head in one direction only of its oscillatory movement for actuating said elements, said actuating means comprising a cam relatively fixed with respect to the head, a rotary actuator for the feeding elements carried by the head and in constant operating engagement with the cam whereby the cam operates to rotate the actuator in response to the oscillatory movement of the head, and means for rendering the cam inoperative to rotate the said actuator in one direction of the oscillatory movement of the head.

2,771,838

## FEEDING AND DELIVERING DEVICES IN HECTOGRAPHIC ADDRESS PRINTERS

Theodore A. Federwitz, Philadelphia, Pa., assignor to Business Systems, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application May 10, 1951, Serial No. 225,591
20 Claims. (Cl. 101—53)



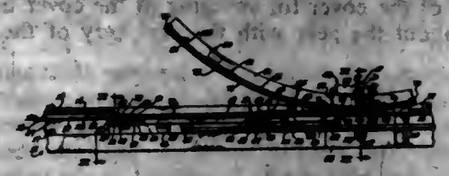
1. A continuous automatic duplicator for transferring data from a stack of master cards to copy sheets and the like, comprising a feed table for the master cards, a transfer station at which data on the cards are imprinted on the copy sheets, a stacker for receiving the cards after said sheets are imprinted, a pair of spaced endless conveyers for transporting master cards from the feed table through the transfer station and then delivering the cards to the stacker, means carried by said conveyers for gripping the cards continuously while being transported from the feed table through the transfer station, means for intermittently operating the conveyers, and means operative in timed relation with the conveyors and when the conveyors are stationary for feeding cards from the table to the card gripping means on the conveyers.

2,771,839

## APPARATUS FOR DEPOSITING ABRASIVE PARTICLES ON ARTICLES

Randall C. Rogers, Glendale, Calif., assignor to Gladding, McBean & Company, Los Angeles, Calif., a corporation of California

Application June 24, 1953, Serial No. 363,833
11 Claims. (Cl. 101—126)



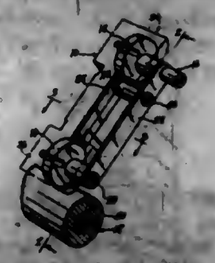
1. In an apparatus for depositing in a selected pattern abrasive particles on the surface of a tile, the combination of: a frame structure comprising horizontal spaced parallel ways for supporting and guiding a tile and horizontal track means extending parallel to and below said ways; carriage means reciprocally movable on said track means and including upwardly extending pawl elements adapted to releasably engage a tile; a downwardly extending squeegee blade means pivotally carried by the frame structure above and adjacent a deposit zone; an open trough provided with a curved bottom wall having an opening and receiving the blade therewithin, said trough being adapted to carry a supply of abrasive particles; a screen extending across said opening and having a selected pattern; antifriction means carried by the frame structure for guiding and supporting said trough; cable means interconnecting said trough and said carriage for correlating movement of the trough and a tile advanced by the carriage whereby the opening is registered with the surface of an advancing tile in the deposit zone; and drive means for reciprocally moving the carriage along said track means whereby tile is intermittently and progressively advanced along said parallel ways and through the deposit zone.

2,771,840

## STREAK ELIMINATOR FOR OFFSET DUPLICATING MACHINES

Herbert Jacobs, Brooklyn, Joseph Ricca, Elmhurst, and Paul Guglielmo, Brooklyn, N. Y.

Application February 16, 1955, Serial No. 488,542
3 Claims. (Cl. 101—425)



1. An ejector streak eliminator for an offset duplicating machine of the type including at least one pair of spaced ejection wheels connected by parallel slide arms; comprising a pad support including an intermediate portion, pad-engaging means at opposite ends of said portion, means on said portion for engaging the respective slide arms, and cleaning pads engaged by said pad-engaging means, said cleaning pads being adapted to contact said wheels, said pad-engaging means comprising flat heads integrally formed upon opposite ends of the intermediate portion, the pads being removably engaged by the heads, said heads



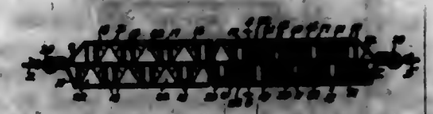
including parallel side flanges adapted to engage opposite sides of the pads, the slide-arm-engaging means comprising a pair of parallel ears integrally formed upon opposite sides of the intermediate portion.

2,771,841

## BELT LINE CHARGE

Anthony J. De Fino, Buffalo, N. Y., assignor to the United States of America as represented by the Secretary of War

Application August 15, 1947, Serial No. 768,791
2 Claims. (Cl. 102—22)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A mine detonator for detonating substantially simultaneously a plurality of explosive charges comprising a longitudinal partition formed of flexible material, an elongated strip of webbing formed of said flexible material, means for securing one side of said partition to said strip centrally and longitudinally thereof, a plurality of transversely spaced partitions fastened at one end thereof to said strip and at the other end thereof to said partition thereby forming a plurality of pockets, one pocket overlapping two pockets on the opposite side of said partition by an amount sufficient to maintain overlap thereof during stretched conditions of said flexible material, a formed, detonating explosive charge substantially filling each of said pockets, means for providing hollow gaps between adjacent explosive charges on each side of said partition to increase the flexibility of said mine detonator, and means for securing the longitudinal edges of said strip to the other side of said partition.

2,771,842

## TOGGLE CLAMP FIN RETAINING BAND

Willy Hillquist, Pasadena, Calif.

Application August 21, 1953, Serial No. 375,847
3 Claims. (Cl. 102—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a rocket of the type having a cylindrical casing, the combination comprising; a plurality of angularly disposed paired fins adapted to be secured to the outer surface of the casing, each pair of said fins having a connecting cylindrical portion extending in a circumferential direction about the casing and outwardly ranging fins at each end of said portion and having slots in the zones between said cylindrical portion and said outwardly ranging fins, each slot having an opening at the end of the pair of fins, a circumferentially extending fin retaining band adapted to be passed through the slot openings and be disposed in said slots and engaging said arcuate portions for securing said paired fins to the outer surface of said casing, a toggle device comprising a first bent wire member having a portion pivotally connected to one end of said band, a second bent resilient wire member having a portion pivotally connected to the other end of said band and having looped portions intermediate its ends at opposite sides of the band pivotally connected to the free ends of said first member, intermediate portions of the second member contacting each other and crossing the [illegible] ends of said second member adapted to [illegible] beneath said band, the construction and



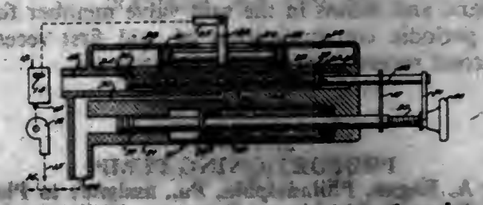
arrangement being such that rotation of said second member toggles the first member to locked position and its free ends, when sprung beneath the band, prevent unauthorized retrograde movement of the toggle device from its locked position.

2,771,843

## PRESSURE REGULATOR

Gordon H. Brown, Detroit, Mich., assignor to Earl A. Peterman

Application December 13, 1951, Serial No. 261,412
2 Claims. (Cl. 103—17)



1. In a pressure regulator, a unitary housing, a first member comprising a sensing rod supported for axial movement within said housing and extending from one end thereof, a spring urging said sensing rod toward the other end of said housing, a piston at the inner end of said sensing rod, a port at said other end of the housing connected to said piston, said port being adapted for connection to the delivery side of a pump, a second member comprising a spool valve slidably mounted in a bore in said housing parallel to said sensing rod and extending from said one end of the housing, a connecting element having one end fixedly secured to one of said members outside of said housing and extending toward said other member, a threaded portion on the other member, a rotatable handle threadably mounted on said threaded portion, a connection between said handle and the other end of said connecting element, whereby said first and second members are secured together for movement in unison and are axially adjustable relative to each other, and actuating member slidably mounted within said housing parallel to said first and second members, a pair of piston heads at opposite ends of said actuating member, a pair of chambers formed in said housing within which said piston heads are disposed, a pair of ports connecting said chambers to said valve bore, a connection in said housing from said pump delivery port to said valve bore between said first two connections, connections from the opposite ends of said valve bore to the atmosphere, said valve being movable in response to changes in fluid pressure exerted on said sensing rod from a neutral position in which said pair of ports are closed, in either direction to a position connecting one of said pair of ports to pump delivery pressure and the other port to atmosphere, and means adapted to connect said actuating member to a power-controlling portion of a prime mover.

2,771,844

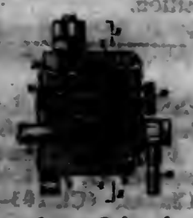
## METHOD AND APPARATUS FOR THE DELIVERY OF GEAR PUMPS

Johann Lipinski, Floridsdorf, near Vienna, Austria, assignor to Alex. Friedmann, Kommanditgesellschaft, Vienna, Austria

Application August 5, 1954, Serial No. 448,816
Claims priority, application Austria August 11, 1953
13 Claims. (Cl. 103—41)

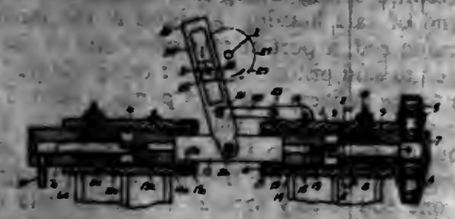
1. In a device for controlling the delivery of a gear pump including a casing, a working chamber and two pump gears therein, said working chamber having a pump discharge space, a delivery passage and a return passage separated from the delivery passage in the casing, a cylindrical bore, the said cylindrical bore having a first recess in communication with said delivery passage and having a second recess in communication with said return pas-

sage spaced axially from the first recess, a rotary and axially movable valve member having a cylindrical surface within said cylindrical bore, the valve member operatively connected to and revolving in timed relation with said gears, and means in the said valve member for providing periodic communication of said first recess and said second recess with said discharge space.



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2,771,845
PROPORTIONING PUMP
Joseph A. Engas, Philadelphia, Pa., assignor to Philadelphia Pump & Machinery Company, Philadelphia, Pa., a corporation of Delaware
Application January 11, 1955, Serial No. 481,139
2 Claims. (Cl. 103—153)



1. In a pump, a pump body, a cylinder in one end of the body having intake and discharge valves at one end of the cylinder, a packing within the body at the other end of the cylinder having a gland for tightening the packing, a piston having one end slidable through the packing into the cylinder, a cross head fixed to the other end of the piston, a cross head guide sleeve having one end engaging said gland, said pump body having a bore concentric with the cylinder in which the crosshead guide sleeve is slidable, and another sleeve threaded on the body and engaging the other end of the cross head guide sleeve to force the guide against the gland and tighten the packing.

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2,771,846
VARIABLE-CAPACITY METERING PUMP
Donelson B. Horton and Douglas Johnston, Huntsville, Ala., assignors to John Blue Company, Incorporated, Huntsville, Ala., a corporation of Alabama
Application May 17, 1954, Serial No. 430,087
4 Claims. (Cl. 103—203)



1. A pump for accurately metering a pressurized normally-gaseous liquid comprising: means defining an expansible pumping chamber having an inlet and an outlet; an inlet check valve and an outlet check valve controlling said inlet and said outlet, respectively; means operable by fluid pressure for loading said outlet check valve independently of the discharge from said outlet; conduit means for supplying said fluid pressure operable means with pressure fluid from the source of the pressurized liquid being pumped; and manually-operable means having a lost-motion connection with said outlet check valve for opening the latter to purge said pumping chamber, said manually-operable means being normally at rest during movements of said outlet check valve occasioned by metering operation of said pump.

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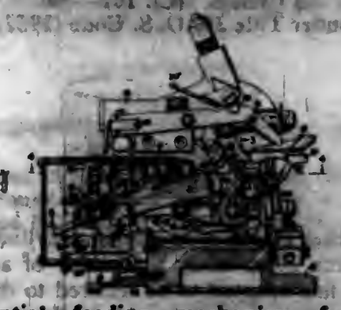
2,771,847
REFUSE DESTRUCTOR
Francis C. Holbrook, Brooklyn, N. Y.
Application March 16, 1953, Serial No. 149,991
6 Claims. (Cl. 110—15)



1. In an incinerator for continuous burning of raw refuse, a horizontally disposed furnace chamber having a single feeding means at one end to introduce all material including said raw refuse to be burned and outlet means for all of the volatile products of combustion at the other end, means in the chamber to move refuse continuously away from the feeding means toward said outlet means in one direction concurrent with the flow of gases, said chamber having a substantially flat heat-reflecting arch above said refuse moving means inclined angularly upwardly in the direction of movement of the refuse to radiate heat to dry and to support self-combustion of said refuse, said furnace chamber being provided with inlet ports disposed at the sides and bottom of said refuse feeding means to introduce air into the interior of the refuse being fed.

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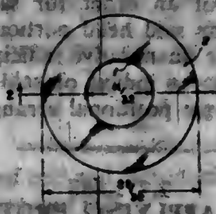
2,771,848
FEEDING MECHANISMS FOR SEWING MACHINES
Nicholaus Kness, Cranford, and Agnes G. Millington, Clifton, N. J., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application September 14, 1954, Serial No. 455,966
7 Claims. (Cl. 112—209)



1. Differential feeding mechanism for a sewing machine, comprising, a main rotary shaft, a plurality of eccentric elements carried upon said shaft, a pair of feed-dog carriers supported for oscillatory and reciprocatory movement with each carrier embracing an eccentric element so as to be oscillated thereby, a pitman having one end thereof embracing one of said eccentric elements and its other end connected directly with a first of said carriers for imparting reciprocatory movement thereto, a rocker pivotally mounted about a fixed axis, means pivotally connecting one of said eccentric elements with said rocker thereby to oscillate said rocker about its axis, means separate from said last mentioned means slidably connected with said rocker and pivotally connected with the second of said carriers for imparting reciprocating movements to such carrier, and manually operable means for shifting the slidable connection between said last mentioned means and said rocker thereby to vary the amplitude of reciprocatory movement imparted to said second carrier by said rocker.



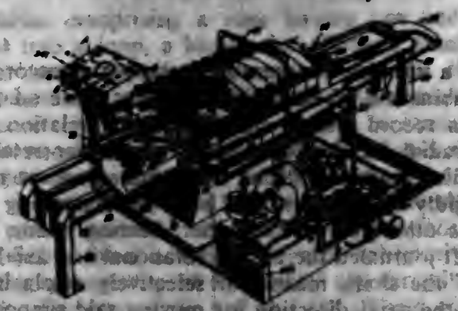
2,771,849
UNIVERSAL BOBBIN FOR ROTARY, DOMESTIC SEWING MACHINES
Louise Galbreath, Leesburg, Fla.
Application June 20, 1956, Serial No. 592,681
16 Claims. (Cl. 112—251)



1. A bobbin for rotary, domestic sewing machines characterized by a core and two substantially flat, circular end discs arising from the periphery of the core, the size of these parts being fixed in the following particulars: the length of the core substantially exactly 9/32 of an inch and its inside diameter substantially exactly 11/32 of an inch, and the outside diameter of the two end discs substantially exactly 25/32 of an inch, the aforesaid parts being made from a member of the group consisting of plastics and light metals.

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2,771,850
HIGH-PRESSURE HYDRAULIC PRESS
Orville A. Wheeler, Pacific Palisades, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application March 11, 1952, Serial No. 275,893
21 Claims. (Cl. 113—44)



14. In apparatus of the type described and including a tubular outer shell open on at least one end face thereof: cylindric members, each having a concave, inner face, arranged coaxially of said tubular member with their peripheries in radical adjacency to the inner wall of said tubular member and with the concavities mutually confronting so as to define an inner shell including a longitudinally extending working chamber; pressure-generating work forming means disposed in said working chamber and applying radially outwardly directed forces transversely of the cylindric members when said apparatus is work-formingly operated; and surfaces located in the peripheral marginal region of each of said cylindric members and adapted to move apart under the radially outward and circumferentially directed actions of the forces generated by actuation of said pressure-generating means, thereby to dissipate said forces harmlessly.

15. Apparatus for conforming sheet material to predetermined shapes on form-means, comprising: a substantially hollow body having a first major interior surface-portion and a second major interior surface-portion, said portions being arranged in opposed spaced relation in generally horizontal planes; pressurally distortable, pressure-applying means disposed in said body adjacent to said first surface-portion; means for pressurally forcing said distortable means toward said second surface-portion in a working movement; an opening extending from the interior of said body through a side wall thereof and forming an access passage in a generally horizontal plane; and carrier means movable through said opening into and out of the interior of said body to carry sheet material on form-means into workable adjacency with said distortable means; said apparatus including means cooperating with said carrier means to prevent dislodgement of the latter and to maintain said sheet material and form-means in optimum working position during the conforming operation of the apparatus.

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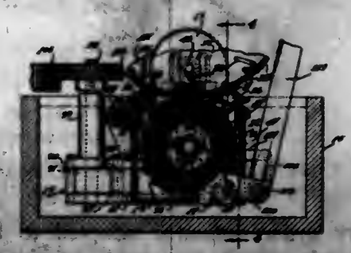
2,771,851
SHEET METAL FORMING DIE MEANS
Clifton P. McGregor, North Hollywood, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application May 20, 1954, Serial No. 431,090
5 Claims. (Cl. 113—46)



1. Die means for forming sheet material comprising, in combination, a die having a cavity and a surface around the cavity adapted to support a sheet material part, an actuating hammer movable toward the die, a punch on the hammer movable against the part to draw the same into the cavity, a ring of compressible material around the punch and engageable with the portion of the part resting on said surface, the material of the ring having a Shore hardness of between 80 and 100 on the A scale, and yieldable means engaged between the hammer and the ring transmitting said movement of the hammer to the ring to cause the ring to clamp said portion against said surface prior to and during the engagement of the punch with the part to control said drawing of the part.

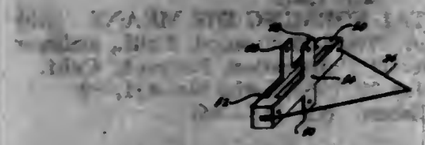
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2,771,852
SOLDERING MACHINE
Frank B. Hee, Lumberton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 1, 1955, Serial No. 544,229
6 Claims. (Cl. 113—59)



1. In a machine for applying solder to a surface of a sheet material, a container for molten solder, a hollow perforated spindle, means rotatably supporting said spindle in said container, means for rotating said spindle, a rotary brush carried on said spindle, means for controlling the solder level in said container whereby only a small portion of the peripheral surface of said rotary brush is exposed, means for engaging the exposed portion of said brush with a surface of said sheet, a solder reservoir, means for forcing solder from said reservoir into said hollow spindle whereby solder is forced outwardly through the said brush, means for directing the surface flow of solder in said container across the exposed surface of said brush whereby surface contamination of said solder is carried away from said brush, and means for directing the surface flow of solder in said container out of said container to said reservoir.

2,771,853
MULTIPLYING LEVER
Raymond R. Grant, Los Angeles, Calif., assignor to Douglas Aircraft Company, Culver City, Calif., a corporation of Delaware
Continuation of application Serial No. 327,555, December 23, 1952, now Patent No. 2,723,565, dated November 15, 1955. This application August 29, 1955, Serial No. 531,122
1 Claim. (Cl. 116—114)



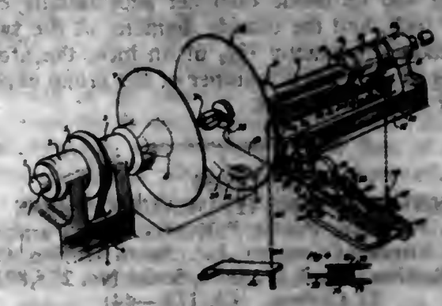
A multiplying lever comprising, in combination, a rigid I-beam member having a narrow, elongated web portion extending between a pair of relatively wide flanges, a pair of flexible elements affixed at their ends to said flanges and parallelly extending between said flanges on opposite sides of said web portion, a pointer element secured at two points to said flanges and having an intermediate pointed portion extending at right angles to one of said flexible elements, said one of said flexible elements being adapted for connection intermediate its ends to a movable structure and the other of said flexible elements being adapted to be secured intermediate its ends to a reference structure, said flexible elements distorting upon motion of said movable structure to permit rotation of said I-beam member about its longitudinal axis, said pointer being moved by said rotating I-beam member in a plane parallel to the plane of movement of said movable structure and through a distance to magnify the movement of said movable structure.

2,771,854
DAIRY ORDER INDICATOR
Fred M. Crenshawett, San Francisco, Calif., assignor to H. S. Crocker Company, Inc., San Francisco, Calif., a corporation of California
Application December 13, 1952, Serial No. 552,816
9 Claims. (Cl. 116—133)



1. A dairy order indicator adapted to be supported adjacent a bottle mouth, a plurality of elongated flags, a carrier for said flags having a shank portion insertable within a bottle mouth and having an enlarged head portion provided with an eccentrically arcuate periphery, said flags having common ends thereof jointly pivotally attached to said head portion at the reverse side of said head portion, with the location of the point of pivotal attachment and the shape of said arcuate periphery being such that as any given flag is pivotally moved about said periphery in one direction a progressively greater amount of said flag is hidden by said head portion and such that as said flag is pivotally moved about said periphery in the other direction a progressively lesser amount of said flag is hidden by said head portion, quantitative measure indicia on the obverse side of said head portion selectively located around said periphery, quantitative measure indicia eccentrically arcuately displayed on the obverse sides of said flags in the intermediate areas thereof which are selectively hidable and discloseable with respect to said head portion, and product species indicia on the permanently disclosed outer ends of the obverse sides of said flags, said overall indicia arrangement being such that when the flag for a given product species is brought into radial registry with a given indicia on said head portion the existence of an order for said species in the quantity indicated by said head portion indicia is established only when the quantitative indicia on said flag corresponds with said given indicia on said head portion and is in margin to margin positional arrangement therewith.

2,771,855
MACHINE FOR APPLYING PROTECTIVE COATINGS TO THE MARGINAL PORTIONS OF GRAMOPHONE DISCS
Thorwald Georg Gunnar Thorvaldson, Stockholm, Sweden
Application March 5, 1954, Serial No. 414,405
3 Claims. (Cl. 118—232)

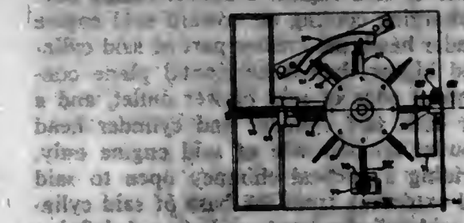


1. In a machine for treating gramophone record discs; the combination of an annular support plate adapted to receive a record disc in closely abutting relation to one of the radial faces of said plate, means for retaining a record disc against said one face of the support plate, a shaft rigidly connected to said plate and extending axially from the other face of the latter, bearing means having said shaft journaled therein for rotational and axial movement of the shaft, means for selectively displacing said shaft in the axial direction for moving said support plate between first and second axially spaced apart positions, drive means engageable with said support plate only at said first position of the latter to there rotate the support plate at a relatively slow rotational speed, a rotary dispensing roller adjacent said first position of the support plate and movable toward and away from the latter in the radial plane of the support plate for applying a protective coating to a record disc held against said support plate at said first position, means for displacing said dispensing roller in said radial plane to engage and release the edge of a record disc, an annular drive plate rotatably mounted adjacent said second position of the support plate coaxially with the latter to frictionally engage a record disc held against said support plate when the latter is moved to said second position, and means rotating said drive plate at a relatively high rotational speed so that a record disc held against said support plate and frictionally engaged by said drive plate will be rotated by the latter at a speed suitable for the grinding of the edge and marginal portions of the record disc.

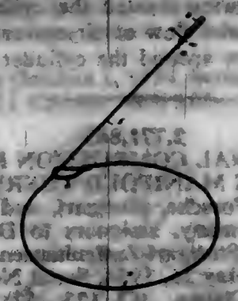
2,771,856
COIL FILAMENT COATING MACHINE
Joseph R. Ardizzone, Newark, and James M. Harper, East Orange, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 30, 1953, Serial No. 383,265
6 Claims. (Cl. 118—405)

1. A coil waxing machine comprising means for gripping a coil intermediate of the ends thereof, a pan located beneath a position of said coil while gripped by said means, and automatic mechanism for manipulating said gripping means and coil and introducing both ends of the coil successively into said pan.



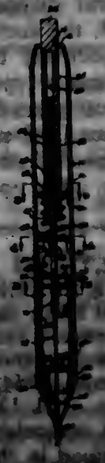


2,771,857
SPINNING ROPE WITH SWIVELED HANDLE
George L. Seaghen, Chicago, Ill.
Application January 6, 1955, Serial No. 480,138
1 Claim. (Cl. 119—153)



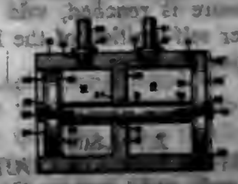
A lariat comprising a rope having one end thereof formed into a loop, a handle for effecting manipulation of said lariat, a swivel connection between the other end of said rope and handle, comprising a shank having a reduced end, fitted in said handle, a semi-spherical member mounted on said reduced end of said shank, an elongated sleeve connected with the end of the rope opposite to said loop, said semi-spherical member being fitted within one end of said sleeve, portions of said sleeve being fitted around said semi-spherical member providing an opening of a diameter substantially greater than the diameter of the reduced end of said shank, and through which the reduced end of the shank extends, providing a controlled universal swivel movement between said sleeve and semi-spherical member.

2,771,858
MECHANICAL PENCIL HAVING A PUSH BUTTON, STEP BY STEP FEED
Francis J. Cribbs and Thomas J. Cribbs, Poyntelle, Pa.
Application September 9, 1955, Serial No. 533,384
1 Claim. (Cl. 120—17)



A mechanical pencil comprising a barrel, an axially recessed plunger extending axially of and within the barrel, said plunger being shiftable within the barrel in an axial direction and having one end projecting exteriorly of the barrel to provide a button depressible by a user; resilient, yielding means engaged between the barrel and plunger tensioned to normally bias the plunger in a direction to extend the same out of the barrel; a rack slidably mounted within the axial recess of the plunger, said plunger and rack being rotatable relative to each other; an advancing pawl carried by the plunger and engaging the rack to advance the same within the barrel responsive to depression of said button, rotatable movement of the plunger following advancement of the rack being adapted to free the plunger for return movement under the pressure of said means; a holding pawl carried by the barrel disposed to engage the rack in selected positions to which the same is advanced, to hold the rack against retrograde movement; a pencil lead carried by the rack and projecting exteriorly of the barrel, for extension of said lead out of the barrel a distance corresponding to that which the rack is advanced; a nose rotatably mounted upon the barrel and having an opening through which said lead projects exteriorly of the barrel; and a cage connected to the nose for rotation therewith and extending longitudinally of and within the barrel, said cage including rods extending between opposite ends of the cage and angularly spaced about the circumference of the cage, the rack including a collar having notches formed therein within which notches the rods are engaged, thus to permit sliding movement of the rack within the cage, while interengaging the rack and cage for conjoint rotation, said rack when rotated responsive to rotation of the nose and cage disengaging from both of said pawls, whereby to free the rack for return movement to its initial position responsive to shifting of an inserted lead in an axial direction inwardly of the barrel.

2,771,859
VIBRATOR DEVICE
Lyle E. Matthews, Oxnard, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application October 27, 1955, Serial No. 543,284
5 Claims. (Cl. 121—17)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A vibrator device which comprises a hollow body means, means for dividing the interior of said body means into a plurality of chambers, a piston slidably disposed in one of said chambers, valve means for venting another of said chambers to atmosphere, means connected to said piston and said valve means to cause them to move synchronously, and means for introducing fluid pressure into said one and said other chambers, the fluid introduced into said other chamber being under greater pressure than the fluid introduced into said one chamber.

2,771,860
HYDRAULIC MACHINE
Werner P. Falk, Jackson Heights, N. Y.
Application August 21, 1951, Serial No. 242,985
Claims priority, application Brazil August 22, 1950
10 Claims. (Cl. 123—16)

1. In a diesel-type engine, in combination, a rotor, a housing enclosing said rotor and having a stationary side wall adjacent a face of said rotor, said rotor having a chamber open at said face but closed by said wall, fuel injector means in said wall positioned for periodic com-

munication with said chamber, a liquid in said housing partly received in said chamber and forming a piston therein, means including said liquid piston for compressing a charge in said chamber immediately prior to its



passage past said fuel injector means and for ejecting an exploded charge from said chamber, and means including said liquid for urging said rotor into close contact with said wall.

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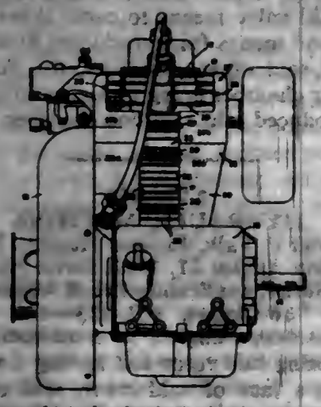
2,771,861
INTERNAL COMBUSTION ENGINES
Albon Hilpert, Hamburg-Blankenese, Germany
Application July 22, 1950, Serial No. 175,338
1 Claim. (Cl. 123—32)



An internal combustion engine having an auxiliary chamber and a main combustion chamber, a common high pressure fuel injection nozzle for the main combustion chamber and the auxiliary chamber, an opening between the main combustion chamber and the auxiliary chamber, a valve in the main combustion chamber for closing the opening between the main combustion chamber and the auxiliary chamber, and means actuating said valve for closing said opening when a predetermined compression pressure is reached, said valve being positively opened after self-ignition of the fuel-air mixture in the main combustion chamber.

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2,771,862
COOLING SYSTEM FOR AIR COOLED ENGINES
Peter Altman, Detroit, and Laurence D. Bakke, Plymouth, Mich., assignors to Continental Motors Corporation, Detroit, Mich., a corporation of Virginia
Application May 4, 1954, Serial No. 427,560
2 Claims. (Cl. 123—41.65)



1. In an air cooled single cylinder engine having a vertically disposed finned cylinder and cylinder head and a crankshaft, a cooling system therefor comprising a blower mounted directly on the engine crankshaft and disposed at one end of said engine, a blower casing having an outlet discharging cooling air toward said engine cylinder and cylinder head, the greater part of said cylinder head disposed higher than a horizontal plane containing the uppermost edge of said blower outlet, and a shroud encircling both said cylinder and cylinder head and having an outlet on one side of said engine only, said shroud providing a vertical chimney open to said blower outlet and extending from the base of said cylinder to the top of said cylinder head, said shroud defining an air passage for flowing the cooling air around more than half of the cylinder and cylinder head in heat exchange relation to the fins carried thereby, said shroud outlet comprising a vertical opening extending from near the base of the cylinder to the top of said cylinder head, said opening being of greater unrestricted width adjacent the cylinder head than adjacent the cyinder, whereby to create some degree of back pressure to the cooling air flowing around the cylinder in order to induce relatively more flow of air upwardly through said chimney and thence around the cylinder head.

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2,771,863
V-TYPE INTERNAL COMBUSTION ENGINE AND INTAKE MANIFOLD THEREFOR
Ferdinand A. E. Porsche, Stuttgart, and Robert Binder, Winnenden, Germany, assignors to Dr. Ing. h. c. F. Porsche K.-G., Stuttgart-Zuffenhausen, Germany
Application May 26, 1954, Serial No. 432,552
6 Claims. (Cl. 123—52)



1. In an internal combustion engine having cylinders arranged in two rows at an angle with respect to each other, an intake manifold for supplying a mixture of fuel and air to the cylinders of both rows, said manifold comprising a pair of similar interchangeable metal members joined together by readily removable fastenings, said manifold comprising a preheater section located centrally of the engine above the cylinders equally divided between said pair of metal members, said central section including a main suction channel in each metal member and a common heating space for heating the fuel and air mixture in said main suction channels, each metal member including integral suction pipes connected into its main suction channel, the suction pipes of the metal members extending respectively to the cylinders of the respective rows of cylinders, means including a pipe for conducting hot exhaust gases from one row of cylinders to said heating space, and means including a pipe for conducting exhaust gases from said heating space to the exhaust outlet of the other row of cylinders.

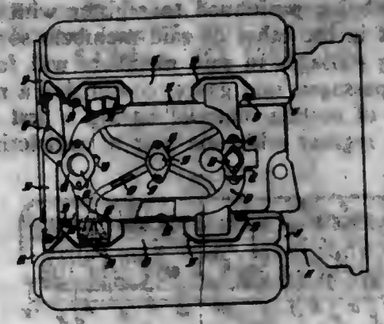
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2,771,864
INTAKE MANIFOLD
Darl F. Caris, Bloomfield Hills, and Fred Davis, Romeo, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 30, 1954, Serial No. 478,641
13 Claims. (Cl. 123—52)

1. An intake manifold comprising a member having a distribution chamber formed in the middle thereof, fuel supply passages communicating with said chamber substantially normal thereto, a plurality of branch passages



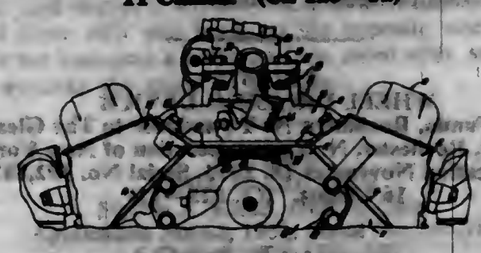
extending through said manifold, the inner ends of said branch passages communicating with said distribution



chamber and the outer ends thereof forming ports in the sides of said manifold.

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2,771,865
MANIFOLD SUPPORT STRUCTURE
Adelbert E. Kolbe, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 1, 1954, Serial No. 459,608
11 Claims. (Cl. 123—52)

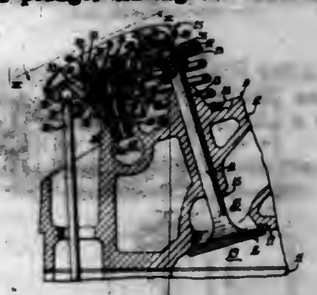


1. A manifold structure for an internal combustion engine having spaced and oppositely disposed pairs of heads and a block on which said heads are mounted and having sealing means formed on said heads and said block and facing outwardly of said engine and comprising a continuous body having passage means formed therein and adapted to open into the interior of said engine, said body having sealing means formed thereon in opposed relation to said sealing means on said heads and said block, said sealing means on said body and said heads and said block being formed to extend in opposed and engaging relation along the adjacent sides of said heads and in spaced relation to the inner edges thereof and across the ends of said block and continuously around the outer edges of said body and enclosing the outwardly opening interior surfaces formed on and within said heads and said block, and means for securing said body against said heads and said block and upon said sealing means of said heads and said block and limiting access to said interior surfaces of said heads and said block to said passage means in said body.

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2,771,866
AUTOMATIC LASH ADJUSTER
Achilles Charles Sampietro, Ann Arbor, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 2, 1954, Serial No. 440,896
14 Claims. (Cl. 123—90)

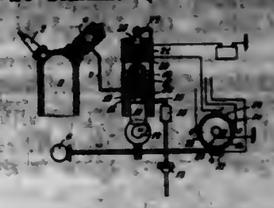
13. In combination, a rocker of generally upwardly presenting channel-like shape having its bottom wall spherically depressed intermediate the ends to socketably receive a ball-ended rocker journaling member, oppositely reciprocating elements terminating in end-abutting engagement with the under surface of said bottom wall adjacent the respective ends of the rocker, a fixed support below the rocker having an oil gallery supplied with oil under pressure, a lash adjuster including a member of generally upwardly presenting cup shape having side walls defining a cylinder bore and terminating with an externally ball-shaped end wall journaling said spherically depressed rocker bottom wall, a plunger having a close fit in said bore and cooperating with said end wall in defining an oil pressure chamber, said plunger having an oil passage extending internally thereof from said chamber, a check valve movable into blocking relation with said passage under pressure from within the chamber, said plunger having a reduced diameter stud



portion extending through said chamber and fixed to said support, said stud portion being provided with a passage connecting said oil gallery to said passage above the check valve, said end wall and rocker bottom wall being apertured for passage of said stud portion, and means sealing said end wall aperture to said stud portion whereby substantially all leakage from said chamber occurs between the surfaces of said plunger and cylinder bore from which it overflows into the space between the channel side walls of the rocker.

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2,771,867
INTERNAL COMBUSTION ENGINES
Lucien Péras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
Application October 29, 1953, Serial No. 388,999
Claims priority, application France November 7, 1952
16 Claims. (Cl. 123—112)



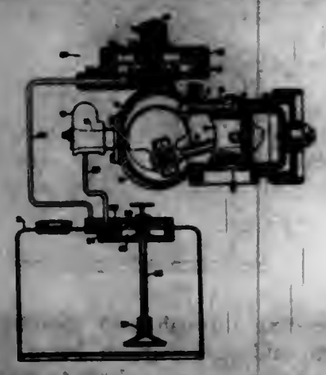
1. In a piston engine constructed for fuel injection and controlled ignition wherein air admission is constant and corresponds to the quantity of air required for maximum power, means defining an injection circuit for each engine cylinder for injection of fuel, said circuit communicating with the cylinder and with a fuel injection pump, means defining a discharge orifice in said circuit for discharge of fuel from the circuit, a shut-off element for said orifice, and means for controlling the shut-off element to permit selective opening and closing of said orifice whereby the fuel supply through said circuit to the cylinder may be completely interrupted, said last-named means being adapted to cut-off the fuel supply to the cylinder and thereby to reduce the power of the engine to a power fraction, the numerator of which is equal to the number of fuel injections during a predetermined number of cycles which is equal to the denominator of said fraction.

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2,771,868
ENGINE FUEL PRESSURE REGULATOR
Carl Kauth, Fond du Lac, Wis., assignor to Kiekhaefer Corporation, Cedarburg, Wis.
Application September 9, 1954, Serial No. 454,966
4 Claims. (Cl. 123—136)

1. In a fuel system for a high-speed engine employing crankcase precompression of the fuel and air mixture and

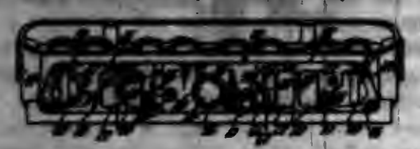
having a remote fuel tank with a line for pressure effecting delivery of the fuel from the tank to the engine, a regulator valve for said pressure line comprising a rigid member and a flexible diaphragm secured to form a valve chamber connected with said line, said member having a passage from said chamber communicating with the engine crankcase, said diaphragm being yieldable to the pressure in said passage to periodically open the passage and allow gases from the crankcase into the valve cham-



ber, and to the tank, said diaphragm otherwise normally closing said passage to prevent the return flow of gases into said passage whereby the periodic pressure in the crankcase develops a constant pressure within the tank upon initial engine operation, and said diaphragm being further yieldable to said pressure in the chamber whereby a predetermined pressure within the tank and chamber prevents closing of the passage so that such pressure is thereupon maintained during continued engine operation.

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**2,771,869**
**GASKET**
**Clayton R. Leach, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware**
**Application September 29, 1954, Serial No. 459,136**
**9 Claims. (Cl. 123—193)**



1. A gasket adapted to be compressed between a pair of members having abutting surfaces thereon and passages extending therethrough to form ports in said surfaces, each of the ports in one surface being positioned to register with a corresponding port in the other surface so that the passages in one member will be individually joined with a corresponding passage in the other member so as to form separate sets of passages, said gasket including a first portion having an aperture therein positioned to register with the ports formed by one set of said passages, said portion consisting substantially entirely of one material which is particularly adapted for sealing the fluid in said set and a second portion having an aperture therein to register with the ports formed by another set of passages, said second portion consisting substantially entirely of a material which is particularly adapted for sealing the fluid in said other set of passages.

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**2,771,870**
**GASKET**
**Robert R. Hutchison, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware**
**Application September 29, 1954, Serial No. 459,187**
**3 Claims. (Cl. 123—193)**

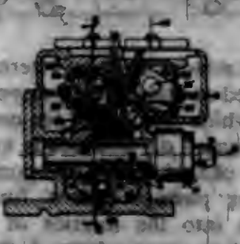
1. A gasket adapted to be compressed between a pair of mating surfaces on two separable members, each of said members including a pair of passages which form a pair of ports in the mating surface on that member, each of said ports being positioned to register with a corresponding port in the other of said members so that the corresponding passages in said members will form separate sets of passages, said gasket comprising a relatively thin member of sealing material having a first aperture positioned to register with one pair of registering ports



and another aperture positioned to register with the other pair of registering ports, the adjacent portions of said aperture being separated from each other by a connecting portion of said thin member, an opening positioned in said connecting portion in substantial alignment with said adjacent portions of said apertures, to form a continuous leakage barrier extending transversely between said adjacent portions for substantially the full width of said connecting portion.

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**2,771,871**
**WHEEL DRESSING DEVICE**
**Arthur Fumia, Rochester, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York**
**Application November 18, 1953, Serial No. 392,382**
**16 Claims. (Cl. 125—11)**



15. A wheel dressing device comprising a support, a pair of carriers mounted on the support for angular and axial motion about and along a common axis, a wheel-dressing element mounted on each carrier, means connecting said carriers for angular motion in unison with each other, and means for moving them axially independently of each other in time with their angular motion.

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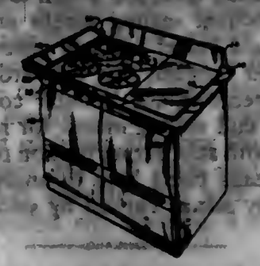
**2,771,872**
**DEVICE FOR SAWING PLASTIC MASSES**
**Charles Gunnar Birger Bergling, Orebro, Sweden, assignor to Durox International S. A., Luxembourg, Luxembourg, a company of Luxembourg**
**Application November 15, 1954, Serial No. 468,905**
**3 Claims. (Cl. 125—18)**



1. A device for sawing plastic masses, such as lightweight concrete, comprising at least one straight core-wire stretched between stretching means, and an outer wire having a smaller cross-sectional area being arranged in spiral form around said straight core-wire, the outer wire spiral being arranged in at least two sections arranged end-to-end along the core-wire with alternating pitch in adjoining sections, the outer wire between two adjoining sections being arranged to form a loop, which forms the turning point in the pitch directions of the two wire spirals.



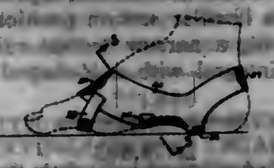
**2,771,873**
**STOVE GUARD**
**Horace M. Baker, Jr., Lumberton, N. C.**
**Application June 17, 1952, Serial No. 293,910**
**5 Claims. (Cl. 126—214)**



5. A stove guard comprising a member for disposition upon the upper portion along the marginal edge of a stove, said guard having a rim, a wall inclined downwardly and inwardly from said rim and provided with a supporting portion adapted to rest upon the upper surface of the stove, locating means on the under side of said first mentioned member for locating the guard upon a stove, a hook on said guard spaced rearwardly from said member, spring means urging said hook toward said member whereby said guard may be placed on a stove with said hook on the opposite side of said stove for engaging a portion of the stove with said hook for securing the guard in position.

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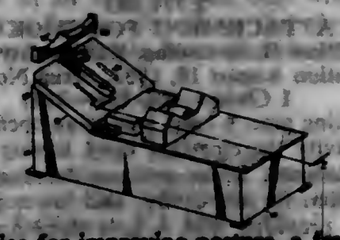
**2,771,874**
**FOOT STABILIZER**
**Melvin A. Kissel, Elinton, Okla.**
**Application June 3, 1953, Serial No. 359,261**
**6 Claims. (Cl. 128—75)**



1. A foot posturing and exercising appliance made of elastic strips interconnected to form: a horizontal extent for traversing an area over the metatarsal bones; a lateral extent for engagement with the posterior surface of the calcaneus bone of the foot; two spaced apart side strips connecting the two lateral extents, each side strip adapted to extend longitudinally along a different side of said foot; and a plurality of transverse bands connected to both of said side strips, at least one of the bands adapted to extend beneath said foot and at least one of the bands adapted for traversing the plantar surfaces of the foot immediately distal to the heads of the metatarsal bones thereof; said bands resiliently holding the lateral extents and the horizontal extent in proper position to be worn on the foot.

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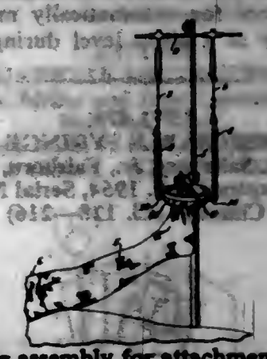
**2,771,875**
**POSTURE IMPROVING DEVICE**
**Forrest D. Cason, San Antonio, Tex.**
**Application October 31, 1951, Serial No. 254,023**
**16 Claims. (Cl. 128—44)**



1. In a device for improving posture, a frame, a thigh rest movably mounted for movement of translation on said frame, said thigh rest proportioned to engage the outer, inner and ham string muscles of the upper thigh, a motor mounted on said thigh rest and arranged to impart vibratory movement through said rest to said muscles whereby the muscles of the upper thigh may be completely relaxed, all subconscious tensions released and any downward and forward pull on the pelvis by said muscles released.

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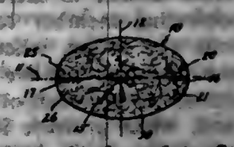
**2,771,876**
**SURGICAL TRACTION MEANS**
**William H. Scholl, London, England, assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York**
**Application May 18, 1954, Serial No. 430,576**
**10 Claims. (Cl. 128—84)**



1. A holding assembly for attachment to a bandage for traction purposes, including a locking member, a resilient gripping member, and an anchor member, all said members having complemental end faces and being disposable in juxtaposition axially of the assembly with the bandage interspersed between each pair of adjacent members.

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**2,771,877**
**PAD**
**Albert M. Kligman, Philadelphia, Pa., and Marta Dehn, New Brunswick, N. J., assignors to Johnson & Johnson, a corporation of New Jersey**
**Application January 18, 1955, Serial No. 482,697**
**9 Claims. (Cl. 128—153)**



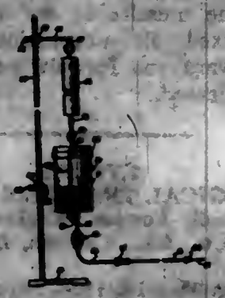
1. An absorbent pad adapted to fit between the toes, said pad being flat, having a generally rotund shape, and having an axis in the plane of the pad passing through the center of the pad, two slits passing entirely through the thickness of said pad disposed substantially on said axis, each slit extending from an opposite edge of said pad toward but terminating short of said center, thereby forming a tab on each side of each slit, said pad in position having said axis passing between the toes and one of its surfaces contacting and separating adjacent interdigital surfaces, while said tabs on opposite sides of the same slit conform to the surface of the foot and extend away from each other and from said interdigital surfaces.

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**2,771,878**
**INTRAVENOUS INFUSION SYSTEM**
**Willard E. Folland, Williamsville, N. Y., and Charles A. Ellis, Southbridge, Mass., assignors to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts**
**Application August 27, 1952, Serial No. 306,636**
**16 Claims. (Cl. 128—214)**

2. In an intravenous infusion system embodying a container carrying a supply of fluid to be gravitally fed

from said container through conduit means into the blood stream of a patient, control means connected with said conduit means for controlling the rate of flow of said



fluid through said conduit, and adjusting means connected with said container for automatically maintaining said fluid substantially at a given level during infusion.

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**2,771,879**
**DISPOSABLE SYRINGE**
Alvin R. Salisbury, Jr., Fairborn, Ohio
Application September 9, 1954, Serial No. 454,925
8 Claims. (Cl. 128—216)



7. A disposable syringe comprising a body of resilient material having a closed liquid containing chamber of oval cross section and a passage extending between the chamber and the exterior of the body and adapted to receive a hollow needle through which the contents of the chamber is expelled when the chamber volume is reduced, said body including opposed wall portions movable toward each other to reduce the volume of said chamber and away from each other to make the chamber more circular in cross section to increase the chamber volume, and an aspirating member connected to each of said wall portions and acting, when pressure is applied thereto in one direction relative to the body, to move said wall portions toward each other to reduce the chamber volume and, when pressure is applied thereto in another direction relative to the body, to separate the wall portions to increase the chamber volume thereby creating a suction in the passage.

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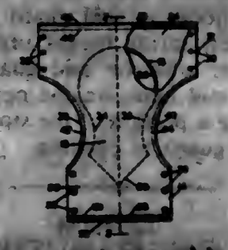
**2,771,880**
**SYRINGES**
Fred Gotthart, Ridgewood, N. Y.
Application January 13, 1953, Serial No. 331,029
8 Claims. (Cl. 128—218)



1. A syringe of the class described, comprising: a barrel having an open end and an outwardly flaring portion at said open end, the end opposite said open end being adapted for engagement with a hypodermic needle; a cup member surrounding said barrel and extending past and surrounding said flaring portion of said barrel; a loosely fitting piston disposed within said barrel and slidable therein; resilient sealing means engaging said flaring portion of said barrel and said piston resilient washer means positioned between said outwardly flaring portion and said cup member; and annular compression means bearing against said sealing means for retaining the same in engagement with said flaring portion of said barrel, said compression means being held in engagement with said sealing means by means carried by said cup member.

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**2,771,881**
**PROTECTIVE DEVICE FOR INFANTS**
Irene E. Betts, Lincoln, Nebr., assignor of one-half to Elsie L. Boyd, Lincoln, Nebr.
Application April 1, 1955, Serial No. 498,565
5 Claims. (Cl. 128—287)



1. A protective garment comprising a rear portion and a front potrion connected to the rear portion with a portion adapted to extend through the crotch and having arcuate recesses therein, and a protective cushioning pad having a circular section positioned in the rear portion and having a narrow section extended through the crotch and integral with a V-shaped section in the front portion.

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**2,771,882**
**HYGIENIC INSERTION FOR WOMEN**
Curt Walter Leopold, Nuremberg, Germany, assignor to Verein für Papierwerke Schleichsdorn & Co., Nuremberg, Germany, a German firm
Application September 23, 1952, Serial No. 311,014
Claims priority, application Germany September 29, 1951
1 Claim. (Cl. 128—290)



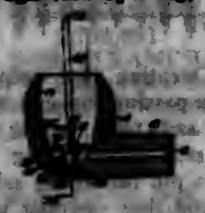
A flat absorbent body of U-shape in cross section consisting of non-compressed fibrous material and a covering wrapping said absorbent body and consisting of a porous fabric, said body being provided with marks indicating the places at which the said absorbent body is to be subdivided for forming individual hygienic insertions for women adapted to be inserted in the U-shape form.

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**2,771,883**
**FILTER ATTACHMENT FOR SMOKING PIPES**
William R. Spaulding, Kansas City, Mo.
Application August 10, 1953, Serial No. 373,694
1 Claim. (Cl. 131—208)

In a smoking pipe, a bowl having an open-top, tobacco-receiving cavity therein, said bowl having an internally concavely arcuate, lower portion defining a concavely arcuate bottom for the cavity, said lower portion of the bowl being provided with a hole therethrough communicating with the bottom of the cavity; a support element having a pair of integral, axially aligned, cylindrical portions of different diameters, there being a shoulder on the one portion of larger diameter facing the other portion of smaller diameter, said element having an elongated, axial, threaded bore therethrough, an upper portion of said bore being adapted to receive a threaded installation rod; a replaceable, initially flat, foraminous, non-flammable, resilient, annular disc of greater outer diameter than the inner diameter of the bowl at the normal location at which the disc is to be used, said disc having a central opening therein of greater diameter than said other portion and of lesser diameter than said one portion, said disc being disposed upon said element in engagement with said shoulder and with said other portion extending through said opening; a cylindrical, tubu-





lar collar of outer diameter substantially equal to said one portion of the element, of a length substantially equal to said other portion of the element and of an inner diameter greater than the latter, said collar being slidably fitted upon said other portion of the element and having its upper extremity in engagement with the disc to hold the latter against the shoulder, the lower extremity of the collar being in engagement with said concavely arcuate lower portion of the bowl and closing the cavity off from the hole, the lower extremity of the element being within the collar and spaced above said lower portion of the bowl; and a screw extending through said hole in the bowl and threaded into said other portion of the element, said screw having a head of greater diameter than the hole and disposed externally of the bowl.

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**2,771,884**
**ASH TRAY WITH A LARGE NUMBER OF CAVITIES FOR EXTINGUISHING CIGARETTES**
Ella P. [illegible], New York, N. Y.
Application July 29, 1952, Serial No. 301,515
5 Claims. (Cl. 131—235)



1. An ash tray comprising three endless elements having spaced endless facing walls and the outer one of which has a bottom, the middle endless element having projections on both sides thereof forming indents therebetween and the two walls that face the middle element having indents complementary to the indents between said projections, whereby each pair of complementary indents forms a cigarette extinguishing cavity having a cross-section large enough to receive a cigarette and small enough to limit the supply of air and thereby rapidly extinguish a cigarette, and a projection on one of the endless walls which is adapted to fit into one of said indents in an adjacent wall only when the last two-mentioned walls are aligned so that their complementary indents cooperate to form cigarette-extinguishing cavities.

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**2,771,885**
William George [illegible], Alberta, Canada
Application [illegible], 1954, Serial No. 448,799
[illegible] Claims. (Cl. [illegible])

1. In an ash tray, a [illegible] open-top [illegible] receptacle within the casing, [illegible] the receptacle leading to the interior thereof, a conveyor within the casing encircling the receptacle and adapted to receive material deposited in the open end of the casing, means for selectively moving the conveyor around the receptacle to deposit material on the conveyor into the opening in the receptacle.



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**2,771,886**
**CIGARETTE EXTINGUISHER**
Edward D. Miller and Jesse Laurence Driscoll, Bellevue, Wash.
Application April 9, 1954, Serial No. 422,071
3 Claims. (Cl. 131—256)



3. A smoker's extinguisher device adapted to hold a match book having a back cover, front flap, and abrasive flap in conventional arrangement, comprising: a single strip of rolled sheet metal having a bent portion at one end forming a tube, the tube being open at least at one end to form an extinguisher, the remainder of said strip forming a backing flange and joining the tube portion at right angles so that the tube lies at one end of a first face of said backing flange forming an abutment, said backing flange having its side edges return-bent providing a pair of opposed lips extending a short distance over the margins of said first face of said backing flange in spaced relation thereto forming a guideway between the lips of a size to accept the back cover of such match book which may be slidably inserted in said guideway with the butt end of the match book abutting said tube and with the front flap free to form a lateral support, said lips at their ends opposite said tube being beveled whereby such match book may be creased in the edges at the joinder of the back cover and abrasive flap as it is inserted in said guideway to hold the book in place.

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**2,771,887**
**BOBBY PIN DISPENSER**
Nathan L. Solomon, Englewood, N. J.
Application October 19, 1954, Serial No. 463,204
6 Claims. (Cl. 132—1)



6. A bobby pin dispenser of the class described, comprising a hollow casing, means for detachably and yieldably supporting bobby pins in the casing for movement toward the upper end thereof, an elongated spring member forming a closure for the upper end of said casing and, against which, the uppermost bobby pin is adapted to bear, one end of the spring member being fixed to one top side of the casing, the other top side of the

casing having means for guiding a bobby pin discharged from the casing, an ejector element keyed to and movable longitudinally of and with said spring member, said element being normally positioned on the spring member in spaced relation to one end of the uppermost bobby pin bearing against said spring member in ejecting said uppermost bobby pin from the second named upper side of the casing over said guiding means, said guiding means including means for spreading said side members of a bobby pin in the operation of ejecting the same from said casing, said last named means comprising a rib, substantially V-shaped in cross-sectional form, the upper surface of said rib being bevelled to free the bobby pin from the casing, and said casing having apertured sides facilitating mounting of bobby pins in the casing.

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**2,771,888**
**HAIR NETS**
Arthur M. Herschkowitz, Scarsdale, N. Y.
Application November 13, 1953, Serial No. 391,908
9 Claims. (Cl. 132—49)



1. A hair net comprising a pouch of pliable net material made of intersecting strands extending from the rim of such pouch, an elastic filament arranged around the rim of said pouch, another elastic filament arranged in sinuous fashion on and around at least part of the rim region of said pouch; said elastic filaments substantially enclosing and forming borders around portions of said net material; said bordered portions constituting a comparatively small part of the entire pouch and the elastic filament which is around the rim, bordering each of said portions, means securing intersecting strands of the net material at substantially all their points of intersection and means securing said elastic filaments onto strands of said net material to remain positioned along the rim and in sinuous format respectively on said pouch; said elastic filaments being in stretched condition upon extension of the pouch.

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**2,771,889**
**DENTAL CLEANER**
Margaret E. Fleming, Niagara Falls, N. Y., assignor to John S. Fleming, Niagara Falls, N. Y.
Application September 28, 1953, Serial No. 382,594
6 Claims. (Cl. 132—89)



1. A self-cushioned dental cleaner, consisting of a strip of flexible paper having a peripheral ribbon form tongue of the same breadth throughout its length, said tongue having a soft self-cushioned peripheral edge beveled upon one side thereof resulting from tearing said strip from and along a weakened tear line of a sheet of said paper, said tongue being movable between adjacent teeth with its soft edge pressed against the gums, said soft edge having a brushing action during said movement, said tongue being yieldable backwardly thereof under said pressure transmitted thereto through its soft edge, said soft edge being adapted to bear only a light pressure load.

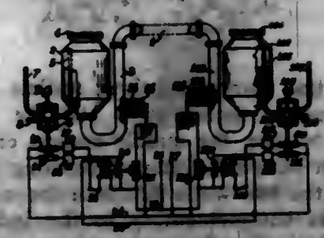
**2,771,890**
**COMB FOR TREATING THE SCALP**
Willy Isberg, Zurich, Switzerland
Application October 7, 1953, Serial No. 384,563
Claims priority, application Switzerland October 8, 1952
3 Claims. (Cl. 132—115)



1. A comb for treating the scalp, comprising teeth provided with bores passing through them longitudinally, a valve in each of said teeth, spring means for keeping said valve closed, said valve having a valve cone, said valve cone having a pin for lifting said valve cone from the valve seating and thus opening said valve and said pin projecting from the tip of said tooth and passing through its bore with clearance, each said bore having a wider part towards the back part of the comb, a packing ring on the shoulder terminating said wider part, a first sleeve inserted in said wider part and holding said packing ring in position on said shoulder, a second sleeve arranged in said first sleeve and having said valve cone on its end that is directed towards the tip of the tooth, said spring means being in the form of a compression spring and arranged in said first sleeve and said pin being tightly pressed into said second sleeve, a container for the substance intended for the treatment of the scalp, said container being arranged on the back part of the comb and consisting of a casing fitted tightly on the back part of the comb and provided with a filling opening and the interior of said container and said first sleeve being in communication, and a device connected to said filling opening for the purpose of applying pressure to the substance in said container.

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**2,771,891**
**APPARATUS FOR CLEANING PIPE LINES**
Zoltan O. St. Pulley, Branford, Conn.
Application August 18, 1955, Serial No. 529,156
3 Claims. (Cl. 134—57)



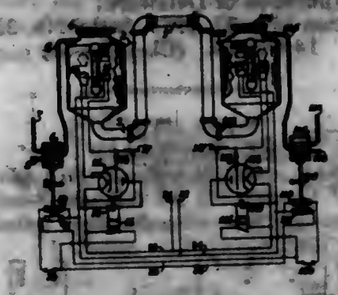
1. An apparatus for cleaning a pipe line comprising, a pair of closed tanks for holding the cleaning fluid, each with an outlet pipe connected to opposite ends of the pipe line; air supply pipes adapted to conduct compressed air, alternately, to one of said tanks, in order to force said cleaning fluid, through the pipe line, into the other tank; a pair of control valves, inserted into said supply pipes, each adapted to control the flow of the compressed air into one of said tanks, said valves having open and closed positions and being arranged to be in opposite positions during the cleaning operation of said apparatus; a pair of opening solenoids, operatively connected to said control valves, each being adapted to open one of said valves, when energized; a pair of closing solenoids, operatively connected to said control valves, each being adapted to close one of said valves, when energized; a pair of liquid detector housings, each being in communication



with a selected portion of one of said outlet pipes; a pair of floats, each movably mounted in one of said housings, and being adapted to assume a low position in the absence of cleaning fluid in the respective housing and to assume a raised position when buoyed by the fluid contained in said housing; a pair of switches, each operatively connected to one of said floats and having a closed position corresponding to one position of the respective float, and an open position corresponding to the other position of said float; electrical circuit means, interconnecting said switches and solenoids, and including time delay relays, being adapted to reverse the positions of said pair of control valves, after predetermined time delays, when one of said floats assumes the low position.

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**2,771,892**
**APPARATUS FOR CLEANING PIPE LINES**
Zoltan O. St. Pulley, Branford, Conn.
Application August 3, 1955, Serial No. 526,247
4 Claims. (Cl. 134—57)

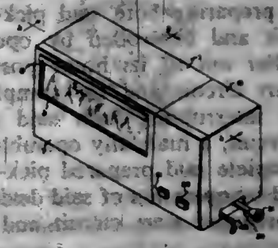


1. An apparatus for cleaning a pipe line, comprising, a pair of closed tanks for holding the cleaning fluid, with outlets connected to opposite ends of the pipe line; a pair of fluid level gauges, with light-transmitting walls, each mounted on one of said tanks, and being adapted to have the same fluid level as the corresponding tank; a pair of light sources, each vertically adjustably mounted on one of said tanks, and being adapted to project a beam of light to the fluid level gauge on the same tank; a pair of photo-cells, each vertically adjustably mounted on one of said tanks, and being disposed to receive illumination by portions of said beam of light projected to the fluid level gauge on the same tank, said illumination being variable in intensity depending whether said fluid level gauge contains air or fluid in the path of said beam of light; a pair of relay switches, each operatively connected to one of said photo-cells, and being adapted to be in the closed position when the illumination of said photo-cell corresponds to a fluid content of said level gauge, and to be in the open position when the illumination of said photo-cell corresponds to an air content of said level gauge, in the path of said light beam; air supply lines adapted to conduct compressed air, alternately, to one of said tanks in order to force the cleaning fluid through the pipe line, into the other tank; a pair of control valves, inserted into said air supply lines, each adapted to regulate the flow of compressed air into one of said tanks, said valves having open and closed positions and are arranged to be in opposite positions during the cleaning operation of said apparatus; remote control means, inter-connecting said control valves and said relay switches, and being adapted to reverse the positions of the said pair of control valves when one of said relay switches has moved into the closed position.

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**2,771,893**
**DISHWASHER**
Joseph J. Houghton, Houston, Tex., assignor to General Electric Company, a corporation of New York
Application December 3, 1954, Serial No. 472,943
1 Claim. (Cl. 134—57)

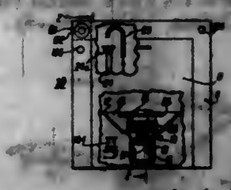
An automatic dishwashing machine comprising a dishwashing compartment adapted to receive separate charges of water for each of a plurality of sequential washing operations, an overflow conduit communicating with an overflow opening in said compartment limiting the water holding capacity thereof to one of said charges of water, a drain conduit communicating with the lowermost portion of said compartment, a drain valve in said drain conduit, a water storage tank adjacent said compartment having its bottom wall located above said overflow opening in said compartment, an electric heater in said tank, float operated switch means for controlling the energization of said heater in accordance with the water level in said tank, a conduit having one end adapted to receive water from a water faucet and the other end connected to the top of said tank, a vertical overflow pipe mounted in said tank and extending below the bottom wall thereof, said pipe having an open upper end terminating below the top of said tank, a first valve aperture in said pipe located adjacent said bottom wall of said tank, a



second valve aperture in said pipe located between its open upper end and said first valve aperture, a pair of valve elements normally seated in said apertures but movable to open positions by an actuating rod arranged to sequentially engage said valve elements so as to open said second aperture before opening said first aperture, a conduit connecting the lower end of said pipe and said compartment whereby water entering said pipe from said tank flows into said compartment, a spray device in said compartment, a recirculating motor driven pump having its inlet connected to the lowermost portion of said compartment and its outlet connected to said spray device, and a timing device arranged to operate said drain valve, actuating rod, and pump in sequence whereby articles placed in said compartment may be initially rinsed by a charge of water stored in said compartment, and thereafter washed and rinsed by two separate charges of water sequentially admitted to said compartment from said tank through said first and second apertures in said overflow pipe.

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**2,771,894**
**CONTROL CIRCUITS FOR DISHWASHING APPARATUS**
Frank D. Low, La Grange Park, Ill., assignor to General Electric Company, a corporation of New York
Application November 29, 1955, Serial No. 549,599
16 Claims. (Cl. 134—57)



1. In dishwashing apparatus including a vat adapted to receive dishes to be washed, an inlet conduit communicating with said vat and adapted to be connected to a water supply system, first mechanism selectively operative to control the introduction of water into said vat via said inlet conduit, an outlet conduit communicating with said vat and adapted to be connected to drain plumbing, second mechanism selectively operative to control the removal of water from said vat via said outlet con-

duit, third mechanism selectively operative to wash dishes arranged in said vat, an electro-responsive program controller having a home position and a plurality of control positions and operative in a given timed cycle from its home position through its control positions and back into its home position, and means selectively governed by operation of said program controller through its control positions for selectively operating said first mechanism and said second mechanism and said third mechanism in a given sequence in order to produce a given washing cycle in said vat; the control circuit combination comprising a start circuit for operating said program controller, a run circuit for operating said program controller, an electro-responsive device operative to effect operation of said first mechanism so as to introduce water into said vat, a pick-up circuit for operating said device, a hold circuit for operating said device, means controlled by operation of said program controller into its home position for preparing said start circuit and for interrupting said run circuit and for preparing both said pick-up circuit and said hold circuit and controlled by operation of said program controller out of its home position for interrupting said start circuit and for completing said run circuit and for interrupting both said pick-up circuit and said hold circuit, a manually operable start member operative to complete said prepared pick-up circuit, and means controlled by operation of said device for completing both said prepared start circuit and said prepared hold circuit.

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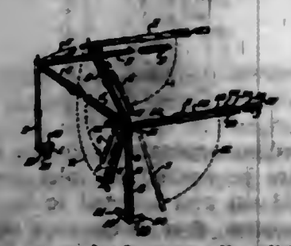
2,771,895
DISHWASHING MACHINE
William Bond, San Francisco, Calif.
Application August 1, 1955, Serial No. 525,564
5 Claims. (Cl. 134—172)



1. A dishwashing machine including a readily portable base pan, a collapsible top mounted on the top edge of said pan having a series of ribs pivotally mounted to swing about a horizontal axis located midway the sides of said pan, a flexible waterproof cover mounted over the outside of said ribs having one end thereof secured to the top edge of said pan between one end of said pan and said pivotal axis, and a water spray element mounted on the inside of one of said ribs.

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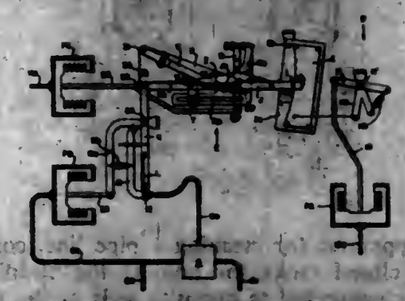
2,771,896
COLLAPSIBLE TENT FRAMEWORK
John G. Call, Pikeville, Ky., assignor to The Tolstent Company, Inc., Pikeville, Ky., a corporation of Kentucky
Application April 19, 1951, Serial No. 221,755
4 Claims. (Cl. 135—4)



1. A corner post unit for a collapsible tent framework comprising a base plate having an adjacent pair of angular related side edges, a corner post secured at one end to said base plate at the apex of said angularly related edges, a fitting on the opposite end of said corner post, said fitting having a pair of arms paralleling the said adjacent side edges of said base plate and an additional, angularly related arm intermediate said first mentioned pair of arms, frame members pivoted to said arms and adapted to fold about said arms, the frame members pivoted to said first mentioned pair of arms being of a length to contact said base plate, and means for detachably connecting the ends of said last mentioned arms to said base plate to form with said corner post a rigid frame structure which constitutes a part at least of a carrying case for said tent frame, the frame member pivoted to said additional arm being adapted to be folded to lie within the confines of said rigid frame structure.

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2,771,897
CONTROLLER HAVING AN OUTPUT PROPORTIONAL TO THE PRODUCT OF TWO INPUTS
William R. Bailey, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application May 27, 1953, Serial No. 357,871
14 Claims. (Cl. 137—85)



1. A relay, including, a member pivoted to turn about a normally stationary first axis and having an arc-shaped surface intersecting said axis, parallel to a second axis displaced from the first mentioned axis, a strut pivoted to turn about said second axis extending between said second axis and said arc-shaped surface, said relay being operable, when said strut is angularly displaced from said first axis to move said second axis away from the initial position of said arc-shaped surface a distance proportional to the product of the angular displacement of said strut from said first axis and the angular adjustment of said member about said first axis from its initial position.

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2,771,898
VALVE
Lutwin C. Retter, Maplewood, Mo., assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application June 22, 1953, Serial No. 362,980
6 Claims. (Cl. 137—107)



1. A valve comprising a cylinder having an inlet for pressure fluid and a lateral outlet forward of the inlet, a piston reciprocable in the cylinder and adapted to be moved by fluid pressure upon a pressure drop in the outlet from a retracted position rearward of the outlet to an advanced position wherein the outlet is open to the space in the cylinder rearward of the piston, a plunger assembled with the piston and movable by the piston and extending forward from the piston with its forward end slidable in sealed relation in an opening at the forward end of the cylinder, the plunger having a passage therethrough from rearward of the piston to the forward end of the plunger, the plunger-piston assembly being



formed to provide for communication between the space in the cylinder rearward of the piston and said passage and for restricted communication between the spaces in the cylinder rearward and forward of the piston, means at the forward end of the cylinder providing a chamber including an end wall having a vent port in alignment with the plunger with a valve seat at the inner end of the vent port, and also providing a transfer port through which fluid may flow to or from said chamber, the plunger having a rearwardly facing valve seat in the passage, a check valve in the plunger engageable with the seat in the passage for blocking flow through the passage, a spring biasing the check valve toward the forward end of the plunger for engagement with the seat in the passage, the check valve having a stem extending out of the forward end of the plunger in alignment with the vent port for engagement with the seat at the inner end of the vent port when the piston is in advanced position thereby to unseat the check valve and to close the vent port, the spring acting to drive the plunger rearward and move the piston to its rearward position upon cut-off of flow from the outlet thereby to seat the check valve and open the vent port.

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2,771,899
VALVE MEANS
Sven Arild Swallert, Lidingo, Sweden
Application September 16, 1953, Serial No. 380,481
Claims priority, application Sweden September 18, 1952
1 Claim. (Cl. 137—224)

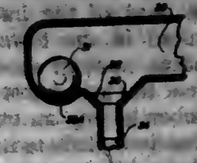


Valve means for a plurality of flexible elastic tubes enclosed within a tubular flexible non-elastic casing, comprising a housing to which said tubular casing is attached, said housing having a plurality of apertures extending into said tubular casing, one for each tube therein, a plurality of check valves each having one end in gas tight relationship with one of said tubes and extending through said apertures, the ends of said valves outside of said housing being larger than the apertures, and the ends inside of said housing being threaded, resilient sealing means between the larger ends of the check valves and the outside of said housing, a plurality of nuts one threaded onto each check valve within the housing to draw the valves into gas tight relationship with said housing, a cap having an aperture therein on said housing, a spring loaded check valve in said aperture, and means on said cap to permit introduction of air under pressure through said spring loaded check valve into the housing and then into the plurality of tubes through said plurality of check valves in said housing.

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2,771,900
LIQUID SEALS
Benjamin B. Dayton, Rochester, N. Y., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application June 28, 1950, Serial No. 170,170
3 Claims. (Cl. 137—251)

1. In a device having a conduit with a liquid seal therein, the combination which comprises a valve in the conduit having two parts with matching surfaces and means for moving the surfaces close to each other to close the valve and remote from each other to open the valve, at least one of the matching surfaces being so smooth that gallium will adhere to it, the smooth surface being surrounded by an adjacent roughened surface to which gallium will not adhere, and a film of liquid gallium on the smooth surface.



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2,771,901
NON-RETURN VALVES
Eric Hardy Spock, Yeovil, England, assignor to Normalair Limited, Yeovil, England
Application April 13, 1953, Serial No. 348,303
5 Claims. (Cl. 137—269.5)



1. A reversible flap valve comprising a casing, two opposed valve seatings in said casing, a valve member between said seatings, a rocking supporting member encircling said valve member means for retaining said supporting member in a central position or into a position at either side of said position, said supporting member being so pivoted on said casing as to restrict said valve member to movements in a plane at right angles to the planes containing said seatings and means operable from the exterior of said casing for rocking said supporting member into any of said positions, a protuberance on both sides of said valve member adapted to coact with cam members adjacent to both seatings whereby before the valve member is transferred from one side to the other the valve member is raised off its seating and the valve member is prevented from striking and damaging itself or the seatings when the valve member is positioned in central position.

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2,771,902
INSERT PUMP CAGE HAVING RECIPROCABLE VALVE
Charles P. Winchester, Kansas City, Mo.; Dollie Winchester, administratrix of said Charles P. Winchester, deceased
Application December 12, 1951, Serial No. 261,330
1 Claim. (Cl. 137—332)



In an insert type liquid pump, a standing valve assembly including an upper, elongated, tubular section internally threaded at its lowermost end; a lower, elongated, tubular section externally threaded at its uppermost end; an intermediate, elongated, tubular section externally threaded at its uppermost end and internally

threaded at its lowermost end, the uppermost end of the intermediate section being threadably secured in the upper section, the lowermost end of the intermediate section being threadably secured in the lower section; an internal, inwardly extending, annular shoulder on the intermediate section adjacent the lowermost end of the latter; a band-like, ring member having an external, outwardly extending flange portion intermediate its extremities, said member being provided with a valve seat on the upper extremity thereof and disposed within the lower and intermediate sections with said flange portion held between said shoulder and the uppermost end of the lower section; a vertically reciprocable, freely rotatable, generally cylindrical valve in the intermediate section and provided with a conical lowermost face normally resting on the seat in engagement therewith and extending into the ring member; a single, diametrical guide bar mounted in the intermediate section adjacent the uppermost end thereof, said bar having a bore extending therethrough centrally and axially of the intermediate section; an upstanding, elongated stem integral with the valve on the upper face of the latter, said stem being received for free reciprocatory and rotative movement within said bore of the bar; and an upwardly-facing, annular shoulder on the stem between the ends of the latter for engagement with the bar to limit upward reciprocation of the stem and valve.

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2,771,903

## DEVICE FOR THE PROCESSING OF FUSIBLE MATERIALS

Luigi Notarbartolo, Milan, and Werner Münch, Cesano Maderno, Italy, assignors to Perlegit Società per Azioni, Milan, Italy, an Italian company

Application October 20, 1952, Serial No. 315,768
Claims priority, application Italy October 31, 1951
1 Claim. (Cl. 137—341)



In an apparatus for spinning a synthetic linear polymer from the melt, in combination, a conduit for delivering molten polymer in a normally continuous flow from one point to another of said apparatus, a portion of said conduit being provided with projections in the inner wall of said conduit, means for normally maintaining said polymer therein in the molten state, and means for temporarily cooling said portion of said conduit, while the same is entirely filled with the aforementioned polymer, whereby to cause the temporary formation therein of a plug of solidified polymer and to discontinue said normally continuous flow of said molten polymer.

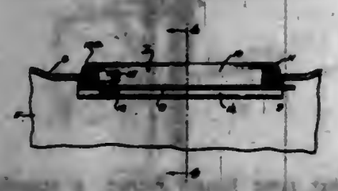
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2,771,904

## FLOW CONTROL VALVE

Roger M. Sherman, Palo Alto, and James R. Mosher, San Jose, Calif., assignors to W. R. Ames Company, San Francisco, Calif., a corporation of California

Application December 8, 1952, Serial No. 324,735
8 Claims. (Cl. 137—454.2)



1. In a flow control valve adapted for insertion in a perforation in the wall of a pipe or like surface, the combination of a resilient molded body member having a rim defining a flow opening; a radially extending open groove bordering said rim, conforming at its base to the general shape of the perforation in said wall; an open straight groove on the inner surface of one edge of said rim facing, parallel and in the same plane as a second like groove thereon on the opposite edge, the two said grooves forming a support; and a rigid gate member slidable in said last mentioned grooved support to control the flow through said wall.

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2,771,905

## VALVE CLOSING SPEED CONTROL MEANS

David E. Griswold, San Marino, Calif., assignor to Donald G. Griswold, Alhambra, Calif.

Application April 20, 1953, Serial No. 349,790
7 Claims. (Cl. 137—488)



3. In combination: a pressure fluid operable main valve for controlling flow of fluid in a pipeline to maintain a desired substantially constant pressure in said pipeline; control means connected with said main valve operable to supply operating fluid thereto for effecting slow closing of said main valve in response to a slight increase in pressure in said pipeline above said desired pressure: and control means connected with said main valve operable to supply operating fluid thereto simultaneously with said first-mentioned control means for effecting relatively quick closing of said main valve upon a relatively great increase in pressure in said pipeline above said desired pressure.

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2,771,906

## FLUID FILLING SYSTEM

Warren A. Bratlech, Downey, and Philip H. Jones, Los Angeles, Calif., assignors to North American Aviation, Inc.

Application March 18, 1952, Serial No. 277,322
8 Claims. (Cl. 137—575)



1. In aircraft, a plurality of storage tanks, one of said tanks disposed above the elevation of the remaining tanks, conduit means interconnecting the bottom of said upper tank with said remaining tanks for permitting fluid flow from said upper tank to said remaining tanks, spring biased valve means for closing the said conduit means interconnection from said upper tank to said remaining tanks, a filler opening associated with the upper portion of said upper tank, a door member hingedly supported upon said upper tank within said filler opening, resilient means connected to said door member urging said door member into its closed position with respect to said filler opening, a pair of tension elements operatively connecting said door member with said spring-biased valve means in such manner that insertion of a filling nozzle within said filler opening and hinging of said member imparts opening of said door member and said spring-biased valve means and provides fluid interconnection of said upper and lower tanks for the filling thereof through said filler opening.



2,771,907

## PILOT CONTROLLED PISTON TYPE REVERSING VALVE

Joseph F. Joy, Pittsburgh, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Original application January 29, 1949, Serial No. 73,625. Divided and this application September 27, 1951, Serial No. 248,973
2 Claims. (Cl. 137—622)



1. In a reversing valve, a shell having an internal bore and a plurality of fluid passages through the shell, means for conducting a fluid under pressure to said shell, a hollow main valve member reciprocable in the shell and having at least one actuating piston and a means to prevent communication between certain passages and permit communication between certain passages according to its position, and a pilot valve member reciprocable in the main valve member and having at least one actuating piston, and a means for preventing and for permitting communication between said fluid under pressure and said one main valve actuating piston and said one pilot valve actuating piston means for moving said pilot valve relative to said main valve to provide communication between said fluid pressure conducting means and said one main valve actuating piston and said one pilot valve actuating piston to move said valves in one direction relative to said shell, means on said pilot valve for engaging said main valve to initiate movement of the latter if said fluid under pressure fails to do so and for striking said main valve at any point substantially throughout its distance of travel, if its movement is retarded, to urge it in said one direction of travel, and means to cushion the stopping of the main valve member by throttling including an end piston on said pilot valve spaced from said one pilot valve actuating piston and smaller than the hollow of said main valve member.

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2,771,908

## EXTENSION FOR EXHAUST PIPES

Harry A. Wiese, South Spencer, Mass., assignor to The A & W Machine Company, Charlton City, Mass., a corporation of Massachusetts

Application March 19, 1954, Serial No. 417,298
3 Claims. (Cl. 138—46.5)



1. A device of the character described comprising a tubular extension member formed preferably of metal having a single opening in a side wall thereof, an attachment member in the form of a blade spring having an intermediate portion spaced inwardly from the inner wall of the tubular member, integral portions extending outwardly of the opposed ends of said intermediate portion and angled to the side of said intermediate portion toward the inner wall of said extension member and continuing into integrally formed inwardly curved portions shaped to engage with said inner wall of the extension member at spaced points adjacent the ends of said intermediate portion and thence [illegible] portions [illegible] formed to the plane of said intermediate portion and portions [illegible] leading inwardly beyond the plane of said intermediate portion on the side thereof opposed to said curved integral portions and being adapted to be fitted in engaged relation with the adjacent side wall of an exhaust pipe of a motor vehicle when said tubular extension member is placed thereon, said intermediate portion having an opening therein in susbtantial alignment with the opening in the side wall of the tubular extension member and a headed bolt extending outwardly through said aligned openings with its head engaging said intermediate portion and with its threaded end extending outwardly of the opening in the side wall of the tubular extension member and having a nut thereon which, when tightened, will draw said intermediate portion toward the inner adjacent wall of said extension member, simultaneously causing the curved integral portions to engage the inner wall of said tubular extension member with an effective rolling contact therewith which, in turn, causes said pointed ends, in response to said rolling contact, to resiliently bite into and secure the tubular extension member to the exhaust pipe.

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2,771,909

## LOOM REED AND ACTUATING MEANS THEREFOR

Gustave E. Ulrich, Union City, N. J., assignor, by mesne assignments, to Tapes, Inc., Paterson, N. J., a corporation of Delaware

Original application March 7, 1952, Serial No. 275,329. Divided and this application December 8, 1952, Serial No. 324,613
3 Claims. (Cl. 139—192)



1. A loom reed assembly comprising in combination with a reed carrier a pair of coacting clamp plates, each of said plates having flat parallel extending contacting portions, means extending through said portions and forming a fastening means for said plates on said reed carrier, one of said plates projecting coplanar with the aforesaid flat contacting portion thereof and the other of said plates having a right angular bend therein forming an abutment wall disposed in abutment with one side of said reed carrier, said last mentioned plate having an integral portion extending from said abutment wall in spaced offset parallel relation to the coplanar projection of the aforementioned plate, linearly extending transverse tongues carried on the aligned interior surface of the integral portion of said second plate and the coplanar projection of said first plate, a reed assembly comprising a multiplicity of reed blades and spacers disposed in alternate parallel relationship and fastening means for securing said reed blades and spacers together as a replaceable unit, said reed blades and spacers having aligned transverse grooves therein adapted to establish interfitting clamping relationship with said linearly extending transverse tongues when the flat parallel extending contacting portions of said plates are mounted in contacting position with the edges of said reed blades and spacers and with the ends thereof in abutting relation with the abutment wall of said second mentioned plate.

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2,771,910

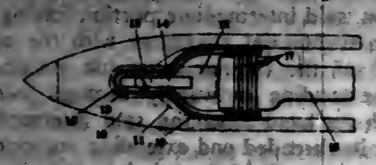
## SHUTTLE SPRING

Willard W. Tait, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine

Application January 28, 1954, Serial No. 406,689
4 Claims. (Cl. 139—197)

1. In a loom shuttle, filling bobbin holding means which comprises spring gripping jaws adapted to be

retained in one end of a shuttle, said jaws comprising an inner jaw member having a rigid clamping portion and extending therefrom opposed, flexing jaw members having curved portions terminating in relatively straight end portions with means adjacent said end portions for hold-



ing a bobbin, an outer member comprising a leaf spring of substantially the same general contour as the inner spring, of substantially the same extent and having pressure and frictional engagement with the relatively straight end portions only of said spring jaws.

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**2,771,911**
**STOP MOTION FOR LOOMS**
Charlie W. Holt, Draper, N. C.
Application March 8, 1955, Serial No. 492,871
1 Claim. (Cl. 139—339)



In a loom having a breast beam over which cloth passes, an electric stop motion, a stationary member on said loom spaced forwardly of said breast beam, a sand roll spaced below said beam, first and second vertically spaced guide rolls spaced forwardly from the sand roll for guiding cloth to and away from the sand roll, respectively, and a take-up roll spaced beneath the second guide roll for taking up said cloth, the combination of an elongated relatively thin bracket secured for vertical adjustment to the stationary member and depending therefrom, a normally open toggle switch carried by said bracket below the stationary member and having an actuating arm projecting rearwardly therefrom and overlying the cloth between the sand roll and the second guide roll, and said switch being interposed in an electrical circuit to said stop motion whereby winding of the cloth around the sand roll beyond a predetermined amount causes the cloth to engage and move the actuating rm upwardly to close the switch and actuate said stop motion.

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**2,771,912**
**DEVICE FOR LONGITUDINALLY RESHAPING CORRUGATED WIRE SPRINGS**
Svend G. Blumensaadt, Beachwood Village, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio
Application September 15, 1951, Serial No. 247,109
1 Claim. (Cl. 140—99)



In a device for changing the longitudinal spacing of successively connected left and right handed loops of sinuously corrugated wires, a frame, a lazy tongs lever arrangement including a plurality of elongated pins pivotally coupling the cross bars of each pair of bars to each other and pivotally coupling at one side edge of said arrangement the cross bars of adjoining pairs of bars to each other, one of said pins, the pin which couples two of the symmetrically opposed bars of the two adjacent pairs of the cross bars in the center portion of the lazy tongs lever arrangement, being non-shiftably supported in said frame, a pin coupling the other two of the symmetrically opposed bars of said two adjacent pairs of cross bars in the center portion of the lever arrangement, said last pin slidably engaged with said frame to effect by actuation of the lazy tongs lever arrangement straight movements of the pins at said one side edge and arcuate movements of the pins pivotally connecting the cross bars of each of said pairs of cross bars with each other, wire engaging head portions on said pins adapted to engage loops and loop connecting wire portions of sinuously corrugated wires placed on the device, and power operated push block means engaged with the free ends of the lazy tongs lever arrangement for actuating same.

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**2,771,913**
**BEVERAGE MIXER**
Ewald Flaudicher, Sprendlingen (Main), Germany, assignor to Erwin Lucas Bois, Incorporated, Englewood, N. J., a corporation of Delaware
Application February 23, 1955, Serial No. 490,864
3 Claims. (Cl. 141—9)



3. The method of producing a drink composed of a plurality of differently-colored liquors, consisting in locating a tube in the center of a drinking glass with the lower end of the tube at the bottom thereof, successively pouring the different liquors through said tube to successively reach the bottom of the glass and thereby cause each liquor to be elevated in the glass by those liquors which follow it and without causing material intermixture of the several liquors.

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**2,771,914**
**DISPENSING APPARATUS FOR GRANULAR MATERIAL**
Paul O. Pinney, Long Beach, Calif., assignor to J. H. Keasey & Co., Inc., Chicago, Ill., a corporation of Illinois
Application July 12, 1954, Serial No. 442,739
12 Claims. (Cl. 141—82)



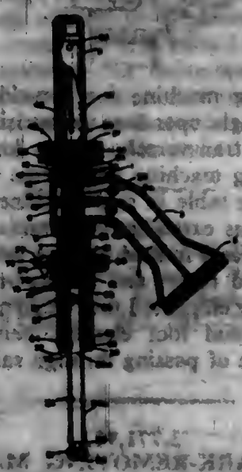
4. A dispensing apparatus for granular material comprising a housing including a front wall, said front wall having an opening therein and a platform, a cup dispenser within the housing, a chute extending from the cup dispenser to adjacent said platform, an electrically actuated cup release mechanism on the cup dispenser, a vertical shaft journaled in the housing, a pair of spaced discs mounted on the shaft, manual means to rotate said shaft, a plurality of containers removably mounted between the discs, a dasher in each of the containers, each



dasher including a vertical shaft journaled in the container, disengagable drive means on each of the last named vertical shafts, an electric motor within the housing and positioned over the container immediately adjacent said front wall, and drive means on the motor engageable with the first named drive means, a mounting for said electric motor whereby the electric motor is moved vertically relative to the container positioned below the electric motor, and electrical means connected to the motor mount whereby the electric motor is moved vertically, an electrical sequence actuating means including a switch electrically connected to the cup release, and a second switch electrically connected to said motor, and means to operate said actuating means in sequence.

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**2,771,915**
**FLUID DELIVERY DEVICE**
George Donald Hastings, Jr., Pasadena, and Clinton E. Hawk, Pomona, Calif., assignors, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio
Application February 18, 1953, Serial No. 144,932
9 Claims. (Cl. 141—116)

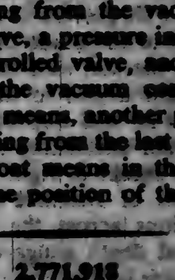


1. A fluid delivery device for supplying fluid to a container, said device comprising a first sleeve, and a second sleeve located within the first sleeve and providing a first annular space between said sleeves, a delivery plunger within the second sleeve with a second annular space between the plunger and the second sleeve, said plunger being slidable within the second sleeve and having a fluid conducting conduit at its lower end, communicating means between the second annular space and said conduit, an outlet from approximately the lower end of said conduit for delivery into the container, an inlet passageway communicating with said second annular space, an outlet passageway communicating with the first annular space, and means for protruding said plunger from said second sleeve so that said outlet is exposed to deliver fluid into the container.

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**2,771,916**
**CAN FILLING MACHINE WITH REMOVABLE MANIFOLD MECHANISM**
William Pecky, Belmar, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application December 21, 1953, Serial No. 399,593
6 Claims. (Cl. 141—180)

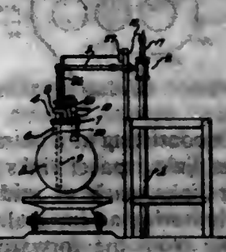
1. In a machine for filling sifted products and the like into containers, the combination of a vertically disposed rotatable carrier element having a receiving end and



side the path of travel of said end of the carrier element for introducing said product under pressure through said opening into the carrier element, said manifold having a loose and free mounting to facilitate quick removal for cleaning, a substantially point support for said manifold, and pressure means operable against said support to hold the manifold tightly against said end of the carrier element for the transfer of said product from said manifold to said carrier element without loss of said product.

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**2,771,917**
**LIQUID TRANSFER APPARATUS AND AUTOMATIC SHUT-OFF THEREFOR**
Murray D. Cannell, Wilmington, Calif.
Application May 28, 1954, Serial No. 431,231
4 Claims. (Cl. 141—217)



1. An automatic shut-off for a liquid transfer apparatus for tanks comprising a liquid intake pipe, a shut-off head mounted in the intake pipe, a valve in the shut-off head, a seat in said intake pipe against which the valve rests to close the intake pipe, pressure actuated means engaging said valve to move the valve to a closed position, an outlet pipe extending from the shut-off head and thence into said tank, a venturi in the outlet pipe, said venturi having a vacuum space therein, a vacuum controlled valve, a pipe extending from the vacuum space to the vacuum controlled valve, a pressure intake line extending into the vacuum controlled valve, and a pressure outlet line extending from the vacuum controlled valve into said pressure actuated means, another pipe extending into the tank, a line extending from the last named pipe to said vacuum space, and float means in the last named pipe closing said line in one position of the float.

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**2,771,918**
**SAW BLADE WITH SWAGED TEETH**
Herman H. Watson, Dallas, Ga., assignor to Paulding Products Corporation, a corporation of Georgia
Application November 16, 1954, Serial No. 469,135
2 Claims. (Cl. 143—133)

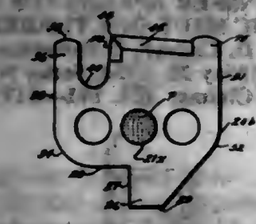


1. A saw comprising a metallic web and a row of teeth along its edge, said teeth presenting front and op-

posite side walls, the front faces being of diamond shape with their apices in substantial vertical alignment with the vertical axis of the web, the width of the teeth being such as to cause the side-edges of the teeth to project laterally, materially beyond the web, the diamond shape of the front faces of the teeth causing the teeth to present a part of greatest width that is substantially within the height of the diamond shaped front face, those portions of the teeth below said point of greatest width being substantially uniform in cross sectional shape throughout the length of the teeth and those portions of the teeth which lie above said point of greatest width being shaped to provide an inclined triangular surface which extends from the apex of the front wall to the opposite rear corners of those portions of the teeth which lie above the web, the said side edges of the teeth lying in parallelism with each other and in parallelism with the outer faces of the webs.

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2,771,919
CHAIN SAWS
Joseph B. Cox, Portland, Oreg.
Original application July 1, 1946, Serial No. 680,549. Divided and this application October 8, 1951, Serial No. 250,282
3 Claims. (Cl. 143—135)

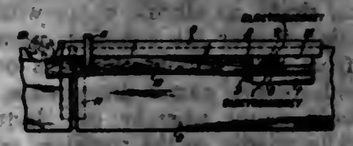


1. In a saw chain consisting of a plurality of alternating right and left cutter links, spacer links pivotally connecting adjacent cutter links, each of said cutter links consisting of a flat body having an integral depth gauge tooth extending outwardly from the forward end thereof and coplanar with said body and an integral cutter tooth spaced from said depth gauge tooth by a relatively deep sawdust recess, said cutter tooth consisting of a side wall portion and an outer flange portion, said portions being integral with said body and extending from said recess to the opposite end of said cutter link, said side wall portion being laterally offset throughout its length with respect to the plane of said body by a progressively decreasing amount from the forward edge to the rear edge thereof whereby said side wall portion is inclined throughout its height with respect to the plane of said body in the longitudinal direction thereof, said flange portion extending substantially at right angles to the plane of said body, the foremost edges of said side wall and flange portions being sharpened, said alternating cutter links being identical to each other except of right and left configuration, said flange portions of alternate cutter teeth extending in opposite directions across the median plane of said body, and a second depth gauge defining portion at the rear end of said cutter links.

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2,771,920
FEEDING DEVICE FOR THE WORKPIECE ON PLANING MACHINES
Friedrich Wilhelm Hermann Ambelang, Flensburg, Germany
Application April 25, 1955, Serial No. 503,618
5 Claims. (Cl. 144—114)

4. In combination with a table for planing machines comprised of two angularly disposed guiding surfaces extending in the same direction, a feeding device, said feeding device including two angularly disposed guiding surfaces in alignment with and cooperation with the respective guiding surfaces on said table, and electromagnetic means on said feeding device for insuring con-



tinuous contact between said table surfaces and said feeding device during the feeding of a workpiece along said table surfaces.

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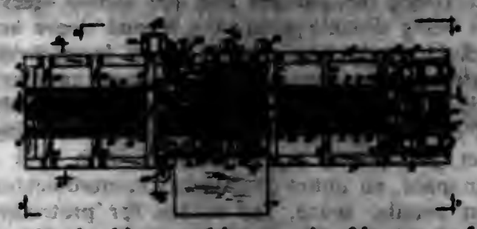
2,771,921
PLANING MACHINE FOR TWO-SIDED PLANING IN A SINGLE OPERATION
Friedrich Wilhelm Hermann Ambelang, Flensburg, Germany
Application April 25, 1955, Serial No. 503,617
1 Claim. (Cl. 144—117)



A wood planing machine for two-sided planing of a workpiece in a single operation comprising a jointing device displaceably transversely to the longitudinal direction of the planing machine and across the width of the machine, a planing table in said machine, elongated horizontal cutter means extending substantially the width of the said table, a recess in said planing table, a cover plate shiftable along said recess and having an opening, and a vertically operating elongated tool element provided above the cover plate, said tool element being adjustable in height and capable of passing through said opening.

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2,771,922
PULP-WOOD BARK-REMOVING MACHINE HAVING PIVOTABLE ANGULAR SUPPORTING ARMS FOR ROTATABLE CUTTERS AND BRUSHES
John L. Gyllenberg, Baker, Oreg., assignor to Anthony Breidenthaler, Baker, Oreg.
Application September 17, 1954, Serial No. 456,522
14 Claims. (Cl. 144—208)



6. In a log-barking machine, a pair of juxtaposed, parallel, horizontal log-feeding rolls adapted to support therebetween a log of substantially smaller diameter than said rolls, a log-barking tool for removing bark from said log, means for supporting said tool for movement to and from a lowered position against the top surface of a supported log including an arm mounted at one end for swinging movement about an axis located below the top surfaces of said rolls and sufficiently close to one roll so that a straight line through said axis and said lowered position of said tool extends through said one roll, said tool being rotatably supported on the other end of said arm, said arm being of generally bell-crank shape and having the lesser angle side thereof confronting said one roll and curved generally upwardly and inwardly around said one roll to accommodate the same while disposing said tool in engagement with a small supported log on said rolls, and means for rotating said tool.



2,771,923
VENEER JOINING MACHINE
Franz Terwegge, Bad Oeynhausen-Melbergen, and Karl Maschmeyer, Gohfeld Kreis Herford, Westphalia, Germany, assignors to Franz Terwegge Maschinenfabrik, Bad Oeynhausen-Melbergen, Germany, a firm
Application May 19, 1953, Serial No. 355,936
Claims priority, application Germany May 23, 1952
5 Claims. (Cl. 144—279)



1. In a veneer joining machine, a continuous veneer sheet conveyor having pressure and heating means for said sheet, a feeding table having laterally spaced continuously running friction feeding means for feeding veneer strips individually placed thereacross to the feed-in end of said conveyor, yieldably biased guide means over said table for wedging the leading edges of said individual strips as they approach said feed-in end and the exposed trailing edge of the last fed veneer strip so as to flatten said leading edges into alignment with said trailing edge, clutch means in said reduction gearing drive, and means responsive to the movement of said leading edges into closing relation with said trailing edge at said feed-in end for operating said clutch means until a new trailing edge enters said feed-in end.

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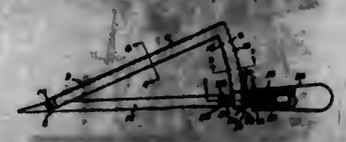
2,771,924
SURFACE MARKING TOOL
William E. Brownell, South Bend, Ind.
Application January 29, 1953, Serial No. 334,949
9 Claims. (Cl. 145—25)



1. A surface treating tool comprising a handle, a shank projecting from said handle and including a pair of spaced longitudinal rigid elongated portions interconnected by a rigid transverse portion at their outer ends, a head fixedly secured to said transverse shank portion and short compared to said spaced shank portions, a cutter pivotally carried by said head and movable in its plane and substantially parallel to said spaced shank portions, and means for locking said cutter in selected angular position in said head.

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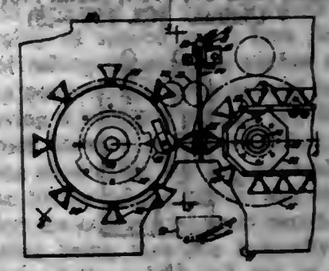
2,771,925
SAW BLADE HOLDER
Robert E. Littman, Flushing, N. Y.
Application August 15, 1955, Serial No. 528,287
1 Claim. (Cl. 145—106)



A means to hold a hack saw blade or the like comprising a frame and a handle, said frame having a backing member and an accurate rear member, said backing member being U shaped in cross section and adapted to accommodate a hack saw blade, said backing member having means adjacent its forward end to hold one end of a hack saw blade, said accurate rear member being formed of a pair of arms extending radially from said backing member, serrations on the outer edges of said arms, a threaded shuttle extending between said arms, said handle threadedly mounted on one end of said shuttle, means adjacent the other end of said shuttle to hold the other end of a hack saw blade, a washer having a radially serrated face slidably mounted on said shuttle and adapted to engage the serrations on said arms, said washer longitudinally movable in one direction on said shuttle by said handle when said handle is rotated around said shuttle, said arms adapted to slide tangentially past said shuttle whereby when a hack saw blade or the like is mounted between the forward end of said backing member and said other end of the shuttle, the backing member may be moved so that the rear member travels in an arc and may be selectively held in position by turning the handle when the serrations on the arms are in registry with the serrations on the washer.

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2,771,926
EGG CRACKING MECHANISM
Charles H. Willsey, Topeka, Kans.
Application August 25, 1953, Serial No. 376,417
13 Claims. (Cl. 146—2)



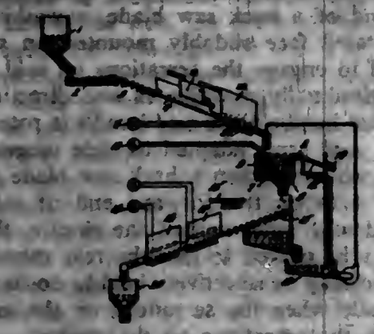
10. An egg handling machine comprising a fixed supporting frame, a pair of spaced carrier members rotatably mounted on said frame, each of said carrier members having a series of shell gripping members supported thereon for movement in the same plane, means connected to said carrier members for rotating said carrier members continuously in timed relation to bring successive gripping members thereon into opposed cooperating shell gripping relation at a cracking station with opposite ends of eggs delivered to the gripping members of one of said carrier members, and an egg cracking device mounted on said supporting frame adjacent said cracking station and in spaced relation to said shell gripping members, said egg cracking device comprising a cracking blade, means for mounting said blade on said frame for movement between said gripping members in a plane which is substantially normal to the plane of operation of said carrier members and into cracking engagement with the successive eggs at said cracking station, and operating means connected to said blade to automatically move said blade toward said cracking station intermittently in timed relation to the movement of said carrier members to engage and crack the shell of each successive egg as it moves between said carrier members.

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2,771,927
PROCESS FOR THE EXTRACTION OF THE CONTENTS OF NUTS, FRUITS, OR LIKE OBJECTS
Otto Thunissen, Ellenbosf, Transvaal, Union of South Africa
Application September 2, 1953, Serial No. 378,007
10 Claims. (Cl. 146—237)

1. A process for the treatment of objects of vegetable origin having an outer layer constituent covering internal constituents and both having a liquid content, to separate the constituent parts thereof, comprising the steps of subjecting the objects to a reduced temperature sufficiently low to solidify the liquid content of their outer layer constituents and seal the outer layer thereof, and thereafter heating them by an electrically generated high fre-

quacy field of sufficient intensity to cause explosive vaporization of the liquid contents of the internal con-



stituents of said objects, thereby bursting and detaching the outer layer, from the internal constituents.

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2,771,928
POCKET CONTAINER
William E. Hoelle, St. Louis, Mo.
Application June 28, 1954, Serial No. 439,595
7 Claims. (Cl. 150—5)



1. A receptacle for insertion in a clothing pocket or the like, comprising two sheets of relatively smooth-surface, stiff material, opposing one another with corresponding edges adjacent to each other, and a binding for said sheets consisting of a strip of relatively pliable, rough material covering a plurality of contiguous edges of said sheets and folded over the adjacent marginal portions of said sheets and securing said sheets together and adapted to resist sliding of the receptacle over the material of a pocket into which the receptacle is inserted, at least one pair of contiguous edges being exposed and providing for insertion of an object between the sheets.

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2,771,929
ANTI-SKID AND ANTI-BOGGING DEVICE FOR TIRES
Joseph Alterio and Louis Alterio, Garfield, N. J.
Application January 17, 1955, Serial No. 482,825
2 Claims. (Cl. 152—232)



1. A combined anti-bog and anti-skid means comprising a tire casing section of a predetermined arcuate length, a second tire casing section of less arcuate length than said first section and superposed thereon, said second section having its ends equally spaced from corresponding ends of said first section, said first section being adapted for seating engagement with a tire mounted on a wheel and having means adjacent each end thereof for releasable engagement with the wheel, said second section having means intermediate its ends for releasable engagement with the wheel, an arcuate anti-skid device looped around said first section adjacent each end of said second section, and means for releasably securing the ends of said anti-skid devices to said second section at the opposite ends thereof.

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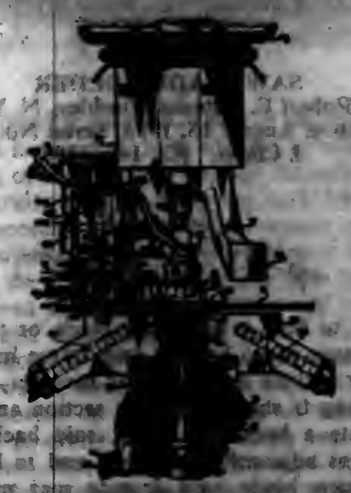
2,771,930
TIRE CHAIN
Milton W. Pike, Omaha, Nebr.
Application August 20, 1953, Serial No. 375,379
2 Claims. (Cl. 152—243)



1. A tire chain for application to a mounted tire resting on the ground, which tire comprises a tread and side walls, said tire chain having interconnected chain links to provide flexible inner and outer side chains adapted to engage said tire side walls when applied to the tire, cross chains connecting said inner and outer side chains at intervals throughout their length, said outer side chain having separable ends, a slack adjuster interposed in the length of said inner side chain comprising an adjuster link connected to a link of said inner side chain and a lever arm pivotally connected to said adjuster link, said lever arm having an elongated slot in which another link of said inner side chain is received, said adjuster link and said lever arm being pivoted together and when said adjuster link and lever arm are in extended position said slack adjuster and said inner side chain constitute an endless inner side chain having a length corresponding, at least, to the circumference of a tire, said lever arm being adapted to be moved into parallel relation with said adjuster link for reducing the length and slack in said inner side chain so that said inner side chain will be of a circumference and length corresponding to the circumference of said tire inner side wall and for engagement therewith upon application of said tire chain to said tire, means for connecting said adjuster link and lever arm in parallel relation, and means for connecting the ends of said outer side chain together.

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2,771,931
MACHINE FOR HOT DIMPLING
Edwin V. Christensen, Hollywood, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application April 29, 1953, Serial No. 352,002
14 Claims. (Cl. 153—21)



1. In a dimpling machine including an anvil carrying a first die, a ram movable toward the first die, a shoe



positioned between the ram and first die and movable toward the anvil means by the ram, and a second die carried by the shoe, the combination of a first heating means carried by the anvil to surround the first die to contact the lower surface of the workpiece to be dimpled, a second heating means movably carried by the shoe to be interposed between said second die and the upper surface of the workpiece and to be pressed against said upper surface by the ram, the second heating means being retractable out of alignment with the dies, and means for retracting said second heating means clear of the dies when ram pressure is released to clear the dies for the dimpling operation.

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2,771,932
TUBE BENDING MACHINE
Ray A. Sandberg, Waukegan, Ill., assignor to Houdaille-Hershey Corporation, Detroit, Mich., a corporation of Michigan
Original application July 11, 1950, Serial No. 173,083. Divided and this application February 26, 1953, Serial No. 339,071
2 Claims. (Cl. 153—67)



2. In a winding apparatus, an elongated winder plate, a first mandrel carried at one end of said winder plate on one side thereof, second and third mandrels carried at the opposite end of said winder plate at said one side thereof to define with said first mandrel and said winder plate a generally triangular winding frame, said winder plate having means on said one side thereof for positioning an initial length of tubing or the like to extend from between said second and third mandrels and around said first mandrel, and means for winding tubing or the like on said mandrels with said initial length of tubing or the like positioned by said means and with the adjacent portion of the tubing or the like extending around the mandrels in close relation to said winder plate.

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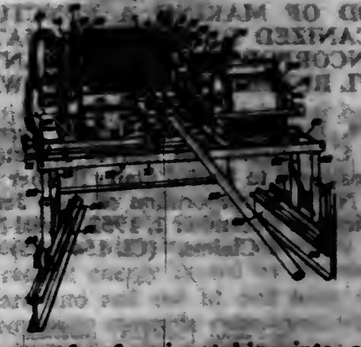
2,771,933
BODY TOOL
Ralph J. Edwards, Knoxville, Tenn., assignor of fifty per cent to Oscar E. Thigpen, Knoxville, Tenn.
Application March 24, 1955, Serial No. 496,374
5 Claims. (Cl. 153—32)



1. A body tool for removing dents from vehicles, said body tool comprising a head, a work piece engaging sealing strip carried by said head at the peripheral edge of said head, said sealing strip projecting from said head to form a pocket between said head and a work piece, and means carried by said head for producing a vacuum in said pocket to draw indented portions of a vehicle body aligned with said pocket.

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2,771,934
APPARATUS FOR FORMING TUBING INTO COILS
Harold W. Payne, San Bernardino, Calif., assignor to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware
Application June 28, 1951, Serial No. 233,968
3 Claims. (Cl. 153—67)



1. An apparatus for forming tubing into coils comprising a supporting structure, a winding arbor rotatably mounted in said structure and provided with means comprising a plurality of spaced apart bars for supporting convolutions of tubing thereon, an anchor element having a rigid ring portion embracing an end portion of the tubing and having a recessed portion providing a hook-shaped jaw which fits over and frictionally clamps a portion of a tubing supporting bar for releasably attaching one end of the tubing to the arbor, and means for rotating said arbor, the said spaced apart bars for supporting said convolutions being movable inwardly toward the longitudinal axis of the arbor and out of contact with the formed tubular coil to facilitate removal of said coil.

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2,771,935
METHOD AND APPARATUS FOR BUNDLING CORRUGATED CARDBOARD BLANKS
Ludwig Clemens, Wiesbaden, Germany
Application May 26, 1954, Serial No. 432,508
Claims priority, application Germany June 3, 1953
3 Claims. (Cl. 154—1.6)



1. A method for bundling a plurality of adjacent strip-shaped longitudinally extending corrugated cardboard blanks comprising, assembling said blanks into a staple of loosely superposed cardboard blanks, conducting said staple into and through a staple holding and guiding means, applying adhesive to a limited area of the upper and lower longitudinal surfaces of said staple on the cut-off upper and lower edges of the loosely superposed blanks thereof during the passage of said staple through said holding and guiding means, the application of the adhesive being restricted to the edges of a few outer blanks on each side of the staple, thereupon applying paper webs onto the adhesive coated longitudinal surfaces of said staple, the width of said paper webs being slightly greater than the width of the staple surfaces, the paper webs thereby projecting slightly over the edges of said staple.

3. Apparatus for adhesively bundling a plurality of longitudinally extending cardboard blanks comprising means for assembling said blanks into a staple of loosely superposed longitudinally extending cardboard blanks, staple holding and guiding means into which the assembled staple is guided and held as loose blanks with the edges in an upward position, edge adhesive applying means fitted with elevated portions of limited area to apply adhesive from said limited area to the upper and lower sides of said staple, said area of adhesive applica-

tion being smaller than the area of the upper side and lower side of the staple, respectively, and a horizontal pressing member for pressing a paper strip from a paper supply onto said upper and lower adhesively coated sides of said staple.

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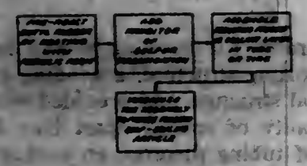
2,771,936

**METHOD OF MAKING A PUNCTURE-SEALING VULCANIZED RUBBER PNEUMATIC ARTICLE BY INCORPORATING A SEALANT LAYER OF BUTYL RUBBER PRE-REACTED WITH A CURATIVE**

Alfred N. Sampsen, Grosse Pointe Farms, Mich., and Lester C. Peterson and Harvey J. Batts, Indianapolis, Ind., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application December 2, 1952, Serial No. 323,662

8 Claims. (Cl. 154—15)



1. In a method of making a puncture-sealing pneumatic article comprising an annular air-impervious rubber envelope having incorporated in at least its crown portion a layer of plastic sealant material which is a reaction product of (1) a synthetic rubbery copolymer of an isoolefin having from 4 to 7 carbon atoms with from 0.5 to 10% of an aliphatic conjugated diolefin having from 4 to 6 carbon atoms and (2) a curative for said rubbery copolymer in amount of from 0.1 to 2.5 parts by weight, per 100 parts of said rubbery copolymer, said reaction product being made by heating the said reactants (1) and (2) in intimate admixture at a temperature of from 200° to 400° F. for from 5 to 45 minutes, the improvement which comprises the step of carrying out said heating of said reactants prior to incorporating the said sealant layer in the said air-impervious rubber envelope and prior to the vulcanization of the assembly, and then vulcanizing the assembly.

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2,771,937

**TABLE-BENCH HAVING MEANS FOR CONTROLLING AND GUIDING THE FOLDING THEREOF INTO FOLDING POSITION**

Kermit H. Wilson, Minneapolis, Minn.

Application March 4, 1955, Serial No. 492,212

2 Claims. (Cl. 155—124)



1. In a folding table and bench unit, a supporting structure, a table top, mechanism connecting the table top to the supporting structure and guiding the same for swinging movements from a generally horizontal operative position to a generally vertical storage position, a bench section supported by said supporting structure in an operative position adjacent the longitudinal edge of the table top but below the plane of the latter when the latter is in its horizontal position, and means comprising rigid elements and connecting pivot joints anchoring the bench section to the table top for swinging movements from said operative position to an inoperative position adjacent and in substantially flat face to face relationship with one of the surfaces of the table top.

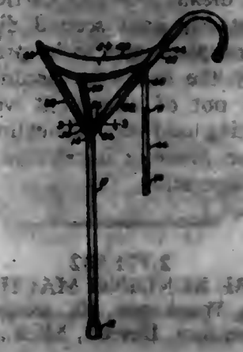
2,771,938

**SEAT CANE**

William G. Nehlich, Rochester, N. Y.

Application October 20, 1955, Serial No. 541,773

3 Claims. (Cl. 155—135)



1. A combined walking stick and seat comprising a staff having a ground engaging member at one end and three arms pivotally attached at the other end on axes extending transversely of the staff, means to limit the pivotal movement of the arms between a position parallel with said staff and a position angularly disposed with reference to the staff, said means comprising a pair of abutments on each of said arms, one abutment of each pair being adapted to engage the end of the staff, and the other the side wall of the staff below said pivotal means a triangular flexible seat secured to each of the arms, one of said arms being extended and formed to provide a handle, and means for binding all of said arms together when disposed in parallel relation said abutments engaging the end of said staff and serving together with said binding means to render said three arms as a rigid extension of said staff.

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2,771,939

**FURNITURE SLIP COVERS**

Philip S. Trubitt, Chicago, Ill., assignor to Sears Roe, Chicago, Ill.

Application July 29, 1954, Serial No. 446,573

2 Claims. (Cl. 155—182)



1. A slip cover for the back of an article of furniture comprising a front and a rear panel connected together at the upper edges for covering the front and rear surfaces of the back rest of an article, a pair of shoulder flaps each secured to the upper portion of a lateral edge of the front panel and extending into free underlapping relation with the corresponding edge of the rear panel and extending outwardly and terminating in a free outer edge arranged to hang pendant about the shoulder of an article on which the cover is placed, and a pair of side flaps each secured to a lateral edge of the upper portion of the front panel below and in overlapping relation with the corresponding shoulder flap and extending downwardly into free underlapping relation with the front panel and outwardly to overlap the free edge of the adjacent shoulder flap as the side flap is passed about the side edge of the article back to the rear surface of the article, and means for attaching said side flaps in position at the article back.



2,771,940

**CHAIRS**

Warren J. Peterson, Ludington, Mich., assignor to Curtiss Industries, Inc., Ludington, Mich., a corporation of Michigan

Application June 28, 1956, Serial No. 593,416

5 Claims. (Cl. 155—191)



1. A chair comprising a seat frame including a pair of side rails and spaced apart rearward and forward cross members joined to the side rails, a pair of arms positioned above the side rails, a pair of upstanding front legs respectively joined at their upper ends to the arms, said front legs also being respectively joined to the side rails, a rear frame including a pair of co-planar upstanding rear legs, said arms and said side rails being joined to said upstanding rear legs, an upper back-frame forming member joining the rear legs, a lower back-frame forming member joining the arms, said upper and lower back-frame forming members being parallel, said lower back-frame forming member being positioned forwardly of and out of the plane formed by the rear legs, and a pair of co-planar side members converging toward each other and joined to the upper and lower back-frame forming members, whereby a triangulated bracing structure is formed and the seat and rear frames are maintained in a rigid, stable condition when a force is applied in any direction.

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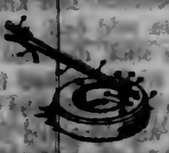
2,771,941

**TIRE BEAD BREAKER WITH RIM CLAMPING MEANS**

Anthony B. Mastropolo, Penns Grove, N. J.

Application January 15, 1954, Serial No. 404,333

1 Claim. (Cl. 157—1.17)



A tire demounting tool comprising an elongated housing, a pair of spaced parallel fingers secured to one end of said housing and extending from one side thereof substantially transverse to the longitudinal axis of said housing, a ram slidably mounted in said housing, means mounted on the other end of said housing and connected to said ram for urging said ram longitudinally in said housing, a finger on said ram extending parallel to and positioned between said first named fingers, locking means mounted adjacent said one end of said housing for securing the tool in position on a wheel or rim, said locking means including a pair of members pivotally secured at one of their ends to said housing on the side opposite to the direction in which said fingers extend, said members extending in the same direction as said fingers and having a hook portion provided on the other end thereof and overlying said fingers, and a stop member fixedly secured to said housing, said stop member limiting the movement of said members away from said fingers, a hook positioning lever pivotally connected intermediate its ends to said members adjacent the hook portion thereof and spaced from the housing, one end of said lever having a rim-engaging portion, the other end constituting a handle whereby said rim-engaging portion can be positioned against the inner face of the rim and said handle actuated to draw said hook portion into locking position with said rim and said fingers between the flange of said rim and the bead of the tire.

2,771,942

**APPARATUS FOR DETECTING AN IGNITION ARC AND CONTROLLING A BURNER**

William E. Miller, Youngstown, Ohio

Application February 24, 1954, Serial No. 412,244

1 Claim. (Cl. 158—28)



A burner control system including a burner having an outlet, fuel delivery means for said burner and ignition electrodes at said outlet, a photocell responsive to fluctuations of radiant energy positioned to scan only an area to one side of a straight path between the tips of said ignition electrodes whereby said photocell receives fluctuations of radiant energy caused by the movement of an ignition arc into and out of said area, a circuit including an electrically operable valve controlling said fuel delivery means, a tuned amplifier having an input circuit connected to said photocell and selectively responsive to the frequencies of said fluctuations, a power source for said amplifier, a relay including a coil connected to an output circuit of said amplifier for actuation by the output current of said amplifier upon occurrence of said fluctuations, a power source for said valve circuit, said relay having a switch in said circuit controlling said valve.

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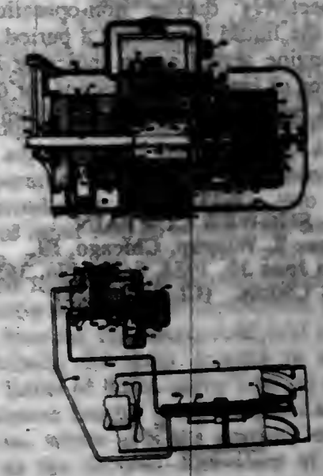
2,771,943

**OIL BURNER**

Herbert J. Wiser, Sr., Bloomington, Ill., assignor, by mesne assignments, to Hoover Motor Company, Inc., New York, N. Y., a corporation of New York

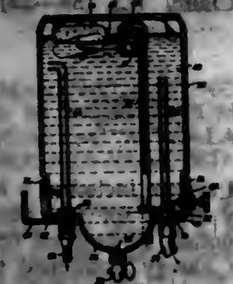
Application February 20, 1952, Serial No. 272,540

4 Claims. (Cl. 158—36.5)



4. An oil burner comprising an oil pump having an inlet and an outlet, a by-pass between said inlet and outlet, normally closed valve means and a restriction in said by-pass in the order named operative to resist flow of oil therethrough during operation of said pump thereby to create a pressure differential between said inlet and outlet, an oil atomizing nozzle connected to said by-pass between said valve means and said restricted passage so as to be supplied with oil from said pump when said valve means is open, a normally closed valve connected to said valve means and in the connection between said nozzle and said by-pass, and actuating means connected to said pump outlet and to said valve means for opening said valve means and said valve in response to a predetermined pressure in the oil discharged by said pump.

2,771,946
**EMERGENCY FUEL RESERVOIR AND GAUGE**
Earl W. Thornburg, Des Moines, Iowa
Application December 26, 1951, Serial No. 263,343
5 Claims. (Cl. 123—26.4)



1. A fuel container for disposition intermediate the fuel pump and carburetor on an internal combustion engine, said container having an inlet and outlet in the bottom thereof, said inlet adapted to communicate with the fuel pump for receiving fuel therefrom, said outlet adapted to communicate with the carburetor, a vertical standpipe within said container that connects to said outlet so that fuel moving out of said container to the carburetor must pass through the length of said standpipe, an open top pipe vertically disposed within said container and connected to said inlet, said pipe terminating within said container at a higher plane than said standpipe, said standpipe provided with an inlet communicating with the interior of said container at a point below its normal inlet, a manually operated valve means operatively associated with said lower inlet in said standpipe to control the communication between the interior of said container and the interior of said standpipe at the level thereof, and automatic valve means responsive to the liquid level within said container to limit the maximum liquid level therein at a point higher than the top of said pipe, said pipe, and standpipe respectively providing drainage outlets for liquid in said container to the fuel pump and carburetor respectively during non-operation of the engine whereby the liquid level after a period of non-operation of the engine serves as an indicator to expedite locating the source of leakage, and means for determining said liquid level within said container from exteriorly thereof.

2,771,945
**SHOWER CURTAIN**
James B. Wistrup, Chicago, Ill.
Application June 30, 1953, Serial No. 365,060
2 Claims. (Cl. 160—124)



1. A sectional curtain for closing off a space between two wall portions and a bath tub disposed between said wall portions, said curtain being adapted to be slidably supported on a horizontal slide rod, comprising two individual parts each part including means for slidabty engaging a supporting rod, a slide fastener for fastening said two parts together along adjacent edges thereof, said slide fastener being operable from either side of the curtain, a continuous strip of tacky material along the outside edges of said curtain parts and across the lower portions of said curtain parts on the outwardly facing side of said curtain, whereby said curtain parts may be secured together by said slide fastener, said tacky material effecting a continuous seal along the adjacent walls and to the inside of the tub.

2,771,946
**REPLACEMENT FOR VENETIAN BLIND SLAT-SUPPORTING STRAP**
John J. Dinan, Sr., Dorchester, Mass.
Application February 1, 1954, Serial No. 407,237
2 Claims. (Cl. 160—178)



1. A replacement for a Venetian blind slat-supporting strap consisting of a thin narrow strip of sheet metal, the opposite ends of which are formed with a plurality of bendable pointed tongues adapted to pierce the tapes of the blind and provide a support for one end of a slat, the length of the body portion of the strip between said tongues being substantially equal to the width of the slats of the blind.

2,771,947
**CUTTING STICK AND METHOD OF CUTTING PAPER USING SAME**
Ralph Coffey, Brentwood, Md.
Application December 28, 1954, Serial No. 478,265
6 Claims. (Cl. 164—17)



1. In a cutting machine having a cutting knife, a cutting bed disposed therebeneath, said knife being movable toward and away from said bed, said bed having holding means for a cutting stick disposed beneath said cutting knife and a cutting stick disposed in said holding means for cooperation with said knife, the improvement wherein said cutting stick is an elongated body having knife engaging surfaces, said body consisting essentially of a material of the nature of ethylene homopolymers characterized by short chain branching in the polymer structure and having a density of from about 0.92 to about 0.95 gram per milliliter, a stiffness above about 25,000 pounds per square inch, and a logie melt viscosity at 190° C. in centipoises of between about 6 and about 9.

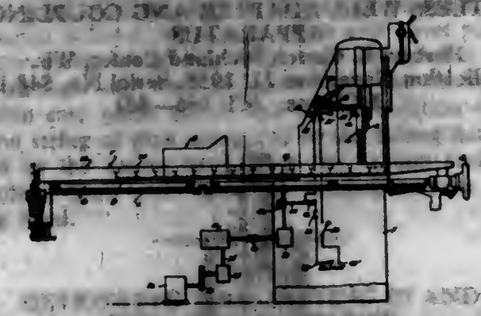
6. The method of cutting paper and paper-like sheets which consists of placing a plurality of said sheets in stacked relation upon a supporting surface, cutting said stacked sheets with a knife in a plane extending transversely of said stacked sheets, supporting said stacked sheets at the base thereof coextensive of the plane in which said sheets are cut with a resilient rigid body consisting essentially of ethylene homopolymers characterized by short chain branching in the polymer structure and having the following average properties:

| | |
|---|---|
| Logie melt viscosity at 190° in centipoises | 6.0 |
| Density at 23° C. in grams per milliliter | 0.92 |
| Stiffness at 73° F. in p. s. i. (Tinius-Olsen, ASTM D747–50) | 27,000 |
| Tensile strength at 73° F. in p. s. i. ASTM D412–51T) | 1,750 |
| Yield point at 73° F. in p. s. i. (ASTM (D412–51T) | 1,700 |
| Elongation at 73° F. percent (ASTM D412–51T) | 600 |

whereby said knife in cutting said body at the same time said stacked sheets are cut forms cuts in said body which close after being cut, said body remaining free of extraneous matter.

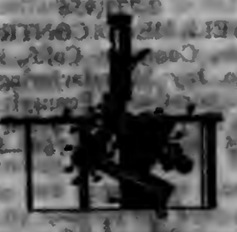


2,771,948
**CUTTING KNIFE-STACK SUPPORT**
Carl Thunston, Lansdowne, Pa., assignor to E. P. Lawson Co., Inc., New York, N. Y., a corporation of New York
Application December 12, 1952, Serial No. 325,625
4 Claims. (Cl. 164—51)



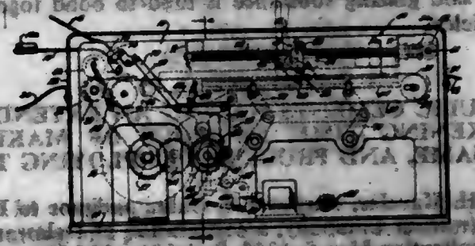
2. In a cutting machine including a table for supporting paper stock to be cut, a clamp and cutting knife movable independently toward and away from a supporting surface of said table, a back gauge adjustable along said table relative to said knife, said supporting surface being provided with air admission ports adapted to supply an air cushion beneath paper stock supported thereover, a valve including a depressible operating member projecting above said supporting surface and normally constricting each of said ports, a source of air under pressure, a conduit system interconnecting said source and the respective ports, a normally closed, electrically operated, air admission valve in said conduit system, and an energizing circuit for said air admission valve including disabling means operative in response to movement of either said clamp or said back gauge and precluding opening of said normally closed air admission valve.

2,771,949
**SHEARING DEVICE USED IN EMBROIDERY TRIMMING MACHINE**
Victor I. Spada, Great Neck, N. Y., assignor to Man-Sew Corporation, New York, N. Y., a corporation of New York
Application February 16, 1953, Serial No. 336,919
3 Claims. (Cl. 164—79)



1. A shearing device comprising a rotatable shaft mounted in a plane inclined to the vertical, a circular cutter carried thereby, said cutter having a shear face normal to the axis of rotation and a peripheral shear edge on said shear face, a second shaft mounted in a plane parallel to and in advance of the plane of said shear face, a ledger blade support pivotally mounted on said second shaft, a ledger blade on said support having a shear edge which extends over said pivotal mounting in advance of and in engagement with the upwardly facing shear edge of the cutter, said arrangement tending to bring the ledger blade shear edge into closer engagement with the shear edge of the cutter as drag is exerted by the work in resisting shear.

2,771,950
**SNAP-OUT FORM SEPARATOR**
Frederick J. Smith, Newington, Conn., assignor, by mesne assignments, to Anthony G. Werner, West Hartford, Conn.
Application August 6, 1952, Serial No. 302,935
16 Claims. (Cl. 164—64.5)



1. A device for separating form sheets from a snap-out assembly comprising, a transverse abutment on said device, traversing means to advance said assembly against said transverse abutment to stop the advancing movement of said assembly, gripping means on said transverse abutment to engage the forward edge of said assembly, means to momentarily bend the intermediate portion of said assembly, a pair of closely adjacent rotating rollers, guiding means to present the trailing edge of said assembly between said rotating rollers when released by said bending means to sever the form sheets from said assembly, whereby one portion of said assembly will be ejected by said rollers, and means to release the forward edge of said assembly from said gripping means, whereby the remaining portions of said assembly will be ejected by said traversing means.

2,771,951
**METHOD OF OIL RECOVERY BY IN SITU COMBUSTION**
Clarke N. Sloan, Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application September 11, 1953, Serial No. 379,729
3 Claims. (Cl. 166—11)

1. The method of recovering gas and oil from a subterranean formation containing a petroliferous deposit and penetrated by at least one input well and at least one adjacent output well, comprising the steps of heating said formation adjacent said input well to a sufficiently elevated temperature to establish a combustion zone in said deposit, introducing free oxygen into said formation through said input well to support the combustion in said combustion zone and to move said combustion zone through said formation while maintaining the portions of said formation adjacent said combustion zone at a temperature less than the temperature of said combustion zone, and maintaining the mass velocity of said free oxygen within the limits of 0.016 $\phi S$ to 1.08 $\phi S$ pound moles per hour per square foot of cross-sectional area of said combustion zone, where $\phi$ is the porosity of said formation expressed as the decimal equivalent of the ratio of the actual formaion porosity to unit porosity, and S is the oil saturation of said formation expressed as the decimal equivalent of the ratio of the actual oil saturation in the formation to complete saturation, while recovering gas and oil from said output well.

2,771,952
**METHOD OF CONSOLIDATING SUBTERRANEAN FORMATIONS**
Clarke N. Sloan, Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application August 24, 1953, Serial No. 376,263
4 Claims. (Cl. 166—12)

1. A method for consolidating the particles of an incompetent sand formation encountered in a well bore

comprising the steps of introducing into said well bore adjacent said formation a mixture comprising a glazing substance and a combustible fuel, initiating combustion in said fuel in said mixture, and supplying a combustion gas to said mixture to maintain said combustion at a sufficiently elevated temperature to fire said glazing substance, whereby said glazing substance is fired to bond together said particles.

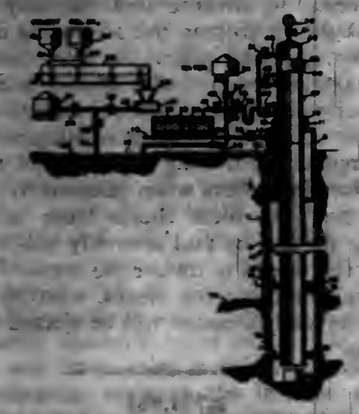
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2,771,953

## HYDRAULIC CEMENTS HAVING AN EXTENDED THICKENING TIME, METHODS OF MAKING THE SAME, AND PROCESSES EMPLOYING THE SAME

Herman H. Kaveler, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application May 5, 1952, Serial No. 286,131
11 Claims. (Cl. 166—31)



11. The process of cementing a well which extends into a pervious formation which comprises placing a Portland cement aqueous slurry having a reduced water-loss adjacent to said pervious formation by admixing with Portland cement from 0.05 to 5% by weight of the dry cement of a Portland cement slurry water-loss reducing agent selected from the group consisting of said cellulose sulfate and salts of acid cellulose sulfate, mixing therewith sufficient water to produce a fluid slurry, and introducing said slurry into said well into contact with said pervious formation.

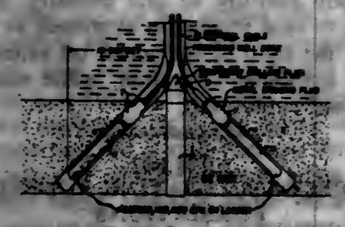
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2,771,954

## TREATMENT OF PETROLEUM PRODUCTION WELLS

Loren H. Jenks and Ray J. Stancliff, Jr., Tulsa, Okla., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application April 29, 1953, Serial No. 351,924
6 Claims. (Cl. 166—39)



4. A method for increasing the rate of production of oil from a producing well that penetrates a producing formation which comprises drilling and spacing a plurality of auxiliary bore holes about the producing well and within the producing formation, introducing heat into part of the formation from each of said auxiliary bore holes while preventing flow of fluids within the auxiliary bore holes, spacing each auxiliary bore hole from the producing well a distance such that the part of the formation heated lies in the immediate vicinity of the producing well, and withdrawing oil from the formation through the producing well.

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2,771,955

## PITLESS WELL ADAPTER AND COUPLING APPARATUS

Herbert E. Carter, Richland Center, Wis.

Application November 21, 1955, Serial No. 548,112
5 Claims. (Cl. 166—85)



1. A pitless well adapter and coupling apparatus comprising a generally hollow adapter fitting having an inlet and an outlet and providing a connector flange at its inlet, a generally hollow coupler member having an inlet adapted to be connected to a pump supply pipe and an outlet forming a mounting lip, riser means secured to said coupler member and adapted to extend upwardly through a well casing, lever means pivotally mounted on said coupler member, and an elongated operating member carried by said riser means and secured to said lever means, said lever means being operative when actuated by said operating member to tightly engage said coupler mounting lip against said adapter connector flange and effect flow interconnection thereof entirely within a well casing.

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2,771,956

## WELL HEAD CONTROL

Glenn D. Johnson, Compton, Calif., assignor, by mesne assignments, to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application May 13, 1953, Serial No. 354,901
15 Claims. (Cl. 166—88)



1. In apparatus for facilitating well head operations wherein the surface equipment includes a blowout preventer above a casing head, the provision of: a casing head adapted to be connected to casing, the upper portion of said casing head including an outwardly and upwardly expanding frusto-conical landing surface; a guide



spool supported on said casing head and below a blowout preventer, said guide spool including inwardly and longitudinally extending guide ribs with fluid channels therebetween; a tubing head adapted to be passed through a blowout preventer, said tubing head having a through bore, means carried by the lower portion of the tubing head for connecting the same with a string of pipe and including a downwardly directed, conical seating surfaces provided with seal means adapted to seat on the landing surface of said casing head, an upper portion provided with a coupling means and an outwardly and upwardly flaring entry portion, and a removably plugged lateral production outlet between said upper and lower portions, whereby rising circulating fluid may bypass the tubing head through said fluid channels when the tubing head is within said guide spool, and said circulation shut-off and the string of pipe connected to the tubing head supported by the casing head when the seating surface of the tubing head rests upon the landing surface of the casing head.

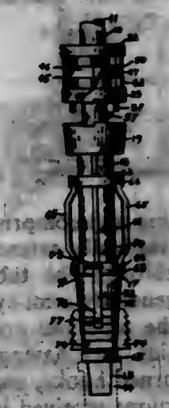
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2,771,957

## RETRIEVING TOOL FITTING IN AND ENGAGING WASH PIPE

John Hugh Weber, Abilene, Tex.

Application December 9, 1954, Serial No. 474,197
7 Claims. (Cl. 166—218)



1. A grip against rotation fitting inside of a pipe, comprising a longitudinal shank, a sleeve fastened on said shank having a plurality of cam surfaces each increasing in distance from the axis in one direction of rotation, a slip for each cam surface adapted to slide thereon having extensions upward and downward beyond said cam surfaces and having longitudinal teeth to engage the inside of the pipe, means fastened to said shank disposed above and below said cam surfaces for guiding said extensions as each of said slips slides on its cam surface, a wiping finger extending transverse to the axis attached to each slip at one end having the free end adapted to be pressed outwardly to bring the wiping finger into frictional contact with the inside of the pipe, said sleeve having a groove cut longitudinally in each cam surface, a wedge pin having a thin portion and a thick portion mounted to slide in each groove from the point where a thin portion of the pin underlies the free end of the wiping finger to the point where a thick portion thereof underlies and presses outward the free end of the wiping finger, means fastened to said shank disposed below said cam surfaces for guiding each of said wedge pins in its groove and a member slidable on said shank having wiper strips attached contacting the inside of the pipe and having at one end a normal surface to contact said wedge pins and move each pin in its groove to where its thick portion underlies the end of the wiping finger.

2,771,958

## HYDRAULIC DRIVE WITH PRESSURE EQUALIZER AND CONTROL FOR PLURAL MOTORS

Charles F. Ball, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application December 7, 1953, Serial No. 396,508
6 Claims. (Cl. 180—6.48)



1. In combination, a pair of ground-engaging vehicle-supporting and propelling elements, a reversible hydraulic driving motor individual to one of said elements, a reversible hydraulic driving motor individual to the other of said elements, a power operated pump, a flow divider comprising a pair of motor-pump devices connected to turn together and each having a fluid discharge, fluid supply connections between said pump and said pair of motor-pump devices comprised by said flow divider, a fluid supply connection leading from one of said fluid discharges, a fluid supply connection leading from the other of said discharges, a control valve to which one of said fluid supply connections leads, a control valve to which the other of said fluid supply connection leads, a pair of alternatively fluid supply and fluid exhaust connections leading from one of said control valves to one of said reversible hydraulic driving motors and a pair of alternatively fluid supply and exhaust connections leading from the other of said control valves to the other of said reversible hydraulic driving motors, each of said control valves having means for supplying fluid to either of its associated alternatively fluid supply and exhaust connections or to interconnect the latter while precluding fluid supply to either of them.

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2,771,959

## SHARP-TOOTHED TIRE ENGAGING MEMBERS FOR DRIVING VEHICLE WHEELS

William H. Phelps, Raldon, Nebr.

Application February 19, 1954, Serial No. 411,482
6 Claims. (Cl. 180—74)



1. In a drive mechanism for a wheeled vehicle: a drive tire on a wheel of the vehicle which is composed of relatively soft, resilient material and has an effectively smooth running surface; and a drive shaft provided with a drive gear adapted to engage the running surface of the tire, said gear having teeth which present a sharp forward edge which bites into the tire as the gear rotates to push up a sharply angled ridge of tire material ahead of each tooth as it engages with the tire against which the tooth exerts its driving force.

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2,771,960

## INTERVAL VELOCITY SEISMIC LOGGING

Neal J. Smith, New Orleans, La., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application September 11, 1951, Serial No. 245,956
7 Claims. (Cl. 181—5)

1. An apparatus for determining the velocity of an elastic wave through a subsurface formation penetrated by a well bore, comprising, in combination, a generator for elastic waves having an approximately radially extend-

ing cavity for explosive facing a segment of said well bore, a cable for suspending said generator at a predetermined



point in said well bore, a seismometer suspended by said cable, and an elastic wave absorber between said generator and said seismometer.

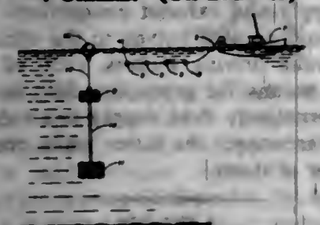
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2,771,961

## METHOD OF INITIATING UNDERWATER SEISMIC DISTURBANCES

Francis G. Blake, Jr., Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application July 27, 1955, Serial No. 524,658
4 Claims. (Cl. 181—.5)



1. A seismic source for offshore seismic exploration comprising a first and second explosive source, means for positioning said first explosive source above said second explosive source, means for detonating said explosive sources simultaneously, the potential energy of said explosive sources being related to their positions in the water according to the following relationship:

$$\frac{W_1^2}{(D_1+33)^5}=\frac{W_2^2}{(D^2+33)^5}$$

where

$W_1$=the potential energy of the first explosive source
$W_2$=the potential energy of the second explosive source
$D_1$=depth below the surface of the first explosive source
$D_2$=depth below the source of the second explosive source,

said first and second explosive sources being spaced apart by a distance greater than the sum of the maximum radii of the two explosive bubbles and within the range of Bjerknes forces.

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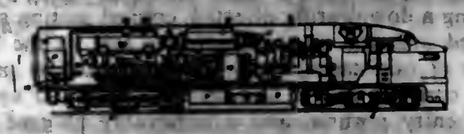
2,771,962

## RECYCLING, PRESSURIZED VORTICAL WHIRL SEPARATOR, CONCENTRATOR AND ASH STORAGE SYSTEM FOR POWDERED COAL-BURNING GAS TURBINE POWER PLANTS

John I. Yellott, New York, and Frederick D. Buckley, Fredonia, N. Y., assignors to Bituminous Coal Research, Inc., Washington, D. C., a corporation of Delaware

Application January 29, 1953, Serial No. 334,652
5 Claims. (Cl. 183—34)

1. Recycling separator, concentrator and storage system of the character described, comprising, in combination, a source of pressurized particle-bearing gasiform fluids; a first separating means coupled to said source, and including at least one reverse flow vortical whirl separator having an axially apertured bottom; a tangential blowdown line for blowdown fluid-borne separated particles adjacent to the bottom; an ash concentrator comprising a second reverse flow vortical whirl separator, of lesser



capacity than said first separating means coupled to the first said blowdown line; duct means for recycling cleaned gas from said ash concentrator to the bottom axial aperture of the first separator; a second blowdown line discharging concentrated separated particles in a blowdown stream of gas from the ash concentrator; and means for receiving and storing the said concentrated blowdown residues.

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2,771,963

## AIR CONDITIONING UNIT AND AIR FILTER THEREFOR

Robert Warren Eichorn, Marshalltown, Iowa, assignor to Lennox Industries, Inc.

Application December 24, 1953, Serial No. 400,228
2 Claims. (Cl. 183—49)



1. An air conditioning unit comprising in combination: a housing defining a vertically extending tube; means to impel air vertically through the tube to condition the same; an air filter of generally semi-cylindrical conformation disposed within the tube and oriented to receive air flow on its convex side and having marginal portions in the form of downturned hooks; and rails on the housing having tongue portions received in the marginal portions of the filter, the rails further having imperforate hood portions extending over the ends of filter and partially along the concave face thereof to form a seal.

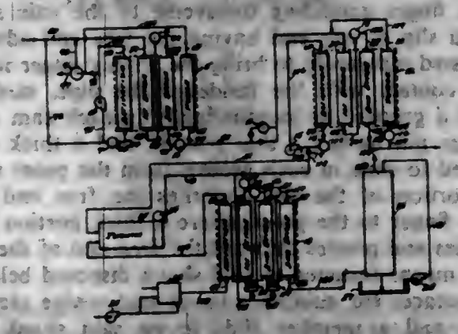
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2,771,964

## METHOD OF RECOVERING $H_2S$ FROM NATURAL GAS

Ernest B. Miller, Houston, Tex., assignor to Jefferson Lake Sulphur Company, New Orleans, La., a corporation of New Jersey

Application April 13, 1953, Serial No. 348,304
8 Claims. (Cl. 183—114.2)



1. In the removal and recovery of $H_2S$ from natural gas containing $H_2S$ involving the contact of adsorbent material with the natural gas from which water vapor and condensable hydrocarbons have previously been removed therefrom with resultant adsorption of the $H_2S$ by the adsorbent material and the subsequent treatment of the adsorbent material with a heated medium to vaporize and remove the $H_2S$ and thereby reactivate the adsorbent material for further contact with the natural gas, the improvement which comprises providing at least one bed of adsorbent material in each of a plurality of zones; continuously heating and recycling a flow of a gas consisting substantially of $H_2S$ under high pressure through at least one of said zones to remove the $H_2S$ contained in the adsorbent material therein and reactivate the adsorbent material; directing a continuous flow of the natural gas under high pressure through the remainder of said zones so that the $H_2S$ content of the gas will be adsorbed by the adsorbent material therein; periodically shifting the relative position of the particular adsorbent material and the particular flow of fluid in each of said zones so that each zone becomes, in succession, a reactivation zone and an adsorption zone; and continuously withdrawing a portion of the hot $H_2S$ gas from the recycling path.



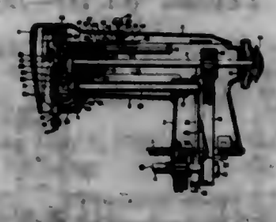
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2,771,965

## SEWING MACHINE LUBRICATION

Frank Parry, Trumbull, and Ivan E. Snyder, Bridgeport, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application December 15, 1953, Serial No. 398,275
2 Claims. (Cl. 184—6)



1. In a sewing machine having a bracket-arm shaft and a take-up mechanism actuated thereby, means for lubricating said bracket-arm shaft and said take-up mechanism comprising a pair of lubricant-holding elements including a lubricant distribution point and a lubricant reservoir, wicks leading from said distribution point to said bracket-arm shaft and to said take-up mechanism, a cantilevered leaf spring having the free end thereof normally overhanging one of said lubricant-holding elements, a wick carried by said spring substantially longitudinally thereof and having one end disposed adjacent the free end of said spring and the opposite end disposed in contact with the other of said lubricant-holding elements, and manually-operated means for depressing the free end of said spring and for holding the same down against the resilient action thereof.

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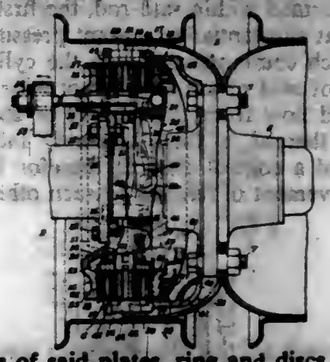
2,771,966

## AXIAL DISC BRAKE

George M. Davey, Downey, Calif., assignor to Hadco Engineering Co., Inc., Huntington Park, Calif., a corporation of California

Application April 5, 1954, Serial No. 420,810
10 Claims. (Cl. 188—72)

1. A brake comprising a rotationally mounted housing drum, two spaced brake discs rotationally carried by the drum, means connecting said discs and said drum and slidingly engaged with the inner face of said drum, a non-rotational backing plate on one side of one of said brake discs, a pressure plate on the opposite side of the other brake disc, a center ring between the discs, link means non-rotationally connecting said center ring and the backing plate and the center ring and the pressure plate, and means pivotally mounted on the backing plate and connected to the pressure plate to move and press



the lateral faces of said plates, ring and discs together to arrest rotation of the housing drum.

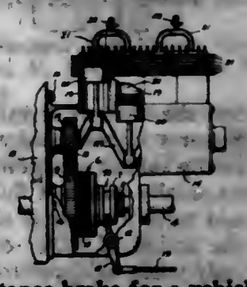
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2,771,967

## INTERNAL RESISTANCE BRAKE WITH CLUTCH

Edwin B. Larson, Brush Prairie, Wash.

Application March 18, 1954, Serial No. 417,123
1 Claim. (Cl. 188—91)



An internal resistance brake for a vehicle, comprising a hollow casing member bounding and having formed therein at least two laterally extending parallel cylinders which are side by side and are open inwardly to the hollow interior of the casing, a piston member mounted for reciprocation within each of said cylinders, a longitudinal eccentric crank shaft journaled within the hollow interior of said casing and operatively joined to said pistons by crank shaft throws spaced radially 180 degrees such that the movement of the two said pistons are in opposite directions, rotatable spur gear and disc clutch means operatively joined in series to said crank shaft within said casing hollow interior selectively to engage and to disengage the crank shaft with rotatable drive means originating with an exterior source, a closed hydraulic conduit interconnecting said cylinders through ports formed one in the outer end of each cylinder casing, said hydraulic conduit being U shaped in elevation and extending laterally out from said casing, a pet cock opening into said hydraulic conduit intermediate said ports by means of a short branch conduit so as to leave unrestricted the internal bore of the conduit, hydraulic fluid completely filling said conduit and the space between each piston and the outer portion of the corresponding cylinder, said conduit being of a preselected restricted and constant cross sectional area to generate a preselected resistance to flow of the hydraulic fluid back and forth therethrough, and plural air cooling fins both encircling said casing about said cylinders and projecting laterally out from the outer end of each cylinder casing.

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2,771,968

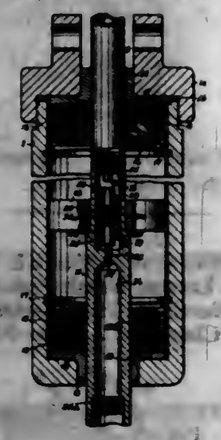
## SHOCK ABSORBER

Jean Mercier, New York, N. Y.

Original application January 30, 1948, Serial No. 5,348. Divided and this application April 5, 1952, Serial No. 280,725
Claims priority, application Luxemburg February 4, 1947
4 Claims. (Cl. 188—96)

1. A shock absorbing device comprising a cylinder containing a fluid and a piston reciprocable in said cyl-

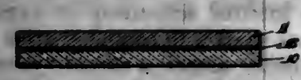
inder to subject said fluid on both of its sides to variations in pressure, said piston being provided with a rod, two chambers formed within said rod, the first of which contains fluid at substantially constant pressure and the second of which communicates with the cylinder spaces on both sides of said piston so as to provide a passage permitting fluid flow from side to side of the piston during movement thereof, a valve assembly including a valve member and a control element therefor both capable of relative movement in relation to each other and arranged



within said second chamber so as to be subjected to the variable fluid pressures in both said cylinder spaces, and means to additionally subject said control element on one side to said substantially constant fluid pressure in such a manner that said valve member is allowed to open said passage under the action of either one of said variable fluid pressures only when said control element has been displaced by the same fluid pressure either against said substantially constant fluid pressure or through the intermediary thereof.

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**2,771,969**
**METHOD FOR JOINING METALLIC AND CERAMIC MEMBERS**
**James M. Brownlow, Metuchen, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey**
**Application November 26, 1952, Serial No. 322,731**
**7 Claims. (Cl. 189—36.5)**

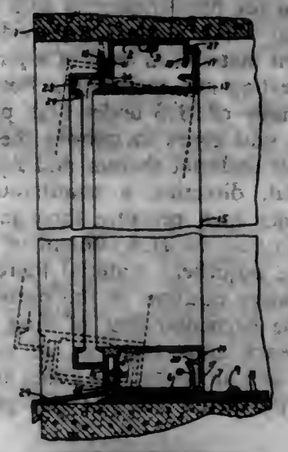


4. A joined assembly comprising a metallic member firmly physically bonded and electrically conductively joined to a ceramic member solely by a bonding layer consisting essentially of solid glass with finely divided silver dispersed therein and firmly bonded to the metallic and ceramic members.

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**2,771,970**
**METAL WINDOWS**
**Emil K. Geyser, Pittsburgh, Pa., assignor to E. K. Geyser Company, Pittsburgh, Pa., a corporation of Pennsylvania**
**Application August 9, 1955, Serial No. 527,364**
**6 Claims. (Cl. 189—75)**

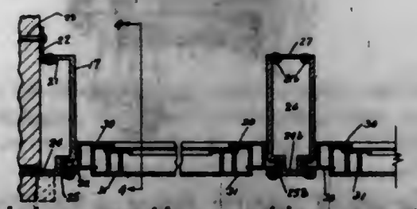
1. The combination with a wall having a window opening through it, of channels secured to the wall at the top and sides of the opening and having front and rear flanges projecting into the opening, a channel at the bottom of said opening having upwardly projecting front and rear flanges, a metal window frame in said opening surrounded by front and rear flanges overlapping the outer surfaces of the channel flanges, the front flanges of the frame and its top and bottom rear flanges being integral with the frame, and fastening members securing the rear side flanges of the frame to the rest of it, whereby before said side flanges were attached the frame was installed in said opening from the front by first placing the frame in an inclined position with its top flanges straddling the top channel and with the bottom channel disposed between



the bottom flanges of the frame and then swinging the bottom of the frame back into said opening until the frame was upright so that said rear side flanges could be secured to the frame behind the side channels.

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**2,771,971**
**METAL WINDOW ASSEMBLY**
**Ralph Goldberg, Denver, Colo.**
**Application October 1, 1949, Serial No. 119,171**
**2 Claims. (Cl. 189—75)**

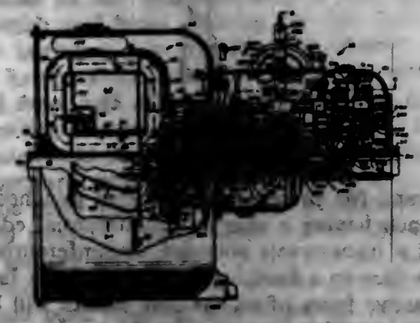


1. A window assembly comprising, an outer metal frame having a lintel and two spaced jambs which form vertical supports for the ends of the lintel, the frame being adapted for positioning in a window opening the lintel and the jambs having channel shaped cross sections positioned with their flanges extending outwardly, the inside surfaces of the lintel and jambs having narrow grooves positioned in alignment adjacent one outer edge, a window frame positioned in the outer frame for lateral and vertical adjustment therein, the window frame having aligned flanges extending outwardly from its top and sides, positioned to enter the grooves in the lintel and jambs, the distance between the outer edges of the flanges on the sides of the window frame being less than the distance between the bottoms of the groove in the opposite jambs whereby the window frame can be adjusted laterally with respect to the jambs, the flange on the top of the window frame extending part way to the bottom of the groove in the lintel to permit the lintel to flex downwardly without placing a strain on the window frame.

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**2,771,972**
**TORQUE CONVERTER**
**Edward J. Thurber, New Orleans, La., assignor to The Thurber Corporation, New Orleans, La., a corporation of Louisiana**
**Application July 12, 1950, Serial No. 173,341**
**25 Claims. (Cl. 192—3.2)**

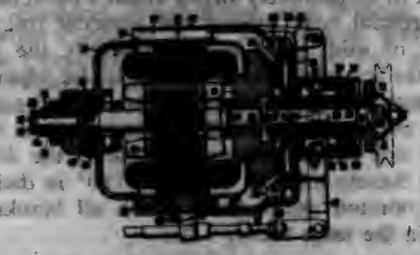
1. A hydraulic transmission mechanism comprising a rotatable driving shaft and a rotatable driven shaft, a casing containing a working fluid and also having a rotatable impeller therein connectible with said driving shaft for establishing a circulation of the working fluid in a closed path, means for connecting and disconnecting the impeller to and from the driving shaft, a pair of turbine members arranged to rotate in opposite directions, one of said turbine members being provided with a plurality of blades arranged axially thereof for receiving the fluid from the impeller and for directing said fluid axially therethrough and to the other turbine, the latter turbine being bladed to direct the fluid radially inwardly and to return the fluid



to the impeller, a pair of driven clutch members arranged adjacent each other and respectively connected with the turbine members for opposite rotation thereby, means interconnecting the turbine members to compound the torques delivered thereby and to deliver such compounded torques to both of said driven clutch members, and means for selectively connecting said clutch members to said driven shaft to establish a forward or reverse turbine drive.

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**2,771,973**
**ELECTRIC CLUTCH-BRAKE MOTORS**
**Harry B. Fage, Somerville, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey**
**Application May 1, 1952, Serial No. 285,492**
**5 Claims. (Cl. 192—18)**

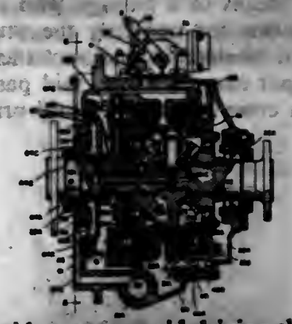


1. An electric clutch-brake motor comprising a casing, a motor stator and a brake element carried by said casing, a driven shaft carried by said casing, a rotor shaft having one end journaled in said driven shaft, a driving clutch element carried by said rotor shaft, a driven disc disposed between said elements, an adjusting member threaded into said casing, a cup member slidably mounted in said casing and rotatably supporting said rotor shaft, one of said members having a notched surface and the other of said members having a ridged surface, and a yieldable connection including a spring holding said surfaces yieldingly in engagement.

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**2,771,974**
**HYDRAULICALLY OPERATED FRICTION MEANS AND PUMP THEREFOR**
**John Daniel Mooney, St. Paul, Minn.**
**Original application May 18, 1949, Serial No. 93,945, now Patent No. 2,669,971, dated February 23, 1954. Divided and this application October 27, 1952, Serial No. 317,069**
**4 Claims. (Cl. 192—18)**

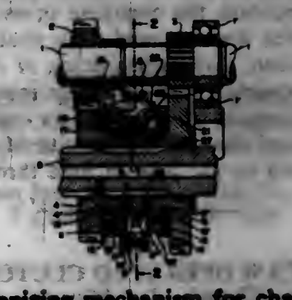
1. In a hydraulically operated transmission mechanism having a housing, a driving shaft extending through a wall thereof, a driven shaft extending from said housing and a hydraulically operated friction clutch for connecting the two shafts in driving relation, a pump for supplying fluid under pressure to said clutch, and means



for supporting said pump on said driving shaft and means carried by said wall for preventing movement of said pump longitudinally of said driving shaft while permitting lateral movement relative to said wall.

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**2,771,975**
**SYNCHRONIZING MECHANISM FOR SPEED CHANGE GEAR SYSTEMS OF AUTOMOTIVE VEHICLES**
**Leopold Schmid, Stuttgart-Sillenbuch, Germany, assignor to Dr. Ing. h. c. F. Porsche K.-G., Stuttgart-Zuffenhausen, Germany**
**Application March 20, 1953, Serial No. 343,650**
**Claims priority, application Germany March 25, 1952**
**16 Claims. (Cl. 192—48)**



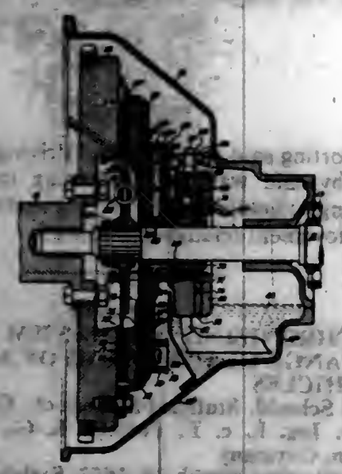
1. A synchronizing mechanism for change speed gear systems, comprising a shaft, a clutch member having clutch teeth and mounted for rotation on said shaft, a compressible split spring ring carried on a side face of the clutch member, means for holding the ring against appreciable relative rotation with respect to the clutch member, a slidable member mounted on and rotatable with said shaft, said slidable member being mounted adjacent to the ring and having internal clutch teeth, said slidable member being arranged to be shifted to engage its clutch teeth with the peripheral surface of said split spring ring for effecting synchronization and then to engage its clutch teeth with the clutch teeth of the clutch member, and means for holding said split spring ring in a compressed prestressed condition on the clutch member when not engaged by the clutch teeth of the shiftable member, whereby a soft gear change is effected and the shift path is considerably shortened.

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**2,771,976**
**SPEED RESPONSIVE FLUID CLUTCH**
**Richard L. Smirl, La Grange Park, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois**
**Continuation of abandoned application Serial No. 79,883, March 5, 1949. This application March 16, 1955, Serial No. 493,440**
**1 Claim. (Cl. 192—85)**

In power transmission mechanism, a drive shaft, a driven shaft and a friction engaging means for establishing drive therebetween, a fluid pressure operated mechanism for effecting engagement of said friction means,

and an automatic fluid pressure control system for graduating engagement of said friction means comprising a drive shaft driven pump having its outlet hydraulically connected by means of a passage with said pressure operated mechanism for applying the pump outlet pressure to the said mechanism and an orifice through which the pump output can discharge, said passage being relatively large in cross section and said orifice being small



in cross section with respect to the passage thereby to build up fluid pressure in said pressure operated mechanism and to increase the engaging pressure of said friction means as the speed of said drive shaft increases from a starting position, said orifice being of a fixed type and gradually decreasing in area from its inlet end to its outlet end and having sharp edges on its outlet end to minimize the effect of changes in viscosity of the fluid on the pressure built up by the flow of fluid through it.

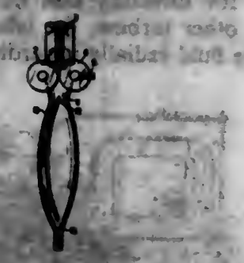
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**2,771,977**
**CAM OPERATED CLUTCH**
Edmond Uher, Chemin des Mougins, Cap d'Antibes, Alpes Maritimes, France, assignor to Uher Engineering Company, Panama, Panama, a company of Panama
Application October 16, 1952, Serial No. 315,029
Claims priority, application Germany February 9, 1952
3 Claims. (Cl. 192—93)



3. A cone friction coupling between a fly-wheel and a shaft coaxial therewith comprising, in combination, bearing means to journal said fly-wheel on said shaft, a friction conical member rigid with said fly-wheel, a hub on said shaft, an annular disc having a conical rim adapted to be frictionally engaged on said friction cone, an elastic system, including a spider having its outer periphery secured to said annular disc and its inner periphery secured to said hub, to continuously urge said annular disc toward said fly-wheel to thereby clutch said rim with said friction cone and means to oeclutch said rim from said cone against the action of said elastic system.

**2,771,978**
**DEVICE FOR ORIENTING AND FEEDING DISK-LIKE MEMBERS**
Julius Neuhaus and Friedrich Wilhelm Neuhaus, Koln-Kalk, Germany
Application May 12, 1952, Serial No. 287,392
2 Claims. (Cl. 193—43)



1. Means for presenting successive punched out disk blanks each having a sharp circumferential edge on one face and a transversely rounded circumferential edge on the other face to a finishing machine in such fashion that the respective faces of all the disk blanks will be located in the same position for action by the machine, said means including a pair of hard faced cylindrical and oppositely rotatable feed rolls, said feed rolls being mounted on parallel, horizontal axes, means resiliently urging said rolls toward each other to form a bight, means for delivering successive blanks to the bight between said feed rolls, means driving said feed rolls, a pair of vertically extending guide chutes having a common inlet disposed beneath and immediately adjacent said feed rolls and a common outlet, said inlet being of substantial cross-sectional area, separator means in said inlet located beneath, parallel to and intermediate the axes of said rolls, one of said rolls engaging each successive disk blank at its sharp circumferential edge and the other roll engaging the disk blank at the inner terminal of said curved edge and inwardly of its circumferential edge upon final passage of the disk blank from between the rolls thereby causing the blank to be positively swung about a point on its sharp circumferential edge toward the adjacent roll for entry into one of said guide chutes, whereby the successive disk blanks are positively delivered to the separate guide chutes in accordance with the relation of the sharp and rounded edges thereof to the separate feed rolls, and means in one of said chutes for rotating the disk blanks delivered thereto through angles of 180° in their passage to said common outlet from which all blanks are discharged in the same order.

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**2,771,979**
**VENDING MACHINES**
Charles A. Lambert, New City, N. Y.
Application October 6, 1953, Serial No. 384,465
5 Claims. (Cl. 194—39)

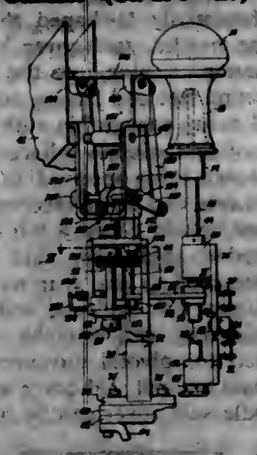


1. A vending machine comprising a substantially cylindrical upright housing having a front portion and a rear portion, said front portion having a concentric arcuate slot therein positioned between the top and bottom of the housing, an arcuate guide rail concentric with and mounted on the inside of the housing below said slot, an arcuate band concentric with and slidably mounted on said rail behind said slot and adapted to be slid alternately in opposite circumferential directions, a magazine mounted in the front portion of the housing below said slot and having a plurality of circumferentially spaced vertical compartments adapted to contain stacks of uniformly-sized articles to be dispensed by the machine, said band having a frame supported thereon and having an opening therethrough of approximately the same height and width as one of said articles, a horizontal slide slidably supported in said frame on the same diameter of said housing as that on which said band opening lies, the outer end of said slide having a grip therein, said opening through said band having a sill, a receiver extending outward and downward from said sill adapted to receive a purchased article, resilient means normally urging said slide outward through said band opening, limit stop means limiting the outward movement of said slide to a position wherein the outer end of the slide is positioned over and covers said receiver, means supported on said frame for normally locking said slide in innermost position of the slide wherein the forward end of the slide lies substantially in said band opening, and means for releasing said locking means, said slide having the forward portion thereof rearward of said grip raised above and parallel with the rearward portion thereof thereby providing a wall between said portions of the slide, the length of said raised portion of the slide being approximately equal to the length of one of said articles, means normally urging said stacks of articles upward, said magazine having limit stops at the top of said compartments limiting the top of the stack to the horizontal level of said slide wall whence the topmost article of the stack is engageable by said slide wall upon outward movement of said slide, said slide being adapted to be pushed back manually to said innermost position.



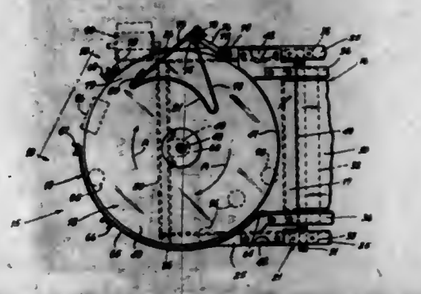
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**2,771,980**
**BULB UNLOADING DEVICE FOR A CONTINUOUS CONVEYOR TYPE MACHINE**
Ralph R. Pavlecci, Wood-Ridge, and William A. Brunnock, West Caldwell, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 31, 1955, Serial No. 498,364
4 Claims. (Cl. 198—27)



2. A bulb unloading device for a continuous conveyor type machine comprising a body having an upstanding plate provided with a lower mounting flange and a pair of generally horizontally spaced shaft mounting flanges, a rail frame rotatable in said flanges, a rail frame rotating mechanism on said body for engagement with a continuously moving head of said machine and for horizontally rotating said rail frame about a vertical axis, a pair of bulb receiving guide rails pivoted on said rail frame and a rail lifting mechanism on said body for simultaneously rotating said rails about a horizontal axis during the horizontal rotation of said rail frame.

**2,771,981**
**UNSCRAMBLER CONSTRUCTION**
Duane R. McKune, Dunedin, Fla., assignor, by mesne assignments, to Brogdex Company, Orange County, Fla., a corporation of Florida
Application March 19, 1951, Serial No. 216,386
11 Claims. (Cl. 198—30)



1. An unscrambler construction comprising, in combination, a discharge channel, means for receiving cans or the like in masses for advancement toward the discharge channel, means for advancing the cans to the vicinity of the discharge channel, means for aligning at least a portion of the cans in single file during said advancement, means for releasing ahead of said discharge channel any cans fed to said unscrambler construction in overturned positions, means for deflecting any remaining cans from the vicinity of the discharge channel for readvancement to the vicinity thereof, and means for preventing overturning of cans or the like during unscrambling.

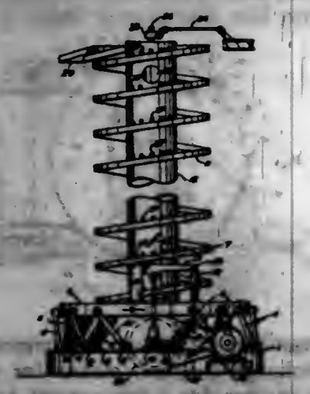
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**2,771,982**
**CAN BODY RESPACING MECHANISM**
Lloyd H. Weber, Newark, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application July 29, 1953, Serial No. 370,978
7 Claims. (Cl. 198—34)



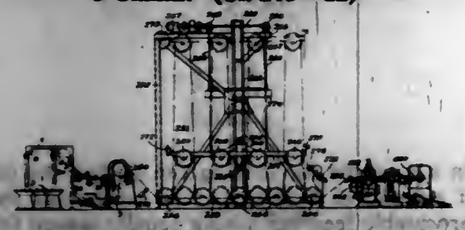
7. In a machine for making can bodies, the combination of a mandrel, a delivery feed mechanism including a reciprocatable feed bar having equally spaced feed dogs extending along said mandrel, means for reciprocating said feed bar through a feeding stroke and a return stroke for propelling can bodies along said mandrel in spaced and timed processional order and for delivering the bodies to a transfer station, an outside horse disposed in overlapping relation to said mandrel, a continuously operating receiving feed mechanism disposed adjacent said outside horse and including a conveyor having spaced gripper dogs for gripping said can bodies at said transfer station for further advancement, means disposed adjacent said transfer station for engaging can bodies individually on said mandrel for increasing the space between adjacent can bodies to facilitate entrance of said gripper dogs into said respaced bodies for advancement along said outside horse, and an auxiliary feed dog on said feed bar adjacent its terminal end spaced from a preceding feed dog a greater distance than the distance between said equally spaced feed dogs.

2,771,983
SPIRAL CONVEYOR
Robert M. Carrier, Jr., Louisville, Ky., assignor to Carrier Conveyor Corporation, Louisville, Ky., a corporation of Kentucky
Application April 29, 1952, Serial No. 285,019
12 Claims. (Cl. 198—220)



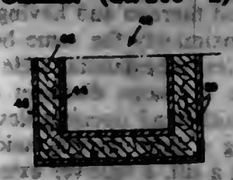
1. In combination, a conveyor having a helical conveying surface, means for resiliently supporting and guiding said conveyor for vibration along a generally helical path to convey material on said surface longitudinally thereof, and impulse generating means adapted to vibrate said conveyor, said impulse generating means comprising a pair of upstanding members on said conveyor, a generally horizontal arm pivotally connected to said members, and a generally vertically reciprocating rod pivotally connected to said arm between said members, one of said members being extensible to allow said conveyor to settle on its resilient support according to the load of material thereon and constituting a substantially rigid link during vibration of said conveyor so that the latter will be vibrated at a substantially uniform amplitude corresponding with the stroke of said reciprocating rod.

2,771,984
MECHANISM FOR HANDLING ELONGATED MATERIAL
Neil J. Ramsey, Mentor Township, Lake County, Ohio, assignor to Wean Equipment Corporation, Euclid, Ohio, a corporation of Ohio
Application May 16, 1951, Serial No. 226,702
3 Claims. (Cl. 283—12)



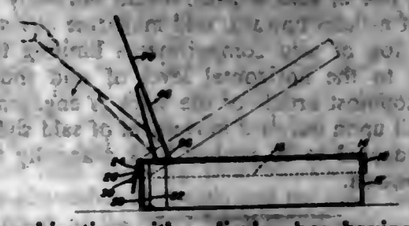
1. Mechanism for handling elongated material comprising an operating station, means pulling elongated material from the operating station, take-up means between the operating station and the pulling means, the take-up means including portions normally biased to move relatively away from each other for engaging and taking up slack in the material, one of the portions of the take-up means having mounted thereon a projecting contact member, a device positioned to be engaged by said projecting contact member upon relative approach of said portions toward each other and only when said portions are almost in their closest together relationship, means progressively operated by such device during continued relative approach of said portions toward each other and connections between said device and the pulling means progressively slowing up the pulling means upon progressive operation of said device by said projecting contact member.

2,771,985
CORROSION RESISTANT STRUCTURE
Raymond B. Seymour, Emmaus, Pa., assignor to The Alles Mineral Products Company of Pennsylvania, Morristown, Pa., a corporation of Pennsylvania
Application May 9, 1955, Serial No. 506,869
4 Claims. (Cl. 206—2)



1. A structure adapted to contain corrosive fluids comprising an inner synthetic resin wall having a thickness of from about 5 to about 100 mils, an outer synthetic resin wall having a thickness of from about 5 to about 100 mils and spaced from said inner wall a distance of from about ⅛" to about 2.5" and sulfur between said inner and outer walls.

2,771,986
FOLDING DISPLAY PAPERBOARD BOX OR COVER
Irving Bakoff, Brooklyn, N. Y.
Application May 10, 1954, Serial No. 428,741
1 Claim. (Cl. 206—45.3)



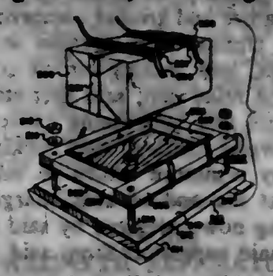
In combination with a display box having a rear wall, a display cover hingedly secured to said box, said cover having a substantially U-shapel slit therein forming a window, a transparent pane underlying said window, a central tab having a first end hingedly attached to said cover and having a second free end, said central tab having a second substantially U-shaped slit therein, said central tab being folded upon itself with said second free end lockingly held adjacent said first hinged end and with said second substantially U-shaped slit forming an upwardly extending handle, said cover having an opposed pair of slots therein opening into the periphery of said window, said second free end having notches therein, said second free end being engageable with said cover at the peripheral edge of said window adjacent said first hinged end with said cover being received in said notches and with said second free end being received in said slots, an end wall attached to said cover, a tab cut from said end wall and attached to said cover, said tab having a slot therein, a flap attached to said rear wall, said flap being engaged in said slot with said end wall within said box and engaging said rear wall whereby said cover will be hingedly mounted for pivotal movement on an axis at the juncture of said tab and said cover so that upon actuation of said handle said cover can be opened.

2,771,987
PACKAGING FOR ELECTRONIC EQUIPMENT OR THE LIKE
Benedict T. Kennedy, Long Beach, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application January 14, 1955, Serial No. 481,750
2 Claims. (Cl. 206—46)

1. In a shipping carton, in combination, an item of electronic equipment, cushioning material wrapped about said electronic equipment, a sealed moisture- and vapor-proof protective cover enclosing said wrapped electronic



equipment, a base pallet having an upper rectangular indentation area, an angularly disposed cushioning material positioned along the lower indentation edges of said base pallet, means for securing said wrapped and sealed electronic equipment to said base pallet in position on said cushioning material, a rectangular base element,



attachment means for affixing said pallet-secured electronic equipment to said rectangular base element, said means being exteriorly disposed with respect to said wrapped and sealed electronic equipment, and a crate affixed to said rectangular base element for enclosing said wrapped electronic equipment.

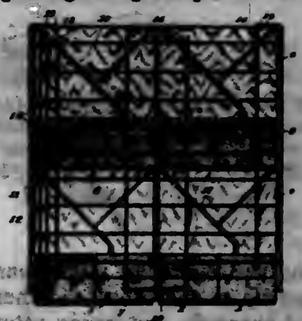
2,771,988
DISPENSING CIGARETTE CARTON
Harter E. Sweeney, Lafayette, Ind.
Application May 2, 1955, Serial No. 505,451
1 Claim. (Cl. 206—56)



A cigarette carton having two adjacent series of packages of cigarettes disposed therewithin comprising an enclosed container provided with top, bottom, front and back sides and with ends, a punch-out portion formed in one of said sides adjacent one of said ends, said portion being defined by perforations and removable to leave an opening for cigarette pack ejection, a second punch-out portion formed in the side opposite to that in which said first portion is formed and in alignment with said first portion, said second portion being defined by perforations and removable to leave an opening for the reception of means to eject a package through said first opening, and a third punch-out portion defining a slot in a side of said carton at a predetermined location in relation to two adjacent packages nearest an end of said carton, said last mentioned portion being defined by perforations, said second portion being sized to be inserted partially through said slot for abutment with the bottom of said two adjacent packages of cigarettes.

2,771,989
DIVIDED PALLET BRICK PACKAGE
William E. White, Bethlehem, Pa., and John R. Clark, Silver Spring, Md., assignors, by mesne assignments, to John R. Clark and Thomas Somerville III, Kenwood, Md., trustees
Application June 25, 1954, Serial No. 439,338
1 Claim. (Cl. 206—65)

A divisible package of bricks or the like, comprising a group of like rectangular sub-packages of bricks, each sub-package having a pallet formed from a single sheet of welded metal wire fabric having spaced leg portions defining therebetween channels for a lifting fork, at least two sub-packages being placed together end to end with the channels in horizontal alignment, a second group of at least two packages superimposed on the first group



with their channels in horizontal alignment and parallel to the channels of the first group, each sub-package of bricks having a removable cover maintaining the separate integrity of each sub-package, and an enclosure comprised of separate reticular metal wire panels depending and supported from the top of the assembled package and holding it snugly together.

2,771,990
BOX FOR THE STORAGE OF SEWING NEEDLES
Gustav Buschhüsgen, Iserlohn, Westphalia, Germany
Application August 25, 1953, Serial No. 376,443
2 Claims. (Cl. 206—66)

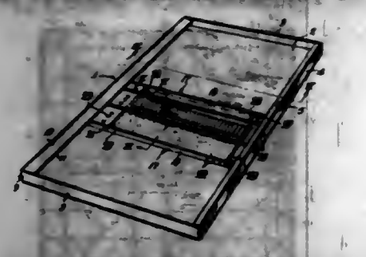


1. In a box for the storage of sewing needles, said box including a circular bottom, a circular cap-shaped needle carrier located upon said bottom and being provided at the upper face with a plurality of undulations forming needle holding compartments which freely extend to the periphery of said carrier, a circular cover of a transparent material rotatably supported upon said bottom and having a circumferential portion to close the free ends of said needle holding compartments, in combination, a helical spring connecting said cover and said bottom to permit rotation of said cover, and a leaf spring connected with one end of said helical spring so as to automatically return said cover in its closure position, said circumferential portion of said cover being provided with a hole allowing the needle to be inserted into and removed from said compartments; said circumferential portion having a widened part, said leaf spring having an angularly bent end and being arranged mainly in said widened portion of said circumferential portion so that said angularly bent end of said leaf spring enters grooves of said circumferential portion whenever said cover is rotated at an angle bringing said hole into alignment with one of said needle holding compartments.

2,771,991
DISPLAY TRAYS
Delbert A. Eisele, Lawrence, Kans.
Application December 12, 1955, Serial No. 552,496
6 Claims. (Cl. 206—75)

1. A wrist watch band display tray comprising in combination a substantially open rectangular tray, long nar-

row display channels nesting removably in said tray and extending lengthwise thereof, each of said channels having near each end thereof a wrist watch band spring-bar, one of said spring-bars being adjustable lengthwise of said channel; said tray having a fixed lip along one edge



thereof overlying and clamping said channels; said tray having a pivoted lip at the other end thereof overlying and holding said channels, and spring actuated means to force said pivoted lip into overlying holding position relative to said channels.

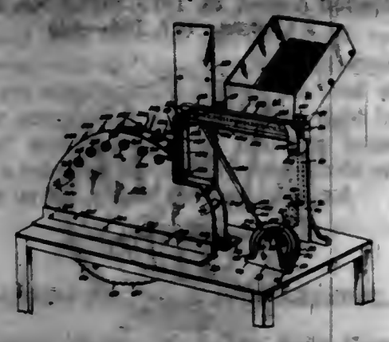
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2,771,992

## CAPACITOR TESTING APPARATUS

Thomas William Artingstall, Altadena, and Erich F. Feigl, Los Angeles, Calif., assignors to Solar Manufacturing Corporation, Los Angeles, Calif., a corporation of New York

Application April 26, 1951, Serial No. 223,102
14 Claims. (Cl. 209—81)



1. Apparatus for testing the capacitance of disc capacitors comprising a capacitor feeding mechanism, an electrical circuit for testing the capacitance of said capacitors and an electromagnetic circuit for ejecting said capacitors from said feeding mechanism at the end of the capacitance test, said electrical circuit comprising an oscillator circuit, a limiter circuit, a band pass filter, a Wheatstone bridge, and a trigger circuit, the output of said trigger circuit being connected to said electromagnetic circuit; said feeding mechanism moving said capacitors in contact with said testing circuit one at a time; said oscillator generating a signal of predetermined frequency for the correct capacitance of said capacitors, said signal being applied to an arm of said Wheatstone bridge through said limiter and band pass circuit; said Wheatstone bridge comprising two diodes and resistors in series, said signal unbalancing said bridge and producing a negative signal across one of said resistors; said resistor being the input of said trigger circuit; said trigger circuit comprising two direct coupled multi-element electron tubes, the first of said tubes being normally conductive, the second of said tubes being normally cut off, said negative pulse cutting off said first tube and applying a positive pulse to the control grid of said second tube, and making said second tube conductive, said electromagnetic circuit being connected to the output of second of said tubes and comprising a relay, a solenoid, said relay having a coil, two stationary contacts and an armature, the plate of the second of said tubes being connected to one of said stationary contacts and to one side of said relay coil; a power supply; the other side of said relay coil being connected to said power supply; means biasing said armature to the second of said stationary contacts; a timing capacitor; said timing capacitor being connected between said armature and ground; said solenoid coil being connected between said second stationary contact and ground, a discharging path between said armature and ground comprising high resistances; a locking circuit being formed at triggering of said trigger circuit, said locking circuit comprising said power supply, said relay coil, said first stationary relay, said relay armature and said timing capacitor, said timing capacitor charging through said locking circuit and making said relay armature return to said second stationary contact at the end of said charging operation; said solenoid being now energized by said timing capacitor and ejecting said capacitors from said feeding mechanism.

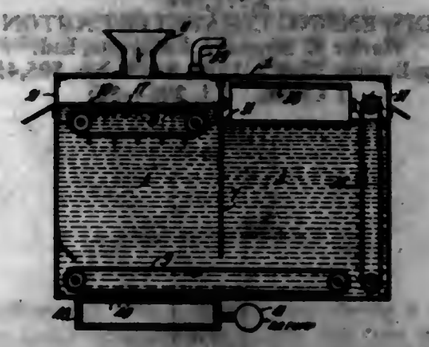
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2,771,993

## SEPARATING EQUIPMENT

Karl B. Wendt, Fayetteville, N. Y.

Original application October 19, 1949, Serial No. 55,319. Divided and this application August 28, 1952, Serial No. 306,843
5 Claims. (Cl. 209—172)



1. A method for the separation of materials in accordance with specific gravity from a mixture of materials having different specific gravities comprising the steps of inserting said mixture of materials into a liquid, decreasing the specific gravity of the liquid by maintaining a quantity of air bubbles throughout said liquid to form a foam-like mixture of air and said liquid, separately removing that portion of the material which floats in the liquid before and after decreasing the specific gravity of the liquid, and separately removing that portion of the material which sinks in the liquid at its greatest specific gravity.

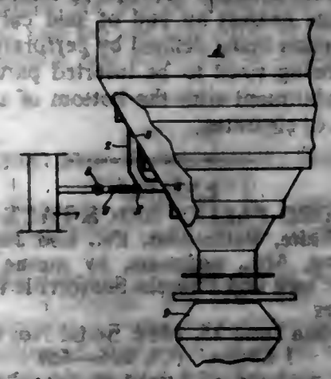
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2,771,994

## APPARATUS FOR SEPARATING MATERIALS OF DIFFERENT SPECIFIC GRAVITIES

William P. Connelly, Philadelphia, Pa., assignor to United Engineers & Constructors Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application November 13, 1952, Serial No. 320,265
4 Claims. (Cl. 209—172.5)



1. In separating apparatus of the type set forth, the combination with a separating vessel containing a fluid separating medium or predeterminable specific gravity, of means for introducing work materials into said fluid medium, means for discharging lower specific gravity components of the work material from the upper area of the vessel, means for discharging components of the work material of relatively high specific gravity from the lower area of the vessel, and means for withdrawing from the body of the fluid mass in the vessel the components of the work material of intermediate specific gravities accumulating in an area between said discharge areas and for forcibly transferring the components so withdrawn to another area in closer proximity to one of said discharge areas.





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2,771,995

## MAGNETIC SEPARATOR

Jacques F. Noel, Fontainebleau, France, assignor to Société Jonas A. G. Chur, Zurich, Switzerland, a Swiss company

Application November 27, 1953, Serial No. 394,836
Claims priority, application France November 27, 1952
3 Claims. (Cl. 210—1.5)



1. Apparatus for magnetically separating and recovering magnetic particles from a liquid containing magnetic particles comprising a rigid tray-like separating member having a separating surface inclined to the horizontal and in the form of a surface of revolution generated by the rotation of a line about an axis of revolution; stationary magnetic means mounted on one side of said separating surface and positioned so that the magnetic field will cover a wide sector area of said separating surface; means including a stationary launder positioned to direct a continuous trickling of the liquid being treated in a downward direction generally radial to the axis of rotation of said surface and engaging a portion of the sector of the separating surface covered by said magnetic field on the side of the separating surface opposite said magnetic means, the remaining portion of said sector forming a draining zone; scraping means engaging a sector of said surface circumferentially spaced on the direction of rotation from said magnetic field for removing the collected magnetic particles therefrom; and means for rotating said surface about an axis extending upwardly from the horizontal whereby the magnetic particles attracted to the separating surface will be laterally separated from the trickling liquid thereon, moved through said draining zone and finally removed from the separating surface by the scraping means.

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2,771,996

## METHOD OF ACCELERATING THE SPEED OF SEDIMENTATION OF PARTICLES WITH DISPERSED CAROB BEAN FLOUR

Georges Hulot, Paris, France, assignor to Société d'Etudes Chimiques pour l'Industrie et l'Agriculture, Paris, France

No Drawing. Application September 21, 1951, Serial No. 247,145
Claims priority, application France September 23, 1950
3 Claims. (Cl. 210—54)

1. A method of accelerating the speed of sedimentation of solid inorganic particles suspended in aqueous solutions of electrolytes which comprises adding to said solutions as collector agent a colloidal carob bean flour solution prepared by distributing carob bean flour in water and heating the same with a solution of boric acid at a temperature of 70° to 130° C. to effectuate sedimentation of said suspended inorganic particles and separating the thus sedimented particles from the solutions.

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2,771,997

## APPARATUS FOR SEPARATING WATER, OIL, SLUDGES, WAXES, AND THE LIKE

George Redfearn Usherwood, London, England, assignor of one-half to Henry Arthur John Silley, London, England

Application June 23, 1952, Serial No. 294,693
Claims priority, application Great Britain July 6, 1951
5 Claims. (Cl. 210—60)



1. Apparatus for effecting initial separation of wastes and sludges from oil-contaminated water, comprising a chamber having a floor, end walls and side walls, a weir plate extending vertically upwardly from the floor across the chamber between the side walls and adjacent one end wall of said chamber, an inlet conduit opening into said chamber through the said one end wall at a point above said floor and below the upper edge of said weir plate, said conduit directing a concentrated stream of contaminated liquid horizontally against said vertical weir plate to produce an abrupt change in direction of flow of said liquid in said chamber, a baffle plate extending downwardly across the chamber between the side walls thereof and on the opposite side of said weir plate from said inlet conduit, said baffle plate having its lower edge arranged at a level below the level of the upper edge of said weir plate, and a horizontal baffle plate extending between said one end wall and said weir plate above said inlet conduit but below the edge of said weir plate and having its side edges spaced from said side walls.

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2,771,998

## AERATOR SCREEN

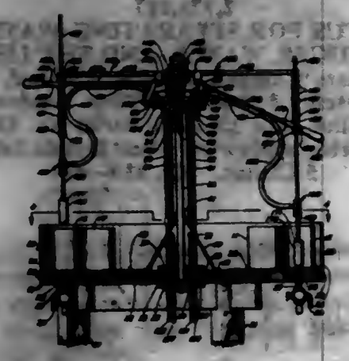
Orloff W. Holden, Chicago, Ill., assignor to Orloff W. Holden and Marguerite H. Holden, a partnership doing business as Kaleidoscope Rubber Company, Not Inc., Chicago, Ill.

Application January 5, 1954, Serial No. 402,237
3 Claims. (Cl. 210—84)



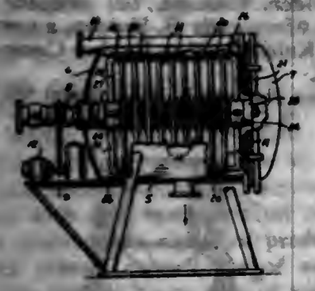
1. In a unit through which a liquid stream flows, a filtering and diffusing device for the stream adapted to be mounted within the unit including in combination, at least two diffuser screens, means for supporting said screens in the unit with said screens overlying one another and each said screen having a body portion extending across the unit, and at least one of said screens having an integral inwardly bent-over outer portion interlocking adjacent screens, said bent-over portion forming a raised spacer on said one of said screens thereby serving to separate the body portions of said adjacent screens one from the other and resulting in a relatively smooth peripheral edge free of wire endings.

2,771,999
**FILTERING APPARATUS**
Robert Q. Boyer, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application January 5, 1945, Serial No. 571,422
13 Claims. (Cl. 210—113)



1. Filtering apparatus comprising in combination, a tank, a filter element adapted to be moved into and out of said tank, a stationary column spaced from said tank, a stationary coupling means mounted upon said column, a first conduit attached to one end of said coupling means, a second conduit attached at one end to the filter element, a framework mounted upon said column, an adjustable filter manipulating member mounted upon said framework for movement in a plane including said tank and said coupling means and comprising a support for said filter and said second conduit, and an abutment mounted upon the manipulating member having the second end of the second conduit attached to the abutment and adapted in one position to make fluid-tight contact with the coupling means and in a second position to break contact therewith.

2,772,089
**LEAF ANCHORING MEANS**
Charles E. Hunsaker, Ridgewood, N. J.
Application March 30, 1953, Serial No. 345,298
2 Claims. (Cl. 210—153)



1. In filtering apparatus having a filter pack adapted to be mounted on a shaft and provided with spaced discal leaves defining open channels therebetween and each leaf having outer marginal lateral flanges extending thereabout, the improvement which comprises a plurality of spacers disposed in circumjacent relation about the leaves and in axially extending rows with the spacers of each row interposed between confronting flanges of adjacent leaves in longitudinally staggered relation, and bolts detachably fixing each of said spacers to the adjacent respective leaves, each of said bolts extending through the flanges of only two leaves and the spacer therebetween, whereby the spatiality of said leaves in said pack is maintained while permitting any one of said leaves to be removed from said pack without disassembling entirely the remaining leaves of said pack.

2,772,091
**FILTER FOR FLUIDS SUCH AS GASOLINE**
Roy L. Bowers, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 16, 1953, Serial No. 392,337
1 Claim. (Cl. 210—169)



In a filter, the combination of a receptacle comprising a top portion and a bowl portion held together under pressure to form an exterior seal between them, inlet and outlet passages in said top portion and communicating with said bowl portion, said inlet conduit leading centrally and downwardly into said bowl portion, two filter elements surrounding said inlet conduit and mounted within said receptacle to operate in series in a flow path leading from said inlet conduit into said bowl portion and to said outlet passage, one of said elements comprising a stack of flat annular filtering rings coaxially mounted on a support plate having perforations, the said stack having an annular series of vertical passages blocked at their lower ends and communicating at their upper ends with said perforations the other of said elements being in the form of a disc of yieldable filter material having a central aperture, the margins of said support plate and said disc within said exterior seal being clamped by said pressure into sealing relation with said top portion to determine said flow path, and the arrangement being such that fluid impurities emanating from said inlet conduit are brought into contact with the interior and exterior surfaces of said one of said elements for retention in said bowl portion.

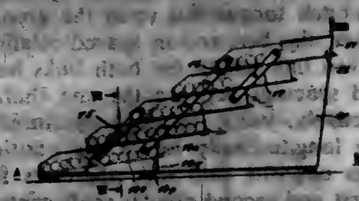
2,772,092
**PERFORATED PLATE-TYPE STRAINER**
Bernard A. Munro, Brooklyn, N. Y., assignor of one-half to Marilyn Solomon, Brooklyn, N. Y.
Application September 14, 1953, Serial No. 380,030
2 Claims. (Cl. 210—169)



1. A water purifying filter comprising an externally threaded tubular casing open at each end, cap means having internal threads secured to said tubular casing to close said ends, an internal annular shoulder spaced from said internal threads in said cap means and strainer means between the internal threads and shoulder to filter minute particles in the water, said strainer means comprises an outer ring, a disc retained in said ring, tapered perforations in the walls of the disc, and a plurality of discrete burrs along the interior walls of the tapered portion.

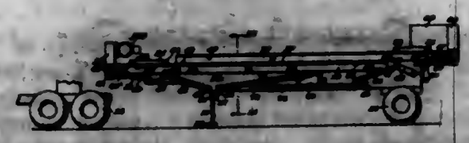


2,772,093
**DISPLAY CABINET**
Richard R. Volz, Ridgewood, N. J., assignor, by mesne assignments, to Curtis & Clark Inc., Wilmington, Del., a corporation of Delaware
Application October 28, 1952, Serial No. 317,269
4 Claims. (Cl. 211—130)



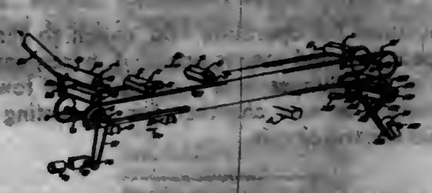
1. A self-service display cabinet for cylindrically-shaped articles comprising a stack of trays of uniform length and width, one tray being superimposed upon another; means for enabling all the trays above the bottom one to swing backwardly to an offset extended position in which the trays are upwardly inclined from front to back and present a stepped arrangement, each tray overlapping at least the rearward half of the tray immediately beneath it, said means also enabling the trays to swing forwardly from their extended position to a stacked or collapsed position; each tray having an open top through which the articles are visible and accessible and also having an open back side through which fresh articles may be added, the articles being movable downwardly in the trays by means of gravity; a pair of rearwardly extending end panels for supporting the cabinet when said trays are in their extended position, each end panel having a stepped upper edge with the steps increasing in height from the front to the back of the panel, the steps of one end panel corresponding to those of the other to form pairs of steps, each pair of steps being adapted to support thereon a tray of the cabinet when the trays are extended.

2,772,094
**PORTABLE GANTRY CRANE**
Jack D. Noble, Lafayette, Calif.
Application May 29, 1952, Serial No. 290,647
6 Claims. (Cl. 212—71)



1. A portable and collapsible gantry crane, comprising an elongated, horizontally-disposed bridge beam having a pair of spaced-apart parallel girders joined together at their ends; a pair of positioning guide members pivoted to said bridge beam, one adjacent each end, each said guide member having a pair a parallel side plates lying adjacent the exterior side faces of said beam, a pair of coaxial horizontally-disposed pinions, one journaled on the outside of each side plate, and a pair of horizontally-disposed coaxial rollers, one journaled on the outside of each said side plate, said rollers being spaced apart from said pinions and generally collinear therewith; a pair of supporting columns, each comprising a pair of parallel side girders with their interior facing surfaces spaced apart wider than the exterior surfaces of the side girders of said beam, so as to be nestable therearound and braced by end girders at each end, each said column side girder having racks on one surface engaged by said pinions, its other side being engaged by said rollers; releasable means for securing said guide members rigidly to its associated column; and other releasable means for rigidly securing said guide members to the ends of said beam; means for rotating said guide members about said beam when said guide member is rigidly secured to its associated column for erecting said columns so that they are parallel to each other at each end of said beam and for lowering said columns, one over the other to nest around said beam and parallel to it; and means for moving said guide members along said columns when said columns are erected and said guide member is rigidly secured to said beam instead of to said column, so as to raise and lower said beam between said erected columns.

2,772,095
**CANNERY COVER LOADING DEVICE AND METHOD OF USING SAME**
William D. Dubin and Fred Wrahme, Long Beach, Calif.
Application December 6, 1954, Serial No. 473,116
16 Claims. (Cl. 214—16)

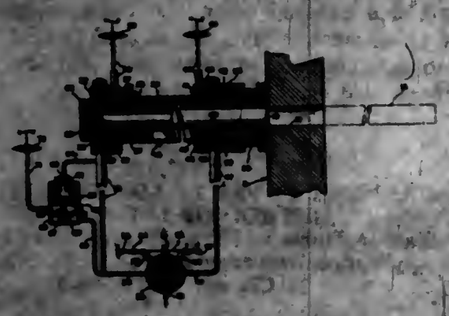


1. A device for use in automatically distributing covers from a particular location to a plurality of open-mouthed magazines associated with individual cover applying machines, including: driven belt means located adjacent to and above said magazines; means that continuously supply said covers; loading means adapted to receive said covers, which loading means is positioned above said belt means; means for limiting the quantity of said covers to a predetermined charge thereof; actuating means for said loading means to cause discharge thereby of said cover charge; a plurality of cartridges mounted in spaced relationship on said belt means, each of which cartridges is adapted to removably hold said cover charge; movably mounted loading means adapted to receive one of said charges when in a first position and to transfer same into one of said magazines; means associated with each of said magazines, which means is sensitive to the quantity of said covers contained in said magazines; means that maintain each of said movably mounted means in said second position until said quantity sensitive means signals that a particular one of said magazines requires another one of said charges; means that return said movably mounted means to said first position after said maintaining means receives said signal; means that cause a cartridge to receive one of said charges as it passes under said loading means; means mounted on said cartridges that causes one of said cartridges when empty to actuate said loading means when said empty cartridge passes thereunder; and means for blocking movement of said covers from said supply means to said loading means during the time one of said charges is being transferred from said loading means to one of said cartridges.

2,772,096
**CUPOLA STOCK LINE INDICATOR**
Leo A. Glenet, Port Washington, Wis., assignor to Modern Equipment Company, Port Washington, Wis., a corporation of Wisconsin
Application March 11, 1953, Serial No. 341,670
11 Claims. (Cl. 214—18.2)

1. In a cupola having a stock chamber, means including a skip carriage for introducing a charge into said chamber, an electric motor for driving said means, a stock height determining member mounted on said cupola and including a double acting fluid pressure operated ram having a plunger movable from normally retracted position to a projected position within said chamber, a source of fluid under pressure for said ram, a fluid circuit connected between said source and ram, a valve controlling the di-

ruption of the flow of fluid to said ram, means responsive to movement of the plunger to projected position for reversing said valve to cause retraction of the plunger, an electric circuit for said motor, a switch in said circuit, means responsive to return movement of the piston to re-



tracted position for operating said switch to render said circuit operative, and means operated in response to obstruction of the plunger as it is being moved toward projected position in said chamber for preventing completion of said electric circuit.

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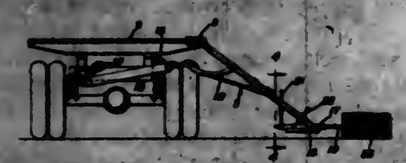
2,772,007

**VEHICLE MOUNTED BALE LOADER**

Reuben F. Johnson, Kensington, Minn.

Application June 28, 1954, Serial No. 439,597

6 Claims. (Cl. 214—86)



1. A bale loader comprising a vehicle attached vertically swingable member and adapted for raising from an outwardly projecting position at one side of the vehicle into a substantially perpendicular position, a shaft having a fork at one end with the tines thereof extending at right angles to the shaft, means rotatably and swingably attaching the shaft to the outer end of said member for vertical swinging movement independently of the latter, and means carried by the shaft and engaging a relatively stationary structure when the member is in a lowered position for holding the shaft from rotation with the fork in a forwardly facing bale penetrating position, and said last named means being disengaged from said structure upon a predetermined raising movement of the member to release the shaft for turning movement by the weight of the load on the tines to face the fork downwardly for depositing the load.

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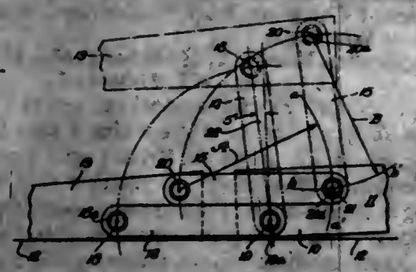
2,772,008

**METHOD OF SPOTTING PIVOTAL CENTERS FOR SWINGING LINK STRUCTURE OF FOLDING GOOSENECK TRAILER HITCH**

William E. Martin, Kewanee, Ill.

Application June 27, 1952, Serial No. 295,972

4 Claims. (Cl. 214—152)



1. In a folding gooseneck type trailer having a vertically movable hitch tongue joined with the trailer bed through pairs of swingable links with apertured ends pivotally carried upon shafts supported upon said tongue and bed respectively, the method of spotting the four pivotal centers for the pivot shafts for said pairs of links to establish predetermined raised and lowered positions for said hitch tongue with respect to said bed which consists of placing the head end of the bed upon the ground, disposing the hitch tongue flat upon the ground beyond the head end of the bed and in spaced relation thereto, selecting a given link length for both links having equal predetermined spacings between the end shaft apertures therein respectively, using one such apertured link as a drill guide to longitudinally locate the positions of the shaft openings opposite said link apertures for drilling one pair of first and second pivotal shaft centers through the bed and tongue respectively, using another such apertured link to locate a drill to form a third offset pivotal center upon the hitch tongue for a shaft spaced rearwardly and upwardly from the first pivotal center on said tongue and in true parallelogram fashion, then striking an arc coincident with the center of the shaft aperture at the free end of said other link and upon said bed with a radius equal to the link length between its end apertures from the said third offset shaft center, then bodily lifting said tongue upwardly into its predetermined raised location by swinging the same upon a circular path guided by the link connecting the first two pivotal link center shaft locations, and then striking a second arc coincident with the center of the shaft aperture at the free end of said other link and of a radius equal to the link length from the third pivotal center of said tongue to intersect the first arc on said bed, and locating the fourth shaft for said other link upon a pivotal center coincident with the intersection of said two link described arcs.

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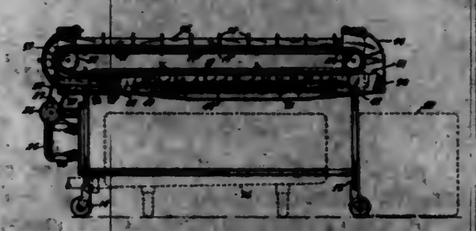
2,772,009

**METHOD AND APPARATUS FOR OPENING AND EMPTYING PAPER CONTAINERS**

Louis Pinsonneille, Pittsburgh, Pa., assignor to National Dairy Research Laboratories, Inc., Islip, N. Y., a corporation of Delaware

Application December 21, 1951, Serial No. 262,830

10 Claims. (Cl. 214—305)



1. In a paper container opening and emptying apparatus, means for moving containers in a given path, a knife in the path of travel of the containers for slitting an intermediate portion of each container, a member behind said knife in the path of travel of the container for spreading apart the severed edges of each container and for supporting each moving container on certain of the severed edges while the contents of the container drain.

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2,772,010

**STORAGE TANK TRAILER**

Glenn H. Boehring, Oshkosh, Wis.

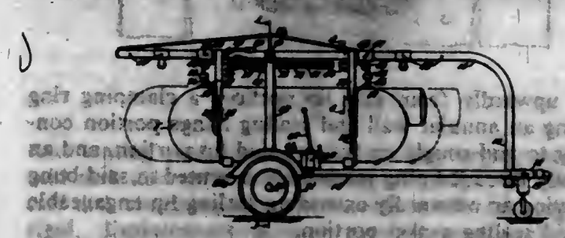
Application October 13, 1954, Serial No. 462,834

1 Claim. (Cl. 214—394)

In a trailer, the combination of a two wheeled frame including spaced side members, an overhead lengthwise extending frame member centrally disposed relative to said side members and arched frame members connecting said side members to said overhead member, spaced tank slings mounted on said overhead frame member to hold a tank in a raised position, a hydraulic cylinder



mounted on said overhead frame member and having a piston rod carrying spaced pulleys, a collar lengthwise adjustably mounted on said overhead frame member forwardly of said cylinder and carrying a pulley, a collar lengthwise adjustably mounted on said overhead frame member rearwardly of said cylinder and carrying a pulley, a pulley mounted at the rear of said cylinder, spaced cable anchorages on said overhead frame member, a cable connected to the rear end portion



of the tank and extending over the pulley on said rearwardly disposed collar forwardly to one of said pulleys on said piston rod and then rearwardly to one of said cable anchorages, a cable connected to the forward end portion of said tank and extending over the pulley on said forwardly disposed collar rearwardly over said pulley at the rear of said cylinder, thence forwardly over the other of said pulleys in said piston rod, and then rearwardly to its anchorage, and means for supplying said cylinder with pressure fluid.

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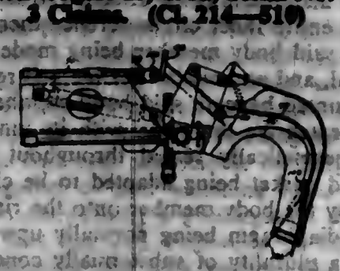
2,772,011

**BUCKET EJECTOR FOR DIGGING APPARATUS**

Ray Forwerda, Hialeah, Fla.

Application August 15, 1952, Serial No. 304,544

3 Claims. (Cl. 214—519)



1. In combination, a boom, means mounting a scoop bucket on said boom for movement relative to said boom, an ejector blade movably mounted in said bucket for movement between a normal bucket-loading position and a bucket-dumping position, blade-movement-causing means operatively associated with said blade for moving the latter to dumping position, power means for moving said scoop bucket relative to said boom, and means operatively connected with said blade-movement-causing means and responsive to said movement of said scoop bucket relative to said boom for causing movement of said blade to its dumping position.

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2,772,012

**METHOD AND DEVICE FOR MANUFACTURING CLOSURE CAPS AND CLOSURE CAP PRODUCED THEREBY**

Harold L. Crabtree, Lancaster, Ohio, assignor to Anchor Hocking Glass Corporation, Lancaster, Ohio, a corporation of Delaware

Application May 10, 1951, Serial No. 225,494

8 Claims. (Cl. 215—40)

1. A sheet metal closure cap of the class described comprising a top portion and a depending cylindrical skirt, a rubber compound forming an imperforate covering over the entire inner walls of said top portion and depending skirt, said covering having its greatest thickness along the upper portion of the skirt for telescoping over and engaging the side wall of a container, the inner surface of the covering along the lower portion of the skirt flaring downwardly, and the lower edge portion of the



skirt being turned about the lower edge of the covering and enveloping the same in clamping relation.

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2,772,013

**CLOSURE CAP FOR GLASS CONTAINERS AND METHOD OF MAKING**

Harry E. Stover, Lancaster, Ohio, assignor to Anchor Hocking Glass Corporation, Lancaster, Ohio, a corporation of Delaware

Application December 14, 1953, Serial No. 397,876

2 Claims. (Cl. 215—40)



1. A sheet metal closure cap of the class described comprising a top portion and a depending cylindrical skirt, a rubber compound forming an imperforate covering over the entire inner walls of said top portion and depending skirt, said covering having its greatest thickness along the upper portion of the skirt for telescoping over and engaging the side wall of a container, the inner surface of the covering along the lower portion of the skirt flaring downwardly, said covering having an annular groove in said upper portion adapted to receive an annular enlargement on said container, and a lower edge portion of said skirt extending inwardly and upwardly about the lower edge portion of the covering enveloping and concealing said lower edge portion of the covering.

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2,772,014

**TAMPER-PROOF SEAL FOR BOTTLE CLOSURE**

Preston F. Clark, Texas City, Tex., assignor to Pan American Pipe Line Company, Houston, Tex., a corporation of Delaware

Application September 17, 1954, Serial No. 456,715

3 Claims. (Cl. 215—32)



1. A tamper-proof seal for a container having a narrow throat which comprises a strap member having transverse slots adjacent the ends thereof, an elongated deformable keeper member integral with said strap and extending transversely to an edge thereof, a longitudinal slot in said keeper member adapted to receive the slotted ends of said strap, and an expandable latch band overlying said strap and passing through said transverse slots to retain said ends within said longitudinal slot carried by said keeper when said strap member is arranged about the throat of said container.

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2,772,015

**CORNER CONSTRUCTION FOR LUGGAGE FRAMES**

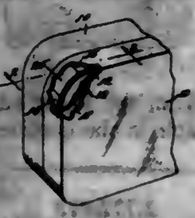
Rene Fuller, Churchville, Pa.

Application June 9, 1954, Serial No. 435,433

4 Claims. (Cl. 217—65)

1. In wooden luggage frames having a plane wall portion with a rim extending outwardly therefrom, a corner

construction for said rim wherein said rim comprises a plurality of solid wood strips having inner and outer faces and their inner faces are disposed in planes normal to each other and to said wall portion, said wood strips having terminal ends in spaced relation to each other, and a continuous and smooth faced insert between and con-



necting said terminal ends, said insert consisting of a plurality of wood layers permanently adhesively held together and having its ends disposed in planes normal to each other, said insert having its ends in meeting relation to the inner faces of the strips and joined thereto by a permanent adhesive, the outer faces of the strips having curved portions merging with the outer face of the insert.

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2,772,816

**CONTAINER FOR RECORDING THERMOMETER**

Donald R. Bristol, Seattle, Wash., assignor to Ryan Recording Thermometer Company, Seattle, Wash., a corporation of Delaware

Application February 8, 1954, Serial No. 408,843

2 Claims. (Cl. 220—19)



1. In a container, a generally cylindrical casing open at the top and formed with a diametrically enlarged upper rim section terminating at its lower end by a downwardly sloping guide shoulder, said rim section having a pair of diametrically opposite slots located adjacent said guide shoulder, a removable disc-like cover for said casing having a circumferential groove formed in its outer edge and having a recess formed in the center of its upper face, an elastic O-ring retained in said groove and having a thickness greater than the depth of the groove, a cap screw threaded into the center of said cover and arranged with its head within said recess, a handle pivotally mounted on said head and having a gripping portion arranged to be selectively swung into and above said recess, said cover and O-ring being adapted to close and moisture seal the open top of said casing when they are located within the casing and below said slots with the O-ring compressed below said guide shoulder between said casing and the floor of said circumferential groove so that the casing can be slipped by said slots onto a supporting arm when the gripping portion of the handle is located within said recess to thereby support the container and at the same time lock said cover against withdrawal from the casing.

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2,772,817

**PLASTIC DRUM CLOSURE**

Glenn T. Ricks, Auburn, Ind., assignor to Ricks Metal Products Corporation, Auburn, Ind., a corporation

Application December 21, 1953, Serial No. 399,349

3 Claims. (Cl. 220—27)

3. A closure unit comprising a cup-shaped internally threaded bung ring composed of natural polyethylene or like material, said ring being open at the top and initially closed at the bottom by a severable diaphragm, a lip portion formed on said ring of the same material to extend radially outwardly therefrom terminating in a downwardly extending portion, an upwardly extending sealing gasket portion of the same material formed on said ring to



extend upwardly from said lip portion, a clamping ring including an annular wall and sealing flange portion conforming to and snugly embracing said lip portion, and an externally threaded plug removably mounted in said bung ring having an outwardly extending sealing lip engageable with said sealing gasket portion.

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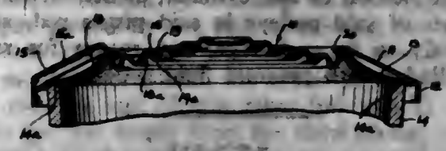
2,772,818

**SEALING CAP**

Gerhart Weise, Jackson Heights, N. Y.

Application September 12, 1951, Serial No. 246,183

7 Claims. (Cl. 220—44)



1. A sealing cap comprising a central diaphragm, an annular body member which is integral with said diaphragm, said diaphragm being attached to said body member over the entire inner circumference thereof, said diaphragm and said body member being made of relatively rigid material, and an annular flexible and resilient gasket which is mounted beneath said body member and is substantially coextensive therewith with its inner peripheral edge only hermetically sealed throughout to the body member, said gasket being adapted to be clamped at its outer edge by the body member onto the rim of the container, said diaphragm being normally upwardly convex and having a plurality of substantially concentric corrugated grooves, whereby it is adapted to be moved downwardly relative to said body member from its normal position into a downwardly convex position, said diaphragm being thereby tensioned so as to be adapted to return to its normal position upon release of the downward force thereon, said body member having a radial groove in the under-surface thereof above said gasket, said sealing cap being thereby adapted to be sealed to the rim of a container by mounting said cap on said rim with said gasket resting on said rim and with said groove overlying said rim between the inner and outer edges thereof, and depressing said diaphragm whereby to create an air pressure which forces a portion of said gasket into said groove and permits the escape of air from said container through the resulting opening between said gasket and said rim, and then releasing said diaphragm, the resulting return of said diaphragm to its normal position tending to create a partial vacuum within said container.

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2,772,819

**RUPTURE DISK ASSEMBLY**

Evan Jones, Evanston, Ill., assignor to Henry Valve Company, Incorporated, Melrose Park, Ill., a corporation of Illinois

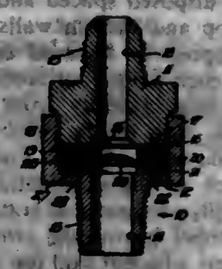
Application March 15, 1950, Serial No. 149,736

10 Claims. (Cl. 220—89)

1. In a rupture disk assembly characterized by a pair of coacting annular mounting members, a compressible sealing ring and a separate, cartridge-type rupture disk



unit disposed between said members in fluid sealing relation thereto, said unit comprising a frangible disk and a pair of concentric annular clamping elements in clamping relation to said disk adjacent the margin thereof,



said sealing ring having axial sealing engagement with said disk internally of the clamped margin of the latter, said disk clamping elements having axially telescoped and rigid, displacement-resistant securing engagement with one another independently of said mounting members.

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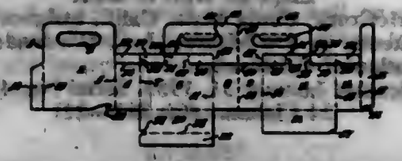
2,772,820

**PARTITIONED BOTTLE CARRIER**

Joseph Kramer, Reading, Ohio, assignor to The Gardner Board and Carton Co., Middletown, Ohio, a corporation of Ohio

Application August 30, 1952, Serial No. 307,249

3 Claims. (Cl. 220—113)



1. In a blank for a partitioned bottle carrier construction, a side wall, a medially scored end wall, and a side wall in articulation in the order named, said side walls terminating upwardly in centrally disposed neck portions, adjoining handle forming parts extending above said side walls and said end wall, said handle forming parts being articulated together at their adjoining edges along a line of articulation constituting a prolongation of the medial score line in said end wall, transverse partition elements integrally connecting said neck portions and said handle forming parts, said transverse partition elements being horizontally disposed and connected to said handle forming parts along lines of articulation constituting prolongations of the lines of articulation between said side wall panels and said end wall panel.

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2,772,821

**TOWEL DISPENSING DEVICE**

Richard C. Keddie, Old Westbury, N. Y.

Application January 16, 1952, Serial No. 266,693

3 Claims. (Cl. 221—39)



1. In an apparatus for singly dispensing multifolded paper towels having a towel supply magazine, a multi-bladed, spider-shaped member having a plurality of radially disposed blades mounted below the magazine and mounted for intermittent rotary motion, one of the blades of said member being disposed in a vertical position to normally block access to a towel depending from the magazine, said blade, upon intermittent rotary motion of said spider member, produced by manual action upon another blade, being displaceable to a position rendering said towel accessible for manual withdrawal and a further blade upon intermittent rotary motion with the spider-shaped member adapted for deflecting said towel edge forwardly and thereupon serving as a barrier preventing access to the leading edge of a following towel; a novel towel supporting means, comprising members having curved upper surfaces for engaging and supporting the lowermost towel in the magazine only along two lines parallel to the folds of the towel and spaced inwardly therefrom, whereby the undersides of the towels are given a concave configuration, the parallel supporting means being spaced apart and defining an outlet through which the towels are withdrawn from the magazine and towel guiding means positioned below the supporting means and said guiding means having a curved guiding surface which is slightly to the rear of the center line of the vertically disposed blade for guiding the towels to the inaccessible side of the blocking blade of said member.

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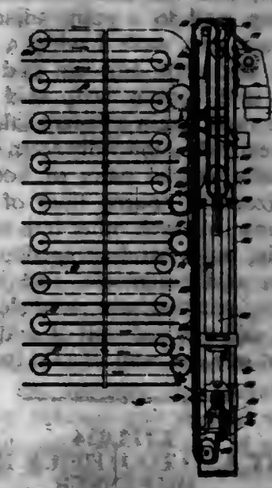
2,772,822

**VENDING MACHINE HAVING MULTIPLE BOTTLE CONVEYOR SYSTEM**

Ralph H. Manning, Kansas City, Mo., and Robert T. Manley, Kansas City, Kans., assignors to The Vendo Company, Kansas City, Mo., a corporation of Missouri

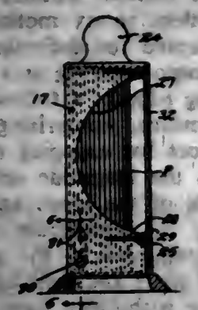
Application July 16, 1951, Serial No. 236,916

8 Claims. (Cl. 221—85)



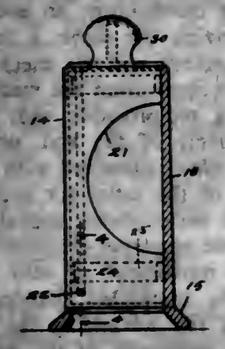
1. In a vending machine, the combination of structure presenting an article-receiving passage; a pair of conveyor elements for advancing articles along the passage; reciprocable mechanism; an endless element having means for driving the same; a link pivotally interconnecting the element and the mechanism at one end of the latter for reciprocating the mechanism as the element is driven; a reciprocable rod; flexible means at each end respectively of the rod, one connected with the link and the other connected with the mechanism at the opposite end of the latter for reciprocating the rod as the mechanism reciprocates; movable apparatus coupled with one of the conveyor elements for advancing the same only upon movement of said apparatus in one direction; movable apparatus coupled with the other conveyor element for advancing the latter only upon movement of the apparatus of the other conveyor element in the opposite direction; and means coupling the rod with said apparatuses for moving the latter simultaneously first in said one direction and thence in said opposite direction alternately as the rod reciprocates.

2,772,023
**CONDIMENT AND TOOTHPICK HOLDER AND DISPENSER**
Lloyd A. Smith, Washington, D. C., assignor of one-fourth to Morris R. Smith, Washington, D. C.
Application February 4, 1952, Serial No. 269,826
1 Claim. (Cl. 221—282)



A toothpick holder and dispenser comprising a normally horizontal base, said base having a pair of integrally formed substantially rectangular side walls projecting upwardly therefrom in spaced substantially parallel relation, an end wall projecting upwardly from said base and formed integrally therewith, said end wall extending substantially parallel to said side walls and integrally connecting a pair of adjacent upwardly extending edges thereof, said side and end walls defining a receptacle having an open end and top, a toothpick holder comprising a substantially rectangular parallelepipedon having spaced and parallel pairs of side and end walls, and spaced parallel top and bottom walls, each of said side walls having an arcuate cut out formed therein in registry with each other, said cut outs extending from a point adjacent said top wall to a point adjacent said bottom wall, one of said end walls having a cut out portion extending from said point adjacent said top wall to said point adjacent said bottom wall, said side walls each having a slit formed therein adjacent said top and bottom walls, said slits extending inwardly from said one end wall to form vertically spaced pairs of horizontally spaced tines, said horizontally spaced tines of each pair being bent arcuately towards each other into substantially abutting relationship, said parallelepipedon being normally disposed within said receptacle, and bayonet and slot means detachably securing said parallelepipedon and said receptacle with said one end wall of said parallelepipedon confronting said one end wall of said receptacle.

2,772,024
**CONDIMENT AND TOOTHPICK HOLDER AND DISPENSER**
Lloyd A. Smith, Arlington, Va.
Application November 4, 1952, Serial No. 318,683
1 Claim. (Cl. 221—282)



A toothpick holder comprising a base having a pair of elongated spaced parallel and confronting vertically extending side walls, an end wall connecting a pair of adjacent longitudinal edges of said side walls, each of said side walls having a vertically extending guide slot formed therein adjacent their respective other confronting longitudinal edges, said slots extending downwardly from the upper ends of said side walls and terminating adjacent the other ends thereof, a substantially rectangular container having oppositely disposed spaced and substantially parallel side walls, top and bottom walls, and an end wall confronting an oppositely disposed open end, said last named side walls each having an arcuate cut-out formed therein and extending inwardly from said open end, a channel formed in each of the confronting surfaces of said last named side walls adjacent said top wall, a channel formed in each of the confronting surfaces of said last named side walls adjacent said bottom wall, a resilient U-shaped clip member having the arms thereof disposed within said channels adjacent said top wall with the bight thereof engaging said last named end wall, a second resilient U-shaped clip member having the arms thereof disposed within said channels disposed adjacent said bottom wall with the bight thereof engaging said end wall, each of said clip members having the free ends of their respective arms bent in a converging direction, and a pin projecting laterally from the remote surfaces of each of said last named side walls, said pins being slidably engaged within said slots and forming pivot means for said receptacle, said pins being disposed adjacent said bottom wall.

2,772,025
**LIQUID DISPENSER**
John F. McCrory, Chula Vista, Calif., assignor, by mesne assignments, to Tru-Measur, Inc., Coronado, Calif., a corporation of California
Application January 31, 1955, Serial No. 484,933
14 Claims. (Cl. 222—21)



1. A dispenser of the character described comprising a housing, a cylinder disposed in said housing and having an open lower end, a piston having a lower discharge end extending downwardly from said housing and an upper end extending slidably into the lower end of said cylinder, said piston having a passage extending longitudinally therethrough, spring actuated means connected to said housing and piston for urging the piston inwardly of the cylinder, a downwardly opening valve mounted in said passage, spring means normally maintaining said valve in a closed position, a supply source for a medium to be dispensed, means connecting said supply source to the other upper end of said cylinder, a driven means engaging said spring actuated means and normally holding the spring actuated means in a position to prevent the piston from being displaced upwardly thereby, and means to actuate said driven means for movement thereof to permit upward displacement of the piston by said spring actuated means for applying a pressure to the medium to be dispensed contained within said cylinder for unseating the valve for discharge of the medium from the lower end of said piston passage, said driven means subsequently returning the spring actuated means to its initial position for displacing the piston downward to close said valve and create a vacuum in said cylinder for refilling the cylinder from said supply source.



2,772,026
**COLLAPSIBLE TUBE SQUEEZER**
Lawrence E. Harrington, Sepulveda, Calif., assignor of one-half to Walter W. Bullock, Alhambra, Calif.
Application February 2, 1955, Serial No. 485,669
7 Claims. (Cl. 222—82)



1. A tube squeezer comprising a housing having a top wall, and side walls and open at its forward end, a tube squeezing panel in said housing having side margins extending adjacent the inner faces of said side walls, said panel being pivotally connected at its inner end to swing toward and away from the under side of said top wall, a handle fixed to said housing and projecting therebeneath, a lever pivoted to said handle and normally extending in angular relation thereto, and means on said lever for actuating said panel toward said top wall on advancing said lever and handle toward each other to thereby squeeze a tube interposed longitudinally between said top wall and panel.

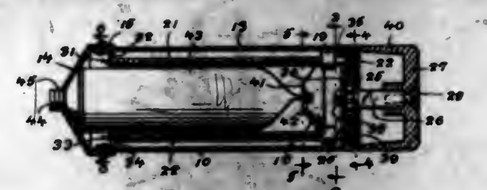
2,772,027
**DISPENSING CAPS FOR COLLAPSIBLE TUBES**
Lawrence E. Chirop, Mount Clemens, Mich.
Application November 10, 1954, Serial No. 468,021
1 Claim. (Cl. 222—92)



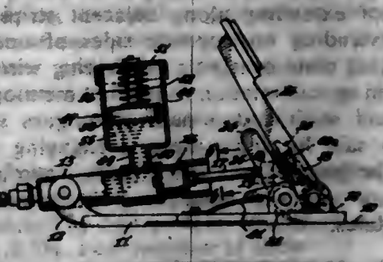
A dispensing cap for collapsible tubes, the cap comprising a base having a threaded socket therein for application to the orifice portion of a collapsible tube the base being of a diameter equal to that of the tube, a tubular neck axially rising from the base and opening at the lower end into the socket of the base, but being closed at the top, the neck having in its side wall an outlet port and having in said wall, in a diametrical position to said port, a slot in the shape of an inverted letter U, a cylindrical closure telescopically seated over the neck, the closure being provided with a radially-extending spout, the spout being normally out of register with said outlet port, but being adapted to be brought into register therewith by a partly rotary movement of the closure about the axis of said neck, and an integrally-formed crown at the top of the closure, the crown being of a diameter in excess of that of the closure, but having a portion cut off on a line of chord above the said spout.

2,772,028
**DISPENSER FOR MATERIAL IN COLLAPSIBLE TUBES**
Peter R. Lopez, Richmond, Calif.
Application March 16, 1955, Serial No. 493,335
3 Claims. (Cl. 222—95)

3. In a dispenser for material in collapsible tubes, the combination which comprises an elongated casing, rectangular shape in cross section, threaded rods rotatably mounted in corners of the casing, a traveling plunger having internally threaded hubs positioned with the hubs on said threaded rods, a knob rotatably mounted on the casing, gears mounted on said threaded rods, a gear rotatably mounted in the casing and adapted to be actuated by the knob, said gear being adapted to be actuated by the knob meshing with the gears on the threaded rods whereby the threaded rods are rotated upon rotation of the knob, a cap removably mounted on the end of the casing opposite to the end on which the knob is positioned and having a centrally positioned opening therein adapted to receive a threaded nipple of a collapsible tube positioned in the casing, said cap being retained in position with spring actuated buttons.

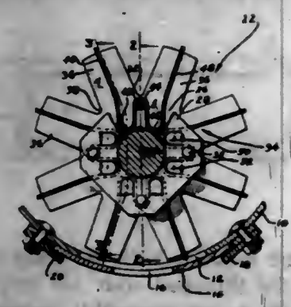


2,772,029
**MEANS FOR FILLING GREASE CUPS ON AUTOMOTIVE VEHICLES**
Jerry S. De Lucia, Bronx, N. Y.
Application June 20, 1955, Serial No. 516,467
7 Claims. (Cl. 222—179)



1. In a device of the class described, a cylinder having an outlet at its front end, a base having a raised portion at the front thereof, said cylinder being pivoted near said end thereof to said raised portion, a piston slidably mounted in the cylinder and having a piston rod extending from the rear end of the cylinder, an operating lever arm pivoted on an axis substantially parallel with the pivotal axis of the cylinder near the rear end of said rod, a shaft rotatably mounted at substantially the level of the pivotal axis of said lever above the base and positioned forward of said pivotal axis of the lever, said shaft having a sleeve fixed thereon, said sleeve having a lug thereon, the rear end of said rod being pivoted to said lug, a second sleeve fixed on said shaft adjacent said first sleeve and having a lug thereon, said second lug having a pin extending from that side thereof opposite said first sleeve, said shaft having a third sleeve fixed thereon, a member on that side of said lever adjacent said second sleeve so positioned thereon to engage said pin upon swinging of said lever in one direction and thus to swing said second lug in the same direction and hence to move said piston rod and said piston forward in said cylinder to force grease through the piston outlet, resilient means for restoring said lugs and hence said piston to their original inoperative positions, a grease supply chamber having an outlet into said cylinder on the outlet side of the piston, and means in said chamber normally urging the grease therein into the cylinder, said cylinder having a check valve in the outlet thereof normally closed except when the piston is moving toward the front end of the cylinder.

2,772,630
**FEEDING ROTORS FOR FERTILIZER DISTRIBUTORS**
Donald J. Christensen, Kenosville, and Armand A. Salerno, Racine, Wis., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application June 30, 1955, Serial No. 519,092
5 Claims. (Cl. 222—242)



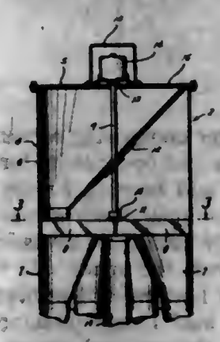
1. In a feeding rotor for a fertilizer distributor of the type including an elongated fertilizer hopper supported for movement over the ground transversely of the length of said hopper a series of discharge openings in the bottom of the hopper and a rotating shaft adjacent the bottom of the hopper; a rotor on said shaft comprising a disk-like plate including an even number of substantially radially extending strips, uniformly circumferentially spaced about said shaft in a common plane substantially normal thereto and providing notches therebetween, a rivet extending through said plate adjacent the apex of alternate notches formed between said strips, a W-shaped finger member of spring wire having the outer fingers thereof extending along adjacent strips and the inner legs extending on opposite sides of one of said rivets, a locking plate overlying said spring wire member and secured in spaced relation to the first mentioned plate, axially of said shaft and a pair of tongues struck inwardly from said locking plate and engaging said wire member at the base of said side fingers whereby to prevent escape of said wire member from its position between said plates.

2,772,631
**FLUID GUN**
Harold A. Rosebud, Dayton, Ohio, assignor to C. W. Harwin, Inc., Dayton, Ohio, a corporation of Ohio
Application December 2, 1952, Serial No. 323,636
12 Claims. (Cl. 222—324)



12. In a fluid pump mechanism comprising a pump cylinder having an inlet port provided with a check valve, an elongate hollow handle member, a guide bearing joining the pump cylinder to the handle member, a hollow piston rod within the pump cylinder and extending through the guide bearing and into the handle member, a piston attached to the piston rod at the lower end thereof, said hollow piston rod having an aperture at the lower end thereof connecting the interior of the hollow piston rod to the pump cylinder forming an outlet port for fluid within the cylinder, said hollow piston rod having a second aperture spaced above the first aperture, the hollow piston rod having a portion of its outer surface cut away adjacent the second aperture forming an air vent for exhausting air trapped in the upper end of said pump cylinder, pump operating means comprising a bell crank having two arms, one arm thereof serving as a pump operating trigger pivotally attached adjacent the handle member, and a link having one end operatively connected to said hollow piston rod and having its other end operatively connected to the second arm of said bell crank.

2,772,632
**ROTARY VALVE**
Sidney M. Pattillo, Rosebud, Tex.
Application February 28, 1955, Serial No. 491,147
6 Claims. (Cl. 222—330)



1. Valve means comprising a vertically disposed cylindrical housing, a hopper disposed within the upper portion of the housing and rotatably mounted therein, the upper end of the hopper having a diameter approaching the inside diameter of the housing and the lower end thereof being of smaller diameter than its upper end and being positioned eccentrically with respect to the housing, a plurality of hoppers arranged circumferentially below the first mentioned hopper, the upper ends of the last mentioned hoppers each comprising a sector of a circle having a diameter corresponding to the inside diameter of the housing, the lower end of each of the last mentioned hoppers being smaller than its upper end and being positioned eccentrically with respect to the housing, the last mentioned hoppers each being adapted to receive material as discharged from the first mentioned hopper when the lower end of the first mentioned hopper is aligned circumferentially therewith.

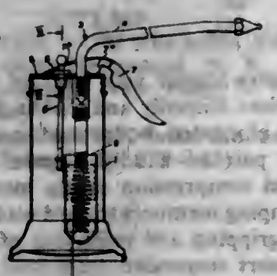
2,772,633
**VALVE MECHANISM FOR TOOTH PASTE DISPENSER**
Frank Gerard, Baltimore, Md.
Application June 10, 1954, Serial No. 435,877
4 Claims. (Cl. 222—340)



1. A paste dispenser comprising in series a reservoir compartment for tooth paste, an intermediate chamber, a vestibule and an outlet orifice, a longitudinally perforated piston separating the compartment from the chamber and disposed to reciprocate in said chamber and closely fit therein, a perforated partition between said chamber and said vestibule, said piston having an external spindle, a valve rod having a valve flange at its lower end, a bore in said valve rod extending upwardly from the bottom face of said valve flange, a pin-receiving slot in said valve rod and spaced from said valve flange, said spindle on the piston projecting into said bore in the valve rod and being adapted to reciprocate within said bore, a pin connected to said spindle and projecting into said pin-receiving slot in said valve rod for limiting reciprocation of said spindle in said bore, a loose valve disc in said vestibule, a shaft fastened to said perforated partition and projecting downward into said vestibule and through said loose valve disc in said vestibule and having a valve stop spaced from the bottom of the perforated partition, said valve disc being disposed to slide along said shaft and between the perforated partition and said valve stop and to close the perforated portion of said partition against passage of paste therethrough when resting against said partition, said valve flange being disposed to close the perforated portion of said piston against passage of paste therethrough when resting on said piston, a slider disposed below said outlet orifice and adapted to be pushed by a tooth brush, a lever system connected to said valve rod and adapted to be actuated by said slider and to reciprocate said valve rod.

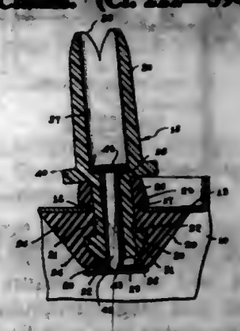


2,772,634
**PUMP SHAFT SEAL FOR HAND OILERS**
Roy H. Richmond, Jr., Wellsburg, W. Va., assignor to Eagle Manufacturing Company, Wellsburg, W. Va., a corporation of West Virginia
Application August 6, 1953, Serial No. 372,747
4 Claims. (Cl. 222—341)



1. The combination with a cap closure of a hand oiler having an opening therein provided with an in-turned lip and a pump shaft reciprocable through said opening, of a seal comprising a rubber body having an annular groove in its outer surface for reception of the in-turned lip of the cap opening, the inner diameter of said groove being slightly larger than the diameter of said cap closure lipped opening, the outer surface of said body having a downwardly converging taper from a maximum diameter at the lower edge of said groove to a minimum diameter at the bottom of said body and with said minimum diameter being substantially the same as the diameter of said lipped closure opening to facilitate axial movement of said body to a mounted position in said opening, said cap closure having its lipped periphery defining the opening therein of greater axial depth than that of said groove and positioned in said body groove to provide a tensioned liquid sealing engagement with said body when in its mounted position with respect thereto, said body having an axially extending opening the surface of which has a taper converging axially downwardly from a maximum diameter at the upper end of said body to a minimum diameter at the lower end of said body with said maximum diameter being slightly less than the diameter of said shaft, said shaft extending through said body opening and having sliding engagement with the surface of said body opening.

2,772,635
**DISPENSING VALVE FOR A PRESSURIZED CONTAINER**
Leonard M. Collins, Los Angeles, and Philip F. George, Arcadia, Calif., assignors to Pressure Dispensers, Inc., Beverly Hills, Calif., a corporation
Application June 15, 1953, Serial No. 361,708
8 Claims. (Cl. 222—394)



1. A dispensing valve for a pressurized container comprising: a resilient grommet adapted to be mounted in an opening in said container and having an axial bore therethrough with an enlarged recess extending laterally from said bore in the portion of said grommet inwardly of said opening; a rigid tubular body fitted tightly within said bore and having a locking projection seated within said recess, said body having a nozzle portion extending outwardly beyond said grommet and said body being seated against the portion of said grommet outwardly of said opening to compress said grommet in sealing engagement with said container; and a valve stem extended through said body in floating relationship thereto and defining therewith a passageway for the flow of material from said container, said stem having a head on the inner end for seating against the inner face of said grommet.

2,772,636
**MATERIALS HANDLING EQUIPMENT**
Lindsey West Shea and Joseph C. Strab, Canton, Ohio, assignors to The Union Metal Manufacturing Company, Canton, Ohio, a corporation of Ohio
Application March 15, 1954, Serial No. 416,360
5 Claims. (Cl. 222—457)

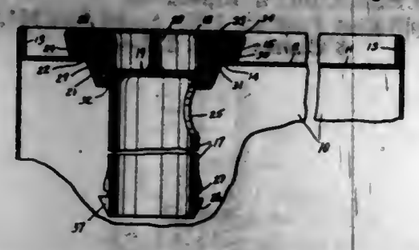


1. In materials handling work positioning equipment, tray bottom and side walls forming an upwardly forwardly opening tray member having a front end, barrier means for the front end of the tray member, the barrier means including a transverse member extending between the tray side walls and below the tray bottom wall, spaced pins mounted on the transverse member projecting vertically upward thereof at the front end of the tray member, said pins providing upwardly opening recesses therebetween, and means removably mounting said barrier means on the tray member, whereby the barrier means retains workpieces on the tray member, and whereby such retained workpieces may be grasped through said recesses and lifted upwardly of the tray member for removal.

2,772,637
**POUR SPOUT CLOSURE FOR CONTAINERS**
Glenn T. Rieke, Auburn, Ind., assignor to Rieke Metal Products Corporation, Auburn, Ind., a corporation
Application February 16, 1954, Serial No. 410,686
7 Claims. (Cl. 222—481)

1. A pour spout closure for a container having an opening surrounded by an upstanding neck, an internally

threaded flange extending through said opening in sealing relation with said neck, a tubular pouring spout slidable in said flange open at its inner end and provided with a pouring hole in its wall adjacent its other end, an externally threaded plug integral with said spout providing a closure at said other end for threaded sealing engagement with said flange, a flange lip integral with said flange surrounding said neck, a closure lip integral with and severable from said plug surrounding said flange lip, and a clamping ring embracing said lips crimped thereon to effect a permanent seal with said neck.



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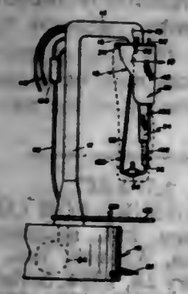
**2,772,038**
**METERING CONTROL FOR FERTILIZER SPREADERS**
Patrick W. Merriman, Racine, Wis., assignor to J. I. Case Company, Racine, Wis.
Application August 17, 1953, Serial No. 374,523
7 Claims. (Cl. 222—485)



1. A metering control device for fertilizer spreaders and the like wherein hopper discharge ports are opened and closed by a sliding valve plate having corresponding ports adapted to adjustably register with the hopper discharge ports, comprising a pivotal lever connected to the slide plate to actuate the same, one extreme position of said lever corresponding to a closing of said discharge ports and the opposite extreme position of said lever corresponding to a full opening of said discharge ports, a circular cam abutment plate eccentrically mounted in the path of said lever and adjustably rotatable on an axis parallel to the pivotal axis for the lever to limit the movement of the lever toward said opposite position and thereby determine the adjusted opening of said ports, and means to lock said circular plate in any one of numerous selectable positions to provide fine increments of adjustment for said discharge ports throughout the range of opening of the same.

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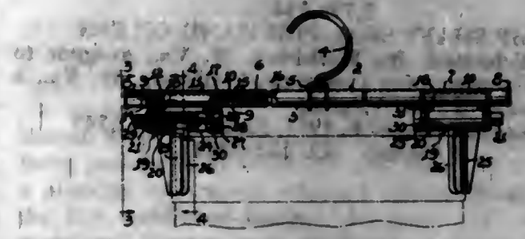
**2,772,039**
**GARMENT FINISHING APPARATUS**
Frank G. Hoover and Harry E. McCollough, Escondido, and Charles H. Free, Pasadena, Calif.
Application March 4, 1955, Serial No. 492,074
3 Claims. (Cl. 223—73)



1. A garment finishing apparatus comprising: a base; an upright hollow pillar fixed on said base; said pillar having a laterally extending upper portion; a garment holder assembly suspended from said portion; said holder assembly including a fixed plate mounted on said portion: guide rails secured beneath said fixed plate normal to said upper portion; a pair of side plates having spaced extended guide bars slidably engageable in said rails; a downwardly extending, rigid side form panel fixed to each of said side plates; said side form panels being perforated and shaped to engage in the waistband portion of a garment; porous covers secured to said form panels; and means for laterally adjusting the spacing of said form panels; spring clips mounted on each of said side plates and extending downwardly over said form panels to engage and retain a garment thereon; a rigid pleat presser pivotally mounted on each of said side plates to swing downwardly against the surfaces of said side form panels; said pleat pressers being perforated and shaped to fit closely the surface of said form panels; and porous covers secured on said pleat pressers; a toggle mechanism operatively connected to said pleat pressers to lock the same in place against said form panels; a pair of downwardly extending leg elements secured to said fixed plate; and means for conducting fluids through said leg elements.

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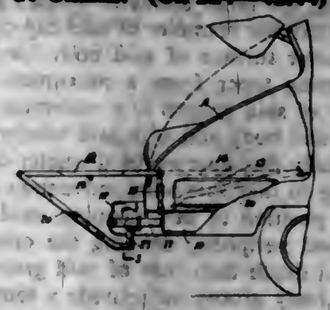
**2,772,040**
**TROUSERS HANGER**
George Kajcsa, Cleveland, Ohio
Application February 1, 1955, Serial No. 485,407
4 Claims. (Cl. 223—96)



1. A trousers hanger with pairs of aligned trousers leg gripping devices hingedly and yieldingly slidably suspended from an elongated body, said gripping devices each including a pair of axially aligned shiftable clamping members and compression spring means yieldingly forcing said clamping members toward each other to automatically effect gripping and reshaping of creased areas of a pair of trousers suspended from said trousers hanger.

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**2,772,041**
**AUTOMOBILE TRUNK EXTENSION**
George J. Zeuhert, Detroit, Mich.
Application September 23, 1954, Serial No. 457,929
10 Claims. (Cl. 224—42.44)



1. An automobile trunk platform comprising a substantially flat floor having two opposing ends, widely spaced support posts adapted to be connected within the rear end of an automobile trunk, said platform normally occupying a position in the automobile trunk with one of said floor ends being positioned between and permanently hinged to said support posts, means for adjusting the hinged connection between the said floor end and the said support posts, the other of said floor ends being adapted to be swung rearwardly beyond the backmost portion of said automobile, and strut means connecting said other floor end to said automobile frame and holding said floor in a substantially horizontal position.



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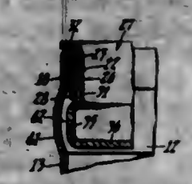
**2,772,042**
**CARTONS**
Walter Thomas Stephen Hendrick, Beckenham, England, assignor to J. Lyons & Company Limited, London, England, a British company
Application June 30, 1953, Serial No. 365,070
Claims priority, application Great Britain July 8, 1952
6 Claims. (Cl. 229—41)



1. A carton made up from a single blank of foldable material, said carton having a part tubular body comprising a series of side-by-side conjoined wall panels, at each end of said body a hexagonal closure panel joined to one of said wall panels and normal thereto, a spacing panel coupled to said hexagonal panel, normal thereto and extending inwardly therefrom, a panel joined to said spacing panel and normal thereto to lie parallel to but spaced from said hexagonal panel and an auxiliary end panel joined to another of said wall panels, normal thereto and extending between said hexagonal panel and said panel coupled thereto and beneath said spacing panel.

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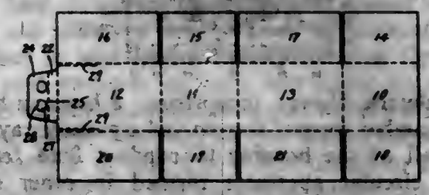
**2,772,043**
**FIBRE CONTAINER WITH RECLOSURE COVER**
Delbert C. Feord, West Hempstead, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application April 3, 1953, Serial No. 346,677
7 Claims. (Cl. 229—43)



1. A container comprising a fibrous body member having a closed bottom and connected upright side walls terminating in an inwardly offset reversely folded depending straight peripheral flange disposed parallel and adhesively secured to said body side walls to constitute a peripheral friction seat wall of double thickness defining the open container mouth, said connected side walls having a laterally outwardly offset peripheral portion beneath said friction seat wall, said seat wall flange terminating in a freely depending resilient flange extension constituting an annular closure member locking wall of single thickness surrounding the container mouth, the inner terminal end of said depending flange extension being spaced laterally inwardly from said offset peripheral portion of the body side walls beneath said friction seat wall, a cup-shaped friction plug closure member insertable in said mouth for closing the container, said closure member having a countersunk panel wall and an upstanding substantially straight peripheral friction wall for fitting closely against said friction seat wall of the body member, the inner end of said countersunk closure member panel wall beneath its said straight friction wall having preformed peripheral portions extending laterally outwardly beyond the plane of said friction wall seat for yieldable engagement beneath said resilient locking flange extension of said body member to removably secure the closure member in place on the container mouth, and a pull tab on said closure member for pulling the latter free from beneath said locking wall to open the container without damaging said locking wall and said laterally extending peripheral panel wall portions of the closure member, whereby the latter may be utilized to reclose the container.

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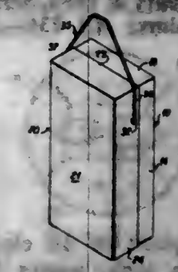
**2,772,044**
**HANDLED CARTON**
Harold W. Layne, Beech Grove, Ind., assignor to Inland Container Corporation, Indianapolis, Ind., a corporation
Application August 17, 1954, Serial No. 450,412
2 Claims. (Cl. 229—51)



1. A handled carton of fibreboard having side and end walls with hinged bottom and top closure flaps, a securing flap hinged to one of said walls as an extension thereof to overlap and lie flat against a portion of an adjacent wall, a carton carrying handle portion formed integral with and extending from said extension to initially lie flat against said adjacent wall adapted to be bent outwardly therefrom when put to use as a carrying handle, means for securing said extension to said adjacent wall for defining and securing said handle portion, and a pair of spaced parallel tear lines extending inwardly of said one of said walls from opposite ends of said securing flap to permit a portion of said wall to be ripped open upon jerking said handle portion and flap free of said securing means.

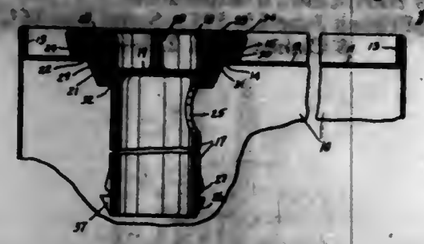
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**2,772,045**
**CONTAINER FOR SHOES AND THE LIKE**
Leo C. Pace, Asheville, N. C.
Application February 28, 1955, Serial No. 491,021
6 Claims. (Cl. 229—62)



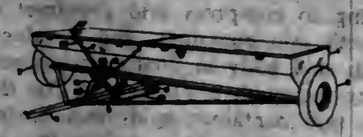
1. A container comprising a substantially rectangular body provided with a bottom, first and second side walls and first and second end walls, a cover for said body comprising a top wall, third and fourth side walls and third and fourth end walls, said end walls and side walls of the cover being substantially one-half the width of the end walls and side walls of said body and being adapted to fit snugly about the corresponding walls of said body, said first and third side walls and said second and fourth side walls having respective coinciding eyelets therethrough when the container is closed located at points substantially halfway between the bottom wall of the body and the opposite edges of the first and second side walls and also being located adjacent said first end wall, a double-ended pliable handle formed into a loop and having opposed ends thereof projecting inwardly through the eyelets in the third and fourth side walls and

threaded flange extending through said opening in sealing relation with said neck, a tubular pouring spout slidable in said flange open at its inner end and provided with a pouring hole in its wall adjacent its other end, an externally threaded plug integral with said spout providing a closure at said other end for threaded sealing engagement with said flange, a flange lip integral with said flange surrounding said neck, a closure lip integral with and severable from said plug surrounding said flange lip, and a clamping ring embracing said lips crimped thereon to effect a permanent seal with said neck.



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2,772,038
METERING CONTROL FOR FERTILIZER SPREADERS
Patrick W. Morrissey, Racine, Wis., assignor to J. I. Case Company, Racine, Wis.
Application August 17, 1953, Serial No. 374,523
7 Claims. (Cl. 222—485)



1. A metering control device for fertilizer spreaders and the like wherein hopper discharge ports are opened and closed by a sliding valve plate having corresponding ports adapted to adjustably register with the hopper discharge ports, comprising a pivotal lever connected to the slide plate to actuate the same, one extreme position of said lever corresponding to a closing of said discharge ports and the opposite extreme position of said lever corresponding to a full opening of said discharge ports, a circular cam abutment plate eccentrically mounted in the path of said lever and adjustably rotatable on an axis parallel to the pivotal axis for the lever to limit the movement of the lever toward said opposite position and thereby determine the adjusted opening of said ports, and means to lock said circular plate in any one of numerous selectable positions to provide fine increments of adjustment for said discharge ports throughout the range of opening of the same.

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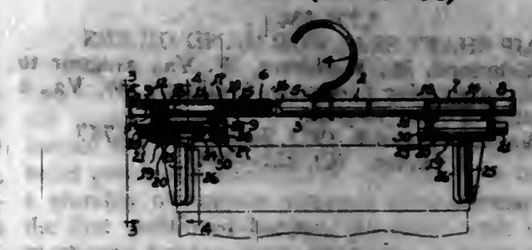
2,772,039
GARMENT FINISHING APPARATUS
Frank G. Hoover and Harry E. McCelengh, Escondido, and Charles H. Free, Pasadena, Calif.
Application March 4, 1955, Serial No. 492,974
3 Claims. (Cl. 223—73)



1. A garment finishing apparatus comprising: a base; an upright hollow pillar fixed on said base; said pillar having a laterally extending upper portion; a garment holder assembly suspended from said portion; said holder assembly including a fixed plate mounted on said portion; guide rails secured beneath said fixed plate normal to said upper portion; a pair of side plates having spaced extended guide bars slidably engageable in said rails; a downwardly extending, rigid side form panel fixed to each of said side plates; said side form panels being perforated and shaped to engage in the waistband portion of a garment; porous covers secured to said form panels; and means for laterally adjusting the spacing of said form panels; spring clips mounted on each of said side plates and extending downwardly over said form panels to engage and retain a garment thereon; a rigid pleat presser pivotally mounted on each of said side plates to swing downwardly against the surfaces of said side form panels; said pleat pressers being perforated and shaped to fit closely the surface of said form panels; and porous covers secured on said pleat pressers; a toggle mechanism operatively connected to said pleat pressers to lock the same in place against said form panels; a pair of downwardly extending leg elements secured to said fixed plate; and means for conducting fluids through said leg elements.

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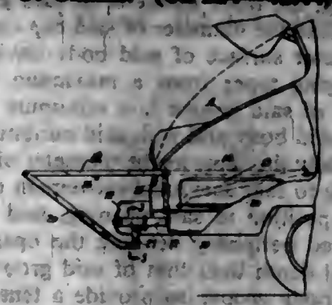
2,772,040
TROUSERS HANGER
George Kajcan, Cleveland, Ohio
Application February 1, 1955, Serial No. 485,467
4 Claims. (Cl. 223—96)



1. A trousers hanger with pairs of aligned trousers leg gripping devices hingedly and yieldingly slidably suspended from an elongated body, said gripping devices each including a pair of axially aligned shiftable clamping members and compression spring means yieldingly forcing said clamping members toward each other to automatically effect gripping and reshaping of creased areas of a pair of trousers suspended from said trousers hanger.

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2,772,041
AUTOMOBILE TRUNK EXTENSION
George J. Zenhart, Detroit, Mich.
Application September 23, 1954, Serial No. 457,929
10 Claims. (Cl. 224—42.44)



1. An automobile trunk platform comprising a substantially flat floor having two opposing ends, widely spaced support posts adapted to be connected within the rear end of an automobile trunk, said platform normally occupying a position in the automobile trunk with one of said floor ends being positioned between and permanently hinged to said support posts, means for adjusting the hinged connection between the said floor end and the said support posts, the other of said floor ends being adapted to be swung rearwardly beyond the backmost portion of said automobile, and strut means connecting said other floor end to said automobile frame and holding said floor in a substantially horizontal position.



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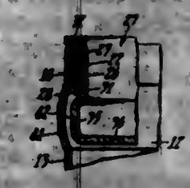
2,772,042
CARTONS
Walter Thomas Stephen Hendrick, Bochurnham, England, assignor to J. Lyons & Company Limited, London, England, a British company
Application June 30, 1953, Serial No. 365,070
Claims priority, application Great Britain July 8, 1952
6 Claims. (Cl. 229—41)



1. A carton made up from a single blank of foldable material, said carton having a part tubular body comprising a series of side-by-side conjoined wall panels, at each end of said body a hexagonal closure panel joined to one of said wall panels and normal thereto, a spacing panel coupled to said hexagonal panel, normal thereto and extending inwardly therefrom, a panel joined to said spacing panel and normal thereto to lie parallel to but spaced from said hexagonal panel and an auxiliary end panel joined to another of said wall panels, normal thereto and extending between said hexagonal panel and said panel coupled thereto and beneath said spacing panel.

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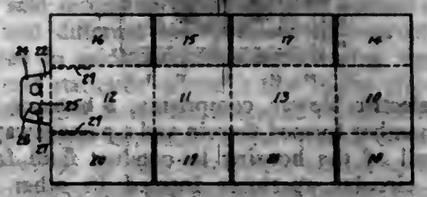
2,772,043
FIBRE CONTAINER WITH RECLOSURE COVER
Delbert C. Beard, West Hempstead, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application April 3, 1953, Serial No. 346,677
7 Claims. (Cl. 229—43)



1. A container comprising a fibrous body member having a closed bottom and connected upright side walls terminating in an inwardly offset reversely folded depending straight peripheral flange disposed parallel and adhesively secured to said body side walls to constitute a peripheral friction seat wall of double thickness defining the open container mouth, said connected side walls having a laterally outwardly offset peripheral portion beneath said friction seat wall, said seat wall flange terminating in a freely depending resilient flange extension constituting an annular closure member locking wall of single thickness surrounding the container mouth, the inner terminal end of said depending flange extension being spaced laterally inwardly from said offset peripheral portion of the body side walls beneath said friction seat wall, a cup-shaped friction plug closure member insertable in said mouth for closing the container, said closure member having a countersunk panel wall and an upstanding substantially straight peripheral friction wall for fitting closely against said friction seat wall of the body member, the inner end of said countersunk closure member panel wall beneath its said straight friction wall having preformed peripheral portions extending laterally outwardly beyond the plane of said friction wall seat for yieldable engagement beneath said resilient locking flange extension of said body member to removably secure the closure member in place on the container mouth, and a pull tab on said closure member for pulling the latter free from beneath said locking wall to open the container without damaging said locking wall and said laterally extending peripheral panel wall portions of the closure member, whereby the latter may be utilized to reclose the container.

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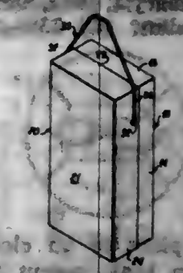
2,772,044
HANDLED CARTON
Harold W. Layne, Beech Grove, Ind., assignor to Inland Container Corporation, Indianapolis, Ind., a corporation
Application August 17, 1954, Serial No. 450,412
2 Claims. (Cl. 229—51)



1. A handled carton of fibreboard having side and end walls with hinged bottom and top closure flaps, a securing flap hinged to one of said walls as an extension thereof to overlap and lie flat against a portion of an adjacent wall, a carton carrying handle portion formed integral with and extending from said extension to initially lie flat against said adjacent wall adapted to be bent outwardly therefrom when put to use as a carrying handle, means for securing said extension to said adjacent wall for defining and securing said handle portion, and a pair of spaced parallel tear lines extending inwardly of said one of said walls from opposite ends of said securing flap to permit a portion of said wall to be ripped open upon jerking said handle portion and flap free of said securing means.

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2,772,045
CONTAINER FOR SHOES AND THE LIKE
Lee C. Pace, Asheville, N. C.
Application February 28, 1955, Serial No. 491,021
6 Claims. (Cl. 229—52)

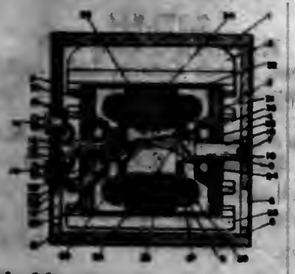


1. A container comprising a substantially rectangular body provided with a bottom, first and second side walls and first and second end walls, a cover for said body comprising a top wall, third and fourth side walls and third and fourth end walls, said end walls and side walls of the cover being substantially one-half the width of the end walls and side walls of said body and being adapted to fit snugly about the corresponding walls of said body, said first and third side walls and said second and fourth side walls having respective coinciding eyelets therethrough when the container is closed located at points substantially halfway between the bottom wall of the body and the opposite edges of the first and second side walls and also being located adjacent said first end wall, a double-ended pliable handle formed into a loop and having opposed ends thereof projecting inwardly through the eyelets in the third and fourth side walls and

through the eyelets in the first and second side walls, and means restraining the free ends of the pliable handle from being pulled out of said eyelets.

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2,772,946
**ELECTRIC BLOWER**
George J. Sheumpke, Nashua, N. H., assignor to Sanders Associates, Incorporated, Nashua, N. H.
Application November 23, 1953, Serial No. 393,695
7 Claims. (Cl. 230—117)



1. An electric blower, comprising: a housing having a plenum chamber formed therein and a passageway formed in one wall of the housing to conduct fluid from said chamber; circular apertures formed in other opposite walls of said housing for access to said chamber; perforated circular disks secured in said apertures to form walls for said chamber, said disks having eccentrically disposed shaft-mounting holes formed therein; a shaft member extending through said chamber and supported in said shaft-mounting holes thereby enabling accurate alignment of said shaft along a given axis by rotating said circular disks; field windings including a core mounted on said shaft for producing a rotating field when connected to a source of current; electrical conductors extending from said field windings to input terminals; and a fan mounted for rotation about said shaft member and including a ring member encircling and spaced from said core whereby the rotating field around said core effects rotation of said fan.

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2,772,947
**VACUUM PLANT LOCATED IN PRE-VACUUM TANK**
Heinrich Sonnberger, Heidenheim (Brenz), Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Germany
Application January 4, 1952, Serial No. 264,997
2 Claims. (Cl. 230—232)

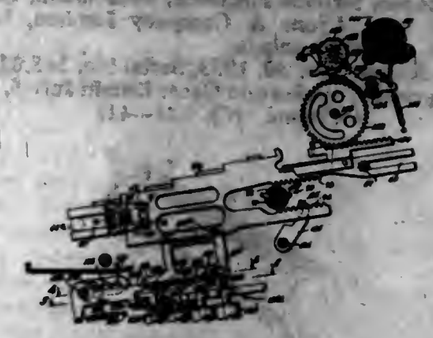


1. In a vacuum plant of an electron microscope a hermetic pre-vacuum tank, means for exhausting said tank, said means being a pre-exhausting pump with an inlet in the interior of said tank and an outlet outside of said tank, as well as a motor coupled with said pre-exhausting pump, said pre-exhausting pump being suspended in the interior of said pre-vacuum tank for reducing the noise of said pump if being in operation.

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2,772,948
**READOUT UTILIZING RADIX CONVERSION FOR AN ELECTRONIC CALCULATOR**
William F. Colleran, Pasadena, and Fred N. Schwend, El Monte, Calif., assignors to Clary Corporation, a corporation of California
Application March 15, 1954, Serial No. 416,141
12 Claims. (Cl. 235—58)

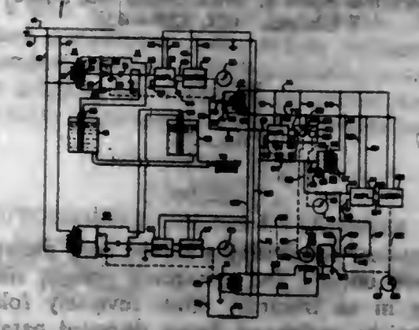
1. In a computing system, a read-out device comprising the combination of a registering element differentially settable to different registering positions, means comprising a differential actuator for said element; means for advancing said actuator, a plurality of stops having interengaging portions of different lengths adapted to arrest said actuator in different positions corresponding to different registering positions of said element; means adapted to support said stops with the interengaging portions thereof in serial alignment with each other and with said



actuator for movement in the direction of advancement of said actuator whereby to engage each other and said actuator. means for limiting said stops for movement through different respective distances only in the direction of movement of said actuator, and means for selectively maintaining one or more of said stops with the engaging portion or portions thereof out of said serial alignment whereby to arrest said actuator in different ones of said positions thereof.

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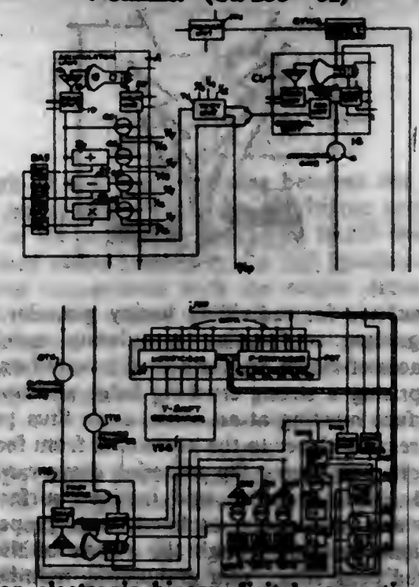
2,772,949
**FUEL DURATION COMPUTER**
Le Roy A. Griffith, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 9, 1951, Serial No. 210,258
9 Claims. (Cl. 235—61)



1. Apparatus for determining the length of time a substance will last, comprising, in combination: first means, including first motor means, deriving a first voltage dependent in magnitude upon the quantity of a substance; voltage generating means, connected to said first motor means and operated by said first motor means, deriving a second voltage dependent in magnitude upon the rate of change of the quantity of the substance; voltage comparing means, including second motor means, connected to said first means and said voltage generating means and comparing the first voltage with a portion of the second voltage to control the operation of said second motor means; and means connecting said second motor means to said voltage generating means to control the compared portion of the second voltage, the compared portion being an indication of the length of time the substance would last if the quantity of the substance were to continue to change at the present rate.



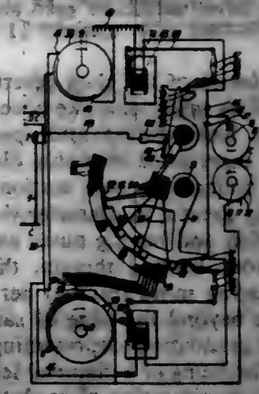
2,772,950
**ELECTRONIC DIGITAL COMPUTING MACHINES**
Arthur Alexander Robinson, Sawdburpe, Frederic Calland Williams, Timperley, and Tom Kilburn, Manchester, England, assignors to National Research Development Corporation, London, England, a corporation of Great Britain
Application June 21, 1950, Serial No. 169,386
Claims priority, application Great Britain June 22, 1949
4 Claims. (Cl. 235—61)



1. In an electronic binary digital computing machine operating in the serial mode with number-representing signals in the form of electric pulse signal trains and which comprises a main data storage device for recording both number and instruction-representing signals, an accumulator having an input terminal for applying number-representing signals thereto, a control unit for governing the rhythmic operation of the machine and having an instruction input terminal and an instruction output terminal, an instruction staticisor comprising a plurality of separate sections each operative according to the significance of a different digit of an instruction-representing signal and including a common instruction input terminal and a plurality of separate control potential output terminals and circuit interconnections between the output terminal of said main store and the input terminals of said accumulator and said control unit and between said instruction output terminal of said control unit and said instruction input terminal of said instruction staticisor, said circuit interconnections including a plurality of gate circuit devices controlled by the output potentials of said instruction staticisor, the construction of said accumulator to comprise a cathode ray tube electrostatic storage device including a source of an electron beam, control means controlling the activity of said beam and an insulating storage surface in the path of said beam, a pick-up electrode adjacent to said storage surface and an amplifier having its input terminal connected to said pick-up electrode and having an output terminal, a first computing circuit device having first and second input terminals and an output terminal for performing a chosen first mathematical operation between two input number-representing signals applied respectively to said first and second input terminals and providing a first answer-representing signal at said output terminal, a second computing circuit device having first and second input terminals and an output terminal for performing a second mathematical operation, different from that of said first computing circuit device, between two number-representing signals applied respectively to said first and second input terminals and providing a second answer-representing signal at said output terminal, a first gate circuit having input and output signal terminals and control potential input terminals, a second gate circuit having input and output signal terminals and control potential terminals, circuit means interconnecting the first input terminal of said first and said second computing circuit devices to the output terminal of said amplifier, circuit means connecting the output terminal of said first computing device to the input terminal of said first gate circuit, circuit means connecting the output terminal of said second computing circuit device to the input terminal of said second gate circuit, circuit means connecting the signal output terminals of said first and second gate circuits to said control means of said storage device, circuit connecting means between said control potential terminals of said first and second gate circuits and said control output terminals of said staticisor device whereby said first gate circuit can be opened by one configuration of digits of an instruction representing signal applied to said staticisor device and whereby said second gate circuit can be opened only when another and different configuration of instruction digits is provided in said instruction-representing signal is applied to said staticisor device, a first buffer circuit having input and output terminals, a second buffer circuit having input and output terminals, circuit means connecting the output terminal of said first buffer circuit to the second input terminal of said first computing device, circuit means connecting the output terminal of said second buffer circuit to said second input terminal of said second computing device and circuit means connecting the input terminals of said first and second buffer circuit to the input terminal of said accumulator unit whereby under the control of an instruction signal supplied from said control unit to said staticisor device, a number fed from said main store may be mathematically combined in either of two different ways with a number signal derived from said accumulator storage device and the resultant answer number re-written in said accumulator storage device in the place previously occupied by said derived number.

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2,772,951
**RECORD CARD CONTROLLED STATISTICAL MACHINES**
Richard Everest Baldwin, Coulsdon, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company
Application October 14, 1955, Serial No. 540,593
Claims priority, application Great Britain December 24, 1954
18 Claims. (Cl. 235—61.6)



16. Apparatus for decoding data recorded in code by data-indicating indicia in zonal areas of vertical columns of statistical record cards, comprising a sensing device operable to sense a moving card and to transmit electric signals representative of coded data sensed from a card, an electric signal transmitter for each of a predetermined number of characters any one of which may be recorded in code in a card column, a first and a second toothed sector, one for each zonal area of each card column sensed, each sector being supported for angular

movement about a fixed axis to and from a datum position thereof and the axis of the first sector being located above that for the second sector and in the same plane, an arresting element for each sector to arrest the sector appropriate thereto in any one of a predetermined number of positions thereof, a plurality of electric conductor bars disposed to be parallel with the arcuate path in which said second sector is movable, said bars being connected electrically each to a predetermined one of the signal transmitters, a number, equal to the number of predetermined positions for the first sector, of equispaced electrical brushes carried by the second sector each for co-operation with a group of conductor bars of which each group consists of a number of bars corresponding to the number of predetermined positions for the second sector, electric connecting elements carried by the second sector and connected one to each said brush, a movable electric connecting element movable with the first sector for co-operation with one or other of said connecting elements, a first restoring member common to all first sectors, a second restoring member common to all second sectors, said restoring members being angularly movable about the axes about which their respective sectors are angularly movable, and co-operating with the sectors to control angular movement thereof, cam controlled elements to effect operation of the restoring members in timed relation with each other and with movement of a card during sensing thereof, and selectively operable latch elements operable to latch the restoring members against restoring the sectors to the datum positions thereof.

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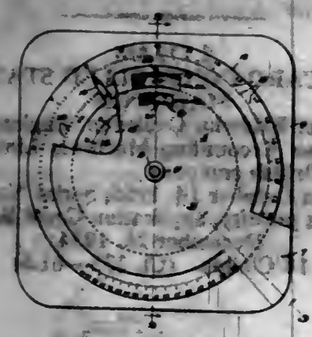
2,772,852

## GASOLINE MILEAGE CALCULATOR

Thomas B. Stadelmaier, Arlington, Va.

Application May 7, 1953, Serial No. 353,686

1 Claim. (Cl. 235—84)



A calculating device of the class described, comprising a base section and an upper disc-like cover section formed integral with the base section and spaced thereabove, upper and lower superposed rotatable discs operating on said base section under said cover section, said lower disc being substantially greater in diameter than the diameter of the cover section and having outer and inner circular lines of graduations formed therein, the outer line of graduations indicating miles traveled per gallon of gasoline, being visible beyond the edge of said cover section, said inner line of graduations representing the miles traveled, said upper disc being of a diameter less than the lower disc and having a circular line of graduations formed on the upper surface thereof indicating the number of gallons of gasoline consumed during travel, said cover section having windows through which such graduations on said upper and lower discs are viewed, an index hand extending from the edge of said upper disc movable therewith and cooperating with the graduations in the outer circular line of graduations on the lower disc indicating miles traveled for each gallon of gasoline consumed, when said discs are moved to predetermined positions under said windows, and means for effecting rotation of said discs.

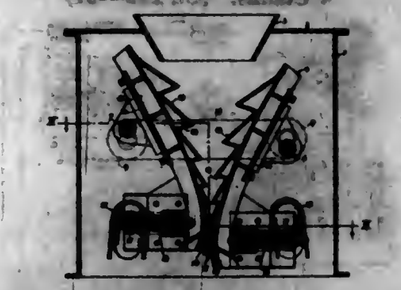
2,772,853

## GRANULATOR WITH MOVING AND OPPOSED SIFTER MEMBERS CARRYING STEP-SHAPE MATERIAL PRESSERS

Hans Schmidtmann, Boelsum, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

Application January 30, 1952, Serial No. 268,949

6 Claims. (Cl. 241—94)



1. Granulator for redividing lumpy granular material comprising: two confronting granulating members the vis-a-vis faces of which are formed of inverted stairs, each stair comprising a strong crushing ledge and an inclined sifting surface meeting at an acute angle thus presenting ledges increasing closer to the horizontal from feed to discharge to thereby press the material downwardly upon downward sifting surfaces, said inclined surfaces being upwardly and outwardly inclined with respect to a vertical plane passing through the vertex of the hereinafter recited peak sifter, said granulating members being spaced further apart at their upper parts than at their lower parts forming a narrow lower discharge end and being reciprocable about an eccentric axis with an up and down movement in alternation with each other, to cause the smallest particles of the material being granulated to pass through the meshes of the sifting surfaces and escape from the granulating area while the remaining lumpy pieces descend to the lower narrower part of the granulating area and discharge from between the granulating members at the preferred grain size at the lower end of said members; the stairs of each of said confronting faces decreasing in depth toward the lower narrower end of the two members and having the ledges also formed as sifter surfaces, a stationary peaked sifter intermediate the two granulating members at the lower narrower discharge end where the residual material is ground down and is about to be pressed out from the lower discharge end of the granulating member, said peak sifter having downwardly and outwardly inclined sides spaced from curved portions of the two granulating members on opposite sides of the stationary peaked sifter, and having its apex above the lower terminus of the two granulating members in all positions of said members; and means movable upwardly and inwardly and downwardly and outwardly parallel to the sides of said peaked sifter in correspondence with the up and down movement of the two granulating members for yieldably holding the lower ends of the granulating members in a fixed constant spaced relation relative to the sides of the stationary peaked sifter so as to yield to increase the spaced relation under pressure of foreign material.

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2,772,854

## WINDING DEVICE

Ludwig Herzig, Bobingen, and Friedrich Ilis, Munich, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, a corporation of Germany

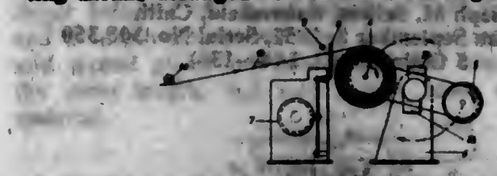
Application December 6, 1950, Serial No. 199,586

6 Claims. (Cl. 242—18)

1. A non-stop transfer winding apparatus for the continuous coiling of thick tows consisting of substantially parallelly directed, endless synthetic filaments, delivered



at a high rate of speed of more than 500 meters per minute, comprising a bearing frame, a winding drum carrier mounted for rotation in the bearing frame, a pair of winding shafts rotatably mounted in said carrier symmetrical and parallel to the axis of rotation of the drum carrier, means for separately rotating and stopping said shafts, winding drums adapted to be put on the shafts for alternate operation and rotation therewith, rotary cutting means arranged so that their cuttings edges engage



the length of tow freely running between the full drum and the empty drum while the tow in the course of the rotation of the winding drum carrier is still being wound up and held under tension by the full winding drum and in slipping engagement with the empty drum, and adhesion-increasing means on the periphery of each of the drums adapted to permit slipping engagement of the non-severed tow and to take the severed tow end round the empty drum.

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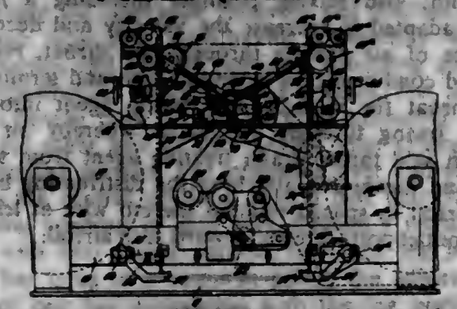
2,772,855

## CONTINUOUS UNWINDING DEVICE FOR WEBS

Eugene H. Klingelfuss, Brooklyn, N. Y., assignor, by mesne assignments, to American Type Founders Co., Inc., Elizabeth, N. J., a corporation of Delaware

Application December 1, 1953, Serial No. 395,439

6 Claims. (Cl. 242—58)



1. Apparatus for continuously supplying a web of sheet material comprising a primary supply roll of said material, a pair of feed rolls for withdrawing the web from said primary supply roll, adjustable supporting means for one of said feed rolls for accurately positioning said roll with respect to the other roll, said supporting means including eccentric means for quickly moving said rolls apart without changing the position of said supporting means, a secondary supply roll of said material, means on the leading edge of the material on said secondary supply roll to enable said edge to be adhered to the web from said primary supply roll upon contact therewith, normally inoperative feed means for the web from said secondary supply roll, means for rendering said feed means operative, means for guiding the leading edge of said material on said secondary supply roll to the nip of said feed rolls, and means for severing the web from said primary supply roll, whereby passage through the nip of said feed rolls causes the web from said secondary supply roll to be spliced to the web from said primary roll whereupon said latter web may be severed.

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2,772,856

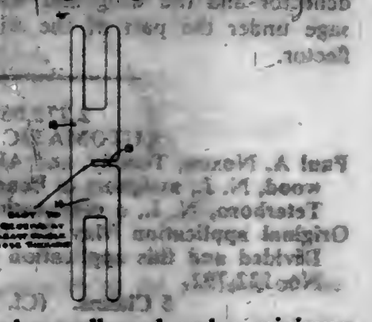
## HOSE

Donald E. Hamsher and Alan F. Gehringer, Akron, Ohio, assignors to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application December 20, 1950, Serial No. 201,230

3 Claims. (Cl. 245—8)

1. The combination with a reel having a portion adapted for reeling a readily collapsible hose thereabout, of pinching means to prevent flow through the hose beyond any selected point along its length, comprising a straight-sided slot in said reel, said slot having substantially parallel sides and having a depth at least equal to



the width of the hose when collapsed and a minimum width of 75% and a maximum width of 100% of the total thickness of the collapsed hose to be inserted in the slot to maintain the portion of the hose inserted in said slot in the completely collapsed condition.

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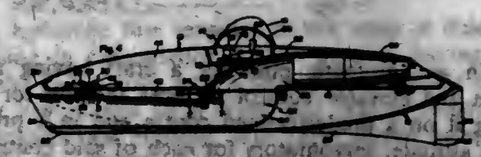
2,772,857

## CIRCULAR AIRCRAFT AND CONTROL SYSTEM THEREFOR

John C. Fischer, Jr., San Diego, Calif.

Application January 29, 1954, Serial No. 406,974

15 Claims. (Cl. 244—15)



1. In an aircraft of generally circular form, a lower portion, an upper portion rotatably adjustably mounted on said lower portion, propulsion means in said upper portion, means for rotating said upper portion to alter the direction of propulsive thrust, and means tending to hold said lower portion against shifting in relation to the direction of motion of the aircraft while said upper portion is rotated.

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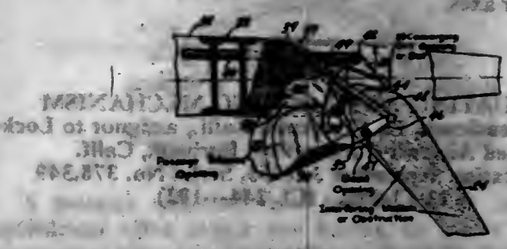
2,772,858

## AIRCRAFT WING WITH MEANS TO INCREASE LIFT THROUGH CONTROL OF AIR FLOW

Charles H. Grant, New Rochelle, N. Y.

Application May 10, 1951, Serial No. 225,609

11 Claims. (Cl. 244—42)

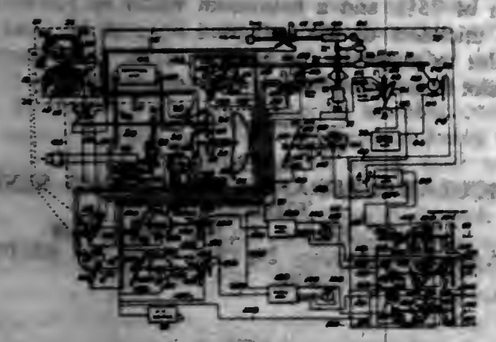


1. An aircraft wing having a spanwise extending slot therein, a deflector within the wing profile, hinge means connecting said deflector to the wing, the hinge means having a spanwise pivot axis rearward of the slot, the entire extent of the deflector being movable downwardly about this hinge means into a position in which at least the lower portion of the deflector extends downwardly below the wing profile to deflect the air flow at a point immediately beneath the slot, and the upper end of which is at least as far rearward as the foremost part of the rearward wall of the slot, the hinge means being of substantial length and attached to the deflector at a distance from the pivot axis of the hinge means, and holding the deflector, when in its downward position,

spaced from the bottom surface of the wing whereby a bleed passage is provided through which some of the upwardly deflected air escapes between the top of the deflector and the wing and flows from said bleed passage under the part of the wing rearward of the deflector.

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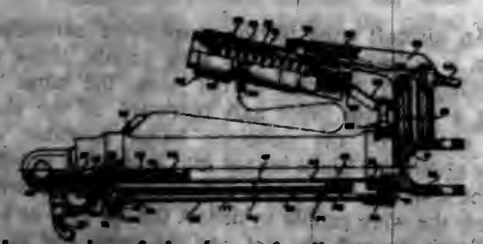
2,772,859
AUTOMATIC PILOT
Paul A. Nesen, Tenafly, and Alan M. MacCallum, Maywood, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Original application May 27, 1944, Serial No. 537,952. Divided and this application October 21, 1949, Serial No. 122,792.
5 Claims. (Cl. 244—77)



1. In an automatic pilot for a craft having rudder, aileron and elevator control surfaces thereon for maintaining it on a predetermined course and in a predetermined attitude, servomotors for each of said control surfaces, a single and composite master instrument comprising an artificial horizon gyroscope having a normally vertical spin axis and mounted for oscillation about two mutually perpendicular horizontal axes, directional reference means mounted on said gyro and stabilized thereby in a substantially horizontal plane for generating a first signal in response to departure of said craft from said predetermined course for energizing said rudder motor, and bank and pitch responsive means for generating second and third signals in response to departure of said craft from said predetermined attitude for energizing said aileron and elevator motors, said bank responsive means being mounted on one of said mutually perpendicular axes of said gyroscope and said pitch responsive means being mounted on the other of said mutually perpendicular axes.

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2,772,860
ACTUATING AND LOCKING MECHANISM
Olaf T. Benditsen, La Crescenta, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application September 3, 1953, Serial No. 378,349
13 Claims. (Cl. 244—102)



1. In an aircraft having a landing gear movable between a retracted position and an extended position the combination of; a mechanism connected between the craft and gear operable to move the gear between the retracted and extended positions, the mechanism including two elements, one a cylinder, the other a piston, and means for locking the gear in the extended position comprising a projection on one of said elements, a barrel turnably secured to the other element and turnable into and out of locking engagement with said projection, and means for turning the barrel.

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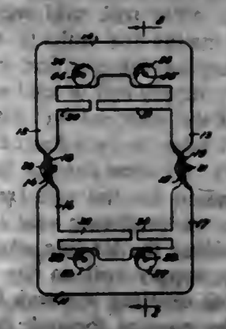
2,772,861
APPARATUS FOR DISSEMINATING INSECTICIDES
Joseph M. Sellers, Bakersfield, Calif.
Application September 8, 1952, Serial No. 308,350
5 Claims. (Cl. 244—136)



1. Apparatus for forming dispersions of fine particles of treating agent in a large volume of air comprising, an airplane provided with a forward propeller and an airfoil disposed rearwardly of such propeller; a mixing chamber having side walls and a forwardly directed open air inlet end; an elongated distributing header extending in a lateral direction with respect to the side walls of the mixing chamber, said distributing header having enclosing walls and closed ends and a plurality of spaced outlet ports in the walls, said distributing header being virtually as long as said airfoil; said distributing header being disposed rearwardly of the mixing chamber and in communication therewith; said mixing chamber including a restricted throat adapted to increase the velocity and decrease the pressure of air passing through said throat; rearwardly directed conduit means extending into and terminating in said throat for introducing treating agent into the air stream owing through the throat whereby air passing through said throat draws treating agent from said conduit; and means for attaching the distributing header to said airfoil in spaced relation thereto with at least some of the outlet ports directed toward such airfoil.

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2,772,862
ELECTRIC OUTLET BOX SCREW PLATE
Harley O. Bowser, Rivera, Calif.
Application December 16, 1952, Serial No. 326,285
1 Claim. (Cl. 248—27)

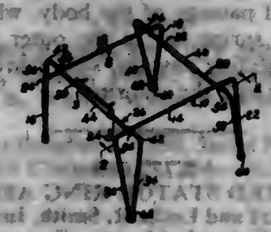


In an electric outlet backing assembly, a first and second U-shaped plate arranged in the same plane and each of said plates including a connecting web, first and second spaced parallel arms extending transversely from one of said webs, third and fourth spaced parallel arms extending transversely from the other of said webs, the free ends of all of said arms being twisted and lying in a plane at right angles to the major portion of said arms, said twisted portions being arranged in aligned relation with respect to each other, said portions being offset from the remaining portion of the arms whereby the arms may bear flat against the supporting structure, pivot pins pivotally connecting together the twisted portions of said arms, each of said webs being provided with a plurality of spaced apart indentations, said indentations having a curved shape, there being a threaded opening in the center of each of said indentations, a first finger extending inwardly from the first arm of said first plate, a second finger extending inwardly from the second arm of said first plate and said second finger being of greater length than said first finger, a third finger extending inwardly from the first arm of said second plate and said third finger being of the same length as said second finger, and a fourth finger extending from the second arm of said second plate, said fourth and first fingers being of the same length, and said fingers being of bendable material.



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2,772,863
TELEVISION STANDS
William Rosenthal, Syracuse, N. Y., assignor to I. J. Kimm, Syracuse, N. Y.
Application February 12, 1954, Serial No. 409,839
4 Claims. (Cl. 248—163)

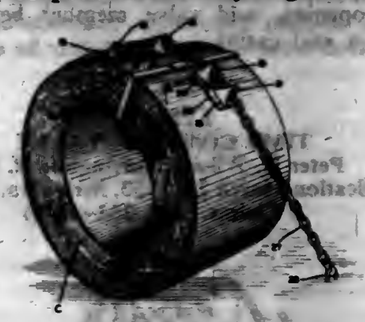


1. A stand for television receivers and the like, comprising four rigid bars, each having a generally straight central portion and end leg portions, extending substantially perpendicular to the central portion, one pair of said bars having their central portions extending parallel, and the other pair of bars having their central portions extending parallel, and extending over and at right angles to the central portions of said first pair of bars, said central portions of said bars defining a rectangular support with two raised parallel rails, the leg portion of each bar lying in a common plane, the adjacent leg portion of one bar converging with the leg portion of the adjacent bar at each corner, and the converging portions being secured together at their lower ends, said horizontal portions of said bars being welded together at their four points of contact and intersection, said horizontal portions of said bars each having two offsets equal to one-half the bar diameter, the offsets of one pair of bars being up to one-half the diameter of the bars, and while the offsets of the other pair are down one-half the bar diameter, said offsets of the bars having a nesting relation immediately at the points of contact between the bars at their intersection contacts.

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2,772,864
HINGE GUARD LOAD PROTECTOR
William T. Cole, Canton, Ohio, assignor to The Canton Manufacturing Company, Canton, Ohio, a corporation of Ohio
Application August 10, 1953, Serial No. 373,173
8 Claims. (Cl. 248—361)

1. A load protector for use in connection with a flexible binding member, said load protector comprising a pair of similar cast malleable iron members, each member having a substantially flat lower surface for contact with a load, a convex upper surface for contact with a flexible binding member and a guide projecting upwardly therefrom for receiving the flexible binding member, and integral cooperating means upon the members hingedly connecting said members together, whereby said load protector may be located at any desired point upon the flexible binding member, and the two hingedly connected members may be positioned at any angle from 90 de-



grees to 180 degrees to conform to the contour of the load.

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2,772,865
HYDRAULIC FUSES
William W. Thomas, Chicago, Ill., assignor to William Waterman, Evanston, Ill.
Application January 7, 1953, Serial No. 329,980
5 Claims. (Cl. 251—16)



3. A hydraulic fuse sensitive to low rates of fluid flow comprising in combination a fuse housing having inlet and outlet and a valve seat, a valve piston slidable in said housing toward and away from said seat in response to flow through said housing, said valve piston being substantially the weight of the said fluid it displaces and thereby requiring only light forces to hold the same against movement by gravity and inertia forces, a gripper normally applying opposed and balanced gripping forces to said valve piston to hold the same against movement without exerting any unbalanced lateral force thereon, and gripper actuating mechanism responsive only to flow for actuating said gripper to release said valve piston.

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2,772,866
PILOT CONTROLLED DIAPHRAGM VALVE
Ralph L. Keeton and Fields E. Kesler, Lubbock, Tex.
Application December 22, 1952, Serial No. 327,302
1 Claim. (Cl. 251—46)



A pressure actuated valve comprising an open sided cylindrical valve casing and having an intake port and an exhaust port, a delivery conduit integrally formed with said casing, said conduit terminating in a delivery opening coaxial with said casing, a cover secured to the open side of said casing, a resilient diaphragm secured over said open side and said delivery opening between said casing and said cover forming a pressure chamber between said diaphragm and said cover, a passageway extending from said intake port through said delivery conduit, said diaphragm and said cover and opening into said pressure chamber, and pressure compensating means for selectively opposing the pressure in said pressure chamber, said pressure compensating means comprising an opening in said casing communicating with said passageway and said open side of the casing, said opening

being positioned below said diaphragm, a rotary valve member having an eccentric surface for selectively closing said opening, said valve member being rotatably mounted in said casing.

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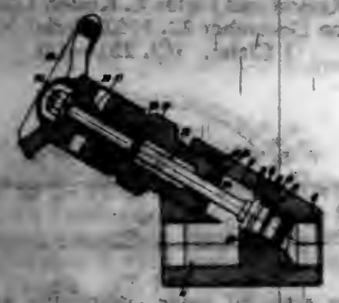
2,772,067
TIME CONTROL VALVE
Peter H. Wilson, Barrington, R. I.
Application March 23, 1953, Serial No. 343,940
2 Claims. (Cl. 251—240)



1. In a control valve having a conduit through which a fluid may pass from a source of supply, a valve seat along said conduit, a valve plug engaging said seat for controlling the fluid flow, a rockable arm pivoted at one side of the line of movement of said plug and engaging said valve plug to move the same from said seat, a cam rotatable about an axis at right angles to the axis of the rockable arm, a lever pivoted on an axis parallel to the axis of the cam and carrying a cam follower, means to move said lever to cause said follower to engage said cam, said arm having a portion inclined to the path of movement of said follower, said follower also engaging the inclined portion of said rockable arm to actuate the same in response to the movement of said cam.

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2,772,068
SEAL GUARD
Marvin H. Greve, Piedmont, and Austin U. Bryant, Berkeley, Calif., assignors, by mesne assignments, to Grove Valve and Regulator Company, Oakland, Calif., a corporation of California
Original application May 15, 1948, Serial No. 27,308. Divided and this application October 9, 1951, Serial No. 250,418
1 Claim. (Cl. 251—332)



In a fluid flow control valve, a valve body having flow passages, means forming a valve seat assembly disposed within the body and providing a throat orifice serving to connect said passages, a rigid valve member associated with the seat assembly and movable between open and closed positions with respect to the same, said seat assembly including a seat ring formed to provide an inner cylindrical bore interposed between said valve passages, said ring being removably seated within the body, said valve member having a cylindrical portion slightly smaller than the cylindrical bore of the seat ring and adapted to interfit with the seat ring bore for closed position of the valve and to be withdrawn from one side of the seat ring for open position of the valve, a groove formed in the ring and interrupting the inner periphery of the same, a resilient seal ring of the O-ring type loosely disposed within said groove, a guard ring carried by the body and having one end thereof slidably fitted within said seat, said guard ring forming a part of the seat assembly and being movable between limiting positions in a direction axially of the seat, in one of said limiting positions the guard ring serving to close said groove and retain the seal ring, and in the other position the guard ring being retracted from the O-ring to expose the same for contact with the valve member, one end of said guard ring being adapted to abut the valve member for causing movement of the guard between said two limiting positions as the valve member is moved toward closed position within the seat ring, an outwardly extending flange on the other end of the guard adapted to abut the adjacent end of the seat ring to thereby limit movement of the guard in a direction toward the valve member, and a helicoidal spring aligned with said cylindrical bore and acting between the flange and the body for yieldably urging the guard ring toward said one limiting position of the same, said spring means embracing a substantially unobstructed body space which forms a fluid passage that directly connects the bore with the adjacent fluid passage of the body, whereby the convolutions of the spring are in the outer peripheral portion of said connecting passage, said guard ring being removable together with the seat ring.

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2,772,069
SEGMENTED STATOR RING ASSEMBLY
Chester E. Hockert and Leslie R. Smith, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 31, 1951, Serial No. 254,143
5 Claims. (Cl. 253—78)



1. A blade ring assembly having a number of arcuate sections each comprising an outer ring segment, an inner ring segment spaced from and coaxial with said outer ring segment and a number of blades fixed in and extending radially between said outer and inner ring segments, adjacent sections of said blade ring assembly having an axially extending peripheral clearance space between their adjacent extremities to facilitate assembly and to permit differential thermal expansion thereof, each of said inner ring segments being of double channel construction with an outer channel member and an inner channel member having superimposed webs and axially spaced radially inwardly directed flanges, the adjacent extremities of adjacent inner ring segments having a tongue and groove connection for both of the said channel members of each of said segments permitting peripherally slidable movement and restraining relative axial movement of said ring sections, each of the said inner ring segments having the said inner channel member at one of the extremities thereof projecting beyond the end of the outer channel member thereof to overlap the said peripheral clearance space between that segment and an adjacent inner ring segment.

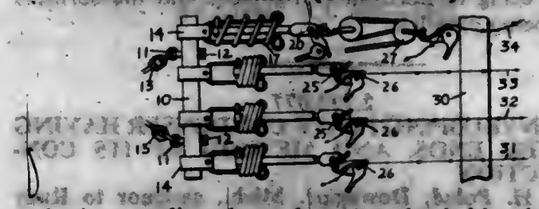
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ERRATUM

For Class 153—78 see:
Patent No. 2,771,622



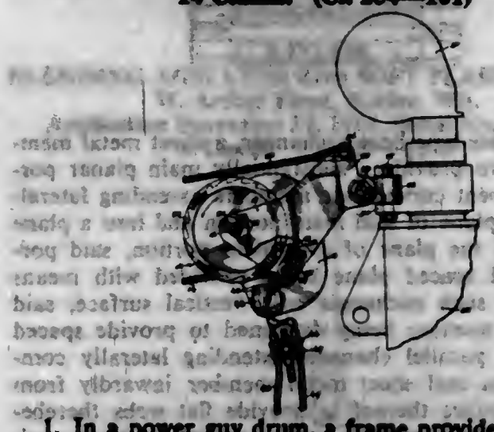
2,772,070
WIRE STRETCHER
John M. Stevenson, near Grapevine, Tex.
Application January 6, 1954, Serial No. 402,569
3 Claims. (Cl. 254—65)



1. An equalizer bar adapted to be held substantially vertical against horizontal tension, a plurality of spring units, each unit having two end pieces and a spring exerting longitudinal tension between said end pieces, one end piece of each unit being connected to holding means mounted upon said equalizer bar, the other end piece of each unit having a wire grip and also having a connection to which a wire stretcher may be attached.

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2,772,071
POWER-DRIVEN GUY DRUM
Peter Anderson, Seattle, Wash., assignor to Washington Iron Works Co., Seattle, Wash., a corporation of Washington
Application October 6, 1953, Serial No. 384,440
14 Claims. (Cl. 254—161)

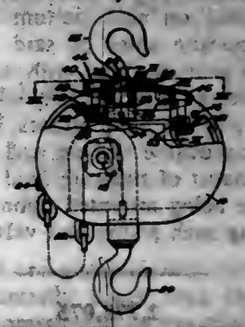


1. In a power guy drum, a frame provided at one end with a fork disposing its slot vertically, an upper and a lower horizontal pin traversing said slot, a link having one end fitted in said slot and receiving a pivot mounting from the lower of said horizontal pins and at its other end providing means for obtaining a vertical pivot mounting, a stationary horizontal shaft carried by said frame at the end of the latter opposite the fork, a drum journaled for rotation on the shaft, a ratchet wheel and a gear wheel made integral with the drum, a dog for said ratchet wheel, a pinion in mesh with said gear wheel for driving the drum, a motor supported by said frame, a pinion direct-driven by the motor, meshing first and second sets of intermediate wheel and pinion reduction gears with the motor-driven pinion in mesh with the gear wheel of the first said intermediate set and with the pinion of the second said intermediate set in mesh with the drum-driving pinion, a frame journal for the several said gears, and means controlled from a point remote to the drum assembly for powering said motor.

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2,772,072
HOIST
Humphrey F. Parker, Buffalo, and Erford E. Robles, North Tonawanda, N. Y., assignors to Columbus McKinnon Chain Corporation, Tonawanda, N. Y.
Application January 4, 1954, Serial No. 401,846
11 Claims. (Cl. 254—167)

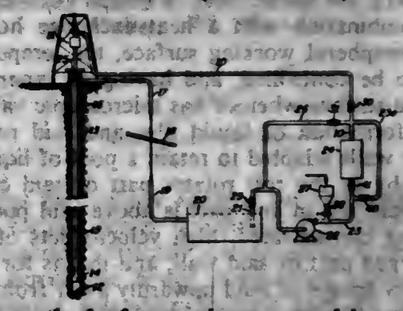
1. A hoist construction including a hoist frame and a supension hook for hanging said hoist in operative position, said hoist frame being recessed in its upper surface portion, and a suspension hook bracket device detachably mounted in substantially submerged relation in the recessed portion of said frame, said bracket device having



a central hub portion apertured to accommodate therein the shank portion of said suspension hook and opposed beam portions extending substantially diametrically therefrom for attachment to said hoist frame.

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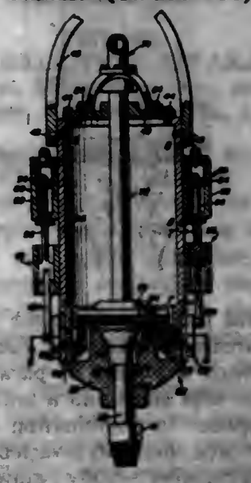
2,772,073
HOMOGENIZING OF DRILL MUDS
Everett A. Johnson, Park Ridge, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application March 22, 1952, Serial No. 277,977
2 Claims. (Cl. 255—1.8)



1. The method of preparing an emulsion-type drilling fluid which comprises commingling 60 parts by volume of water saturated with sodium chloride, 40 parts by volume of fuel oil and 8 pounds of commercial lecithin per barrel of total liquid, imparting plastering properties to the resulting fluid mixture by adding 20 pounds of ground limestone per barrel of said fluid, and subjecting the admixture of liquids and ground limestone to homogenizing conditions, whereby a drilling fluid having a zero liquid loss in one hour is prepared.

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2,772,074
POWER SWIVEL
Andrew Stolfa, Rock Springs, Wyo.
Application December 9, 1952, Serial No. 324,927
3 Claims. (Cl. 255—35)



1. A power swivel for oil well derricks comprising a housing having a bottom wall and a suspension means,

a rotatable swivel shaft journaled solely in said bottom wall and depending therefrom and having its lower end provided with a connector for attachment to a kelly, said swivel shaft having a bull gear at the upper end thereof rotatably journaled on said bottom wall, drive shafts journaled on opposite sides of said housing and each having a pinion gear meshing with said bull gear, said bottom wall having a recess providing clearances for said pinions, a pair of fluid motors including cylinders with pistons reciprocable therein and valves controlling the inlet and exhaust of pressure fluid for said cylinders, each fluid motor being mounted upon said housing, and means connecting each piston and valve to a drive shaft.

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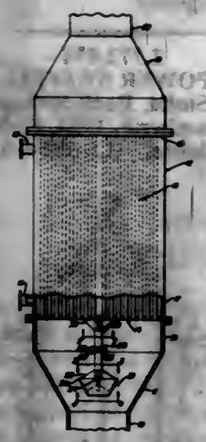
2,772,075
**TEMPERATURE CONTROL FOR ROLLERS SUBJECTED TO HEAT**
John J. Mayer, Wood-Ridge, N. J.
Application November 24, 1948, Serial No. 61,789
3 Claims. (Cl. 257—95)



1. In combination with a heat exchange hollow roll having a peripheral working surface, the temperature of which is to be controlled, and having an inner cylindrical wall the surface whereof has microscopic valleys conducive to formation of liquid film and said roll having partial end walls adapted to retain a pool of liquid in the roll, whereby as the roll rotates part of said cylindrical wall is submerged in and part is above said pool, means for injecting concentrated, high velocity jets of fluid on the submerged part of said wall, and means for directing high velocity sprays of fluid upwardly away from the pool for dispersing film on a part of said wall above said pool.

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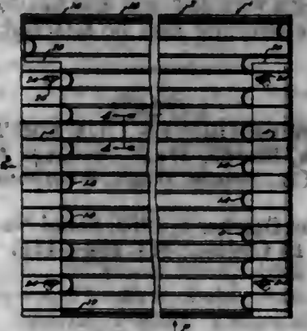
2,772,076
**CATALYST FLOW DISPERSION DEVICE**
John R. Matthews, Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application October 16, 1953, Serial No. 386,520
6 Claims. (Cl. 257—224)



1. An apparatus for controlling the upward flow of a heterogeneous stream of gasiform fluids and finely divided solids through a bundle of parallel vertical tubes between an upper tube sheet and a lower tube sheet in a shell which comprises in combination a depending skirt below said lower tube sheet, an inverted hollow truncated conical deflecting member wholly below said skirt, a centrally located depending mast means fixed to the lower tube sheet of said bundle, an inverted spearhead cone carried by the lower end of said mast, and a plurality of radially extending spacer plates fixed to the interior of said conical member and to said mast, the base of said spear-head cone and the base of said truncated conical member being in horizontal alignment and the surfaces thereof being parallel.

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2,772,077
**TUBE ENVELOPING PLATE CONDENSER HAVING ROLLED ENDS, AND METHOD OF ITS CONSTRUCTION**
Thomas H. Poland, Dowagiac, Mich., assignor to Rudy Manufacturing Company, Dowagiac, Mich., a corporation of Michigan
Application March 15, 1951, Serial No. 215,822
3 Claims. (Cl. 257—256)

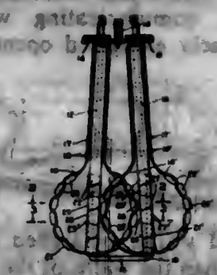


1. In a plate-type heat exchanger, a sheet metal member formed to provide a substantially main planar portion, and rebent curved side members extending laterally from the plane of said main portion and into a plane spaced from the plane of said main portion, said portions in said spaced plane being provided with means for securing such exchanger to a vertical surface, said sheet metal member being deformed to provide spaced substantially parallel channels extending laterally completely across said sheet metal member inwardly from the outer surface thereof to provide flat webs therebetween, an endless conduit having spaced portions positioned within said channels and U-shaped portions connecting said spaced portions and positioned in spaced relation to said sheet metal member in said spaced plane, the interior walls of said channels engaging the walls of said spaced conduit portions and being formed thereabout to present a smooth outer surface to said exchanger.

3. The method of making a tube and plate heat exchanger from a length of conduit and a section of substantially flat sheet metal which comprises the steps of: forming spaced trough means in said sheet metal section extending completely across one dimension thereof while maintaining flat webs disposed between the trough means and keeping said webs in a common plane, forming said conduit to have straight portions joined by end loop portions, placing the straight portions of said formed conduit in said trough means with the end loop portions extending therebeyond, of supporting the walls of said trough means against movement outwardly away from each other, confining the webs at the ends of said walls against movement out of said plane, and applying a force to said troughs to move the bottom of the trough means toward the plane of said webs and thereby collapse the walls of the trough means inwardly to cause the inner portions thereof to wrap around the periphery of the straight portion of the conduit, and limiting the movement of the outer portions of said trough walls to said plane to thereby provide a substantially continuous flat surface to one side of said exchanger.



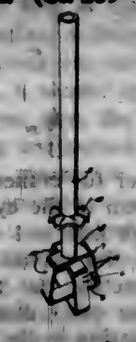
2,772,078
**BEATER BLADES**
Stephen Ellis, Newark, N. J., assignor of one-half to Adolph E. Ellis, Newark, N. J.
Application March 9, 1954, Serial No. 414,986
4 Claims. (Cl. 259—131)



1. A beater of the character described, comprising a frame defined by a crosshead and a pair of converging rods, a beater unit rotatably mounted on each of said rods, each unit comprising a pair of blades, the blades of each unit having rounded ends adjacent the crosshead of said frame, the rounded ends of each blade having offset paddle portions, adjacent paddle portions of each blade being offset in opposed directions, and the paddle portions of one blade in each unit being offset in an opposed direction to corresponding horizontally alined paddle portions of the other blades of said units.

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2,772,079
**BLENDING AGITATOR FOR SOFT PLASTIC FOODS**
W. Arthur Ernst, Racine, Wis.
Application December 29, 1953, Serial No. 400,878
1 Claim. (Cl. 259—134)

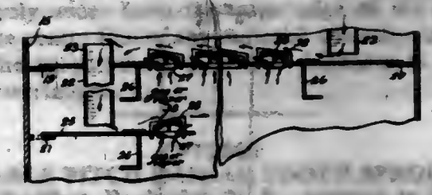


An agitator for a beverage mixer, said agitator comprising a spindle provided intermediate its ends with a fluid intercepting disk having radial convolutions and an agitator head mounted on the spindle below said disk and comprising a pair of endless straps each in the form of a figure having a closed perimeter and being entirely open within said perimeter, said straps crossing each other at right angles and having substantially flat and approximately parallel top and bottom portions and radially divergent blending portions, the said top portion being spaced below said disk and the said blending portions each being approximately tangential in a horizontal section through said head to a circle drawn about the projected axis of the spindle.

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2,772,080
**GAS-LIQUID CONTACT APPARATUS**
Clifford A. Huggins and Gethin C. Thrift, Wichita, Kans., assignors to Koch Engineering Company, Inc., Wichita, Kans., a corporation of Kansas
Application March 8, 1954, Serial No. 414,578
9 Claims. (Cl. 261—114)

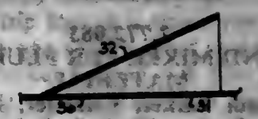
5. A contact device comprising a plate provided with a plurality of groups of perforations, loose covers for said perforations liftable therefrom by fluid pressure exerted from beneath said plate, and means for limiting the upward movement of said covers, the covers and perforations of each group being arranged uniformly across a predetermined area in said tray, all the covers of one group being of substantially greater weight per unit area of the corresponding perforation than the covers of another group, the resistance to lifting by said fluid pressure



of the covers of said one group thereby being substantially uniform but substantially lower than the resistance to lifting by said fluid pressure of covers of said other group, whereby covers offering said lower resistance will permit substantial bubbling over said predetermined area even though the liquid pressure head is not uniform over said area.

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2,772,081
**VAPOR-LIQUID CONTACTING APPARATUS**
Henry J. Hibshman, Plainfield, and James J. Trexel, Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application March 6, 1951, Serial No. 214,076
1 Claim. (Cl. 261—114)



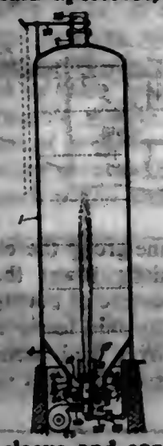
Apparatus particularly adapted for fractionation comprising a vertical tower containing a plurality of horizontally disposed vertically spaced plates extending substantially across the tower intersecting vertically positioned conduits extending through each of said plates terminating above and below each plate, in which the said plates are provided with a large number of perforations distributed over a substantial portion of their area, and lean-to means associated with each of said perforations, said lean-to means being fixed to said plate and inclined upwardly towards the said conduit associated with and extending downwardly from each plate, said lean-to means being further characterized by having side closure members joined to said lean-to means and extending downwardly to the said plate adjacent to the perforation provided in the plate, said lean-to means being still further characterized in that the lean-to member covers a substantially greater area than the area of the corresponding perforation.

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2,772,082
**STRESS RELIEVING APPARATUS**
Richard M. Hoetvet, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application July 27, 1950, Serial No. 176,104
2 Claims. (Cl. 263—6)

1. Apparatus for relieving stresses of fabrication in large pressure vessels which have been erected in their intended place of use, which comprises a metal plate adapted to be removably secured to the lower end of the vessel, a cylindrical sheet metal sleeve secured to said plate and extending upwardly through an opening in the plate, a second cylindrical sheet metal sleeve concentric with the first sleeve and encompassing a substantial portion of the latter, said second sleeve being adaptable for vertical movement with respect to said first sleeve, means secured to said second sleeve and extending downwardly through said plate to effect vertical movement of the second sleeve, a generally cylindrical fire

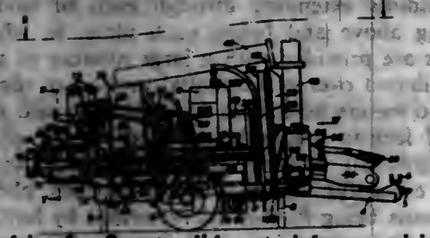
box secured to the inner surface of said first sleeve, a plurality of circumferentially spaced apertures in said plate adjacent said first sleeve, rotatable means disposed above said plate and adapted to control the amount of air passing through said apertures, a burner removably



secured to said first sleeve and connecting with said fire box, a source of gas supply and a source of air supply and means to deliver said gas and air through said burner and fire box into the interior of the vessel where combustion is effected and the heat therefrom raises the temperature of the metal of the vessel being treated.

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**2,772,083**
**DRIER AND MIXER FOR FLUENT SOLID MATERIAL**
Frederick William Parker, Leicester, England, assignor to Frederick Parker Limited, Leicester, England, a British company
Application March 10, 1954, Serial No. 415,330
Claims priority, application Great Britain March 10, 1953
15 Claims. (Cl. 263—33)



1. A drier for fluent solid material, comprising a drum of hollow elongated form mounted, in use, on a support for rotation about an axis inclined to the horizontal, annular feed means secured around said drum at its higher end and rotatable therewith to feed solid material into the drum interior, said feed means extending over a portion of said drum and having a plurality of chutes therein, apertures in said portion of the drum connecting the chutes with the interior of the drum, annular delivery means secured around the lower end of the drum and rotatable therewith to deliver dried solid material, a discharge device carried by said support and projecting into said delivery means to receive material from said delivery means and burner means carried by said support adjacent said delivery means for injecting hot drying gas through said drum from its lower end in counterflow to descending solid material.

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**2,772,084**
**HEATING FURNACE**
Luther T. Pearsall, Pittsburgh, Pa., assignor to Jones & Laughlin Steel Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 7, 1952, Serial No. 292,235
6 Claims. (Cl. 263—40)

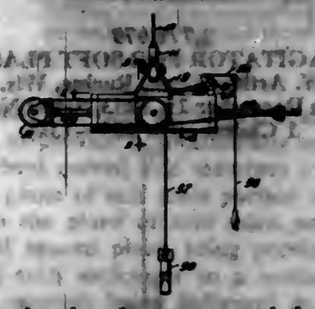
1. A heating furnace for billets or the like comprising a hearth, side walls and end walls, one end wall being provided with a charging opening, and the other end wall being provided with fuel burners positioned to direct heating flames toward the charging opening, a roof inclined downwardly toward the charging opening, an elongated waste gas off-take chamber extending transversely across the furnace above the roof thereof adjacent the charging opening, communicating with the furnace through a transversely elongated opening, said chamber



having parallel end walls, an arched roof with a span materially greater than the width of the transversely elongated opening, and side walls converging smoothly from the base of said arched roof to the transversely elongated opening, enclosing thereby a volume materially greater than that of the portion of the furnace directly below the transversely elongated opening, and a flue communicating with the waste gas off-take chamber through a wall thereof.

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**2,772,085**
**SHOCK ABSORBER**
Adiel Y. Dodge, Rockford, Ill.
Application September 7, 1954, Serial No. 454,361
3 Claims. (Cl. 267—1)



1. A shock absorber for cranes and the like comprising a cylinder, a piston in the cylinder having a piston rod extending through one end of the cylinder, means to seal the piston in the cylinder against flow of fluid therepast in one direction but to allow flow of fluid past the piston in the other direction, a spring urging the piston in one direction in the cylinder, a second piston in the cylinder having a piston rod extending through the other end of the cylinder, means to seal the second piston in the cylinder against flow of fluid therepast in one direction but to allow flow of fluid therepast in the opposite direction, means providing a restricted orifice through the second piston, a bypass connection around the first named piston, a restricted orifice in said bypass connection, a shut-off valve in the bypass connection, and means to connect the piston rods to a load, the second piston being held against movement in the cylinder by fluid trapped therein when the shut-off valve is closed and gradually yielding by flow of fluid through the orifice when the shut-off valve is open, the sealing means on the first piston allowing flow therepast when the piston moves in response to the load and the sealing means for the second piston sealing to prevent movement of the second piston in response to the load.

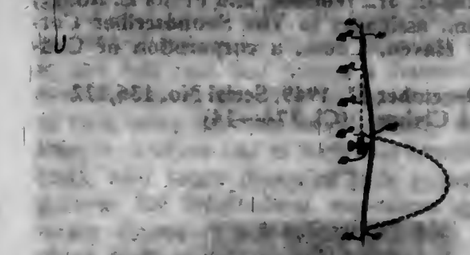
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**2,772,086**
**CONTROLLED GRADIENT COMPRESSION LEAF SPRING**
Edwin E. Foster, Austin, Tex., assignor to Magic-Ironers, Inc., Austin, Tex., a corporation of Texas
Application May 3, 1954, Serial No. 426,992
3 Claims. (Cl. 267—1)

1. A controlled gradient compression spring comprising a strip of spring material, ends on the strip through



which a compressive load is applied to move the ends of the strip relatively toward each other, the strip being normally bowed in one direction in its relaxed condition,



and means to hold the strip bowed in the opposite direction so that the strip will be bowed further in the opposite direction as its ends are moved toward each other in response to an applied compressive load.

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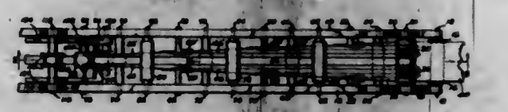
**2,772,087**
**CLOSURE OPERATOR**
John L. Hutchinson, Wheaton, Ill.
Application October 17, 1952, Serial No. 315,257
10 Claims. (Cl. 268—72)



1. The combination with a closure for moving the closure relative to a surface substantially normal thereto of a first lever arm having one end thereof pivotally attached to said closure, a second lever arm pivotally attached to said first lever arm, the opposite end of said second lever arm being unattached and adapted for contact with said surface, means for normally urging said arms into a contracted position, means for preventing said arms from assuming a completely collapsed position, means associated with said surface for limiting the travel of the unattached end of said second lever arm, and means upon which a force may be applied at the point of pivot between said arms to separate said arms.

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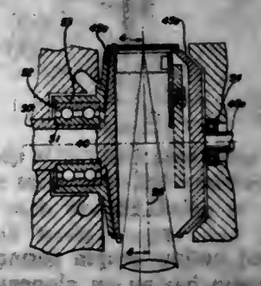
**2,772,088**
**STRAP FORMING APPARATUS**
Victor A. Nelson, Portland, Oreg.
Application July 18, 1955, Serial No. 522,563
4 Claims. (Cl. 270—93)



1. Apparatus for folding a continuous strip of flexible material, comprising, an elongated frame extending substantially in a straight line and having an infeed end and an outfeed end, scoring roll means adjacent the infeed end of the frame for scoring the flexible material longitudinally along laterally spaced lines arranged on opposite sides of the center line of the material, whereby to form elongated sections of said material arranged in pairs on opposite sides of said center line, a plurality of bending means mounted on the frame and spaced progressively from the outfeed side of the scoring roll means toward the outfeed side of the frame, each progressive bending means functioning to bend each progressively inwardly spaced pair of elongated sections of said material along the associated scoring lines, and folding means mounted on the frame adjacent the outfeed side of each bending means for folding the associated bent sections adjacent the next inward pair of sections, the scoring roll means being proportioned and arranged in such manner that the score lines of each of the respective pairs of scorings are made progressively wider from the outer edge of the material toward the center line of the material whereby to accommodate the progressively increased thickness as the sections are overlapped.

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**2,772,089**
**VARIABLE PITCH RADIAL TOOTH SPROCKET**
John G. Streiffert, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application May 1, 1952, Serial No. 285,501
4 Claims. (Cl. 271—2.3)



1. A variable-pitch film feeding sprocket assembly for use with a film strip having a single row of perforations arranged adjacent one edge thereof comprising in combination, a thin sprocket formed with film propelling teeth, each tooth having a flat planar film driving face which lies on a radius of said sprocket, means for supporting and rotating said sprocket, a thin film supporting member positioned on one side of said sprocket, and a thicker film supporting member positioned on the other side of said sprocket and cooperating with said first member to support said film adjacent and on opposite sides of said sprocket, said members being of equal diameter but slightly larger than the base diameter of said sprocket and arranged concentrically relative to each other but eccentricaly relative to said sprocket in the direction of the feed-on side of said sprocket.

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**2,772,090**
**LIGHTWEIGHT GRIP**
Thomas O. Brandon, Longmeadow, Mass., assignor to A. G. Spalding & Bros., Inc., Chicopee, Mass., a corporation of Delaware
Application August 27, 1952, Serial No. 306,708
2 Claims. (Cl. 273—81)



1. A lightweight grip for a golf club shaft comprising a grip member of molded rubber composition adapted to surround the end of said shaft and being of decreasing thickness from the end of the shaft and having spaced, broad, integral, shaft-engaging ribs on the inner surface

forming shallow grooves therebetween and extending longitudinally of the shaft from the end of the shaft for a major part of the length of the grip and decreasing in depth from said end, the walls of the grip member overlying the grooves being substantially uniform and sufficiently thick and the rubber composition being sufficiently firm as to prevent depression thereof into the grooves and to resist torsional distortion in use whereby a satisfactory uniform gripping surface is provided.

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2,772,091
TENPINS
Arthur A. Harris, Oak Ridge, Tenn.
Application March 7, 1952, Serial No. 275,352
5 Claims. (Cl. 273—82)



1. A completed hollow tenpin formed of lightweight material, said tenpin having an elongated neck or head portion, and a body portion of enlarged cross-section compared to that of said neck portion integrally united to said neck portion, said body portion having a flat base, and at least an appreciable section of said body portion along the length thereof being of openwork construction around the entire periphery of said body portion, and tenpin having a total weight not greater than approximately one-fourth that of a conventional tenpin.

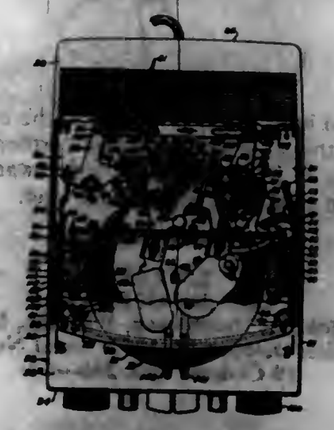
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2,772,092
BULLET TRAPS
Joseph Nikodem, Birmingham, Mich.
Application February 17, 1954, Serial No. 410,827
1 Claim. (Cl. 273—102.4)



A bullet trap comprising peripheral deflector plates at the two sides and the bottom of a target area disposed at suitable angles to deflect bullets fired thereagainst to the rear of the target area, a back plate at the rear of the target area connected to side deflector plates, the upper portion of said back plate extending between the two side deflector plates defining the top of said target area and providing a canopy thereover disposed at a suitable angle to deflect bullets fired thereagainst downwardly along said back plate to a bullet spending chamber, elements forming a bullet spending chamber having one live bullet opening adjacent the lower end of said back plate, a second forwardly disposed live bullet opening and a spent bullet outlet at the bottom thereof, a plurality of spaced deflector elements in said target area having a knife-like front edge and disposed to deflect bullets entering the target area to said back plate and therealong to said bullet spending chamber, the lowermost deflector element and the lower deflector plate converging to direct live bullets into the forwardly disposed live bullet opening of the bullet spending chamber, each said spaced deflector element including a splatter trap formed therecross presenting a smooth pass for bullets entering the target area.

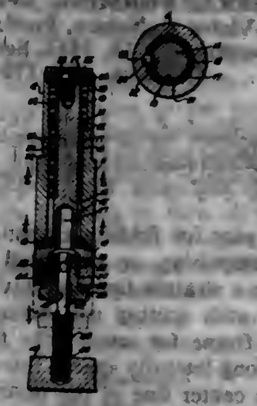
2,772,093
RECORDING AND PLAYBACK ARM OPERATING AND SETTING MEANS FOR DICTATING MACHINES
Anthony C. De Napoli, Jr., Windsor, and Frank E. Runge, Branford, Conn., assignors to The Soundscriber Corporation, New Haven, Conn., a corporation of Connecticut
Application December 31, 1949, Serial No. 136,222
26 Claims. (Cl. 274—14)



1. In a dictating machine, means comprising a swingable recording arm for forming a spiral sound track starting in a predetermined outer zone of a disk record member, means for playing back the recorded spiral sound track comprising a swingable playback arm, power drive means comprising friction couplings for moving said recording arm and said playback arm at identical speeds in opposite directions inwardly across said record member away from said outer zone, mechanism for simultaneously retracting said recording arm and said playback arm to said outer zone against the frictional force of said couplings, comprising a manually actuatable operating member accessible at the exterior of the machine said member also forming a cover for said machine, and a lever and linkage device operatively connecting said operating member to said recording arm and to said playback arm.

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2,772,094
TOOL HOLDERS
Vincent S. Jamilkowski, East Hartford, and Ross Walter Swanson, West Hartford, Conn.
Application January 19, 1954, Serial No. 404,862
2 Claims. (Cl. 279—16)

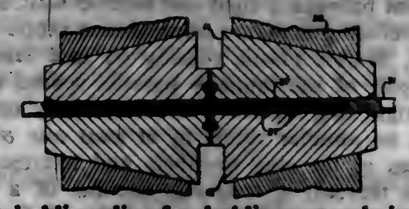


1. A tool holder comprising a housing, a chuck body movable longitudinally within said housing, a tubular ball cage positioned between said housing and said chuck body, said cage being movable longitudinally relative to either and to both said housing and said chuck body, a first plurality of balls of a substantially uniform size mounted in said ball cage and positioned to roll simultaneously on the inner periphery of said housing and on the outer periphery of said chuck body, said first balls being arrayed through a transverse arc of more than 180°, a longitudinal groove in the inner periphery of said housing, a longitudinal groove in the outer periphery of said chuck body and positioned opposite said first mentioned groove, a second plurality of balls mounted in said ball cage and having a diameter larger than the first mentioned plurality of balls, said second plurality of balls being movable longitudinally with said ball cage relative to either and to both said housing and said chuck body, said larger diameter balls engaging both of said grooves for longitudinal movement only therein, said larger diameter balls preventing the rotation of said chuck body relative to said housing.



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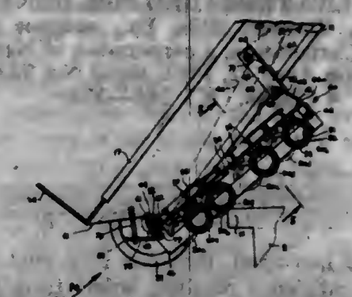
2,772,095
OFFSET GRIP FOR SPLIT DIES AND METHOD OF MAKING SAME
William A. Barnes, Utica, N. Y., assignor to Utica Drop Forge & Tool Corporation, a corporation of New York
Application June 30, 1953, Serial No. 365,150
4 Claims. (Cl. 279—57)



4. Split holding dies for holding a workpiece therein against severe longitudinal forces tending to move the workpiece through the dies, comprising, a plurality of die members having die surfaces cooperating to define a workpiece holding area and said die members being laterally compressible upon a workpiece in said area, said die members having a working alignment position, said die members being relatively shiftable to a staggered relative position, said die surfaces having symmetrical lateral grooves along said work piece holding area while in said staggered relative position, said lateral grooves having land areas therebetween, said land areas being located opposite groove areas while said die members are in said working alignment position.

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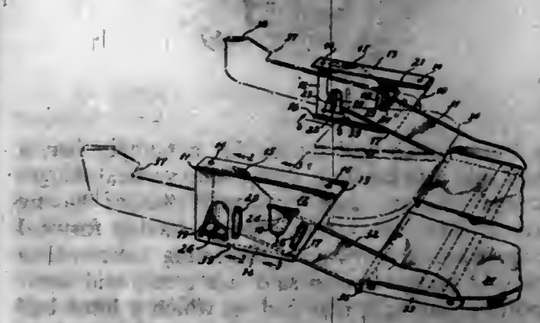
2,772,096
APPLIANCE HAND TRUCK PROVIDED WITH STAIR-CLIMBING ATTACHMENT
Alfred H. Hanson, Garrison, N. Y., assignor to The Fairbanks Company, New York, N. Y., a corporation of New Jersey
Application June 15, 1953, Serial No. 361,485
11 Claims. (Cl. 280—5.24)



1. In an appliance hand truck, a roller unit comprising a housing, a plurality of rollers mounted in said housing in a plurality of rows with the rollers of each row staggered with adjacent rollers of the adjacent row, each of said rollers having a frictional outer circumferential surface, and resilient mounting means for each roller effective to permit limited longitudinal movement of one roller relative to the others and to return said roller to its original position, and means to raise the bottom surface of each roller above the bottom surface of the others when said roller is moved longitudinally.

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2,772,097
TRAILER STEPS
Albert W. McDonald, St. Petersburg, Fla.
Application March 2, 1954, Serial No. 413,574
4 Claims. (Cl. 280—166)



1. A trailer step structure comprising a pair of brackets adapted to be secured to the underside of a trailer in spaced relation, each bracket being of channel form in cross section and having upper and lower horizontal flanges and a vertical web connecting the flanges, each web having a lug struck out from the plane thereof, each lug including a vertical section in a plane spaced inwardly and parallel to said web, the vertical section being connected at the top to said web by a horizontal section, a sheet metal arm slideably mounted between each web and the vertical section of each lug, the upper edge of each arm having a shoulder formed therein and an elongated bearing surface spaced rearwardly thereof, said shoulder being arranged to engage the horizontal section of its associated lug and the bearing surface being arranged to engage the upper flange of its associated bracket when the arms are extended outwardly, and a step tread secured to said arms.

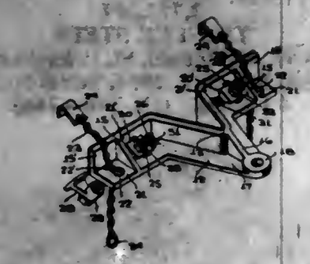
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2,772,098
TRAILER HITCH WITH STABILIZER DEVICE
Ralph B. Seeley, Burbank, Calif.
Application February 17, 1954, Serial No. 410,753
11 Claims. (Cl. 280—406)



1. A stabilizing trailer hitch for connection between a spring-supported frame of a towing vehicle and a trailer, comprising: a coupling member secured to the vehicle, rearwardly of its rear axle, and having a ball engageable by a socket at the front end of the trailer to connect the trailer to the vehicle for relative lateral and vertical pivotal movement; a first bearing bracket carried by the spring-supported frame of the vehicle forwardly of the rear axle; a second bearing bracket carried by the trailer frame adjacent its front end; a stabilizer bar having resilient forward and rearward ends engageable respectively with said first and second bearing brackets, an intermediate portion of said bar being disposed beneath said coupling member, said rearward end of the stabilizer bar being pivotally connected to said intermediate portion on a vertical axis aligned with said ball; interengaging means on said coupling member and said bar for retaining the bar longitudinally in place; and means engageable between said coupling member and said stabilizer bar and providing a vertical spacer therebetween.

2,772,099
**BUMPER MOUNTS FOR TRAILER HITCHES**
Arthur F. Smith, Trenton, N. J.
Application February 19, 1954, Serial No. 411,298
2 Claims. (Cl. 280—502)



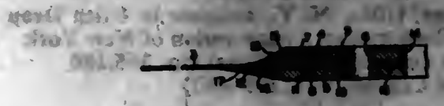
1. In a trailer hitch ball mount for a bumper bar, a body having side arm portions comprising vertical flanges and horizontal flanges, said horizontal flanges having upper surfaces and said vertical flanges having forward and rear surfaces, a rearwardly projecting intermediate portion on said body between said side arms, said intermediate portion having a rear end on which a hitch ball is adapted to be secured, said horizontal flanges having keyhole slots therein comprising forward narrow slot portions and rearward larger portions, a plain slot in said body extending into a horizontal flange and a vertical flange, a bearing block having a lower surface and an upper surface, said bearing block being wider than said plain slot and having its lower surface bearing upon the upper surface of the horizontal flange and the rear surface of the vertical flange, a bolt having a shank traversing said block and extending through said plain slot, said bolt shank having a lower end having a head below said body and an upper end above said block, a hook element sleeved on the lower end of the shank for engaging the lower edge of a bumper bar, a nut on the upper end of the shank engaging the upper surface of the bearing block, chains having upper ends and lower ends, hook elements on the upper ends of the chains for engaging over the upper edge of a bumper bar, said chains depending through said keyhole slots with their lower ends below said body, and rings on the lower ends of the chains wider than the keyhole slots, said rearward larger portions of the keyhole slots being sufficiently large to freely pass the chains, the chains being adjustable and securably engaged in the narrow forward portions of the keyhole slots.

2,772,100
**PIPE END CONNECTION AND SEALING SYSTEM WITH CENTERING MEANS**
Ernst Kretzig, Krefeld-Uerdingen, and Oskar Erich Peter, Oberhochen, Germany
Application January 15, 1953, Serial No. 331,414
1 Claim. (Cl. 285—93)



In combination, a pair of end-to-end pipe ends, each of said pipe ends being chamfered around its outer terminal edge, and a union releasably sealing the joint between said pipe ends, comprising a ring having a cylindrical bore extending in a closed circle around and between the adjacent pipe ends and having an annular groove around the mid-portion of the bore, a resilient snap ring in said groove for positioning the union on the pipe ends, the groove being indented to a depth not substantially exceeding the thickness of the snap ring measured in the direction of said depth, said snap ring being expansible out of the bore into the groove, and when not flexed having the average of its inner end outer diameters substantially equal to the diameter of said bore, so that the snap ring resiliently enters the annular groove formed by the opposed chamfered ends of the pipe ends when the snap ring is moved to the last-mentioned groove, and is cammed out of the last-mentioned groove by the chamfer on one of the pipe ends when the union is shifted axially along one of the pipe ends, and means for releasably sealing the opposite ends of the first-mentioned ring around the respective pipe ends.

2,772,101
**FITTING FOR FLEXIBLE WALL TANK**
Herbert D. Smith, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application February 3, 1954, Serial No. 407,911
4 Claims. (Cl. 285—200)



1. A joint between a rigid and flexible wall, said flexible wall including a plastic impregnated fabric part and a resilient, flexible plastic coating on said fabric, comprising a pair of substantially parallel spaced apart coextensive rigid ring members of substantially equal outer diameters; an annular recess in at least one of the opposing faces of the ring members and intermediate the peripheries thereof; a retaining annulus of a diameter corresponding to that of said recess, the fabric part having an opening therein of less diameter than said retaining annulus with the inner periphery folded back on itself around said retaining annulus and extending at least to the outer periphery of said ring members, the retaining annulus and the portion of the fabric thereabout arranged in said recess in firm engagement therewith to positively position the fabric with respect to the rigid ring members; resilient, flexible plastic material between the rigid ring members in the space not occupied by the fabric and retaining ring to maintain the opposed faces of the rigid ring members in substantially parallel relation; and resilient, flexible plastic material bonded to the outer periphery of at least one of said rigid rings and in sealing relationship with the edge of the folded back fabric portion, said plastic material being bonded to said fabric and extending outwardly from the outer periphery of the rigid ring member, the thickness of said material decreasing as the distance from the rigid ring member increases to provide a graduated increase in the flexibility of the flexible wall.

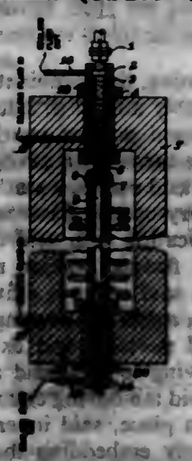
2,772,102
**SEALED THREADED PIPE JOINT**
Samuel Webb, Pleasant Hills, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application April 22, 1952, Serial No. 283,535
4 Claims. (Cl. 285—334)



1. A tapered non-upset, threaded pipe joint characterized by 100% efficiency resulting solely from the screw-threaded contact, said joint comprising an internally threaded coupling member and an externally threaded pipe end member, the threads on each member having load-bearing and nonload-bearing flanks when tensile stresses are applied to the joint, the combination of the pipe and coupling threads being substantially complementary and having flat crests and roots, the threads being narrower than the thread grooves, the load-bearing flanks of the pipe and coupling threads being substantially normal to the longitudinal axis of the pipe and coupling, the roots and crests of the coupling threads being parallel throughout the length thereof and the roots of the pipe threads being parallel throughout the length of the pipe threads providing a plurality of fully formed threads with vanishing threads at the junction with the unthreaded portion of the pipe, the crests of the coupling threads being parallel to the roots of the pipe threads and the roots of the coupling threads being parallel to the crests of the fully formed pipe threads, the mating threads on the coupling being at least as long as the total length of fully formed and vanishing threads on the pipe, the entire surface of the flat crests of the coupling threads being in engagement with the roots of the pipe threads throughout the full length of the fully formed and vanishing pipe threads, the entire surface of the flat crests of the pipe threads being in engagement with roots of the coupling threads throughout the full length of the fully formed threads on the pipe, and the threads of said joint having a difference in phase whereby a load-bearing flank of the pipe threads is in sealing engagement with a load-bearing flank of the coupling threads and a nonload-bearing flank of the pipe threads is in sealing engagement with a nonload-bearing flank of the coupling threads at points spaced apart a distance greater than the width of a fully formed thread but within the length of the fully formed threads.



2,772,103
**ROTARY SHAFT SEAL AND PRESSURE REGULATOR**
René A. Straub, Charleston, W. Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application December 2, 1952, Serial No. 323,632
2 Claims. (Cl. 286—9)



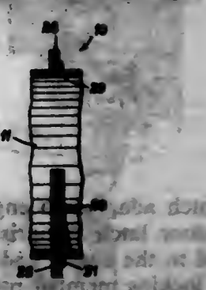
1. A bearing seal for rotary shafts which comprises a substantially inflexible shaft which fits in rotating relationship into the bore of a substantially inflexible bushing constituting a bearing surface for said shaft, said bushing piercing the wall of a pressure vessel and being in a fixed relationship thereto, the high pressure end of said bushing being at the inside surface of said vessel and the low pressure end of said bushing being at the outside surface of said vessel, a radial clearance between said bushing and said shaft extending for an axial length of 4 to 15 times the diameter of said shaft, the diameter of said bore being from 0.0006 inch to 0.0030 inch larger than the diameter of said shaft, a means for introducing sealing fluid at any desirable pressure into said radial clearance at a position approximately one-third of said axial length from said high pressure end of said bushing, a means for withdrawing said sealing fluid from said low pressure end of said bushing, and means for cooling the surface of said shaft and the surface of said bore defining said radial clearance.

2,772,104
**ELASTIC ARTICULATING DEVICE**
Leon F. Thiry, Chagrin Falls, Ohio
Application April 3, 1953, Serial No. 346,808
Claims priority, application France April 3, 1952
4 Claims. (Cl. 287—85)



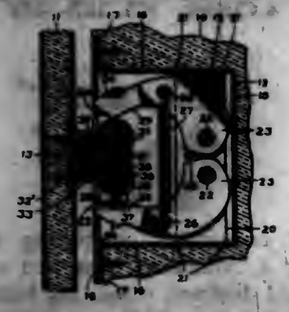
1. A pivotal connection comprising an outer rigid member having a cylindrical bore and a resilient core co-axial with and disposed within the bore of said outer member and in pressure friction engagement therewith, said core comprising a rigid inner member having intermediate its ends a substantially continuous cylindrical outer surface of uniform diameter throughout, and an annular rubber-like bushing dilated upon said surface of the inner member and completely filling the space between said inner and outer members, with that portion of said bushing contained between said inner and outer members having in the free state a bore diameter less than the outer diameter of the inner member, and having in its dilated state upon the inner member prior to insertion of the core in the outer member a lateral surface made up of alternating projections and recesses, with the maximum diameter taken at the top of said projections being greater than the inner diameter of the outer member and with the minimum diameter at the bottom of the recesses being less than the inner diameter of the outer member.

2,772,105
**WIPER RINGS**
Harold Gabriel Wyse, Dayton, Ohio
Application August 14, 1952, Serial No. 304,419
3 Claims. (Cl. 288—14)



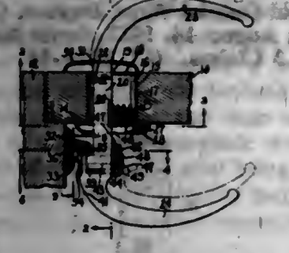
1. A wiper ring for scraping and cleaning the surface of an axially movable shaft with substantial pressure equally distributed around the entire circumferential surface thereof, comprising a cleaning ring having a split therein extending angularly with respect to the axis thereof, said cleaning ring having its interior surface tapered inwardly forming a narrow working edge adapted to bear against said shaft, the outer surface of said cleaning ring being provided with a groove the base of which has a predetermined outside diameter, and at least one axially thin non-continuous relatively rigid radially deformable ring of metal received in said groove on edge under tension, said non-continuous ring having a solid cross-section radially of said shaft, a normal inside diameter less than the outside diameter of the bottom of said groove for compressing said cleaning ring into uniform pressure scraping contact with said shaft solely by the internal tension developed by deforming said non-continuous ring, and an outside diameter no greater than the outside diameter of said cleaning ring the split in said cleaning ring being spaced circumferentially from the break in said noncontinuous ring for effecting said uniform pressure scraping contact.

2,772,106
**DOOR LATCH**
Michael H. Samsellus, Decatur, Ill.
Application May 26, 1954, Serial No. 432,367
4 Claims. (Cl. 292—18)



1. A latch structure for the door of a refrigerator or the like, comprising a casement disposed within an outwardly opening recess in the body of the refrigerator, vertically spaced gripping jaws movable toward and from each other about vertically spaced pivot pins supported by said casement, spring means connected to said jaws and normally urging same toward each other, a bracket secured to said door and having a pair of vertically spaced rollers rotatable about horizontal axes, and inner and outer cam surfaces on said jaws alternately engageable by said rollers in the opening and closing movements of the door.

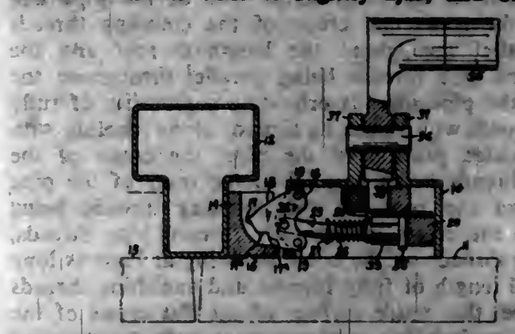
2,772,107
**LATCH MECHANISM**
Walter Youngberg, Meriden, Conn., assignor to The H. B. Ives Company, New Haven, Conn., a corporation of Connecticut
Application July 26, 1952, Serial No. 301,025
8 Claims. (Cl. 292—166)



5. A door latch adapted to engage a movable keeper member, said door latch comprising a casing, a handle member pivoted to the casing and provided with a latching shoulder, a locking member rotatably mounted on the handle adjacent the shoulder for rotation to a position to confine the keeper member between the locking member and the handle member and prevent disengagement of the shoulder from the latch member, and means releasably holding the locking member in said position.

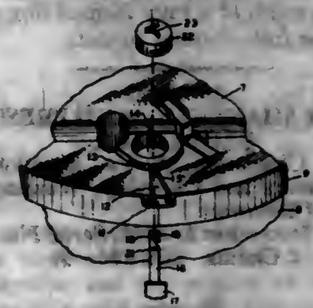
2,772,108
**DOOR LOCK**
Charles A. Ellis, Hamden, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application July 18, 1955, Serial No. 522,471
7 Claims. (Cl. 292—191)

1. A door lock having a casing and a bolt structure mounted therein to cooperate with a relatively fixed strike member, said structure comprising a bolt head pivoted to the casing to swing about one of its edges when engaged by the strike, said bolt head having a generally curved face engaging the strike when the door is closed whereby the bolt head is cammed inwardly about its pivot when a force is applied to the door in an opening direction, and said face of the bolt head having a recess intermediate its ends to receive a portion of the strike when the door is slightly ajar, and one wall of



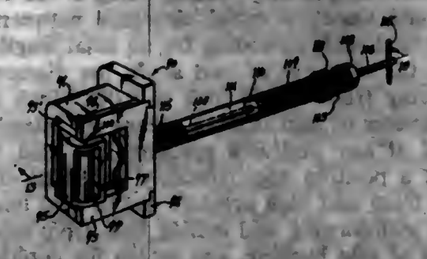
said recess being adapted to engage flatly against a surface of the strike member.

2,772,109
**SEAL FOR A METER HOUSING**
Floyd H. Busch, Rochester, N. H., and Dario A. Quagliari, Boston, Mass., assignors to General Electric Company, a corporation of New York
Application March 31, 1954, Serial No. 420,052
2 Claims. (Cl. 292—307)



1. In a meter housing, the combination of: a base member, a cover removably affixed to said base member, said cover having a flanged portion overlying the peripheral portion of said base member, a cavity in said base member, a ridge next to said cavity, a slot extending from said ridge to the periphery of said base member, a passage in said ridge communicating with said cavity and said slot, an aperture in said flanged portion normally registering with said slot when said cover is affixed in place on said base member, and a metal tab passing through said aperture, said slot, said passage, and extending within said cavity, said tab serving to lock said cover and said base member together, said tab having enlarged outer and inner heads to retain it in place, said inner head comprising a solidified plastic body embedding the inner end of said tab, said body being contained within said cavity.

2,772,110
**SAFETY STRIKING PLATE FOR DOOR LOCKS**
John Petrochko, Glendale, N. Y.
Application January 6, 1955, Serial No. 480,251
6 Claims. (Cl. 292—341.17)

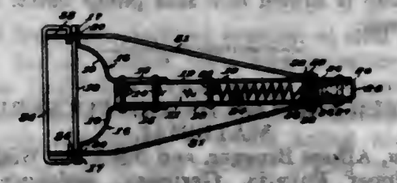


1. A safety striking plate for refrigerator and other doors comprising a casing having a rear portion adapted



for mounting on a door jamb, a keeper member pivotally mounted in the casing, said keeper member having a latch seating recess and a socket spaced from said recess, and a bolt member slidably extending through said rear portion of the casing and adapted removably to seat in the socket to prevent the keeper member from pivoting, means to lock said bolt member in the socket, said means being a bolt housing adapted to be fixed to the inner face of a door jamb, a threaded sleeve slidably passing said bolt member and connected to the bolt housing, and a threaded plug member fixed to the bolt member and adapted to screw into and out of said threaded sleeve.

2,772,111
**BALE HOOK**
Ingvald Eide, Colton, S. Dak.
Application April 13, 1953, Serial No. 348,364
5 Claims. (Cl. 294—26)



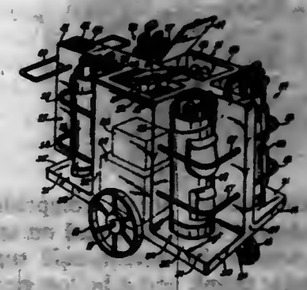
1. A bale hook structure comprising an elongated frame member, a hook element pivotally secured intermediate its ends to said frame member adjacent one end thereof, a second frame member longitudinally movable relative to said first frame member, link connections between said second frame member and the butt end of said hook element, and adjacent hand grip bars on the ends of said frame members removed from the pivoted hook element, said second frame member controlling the position of the pivoted hook element.

2,772,112
**BATTERY STRAP**
Theodore J. Grypma, Grand Rapids, Mich.
Application August 12, 1952, Serial No. 303,901
2 Claims. (Cl. 294—163)



1. Improvement in battery straps comprising, a battery post engaging member comprising a flat metal strap member bent back upon itself to provide upper and lower spaced flat sides between which an end of a flexible strap aligned therewith is inserted and secured, said bent portion of the strap having a generally cylindrical form adapted to receive a generally cylindrical shaft, and said sides having aligned post receiving openings extending partly into said connecting portion, said connecting portion and post openings being beyond the adjacent end of said strap, a shaft extending through and rockingly mounted in said connecting portion, having a recess in a side thereof adapted to be turned to two different positions, in one of which a battery post may freely pass into and through said openings, and in another of which the shaft is forced against the adjacent side of said post, and manually operable means for rocking the shaft, said means comprising an operating handle extending from one end of said shaft at an angle to the length thereof and providing a stop means engaging one of said sides when said shaft is in the first mentioned position.

2,772,113
**MOTORIZED CARRIER FOR MULTIPLE GOLF BAGS**
Henry Berard, Long Island City, N. Y.
Application November 27, 1953, Serial No. 394,729
2 Claims. (Cl. 296—24)



1. In a wheeled caddy cart, a rectangular-shaped floor, an upright wall extending centrally of the floor from end to end thereof, said wall serving as a common wall for a pair of opposed compartments, substantially rectangular in cross-section, said compartments being open at the top, hinged doors closing said openings, the end walls of said compartments and the central wall defining spaces at the corners of the cart for receiving golf bags supported in upright position on the floor, and metal angle straps spaced vertically along and secured to said space-defining walls for retaining the golf bags in upright position.

2,772,114
**ADJUSTABLE ATTACHMENT MEANS FOR A MOTOR VEHICLE FABRIC TOP**
Robert E. Hennessy, Allen Park, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application August 27, 1953, Serial No. 376,907
9 Claims. (Cl. 296—107)



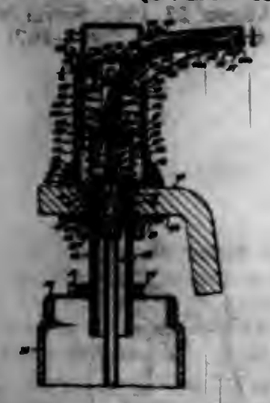
7. In a motor vehicle body, a fixed outer body panel having its upper marginal edge terminating adjacent the belt line of the vehicle, an inner body panel having an upper marginal edge secured to the upper marginal edge of the outer body panel and having a downwardly extending portion inclined relative to a vertical plane in an outward direction, a drain trough secured to the lower edge of said inner body panel, a retractable fabric top for the vehicle body having a rearward portion extending downwardly within the vehicle body adjacent the inner side of the downwardly inclined portion of the inner body panel, a retaining strip slidably mounted adjacent said inclined portion of the inner body panel, a tacking strip carried by said retaining portion, means connecting the lower edge of the fabric top to said tacking strip, and spring means yieldably urging said retaining strip downwardly along the inclined portion of said inner body panel to tension said fabric top.

2,772,115
WINDSHIELD WASHER NOZZLE
Alfred W. Stanley, Chicago, Ill., assignor to Stanley Corporation, Chicago, Ill., a corporation of Illinois
Application March 7, 1955, Serial No. 492,713
2 Claims. (Cl. 299—73)



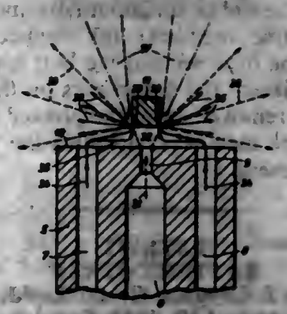
1. A windshield washer nozzle comprising a hollow nozzle support adapted to be mounted on an automobile adjacent to the windshield thereof, said support having an elongated tubular shank and a hollow head communicating with the shank and formed with an opening in one side, a tubular base secured in the opening in the support and communicating with the interior thereof, the base terminating at its inner end in an annular inwardly facing shoulder, and a tubular nozzle having an integral enlarged head fitting against the outer end of the base and formed with a lateral discharge port and a cylindrical shank extending rotatably through the base, the inner end of the shank being enlarged and seating tightly against the annular shoulder to hold the nozzle in the base and frictionally to resist rotation thereof relative to the base.

2,772,116
SOAP DISPENSERS
William J. Doblin, Jackson Heights, N. Y., assignor to American Dispenser Co., Inc., a corporation of New York
Application June 26, 1953, Serial No. 364,350
13 Claims. (Cl. 299—83)



2. In a liquid soap dispenser of the foam type, the combination comprising an air and soap mixing chamber, a piston in said chamber for pumping air into said chamber and for pumping soap and air admixture from said mixing chamber, a pump for pumping soap from a soap reservoir into said mixing chamber and comprising a pump barrel connected to one end of said mixing chamber and communicating therewith, a soap pumping piston connected to said air pumping piston for reciprocable movement therewith and extending into said pump barrel, and a valve for controlling flow of soap from said soap reservoir into said pump barrel, operable into open position when said soap pumping piston moves in one direction and operable into closed position when said soap pumping piston moves in the opposite direction, said soap pumping piston comprising a piston rod connected to said air pumping piston and extending into said pump barrel, a piston head at one end of said piston rod extending into said pump barrel and a sleeve around said piston rod between said air pumping piston and said piston head defining a passage along said piston rod between said pump barrel and said mixing chamber and short enough to have axial play along said piston rod, said piston head affording a seat for said sleeve, friction means yieldably restraining said sleeve against axial movement, said piston rod being moved along said sleeve, while said sleeve is frictionally held at the beginning of the stroke of said air pumping piston towards said pump barrel, whereby an opening is formed between said sleeve and said piston head, said sleeve for the remaining of said stroke being engaged by said air pumping piston and being moved thereby in unison with said piston rod to close said valve and to cause the soap trapped in said pump barrel to flow through said opening, through said sleeve and into said mixing chamber, said piston rod upon the return stroke of said air pumping piston, being moved with respect to the frictionally held sleeve, until said piston head seats against said sleeve, whereupon said piston head and said sleeve move together in unison to open said valve and to operate as a suction piston, whereby soap is drawn into said pump barrel from said soap reservoir.

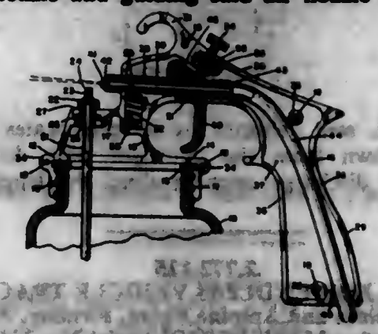
2,772,117
ATOMIZER FOR LIQUID AND PULVERULENT MATERIAL
Ingo Ritzau, Alfons Brugger, and Balthasar Höfer, Starnberg, Upper Bavaria, Germany, assignors to Paul Ritzau, Starnberg, Germany
Application January 26, 1954, Serial No. 416,652
Claims priority, application Germany January 31, 1953
14 Claims. (Cl. 299—86)



1. In an atomizer for effecting fine distribution of liquids and pulverulent solids, comprising a nozzle for producing a cone-shaped jet of a gaseous fluid, means for conducting gaseous fluid under pressure to said nozzle, a gas flow control member provided with a gas deflecting surface having at least one edge of substantial length, said member being so positioned relatively to said nozzle that said surface is in the path and substantially at right angles to the direction of said jet, and that said edge is tangent to the cone of said said jet whereby the major portion of said jet will be spread into a fan-like gas stream by said edge, a chamber at least partly below said nozzle to receive therein a supply of the substance to be atomized, and at least one duct from close to the bottom of said chamber to the vicinity of said nozzle, said duct having a discharge opening laterally of said nozzle and underneath said fan-like gas stream, whereby portions of said substance will be sucked into said fan-like gas stream along said edge.

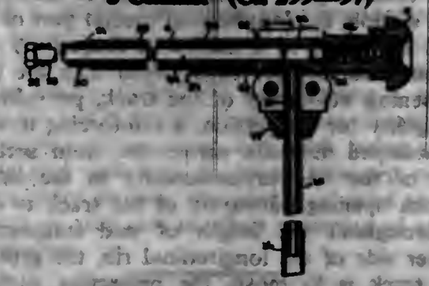
2,772,118
SPRAYING DEVICES
Richard T. Cornelius, Minneapolis, Minn.
Application August 14, 1953, Serial No. 374,313
2 Claims. (Cl. 299—98)

1. In a spraying device, a receptacle open at the top for liquid to be sprayed, a cap for closing said receptacle, a tube extending through said cap and into the liquid, a liquid nozzle at the end of said tube and having an upwardly extending discharge passageway, a raised top on said cap, a hollow handle issuing outwardly from said top and fixed relative thereto, an air nozzle disposed within said handle, a flexible tube for connection to a source of air under pressure connected to said nozzle and extending through said handle, said air nozzle being disposed to one side of said liquid nozzle and having a discharge passageway transverse to the passageway in said liquid nozzle, pivot means acting between said handle and air nozzle and guiding said air nozzle for swinging



movement from an operative position at said nozzle and at which the air stream therefrom traverses the open end of the liquid nozzle and to an inoperative position away from said liquid nozzle, said tube flexing to accommodate such movement, a spring acting between said nozzle and the top of said cap and urging the air nozzle into inoperative position and a finger piece on said nozzle disposed above said cap and rearwardly of the raised top thereof and engageable for moving the air nozzle into operative position when the handle is grasped.

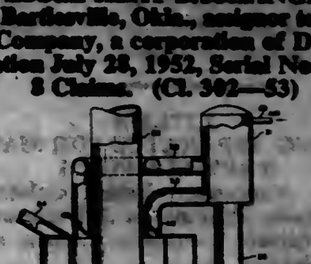
2,772,119
OPERATING MECHANISM FOR SPRAY GUNS
George Goda, Brooklyn, N. Y., assignor to Champion Implement Corp., New York, N. Y., a corporation of New York
Application March 5, 1954, Serial No. 414,262
3 Claims. (Cl. 299—97)



1. In a spray gun having a body, a cylinder mounted in said body, a piston operating therein, a spray nozzle at one end thereof and means for reciprocating said piston, the improvement which comprises a sleeve one end of which is secured to the end of said cylinder opposite said nozzle, the inner diameter of said sleeve being greater than the diameter of said piston, a lubricating bearing in the opposite end of said sleeve, said piston extending through said sleeve and bearing, said cylinder having an enlarged diameter into which said sleeve fits and a ring washer between the end of said sleeve and the shoulder formed at the junction of the two diameters of said cylinder.

2,772,120
UNITARY SPRAY NOZZLE AND FILTER ASSEMBLY
Eugene O. Olson, Des Moines, Iowa, assignor to Delavan Manufacturing Company, West Des Moines, Iowa, a corporation of Iowa
Application February 14, 1955, Serial No. 487,992
2 Claims. (Cl. 299—120)

1. A spray nozzle for liquids including in combination a cylindrical housing externally threaded at the liquid inlet end and having an axial bore therein terminating in a conically-shaped outlet and having a central discharge orifice; a distributor plug having a frusto-conical nose, with grooves in the surface thereof, disposed within said outlet and adapted to direct fluid flow through said orifice; a generally cylindrical-shaped filter member of



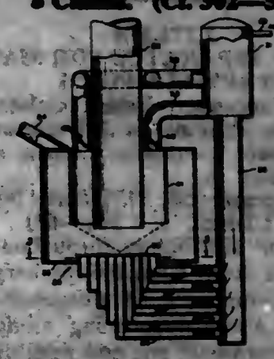
smaller diameter than said bore having a central axial opening and a liquid-permeable wall the end of which facing the nozzle outlet is sealed against flow thereabout; and a retainer ring bearing against the filter member at the inlet end, said housing being turned radially inwardly over said ring for locking said ring, said filter member and said distributor plug within said housing.

2,772,121
COMPOSITE SHEET METAL ARTICLE AND METHOD OF MANUFACTURE
Milton F. Meissner, Ladue, Mo., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application January 17, 1952, Serial No. 266,953
10 Claims. (Cl. 29—199)



7. A hollow composite multiple ply article consisting of bonded sheet metal layers of from about 80% to about 95% copper, from about 1.25% to about 4% iron, and the balance zinc, and across the interface between the abutting portions of adjacent layers an intergranular bond consisting of the adherent and coalesced recrystallized surface grains of said layers of metal on each side of the interface alloyed with substantially all of an amount of tin not in excess of that sufficient for accelerating the recrystallization at elevated temperature of said surface grains only.

2,772,122
PEBBLE HEAT EXCHANGER
Dick S. Hall, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application July 28, 1952, Serial No. 301,406
8 Claims. (Cl. 302—53)



1. A pebble feeder comprising in combination a first upright cylindrical shell having top and bottom closure members; a second cylindrical shell coaxial with said first

shell fixed to said top closure member and forming an annulus between the two shells, said second shell extending into the lower section of the chamber formed by said first shell; a pebble inlet conduit connecting with the upper section of aforesaid annulus; an elevator conduit coaxial with said shells extending upwardly from a level adjacent the lower end of said second shell thru said top closure member and forming a second annulus with said second shell; at least one primary gas supply conduit connected with said second annular space; several secondary gas supply conduits coaxial with said shells and leading upwardly thru said bottom closure member to a level below said elevator conduit to provide a cylindrical and a plurality of annular gas passages directed toward the lower end of said elevator conduit, said conduits extending outwardly beyond said elevator conduit, the structure thus far defined providing at least a layer of pebbles over each of said secondary gas supply conduits when a stream of pebbles is fed to said feeder thru said pebble inlet conduit; and means for supplying a lifting gas to each of said gas supply conduits.

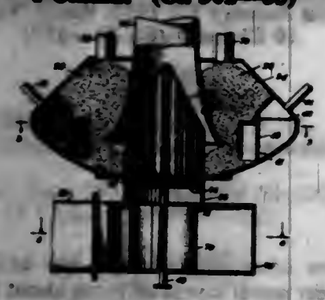
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2,772,123

## APPARATUS FOR PNEUMATICALLY LIFTING GRANULAR CONTACT MATERIAL

Harold O. Malcolm, Augusta, Kans., and William A. Hagenbuch, Westfield, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application March 18, 1952, Serial No. 277,122
8 Claims. (Cl. 302—53)



1. In a pneumatic lift in which a granular contact material is conveyed upwardly through a substantially vertical lift passageway, the improved apparatus for introducing lift gas into the lower end of the passageway which comprises: a gas housing having a generally circular wall, a gas inlet conduit attached tangentially to the wall of said housing, a central vertical discharge conduit attached to the top of said housing, said conduit being substantially coaxial with the lift passageway and terminated near the bottom of said passageway, and means situated between said gas inlet conduit and said vertical lift passageway for effecting removal of the rotary movement from he lift gas due to its introduction into said housing via said tangential gas inlet conduit.

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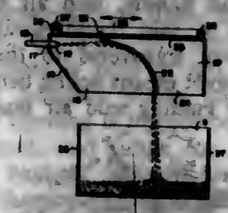
2,772,124

## DISTRIBUTING APPARATUS FOR MATERIAL IN PARTICLE FORM

William Smith, Vancouver, British Columbia, Canada, assignor to Radar Pneumatics & Engineering Co. Ltd., Vancouver, British Columbia, Canada, a corporation of British Columbia

Application December 28, 1955, Serial No. 555,965
12 Claims. (Cl. 302—61)

1. Apparatus for distributing throughout a container material in particle form from the discharge of a pneumatic conveyor, comprising an elongated hood having a relatively long discharge opening along the bottom thereof and an entrance at one end near the top thereof into which the discharge end of a pneumatic conveyor pipe may extend, said pipe end extending in the same direction as the hood, a downwardly curved deflector mounted in the hood for movement longitudinally thereof, the upper end of said deflector being aligned with the hood entrance and the deflector curving outwardly from said entrance, and means for reciprocating the deflector



in the hood, said deflector as it reciprocates directing material blown from the conveyor pipe downwardly through the discharge opening along the length of the latter.

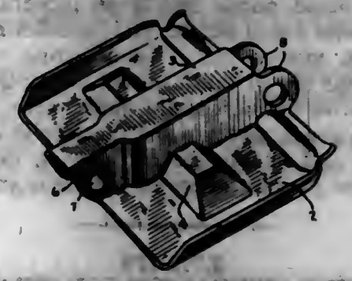
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2,772,125

## SHOE FOR ENDLESS VEHICLE TRACKS

André Faure and Antoine Faure, Firminy, France

Application March 24, 1953, Serial No. 344,301
Claims priority, application France April 17, 1952
2 Claims. (Cl. 305—10)



1. In an endless track for vehicles associated with driving sprockets and bearing rollers, the provision of a plurality of similar directly interconnected unitary plates each consisting of a single one-piece stamped flat sheet metal section, the longitudinal medial part of which is bent into the shape of a narrow U-shaped rib having a smooth outer surface for engagement with the rollers, said rib, opening outwardly of the track, providing longitudinal rigidity for the section, a reinforcing transverse rib being stamped medially across the main section to either side of the rib perpendicularly to the latter to form a recess opening outwardly of the track to engage directly, throughout the length of said transverse rib and to either side of the longitudinal rib, the ground on which the track is to move, the projecting surface of said transverse rib being adapted to operatively engage driving sprockets for said track, and perforated lugs and a pair of ears integral respectively with the medial parts of the opposite transverse edges of said section and merging directly into the corresponding ends of the longitudinal rib, the ears on one flat section being adapted to engage operatively the lugs on the flat section of the adjacent plate.

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2,772,126

## SHAFT HANGER

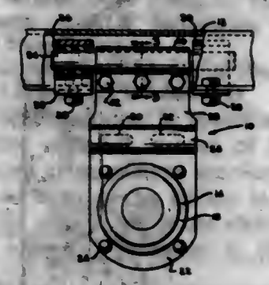
Frederick M. Guy, Detroit, Mich., assignor to U. S. Universal Joints Company, a corporation of Michigan

Application April 27, 1953, Serial No. 351,142
10 Claims. (Cl. 308—28)

1. In a resilient shaft hanger, the combination of a housing formed from two vertically disposed sheet metal stampings secured together for receiving a shaft journaling bearing, the upper portions of said stampings having straight horizontal concave channels facing one another so that when said stampings are secured together straight horizontal jaws are formed which are partially open on their upper ends, a depending hanger member extending



through the partial opening in the jaws, said hanger member including a rubber-like element carried by its lower



end portion and clamped by said jaws in a preloaded condition.

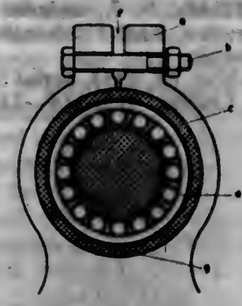
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2,772,127

## BEARING MOUNTING AND METHOD OF MAKING SAME

Gino Sborlino, Milan, Italy, assignor to Loro & Parisini Societa per Azioni, Milan, Italy, a firm

Application June 24, 1952, Serial No. 295,255
Claims priority, application Italy June 30, 1951
2 Claims. (Cl. 308—178)



2. In a device for mounting a conventional ball or roller bearing, the combination of a support provided with a bifurcated portion adapted to form a cylindrical seat; an elastic cylindrical bush having a single longitudinal slit and a machined inner face adapted to receive said bearing thereagainst, said bush being mounted in said support with said slit being arranged remote from the bifurcated portion, and means adapted to reduce the diameter of said seat to effect clamping of said bush in said member.

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2,772,128

## CAGE FOR NEEDLE BEARINGS

Georg Schaeffler and Emil Bonsch, Herzogenaurach, near Nurnberg, Germany, assignors to Industriewerk Schaeffler, Herzogenaurach, near Nurnberg, Germany

Application June 11, 1954, Serial No. 436,161
Claims priority, application Germany June 13, 1953
2 Claims. (Cl. 308—217)



1. A cylindrical bearing cage for needles comprising a pair of parallel end faces, a plurality of parallel webs interconnecting said end faces and thereby forming a plurality of spaced apertures, a pair of tapered ended needles adjoiningly arranged in each of said apertures, protruding surfaces formed on said webs, and web-like projections formed centrally on said end faces intermediate of said webs extending radially in said apertures for coacting with said webs to effect individual guidance of said adjoining needles and for coacting with said protruding surfaces for effecting retention of said adjoining needles within said aperture.

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2,772,129

## PISTON PACKING RING

Frank D. Frisby, St. Louis, Mo., assignor to Frisby Corporation, St. Louis, Mo., a corporation of Missouri

Application July 16, 1952, Serial No. 299,100
18 Claims. (Cl. 309—45)



1. A piston packing ring comprising a plurality of concentric annular torsion sealing elements, each of said elements having a gap therein, said gaps being positioned in a staggered formation, said elements being bonded together at a point between said gaps, said elements developing an instantaneous opposed and alternating frictional reaction between their adjacent surfaces upon circumferential contraction and expansion of the assembled ring during operation.

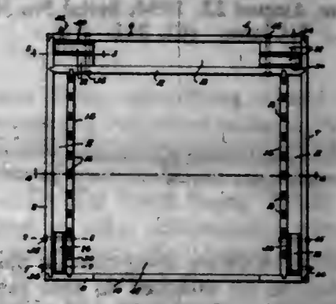
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2,772,130

## FOLDING DRAFTING TABLE

John O. Pritchard, Sheridan, Wyo.

Application July 8, 1955, Serial No. 520,728
5 Claims. (Cl. 311—38)



1. A combined drafting table and carrying case, comprising a box-like body including side panel members and front and rear panel members connected at their ends to said side members, an inner frame embodying a rear member arranged in parallel spaced relation with said rear panel member providing a leg compartment at the rear of said case, side members arranged in parallel spaced relation with said side panel members and secured at one of their respective ends to said rear member of said inner frame, the other ends of said side members of said inner frame being connected to said front panel member providing elongated compartments at the sides of said case, a bottom panel closing the bottom of said inner frame, a vertically swinging closure panel adapted to close the top of said table, and leg members pivotally mounted within said leg compartments.

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2,772,131

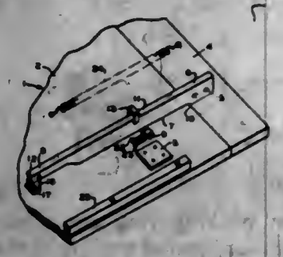
## SLIDE ASSEMBLY FOR SLIDE LEAF EXTENSION TABLES

Joseph Cooper, New York, N. Y.

Application March 13, 1956, Serial No. 571,322
3 Claims. (Cl. 311—55)

1. In a table having at least one slide leaf extension attached to a primary table top, said extension being mov-

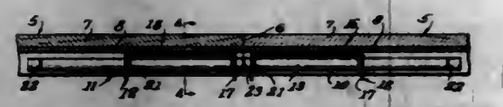
able between an open and a closed horizontal position, a slide assembly for the movement of said slide leaf extension comprising a normally horizontal slidable bar attached at its outer end to the lower surface of said extension, said bar having a top surface which slopes inwardly and downwardly near its inner end, and then continues horizontally to provide an inner finger-like section of said bar, a downwardly extending hanger member suspended from the under surface of said table top and slidably supporting said bar, a guide member sus-



pended beneath said table top in longitudinal alinement with said hanger member, and providing a track for guiding said bar, and a wave member attached to the under surface of said table top and having an outer end spaced from said under surface, said bar bearing a locking flange projecting from one side of the top surface thereof, and said wave member being adapted to receive said locking flange between its said outer end and the table under surface when said slide leaf extension is in open position.

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**2,772,132**
**EXTENSION TABLE HARDWARE**
Carl F. Kayler, South Gate, Calif.
Application August 23, 1954, Serial No. 451,508
1 Claim. (Cl. 311—71)

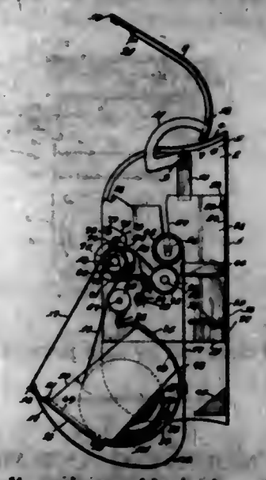


Extension table hardware comprising a pair of similar brackets adapted to be attached to said table, each of said brackets having a pair of end-bearing walls, an elongated tubular member extending between said brackets and through said bearing walls, an integral stop located in the center of said tubular member, and a pair of integral end stops located at the ends of said tubular member, one of said brackets being located between one end stop and the center stop, and the other bracket being located between the other end stop and the center stop, and said stops being adapted to have abutting engagement with the walls of said brackets.

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**2,772,133**
**DISPENSING APPARATUS FOR SHEET MATERIAL**
Rudolph G. Birr, Lombard, Ill., assignor to American Linen Supply Co., Chicago, Ill., a corporation of Nevada
Application July 14, 1951, Serial No. 236,807
13 Claims. (Cl. 312—38)

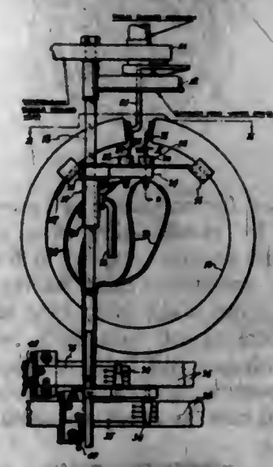
1. A towel dispensing cabinet of the continuous type having a measuring roll carried by a pinch roll, and in which the toweling is wrapped around said measuring roll and is pulled downwardly to dispense it, and having a soiled towel take-up drive roll, and in which said drive roll is driven from the measuring roll by two spur gears, and floating bearing means for said pinch roll to permit limited slight downward movement of said measuring roll against said pinch roll to increase the pressure of



said measuring roll against said pinch roll in response to said downward pull of said toweling.

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**2,772,134**
**APPARATUS FOR MANUFACTURING DISCHARGE LAMPS**
Daniel Mullan, Hillside, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 29, 1953, Serial No. 358,412
3 Claims. (Cl. 316—32)



1. In apparatus for manufacturing arcuate discharge lamps, a spider rotatable about a vertical axis, a plurality of stations disposed about its periphery, said spider having a plurality of heads corresponding in number and spacing with said stations and connected to exhausting and gas-filling means, a non-circular rod suspended from said spider adjacent each head, an insulating platform slidably mounted on each rod and held against rotation by the non-circular configuration of said rod, means for clamping each platform in a desired longitudinal position along said rod, four metal energizable cups carried by each platform, a quantity of granular metal disposed in each cup, means extending from said platform including arcuately disposed members for supporting an arcuate discharge lamp on said spider at each head with its ends and radially extending exhaust tubulation uppermost and with the exhaust tubulation projecting vertically into said head for processing said discharge lamp, and with the arcuately disposed members engaging the underside of the upper portions of the lamp envelope, so that the lamp leads depend from the upper disposed lamp ends and are conveniently insertable in said energizable cups, and means for indexing said spider from station to station.



**2,772,135**
**METHOD AND APPARATUS FOR MAGNETICALLY RECORDING VIDEO-FREQUENCY SIGNALS**
Max G. Hollabaugh, Jackson Heights, and Fred D. Shea and Kenneth R. Wilson, New York, N. Y., assignors, by mesne assignments, to ACF Industries, Incorporated, a corporation of New Jersey
Application August 15, 1952, Serial No. 304,614
5 Claims. (Cl. 346—74)

1. A recording head including in combination a ribbon of highly conductive material, a core of ferromagnetic material of U-shaped cross section surrounding two opposed sides and one edge of the ribbon intermediate its ends so that only the other edge of the ribbon is exposed, and an elongated compliant member in the form of a leaf spring one end of which is attached to the core adjacent the exposed ribbon edge so that the head is supported by the member, the exposed edge of the ribbon, the



adjacent ends of the core and the planar portion of the spring contiguous the attached end thereof forming an uninterrupted surface for positioning the head with respect to the recording medium.

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## CHEMICAL

**2,772,136**
**DYEING OF TEXTILE MATERIALS USING MOLTEN METAL**
Robert S. E. Hanney, Edinburgh, Scotland, and William Kilby, Lancaster, England, assignors to Standfast Dyers and Printers Limited
No Drawing. Application May 19, 1952, Serial No. 288,761
Claims priority, application Great Britain May 26, 1951
12 Claims. (Cl. 8—1)

1. In a process of dyeing textile materials with dyestuffs which are adversely affected by reducing agents in which the material after application of an aqueous dye liquor thereto is passed through a bath of molten metal, the improvement which comprises incorporating into the impregnated material entering the molten metal a mild oxidizing agent incapable of exerting a rapid oxidizing influence upon the metal of the molten bath and also of insufficient strength to bleach the dyestuff said oxidizing agent having no greater oxidizing strength than sodium chlorate in a neutral bath.

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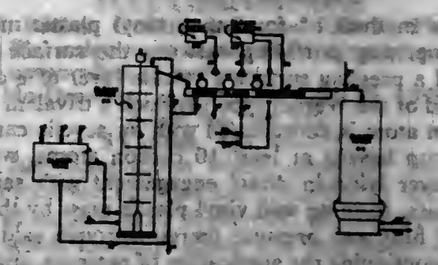
**2,772,137**
**WOOD STAIN METHOD OF INCREASED LIGHTFASTNESS**
Ira Weber, Long Island City, N. Y., assignor to Interchemical Corporation, New York, N. Y., a corporation of Ohio
No Drawing. Application May 6, 1953, Serial No. 353,430
2 Claims. (Cl. 8—6.5)

1. In the method of staining wood consisting of applying to the wood a solution of the alkali salt of at least one sulfonic acid-azo dyestuff in a penetrant vehicle consisting of a mixture of ethyl ether of ethylene glycol and methanol, the improvement which consists in applying to the stained surface a solution consisting of 5 to 10% by weight, of a heavy metal salt of the group consisting of the salts of barium, calcium, strontium, manganese and aluminum, dissolved in a solvent consisting of a mixture of ethyl ether of ethylene glycol and methanol.

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**2,772,138**
**CONTINUOUS BLEACHING PROCESS**
Forest B. Evans, Claddis Ford, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
Application December 31, 1952, Serial No. 329,653
7 Claims. (Cl. 8—156)

1. The method for the continuous purifying of cellulose fibers which comprises, in combination, forming a dilute aqueous slurry of said fibers, continuously passing aqueous slurry and chlorine gas to a lower portion of a contacting zone and therein contacting said fibers and chlorine in a first bleaching step, continuously withdrawing a slurry of fibers and bleach liquor from an upper portion of said contacting zone, continuously passing withdrawn slurry to an incorporation zone, removing bleach liquor from said fibers in said incorporation zone and recycling removed bleach liquor to said contacting zone, in said incorporation zone washing remaining bleach liquor from said fibers with water and adding an aqueous solution of a member of the group consisting of bleaching agents and alkaline extraction agents to the washed fibers in an amount in excess of the amount required for the second reaction step, in said incorporation zone removing excess aqueous solution diluted with wash



water from said fibers, refortifying diluted excess aqueous solution, recycling refortified aqueous solution to said incorporation zone for incorporation in additional cellulose fibers, throughout their passage through said incorporation zone said fibers being in the form of a continuous sheet or cake, continuously withdrawing cellulose fibers wetted with the amount of aqueous solution required for the second reaction step from said incorporation zone, and continuously reacting withdrawn cellulose fibers with wetting aqueous solution in a second reaction step.

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**2,772,139**
**METHOD OF PREPARING PHENOL DERIVATIVES OF WASTE SULPHITE LIQUOR, INCLUDING REMOVING THE CALCIUM IONS FROM THE WASTE LIQUOR**
Harry B. Marshall, Toronto, Ontario, and Mary Curran, née Krimm, Calgary, Alberta, Canada, assignors to Ontario Research Foundation, Toronto, Ontario, Canada
No Drawing. Application February 13, 1956, Serial No. 565,274
4 Claims. (Cl. 8—94.31)

1. A process for the production of useful substances from calcium base waste sulphite liquor containing calcium lignin sulphonate compounds which consists of removing the calcium ions from the waste sulphite liquor by precipitation with sulphuric acid, heating the decalcified waste sulphite liquor to a temperature of between 100° C. and 150° C. with an excess of a phenol, said phenol being selected from the group consisting of monohydric, dihydric and trihydric phenols and combinations thereof, for a time sufficient to condense the lignin sulphonate compounds with said phenol, and removing the excess phenol.

2,772,140

## TANNING AGENT COMPRISING PHENOL DERIVATIVES OF WASTE SULPHITE LIQUOR AND METHOD OF PREPARING SAME

Harry Borden Marshall and Mary Krisman, Toronto, Ontario, Canada, assignors to Ontario Research Foundation, Toronto, Ontario, Canada

No Drawing. Application July 16, 1952, Serial No. 299,278

6 Claims. (Cl. 8—94.31)

6. A tanning agent consisting of a combination of natural tannins and a compound derived from waste sulphite liquor by removing the cations from the waste sulphite liquor by treatment with an ion exchange resin, heating the decationized waste sulphite liquor to a temperature of between 100° C. and 150° C. with an excess of a phenol, said phenol being selected from the group comprising monohydric, dihydric and trihydric phenols and combinations thereof, and removing the excess phenol.

2,772,141

## MANUFACTURE OF PLASTIC FLOOR COVERING

Lawrence H. Dunlop, Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application February 26, 1952, Serial No. 273,560

13 Claims. (Cl. 18—47)

1. In a method of forming a vinyl plastic mass, the steps comprising providing between the surface of said mass and a pressing surface a release layer of a complex compound of the Werner type in which a trivalent nuclear chromium atom is coordinated with an acyclic carboxylic acido group having at least 10 carbon atoms, with said release layer lying in direct engagement with said vinyl plastic mass, forming said vinyl plastic mass by the application of heat and pressure thereto through said release layer, discontinuing the application of pressure, and releasing said formed vinyl plastic mass from said pressing surface, said layer facilitating said release.

2,772,142

## PROCESS OF RECLAIMING URANIUM FROM SOLUTIONS

Ross Cummings, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application April 21, 1944, Serial No. 532,161

8 Claims. (Cl. 23—14.5)

1. A process for reclaiming uranium compound deposits from calutron parts, which parts contain a metal of the group consisting of copper and iron, which comprises washing said parts with a solvent for the uranium compound, thereby obtaining a solution of the uranium compound containing said metal as an impurity, treating the wash solution with iron scrap, whereby the uranium is reduced to its tetravalent state, drawing off the reduced solution, treating the reduced solution with ammonia to precipitate the uranium as uranous hydroxide in the solution, separating the uranous hydroxide precipitate and associated solid metal impurities from the solution, producing an aqueous slurry of the thus-separated uranous hydroxide and associated solid metal impurities, subjecting the slurry to froth-flotation treatment, whereby the solid metal impurities are carried away with the froth leaving the uranous hydroxide precipitate suspended in the slurry, and then separating the uranous hydroxide precipitate from the slurry.

2,772,143

## METHOD OF RECOVERING MAGNESIUM SALTS FROM SEA WATER

William F. McIlhenny and Albert B. Baker, Freeport, and James A. Clarke, Lake Jackson, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 30, 1953, Serial No. 383,197

4 Claims. (Cl. 23—91)

1. In a process for producing a magnesium salt from sea water, wherein the sea water is brought into contact with a cation exchange resin whereby magnesium ions are absorbed on the resin and are removed from the solution and the absorbed magnesium ions are eluted from the resin by contacting the resin with a stream of an aqueous alkali metal salt solution, containing the alkali metal salt in amount corresponding to at least 10 percent by weight of the solution, with formation of a magnesium salt solution containing the magnesium in higher concentration than in the sea water, the steps which consist in pre-treating the sea water by adding sodium carbonate thereto in amount chemically equivalent to from 75 to 85 percent by weight of the dissolved calcium and an alkali selected from the group consisting of ammonia, ammonium hydroxide, potassium hydroxide and sodium hydroxide, in amount sufficient to bring the aqueous liquid to a pH value between 8.5 and 9.5, with resultant formation of an insoluble precipitate of a predominant amount of the calcium solute while the principal proportion of the magnesium salt remains in solution, separating the precipitate from the liquid, then passing the clarified aqueous liquor into contact with a cation exchange resin in a form suitable for absorbing magnesium ions from the aqueous solution.

2,772,144

## PRODUCTION OF SULPHURYL FLUORIDE

Leon Jerry Bolf, Bristol, England, assignor to The National Smelting Company Limited, London, England

No Drawing. Application August 25, 1953, Serial No. 376,511

Claims priority, application Great Britain August 29, 1952

2 Claims. (Cl. 23—203)

1. The method of producing sulphuryl fluoride by reaction between sulphuryl chloride gas and hydrogen fluoride gas comprising simultaneously passing said gases over activated charcoal while maintaining the reaction temperature at about 350 to 450° C., and recovering sulphuryl fluoride from the resulting gaseous product.

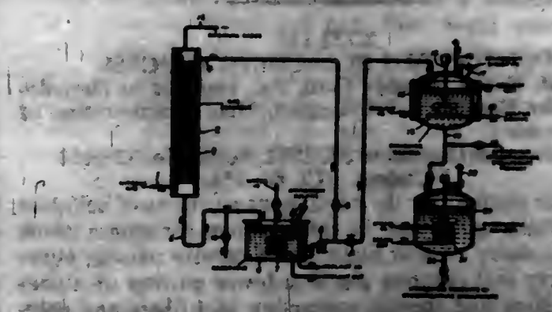
2,772,145

## PROCESS FOR MAKING AMMONIUM NITRITE AND AMMONIUM HYDROXYLAMINE DISULFONATE

George G. Jeris, Madison, N. J., and Alvin J. Sweet, East Aurora, N. Y., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application February 27, 1953, Serial No. 339,272

4 Claims. (Cl. 23—104)



1. A process for making ammonium nitrite and ammonium hydroxylamine disulfonate which comprises: contacting a nitrous gas containing nitric oxide and nitrogen dioxide with a body of aqueous solution maintained during the contacting in an alkaline condition by the incorporation therein of ammonium sulfite and in the temperature range from about its freezing point to about 45° C., in which the nitrous gas delivered for contact with the body of aqueous solution has a nitric oxide: nitrogen dioxide mol ratio greater than 10:1 and the combined concentration of ammonium nitrite and ammonium hydroxylamine disulfonate in said body of aqueous solution is maintained below 3.12 gram mols per 1000 grams of solution during the contacting with the nitrous gas.



2,772,146

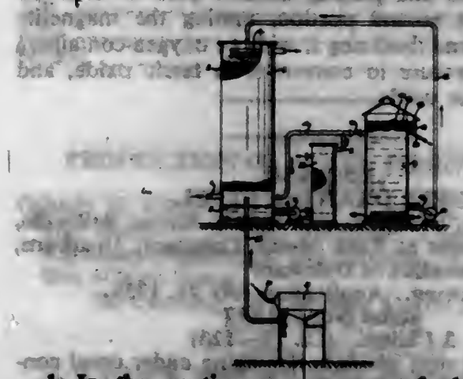
## PROCESS FOR THE RECOVERY OF ELEMENTARY SULFUR FROM GASES CONTAINING HYDROGEN SULFIDE

Heinz Pippig, Mainz, Germany

Application September 20, 1952, Serial No. 311,909

Claims priority, application Germany October 1, 1951

4 Claims. (Cl. 23—225)



1. In the continuous recovery of elementary sulfur from a gas containing hydrogen sulfide by a process involving the steps of absorbing hydrogen sulfide from the gas in an alkaline washing liquid including a free oxygen-containing oxidizing agent for hydrogen sulfide by washing said gas with said washing liquid in a washing stage, thereafter treating said washing liquid with oxygen in an oxidizing stage to oxidize the absorbed hydrogen sulfide to elementary sulfur, removing said sulfur from the washing liquid and recycling the latter into said washing stage in order to absorb hydrogen sulfide from another portion of gas, the improvement which comprises maintaining the hydrogen sulfide-enriched washing liquid within the oxidizing stage at a temperature not in excess of about 25° C. artificial cooling of said enriched liquid.

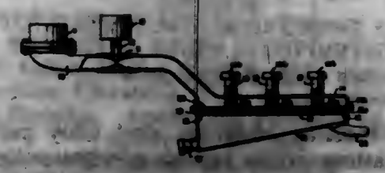
2,772,147

## EXHAUST GAS TREATING UNIT

William M. Bowen III, Chester, and Eugene J. Houdry, Ardmore, Pa., assignors, by direct and mesne assignments, to Oxy-Catalyst, Inc., a corporation of Pennsylvania

Application April 6, 1951, Serial No. 219,623

5 Claims. (Cl. 23—288)



1. Catalytic apparatus adapted for attachment to automotive vehicles and the like for elimination of obnoxious components of exhaust gases therefrom and including a bed of catalyst particles which tend to become coated with foreign matter during the exhaust gas loss-free activity, said apparatus [illegible] attachment to said vehicle or the like and subject to vibration transmitted from said vehicle thereto, a container for said catalyst particles mounted within said housing and comprised of a pair of spaced apart, parallel, foraminous members extending across said housing and defining between them a relatively shallow space for receiving a layer of catalyst particles, means connecting said housing to the exhaust manifold of the vehicle engine whereby exhaust gases therefrom pass through said foraminous members in contact with said catalyst particles, at least one catalyst supply hopper extending substantially vertically from and opening into said catalyst containing means, whereby on vibration of said housing during operation of said vehicle, catalyst particles flow by gravity from said hopper into said catalyst containing means to replace catalyst lost from said container by attrition and thus to maintain a substantially uniform level of catalyst in said container, flow restricting means at the discharge end of said hopper for restricting the flow of said catalyst particles into said container, said flow restricting means being arranged to prevent said particles from rising above a predetermined level in said container, thus preventing said container from becoming tightly packed with catalyst particles and thereby assuring movement of said catalyst particles within said container at all times in response to vibration transmitted thereto from the vehicle so as to free said particles from foreign deposits as they accumulate.

2,772,148

## FUEL COMPOSITIONS

Allen E. Bruhn, Griffith, Ind., and Ellis K. Fields, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application April 18, 1955, Serial No. 502,212

5 Claims. (Cl. 44—71)

1. A fuel composition which comprises essentially a light hydrocarbon distillate and about 0.0001 to 0.1 weight percent of an oil soluble N-alkyl-N', N'-di(carboxymethyl) urea in which the alkyl group is a long chain containing 10 to 40 carbon atoms.

2,772,149

## GENERATION OF SYNTHESIS GAS AND APPARATUS THEREFOR

Paul W. Garbo, Freeport, N. Y., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey

Continuation of application Serial No. 723,548, January 22, 1947. This application December 13, 1951, Serial No. 261,764

5 Claims. (Cl. 48—196)



4. In a process for the generation of a gaseous mixture of hydrogen and carbon monoxide by the interaction of reactants comprising a hydrocarbon gas and oxygen, the steps which comprises passing hydrocarbon gas into a closed reaction zone through a porous barrier, forcibly directing a stream of substantially pure oxygen against the surface of said barrier within said reaction zone at an acute angle thereto whereby the oxygen is distributed along said surface into intimate contact with said hydro-

carbon and said surface is maintained incandescent by flameless surface combustion, withdrawing from the vicinity of said surface the resulting reaction products consisting essentially of hydrogen and carbon monoxide, periodically discontinuing the flow of reactants and passing oxygen through said porous barrier, and thereafter restoring the flow of hydrocarbon gas through said barrier and reintroducing oxygen at said acute angle.

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2,772,150
VITREOUS GRINDING COMPOSITION
George August Rieke, Chicago, Ill.
No Drawing. Application May 17, 1951, Serial No. 226,949
6 Claims. (Cl. 51—300)

2. A vitrified grinding tool formed of a composition consisting essentially of finely divided inorganic abrasive particles selected from the group consisting of silicon carbide, Carborundum, diamonds and zircon, an inorganic clay binder and an exfoliated micaceous mineral in which the materials are present in the ratio of 5–50 parts by weight of the inorganic clay binder, 95–50 parts by weight of the inorganic abrasive and 5–25 parts by weight of exfoliated micaceous mineral to 100 parts by weight of the clay binder, which has been heated in admixture to a temperature for vitrification and in which the particles of exfoliated micaceous mineral remain identifiable in the vitrified product as distinguished from the loss of identity of mica when incorporated without previous exfoliation.

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2,772,151
CORRECTION OF IRON DEFICIENCIES IN GROWING PLANTS
Alexander A. Nikitin, College Park, Ga., assignor to Tennessee Corporation, New York, N. Y., a corporation of New York
No Drawing. Application February 20, 1956, Serial No. 566,394
6 Claims. (Cl. 71—1)

1. The method of supplying nutritional iron to plants growing in iron-deficient soil which comprises supplying iron to the plant in the form of ferrous oxalate in contact with the tissues of the growing plant.

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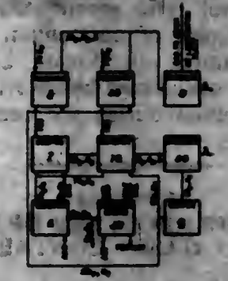
2,772,152
TOBACCO DESUCKERING COMPOSITIONS
Robert Earl Emond, Moorestown, Lambton, Ontario, and Warren C. Puttenden, Courtright, Lambton, Ontario, Canada, assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application April 29, 1954, Serial No. 426,574
5 Claims. (Cl. 71—2.3)

1. A tobacco desuckering grease composition which comprises in combination a petroleum mineral white oil having a viscosity of 80–1000 SUS at 100° F. and from 2–40% of a grease forming component, said paste being further characterized in having an ASTM penetration (unworked) in the range of 150–420.

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2,772,153
ROASTING PYRITES
James R. West, Pittsburgh, Pa., and Frederick Gormley, Vera Cruz, Mexico, assignors to Texas Gulf Sulphur Company, New York, N. Y., a corporation of Texas
Application August 4, 1950, Serial No. 826,469
7 Claims. (Cl. 75—9)

1. That method of roasting pyrites to produce sulfur and ferric oxide comprising fluidizing one portion of pyrites with nitrogen-containing gas substantially free from oxygen at a temperature to drive off the labile sulfur atom and form pyrrhotite, separately fluidizing a second portion of pyrites in the same manner, recovering the sulfur from said treatments, fluidizing the pyrrhotite from said one portion with an oxygen-containing gas at a temperature to convert it to magnetite and produce sulfur dioxide, fluidizing the pyrrhotite from said second portion with sulfur dioxide, including that from said one portion, at a temperature to convert the pyrrhotite to magnetite with production of a mixture of sulfur dioxide



and sulfur vapor, condensing sulfur from said mixture and passing part of the residual sulfur dioxide to treat said one portion and passing another part to treat the pyrrhotite from second portion, uniting the magnetite thus produced and fluidizing it with an oxygen-containing gas at a temperature to convert it to ferric oxide, and recovering ferric oxide.

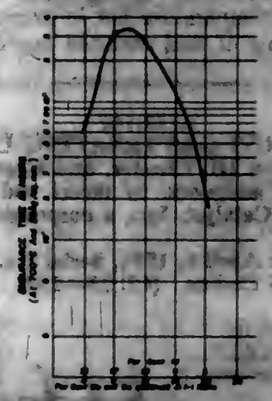
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2,772,154
DEEP DRAWING STEEL
Eric R. Morgan, Dearborn, and John C. Shyne, Belleville, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
No Drawing. Application July 24, 1956, Serial No. 599,677
2 Claims. (Cl. 75—123)

1. A rimmed steel which is non-aging under usual conditions of commercial storage, said steel containing from between 0.003 percent and 0.02 percent carbon.

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2,772,155
HEAT-RESISTING AUSTENITIC STEEL ALLOYS
Friedrich Hinrichsen and Walter Siegfried, Winterthur, Switzerland, assignors to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application October 14, 1953, Serial No. 386,096
Claims priority, application Switzerland October 18, 1952
6 Claims. (Cl. 75—128)



1. A heat-resisting austenitic steel alloy particularly suitable for casting articles capable of withstanding severe mechanical stress at high temperatures, said steel alloy containing, a ferrous base, essentially 0.05 to 0.45 percent carbon, 16 to 27 percent chromium, 10 to 30 percent nickel, a total of 6 to 8 percent molybdenum, tungsten and columbium/tantalum, the three last named constituents being present in the following proportions: 2.2 to 3.8 percent molybdenum; 1.2 to 2.8 percent tungsten;



0.2 to 1.8 percent columbium/tantalum, and a total of 6 to 12 percent cobalt and manganese in substantially equal amounts, and incidental impurities.

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2,772,156
SILVER ALLOYS
Charles L. Prisznar, Nutley, N. J., assignor to The Ventura Corporation, Newark, N. J., a corporation of New Jersey
No Drawing. Application August 30, 1955, Serial No. 531,593
5 Claims. (Cl. 75—173)

1. An homogeneous silver alloy having substantially the color of pure silver, said alloy being characterized by improved tensile strength, hardness and elasticity, and being more resistant to staining, corrosion, and tarnishing than is pure silver, comprising the following ingredients within the ranges indicated based on percentages by weight:

| | |
|---|---|
| Silver | 91.77–93.27 |
| Manganese | 3.60–4.40 |
| Copper | 2.38–2.90 |
| Tin | 0.45–0.55 |
| Zinc | 0.15–0.19 |
| Nickel | 0.15–0.19 |

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2,772,157
PRODUCTION OF MIXED FIBROUS SHEET MATERIAL
Osborn H. Cilley and Robert L. Moore, Manheim, Pa., and Lester J. Novak, Trumbull, Conn., assignors to Raybestos-Manhattan, Inc., Passaic, N. J., a corporation of New Jersey
No Drawing. Application March 16, 1953, Serial No. 342,724
8 Claims. (Cl. 92—3)

1. A smooth water-laid felted fibrous sheet comprised of the dried residue of an alkaline colloidal dispersion of chrysotile asbestos fibers, said sheet including individualized cut glass yarn fibers substantially uniformly distributed therethrough, the glass fibers carrying a wettable, water-insoluble, strongly adherent hardened organic film coating.

7. The method of forming a smooth strong sheet composed of a substantially homogeneous mixture of asbestos fibers and from about 1% to about 75% of glass fibers by weight of the composite, which comprises mixing glass filaments of less than about 10 microns in diameter and from about ⅛ to about 1 inch in length derived from cut glass yarn and carrying a wettable, water-insoluble, strong adherent hardened organic film coating, with an aqueous alkaline colloidal dispersion of chrysotile asbestos fibers containing organic chrysotile asbestos colloidizing agent to form a slurry having a viscosity of from about twice to about eight times that of water to thereby stably suspend said glass filaments therein and to uniformly distribute the fibers with each other in an individualized manner, and then felting said fibers on a foraminous carrier of a paper making machine.

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2,772,158
PHOTOGRAPHIC METHOD USING A LIGHT SENSITIVE RESIN COMPOSITION
Stanley B. Elliott, Shaker Heights, Ohio, assignor to Ferro Corporation, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 18, 1953, Serial No. 337,661
9 Claims. (Cl. 96—27)

1. The process of making photographic images which consist of selectively exposing a photosensitive film to a light image in such a manner as to create a light intensity gradient such that dye area receiving maximum actinic light is exposed to at least two milliwatts per square centimeter for at least one-thousandth of a second, said film consisting of an intimate admixture of: (*a*) An organic halogenated vinyl resin having a molecular weight of at least 6,000; and (*b*) From about 0.1% to about 25% of the weight of said resin of a substance selected from the class consisting of the oxides, zinc and cadmium, metal salts of halogen free inorganic acids, and metal salts of carboxylic acids, the metals therein being selected from the class consisting of aluminum, zinc, tin, titanium, zirconium, beryllium, cadmium, bismuth, iron and antimony, and thereafter fully developing and fixing the image solely by submitting said film to a temperature of from about 200° F. to about 500° F. for a period of about 1 to about 60 minutes.

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2,772,159
LIGHT SENSITIVE COMPOSITION OF MATTER AND PHOTOGRAPHIC METHOD USING IT
Stanley B. Elliott, Shaker Heights, Ohio, assignor to Ferro Corporation, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 18, 1953, Serial No. 337,662
18 Claims. (Cl. 96—27)

1. A composition of matter consisting of an intimate admixture of:

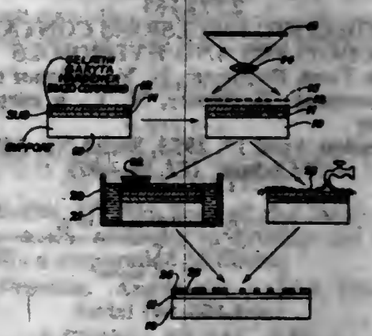
(*a*) An organic halogenated vinyl resin having a molecular weight of at least 6,000;

(*b*) From about 0.1% to about 25% of the weight of said resin of a substance selected from the class consisting of the oxides of zinc and cadmium, metal salts of halogen free inorganic acids, and metal salts of carboxylic acid, the metals therein being selected from the class consisting of aluminum, zinc, tin, titanium, zirconium, beryllium, cadmium, bismuth, iron and antimony; and

(*c*) From about 1% to about 25% of the weight of said resin of a sequestering agent selected from the class consisting of silver carbonate, silver oxide, silver phosphate, silver naphthenate, silver acetate, silver cumate, silver octoate, silver compounds of phenols, silver compounds of mercaptans, and the silver salt of 2-hydroxy 1,4 naphthoquinone.

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2,772,160
LIGHT-DETACHED RESISTS OR RELIEFS FOR PRINTING PLATES
Martin Hepher, Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 21, 1952, Serial No. 277,836
19 Claims. (Cl. 96—35)

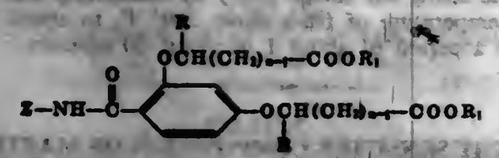


1. A photosensitive sheet comprising a support and a layer on the support made up of gelatin containing sufficient acid to have a pH below 2.5, between 0.1 percent and 2 percent chrome alum and a diazo derivative of the compounds selected from the group consisting of

p-Phenylenediamines, and
4,4'-diamino diphenylmethanes

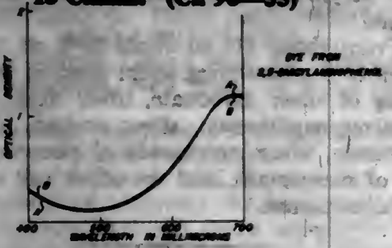
2,772,161
**PHOTOGRAPHIC EMULSIONS AND NEW COUPLING COMPOUNDS**
Anthony Loria and Edward T. Peech, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application October 14, 1954, Serial No. 462,364
11 Claims. (Cl. 96—55)

1. A photographic silver halide emulsion containing a compound selected from those represented by the following general formula:



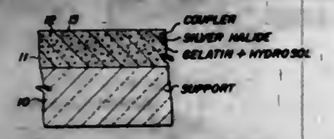
wherein R represents a member selected from the group consisting of a hydrogen atom and an alkyl group, $R_1$ represents a member selected from the group consisting of a hydrogen atom, a methyl group, and an alkali metal atom, $n$ represents a positive integer of from 1 to 2, and Z represents an aromatic radical having substituted thereon a radical which couples with the oxidation product formed during color development.

2,772,162
**DIACYLAMINOPHENOL COUPLERS**
Samuel F. Salminen and Charles R. Barr, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application November 3, 1954, Serial No. 466,570
15 Claims. (Cl. 96—55)



1. The method of producing a cyan photographic image in silver halide emulsion layer, which comprises exposing the layer and developing it with a primary aromatic amino developing agent in the presence of a 2,5-diacylaminophenol coupler compound, in which the acyl is derived from carboxylic acid.

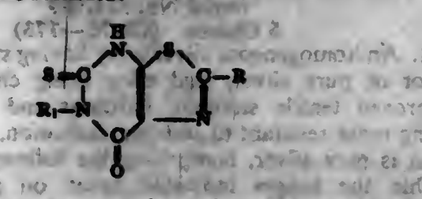
2,772,163
**PHOTOGRAPHIC EMULSIONS CONTAINING COUPLERS AND HYDROSOLS**
Lee Kuri Jan Tong, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application April 17, 1953, Serial No. 349,348
7 Claims. (Cl. 96—97)




1. A color-forming photographic emulsion comprising a gelatino-silver halide emulsion continuous phase containing in said gelatin continuous phase a coupler compound capable of coupling with the oxidation product of a primary aromatic amino developing agent and also in said gelatin continuous phase a hydrosol of a water-insoluble synthetic polymer made by emulsion polymerization, said polymer including at least an ester of an acrylic acid with an aliphatic alcohol having not more than 10 carbon atoms.

2,772,164
**PHOTOGRAPHIC SILVER HALIDE EMULSIONS CONTAINING 1-THIA-3,5,7-TRIAZAINDENES**
Charles F. H. Allen and John J. Sagura, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application January 3, 1955, Serial No. 479,683
6 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing an antifoggant selected from those represented by the following general formula:



wherein R represents a member selected from the group consisting of an alkylmercapto group containing from 1 to 3 carbon atoms and a monoalkylamino group containing from 1 to 2 carbon atoms and $R_1$ represents a member selected from the group consisting of a hydrogen atom and a lower alkyl group of the formula $C_nH_{2n+1}$ wherein $n$ is a positive integer of from 1 to 2.

2,772,165
**METHOD OF MAKING A SILVER HALIDE EMULSION**
Jerome Albert Moede, New Brunswick, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 11, 1953, Serial No. 354,610
9 Claims. (Cl. 96—114)

1. A process which comprises admixing, in any order, an aqueous dispersion of light-sensitive silver halide in a water-permeable amphoteric protein protective colloid and an aqueous solution containing from 3% to 20% by weight, based on said colloid, a water-soluble, acid-soluble organic polymer of high molecular weight taken from the group consisting of polyvinyl acetals, alkylvinyl ether/maleic anhydride copolymers, polygalactans and phosphates of polyglycidyl methacrylates containing a plurality of recurring oxy groups selected from the group consisting of ether, acetal, and alcoholic hydroxyl groups and recurring groups taken from the class consisting of free acid groups and their alkali metal and ammonium salts, said polymer being soluble both in water and 1% nitric acid to the extent of at least 1%, by weight, and being capable of forming a complex with an amphoteric protein colloid below its isoelectric point, admixing an acid to lower the pH below the isoelectric point of such colloid thereby forming a complex of the polymer and said colloid and recovering the percipitated complex of said polymer and colloid containing dispersed silver halide.

2,772,166
**HYDROPHILIC COMPOSITIONS AND THEIR PREPARATION**
William F. Fowler, Jr., Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application February 11, 1953, Serial No. 336,431
10 Claims. (Cl. 96—114)

7. A photographic emulsion composition which comprises silver halide carried by a composition comprising an aqueous colloidal dispersion of photographic grade gelatin and the hydrosol resulting from the emulsion polymerization of a mixture, the major ingredients of which are (A) 1 part of a monomer selected from the group consisting of styrene, acrylonitrile, alkylated styrenes, halogenated styrenes, cyano styrenes, nitro styrenes, amino styrenes, halogenated acrylonitriles, and vinylidene cyanide, (B) 1½–5 parts of an ester selected from the group consisting of the alkyl acrylates, the alkyls of which are of 2–10 carbon atoms and the alkyl methacrylates of alkyls of 4–10 carbon atoms and (C) at least 1% and not more than approximately 8% of acrylic acid, based on the total weight of monomer.



2,772,167
**DIETARY SUPPLEMENT**
Horace W. Diamond, Flossmoor, Ill., and Robert L. Frank, Lake Geneva, Wis., assignors to Morton Salt Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application October 12, 1953, Serial No. 385,686
3 Claims. (Cl. 99—2)

1. An iodine-source material adapted for use as an animal feed supplement comprising cuprous iodide and sodium chloride.

2,772,168
**FERMENTABLE CARBOHYDRATE FOOD PRODUCTS**
William James Kline, River Edge, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware
No Drawing. Application November 28, 1951 Serial No. 258,759
27 Claims. (Cl. 99—23)

1. An improved food preparation comprising a fermentable carbohydrate food in an amount normally tending to produce acid therefrom in the oral cavity and having incorporated therein a minor amount of a higher fatty acid amide of an amino carboxylic compound to inhibit acid production from said fermentable carbohydrate.

2,772,169
**ANTIOXIDANT MATERIAL AND USE OF SAID MATERIAL IN TREATING MEAT**
Lloyd A. Hall, Chicago, Ill., assignor to The Griffith Laboratories, Inc., a corporation of Illinois
No Drawing. Application January 6, 1956, Serial No. 557,649
10 Claims. (Cl. 99—159)

1. In the curing of meat, the step of adding, in the presence of nitrite salts, an effective amount of an antioxidant composition comprising 1.5 to 7.5 parts by weight of a gallic ester, 1.5 to 7 parts by weight of ascorbic acid, and 12 to 40 parts by weight of phospholipoid.

2,772,170
**ANTIOXIDANT COMPOSITION**
Lloyd A. Hall, Chicago, Ill., assignor to The Griffith Laboratories, Inc., a corporation of Illinois
No Drawing. Application November 23, 1953, Serial No. 393,948
11 Claims. (Cl. 99—163)

1. An antioxidant composition comprising a clear solution in an edible oil of fatty monoglyceride citrate, propyl gallate and about 0.5 to 2.5% of added water.

2,772,171
**METHOD OF PACKAGING CAKE MIX AND FROSTING THEREFOR**
Henry P. Mesenzny, Arlington, Mass.
No Drawing. Application October 17, 1955, Serial No. 541,068
1 Claim. (Cl. 99—172)

The method of preparing a packaged cake mix and frosting therefor including separate packages of cake mix and frosting mix combined in a single outer container, whereby the consumer may add milk, fresh shell eggs, and selected flavoring in desired proportions to said cake mix to produce a resulting cake mixture suitable for baking, and whereby said consumer may add milk, butter and selected flavoring in desired proportions to said frosting mix to produce a suitable frosting for a baked cake product, comprising the steps of mixing together approximately 5 to 8 parts of an emulsifier type of shortening, approximately 10 parts of cake flour, approximately 12 to 17 parts of granulated sugar and approximately 1 part salt-baking powder mixture to produce a cake mix, inserting said cake mix in a container to provide a first package, mixing together approximately 1 to 2 parts of a bland shortening and approximately 7 to 9 parts of powdered sugar to produce a frosting mix, inserting said frosting mix in another container to provide a second package, and enclosing said first and second packages in said outer container.

2,772,172
**FILM FOR PACKAGING MEATS**
Clarence M. Carson, Cuyahoga Falls, Ohio, assignor, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio
No Drawing. Application August 29, 1951, Serial No. 244,255
7 Claims. (Cl. 99—174)

1. The method of preserving the red color of freshly cut red meat due to the red blood therein while preventing formation of methemoglobin therein which comprises wrapping the meat in a single ply of transparent film between .0005 and .0012 inch thick, consisting essentially of 25 to 40 parts of ester plasticizer and 100 parts rubber hydrochloride which is coated on the surface adjacent the meat with a hydrophilic material to prevent fogging, which film has a water-proof transfer rate between ten and twenty five grams, and an oxygen-diffusion rate of at least substantially 200 cubic centimeters.

2,772,173
**SYNTHETIC WAX MATERIALS AND METHOD OF PREPARING THE SAME**
Elias Fischer, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application October 24, 1952, Serial No. 316,811
8 Claims. (Cl. 106—10)

1. A composition capable of providing hard, non-smearing films, consisting essentially of an emulsion of water, an emulsifying agent and salts of a tertiary diethanol amine having an alkyl group containing from 12 to 22 carbon atoms and fatty acid material of which a major portion represents saturated fatty acid selected from the group consisting of fatty acids and monohydroxy fatty acids and having from 14 to 22 carbon atoms.

2,772,174
**CORROSION INHIBITING PAINTS AND METHOD OF PREPARATION**
Werner L. Riegler, Western Springs, and James G. Atherton, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application April 8, 1954, Serial No. 421,946
6 Claims. (Cl. 106—14)

1. A paint composition for metal surfaces having incorporated therein from ¼ to 2½ weight percent, based upon the amount of pigment, of a salt of a fatty acid having from 8 to 22 carbon atoms and a diamine having the general formula:

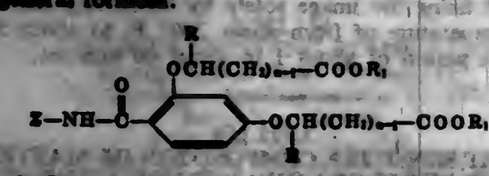
$$R—NH—(CH_2)_x—NH_2$$

wherein R is an aliphatic hydrocarbon radical having from 8 to 22 carbon atoms and $x$ is an integer of from 2 to 10.

784 OFFICIAL GAZETTE NOVEMBER 27, 1956
NOVEMBER 27, 1956 CHEMICAL 785

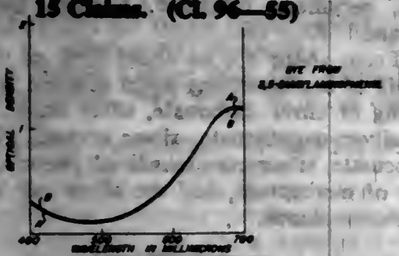
2,772,161
PHOTOGRAPHIC EMULSIONS AND NEW COUPLING COMPOUNDS
Anthony Loria and Edward T. Peach, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application October 14, 1954, Serial No. 462,264
11 Claims. (Cl. 96—55)

1. A photographic silver halide emulsion containing a compound selected from those represented by the following general formula:



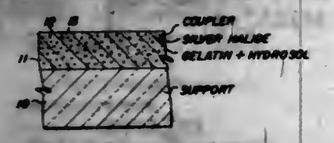
wherein R represents a member selected from the group consisting of a hydrogen atom and an alkyl group, $R_1$ represents a member selected from the group consisting of a hydrogen atom, a methyl group, and an alkali metal atom, $n$ represents a positive integer of from 1 to 2, and Z represents an aromatic radical having substituted thereon a radical which couples with the oxidation product formed during color development.

2,772,162
DIACYLAMINOPHENOL COUPLERS
Samuel F. Sweinsteen and Charles R. Barr, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application November 3, 1954, Serial No. 466,570
15 Claims. (Cl. 96—55)



1. The method of producing a cyan photographic image in silver halide emulsion layer, which comprises exposing the layer and developing it with a primary aromatic amino developing agent in the presence of a 2,5-diacylaminophenol coupler compound, in which the acyl is derived from carboxylic acid.

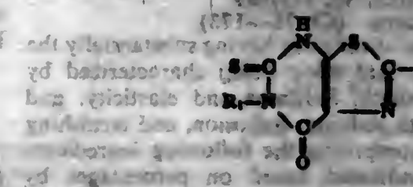
2,772,163
PHOTOGRAPHIC EMULSIONS CONTAINING COUPLERS AND HYDROSOLS
Lee Karl Jun Tong, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application April 17, 1953, Serial No. 349,348
7 Claims. (Cl. 96—97)




1. A color-forming photographic emulsion comprising a gelatino-silver halide emulsion continuous phase containing in said gelatin continuous phase a coupler compound capable of coupling with the oxidation product of a primary aromatic amino developing agent and also in said gelatin continuous phase a hydrosol of a water-insoluble synthetic polymer made by emulsion polymerization, said polymer including at least an ester of an acrylic acid with an aliphatic alcohol having not more than 10 carbon atoms.

2,772,164
PHOTOGRAPHIC SILVER HALIDE EMULSIONS CONTAINING 1-THIA-3,5,7-TRIAZAINDENES
Charles F. H. Allen and John J. Sagura, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application January 3, 1955, Serial No. 479,685
6 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing an antifoggant selected from those represented by the following general formula:



wherein R represents a member selected from the group consisting of an alkylmercapto group containing from 1 to 3 carbon atoms and a monoalkylamino group containing from 1 to 2 carbon atoms and $R_1$ represents a member selected from the group consisting of a hydrogen atom and a lower alkyl group of the formula $C_nH_{2n+1}$ wherein $n$ is a positive integer of from 1 to 2.

2,772,165
METHOD OF MAKING A SILVER HALIDE EMULSION
Jerome Albert Meeks, New Brunswick, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 11, 1953, Serial No. 354,410
9 Claims. (Cl. 96—114)

1. A process which comprises admixing, in any order, an aqueous dispersion of light-sensitive silver halide in a water-permeable amphoteric protein protective colloid and an aqueous solution containing from 3% to 20% by weight, based on said colloid, a water-soluble, acid-soluble organic polymer of high molecular weight taken from the group consisting of polyvinyl acetals, alkylvinyl ether/maleic anhydride copolymers, polygalactans and phosphates of polyglycidyl methacrylates containing a plurality of recurring oxy groups selected from the group consisting of ether, acetal, and alcoholic hydroxyl groups and recurring groups taken from the class consisting of free acid groups and their alkali metal and ammonium salts, said polymer being soluble both in water and 1% nitric acid to the extent of at least 1%, by weight, and being capable of forming a complex with an amphoteric protein colloid below its isoelectric point, admixing an acid to lower the pH below the isoelectric point of such colloid thereby forming a complex of the polymer and said colloid and recovering the percipitated complex of said polymer and colloid containing dispersed silver halide.

2,772,166
HYDROPHILIC COMPOSITIONS AND THEIR PREPARATION
William F. Fowler, Jr., Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application February 11, 1953, Serial No. 336,431
10 Claims. (Cl. 96—114)

7. A photographic emulsion composition which comprises silver halide carried by a composition comprising an aqueous colloidal dispersion of photographic grade gelatin and the hydrosol resulting from the emulsion polymerization of a mixture, the major ingredients of which are (A) 1 part of a monomer selected from the group consisting of styrene, acrylonitrile, alkylated styrenes, halogenated styrenes, cyano styrenes, nitro styrenes, amino styrenes, halogenated acrylonitriles, and vinylidene cyanide, (B) 1½–5 parts of an ester selected from the group consisting of the alkyl acrylates, the alkyls of which are of 2–10 carbon atoms and the alkyl methacrylates of alkyls of 4–10 carbon atoms and (C) at least 1% and not more than approximately 8% of acrylic acid, based on the total weight of monomer.



2,772,167
DIETARY SUPPLEMENT
Horace W. Diamond, Flossmoor, Ill., and Robert L. Frank, Lake Geneva, Wis., assignors to Morton Salt Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application October 12, 1953, Serial No. 385,686
3 Claims. (Cl. 99—2)

1. An iodine-source material adapted for use as an animal feed supplement comprising cuprous iodide and sodium chloride.

2,772,168
FERMENTABLE CARBOHYDRATE FOOD PRODUCTS
William James Klaas, River Edge, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware
No Drawing. Application November 28, 1951 Serial No. 258,759
27 Claims. (Cl. 99—28)

1. An improved food preparation comprising a fermentable carbohydrate food in an amount normally tending to produce acid therefrom in the oral cavity and having incorporated therein a minor amount of a higher fatty acid amide of an amino carboxylic compound to inhibit acid production from said fermentable carbohydrate.

2,772,169
ANTIOXIDANT MATERIAL AND USE OF SAID MATERIAL IN TREATING MEAT
Lloyd A. Hall, Chicago, Ill., assignor to The Griffith Laboratories, Inc., a corporation of Illinois
No Drawing. Application January 6, 1956, Serial No. 557,649
10 Claims. (Cl. 99—199)

1. In the curing of meat, the step of adding, in the presence of nitrite salts, an effective amount of an antioxidant composition comprising 1.5 to 7.5 parts by weight of a gallic ester, 1.5 to 7 parts by weight of ascorbic acid, and 12 to 40 parts by weight of phospholipoid.

2,772,170
ANTIOXIDANT COMPOSITION
Lloyd A. Hall, Chicago, Ill., assignor to The Griffith Laboratories, Inc., a corporation of Illinois
No Drawing. Application November 23, 1953, Serial No. 393,948
11 Claims. (Cl. 99—163)

1. An antioxidant composition comprising a clear solution in an edible oil of fatty monoglyceride citrate, propyl gallate and about 0.5 to 2.5% of added water.

2,772,171
METHOD OF PACKAGING CAKE MIX AND FROSTING THEREFOR
Henry P. Montenay, Arlington, Mass.
No Drawing. Application October 17, 1955, Serial No. 541,068
1 Claim. (Cl. 99—172)

The method of preparing a packaged cake mix and frosting therefor including separate packages of cake mix and frosting mix combined in a single outer container, whereby the consumer may add milk, fresh shell eggs, and selected flavoring in desired proportions to said cake mix to produce a resulting cake mixture suitable for baking, and whereby said consumer may add milk, butter and selected flavoring in desired proportions to said frosting mix to produce a suitable frosting for a baked cake product, comprising the steps of mixing together approximately 5 to 8 parts of an emulsifier type of shortening, approximately 10 parts of cake flour, approximately 12 to 17 parts of granulated sugar and approximately 1 part salt-baking powder mixture to produce a cake mix, inserting said cake mix in a container to provide a first package, mixing together approximately 1 to 2 parts of a bland shortening and approximately 7 to 9 parts of powdered sugar to produce a frosting mix, inserting said frosting mix in another container to provide a second package, and enclosing said first and second packages in said outer container.

2,772,172
FILM FOR PACKAGING MEATS
Clarence M. Carson, Cuyahoga Falls, Ohio, assignor, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio
No Drawing. Application August 29, 1951, Serial No. 244,255
7 Claims. (Cl. 99—174)

1. The method of preserving the red color of freshly cut red meat due to the red blood therein while preventing formation of methemoglobin therein which comprises wrapping the meat in a single ply of transparent film between .0005 and .0012 inch thick, consisting essentially of 25 to 40 parts of ester plasticizer and 100 parts rubber hydrochloride which is coated on the surface adjacent the meat with a hydrophilic material to prevent fogging, which film has a water-proof transfer rate between ten and twenty five grams, and an oxygen-diffusion rate of at least substantially 200 cubic centimeters.

2,772,173
SYNTHETIC WAX MATERIALS AND METHOD OF PREPARING THE SAME
Elias Fischer, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application October 24, 1952, Serial No. 316,811
8 Claims. (Cl. 106—10)

1. A composition capable of providing hard, non-smearing films, consisting essentially of an emulsion of water, an emulsifying agent and salts of a tertiary diethanol amine having an alkyl group containing from 12 to 22 carbon atoms and fatty acid material of which a major portion represents saturated fatty acid selected from the group consisting of fatty acids and monohydroxy fatty acids and having from 14 to 22 carbon atoms.

2,772,174
CORROSION INHIBITING PAINTS AND METHOD OF PREPARATION
Werner L. Riegler, Western Springs, and James G. Atherton, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application April 8, 1954, Serial No. 421,946
6 Claims. (Cl. 106—14)

1. A paint composition for metal surfaces having incorporated therein from ¼ to 2½ weight percent, based upon the amount of pigment, of a salt of a fatty acid having from 8 to 22 carbon atoms and a diamine having the general formula:

$$R—NH—(CH_2)_x—NH_2$$

wherein R is an aliphatic hydrocarbon radical having from 8 to 22 carbon atoms and $x$ is an integer of from 2 to 10.

2,772,175

## STENCIL DUPLICATING INKS

Julian Lee Beatty, Northbrook, and Robert Thompson Florence, Park Ridge, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois

No Drawing. Application April 2, 1952, Serial No. 280,206

6 Claims. (Cl. 106—26)

1. A stencil duplicating ink consisting essentially of water as the diluent, a tinctorial agent present in amounts within the range of 3–15% by weight of the ink composition and 0.5–15% by weight of a bodying agent for imparting the desired viscosity to the ink composition and for functioning as an adherent base upon drying consisting of a water soluble polyvalent metal ammonium colloid complex characterized by substantial insolubility upon release of the ammonium component upon drying and in which the colloid of which the complex is formed is selected from the group consisting of polysaccharides, proteins, natural resins, polyalkyl acrylates in which the alkyl group contains from 1–4 carbon atoms, cellulose ethers and cellulose esters.

2,772,176

## STOPPER HEADS

Carl F. Leitten, Hamburg, N. Y., assignor to Electro Refractories & Abrasives Corporation, Buffalo, N. Y.

No Drawing. Application March 4, 1953, Serial No. 340,380

4 Claims. (Cl. 106—56)

1. A raw mix for the manufacture of stopper heads, said mix consisting of from 15 to 50% by weight of a plastic refractory clay, 15 to 50% by weight of refractory clay grog and from 12 to 20% by weight of flake graphite and comprising from 12 to 20% by weight of fused silica.

2,772,177

## SILICATE GLASS ADHESIVE

James G. Lander, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application September 22, 1952, Serial No. 310,921

2 Claims. (Cl. 106—79)

1. A composition of matter comprising:

| | Percent |
|---|---|
| Aqueous silicate glass solution ($Na_2O:SiO_2$ ratio, 1:2.5–4, 35–45% solids) | 75–85 |
| Urea | 2–10 |
| Sugar | 0.5–3 |
| Sodium bichromate | 0.1–1 |
| Magnesium sulfate | 1–4 |
| Barden clay | 0–8 |
| Water | Balance to 100 percent |

2,772,178

## PROCESS FOR PREPARING A COLD WATER SOLUBLE DEXTRIN ADHESIVE AND THE PRODUCT THEREOF

Walter G. Kunze and Raymond B. Evans, Catonsville, Md., and John W. Huebschmann, Decatur, Ill., assignors to National Starch Products Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 11, 1953, Serial No. 397,782

5 Claims. (Cl. 106—208)

1. A process for preparing a cold water soluble dextrin adhesive which comprises adding to dextrin about 15 to 75%, by weight of the dextrin, of water to moisten the dextrin, and 7 to 30% of an inorganic alkaline salt, thereafter sintering the mixture into a dried material at temperatures below the caramelization temperature of the dextrin.

2,772,179

## ASPHALT COMPOSITIONS

Mathew L. Kalinowski, Chicago, and Lowell T. Crews, Homewood, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application July 30, 1954, Serial No. 446,964

10 Claims. (Cl. 106—273)

1. The process of preparing an additive suitable for use in bitumen coating material, which process comprises reacting in a reaction zone for a period of time of from about ¼ to about 1.0 hour at a temperature within the range of from about 180° F. to about 240° F. a mixture of polyamines having from 2 to about 6 amino groups per polyamine molecule, said mixture consisting essentially of at least 75% by weight of at least one alkylene polyamine containing at least one primary amino group and from about 5% to about 25% by weight of at least one alkyl-substituted alkylene polyamine characterized by having no primary amino group in the molecules of said alkyl-substituted alkiene polyamine, with "Ebony Fat," which "Ebony Fat" is characterized as the propane-insoluble residue obtained in the solvent extraction of a crude fatty material selected from the class consisting of crude animal fats, fatty oils, and fatty acids, crude vegetable fats, fatty oils, and fatty acids, and mixtures thereof with liquified propane, said insoluble residue being insoluble in 6 to 30 volumes of propane at a temperature of from about 140° F. to about 190° F. and constituting from about 0.2% to about 10% of the crude fatty material from which said insoluble residue is extracted, the total alkylene polyamines in said reaction zone being in exces of the stoichiometric requirement for reaction with the "Ebony Fat" in said reaction zone.

9. A roadway construction material comprising mineral aggregates admixed with a coating composition consisting essentially of a major proportion of a normally liquid bitumen and from about 0.25% to about 5.0% of a heat-stable reaction product obtained by reacting "Ebony Fat" with a mixture of alkylene polyamines having from 2 to about 6 amino groups per molecule and consisting essentially of at least one alkylene polyamine having at least one primary amino group in an amount of at least 75% by weight of said mixture of alkylene polyamines and from about 5% to 25% by weight of at least one alkyl-subetituted alkylene polyamine containing no primary amino group, at a temperature within the range of from about 180° F. to about 240° F. for a period of time of from about one-quarter hour to about one hour.

2,772,180

## PARTING COMPOSITIONS IN METAL MANUFACTURING

Robert Milton Neel, Madison County, Ill., and Oliver L. Niehouse, New York, N. Y., assignors to Olin Mathieson Chemical Corporation

No Drawing. Application June 28, 1952, Serial No. 296,262

7 Claims. (Cl. 106—286)

1. As a new composition of matter, a parting material suitable for sandwiching between face to face surfaces of superposed pressure weldable metal sheets for preventing welding of the sheets in those areas separated thereby during pressure welding, the solid constituents of which consist essentially of particles of colloidal graphite and particles of calcium carbonate in the ratio of from about 5 to about 13 parts to from about 40 to about 75 parts respectively.



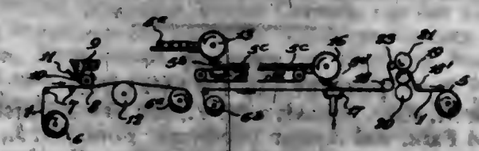
2,772,181

## COATED WEB PRODUCT AND METHOD OF MAKING SAME

Sedgwick C. Rogers, Appleton, and Kenneth J. Harwood, Neenah, Wis., assignors, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware

Application October 11, 1952, Serial No. 314,244

11 Claims. (Cl. 117—9)



8. A method of forming a web product comprising the steps of forming a stable dispersion of finely divided particles of polyvinyl chloride resin in dioctyl phthalate, said dispersion having a viscosity within the range of 2900 to 16,000 centipoises, said dispersion containing 42 to 46 parts by weight of polyvinyl chloride resin, applying said dispersion over at least a portion of the surface of a thread web, heating said thread web having said dispersion thereon to a temperature of between 240 to 295° F. to only partially fuse said polyvinyl chloride resin in said dioctyl phthalate and thereby solidify said dispersion on the threads of said web without substantial impregnation of resin within said threads, depositing an applique of separated fibers on the surface of said web having said solidified dispersion thereon, reheating said fiber containing web to a temperature of between 265 and 320° F. to soften said dispersion and to cause further fusion of said resin, and calendering said fiber containing web while in said heated condition to bring the web and applique into intimate contact with said dispersion whereby the web and applique are embedded in said dispersion, said reheating being insufficient to completely fuse said polyvinyl chloride resin whereby said dispersion remains solidified on the surface of the threads of said web without substantial impregnation of resin within said threads.

2,772,182

## CERAMIC DECORATION METHOD

Christian C. Jensen, Perth Amboy, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 13, 1950, Serial No. 161,903

9 Claims. (Cl. 117—49)

8. A method of decorating a ceramic object comprising applying to said object a squeegee print of a hot-melt type decorating composition while maintaining said composition at a temperature within the range 120 to 230° F. and while said object is at a temperature at least 15° F. below the melting temperature of said composition, whereby a solid, firm print is formed instantly upon contact of said composition with said object and superimposing on said print a squeegee print of an air-dry type decorating composition, and then firing said object to fuse the decoration thereto, said hot-melt composition being nonvolatile and solid at normal temperature and comprising a dispersion of a ceramic decoration, in a vehicle in the proportion of 2 to 6 parts by weight of said ceramic decoration per part of said vehicle, said vehicle containing: (*a*) 30 to 80% of a material which melts within the temperature range 120 to 230° F. and is from the group consisting of waxes, mixtures of waxes, and mixtures of a wax with a material from the group consisting of palmitic acid, stearic acid and solid soaps; (*b*) 14 to 68% of a material from the group consisting of rosin and abietic acid, rosin esters and esters of abietic acid, polymerized rosin and polymerized abietic acid, hydrogenated rosin and hydrogenated abietic acid, and metal salts of rosin and of abietic acid; (*c*) 1 to 10% of ethyl cellulose; (*d*) 0.5 to 10% of an organic phosphate material from the group consisting of lecithin and phosphorated tall oil; and (*e*) 0 to 1% of pyrogallic acid, said air-dry composition being non-solid at normal temperature and comprising a dispersion of a ceramic decoration in a vehicle in the proportion of 2 to 6 parts by weight of the ceramic decoration per part of the vehicle, the vehicle of said air-dry composition containing: (*f*) 50 to 80% of a volatile solvent the removal of which by drying causes said air-dry composition to solidify; (*g*) 15 to 35% of a material from the group consisting of rosin and abietic acid, rosin esters and esters of abietic acid, polymerized rosin and polymerized abietic acid, hydrogenated rosin and hydrogenated abietic acid, and metal salts of rosin and of abietic acid; (*h*) 0.5 to 7% of ethyl cellulose; and (*i*) 0.5 to 10% of an organic phosphate material of the group consisting of lecithin and phosphorated tall oil.

2,772,183

## CHEMICAL NICKEL PLATING PROCESSES

Paul Talmey, Barrington, Ill., and Donald E. Medway, Hammond, and Warren G. Lee, East Chicago, Ind., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York

No Drawing. Application September 24, 1953, Serial No. 382,214

21 Claims. (Cl. 117—50)

4. The process of plating with nickel the surface of a body formed essentially of iron, which comprises cleaning and degreasing the surface of said body, soaking said body in an aqueous solution of hydrogen peroxide for a time interval sufficiently long to form only a thin iron oxide film upon the surface thereof and without the formation of any visible rust upon the surface thereof, said solution containing not in excess of about 0.1% by weight of hydrogen peroxide, and then contacting said body with a nickel plating bath of an aqueous solution of a nickel salt in order to effect the displacement deposit of a thin nickel film upon the surface of said body.

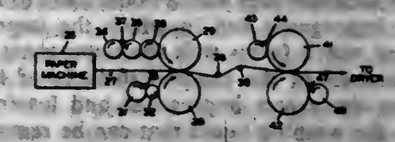
2,772,184

## PAPER COATING

Dexter L. Wolfe and Leroy W. Heel, Appleton, Wis., assignors, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware

Application September 21, 1953, Serial No. 381,256

11 Claims. (Cl. 117—64)

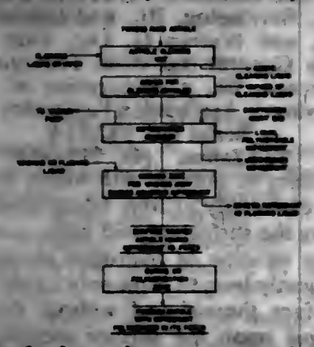


1. The process of coating paper which comprises continuously moving a web of paper, continuously applying to at least one surface of said web a coating composition containing from 35 to 60 percent by weight of solids and including a pigment and a hardenable binder, and relatively soon thereafter and without applying any intermediate drying step so that at least the outermost region of said coating remains in a wet, mobile, moldable state capable of offsetting upon a surface brought to bear upon the outer surface of said coating, contacting the outermost surface of the coating on said web with a pressure member, continuously applying a regulated amount of a liquid immobilizing agent to the surface of said pressure member before it is brought into contact with said coating, said liquid immobilizing agent being capable of almost instantaneously converting the outermost region of said binder to a non-tacky, hardened state, to almost instantaneously convert and render non-adherent and smooth a layer of said coating composition at the outermost surface thereof when said pressure member contacts said coating, said regulated amount of liquid im-

mobilizing agent being insufficient to form a visible bead of the immobilizing agent at the point at which said pressure member first contacts said coating, withdrawing said coated web from pressure contact with said pressure member to produce a paper web which is provided with a smooth, continuous, level coating, the regulated amount of said liquid immobilizing agent being such that a film of such agent is left on said pressure member after said converted coating is withdrawn from said pressure member, and then drying the web and coating without further smoothing during the drying operation.

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2,772,185
**TREATING SOLID OBJECTS**
Charles B. Dompeter, New York, N. Y., assignor to American Metasol Manufacturing Corporation, a corporation of New Jersey
Application May 15, 1953, Serial No. 355,393
10 Claims. (Cl. 117—102)



1. The method of treating a porous, rigid article having pores opening into an exposed surface to close off such pores from opening into the exposed surface, which method comprises cleaning such of the surface and the pores found not to be clean, and drying the article; immersing the article, for a time sufficient for substantial penetration of impregnant into those pores, in a liquid, organic, polymerizable impregnant that can polymerize to the solid state under appropriate curing conditions without evolution of volatiles and which, while in its liquid state, can penetrate the pores opening into the exposed surface; removing the article from immersion in the impregnant, and washing off impregnant adhering to any exposed surface of it by contacting the adhering impregnant on such surfaces with a liquid inert to the article and to the impregnant and in which the impregnant is insoluble and which forms with the impregnant an emulsion that runs off of the exposed surfaces of the article taking along the excess impregnant and leaving on the article only the washing liquid that can be removed without creating a hazard; removing such liquid and subjecting the thus impregnated article to curing conditions to polymerize to the solid state the impregnant in the pores.

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2,772,186
**METHOD OF APPLYING AN EPOXY RESIN TO A BASE AND CURING SAID RESIN**
Josef Mellers, Hamburg-Poppenbüttel, and Eberhard Seidel, Hamburg-Eimsbüttel, Germany, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
No Drawing. Application April 1, 1952, Serial No. 279,936
Claims priority, application Germany June 28, 1951
2 Claims. (Cl. 117—103)

1. A method of applying a thick resinous coating to a shaped article comprising the steps immersing a shaped article in a solvent-free hot coating composition consisting essentially of a molten ethoxyline casting resin, removing the thus coated object from the hot coating composition and cooling said coating at room temperature for a time sufficient to cause said coating to be sufficiently viscous to maintain the form of the shaped object, heating said coated object through a number of increasing temperature ranges starting at a temperature of about 55° C. and ending at a temperature of about 120° C., for a total period of time sufficient to cure said resin, each of said temperature ranges being of a duration insufficient to liquefy said coating.

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2,772,187
**PORCELAIN ENAMELING**
Joseph M. Katz, Brooklyn, N. Y., and Erwin Hurst, Highland Park, and Arthur Jakubczak, Fords, N. J., assignors to General Ceramics Corporation, Keasbey, N. J., a corporation of Delaware
No Drawing. Application June 2, 1954, Serial No. 434,866
2 Claims. (Cl. 117—129)

1. In the process of enameling metal surfaces the steps comprising providing a porcelain enamel slip comprising water as a suspending medium, adding oxgall to the slip, applying a thin layer of the slip to a cleaned metal surface to be enameled and drying and firing said coated product whereby to produce a porcelain enameled metal which is substantially free from the defects of run-off, shiners and blabs.

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2,772,188
**AMMONIA INSOLUBILIZED METHYLOL-PHOSPHORUS POLYMERS AND CELLULOSIC MATERIALS IMPREGNATED THEREWITH**
Wilson A. Reeves and John D. Guthrie, New Orleans, La., assignors to the United States of America as represented by the Secretary of Agriculture
No Drawing. Application November 18, 1953, Serial No. 393,021
9 Claims. (Cl. 117—136)
(Granted under Title 35, U. S. Code (1952), sec. 266)

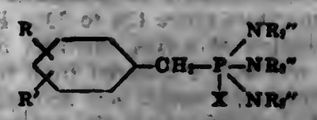
3. A process of insolubilizing a further polymerizable polymer of a mixture of tetrakis(hydroxymethyl) phosphonium chloride and tris(hydroxymethyl) phosphine oxide with a water soluble methylol melamine, said polymer containing at least one free methylol group attached to a phosphorus atom, which comprises reacting said polymer with ammonium hydroxide.

8. The process of claim 3 in which the reaction is effected by impregnating a cellulosic textile with the further polymerizable polymer, drying the wet textile, and impregnating the dried textile with ammonium hydroxide.

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2,772,189
**TEXTILE MATERIAL WITH AN ANTISTATIC FINISH AND PROCESS OF MAKING SAME**
Oscar P. Cohen, Newton, and Milton J. Scott, Lexington, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application August 31, 1951, Serial No. 244,730
13 Claims. (Cl. 117—138.8)

5. A process of treating textile materials comprising at least 10% by weight of a fiber-forming synthetic polymer which comprises applying to said textile materials a solution consisting of a quaternary phosphonium salt having the general formula:



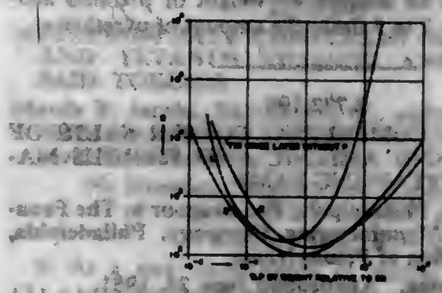
where R and R' are selected from the group consisting of chlorine, bromine and hydrogen atoms and alkyl radicals containing from 1 to 5 carbon atoms, R'' is an alkyl radical containing from 1 to 4 carbon atoms and X is selected from the group consisting of chlorine and bromine atoms and aliphatic monocarboxylate radicals



containing 8 to 24 carbon atoms, and a solvent for said salt, said salt being supplied in an amount sufficient to provide an anti-static finish on said textile materials.

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2,772,190
**METHOD OF INCREASING THE ELECTRICAL CONDUCTIVITY OF TIN OXIDE FILMS**
Pieter Willem Haayman, Petrus Cornelis van der Linden, Dirk Vesseaam and Gerardus Hendricus Janssen, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application September 25, 1952, Serial No. 311,524
Claims priority, application Netherlands November 3, 1951
9 Claims. (Cl. 117—211)



1. In a method of producing transparent electrically conducting films consisting substantially of tin oxide by applying a filming material in fluid form and which comprises an electrically-conducting film-forming compound of tin to a hot vitreous surface, heated to a temperature of at least 300° C.; the step of increasing the electrical conductivity of such films which comprises adding to said filming material, by putting into solution therewith, an amount of a compound of phosphorus to yield an amount of phosphorus not less than about 0.033% to not more than about 12.4% by weight of the tin in said filming material, before applying said filming material to said surface.

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2,772,191
**PROCESS OF PREPARING NYLON YARN**
Aaron Barkan, Burlington, N. C., assignor, by mesne assignments, to Pabender, Inc., New York, N. Y., a corporation of New York
No Drawing. Application July 13, 1953, Serial No. 367,776
2 Claims. (Cl. 57—157)

1. A process of preparing a markedly lively but uncrimped and uncoiled continuous filament nylon yarn which comprises presetting and subsequently twisting a nylon yarn to impart substantial liveliness and twist torque to said yarn, thereafter sizing said lively, twist torque yarn to subdue temporarily the said liveliness and restrict the action of the torque imparted thereto sufficiently to enable satisfactory knitting of said yarn to produce a stretchable fabric.

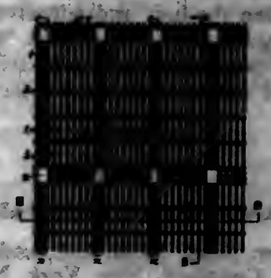
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2,772,192
**SOLDERING FLUX**
Delbert E. Wobbe, Maywood, and Fred J. Staerwich, Chicago, Ill., assignors to American Can Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application March 14, 1952, Serial No. 276,702
4 Claims. (Cl. 148—23)

3. A method of preparing a liquid soldering flux containing ammonium chloride, urea, monoethanol amine and hydrochloric acid in solution in a major proportion of a volatile alcohol and a minor proportion of water in which the water content is not in excess of 20% by weight of the finished flux comprising, blending the nitrogen containing ingredients, adding from about ⅛ to ½ of the alcohol, acidifying the nitrogen containing ingredients with an excess of concentrated hydrochloric acid and adding the remainder of the volatile alcohol to form a solution of the ingredients.

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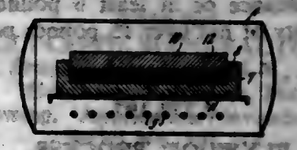
2,772,193
**PLASTIC MODIFIED NETS**
Iwao Ono, Ryuo, Japan
Application September 24, 1954, Serial No. 458,096
8 Claims. (Cl. 154—54)



1. A method of forming an internally compartmented flexible plastic net that comprises arranging a row of flexible thermo-plastic tubes parallel to each other, and internally compartmenting said tubes and simultaneously interconnecting the same to form a net by flattening and welding together spaced regions intermediate the lengths of said tubes by the application of heat and pressure to such spaced regions leaving the tubes separate from each other between such spaced regions.

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2,772,194
**METHOD OF APPLYING VINYL PLASTISOL LAYERS TO CURED CELLULAR RUBBER**
Jack C. Fisher, Mishawaka, and Lucian P. Demmon, South Bend, Ind., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 29, 1953, Serial No. 389,048
3 Claims. (Cl. 154—100)



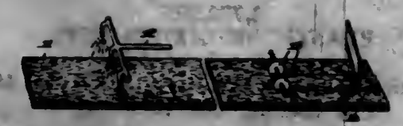
1. The method which comprises coating a portion of a body of cured cellular rubber, said rubber being selected from the group consisting of natural rubber, rubbery butadiene-styrene copolymer, rubbery butadiene-acrylonitrile copolymer, butyl rubber, and polymer of 2-chlorobutadiene, with a plastisol comprising polyvinyl chloride and plasticizer therefor, placing the thus-coated body in an atmosphere of gas at a temperature of 300° F. to 450° F. for a period of time sufficient to fuse the plastisol coating but not substantially in excess of such time, during said last-mentioned step insulating the uncoated portion of said body from the heat with heat insulating means other than said plastisol, the plastisol serving as a heat-protective shield for the portion of said body coated therewith, said plastisol and said insulating means thereby preventing the temperature in substantially the entire body of said cellular rubber core from exceeding 200° F., the temperature on the outer surface of said plastisol in excess of 200° F. during the fusion of said plastisol.

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2,772,195
**FILTER AND METHOD OF MAKING SAME**
Herbert M. Gaarder, Chicago, Ill., assignor to Wilson & Co., Inc., a corporation of Delaware
Application April 8, 1952, Serial No. 281,289
16 Claims. (Cl. 154—101)

1. The method of forming a hair filter of substantially uniform texture from short hairs comprising the steps of

forming the hairs into layers, placing such layers in juxtaposition to form a filter-body, providing thermoplastic adhesive between the juxtaposed layers, steaming the



filter-body to soften the hair and adhesive and to secure uniformity of distribution of the hairs, and drying and cooling the filter-body to set the adhesive and bond the adjacent layers of said batt to one another.

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2,772,196

## SHOE SOLE AND METHOD OF MAKING SAME

Robert W. Pooley, South Bend, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application May 21, 1954, Serial No. 431,479

10 Claims. (Cl. 154—106)



1. A new article of manufacture comprising a flexible, resilient laminate of a closed-cell, expanded, vulcanized, fused mixture of a thermoplastic vinyl resin, a high-boiling organic liquid plasticizer therefor and a butadiene-acrylonitrile rubbery copolymer, said laminate comprising a plurality of parallel juxtaposed differently colored layers of said mixture integrally bonded together at their interfaces, said layers forming sharp straight lines of demarcation therebetween at exposed surfaces of said laminate transverse to said layers, all of said layers having a compressive resistance of at least 6 pounds per square inch and a density of not over 15 pounds per cubic foot.

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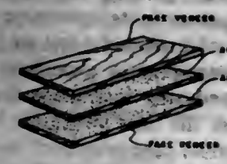
2,772,197

## PLYWOOD PROCESS

Stanley E. Kambushe, Palmer, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application July 2, 1954, Serial No. 441,169

3 Claims. (Cl. 154—133)




1. A process for preparing plywood from a plurality of veneers using a thermosetting adhesive based on 100 parts of a urea-formaldehyde condensate modified with from 5 to 20% by weight based on the urea-formaldehyde condensate of a melamine-formaldehyde condensate, which comprises spreading the adhesive on the veneers, assembling the veneers, maintaining said assembled veneers at 20 to 35° C. without pressure for from 15 to 24 hours and then pressing the assembled veneers under heat and pressure.

2,772,198

## METHOD OF KILLING FLIES WITH COMPOSITION COMPRISING PYRETHRINS AND p-AMINOAZOBENZENE

Carl W. Smith, Evanston, Ill., and Norman W. Tompkin, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application November 8, 1954, Serial No. 467,624

2 Claims. (Cl. 167—24)

1. The method of killing flies which comprises spraying a fly-infested area with a composition comprising a refined mineral oil containing about .02 to 2 weight per cent of pyrethrins based on total composition which composition contains an amount by weight of p-amino azobenzene which is .2 to 5 times the amount of pyrethrins.

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2,772,199

## COMPOSITION COMPRISING COPPER SALTS OF FLUORINE AND ARSENIC AND FIBROUS MATERIALS CONTAINING SAME

Murray Zabban, Philadelphia, Pa., assignor to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application June 29, 1951, Serial No. 234,677

13 Claims. (Cl. 167—38.5)

1. A water-soluble biocidal composition consisting essentially of sodium carbonate, ammonium chloride, and at least one copper salt of the group consisting of copper fluoride, copper arsenate, and copper arsenite and mixtures of soluble salts that will form these copper salts there being present in said composition at least 6 mols sodium carbonate and 6 mols ammonium chloride for each mol of copper salt.

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2,772,200

## COMPOSITION CONTAINING COPPER SALTS OF FLUORINE AND ARSENIC FOR PROTECTING WOOD AND OTHER FIBROUS MATERIALS

Murray Zabban, Philadelphia, Pa., assignor to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application June 29, 1951, Serial No. 234,678

10 Claims. (Cl. 167—38.5)

1. A composition consisting essentially of a substantially concentrated aqueous solution of ammonium hydroxide (about 28% $NH_3$) at least one pesticide of the group consisting of copper fluoride, copper arsenate, and copper arsenite, and a stabilizer of the group consisting of ammonium carbonate, ammonium chloride, ammonium nitrate, ammonium sulfate, ammonium bromide and ammonium iodide, these being present in said composition in about 1 part by weight of copper pesticide for each 2 parts by weight concentrated ammonium hydroxide and at least 3 mols of stabilizer for each mol of copper pesticide present.

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2,772,201

## RECOVERING DIPHTHERIA AND TETANUS TOXOIDS

Howard Tint, Philadelphia, Pa., assignor to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application February 18, 1953, Serial No. 337,687

6 Claims. (Cl. 167—78)

1. In a method of recovering a toxoid selected from the group consisting of tetanus and diphtheria toxoids in



concentrated and purified form from a toxoid-containing broth, the steps comprising adding to said broth a soluble vitreous alkali-metal phosphate having an $M_2O/P_2O_5$ mole ratio lying between 1.0 and 1.66 where M signifies an alkali metal, lowering the pH of the broth to the pH of substantially complete precipitation of toxoid complex, separating from the mixture the precipitate containing the toxoid complex in admixture with undesirable protein complex molecules, equilibrating said precipitate with a non-toxic aqueous solution at the lowest pH of solubility of substantially all of said toxoid complex and separating the solution of the toxoid complex from the mixture.

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2,772,202

## METAPHOSPHATE COMPLEXES OF DIPHTHERIA AND TETANUS TOXOIDS AND PURIFYING SAID TOXOIDS

Morris B. Jacobs, Bayside, N. Y., assignor to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 15, 1954, Serial No. 416,405

10 Claims. (Cl. 167—78)

6. As a new composition of matter the complex of (1) a toxoid selected from the group consisting of tetanus and diphtheria toxoids with (2) the anion of a soluble vitreous alkali-metal phosphate having an $M_2O/P_2O_5$ mole ratio lying between 1.0 and 1.66, where M signifies an alkali metal, formed by the addition of said phosphate to an aqueous solution of said toxoid.

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2,772,203

## STABLE DENTAL CREAMS CONTAINING HIGHER ALIPHATIC ACYL AMIDE OF AMINOCARBOXYLIC ACID COMPOUND

Gerhard Martin Salzmann, Franklin Lakes, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application April 3, 1952, Serial No. 280,346

9 Claims. (Cl. 167—93)

1. A dental cream comprising (1) a polishing material selected from the group consisting of calcium- and magnesium-containing polishing agents, (2) a substantially saturated aliphatic acyl amide of a saturated aliphatic monoaminocarboxylic acid compound having 2 to 6 carbon atoms, the aliphatic acyl group having about 12 to 16 carbon atoms, and less than about 15% by weight based on said amide of higher fatty acid material, the amount of said material being insufficient to substantially adversely affect said amide, and characterized by (3) a calcium and magnesium ion suppression agent in an amount from about 0.1 to 5% by weight.

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2,772,204

## DENTAL PREPARATIONS CONTAINING HIGHER ALIPHATIC ACYL SARCOSIDE COMPOUNDS

William James King, River Edge, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application September 13, 1954, Serial No. 455,761

3 Claims. (Cl. 167—93)

1. A dental preparation comprising a sarcoside compound selected from the group consisting of N-heptadecanoyl and N-stearoyl sarcoside compounds having less than about 15% based on the weight of said sarcoside of higher fatty acid material, the amount of said material being insufficient to adversely affect said sarcoside.

2,772,205

## DENTAL FLOSS CONTAINING HIGHER ALIPHATIC ACYL AMIDE OF AN AMINOCARBOXYLIC ACID COMPOUND

William James King, River Edge, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

Application September 7, 1954, Serial No. 454,634

5 Claims. (Cl. 167—93)

The terminal portion of the term of the patent subsequent to September 14, 1971 has been disclaimed and dedicated to the public.

1. Dental floss comprising a substantially saturated aliphatic acyl amide of a saturated aliphatic monoaminocarboxylic acid compound having 2 to 6 carbon atoms, the aliphatic acyl group having about 12 to 16 carbon atoms, and less than about 15% by weight based on said amide of higher fatty acid material, the amount of said material being insufficient to substantially adversely affect said amide.

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2,772,206

## PRODUCTION OF FERMENTATION GLYCEROL

Edward M. Frankel, New York, N. Y., and Samuel L. Goldheim, Baltimore, Md.

No Drawing. Application November 9, 1953, Serial No. 391,111

15 Claims. (Cl. 195—38)

1. Method of manufacturing glycerol by fermentation which comprises fermenting an aqueous sugar solution with yeast in the presence of sodium sulphite-bisulphite, separating the yeast cells from the fermentation liquid, evaporating ethanol and acetaldehyde from the yeast-freed liquid to obtain a residual solution containing glycerol and sodium sulphite, passing said solution through a cationic exchanger thereby to obtain an effluent containing glycerol and sulphurous acid, heating said effluent to drive off sulphur dioxide thereby to obtain a solution of glycerol of high purity.

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2,772,207

## GLYCEROL MANUFACTURE

Edward M. Frankel, New York, N. Y., and Samuel L. Goldheim, Baltimore, Md.

No Drawing. Application November 9, 1953, Serial No. 391,112

13 Claims. (Cl. 195—38)

1. Method of manufacturing glycerol by fermentation which comprises fermenting an aqueous sugar solution with yeast in the presence of sodium sulphite-bisulphite, separating the yeast cells from the fermented liquid, evaporating ethanol and acetaldehyde from the yeast-freed liquid to obtain a residual solution containing glycerol and sodium sulphite, passing said solution through a polar ion excluding material whereby the glycerol is retained in said ion excluding material and the sodium sulphite-bisulphite emerges with the effluent, and washing the aforesaid material thereby to obtain a solution of glycerol in high purity.

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2,772,208

## DEHYDRATING LPG CONTAINING CARBONYL SULFIDE WITH SILICA GEL

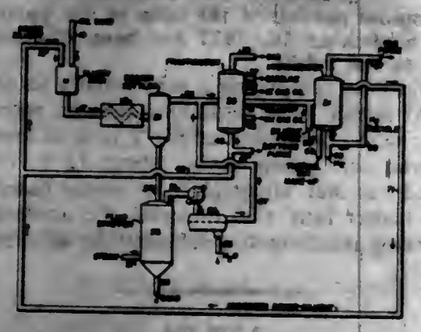
Robert J. Ferm, Kansas City, Mo., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 7, 1954, Serial No. 473,761

4 Claims. (Cl. 196—4)

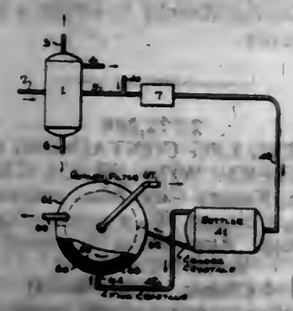
1. A dehydration process which comprises contacting liquified petroleum gas which contains appreciable amounts of carbonyl sulfide and objectionable amounts of dissolved water with a dehydrating agent consisting of silica gel and separating from said silica gel a substantially dehydrated liquified petroleum gas of unchanged carbonyl sulfide content.

2,772,209
**RECOVERY OF OIL FROM BITUMINOUS SANDS**
Joseph Stewart, Cranford, Stewart C. Fulton, Elizabeth, and Arthur W. Langer, Jr., Nixon, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application July 1, 1953, Serial No. 365,342
3 Claims. (Cl. 196—14)



1. The process of efficiently extracting oil from bituminous sand which comprises breaking up said sand into small particles, forming a liquid slurry of said particles in a liquid hydrogen donor-diluent of boiling range between about 500° and about 700° F., feeding said slurry to a settling and soaking zone, heating said slurry non-catalytically and at a pressure sufficient to prevent loss of volatile ingredients, a maximum of 500 p. s. i. g. to a temperature between about 750° and 900° F., allowing a period of about 10 to 120 minutes for said sand to separate from said oil by phase formation, passing the sand to a stripping zone, fluidizing the sand in said stripping zone with steam to remove residual oil therefrom, separating the residual oil so removed from said steam and passing said residual oil to a fractionation zone along with the oil separated from the sand in the settling and soaking zone, fractionating said oils to obtain gasoline, gas oil, a diluent base fraction, boiling between 500° and 700° F., and a bottoms fraction, bleeding off a portion of said diluent base fraction, adding a thermal tar of similar boiling point from catalytic cracking of a petroleum fraction, partially hydrogenating said combined diluent base fraction and thermal tar by adding 200 to 600 s. c. f. of hydrogen gas thereto under hydrogenating conditions, recycling the partially hydrogenated material to join said slurry, and adding said bottoms fraction thereto.

2,772,210
**SOLVENT DEWAXING PROCESS**
Chester L. Read, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application June 12, 1952, Serial No. 293,183
8 Claims. (Cl. 196—19)

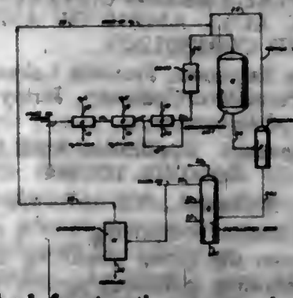


1. Improved process for removing waxy constituents from a wax-bearing oil which comprises adding a solvent to the wax-bearing oil, chilling the same to a temperature at which the waxy crystals precipitate, separating an oil phase comprising the smaller crystals and an oil phase comprising the larger crystals, passing the phase comprising the larger crystals to an initial section of a filtering zone and causing the larger crystals to plate out on the filter cloth, passing the phase containing the smaller crystals to a secondary section of the filtering zone, rotating the cloth containing the larger crystals to said secondary section and causing said smaller crystals to plate out on the larger crystals.

2,772,211
**TREATMENT OF HYDROCARBON STOCKS WITH SODIUM**
Arthur S. Hawkes, Royal Oak, and Donald O. Reuter, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application May 28, 1953, Serial No. 358,171
5 Claims. (Cl. 196—26)

1. A process for treating an essentially anhydrous hydrocarbon stock having gum-forming components and a low sulphur content with a finely-divided metal selected from the group consisting of alkali and alkaline earth metals comprising treating said stock with from 0.25 to 0.5% by weight of said metal based upon the weight of said stock for a period of between about 0.5 to 40 minutes at a temperature from 200 to 500° F.

2,772,212
**PROCESS FOR REMOVING METALS FROM CRUDE OILS AND THEN HYDRODESULFURIZING THE CRUDE OILS**
Wilson D. Seyfried, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application June 30, 1954, Serial No. 440,436
2 Claims. (Cl. 196—28)

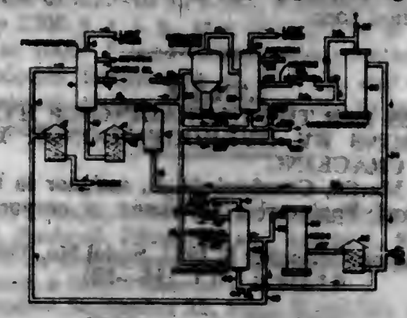


1. In a method for treating a petroleum feed stock to be hydrodesulfurized in a hydrodesulfurization zone in contact with a sulf-active catalyst, said feed stock being selected from the group consisting of crude oils and crude oil fractions containing an appreciable amount of ash forming constituents and acid constituents, including acid constituents selected from the group consisting of naphthenic acids and naphthenic acid salts, the improvement which comprises the steps of water washing said feed stock in sequence in a plurality of water washing zones with fresh water in each of said zones to remove ash forming constituents therefrom, and contacting said water washed feed stock with an aqueous solution containing an alkali metal hydroxide, an alkali metal salt of sulfonic acid and an alkali metal salt of an inorganic acid to remove acid constituents therefrom.

2,772,213
**HYDROCARBON OIL CONVERSION PROCESS BY CATALYSIS AND HYDROGEN DONOR DILUENT NON-CATALYTIC CRACKING**
Herbert G. M. Fischer, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application June 11, 1954, Serial No. 435,993
5 Claims. (Cl. 196—49)

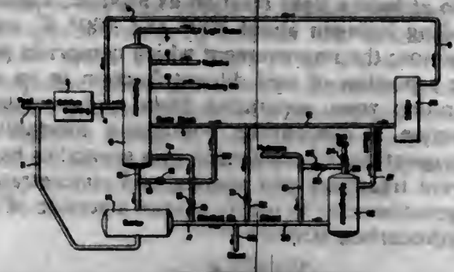
1. A process for converting hydrocarbon oils which comprises catalytically cracking heavy distillate oils in a catalytic cracking zone under catalytic cracking conditions, separating from the effluent therefrom a cycle stock, partially hydrogenating said cycle stock in a hydrogenation zone under hydrogenation conditions to obtain a hydrogen donor diluent, admixing said hydrogen donor diluent with a relatively high boiling heavy oil,





cracking the mixture in a thermal treating zone under non-catalytic hydrogen donor diluent cracking conditions, separating from the thermally treated mixture thermal gas oils including spent hydrogen donor diluent and passing said thermal gas oils to said catalytic cracking zone to form at least a portion of said heavy distillate oils.

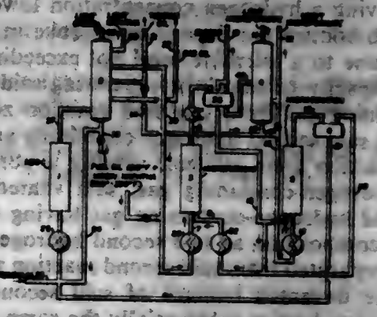
2,772,214
**PROCESS FOR HYDROGENATING AND CRACKING PETROLEUM OILS**
Arthur W. Langer, Jr., Nixon, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 24, 1953, Serial No. 400,231
2 Claims. (Cl. 196—49)



1. A hydrocarbon oil conversion process which comprises catalytically cracking a virgin gas oil, separating the cracked product in a separation zone to obtain product hydrocarbons and material boiling above 400° F., partially hydrogenating a portion of said material boiling above 400° F., recombining the hydrogenated portion with another portion of said material boiling above 400° F., converting the recombined mixture in liquid phase under hydrogen donor diluent cracking conditions in the absence of a catalyst, and returning the converted mixture to said separation zone.

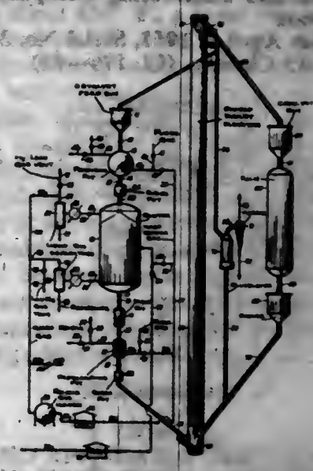
2,772,215
**HYDROCARBON OIL CONVERSION PROCESS**
Charles E. Hemminger, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application June 30, 1954, Serial No. 440,389
6 Claims. (Cl. 196—49)

1. A hydrocarbon oil conversion process which comprises reforming in a catalytic reforming zone a heavy virgin naphtha boiling in a range within the ilmits of 200° to 550° F. in the presence of a reforming catalyst and free-hydrogen containing gas to obtain a hydrogen rich gas, naphthas of substantially higher octane and a higher boiling hydrocarbon stream rich in aromatic-naphthenes, reheating and returning a portion of said hydrogen rich gas to said catalytic reforming zone as said free hydrogen containing gas, partially hydrogenating at least a portion of said higher boiling hydrocarbon stream using said hydrogen rich gas as a source of hydrogen to obtain a partially hydrogenated hydrogen donor diluent, admixing 1 volume of residual oil with 1 to 3 volumes of said hydrogen donor diluent, subjecting the resulting admixture to conditions of hydrogen donor



diluent cracking to obtain lighter products including a heavy thermal naphtha boiling in a range within the limits of about 200° to 550° F., and light gas oils and passing said thermal naphtha to said catalytic reforming zone to be reformed therein along with said virgin naphthas, the end boiling points of said virgin and thermal naphthas being adjusted to maintain the proper balance of said hydrogen donor diluent in the process.

2,772,216
**REFORMING AT A PLURALITY OF SEVERITIES WITH CONSTANT RECYCLE GAS OF OPTIMUM HYDROGEN CONCENTRATION TO ALL ZONES**
Kenneth M. Elliott, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application May 1, 1952, Serial No. 285,483
3 Claims. (Cl. 196—50)



1. A method of operating a reforming reactor to produce reformed gasolines of different increased anti-knock rating at maximum capacity while not exceeding the coke combustion rate of the concomitantly operated kiln, which consists essentially in establishing two reaction zones and a kiln, circulating particle-form solid reforming catalyst successively through said reaction zones and said kiln, introducing completely vaporized feed naphtha to be reformed into the first of said reaction zones under given reforming conditions of temperature, pressure and space velocity to produce a first reaction zone effluent comprising a reformed gasoline of given anti-knock rating higher than the anti-knock rating of said feed naphtha and a first hydrogen-containing gas for recycle having a hydrogen concentration in excess of that required to control the deposition of coke in said reaction zone to a tolerable level not exceeding the coke burning capacity of said kiln, simultaneously introducing completely vaporized

feed naphtha to be reformed into the second of said reaction zones under more severe reforming conditions of temperature, pressure and space velocity than the aforesaid given reforming conditions to produce a second reaction zone effluent comprising a reformed gasoline of higher anti-knock rating than the aforesaid given anti-knock rating and a second hydrogen-containing gas for recycle having a hydrogen concentration lower than that required to control the deposition of coke in said second reaction zone to a tolerable level not exceeding the coke-burning capacity of said kiln, separating said first hydrogen-containing gas from said first reaction zone effluent, separating said second hydrogen-containing gas from said second reaction zone effluent, venting a portion of said second hydrogen-containing gas, said vented portion of said second hydrogen-containing gas having substantially the same composition as said second hydrogen-containing gas when separated from said second reaction zone effluent, mixing the unvented balance of said second hydrogen-containing gas having subetantially the same composition as said second hydrogen-containing gas when separated from said second reaction zone effluent with said first hydrogen-containing gas having substantially the same composition as said first hydrogen-containing gas when separated from said first reaction zone effluent to produce a hydrogen-coatining mixed recycle gas having a hydrogen concentration higher than said second hydrogen-containing gas and sufficient to control the coke deposition in both of said reaction zones to a tolerable level not exceeding the coke-burning capacity of said kiln and introducing said hydrogen-containing mixed recycle gas into both reaction zones.

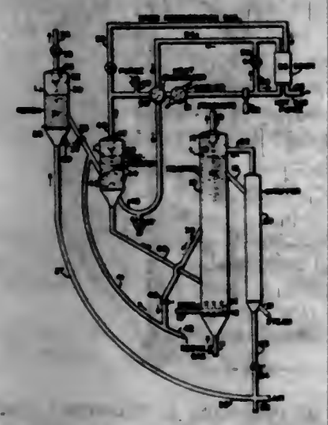
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2,772,217

## HYDROFORMING PROCESS

Edward W. S. Nicholson, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 8, 1953, Serial No. 347,523
15 Claims. (Cl. 196—50)



1. In a process for reforming hydrocarbon fractions boiling within the motor fuel range in contact with finely divided hydroforming catalyst particles comprising a group VI metal oxide upon a support in accordance with the fluidized solids technique, the improvement which comprises continuously withdrawing a stream of spent catalyst particles from a reforming reaction zone, regenerating the withdrawn catalyst particles by burning carbonaceous deposits therefrom at elevated temperatures in a separate regeneration zone, withdrawing regenerated catalyst particles from the regeneration zone, mixing reactor catalyst particles with the withdrawn regenerated catalyst in sufficient amount to form a mixture having a temperature below about 1050° F., contacting the mixture of catalyst particles in a pretreatment zone with a hydrogen-containing gas having an inlet water content of about 0.1 to 1.0 mole percent in sufficient quantity to maintain the outlet water content below about 5% maintaining the regenerated catalyst particles in contact with said hydrogen containing gas until they have been substantially freed of water formed by reaction of the regenerated catalyst with hydrogen and recycling the regenerated catalyst particles to the reaction zone.

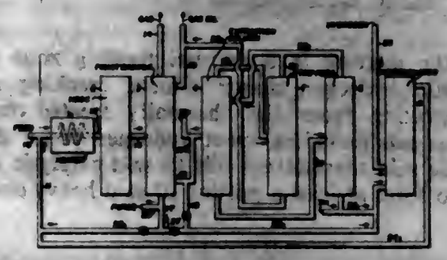
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2,772,218

## PROCESS FOR THE UPGRADING OF HYDROCARBONS BY HYDROGEN-DONOR DILUENT CRACKING

Homer Z. Martin, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 8, 1953, Serial No. 396,968
4 Claims. (Cl. 196—50)



1. In a process for upgrading heavy hydrocarbonaceous oils which comprises the steps of partially hydrogenating in a hydrogenation zone a recycled hydrocarbon stream obtained as hereinafter described to form a hydrogen donor diluent, admixing said donor diluent with a heavy oil feed and a recycled bottoms fraction, thermally cracking the resulting mixture, and separating the cracked mixture into at least a light fraction as product, a diluent fraction boiling between about 700° and 900° F. and a bottoms fraction; the improvement which comprises passing at least a portion of said diluent fraction to an aromatic separation zone, separating from said portion of diluent fraction a concentrate containing substantially increased proportions of condensed ring aromatics by selective solvent treatment and passing said concentrate to said hydrogenation zone to supply at least a portion of said recycled hydrocarbon stream.

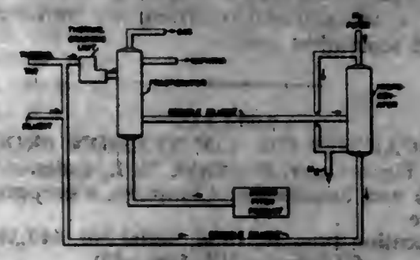
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2,772,219

## PRODUCTION OF BINDERS FOR CARBON ELECTRODES FROM PETROLEUM SOURCES

Walter L. Dunkel, Fanwood, and James H. McAteer and Joseph Stewart, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application October 5, 1954, Serial No. 460,521
3 Claims. (Cl. 196—50)



1. A process for preparing a carbonaceous binder for carbon electrodes said binder having a softening point in the range of 70° to 120° C., a hydrogen to carbon atom ratio of less than 1 and less than the feed and a specific gravity of 1.2 to 1.3 which consists of the steps of admixing from 1/2 to 6/1 parts of a cracked, highly aromatic petroleum fraction containing at least about 50 weight percent aromatics and having a minimum boiling point of about 650° F. with a partially hydrogenated, at



the extent of 100 to 800 s. c. f. of hydrogen/bbl., cracked, highly aromatic petroleum fraction said aromatic fraction containing at least about 50 weight percent aromatics and having a minimum boiling point of about 700° F.; thermally and non-catalytically cracking the mixture in the liquid phase at 0.25–10 v./v./hr., a pressure in the range of 100 to 2500 p. s. i. g., at a temperature in the range of 800° to 1000° F. and stripping the resultant product at a maximum temperature of 525° F. and subatmospheric pressure of less than 20 mm. Hg to produce the desired binder.

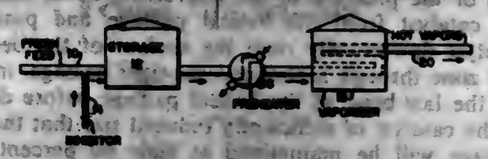
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2,772,220

## FEED STOCK FOR NAPHTHA REFORMING

James D. Bushnell, Elizabeth, and Robert L. Berg, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 25, 1952, Serial No. 311,342
5 Claims. (Cl. 196—50)



1. The process of preparing a superheated naphtha vapor feed consisting essentially of saturated hydrocarbons not susceptible to gum formation below temperatures of about 400° F. and substantially free of olefinic constituents for a hydrocarbon conversion process which comprises accumulating in storage a body of said naphtha, adding to said naphtha entering storage an amount of gasoline oxidation inhibitor equivalent to from about 0.1 to 1.0 pound per 5,000 gallons of liquid naphtha, withdrawing a naphtha stream from said storage, preheating said naphtha stream by indirect heat exchange to a temperature above about 350° F. at which at least partial vaporization takes place with minimum fouling of exchanger surfaces, subsequently heating said stream further in a separate heater to produce a superheated completely vaporized naphtha stream, and feeding said naphtha vapor to said hydrocarbon conversion process.

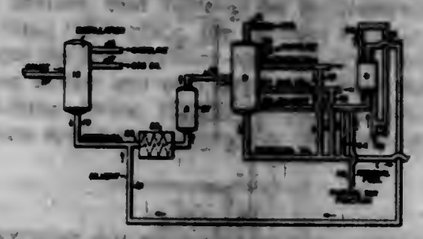
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2,772,221

## REACTING HEAVY RESIDUAL FUEL WITH HYDROGEN DONOR DILUENTS

Joseph Stewart, Cranford; Ralph M. Hill, Mountainside, and Arthur W. Langer, Jr., Nixon, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application July 1, 1953, Serial No. 365,424
5 Claims. (Cl. 196—50)



1. A process for reducing substantially the volume of a heavy fuel oil residuum having a measured content of naphtha insoluble and/or sediment components without substantially increasing said content, which comprises blending said residuum with 10 to 200% by volume of a hydrogen donor diluent obtained as stated thereinafter, passing said blend through a visbreaker under pressure in the range of 300 to 1000 p. s. i. g. and non-catalytically at a feed rate of 0.5 to 15 v./v./hr. and a temperature range of about 750 to 950° F., fractionating the visbroken blend to separate more volatile products, a predominantly aromatic condensed ring [illegible] boiling in a range within the limits of 500° F. to 1000° F., and a heavy fuel oil product, partially hydrogenating said condensed ring fraction by adding thereto 200 to 2000 s. c. f. of hydrogen per barrel, and recycling the hydrogenated fraction as diluent to blend with said original residuum.

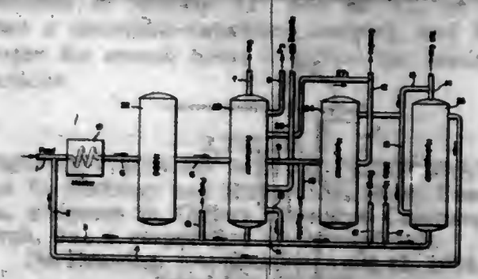
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2,772,222

## PROCESS FOR CRACKING GAS OILS TO GASOLINE

Joseph Stewart, Cranford, and Graham G. Wanless, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application November 18, 1953, Serial No. 392,899
3 Claims. (Cl. 196—50)



1. A hydrogenation and reforming process for converting gas oils to gasolines which comprises: mixing a gas oil feed with 1 to 5 volumes of a hydrogen donor diluent and a recycled bottoms fraction, said hydrogen donor diluent predominantly comprising partially hydrogenated polynuclear aromatics boiling in the range of 650–950 F. derived from a heavy thermal tar; thermally cracking the resulting mixture in the absence of a catalyst at a temperature in the range of 800–1000° F., a residence time in the range of 2–5 v./v./hr. and a pressure in the range of 300–2000 p. s. i. g.; separating the cracked mixture into at least a light fraction boiling below gasoline, gasoline boiling up to about 650° F., a spent diluent fraction boiling in the range of 650–950° F., and a heavy bottoms fraction; hydroforming said gasoline in thepresence of a catalyst at a temperature in the range of 750–1150° F., a residence time in the range of 0.5–6.0 w./hr./w. and a pressure in the range of 50–1000 p. s. i. g., producing thereby a relatively higher octane gasoline product and by-product hydrogen; partially hydrogenating at least a major portion of said spent diluent fraction in the presence of a hydrogenation catalyst with 500–2500 s. c. f. of hydrogen per barrel of spent diluent fraction, a major portion of said hydrogen being composed of said by-product hydrogen; and recycling and blending the partially hydrogenated portion with said feed.

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2,772,223

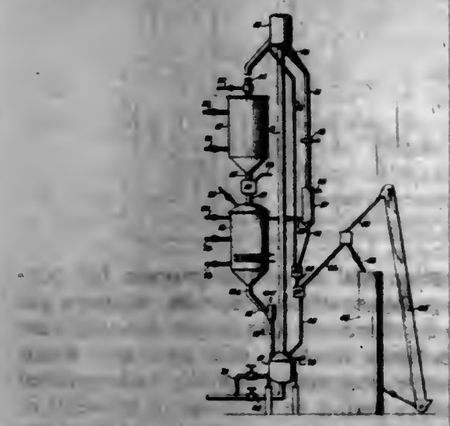
## METHOD AND APPARATUS FOR CONTINUOUSLY REMOVING FINES FROM A MOVING BED CONVERSION SYSTEM

Eric V. Bergstrom, Short Hills, and Edward R. J. Serf, New Brunswick, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application June 22, 1951, Serial No. 233,056
17 Claims. (Cl. 196—52)

3. In a hydrocarbon conversion process wherein a granular contact material is passed cyclically through a hydrocarbon conversion zone and a contact material regeneration zone through which zones it moves as a substantially compact column of solid particles, the method for removing fines resulting from attrition of the cyclically flowing contact material which method comprises: the steps of gravitating the cyclically moving stream of contact material downwardly as a substantially compact column from beneath one of the contacting zones to a feeding zone located therebelow, contacting the contact material with a lift gas in said feeding zone to suspend and transport the material upwardly

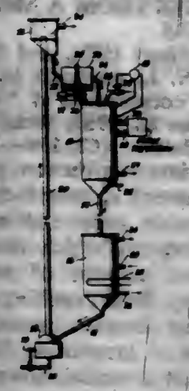
through an elongated, laterally-confined passage, discharging the contact material from the top of the passage onto the surface of a substantially compact gravitating bed of the material in a settling zone located above the other contacting zone, withdrawing the main stream of contact material from beneath the settling zone downwardly through a passage in the form of a substantially compact column, discharging the main stream of contact material into the top of the other contacting zone, the cross-section of the passage being substantially smaller than half the cross-section of the settling zone, withdrawing side streams of contact material from beneath the settling zone at a multiplicity of locations substantially equally distributed about the remaining cross-section



of the zone, so as to keep the contact material moving downwardly at a rate which is fast enough to permit the fine particles to trickle downwardly through the contact material, the downward velocity of the contact material above the passage through which the main stream is withdrawn being about 200–400 times faster than the downward velocity of the contact material in the remainder of the settling zone, combining the side streams of contact material into a single side stream of gravitating material which has a substantially greater percentage of fine material than the main stream of contact material, removing the fines from the side stream, and returning the side stream to the main contact material stream substantially free of fine material.

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**2,772,224**
**METHOD FOR THE TRANSFER OF GRANULAR SOLIDS BETWEEN ZONES OR VESSELS**
Howard W. Shea, West Deptford Township, Gloucester County, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application April 1, 1953, Serial No. 346,196
4 Claims. (Cl. 196—52)



1. In a cyclic catalytic conversion process wherein a granular catalyst is continuously cycled between a high pressure conversion zone wherein the granular catalyst is contacted with a fluid hydrocarbon charge to effect the conversion thereof and a confined regeneration zone at a substantially lower pressure than the conversion zone wherein the carbonaceous contaminants deposited on the catalyst in the conversion zone are removed by burning, the improved method of passing the catalyst from the regeneration zone into the conversion zone so as to maintain the required pressure in each, which comprises: passing catalyst from the regeneration zone into one end of a confined helical passageway with principal axis maintained in a substantially horizontal plane, rotating said passage about its principal axis so as to effect movement of the catalyst through the passage in a helical path away from the point of introduction and in a direction opposite to the direction of the apparent motion, maintaining an enclosed seal zone above the conversion zone and maintaining a substantially compact bed of catalyst within the seal zone, supplying seal gas to the seal zone to maintain the pressure therein slightly in excess of the pressure in the conversion zone, discharging the catalyst from the helical passage and passing the catalyst downwardly onto the surface of the bed in the seal zone through a confined gas-tight passage, maintaining the last bend of the helical passage before discharge of the catalyst of sufficiently reduced size that the helical passage will be maintained at least 60 percent full of catalyst at all times, maintaining the length of the helical passage between the point of entry and discharge of catalyst sufficient to prevent disruption of the catalyst accumulation within the helical passage due to seal gas flow through the helical passage from the seal zone when the level of catalyst in the helical passage is at the minimum permitted by the last bend of the passage, controlling the rate of rotation of the helical passage so that when the level of granular solids is at the minimum permitted by the last bend, the flow of catalyst through the helical passage will be in excess of the maximum contemplated flow through the conversion zone and passing catalyst from the lower section of the bed in the seal zone into the conversion zone.

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**2,772,225**
**METHOD AND APPARATUS FOR EFFECTING CONVERSION OF HYDROCARBONS**
Eric V. Bergstrom, Short Hills, and Edward J. Sorf, New Brunswick, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York
Application May 24, 1952, Serial No. 289,822
13 Claims. (Cl. 196—52)



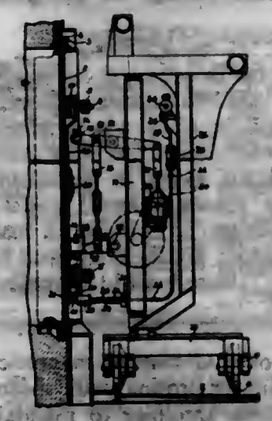
1. A method of withdrawing granular contact material from a high temperature reaction zone in which hydrocarbons are converted to gasiform products which comprises: withdrawing a downwardly moving stream of contact material in substantially compacted columnar form, of restricted cross-section and of sufficient length to inhibit the transfer of gas into or out of the reaction



zone, introducing a first gas, which is not reactive under the conditions in the reaction zone, into the column of contact material at a level below the reaction zone, at a pressure slightly higher than the pressure in the reaction zone, introducing a second gas, which is reactive under the conditions in the reaction zone, into the column of contact material at a level below the level at which the first gas is introduced at a pressure which is slightly lower than the pressure of the first gas, and withdrawing a mixture of the first and second gases from the column of contact material at a level below the level at which the second gas is introduced.

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**2,772,226**
**COKE OVEN DOOR**
Franz Doll, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application April 25, 1952, Serial No. 284,281
8 Claims. (Cl. 202—248)

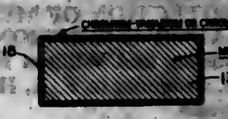


1. Apparatus for sealing and unsealing coke oven doors comprising: a coke oven door having locking means in the form of two upper and lower latching devices for coaction with door-holding means and compression spring means individual thereto to exert the closure pressure, for exertion of closure pressure between the door and the door-holding means, and for release of said closure pressure for unlocking the door; separate fluid pressure-operated means operable on the respective latching devices for effecting spring compression operation of the same; a source of fluid pressure for actuating said fluid pressure-operated means; a coupling between the source of fluid pressure and the fluid pressure-operated means of both said latching devices, and a pressure delay valve to control the fluid flow to and from one of the fluid pressure-operated devices, said valve being so constructed that, when latching takes place, the pressure medium first exhausts from the fluid-pressure-operated device of the lower latching device and only gradually from that of the upper latching device, for the purpose of releasing the compression spring means to allow the same to seal the door.

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**2,772,227**
**PROTECTION OF MOLYBDENUM AND TUNGSTEN AT HIGH TEMPERATURES**
Martin F. Quealy, Montclair, and William C. Littlefield, Mountain Lakes, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 29, 1953, Serial No. 364,632
5 Claims. (Cl. 204—32)

4. The method of protecting against oxidation at high temperature articles constructed of metal of the group consisting of molybdenum, tungsten, and alloys thereof with each other and with small proportions of metal of the group consisting of cobalt, nickel and iron, comprising cleaning said articles, electroplating by making them cathodes in an electrolytic cell in which the electrolyte consists of an aqueous solution of chromic acid containing 150 to 350 grams of chromium trioxide per liter and vanadium salt containing 2 to 10 grams of vanadium per liter, said electrolyte also containing acetic acid to



increase the working temperature range and obtain more uniform coatings, with a current density during plating of about one ampere per square centimeter, and a bath temperature of between 35° and 50° C., to produce thereon a chromium-vanadium complex, and firing in hydrogen for several hours to diffuse the coatings into the articles.

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**2,772,228**
**PREPARATION OF METAL FLUOBORATES**
Albert D. McElroy and Richard M. Hunt, Evans City, Pa., assignors to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application April 12, 1954, Serial No. 422,648
11 Claims. (Cl. 204—59)

1. A method of preparing metal fluoborates comprising electrolyzing a non-aqueous solution of an ionic metal fluoborate with an anode of the desired metal in a solvent in which the desired metal fluoborate is substantially insoluble and recovering the fluoborate precipitated at the anode.

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**2,772,229**
**PREPARATION OF PERCHLORATES**
Errol Hay Kerr, Tacoma, Wash., assignor to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application July 13, 1953, Serial No. 367,765
5 Claims. (Cl. 204—82)

1. In a process for the production of a perchlorate by the electrolysis of an aqueous acid solution of the corresponding chlorate in a non-diaphragm electrolytic cell in which without acid addition the electrolyte becomes alkaline during the course of electrolysis, the improvement comprising the addition of perchloric acid to maintain the electrolyte at a pH below 7.

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**2,772,230**
**PREPARATION OF ZINC ELECTROLYTES**
Max L. Hollander, Plainfield, and Yurii E. Lebedeff, Metuchen, N. J., assignors to American Smelting and Refining Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application September 29, 1953, Serial No. 383,131
3 Claims. (Cl. 204—119)

1. In a method of electrowinning zinc involving electrolyzing a zinc sulfate electrolyte with an insoluble anode, and cyclically refortifying the spent electrolyte from the electrolysis and removing dissolved iron from the refortified electrolyte under non-reducing conditions by a procedure involving leaching an oxidic zinciferous material with said spent electrolyte to refortify the latter, partially neutralizing the refortified solution while oxidizing ferrous iron therein to the ferric state to precipitate the iron contained in the solution without substantial precipitation of dissolved zinc, and filtering the refortified solution to separate therefrom the thus precipitated iron, said partially neutralized solution being characterized by variations in its filtering rate, the improvement comprising introducing a soluble pentavalent arsenate compound at a point in said procedure after said electrolysis step and

prior to said filtration step thereby reducing variations in the filtering rate of the partially neutralized solution and the net filtering time thereof.

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2,772,231

## ANODES FOR THE PROTECTION OF METAL STRUCTURES AGAINST CORROSION

William Godfrey Waite, London, and William Frederick Higgins, Salford, England, assignors to F. A. Hughes & Co. Limited, London, England

Application November 26, 1952, Serial No. 322,648
2 Claims. (Cl. 204—197)



1. A protective system for a ferrous structure immersed in seawater, said system comprising a main anode having a surface area of 0.071 to 0.033 square feet per lb. of metal, a plurality of anode plates located adjacent the main anode and of which the surface area is between 0.261 and 1.72 square feet per lb. of metal so that they become completely consumed by the electrolytic action during an initial period of use, said plates having a smaller volume than said main anode and being between one eighth of an inch and one inch thick, and each having a total surface area of from 200 to 2500 square inches, said plates having surface areas not less than 0.8 of their original surface areas after half their volume has been consumed by dissolution from the periphery inwardly, and a metal rod-like element carrying both the main anode and the plates, said element being rigidly mounted in said main anode, said main anode and plates being made of metal selected from the group consisting of magnesium and magnesium base alloys, said plates being disposed centrally around the axis of said element at both sides of said main anode substantially parallel to each other so as to shield each other against corrosion at their juncture with said element.

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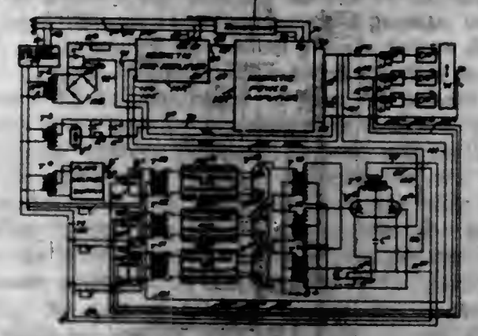
2,772,232

## ELECTROLYTIC GRINDING APPARATUS

George E. Comstock 3d, Holden, and Karl H. Kalbfleisch, Wellesley Hills, Mass., assignors to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application December 30, 1952, Serial No. 328,726
13 Claims. (Cl. 204—219)

1. In electrolytic grinding apparatus, in combination, a work-support and rotatable grinding wheel means having a plurality of conductive parts insulated from each other each part having a conductive face and with means mounting said work-support and said wheel means in coacting relation for operatively relating a workpiece supported by the work-support to the conductive faces of said conductive parts, means for supplying liquid electrolyte to the interfaces between the work-piece and said conductive faces for electrolytic decomposition at the work-piece face, a saturable-core magnetic amplifier having power winding means energizable by alternating current and having rectifier means in circuit therewith to provide unidirectional current at the output terminals thereof and having electro-magnetic means for changing the magnetic core saturation, a saturable-core control magnetic amplifier having power winding means energizable by alternating current and having rectifier means in circuit therewith to provide unidirectional current for energizing said electro-magnetic means of said first magnetic amplifier to control the latter and having control winding means for affecting its own core saturation, a plurality of supply circuits, one for each of said interfaces, extending from said output terminals by means connecting the positive side of said output terminals to the workpiece and by a plurality of means connecting the negative side thereof respectively to said conductive wheel faces and thereby forming a plurality of parallel electrolytic decomposition circuits, means comprising a rectifier bridge energized by alternating current and providing at its output a selectable unidirectional reference voltage, means dependent upon the voltage supplied to said supply circuits by said first-mentioned magnetic amplifier and upon said reference voltage for energizing said control



winding means of said control magnetic amplifier and thereby affect said electro-magnetic means of said first-mentioned magnetic amplifier to maintain substantially constant the voltage at which the latter supplies current to said supply circuits whereby the respective current across said plurality of interfaces may vary relative to one another, a plurality of current-responsive means, one for each of said supply circuits and each responding to current flow in its associated interface of a selected maximum value such as a current value less than that which causes detrimental arcing thereacross, and means interrelating said plurality of current-responsive means and said controlling winding means for affecting the energization of the latter and thereby control the output of said first amplifier responsively to any of said current-responsive means to effect limitation of the current flow across its corresponding interface to said maximum value and thereby impose substantially the same potential upon all of said conductive faces whereby to avoid or lessen material potential differences between conductive faces and avoid or lessen electrolytic action between them.

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2,772,233

## ANAEROBIC DIGESTION TANKS WITH DIGESTING MECHANISM

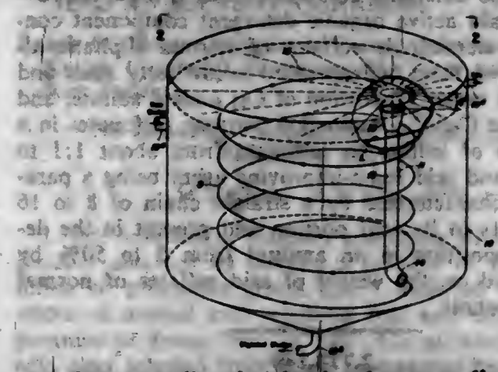
Frederick G. Nelson, La Habra, Calif., assignor to Dorr-Oliver Incorporated, a corporation of Delaware

Application July 26, 1954, Serial No. 445,650
3 Claims. (Cl. 210—2)

1. The method of treating a body of anaerobically digestible sewage sludge in a round digester tank while maintaining a substantially constant sludge level therein as fresh sludge is being introduced into, and digested sludge being withdrawn from the tank, and while scum from the top strata of said body is being depressed into said body by way of a plurality of vertically induced downdraft streams spaced substantially uniformly from one another about the center of the tank, which method comprises orienting the vertical downward direction of each of said streams by way of gradual transition into



substantially horizontal direction, so that the respective horizontal directions of said streams are codirectionally disposed and oriented with respect to the tank wall as well as with respect to one another, each at an obtuse angle relative to the tank radius as defined by two points namely the vertical axis of the respective vertical downdraft stream and vertical axis of the tank, whereby an outward velocity component of each respective hori-



zontal stream direction is aimed at an adjacent bottom corner portion of the tank, while an upward velocity component induces in the body of digesting sludge a spiralized upward path of sludge movement, whereby there are maintainable in effect sequential horizontal strata of intermixing sewage matter and thus a substantially uniform distribution of gasifiable sludge solids throughout said body of digesting sludge along with depression and elimination of the scum.

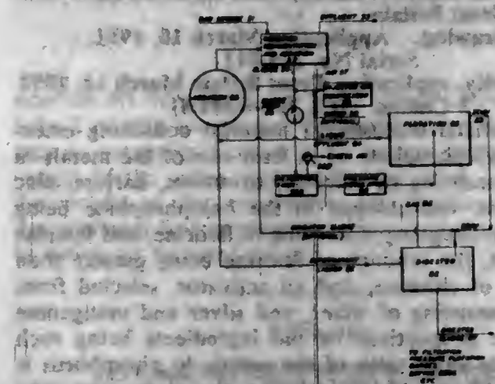
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2,772,234

## SLUDGE TREATMENT

Earl M. Kelly, Hillsborough, Burlingame, Calif., assignor to Process Engineers Incorporated, San Francisco, Calif., a corporation of California

Application May 14, 1953, Serial No. 354,983
2 Claims. (Cl. 210—2)



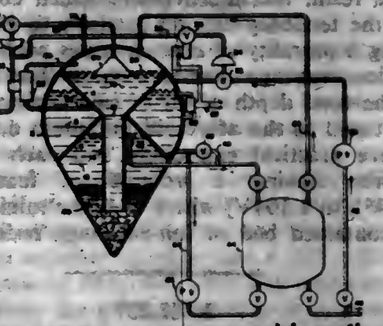
1. In the treatment of sewage containing solids suspended in liquid involving introducing the sewage into a pool in which the solids would settle to the bottom to produce a sludge of maximum density under quiescent conditions, and the withdrawal of sludge from the bottom of the pool, the improvement which comprises introducing the sewage into the pool and withdrawing the sludge from the bottom of the pool at such fast rates that the withdrawn sludge contains less than 5% solids by weight and is substantially less than maximum in density, dissolving gas in the withdrawn sludge under pressure and thus charge it, introducing the charged pressurized sludge into a second pool maintained at a reduced pressure so that at least some of the gas comes out of solution in the second pool as bubbles and raises solids in the second pool to form a scum on its surface, and skimming the scum from the surface.

2,772,235

## LIQUID TREATMENT APPARATUS

Ervin J. Bosbyshell and Gibson T. Hutchison, Abington, Pa., assignors to Cochrane Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application October 14, 1954, Serial No. 462,232
3 Claims. (Cl. 210—16)



1. Liquid treatment apparatus comprising a liquid treatment tank including a first liquid treatment compartment and a liquid storage compartment, means providing a second liquid treatment compartment, means for conducting liquid to be treated to said first treatment compartment, means for conducting treated liquid from said first treatment compartment to one side of said second treatment compartment, means for conducting additionally treated liquid from the other side of said second treatment compartment, means for conducting liquid from said other side of said second treatment compartment to said storage compartment, a flow control means in said last mentioned conducting means, means responsive to the liquid level in said first treatment compartment for positioning said flow control means, means for conducting liquid from said storage compartment to said other side of said second treatment compartment, and means for conducting liquid from said one side of said second treatment compartment to said first treatment compartment.

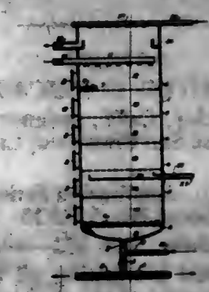
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2,772,236

## METHOD FOR REDUCING FRACTURING OF ION-EXCHANGE RESINS

Harry L. Coonradt, Woodbury, and Wilbur K. Lewman, Pitman, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application April 25, 1952, Serial No. 284,414
3 Claims. (Cl. 210—24)



1. In the method of treating liquids to remove materials dissolved therein by contact with particles of ion-exchange resin of a type having a tendency, during each cycle where there is a marked change of pH or alternate contact with organic and aqueous media, for said particles of ion-exchange resin to expand and contract and to fracture due to compressive forces and for said fractured particles to float out of the contact zone, and which method comprises establishing a contact zone containing a bed of said particles of ion-exchange resin of minimum depth of at least two feet and sufficient to achieve practical extraction of undesired materials dissolved in a liquid to be treated, passing in a cyclic manner a liquid containing undesired material removable by contact with ion-exchange resin through said bed to obtain a treated

liquid effluent of desired reduced concentration of said undesired dissolved material and a resin bed containing extracted undesired material, removing entrained liquid from said bed of ion-exchange resin, contacting said bed of ion-exchange resin with a resin regenerating liquid, and passing liquid to be treated through said bed of ion-exchange resin, the improvement which comprises minimizing the tendency of said particles to fracture by establishing a plurality of contact zones each containing a bed of ion-exchange resin not more than 12 inches in depth, the total depth of all of said beds of resin being at least equal to the aforesaid minimum depth sufficient to achieve practical extraction, and each of said contact zones having a volume at least equal to [V+(0.055 to 1.10)V] where V is the minimum volume of the contained bed of ion-exchange resin.

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2,772,237

## PROCESS FOR REMOVING ACIDS FROM AQUEOUS SOLUTIONS OF ORGANIC SOLUTES WITH ION EXCHANGE RESINS

William C. Bauman and Donald F. Harrington, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 12, 1953, Serial No. 354,632

6 Claims. (Cl. 210—24)

1. A process for removing a strong acid from an aqueous solution of an organic solute, which process comprises passing an aqueous solution containing a strong acid having an ionization constant of at least $1.4\times10^{-3}$ at 25° C., and an organic compound having an acidity corresponding to an ionization constant not exceeding $1.75\times10^{-5}$ at 25° C., as solute, into contact with a water-immersed bed of an anion exchange resin in the sulfate form and thus displacing from the bed an equal volume of water, whereby the strong acid solute is absorbed by the resin and thus converts at least a portion of the anion exchange resin to the bisulfate form, then feeding water to the bed to displace a further amount of liquid from the bed, and collecting successive fractions of the effluent liquid, whereby there is obtained a fraction of the displaced effluent liquid which contains a major portion of the organic compound as solute, and thereafter washing the anion exchange resin with water, whereby the anion exchange resin is regenerated to the sulfate form.

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2,772,238

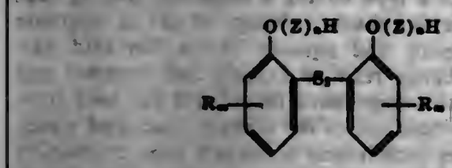
## FOAM-INHIBITED LUBRICATING OILS

Warren Lowe, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application June 24, 1955, Serial No. 517,925

7 Claims. (Cl. 252—48.2)

1. A foam inhibited lubricating oil composition comprising a major proportion of an oil of lubricating viscosity and an alkylphenyl polyethyleneglycol ether sulfide of the formula



wherein R represents an aliphatic group containing less than 31 carbon atoms, Z is an ethylene oxide group, *m* is a number having a value from 1 to 3, and *n* is a number having a value from about 8 to about 17, in an amount sufficient to inhibit foaming of said oil composition.

2,772,239

## DETERGENT COMPOSITIONS

Allen R. Lewis and Richard D. Stayner, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application February 2, 1954, Serial No. 407,818

4 Claims. (Cl. 252—161)

1. A detergent composition consisting essentially of an active organic detergent component and a foam-improving agent, said active organic detergent component consisting of water-soluble sulfates of normal aliphatic alcohols derived from hydrogenated tallow fatty acids and containing a major proportion of $C_{18}$ n-alkyl sulfate, and water-soluble $C_{12}$–$C_{18}$ monoalkyl benzene sulfonates in a weight ratio of sulfate to sulfonate from about 1:1 to about 1:6; and said foam-improving agent being a para-acylphenol characterized by a straight chain of 8 to 16 carbon atoms in its acyl portion and present in the detergent composition in an amount from 5 to 50% by weight, based on the weight of said sulfates of normal aliphatic alcohols.

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2,772,240

## METHOD OF TREATING RESIDUAL LIQUORS OBTAINED IN THE MANUFACTURE OF PULP BY THE SULPHATE CELLULOSE PROCESS

Karl Gustaf Treboeck, Stockholm, and Hilding Olof Vidar Bergstrom, Stockmund, Sweden

No Drawing. Application June 18, 1950, Serial No. 167,482

1 Claim. (Cl. 252—183)

Method of treating green liquor obtained in sulphate cellulose process which comprises oxidizing said liquor until a sulphide content of 0% is obtained, mixing this oxidized green liquor with untreated green liquor before causticizing so that the resultant white liquor has a sulphidity of approximately 20 to 25%.

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2,772,241

## HALOPHOSPHATE PHOSPHORS

Peter Whitton Ranby, London, England, assignor to Thorn Electrical Industries Limited, London, England, a company of Great Britain

No Drawing. Application March 10, 1951, Serial No. 215,011

Claims priority, application Great Britain March 14, 1950

2 Claims. (Cl. 252—301.4)

2. An artificial luminescent material consisting essentially of a halophosphate of at least one of the metals in the group consisting of calcium, strontium, barium, zinc and cadmium, the halogen in the halophosphate being selected from the group consisting of fluorine, and fluorine plus chlorine, the amount of fluorine being greater than the amount of chlorine, and an activator, selected from the group consisting of silver, and silver and manganese together, the proportions of the ingredients being such that the gram-atom ratio of the metals to phosphorus is between 50/50 and 50/30 inclusive, the gram-atom ratio of metals-plus-phosphorus to halogen being between 1/0.05 and 1/0.5, inclusive, the silver content being between 0.01% and 5%, inclusive, by weight, and the manganese content being between zero and 10%, inclusive, by weight.

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2,772,242

## ELECTROLUMINESCENT ZINC SULFIDE PHOSPHOR

Keith H. Butler, Marblehead, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

No Drawing. Application June 8, 1951, Serial No. 230,711

3 Claims. (Cl. 252—301.6)

1. An electroluminescent phosphor comprising zinc sulfide containing between about 0.0003 to 0.0015 gram-atom of copper actuator, about 0.0001 to 0.03 gram-atom of manganese activator and between about 0.0000005 and about .00005 gram atom of lead, per mole of zinc sulphide.



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2,772,243

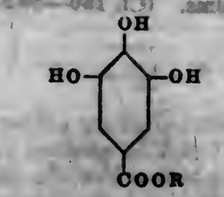
## ANTIOXIDANT CONCENTRATES COMPRISING REACTION PRODUCTS OF MIXED GLYCERIDES AS SOLVENT CARRIERS

Ralph W. Bentz, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

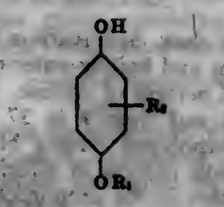
No Drawing. Application August 6, 1953, Serial No. 372,809

16 Claims. (Cl. 252—399)

1. An antioxidant solution consisting of the reaction product obtained by heating a mixture of from 1 to 3 moles of propylene glycol and 1 mole of mixed glycerides of animal and vegetable fats and oils at a temperature of from 100° to 180° C., at least one gallic acid ester selected from those represented by the following general formula:



wherein R represents an alkyl group containing from 1 to 12 carbon atoms, and at least one alkylated hydroxyphenyl ether selected from those represented by the following general formula:



wherein $R_1$ represents an alkyl group containing from 1 to 2 carbon atoms and $R_2$ represents a tertiary alkyl group containing from 4 to 5 carbon atoms, the total weight of the gallic acid ester being from 2 to 30% of the weight of the concentrate and the total weight of the alkylated hydroxyphenyl ether being from 3 to 50% by weight of the concentrate.

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2,772,244

## TITANIUM-PHOSPHORUS CATALYST

Harold Shalit, Drexel Hill, Pa., and Arthur P. Lien, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 1, 1952, Serial No. 323,517

9 Claims. (Cl. 252—437)

1. A process for the manufacture of a solid, self-supporting catalyst which consists essentially of mixing a titanium halide selected from the group consisting of the chlorides and bromides of titanium with a phosphoric acid selected from the group consisting of orthophosphoric and pyrophosphoric acids in an atomic ratio of halogen to active hydrogen between about 0.4:1 and 1:1 and heating the resulting mixture at a temperature above about 175° C. until evolution of hydrogen halide therefrom substantially ceases.



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2,772,245

## RESILIENT CELLULAR RESIN PRODUCTS

Eli Simon, Los Angeles, Frank W. Thomas, Burbank, and Welton E. Burney, Jr., West Los Angeles, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.

No Drawing. Application April 26, 1952, Serial No. 284,656

12 Claims. (Cl. 260—2.5)

1. The cellular material which is the product of reaction of a foaming composition comprising on a percentage by weight basis from 10 to 60% castor oil; from 10 to 60% of a glyceryl ester of fatty acids selected from the group consisting of glyceryl mono fatty acid esters and glyceryl di fatty acid esters; from 0.25 to 15% of an alkali metal salt of monocarboxylic fatty acids serving as a catalyst and soluble in said ester and which when in a 5% by weight aqueous solution has a pH greater than 8, the fatty acids of both said ester and said catalyst being selected from the group consisting of ricinoleic acid, oleic acid, lauric acid, stearic acid, linoleic acid and caprylic acid; from 20 to 60% meta-toluene diisocyanate; and from 0.1 to 5% water.

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2,772,246

## CELLULAR PHENOL ALDEHYDE PLASTIC RESINS

Eli Simon, Los Angeles, and Frank W. Thomas, Burbank, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.

No Drawing. Application August 6, 1952, Serial No. 302,996

14 Claims. (Cl. 260—2.5)

1. The cellular plastic material which is the product of reaction of a foaming flowable composition comprising on a percentage by weight basis from about 60 to about 90% of an acid catalyzable water miscible phenol-aldehyde resol, from about 0.2 to about 10% of a water insoluble gassing agent that liberates gas when reacted with an acid selected from the group of metallic powders consisting of aluminum powder, zinc powder, iron powder and magnesium powder, and a catalyst comprising from 10 to 18% of an organo phosphoric acid selected from the group consisting of—glycero phosphoric acid, di-methyl-acid-pyrophosphate, mono-octyl-acid-pyrophosphate, di-methyl-tri-polyphosphoric acid, mono-octyl-hemi-phosphoric acid, mono-ethyl-di-meta-phosphoric acid; a mineral acid in the proportion of from 10 to 90% and from 90 to 10% of the organo phosphoric acid, from 5 to 60% water, and from 5 to 50% by weight of the catalyst of a polyhydric alcohol the catalyst being in the proportion range of from 35% of the catalyst to 65% of the resin to 10% of the catalyst to 90% of the resin.

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2,772,247

## ANTI-BLOCKING ADHESIVE COMPOSITION CONTAINING POLYETHYLENE, TACKIFYING RESIN, AND A POLYVINYL ESTER

George O. Schroeder, Chicago, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application November 20, 1951, Serial No. 257,437

7 Claims. (Cl. 260—27)

6. A non-blocking adhesive composition comprising from about 2% to 10% by weight of a polyethylene having a molecular weight of from about 4,000 to about 10,000, from about 17% to 43% by weight of a tackifying resin selected from the group consisting of a rosin, a rosin polymer, a polyhydric alkanol ester of rosin, a thermoplastic terpene-phenol resin and mixtures thereof, and about from 47% to 81% by weight of a polyvinyl ester of a lower molecular weight alkanoic acid having a viscosity of from about 13 to 28 seconds as measured by a 20% solution in acetone at 25° C. with a No. 4 Ford cup, said alkanoic acid having from 2 to 4 carbon atoms.

2,772,248

**WATER-SOLUBLE EPOXY-AMINE RESINS**

Emanuel E. Lieberman, Woodside, and Henry Yanko, Kew Gardens, N. Y., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application May 4, 1953, Serial No. 353,661

11 Claims. (Cl. 260—29.2)

1. An aqueous solution of a water-soluble salt of an amine resin, said amine resin being the reaction product of an aliphatic polyamine with a resinous epoxide having an epoxide equivalent of 225 to 1000 and at least one 1,2-epoxide group per molecule and having alternating aliphatic chains and aromatic nuclei united through ether oxygen, said amine containing at least two nitrogen atoms having reactive hydrogen and containing no aliphatic chain longer than 4 carbon atoms, said amine resin being further characterized by containing at least 1.5% nitrogen and by being soluble in dilute aqueous solutions of acid having ionization constants less than $2\times10^{-4}$.

2,772,249

**AIR CURING COATING COMPOSITION AND METHOD OF PREPARING SAME**

Edward Cousins, Akron, and Frank A. Jolliffe, Cuyahoga Falls, Ohio, assignors, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio

No Drawing. Application September 6, 1951, Serial No. 245,428

4 Claims. (Cl. 260—31.2)

1. A method of making a tenaciously adherable erosion-resistant fluid coating composition which is capable of being air-cured by exposure to the atmosphere at ordinary temperatures for a period of from 2 to 72 hours comprising the steps of preparing a composition comprising a polychloroprene, a fumed silica, a metallic oxide in an amount less than 10% by weight of the polychloroprene, the composition being dispersed in equal portions of toluene and amyl acetate, preparing another composition comprising a curing agent selected from the group consisting of catechol, thiocarbanilide, butyraldehyde-aniline, and the condensation product of butyraldehyde and monobutylamine, said curing agent being dissolved in benzene, and combining the curing agent component with the polychloroprene component immediately prior to use to produce said tenaciously adherable erosion-resistant composition said curing agent component being present in the amount of about 2% by weight based on the weight of said polychloroprene.

2,772,250

**ACRYLONITRILE POLYMERS STABILIZED WITH SALTS OF VINYL SULFONIC ACID**

Robert J. Slocombe, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 14, 1954, Serial No. 436,712

8 Claims. (Cl. 260—45.7)

1. A stable acrylonitrile polymer comprising a polymer of 20% to 100% of acrylonitrile and up to 80% of another monoolefinic monomer copolymerized therewith, said polymer containing intimately dispersed therein from 0.01% to 10% of a salt of vinyl sulfonic acid selected from the group consisting of calcium vinyl sulfonate, magnesium vinyl sulfonate, strontium vinyl sulfonate, aluminum vinyl sulfonate and sodium vinyl sulfonate.

2,772,251

**VULCANIZATION OF ACRYLIC ACID COPOLYMERS**

John E. Hanson, North Wales, and Thomas J. Dietz, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application March 14, 1951, Serial No. 215,623

7 Claims. (Cl. 260—79.5)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of preparing a synthetic rubber comprising compounding a polyalkylene polyamine with a copolymerized mixture of acrylic acid and at least one alkyl acrylate containing not more than 8 carbon atoms in the alkyl group, said acrylic acid and acrylate being present in the copolymerized mixture in the proportions by weight of from 5 to 15 percent of the acrylic acid and from 95 to 85 percent of the acrylate, and then heating the resulting compounded mixture to effect vulcanization.

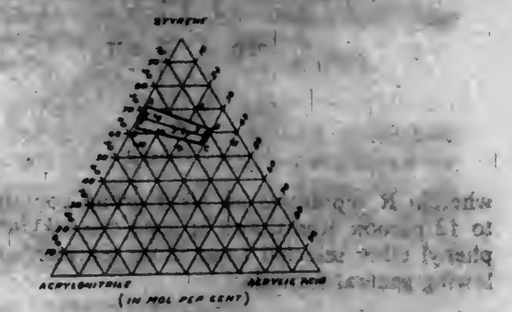
2,772,252

**TERPOLYMER SYSTEMS**

Joseph Brinkis and Earl C. Chapin, Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application September 11, 1952, Serial No. 309,078

5 Claims. (Cl. 260—80.5)




1. A substantially clear, hydrocarbon-resistant, carbon tetrachloride-resistant and boiling-water-resistant terpolymer of 55 to 72 mol percent of styrene, 1 to 30 mol percent of acrylic acid and from 9 to 37 mol percent of acrylonitrile, said terpolymer having been prepared by a mass polymerization process in which the monomers are first mixed together in the proportions desired in the terpolymer and the mixture is then polymerized at 90 to 180° C. in the presence of peroxy catalysts and in the substantial absence of oxygen.

2,772,253

**TERPOLYMERS**

Earl C. Chapin, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 3, 1953, Serial No. 372,189

3 Claims. (Cl. 260—80.5)

1. A multipolymer comprising the copolymerization product of from 2–50 parts of acenaphthylene, from 2–96 parts of a compound taken from the group consisting of acrylonitrile and methacrylonitrile and mixtures thereof and from 2–96 parts of a compound taken from the group consisting of styrene, o-methylstyrene, m-methylstyrene, p-methylstyrene and mixtures thereof, the sum of the parts of each component equalling 100 parts.

2,772,254

**THERMO-SETTING RESIN**

Anthony H. Gleason, Westfield, and Joseph F. Nelson, Rahway, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application January 30, 1953, Serial No. 334,566

4 Claims. (Cl. 260—86.1)

1. A process for preparing a solid resin from a sodium copolymer of 100 to 50% butadiene 1, 3 and 0 to 50%



of styrene which consists in heating the copolymer at a temperature between 110° C. and 175° C. in the presence of 2.0 to 4.0 of diterbutyl peroxide until a solid resin is obtained.

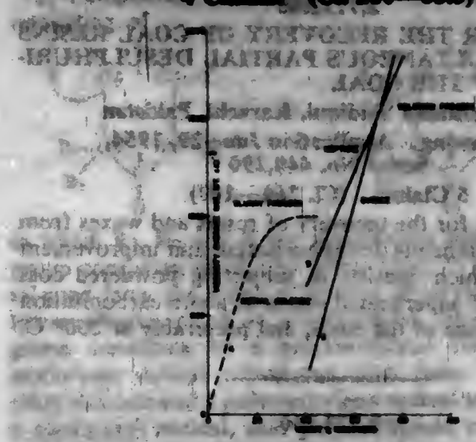
2,772,255

**POLYMERIZATION PROCESS**

John L. Ernst and Harold J. Rose, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 22, 1952, Serial No. 327,274

4 Claims. (Cl. 260—88.3)



1. Process of making synthetic rubber which comprises copolymerizing an isoolefin of 4 to 5 carbon atoms with an aliphatic diolefin of 4 to 6 carbon atoms in the presence of a hydrocarbon liquid which is a solvent for the reacting monomers and for the resulting polymer, using about 60 to 90% by weight of monomers in the polymerization feed, at a temperature below −50° C. and using as catalyst a solution in said same solvent of a substance selected from the group consisting of Friedel-Crafts catalysts and organic complexes thereof.

2,772,256

**PROCESS FOR POLYMERIZING VINYL CHLORIDE**

Michael A. Mangoncill, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 13, 1953, Serial No. 374,123

10 Claims. (Cl. 260—92.8)

1. A process for preparing a porous granular polymer which comprises polymerizing 100 parts of vinyl chloride in suspension in from about 100 to 200 parts of water containing from about 0.01 to 1 part of a water-insoluble, oil soluble polymerization catalyst and a suspending medium consisting of from about 0.1 to 1 part of a heteropolymer of vinyl acetate and a compound taken from the group consisting of maleic acid and maleic anhydride and from about 0.1 to about 0.3 part of an ethylene oxide condensate of a saturated fatty acid mono-ester of a compound taken from the group consisting of ethylene glycol and glycerol, the fatty acid residue of said mono-ester containing from 12 to 24 carbon atoms, said condensate having a molar ratio of ethylene oxide to fatty acid mono-ester of from about 5:1 to about 15:1.

2,772,257

**PROCESS FOR POLYMERIZING VINYL CHLORIDE**

Michael A. Mangoncill, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 13, 1953, Serial No. 374,124

12 Claims. (Cl. 260—92.8)

1. A process for preparing porous granular polymers which comprises polymerizing 100 parts of vinyl chloride in suspension in from 100 to 200 parts of water containing (A) from about 0.1 to 1 part of a water-insoluble, oil soluble polymerization catalyst and (B) a suspending agent consisting of (a) from about 0.1 to 1 part of a heteropolymer of vinyl acetate and a compound taken from the group consisting of maleic acid and maleic anhydride and (b), from about 0.1 to about 0.3 part of a mixture of (1) an ethylene oxide condensate of a saturated fatty acid mono-ester of pentaerythritol, wherein the fatty acid residue contains from 12 to 24 carbon atoms and wherein the condensate contains from about 1.5 to 2.5 mols of ethylene oxide per mol of fatty acid mono-ester of pentaerythritol and (2) a synergistic material for the ethylene oxide condensate taken from the group consisting of saturated fatty acid mono-esters of glycerol, ethylene glycol and diethylene glycol, the fatty acid residue containing from 12 to 24 carbon atoms, said mixture consisting of from 0.5 to 1.5 parts of synergistic material per part of ethylene oxide condensate.

2,772,258

**PROCESS FOR POLYMERIZING VINYL CHLORIDE**

Michael A. Mangoncill, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 13, 1953, Serial No. 374,125

7 Claims. (Cl. 260—92.8)

1. A process for preparing a porous granular polymer which comprises polymerizing 100 parts of vinyl chloride in suspension in from 100 to 200 parts of water containing from about 0.01 to 1 part of a water-insoluble, oil-soluble polymerization catalyst and a suspending medium consisting of from about 0.1 to 1 part of a heteropolymer of vinyl acetate and a compound taken from the group consisting of maleic acid and maleic anhydride and from about 0.1 to about 0.3 part of an ethylene oxide condensate of a saturated fatty acid mono-ester of pentaerythritol having a fatty acid residue containing from 12 to 24 carbon atoms, said condensate having a molar ratio of ethylene oxide to fatty acid mono-ester of from about 0.5:1 to about 1.5:1.

2,772,259

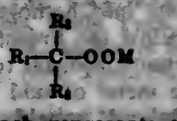
**ALKALI HYDROPEROXIDES AS OLEFIN POLYMERIZATION CATALYSTS**

Hugh J. Hagemeyer, Jr., Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 13, 1953, Serial No. 374,147

7 Claims. (Cl. 260—94.9)

1. A process which comprises heating ethylene in the presence of a catalyst selected from those represented by the following general formula:



wherein $R_1$ and $R_2$ each represents an alkyl group of from 1 to 2 carbon atoms, $R_3$ represents a mononuclear aromatic group of the benzene series, and M represents an alkali metal atom, at a temperature of from about 145–175° C. and a pressure of about 200 to 1,000 atmospheres.

2,772,260

**FUNGICIDAL COMPOSITION**

Charles C. Yeager, Glen Ellyn, Ill., assignor to Scientific Oil Compounding Company, Inc., a corporation of Illinois

No Drawing. Application October 29, 1953, Serial No. 389,147

23 Claims. (Cl. 260—102)

1. The method of forming a composition of matter comprising heating at an elevated temperature sufficient

to place the reactants into homogeneous solution, said temperature being below the lowest decomposition temperature of the reactants, a metal ammine complex salt of a rosin amine, the metal of said metal ammine complex being from a water-soluble salt of a metal capable of forming a complex with ammonia and a water-insoluble mono-carboxylic acid soap having at least 6 carbon atoms in the carboxylic acid, said carboxylic acid being not otherwise substituted than with a hydrocarbon radical and the hydroxyl radical.

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2,772,261

## FUNGICIDAL COMPOSITION

Charles C. Yeager, Glen Ellyn, Ill., assignor to Scientific Oil Compounding Company, Inc., a corporation of Illinois

No Drawing. Application August 26, 1954, Serial No. 452,448
24 Claims. (Cl. 260—102)

1. The method of forming a composition of matter comprising heating at an elevated temperature sufficient to place the reactants into homogeneous solution below the lowest decomposition temperature of the reactants, a complex metal ammine salt of a rosin amine, said metal of said salt being a metal whose salt is capable of forming a complex with ammonia a water insoluble carboxylic acid soap and a quinoline selected from the group consisting of quinoline, isoquinoline, a halogen substituted quinoline, a nitroquinoline, an alkoxy quinoline and an alkyl quinoline.

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2,772,262

## FUNGICIDAL COMPOSITION

Charles C. Yeager, Glen Ellyn, Ill., assignor to Scientific Oil Compounding Company, Inc., a corporation of Illinois

No Drawing. Application October 29, 1953, Serial No. 389,158
15 Claims. (Cl. 260—102)

1. The method of forming a composition of matter comprising heating at an elevated temperature sufficient to place the reactants into homogeneous solution, said temperature being below the lowest decomposition temperature of the reactants, a rosin ammonium phenoxide and a water insoluble carboxylic acid soap.

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2,772,263

## FUNGICIDAL COMPOSITION

Charles C. Yeager, Glen Ellyn, Ill., assignor to Scientific Oil Compounding Company, Inc., a corporation of Illinois

No Drawing. Application October 29, 1953, Serial No. 389,146
26 Claims. (Cl. 260—102)

1. The method of forming a composition of matter comprising heating at an elevated temperature sufficient to place the reactants into homogeneous solution, said temperature being below the lowest decomposition temperature of the reactants, a metal rosin ammonium phenoxide complex, the metal of said complex being from a water-soluble metal salt capable of forming a complex with ammonia, and a water-insoluble mono-carboxylic acid soap having at least 6 carbon atoms in the carboxylic acid, said carboxylic acid being not otherwise substituted than with a hydrocarbon radical and the hydroxyl radical.

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2,772,264

## FUNGICIDAL COMPOSITION

Charles C. Yeager, Glen Ellyn, Ill., assignor to Scientific Oil Compounding Company, Inc., a corporation of Illinois

No Drawing. Application October 29, 1953, Serial No. 389,159
26 Claims. (Cl. 260—102)

1. The method of forming a composition of matter comprising heating at an elevated temperature sufficient to place the reactants into homogeneous solution, said temperature being below the lowest decomposition temperature of the reactants, a metal rosin ammonium phenoxide complex the metal of said complex being from a water-soluble metal capable of forming a complex with ammonia, a water-insoluble mono-carboxylic acid soap having at least 6 carbon atoms in the carboxylic acid, said carboxylic acid being not otherwise substituted than with a hydrocarbon radical and the hydroxyl radical and a quinoline.

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2,772,265

## PROCESS FOR THE RECOVERY OF COAL RESINS WITH SIMULTANEOUS PARTIAL DESULPHURISATION OF THE COAL

Salimuzzaman Siddiqui, Karachi, Pakistan

No Drawing. Application June 29, 1954, Serial No. 440,290
5 Claims. (Cl. 260—107)

1. A process for the recovery of resins and waxes from coal with simultaneous desulphurisation and improvement of the coal, which consists in subjecting powdered coal to the action of superheated steam at a sub-carbonisation temperature range of the coals, and preferably at 200° C. to 330° C.

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2,772,266

## METHOD OF PREPARING CELLULOSE ACETATE

Carl J. Malm and Loring W. Blanchard, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 30, 1952, Serial No. 307,392
3 Claims. (Cl. 260—227)

2. In a method of preparing cellulose acetate in which cellulose is esterified with and dissolves in a mixture of acetic anhydride, acetic acid and catalyst, wherein the reaction temperature rises to but does not exceed a peak temperature within the range of 80–120° F., the steps which comprise initially mixing the cellulose with the acetylation mixture containing 2.5–8% of sulfuric acid based on the cellulose until the cellulose is substantially all acetylated, then adding further sulfuric acid in an amount ½–1½ times that employed in the initial step, thus promoting the esterification and dissolving of unesterified cellulose fibers and inhibiting transesterification in the resulting ester followed by adding to the mass dilute aqueous acetic acid containing a magnesium neutralizing agent in an amount only sufficient to substantially neutralize the amount of sulfuric acid which was added in the second step of the acetylation procedure, whereby the mass is converted to a hydrolyzing system and hydrolyzing the cellulose acetate to acetone solubility.

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2,772,267

## PRECIPITATION OF HYDROLYZED CELLULOSE ACETATE

Carl J. Malm and Carlton L. Crane, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 24, 1952, Serial No. 316,792
1 Claim. (Cl. 260—230)

A method of precipitating hydrolyzed cellulose acetate having an acetyl content of 27–40% from the solution in which it was prepared, which comprises mixing said solution with water containing on the order of 10%, based on the acetic acid in the precipitation liquid, of magnesium sulfate.



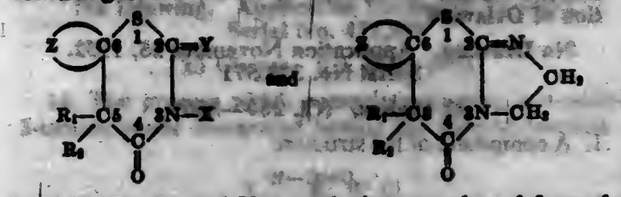
2,772,268

## SPIRO CYCLOALKANE-THIAZANEONES

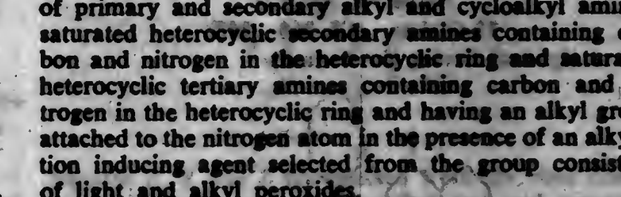
Keith W. Wheeler, Wyoming, Jay K. Sayler, Cincinnati, and Marcus G. Van Campen, Jr., Wyoming, Ohio, assignors to The Wm. S. Merrell Company, a corporation of Delaware

No Drawing. Application March 12, 1954, Serial No. 415,962
4 Claims. (Cl. 260—243)

1. Compounds of the formula selected from the group consisting of



and



in which $R_1$, $R_2$ and X are substituents selected from the group consisting of H, and lower alkyl, Y is a substituent selected from the group consisting of oxygen, imino, and lower alkylimino, Z is a substituent selected from the group consisting of a polymethylene radical, a polymethylene radical substituted with from 1 to 3 lower alkyl radicals and a polymethylene radical substituted with a cyclohexyl radical, said polymethylene radicals having from 4 to 6 carbon atoms.

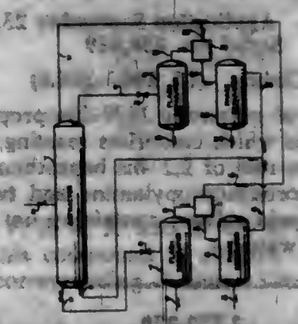
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2,772,269

## SEPARATION OF MIXED HETEROCYCLIC NITROGEN COMPOUNDS

William L. Stabler and Glenn H. Dale, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application August 31, 1953, Serial No. 377,322
10 Claims. (Cl. 260—283)



1. An improvement in separating alkenyl heterocyclic nitrogen compounds from corresponding alkyl heterocyclic nitrogen compounds by liquid-liquid extraction wherein carbonated water is the solvent, said improvement comprising introducing a hydrocarbon having a specific gravity less than that of said mixture into the extraction vessel.

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2,772,270

## 14-HYDROXYMORPHINONE AND 8,14-DIHYDROXYDIHYDROMORPHINONE

Ulrich Weiss, Jamaica, N. Y., assignor to M. J. Lewenstein, Kew Gardens, N. Y.

No Drawing. Application October 21, 1954, Serial No. 463,207
10 Claims. (Cl. 260—285)

1. As a new compound, 14-hydroxymorphinone.

4. As a new compound, 8,14-dihydroxy-dihydromorphinone.

2,772,271

## ADDITION OF OLEFINS AND AMINES

Wilbert H. Urry, Chicago, Ill., assignor to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland

No Drawing. Application December 1, 1953, Serial No. 395,618
9 Claims. (Cl. 260—299)

1. A process for effecting alpha carbon alkylation of amines which comprises reacting a terminal monoolefine selected from the group consisting of unsubstituted olefins, hydroxy substituted olefins, and cyano substituted olefins and an amine selected from the group consisting of primary and secondary alkyl and cycloalkyl amines, saturated heterocyclic secondary amines containing carbon and nitrogen in the heterocyclic ring and saturated heterocyclic tertiary amines containing carbon and nitrogen in the heterocyclic ring and having an alkyl group attached to the nitrogen atom in the presence of an alkylation inducing agent selected from the group consisting of light and alkyl peroxides.

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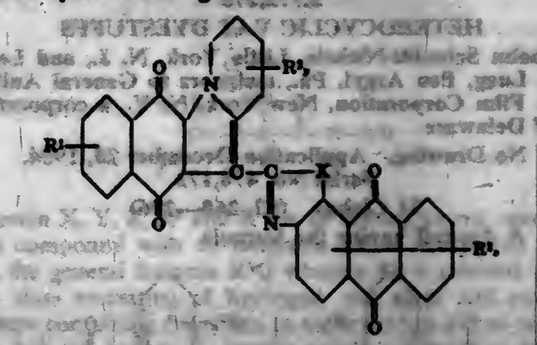
2,772,272

## HETEROCYCLIC VAT DYESTUFFS

Wilhelm Schmidt-Nickels, Little York, N. J., and David L. Randall, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 28, 1954, Serial No. 478,173
12 Claims. (Cl. 260—294.8)

1. A dyestuff having the formula



wherein $R^1$ is selected from the group consisting of hydrogen nitro, amino and halo; $R^2$ is selected from the group consisting of lower alkyl and halo; $R^3$ is selected from the group consisting of lower alkyl, lower alkoxy, nitro, amino and halo; X is selected from the group consisting of O, S and NH; and y and z have values of 0 to 3.

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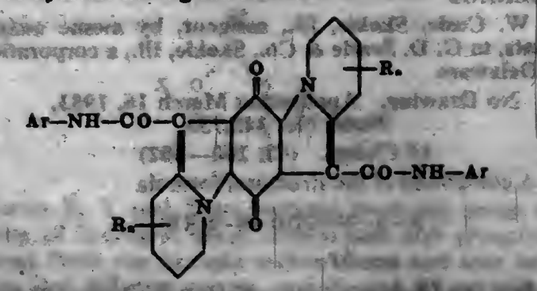
2,772,273

## HETEROCYCLIC VAT DYESTUFFS

Wilhelm Schmidt-Nickels, Little York, N. J., and Lewis J. Lagg, Pen Argyl, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 28, 1954, Serial No. 478,170
12 Claims. (Cl. 260—299)

1. A dyestuff having the formula



wherein Ar represents an aromatic radical selected from the group consisting of phenyl and naphthyl radicals and

their auxochrome substituted derivatives; R is selected from the group consisting of lower alkyl and alkoxy; and *n* has a value of 0 to 3.

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2,772,274

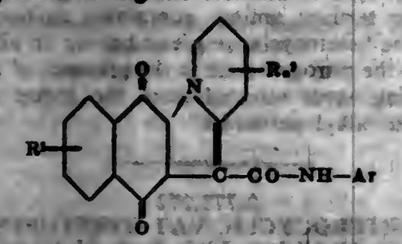
## HETEROCYCLIC VAT DYESTUFFS

Wilhelm Schmidt-Nickels, Little York, N. J., and Lewis J. Lugg, Pen Argyl, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 28, 1954, Serial No. 478,171

12 Claims. (Cl. 260—295)

1. A dyestuff having the formula



wherein Ar represents an aryl radical; $R^1$ is selected from the group consisting of hydrogen, nitro, amino and halo; $R^2$ is selected from the group consisting of lower alkyl and halo; and *n* has a value of 0 to 3.

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2,772,275

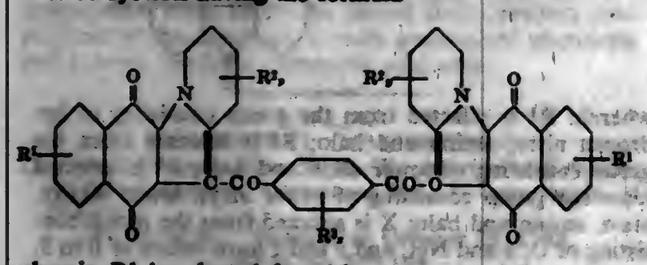
## HETEROCYCLIC VAT DYESTUFFS

Wilhelm Schmidt-Nickels, Little York, N. J., and Lewis J. Lugg, Pen Argyl, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 28, 1954, Serial No. 478,172

11 Claims. (Cl. 260—296)

1. A dyestuff having the formula



wherein $R^1$ is selected from the group consisting of hydrogen nitro, amino and halo; $R^2$ is selected from the group consisting of lower alkyl and halo; $R^3$ is selected from the group consisting of lower alkyl, lower alkoxy and halo; *y* has a value of 0 to 3; and *z* has a value of 0 to 2.

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2,772,276

## BASIC ESTERS OF N-ARYL-N-(HETEROCYCLYL-ALKYL) CARBAMIC ACIDS AND SYNTHESES THEREOF

John W. Cusic, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application March 16, 1953, Serial No. 342,733

14 Claims. (Cl. 260—302)

1. A compound of the structural formula



wherein A is a lower alkylene radical; B is a lower alkylene radical separating the oxygen and nitrogen atoms attached thereto by at least two carbon atoms; Ar is a monocyclic aryl hydrocarbon radical containing 6 to 10 carbon atoms; X is a member of the class consisting of furyl, thienyl and thiazolyl radicals; and NRR' is a member of the class consisting of monoalkylamino, dialkylamino, pyrrolidino, piperidino and morpholino radicals.

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2,772,277

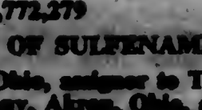
## THIAZOLYLMERCAPTOALKANEDIONES

John J. D'Amico, Charleston, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 25, 1952, Serial No. 322,571

12 Claims. (Cl. 260—306)

1. A compound of the structure



where T represents a radical selected from the group consisting of 4,5-di(lower alkyl) 2-thiazolyl, 4-(lower alkyl) 2-thiazolyl, arylene hydrocarbon 2-thiazolyl containing less than 14 carbon atoms, chloro substituted 2-benzothiazolyl, 4-(lower alkyl) 5-(lower carboalkoxy) 2-thiazolyl and 4-(lower alkyl) 5-acetyl 2-thiazolyl radicals, R represents a lower alkylene group, R' is selected from the group consisting of alkyl radicals containing less than 11 carbon atoms and alkoxy radicals containing less than 10 carbon atoms and R'' represents an alkyl radical containing less than 10 carbon atoms.

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2,772,278

## MANUFACTURE OF SULFENAMIDES

Albert F. Hardman, Northampton Township, Summit County, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 23, 1954, Serial No. 458,029

12 Claims. (Cl. 260—306.6)

1. The process of preparing N,N-diisopropyl-2-benzothiazolesulfenamide which comprises reacting in an inert organic solvent one mol of 2,2'-*bis* benzothiazyldisulfide, one mol of N-chlorodiisopropylamine and two mols of diisopropylamine, said solvent containing not more than 10% by weight of water.

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2,772,279

## PREPARATION OF SULFENAMIDES

Richard Lephin, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application June 17, 1955, Serial No. 516,306

11 Claims. (Cl. 260—306.6)

1. The process of manufacturing thiazolesulfenamides which comprises reacting in an inert organic solvent a secondary amine of the general formula



in which $R_1$ and $R_2$ are selected from the group consisting of alkyl, aralkyl, alicyclic, furfuryl, and tetrahydrofurfuryl radicals and radicals in which $R_1$ and $R_2$ are joined to form a cycloaliphatic ring and a compound



selected from the group consisting of 2-mercaptothiazoles and 2,2'-bis-thiazyldisulfides in the presence of a tertiary organic hypochlorite.

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2,772,280

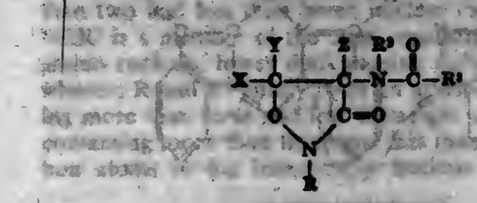
## SYNTHESIS OF 4-AMINO-3-ISOXAZOLIDONE AND ITS DERIVATIVES

Robert Lawrence Peck, deceased, late of Plainfield, N. J., by Helen McLean Peck, administratrix, Plainfield, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

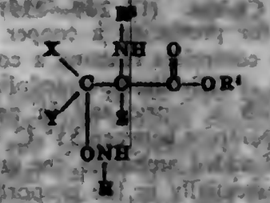
No Drawing. Application December 23, 1954, Serial No. 477,398

23 Claims. (Cl. 260—307)

14. The process which comprises reacting a 4-amido-3-isoxazolidone compound having the general formula

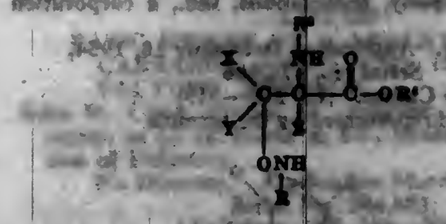


wherein X, Y and Z are selected from the class consisting of hydrogen and alkyl, aralkyl and aryl groups containing from one to eight carbon atoms and may be the same and different groups, R and $R^2$ are selected from the class consisting of hydrogen and alkyl, and aralkyl groups containing from one to eight carbon atoms and may be the same and different groups, and $R^3$ is selected from the class consisting of alkyl, aryl and aralkyl groups containing from one to eight carbon atoms, with an alcohol having the formula $R^4OH$ wherein $R^4$ is a lower alkyl group, to produce the corresponding ester of an α-amino-β-aminoxy-propionate compound having the general formula



wherein X, Y, Z, R, $R^3$ and $R^4$ are as defined above and subjecting this compound to alkaline conditions to produce the corresponding 4-amino-3-isoxazolidone compound.

17. Compounds selected from the group consisting of compounds having the general formula



wherein X, Y, and Z are selected from the class consisting of hydrogen and alkyl, aralkyl and aryl groups containing one to eight carbon atoms and may be the same and different groups, R and $R^2$ are selected from the class consisting of hydrogen and alkyl and aralkyl groups containing from one to eight carbon atoms and may be the same and different groups, and $R^3$ is a lower alkyl group; and acid addition salts thereof.

2,772,281

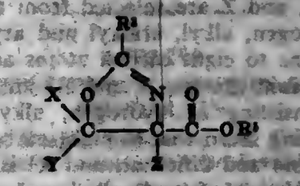
## SYNTHESIS OF 4-AMINO-3-ISOXAZOLIDONE AND ITS DERIVATIVES

Frederick W. Holly, Cranford, and Charles H. Stammer, New Brunswick, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

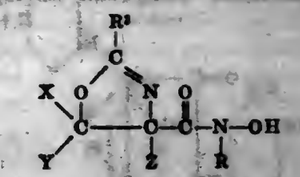
No Drawing. Application December 23, 1954, Serial No. 477,391

56 Claims. (Cl. 260—307)

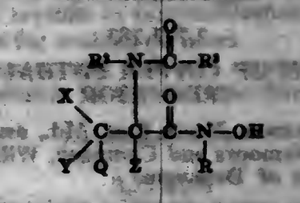
47. The process which comprises reacting a 4-carboalkoxy-2-oxazolidone compound having the general formula—



wherein X, Y and Z are selected from the class consisting of hydrogen and alkyl, aralkyl and aryl containing one to eight carbon atoms and may be the same and different groups, $R^2$ is selected from the class consisting of alkyl, aryl, and aralkyl groups containing from one to eight carbon atoms, and $R^3$ is a one to eight carbon atom alkyl group, with a hydroxylamine having the formula RNHOH wherein R is selected from the class consisting of hydrogen and alkyl, and aralkyl groups containing from one to eight carbon atoms, in the presence of a base to produce the corresponding 4-carbohydroxamido-2-oxazoline compound having the general formula—

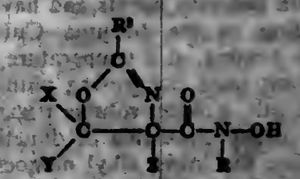


wherein X, Y, Z, $R^2$ and R are as defined above, reacting this compound with an ionizable halide compound having the general formula $R^2Q$ wherein $R^2$ is selected from the class consisting of hydrogen and alkyl and aralkyl groups containing from one to eight carbon atoms and Q is a halogen having an atomic weight greater than 30, to produce a β - halopropionohydroxamic acid compound having the general formula—



wherein Q, X, Y, Z, R, $R^2$ and $R^3$ are as defined above, and reacting this latter compound with a water soluble base to produce the corresponding 4-amido-3-isoxazolidone compound.

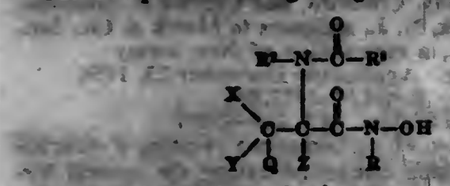
51. Compounds having the general formula—



wherein X, Y and Z are selected from the group consisting of hydrogen, alkyl, aralkyl and aryl groups containing from one to eight carbon atoms and may be the same and different groups, and R and $R^2$ are selected from the group consisting of hydrogen, alkyl and aralkyl

groups containing from one to eight carbon atoms and may be the same and different groups.

52. Compounds having the general formula—



wherein Q is a halogen having an atomic weight greater than 30, X, Y, and Z are selected from the group consisting of hydrogen, alkyl, aralkyl and aryl groups containing from one to eight carbon atoms and may be the same and different groups, R and $R^3$ are selected from the group consisting of hydrogen, alkyl and aralkyl groups containing from one to eight carbon atoms, and may be the same and different, and $R^3$ is selected from the group consisting of aryl, alkyl and aralkyl groups containing from one to eight carbon atoms.

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## 2,772,282

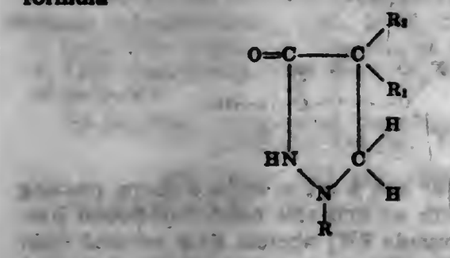
## 3-PYRAZOLIDONES

Charles F. H. Allen and John R. Byers, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 3, 1953, Serial No. 372,148

8 Claims. (Cl. 260—310)

1. A 3-pyrazolidone compound having the general formula



wherein R represents a member of the class consisting of phenyl, tolyl, p-β-hydroxyethylphenyl, and p-β-acetoxyethylphenyl groups, and $R_1$ and $R_2$ each represent an alkyl group containing from 1 to 4 carbon atoms.

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## 2,772,283

## PRODUCTION OF COPPER PHTHALOCYANINE PRECURSOR

Arthur C. Stevenson, North East, Md., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 5, 1953, Serial No. 384,349

5 Claims. (Cl. 260—314.5)

1. A process of producing an alcohol-soluble complex compound adapted to yield copper phthalocyanine upon being treated with reducing agents and having a constitution corresponding to the formula $Cu(C_8H_4N_2)_4NH$, which comprises heating, at a temperature not exceeding 98° C., a reaction mass comprising phthalonitrile, ammonia, a cupric salt, a water-soluble organic solvent selected from the group consisting of dimethylformamide, dimethylacetamide, the lower alkyl monoethers of ethylene glycol and the lower alkyl monoethers of diethylene glycol, and an assistant selected from the group consisting of guanidine, methyl glucamine, imino-phthalimidine and 1,3-diiminoisoindoline, and contacting the reaction mass with oxygen in gaseous form substantially throughout the period of observable reaction.

## 2,772,284

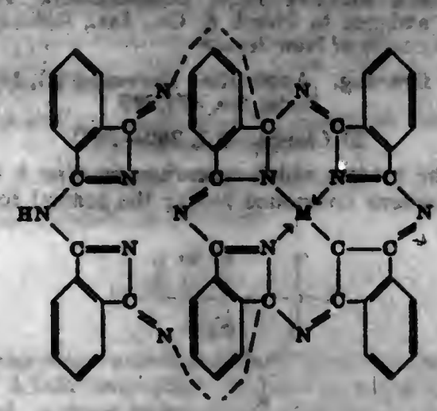
## SOLVENT-SOLUBLE, COMPLEX, PHTHALOCYANINE-YIELDING COMPOUNDS

George Barnhart, Pancoast Hinshaw, and Rockwell F. Stokes, Brandywine Hundred, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 29, 1951, Serial No. 252,401

4 Claims. (Cl. 260—314.5)

1. A leuco-phthalocyanine compound of the formula



wherein M represents a metal of the group consisting of nickel and copper, said compound being characterized by being soluble in ethylene-glycol-monoethyl ether, and by yielding upon reduction ammonia, phthalonitrile and the corresponding metal phthalocyanine.

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## 2,772,285

## PROCESS FOR PRODUCING COPPER-PHTHALOCYANINE PRECURSOR

Robert A. Brochi, Salem, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 21, 1953, Serial No. 332,513

8 Claims. (Cl. 260—319)

1. A process for producing a copper phthalocyanine precursor, which comprises reacting a compound of the group consisting of 1,3-diimino-isoindoline and its 4,5-benzo analog with a cupric salt in an inert organic solvent, at a temperature between 55° C. and 95° C. and in the absence of added ammonia, the quantities of said reactants being essentially in the proportion of 6 moles of the diimino-isoindoline compound to 1 mole of cupric salt, and recovering the reaction product by dilution of the solvent.

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## 2,772,286

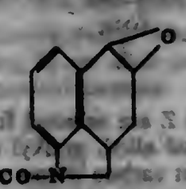
## EPOXYBENZ[CD]INDOLES AND THE PREPARATION THEREOF

Eugene J. Fornefeld, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application December 10, 1954, Serial No. 474,686

16 Claims. (Cl. 260—319)

7. A compound represented by the formula



wherein R represents a member of the group consisting of alkyl radicals having from one to eight carbon atoms, phenyl, phenyl-substituted lower alkyl and lower alkyl-substituted phenyl radicals.



## 2,772,287

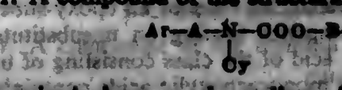
## BASIC ESTERS OF N-ARALKYL-N-CYCLOALKYL-CARBAMIC ACIDS AND THE PRODUCTION THEREOF

John W. Cusic, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application March 16, 1953, Serial No. 342,731

8 Claims. (Cl. 260—326.3)

1. A compound of the structural formula



wherein Ar is a monoisocyclic aryl radical containing less than ten carbon atoms; A is a lower alkylene radical, B is a lower alkylene radical separating the oxygen and nitrogen atoms attached thereto by at least two carbon atoms; Cy is a lower cycloalkyl radical containing more than two and less than seven nuclear carbon atoms; and NRR′ is a member of the class consisting of lower alkylamino radicals, lower dialkylamino radicals and radicals wherein R and R′ jointly form an alkylene chain containing more than three and less than eight carbon atoms and containing more than three and less than six of these carbon atoms in the heterocyclic nucleus formed thereby.

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## 2,772,288

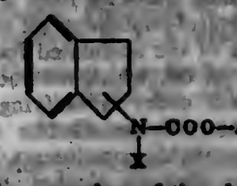
## BASIC ESTERS OF N-ARYL AND N-CYCLOALKYL INDANCARBAMIC ACIDS, THEIR SALTS AND METHODS FOR THEIR PREPARATION

John W. Cusic, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application March 16, 1953, Serial No. 342,732

11 Claims. (Cl. 260—326.3)

1. A compound of the structural formula



wherein X is a member of the class consisting of monocyclic aryl hydrocarbon radicals containing less than ten carbon atoms and lower cycloalkyl radicals containing five to six nuclear carbon atoms, A is a lower alkylene radical separating the oxygen and nitrogen atoms attached thereto by at least two carbon atoms, and NRR′ is a member of the class consisting of lower alkylamino radicals, lower dialkylamino radicals and radicals wherein R and R′ are combined to form an alkylene chain containing more than three and less than six carbon atoms in the heterocyclic nucleus formed thereby.

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## 2,772,289

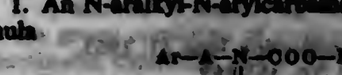
## BASIC ESTERS OF N-ARALKYL-N-ARYL-CARBAMIC ACIDS AND THE MANUFACTURE THEREOF

John W. Cusic, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application March 26, 1953, Serial No. 344,883

14 Claims. (Cl. 260—326.3)

1. An N-aralkyl-N-arylcarbamate of the structural formula



wherein Ar and Ar′ are members of the class consisting of aralyl, isocyclic aryl hydrocarbon and isocyclic halo-aryl radicals containing no more than 10 carbon atoms, A is a lower alkylene radical, B is a lower alkylene radical separating the oxygen and nitrogen atoms attached thereto by at least two carbon atoms and NRR′ is a member of the class consisting of lower alkylamino, lower dialkylamino, lower dialkenylamino, lower hydroxyalkyl-alkylamino, 4-(lower alkyl)-piperazino, morpholino radicals and radicals of the type $\overset{N}{\underset{Z}{\frown}}$ wherein Z is an alkylene radical containing more than three and less than ten carbon atoms and wherein more than three and less than six carbon atoms are in nuclear position.

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## 2,772,290

## PREPARING PYROCATECHIN-SULFONPHTHALEIN

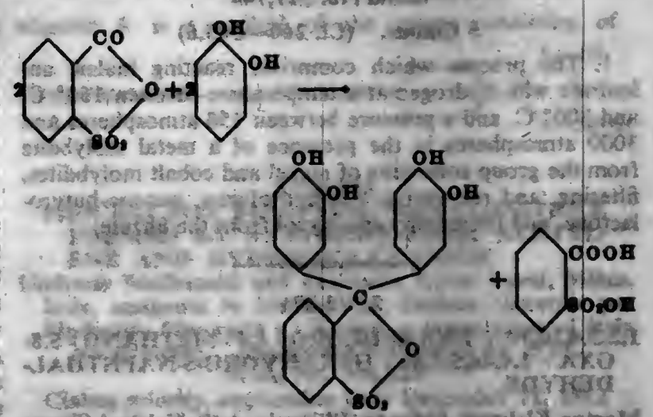
Zdeněk Veselý, Prague Smichow, and Otakar Lemberger, Ústí n Labem, Czechoslovakia

No Drawing. Application May 25, 1954, Serial No. 432,306

Claims priority, application Czechoslovakia November 13, 1953

8 Claims. (Cl. 260—327)

1. Method of preparing pure crystalline pyrocatechin-sulfonphthalein, comprising condensing o-sulfobenzoic acid anhydride with pyrocatechin by melting said compounds in equimolar proportions at temperatures substantially between 100° and 110° C., the condensation taking place according to the following equation:



and purifying the raw pyrocatechin-sulfonphthalein obtained by causing the condensation product to crystallize, subjecting the crystals to recrystallization, and using glacial acetic acid for washing purposes.

8. Complexonometric indicator consisting of pyrocatechin-sulfonphthalein in a pure crystalline state.

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## 2,772,291

## HYDROGENATION OF MALEIC ANHYDRIDE

Herbert F. Mellhaney, Jr., and Walter W. Gilbert, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 31, 1953, Serial No. 377,718

3 Claims. (Cl. 260—343.6)

1. The process for the production of tetrahydrofuran, tetramethylene glycol, and gamma-butyrolactone which comprises reacting maleic anhydride with hydrogen at a temperature between 175° C. and 300° C. and a pressure between 500 p. s. i. and 12,000 p. s. i. in the presence of a catalyst obtained by the reduction with hydrogen of a mixture of nickel ammoniomolybdate and nickel ammoniochromate until the same contains at least traces of elemental nickel and has the approximate composition $(NiMoO_3)_a \cdot (Ni_xCr_yO_z)_b$ where $a:b=2:1$ to 1:2, $x:y=1.6:1$ to 2.2:1 and $z:y=2:1$ to 3:1.

2,772,292

## HYDROGENATION OF MALEIC ANHYDRIDE

Herbert F. Mathaus, Jr., Wilmington, Del., and Robert B. Ramsey, Jr., Penns Grove, N. J., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 13, 1953, Serial No. 367,746

5 Claims. (Cl. 260—343.6)

1. The process for the production of tetrahydrofuran, tetramethylene glycol, and gamma-butyrolactone which comprises reacting maleic anhydride with hydrogen at a temperature between 175° C. and 300° C. and a pressure between 500 p. s. i. and 12,000 p. s. i. in the presence of a pyrophoric foraminous metal skeleton of the group consisting of nickel and cobalt skeletons remaining after the extraction of an alloying ingredient from an alloy thereof.

2,772,293

## PROCESS OF HYDROGENATING MALEIC ANHYDRIDE WITH A NICKEL OR COBALT MOLYBDITE CATALYST

Walter W. Gilbert, Wilmington, Del., and Benjamin W. Hawk, West Chester, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 13, 1953, Serial No. 367,744

5 Claims. (Cl. 260—343.6)

1. The process which comprises reacting maleic anhydride with hydrogen at a temperature between 160° C. and 300° C. and a pressure between 150 atmospheres and 3000 atmospheres in the presence of a metal molybdite from the group consisting of nickel and cobalt molybdites, filtering, and recovering tetrahydrofuran, gamma-butyrolactone, and tetramethylene glycol from the filtrate.

2,772,294

## 1,2,3,4,10,10 - HEXACHLORO - 1,4 - METHANO - 5,8-OXA - 1,4,4a,5,8,8a - HEXAHYDRO-5-NAPHTHALDEHYDE

Morton Kleiman, Chicago, Ill., assignor to Velsicol Chemical Corporation, a corporation of Illinois

No Drawing. Application July 14, 1953, Serial No. 367,969

1 Claim. (Cl. 260—346.2)

As a new composition of matter 1,2,3,4,10,10-hexachloro - 1,4 - methano - 5,8 - oxa - 1,4,4a,5,8,8a - hexa - hydro - 5 - naphthaldehyde.

2,772,295

## PROCESS OF MANUFACTURING ESTERS OF 3-SUBSTITUTED 2-FUROIC ACIDS

Donald M. Burness, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 2, 1953, Serial No. 334,720

6 Claims. (Cl. 260—347.5)

1. A process of manufacturing a lower alkyl ester of a 2-furoic acid substituted in the 3-position by a hydrocarbon substituent selected from the lower alkyl groups and the phenyl group, which comprises heating at a temperature of from about 160° C. to about 250° C., a lower alkyl ester of a 5,5-dimethoxy-2,3-epoxypentanoate substituted in the 3-position by a hydrocarbon substituent selected from the lower alkyl groups and the phenyl group.

2,772,296

## PROCESS FOR PREPARING EPOXY ESTERS

Albert C. Mueller, Berkeley, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 23, 1953, Serial No. 393,933

10 Claims. (Cl. 260—348)

1. A process for preparing an ester of an epoxy-substituted alcohol which comprises heating an unsubstituted hydrocarbon carboxylic acid of the class consisting of unsubstituted hydrocarbon monocarboxylic acids containing not more than 20 carbon atoms and unsubstituted hydrocarbon dicarboxylic acids containing not more than 20 carbon atoms with at least twice the chemical equivalent amount of a lower 1-chloro-2,3-epoxyalkane in the presence of a member of the group consisting of unsubstituted trialkylamines, unsubstituted tricycloalkylamines, unsubstituted triarylamines, pyridine, and quaternary ammonium salts wherein the substituents on the nitrogen are of the class consisting of lower alkyl groups and monocyclic aromatic hydrocarbon groups, and recovering 2,3-epoxyalkyl ester of said carboxylic acid from the reaction mixture.

2,772,297

## STEROL RECOVERY

Fritz O. Lasser, Philadelphia, Pa., Kathleen M. Lasser, executrix of said Fritz O. Lasser, deceased

No Drawing. Application February 16, 1953, Serial No. 337,215

12 Claims. (Cl. 260—397.25)

1. A method of obtaining sitosterol from a by-product of the refining of a sitosterol-containing oil and selected from the class consisting of the acidulated foots and still bottom pitches of such an oil, which method comprises treating such a by-product under saponifying conditions with sufficient of a water-soluble alkaline saponifying agent to saponify its saponifiable constituents, in presence of a water-soluble lower aliphatic alcohol; then mixing the saponification products with sufficient of a finely divided, water-insoluble drying-and-extraction-aid, non-reactive with the organic portion of said products and inert to, and insoluble in, the solvent to be used in the subsequent extraction step, at least to form a thick slurry, thereafter drying the slurry under conditions to avoid significant decomposition of the sitosterol; and extracting the sterols from the dry mixture with a sitosterol-solvent which is at least one member of the class consisting of acetone, ethylene dichloride, methanol, mixtures of methanol and ethylene dichloride, and ethyl acetate; and separating the sitosterol from the solvent.

2,772,298

## 11-OXYGENATED DERIVATIVES OF 13-METHYL-1,2,3,6,7,8,9,10,11,12,13,14,16,17 - TETRADECAHYDRO - 15H - CYCLOPENTA [a] PHENANTHRENE-3,17-DIONE

Leland J. Chinn, Morton Grove, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application June 11, 1953, Serial No. 361,069

1 Claim. (Cl. 260—397.45)

11β - hydroxy - 13 - methyl - 1,2,3,6,7,8,9,10,11,12,13,14,16,17 - tetradecahydro - 15H - cyclopenta[a]phenanthrene-3,17-dione.



2,772,299

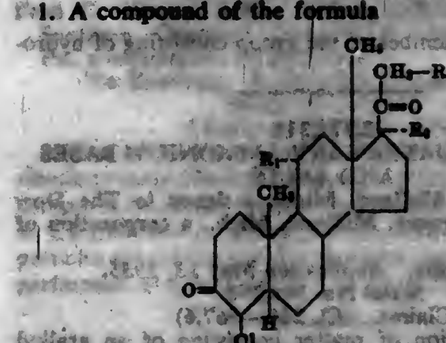
## 4-CHLORO-11α,17α-DIHYDROXYPREGNANES

Gunther S. Fonken, Kalamazoo, Robert H. Levin, Kalamazoo Township, Kalamazoo County, and A. Vern Meinzinger, Jr., Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 16, 1952, Serial No. 299,231

9 Claims. (Cl. 260—397.45)

1. A compound of the formula



wherein $R_1$ is a member of the group consisting of α-hydroxy and α-lower-alkanoyloxy; $R_2$ is a member of the group consisting of hydrogen and α-hydroxy; $R_3$ is a member of the group consisting of hydrogen, chlorine, bromine, and lower-alkanoyloxy; and wherein only one of $R_2$ and $R_3$ can be hydrogen.

2,772,300

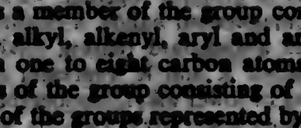
## DITHIO-DIOCTANOIC ACIDS AND METHODS OF OBTAINING THE SAME

Arthur F. Wagner, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application July 22, 1954, Serial No. 445,179

32 Claims. (Cl. 260—399)

1. A disulfide compound selected from the group consisting of compounds of the formula



wherein R is a member of the group consisting of hydrogen, and an alkyl, alkenyl, aryl and aralkyl group containing from one to eight carbon atoms, and R' and R² are members of the group consisting of thio and hydroxy groups, one of the groups represented by R' and R² being thio.

2,772,301

## IMPROVING GEL STRENGTH OF VEGETABLE WAXES

Edward A. Wilder, Racine, Wis., assignor to S. C. Johnson & Son, Inc., Racine, Wis.

No Drawing. Application May 4, 1953, Serial No. 353,014

5 Claims. (Cl. 260—404.5)

1. A method of improving the gel strength of a wax of the group consisting of ouricuri, caranda, sugar cane, deresinated candelilla and esparto grass for use in polishes of the wax-solvent type, comprising esterifying from 40 to 85% of the free hydroxyl groups of said wax with an excess of a material selected from the group consisting of maleic, succinic and glutaric anhydrides at a temperature within the range of 120 to 150° C.

2,772,302

## PROCESS FOR THE PRODUCTION OF 11-BROMO-UNDECANOIC ACID

Werner Mitsch, Cesano Maderno (Milan), Luigi Notarbartolo, Milan, and Levio Sposa, Cesano Maderno (Milan), Italy, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany

No Drawing. Application July 22, 1953, Serial No. 369,716

Claims priority, application Italy August 7, 1952

4 Claims. (Cl. 260—408)

1. A process for the preparation of 11-bromo-undecanoic acid, comprising the step of reacting undecenoic acid with hydrobromic acid in the presence of a peroxide and in the absence of free oxygen.

2,772,303

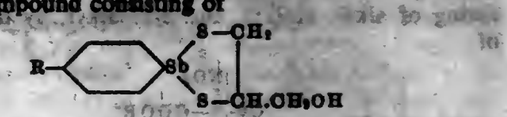
## THERAPEUTIC ORGANOMETALLIC COMPOUNDS CONTAINING ANTIMONY AND SULFUR

Ernst A. H. Friedheim, New York, N. Y.

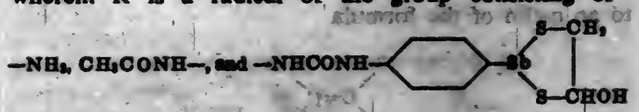
No Drawing. Original application January 28, 1947, Serial No. 724,925, now Patent No. 2,659,723, dated November 17, 1953. Divided and this application September 10, 1953, Serial No. 379,465

4 Claims. (Cl. 260—446)

1. As a new therapeutically active product, organometallic compound consisting of



wherein R is a radical of the group consisting of



—NH₂, CH₂CONH—, and —NHCONH—

2,772,304

## PROCESS FOR PURIFYING ACRYLONITRILE FORMED BY SYNTHESIS FROM ACETYLENE AND HYDROGEN CYANIDE

Umberto Mallarani and Fernando Alelgi Lazzi, Milan, Italy, assignors to Montecatini, Società Generale per l'Industria Mineraria e Chimica, a corporation of Italy

No Drawing. Application November 24, 1953, Serial No. 394,226

Claims priority, application Italy December 11, 1952

6 Claims. (Cl. 260—465.3)

1. The process of purifying acrylonitrile obtained by synthesis from acetylene and hydrogen cyanide and contaminated with hydrogen cyanide and lactonitrile, comprising treating the crude acrylonitrile at a temperature below 70° C., first with ferrous sulfate in an aqueous medium, then with an alkaline material in an aqueous medium, said alkaline material being selected from the group consisting of alkali-, alkali earth-, magnesium- and ammonium-hydroxides, carbonates and bicarbonates, using stoichiometric amounts of ferrous sulfate and said material with respect to the sum of free hydrogen cyanide and hydrogen cyanide present in form of lactonitrile to form alkaline ferrocyanide, permitting the reaction mixture to separate into two layers, separating the two layers and recovering the bulk of purified acrylonitrile from the upper of said two layers.

2,772,305

## OXIDATION OF TOLUATE ESTERS AND XYLENE MIXTURES

Irving E. Levine, Albany, and William G. Toland, Jr., San Rafael, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application August 26, 1952, Serial No. 306,497

3 Claims. (Cl. 260—475)

1. An oxidation process which comprises forming a liquid mixture of a xylene and an ester of toluic acid



with an alkanol containing 1 to 4 carbon atoms and pass-



proportion methanol:ethanol being in the range 1:4 contacting a hot contact material at a pressure not less

with an alkanol containing 1 to 4 carbon atoms and passing a free oxygen-containing gas through the liquid mixture at a temperature in the range from 200° F. to 400° F., the mol ratio of toluic acid ester to xylene in the liquid mixture being in the range 1:5 to 5:1.

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2,772,306

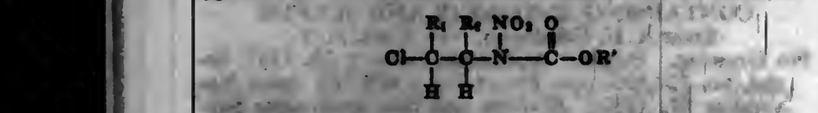
**PROCESS FOR THE PREPARATION OF CHLORO-NITRO-CARBAMIC ACID ESTER**

George R. Thomas, Brookline, Mass.

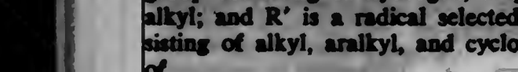
No Drawing. Application May 10, 1954, Serial No. 428,798

8 Claims. (Cl. 260—482)

1. A process for the preparation of a compound of the type



wherein $R_1$, $R_2$ are substituent radicals selected from the group consisting of hydrogen, alkyl, aralkyl, and cycloalkyl; and R' is a radical selected from the group consisting of alkyl, aralkyl, and cycloalkyl; by the addition of



to an olefin of the formula



at a temperature below the decomposition temperature of the N-chloro-N-nitrocarbamate.

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2,772,307

**PROCESS FOR PREPARING ETHYLENE SULFONYL CHLORIDE**

Harold F. Park, East Longmeadow, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 19, 1953, Serial No. 343,518

5 Claims. (Cl. 260—543)

1. A process for preparing ethylene sulfonyl chloride in high yield which comprises reacting divinyl disulfide with substantially 4 mols of water and substantially 5 mols of chlorine per mol of divinyl disulfide, said reaction being carried out at a temperature of about 0–40° C. in solution in a solvent capable of at least partially dissolving said compounds, said solvent being resistant to reaction with said compounds and the products of said reaction, no substantial amount of said chlorine being added in the absence of said water.

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2,772,308

**CYCLOALKANE PHOSPHONYL CHLORIDES**

Warren Jensen, Ponca City, Okla., and James O. Clayton, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application July 6, 1954, Serial No. 441,665

1 Claim. (Cl. 260—543)

The compound, cyclohexane phosphonyl dichloride.

2,772,309

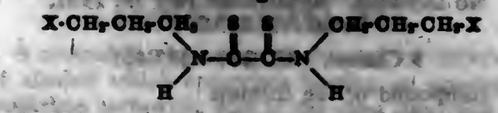
**DITHIOOXAMIDES**

Mona Phyllis Dorman, Walnut Creek, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 12, 1954, Serial No. 449,497

3 Claims. (Cl. 260—551)

1. A dithiooxamide having the formula



wherein X is a member of the group consisting of hydrogen and methyl.

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2,772,310

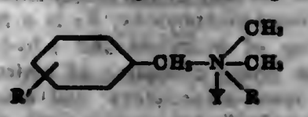
**ARALKYL QUATERNARY AMMONIUM BASES AND SALTS**

Lee R. Morris, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 13, 1955, Serial No. 508,298

9 Claims. (Cl. 260—567.6)

1. A composition of matter consisting of an aralkyl quaternary ammonium compound having the formula:



wherein R represents an alkyl radical containing from 12 to 18 carbon atoms, R' is a member of the group consisting of the 2-bromoethyl radical and the vinyl radical and Y is an anion selected from the group consisting of the chloride, bromide, nitrate, sulfate and hydroxide ions.

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2,772,311

**HYDROGENATING KETIMINOMAGNESIUM HALIDE INTERMEDIATES WITH LITHIUM ALUMINUM HYDRIDE TO PRODUCE AMINES**

Albert Pohland, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application June 29, 1953, Serial No. 364,953

5 Claims. (Cl. 260—570)

1. A process for the preparation of carbinamines, which comprises the steps of bringing together, with the formation of a ketiminomagnesium halide, a nitrile having the formula RCN, and a Grignard reagent having the formula R'MgX, wherein R and R' represent members of the group consisting of lower alkyl, monocarbocyclic aryl, and phenyl-substituted lower alkyl radicals, said radicals being free from substituents which are capable of reacting with a Grignard reagent, and X represents a halogen atom; and hydrogenating the resulting product with lithium aluminum hydride.

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2,772,312

**PREPARATION OF N:N'-DIBENZYL ETHYLENE DIAMINE**

John Southwood, Henham, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application December 20, 1954, Serial No. 476,541

Claims priority, application Great Britain December 31, 1953

5 Claims. (Cl. 260—570.9)

1. A process for the production of N:N'-dibenzyl ethylene diamine which comprises reducing N:N'-dibenzylidene ethylene diamine with an excess of metallic sodium and a mixture of methanol and isopropanol, the



proportion methanol:isopropanol being in the range 1:4 to 1:6 by weight and the weight of said mixture being from 4 to 5½ times the weight of the N:N'-dibenzylidene ethylene diamine, at a temperature approximating the refluxing temperature of the reaction mixture at atmospheric pressure.

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2,772,313

**REDUCTION OF META CHLORO NITROBENZENE TO META CHLORO ANILINE**

Fred C. Tinger, Akron, Ohio, assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

No Drawing. Application August 17, 1953, Serial No. 374,821

8 Claims. (Cl. 260—580)

1. The method of preparing a metahaloaniline without simultaneously effecting substantial dehalogenation which comprises treating a metahalonitrobenzene with hydrogen in the presence of a catalytic quantity of finely divided particles containing metallic rhodium, said treatment being performed at a temperature of from 25° C. to 180° C.

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2,772,314

**PREPARATION OF SUBSTITUTED CYCLOOCTATETRAENES**

Hugh C. Campbell, Niagara Falls, N. Y., and Arthur C. Cope, Belmont, Mass., assignors to Research Corporation, New York, N. Y., a corporation of New York

No Drawing. Application June 20, 1952, Serial No. 294,731

15 Claims. (Cl. 260—666)

1. The method of preparing substituted cyclooctatetraenes which consists in the copolymerization at elevated temperature and pressure of acetylene with substituted acetylenes wherein the substituent is a hydrocarbon radical in the presence of a catalyst containing nickel in ionic combination and an anhydrous organic solvent.

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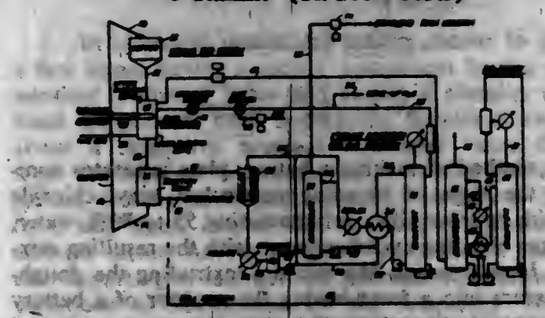
2,772,315

**DEHYDROGENATION PROCESS**

Stuart T. Haddan, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application June 19, 1952, Serial No. 294,303

6 Claims. (Cl. 260—683.3)



1. The process of dehydrogenation of saturated lower hydrocarbons with sulfur dioxide which comprises: contacting a hot contact material at a pressure not less than atmospheric with a mixture of sulfur dioxide and saturated lower hydrocarbons for a period of time sufficient to effect dehydrogenation of the hydrocarbons, whereby the contact material is cooled by the reaction, withdrawing the products from said contact material, separating out from the product the hydrogen sulfide formed by the dehydrogenation reaction, burning the hydrogen sulfide with an oxygen-containing gas in proportions sufficient to effect a release of heat with the production of hot sulfur dioxide-containing combustion gases, and contacting the contact material cyclically with the hot combustion gases to reheat the contact material.

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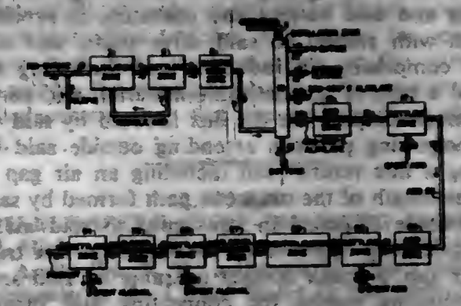
2,772,316

**MANUFACTURE OF ODORLESS AND ODOR-STABLE MINERAL OIL**

Sidney Schneider, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application March 2, 1953, Serial No. 339,597

10 Claims. (Cl. 260—683.4)



1. Process of manufacturing substantially odorless and odor-stable mineral oils which comprises alkylating a low-boiling isoparaffin hydrocarbon with a low-boiling olefin hydrocarbon, fractionating the resulting alkylate into a plurality of fractions including a fraction boiling within the range of about 330° F. to 550° F., acid-treating said fraction with concentrated sulfuric acid, neutralizing the acid-treated fraction with an alkali, and washing the neutralized fraction with an aqueous aliphatic alcohol.

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2,772,317

**POLYMERIZATION CATALYST AND PROCESSES**

John O. Smith, Jr., North Plainfield, and Isidor Kirshenbaum, Union, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 28, 1952, Serial No. 279,207

9 Claims. (Cl. 260—683.15)

8. A process for polymerizing normally gaseous olefins which comprises contacting the olefins with a substantially dry solid catalyst comprising 25 to 90% by weight oxalic acid supported on a solid siliceous adsorbent material at a temperature in the range of about 200°–450° F. whereby substantial polymerization of olefins takes place.

## ELECTRICAL

2,772,318

**APPARATUS FOR VAPORIZATION OF METALS AND METALLOIDS**

Leslie Arthur Holland, South Norwood, London, England

Application December 31, 1953, Serial No. 401,667

Claims priority, application Great Britain December 31, 1953

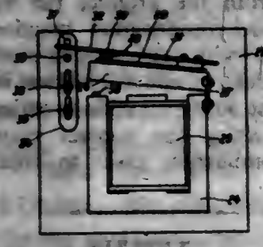
6 Claims. (Cl. 13—25)

1. An apparatus for vaporisation of materials consisting of metals and metalloids comprising an evaporator base composed of refractory material, a heat radiator having an opening therein surrounding said base whereby the said material during evaporation flows over into said



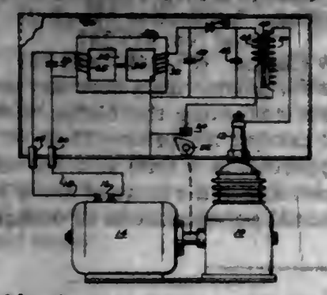
opening, and means for heating the radiator in order that the heat for the evaporation is applied by radiation from the radiator to the base.

2,772,319
**AUXILIARY DEVICE IN IGNITION SYSTEMS OF COMBUSTION MOTORS**
Nils Evert Fridolf Holmqvist and Stig Per Robert Almeros, Stockholm, Sweden
Application December 28, 1951, Serial No. 263,779
2 Claims. (Cl. 123—148)



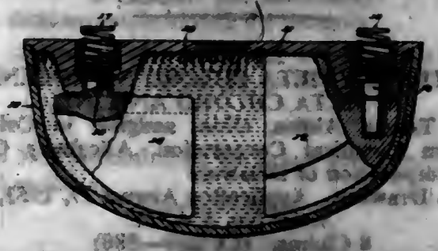
1. An auxiliary device for use in the ignition system of an internal combustion engine having a drive shaft, said ignition system comprising a battery, an ignition coil having a primary winding and a secondary winding, said primary winding being connected to said battery, and a circuit breaker including contacts connected in series with an energizing circuit including said primary winding and said battery and operating in synchronized relation with respect to said drive shaft, said auxiliary device comprising an induction coil including a winding and a core of magnetizable material, said core forming a magnetic path for the flux induced by said winding and comprising portions extending outside said coil for forming a flux return path including an air gap shorter than the length of the magnetic path formed by said core, an armature disposed in proximity to said air gap to be magnetically operable by the magnetic flux traversing said air gap, a break contact operable by said armature, and switching means for connecting said magnetizing winding in parallel with said primary winding of the ignition coil and connecting said break contact in parallel with said contacts of said circuit breaker, the said induction coil being so dimensioned that the ratio of its inductance to the square of its resistance is considerably greater than the ratio of the inductance of said primary winding of said ignition coil to the square of the resistance thereof.

2,772,320
**ENGINE IGNITION SYSTEMS OR THE LIKE**
Clarence B. Knudson, Los Angeles, and James L. Bate, Sun Valley, Calif., assignors to Hoffman Electronics Corporation, a corporation of California
Application September 4, 1953, Serial No. 378,614
6 Claims. (Cl. 123—148)



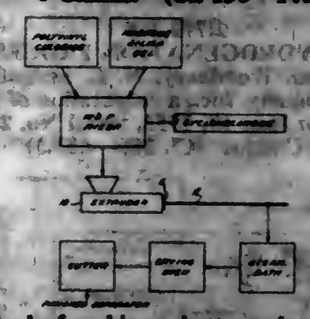
1. In combination, an alternator having output terminals and an internal-combustion engine mechanically coupled to said alternator and including an ignition system, said ignition system including a regulating transformer having a pair of input terminals coupled to said alternator output terminals and a pair of output terminals, a rectifier and a storage capacitor serially connected across said regulating transformer output terminals, an ignition transformer having primary and secondary windings, and a contact maker, said primary of said ignition transformer and said contact maker being electrically connected in series across said storage capacitor.

2,772,321
**VOLTAIC CELL CATHODE AND ART OF MAKING THE SAME**
George G. Eusign, Elgin, Ill., assignor to Elgin National Watch Company, Elgin, Ill., a corporation of Illinois
Application July 3, 1952, Serial No. 297,011
13 Claims. (Cl. 136—120)



13. A coherent and self-supporting composite cathode structure for an electrical energy producing cell, comprising particles of depolarizing material which decreases in volume during its depolarizing action and is of relatively low electrical conductivity, particles of material of relatively high electrical conductivity, and ½ to 4 percent by weight of electrolyte-resistant plastic capable of flowing under pressure into coherent binding condition and forming a connected network of connected septa within the electrically-conductive coherent cathode mass, said cathode being a compressed compact mass having a porosity of 4 to 15 percent and effective for the absorption of aqueous liquids and said particles being intimately mixed and in conductive relation with one another and held by the plastic against separation and migration.

2,772,322
**MICROPOROUS VINYL CHLORIDE RESIN AND METHOD OF MAKING SAME**
Harry S. Witt, East Paterson, N. J., and Frank S. Martin, Cranston, R. I., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application August 5, 1953, Serial No. 372,466
8 Claims. (Cl. 136—146)



5. A method of making a battery plate separator comprising the steps of blending particulate vinyl chloride resin with hydrous silica gel containing 55 to 80% water, thereafter blending cyclohexanone with the resulting mixture to form a dough-like mixture, extruding the dough-like mixture into a form having the contour of a battery plate separator, exposing the separator to a saturated steam to remove the cyclohexanone therefrom without removing water from the silica gel, thereby fixing the mass in the said desired form while the said water is still present in the gel, and subsequently dehydrating the silica gel by such a length of time and temperature as to cause the gel to shrink within said mass and to provide microporous voids within the mass, said mass having a resulting porosity of at least 65%.

2,772,323
**WIRE CONNECTOR**
Theodore C. Smith, Drexel Hill, Pa.
Application September 29, 1952, Serial No. 311,998
6 Claims. (Cl. 174—87)

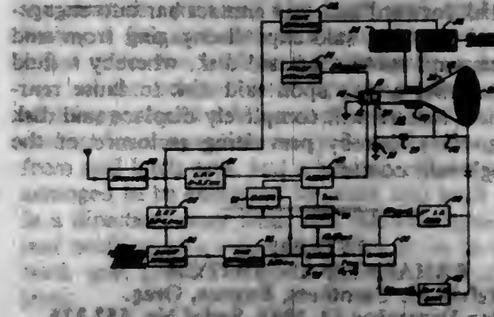
6. A wire connector including a body of insulating material having a conical cavity therein open at one end and closed at the other end, and a conical coiled wire sleeve in said cavity to receive the bared ends of flexible conductors, the coils of said sleeve adjacent the open end of the body being closely wound and fitting threaded walls of the cavity and the coils adjacent the closed end of the body being spaced axially further apart to provide





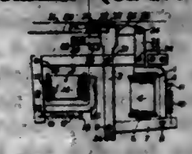
substantial interstices, said body being further characterized by the provision of an unthreaded pocket at the closed end into which the widely spaced coils of the sleeve project whereby when the bared ends of conductors and the bottom of the pocket engage one another during rotation of the connector said bared ends of conductors will be forced laterally into the interstices.

2,772,324
**ELECTRICAL SYSTEMS**
Wilson P. Boothroyd, Huntingdon Valley, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application September 16, 1952, Serial No. 309,831
19 Claims. (Cl. 178—5.4)



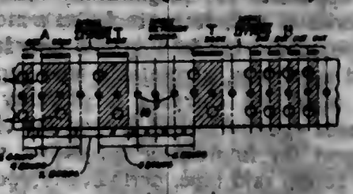
1. An electrical system comprising means to produce a first signal having a carrier component having a given nominal frequency value and having a plurality of sideband components each undergoing frequency variations about a respective nominal frequency value different from the nominal frequency value of said carrier component, first signal channel means for selectively deriving from said signal one of said sideband components, said channel means having a signal transmission characteristic imparting to said derived sideband component phase variations as determined by the frequency variations thereof, second signal channel means for selectively deriving from said signal another of said sideband components, said second channel means having a signal transmission characteristic imparting to said derived other sideband component phase variations as determined by the frequency variations thereof, and heterodyne means coupled to said first and second channel means for combining said derived sideband components thereby to produce an output signal having a nominal frequency value equal to the difference between the nominal frequency values of said derived sideband components, having frequency variations equal to the difference between the frequency variations of said derived sideband components and having phase variations equal to the difference between the phase variations of said derived sideband components.

2,772,325
**MECHANISMS FOR PRODUCING STEP-BY-STEP LINEAR DRIVE**
Harold D. Gaite, Taplow, England, assignor to British Telecommunications Research Limited, Taplow, England, a British company
Application May 4, 1953, Serial No. 352,937
Claims priority, application Great Britain May 5, 1952
10 Claims. (Cl. 178—17)



1. A step-by-step linear drive mechanism for causing the operative end of an elongated drive member to perform a rectangular movement, comprising a first electromagnet, a first spring, means effective on the energisation of said first electromagnet for moving said drive member in the direction of its length against the tension of said first spring, a second electromagnet, a second spring, means effective on the operation of said second electromagnet for moving the operative end of said drive member substantially at right angles to its length against the tension of said second spring, and means for repeatedly energising both said electromagnets at the same frequency and for the same periods but with a predetermined time displacement such that the periods of energisation overlap.

2,772,326
**VARIABLE-SPEED CODE-TRAINING DEVICES**
John H. Hickey, Port Washington, and Louis M. Mittelsdorf, Amityville, N. Y., assignors, by direct and mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 29, 1952, Serial No. 301,472
6 Claims. (Cl. 178—115)



5. Training apparatus comprising a movable tape record having thereon spaced indicia corresponding to intelligence, means translating said indicia into signals and transmitting the latter in a form receivable by a trainee for identification, means responsive to the occurrence of a space between adjacent indicia for interrupting the movement of said record for a predetermined time, said interrupting means comprising a timing circuit comprising an R-C network adapted to be charged during the interval that indicia are translated and discharged during the interval between adjacent indicia, and means operable to initiate the movement of said record at the end of said predetermined time.

2,772,327
**DAMPING MEANS FOR SELECTING BARS IN CROSSBAR SWITCHES**
Gunnar Daniel Olsson, Stockholm, Sweden
Application December 28, 1951, Serial No. 263,809
5 Claims. (Cl. 179—27.54)

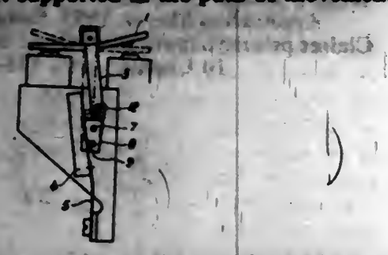
1. A crossbar switch comprising a support having a selecting bar selectively rotatable in either of two directions from a neutral position upon energization of either of two oppositely arranged electromagnets, a pair of spaced stop members, means supporting said stop members for swingable movement substantially in a common plane, means operatively connected with said selecting bar and operatively engaging said supporting means for





said casing being furnished with a removable cover and al-

actuation of the latter so as to cause said stop members to move in mutually opposite directions on rotation of the selecting bar in a respective one of its rotating directions, and a spring urged braking device including a massive brake weight supported in the path of movement



in the respective directions of the said stop members, the selecting bar on rotation in either of the two rotating directions from its neutral position urging one of said stop members against said braking device to actuate said brake weight in the respective direction.

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2,772,328

**AUTOMATIC SYNCHRONIZATION APPARATUS FOR LONG-TIME TRANSVERSE MAGNETIC SOUND RECORDER AND REPRODUCER**

William H. Lyon, Orange, Conn., assignor to The Soundscriber Corporation, New Haven, Conn., a corporation of Connecticut

Application April 28, 1952, Serial No. 284,716
12 Claims. (Cl. 179—100.2)



1. In an apparatus for magnetically recording intelligence as a series of transverse tracks on a moving flexible magnetic tape, means for feeding said tape longitudinally through said apparatus, a rotatable tape support located under said tape and carrying a plurality of electromagnetic heads equally spaced around the circumference of said support for impressing successive, spaced transverse tracks across said tape, periodically operated means actuated by a small movement of said tape to stop it automatically for a short interval of time to reduce the clearance between successive recorded transverse tracks and the path of said heads in order to compensate for misalignment which may have occurred due to shrinkage or expansion of said tape, so as to bring said recorded tracks back into proper synchronism with the path of said transducer heads, and cam means on said rotatable support to automatically start the feeding of said tape again.

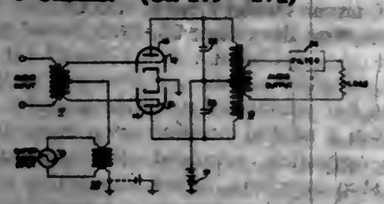
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2,772,329

**CORRECTION OF DISTORTION IN PUSH-PULL AMPLIFIERS**

John M. Miller, Jr., Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware

Application February 23, 1951, Serial No. 212,441
3 Claims. (Cl. 179—171)



1. An amplifier circuit comprising two electron discharge tubes having their input and output circuits connected for push-pull operation, a source of alternating current voltage having a frequency above the signal frequency range, said source deriving said alternating current voltage independently of alternating current voltages existing in the remainder of said amplifier circuit, means applying the voltage of said source cophasally to said input circuits as bias voltage, load means recovering from the output circuits of said tubes the energy content within the signal frequency range, and means in said output circuits removing therefrom energy having the frequency of said alternating current voltage.

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2,772,330

**SENSITIVE PRESSURE SWITCH**

Roger K. Higgins, Takoma Park, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application November 17, 1952, Serial No. 320,968
1 Claim. (Cl. 200—83)



A sensitive pressure switch comprising, a flat plate having an aperture formed therein, a disk loosely fitting within said aperture, a pair of contacts oppositely disposed adjacent the periphery of said aperture, a contact bar on said disk and extending beyond the edges thereof for engaging said contacts to complete a circuit therethrough, said bar preventing forward movement of said disk from said aperture, and a pair of spring clips on said plate and engaging said disk near the edge thereof for urging said disk forward and said contact bar into engagement with said contacts, said clips disengaging from said disk upon rearward motion of said disk, whereby a fluid pressure differential acting upon said disk to cause rearward movement thereof will completely displace said disk from said aperture thereby preventing reclosure of the circuit through said contacts.

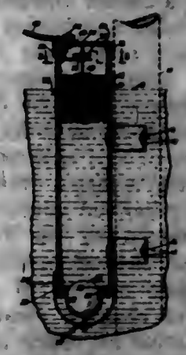
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2,772,331

**EXHAUST FAN SWITCH**

Melvin M. Carothers, Eugene, Oreg.

Application December 12, 1955, Serial No. 552,328
7 Claims. (Cl. 200—84)



1. A time delay switch for mounting in a tank in which the level of water is varied between two spaced levels, said switch comprising a vertically extending casing, means for supporting said casing in said tank with the lower portion of said casing below the upper and above the lower water level in said tank, a valve for discharging water from said lower portion when the water level in said tank falls below said valve and for preventing entrance of water into said casing when said water level rises above said valve, said casing having an opening through a wall thereof below said upper level of water in said tank for controlled entrance of water into said casing, a float in said casing having an upper and lower position, and an electrical contact actuated by said float to complete an electric circuit when said float is in one of said positions and to break said circuit when said float is in the other of said positions.

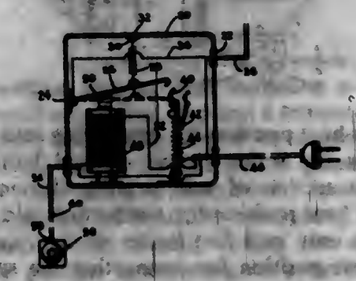


2,772,332

**ROOM VENTILATOR**

Viola M. Carlson, Barrett, Minn.

Application July 16, 1954, Serial No. 443,879
1 Claim. (Cl. 200—88)



In a device of the character described, a support, a vertical electromagnet mounted on said support, a vertical thermally distortable and insulated latch arm positioned alongside of said electromagnet, said latch arm having an upper end provided with a lateral projection directed toward said electromagnet and a lower end secured to said support, an insulated horizontal contact lever overlying and spaced above said electromagnet and having an armature thereon, said contact lever having an end pivoted on said support and providing for upward and downward swinging of said contact lever relative to the electromagnet and said latch arm, said contact lever having a free end normally securably and releasably engaged under the latch arm projection in a depressed position of the contact lever, spring means acting between said support and said contact lever yieldably urging said contact lever upwardly away from the electromagnet and from said latch arm, and a heating coil on said latch arm arranged to be energized to cause said latch arm to move in a direction away from said electromagnet from a normal position to a release position so as to disengage the latch arm projection from the free end of the contact lever.

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2,772,333

**THERMAL CONTROL FUSES**

Leslie Pett, Heaton Norris, Stockport, England

Application December 3, 1954, Serial No. 472,967
Claims priority, application Great Britain
December 15, 1953
7 Claims. (Cl. 200—117)



1. A thermal control fuse adapted for intercalation in an electric circuit, including a casing housing electrical terminals mounted in an insulation block in said casing, said casing being furnished with a removable cover and also with an attachable basal member provided with a tubular metal sheath, an insulation member located in said sheath having holes for the passage of two terminal wires, the upper ends of which project into the aforesaid casing and are connected to the respective terminals, while the lower ends extend through the insulation member, a further metal sheath connectible to the first-mentioned sheath and housing continuations of the insulation member and the terminal wires, a distance piece in said second-mentioned sheath located between the underside of the insulation member and an insert stop secured to the end of said second-mentioned sheath, a fuse element secured across the ends of the terminal wires in such manner that the said terminal wires are held in tension whereby the said fuse element is subjected to a predetermined tensile stress, and means for securing the respective sheaths together.

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2,772,334

**REFRACTORY BODY FOR ELECTRICAL APPARATUS**

André Latour, Grenoble, France, assignor to Etablissements Merlin & Gerin, Société Anonyme, Grenoble, France, a corporation of France

Application March 8, 1952, Serial No. 275,639
Claims priority, application Belgium March 28, 1951
4 Claims. (Cl. 200—144)



1. Arcing plates for circuit breakers, switches and the like electrical apparatus comprising a porous refractory body consisting essentially of grains of a refractory insulating substance bonded together by autogenous fritting only at the contacting areas of their surfaces to leave a substantial portion of voids between said grains.

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2,772,335

**CIRCUIT BREAKERS**

Hendrik A. Hilde Nijland, Laren, Netherlands, assignor to N. V. "Coq," Utrecht, Netherlands, a company of Netherlands

Application December 14, 1954, Serial No. 475,158
Claims priority, application Netherlands
December 19, 1953
2 Claims. (Cl. 200—148)



1. A circuit-breaker in which the arc caused by the switching operation is extinguished by compressed gas, comprising a plurality of tubes of insulating material, at least two electrically conductive contact holders supported and kept spaced apart by said tubes, at least two annular switching contacts supported by said contact holders, the central opening of each switching contact being kept closed when the circuit breaker is in its closed position but being opened during the opening operation of the circuit breaker, and gas-outlet means connected to the central openings of said switching contacts,

said tubes of insulating material forming a portion of said gas-outlet means, said gas-outlet means enabling the extinguishing gas passing through said opening to flow to the outside, the tubes of insulating material being connected to the central opening of one switching contact only and passing through the contact holder of the other switching contact, said tubes of insulating material opening at a distance beyond the latter contact holder, thereby preventing the gas discharged by said tubes from coming into contact with said latter contact holder.

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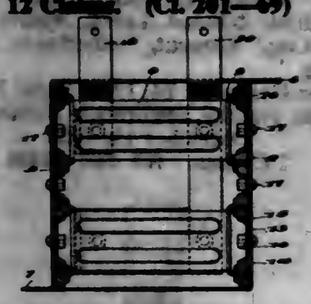
2,772,336
INFRA-RED GENERATOR
Herman A. Merrick, Seattle, Wash., assignor, by mesne assignments, to United Service & Utilities Co., Seattle, Wash., a corporation of Washington
Application July 10, 1953, Serial No. 367,227
1 Claim. (Cl. 201—63)



An infra-red generator comprising a glass tube, ceramic terminal plugs extending by necked-down portions into said tube and having enlarged heads without the tube; said plugs each having a longitudinal bore and a groove in the outer end face of its enlarged head extending laterally from the said bore to the side extremity of the head, a wire coil assembly in the tube and having extensions passing endwise through the said bores and seated in the said grooves, said extensions having asbestos jackets, and cement bonding the plugs to the tube, holding the jacketed extensions in the grooves, and sealing the said bores in the plugs.

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2,772,337
RESISTOR STRUCTURE
Robert E. Du Bois, Hammond, Ind.
Application November 12, 1953, Serial No. 391,566
12 Claims. (Cl. 201—69)

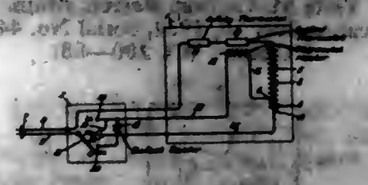


1. A resistor structure comprising a mounting frame including top and bottom frame members, a plurality of insulator strips, said strips being provided with a plurality of spaced holes, clip means cooperating with said strips to secure the strips to the top and bottom frame members, and resistor means with a plurality of grid elements carried by said insulator strips, the said resistor means cooperating with the spaced holes along said insulators to permit longitudinal expansion and contraction of the grid elements under varying grid temperature conditions.

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2,772,338
HEATING DEVICE CONTROL CIRCUIT
George C. Crowley, Asheboro, N. C., assignor to General Electric Company, a corporation of New York
Application December 30, 1954, Serial No. 478,842
6 Claims. (Cl. 219—20)

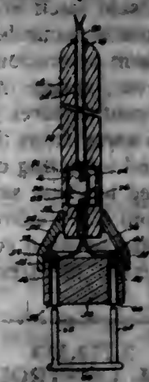
1. A heating device and a control for varying the temperature of said heating device, comprising means for connecting said control to said heating device, said heating device including a heating element having a first section and a second section, a thermostat for controlling said heating element, a thermostat heater for said thermostat, one end of said thermostat heater being connected to said heating element at the common point of said sections, a ballast resistor connected between the other end of said thermostat heater and said first section of said heating element, said ballast resistor being disposed remote from said heating device, said control being mov-



able to a low heat position for connecting said thermostat heater across the series circuit of said ballast resistor and said first section of said heating element, movable to a medium heat position for connecting said thermostat heater across only said first heater section, and movable to a high heat position for connecting the series circuit of said thermostat heater and said ballast resistor across said first section of said heating element, said circuits in all positions of said control being completed through said second section of said heating elemeat.

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2,772,339
ELECTRIC BRANDING IRON
Ralph O. Bennett, Alfalfa, and Edmund J. Welchel, Cotney, Okla.
Application April 8, 1955, Serial No. 500,133
2 Claims. (Cl. 219—30)



1. An electric branding iron comprising an elongated handle having an axial bore therethrough, said handle having an enlarged cavity communicating with the bore intermediate opposite ends of the handle; an electrically conductive cord extending through said bore of the handle and including a pair of leads, one of said leads extending continuously through the cavity, the other lead terminating within the cavity; an electrical rheostatic device mounted in said cavity and including an operating handle disposed exteriorly of the handle, said device including spaced terminals to one of which the other lead of the cord is connected; a lead connected to the other terminal of the rheostatic device and projecting with the first named lead out of the handle; a connecting member attached to the handle and extending about the first named and the last named leads; an electrically insulative block secured to said connecting member; a pair of spaced electrically conductive sleeves mounted in said block, said one lead and the last named lead being connected to said sleeves; and a brand formed from a length of electrically conductive rod material having its ends removably engaged in said sleeves, said brand being formed of a material adapted to heat responsive to the passage of electrical current therethrough.



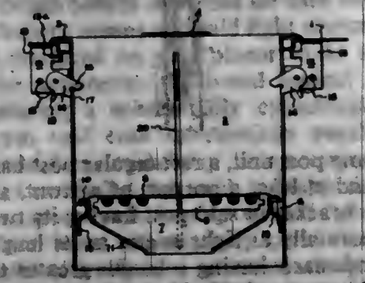
2,772,340
SURFACE HEATING UNIT
George W. Schroeder, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application October 11, 1954, Serial No. 461,559
5 Claims. (Cl. 219—37)



1. In a surface heating unit including a horizontally disposed utensil supporting grid and a temperature sensing device centrally located therein so as to contact the bottom of a utensil resting on said grid, a generally concave drip pan of high thermal conductivity having a central opening defined by an upwardly projecting tubular portion surrounding said sensing device, the upper end of said tubular portion terminating in a horizontal flange above the plane of said grid, and spring means for resiliently supporting said pan so that said horizontal flange is biased into contact with the bottom of said utensil.

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2,772,341
ELECTRIC HEATING APPLIANCE
Walter E. Lewis, Louisville, and Samuel C. Jordan, Lynden, Ky., assignors to General Electric Company, a corporation of New York
Application December 2, 1954, Serial No. 472,642
6 Claims. (Cl. 219—37)



1. An electric heating appliance comprising frame structure including a horizontal wall having an opening therein, a tubular shell vertically arranged in said opening, means for supporting said shell with its upper end lying substantially in the plane of said wall, a heating unit horizontally arranged in said shell, means for supporting said heating unit in said shell adjacent the lower end thereof, a plurality of vertical slots in said shell, a plurality of latch means mounted on said frame adjacent said wall, each of said latch means including a pivoted arm having its free end projecting through one of said slots in said shell, said pivoted arm being movable into latching engagement with said heating unit upon upward movement of said shell to a first predetermined position so as to engage said heating unit with said pivoted arm, and said pivoted arm being movable out of engagement with said heating unit upon upward movement of said shell to a second predetermined position, whereby said heating unit may be positioned either at the bottom of said shell or substantially in the plane of said wall by vertical movement of said shell.

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2,772,342
FLUID CIRCULATION TYPE ELECTRIC BASE-BOARD SPACE HEATER
Loyal B. Reynolds and Harry G. Welch, Seattle, Wash.
Application July 8, 1954, Serial No. 442,132
2 Claims. (Cl. 219—38)

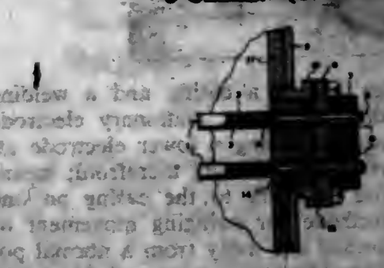
1. A fluid type base-board space heater comprising a horizontal upper run of pipe; a horizontal lower run of pipe positioned parallel with and in spaced relation below said upper run of pipe, said lower run of pipe having at one end a fluid heating chamber provided with a top wall which is vertically offset above the top wall of the remainder of said lower run of pipe; an electric heating element extending into said fluid heating chamber; a fluid conduit communicatively connecting the uppermost portion of said fluid heating chamber with the adjacent end of said upper run of pipe; another fluid conduit communicatively connecting the end portions of said two runs of pipe remote from said heating chamber, said two runs of pipe and end connecting fluid conduits forming a closed



fluid circulation loop which is sealed against the escape of fluid, the upward vertical offset of the upper wall of the fluid heating chamber relative to the upper wall of the remainder of the lower run of pipe predetermining the direction of circulation of fluid in the loop and causing heated fluid from the chamber to flow first through said upper run of pipe and then through said lower run of pipe back to the chamber, and expansion chamber means extending above and communicating with the uppermost portion of said upper run of pipe, said expansion chamber insuring silent operation and maintaining low pressure in said closed and sealed fluid circulation loop.

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2,772,343
ELECTRIC IMMERSION HEATER
Willis G. Beaino, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application May 19, 1954, Serial No. 430,839
5 Claims. (Cl. 219—39)



5. An electric immersion heater of the type adapted to be mounted in an opening in a water heater tank comprising a sheathed heating element, a mounting plate joined to said heating element adjacent one end thereof and provided with a flanged portion adapted to be secured to said tank, and a block of hydraulic cement secured to the face of said plate which overlies said opening, said block having a shape corresponding to the shape of the opening and extending therethrough so that all portions of the walls of said opening are in close proximity to the surface of said block.

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2,772,344
ELECTRIC WATER HEATER
Max E. Bowen, Joseph A. Hanish, and Theodore E. Carlson, Wixom, Mich., assignors to Handling Equipment & Manufacturing Company, Wixom, Mich.
Application January 25, 1954, Serial No. 405,976
10 Claims. (Cl. 219—38)

1. A water heater comprising a closed water tank having a convexedly curved bottom wall, an annular heating element unit including a shell of flattened tubular section having a concavedly curved inner face contactingly fitting said convexedly curved tank bottom wall, a combined holder and heat transfer member for said

heating element unit concavedly curved and contactingly fitting against the convexedly curved tank bottom wall and having an upwardly facing annular groove in which said heating element unit is disposed to support the heating element unit against the tank bottom wall, a dished combined clamping reflector and heat transfer member having a peripheral portion underlappingly engaging the



bottom wall of the groove in said holder, and a threaded stud depending centrally from the said tank bottom wall and disposed through a central opening in said clamping member, said stud being provided with a nut for clamping said bottom wall contacting parts thereto, said heating element unit being provided with downwardly projecting binding posts, said holder and clamping member being provided with openings through which said posts project.

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2,772,345
DENTAL SPOT-WELDER
Burdett L. Gainesforth, Ogallala, Nebr.
Application April 16, 1954, Serial No. 423,798
4 Claims. (Cl. 219—86)



1. In a spot-welder having a casing and a welding transformer therewithin, an upper, stationary electrode on the casing; a platform having a lower electrode attached thereto and extending laterally therefrom; means pivotally attaching the platform to the casing on one side of the upper electrode for swinging movement of the lower electrode toward and away from a normal position contacting the upper electrode; a tap switch on said casing on the opposite side of the upper electrode; and conductor means coupling both electrodes and said switch with said transformer for energization of a welding circuit upon actuation of the switch when the platform is in said position.

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2,772,346
HEAT BLASTING TOOL WITH FLUID JET
Theodore I. Lester, New York, and William B. Kriewall, Flushing, N. Y., assignors to All-State Welding Metals, Inc., New York, N. Y., a corporation of New York
Application November 9, 1953, Serial No. 391,842
13 Claims. (Cl. 219—121)



1. An electrically operated consumable blasting tool for boring holes in refractory materials comprising an elongated cylindrical member having a substantially parallel pair of spaced elongated electrically conductive members embedded in a covering composition of a substantially electrically non-conductive insulatory nature, said conductive members being formed from an arc consumable material, said covering material including a substantial portion of iron oxide producing ingredients and gas-forming ingredients in homogeneous mixed granular form, and means associated with said member for supplying and directing a stream of expansible liquid in parallel alignment with said conductive members, said means providing an egress for said liquid, adjacent one terminal end of said parallel pair of members, whereby said members can be energized in a series electric circuit to form a self-sustained electric arc therebetween to heat and expand the liquid directed through said means.

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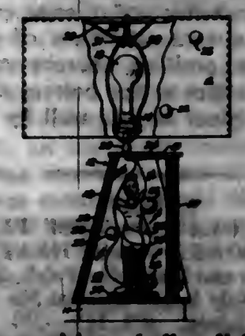
2,772,347
RAILING LAMP
Dwight I. Lamman, Des Moines, Iowa
Application December 6, 1954, Serial No. 473,141
7 Claims. (Cl. 240—2)



7. In a lamp post unit, a rectangular post having a back, two sides, and at least a portion of a front, an elongated spring lamp bracket in said post having its two ends bent forwardly normally at right angles to its length and with said bent ends each having a length greater than that of the distance between the inside back of said post and the under side of said front portion, whereby said spring lamp bracket is required to be yieldingly bowed between its two ends to permit said bent ends to rest between the inside back of said post and said front portion, a lamp socket on one of said forwardly bent ends, an incandescent lamp in said lamp socket adapted to be in communication with a source of electric current, and a front cover on said post having a window.

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2,772,348
LAMP HAVING REVOLVABLE FIGURINE
Gerald Mess, San Francisco, Calif.
Application January 9, 1956, Serial No. 557,959
9 Claims. (Cl. 240—2)

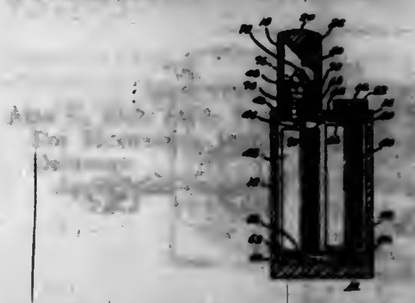


1. A lamp comprising a hollow light transmissive base, a pedestal having a light-reflecting surface mounted on the rear of said base, a turntable, a figurine mounted on said turntable in front of said pedestal, a collar vertically mounted in said turntable, a driven shaft extending vertically through and above said base and removably fitting said collar; said turatable and said figurine being removable as a unit from said shaft, means for driving said shaft to revolve said figurine before said pedestal, and illumination means within said base for illuminating said figurine directly through said light transmissive base and by reflection from the light-reflecting surface of said pedestal.



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2,772,349
ILLUMINATING APPARATUS
William H. Chamberlin, Chicago, Ill.
Application May 11, 1953, Serial No. 354,250
2 Claims. (Cl. 240—10.65)



1. Illuminating apparatus comprising a case having at least one substantially planar outer surface, electric battery means secured within said case, an electric lamp having a light source therein energizable from said battery means, switch means mounted on said case for connecting said battery means and said light source, a permanent magnet mounted on said planar outer surface for supporting the apparatus juxtaposed against a body of magnetic material, a substantially cylindrical enclosure extending from said case substantially parallel to said planar outer surface, said lamp being mounted in and substantially surrounded by said cylindrical enclosure, lens means in spaced relationship to said light source to produce a light beam substantially parallel to the axis of said cylindrical enclosure, a substantially cylindrical housing rotatably mounted on said enclosure for rotation through substantially 360° and having a closed outer end and a transverse circular opening adjacent thereto, and reflecting means mounted within said housing at substantially 45° to the axis of said housing to direct the light beam outwardly through the aperture in said housing.

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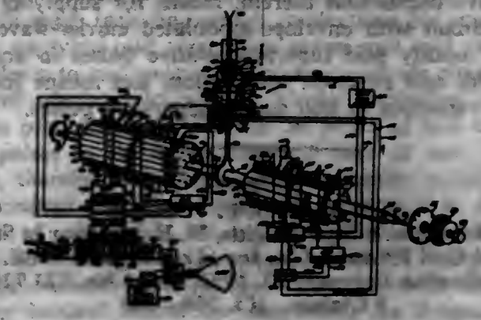
2,772,350
ACTIVE FREQUENCY-SELECTIVE FILTER NETWORK USING DOUBLE FREQUENCY CONVERSION
Ralph W. Dentzer, Portland, Oreg.
Application December 1, 1954, Serial No. 472,334
4 Claims. (Cl. 250—20)



4. A circuit for receiving energies of a wide frequency spectrum and operative for selecting a desired band therefrom, comprising means for generating first local energies of a frequency on one side of the desired band and of different relative phases, means for beating the received energies against local energies of different relative phases so as to produce beat frequency energies of different phases, means for effecting a relative phase shift between beat frequency energies of one phase relative to beat frequency energies of a different phase to place these energies in cancellable phase relation, and means for balancing these beat frequency energies against one another to balance out the beat frequency energies representing the frequencies on one side of that locally generated and to leave beat frequency energies representing the desired band and frequencies on the other side of that of the locally generated energies, means for generating second local energies of a lower frequency from that of the first locally generated energies, means for beating the uncancelled first beat frequency energies against second locally generated energies of different phases so as to provide second beat frequency energies of different phases, means for effecting a relative phase shift between second beat frequency energies of one phase relative to second beat frequency energies of another phase to place them in cancellable phase, and means for balancing these second beat frequency energies against one another to balance out energies above the frequency of that of the second generated local energies and leave only second beat frequency energies representing the desired band.

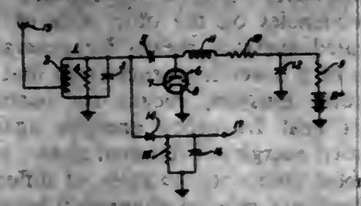
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2,772,351
PLURAL BAND TELEVISION RECEIVER TUNER WITH CHANNEL INDICATOR KNOB
Stuart Machlin, Huntington, N. Y., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois
Application March 14, 1952, Serial No. 276,573
8 Claims. (Cl. 250—20)



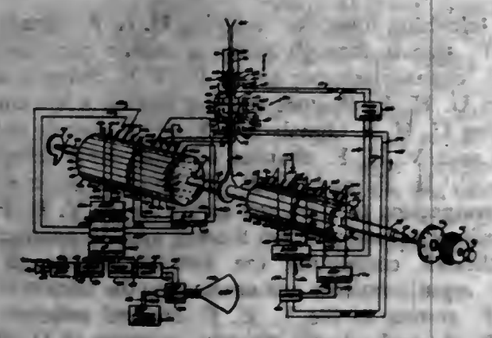
1. A television tuner for receiving U. H. F. signals and V. H. F. signals through antenna means comprising a U. H. F. channel selector and a V. H. F. channel selector; said U. H. F. channel selector having a system for converting U. H. F. signals into V. H. F. signals receivable by said V. H. F. channel selector; input terminals for the U. H. F. and V. H. F. channel selectors; a switch connecting the antenna means to the V. H. F. input terminals in one position thereof and, in another position thereof connecting the antenna means to the U. H. F. input terminals and connecting the output of the U. H. F. system to the V. H. F. channel selector; the U. H. F. channel selector selecting a group of U. H. F. signals; the V. H. F. channel selector, when the U. H. F. system is connected to the V. H. F. channel selector, selecting a specific signal from the group of converted signals selected by the U. H. F. channel selector; said channel selectors being axially aligned and mounted on concentric shafts; concentric manual control members connected to each shaft; each control member comprising a manually rotatable knob carrying indicia; the V. H. F. control member being mounted in front of and masking portions of the indicia of the U. H. F. control member; the U. H. F. shaft carrying a member for operating the switch to connect the antenna means to the V. H. F. input terminals at a predetermined angular position of said U. H. F. shaft; indicia means operable when said predetermined angular position of said U. H. F. shaft is reached to indicate that the television tuner is set for V. H. F. reception.

2,772,352
SUPERREGENERATIVE AMPLIFIER
Joseph C. Tellier, Penn Wynne, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application June 7, 1950, Serial No. 166,606
2 Claims. (Cl. 250—20)



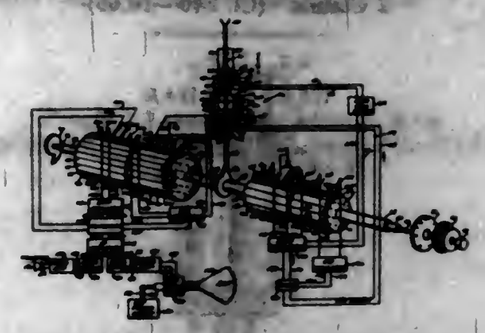
1. A superregenerative amplifier, comprising, in combination: a relaxation oscillator including a gaseous discharge device having an anode element and a cathode element, said relaxation oscillator being operative to render said discharge device intermittently conductive during time-spaced intervals whereby said discharge device is caused to present a negative resistance between said anode and cathode elements during said intervals of conduction, and a tuned circuit connected effectively between said anode and cathode elements of said discharge device and having an equivalent parallel resistance which is greater than the absolute value of said negative resistance presented by said discharge device during at least portions of said intervals of conduction therein, thereby intermittently to overcome the damping of said tuned circuit and to produce pulses of superregenerative oscillations therein, means for supplying said tuned circuit with envelope-modulated carrier-wave signals to modify said superregenerative pulses in accordance with said envelope modulation, and means for detecting variations in said superregenerative pulses.

2,772,353
V. H. F.-U. H. F. TUNERS
Jay E. Browder, Roslyn Heights, N. Y., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif.
Application February 27, 1952, Serial No. 273,720
9 Claims. (Cl. 250—20)



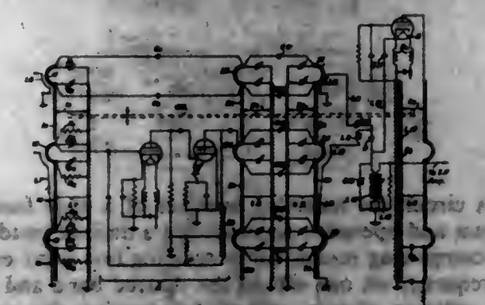
1. A television tuner for receiving ultra-high frequency channels and very high frequency channels comprising a pair of rotatable turrets, each turret having a plurality of panels; a plurality of circuit components associated with each turret and having stationary contacts; the panels of each turret each having additional circuit components and contacts engageable with the stationary contacts; one turret and the circuit components associated therewith being adapted to receive V. H. F. signals; the other turret and the circuit components associated therewith being adapted to receive U. H. F. signals, one of the turrets and its associated circuit components being adapted to convert signals received by it into signals receivable by the other of said turrets and its associated circuit components, said rotatable turrets being arranged along the same axis in tandem relation, a shaft member secured to each of said rotatable turrets for individual rotation and tuning thereof, the rearward shaft member projecting through the forward turret and through its associated front shaft member in concentric relationship and presenting substantially contiguous positions for their associated band tuning knobs.

2,772,354
V. H. F.-U. H. F. TUNERS
Jay E. Browder, Roslyn Heights, N. Y., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois
Original application February 27, 1952, Serial No. 273,720. Divided and this application March 17, 1953, Serial No. 345,573
5 Claims. (Cl. 250—20)



1. A television tuner for receiving ultra-high frequency signals and very high frequency signals comprising a pair of rotatable turrets, each turret having a plurality of panels; a plurality of circuit components associated with each turret and having stationary contacts; the panels of each turret having additional circuit components and contacts engageable with the stationary contacts the circuit components having stationary contacts being the predominantly frequency controlling element and the additional circuit components on the turret being comparatively high impedance elements to vary by small amounts the operating frequency when connected to the first circuit components; one turret and the circuit components associated therewith being adapted to receive V. H. F. signals; the other turret and the circuit components associated therewith being adapted to receive U. H. F. signals, one of the turrets and its associated circuit components being adapted to convert signals received by it into signals receivable by the other of said turrets and its associated circuit components.

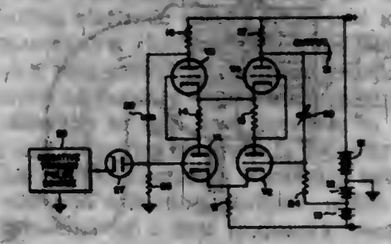
2,772,355
WIDE RANGE TUNER
Sid Deutsch and Herbert A. Flaim, Brooklyn, N. Y., assignors to Polytechnic Research & Development Co., Inc., Brooklyn, N. Y., a corporation of New York
Application July 5, 1951, Serial No. 235,117
15 Claims. (Cl. 250—20)



8. A tuner for short radio waves comprising a pair of electrically independent transmission lines arranged in alignment, with a small gap between adjacent ends of the conductors of said lines, individual means for applying received waves to each of said lines, a detector having an input terminal, individual connections from said lines to said detector terminal, a single short-circuiting slider movable throughout the extent of both of said lines for selectively rendering one or the other of said lines effective to energize said detector, an electron tube oscillator having a frequency determining element comprising a single quarter-wave shielded transmission line having a length equal substantially to the combined lengths of said pair of shielded lines, a short-circuiting slider for said quarter-wave transmission line movable throughout the same range as the short-circuiting slider for said pair of lines, operating means connecting said short-circuiting sliders for ganged operation, and a connection for supplying oscillations from said oscillator to said detector.

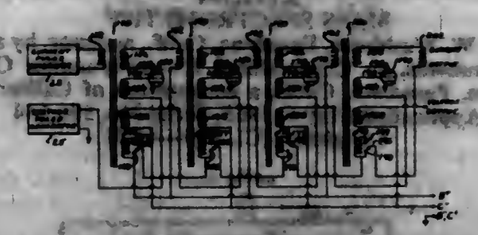


2,772,356
MULTIVIBRATOR CIRCUIT
Alan L. Rich, Hyde Park, Mass., assignor to Laboratory For Electronics, Inc., Boston, Mass., a corporation of Delaware
Application August 28, 1952, Serial No. 306,851
11 Claims. (Cl. 250—27)



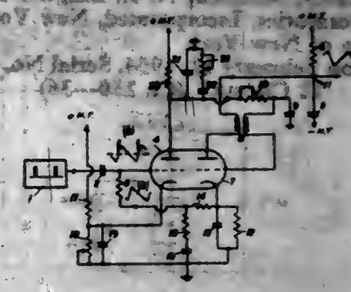
1. A multivibrator circuit comprising first and second pairs of serially connected electron tubes energized in parallel from a potential source, means for rendering conductive both tubes in said first electron tube pair, means for initiating conduction in both electron tubes in said second electron tube pair, and means intercoupling said first and second tube pairs whereby conduction in said second tube pair substantially instantaneously terminates conduction in both tubes of said first tube pair.

2,772,357
TRIGGERING CIRCUIT
An Wang, Cambridge, Mass.
Application June 6, 1952, Serial No. 292,215
28 Claims. (Cl. 250—27)



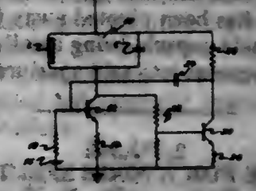
3. A scaler including a pulse transfer controlling device comprising a core of magnetic material in which the residual magnetic flux density is a large fraction of the saturation flux density, a first winding means on said core, current pulse means connected to said first winding means, amplifying means having an anode and a grid, an anode voltage source, a second winding means on said core connected to said grid, and signal pulse means connected to said second winding means opposing said current pulse means, said current pulse means and said signal pulse means being connected and arranged to provide substantially simultaneous pulses.

2,772,358
SCANNING CIRCUITS FOR CATHODE RAY TUBES
Arthur W. Keen, Coventry, England, assignor to Electric & Musical Industries Limited, Hayes, England, a British company
Application February 9, 1952, Serial No. 270,852
Claims priority, application Great Britain February 16, 1951
2 Claims. (Cl. 250—36)



1. A flywheel scanning circuit suitable for a cathode ray tube, comprising an oscillator including an oscillator valve having a control electrode and a cathode, and voltage responsive frequency control means connected to said control electrode for determining the natural frequency of said oscillator, a control valve having at least an anode, a control electrode and a cathode, means connected to the cathode of said oscillator valve for deriving a sawtooth waveform having a frequency determined by said oscillator, a source of controlling pulses of positive polarity, a control electrode-to-cathode circuit for said control valve including circuit connections for simultaneously applying said controlling pulses and said sawtooth waveform to said control electrode-to-cathode circuit, said control electrode-to-cathode circuit including biasing means predetermined to cause the peaks of said controlling pulses to lie within the grid base of said control valve, thereby to produce current intensity variations in said control valve in response to variations in the elevation of said pulses, an output load connected to the anode of said control valve, and means for applying the voltage variations across said output load to said frequency control means for controlling the frequency of said oscillator to maintain the incoming controlling pulses at an intermediate point on the short flanks of said sawtooth waveform, said voltage variations being an amplified representation of variations in the elevation of said controlling pulses on said short flanks.

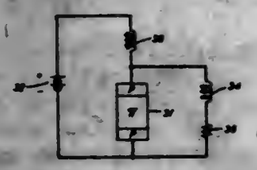
2,772,359
SYNCHRONIZED OSCILLATOR
Victor J. Medlano, Los Angeles, Calif., assignor to Sperry Rand Corporation, a corporation of Delaware
Application May 26, 1955, Serial No. 511,218
8 Claims. (Cl. 250—36)



8. A gated oscillator controlled in response to a source of synchronizing pulses, comprising an inductive-capacitive tank circuit, means for driving said tank circuit at its resonant frequency to sustain oscillation therein, a transistor having base, emitter, and collector electrodes, the resistor and tank circuit being connected in series with the collector and emitter electrodes of the transistor across a potential source, and means for increasing the base current of the transistor for a half cycle interval

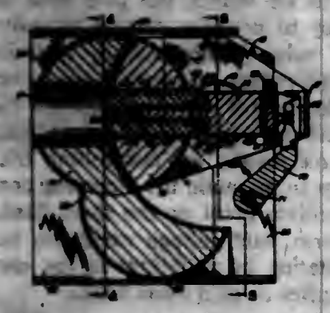
of the tank circuit, the base current being increased in response to a synchronizing pulse above the saturation level of the transistor, whereby the tank circuit is loaded to substantially the value of the resistor.

2,772,360
NEGATIVE RESISTANCE DEVICE
William Shockley, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 11, 1954, Serial No. 409,667
12 Claims. (Cl. 250—36)



10. An oscillator comprising a semi-conductive diode including a plurality of contiguous zones of different predominances of charge carriers and an external circuit connected between the two terminals of said diode including biasing means for establishing in an intermediate zone of said plurality an electric field which puts said zone in the range of negative differential mobility for charge carriers traveling through said zone.

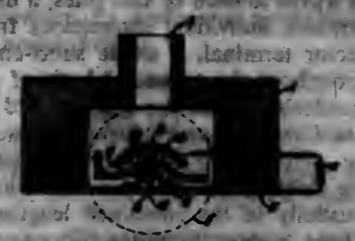
2,772,361
RADIOACTIVE SOURCE HOLDER
Everett N. Hastead, Columbus, Ohio, assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 21, 1953, Serial No. 399,446
10 Claims. (Cl. 250—106)



1. A radioactive source container comprising a capsule for holding a radioactive source; a radiation-absorbing shield, one surface of which is equidistant at every point from a predetermined axis; a mounting for said capsule within said shield and pivotable about said axis; and a radiation-absorbing member having an aperture therethrough so located that radiation can be emitted through the aperture when said capsule is registering with the aperture and the radiation is absorbed when the capsule mounting has been pivoted away from the vicinity of said aperture, said capsule being axially slidable in said mounting for movement into said aperture.

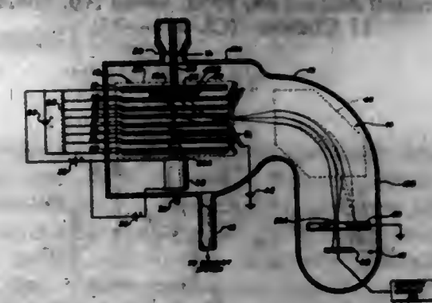
2,772,362
ION SOURCE FOR A MASS SPECTROMETER
Leonard A. Dietz, Pattersonville, N. Y., assignor to General Electric Company, a corporation of New York
Application April 26, 1955, Serial No. 504,027
4 Claims. (Cl. 250—41.9)

1. An ion source for a mass spectrometer tube comprising, an ionization chamber having a slit at one end through which ions may pass, a curved ion repeller plate disposed within said ionization chamber opposite the slit in the one end of said chamber and having a positive potential relative to said one end of said chamber for electrostatically focusing any ions formed within said chamber at a point in the region of said slit and a pair



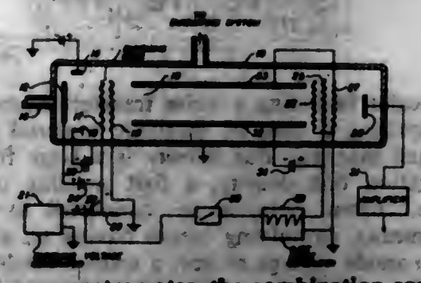
of guiding plates disposed on the sides of said slit for guiding ions through said slit.

2,772,363
METHOD AND APPARATUS FOR IONIZATION OF SOLIDS
Charles F. Robinson, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application March 21, 1952, Serial No. 277,772
4 Claims. (Cl. 250—41.9)



1. An ion source for ionizing a solid sample comprising an evacuatable envelope, means for supporting the solid sample within the envelope, a secondary ion source adapted to develop a beam of positive ions, means for impinging the beam of positive ions against the surface of the solid sample whereby ions are emitted therefrom, a series of parallel arranged grids disposed in the envelope adjacent the means for supporting the solid sample, a voltage source connected across the grids to form a uniform electrical field, magnet means disposed to develop a magnetic field normal to the electrical field whereby ions emitted from the sample pursue cycloidal trajectories from the point of origin with a consequence that a part thereof is expelled from the source between the grids.

2,772,364
MASS SPECTROMETRY
Harold W. Washburn, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application May 6, 1953, Serial No. 506,644
8 Claims. (Cl. 250—41.9)

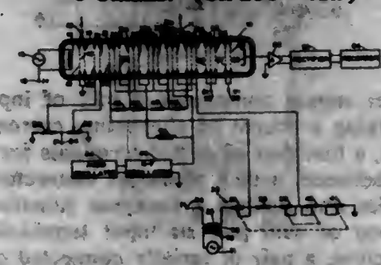


1. In a mass spectrometer, the combination comprising an evacuable envelope, means for developing ions within a restricted region of the envelope, an ion collecting electrode disposed in the envelope remote from the region of ion formation, propelling means for propelling ions from



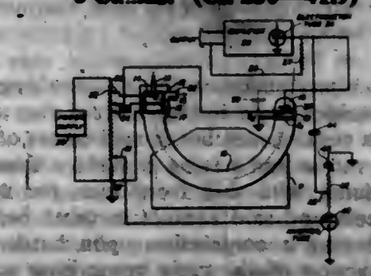
the region of ion formation toward the collector electrode whereby the ions separate into mass discriminated bunches, gating means disposed adjacent the collector electrode to alternately block and permit ion access to the collector, and means for producing in the region between the propelling and gating means a force operable to deflect ions from their line of travel between the source and the collector electrode.

2,772,365
MASS SPECTROMETER
Cecil B. Shelman, Fort Worth, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 20, 1954, Serial No. 476,521
8 Claims. (Cl. 250—41.9)



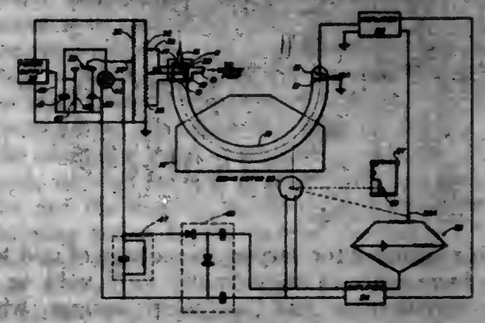
1. In a mass spectrometer comprising an ion source, an ion collecting electrode spaced from said ion source, an ion permeable first electrode positioned between said ion source and said collecting electrode, means to apply a first potential of polarity opposite the polarity of the ions being detected to said first electrode to accelerate ions toward said collecting electrode, a plurality of spaced ion permeable second electrodes positioned between said ion source and said collecting electrode, a first source of alternating potential of a first frequency, means applying said first source of alternating potential between adjacent pairs of said second electrodes, a third ion permeable electrode positioned between said second electrodes and said collecting electrode, and means to apply a second potential of the same polarity of the ions being detected to said third electrode; means to compensate said spectrometer for variations in said first potential consisting of a second source of alternating potential of a second frequency, and means to apply said second source of alternating potential to said first electrode.

2,772,366
MASS SPECTROMETRY
Clifford E. Berry, Altadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application September 14, 1953, Serial No. 380,052
6 Claims. (Cl. 250—41.9)



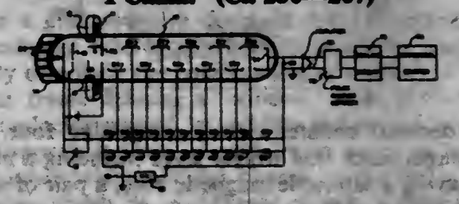
1. In a mass spectrometer including an accelerating voltage circuit, an ion collector, and an electrode disposed adjacent the ion collector and electrically connected to the accelerating voltage circuit, the combination comprising a capacitor connected to the ion collector, a phase inverter tube having an anode cathode and grid, means connecting the accelerating voltage circuit to the grid of the tube and means connecting the anode of the tube to the capacitor.

2,772,367
RECORDING SYSTEM
Charles F. Robinson, Pasadena, Norton W. Bell, Arcadia, Salvatore Vito Piccirillo, West Covina, and George D. Perkins, Duarte, Calif., assignors, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application September 17, 1953, Serial No. 380,784
12 Claims. (Cl. 250—41.9)



1. In combination with a self balancing recorder, apparatus for varying the rate of presentation of information to the recorder comprising first means operable at a variable rate to develop the information, and second means connected between the recorder and the first means to continuously control the operation of the first means to vary the rate of presentation as an inverse function of the magnitude of recorder unbalance.

2,772,368
HIGH TEMPERATURE SCINTILLOMETER
Serge A. Scherbatskoy, Tulsa, Okla., assignor to Perforating Guns Atlas Corporation, Houston, Tex., a corporation of Delaware
Application August 10, 1951, Serial No. 241,176
1 Claim. (Cl. 250—207)

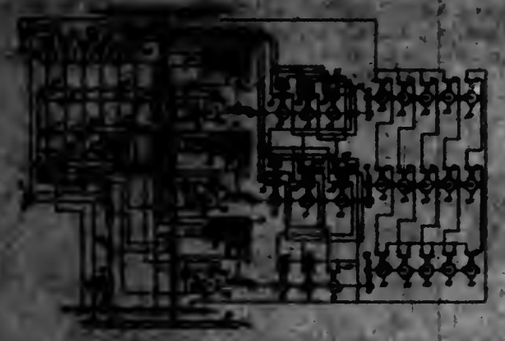


In a photoelectric detector for translating incoming photons into electrical impulse, a photoelectric element adapted to emit electrons of relatively high energy when exposed to said incoming photons, said element also emitting thermal electrons of relatively low energy when subjected to high ambient temperatures, a control grid positioned adjacent said element and operated at a positive potential with respect thereto for accelerating both high and low energy electrons emitted by said element, electron deflecting field means positioned beyond said control grid for deflecting electrons accelerated by said control grid in inverse relation to their energies, a secondary electron emitter positioned beyond said field means, and barrier means positioned between said field means and said secondary electron emitter for preventing those electrons which are deflected more than a predetermined amount from striking said emitter, whereby said detector is rendered substantially insensitive to changes in ambient temperature.

2,772,369
PARALLEL OPERATION OF TAP CHANGING TRANSFORMERS
Harold E. Pinney, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application October 28, 1955, Serial No. 546,070
20 Claims. (Cl. 307—58)

1. In an electric power system, a plurality of voltage regulating means connected in parallel between an alter-

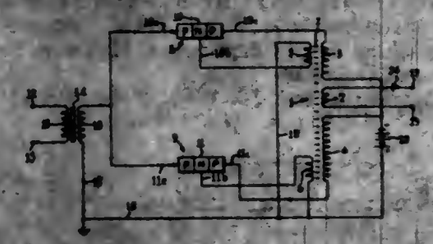
using power source and a load circuit, separate control means for each of said voltage regulating means for varying the load voltages of their respective voltage regulating means in increments of V volts, said control



means being arranged for varying the voltage of said load circuit in increments of substantially $V/N$ volts in response to variations in said load circuit voltage, where N is the number of parallel connected voltage regulating means.

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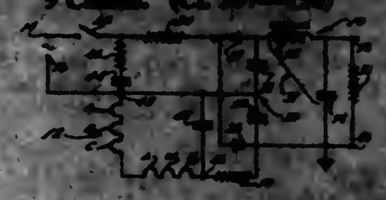
2,772,370
BINARY TRIGGER AND COUNTER CIRCUITS EMPLOYING MAGNETIC MEMORY DEVICES
George D. Brown, Wappinger Falls, and Joseph C. Logue, Kingston, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1953, Serial No. 401,674
16 Claims. (Cl. 307—88)



7. A decimal counter circuit comprising four binary trigger stages, each said trigger stage including a memory device having a saturable magnetic core, a pair of saturating windings on said core, a pair of saturating means, each including one of said windings, both saturating means being operable in response to input signals of predetermined polarity to vary the magnetic flux in the core in respectively opposite senses and to the point of saturation, each of said saturating means including limiting means effective to prevent operation of its associated saturating means when the core is saturated in its direction, means to deliver input signals of said predetermined polarity simultaneously to both the saturating means of the first stage, so that successive input signals are effective to saturate the core alternately in opposite directions; first and second coupling means including output windings on the cores of said first and second stages for transmitting output signals due to variation of the core flux of each of said first and second stages to both the saturating means of the succeeding stage; third coupling means including an output winding on the core of the third stage for transmitting output signals due to variation of the core flux of said third stage to one only of the saturating means of the fourth stage, fourth coupling means including a second output winding on the core of the first stage for transmitting output signals due to variation of the core flux of the first stage to the other of the saturating means of the fourth stage, blocking means including an output winding on the core of the fourth stage for transmitting output signals due to variation of the core flux of the fourth stage by said other saturating means to both the saturating means of the second stage in a sense to block operation thereof, and signal output means including a second output winding on the core of the fourth stage for transmitting output signals due to variation of the core flux of said fourth stage by said other saturating means.

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2,772,371
POWER SUPPLY
Bethel E. Deaton, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 3, 1955, Serial No. 480,977
9 Claims. (Cl. 307—130)



9. A power supply comprising a pair of input terminals for applying a source of alternating current voltage therebetween, a first pair of output terminals for applying a load therebetween, a pair of diodes connected to each other in series and having a common junction, means connecting one of said pair of input terminals to said common junction, a pair of serially connected capacitors having a common junction and connected in series with said diodes, means connecting the other of said pair of input terminals to said last-mentioned junction, filter means connected between said pair of serially connected diodes, said first pair of output terminals being connected in series with said serially connected diodes through said filter means, a second pair of output terminals for applying a filament string therebetween, means including a first capacitor to connect said one of said pair of input terminals to one of said second pair of output terminals, means connecting the other of said second pair of output terminals to said serially connected capacitors, and means including a second capacitor connecting said one of said second pair of output terminals to one of said first pair of output terminals.

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2,772,372
COMPOSITE DISTRIBUTOR ROTOR
Fred S. Slick, Rockford, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application February 2, 1955, Serial No. 485,731
11 Claims. (Cl. 310—70)

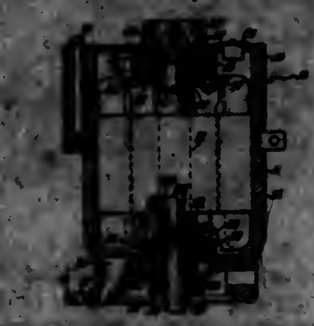


11. A composite distributor rotor comprising a body portion of a molded resin having a front face provided with a recess, a contact member in said recess of an area less than said recess and having a surface thereof substantially co-planar with said front face, the space between said recess and said contact member being filled with a resin having a contraction upon hardening less than the contraction of the resin comprising said body portion.

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2,772,373
MOTOR THRUST LOAD BALANCING MEANS
John R. Howe, Novelty, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application April 18, 1955, Serial No. 502,069
7 Claims. (Cl. 310—90)

1. In a substantially vertically mounted motor assembly including a housing defining a motor chamber, a motor mounted in said chamber, a motor shaft having a shoulder formed thereon adjacent the bottom of said housing, said shaft extending from said housing at the top and bottom thereof; an upper annular carbon thrust bearing having annular groove defining means in the top and bottom surfaces thereof, surrounding said shaft fixedly retained in said housing adjacent the top thereof; annular thrust washers contacting the top and bottom surfaces of said upper thrust bearing of a diameter to overhang said groove defining means so as to prevent the scoring of said surfaces by the edges of said washers; a lower annular carbon thrust bearing surrounding said



shaft fixedly retained in said housing adjacent the bottom thereof; an annular thrust plate surrounding said shaft and received in an annular opening in said housing adjacent said lower thrust bearing; and a coiled compression spring disposed around said shaft between said shaft shoulder and said thrust plate effective to react against said shoulder and thereby to said upper thrust bearing, and against said thrust plate and thereby to said lower thrust bearing to divide the thrust of the rotor of said motor between said thrust bearings, so that each of said thrust bearings is subjected to substantially one-half the thrust of said motor.

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2,772,374
DIFFERENTIAL SYNCHRO
Paul B. Aller, Philadelphia, and Stuart E. Hotchkiss, Southampton, Pa.
Application June 7, 1954, Serial No. 435,160
3 Claims. (Cl. 310—115)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A compact fully enclosed differential synchro mechanism comprising a hollow generally cylindrical fixed non-rotatable case member having opposed end portions each having a centrally disposed recess therein at least one of which forms an opening through the case member, first and second bearing means mounted in the respective recesses of the respective end portions of said case member, a hollow generally cylindrical stator supporting frame closely interfitted within said case member and having opposed stub shafts projecting outwardly from its opposite ends at least one of which is hollow and both of which project into rotatable engagement with the first and second bearing means to rotatably support said stator supporting frame within the case member, a third bearing means mounted within the hollow stub shaft, a third recess in the stator supporting frame opposite to and in alignment with said hollow stub shaft, a fourth bearing means mounted in said third recess, an elongated rotor shaft rotatably supported in said third and fourth bearing means, a stator winding fixedly secured to the inner surface of said stator supporting frame, a rotor winding secured to said rotor shaft in alignment with said stator winding, a plurality of electrical connections fixedly secured to one said portion of the case member and projecting within the case member into engagement with a series of concentric circular sliding contacts mounted for rotation with the stator supporting frame, electrical conductors interconnecting a first plurality of said sliding contacts and the stator winding, a pair of slip rings mounted upon said rotor shaft, electrical conductors interconnecting said slip rings and a second plurality of the sliding contacts, said stator supporting frame and said rotor shaft being so disposed that one of the stub shafts projecting from the stator supporting frame and one end of the elongated rotor shaft project through at least one opening through the case member closed by the respective shafts and the bearing means therefor, a stator winding positioning means fixedly secured to the external portion of the stub shaft, and a rotor winding positioning means fixedly secured to the external portion of the rotor shaft, both of said positioning means having overall dimensions substantially less than the circumferential outer diameter of said case member.

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2,772,375
ELECTRODE STRUCTURE FOR IMAGE-REPRODUCING CATHODE-RAY TUBES
Joseph E. Byrne, Lafayette, Calif., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
Application January 14, 1954, Serial No. 403,987
6 Claims. (Cl. 313—78)



1. In a grid structure designed for incorporation into a cathode-ray tube adapted to reconstitute images in a plurality of colors, the combination of a substantially rectangular frame defining a "window" area, a first continuous conductor wound in coil-like fashion around oppositely-disposed sections of said frame so as to form two sets of substantially parallel strands across the said "window" area which lie in different planes, a layer of insulating material overlying those portions of said first conductor which encircle the two said oppositely-disposed frame sections, a second continuous conductor wound in coil-like fashion around said frame so as to overlie said insulating layer, thus forming two further sets of substantially parallel strands across said "window" area which lie in planes different from those of the first-mentioned sets and means for bringing the strands of all the said sets into substantially coplanar relationship across the "window" area of said frame.

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2,772,376
GRID STRUCTURE FOR CATHODE-RAY TUBES DESIGNED FOR POLYCHROME IMAGE REPRODUCTION
Leslie J. Cook, Lafayette, and Lawrence T. Quaglia, San Francisco, Calif., assignors to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
Application January 14, 1954, Serial No. 404,038
11 Claims. (Cl. 313—78)



1. In a grid structure designed for incorporation into a cathode-ray tube adapted to reconstitute images in a

plurality of colors, the combination of a frame having a window area, a continuous conductor wound in coil-like fashion around said frame so as to form across said window area two sets of substantially parallel strands respectively lying in separate parallel planes and a bar of rigid material positioned substantially adjacent to the conductor support frame to compress one of the sets of parallel strands into coplanar relationship with the other.

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2,772,377

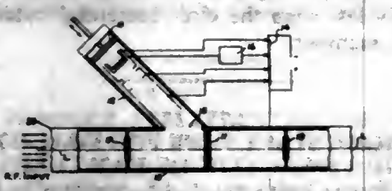
**DEVICE FOR ELECTRONICALLY CONTROLLING THE PROPAGATION OF RADIO FREQUENCY POWER**

Benjamin Kazan, Princeton, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application August 29, 1951, Serial No. 244,248

5 Claims. (Cl. 315—4)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A radio frequency component comprising a hollow pipe wave guide section, a dielectric element in said section, means for introducing electromagnetic waves into said section with the electric field parallel to a substantial dimension of said dielectric element, and means bombarding said dielectric element with a beam of high voltage electrons for varying the conductivity of said dielectric element to variably attenuate said electromagnetic waves.

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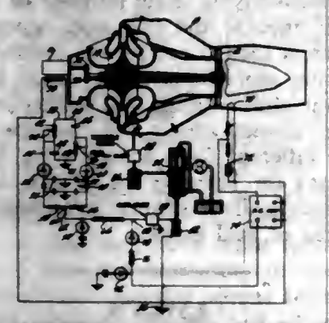
2,772,378

**SPEED CONTROL CIRCUITS**

Thomas P. Farkas, Bloomfield, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application December 11, 1951, Serial No. 261,020

6 Claims. (Cl. 317—5)



1. In combination with an engine driven alternating current generator having a grounded connection, a pair of electric circuits having one side grounded and the other side directly connected to said generator, one of said circuits having two separate impedances one of which has a reactance variable with the frequency of the generator, frequency variations causing the voltage drop across said reactance to vary with respect to the voltage drop across a selected portion of the other of said pair of circuits, a rectifier and an impedance in series and shunted across said reactance and a rectifier and an impedance in series and shunted across said selected portion, said last mentioned impedances being connected together at one end, a connection having a common line forming a part of a grounded circuit through both of said last mentioned impedances providing a D. C. voltage with respect to ground proportional to the algebraic sum of the voltages across said last mentioned impedances, and means actuated by said D. C. voltage for controlling the speed of said engine and the frequency of said alternating current.

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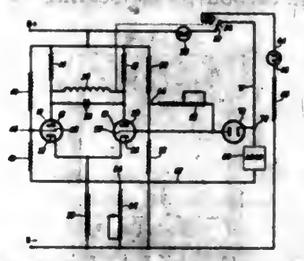
2,772,379

**AUTOMATICALLY RESETTABLE CIRCUIT BREAKER SYSTEM**

Arthur J. Schultz, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application July 9, 1953, Serial No. 366,945

3 Claims. (Cl. 317—23)



1. An automatically resettable overload circuit breaker arrangement comprising a Wheatstone bridge connected across a source of potential, two arms of the bridge being triodes, a common biasing resistor in the cathode circuits of the triodes, a magnetic coil across the arms for sensing bridge unbalance, a circuit breaker connected to a source of potential and operated by said coil, a series arrangement of a pair of resistors and a potentiometer, all in parallel arrangement with respect to the bridge, a connection between the grid of one triode and a point between the resistors of the pair, a second series arrangement of a pair of resistors in parallel with the bridge, a second potentiometer connecting the grid of the other of said triodes with a point between the resistors of said second series arrangement, a load connected between the circuit breaker and a point between the juncture of the first potentiometer and resistor of the first pair, and a diode with its anode connected to the grid of the second triode and its cathode to a point between the circuit breaker and load.

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2,772,380

**TUBULAR ELECTRONIC UNIT**

Richard G. Andrew, Van Nuys, Calif.

Application April 26, 1954, Serial No. 425,424

5 Claims. (Cl. 317—101)



1. An electronic modular unit comprising a thermionic tube socket, having a cylindrical body and a flange constituting an integral part of said body, a plurality of orifices in said body, a corresponding plurality of socket terminals in said body for receiving a corresponding plurality of prongs of said thermionic tube, one end of said terminals projecting beyond said cylindrical body and being bent first outwardly and then inwardly to act as sliding, elecarical spring contact elements, a hollow, tubular insulation member having upper and lower edges and inner and outer surfaces joining said edges, first and second sets of printed conductors on said member, the number of said conductors in each set being equal to the number of said socket terminals, both sets of conductors extending over portions of said inner and outer surfaces



and the respective edges of said member, the conductors of the first set being spaced from the conductors of the second set in the direction of the longitudinal axis of said unit, an insulation plug partially fitting into said member and engaging the lower edge of said insulation member, said insulation plug having a corresponding plurality of metallic prongs circumferentially spaced in the same manner as the prongs of said thermionic tube, said prongs having metallic spring contact ears making pressure contacts with the inner portions of the respective printed conductors of the second set, said tube socket also partially fitting into said hollow member and engaging with its flange the upper edge of said hollow member, and the spring portions of said socket terminals making pressure contacts with the inner portions of the respective printed conductors of the first set, and fused metallic bonds between said tube socket, hollow member and said plug formed by said sets of printed conductors, for integrating said socket, member and plug into a unitary structure.

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2,772,381

**MAGNETIC LID LIFTER FOR CAN OPENERS**

Ira P. Rhodes, St. Louis, Mo., assignor to Swing-A-Way Manufacturing Company, St. Louis, Mo., a corporation of Missouri

Application June 25, 1951, Serial No. 233,328

1 Claim. (Cl. 317—159)



A magnetic lid lifter for a can opener, said lid lifter comprising a magnet assembly and a non-magnetic support therefor, said magnet assembly including identical opposed magnetic pole plates of symmetrical form disposed in parallel, a plurality of bar magnets interposed between said plates and in abutment therewith, said magnets being disposed in symmetrical parallel arrangement, the north pole of each of said magnets extending in the same direction, non-magnetic securing means disposed in symmetrical arrangement with the magnets retaining the pole plates in compressive abutment therewith, and means fastened to said non-magnetic securing means for suspending said magnet assembly from said non-magnetic support.

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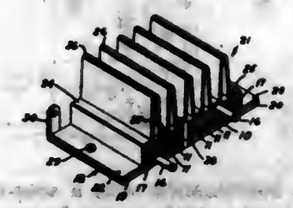
2,772,382

**RECTIFIER ASSEMBLY WITH AIR COOLING FINS**

Charles A. Escoffery, Los Angeles, Calif., assignor to International Rectifier Corporation, Los Angeles, Calif., a corporation of California

Application May 31, 1955, Serial No. 511,880

3 Claims. (Cl. 317—234)



1. A dry plate rectifier comprising a rectifier stack of flat rectifier plates in conductive connection, a pair of terminal lugs, one terminal lug being on each side of said rectifier stack in conductive contact therewith, a wrapper of insulating material around the stack and lugs, a binder for said wrapped stack and lugs comprising a member on each side of said stack of lugs, said members being bound together to enclose said stack and lugs, at least one of said members being corrugated so as to form fins which radiate heat from the rectifier stack, and means for fastening said members together so as to bind and compress the rectifier stack.

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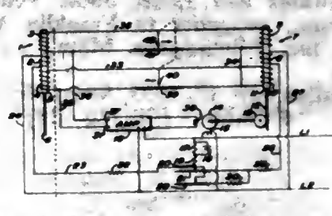
2,772,383

**TEMPERATURE COMPENSATED SERVO COILS**

Robert O. Bradley, Clarence S. Simonds, and Charles Harold Jacobs, Toledo, Ohio, assignors to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey

Application December 30, 1952, Serial No. 328,619

2 Claims. (Cl. 318—28)



1. In an electrical data transmitting system, in combination, a pair of differential transformers each having a primary and pair of secondary windings, a source of alternating current power, a circuit for energizing said transformers comprising a first resistor in series with a pair of branch circuits each including a resistor and one of said primary windings, said resistors being adjusted according to the temperature coefficients of said transformers, said secondary windings being connected in series circuit with each winding connected in voltage opposition to the other winding of the same transformer and to the corresponding winding of the other transformer, a movable core for each transformer, resistors connected in parallel with each of the secondary windings, and means for simultaneously increasing the resistance of the resistors connected in parallel with two of the windings while decreasing the resistance of the remaining resistors, whereby the net voltage of said series circuit may be maintained substantially at zero as said cores are moved proportionate distances from their midpositions.

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2,772,384

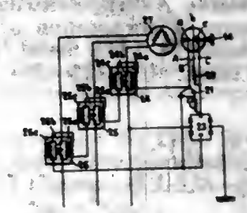
**SPEED CONTROL FOR A. C. MOTORS**

Josef Unterreiner, Zurich, Switzerland, assignor to Alois Huwyler, Zurich, Switzerland

Application December 28, 1950, Serial No. 203,177

Claims priority, application Switzerland November 14, 1950

4 Claims. (Cl. 318—229)

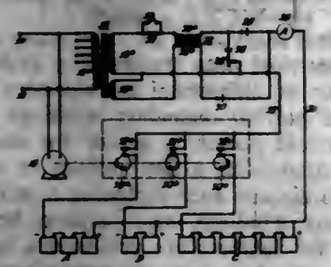


1. Means for infinitely variable speed adjustment of a three-phase motor having a drive shaft; comprising, in combination, an electrical contact device having contact elements engageable with one another, a displaceable member located on one side of said contact device and responsive to variations in the speed of said shaft, a manually adjustable regulating member located on the opposite side of said contact device, said displaceable member and said regulating member being abuttable against said contact device and controlling the spacing of said contact elements for opening and closing the latter, a main three-phase power supply circuit for said motor, saturable reactor means including a plurality of load windings connected in each of the respective phases of said three-phase circuit and saturating windings for controlling the saturation of said reactor means and thereby controlling the

inductive reactance of said load windings, a source of control voltage, and means connecting said contact elements in series with said saturating windings across said source of control voltage, whereby said contact elements control the saturation of said reactor means and thus the speed of the motor.

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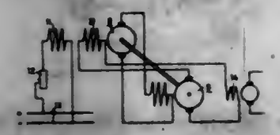
2,772,385
BATTERY CHARGER FOR A PLURALITY OF SETS OF SERIES CONNECTED BATTERIES
Kenneth Dawkins and Elmer Jessie Peterson, Minneapolis, Minn., assignors to Franklin Manufacturing Company, Inc., Minneapolis, Minn., a corporation of Minnesota
Application July 17, 1953, Serial No. 368,642
6 Claims. (Cl. 320—18)



6. A constant current charging circuit for various numbers of series connected batteries comprising in combination: a source of alternating voltage; a reactor having a magnetic core and a winding; a rectifier; means defining output terminals; means connecting the source, reactor and rectifier in series relation to said output terminals; and a capacitor connected in shunting relation to the rectifier, the magnetic characteristics of the reactor being such that current flow therethrough while the rectifier is non-conducting conditions the core to cause a voltage in the winding during the subsequent conducting period of the rectifier of direction and amount to tend to maintain a constant average current flow through the rectifier.

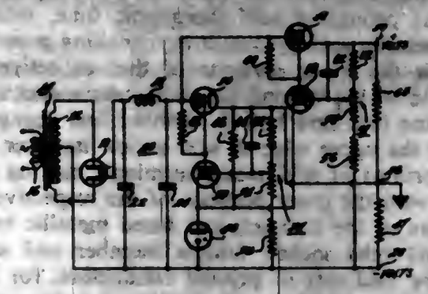
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2,772,386
DYNAMOELECTRIC AMPLIFYING MACHINES FOR CONTROLLING AND REGULATING PURPOSES
Franz Nechleba, Nuremberg, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany
Application October 14, 1953, Serial No. 385,995
6 Claims. (Cl. 322—59)



1. A dynamoelectric amplifying system comprising a first direct-current generator having a separately excited field circuit and a first internal armature circuit, a first external circuit connected with said armature circuit, a second direct-current generator having a field winding forming part of said first external circuit and having a second internal armature circuit, and a second external circuit connected with said second armature circuit and including a load of ohmic resistance, said first armature circuit having an ohmic resistance substantially equal to the resistance of said first external circuit, and said second armature circuit having an ohmic resistance substantially equal to the resistance of said second external circuit.

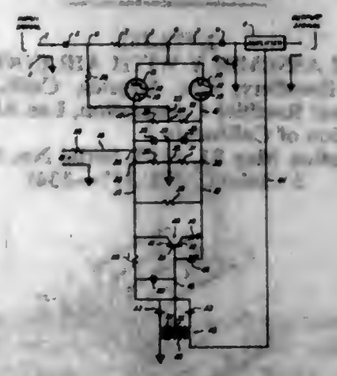
2,772,387
POWER SUPPLY WITH REGULATED POSITIVE AND NEGATIVE OUTPUT VOLTAGES
Anthony Lignori, Hackensack, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 29, 1953, Serial No. 389,117
4 Claims. (Cl. 323—22)



1. In a power supply of the type wherein a source of variable voltage is regulated by a first variable impedance device connected in series with said source and a first voltage divider, and having a first means comprising a first amplifier having a cathode for controlling the impedance of said device in accordance with changes in voltage drop across said first voltage divider; the combination therewith of a second voltage divider, a second variable impedance device connected in series with said source and said second voltage divider, a second means comprising a second amplifier having a cathode for controlling the impedance of said second device in accordance with changes in voltage drop across said second voltage divider, said first and second voltage dividers having a common junction, said cathodes being connected to each other, and means common to said first and second amplifiers connected between said common junction and said cathodes to maintain the voltage at said cathodes substantially constant with respect to said common junction.

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2,772,388
AUTOMATIC VOLUME CONTROL
Louis W. Erath, Paul E. Madsley, and Paul W. Geery, Houston, Tex., assignors, by mesne assignments, to Southwestern Industrial Electronics Company, Houston, Tex., a corporation of Delaware
Application October 18, 1954, Serial No. 463,024
24 Claims. (Cl. 323—24)

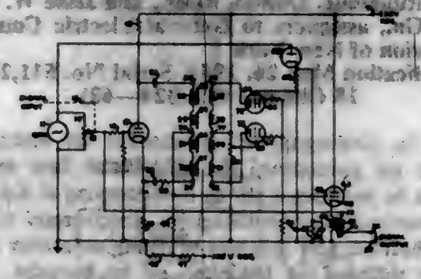


1. For use in combination with a source of an alternating current signal, which source has appreciable impedance and has a first output terminal which may be characterized as ground and a second output terminal, the combination of a first diode with a first anode and a first cathode; a second diode with a second anode and a second cathode; said first anode and said second cathode being adapted for connection to said second terminal; two resistors connected in series between said first cathode and said second anode, the common terminal between said two resistors being also adapted for connection to ground; a source of error voltage; means for applying said error voltage to control the relative potential difference between said first cathode and said second anode.

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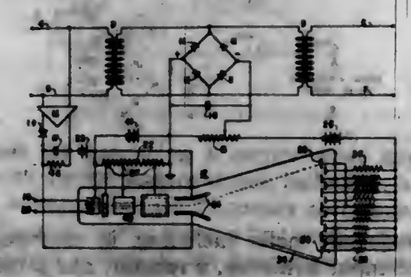
2,772,389
ELECTRICAL CONTROL SYSTEM
John W. Gray, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application March 1, 1954, Serial No. 413,201
4 Claims. (Cl. 323—45)



1. In an electrical control system, a source of alternating current voltage to be controlled, a source of direct current voltage to serve as a reference voltage, two saturable reactors each having an alternating current winding and a direct current winding, means connecting said two alternating current windings in series at a common terminal, means for applying an alternating current voltage derived directly from said alternating current source and including all the characteristics of the voltage of said alternating current source to said alternating current windings in series, means for applying direct currents to said direct current windings, the relative values of said currents representing the deviation of the voltage of said alternating current source from a preselected potential to thereby vary the respective reactances of the corresponding alternating current windings in amplitude and phase sense to produce an alternating current correction potential at said terminal, and means for adding said correction potential to said alternating current potential in such phase as to oppose any variations of said alternating current potential from said preselected value.

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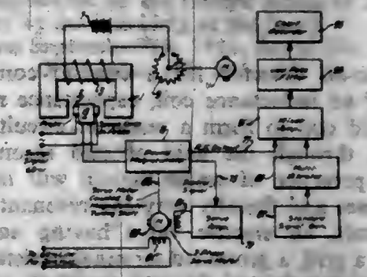
2,772,390
VOLUME LIMITER DEVICE
Albert E. Woodruff, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application March 27, 1953, Serial No. 345,067
6 Claims. (Cl. 323—66)



1. A voltage regulating device comprising a circuit including a load resistor, a source of current for causing a voltage drop across said load resistor, means for varying said voltage drop comprising a plurality of resistance elements having different resistance values, one terminus of each of said resistance elements connected to said load resistor, and means for selectively including any one of said plurality of resistance elements with said load resistor in said circuit, said last-mentioned means comprising a space discharge device having means for producing a stream of electrons and having a plurality of single insulated target plates in the sweep path of said electron stream, each of said plates connected to the other terminus of each of said resistance elements, respectively, said stream of electrons completing said circuit through any one of said resistance elements, and deflecting means for deflecting said electron stream from one of said target plates to another to thereby regulate said voltage drop across said load resistor in accordance only with said individual resistance values.

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2,772,391
RECORDING MAGNETOMETRIC APPARATUS OF THE NUCLEAR-RESONANCE TYPE
Richard C. Mackey, Beverly Hills, Calif., assignor to The Regents of the University of California, Berkeley, Calif., a corporation of California
Application August 18, 1954, Serial No. 450,648
5 Claims. (Cl. 324—.5)



1. Registering magnetometric apparatus for giving a continuous train of indications of the strength of a varying magnetic field which comprises the combination, with a nuclear-resonance magnetometer operative to vary the value of an electric current as the magnetic field strength to which a sample is subjected is swept, through the value causing resonance in the sample to the frequency developed by an oscillator, by a cyclically varying magnetic field superposed on the field to be measured, of a servomotor mechanically connected to vary the tuning of said oscillator and having one phase winding supplied with a reference current of the frequency of said cyclically varying field, and a second phase winding supplied by the varied current from said magnetometer, whereby said oscillator is automatically tuned to the nuclear resonance frequency of said sample in the field to be measured, and frequency-responsive means for registering the frequency to which said oscillator is tuned.

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2,772,392
MAGNET POLE INDICATORS
Heinrich Mohr, Dortmund-Aplerbeck, Germany, assignor to Deutsche Edelstahlwerke Aktiengesellschaft, Krefeld, Germany
Application September 21, 1953, Serial No. 381,373
Claims priority, application Germany September 23, 1952
5 Claims. (Cl. 324—34)

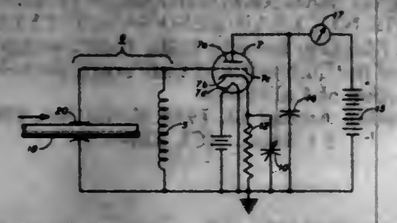


1. A magnetic polarity indicator comprising a non-magnetic housing, a diametrically magnetised disc made of an oxidic permanent magnet material of high coercivity rotatably mounted in said housing, a window in said housing, and an arrow head pointer extension of said housing, the position of said window in relation to the

disc being determined so that one of two polarity markings on the disc appear in said window when the poles of the disc align with the pointer.

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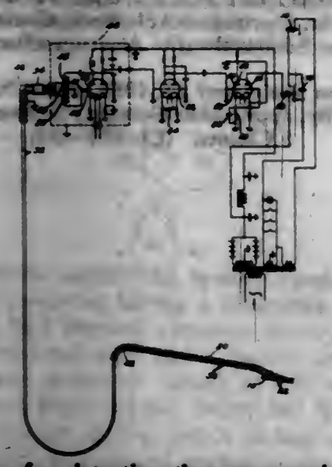
2,772,393
**WATER-IN-OIL DETECTOR**
Vincent C. Davis, Oakland, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application December 23, 1952, Serial No. 327,553
1 Claim. (Cl. 324—40)



A water-in-oil detector for a conduit conveying oil, consisting of an inductance coil, capacitance means connected to said coil to form a resonant circuit, said conduit passing through the field of said resonant circuit so that the presence of water therein will increase the electrical losses and thereby vary the resonant properties of said circuit, an electric valve having an anode, a cathode and a grid, a grounded terminal, resistance means connecting said cathode and said terminal, a source of direct current for said anode, a variable capacitor shunting said resistance means, means connecting said resonant circuit between said grid and said terminal to vary the anode current of said valve in accordance with changes in said resonant circuit, and a direct current indicator in series with said anode, said current source and said terminal so constructed and arranged that oscillations in said resonant circuit and the magnitude of said anode current are at a maximum when oil is present in said conduit, and decrease sharply when water is present in said oil.

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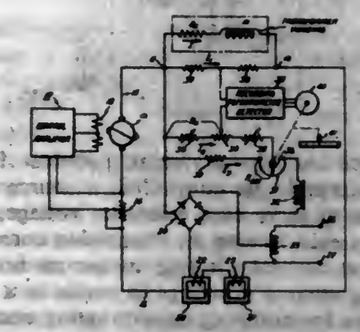
2,772,394
**DEVICES FOR FINDING PROTRUDING METAL OBJECTS IN SHOES**
Robert W. Bradley, Marblehead, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application December 28, 1951, Serial No. 263,791
10 Claims. (Cl. 324—61)



1. Apparatus for detecting the presence in a shoe of metal objects protruding from the shoe materials into the foot cavity comprising a probe having a handle and two similar superposed conductive contact members supported by the handle by which said contact members may be moved over the bottom surface of the shoe cavity, an indicating device, and two electrically balanced leads coupling the contact members to said indicating device in opposed relation, said indicating device being constructed and arranged to indicate engagement between a contact member and a metal object in response to electrical contact between said object and one only of said contact members.

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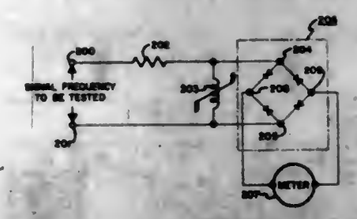
2,772,395
**METHOD AND APPARATUS FOR THE MEASUREMENT OF LOW RESISTANCE**
Lewis R. Ruxaldus, Dalton, Mass., and Jesse W. Burnett, Rome, Ga., assignors to General Electric Company, a corporation of New York
Application May 26, 1955, Serial No. 511,296
18 Claims. (Cl. 324—62)



6. An apparatus for measuring the winding resistance of electrical induction apparatus having a core and characterized by a large inductive time constant comprising current supply means providing a constant direct current of sufficient magnitude to saturate the core of said inductive apparatus, lead means connecting said supply means to said inductive apparatus, saturable reactor means having primary and secondary windings, said primary windings being connected in series with said lead means, said secondary windings providing a voltage proportional to said constant direct current, and calibrated circuit means for comparing said voltage with the voltage drop across the windings of said inductive apparatus.

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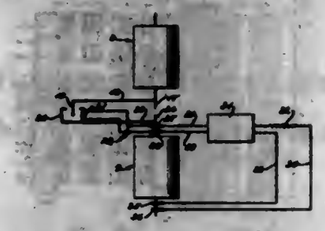
2,772,396
**FREQUENCY METER OR THE LIKE**
James L. Buie, Sun Valley, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application March 3, 1954, Serial No. 413,894
3 Claims. (Cl. 324—78)




1. A frequency meter including, in combination, first and second input terminals, a resistor, and a reactor having first and second terminals, said first input terminal being coupled through said resistor to said first terminal of said reactor, said second input terminal being coupled to said second terminal of said reactor, and said reactor having in addition a saturable core exhibiting constant saturation flux level and a rectangular hysteresis loop; a full-wave rectifier having an input circuit and an output circuit, said rectifier input circuit being coupled across said first and second terminals of said reactor; and a meter having a D'Arsonval-type movement, said meter being coupled to said output circuit of said rectifier.



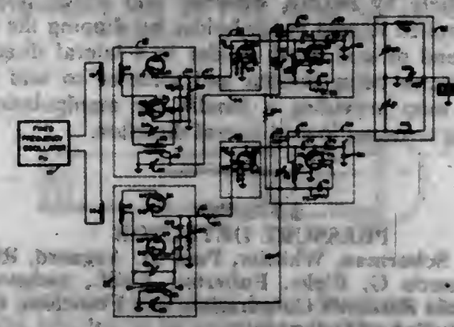
2,772,397
**LOGARITHMIC ELECTRICAL MEASURING SYSTEM**
Theodore A. Rich, Schenectady, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 7, 1952, Serial No. 280,883
3 Claims. (Cl. 324—99)



1. A system for measuring the magnitude of an electrical input and simultaneously producing an electrical output which is proportional to the logarithm of said electrical input comprising a logarithmic galvanometer having a first rotatable shaft, a metallic flag carried by said first shaft adapted to be deflected an amount which is approximately proportional to the logarithm of said electrical input, a second galvanometer having a second rotatable shaft axially aligned with said first shaft, a coil mounted on said second shaft proximate to said flag, follow-up means coupled to said coil for producing an electrical output in response to the movement of said flag relative to said coil which is of the proper magnitude to cause said second galvanometer to deflect its shaft by an amount necessary to cause the coil to maintain its same relative position with respect to said flag, and means to adjust the response characteristic of said second galvanometer, said electrical output thereby being proportional to the logarithm of said electrical input.

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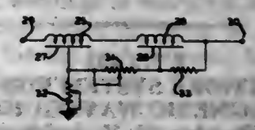
2,772,398
**SIMPLIFIED CIRCUITS FOR PRODUCING AMPLITUDE MODULATION**
Oscar B. Dutton, Redondo Beach, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application September 17, 1953, Serial No. 380,770
7 Claims. (Cl. 332—41)



1. A circuit for producing a carrier wave amplitude modulated with an intelligence signal, including: a source of reference voltage having a frequency corresponding to that desired for said carrier wave; a first oscillator adjusted to have an output voltage at the frequency of said reference voltage but having a first predetermined unmodulated phase lagging the phase of said reference voltage by $(n90-\theta)$ degrees, where $n$ is odd; first automatic means connected to said first oscillator and including a first comparison circuit for developing a first error voltage when the phase of the output voltage from said first oscillator deviates from its predetermined relationship with respect to that of said reference voltage; first output means for selecting a portion of the output power from said first oscillator; a second oscillator adjusted to have an output voltage at the frequency of said reference voltage but having a second predetermined unmodulated phase lagging the phase of said reference voltage by $(n90+\theta)$ degrees, where $n$ is odd; second automatic means connected to said second oscillator and including a second comparison circuit for developing a second error voltage when the phase of the output voltage from said second oscillator deviates from its predetermined relationship with respect to that of said reference voltage; second output means for selecting a portion of the output power from said second oscillator; means for superimposing an intelligence signal voltage on said first error voltage in a first phase and on said second error voltage in an opposite phase; and a combining network connected to said first and second output means.

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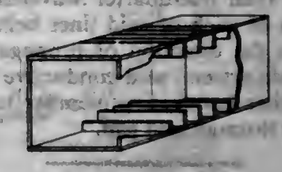
2,772,399
**CODED DATA TRANSMISSION SYSTEM**
Andrew R. Jacobson, Somerville, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 19, 1945, Serial No. 617,365
3 Claims. (Cl. 333—20)



1. A three terminal network having an input circuit terminal, output circuit terminal and a terminal common to both input and output circuits, said network comprising, first and second delay lines each comprising a cylindrical inductive coil surrounded by a cylindrical outer conductor, the inductive coils of said delay lines being serially connected between said input and output terminals, means for applying an input signal between said input terminal and said common terminal, a first resistor connected between the outer conductors of said first and second delay lines, a second resistor connected between the outer conductor of said first delay line and said common terminal, and a third resistance having the characteristic impedance of said second delay line connected between the outer conductor of said second delay line and said output terminal.

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2,772,400
**MICROWAVE POLARIZATION CHANGER**
Alan J. Simmons, Hyattsville, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application January 8, 1954, Serial No. 403,981
6 Claims. (Cl. 333—21)
(Granted under Title 35, U. S. Code (1952), sec. 266)



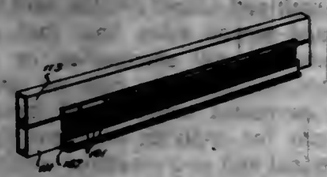
1. A waveguide polarization converter for shifting the relative phase of the orthogonal transverse modes of the wave to be converted which comprises: a waveguide section, a plurality of conducting fins transversely mounted and longitudinally spaced at intervals therein, said fins being dimensioned and relatively spaced to delay one of said modes and to advance its orthogonal mode, the number of fins in said plurality being sufficient to provide a total relative phase shift between said orthogonal modes of approximately 90 degrees, and means for introducing to the section an incident wave having orthogonal transverse modes of equal magnitude.

2,772,401
DELAY LINE
David Fales III, Towson, Md., assignor to The Glenn L. Martin Company, Middle River, Md., a corporation of Maryland
Application November 3, 1955, Serial No. 544,768
7 Claims. (Cl. 333—31)



1. A device comprising a pair of sections each composed of an inner and an outer conductor, said sections being axially aligned and spaced apart, each of said outer conductors defining a bore, a dielectric sleeve received in one of the bores defined by said outer conductors, a rod received in said sleeve for relative sliding movement and fixed in the other bore, each of said inner conductors defining a bore, a second dielectric sleeve received in one of the bores defined by said inner conductors, and a rod received in said second sleeve for relative sliding movement and fixed in the other bore of said inner conductors.

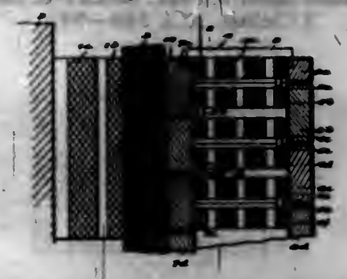
2,772,402
SERRATED CHOKE SYSTEM FOR ELECTROMAGNETIC WAVEGUIDE
Kiyo Tomiyasu, Flushing, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application November 22, 1950, Serial No. 197,063
7 Claims. (Cl. 333—98)



1. In a wave guide system for transmission of microwave energy of a predetermined wavelength, a first conductive member and an adjacent second conductive member, said members being spaced apart by an elongated gap appreciably narrower than one-quarter wavelength, choke apparatus for providing very low impedance across said elongated gap, comprising a series of self-supported conductive tines on one of said members, the lengths of each of said tines being substantially equal to one-quarter wavelength, and the spacing between adjacent tines and the cross-sectional dimensions of each tine being appreciably less than one-quarter wavelength, said tines being conductively joined together at their base, each of said tines extending longitudinally in a direction substantially parallel to the adjacent surface of said other conductive member and being spaced apart therefrom by an air space appreciably less than one-quarter wavelength, the longitudinal direction of each of said tines being substantially perpendicular to the direction of propagation of energy in said wave guide system, said conductive tines cooperating with said other conductive member to minimize the escape of energy through said gap.

2,772,403
HIGH VOLTAGE TRANSFORMER
August Meyerhans, Nussbaumen, near Baden, and Martin Christoffel, Zurich, Switzerland, assignors to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland
Application March 24, 1953, Serial No. 344,287
Claims priority, application Switzerland March 28, 1952
3 Claims. (Cl. 336—70)

1. In a transformer of the concentric winding type, a high voltage winding comprising a plurality of disc-type coils arranged concentrically in superposed relation and connection in series to a high voltage lead-in and to form groups of coils, the connections between adjacent coils of the groups being made alternately at the radially inner and outer sides of the coils, and a plurality of nonmagnetic electrically conductive rings arranged in relatively close superposed relation at both the inner and outer sides of said coils, said rings being insulated each



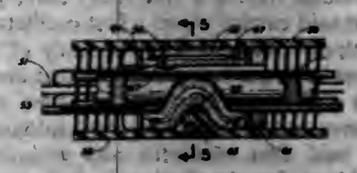
from the other and being of such length along the axis of said high voltage winding as to capacitatively bridge adjacent coils at that inner and outer side of said high voltage winding at which said series-connected coils are without connection.

2,772,404
TERMINAL
Samuel E. Peters, Racine, Wis., assignor to The Dumore Company, Racine, Wis., a corporation of Wisconsin
Application October 24, 1952, Serial No. 316,621
3 Claims. (Cl. 339—256)



1. In combination, a brush holder having a grooved portion adjacent one end, a spring terminal disposed within said groove, and a conductor secured to said terminal, said terminal comprising a resilient wire helix of slightly less than two turns and having a symmetrically disposed loop dividing said helix into two symmetrically disposed arm portions each providing an independent gripping action, each arm portion being of a length substantially less than 360° so that each arm may be expanded solely by flexure, whereby said spring terminal may be applied to said brush holder by slipping the same over the end of said brush holder in a lateral direction, said conductor being twisted and soldered to said loop, and said loop providing a handle for manipulation of said spring terminal in said lateral direction.

2,772,405
PRESSURE DETECTOR
Glenn A. Scharman, Whittier, Paul M. Aagaard, Rivera, and Francis G. Blake, Fullerton, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application March 24, 1954, Serial No. 418,402
2 Claims. (Cl. 340—7)



1. For use in seismic prospecting in which a streamer is towed behind a boat, the combination comprising a fiber-reinforced tube of a flexible plastic, said tube having substantially the same cross section throughout its length, a plurality of cylindrical piezoelectric crystals each having an outer diameter substantially the same as



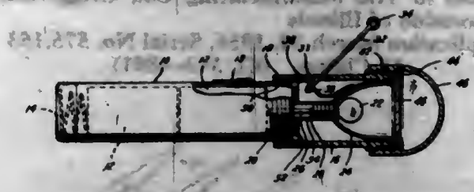
the inside diameter of said tube and having a hollow central portion, a conductive metallic coating on both the inside and outside surfaces of said crystals, respective conductors leading from said coatings to a recorder on said boat, said conductors passing through the central portion of crystals intervening between said boat and the crystal to which the conductor is connected.

2,772,406
AUTOMOBILE SAFETY LAMP
John Juergens, Miami, Fla.
Application April 25, 1952, Serial No. 284,350
2 Claims. (Cl. 340—32)



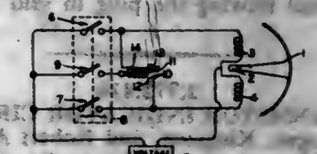
1. A lamp comprising a member adapted to be attached to an automobile, a polygonal stud on said member, said stud having an outer end circular in cross section, a locking member having a polygonal aperture fitting freely over said polygonal stud, a spring urging said locking member toward the free outer end of said stud, a hinge leaf having a circular aperture rotatably fitting over the outer end of said stud, means trapping said hinge leaf on the outer end of said stud, said locking member and said hinge leaf having cooperating protuberance and indent means normally held in engagement by said spring for locking said hinge leaf in a preselected position of adjustment, a hinge member pivotally attached to said hinge leaf, a lamp housing fixed on said hinge member, a source of illumination within said housing, and a light transmitting lens on said housing and covering said source of illumination.

2,772,407
SIGNAL ATTACHMENT
Earl W. Nichols, Lackhart, Tex.
Application May 10, 1954, Serial No. 428,482
6 Claims. (Cl. 340—213)



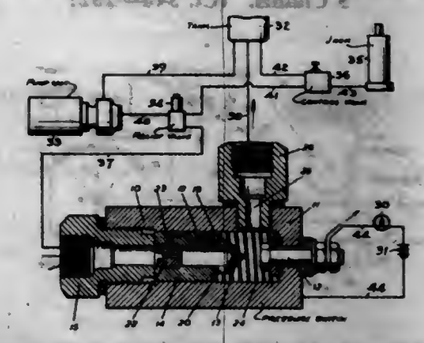
1. A signaling attachment for a flashlight comprising a housing adapted to be secured to the head of the flashlight, a reflector in the housing, a lamp bulb in the reflector, said lamp bulb having a base and an electrical contact in its rear portion, means electrically contacting the electrical contact in the rear portion of the bulb to one pole of a battery in the flashlight when the housing is secured to the flashlight, a spring arm formed of an electrical conductor electrically contacting the base of the bulb and extending from the housing, an electrical contact carried by the housing establishing electrical connection at the head of the flashlight with means in the flashlight electrically connected to another pole of the battery when the attachment is secured to the flashlight, said spring arm normally being spaced from said electrical contact but yieldingly engaging said electrical contact on movement of the arm thereby closing a circuit from the battery through the lamp bulb.

2,772,408
ANNUNCIATOR SYSTEM
Raoul L. Davis, Jr., Lynnfield Center, and Frederick W. Newman, Wenham, Mass., assignors to General Electric Company, a corporation of New York
Application December 24, 1954, Serial No. 477,568
3 Claims. (Cl. 340—220)



1. A condition indicator arrangement comprising a pair of electrical windings, an armature mounted for angular movement upon magnetic interaction with magnetic fields produced by said windings, an indicator coupled with said armature for limited angular movement therewith in one angular direction from a null position when one of said windings is energized and in the opposite angular direction when the other of said windings is energized, means biasing said indicator to said null position, an electrical power source, detector means responsive to a condition under measurement and having at least a first electrical switch arranged to be closed when the measured condition is within a predetermined normal range and a second switch arranged to be closed when the measured condition is of a minimum or zero value and a third switch arranged to be closed when the measured condition is within critical limits, an intermittent switch opening and closing electrical contacts periodically when electrically excited, means coupling one of said windings with said source through said first switch, means coupling the other of said windings with said source through said second switch, and means coupling at least one of said windings with said source through said intermittent switch contacts and through said third switch and coupling said intermittent switch for excitation by said source through said third switch, whereby said indicator is oscillated angularly when said measured condition is within said critical limits.

2,772,409
PRESSURE RESPONSIVE FLOW INDICATOR
Kenneth Eric Reid, London, England, assignor to Smiths Jacking Systems Limited, London, England
Application January 21, 1953, Serial No. 332,332
Claims priority, application Great Britain January 22, 1952
6 Claims. (Cl. 340—239)

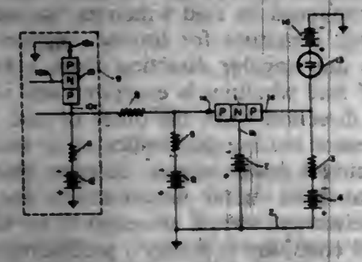


1. In combination, an hydraulic apparatus having a pump, an output line from the pump and a relief valve connected to the output line, an hydraulic indicating device comprising a housing containing a movable plug, fluid inlet and outlet openings in the housing at opposite ends of the said plug, means urging the plug resiliently in

one direction, means to operate a warning device when the plug is moved in the opposite direction, a conduit through the plug and/or between the plug and the housing whereby a permanently open passage is provided for fluid flow at all times, the said conduit being of restricted cross-sectional size whereby a pressure differential is developed which fluid flows through said conduit, said pressure differential moving the plug in said opposite direction.

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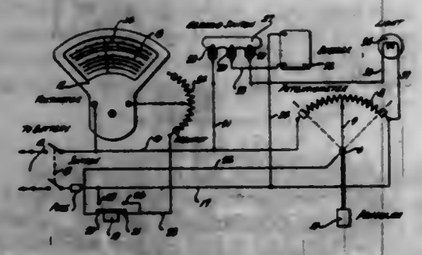
2,772,410
**TRANSISTOR INDICATOR CIRCUIT**
Joseph C. Logue, Kingston, and Robert A. Henle, Hyde Park, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application September 30, 1954, Serial No. 459,289
12 Claims. (Cl. 340—252)




1. Visual signal apparatus comprising a glow discharge lamp, an energizing circuit for said lamp including a resistor and a source of unidirectional electrical energy in series, said source having a potential greater than the ignition potential of the lamp, and means for controlling the potential across the lamp including circuit means for conducting a current through said resistor to produce a potential drop thereacross of a polarity and magnitude effective to reduce the potential available at the lamp below the potential required to maintain a discharge through the lamp, said circuit means comprising a transistor having a base electrode, an emitter electrode and a collector electrode, means connecting the collector electrode in series with said resistor and at least a portion of said source of energy, and means for impressing across the other electrodes of the transistor a signal potential effective to control the current flow through said collector electrode.

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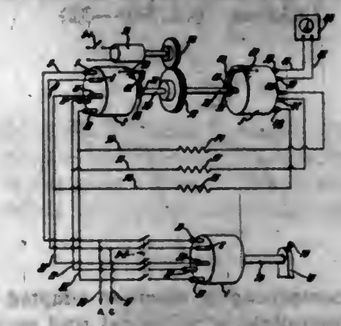
2,772,411
**BOOM ANGLE INDICATOR FOR CRANES**
Carl M. Cooper, Compton, Calif., assignor of forty per cent to S. Fishlader, Los Angeles, Calif.
Application October 25, 1954, Serial No. 464,233
3 Claims. (Cl. 340—282)



1. A boom angle indicator for cranes comprising a housing, attaching means on the housing to secure said housing to the boom, a pendulum pivotally mounted in the housing, a variable resistance, means operable by the pendulum to vary the resistance, a galvanometer, and electrical leads extending from said resistance to the galvanometer, said galvanometer being calibrated in degrees, a tilt switch mounted adjacent the galvanometer, a warning means, and electrical leads extending from the tilt switch to the warning means.

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2,772,412
**SYNCHRO TESTING**
Thomas E. Weiher, Grand Rapids, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 16, 1955, Serial No. 488,683
7 Claims. (Cl. 340—315)



1. Test apparatus for determining how closely a synchro repeater device follows a synchro transmitter device each of which devices has a stator winding and a rotor winding, said apparatus comprising, in combination, circuit means connecting said transmitter synchro device and said test synchro device in a self-synchronous data repeater system, a pickoff synchro device having a stator winding and a rotor winding, circuit means connecting the stator winding of said pickoff synchro in a high impedance circuit to the stator windings of said transmitter synchro and said test synchro in said data repeater system, electrical indicating means connected to the rotor winding of said pickoff synchro, and mechanical coupling means interconnecting the rotors of said transmitter synchro and pickoff synchro at their electrical zero positions.

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2,772,413
**COMPOSITE DIPOLE MULTI-CHANNEL TELEVISION ANTENNA**
John F. Guernsey and Arthur E. Vall, Griggsville, Ill., assignors to Trio Manufacturing Co., Griggsville, Ill., a corporation of Illinois
Application March 30, 1956, Serial No. 575,153
18 Claims. (Cl. 343—801)

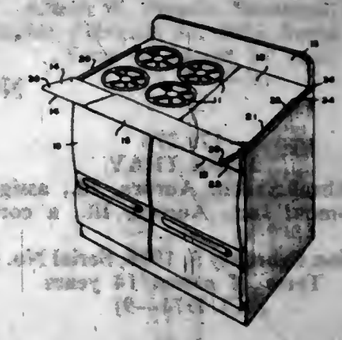


1. A composite antenna for high frequency signals comprising a plurality of dipole elements all arranged in substantially a horizontal plane, there being three collinear dipole elements and the antenna being highly directive along an axis normal to the collinear dipole elements, a fourth dipole element centered on the said axis spaced from and parallel with the middle one of the three collinear dipole elements, the four dipole elements being substantially of the same electrical length, the said middle dipole element being a director parasitic relative said fourth dipole element and the two outboard collinear dipole elements having their inner ends electrically connected to the ends of the fourth dipole, and transmission line means connected to drive the two outboard collinear dipole elements and the fourth dipole element.

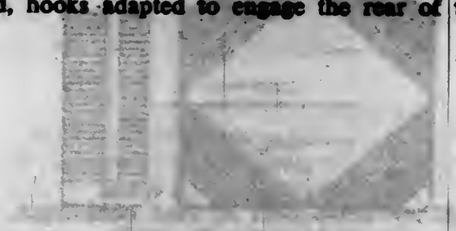


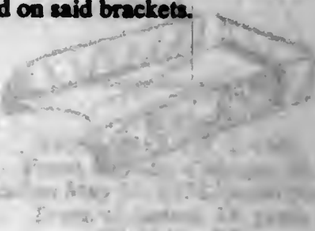
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2,772,414
**STOVE GUARD**
Horace M. Baker, Jr., Lumberton, N. C.
Application June 14, 1954, Serial No. 436,381
10 Claims. (Cl. 126—214)



7. A stove guard comprising a member for disposition upon the upper portion along the marginal front edge of a stove, said guard having its longitudinal edges turned over to reinforce the same, a bracket having a horizontal and a dependent portion for engaging the top and side surfaces of the stove with such brackets supporting said guard, hooks adapted to engage the rear of the stove, spring means connecting the rear end portions of said brackets with said hooks for mounting the guard in position on the stove, and guarding means for the side of the stove mounted on said brackets.





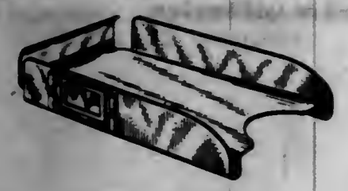




# DESIGNS

## NOVEMBER 27, 1956

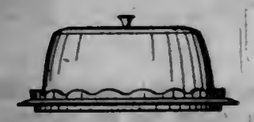
**179,276**
**DESK TRAY**
Charles M. Abrahamson, Aurora, Ill., assignor to All-Steel Equipment Inc., Aurora, Ill., a corporation of Illinois
Application February 3, 1956, Serial No. 40,034
Term of patent 14 years
(Cl. D74—9)



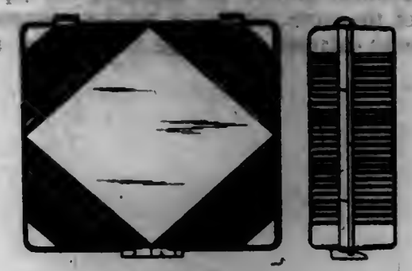
**179,277**
**BUILDING**
Marino Auriti, Kennett Square, Pa.
Application November 16, 1955, Serial No. 38,922
Term of patent 3½ years
(Cl. D13—1)



**179,278**
**COMBINED CAKE TRAY AND COVER THEREFOR OR SIMILAR ARTICLE**
Charles O. Bliss, Los Angeles, Calif.
Application July 17, 1956, Serial No. 42,269
Term of patent 14 years
(Cl. D44—1)



**179,279**
**BOX**
Jack Bloch, Leominster, Mass., assignor to Foster Grant Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application April 10, 1956, Serial No. 41,017
Term of patent 14 years
(Cl. D58—12.6)



**179,280**
**MICRO-PROJECTOR**
Olin W. Boughton, Canandaigua, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application May 18, 1956, Serial No. 41,538
Term of patent 14 years
(Cl. D61—1)



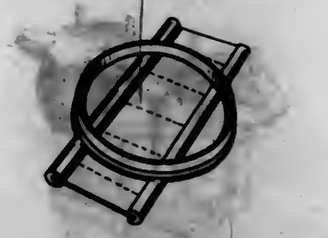
**179,281**
**SPOON OR OTHER SIMILAR ARTICLE OF FLATWARE**
Edward J. Conroy, Meriden, Conn., assignor to International Silver Company, Meriden, Conn., a corporation of New Jersey
Application July 11, 1955, Serial No. 36,890
Term of patent 14 years
(Cl. D54—12)



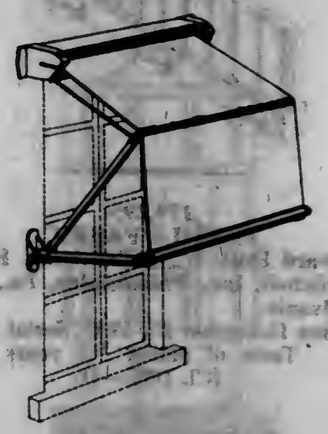




**179,282**
**HOUSE NUMBER SIGN**
Walter A. Carter, Erie, Pa.
Application November 23, 1954, Serial No. 33,282
Term of patent 3½ years
(Cl. D1—12)



**179,283**
**AWNING**
James E. Dietz, Dayton, Ohio
Application April 20, 1955, Serial No. 35,594
Term of patent 14 years
(Cl. D21—6)



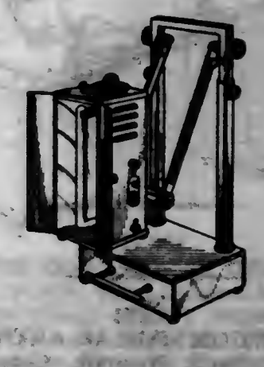
**179,284**
**CLOTHES RACK OR SIMILAR ARTICLE**
Charles Elsey, Pine Hill, N. J.
Application December 30, 1955, Serial No. 39,532
Term of patent 14 years
(Cl. D33—8)



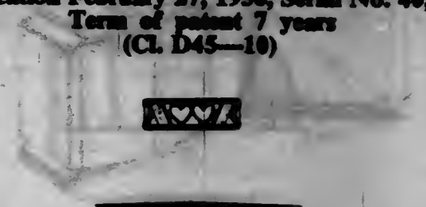
**179,285**
**HOSE NOZZLES**
Albert W. Francis, Somerset, Pa.
Application February 21, 1956, Serial No. 40,249
Term of patent 14 years
(Cl. D91—1)



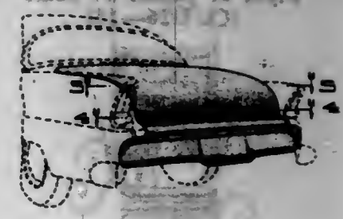
**179,286**
**THERAPEUTIC LAMP**
Frank Furedy, Chicago, Ill.
Application May 31, 1955, Serial No. 36,284
Term of patent 14 years
(Cl. D48—20)



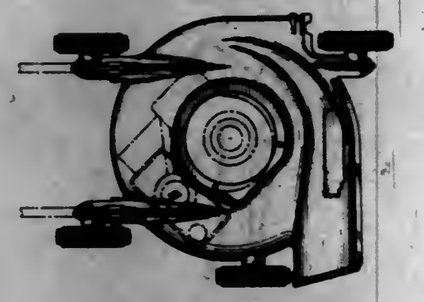
**179,287**
**RING**
Leon A. Gainsboro, Newton Center, Dexter Gainsboro, Watertown, and Howard T. Gainsboro, Chestnut Hill, Mass., and Nicholas A. Barbieri, Providence, R. I.
Application February 27, 1956, Serial No. 40,376
Term of patent 7 years
(Cl. D45—10)



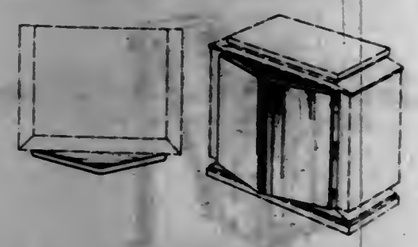
**179,288**
**AUTOMOBILE BODY**
Charles F. Glinching, Jr., Detroit, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application September 2, 1955, Serial No. 37,765
Term of patent 7 years
(Cl. D14—3)



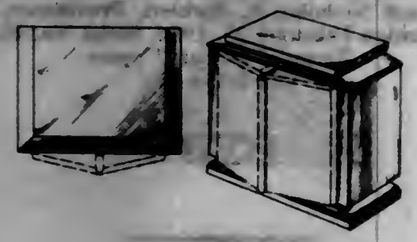
179,289
ROTARY LAWN MOWER
Henry L. Helseke, Springfield, Ill.
Application November 3, 1955, Serial No. 38,715
Term of patent 14 years
(Cl. D40—1)



179,290
CABINET OR THE LIKE
Ernest Herrmann, South Norwalk, Conn., assignor to Gettysburg Furniture Companies, Gettysburg, Pa., a limited partnership
Application February 10, 1956, Serial No. 40,103
Term of patent 3½ years
(Cl. D33—19)



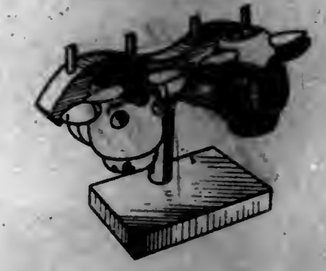
179,291
CABINET OR SIMILAR ARTICLE
Ernest Herrmann, South Norwalk, Conn., assignor to Gettysburg Furniture Companies, Gettysburg, Pa., a limited partnership
Application February 10, 1956, Serial No. 40,106
Term of patent 3½ years
(Cl. D33—19)



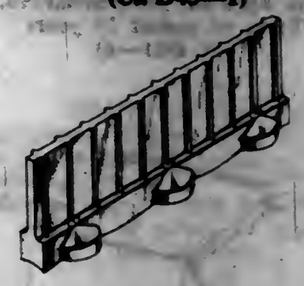
179,292
SWITCH HEAD
John A. Herrmann, Grosse Pointe Farms, and Russell S. Davis and Louis W. Higgins, Detroit, Mich., assignors to BullDog Electric Products Co., Detroit, Mich., a corporation of West Virginia
Application October 18, 1954, Serial No. 32,703
Term of patent 14 years
(Cl. D26—13)



179,293
COMBINED CONDIMENT DISPENSER SET AND HOLDER THEREFOR
Severne Hilton, Wilton, Maine, assignor to Menschik-Goldman Company, New York, N. Y., a partnership
Application July 17, 1956, Serial No. 42,278
Term of patent 3½ years
(Cl. D44—22)



179,294
CONVEYOR BELT CLEAT
Theodore H. Hinchcliffe, Pasadena, Calif.
Application March 6, 1956, Serial No. 40,486
Term of patent 14 years
(Cl. D43—1)



179,295
TEXTILE FABRIC
William Edward Holt, Jr., Philadelphia, Pa., assignor to E. W. Twitchell, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application December 27, 1955, Serial No. 39,495
Term of patent 3½ years
(Cl. D92—1)

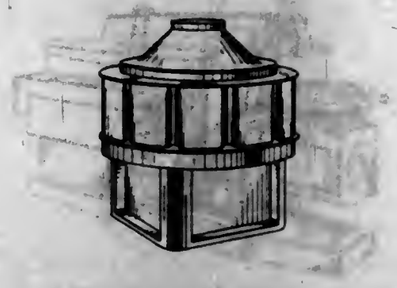


179,296
TEXTILE FABRIC
William Edward Holt, Jr., Philadelphia, Pa., assignor to E. W. Twitchell, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application December 27, 1955, Serial No. 39,496
Term of patent 3½ years
(Cl. D92—1)





179,297
HISTOLOGIC PROCESSING MACHINE
Jack Ierodi, Tuckahoe, N. Y., assignor to Technicon International, Ltd., Chancery, N. Y., a corporation of New York
Application December 22, 1955, Serial No. 39,433
Term of patent 14 years
(Cl. D83—1)



179,298
HISTOLOGIC PROCESSING MACHINE
Jack Ierodi, Tuckahoe, N. Y., assignor to Technicon International, Ltd., Chancery, N. Y., a corporation of New York
Application December 22, 1955, Serial No. 39,434
Term of patent 14 years
(Cl. D83—1)



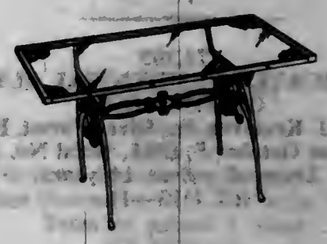
179,299
CHAIR
Robert E. Kjer Jainshens, Manhattan Beach, Calif., assignor to Virtue Bros. Mfg. Co., Los Angeles, Calif., a corporation of California
Application March 26, 1956, Serial No. 40,770
Term of patent 14 years
(Cl. D15—1)



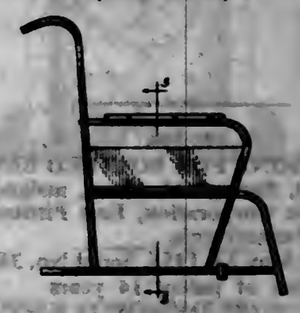
179,300
TABLE
James E. Jones and Edward P. Stevens, Toledo, Ohio, assignors to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application December 27, 1955, Serial No. 39,482
Term of patent 14 years
(Cl. D33—14)



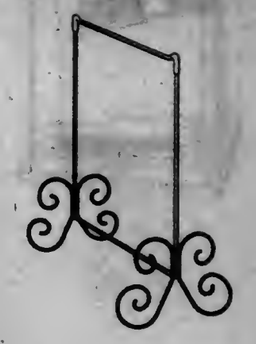
179,301
TABLE
James E. Jones and Edward P. Stevens, Toledo, Ohio, assignors to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application December 27, 1955, Serial No. 39,483
Term of patent 14 years
(Cl. D33—14)



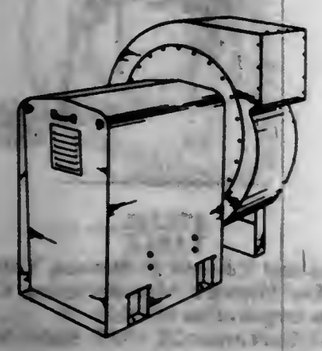
179,302
SIDE FRAME FOR INVALID WHEEL CHAIR
James E. Jones, Toledo, Ohio, assignor to Gendron Wheel Company, Perrysburg, Ohio, a corporation of Ohio
Application December 28, 1955, Serial No. 39,506
Term of patent 7 years
(Cl. D15—1)



179,303
GARMENT RACK
Beverly Jo Kellogg, Altadena, Calif.
Application January 24, 1955, Serial No. 34,168
Term of patent 14 years
(Cl. D33—8)



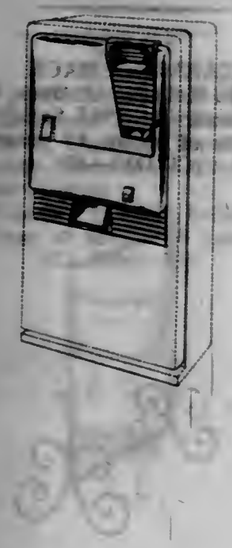
179,304
FAN UNIT
John B. Koch, Detroit, Mich., assignor to American Blower Corporation, Detroit, Mich., a corporation of Delaware
Application July 28, 1955, Serial No. 37,150
Term of patent 14 years
(Cl. D62—2)



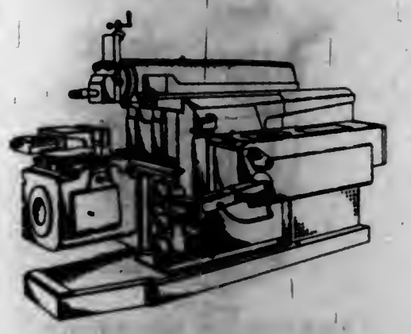
179,305
PREFABRICATED RESIDENTIAL BUILDING OR THE LIKE
Otto J. Kralovec, Jr., River Forest, Ill.
Application October 5, 1955, Serial No. 38,231
Term of patent 14 years
(Cl. D13—1)



179,306
VENDING MACHINE FOR BOTTLED BEVERAGES
Raoul A. Lambert, Springfield, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 23, 1955, Serial No. 36,166
Term of patent 14 years
(Cl. D52—3)



179,307
METAL SHAPER
John McLeod Little and Folke Malcolm Gustafson, Toledo, Ohio, assignors to The Cincinnati Shaper Co., Cincinnati, Ohio, a corporation of Ohio
Application January 16, 1956, Serial No. 39,781
Term of patent 14 years
(Cl. D54—14)



179,308
DOLL
Anna L. Maugin, San Jose, Calif.
Application July 23, 1956, Serial No. 42,328
Term of patent 7 years
(Cl. D34—4)



179,309
DOLL
Anna L. Maugin, San Jose, Calif.
Application July 23, 1956, Serial No. 42,329
Term of patent 7 years
(Cl. D34—4)



179,310
DOLL
Anna L. Maugin, San Jose, Calif.
Application July 23, 1956, Serial No. 42,336
Term of patent 7 years
(Cl. D34—4)

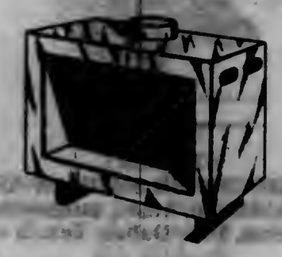




179,311
FOLDING STEPS
Grosvenor D. Marcy, Newton, Mass.
Application September 7, 1955, Serial No. 37,835
Term of patent 14 years
(Cl. D15—3)



179,312
FIREPLACE STOVE
Dona Pierce and John A. Manchester, Medina, Wash.
Application April 6, 1953, Serial No. 24,357
Term of patent 14 years
(Cl. D61—7)



179,313
TEXTILE FABRIC
George W. Pitt, New York, N. Y., assignor to John Boyle & Company, Incorporated, New York, N. Y., a corporation of New York
Application April 6, 1955, Serial No. 35,383
Term of patent 14 years
(Cl. D92—1)



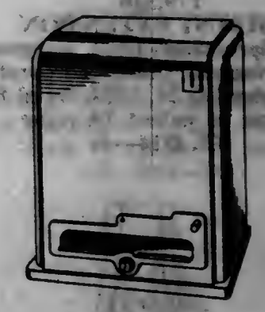
179,314
TEXTILE FABRIC
George W. Pitt, New York, N. Y., assignor to John Boyle & Company, Incorporated, New York, N. Y., a corporation of New York
Application April 6, 1955, Serial No. 35,384
Term of patent 14 years
(Cl. D92—1)



179,315
CLOCK
Nicholas Pitrelli, Brooklyn, N. Y.
Application December 16, 1955, Serial No. 39,356
Term of patent 7 years
(Cl. D42—7)



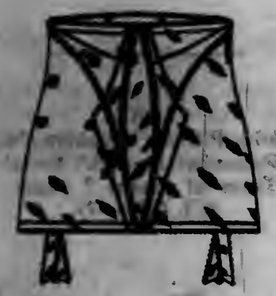
179,316
DISPENSER FOR PENCILS OR THE LIKE
Peter G. Pritz, Jenkintown, Pa.
Application October 6, 1954, Serial No. 32,565
Term of patent 7 years
(Cl. D52—3)



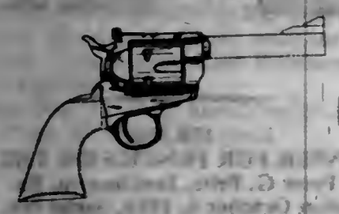
179,317
DOOR KNOCKER
Ted C. Bingaman, Marlemont, Ohio
Application April 22, 1955, Serial No. 35,634
Term of patent 7 years
(Cl. D10—7)



179,318
GIRDLE
Jack E. Robbins, New York, N. Y.
Application July 9, 1956, Serial No. 42,186
Term of patent 14 years
(Cl. D20—2)



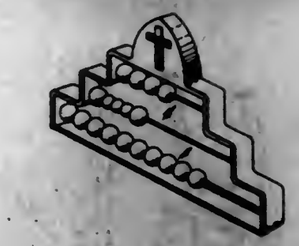
179,319
REVOLVER
William B. Ruger, Greens Farms, Conn., assignor to Sturm, Ruger & Company, Inc., Southport, Conn., a corporation of Connecticut
Application April 14, 1955, Serial No. 35,517
Term of patent 14 years
(Cl. D30—1)



179,320
EXHAUST EXTENSION
Linus E. Russell, Springfield, Ohio, assignor to Peters & Russell, Inc., Springfield, Ohio, a corporation of Ohio
Application September 24, 1954, Serial No. 32,429
Term of patent 14 years
(Cl. D14—6)



179,321
ROSARY
Mary E. Sacksteder, Dayton, Ohio
Application December 12, 1956, Serial No. 39,298
Term of patent 14 years
(Cl. D45—16)



179,322
SPEED REDUCER OR SIMILAR ARTICLE
Martin T. Schumb, Milton, Mass., assignor to The Murray Company of Texas, Inc., Dallas, Tex., a corporation of Delaware
Application May 27, 1955, Serial No. 36,269
Term of patent 14 years
(Cl. D55—1)



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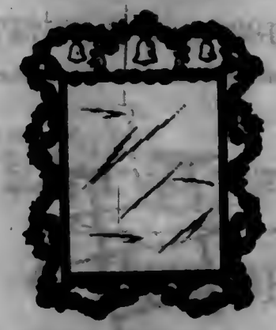


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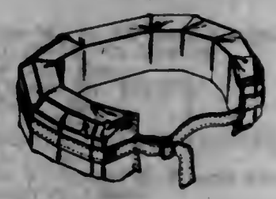




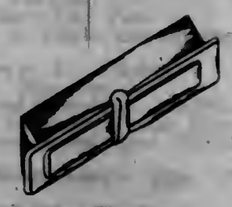
179,325
PICTURE FRAME
Irving Silverman, Flushing, N. Y., assignor to Guild Crest Corporation of America, Jersey City, N. J., a corporation of New Jersey
Application April 5, 1956, Serial No. 40,943
Term of patent 7 years
(Cl. D29—20)



179,326
COMBINATION SWIM AND WATER SKI BELT
James Bruce Stansell, Dallas, Tex.
Application February 13, 1956, Serial No. 40,141
Term of patent 7 years
(Cl. D71—1)



179,327
TIE RACK
Peter Steinau, Shelton, Conn.
Application May 17, 1954, Serial No. 30,517
Term of patent 14 years
(Cl. D33—8)



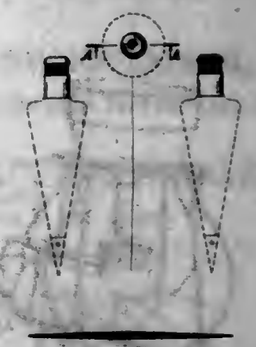
179,328
CHOCK OR SIMILAR ARTICLE
Donald E. Stewart, Grand Rapids, Mich., assignor to Jervis Corporation, Grandville, Mich., a corporation of Michigan
Application March 5, 1956, Serial No. 40,455
Term of patent 14 years
(Cl. D54—11)



179,329
PRETERNATURAL DENTURE
George L. St. Pierre, San Fernando, and Van D. Patterson, North Hollywood, Calif.
Application March 22, 1956, Serial No. 40,728
Term of patent 14 years
(Cl. D24—1)



179,330
PLUMB BOB
Lew Saverkrop, Bakersfield, Calif.
Application December 17, 1954, Serial No. 33,595
Term of patent 14 years
(Cl. D52—1)



179,331
CHAMPAGNE BOTTLE STOPPER
Floyd A. Terwilliger, Rochester, N. Y.
Application January 13, 1956, Serial No. 39,745
Term of patent 14 years
(Cl. D58—26)



179,332
SPRAY ATTACHMENT FOR VACUUM CLEANERS
Council A. Tucker, Glendale, Calif., assignor to Interstate Precision Products Corporation, Anaheim, Calif., a corporation of California
Application May 22, 1956, Serial No. 41,592
Term of patent 7 years
(Cl. D9—2)



179,333
BOTTLE CAP
Earl S. Tupper, Smithfield, R. I.
Application September 16, 1955, Serial No. 37,962
Term of patent 14 years
(Cl. D58—26)



179,334
**FIRE POT**

Milo E. Webster, Rochester, N. Y., assignor to Otto Bernz Co., Rochester, N. Y., a corporation
Application February 27, 1956, Serial No. 40,366
Term of patent 14 years
(Cl. D81—10)



179,335
**FOLDING CHAIR**

Raisel Wright, New York, N. Y., assignor to Skwayder Brothers, Ecorse, Mich., a corporation of Colorado
Application March 18, 1953, Serial No. 24,069
Term of patent 14 years
(Cl. D15—1)



# LIST OF REISSUE PATENTEES

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NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

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May, Edwin A., to Becton Dickinson and Co. Injection apparatus. Re. 24,241, 11–27–56, Cl. 128—173.
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Bernz, Otto, Co.: *See*—
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Bliss, Charles O. Combined cake tray and cover therefor or similar article. 179,278, 11–27–56, Cl. D44—1.
Bloch, Jack, to Foster Grant Co., Inc. Box. 179,279, 11–27–56, Cl. D58—12.6.
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Eiser, Charles. Clothes rack or similar article. 179,284, 11–27–56, Cl. D33—8.
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Herrmann, Ernest, to Gettysburg Furniture Companies. Cabinet or similar article. 179,291, 11–27–56, Cl. D33—19.
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Hinchcliffe, Theodore H. Conveyor belt cleat. 179,294, 11–27–56, Cl. D43—1.
Holt, William E., Jr., to E. W. Twitchell, Inc. Textile fabric. 179,295, 11–27–56, Cl. D92—1.
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Isreell, Jack, to Technicon International, Ltd. Histologic processing machine. 179,298, 11–27–56, Cl. D63—1.
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Jones, James E., to Gendron Wheel Co. Side frame for invalid wheel chair. 179,302, 11–27–56, Cl. D15—1.
Kellogg, Beverly J. Garment rack. 179,303, 11–27–56, Cl. D33—8.
Koch, John B., to American Blower Corp. Fan unit. 179,304, 11–27–56, Cl. D62—2.
Kralovec, Otto J., Jr. Prefabricated residential building or the like. 179,305, 11–27–56, Cl. D13—1.
Lambert, Raoul A., to Westinghouse Electric Corp. Vending machine for bottled beverages. 179,306, 11–27–56, Cl. D52—3.
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Manchester, John A.: *See*—
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Mangin, Anna L. Doll. 179,309, 11–27–56, Cl. D34—4.
Mangin, Anna L. Doll. 179,310, 11–27–56, Cl. D34—4.
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Pritz, Peter G. Dispenser for pencils or the like. 179,316, 11-27-56, Cl. D52—3.
Ringman, Ted C. Door knocker. 179,317, 11-27-56, Cl. D10—7.
Robbins, Jack R. Girdle. 179,318, 11-27-56, Cl. D20—2.
Ruger, William B., to Sturm, Ruger & Co. Revolver. 179,319, 11-27-56, Cl. D30—1.
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Sachsteder, Mary E. Rosary. 179,321, 11-27-56, Cl. D45—16.
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Schumb, Martin T., to The Murray Co. of Texas, Inc. Speed reducer or similar article. 179,322, 11-27-56, Cl. D55—1.
Schumb, Martin T., to The Murray Co. of Texas, Inc. Speed reducer or similar article. 179,323, 11-27-56, Cl. D55—1.
Schumb, Martin T., to The Murray Co. of Texas, Inc. Speed reducer or similar article. 179,324, 11-27-56, Cl. D55—1.
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Silverman, Irving, to Guild Crest Corp. of America. Picture frame. 179,325, 11-27-56, Cl. D29—20.
Stansell, James B. Combination swim and water ski belt. 179,326, 11-27-56, Cl. D71—1.
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Isreell, Jack. 179,298.
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Tucker, Council A., to Interstate Precision Products Corp. Spray attachment for vacuum cleaners. 179,332, 11-27-56, Cl. D9—2.
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Wright, Russel, to Shwayder Bros. Folding chair. 179,335, 11-27-56, Cl. D15—1.

# LIST OF PATENTEES

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A & W Machine Co., The: *See*—
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Aerojet-General Corp.: *See*—
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Aghnides, Elia P. Ash tray with a large number of cavities for extinguishing cigarettes. 2,771,884, 11-27-56, Cl. 131—235.
Agriculture, United States of America as represented by the Secretary of: *See*—
Hansen, John E., and Dietz. 2,772,251.
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Aklin, George H., to Eastman Kodak Co. Seven-element Gauss type objective comprising two negative meniscus components enclosed by two positive components. 2,771,817, 11-27-56, Cl. 88—57.
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Allen, Charles F. H., and J. E. Byers, Jr., to Eastman Kodak Co. 3-pyrazolidones. 2,772,282, 11-27-56, Cl. 260—310.
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Allied Chemical & Dye Corp.: *See*—
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Altman, Peter, and L. D. Bakke, to Continental Motors Corp. Cooling system for air cooled engines. 2,771,862, 11-27-56, Cl. 123—41.65.
Ambelang, Friedrich W. H. Feeding device for the workpiece on planing machines. 2,771,920, 11-27-56, Cl. 144—114.
Ambelang, Friedrich W. H. Planing machine for two-sided planing in a single operation. 2,771,921, 11-27-56, Cl. 144—117.
American Can Co.: *See*—
Foord, Delbert C. 2,772,043.
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Anderson, Peter, to Washington Iron Works Co. Power-driven guy drum. 2,772,071, 11-27-56, Cl. 254—161.
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Ball, Charles F., to Joy Mfg. Co. Hydraulic drive with pressure equalizer and control for plural motors. 2,771,968, 11-27-56, Cl. 180—6.48.
Baril, Edward J. Adjustable mounting devices for window cleaning squeegee and other articles. 2,771,623, 11-27-56, Cl. 15—144.
Barnard, Daniel P., 4th, to Standard Oil Co. Low-temperature starting of gas turbine engines. 2,771,741, 11-27-56, Cl. 60—39.06.
Barnes, William A., to Utica Drop Forge & Tool Corp. Offset grip for split dies and method of making same. 2,772,095, 11-27-56, Cl. 279—57.
Barnhart, George, and B. F. Skiles, to E. I. du Pont de Nemours & Co. Solvent-soluble, complex, phthalocyanine-yielding compounds. 2,772,284, 11-27-56, Cl. 260—314.5.
Barr, Charles E.: *See*—
Salminen, Ilmari F., and Barr. 2,772,162.
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Bartels, Alfred F. A., and P. F. W. Johmann, to Nordlocher Maschinenbau Rud. Baader. Method of preparing fishless fish fillets. 2,771,633, 11-27-56, Cl. 17—45.
Batchelder, James W. Thread rolling tool. 2,771,799, 11-27-56, Cl. 80—6.
Batts Harvey J.: *See*—
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Beatty, Allan W., to Welding Fittings Corp. Fabrication of branched fittings. 2,771,665, 11-27-56, Cl. 29—157.
Beatty, Julian L., and R. T. Florence, to A. B. Dick Co. Stencil duplicating inks. 2,772,175, 11-27-56 Cl. 106—28.
Beckwith, John O. Cigarette lighter. 2,771,762, 11-27-56, Cl. 67—7.1.
Becton, Dickinson and Co.: *See*—
Molinari, Henry G., and Magash. 2,771,710.

Bekoff, Irving. Folding display paperboard box or cover. 2,771,966, 11–27–56, Cl. 206—45.3.

Bell, Leon J., to The National Smelting Co. Ltd. Production of sulphuryl fluoride. 2,772,144, 11–27–56, Cl. 23—203.

Bell, Norton W.: *See*—
Robinson, Charles F., Bell, Piccirillo, and Perkins. 2,772,367.

Bell Telephone Laboratories, Inc.: *See*—
Shockley, William. 2,772,360.

Benbow, Burtis W. Drill press. 2,771,797, 11–27–56, Cl. 77—29.

Bendiksen, Olaf T., to Lockheed Aircraft Corp. Actuating and locking mechanism. 2,772,060, 11–27–56, Cl. 244—102.

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Lafitte, Theodore J.-B. 2,771,780.
Miller, John M., Jr. 2,772,329.
Noxon, Paul A., and MacCallum. 2,772,059.
Whitney, Maurice P. 2,771,792.

Bennett, Ralph O., and E. J. Weichel. Electric branding iron. 2,772,339, 11–27–56, Cl. 219—30.

Bensch, Emil: *See*—
Schaeffer, Georg, and Bensch. 2,772,128.

Bents, Ralph W., to Eastman Kodak Co. Antioxidant concentrates comprising reaction products of mixed glycerides as solvent carriers. 2,772,243, 11–27–56, Cl. 252—399.

Berard, Henry. Motorized carrier for multiple golf bags. 2,772,113, 11–27–56, Cl. 296—24.

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Bushnell, James D., and Berg. 2,772,220.

Bergling, Charles G. B., to Durox International S. A. Device for sawing plastic masses. 2,771,872, 11–27–56, Cl. 125—18.

Bergstrom, Eric V., and E. R. J. Sorf, to Socony Mobil Oil Co., Inc. Method and apparatus for continuously removing fines from a moving bed conversion system. 2,772,223, 11–27–56, Cl. 196—52.

Bergstrom, Eric V., and E. J. Sorf, to Socony Mobil Oil Co., Inc. Method and apparatus for effecting conversion of hydrocarbons. 2,772,225, 11–27–56, Cl. 196—52.

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Trobeck, Karl G., and Bergstrom. 2,772,240.

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Better, Bernard R., and J. W. Lehde, Jr., to Scully-Jones and Co. Predetermined torque release wrench. 2,771,804, 11–27–56, Cl. 81—52.4.

Betten, Richard S., Jr., to Standard Oil Co. Removal of water from solid polymers. 2,771,689, 11–27–56, Cl. 34—17.

Betts, Irene E., ½ to E. I. Boyd. Protective device for infants. 2,771,881, 11–27–56, Cl. 128—287.

Beusch, Andrew. Angular work table. 2,771,821, 11–27–56, Cl. 90—59.

Biggs, Glenn L. Fishhook guard. 2,771,704, 11–27–56, Cl. 43—54.5.

Binder, Robert: *See*—
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Yellott, John I., and Buckley. 2,771,962.

Blake, Francis G.: *See*—
Schurman, Glenn A., Aagaard, and Blake. 2,772,405.

Blake, Francis G., Jr., to California Research Corp. Method of initiating underwater seismic disturbances. 2,771,961, 11–27–56, Cl. 181—.5.

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Bleuenstein, Julius M., to Ford Motor Co. Remote strike off. 2,771,649, 11–27–56, Cl. 22—193.

Blocksage, Norman S. V-block formations. 2,771,822, 11–27–56, Cl. 90—59.

Blood, Harold L.: *See*—
Schmidt, William D., and Blood. 2,771,714.

Blue, John, Co., Inc.: *See*—
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Blumensaadt, Svend G., to The Universal Wire Spring Co. Device for longitudinally reshaping corrugated wire springs. 2,771,912, 11–27–56, Cl. 140—89.

Bobo, Frank E., Jr.: *See*—
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Bogart, Lee J.: *See*—
Sahlbom, Olaf A. 2,771,829.

Bois, Erven Lucas, Inc.: *See*—
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Bond, William. Dishwashing machine. 2,771,895, 11–27–56, Cl. 134—172.

Bookout, Ervin J., and G. T. Hutchison, to Cochrane Corp. Liquid treatment apparatus. 2,772,235, 11–27–56, Cl. 210—16.

Boothroyd, Wilson P., to Philco Corp. Electrical systems. 2,772,324, 11–27–56, Cl. 178—5.4.

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Bouman, Jan, to Shell Development Co. Viscometer system. 2,771,770, 11–27–56, Cl. 73—55.

Bowen, Max E., J. A. Hanish, and T. E. Carlson, to Handling Equipment & Mfg. Co. Electric water heater. 2,772,344, 11–27–56, Cl. 219—38.

Bowen, William M., III, and E. J. Houdry, to Oxy-Catalyst, Inc. Exhaust gas treating unit. 2,772,147, 11–27–56, Cl. 23—288.

Bowers, Roy L., to General Motors Corp. Filter for fluids such as gasoline. 2,772 001. 11–27–56, Cl. 210—165.

Bowser, Harley O. Electric outlet box screw plate. 2,772,062, 11–27–56, Cl. 248—27.

Boyd, Elsie I.: *See*—
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Brackx, Laurent H. J., to H. T. Jeandron. Means for mooring and refueling boats, seaplanes, and the like. 2,771,617, 11–27–56, Cl. 9—8.

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Bradley, Robert O., C. S. Simonds, and C. H. Jacobs, to Toledo Scale Co. Temperature compensated servo coils. 2,772,383, 11–27–56, Cl. 318—28.

Bradley, Robert W., to United Shoe Machinery Corp. Devices for finding protruding metal objects in shoes. 2,772,394, 11–27–56, Cl. 324—61.

Brahm, Charles B., to United Aircraft Corp. Safety circuit for generator unit of the jet fuel control. 2,771,742, 11–27–56, Cl. 60—39.09.

Bramble, Lloyd F., to Gulf States Asphalt Co., Inc. Asphalt lining. 2,771,745, 11–27–56, Cl. 61—7.

Brandon, Thomas O., to A. G. Spalding & Bros., Inc. Lightweight grip. 2,772,000, 11–27–56, Cl. 273—81.

Bratfisch, Warren A., and P. H. Jones, to North American Aviation, Inc. Fluid filling system. 2,771,906, 11–27–56, Cl. 137—575.

Brehm, Allen E., and E. K. Fields, to Standard Oil Co. Fuel compositions. 2,772,148, 11–27–56, Cl. 44—71.

Breidfjord, Agnar G. Fishing trawls. 2,771,702, 11–27–56, Cl. 43—9.

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Briskin, Joseph, and E. C. Chapin, to Monsanto Chemical Co. Terpolymer systems. 2,772,252, 11–27–56, Cl. 260—80.5.

Bristol, Donald E., to Ryan Recording Thermometer Co. Container for recording thermometer. 2,772,016, 11–27–56, Cl. 220—18.

British Telecommunications Research Ltd.: *See*—
Gaite, Harold D. 2,772,325.

Brogdex Co.: *See*—
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Brooks, Robert A., to E. I. du Pont de Nemours and Co. Process for producing copper-phthalocyanine precursor. 2,772,285, 11–27–56, Cl. 260—319.

Brouillette, Georges P.: *See*—
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Browder, Jay E., to Standard Coil Products Co., Inc. V. H. F.-U. H. F. tuners. 2,772,353, 11–27–56, Cl. 250—20.

Browder, Jay E., to Standard Coil Products Co., Inc. V. H. F.-U. H. F. tuners. 2,772,354, 11–27–56, Cl. 250—20.

Brown, Gordon H., to E. A. Peterman. Pressure regulator. 2,771,843, 11–27–56, Cl. 103—17.

Brownell, William E. Surface marking tool. 2,771,924, 11–27–56, Cl. 145—25.

Brownlow, James M., to Gulton Industries, Inc. Method for joining metallic and ceramic members. 2,771,969, 11–27–56, Cl. 189—36.5.

Bruce, George D., and J. C. Logue, to International Business Machines Corp. Binary trigger and counter circuits employing magnetic memory devices. 2,772,370, 11–27–56, Cl. 307—88.

Brugger, Alfons: *See*—
Ritzau, Inge, Brugger, and Höfler. 2,772,117.

Bryant, Austin U.: *See*—
Grove, Marvin H., and Bryant. 2,772,068.

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Buckley, Frederick D.: *See*—
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Buehring, Glenn H. Storage tank trailer. 2,772,010, 11–27–56, Cl. 214—394.

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Buie, James L., to Hoffman Electronics Corp. Frequency meter or the like. 2,772,396, 11–27–56, Cl. 324—78.

Bullock, Walter W.: *See*—
Harrington, Lawrence E. 2,772,026.

Burleson, Aaron, and M. N. Holmes, to Patentex, Inc. Knitting. 2,771,756, 11–27–56, Cl. 66—146.

Burleson, Aaron, and M. N. Holmes, to Patentex, Inc. Stretchable stocking. 2,771,757, 11–27–56, Cl. 66—172.

Burleson, Aaron, to Patentex, Inc. Process for producing knitted fabric. 2,771,760, 11–27–56, Cl. 66—201.

Burleson, Aaron, to Patentex, Inc. Process of preparing nylon yarn. 2,772,191, 11–27–56, Cl. 57—157.

Burleson, Robert N. Radius grinding fixture. 2,771,723, 11–27–56, Cl. 51—225.

Burness, Donald M., to Eastman Kodak Co. Process of manufacturing esters of 3-substituted 2-furoic acids. 2,772,295, 11–27–56, Cl. 260—347.5.

Burnett, Jesse W.: *See*—
Runaldue, Lewis R., and Burnett. 2,772,395.

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Simon, Eli, Thomas, and Burney. 2,772,245.

Busch, Floyd H., and D. A. Quaglieri, to General Electric Co. Seal for a meter housing. 2,772,109, 11–27–56, Cl. 292—307.

Buschkämper, Gustav. Box for the storage of sewing needles. 2,771,990, 11–27–56, Cl. 206—56.

Bushnell, James D., and R. L. Berg, to Esso Research and Engineering Co. Feed stock for naphtha reforming. 2,772,220, 11–27–56, Cl. 196—50.

Business Systems, Inc.: *See*—
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Busque, Charles S. Land clearing implement. 2,771,693, 11–27–56, Cl. 37—2.

Butler, Keith H., to Sylvania Electric Products Inc. Electroluminescent zinc sulfide phosphor. 2,772,242, 11–27–56, Cl. 252—301.6.





Butler, Robert C.: *See*—
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California Research Corp.: *See*—
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Levine, Irving E., and Toland. 2,772,305.
Lewis, Allen H., and Stayner. 2,772,239.
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Schurman, Glenn A., Aagaard, and Blake. 2,772,405.
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Calumet Flexicore Corp.: *See*—
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Campbell, Hugh C., and A. C. Cope, to Research Corp. Preparation of substituted cyclooctatetraenes. 2,772,314, 11–27–56, Cl. 260—666.

Campbell, Ivor E., B. W. Gonser, and C. F. Powell, to Fansteel Metallurgical Corp. Refractory bodies. 2,771,666, 11–27–56, Cl. 29—198.

Cannell, Murray D. Liquid transfer apparatus and automatic shut-off therefor. 2,771,917, 11–27–56, Cl. 141—217.

Canton Mfg. Co., The: *See*—
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Carls, Dorl F., and F. Davis, to General Motors Corp. Intake manifold. 2,771,864, 11–27–56, Cl. 123—52.

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Carlson, Theodore E.: *See*—
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Carlson, Viola M. Room ventilator. 2,772,332, 11–27–56, Cl. 200—88.

Carothers, Melvin M. Exhaust fan switch. 2,772,331, 11–27–56, Cl. 200—84.

Carpinella, Michael J., to Scovill Mfg. Co. Snap fastener socket. 2,771,653, 11–27–56, Cl. 24—216.

Carrier Conveyor Corp.: *See*—
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Carrier, Robert M., Jr., to Carrier Conveyor Corp. Spiral conveyor. 2,771,983, 11–27–56, Cl. 198—220.

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Carson, Clarence M., to The Goodyear Tire & Rubber Co. Film for packaging meats. 2,772,172, 11–27–56, Cl. 99—174.

Carter, Herbert E. Pitless well adapter and coupling apparatus. 2,771,955, 11–27–56, Cl. 166—85.

Carter, Sidney T., to Geo. J. Meyer Mfg. Co. Method of and apparatus for use in applying contractible bands to articles. 2,771,725, 11–27–56, Cl. 53—41.

Case, J. I., Co.: *See*—
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Heth, Sherman C., Krause, and Wiltsey. 2,771,731.
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Redetzke, Emery C. 2,771,831.
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Cason, Forrest D. Posture improving device. 2,771,875, 11–27–56, Cl. 128—44.

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Chamberlin, William H. Illuminating apparatus. 2,772,349, 11–27–56, Cl. 240—10.65.

Champion Implement Corp.: *See*—
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Chinn, Leland J., to G. D. Searle & Co. 11-oxygenated derivatives of 13-methyl-1,2,3,6,7,8,9,10,11,12,13,14,16,17-tetradecahydro-15 h-cyclopenta[a]phenanthrene-3,17-dione. 2,772,298, 11–27–56, Cl. 260—397.45.

Chircop, Lawrence E. Dispensing caps for collapsible tubes. 2,772,027, 11–27–56, Cl. 222—92.

Christensen, Edwin V., to Lockheed Aircraft Corp. Machine for hot dimpling. 2,771,931, 11–27–56, Cl. 153—21.

Christenson, Donald J., and A. A. Salerno, to J. I. Case Co. Feeding rotors for fertiliser distributors. 2,772,030, 11–27–56, Cl. 222—242.

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Meyerhans, August, and Christoffel. 2,772,403.

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Mellheany, William F., Baker, and Clarke. 2,772,143.

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Collison, William F., and Schwend. 2,772,048.

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Coats & Clark Inc.: *See*—
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Cochrane Corp.: *See*—
Bookout, Ervin J., and Hutchison. 2,772,235.

Cohen, Oscar P., and M. J. Scott, to Monsanto Chemical Co. Textile material with an antistatic finish and process of making same. 2,772,189, 11–27–56, Cl. 117—138.8.

Cole, William T. to The Canton Mfg. Co. Hinge guard load protector. 2,772,064, 11–27–56, Cl. 248—361.

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King, William J. 2,772,204.
King, William J. 2,772,205.
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Collins, Leonard M., and P. F. George, to Pressure Dispensers, Inc. Dispensing valve for a pressurized container. 2,772,035, 11–27–56, Cl. 222—394.

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Wilson, Thomas A., Parker, Kieffer, and Gillette. 2,771,735.

Commercial Solvents Corp.: *See*—
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Compagnies Reunies des Glaces & Verres Speciaux du Nord de la France: *See*—
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Comstock, George E., 3rd, and K. H. Kalbfleisch, to Norton Co. Electrolytic grinding apparatus. 2,772,232, 11–27–56, Cl. 204—218.

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Robinson, Charles F. 2,772,363.
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Washburn, Harold W. 2,772,364.

Continental Motors Corp.: *See*—
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Cook, Leslie J., and L. T. Quaglia, to Chromatic Television Laboratories, Inc. Grid structure for cathode-ray tubes designed for polychrome image reproduction. 2,772,376, 11–27–56, Cl. 313—78.

Coonradt, Harry L., and W. K. Leaman, to Socony Mobil Oil Co., Inc. Method for reducing fracturing of ion-exchange resins. 2,772,236, 11–27–56, Cl. 210—24.

Cooper, Carl M., 40% to S. Fishfader. Boom angle indicator for cranes. 2,772,411, 11–27–56, Cl. 340—282.

Cooper, Joseph. Slide assembly for slide leaf extension tables. 2,772,131, 11–27–56, Cl. 311—55.

Cope, Arthur C.: *See*—
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Cornelius, Richard T. Spraying devices. 2,772,118, 11–27–56, Cl. 299—88.

Cotchett, Louis M. Top roll for spinning and roving frames. 2,771,640, 11–27–56, Cl. 19—142.

Cousins, Edward, and F. A. Jeffries, to The Goodyear Tire & Rubber Co. Air curing coating composition and method of preparing same. 2,772,249, 11–27–56, Cl. 260—31.2.

Cox, Joseph B. Chain saws. 2,771,919, 11–27–56, Cl. 143—135.

Crabtree, Harold L., to Anchor Hocking Glass Corp. Method and device for manufacturing closure caps and closure cap produced thereby. 2,772,012, 11–27–56, Cl. 215—40.

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Cribbs, Thomas J.: *See*—
Cribbs, Francis J. and T. J. 2,771,858.

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Crowley, George C., to General Electric Co. Heating device control circuit. 2,772,338, 11–27–56, Cl. 219—20.

Crum, Harvey E. Swimming appliance. 2,771,618, 11–27–56, Cl. 9—21.

Cummings, Ross, to the United States of America as represented by the United States Atomic Energy Commission. Process of reclaiming uranium from solutions. 2,772,142, 11–27–56, Cl. 23—14.5.

Cupp, James E. Engineer's scale. 2,771,679, 11–27–56, Cl. 33—107.

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Curry, John J. Dental matrix device. 2,771,677, 11–27–56, Cl. 32—63.

Cusic, John W., to G. D. Searle & Co. Basic esters of N-aryl-N-(heterocyclylalkyl) carbamic acids and syntheses thereof. 2,772,276, 11–27–56, Cl. 260—302.

Cusic, John W., to G. D. Searle & Co. Basic esters of N-aralkyl-N-cycloalkylcarbamic acids and the production thereof. 2,772,287, 11–27–56, Cl. 260—326.3.

Cusic, John W., to G. D. Searle & Co. Basic esters of N-aryl and N-cycloalkyl indancarbamic acids, their salts and methods for their preparation. 2,772,288, 11-27-56, Cl. 260—326.3.

Cusic, John W., to G. D. Searle & Co. Basic esters of N-aralkyl-N-arylcarbamic acids and the manufacture thereof. 2,772,289, 11-27-56, Cl. 260—326.3.

Czys, Albert, to Dorbin Metal Strip Mfg. Co., Inc. Anchor for resilient window strips. 2,771,642, 11-27-56, Cl. 20—12.

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Darby, Walter, to Stuart Davis Ltd. Reciprocatory drive for a rack. 2,771,782, 11-27-56, Cl. 74—32.

Davey, George M., to Hadco Engineering Co., Inc. Axial disc brake. 2,771,966, 11-27-56, Cl. 188—72.

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Davis, Reuel L., Jr., and F. W. Newman, to General Electric Co. Annunciator system. 2,772,408, 11-27-56, Cl. 340—220.

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Davis, Vincent C., to California Research Corp. Water-in-oil detector. 2,772,393, 11-27-56, Cl. 324—40.

Dawkins, Kenneth, and E. J. Peterson, to Franklin Mfg. Co., Inc. Battery charger for a plurality of sets of series connected batteries. 2,772,385, 11-27-56, Cl. 320—18.

Dayton, Benjamin B., to Consolidated Electrodynamics Corp. Liquid seals. 2,771,900, 11-27-56, Cl. 137—251.

Deardorff, Ralph W. Active frequency selective filter network using double frequency conversion. 2,772,350, 11-27-56, Cl. 250—20.

De Fino, Anthony J., to the United States of America as represented by the Secretary of War. Belt line charge. 2,771,841, Cl. 102—22.

Deibel, Raymond, to Trico Products Corp. Adjustable snap action mechanism. 2,771,784, 11-27-56, Cl. 74—97.

Deker, Marta: *See*—
Kligman, Albert M., and Deker. 2,771,877.

Delavan Mfg. Co.: *See*—
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De Napoli, Anthony C., Jr., and F. E. Runge, to The Soundscriber Corp. Recording and playback arm operating and setting means for dictating machines. 2,772,093, 11-27-56, Cl. 274—14.

Denehie, Lawrence C., and J. F. Shafer. Corn popping machine. 2,771,836, 11-27-56, Cl. 99—238.4.

Denton, Bethel E., to Radio Corp. of America. Power supply. 2,772,371, 11-27-56, Cl. 307—150.

Deutsch, Sid, and H. A. Finke, to Polytechnic Research & Development Co., Inc. Wide range tuner. 2,772,355, 11-27-56, Cl. 250—20.

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Dixon, John J., Sr. Replacement for Venetian blind slat-supporting strap. 2,771,946, 11-27-56, Cl. 160—178.

Dobkin, William J., to American Dispenser Co., Inc. Soap dispensers. 2,772,116, 11-27-56, Cl. 299—83.

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Duenke, Clarence G., and T. W. Skillington, to Moloney Electric Co. Core cutting machines. 2,771,717, 11-27-56, Cl. 51—108.

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Griswold, David E., to D. G. Griswold. Valve closing speed control means. 2,771,905, 11–27–56, Cl. 137—488.
Griswold, Donald G.: *See*—
Griswold, David E. 2,771,905.
Grove, Marvin H., and A. U. Bryant, to Grove Valve and Regulator Co. Seal guard. 2,772,068, 11–27–56, Cl. 251—332.
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Grove, Marvin H., and Bryant. 2,772,068.
Grundy, Richard J.: *See*—
Patch, Harold K., and Grundy. 2,771,824.
Grypma, Theodore J. Battery strap. 2,772,112, 11–27–56, Cl. 294—103.
Guernsey, John F., and A. E. Vall, to Trio Mfg. Co. Composite dipole multi-channel television antenna. 2,772,413, 11–27–56, Cl. 343—801.
Guglielmo, Paul: *See*—
Jacobs, Herbert, Ricco, and Guglielmo. 2,771,840.
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Bramble, Lloyd F. 2,771,745.
Gulton Industries, Inc.: *See*—
Brownlow, James M. 2,771,969.
Gustafson, Aron, and B. E. Gomo. Stone polishing machine. 2,771,718, 11–27–56, Cl. 51—126.
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Guy, Freedrick M., to U. S. Universal Joints Co. Shaft hanger. 2,772,126, 11–27–56, Cl. 308—28.
Gyllenberg, John L., to A. Bradenthaler. Pulp-wood bark-removing machine having pivotable angular supporting arms for rotatable cutters and brushes. 2,771,922, 11–27–56, Cl. 144—208.
Haayman, Pieter W., P. C. van der Linden, D. Veeneman, and G. H. Janssen, to Hartford National Bank and Trust Co., as trustee. Method of increasing the electrical conductivity of tin oxide films. 2,772,190, 11–27–56, Cl. 117–211.
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Davey, George M. 2,771,966.
Hadden, Stuart T., to Socony Mobil Oil Co., Inc. Dehydrogenation process. 2,772,316, 11–27–56, Cl. 260—683.3.
Hagemeyer, Hugh J., Jr., to Eastman Kodak Co. Alkali hydroperoxides as olefin polymerization catalysts. 2,772,259, 11–27–56, Cl. 260—94.9.
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Malcolm, Harold O., and Hagerbaumer. 2,772,123.
Hall, Dick S., to Phillips Petroleum Co. Pebble heat exchanger. 2,772,122, 11–27–56, Cl. 302—53.
Hall, Lloyd A., to The Griffith Laboratories, Inc. Antioxidant material and use of said material in treating meat. 2,772,169, 11–27–56, Cl. 99—159.
Hall, Lloyd A., to The Griffith Laboratories, Inc. Antioxidant composition. 2,772,170, 11–27–56, Cl. 99—163.
Halliday, Donald D. and E. P. Hot air baseboard diffuser. 2,771,833, 11–27–56, Cl. 98—40.
Halliday, Edward P.: *See*—
Halliday, Donald D. and E. P. 2,771,833.
Hammer, Samuel, to United Metal Box Co., Inc. Recessed handle for drawers, doors, and the like. 2,771,627, 11–27–56, Cl. 16—124.
Hamontre, Hugh C., F. G. Mueller, and F. E. Armstrong, Instrument to measure the diameter of subsurface well bores. 2,771,686, 11–27–56, Cl. 33—178.
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Hanish, Joseph A.: *See*—
Bowen, Max E., Hanish, and Carlson. 2,772,344.
Hannay, Robert S. E., and W. Kilby, to Standfast Dyers and Printers Ltd. Dyeing of textile materials using molten metal. 2,772,136, 11–27–56, Cl. 8—1.
Hansen, Fred C., Sr. Golfing aids. 2,771,678, 11–27–56, Cl. 33—46.
Hansen, John E., and T. J. Dietz, to the United States of America as represented by the Secretary of Agriculture. Vulcanization of acrylic acid copolymers. 2,772,251, 11–27–56, Cl. 260—79.5.
Hanson, Alfred H., to The Fairbanks Co. Appliance hand truck provided with stair-climbing attachment. 2,772,006, 11–27–56, Cl. 280—5.24.
Hanson, Walter J.: *See*—
Owen, Edwin H., and Hanson. 2,771,726.
Hansson, Karl G. L.: *See*—
Strömberg, Tage A., and Hansson. 2,771,684.
Hardman, Albert F., to The Goodyear Tire & Rubber Co. Manufacture of sulfenamides. 2,772,278, 11–27–56, Cl. 260—306.6.
Harkey, George D., Jr., and C. E. Hawk, to Aerojet-General Corp. Fluid delivery device. 2,771,915, 11–27–56, Cl. 141—116.
Harper, George C., and C. T. Wilson. Frog net. 2,771,701, 11–27–56, Cl. 43—7.
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Jonkers, Cornelius O., Kohler, Liebe, and van der Ster. 2,771,751.
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Hemstreet, Albert B. Locking means for centrifugal molds. 2,771,647, 11–27–56, Cl. 22—113.5.
Hendrick, Walter T. S., to J. Lyons & Co. Ltd. Cartons. 2,772,042, 11–27–56, Cl. 229—41.
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Henry, Robert L., Jr., to the United States of America as represented by the Secretary of the Navy. Method of making modular electronic assemblies. 2,771,663, 11–27–56, Cl. 29—155.5.
Henry Valve Co., Inc.: *See*—
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Herter, George L. Quick detachable gun sling swivel. 2,771,999, 11–27–56, Cl. 42—85.
Heth, Sherman C., N. R. Krause, and H. E. Wiltsey, to J. I. Case Co. Picking rolls with clearing beater. 2,771,731, 11–27–56, Cl. 56—104.
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Hickey, John H., and L. M. Mittelsdorf, to the United States of America as represented by the Secretary of the Navy. Variable-speed code-training devices. 2,772,326, 11–27–56, Cl. 178—115.
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Higgins, Roger K., to the United States of America as represented by the Secretary of the Navy. Sensitive pressure switch. 2,772,330, 11–27–56, Cl. 200—83.
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Hiller, Everett O., to Hartford National Bank & Trust Co. Apparatus for recovery of crab meat. 2,771,631, 11–27–56, Cl. 17—2.
Hillmer, Willy. Toggle clamp fin retaining band. 2,771,842, 11–27–56, Cl. 102—50.
Hilpert, Alfons. Internal combustion engines. 2,771,861, 11–27–56, Cl. 123—32.
Hoch, Fred W.: *See*—
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Hollabaugh, Max G., F. D. Sher, and K. R. Wisner, to ACF Industries, Inc. Method and apparatus for magnetically recording video-frequency signals. 2,772,135, 11–27–56, Cl. 346—74.
Holland, Leslie A. Apparatus for vaporization of metals and metalloids. 2,772,316, 11–27–56, Cl. 13—25.
Hollander, Max L., and Y. E. Labedeff, to American Smelting and Refining Co. Preparation of zinc electrolytes. 2,772,230, 11–27–56, Cl. 204—116.
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Holly, Frederick W., and C. H. Stammer, to Merck & Co., Inc. Synthesis of 4-amino-3-isoxazolidone and its derivatives. 2,772,281, 11–27–56, Cl. 260—307.
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Burleson, Aaron, and Holmes. 2,771,757.
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Hoover, Frank G., H. E. McColaugh, and C. H. Free. Garment finishing apparatus. 2,772,039, 11–27–56, Cl. 223—73.
Horowitz, Isadore, to Universal Mfg. Co., Inc. Brace attachment for playground apparatus. 2,771,615, 11–27–56, Cl. 5—130.
Horton, Donelson B., and D. Johnston, to John Blue Co., Inc. Variable-capacity metering pump. 2,771,846, 11–27–56, Cl. 103—203.
Hortvet, Richard M., to A. O. Smith Corp. Stress relieving apparatus. 2,772,082, 11–27–56, Cl. 263—4.
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Hunsiker, Charles E., Leaf anchoring means. 2,772,000, 11–27–56, Cl. 210—153.
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Jacobs, Morris B., to American Home Products Corp. Metaphosphate complexes of diphtheria and tetanus toxoids and purifying said toxoids. 2,772,202, 11-27-56, Cl. 167—78.

Jacobsen, Andrew B., to the United States of America as represented by the Secretary of the Navy. Coded data transmission system. 2,772,399, 11-27-56, Cl. 333—20.

Jacobson, Jesse C., to United Air Lines, Inc. Stud loosening and tightening tool. 2,771,805, 11-27-56, Cl. 81—53.

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Jensen, Christian C., to E. I. du Pont de Nemours and Co. Ceramic decoration method. 2,772,182, 11-27-56, Cl. 117—40.

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Joyce, Glover C., to Norton Co. Grinding machine-work loader. 2,771,716, 11-27-56, Cl. 51—105.

Juergens, John. Automobile safety lamp. 2,772,406, 11-27-56, Cl. 340—32.

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Karr, Errol H., to The Pennsylvania Salt Mfg. Co. Preparation of perchlorates. 2,772,229, 11-27-56, Cl. 204—82.

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Keen, Arthur W., to Electric & Musical Industries Ltd. Scanning circuits for cathode ray tubes. 2,772,358, 11-27-56, Cl. 250—36.

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King, William J., to Colgate-Palmolive Co. Fermentable carbohydrate food products. 2,772,168, 11-27-56, Cl. 99—28.

King, William J., to Colgate-Palmolive Co. Dental preparations containing higher aliphatic acyl sarcoside compounds. 2,772,204, 11-27-56, Cl. 167—93.

King, William J., to Colgate-Palmolive Co. Dental floss containing higher aliphatic acyl amide of an aminocarboxylic acid compound. 2,772,205, 11-27-56, Cl. 167—93.

Kinley, John C. Internal pipe calipering tools. 2,771,885, 11-27-56, Cl. 33—178.

Kirchhof, Robert F. Precision layout and height gage. 2,771,683, 11-27-56, Cl. 33—170.

Kirshenbaum, Isidor: *See*—
Smith, John O., Jr., and Kirshenbaum. 2,772,317.

Kirwan, John O., to Wallace & Tiernan Inc. Apparatus for measuring the mass rate of flow. 2,771,772, 11-27-56, Cl. 73—194.

Kleiman, Morton, to Velsicol Chemical Corp. 1,2,3,4,10,10 - hexachloro - 1,4 - methano - 5,8 - oxa - 1,4,4a,5,8,8a - hexahydro - 5 - naphthaldehyde. 2,772,294, 11-27-56, Cl. 260—346.2.

Kligman, Albert M., and M. Deker, to Johnson & Johnson. Pad. 2,771,877, 11-27-56, Cl. 128—153.

Klingelfuss, Eugene H., to American Type Founders Co., Inc. Continuous unwinding device for webs. 2,772,055, 11-27-56, Cl. 242—58.

Klopstock, Hans. Stapling appliances. 2,771,609, 11-27-56, Cl. 1—49.

Knaus, Nicholaus, and A. G. Millington, to The Singer Mfg. Co. Feeding mechanisms for sewing machines. 2,771,848, 11-27-56, Cl. 112—209.

Knickerbocker Rubber Co., Not Inc.: *See*—
Holden, Orloff W. 2,771,998.

Knudson, Clarence B., and J. L. Buie, to Hoffman Electronics Corp. Engine ignition systems or the like. 2,772,320, 11-27-56, Cl. 123—148.

Knuth, Carl, to Kiekhaefer Corp. Engine fuel pressure regulator. 2,771,868, 11-27-56, Cl. 123—136.

Kobler, Victor and W. Dry shaver. 2,771,672, 11-27-56, Cl. 30—43.

Kobler, Werner: *See*—
Kobler, Victor and W. 2,771,672.

Koch Engineering Co., Inc.: *See*—
Huggins, Clifford A., and Thrift. 2,772,080.

Kohler, Jacob W. L.: *See*—
Jonkers, Cornelius O., Kohler, Liebe, and van der Ster. 2,771,751.

Kolbe, Adelbert E., to General Motors Corp. Manifold support structure. 2,771,865, 11-27-56, Cl. 123—52.

Kollsman Instrument Corp.: *See*—
Von Ranson, Josef. 2,771,781.

Konf, Rowland J., and R. Marsh, to Portable Industries, Inc. Ejector for powder-actuated tools. 2,771,696, 11-27-56, Cl. 42—1.





Koppers Co., Inc.: *See*—
Doll, Frans. 2,772,236.
Schmidtmann, Hans. 2,772,053.

Kosdemba, Stanley E., to Monsanto Chemical Co. Plywood process. 2,772,197, 11-27-56, Cl. 154—133.

Kracamer, Paul, to The Oraton Co. Solid fuel burning flare. 2,771,763, 11-27-56, Cl. 67—21.

Kramer, Joseph, to The Gardner Board and Carton Co. Partitioned bottle carrier. 2,772,020, 11-27-56, Cl. 220—113.

Krause, Norman R.: *See*—
Heth, Sherman C., Krause, and Wiltsey. 2,771,731.

Kreisig, Ernst, and O. E. Peter. Pipe end connection and sealing system with centering means. 2,772,100, 11-27-56, Cl. 285—93.

Kriewall, William B.: *See*—
Laston, Theodore L., and Kriewall. 2,772,346.

Kritscher, Andrew F., to United States Steel Corp. Plug rolling mill. 2,771,800, 11-27-56, Cl. 80—11.

Krizsan, Mary: *See*—
Marshall, Harry B., and Curran. 2,772,139.
Marshall, Harry B., and Krizsan. 2,772,140.

Kruckewitt, John. Reciprocating mechanism for a coin vending machine. 2,771,793, 11-27-56, Cl. 74—50.

Kunze, Walter G., R. B. Evans, and J. W. Huebschmann, to National Starch Products Inc. Process for preparing a cold water soluble dextrin adhesive and the product thereof. 2,772,178, 11-27-56, Cl. 106—208.

Laboratory For Electronics, Inc.: *See*—
Rich, Alan L. 2,772,356.

Lafitte, Theodore J.-B., to Bendix Aviation Corp. Starting devices for combustion engines. 2,771,780, 11-27-56, Cl. 74—7.

Laquer, Fritz, deceased, by K. M. Laquer, executrix. Sterol recovery. 2,772,297, 11-27-56, Cl. 260—397.25.

Laquer, Kathleen M.: *See*—
Laquer, Fritz O. 2,772,297.

Landenberger, J. W., & Co.: *See*—
Luchs, Morton G. 2,771,691.

Lander, James G., to Diamond Alkali Co. Silicate glass adhesive. 2,772,177, 11-27-56, Cl. 106—79.

Langer, Arthur W., Jr.: *See*—
Stewart, Joseph, Fulton, and Langer. 2,772,209.
Stewart, Joseph, Hill, and Langer. 2,772,221.

Langer, Arthur W., Jr., to Esso Research and Engineering Co. Process for hydrogenating and cracking petroleum oils. 2,772,214, 11-27-56, Cl. 196—49.

Lanmon, Dwight L. Railing lamp. 2,772,347, 11-27-56, Cl. 240—2.

Larson, Edwin B. Internal resistance brake with clutch. 2,771,967, 11-27-56, Cl. 188—91.

Latour, André, to Etablissements Merlin & Gerin, Société Anonyme. Refractory body for electrical apparatus. 2,772,334, 11-27-56, Cl. 200—144.

Laughton, George B. Boxes, cases and containers for personal use. 2,771,604, 11-27-56, Cl. 40—70.

Lauritsen, Charles C., to the United States of America as represented by the Secretary of the Navy. Launcher. 2,771,811, 11-27-56, Cl. 89—1.7.

Lauritsen, Charles C., to the United States of America as represented by the Secretary of the Navy. Rocket launcher. 2,771,818, 11-27-56, Cl. 89—1.7.

Lawson, E. P., Co., Inc.: *See*—
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Layne, Harold W., to Inland Container Corp. Handled carton. 2,772,044, 11-27-56, Cl. 229—51.

Leach, Clayton B., to General Motors Corp. Gasket. 2,771,869, 11-27-56, Cl. 123—193.

Leaman, Wilbur K.: *See*—
Coonradt, Harry L., and Leaman. 2,772,236.

Lear, Inc.: *See*—
Ryberg, Arling W. 2,771,778.

Leath, William J., and F. E. Bobo, Jr., to Patentex, Inc. Yarn and method of producing the same. 2,771,733, 11-27-56, Cl. 57—140.

Leath, William J. and F. E. Bobo, Jr., to Patentex, Inc. Textile product and method. 2,771,759, 11-27-56, Cl. 66—178.

Lebedeff, Yurii E.: *See*—
Hollander, Max L., and Lebedeff. 2,772,230.

Lee, George H. No-wipe oil dip stick. 2,771,680, 11-27-56, Cl. 33—126.4.

Lee, Warren G.: *See*—
Talmey, Paul, Metheny, and Lee. 2,772,183.

Lehde, John W., Jr.: *See*—
Better, Bernard E., and Lehde. 2,771,804.

Leitten, Carl F., to Electro Refractories & Abrasives Corp. Stopper heads. 2,772,176, 11-27-56, Cl. 106—56.

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Vodák, Zdeněk, and Leminger. 2,772,290.

Lenhart, Charles A. Vending machines. 2,771,979, 11-27-56, Cl. 194—39.

Lennox Industries, Inc.: *See*—
Eichorn, Robert W. 2,771,963.

Leshin, Richard, to The Goodyear Tire & Rubber Co. Preparation of sulfenamides. 2,772,279, 11-27-56, Cl. 260—306.6.

Leston, Theodore L., and W. B. Kriewall, to All-Sil Welding Metals, Inc. Heat blasting tool with fluid jet. 2,772,346, 11-27-56, Cl. 219—121.

Leupold, Curt W., to Vereinigte Papierwerke Schickedanz & Co. Hygienic insertion for women. 2,771,882, 11-27-56, Cl. 128—290.

Levin, Robert H.: *See*—
Fonken, Gunther S., Levin, and McIntosh. 2,772,299.

Levine, Irving E., and W. G. Toland, Jr., to California Research Corp. Oxidation of toluate esters and xylene mixtures. 2,772,305, 11-27-56, Cl. 260—475.

Lewenstein, M. J.: *See*—
Weiss, Ulrich. 2,772,270.

Lewis, Allen H., and R. D. Stayner, to California Research Corp. Detergent compositions. 2,772,239, 11-27-56, Cl. 252—161.

Lewis, Walter B. Screw cap wrench with flexible strap. 2,771,902, 11-27-56, Cl. 81—3.43.

Lewis, Walter E., and S. C. Jordan, to General Electric Co. Electric heating appliance. 2,772,341, 11-27-56, Cl. 219—37.

Liebe, August A.: *See*—
Jonkers, Cornelius O., Kohler, Liebe, and van der Ster. 2,771,751.

Lieberman, Emanuel R., and H. Yuska, to Interchemical Corp. Water-soluble epoxy-amine resins. 2,772,248, 11-27-56, Cl. 260—29.2.

Lien, Arthur P.: *See*—
Shalit, Harold, and Lien. 2,772,244.

Liguori, Anthony, to Radio Corp. of America. Power supply with regulated positive and negative output voltages. 2,772,387, 11-27-56, Cl. 323—22.

Lilliendahl, William C.: *See*—
Quaely, Martin F., and Lilliendahl. 2,772,227.

Lilly, Eli, and Co.: *See*—
Fornefeld, Eugene J. 2,772,286.
Pohland, Albert. 2,772,311.

Lindsey, Richard E. Method of preparation of baking pans for bread. 2,771,668, 11-27-56, Cl. 29—423.

Lipinski, Johann, to Alex. Friedmann, Kommanditgesellschaft. Method and apparatus for the delivery of gear pumps. 2,771,844, 11-27-56, Cl. 103—41.

Littman, Robert E. Saw blade holder. 2,771,925, 11-27-56, Cl. 145—106.

Lockheed Aircraft Corp.: *See*—
Bendicsen, Olaf T. 2,772,060.
Christensen, Edwin V. 2,771,931.
Johnson, Clarence L. 2,771,740.
McGregor, Clifton P. 2,771,951.
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Simon, Eli, and Thomas. 2,772,246.

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Bruce, George D., and Logue. 2,772,370.

Logue, Joseph C., and R. A. Heale, to International Business Machines Corp. Transistor indicator circuit. 2,772,410, 11-27-56, Cl. 340—252.

Long, Bernard, to Compagnies Reunies des Glaces & Verres Speciaux du Nord de la France. Apparatus for conditioning glass which is to be continuously drawn into sheets. 2,771,711, 11-27-56, Cl. 49—55.

Lopez, Peter R. Dispenser for material in collapsible tubes. 2,772,028, 11-27-56, Cl. 222—95.

Loria, Anthony, and E. T. Peech, to Eastman Kodak Co. Photographic emulsions and new coupling compounds. 2,772,161, 11-27-56, Cl. 96—55.

Loro & Parisini Societa per Azioni: *See*—
Sborlino, Gino. 2,772,127.

Lovesey, Alfred C., to Rolls-Royce Ltd. Gas-turbine engine with reheat combustion equipment. 2,771,743, 11-27-56, Cl. 60—39.72.

Low, Frank D., to General Electric Co. Control circuits for dishwashing apparatus. 2,771,894, 11-27-56, Cl. 134—57.

Lowe, Warren, to California Research Corp. Foam-inhibited lubricating oils. 2,772,238, 11-27-56, Cl. 252—48.2.

Luchs, Morton G., to J. W. Landenberger & Co. Cushioned foot protector. 2,771,691, 11-27-56, Cl. 36—10.

Lugg, Lewis J.: *See*—
Schmidt-Nickels, Wilhelm, and Lugg. 2,772,273.
Schmidt-Nickels, Wilhelm, and Lugg. 2,772,274.
Schmidt-Nickels, Wilhelm, and Lugg. 2,772,275.

Lukemire, Edward L., to The Ohio Boxboard Co. Papermaking with closed water system. 2,771,823, 11-27-56, Cl. 92—38.

Lussatto, Ettore, to Perfogit Società per Azioni. Apparatus for the melt-spinning of synthetic linear polymers. 2,771,634, 11-27-56, Cl. 18—8.

Lussi, Fernando A.: *See*—
Maffessoni, Umberto, and Lussi. 2,772,304.

Lyon, William H., to The Soundscriber Corp. Automatic synchronization apparatus for long-time transverse magnetic sound recorder and reproducer. 2,772,328, 11-27-56, Cl. 179—100.2.

Lyons, J., & Co. Ltd.: *See*—
Hendrick, Walter T. S. 2,772,042.

MacCallum, Alan M.: *See*—
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Machlis, Stuart, to Standard Coil Products Co., Inc. Plural band television receiver tuner with channel indicator knob. 2,772,351, 11-27-56, Cl. 250—20.

Mackey, Richard C., to The Regents of The University of California. Recording magnetometric apparatus of the nuclear-resonance type. 2,772,391, 11-27-56, Cl. 324—0.5.

Madeley, Paul E.: *See*—
Erath, Louis W., Madeley, and Geery. 2,772,388.

Maffessoni, Umberto, and F. A. Lussi, to Montecatini, Societa Generale per l'Industria Mineraria e Chimica. Process for purifying acrylonitrile formed by synthesis from acetylene and hydrogen cyanide. 2,772,304, 11-27-56, Cl. 260—465.3.

Magash, Julius V.: *See*—
Molinari, Henry G., and Magash. 2,771,710.

Mahan, John E.: *See*—
Scott, Cleveland R., Ayers, and Mahan. 2,771,737.

Majik-Ironers, Inc.: *See*—
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Malcolm, Harold O., and W. A. Hagerbaumer, to Socony Mobil Oil Co., Inc. Apparatus for pneumatically lifting granular contact material. 2,772,123, 11-27-56, Cl. 302—53.

Malina, Frank J., and J. W. Parsons, to Aerojet-General Corp. Rocket propulsion method. 2,771,739, 11-27-56, Cl. 60—35.4.

Maim, Carl J., and L. W. Blanchard, Jr., to Eastman Kodak Co. Method of preparing cellulose acetate. 2,772,266, 11-27-56, Cl. 260—227.

Maim, Carl J., and C. L. Crane, to Eastman Kodak Co. Precipitation of hydrolyzed cellulose acetate. 2,772,267, 11-27-56, Cl. 260—230.

Manganelli, Michael A., to Monsanto Chemical Co. Process for polymerizing vinyl chloride. 2,772,256, 11–27–56, Cl. 260—92.8.

Manganelli, Michael A., to Monsanto Chemical Co. Process for polymerizing vinyl chloride. 2,772,257, 11–27–56, Cl. 260—92.8.

Manganelli, Michael A., to Monsanto Chemical Co. Process for polymerizing vinyl chloride. 2,772,258, 11–27–56, Cl. 260—92.8.

Manley, Robert T.: *See*—
Manning, Ralph H., and Manley. 2,772,022.

Man-Sew Corp.: *See*—
Sigeda, Victor J. 2,771,949.

Manupello, Anthony B. Tire bead breaker with rim clamping means. 2,771,941, 11–27–56, Cl. 157—1.17.

Marbill Co.: *See*—
Stewart, James W. 2,771,619.

Martiewicz, Anna V. Floor protecting mat. 2,771,613, 11–27–56, Cl. 4—252.

Marsh, Roger: *See*—
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Marshall, Harry R., and M. Curran (née) Krisman, to Ontario Research Foundation. Method of preparing phenol derivatives of waste sulphite liquor, including removing the calcium ions from the waste liquor. 2,772,139, 11–27–56, Cl. 8—94.31.

Marshall, Harry R., and M. Krisman, to Ontario Research Foundation. Tanning agent comprising phenol derivatives of waste sulphite liquor and method of preparing same. 2,772,140, 11–27–56, Cl. 8—94.31.

Martin, Frank S.: *See*—
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Martin, Glenn L. Co., The: *See*—
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Martin, Homer Z., to Esso Research and Engineering Co. Process for the upgrading of hydrocarbons by hydrogen-donor diluent cracking. 2,772,218, 11–27–56, Cl. 196—50.

Martin, William B. Method of spotting pivotal centers for swinging link structure of folding gooseneck trailer hitch. 2,772,008, 11–27–56, Cl. 214—152.

Martin, William McK., to James Dole Engineering Co. Apparatus for sterilising container covers. 2,771,644, 11–27–56, Cl. 21—78.

Martin, William McK., to James Dole Engineering Co. Apparatus for sterilising food containers. 2,771,645, 11–27–56, Cl. 21—80.

Maschmeyer, Karl: *See*—
Torwegge, Franz, and Maschmeyer. 2,771,923.

Mason, Robert F. Root crop harvesting and cutting machine. 2,771,728, 11–27–56, Cl. 55—51.

Matthews, John E., to Standard Oil Co. Catalyst flow dispersion device. 2,772,076, 11–27–56, Cl. 257—224.

Matthews, Lyle E., to the United States of America as represented by the Secretary of the Navy. Vibrator device. 2,771,859, 11–27–56, Cl. 121—17.

Mauro, Bernard A., ⅓ to M. Johnson. Perforated plate-type strainer. 2,772,002, 11–27–56, Cl. 210—169.

Maxson, W. L., Corp., The: *See*—
Robbins, Asor D. 2,771,793.

Mayer, John J. Temperature control for rollers subjected to heat. 2,772,075, 11–27–56, Cl. 257—95.

McAteer, James H.: *See*—
Dunkel, Walter L., McAteer, and Stewart. 2,772,219.

McColaugh, Harry E.: *See*—
Hoover, Frank G., McColaugh, and Free. 2,772,039.

McCrory, John F., to Tru-Measur, Inc. Liquid dispenser. 2,772,025, 11–27–56, Cl. 222—21.

McDonald, Albert W. Trailer steps. 2,772,097, 11–27–56, Cl. 280—166.

McElroy, Albert D., and R. M. Hunt, to Callery Chemical Co. Preparation of metal fluoborates. 2,772,228, 11–27–56, Cl. 204—59.

McGregor, Clifton P., to Lockheed Aircraft Corp. Sheet metal forming die means. 2,771,851, 11–27–56, Cl. 113—46.

McIlhenny, William F., A. B. Baker, and J. A. Clarke, to The Dow Chemical Co. Method of recovering magnesium salts from sea water. 2,772,143, 11–27–56, Cl. 23—91.

McIntosh, A. Vern, Jr.: *See*—
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McIntosh, Walter W., J. Mosiek, and O. L. Smith, to Monsanto Chemical Co. Apparatus for extruding thermoplastic material. 2,771,636, 11–27–56, Cl. 18—12.

McKinley, Fred E. Exhaust gas purifying apparatus. 2,771,736, 11–27–56, Cl. 60—30.

McKinney Mfg. Co.: *See*—
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McKune, Duane E., to Brogdex Co. Unscrambler construction. 2,771,981, 11–27–56, Cl. 198—30.

McNeil Machine & Engineering Co., The: *See*—
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McShane, Herbert F., Jr., and W. W. Gilbert, to E. I. du Pont de Nemours & Co. Hydrogenation of maleic anhydride. 2,772,291, 11–27–56, Cl. 260—343.6.

McShane, Herbert F., Jr., and R. B. Ramsey, Jr., to E. I. du Pont de Nemours & Co. Hydrogenation of maleic anhydride. 2,772,292, 11–27–56, Cl. 260—343.6.

Meissner, Milton F., to Olin Mathieson Chemical Corp. Composite sheet metal article and method of manufacture. 2,772,121, 11–27–56, Cl. 29—199.

Menning, Ralph H., and R. T. Manley, to The Vendo Co. Vending machine having multiple bottle conveyor system. 2,772,022, 11–27–56, Cl. 221—85.

Mercier, Jean. Shock absorber. 2,771,968, 11–27–56, Cl. 188—96.

Merck & Co., Inc.: *See*—
Holly, Frederick W., and Stammer. 2,772,281.
Peck, Robert L. 2,772,280.
Wagner, Arthur F. 2,772,300.

Merrell, Wm. S., Co., The: *See*—
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Merrick, Herman A., to United Service & Utilities Co. Infra-red generator. 2,772,336, 11–27–56, Cl. 201—63.

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Talmey, Paul, Metheny, and Lee. 2,772,183.

Meyer, Geo. J., Mfg. Co.: *See*—
Carter, Sidney T. 2,771,725.

Meyerhans, August, and M. Christoffel, to Aktiengesellschaft Brown, Boveri & Cie. High voltage transformer. 2,772,403, 11–27–56, Cl. 336—70.

Meyers, John V., and A. W. Phillips, to Meyers-Phillips Co. Keyway cutting machine. 2,771,820, 11–27–56, Cl. 90—43.

Meyers-Phillips Co.: *See*—
Meyers, John V., and Phillips. 2,771,820.

Meager, Heinrich. Multi-point stapling machine with plurality of stapling units. 2,771,606, 11–27–56, Cl. 1—13.

Mihalyi, Joseph, to Eastman Kodak Co. Apparatus for continuous motion picture projection. 2,771,812, 11–27–56, Cl. 88—16.8.

Mihalyi, Joseph, to Eastman Kodak Co. Apparatus for continuous motion picture projection. 2,771,813, 11–27–56, Cl. 88—16.8.

Miller, Albert R., ½ to Fay G. Johnson. Ice making apparatus. 2,771,749, 11–27–56, Cl. 62—7.

Miller, Edward D., and J. L. Driscoll. Cigarette extinguisher. 2,771,886, 11–27–56, Cl. 131—256.

Miller, Ernest B., to Jefferson Lake Sulphur Co. Method of recovering $H_2S$ from natural gas. 2,771,964, 11–27–56, Cl. 183—114.2.

Miller, John M., Jr., to Bendix Aviation Corp. Correction of distortion in push-pull amplifiers. 2,772,329, 11–27–56, Cl. 179—171.

Miller, William F. Apparatus for detecting an ignition arc and controlling a burner. 2,771,942, 11–27–56, Cl. 158—28.

Millington, Agnes G.: *See*—
Knaus, Nicholaus, and Millington. 2,771,848.

Minneapolis-Honeywell Regulator Co.: *See*—
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Griffith, Le Roy A. 2,772,049.

Mitchell, Robert: *See*—
Staples, Gordon F., and Mitchell. 2,771,803.

Mittelsdorf, Louis M.: *See*—
Hickey, John H., and Mittelsdorf. 2,772,326.

Modern Equipment Co.: *See*—
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Modiano, Victor J., to Sperry Rand Corp. Synchronized oscillator. 2,772,359, 11–27–56, Cl. 250—36.

Moede, Jerome A., to E. I. du Pont de Nemours and Co. Method of making a silver halide emulsion. 2,772,165, 11–27–56, Cl. 96—114.

Mohr, Heinrich, to Deutsche Edelstahlwerke Aktiengesellschaft. Magnet pole indicators. 2,772,392, 11–27–56, Cl. 324—34.

Molinari, Henry G., and J. V. Magash, to Becton, Dickinson and Co. Glass syringe barrel forming method and machine. 2,771,710, 11–27–56, Cl. 49—7.

Mollers, Josef, and E. Seidel, to Hartford National Bank and Trust Co., as trustee. Method of applying an epoxy resin to a base and curing said resin. 2,772,186, 11–27–56, Cl. 117—103.

Moloney Electric Co.: *See*—
Duenke, Clarence G. 2,771,664.
Duenke, Clarence G., and Skillington. 2,771,717.

Monarch Machine Tool Co., The: *See*—
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Monsanto Chemical Co.: *See*—
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Manganelli, Michael A. 2,772,258.
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Montecatini, societa generale per l'Industria Mineraria e Chimica: *See*—
Fornasieri, Eraldo. 2,771,774.
Maffezzoni, Umberto, and Luzzi. 2,772,304.

Montminy, Henry P. Method of packaging cake mix and frosting therefor. 2,772,171, 11–27–56, Cl. 99—172.

Mooney, John D. Hydraulically operated friction means and pump therefor. 2,771,974, 11–27–56, Cl. 192—18.

Moore, Lester B. Self-engaging hook. 2,771,654, 11–27–56, Cl. 24—230.5.

Moore, Robert L.: *See*—
Cilley, Osborn H., Moore, and Novak. 2,772,157.

Moorman, Wilbur C., and J. C. Muhler. Art of producing candies with colored flames. 2,771,764, 11–27–56, Cl. 67—22.

Morf, Ernest. Watch crown seal. 2,771,734, 11–27–56, Cl. 58—90.

Morgan, Eric R., and J. C. Shyne, to Ford Motor Co. Method of preparing non-aging steels. 2,771,651, 11–27–56, Cl. 22—215.

Morgan, Eric R., and J. C. Shyne, to Ford Motor Co. Deep drawing steel. 2,772,154, 11–27–56, Cl. 75—123.

Morrill, Frank B., to James Hunter Machine Co. Roll for expanding and contracting textiles. 2,771,658, 11–27–56, Cl. 26—63.

Morris, Leo R., to The Dow Chemical Co. Aralkyl quaternary ammonium bases and salts. 2,772,310, 11–27–56, Cl. 260—567.6.

Morrissey, Patrick W., to J. I. Case Co. Metering control for fertilizer spreaders. 2,772,038, 11–27–56, Cl. 222—485.

Morse, Charles H., and H. W. Young, to Remington Arms Co., Inc. Gas-operating firearm. 2,771,819, 11–27–56, Cl. 89—191.

Morse-Starrett Products Co.: *See*—
Toothman, James W. 2,771,620.





Morton Salt Co.: *See*—
Diamond, Horace W., and Frank. 2,772,167.

Mosher, James E.: *See*—
Sherman, Roger M., and Mosher. 2,771,904.

Moss, Gerald. Lamp having revolvable figurine. 2,772,348, 11–27–56, Cl. 240—2.

Mosiek, John: *See*—
McIntosh, Walter W., Mosiek, and Smith. 2,771,636.

Mueller, Albert C., to Shell Development Co. Process for preparing epoxy esters. 2,772,296, 11–27–56, Cl. 260—348.

Mueller, Fritz G.: *See*—
Hamontre, Hugh C., Mueller, and Armstrong. 2,771,686.

Muhler, Joseph C.: *See*—
Moorman, Wilbur C., and Muhler. 2,771,764.

Mullan, Daniel, to Westinghouse Electric Corp. Apparatus for manufacturing discharge lamps. 2,772,134, 11–27–56, Cl. 316—32.

Münch, Werner: *See*—
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Münch, Werner, to Perfogit Società per Azioni. Apparatus for stretching filaments. 2,771,635, 11–27–56, Cl. 18—8.

Münch, Werner, L. Notarbartolo, and L. Spano, to Perfogit Società per Azioni. Process for the production of 11-bromo-undecanoic acid. 2,772,302, 11–27–56, Cl. 260—408.

Munschauer, Frederick E., to Niagara Machine & Tool Works. Double drive power punch press. 2,771,790, 11–27–56, Cl. 74—665.

N. V. "Coq": *See*—
Hidde Nijland, Hendrik A. 2,772,335.

Nash, Travis H. Razor blade release mechanism. 2,771,673, 11–27–56, Cl. 30—64.

National Dairy Research Laboratories, Inc.: *See*—
Plusquellic, Louis. 2,772,009.

National Research Development Corp.: *See*—
Robinson, Arthur A., Williams, and Kilburn. 2,772,050.

National Smelting Co. Ltd., The: *See*—
Belf, Leon J. 2,772,144.

National Starch Products Inc.: *See*—
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Naumann, Helmut, to Voigtländer, A. G. Locking means for the back wall of roll film cameras. 2,771,825, 11–27–56, Cl. 95—31.

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Allison, Albert R., Delman, and Simms. 2,771,777.
Henry, Robert L., Jr. 2,771,663.
Hickey, John H., and Mittelsdorf. 2,772,326.
Hiestand, Everett N. 2,772,361.
Higgins, Roger K. 2,772,330.
Jacobsen, Andrew B. 2,772,399.
Lauritsen, Charles C. 2,771,811.
Lauritsen, Charles C. 2,771,818.
Matthews, Lyle E. 2,771,859.
Rich, Theodore A. 2,772,397.
Simmons, Alan J. 2,772,400.

Neblich, William G. Seat cane. 2,771,938, 11–27–56, Cl. 155—135.

Nechleba, Franz, to Siemens-Schuckertwerke Aktiengesellschaft. Dynamoelectric amplifying machines for controlling and regulating purposes. 2,772,886, 11–27–56, Cl. 322—59.

Neel, Robert M., and O. L. Niehouse, to Olin Mathieson Chemical Corp. Parting compositions in metal manufacturing. 2,772,180, 11–27–56, Cl. 106—286.

Nelson, Frederick G., to Dorr-Oliver Inc. Anaerobic digestion tanks with digesting mechanism. 2,722,233, 11–27–56, Cl. 210—2.

Nelson, Joseph F.: *See*—
Gleason, Anthony H., and Nelson. 2,772,254.

Nelson, Victor A. Strap forming apparatus. 2,772,088, 11–27–56, Cl. 270—93.

Nervi, Pier L. Process of manufacture of forced pipings made of precompressed concrete, and relative equipment. 2,771,655, 11–27–56, Cl. 25—30.

Neuhaus, Friedrich W.: *See*—
Neuhaus, Julius and F. W. 2,771,978.

Neuhaus, Julius, and F. W. Neuhaus. Device for orienting and feeding disk-like members. 2,771,978, 11–27–56, Cl. 193—43.

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Davis, Reuel L., Jr., and Newman. 2,772,408.

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Nichols, Earl W. Signal attachment. 2,772,407, 11–27–56, Cl. 340—213.

Nicholson, Edward W. S., to Esso Research and Engineering Co. Hydroforming process. 2,772,217, 11–27–56, Cl. 196—50.

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Neel, Robert M., and Niehouse. 2,772,180.

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Nikitin, Alexander A., to Tennessee Corp. Correction of iron deficiencies in growing plants. 2,772,151, 11–27–56, Cl. 71—1.

Nikoden, Joseph. Bullet traps. 2,772,092, 11–27–56, Cl. 273—102.4.

Nistri, Umberto. Rectifier for air photographs with nadir distance known as to direction or size. 2,771,815, 11–27–56, Cl. 88—24.

Noble, Jack D. Portable gantry crane. 2,772,004, 11–27–56, Cl. 212—71.

Noel, Jacques F., to Société Jarusa A. G. Chur. Magnetic separator. 2,771,995, 11–27–56, Cl. 210—1.5.

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Novak, Isador J.: *See*—
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Ohio Boxboard Co., The: *See*—
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Olsson, Gunnar D. Damping means for selecting bars in crossbar switches. 2,772,327, 11–27–56, Cl. 179—27.54.

Ono, Iwao. Plastic modified nets. 2,772,193, 11–27–56, Cl. 154—54.

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Marshall, Harry R., and Krisman. 2,772,140.

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Orr, Palmer, to Borg-Warner Corp. Transmission. 2,771,795, 11–27–56, Cl. 74—781.

Owen, Edwin H., and W. J. Hanson, to Pitney-Bowes, Inc. Sheet handling and envelope stuffing machine. 2,771,726, 11–27–56, Cl. 53—235.

Owens-Illinois Glass Co.: *See*—
Reynolds, Clifford J. 2,771,712.

Oxy-Catalyst, Inc.: *See*—
Bowen, William M., III, and Houdry. 2,772,147.

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Pacific Transducer Corp.: *See*—
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Palmer, John S.: *See*—
Prosek, John R., and Palmer. 2,771,748.

Pan American Pipe Line Co.: *See*—
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Parducci, Ralph R., and W. A. Brenneck, to Westinghouse Electric Corp. Bulb unloading device for a continuous conveyor type machine. 2,771,980, 11–27–56, Cl. 198—27.

Park, Harold F., to Monsanto Chemical Co. Process for preparing ethylene sulfonyl chloride. 2,772,307, 11–27–56, Cl. 260—543.

Parker, Frederick, Ltd.: *See*—
Parker, Frederick W. 2,772,083.

Parker, Frederick W., to Frederick Parker Ltd. Drier and mixer for fluent solid material. 2,772,083, 11–27–56, Cl. 263—33.

Parker, Humphrey F.: *See*—
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Parker, Humphrey F., and E. E. Robins, to Columbus McKinnon Chain Corp. Hoist. 2,772,072, 11–27–56, Cl. 254—167.

Parry, Frank, and I. E. Snyder, to The Singer Mfg. Co. Sewing machine lubrication. 2,771,965, 11–27–56, Cl. 184—6.

Parsons, John W.: *See*—
Malina, Frank J., and Parsons. 2,771,739.

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Patch, Harold K., and R. J. Grundy, to Crossfield Products Corp. Composite floor and deck covering construction. 2,771,824, 11–27–56, Cl. 94—3.

Patentex, Inc.: *See*—
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Burleson, Aaron. 2,772,191.
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Burleson, Aaron, and Holmes. 2,771,757.
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Leath, William J., and Bobo. 2,771,759.
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Pattenden, Warren C.: *See*—
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Paulding Products Corp.: *See*—
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Payne, Harold W., to Vapor Heating Corp. Apparatus for forming tubing into coils. 2,771,934, 11–27–56, Cl. 153—67.

Pearsall, Luther T., to Jones & Laughlin Steel Corp. Heating furnace. 2,772,084, 11–27–56, Cl. 263—40.

Pechy, William, to American Can Co. Can filling machine with removable manifold mechanism. 2,771,916, 11–27–56, Cl. 141—150.

Peck, Helen M.: *See*—
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Peckett, Samuel C. Apparatus for and method of forming a true surface article. 2,771,713, 11–27–56, Cl. 51—43.

Peloquin, Francis H. Brush tuft fastener. 2,771,625, 11–27–56, Cl. 15—190.

Pennsylvania Salt Mfg. Co., The: *See*—
Karr, Errol H. 2,772,229.
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Péras, Lucien, to Regie Nationale des Usines Renault. Internal combustion engines. 2,771,867, 11–27–56, Cl. 123—112.

Perfogit Società per Azioni: *See*—
Lussatto, Ettore. 2,771,634.
Münch, Werner. 2,771,635.
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Perforating Guns Atlas Corp.: *See*—
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Peterman, Earl A.: *See*—
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Peterson, Elmer J.: *See*—
Dawkins, Kenneth, and Peterson. 2,772,385.

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Peterson, Warren J., to Carrom Industries, Inc. Chairs. 2,771,940, 11–27–56, Cl. 155—191.

Petrochko, John. Safety striking plate for door locks. 2,772,110, 11–27–56, Cl. 292—341.17.

Pfaff, William A., to Diebold Inc. Portable microfilm camera. 2,771,816, 11–27–56, Cl. 88—24.

Phelps, William H. Sharp-toothed tire engaging members for driving vehicle wheels. 2,771,959, 11–27–56, Cl. 180—74.

Philadelphia Pump & Machinery Co.: *See*—
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Philco Corp.: *See*—
Boothroyd, Wilson P. 2,772,324.
Tellier, Joseph C. 2,772,352.

Phillips, Alger W.: *See*—
Meyers, John V., and Phillips. 2,771,820.

Phillips Petroleum Co.: *See*—
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Kaveler, Herman H. 2,771,953.
Scott, Cleveland R., and Ayers. 2,771,738.
Scott, Cleveland R., Ayers, and Mahan. 2,771,737.
Shelman, Cecil B. 2,772,365.
Stalder, William L., and Dale. 2,772,269.

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Robinson, Charles F., Bell, Piccirillo, and Perkins. 2,772,367.

Pike, Milow W. Tire chain. 2,771,930, 11–27–56, Cl. 152—242.

Pinney, Harold E., to General Electric Co. Parallel operation of tap changing transformers. 2,772,369, 11–27–56, Cl. 307—58.

Pinney, Paul O., to J. H. Kenney & Co., Inc. Dispensing apparatus for granular material. 2,771,914, 11–27–56, Cl. 141—82.

Pippig, Heinz. Process for the recovery of elementary sulfur from gases containing hydrogen sulfide. 2,772,146, 11–27–56, Cl. 23—225.

Pitney-Bowes, Inc.: *See*—
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Plusquellic, Louis, to National Dairy Research Laboratories, Inc. Method and apparatus for opening and emptying paper containers. 2,772,009, 11–27–56, Cl. 214—305.

Pohland, Albert, to Eli Lilly and Co. Hydrogenating ketiminomagnesium halide intermediates with lithium aluminum hydride to produce amines. 2,772,311, 11–27–56, Cl. 260—570.

Poland, Thomas H., to Rudy Mfg. Co. Tube enveloping plate condenser having rolled ends, and method of its construction. 2,772,077, 11–27–56, Cl. 257—256.

Polytechnic Research & Development Co., Inc.: *See*—
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Pontius, Paul E.: *See*—
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Poor & Co.: *See*—
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Porsche, Ferdinand A. E., and R. Binder, to Dr. Ing. h. c. F. Porsche K.-G. V-type internal combustion engine and intake manifold therefor. 2,771,863, 11–27–56, Cl. 123—52.

Portable Industries, Inc.: *See*—
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Pott, Leslie. Thermal control fuses. 2,772,333, 11–27–56, Cl. 200—117.

Powell, Carroll F.: *See*—
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Powers-Samas Accounting Machines Ltd.: *See*—
Baldwin, Richard E. 2,772,051.

Preble, Harry, Jr.: *See*—
Gilbert, Jack, and Preble. 2,771,786.

Pressure Dispensers, Inc.: *See*—
Collins, Leonard M., and George. 2,772,035.

Primrose, Charles L., to The Venture Corp. Silver alloys. 2,772,156, 11–27–56, Cl. 75—173.

Pritchard, John O. Folding drafting table. 2,772,130, 11–27–56, Cl. 311—38.

Process Engineers Inc.: *See*—
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Prosek, John R., and J. S. Palmer, to Whirlpool-Seeger Corp. Air conditioning systems for automatically heating and cooling an enclosed air space. 2,771,748, 11–27–56, Cl. 62—4.

Quasly, Martin F., and W. C. Lilliendahl, to Westinghouse Electric Corp. Protection of molybdenum and tungsten at high temperatures. 2,772,227, 11–27–56, Cl. 204—32.

Quaglia, Lawrence T.: *See*—
Cook, Leslie J., and Quaglia. 2,772,376.

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Busch, Floyd H., and Quaglieri. 2,772,109.

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Iles, Frank B. 2,771,852.
Isom, Warren R. 2,771,814.
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Ramsey, Robert B., Jr.: *See*—
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Read, Chester L., to Esso Research and Engineering Co. Solvent dewaxing process. 2,772,210, 11–27–56, Cl. 196—19.

Rechtin, Eberhardt C., to Bethlehem Steel Co. Offshore drilling barge. 2,771,747, 11–27–56, Cl. 61—46.5.

Redetzke, Emery C., to J. I. Case Co. Spring-trip for cultivator shovels. 2,771,851, 11–27–56, Cl. 97—47.88.

Reeves, Wilson A., and J. D. Guthrie, to the United States of America as represented by the Secretary of Agriculture. Ammonia insolubilised methylol-phosphorus polymers and cellulosic materials impregnated therewith. 2,772,188, 11–27–56, Cl. 117—136.

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Reiman, Ralph E. Polisher head abrasive feed. 2,771,721, 11–27–56, Cl. 51—193.7.

Reinking, Clemens G. Measuring disc with total indicator. 2,771,681, 11–27–56, Cl. 33—141.

Reising, Harry A. Removable handgrip for guns. 2,771,697, 11–27–56, Cl. 42—71.

Remington Arms Co., Inc.: *See*—
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Hawkes, Arthur S., and Remter. 2,772,211.

Renwick, Charles S., Jr. Decoy. 2,771,700, 11–27–56, Cl. 43—3.

Research Corp.: *See*—
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Rettinger, Charles. Book kaddy. 2,771,705, 11–27–56, Cl. 45—82.

Reynolds, Clifford J., to Owens-Illinois Glass Co. Centrifugal molds and method. 2,771,712, 11–27–56, Cl. 49—85.

Reynolds, Loyal B., and H. G. Welch. Fluid circulation type electric base-board space heater. 2,772,342, 11–27–56, Cl. 219—38.

Rhodes, Ira P., to Swing-A-Way Mfg. Co. Magnetic lid lifter for can openers. 2,772,381, 11–27–56, Cl. 317—158.

Ricco, Joseph: *See*—
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Rich, Alan L., to Laboratory For Electronics, Inc. Multivibrator circuit. 2,772,356, 11–27–56, Cl. 250—27.

Rich, Theodore A., to the United States of America as represented by the Secretary of the Navy. Logarithmic electrical measuring system. 2,772,307, 11–27–56, Cl. 324—99.

Richmond, Roy H., Jr., to Eagle Mfg. Co. Pump shaft seal for hand oilers. 2,772,034, 11–27–56, Cl. 222—341.

Riegler, Werner L., and J. G. Atherton, to Armour and Co. Corrosion inhibiting paints and method of preparation. 2,772,174, 11–27–56, Cl. 106—14.

Rieke, George A. Vitreous grinding composition. 2,772,150, 11–27–56, Cl. 51—308.

Rieke, Glenn T., to Rieke Metal Products Corp. Plastic drum closure. 2,772,017, 11–27–56, Cl. 220—27.

Rieke, Glenn T., to Rieke Metal Products Corp. Pour spout closure for containers. 2,772,037, 11–27–56, Cl. 222—481.

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Rieke, Glenn T. 2,772,037.

Ripper, Rudolf, to The Tri-Dent Corp. Toothbrush. 2,771,624, 11–27–56, Cl. 15—167.

Ritter, Alexander S. Planting and equipment therefor. 2,771,709, 11–27–56, Cl. 47—1.

Ritzau, Inge, A. Brugger, and B. Höder, to P. Ritzau. Atomizer for liquid and pulverulent material. 2,772,117, 11–27–56, Cl. 299—86.

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Robinson, Arthur A., F. C. Williams, and T. Kilburn, to National Research Development Corp. Electronic digital computing machines. 2,772,050, 11–27–56, Cl. 235—61.





Robinson, Charles F., to Consolidated Electrodynamics Corp. Method and apparatus for ionization of solids. 2,772,363, 11–27–56, Cl. 250—41.9.

Robinson, Charles F., N. W. Bell, S. V. Piccirillo, and G. D. Perkins, to Consolidated Electrodynamics Corp. Recording system. 2,772,367, 11–27–56, Cl. 250—41.9.

Rochelle, William T. Automatic choke for shot guns. 2,771,696, 11–27–56, Cl. 42—79.

Rogers, Sedgwick C., and K. J. Harwood, to Kimberly-Clark Corp. Coated web product and method of making same. 2,772,181, 11–27–56, Cl. 117—9.

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Lovesey, Alfred C. 2,771,743.

Rose, Harold J.: *See*—
Ernst, John L., and Rose. 2,772,255.

Roselund, Harold A., to C. W. Harwin, Inc. Fluid gun. 2,772,031, 11–27–56, Cl. 222—324.

Rossmann, Peter F., and K. Rath, to Hupp Corp. Window regulating device. 2,771,789, 11–27–56, Cl. 74—625.

Rotter, Latwin C., to The McNeil Machine & Engineering Co. Valve. 2,771,898, 11–27–56, Cl. 137—107.

Rudy Mfg. Co.: *See*—
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Runaldue, Lewis R., and J. W. Burnett, to General Electric Co. Method and apparatus for the measurement of low resistance. 2,772,368, 11–27–56, Cl. 324—62.

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Ruppert, Max K., to Poor & Co. Method for forming a rail anchor with a positive applying stop. 2,771,670, 11–27–56, Cl. 29—550.

Ryan Recording Thermometer Co.: *See*—
Bristol, Donald R. 2,772,016.

Ryberg, Arling W., to Lear, Inc. End plate for a gyroscope rotor or the like. 2,771,778, 11–27–56, Cl. 74—5.

Sagura, John J.: *See*—
Allen, Charles F. H., and Sagura. 2,772,164.

Sahlbom, Olaf A., 50% to L. J. Bogart. Rotary cultivator. 2,771,829, 11–27–56, Cl. 97—40.

St. Palley, Zoltan O. Apparatus for cleaning pipe lines. 2,771,891, 11–27–56, Cl. 134—57.

St. Palley, Zoltan O. Apparatus for cleaning pipe lines. 2,771,892, 11–27–56, Cl. 134—57.

Salerno, Armand A.: *See*—
Christenson, Donald J., and Salerno. 2,772,030.

Salisbury, Alvin B., Jr. Disposable syringe. 2,771,879, 11–27–56, Cl. 128—216.

Sallan, Raymond. Segmented band having two pivot joints and a latched joint. 2,771,753 11–27–56, Cl. 63—15.7.

Salminen, Ilmari F., and C. E. Barr, to Eastman Kodak Co. Diacylaminophenol couplers. 2,772,162, 11–27–56, Cl. 96—55.

Salo, Martin, and O. W. Kaul, to Eastman Kodak Co. High speed extrusion composition. 2,771,638, 11–27–56, Cl. 18—59.

Salzmann, Gerhard M., to Colgate-Palmolive Co. Stable dental creams containing higher aliphatic acyl amide of aminocarboxylic acid compound. 2,772,203, 11–27–56, Cl. 167—93.

Sampietro, Achilles C., to Thompson Products, Inc. Automatic lash adjuster. 2,771,866, 11–27–56, Cl. 123—90.

Samuels, Samuel: *See*—
Samuels, Stanley J. 2,771,612.

Samuels, Stanley J., 50% to S. Samuels. Cushioned toilet seat. 2,771,612, 11–27–56, Cl. 4—237.

Sandberg, Ray A., to Hendaille-Hershey Corp. Tube bending machine. 2,771,932, 11–27–56, Cl. 153—67.

Sanders Associates, Inc.: *See*—
Shomphe, George J. 2,772,046.

Santay Corp.: *See*—
Stanley, Alfred W. 2,772,115.

Sargent & Co.: *See*—
Ellis, Charles A. 2,772,106.

Sborlino, Gino, to Loro & Parisini Societa per Azioni. Bearing mounting and method of making same. 2,772,127, 11–27–56, Cl. 308—178.

Schaeffler, Georg, and E. Bensch, to Industriewerk Schaeffler. Cage for needle bearings. 2,772,128, 11–27–56, Cl. 308—217.

Schaffer, Max A., and E. J. Siff, to Sperry Rand Corp. Quick setting means for gyro stabilised mechanisms. 2,771,779, 11–27–56, Cl. 74—5.34.

Schaum, Edward A., ½ to F. W. Hech. Matrix used in printing and method of making the same. 2,771,646, 11–27–56, Cl. 22—5.5.

Shelman, Cecil B., to Phillips Petroleum Co. Mass spectrometer. 2,772,365, 11–27–56, Cl. 250—41.9.

Scherbatskoy, Serge A., to Perforating Guns Atlas Corp. High temperature scintillometer. 2,772,368, 11–27–56, Cl. 250—207.

Schill, Bernard J., to J. I. Case Co. Power operated lift for agricultural implement. 2,771,830, 11–27–56, Cl. 97—46.31.

Schlitz, Jos., Brewing Co.: *See*—
Tennant, Edward E. 2,771,752.

Schmid, Leopold, to Dr. Ing. h. c. F. Porsche K.-G. Synchronising mechanism for speed change gear systems of automotive vehicles. 2,771,975, 11–27–56, Cl. 192—48.

Schmidt, William D., and H. L. Blood, to The Heald Machine Co. Internal grinding machine. 2,771,714, 11–27–56, Cl. 51—48.

Schmidtmann, Hans, to Koppers Co., Inc. Granulator with moving and opposed offset members carrying step-shape material pressers. 2,772,053, 11–27–56, Cl. 241—94.

Schmidt-Nickels, Wilhelm, and D. I. Randall, to General Aniline & Film Corp. Heterocyclic vat dyestuffs. 2,772,272, 11–27–56, Cl. 260—294.8.

Schmidt-Nickels, Wilhelm, and L. J. Lugg, to General Aniline & Film Corp. Heterocyclic vat dyestuffs. 2,772,273, 11–27–56, Cl. 260—295.

Schmidt-Nickels, Wilhelm, and L. J. Lugg, to General Aniline & Film Corp. Heterocyclic vat dyestuffs. 2,772,274, 11–27–56, Cl. 260—295.

Schmidt-Nickels, Wilhelm, and L. J. Lugg, to General Aniline & Film Corp. Heterocyclic vat dyestuffs. 2,772,275, 11–27–56, Cl. 260—296.

Schneider, Sidney, to Esso Research and Engineering Co. Manufacture of odorless and odor-stable mineral oil. 2,772,316, 11–27–56, Cl. 260—683.4.

Scholl Mfg. Co., Inc., The: *See*—
Scholl, William H. 2,771,876.

Scholl, William H., to The Scholl Mfg. Co., Inc. Surgical traction means. 2,771,876, 11–27–56, Cl. 128—84.

Schraming, Thomas E. Hay tedder. 2,771,732, 11–27–56, Cl. 56—372.

Schroeder, George O., to American Can Co. Anti-blocking adhesive composition containing polyethylene, tackifying resin, and a polyvinyl ester. 2,772,247, 11–27–56, Cl. 260—27.

Schroeder, George W., to General Electric Co. Surface heating unit. 2,772,340, 11–27–56, Cl. 219—37.

Schultz, Arthur J., to Sylvania Electric Products Inc. Automatically resettable circuit breaker system. 2,772,379, 11–27–56, Cl. 317—23.

Schurman, Glenn A., P. M. Aagaard, and F. G. Blake, to California Research Corp. Pressure detector. 2,772,405, 11–27–56, Cl. 340—7.

Schwend, Fred N.: *See*—
Collison, William F., and Schwend. 2,772,048.

Scientific Oil Compounding Co., Inc.: *See*—
Yeager, Charles C. 2,772,260–2,772,264.

Scott, Cleveland R., A. L. Ayers, and J. E. Mahan, to Phillips Petroleum Co. Piperidines as hypergolic fuels. 2,771,737, 11–27–56, Cl. 60—35.4.

Scott, Cleveland R., and A. L. Ayers, to Phillips Petroleum Co. Morpholines as hypergolic fuels. 2,771,738, 11–27–56, Cl. 60—35.4.

Scott, Milton J.: *See*—
Cohen, Oscar P., and Scott. 2,772,189.

Scovill Mfg. Co.: *See*—
Barratt, Jesse. 2,771,652.
Carpinella, Michael J. 2,771,653.

Scriptomatic, Inc.: *See*—
Federwitz, Theodore A. 2,771,837.

Scully-Jones and Co.: *See*—
Better, Bernard R., and Lehde. 2,771,804.

Searle, G. D., & Co.: *See*—
Chinn, Leland J. 2,772,298.
Cusic, John W. 2,772,276.
Cusic, John W. 2,772,287.
Cusic, John W. 2,772,288.
Cusic, John W. 2,772,289.

Seeley, Ralph B. Trailer hitch with stabilizer device. 2,772,098, 11–27–56, Cl. 280—406.

Seidel, Eberhard: *See*—
Mollers, Josef, and Seidel. 2,772,186.

Sellers, Joseph M. Apparatus for disseminating insecticides. 2,772,061, 11–27–56, Cl. 244—236.

Semelka, Michael H. Door latch. 2,772,106, 11–27–56, Cl. 292—18.

Seyfried, Wilson D., to Esso Research and Engineering Co. Process for removing metals from crude oils and then hydrodesulfurizing the crude oils. 2,772,212, 11–27–56, Cl. 196—28.

Seyler, Jay K.: *See*—
Wheeler, Keith W., Seyler, and Van Campen. 2,772,268.

Seymour, Raymond B., to The Atlas Mineral Products Co. of Pennsylvania. Corrosion resistant structure. 2,771,985, 11–27–56, Cl. 206—2.

Shafer, John F.: *See*—
Denehie, Lawrence C., and Shafer. 2,771,836.

Shalit, Harold, and A. P. Lien, to Standard Oil Co. Titanium-phosphorus catalyst. 2,772,244, 11–27–56, Cl. 252—437.

Shapiro, David H. Adjustable camera-support. 2,771,826, 11–27–56, Cl. 95—86.

Shea, Howard W., to Socony Mobil Oil Co., Inc. Method for the transfer of granular solids between zones or vessels. 2,772,224, 11–27–56, Cl. 196—52.

Shea, Lindsey W., and J. C. Streb, to The Union Metal Mfg. Co. Materials handling equipment. 2,772,036, 11–27–56, Cl. 222—457.

Shell Development Co.: *See*—
Bouman, Jan. 2,771,770.
Mueller, Albert C. 2,772,296.

Shenk, Robert H., and P. E. Pontius, to American Flexible Coupling Co. Reversible reduction transmission. 2,771,794, 11–27–56, Cl. 74—764.

Sher, Fred D.: *See*—
Hollabaugh, Max G., Sher, and Wismer. 2,772,135.

Sherman, Roger M., and J. H. Mosher, to W. R. Ames Co. Flow control valve. 2,771,904, 11–27–56, Cl. 137—454.2.

Shockley, William, to Bell Telephone Laboratories, Inc. Negative resistance device. 2,772,360, 11–27–56, Cl. 250—36.

Shomphe, George J., to Sanders Associates, Inc. Electric blower. 2,772,046, 11–27–56, Cl. 230—117.

Short, Charles R., and G. P. Brouillette, to Florida Industrial Laboratory, Inc. Mechanical movement. 2,771,785, 11–27–56, Cl. 74—166.

Shyne, John C.: *See*—
Morgan, Eric R., and Shyne. 2,771,651.
Morgan, Eric R., and Shyne. 2,772,154.

Siddiqui, Salimuzzaman. Process for the recovery of coal resins with simultaneous partial desulphurisation of the coal. 2,772,265, 11–27–56, Cl. 260—107.

Siegfried, Walter: *See*—
Eisermann, Friedrich, and Siegfried. 2,772,155.

Siemens-Schuckertwerke Aktiengesellschaft: *See*—
Nechleba, Frans. 2,772,386.

Siff, Elliott J.: *See*—
Schaffer, Max, and Siff. 2,771,779.

Sigoda, Victor J., to Man-Sew Corp. Shearing device used in embroidery trimming machine. 2,771,949, 11–27–56, Cl. 164—70.

Silley, Henry A. J.: *See*—
Unthank, George R. 2,771,997.

Silvasy, John E., and L. Taylor; said Taylor assor. to said Silvasy. Strip making apparatus. 2,771,637, 11–27–56, Cl. 18—12.

Simm, Clarke, N., to California Research Corp. Method of oil recovery by in situ combustion. 2,771,951, 11–27–56, Cl. 166—11.

Simm, Clarke N., to California Research Corp. Method of consolidating subterranean formations. 2,771,952, 11–27–56, Cl. 166—12.

Simms, Bernard B.: *See*—
Allison, Albert E., Delman, and Simms. 2,771,777.

Simmons, Alan J., to the United States of America as representing by the Secretary of the Navy. Microwave polarization changer. 2,772,400, 11–27–56, Cl. 333—21.

Simon, Eli, F. W. Thomas, and W. R. Burney, Jr., to Lockheed Aircraft Corp. Resilient cellular resin products. 2,772,245, 11–27–56, Cl. 260—2.5.

Simon, Eli, and F. W. Thomas, to Lockheed Aircraft Corp. Cellular phenol aldehyde plastic resins. 2,772,248, 11–27–56, Cl. 260—2.5.

Simonds, Clarence S.: *See*—
Bradley, Robert O., Simonds, and Jacobs. 2,772,383.

Singer Mfg. Co., The: *See*—
Fuge, Harry B. 2,771,973.
Knaus, Nicholaus, and Millington. 2,771,848.
Parry, Frank, and Snyder. 2,771,965.

Skiles, Benjamin F.: *See*—
Barnhart, George, and Skiles. 2,772,284.

Skillington, Thomas W.: *See*—
Dsenke, Clarence G., and Skillington. 2,771,717.

Slick, Fred S., to J. I. Case Co. Composite distributor rotor. 2,772,372, 11–27–56, Cl. 310—70.

Slocombe, Robert J., to Monsanto Chemical Co. Acrylonitrile polymers stabilised with salts of vinyl sulfonic acid. 2,772,250, 11–27–56, Cl. 260—45.7.

Smals, Jacobus L.: *See*—
Kamp, Johannes J., and Smals. 2,771,771.

Smirl, Richard L., to Borg-Warner Corp. Speed responsive fluid clutch. 2,771,976, 11–27–56, Cl. 192—85.

Smith, A. O., Corp.: *See*—
Hortvet, Richard M. 2,772,082.

Smith, Arthur F. Bumper mounts for trailer hitches. 2,772,099, 11–27–56, Cl. 280—502.

Smith, Carl W., and N. W. Templin, to Standard Oil Co. Method of killing flies with composition comprising pyrethrins and p-aminoazobenzene. 2,772,198, 11–27–56, Cl. 167—24.

Smith, Frank G. Fastener strip. 2,771,610, 11–27–56, Cl. 1—56.

Smith, Frederick J., to A. G. Warnes. Snap-out form separator. 2,771,950, 11–27–56, Cl. 164—84.5.

Smith, Herbert D., to The Goodyear Tire & Rubber Co. Fitting for flexible wall tank. 2,772,101, 11–27–56, Cl. 285—200.

Smith, John O., Jr., and I. Kirshenbaum, to Esso Research and Engineering Co. Polymerization catalyst and processes. 2,772,317, 11–27–56, Cl. 260—683.15.

Smith, Leslie R.: *See*—
Hockert, Chester E., and Smith. 2,772,069.

Smith, Lloyd A., ¼ to M. E. Smith. Condiment and toothpick holder and dispenser. 2,772,023, 11–27–56, Cl. 221—282.

Smith, Lloyd A. Condiment and toothpick holder and dispenser. 2,772,024, 11–27–56, Cl. 221—282.

Smith, Morris E.: *See*—
Smith, Lloyd A. 2,772,023.

Smith, Neal J., to California Research Corp. Interval velocity seismic logging. 2,771,960, 11–27–56, Cl. 181—.5.

Smith, Oscar L.: *See*—
McIntosh, Walter W., Mosiek, and Smith. 2,771,636.

Smith, Theodore C. Wire connector. 2,772,323, 11–27–56, Cl. 174—87.

Smith, William, to Radar Pneumatics & Engineering Co. Ltd. Distributing apparatus for material in particle form. 2,772,124, 11–27–56, Cl. 302—61.

Smiths Jacking Systems Ltd.: *See*—
Reid, Kenneth E. 2,772,409.

Snyder, Ivan E.: *See*—
Parry, Frank, and Snyder. 2,771,965.

Societe d'Etudes Chimiques pour l'Industrie et l'Agriculture: *See*—
Hulot, Georges. 2,771,996.

Société Jaruza A. G. Chur: *See*—
Noel, Jacques F. 2,771,995.

Socony Mobil Oil Co., Inc.: *See*—
Bergstrom, Eric V., and Sorf. 2,772,223.
Bergstrom, Eric V., and Sorf. 2,772,225.
Coonradt, Harry L., and Leaman. 2,772,236.
Elliott, Kenneth M. 2,772,216.
Hadden, Stuart T. 2,772,315.
Malcolm, Harold O., and Hagerbaumer. 2,772,123.
Shea, Howard W. 2,772,224.

Solar Mfg. Corp.: *See*—
Artingstall, Thomas W., and Feigl. 2,771,992.

Solomon, Nathan L. Bobby pin dispenser. 2,771,887, 11–27–56, Cl. 132—1.

Somerville, Thomas, III: *See*—
White, William E., and Clark. 2,771,989.

Sommer, Richard, and R. Hofmeister, to Voigtlander, A. G. Reversible viewfinder for photographic cameras. 2,771,810, 11–27–56, Cl. 88—1.5.

Sonnberger, Heinrich, to C. Zeiss. Vacuum plant located in pre-vacuum tank. 2,772,047, 11–27–56, Cl. 230—232.

Spano, Levio: *See*—
Münch, Werner, Notarbartolo, and Spano. 2,772,302.

Soreghen, George L. Spinning rope with swiveled handle. 2,771,857, 11–27–56, Cl. 119—153.

Sorf, Edward R. J.: *See*—
Bergstrom, Eric V., and Sorf. 2,772,223.

Sorf, Edward J.: *See*—
Bergstrom, Eric V., and Sorf. 2,772,225.

Soundscriber Corp., The: *See*—
De Napoli, Anthony C., Jr., and Runge. 2,772,093.
Lyon, William H. 2,772,328.

Southwestern Industrial Electronics Co.: *See*—
Erath, Louis W., Madeley, and Geery. 2,772,388.

Southwood, John, to The Distillers Co. Ltd. Preparation of N:N'-dibenzyl ethylene diamine. 2,772,312, 11–27–56, Cl. 260—570.9.

Spalding, A. G., & Bros., Inc.: *See*—
Brandon, Thomas O. 2,772,090.

Spaulding, William R. Filter attachment for smoking pipes. 2,771,883, 11–27–56, Cl. 131—206.

Spears, Richard W.: *See*—
Armstrong, John W., Spears, and Williams. 2,771,689.

Speck, Eric H., to Normalair Ltd. Non-return valves. 2,771,901, 11–27–56, Cl. 137—269.5.

Sperry Rand Corp.: *See*—
Modiano, Victor J. 2,772,359.
Schaffer, Max, and Siff. 2,771,779.
Tomiyasu, Kiyo. 2,772,402.

Stalder, William L., and G. H. Dale, to Phillips Petroleum Co. Separation of mixed heterocycle nitrogen compounds 2,772,269, 11–27–56, Cl. 260—283.

Stammer, Charles H.: *See*—
Holly, Frederick W., and Stammer. 2,772,281.

Stanclift, Ray J., Jr.: *See*—
Jenks, Loren H., and Stanclift. 2,771,954.

Standard Coil Products Co., Inc.: *See*—
Browder, Jay E. 2,772,353.
Browder, Jay E. 2,772,354.
Machlin, Stuart. 2,772,351.

Standard Oil Co. (Illinois): *See*—
Barnard, Daniel P., 4th. 2,771,741.
Bettes, Richard S., Jr. 2,771,689.
Brehm, Allen E., and Fields. 2,772,148.
Ferm, Robert J. 2,772,208.
Johnson, Everett A. 2,772,073.
Kalinowski, Mathew L., and Crews. 2,772,179.
Matthews, John R. 2,772,076.
Shalit, Harold, and Lien. 2,772,244.
Smith, Carl W., and Templin. 2,772,198.

Standfast Dyers and Printers Ltd.: *See*—
Hannay, Robert S. E., and Kilby. 2,772,136.

Stanley, Alfred W., to Santay Corp. Windshield washer nozzle. 2,772,115, 11–27–56, Cl. 299—73.

Staples, Gordon F., and R. Mitchell. Vise for holding workpieces of diverse shapes. 2,771,803, 11–27–56, Cl. 81—38.

Stasewich, Fred J.: *See*—
Wobbe, Delbert E., and Stasewich. 2,772,192.

Stayner, Richard D.: *See*—
Lewis, Allen H., and Stayner. 2,772,239.

Stevenson, Arthur C., to E. I. du Pont de Nemours and Co. Production of copper phthalocyanine precursor. 2,772,283, 11–27–56, Cl. 260—314.5.

Stevenson, John M. Wire stretcher. 2,772,070, 11–27–56, Cl. 254—65.

Stewart, James W., to Marbill Co. Vacuum press for boot and shoe manufacture. 2,771,619, 11–27–56, Cl. 12—1.

Stewart, Joseph: *See*—
Dunkel, Walter L., McAteer, and Stewart. 2,772,219.

Stewart, Joseph, S. C. Fulton, and A. W. Langer, Jr., to Esso Research and Engineering Co. Recovery of oil from bituminous sands. 2,772,209, 11–27–56, Cl. 196—14.

Stewart, Joseph, R. M. Hill, and A. W. Langer, Jr., to Esso Research and Engineering Co. Reacting heavy residual fuel with hydrogen donor diluents. 2,772,221, 11–27–56, Cl. 196—50.

Stewart, Joseph, and G. G. Wanless, to Esso Research and Engineering Co. Process for cracking gas oils to gasoline. 2,772,222, 11–27–56, Cl. 196—50.

Stoffa, Andrew. Power swivel. 2,772,074, 11–27–56, Cl. 255—35.

Stover, Harry E., to Anchor Hocking Glass Corp. Closure cap for glass containers and method of making. 2,772,013, 11–27–56, Cl. 215—40.

Streb, Joseph C.: *See*—
Shea, Lindsey W., and Streb. 2,772,036.

Streiffert, John G., to Eastman Kodak Co. Variable pitch radial tooth sprocket. 2,772,089, 11–27–56, Cl. 271—2.3.

Strömberg, Tage A., and K. G. L. Hansson. Improvements in measuring instruments. 2,771,634, 11–27–56, Cl. 33—172.

Strub, René A., to E. I. du Pont de Nemours and Co. Rotary shaft seal and pressure regulator. 2,772,103, 11–27–56, Cl. 286—9.

Stübbe, Friedrich. Heel piece, particularly of hard rubber with celluloid coating. 2,771,692, 11–27–56, Cl. 36—35.

Studebaker, Thomas B. Gasoline mileage calculator. 2,772,052, 11–27–56, Cl. 235—84.

Sulzer Freres, Societe Anonyme: *See*—
Eisermann, Friedrich, and Siegfried. 2,772,155.

Sunden, Stuart O., 40% to P. Fries, Jr. Methods of making lubricating systems and devices. 2,771,667, 11–27–56, Cl. 29—420.5.

Swallert, Sven A. Valve means. 2,771,899, 11–27–56, Cl. 137—224.

Swanson, Bror W.: *See*—
Jamilkowski, Vincent S., and Swanson. 2,772,094.

Sweeney, Harter E. Dispensing cigarette carton. 2,771,988, 11–27–56, Cl. 206—56.

Sweet, Alvin J.: *See*—
Joris, George G., and Sweet. 2,772,145.

Swenson, Eugene M., to Calumet Flexicore Corp. Casting form. 2,771,656, 11–27–56, Cl. 25—121.





Swing-A-Way Mfg. Co.: *See*—
Rhodes, Ira P. 2,772,381.

Sylvania Electric Products Inc.: *See*—
Butler, Keith H. 2,772,242.
Schultz, Arthur J. 2,772,379.

Taft, Willard W., to Draper Corp. Shuttle spring. 2,771,916, 11–27–56, Cl. 139—207.

Talmey, Paul, D. E. Methesy, and W. G. Lee, to General American Transportation Corp. Chemical nickel plating processes. 2,772,183, 11–27–56, Cl. 117—50.

Tapes, Inc.: *See*—
Ulrich, Gustave E. 2,771,909.

Taylor, Louis: *See*—
Silvasy, John E., and Taylor. 2,771,637.

Teale, Alton W.: *See*—
Ives, Milo W. 2,771,796.

Technisch Ontwikkelingsbureau voor Instrumentatie, (T. O. B. I.) N. V.: *See*—
Kamp, Johannes J., and Smals. 2,771,771.

Telatent Co., The: *See*—
Call, John G. 2,771,896.

Tellier, Joseph C., to Philco Corp. Superregenerative amplifier. 2,772,352, 11–27–56, Cl. 250—20.

Templin, Norman W.: *See*—
Smith, Carl W., and Templin. 2,772,198.

Tennant, Edward E., to Jos. Schlitz Brewing Co. Beer cooling apparatus. 2,771,752, 11–27–56, Cl. 62—141.

Tennessee Corp.: *See*—
Nikitin, Alexander A. 2,772,151.

Testi, Nicholas, to The Gillette Co. Blade collector. 2,771,671, 11–27–56, Cl. 30—40.

Texas Gulf Sulphur Co.: *See*—
West, James E., and Gormley. 2,772,153.

Thaning, Otto. Process for the extraction of the contents of nuts, fruits, or like objects. 2,771,927, 11–27–56, Cl. 146—227.

Thigpen, Oscar K.: *See*—
Edwards, Ralph J. 2,771,933.

Thiry, Leon F. Elastic articulating device. 2,772,104, 11–27–56, Cl. 287—85.

Thomas, Frank W.: *See*—
Simon, Eli, and Thomas. 2,772,246.
Simon, Eli, Thomas, and Burney. 2,772,245.

Thomas, George R. Process for the preparation of chloronitrocarbamic acid ester. 2,772,306, 11–27–56, Cl. 260—482.

Thomas, William W., to W. Waterman. Hydraulic fuses. 2,772,065, 11–27–56, Cl. 251—16.

Thompson Products, Inc.: *See*—
Sampietro, Achilles C. 2,771,866.

Thorn Electrical Industries Ltd.: *See*—
Ranby, Peter W. 2,772,241.

Thornburg, Earl W. Emergency fuel reservoir and gauge. 2,771,944, 11–27–56, Cl. 158—36.4.

Thorp, Arthur G., II, to Westinghouse Electric Corp. Diaphragm apparatus. 2,771,622, 11–27–56, Cl. 253—78.

Thowemann, Thorwald G. Machine for applying protective coatings to the marginal portions of grammophone discs. 2,771,855, 11–27–56, Cl. 118—232.

Thrift, Griffin C.: *See*—
Huggins, Clifford A., and Thrift. 2,772,080.

Thumin, Carl, to E. P. Lawson Co., Inc. Cutting knife-stack support. 2,771,948, 11–27–56, Cl. 164—51.

Thurber Corp., The: *See*—
Thurber, Edward J. 2,771,972.

Thurber, Edward J., to The Thurber Corp. Torque converter. 2,771,972, 11–27–56, Cl. 192—3.2.

Tint, Howard, to American Home Products Corp. Recovering diphtheria and tetanus toxoids. 2,772,201, 11–27–56, Cl. 167—78.

Toland, William G., Jr.: *See*—
Levine, Irving E., and Toland. 2,772,305.

Toledo Scale Co.: *See*—
Bradley, Robert O., Simonds, and Jacobs. 2,772,383.

Tomiyasu, Kiyo, to Sperry Rand Corp. Serrated choke system for electromagnetic waveguide. 2,772,402, 11–27–56, Cl. 333—98.

Tong, Lee K. J., to Eastman Kodak Co. Photographic emulsions containing couplers and hydrosols. 2,772,163, 11–27–56, Cl. 96—97.

Toothman, James W., to Morse-Starrett Products Co. Spring actuated squeegee holding clamp. 2,771,626, 11–27–56, Cl. 15—245.

Torwegge, Franz, and K. Maschmeyer, to Franz Torwegge Maschinenfabrik. Veneer joining machine. 2,771,923, 11–27–56, Cl. 144—279.

Trager, Fred C., to Columbia-Southern Chemical Corp. Reduction of meta chloro nitrobenzene to meta chloro aniline. 2,772,313, 11–27–56, Cl. 260—580.

Trans-American Precision Instrument Corp.: *See*—
Bachman, Rudolph E. 2,771,791.

Trexel, James J.: *See*—
Hinshman, Henry J., and Trexel. 2,772,081.

Trico Products Corp.: *See*—
Deibel, Raymond. 2,771,784.

Tri-Dent Corp., The: *See*—
Ripper, Rudolf. 2,771,624.

Trinkle, Dallas R., to The Monarch Machine Tool Co. Tool holder. 2,771,807, 11–27–56, Cl. 82—36.

Trio Mfg. Co.: *See*—
Guernsey, John F., and Vail. 2,772,413.

Trobeck, Karl G., and H. O. V. Bergstrom. Method of treating residual liquors obtained in the manufacture of pulp by the sulphate cellulose process. 2,772,240, 11–27–56, Cl. 252—183.

Troeng, Ivan, and G. Callin. Forest cultivator. 2,771,826, 11–27–56, Cl. 97—40.

Trubitt, Philip S., to S. Pass. Furniture slip covers. 2,771,939, 11–27–56, Cl. 155—182.

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| | 288: 2,772,147 | 59— | 35: 2,771,735 | 90— | 43: 2,771,820 | | 2,772,414 | | 31: 2,771,953 | | 172.5: 2,771,994 |
| 24— | 216: 2,771,652 | 60— | 30: 2,771,736 | | 59: 2,771,821 | 128— | 25: 2,771,874 | | 39: 2,771,954 | 210— | 1.5: 2,771,995 |
| | 2,771,653 | | 35.4: 2,771,737 | | 2,771,822 | | 44: 2,771,875 | | 85: 2,771,955 | | 2: 2,772,233 |
| | 230.5: 2,771,654 | | 2,771,738 | 92— | 3: 2,772,157 | | 84: 2,771,876 | | 88: 2,771,956 | | 2,772,234 |
| 25— | 30: 2,771,655 | | 2,771,739 | | 38: 2,772,158 | | 153: 2,771,877 | | 218: 2,771,957 | | 16: 2,772,235 |
| | 121: 2,771,656 | | 35.6: 2,771,740 | 94— | 3: 2,771,824 | | 173: Re.24,241 | 167— | 24: 2,772,198 | | 24: 2,772,236 |
| 26— | 63: 2,771,657 | | 39.06: 2,771,741 | 95— | 31: 2,771,825 | | 214: 2,771,878 | | 38.5: 2,772,199 | | 2,772,237 |
| | 2,771,658 | | 39.09: 2,771,742 | | 86: 2,771,826 | | 216: 2,771,879 | | 2,772,200 | | 42.5: 2,771,996 |
| 28— | 73: 2,771,659 | | 39.72: 2,771,743 | | 100: 2,771,827 | | 218: 2,771,880 | | 78: 2,772,201 | | 60: 2,771,997 |
| | 76: 2,771,660 | | 39.74: 2,771,744 | 96— | 27: 2,772,158 | | 267: 2,771,881 | | 2,772,202 | | 84: 2,771,998 |
| | 80: 2,771,661 | 61— | 7: 2,771,745 | | 2,772,159 | | 290: 2,771,882 | | 93: 2,772,203 | | 113: 2,771,999 |
| 29— | 70: 2,771,662 | | 45: 2,771,746 | | 35: 2,772,160 | 131— | 206: 2,771,883 | | 2,772,204 | | 153: 2,772,000 |
| | 155.5: 2,771,663 | | 46.5: 2,771,747 | | 55: 2,772,161 | | 235: 2,771,884 | | 2,772,205 | | 165: 2,772,001 |
| | 155.57: 2,771,664 | 62— | 4: 2,771,748 | | 2,772,162 | | 237: 2,771,885 | 174— | 87: 2,772,322 | | 169: 2,772,002 |
| | 157: 2,771,665 | | 7: 2,771,749 | | 97: 2,772,163 | | 256: 2,771,886 | 178— | 5.4: 2,772,324 | 211— | 130: 2,772,003 |
| | 198: 2,771,666 | | 117: 2,771,750 | | 109: 2,772,164 | 132— | 1: 2,771,887 | | 17: 2,772,325 | 213— | 71: 2,772,004 |
| | 199: 2,772,121 | | 122: 2,771,751 | | 114: 2,772,165 | | 49: 2,771,888 | 179— | 27.54: 2,772,327 | 214— | 16: 2,772,005 |
| | 420.5: 2,771,667 | | 141: 2,771,752 | | 2,772,166 | | 89: 2,771,889 | | 100.2: 2,772,326 | | 18.2: 2,772,006 |
| | 423: 2,771,668 | 63— | 15.7: 2,771,753 | 97— | 40: 2,771,828 | | 115: 2,771,890 | | 171: 2,772,329 | | 80: 2,772,007 |
| | 429: 2,771,669 | 65— | 15: 2,771,754 | | 2,771,829 | 134— | 57: 2,771,891 | 180— | 6.48: 2,771,958 | | 152: 2,772,008 |
| | 550: 2,771,670 | | 2,771,755 | | 46.31: 2,771,830 | | 2,771,892 | | 74: 2,771,959 | | 305: 2,772,009 |
| 30— | 40: 2,771,671 | 66— | 146: 2,771,756 | | 47.68: 2,771,831 | | 2,771,893 | 181— | .05: 2,771,960 | | 394: 2,772,010 |
| | 43: 2,771,672 | | 172: 2,771,757 | | 205: 2,771,832 | | 2,771,894 | | .5: 2,771,961 | 215— | 40: 2,772,012 |
| | 64: 2,771,673 | | 2,771,758 | 98— | 40: 2,771,833 | | 172: 2,771,895 | 183— | 34: 2,771,962 | | 510: 2,772,011 |
| | 142: 2,771,674 | | 178: 2,771,759 | | 59: 2,771,834 | 135— | 4: 2,771,896 | | 49: 2,771,963 | | 2,772,013 |
| 32— | 2: 2,771,675 | | 201: 2,771,760 | | 98: 2,771,835 | 136— | 120: 2,772,321 | | 114.2: 2,771,964 | 217— | 82: 2,772,014 |
| | 62: 2,771,676 | 67— | 7: 2,771,761 | 99— | 2: 2,772,167 | | 146: 2,772,322 | 184— | 6: 2,771,965 | 219— | 65: 2,772,015 |
| | 63: 2,771,677 | | 7.1: 2,771,762 | | 28: 2,772,168 | 137— | 85: 2,771,897 | 188— | 72: 2,771,966 | | 30: 2,772,238 |
| 33— | 46: 2,771,678 | | 21: 2,771,763 | | 159: 2,772,169 | | 107: 2,771,898 | | 91: 2,771,967 | | 30: 2,772,239 |
| | 107: 2,771,679 | | 22: 2,771,764 | | 163: 2,772,170 | | 224: 2,771,899 | | 96: 2,771,968 | | 37: 2,772,240 |
| | 126.4: 2,771,680 | | 31: 2,771,765 | | 172: 2,772,171 | | 251: 2,771,900 | 189— | 36.5: 2,771,969 | | 38: 2,772,242 |
| | 141: 2,771,681 | 68— | 24: 2,771,766 | | 174: 2,772,172 | | 269.5: 2,771,901 | | 75: 2,771,970 | | 2,772,243 |
| | 147: 2,771,682 | | 263: 2,771,767 | | 238.4: 2,772,336 | | 332: 2,771,902 | | 2,771,971 | | 2,772,244 |
| | 170: 2,771,683 | 70— | 457: 2,771,768 | 101— | 53: 2,771,837 | | 341: 2,771,903 | 192— | 3.2: 2,771,972 | | 86: 2,772,245 |
| | 172: 2,771,684 | 71— | 1: 2,772,151 | | 2,771,838 | | 454.2: 2,771,904 | | 18: 2,771,973 | | 121: 2,772,246 |
| | 178: 2,771,685 | | 2.3: 2,772,152 | | 126: 2,771,839 | | 468: 2,771,905 | | 2,771,974 | 220— | 18: 2,772,016 |
| | 2,771,686 | 72— | 40: 2,771,769 | | 426: 2,771,840 | | 575: 2,771,906 | | 48: 2,771,975 | | 27: 2,772,017 |

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275— 16: 2,772,094
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## Classification of Designs

D 1—12: Des. 179,262
D 9— 2: Des. 179,332
D10— 7: Des. 179,317
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D15— 8: Des. 179,311
D20— 2: Des. 179,318
D21— 6: Des. 179,283
D24— 1: Des. 179,329
D26—13: Des. 179,292
D29—20: Des. 179,326
D30— 1: Des. 179,319
D33— 8: Des. 179,284
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19: Des. 179,290
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D34— 4: Des. 179,308
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Des. 179,310
D40— 1: Des 179,289
D42— 7: Des. 179,315
D43— 1: Des. 179,294
D44— 1: Des. 179,278
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D54—11: Des. 179,226
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D54—14: Des. 179,307
D55— 1: Des. 179,222
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Des. 179,314

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
November 27, 1956 Volume 712 Number 4

# TRADEMARKS

## NOTICES

### Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 146,262. (See TM 199,208.)

TM 199,208 (SINCLAIR REFINING COMPANY), TM 146,262 ("SINCLAIR" and design), Sinclair Refining Co., Refined, semirefined, and unrefined oils made from petroleum, both with and without admixture of animal, vegetable, and other named oils and greases, filed Sept. 4, 1956, D. C., S. D. N. Y., Doc. 112/338, *Sinclair Refining Co. et al.* v. *Continental Sinclair Corp.* Order and judgment; defendant to change name with Secretary of State; injunction issued Oct. 19, 1956.

TM 255,027 ("THE TOY HOUSE" and design), World Toy House, Inc., Card games, bean-bag games, etc., and on wooden and metal automobile toys, etc., filed Sept. 4, 1956, D. C. Ariz. (Phoenix), Doc. 2509 Phx., *World Toy House, Inc.* v. *The Toy House.* Judgment for plaintiff (notice Oct. 16, 1956).

TM 338,733 (DONNATAL), A. H. Robins Co., Inc., Medicinal preparation used in the treatment of gastro-intestinal disturbances, filed Oct. 22, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1741, *A. H. Robins Co., Inc.* v. *Marigold Drug Co.* Same, Doc. 56c1742, *A. H. Robins Co., Inc.* v. *Windsor Pharmacy, Inc.*

TM 372,270 ("HOLLYWOOD HEALTH BREAD" and design), Hollywood Services, Inc., Bread; TM 561,631 (Hollywood), National Bakers Services, Inc., same, filed Oct. 22, 1956, D. C. N. J. (Newark), Doc. 831/56, *National Bakers Services, Inc.* v. *The Parkway Baking Co., Inc. et al.*

TM 428,906 ("S X", etc. and design), Essex Wire Corp., Electrical conducting wire; TM 612,168 (S X), TM 618,128 (Essex), same, Electrical transformers, coils, chokes, etc.; TM 536,430, same, Electric insulated wire, and electric insulated cable, filed July 30, 1956, D. C. Del. (Wilmington), Doc. 1836, *Essex Wire Corp.* v. *Mutual Electronic Industries Corp.* Action dismissed without prejudice Oct. 22, 1956. Same, filed Oct. 22, 1956, D. C., S. D. N. Y., Doc. 114/82, *Essex Wire Corp.* v. *Mutual Electronic Industries Corp.*

TM 508,653 (PABALATE), A. H. Robins Co., Inc., Antirheumatic preparation in tablet form, filed Oct. 22, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1743, *A. H. Robins Co., Inc.* v. *Gateway Prescription Pharmacy.* Same, Doc. 56c1744, *A. H. Robins Co., Inc.* v. *Rabin Drugs.*

TM 536,430. (See TM 428,906.)

TM 561,631. (See TM 372,270.)

TM 612,168. (See TM 428,906.)

TM 618,128. (See TM 428,906.)

TM 631,233 ("CANDY" and design), Bal Dolls, Inc., Dolls, filed Oct. 22, 1956, D. C., S. D. N. Y., Doc. 114/80, *Bal Dolls, Inc.* v. *Bechler Arts, Ltd.*

### Notice of Tentative Recordation of Trade Name

[T. D. 54241]

*Tentative recordation of trade name under section 42, Trade-Mark Act of July 5, 1946, and section 11.16, Customs Regulations*

TREASURY DEPARTMENT
OFFICE OF THE COMMISSIONER OF CUSTOMS
*Washington, D. C., Nov. 7, 1956*

*To Collectors of Customs and Others Concerned:*

An application has been filed in the Treasury Department for the recordation of the following described trade name

## CONDITION OF TRADEMARK APPLICATIONS AS OF SEPTEMBER 28, 1956

| | |
|---|---|
| Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] | 7,583 |
| Date of oldest new application | Jan. 30, 1956 |
| Date of oldest amended application | Feb. 3, 1956 |

| MERCHANT, JOHN, Director, Trademark Examining Operation<br>TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION | Oldest Application | |
|---|---|---|
| | New | Amended |
| I. STERBA, J. R., Classes 1, 2, 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 44, 53 and Certification Marks (Goods) Class A | 1-30-56 | 2-3-56 |
| II. SHRYOCK, R. F., Classes 6, 18, 48, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B | 2-20-56 | 4-16-56 |
| III. WENDT, C. M., Classes 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50 | 4-12-56 | 3-5-56 |
| Renewals (All Classes) | 8-30-56 | 9-10-56 |
| Sec. 12 (c) Publications (All Classes) | 8-20-56 | ---------- |

**Applications Filed During the Month of September 1956—1,596**

| | |
|---|---|
| Registrations Issued | 309—No. 637,568 to No. 637,876 |
| Renewals Issued | 66 |

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.50 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

under the provisions of section 42, Trade-Mark Act of 1946, and section 11.16, Customs Regulations:

"PINKING SHEARS CORPORATION," owned by Pinking Shears Corporation, a corporation organized under the laws of the State of New York, having its principal place of business at 102 Prince Street, New York 12, New York, which trade name is used in connection with pinking shears (metal scissors with teeth for cutting serrated edges in cloth or other sheet material).

Any person who desires to file an opposition to the recordation of this trade name shall notify the Commissioner of Customs, Bureau of Customs, Washington 25, D. C., before the expiration of 30 days after November 9, 1956, of his intent to oppose the recordation. If a notice of opposition is filed, the opposer will be furnished with a copy of the application for recordation of the trade name, together with its supporting documents and instructions as to the procedure to be followed. The customs officers concerned will be given notice within 45 days after November 9, 1956, of any opposition proceeding.

Until 45 days after November 9, 1956, all articles of foreign manufacture bearing names or marks which copy or simulate the above-mentioned trade name shall be detained, but not seized, and thereafter, shall receive the treatment provided for in section 11.17, Customs Regulations, unless a notice is received that an opposition has been filed, in which case such articles shall continue to be detained until a final determination is made concerning the right of the applicant to the trade name.

(Signed) D. B. STRUBINGER,
*Acting Commissioner of Customs.*

# MARKS PUBLISHED FOR OPPOSITION

**The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.**

**As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.**

## CLASS 1

## RAW OR PARTLY PREPARED MATERIALS

SN 693,925. Mulford-Hicharens Peat Humus Corp., d. b. a. M & H Peat Humus Co., Apopka, Fla. Filed Aug. 30, 1955.

Mother Earth

For Prepared Soil for Growing Plants.
First use Aug. 22, 1955.

SN 695,509. Union Wadding Company, Pawtucket, R. I. Filed Sept. 28, 1955.

UNITEX

For Wadding Made of Fibers Which Are Bonded Together With a Resin.
First use Sept. 14, 1955.

SN 697,371. Agnes P. Hoke, Princeton, N. J. Filed Oct. 31, 1955.

18th CENTURY BOUQUET

For Dried Natural Flowers and Leaves.
First use July 7, 1955.

SN 698,390. The Wayside Gardens Co., Mentor, Ohio. Filed Nov. 16, 1955.



For Hardy Plants, Lilies, Imported and Native Garden Bulbs, Shrubs, Trees, Roses, Perennials, and Grass Seeds.
First use March 1924 on bulbs.

SN 699,394. General Mills, Inc., Minneapolis, Minn. Filed Dec. 5, 1955.

Soft Pak

For Cellulose Sponges.
First use Feb. 9, 1955.

SN 3,344. The Barnsdey-Cheney Company, Columbus, Ohio. Filed Feb. 27, 1956.

BLACK MAGIC

For Activated Charcoal in Granular or Comminuted Forms.
First use Oct. 28, 1955.

SN 3,529. Gering Products, Inc., Kenilworth, N. J. Filed Feb. 28, 1956.

GER-LITE

For Plastic Sheet Material.
First use November 1954.

SN 4,004. Joseph Davis Plastics Co., Arlington, N. J. Filed Mar. 7, 1956.

JODA

Owner of Reg. No. 501,444.
For Thermoplastic Sheets, Rods, Tubes, and Films.
First use Jan. 15, 1950.

SN 7,543. Texon, Inc., South Hadley Falls, Mass. Filed May 2, 1956.

Dutek

The drawing is lined for red.
For Impregnated Fibre Materials Sold in Sheets, Boards, and Rolls for Making Inner Soles and Similar Products for the Shoe and Slipper Trade and a Variety of Other Impregnated Fibre Products in Other Trades, for Example, Luggage, Tags, Cap Visors, Gaskets, Insulating Materials, Chair Seats, Anti-Squeak Liners, and the Like.
First use July 1955.

SN 8,291. UBC Distributors, Incorporated, Chicago, Ill. Filed May 14, 1956.

DEERWOOD PARK

For Grass Seed.
First use Mar. 14, 1956.

SN 8,677. Marble Products Company of Georgia, Atlanta, Ga. Filed May 21, 1956.

Snow White

For Chips or Flakes of Marble Used in the Manufacture of Roofing.
First use Apr. 4, 1955.

SN 8,929. Cornell Seed Company, St. Louis, Mo. Filed May 24, 1956.

**LIFEGARD**

For Field, Vegetable, Flower, and Grass Seeds.
First use Feb. 10, 1956.

SN 9,015. Armour and Company, Chicago, Ill. Filed May 25, 1956.

**WESTOVER**

For Sole Leather.
First use Aug. 12, 1954.

SN 9,016. Armour and Company, Chicago, Ill. Filed May 25, 1956.

**RICHWOOD**

For Sole Leather.
First use Jan. 13, 1955.

SN 9,017. Armour and Company, Chicago, Ill. Filed May 25, 1956.

**FLEX**

For Upper and Sole Leather.
First use Jan. 13, 1956.

SN 9,197. Technion Design & Manufacturing Co., Inc., New York, N. Y. Filed May 28, 1956.

**SUR-BRAZE**

For Castable Ceramic Material From Which Jigs and Fixtures Are Made for Brazing, Soldering, and Sintering.
First use March 1952.

SN 9,484. George F. Pettinos, Inc., Philadelphia, Pa. Filed June 1, 1956.

**SANTROL**

For Sand Additives for Foundry Use.
First use Mar. 28, 1955.

SN 9,485. George F. Pettinos, Inc., Philadelphia, Pa. Filed June 1, 1956.

**SEAFLOUR**

For Sand Additives for Foundry Use.
First use May 22, 1956.

SN 9,612. The United States Graphite Company Division of The Wickes Corporation, Saginaw, Mich. Filed June 4, 1956.

**SIPAC**

For Non-Carbonaceous Foundry Facing.
First use Aug. 5, 1955.

SN 9,704. Emerson & Cuming, Inc., Canton, Mass. Filed June 6, 1956.

**ECCOFOAM**

For Plastic Foam for Use in Laminated Structures.
First use July 1954.

SN 9,708. Evergreen Hatchery Incorporated, Dysart, Iowa. Filed June 6, 1956.

**NUKROS**

For Live Chickens.
First use Apr. 2, 1956.

SN 9,788. W. R. Grace & Co., New York, N. Y. Filed June 7, 1956.

**GRAKON**

For Solid Polyethylene for General Industrial Use.
First use Mar. 2, 1956.

SN 9,789. W. R. Grace & Co., New York, N. Y. Filed June 7, 1956.

**GRACENE**

For Solid Polyethylene for General Industrial Use.
First use Mar. 2, 1956.

SN 9,790. W. R. Grace & Co., New York, N. Y. Filed June 7, 1956.

**GRACINE**

For Solid Polyethylene for General Industrial Use.
First use Mar. 2, 1956.

SN 9,791. W. R. Grace & Co., New York, N. Y. Filed June 7, 1956.

**GRACON**

For Solid Polyethylene for General Industrial Use.
First use Mar. 2, 1956.

SN 9,792. W. R. Grace & Co., New York, N. Y. Filed June 7, 1956.

**GREX**

For Solid Polyethylene for General Industrial Use.
First use Mar. 2, 1956.

SN 9,910. Western Chef Products, Inc., Spokane, Wash. Filed June 8, 1956.

*Western Chef*

Owner of Reg. No. 599,532.
For Compressed Sawdust Barbecue Briquettes Fuel.
First use Jan. 23, 1953.

SN 10,049. Garfield Williamson, Inc., Jersey City, N. J. Filed June 11, 1956.

**SHUR-TURF**

For Grass Seed.
First use June 6, 1955.



SN 10,162. W. R. Grace & Co., New York, N. Y. Filed June 13, 1956.

**GRACITE**

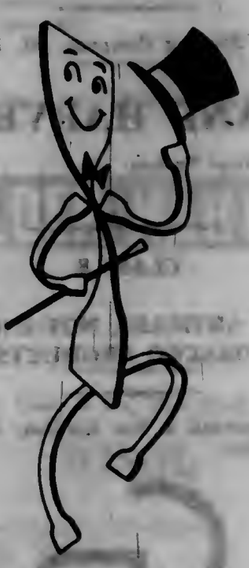
For Solid Polyethylene for General Industrial Use.
First use May 9, 1956.

SN 10,312. Foams, Inc., Port Washington, Wis. Filed June 15, 1956.

TRIM FOAM

For Polyurithane Resin Foam Products Used for Padding and as a Cushioning Material in Furniture, Bedding, and Automotive Seating, for Gaskets and as an Insulation Material.
First use Feb. 21, 1956.

SN 10,477. Phillips Petroleum Company, Bartlesville, Okla. Filed June 18, 1956.



For Rubber Masterbatch.
First use May 21, 1956.

SN 12,763. The Ross Seed Company, Wichita, Kans. Filed July 16, 1956.

ACORN BRAND SEEDS

Owner of Reg. No. 241,732.
For Seeds—Namely, Grass, Flower, Garden, and Field Seeds.
First use on or about Feb. 1, 1914.

CLASS 3

**BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS**

SN 9,900. Schell Leather Goods Co., Inc., Cincinnati, Ohio. Filed June 8, 1956. Sec. 2(f).

**SNAPAK**

Owner of Reg. No. 434,533.
For Luggage and Carrying Cases—Namely, Brief Cases, Traveling Bags, and Suitcases.
First use on or about Jan. 1, 1935.

SN 10,592. Gralnick and Sons Inc., Philadelphia, Pa. Filed June 20, 1956.

**STYLITE**

For Overnight Cases, Wardrobes, Pullmans, Hat and Shoe Cases, Train Cases, Fortnighters, Two-Suiters, Zipper Bags, and Overseas Bags.
First use Jan. 16, 1940.

CLASS 4

**ABRASIVES AND POLISHING MATERIALS**

SN 6,630. Penray Company, Chicago, Ill. Filed Apr. 18, 1956.

PENRAY

Owner of Reg. No. 605,289.
For Automobile Wax, Automobile Polish and Cleaner, Chrome Cleaner and Automobile Paint Rubbing Compound Used Also as a Pre-Wax Cleaner.
First use Mar. 3, 1953.

SN 8,719. Solvolene Lubricants Limited, London, England. Filed May 21, 1956.

**AUTOSOL**

Owner of British Reg. No. 734,426, dated Sept. 24, 1954.
For Cleaning and Polishing Preparations.

CLASS 6

**CHEMICALS AND CHEMICAL COMPOSITIONS**

SN 676,896. Kem-I-Kal Engineering Laboratories, Inc., Centralia, Ill. Filed Nov. 18, 1954. Sec. 2(f).

**KEM-I-KAL**

For Paraffin Solvents Water-Treating Agents, Sewer Tree Root Exterminators, and Anti-Freeze Agents.
First use 1938.

SN 696,413. Esquire Chemical Co., Downers Grove, Ill. Filed Nov. 17, 1955.

## BALL O' PERFUME

For Deodorant and Moth Crystals.
First use Sept. 19, 1955.

SN 699,053. Arkansas Company, Inc., Newark, N. J. Filed Nov. 29, 1955.

## DERGON

Owner of Reg. No. 402,025.
For Nitrogenous Fatty Esters and Sulfonated Fatty Esters for Use as Textile Assistants.
First use March 1940.

SN 3,502. Andrew Wilson, Inc., Springfield, N. J. Filed Feb. 27, 1956.




For Insecticides.
First use in April 1921.

SN 3,568. American Cyanamid Company, New York, N. Y. Filed Feb. 29, 1956.

## CYANATEX

Owner of Reg. Nos. 589,766, 602,013, and 609,290.
For Lubricant, Softener, and Rewetting Agent Used in Finishing Cotton Fabrics; and a Wetting Agent.
First use Dec. 21, 1954.

SN 5,168. Church & Dwight Co., Inc., Syracuse, N. Y. Filed Mar. 26, 1956.

## CON-SAL

For Sal Soda, Washing Soda, Especially in Concentrated or Dehydrated Form.
First use Jan. 13, 1956.

SN 6,980. Crosby Chemicals, Inc., De Ridder, La. Filed Apr. 24, 1956.

## ALCROYD

For Oil Modified Alkyd Resins.
First use on or about Mar. 22, 1956.

SN 7,126. Swift & Company, Chicago, Ill. Filed Apr. 25, 1956.

## ESTERFLEX

For Primary Plasticiser.
First use June 14, 1955.

SN 7,210. Milk Plant Specialties Corporation, Rochester, N. Y. Filed Apr. 26, 1956.

## I-ODO-FOR

For Sanitising Preparation for Sanitising Milk and Other Food Utensils and Equipment.
First use Mar. 2, 1956.

SN 7,298. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed Apr. 27, 1956.

## VANOX

For Anti-Tarnish Agent for Use in Synthetic Dishwashing Detergents.
First use Apr. 3, 1956.

SN 7,490. Diamond Alkali Company, Cleveland, Ohio. Filed May 2, 1956.

## DIAMID

For Dissolving Agent for Milkstone in Dairy Processing Equipment.
First use Mar. 9, 1956.

### CLASS 7

### CORDAGE

SN 7,846. Ponit Trading Company, St. Louis, Mo. Filed May 7, 1956.

## GRAND HARVEST

For Binder and Baler Twines.
First use Sept. 10, 1955.

### CLASS 8

### SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

SN 4,771. F. Charatan & Son Limited, London, England. Filed Mar. 19, 1956.



For Smokers' Pipes.
First use January 1926.

### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

SN 7,743. Benjamin Air Rifle Company, St. Louis, Mo. Filed May 7, 1956.

## BENJAMIN FRANKLIN

For Air Rifles, Air Pistols, Carbon Dioxide Rifles, and Carbon Dioxide Pistols.
First use Apr. 27, 1934, on air rifles and air pistols.



### CLASS 10

### FERTILIZERS

SN 700,938. Gordon Callbeck, d. b. a. A & A Coal Company, Denver, Colo. Filed Nov. 17, 1955.




For Fertilizers.
First use Aug. 4, 1947.

SN 4,197. Hale Laboratories, Bay City, Tex. Filed Mar. 9, 1956.

## MA-DER-GRO

For Fertiliser Comprising Peat Moss Treated With a Synthetic Liquid Chemical Fertiliser Containing Trace Elements, and the Liquid Chemical Fertiliser Per Se.
First use November 1955.

SN 7,526. The Ohio Equity Exchange Company, Lima, Ohio. Filed May 2, 1956.

## GOLDEN HARVEST

For Fertilizers.
First use Feb. 1, 1956.

SN 8,662. W. R. Grace & Co., New York, N. Y. Filed May 21, 1956.

## NISOL

For Nitrogen Solutions for Fertilizer.
First use Aug. 31, 1955.

SN 8,810. Washington Organic Fertilizers, Inc., Wapato, Wash. Filed May 22, 1956.

## FERT-O-STIK

For Fertilizer.
First use Mar. 20, 1956.

SN 11,616. Joseph Schumacher, Hallandale, Fla. Filed July 5, 1956.




For Plant Food.
First use May 10, 1956.

### CLASS 11

### INKS AND INKING MATERIALS

SN 683,993. Rochester Ribbon and Carbon Company, Inc., Rochester, N. Y. Filed Mar. 22, 1955.

## rolyzar

The drawing is lined for red and yellow but these colors are not claimed as part of the mark.
For Carbon Acetate Typewriter Ribbons Used on Typewriters Having Carbon Ribbon Attachments Therefor.
First use Dec. 28, 1953.

SN 8,596. Western Laboratories, Inc., Burbank, Calif. Filed May 18, 1956.

## POLENE

For Vehicle or Varnish for Printers' Inks.
First use Aug. 2, 1948.

### CLASS 12

### CONSTRUCTION MATERIALS

SN 689,724. International Minerals & Chemical Corporation, Chicago, Ill. Filed June 17, 1955.

## HY-TEMP REFRACTO

For Refractory Cement Containing Zirconium.
First use Aug. 10, 1954.

SN 698,095. U. S. Stone Corporation, Paterson, N. J. Filed Nov. 10, 1955.

## PURA-TEX STONE

No claim is made to the word "Stone."
For Cast Assimilated Stone for Interior and Exterior Construction.
First use on or about Aug. 15, 1955.

SN 699,981. Pennington Manufacturing Company, Addison, Ill. Filed Dec. 14, 1955.

## FIRE PLUG

For Dog Houses.
First use Dec. 5, 1938.

SN 2,779. Gladding, McBean & Company, Los Angeles, Calif. Filed Feb. 16, 1956.

## SATELLITE

For Floor and Wall Tile.
First use Oct. 19, 1955.

SN 3,601. Evans Products Company, Plymouth, Mich. Filed Feb. 29, 1956.

## EVANEER

For Plywood.
First use December 1940.

SN 4,020. The Flintkote Company, New York, N. Y. Filed Mar. 7, 1956.

**ORTAR**

For Liquid Coal Tar for Surface of Roadways.
First use on or about August 1953.

SN 4,272. Arteraft Awning Company, St. Louis, Mo. Filed Mar. 12, 1956.

**METAL ROLL**

For Metal Awnings.
First use August 1955.

SN 4,357. Productos Ceramicos, S. A., Monterrey, Nuevo Leon, Mexico. Filed Mar. 12, 1956.




The words "Marca Ind. Reg Monterrey Mexico" are disclaimed apart from the mark. Owner of Mexican Reg. No. 70,469, dated July 8, 1952.
For Ceramic Wall Tile.

SN 4,497. Water Seals, Inc., Chicago, Ill. Filed Mar. 13, 1956.




For Joint Seals—Namely, Waterstops of Plastic or Rubber-Like Material.
First use Mar. 1, 1953.

SN 4,739. Peterson Window Corporation, Ferndale, Mich. Filed Mar. 16, 1956. Sec. 2(f).

**PETERSON**

For Sash and Frame Window Construction.
First use Jan. 1, 1950.

SN 5,164. Central Commercial Company, Chicago, Ill. Filed Mar. 26, 1956.




Owner of Reg. No. 349,045.
For Crushed Slate, Slate Granules, Roofing Grit, Mineral Granules Both Natural and Artificially Colored, Crushed Mineral Aggregate, Roofing Granules, Slag Granules, Slate Flour, Roofing Fillers, Mineral Fillers, Roofing Talc, Roofing Mica, Mica Schist, Mineral Roofing Surfacing Granules, Ceramic Granules, Sheet Roofing, Shingles Coated With Mineral Granules, Crushed Marble, Marble Aggregates, Brick Cementatious and Composition Blocks, Tile, Brick Facings.
First use Nov. 28, 1910.

SN 5,473. Van-Packer Corporation, Bettendorf, Iowa. Filed Mar. 29, 1956.

**VP Van-Packer**

For Masonry Chimneys and Parts Thereof.
First use Sept. 1, 1947.

SN 7,081. Edilu Terrazo Designing Company, Chicago, Ill. Filed Apr. 25, 1956.

**SAVABRASS**

For Dividing Strips, Border Strips, and Expansion Joints for Floors and Walls.
First use Apr. 18, 1956.

**CLASS 13**

**HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES**

SN 678,793. MacLean-Fogg Lock Nut Company, Chicago, Ill. Filed Dec. 22, 1954.



The mark consists of two annular segmental indentations formed in the top end of a nut, each segment being diametrically opposed to the other with respect to the axis of the nut and each segment being located immediately adjacent the threads thereof.
For Lock Nuts.
First use September 1948.

SN 692,910. Dalmine S. p. A., Milan, Italy. Filed Aug. 12, 1955.

**RIVESTIMENTO DALMINE"**

The Italian words "Rivestimento Dalmine" mean "coating Dalmine" when translated into English. Owner of Italian Reg. No. 120,372, dated Jan. 18, 1955.
For Metallic Tubes.

SN 700,836. Ajax Hardware Manufacturing Corporation, Los Angeles, Calif. Filed Dec. 30, 1955.

**Town and Country**

For Cabinet Door and Drawer Pulls, Drawer Knobs, Back Plates, and Hinges.
First use Aug. 4, 1955.

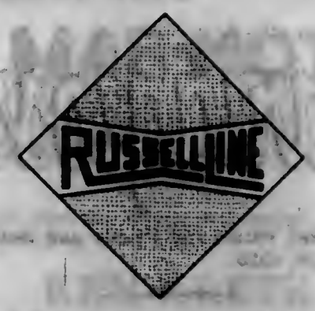
SN 9,173. R. S. Precision Products, Floral Park, N. Y. Filed May 28, 1956.

**STA-KIT**

For Sprinkler Hose Anchors.
First use May 18, 1956.



SN 9,177. The Risdon Manufacturing Company, Naugatuck, Conn. Filed May 28, 1956.




For Chain of Various Types, Including Sash, Jack, Ball, Loop, and Sprocket Chain and Accessories; Also on Water Closet Screws, Screw Heads, Bolts, Nuts, Washers, Lift Wires, Float Rods, Refill Tubes, Overflow Tubes; Shower Curtain Hooks, Floor Flanges, Wire Rings, and Wire Pipe Hooks.
First use July 1954; in or about 1921 as to "Russell Line."

SN 9,309. United States Pipe and Foundry Company, Birmingham, Ala. Filed May 29, 1956.

**USP**

For Hollow Cast Metal Bodies—Namely, Cast Iron Pipes and Fittings Having Plain or Flanged Ends, and With or Without Bell and Spigot Ends.
First use Sept. 29, 1949.

SN 10,532. Grant Pulley & Hardware Corporation, Flushing, N. Y. Filed June 19, 1956.

**SLIDERITE**

For Drawer Slides.
First use June 14, 1956.

SN 10,803. Ridderstedt Manufacturing Corp., Batavia, Ill. Filed June 22, 1956.

**ADJUST-O-SHELF**

For Brackets for Shelving.
First use May 24, 1956.

**CLASS 15**

**OILS AND GREASES**

SN 676,053. Haller Engineering & Manufacturing, Anoka, Minn. Filed Nov. 4, 1954. Sec. 2(f).

**XLENT**

For Lubricating Oil With Cleaning Properties for Use on Firearms, Delicate Machinery, Typewriters, and the Like.
First use on or about Jan. 1, 1927.

SN 7,856. Harold B. Sherfy, d. b. a. Sherfy's Ltd., Seattle, Wash. Filed May 7, 1956.

**DECORATOR**

For Candles.
First use July 17, 1955.



SN 9,264. Gulf Oil Corporation, Pittsburgh, Pa. Filed May 29, 1956.

**GULFCUT**

For Cutting Oils.
First use Jan. 1, 1956.

SN 11,447. Standard Oil Company of California, San Francisco, Calif. Filed July 13, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Petroleum Waxes and Petrolatums, Kerosenes, Fuel and Heating Oils; Internal Combustion Engine Fuels; Oils Useful for Preventing the Adherence of Molding Forms to Cement, Brick, and Other Materials; Oils Useful for Extracting Natural Gasoline From Natural Gas or Vapors, and for Protecting Mains, Meters, and Other Internal Parts of Gas Distribution Systems; Quenching Oils Useful as Coolants in the Heat Treatment of Steel; Refined Oils Used as Compass Fluids; Lubricating Oils and Greases.
First use February 1956 on motor oil.

SN 13,281. Esso Standard Oil Company, New York, N. Y. Filed Aug. 2, 1956.

**MARNOL**

For Marine Motor Fuels.
First use June 29, 1956.

SN 13 332. Devolube Corporation of America, Los Angeles, Calif., to Ernest F. Savage, Los Angeles, Calif. Filed Aug. 28, 1956.

**DEV-O-LUBE**

For Preparation for Adding to Motor Oil for Increasing the Viscosity Index Thereof.
First use on or about Sept. 1, 1953.

SN 13 389. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**NAUTILUS**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13 390. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**NASSA**

For Lubricating Oil.
First use Feb. 1, 1948.

SN 13 391. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**OMALA**

For Lubricating Oil.
First use Mar. 20, 1948.

SN 13,392. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**BOLMA**

For Lubricating Oil.
First use June 10, 1948.



SN 13,393. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ALVANIA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,394. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,395. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOL**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,396. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,397. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,398. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,399. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,400. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,401. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,402. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,403. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,404. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,405. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,406. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,407. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,408. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,409. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,410. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,411. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,412. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,413. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,414. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,415. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,416. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,417. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,418. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,419. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,420. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,421. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,422. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,423. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,424. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,425. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,426. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,427. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,428. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,429. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,430. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,431. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,432. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,433. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,434. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,435. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,436. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,437. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,438. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,439. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,440. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,441. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,442. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,443. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,444. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,445. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,446. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,447. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,448. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,449. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,450. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,451. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,452. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,453. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,454. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,455. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,456. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,457. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,458. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,459. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,460. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,461. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,462. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,463. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,464. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,465. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,466. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,467. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,468. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,469. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,470. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,471. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,472. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,473. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,474. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,475. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,476. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,477. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,478. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,479. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,480. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,481. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,482. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,483. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,484. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,485. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,486. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,487. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,488. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,489. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,490. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,491. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,492. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,493. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,494. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,495. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,496. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,497. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,498. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,499. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,500. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,501. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,502. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,503. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,504. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,505. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,506. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,507. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,508. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,509. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,510. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,511. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,512. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,513. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,514. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,515. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,516. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,517. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,518. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,519. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,520. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,521. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,522. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,523. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,524. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,525. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,526. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,527. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,528. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,529. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,530. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,531. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,532. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,533. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,534. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,535. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,536. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,537. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,538. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,539. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,540. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,541. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,542. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,543. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,544. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,545. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,546. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,547. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,548. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,549. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,550. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,551. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,552. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,553. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,554. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,555. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,556. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,557. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINE**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13,558. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

**ARGINOLINA**

For Lubricating Oil.
First use Dec. 1, 1929.

SN 13

SN 13,393. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

## ONDINA

For Lubricating Oil.
First use June 10, 1948.

SN 13,394. Shell Oil Company, New York, N. Y. Filed Aug. 3, 1956.

## ALEXIA

For Lubricating Oil.
First use Aug. 1, 1955.

### CLASS 16

### PROTECTIVE AND DECORATIVE COATINGS

SN 685,691. The Flintkote Company, New York, N. Y. Filed Apr. 18, 1935.

## SKYKOTE

For Roof Coating.
First use on or about Jan. 26, 1954.

SN 3,615. Walter G. Legge Company, Inc., New York, N. Y. Filed Feb. 29, 1956.

## WAKOL

For Colored Floor Seal or Finish.
First use Feb. 16, 1956.

SN 5,548. S. K. Laboratories, Inc., Baltimore, Md. Filed Mar. 30, 1956. Sec. 2(f).

## FI-RE-SIST

For Fire Retardant Paints.
First use Jan. 10, 1950.

SN 6,737. McDougall-Butler Co., Inc., Buffalo, N. Y. Filed Apr. 19, 1956.

## ECOLITE

For Paint Enamel.
First use Feb. 9, 1925.

SN 6,739. McDougall-Butler Co., Inc., Buffalo, N. Y. Filed Apr. 19, 1956.

## IROQUOIS

For Ready-Mixed and Paste Paints.
First use Mar. 15, 1910.

SN 6,740. McDougall-Butler Co., Inc., Buffalo, N. Y. Filed Apr. 19, 1956.

## Partaglass

For Ready-Mixed Paint, and Primer and Sealer.
First use July 30, 1925.

SN 6,741. McDougall-Butler Co., Inc., Buffalo, N. Y. Filed Apr. 19, 1956.

## Surfastyle

For Ready-Mixed Paint, Paint Enamel, Varnish Stain, and Oil Stain.
First use Feb. 15, 1940.

SN 6,742. McDougall-Butler Co., Inc., Buffalo, N. Y. Filed Apr. 19, 1956.

## UTILI-VAR

For Varnish, Paint Enamels, Ready-Mixed Paint, and Aluminum Paint.
First use in August 1920.

SN 6,743. McDougall-Butler Co., Inc., Buffalo, N. Y. Filed Apr. 19, 1956.

## ZANZITE

For Paint Enamel and Ready-Mixed Paint.
First use in 1903.

SN 7,044. Siliphane Corporation of America, New York, N. Y. Filed Apr. 24, 1956.

## SILCOA

For Paints and Enamels.
First use July 10, 1954.

SN 7,120. The Sherwin-Williams Company, Cleveland, Ohio. Filed Apr. 25, 1956.

## WEATHER-CLAD

For Exterior Latex Emulsion Paints.
First use Mar. 26, 1956.

SN 7,184. Gilmore & Nolan, Inc., Los Angeles, Calif. Filed Apr. 26, 1956.

## ALUMIZOL

For Aluminum Pigmented Paints and Paint Concentrates.
First use Apr. 15, 1948.

SN 8,094. The Peck, Stow & Wilcox Company, Southington, Conn. Filed May 10, 1956.

## PEXTITE

For Surface Finish for Articles Made of Metal.
First use Apr. 23, 1956.



SN 8,162. The Sherwin-Williams Company, Cleveland, Ohio. Filed May 11, 1956. Sec. 2(f).

## MAR-NOT

For Varnishes.
First use Jan. 28, 1903.

SN 8,163. The Sherwin-Williams Company, Cleveland, Ohio. Filed May 11, 1956.

## KEM-KRETE

Owner of Reg. Nos. 574,381, 407,671, and others.
For Exterior Emulsion Paints.
First use Apr. 4, 1956.

SN 8,395. The W. H. Fales Company, Brooklyn, N. Y. Filed May 16, 1956.

## VINYLASTIC

For Casein Solutions Used as an Ingredient of Latex Paints.
First use Apr. 20, 1956.

SN 8,529. Binney & Smith Inc., New York, N. Y. Filed May 18, 1956.

## CRAYOLA

Owner of Reg. Nos. 121,394, 560,159, and others.
For Finger Paint.
First use May 2, 1956.

### CLASS 17

### TOBACCO PRODUCTS

SN 8,216. The S. Frieder & Sons Company, Philadelphia, Pa. Filed May 14, 1956. Sec. 2(f).

## LA FRAGRANCIA

For Cigars and Cheroots.
First use Dec. 1, 1922.

SN 8,636. D W G Cigar Corporation, Detroit, Mich. Filed May 21, 1956.

## Savoy

For Cigars.
First use May 2, 1956.

SN 10,178. M & N Cigar Manufacturers, Inc., Tampa, Fla. Filed June 13, 1956.

## NICOSAN

For Cigars.
First use on or about Oct. 27, 1932.

SN 10,179. M & N Cigar Manufacturers, Inc., Tampa, Fla. Filed June 13, 1956.

## DECISION

For Cigars.
First use on or about May 3, 1906.

SN 10,180. M & N Cigar Manufacturers, Inc., Tampa, Fla. Filed June 13, 1956.

## FLOR DE ADDISON

For Cigars.
First use on or about May 8, 1894.

SN 10,181. M & N Cigar Manufacturers, Inc., Tampa, Fla. Filed June 13, 1956.

## JOHN CARVER

For Cigars.
First use in the latter part of the year 1900.

SN 10,182. M & N Cigar Manufacturers, Inc., Tampa, Fla. Filed June 13, 1956.

## STUDENT PRINCE

For Cigars.
First use on or about May 6, 1926.

SN 10,183. M & N Cigar Manufacturers, Inc., Tampa, Fla. Filed June 13, 1956.

## RIGOLETTO

For Cigars.
First use on or about Mar. 23, 1892.

SN 10,184. M & N Cigar Manufacturers, Inc., Tampa, Fla. Filed June 13, 1956.

## INSPIRATION

For Cigars.
First use 1913.

### CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 695,868. Johann A. Wülfing, Dusseldorf, Germany. Filed Oct. 4, 1955.

## CYSTOPURIN

For Remedies To Be Used for Diseases of and Pertaining to the Sexual Organs and to the Urinary Tract.
First use July 5, 1906; in commerce January 1927.

SN 695,869. Johann A. Wülfing, Dusseldorf, Germany. Filed Oct. 4, 1955.

## DETOXINUM

For Preparations Containing Keratin Hydrolysates in the Form of a Powder or Ointment or Ampoules or Dragees.
First use Sept. 1, 1926; in commerce January 1927.

SN 695,871. Johann A. Wülfing, Dusseldorf, Germany. Filed Oct. 4, 1955.

## Appron

Owner of German Reg. No. 182,170, dated Oct. 13, 1913.
For Remedy for Rheumatism of the Joints and Neuralgia, Fever, and Colds, and Sick Headaches.

SN 695,872. Johann A. Wülfing, Dusseldorf, Germany. Filed Oct. 4, 1955.

Cosplanin

Owner of German Reg. No. 340,719, dated Oct. 12, 1925.
For Preparation for Internal Use in the Form of Tablets for Use in the Treatment of Influenza, Catarrh of the Upper Respiratory Tract, Neuralgia, Rheumatism, Gout, Dysmenorrhea, and Lumbago.

SN 697,188. Robapharm Laboratoriums A. G., Basel, Switzerland. Filed Oct. 26, 1955.

## RAVERON

Owner of Swiss Reg. No. 156,001, dated Apr. 15, 1935.
For Prostate Gland Extract.

SN 2,323. S. J. Tutag & Company, Detroit, Mich. Filed Feb. 8, 1956.

## ASMINOREL

For Antiasthmatic Bronchodilator Preparation.
First use Sept. 15, 1953.

SN 2,937. Abbott Laboratories, North Chicago, Ill. Filed Feb. 20, 1956.

## ION-O-TRATE

Owner of Reg. No. 598,683.
For Vials Containing Mineral Salts, Alcohol, and Carbohydrate Solutions in Concentrated Aqueous Form for Use in Preparing Solutions for Parenteral Therapy and Transfusion.
First use Dec. 18, 1953.

SN 4,472. Pet Center Corporation, New York, N. Y. Filed Mar. 13, 1956.

## BIRD-A-VITE

For Therapeutic Vitamins for Birds.
First use Jan. 9, 1956.

SN 4,508. American Transpacific Corp., d. b. a. American Chemical & Drug Co., San Francisco, Calif. Filed Mar. 14, 1956.

## CHLORO-Z-MYCIN

For Antibiotic in Capsule Form for Oral Reception and in Powdered Form for Intravenous or Intramuscular Injection.
First use Feb. 14, 1956.

SN 4,588. S. J. Tutag & Company, Detroit, Mich. Filed Mar. 14, 1956.

## DIPHYLETS

For Anorectic Preparation for Use in Obesity.
First use February 1953.

SN 5,115. Merck & Co., Inc., Rahway, N. J. Filed Mar. 23, 1956.

## CO-DELTRA

Owner of Reg. Nos. 503,514 and 553,939.
For Hormonal Compound for Medicinal and Pharmaceutical Use.
First use Feb. 27, 1956.

SN 6,000. Gray Pharmaceutical Co., Inc., Newton, Mass. Filed Apr. 9, 1956.

## DIOVAC

For Pharmaceutical Preparation for the Correction of Constipation.
First use Mar. 5, 1956.

SN 6,446. Merck & Co., Inc., Rahway, N. J. Filed Apr. 16, 1956.

## OXAMYCIN

Owner of Reg. No. 426,310.
For Antibiotics.
First use Mar. 14, 1956.

SN 6,779. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation, New York, N. Y. Filed Apr. 20, 1956.

## LYTENSENE

For Pharmaceutical Preparations for Use as Ganglion Blocking Agents.
First use Apr. 13, 1956.

SN 7,050. Unilab, Inc., New York, N. Y. Filed Apr. 24, 1956.

## CYL-RE

For Suppositories To Counteract Rheumatism and Arthritis.
First use Mar. 1, 1956.

SN 7,100. McNeil Laboratories, Incorporated, Philadelphia, Pa. Filed Apr. 25, 1956.

## BUTISOL SODIUM

The word "Sodium" is disclaimed apart from the mark as shown. Owner of Reg. No. 378,610.
For Sedative Preparations in Tablet, Elixir, and Capsule Form, for the Relief of Hypertension, Neuroses, Anxiety States, and Menopausal Symptoms.
First use in June 1939.

SN 7,363. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Apr. 30, 1956.

## AMBONESTYL

For Preparations for the Treatment of Cardiac Arrhythmias.
First use Dec. 9, 1955.

SN 7,973. First Texas Chemical Manufacturing Company, Dallas, Tex. Filed May 9, 1956.

## NEOVIS

For Vitamin Preparation.
First use Oct. 12, 1942.

SN 8,092. Organon Inc., Orange, N. J. Filed May 10, 1956.

## DURABOLIN

For Medicinal Hormone Preparation.
First use Feb. 9, 1956.

SN 8,093. Organon Inc., Orange, N. J. Filed May 10, 1956.

## ALBARIN

For Medicinal Hormone Preparation.
First use Feb. 9, 1956.



SN 8,200. Schenley Laboratories, Inc., New York, N. Y. Filed May 14, 1956.

## DIFEN

For Antihistamines.
First use Apr. 17, 1956.

SN 8,282. Tablerock Laboratories, Inc., Greenville, S. C. Filed May 14, 1956.

## TACOSAL

For Preparation for the Treatment of Rheumatism and Arthritis.
First use May 4, 1956.

SN 8,351. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 15, 1956.

## BONADETTES

For Antihistaminic Preparation Useful in the Prevention and Treatment of Nausea, Vomiting, and Vertigo.
First use Apr. 10, 1956.

SN 8,352. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 15, 1956.

## BONAMETS

For Antihistaminic Preparation Useful in the Prevention and Treatment of Nausea, Vomiting, and Vertigo.
First use Apr. 10, 1956.

SN 8,412. Hiss Pharmacal Company, Inc., Utica, N. Y. Filed May 16, 1956.

## PENTETRATE UNICELLES

For Timed Disintegration Capsules of Penta-Erythritol Tetranitrate.
First use Mar. 2, 1956.

SN 8,436. Permicutan-Gesellschaft für Chemische, Pharmazeutische und Kosmetische Erzeugnisse m. b. H., Munich, Germany. Filed May 16, 1956.

## SALISTOPERM

Owner of German Reg. No. 625,263, dated Aug. 25, 1952.
For Medicines.

SN 8,466. Bristol Laboratories Inc., New York, N. Y. Filed May 17, 1956.

## P.R.N.

For Antacid.
First use June 6, 1955.

SN 8,849. Hubbard Milling Company, Mankato, Minn. Filed May 23, 1956. Sec. 2(f).

HUBBARD'S

Owner of Reg. Nos. 82,516, 621,407, and others.
For Vitamin, Mineral, and Protein Concentrates for Use as Feed Supplements for Livestock and Poultry.
First use Mar. 1, 1939.

### CLASS 19

### VEHICLES

SN 7,402. Visors, Inc., Saginaw, Mich. Filed Apr. 30, 1956.

## SUNBAN

For Automobile Visors.
First use Apr. 20, 1956.

### CLASS 20

### LINOLEUM AND OILED CLOTH

SN 683,353. Richard L. Capell, d. b. a. Jata-Mat Company, San Francisco, Calif. Filed Mar. 14, 1955.

## JATA-MAT

For Coverings of the Type Which Are Provided With a Burlap Surfacing and a Paper or Similar Backing and Which Are Adapted To Be Pasted on a Wall or Otherwise Secured Thereto To Cover the Wall.
First use on or about June 1953.

### CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 697,810. Marlin Pool Equipment Company, Sherman Oaks, Calif. Filed Nov. 7, 1955.

Marlin

For Vacuum Cleaners for Swimming Pools.
First use Nov. 13, 1953.

### CLASS 22

### GAMES, TOYS, AND SPORTING GOODS

SN 677,823. Charles L. Stuart, Albany, N. Y. Filed Dec. 6, 1954.

## BANSHEE

For Game.
First use July 1954.

SN 689,776. Whitman Publishing Company, Racine, Wis. Filed June 17, 1955.

Tom Wiswell

"Tom Wiswell" is the name of a living person, consent of record.
For Checkers and Chess Game Consisting of a Board, Checkers, Chessmen, and Booklet.
First use May 27, 1955.

SN 695,872. Johann A. Wülfing, Dusseldorf, Germany. Filed Oct. 4, 1955.

Complamin

Owner of German Reg. No. 340,719, dated Oct. 12, 1925.
For Preparation for Internal Use in the Form of Tablets for Use in the Treatment of Influenza, Catarrh of the Upper Respiratory Tract, Neuralgia, Rheumatism, Gout, Dysmenorrhea, and Lumbago.

SN 697,188. Robapharm Laboratoriums A. G., Basel, Switzerland. Filed Oct. 26, 1955.

## RAVERON

Owner of Swiss Reg. No. 156,001, dated Apr. 15, 1955.
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SN 2,323. S. J. Tutag & Company, Detroit, Mich. Filed Feb. 8, 1956.

## ASMINOREL

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SN 2,937. Abbott Laboratories, North Chicago, Ill. Filed Feb. 20, 1956.

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For Vials Containing Mineral Salts, Alcohol, and Carbohydrate Solutions in Concentrated Aqueous Form for Use in Preparing Solutions for Parenteral Therapy and Transfusion.
First use Dec. 18, 1953.

SN 4,472. Pet Center Corporation, New York, N. Y. Filed Mar. 13, 1956.

## BIRD-A-VITE

For Therapeutic Vitamins for Birds.
First use Jan. 9, 1956.

SN 4,506. American Transpacific Corp., d. b. a. American Chemical & Drug Co., San Francisco, Calif. Filed Mar. 14, 1956.

## CHLORO-Z-MYCIN

For Antibiotic in Capsule Form for Oral Reception and in Powdered Form for Intravenous or Intramuscular Injection.
First use Feb. 14, 1956.

SN 4,588. S. J. Tutag & Company, Detroit, Mich. Filed Mar. 14, 1956.

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## CO-DELTRA

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## DIOVAC

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## OXAMYCIN

Owner of Reg. No. 426,310.
For Antibiotics.
First use Mar. 14, 1956.

SN 6,779. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation, New York, N. Y. Filed Apr. 20, 1956.

## LYTENSENE

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First use Apr. 13, 1956.

SN 7,050. Unilab, Inc., New York, N. Y. Filed Apr. 24, 1956.

## CYL-RE

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First use Mar. 1, 1956.

SN 7,100. McNeil Laboratories, Incorporated, Philadelphia, Pa. Filed Apr. 25, 1956.

## BUTISOL SODIUM

The word "Sodium" is disclaimed apart from the mark as shown. Owner of Reg. No. 378,610.
For Sedative Preparations in Tablet, Elixir, and Capsule Form, for the Relief of Hypertension, Neuroses, Anxiety States, and Menopausal Symptoms.
First use in June 1939.

SN 7,363. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Apr. 30, 1956.

## AMBONESTYL

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First use Dec. 9, 1955.

SN 7,973. First Texas Chemical Manufacturing Company, Dallas, Tex. Filed May 9, 1956.

## NEOVIS

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First use Oct. 12, 1942.

SN 8,092. Organon Inc., Orange, N. J. Filed May 10, 1956.

## DURABOLIN

For Medicinal Hormone Preparation.
First use Feb. 9, 1956.

SN 8,093. Organon Inc., Orange, N. J. Filed May 10, 1956.

## ALBARIN

For Medicinal Hormone Preparation.
First use Feb. 9, 1956.



SN 8,269. Schenley Laboratories, Inc., New York, N. Y. Filed May 14, 1956.

## DIFEN

For Antihistamines.
First use Apr. 17, 1956.

SN 8,282. Tablerock Laboratories, Inc., Greenville, S. C. Filed May 14, 1956.

## TACOSAL

For Preparation for the Treatment of Rheumatism and Arthritis.
First use May 4, 1956.

SN 8,351. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 15, 1956.

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## BONAMETS

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First use Apr. 10, 1956.

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First use Mar. 2, 1956.

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## SALISTOPERM

Owner of German Reg. No. 625,263, dated Aug. 25, 1952.
For Medicines.

SN 8,466. Bristol Laboratories Inc., New York, N. Y. Filed May 17, 1956.

## P.R.N.

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First use June 6, 1955.

SN 8,849. Hubbard Milling Company, Mankato, Minn. Filed May 23, 1956. Sec. 2(f).

HUBBARD'S

Owner of Reg. Nos. 82,516, 621,407, and others.
For Vitamin, Mineral, and Protein Concentrates for Use as Feed Supplements for Livestock and Poultry.
First use Mar. 1, 1939.

### CLASS 19

### VEHICLES

SN 7,402. Visors, Inc., Saginaw, Mich. Filed Apr. 30, 1956.

## SUNBAN

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### CLASS 20

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SN 683,353. Richard L. Capell, d. b. a. Jata-Mat Company, San Francisco, Calif. Filed Mar. 14, 1955.

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First use on or about June 1953.

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### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 697,810. Marlin Pool Equipment Company, Sherman Oaks, Calif. Filed Nov. 7, 1955.

Marlin

For Vacuum Cleaners for Swimming Pools.
First use Nov. 13, 1953.

### CLASS 22

### GAMES, TOYS, AND SPORTING GOODS

SN 677,823. Charles L. Stuart, Albany, N. Y. Filed Dec. 6, 1954.

## BANSHEE

For Game.
First use July 1954.

SN 689,776. Whitman Publishing Company, Racine, Wis. Filed June 17, 1955.

Tom Wiswell

"Tom Wiswell" is the name of a living person, consent of record.
For Checkers and Chess Game Consisting of a Board, Checkers, Chessmen, and Booklet.
First use May 27, 1955.

SN 694,911. The Perfection Manufacturing Company, St. Louis, Mo. Filed Sept. 19, 1955.

Rock-A-Bye

Owner of Reg. No. 117,590.
For Doll Carriages, Doll Strollers, Doll Swings, and Doll Seats.
First use June 1916.

SN 698,436. Kabushiki Kaisha Tenshodo, Chuoku, Tokyo, Japan. Filed Nov. 17, 1955.

Tenshodo

Owner of Japanese Reg. No. 446,511, dated June 16, 1954.
For Scale Model Railroad Equipments.
First use 1889.

SN 698,627. The Mettoy Company Limited, Northampton, England. Filed Nov. 21, 1955.

CORGI

Priority claimed under Sec. 44(d) on British Reg. No. 746,050, dated Sept. 13, 1955.
For Toys Being Model Vehicles, But Not Including Toy Motorcycles.

SN 188. Bell-O-Matic Corporation, Chicago, Ill. Filed Jan. 5, 1956.



The drawing is lined for red and silver. The words "Chicago" and "Reno" are disclaimed apart from the mark as shown.
For Coin Operated Machines for Amusement Purposes.
First use Apr. 9, 1954.

SN 3,837. D. C. Enloe, d. b. a. Whopper-Stopper Sporting Goods Company, Sherman, Tex. Filed Mar. 5, 1956.

HELLBENDER

For Artificial Fishing Lures.
First use Apr. 1, 1955.

SN 5,028. Robert Corson, West Collingswood, N. J. Filed Mar. 22, 1956.



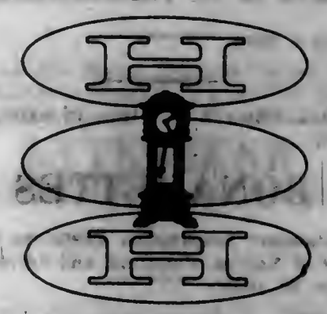

The drawing is lined for blue, but the color is not claimed as a feature of the mark.
For Fishing Rig Attaching and Detaching Device.
First use Feb. 21, 1956.

SN 5,186. Martin O. Fixen, d. b. a. Fixen Plastic Company, Minneapolis, Minn. Filed Mar. 26, 1956.

OK-doke

For Artificial Game Fishing Lure for Trolling and Casting.
First use June 20, 1951.

SN 6,424. Happy Hour Inc., St. Paul, Minn. Filed Apr. 16, 1956.



For Parlor Game Employing a Playing Surface and Marbles.
First use Feb. 24, 1956.

SN 7,613. M & S Doll Company, New York, N. Y. Filed May 3, 1956.

BABY LAND

For Dolls.
First use Oct. 15, 1947.

SN 8,730. Ungar Electric Tools, Inc., Los Angeles, Calif. Filed May 21, 1956. Sec. 2(f).

Ungar

Owner of Reg. No. 527,053.
For Toy Set for Woodburning, Leather Burning, Cork Burning, Plastic Burning, Velvet Burning, and Foil Writing.
First use Feb. 27, 1956; Nov. 2, 1948, in the term "Ungar-Craft."

SN 8,756. C. B. Donald Company, St. Paul, Minn. Filed May 22, 1956.

BILLIONAIRE

For Parlor Game Simulating a Hunt for Minerals, Said Game Comprising a Playing Board, Marbles, and Dice.
First use Feb. 24, 1956.

SN 8,757. C. B. Donald Company, St. Paul, Minn. Filed May 22, 1956.

Ticky CLOWN CLOCK

For Educational Game Employing a Playing Surface and Marbles, Said Game Designed To Familiarize Small Children With Numbers.
First use Feb. 24, 1956.



SN 8,758. C. B. Donald Company, St. Paul, Minn. Filed May 22, 1956.

9-all

For Parlor Game Employing a Playing Board and Chips.
First use Mar. 27, 1956.

SN 8,795. Nissen Trampoline Company, Cedar Rapids, Iowa. Filed May 22, 1956.

Thumper

Owner of Reg. No. 617,776.
For Tumbling Device, Consisting of a Fabric Sheet Stretched by Springs in a Rigid Framework.
First use Apr. 19, 1956.

SN 9,246. Beaver Toys, Inc., Beaver Falls, Pa. Filed May 29, 1956.

BEE-VO

For Toy Guns.
First use Feb. 24, 1956.

SN 9,297. Selchow & Righter Company, New York, N. Y. Filed May 29, 1956.

FLASH

For Boardgames With Playing Accessories.
First use Mar. 5, 1956.

SN 9,299. Selchow & Righter Company, New York, N. Y. Filed May 29, 1956.

DECOY

For Boardgames With Playing Accessories.
First use Mar. 5, 1956.

SN 9,300. Selchow & Righter Company, New York, N. Y. Filed May 29, 1956.

DEAD PAN

For Boardgames With Playing Accessories.
First use Mar. 5, 1956.

SN 9,797. Walling Keith, d. b. a. Fishermen's Products Company, Birmingham, Ala., to Walling Keith Chemicals, Inc., Birmingham, Ala. Filed June 7, 1956.

GYPSY

For Liquid Preparation for Increasing the Attraction of Fishing Lures, Live Bait, and the Like.
First use August 1952.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 682,473. The Raymond Corporation, Greene, N. Y. Filed Feb. 28, 1955.

Reach-Fork

For Material Handling Machinery—Namely, Electrically Driven Hydraulically Operated Lift Trucks for Skid Platforms and Double Face and Single Face Pallets, Which Lift Trucks Have Been Provided With Extensible and Retractable Skid or Pallet Engaging and Supporting Forks.
First use Nov. 5, 1954.

SN 684,862. Nathan K. Morris, d. b. a. N. K. Morris Mfg. Company, Avon by the Sea, N. J. Filed Apr. 4, 1955.

MAGIC

For Hand Tool and Metal Backing Plate for Setting or Attaching Ornamental Jewels to Wearing Apparel and Accessories.
First use Oct. 12, 1954.

SN 693,563. Owen-Richards Company, Inc., Birmingham, Ala. Filed Aug. 23, 1955.

OR

For Belt Conveyors, Anti-Friction Sleeve Bearings, Pillow Blocks, Speed Reducers, Hand Wrenches, Wheel and Gear Pullers, Files, Hack Saw Blades, Hydraulic Fittings, Roller Chain Sprockets, Roller Chains, Gears, Pulleys, and Sheaves.
First use Mar. 17, 1955.

SN 695,183. Henry Rogers Sons & Co., Ltd., Wolverhampton, England. Filed Sept. 22, 1955.




Owner of British Reg. No. 1,150, dated Jan. 21, 1876.
For Cutlery.

SN 695,800. Felix Bottcher, Koln-Braunsfeld, Germany. Filed Oct. 4, 1955.

FMB

Owner of German Reg. No. 681,074, dated Aug. 30, 1955.
For Printing Rollers and Roller Covers for Book Printing, Offset-Printing, Intaglio Printing and Aniline Printing, Lacquering Rollers and Impression Rollers.

SN 1,573. Dorr-Oliver Incorporated, Stamford, Conn. Filed Jan. 27, 1956.

RapiDorr

Owner of Reg. No. 527,664.
For Cane Juice Clarifier.
First use Nov. 2, 1955.

SN 1,865. Francotyp Gesellschaft m. b. H., Berlin-Reinickendorf, Germany. Filed Feb. 1, 1956.

Francotyp

Owner of German Reg. No. 503,866, dated July 15, 1938.
For Stamping Machines and Parts Thereof, Automatic Franking Machines, Especially Cash Franking Machines.

SN 2,836. United Shoe Machinery Corporation, Boston, Mass. Filed Feb. 16, 1956.

DYNASERT

For Electronic Component Assembling Machines.
First use on or about Jan. 15, 1956.

SN 6,472. Sesco, Inc., Detroit, Mich. Filed Apr. 16, 1956.

DETROIT Sesco MICHIGAN

For Sheet Metal Working and Handling Machinery.
First use June 3, 1955.

SN 7,090. Homeward Products, Inc., Des Moines, Iowa. Filed Apr. 25, 1956.



For Fish Scaler.
First use Mar. 30, 1956.

SN 8,219. General Motors Corporation, Detroit, Mich. Filed May 14, 1956.

KAR-GO

For Bearings.
First use Apr. 12, 1956.

SN 8,563. Latrobe Steel Company, Latrobe, Pa. Filed May 18, 1956.

SLING-MOR

For Liners and Cups for Sand Slinging Machinery.
First use in April 1956.

SN 8,728. True-Trace Corporation, El Monte, Calif. Filed May 21, 1956.



The drawing is lined for red.
For Hydraulic Tracer Valves; Hydraulic Power Units; Mounting Brackets, Particularly Tracer Valve Mounting Brackets; Hydraulic Power Cylinders; Counterbalance Cylinders; Hand Tools, Particularly Wrenches; Milling Heads; and Machine Tools Converted to Contour Copying Tools.
First use Feb. 21, 1952, on hydraulic tracer valves.

SN 8,838. Hugh E. Dierker, Los Angeles, Calif. Filed May 23, 1956.

LOK-IT

For Screw Drivers.
First use on or about July 16, 1954.

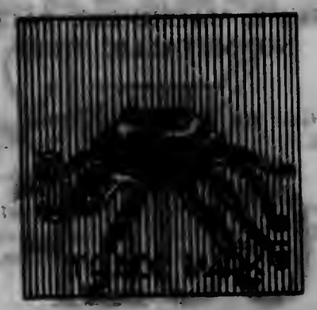
SN 8,881. Royal McBee Corporation, Port Chester, N. Y. Filed May 23, 1956. Sec. 2(f).

PEDESTALEG

Owner of Reg. No. 589,115.
For Support for Typewriter Platforms.
First use Apr. 11, 1951.



SN 9,189. Frank Sommer, Winnipeg, Manitoba, Canada. Filed May 28, 1956.



The drawing is lined for red. The words "Trade Mark" are disclaimed apart from the mark. Owner of Canadian Reg. No. 228,602, dated Jan. 25, 1955.
For Wheel and Pulley Extractors.

SN 9,365. Kush-Go Co., Dearborn, Mich. Filed May 31, 1956.

KUSH-GO E-Z WEEDER

The words "E-Z Weeder" are disclaimed apart from the mark as shown.
For Weeding Garden Tool.
First use May 15, 1956.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 682,728. G-V Controls Inc., East Orange, N. J. Filed Mar. 3, 1955.

G-V

For Thermal Relays (Time Delay Relays, Voltage Sensing Relays and Current Sensing Relays) and Electrical Thermostats.
First use Apr. 13, 1950.

SN 694,369. Kabushiki-Kaisha Koden Seisakusho, Shinagawa-ku, Tokyo, Japan. Filed Sept. 8, 1955.

Koden

Priority claimed under Sec. 44(d) on Japanese application No. 6310/55, filed Mar. 10, 1955; Reg. No. 475,587, dated Jan. 18, 1956.
For Radar, Loran, Radio Direction Finder, Distance Measuring Equipment, Depth-Meter, Electric Computer, Auto-Pilot, Sonar.
First use Aug. 1, 1953; in commerce Aug. 1, 1953.

SN 5,728. Industrial Development Laboratories, Inc., Jersey City, N. J. Filed Apr. 3, 1956.

SIGNA-GLOW

For Null Indicator Electrical Measurement Instrument.
First use Aug. 6, 1954.

SN 5,942. Raydyne Corporation, Springfield, Ill. Filed Apr. 6, 1956.

RAYDYNE

For Dynamic Balancing Machines.
First use on or about Apr. 28, 1952.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 3,421. Marvella Pearls, Inc., New York, N. Y. Filed Feb. 27, 1956.

Marvella

Owner of Reg. Nos. 526,540 and 324,839.
For Pearl Necklaces, Pearl Earrings, Pearl Bracelets, Pearl Brooches, Pearl Charms, and Strings of Pearls and Pearl Jewelry for Personal Wear and Adornment not Including Watches, Necklaces, Earrings, Bracelets, Brooches, Charms, and Jewelry Clips.
First use Jan. 1, 1911.

SN 9,594. Santa's Workshop, Inc., North Pole, N. Y. Filed June 4, 1956.

SANTA'S WORKSHOP

Owner of Reg. Nos. 600,944 and 612,117.
For Earrings, Bracelets, Pendants, and Jewelry Pins.
First use July 1, 1949.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 698,117. American Collo Corporation, Ridgefield, N. J. Filed Nov. 14, 1955.

ATOMCOLLO

For Cleaning Pads of Cellular Plastic Material.
First use October 1954.

SN 8,037. Terry Foam Incorporated, New Hope, Pa. Filed May 9, 1956.

LOOFA-FOAM

For Bath Sponges.
First use Aug. 12, 1949.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

SN 9,673. Santa's Workshop, Inc., North Pole, N. Y. Filed June 5, 1956.

SANTA'S WORKSHOP

Owner of Reg. Nos. 600,944 and 612,117.
For Dinner Plates, Utility Dishes, Mugs, Trays, Serving Sets, and Dishes of the Earthenware Type.
First use July 1, 1949.





SN 691,719. Gebrüder Steidinger, Kommanditgesellschaft, [illegible]

SN 11,079. M. Hohner, Inc., New York, N. Y. Filed June

## CLASS 32

### FURNITURE AND UPHOLSTERY

SN 12,190. Kolcraft Products, Inc., Chicago, Ill. Filed July 16, 1956.

Travel Heir

For Travel Crib, Travel Seat, and Travel Play Pen.
First use June 11, 1956.

## CLASS 33

### GLASSWARE

SN 9,815. Santa's Workshop, Inc., North Pole, N. Y. Filed June 7, 1956.

SANTA'S WORKSHOP

Owner of Reg. Nos. 600,944 and 612,117.
For Glass Jugs.
First use June 15, 1950.

## CLASS 34

### HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 604,734. Mustee Heater Company, d. b. a. Amazon Heater Company, Cleveland, Ohio. Filed Sept. 15, 1955.

AMAZON

For Hot Water Heaters.
First use on or about Jan. 1, 1937.

SN 7,768. Frank R. Cook Co., d. b. a. Hart Machine & Mfg. Co., Denver, Colo. Filed May 7, 1956.

For Infra-Red Grills for Restaurants, Theaters, Industrial Plants, Etc.
First use on or about Mar. 23, 1956.

## CLASS 35

### BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 690,463. Gulf Oil Corporation, Pittsburgh, Pa. Filed June 29, 1955.

GULF

For Radiator Hose.
First use on or about Mar. 15, 1946.

SN 1,230. Charles T. Fuetterer, Cuyahoga Falls, Ohio. Filed Jan. 23, 1956.

WET-GRIP

For Rubber or Rubber-Like Tires.
First use July 15, 1955.

SN 4,435. The Flexible Tubing Corporation, Guilford, Conn. Filed Mar. 13, 1956.

MIRAFLEX

For Flexible Tubing for the Conveyance of Fluids, Particularly Gaseous Fluids, Including the Conveyance of Dust-Laden Air in a Vacuum Cleaner.
First use Feb. 13, 1956.

SN 6,202. United Co-Operatives, Inc., Alliance, Ohio. Filed Apr. 11, 1956.

REDI GRIP

For Tires.
First use Sept. 1, 1953.

## CLASS 36

### MUSICAL INSTRUMENTS AND SUPPLIES

SN 687,646. Clarence R. Swanson, d. b. a. Organote Co., Minneapolis, Minn. Filed May 16, 1955.

ORGANOTE

For Loud Speakers, Ear Phones, Sound Reproducing Attachments, Visual and Audio Teaching Aids Specifically Adapted for Use in Connection With an Electrical Organ.
First use Apr. 1, 1955.



SN 691,719. Gebrüder Steidinger, Kommanditgesellschaft, St. Georgen/Schwarzwald, Germany. Filed July 21, 1955. Owner of German Reg. No. 447,408, dated July 25, 1932.

Dual

For Musical Instruments, Particularly Phonographs and Magnetic Tone Recording and Tone Reproducing Apparatuses Adapted for Mechanical Operation, and Parts Thereof.

SN 3,858. M. Hohner, Inc., New York, N. Y. Filed Mar. 5, 1956.

SONORAMA

For Accordions and Harmonicas.
First use Mar. 1, 1956.

SN 10,882. M. Hohner, Inc., New York, N. Y. Filed June 25, 1956.

PIROLA

For Harmonicas.
First use June 13, 1956.

SN 10,883. M. Hohner, Inc., New York, N. Y. Filed June 25, 1956.

ATLANTA

For Accordions.
First use June 13, 1956.

SN 10,912. Rama Records, Inc., New York, N. Y. Filed June 25, 1956.

RAMA

For Grooved Phonograph Records.
First use June 1, 1952.

SN 10,946. Tico Recording Co., Inc., New York, N. Y. Filed June 25, 1956.

TICO

For Grooved Phonographic Records.
First use Sept. 1, 1949.

SN 11,077. M. Hohner, Inc., New York, N. Y. Filed June 27, 1956.

CONTESSA

For Accordions.
First use February 1950.

SN 11,078. M. Hohner, Inc., New York, N. Y. Filed June 27, 1956.

ARIETTA

For Accordions.
First use August 1954.

SN 11,079. M. Hohner, Inc., New York, N. Y. Filed June 27, 1956.

OUVERTURE

For Accordions.
First use July 1955.

SN 11,080. M. Hohner, Inc., New York, N. Y. Filed June 27, 1956.

EDUCATOR

For Harmonicas.
First use May 16, 1956.

## CLASS 37

### PAPER AND STATIONERY

SN 7,703. Sonoco Products Company, Hartsville, S. C. Filed May 4, 1956.

DURO

Owner of Reg. Nos. 590,969 and 621,518.
For Strong Paper and Paperboard Suitable for the Manufacture of Tubes, Cores, and the Like.
First use January 1934.

SN 8,015. Norcross, Inc., New York, N. Y. Filed May 9, 1956.

"MATCH-MATE"

For Decorative Gift Wrapping Paper.
First use Jan. 26, 1955.

## CLASS 38

### PRINTS AND PUBLICATIONS

SN 976. John E. Feiber, d. b. a. Printing Consultants, Newark, N. J. Filed Jan. 18, 1956.

I. I. L.
INTERNATIONAL IMPORT INDEX OF NEW MERCHANDISE

Applicant makes no claim to the words "International Import Index of New Merchandise."
For Monthly Publication.
First use Mar. 18, 1954.

SN 1,581. Excelsior Quick Frosted Meat Products, Inc., Long Island City, N. Y. Filed Jan. 27, 1956.



For Column in a Trade Publication Published Periodically.
First use Jan. 16, 1956.

SN 2,710. James T. Mangan, Chicago, Ill. Filed Feb. 15, 1956.




For Novelty Publications Issued From Time to Time.
First use Jan. 5, 1956.

SN 2,931. Super Valu Stores, Inc., Hopkins, Minn. Filed Feb. 17, 1956.

SUPER VALU

For Periodical Brochures, Advertising and Instructional Pamphlets Distributed to Its Licensees and Prospective Licensees.
First use August 1942.

SN 5,190. W. H. Frick, Inc., Cleveland, Ohio. Filed Mar. 26, 1956.

## NEW HORIZONS IN FOOD SERVICE

For Publication in the Form of a House Organ Published From Time to Time.
First use Nov. 1, 1954.

SN 6,597. Dell Publishing Company, Inc., New York, N. Y. Filed Apr. 18, 1956.

## DELL FIRST EDITION

The words "First Edition" are disclaimed apart from the mark as shown. Owner of Reg. No. 410,058.
For Books.
First use Feb. 9, 1956; as to "Dell" on Jan. 21, 1943; as to "First Edition" Jan. 8, 1954.

SN 9,206. United Feature Syndicate, Inc., New York, N. Y. Filed May 28, 1956.

## MARVELOUS MIKE

For Comic Drawings of a Fictitious Character, Published in Daily Newspapers.
First use Mar. 8, 1956.

SN 9,422. American Ordnance Association, Washington, D. C. Filed June 1, 1956. Sec. 2(f).

## ORDNANCE

Owner of Reg. No. 526,466.
For Periodical Publication.
First use July 1, 1947.

SN 9,630. Duroprint Company, Rutherford, N. J. Filed June 5, 1956.

*Duroprint*

For Dry or Hot Iron Transfers To Be Used for Identification Purposes.
First use Dec. 19, 1945.

SN 9,702. Dennison Manufacturing Company, Framingham, Mass. Filed June 6, 1956.

## THERIMAGE

For Heat Transfers for Descriptive or Ornamental Purposes.
First use May 21, 1956.

SN 10,009. A. C. Nielsen Company, Chicago, Ill. Filed June 11, 1956.

## INSIDER

For Periodicals.
First use January 1942.

SN 10,143. The Reuben H. Donnelley Corporation, Chicago, Ill. Filed June 13, 1956. Sec. 2(f).

## WATER WORKS ENGINEERING

For Periodical Publication, Published Monthly.
First use January 1926.

SN 10,144. The Reuben H. Donnelley Corporation, Chicago, Ill. Filed June 13, 1956. Sec. 2(f).

## FIRE ENGINEERING

For Periodical Publication, Published Monthly.
First use January 1926.

SN 10,145. The Reuben H. Donnelley Corporation, Chicago, Ill. Filed June 13, 1956. Sec. 2(f).

ELECTRICITY ON THE FARM

For Periodical Publication, Published Monthly.
First use June 1927.

SN 10,176. Al Kane Productions, Inc., d. b. a. Al Kane Productions Incorporated, Philadelphia, Pa. Filed June 13, 1956.

## STORY-TOLD FILMS

The word "Films" is disclaimed apart from the mark as shown.
For Motion Picture Films.
First use Oct. 6, 1954.



SN 10,220. The Reuben H. Donnelley Corporation, Chicago, Ill. Filed June 14, 1956. Sec. 2(f).

## WASTES ENGINEERING

For Periodical Publication, Published Monthly.
First use January 1951.

SN 10,444. McGraw-Hill Publishing Company, Inc., New York, N. Y. Filed June 18, 1956. Sec. 2(f).

## CHEMICAL WEEK

For Periodical Publication.
First use June 2, 1951.

CLASS 39

CLOTHING

SN 688,072. Palm Beach Company, Sanford, Maine. Filed May 23, 1955.

## CELEBRITY

For Sportswear, Consisting of Sport Coats, Jackets, Slacks, Walking Shorts, and Sport Shirts.
First use Mar. 21, 1955.

SN 692,545. Raleigh Haberdasher, Inc., Washington, D. C. Filed Aug. 5, 1955. Sec. 2(f).

"*Raleigh*"

Owner of Reg. Nos. 124,241, 386,880, and others.
For Sweaters, Slacks, Pajamas, Neckwear, Undershorts, and Bermuda Shorts.
First use 1935 on sweaters and slacks.

SN 698,629. P. D. Murphy Company, Incorporated, New York, N. Y. Filed Nov. 21, 1955.

## KINGLY

For Hosiery.
First use June 13, 1944.

SN 688. Newman and Neugass Inc., New York, N. Y. Filed Jan. 13, 1956.

*Lustre Glo*

Owner of Reg. No. 333,256.
For Ladies', Misses', and Juniors' Coats and Suits.
First use Aug. 8, 1935.

SN 4,028. Langenberg Hat Company, St. Louis, Mo. Filed Mar. 7, 1956. Sec. 2(f).

## WRIGHT

For Hats and Caps.
First use Mar. 21, 1941.

SN 5,600. A. Davis & Sons, Inc., New York, N. Y. Filed Apr. 2, 1956.

## ALADDIN

For Ladies' and Misses' Coats, Suits, and Jackets.
First use Jan. 14, 1955.

SN 5,601. A. Davis & Sons, Inc., New York, N. Y. Filed Apr. 2, 1956.

## GLAMA-FELT

For Ladies' and Misses' Coats, Suits, and Jackets.
First use Jan. 4, 1955.

SN 6,290. Morris B. Sachs, Inc., Chicago, Ill. Filed Apr. 12, 1956.

## LONGWOOD

Owner of Reg. No. 401,628.
For Men's Top Coats—Men's Suits—Men's Over Coats.
First use Jan. 12, 1941.

SN 7,162. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Apr. 26, 1956.

## ARCHER

Owner of Reg. No. 200,647.
For Outer Shirts.
First use January 1954.

SN 7,164. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Apr. 26, 1956.

## DEVON

Owner of Reg. No. 515,935.
For Outer Shirts.
First use January 1953.

SN 7,166. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Apr. 26, 1956.

## DRAKE

Owner of Reg. No. 201,103.
For Outer Shirts.
First use January 1950.

SN 8,233. The Theodore Kotsin Co., Ltd., Los Angeles, Calif. Filed May 14, 1956.

## TAPER IVYS

Owner of Reg. No. 614,462.
For Men's and Boys' Trousers.
First use May 3, 1956.

SN 8,334. Jack and Jill Togs, Inc., New York, N. Y. Filed May 15, 1956.

## BIB'N TUCKER

For Creeper Pants for Infants With Gripper Bottoms and Suspenders.
First use Apr. 19, 1956.

SN 8,488. Lebow Bros., Inc., Baltimore, Md. Filed May 17, 1956.

*Ragbak*

For Coats and Jackets for Men.
First use Apr. 16, 1956.



SN 8,514. Stern, Merritt Co., Inc., New York, N. Y. Filed

SN 9,592. Chester H. Roth Co., Inc., New York, N. Y. Filed



SN 13,109. Ed White Junior Shoe Co., Paragould, Ark. Filed July 30, 1956.

SN 3,477. Susan Thomas, New York, N. Y. Filed Feb. 27, 1956.

PRECIOUS

SN 8,514. Stern, Merritt Co., Inc., New York, N. Y. Filed May 17, 1956.

## DEVONSHIRE

For Neckties.
First use Jan. 1, 1920.

SN 8,543. Furiginals, Ltd., New York, N. Y. Filed May 18, 1956.

## FURIGINELA

Owner of Reg. No. 619,527.
For Ladies' and Misses' Coats and Jackets of Cloth Imitating Fur.
First use Mar. 1, 1955.

SN 8,552. M. Hoffman & Company, Inc., Boston, Mass. Filed May 18, 1956.

## DUBS

For Men's, Women's, and Children's Dungarees, Pants, Jackets, and Shirts.
First use Apr. 1, 1956.

SN 8,562. Tobias Kotzin, d. b. a. A-1 Manufacturing Co., Los Angeles, Calif. Filed May 18, 1956.

## PEGGER IVYS

Owner of Reg. No. 555,364.
For Men's and Boys' Trousers.
First use May 3, 1956.

SN 8,626. Catalina, Inc., Los Angeles, Calif. Filed May 21, 1956.

## Lamora

For Sweaters.
First use March 1954.

SN 8,930. Courtaulds Limited, London, England. Filed May 24, 1956.

## LUVISCA

Owner of British Reg. No. 318,542, dated Nov. 25, 1909; and U. S. Reg. No. 103,748.
For Dresses or Frocks, Outer Skirts, Under Skirts, Blouses, Negligee Shirts, Nightdresses, and Pajamas for Women and Girls; Dress Shirts, Work Shirts, Undershirts, and Pajamas for Men and Boys.

SN 9,092. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956.

## SPAR

For Outer Shirts.
First use June 1953.

SN 9,098. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956.

## MATADOR

For Swim Wear.
First use Jan. 16, 1956.

SN 9,592. Chester H. Roth Co., Inc., New York, N. Y. Filed June 4, 1956.

## FASHION PICTURE

For Hosiery.
First use May 23, 1956.

SN 9,816. Sbicca of California, Los Angeles, Calif. Filed June 7, 1956.

## SUGARFOOTS

For Women's Shoes.
First use Mar. 1, 1956.

SN 10,051. Wispese Corporation, New York, N. Y. Filed June 11, 1956.

## BELLISSIMA

For Girdles and Panty Girdles.
First use Dec. 1, 1955.

SN 10,783. I. C. Isaacs & Company, Inc., Baltimore, Md. Filed June 22, 1956.

## ALL TIME

For Ladies' and Girls' Slacks.
First use June 12, 1956.

SN 10,879. Haymaker Sports, Inc., New York, N. Y. Filed June 25, 1956.

## Glamour Gams

For Combined Blouse and Leotards, and Leotards.
First use May 22, 1956.

SN 10,987. Diana Corset Co., Inc., New York, N. Y. Filed June 26, 1956.

## NARROWETTE

For Girdles, Brassieres, Corsets, and Corselets.
First use on or about June 13, 1956.

SN 11,190. Rojay Blouses, Inc., New York, N. Y. Filed June 28, 1956.

## Kashmalon

For Ladies' and Misses' Sportswear—Namely, Blouses and Skirts.
First use May 1, 1956.

SN 11,280. Morgan & Lindsey, Inc., Jasper, Tex. Filed June 29, 1956.

## MOR-LIN

For Women's Hosiery and Underwear.
First use on or about Mar. 15, 1956, on hosiery.

SN 12,686. Vanette Hosiery Mills, Dallas, Tex. Filed July 23, 1956.

## TWIN-WEAR

For Women's Hosiery.
First use June 28, 1956.



SN 13,109. Ed White Junior Shoe Co., Paragould, Ark. Filed July 30, 1956.

## PRECIOUS

For Infants', Children's, and Misses' Shoes.
First use May 1950.

SN 13,111. Ed White Junior Shoe Co., Paragould, Ark. Filed July 30, 1956.

## DATES 'N DEBS

For Infants', Children's, and Misses' Shoes.
First use June 1952.

SN 13,112. Ed White Junior Shoe Co., Paragould, Ark. Filed July 30, 1956.

## Luckies

For Infants', Children's, and Misses' Shoes.
First use in September 1950.

SN 13,133. Arnold Shoe Products Company, Inc., Boston, Mass. Filed July 31, 1956.

## STRETCH MATES

For Men's, Women's, and Children's Slipper Socks.
First use Mar. 1, 1956.

SN 13,171. Benjamin R. Fercin, North Hollywood, Calif. Filed July 31, 1956.

## YOGI

For Men's, Women's, and Children's Shoes.
First use Mar. 22, 1956.

### CLASS 40

### FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 1,172. Riviera Trading Corp., New York, N. Y. Filed Jan. 20, 1956.

## RIVIERA

For Hair Combs and Ornaments—Namely, Bandeaux, Barrettes, Pins, Clips, Clinchers, Plain, Engraved, and Rhinestone Studded.
First use December 1952.

### CLASS 42

### KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 1,584. Gregge & Levine, Inc., New York, N. Y. Filed Jan. 27, 1956.

## ROMANO

For Cotton Fabric for Use in Making Ladies' Suits and Skirts.
First use Jan. 3, 1956.

SN 3,477. Susan Thomas, New York, N. Y. Filed Feb. 27, 1956.

## TUB-TEX

For Rayon Fabrics Used in the Manufacture of Ladies' and Misses' Blouses, Skirts, Jackets, Dresses, and Suits.
First use Nov. 22, 1955.

SN 8,561. Kingston Mills, Inc., Cartersville, Ga. Filed May 18, 1956.

## Kingston

For Pile, Velvet, Wool, and Chenille Carpeting.
First use Dec. 29, 1955.

SN 8,611. Anchor Rome Mills, Inc., Rome, Ga. Filed May 21, 1956.

## "NANCY HART"

For Bedspreads.
First use Apr. 5, 1956.

SN 8,640. Duracote Corporation, Ravenna, Ohio. Filed May 21, 1956.

## DURUG

For Textile Rugs and Carpets.
First use May 24, 1950.

SN 9,505. Susan Thomas, New York, N. Y. Filed June 1, 1956.

## Royal * Batiste

The word "Batiste" is disclaimed apart from the mark as shown.
For Cotton Textile Fabrics Used in the Manufacture of Ladies' and Misses' Shirts, Jackets, Dresses, and Suits.
First use Feb. 18, 1956.

SN 10,026. Herbert Schlanger, d. b. a. The Herbert Schlanger Co., New York, N. Y. Filed June 11, 1956.

## hairLon

For Interfacing Fabrics in the Piece Composed of Canvas.
First use Apr. 11, 1956.



SN 10,824. D. B. Dalton & Co., Inc., New York, N. Y. Filed



CLASS 46

SN 694,041. Mrs. N. L. Bean, Pearsall, Tex. Filed Sept. 1,

SN 10,994. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 26, 1956.

## FORT KNOX

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 11, 1955.

SN 10,995. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 26, 1956.

## LUSTERBAND

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Mar. 21, 1955.

SN 11,030. North Star Woolen Mill Company, Sanford, Maine. Filed June 28, 1956.

## SUMMERLON

For Blankets Made of Synthetic Fibers.
First use February 1956.

SN 11,360. D. B. Fuller & Co., Inc., New York, N. Y. Filed July 2, 1956.

## KAILANI

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Mar. 7, 1955.

SN 11,361. D. B. Fuller & Co., Inc., New York, N. Y. Filed July 2, 1956.

## PAPRIKA

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Mar. 21, 1955.

SN 11,486. I. C. Isaacs & Co., Inc., Baltimore, Md. Filed July 3, 1956.

## ROYALON

For Flannel Fabric Made Into Men's and Ladies' Outerwear.
First use June 27, 1956.

SN 11,530. Joseph Bancroft & Sons Co., Rockford, Wilmington, Del. Filed July 5, 1956.

## CHLOROPHOBIC

For Cotton Piece Goods.
First use on or about June 28, 1956.

SN 11,750. Double Woven Corporation of America, Dunmore, Pa. Filed July 9, 1956.

doelav

For Double Woven Cotton Glove Fabrics.
First use June 1, 1926.

SN 11,757. D. B. Fuller & Co., Inc., New York, N. Y. Filed July 9, 1956.

## PICNIC

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use May 16, 1955.

### CLASS 43

### THREAD AND YARN

SN 13,634. The American Thread Company, New York, N. Y. Filed Aug. 9, 1956.

## BALTIC

For Thread.
First use December 1893.

### CLASS 44

### DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 8,682. Dorothy M. Metscher, Sheboygan, Wis. Filed May 21, 1956.

## APPLI-CURL

For Rubber Spray Bulb With Plastic Spray Nozzle for Applying Home-Permanent Neutraliser Solution.
First use Apr. 25, 1956.

SN 8,742. James P. Callahan, Memphis, Tenn. Filed May 22, 1956.

Ambul-Aid

For Walkers for Invalids.
First use Nov. 21, 1955.

### CLASS 45

### SOFT DRINKS AND CARBONATED WATERS

SN 690,244. Dr. Pepper Bottling Company of Northeast Carolina, Inc., Washington, D. C. Filed June 27, 1955.

BIG

Sec. 2(f) as to "Roberson's."
No claim is made to the word "Beverages" except in the combination as shown. The lining represents shading to indicate white in contrast to the transparency of the bottle.
For Soft Drink.
First use Feb. 23, 1955; 1926 as to "Roberson's."



### CLASS 46

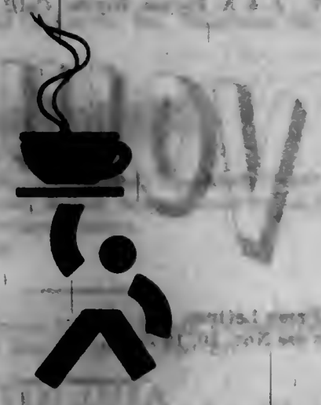
### FOODS AND INGREDIENTS OF FOODS

SN 627,889. Dolly Fruit Products Corp., Brooklyn, N. Y., from I. Lefkowitz & Sons, Inc. Filed Apr. 10, 1952.

CHICO

"Chico" is a Spanish word meaning "boy."
For Chocolate Flavor Syrup Used in the Preparation of Milk Drinks and To Be Used as a Topping for Ice Cream.
First use Mar. 19, 1952.

SN 666,891. Gold Prize Coffee Co., Inc., Chicago, Ill. Filed Apr. 27, 1954.



For Coffees; Teas; Hot Chocolate Powder; Hot Fudge Sundae Topping; Crushed Fruit, Butterscotch, and Marshmallow Toppings; Gelatine Dessert Powder; Salad Dressings; Food Flavoring Extracts and Food Colors; Soup Bases; Catsup, Bar-b-que Sauce, and Mustard; Pickles; Pancake and Waffle Syrup; Spices.
First use Apr. 15, 1946.

SN 676,026. Andelsselskabet Odense Eksportslagteri, Odense, Denmark. Filed Oct. 25, 1954.

Sillas

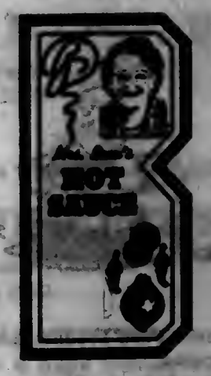
For Canned Meat Products, More Specifically Canned Cooked Ham.
First use Apr. 1, 1954.

SN 676,027. Andelsselskabet Odense Eksportslagteri, Odense, Denmark. Filed Oct. 25, 1954.

Jupiter

For Canned Meat Products, More Specifically Canned Cooked Ham.
First use June 15, 1954.

SN 694,041. Mrs. N. L. Been, Penwell, Tex. Filed Sept. 1, 1955.




The words "Hot Sauce" are disclaimed apart from the mark as shown. The portrait shown on the drawing is that of the applicant.
For Hot Sauce (Meatless).
First use Apr. 14, 1954.

SN 695,062. Foremost Dairies, Inc., d. b. a. Golden State Company, Ltd., San Francisco, Calif. Filed Aug. 31, 1955.

silhouette

Owner of Reg. No. 608,076.
For Nonfat Fluid Milk.
First use Mar. 17, 1954.

SN 696,884. G. P. Gundlach & Co., Inc., Cincinnati, Ohio. Filed Oct. 21, 1955.

OLD-DUTCH

For Crushed Strawberry-Rhubarb for Use in Making Ice Cream.
First use Dec. 1, 1954.

SN 696,885. G. P. Gundlach & Co., Inc., Cincinnati, Ohio. Filed Oct. 21, 1955.

DOWN-EAST

For Crushed Blueberries for Use in Making Ice Cream.
First use Dec. 1, 1954.

SN 697,533. S. C. Clayton Co., Inc., Boston, Mass. Filed Nov. 2, 1955. Sec. 2(f).

Paisley's

For Marmalade.
First use June 1935.

SN 698,696. Marshall Field & Company, Chicago, Ill. Filed Nov. 22, 1955.

Setays

For Candy.
First use on or about Dec. 1, 1954.

SN 699,219. Fount-Wip, Inc., Los Angeles, Calif. Filed Dec. 1, 1955.



For Vegetable-Derived Food Product Adapted for Whipping, for Use as a Food Topping.
First use on or before Feb. 10, 1954.

SN 699,730. Flavor Corporation of America, Chicago, Ill. Filed Dec. 12, 1955.

**FLAVORSTAT**

For Flavor Concentrates for Use in Animal Feeds.
First use Nov. 16, 1955.

SN 700,149. Emmental Cheese Corporation, New York, N. Y. Filed Nov. 17, 1955.



The drawing is lined for yellow, blue, green, purple, and red, but no claim is made to said colors. Owner of Reg. No. 494,314.
For Cheese.
First use Sept. 29, 1952.

SN 700,820. The Siler City Mills, Inc., Siler City, N. C. Filed Dec. 29, 1955.




The words "Dog Food" and "Manufactured by" are disclaimed apart from the mark as shown. Owner of Reg. No. 544,269.
For Dog Food.
First use Jan. 17, 1955.

SN 259. Meat Industry Suppliers, Inc., Chicago, Ill. Filed Jan. 6, 1956.

**LIQUASMOKE**

For Smoke Flavorings for Food Purposes.
First use Nov. 21, 1955.

SN 336. J. & A. Farms, Blythe, Calif. Filed Jan. 9, 1956.

**POWER**

For Fresh Lettuce.
First use June 1931.

SN 337. J. & A. Farms, Blythe, Calif. Filed Jan. 9, 1956.

**VOLUME**

For Fresh Lettuce.
First use Nov. 10, 1955.

SN 352. Milnot Company, Litchfield, Ill. Filed Jan. 9, 1956.

**MILNOT**

For Sweet Cream Butter, Sweet Cream Buttermilk Powder, and Dried Skim Milk Powder.
First use Nov. 5, 1955.

SN 834. Safeway Stores, Incorporated, Oakland, Calif. Filed Jan. 16, 1956. Sec. 2(f).

**SOMERSET**

Owner of Reg. No. 535,853.
For Meat and Meat Products—Namely, Frankfurters, Sausages, and Meat Loaves.
First use Dec. 16, 1947.

SN 1,400. D. F. Stauffer Biscuit Company, Inc., York, Pa. Filed Jan. 24, 1956. Sec. 2(f).

**NIF-TY**

Owner of Reg. No. 177,373.
For Crackers.
First use on or about 1920.



SN 2,242. Mother's Food Products, Inc., Newark, N. J. Filed Feb. 7, 1956.



The drawing is lined for green, yellow, and black. Owner of Reg. No. 565,172.
For Schav (a Beverage Made From Sourgrass, Which Is Sorrel, Water, Salt, and Eggs).
First use Apr. 22, 1940.

SN 3,671. The Gardens Industries, Inc., Hamilton, Ga. Filed Mar. 1, 1956.

**Pine Mountain**

For Hushpuppy Mix, Corn Meal, Speckled Heart Grits, Whole Wheat Flour, Jams, Jellies, Scuppernong Sauce, Poultry and Livestock Feeds, Frozen Poultry.
First use Jan. 1, 1952.

SN 3,720. Tolibia Cheese Manufacturing Corporation, Fond du Lac, Wis. Filed Mar. 1, 1956. Sec. 2(f).

**TOLIBIA**

Owner of Reg. No. 527,416.
For Cheese.
First use in 1934.

SN 4,643. International Milling Company, Minneapolis, Minn. Filed Mar. 15, 1956.

**VELVET**

Owner of Reg. No. 390,209.
For Wheat Flours.
First use Dec. 27, 1905.

SN 5,820. Brown & Haley, Tacoma, Wash. Filed Apr. 5, 1956. Sec. 2(f).

**CANTERBURY**

Owner of Reg. Nos. 383,095 and 562,523.
For Candy.
First use March 1916.

SN 5,821. Brown & Haley, Tacoma, Wash. Filed Apr. 5, 1956.

**MOUNTAIN**

For Candy.
First use 1932.

SN 5,864. Pharr Canning Co., Inc., Van Buren, Ark. Filed Apr. 5, 1956. Sec. 2(f).

**WHITESIDE FARMS**

Owner of Reg. No. 551,984.
For Canned Fruits and Canned Vegetables.
First use Nov. 9, 1946.

SN 6,494. Aktiebolaget Sveriges Forenade Konservfabriker, Goteburg, Sweden. Filed Apr. 17, 1956.

**MAYVIAR**

For Fish Roe Spread.
First use Mar. 6, 1935.

SN 6,600. Dwarfies Corporation, Council Bluffs, Iowa. Filed Apr. 18, 1956.

**DWARFIES**

For Cereal Breakfast Foods.
First use Apr. 10, 1923.

SN 6,642. Schloss & Kahn Grocery Company, Montgomery, Ala. Filed Apr. 18, 1956.

**SUNDAY DINNER**

Owner of Reg. Nos. 534,231 and 243,181.
For Packaged Fresh Frozen Fruits and Vegetables.
First use Jan. 31, 1956.

SN 6,718. Gimbal Brothers, South San Francisco, Calif. Filed Apr. 19, 1956.

**THE GOLDEN PHEASANT**

For Candy.
First use January 1934.

SN 6,719. Gimbal Brothers, South San Francisco, Calif. Filed Apr. 19, 1956.



For Candy.
First use January 1934.

SN 7,057. Armour and Company, Chicago, Ill. Filed Apr. 25, 1956.

**TAVERN**

For Salami Sausage.
First use Mar. 12, 1956.

SN 7,453. New Standard Baking Co., d. b. a. Delaware Valley Cake Co., Philadelphia, Pa. Filed May 1, 1956.

**DELAWARE VALLEY**

For Cake.
First use Mar. 19, 1956.

SN 7,632. Santa Barbara Coastal Lemon Co., Santa Barbara, Calif. Filed May 3, 1956.

**MIRAMAR**

For Fresh Lemons.
First use Apr. 10, 1956.

SN 7,641. Standard Brands Incorporated, New York, N. Y. Filed May 3, 1956.

HOSPITALITY HOUSE

Owner of Reg. No. 625,966.
For Coffee.
First use Apr. 16, 1956.

SN 7,730. Anderson, Clayton & Co., Sherman, Tex. Filed May 7, 1956.

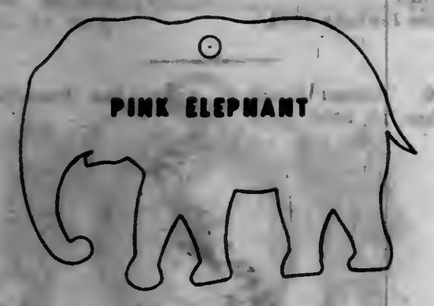
FINESSE

For Shortening Made From Hardened Vegetable Oil.
First use Apr. 16, 1956.

## CLASS 47

## WINES

SN 684,937. Fromm and Sichel, Inc., New York, N. Y. Filed Apr. 5, 1955.




For Wine.
First use Mar. 14, 1955.

SN 699,017. Miguel Torres, Villafranca del Panades, Barcelona, Spain. Filed Nov. 28, 1955.



LAS TORRES

The Spanish words "Las Torres" mean "the towers."
For Wine, Vermouth, and Champagne.
First use 1911; in commerce 1941.

SN 9,907. Urbana Wine Company, Inc., Hammondsport, N. Y. Filed June 8, 1956. Sec. 2(f).

CHARLES FOURNIER

For Wine.
First use 1942.

SN 10,218. De La Salle Institute, d. b. a. Mont La Salle Vineyards and The Christian Brothers of California, Napa, Calif. Filed June 14, 1956.

LITTLE CHAMP

For Champagne.
First use May 29, 1956.

## CLASS 48

## MALT BEVERAGES AND LIQUORS

SN 9,275. G. Krueger Brewing Company, Newark, N. J. Filed May 29, 1956. Sec. 2(f) as to "Krueger."

KRUEGER

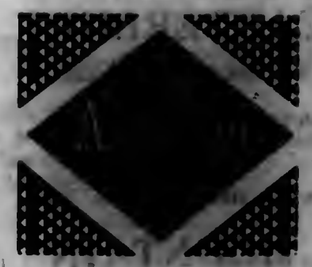
The drawing is lined for gold. Owner of Reg. No. 583,921.
For Beer and Ale.
First use Feb. 8, 1956; 1858 as to "Krueger."

SN 9,925. American Brewery, Inc., Baltimore, Md. Filed June 11, 1956.



Applicant disclaims the expression "Brewed for Modern Taste" except as shown.
For Beer.
First use May 9, 1956.

SN 9,926. American Brewery, Inc., Baltimore, Md. Filed June 11, 1956. Sec. 2(f) as to "American."



Description of mark: On a gold background, a red parallelogram standing on end and having a narrow gold border inside a wide white border. Horizontally across the middle of the parallelogram in white letters is the word "American" and above that a stylized representation of a bird with upstretched wings and colored gold. This color scheme is an essential feature of the mark. Owner of Reg. No. 611,531.
For Beer.
First use May 9, 1956.



SN 9,927. American Brewery, Inc., Baltimore, Md. Filed June 11, 1956. Sec. 2(f) as to "American."

American

For Beer.
First use May 9, 1956.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

SN 3,261. Zalie Levin and Alex E. Hochman, Clayton, Mo. Filed Mar. 19, 1956.

OLD GOVERNOR

For Whiskey.
First use 1906.

SN 13,180. Standard Distillers Products, Inc., Baltimore, Md. Filed July 31, 1956.

VICTORY

For Whiskey.
First use in or about 1933.

SN 13,743. J. A. Dougherty's Sons Inc. Distillers, Philadelphia, Pa. Filed Aug. 10, 1956.

*Blue Diamond*

For Gin.
First use June 15, 1941.

SN 13,783. Schenley Industries, Inc., New York, N. Y. Filed Aug. 10, 1956.

S R

Owner of Reg. No. 333,563.
For Whiskey.
First use June 15, 1956.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 5,022. Alex W. Block & Co., Inc., Chicago, Ill. Filed Mar. 22, 1956.



"TRIM-A-TERIA"

The drawing is lined for the colors red and green. Owner of Reg. No. 616,323.
For Christmas Tree Ornaments Including Glass Balls, Glass Bells, Glass and Plastic Figures, Garlands and Streamers, and Tree Holders.
First use May 1, 1954.

SN 7,018. Jaycee Chemical Corporation, Northford, Conn. Filed Apr. 24, 1956.

JET-ACTION Bondo

For Plastic and Fibre Glass Repair Kits.
First use July 1, 1955.

SN 10,890. L. O. F. Glass Fibers Company, Toledo, Ohio. Filed June 25, 1956.

DECRA-BRITE

For Blankets Made of Glass Fibers for Decorative Use.
First use Oct. 8, 1955.

SN 11,037. Scovill Manufacturing Company, Brooklyn, N. Y. Filed June 26, 1956.

PRESFOAM

For Caps for Pressurized Foam Dispensers.
First use Dec. 1, 1955.

## CLASS 51

## COSMETICS AND TOILET PREPARATIONS

SN 684,783. Saint Cornelius the Centurion Chapel of Valley Forge Military Academy, Wayne, Pa., to Lanolin Plus, Inc., Chicago, Ill. Filed Apr. 20, 1955.

La Plus

Owner of Reg. Nos. 319,539, 566,524, and others.
For Cleansing Cream, Hand Lotion, Lipstick, Liquid Make-Up, Face Powder, and Hair Dressing.
First use Feb. 10, 1955.

SN 695,434. The Nestle-Lemur Company, d. b. a. Nestle Lemur, New York, N. Y. Filed Sept. 27, 1955. Sec. 2(f).

## COLORTINT

Owner of Reg. No. 571,139.
For Hair Tints.
First use Nov. 23, 1949.

SN 700,370. Constellaire, Inc., d. b. a. Constellaire, Brooklyn, N. Y. Filed Dec. 21, 1955.

## LIBRA

For Cologne.
First use June 28, 1955.

SN 1,135. Erwin K. Weitz, d. b. a. Florence Benson Products, Union City, N. J. Filed Jan. 19, 1956.

## FLORENCE BENSON

For Eyebrow Pencils, Lipsticks, and Cosmetic Creams.
First use Dec. 27, 1955.

SN 2,315. Solnol Chemical Co., Inc., Natick, R. I. Filed Feb. 8, 1956.

## SOLUCONE

For Protective Hand Cream for Household and Industrial Use.
First use in or about February 1956.

SN 2,761. Constellaire, Inc., d. b. a. Constellaire, Brooklyn, N. Y. Filed Feb. 16, 1956.

## CAPRICORN

For Cologne.
First use June 28, 1955.

SN 2,762. Constellaire, Inc., d. b. a. Constellaire, Brooklyn, N. Y. Filed Feb. 16, 1956.

## LEO

For Cologne.
First use June 28, 1955.

SN 4,418. Avon Products, Inc., New York, N. Y. Filed Mar. 13, 1956.

## AVONOL

Owner of Reg. Nos. 297,127 and 502,657.
For Anti-Enzyme Ingredient in Toothpaste.
First use Mar. 8, 1956.

SN 7,070. Carter Products, Inc., New York, N. Y. Filed Apr. 23, 1956.

## ARRID

Owner of Reg. Nos. 329,010, 583,896, and 606,825.
For Deodorants.
First use May 23, 1935.

### CLASS 52

### DETERGENTS AND SOAPS

SN 683,401. J. W. Kelso, Jr., d. b. a. The Peerless Manufacturing Company, Des Moines, Iowa. Filed Mar. 14, 1955.

## SWEEPING BEAUTY

For Floor Sweeping Compound.
First use Mar. 2, 1955.

# SERVICE MARKS

### CLASS 100

### MISCELLANEOUS

SN 2,060. Weinschel Engineering Co., Inc., Kensington, Md. Filed Feb. 3, 1956.

WE CO

For Engineering Services—Namely, Consultation, Research, Development, Design, Testing, Measuring, and Advising in Connection With Electrical and Electronic Equipment.
First use Aug. 1, 1955.

### CLASS 101

### ADVERTISING AND BUSINESS

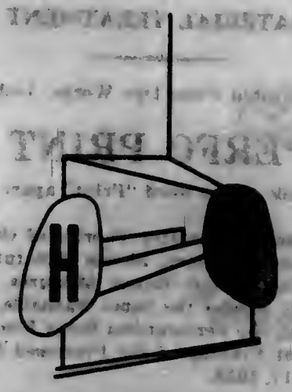
SN 665,915. Informative Research, Los Angeles, Calif. Filed May 7, 1954. Sec. 2(f).

Informative Research

For Investigative Services Relating to Insurance, Business, and Financial Matters, and Comprising Fact and Reputation Investigations of Character, Reputation, Insurability, Financial Condition, Employment History, and Matters Ancillary Thereto.
First use May 1, 1946.



SN 695,656. Henry Strauss Productions, Inc., New York, N. Y. Filed Sept. 30, 1955.




For Analyzing Problems in the Broad Field of Industrial, Employee, and Community Relations and Making Recommendations Relative to the Solving of the Same Through the Medium of Films, Posters, Booklets, and Lectures.
First use on or about Dec. 9, 1953.

SN 696,575. New Era Letter Company, Inc., New York, N. Y. Filed Oct. 17, 1955.

NeCco

For Custom Printing of Business Letters of Others and Mailing of Same.
First use December 1925.

SN 700,735. Kresge-Newark, Inc., Newark, N. J. Filed Dec. 28, 1955.




For Advertising the Goods and Services of Others Through the Medium of Pamphlets, Newspapers, Letter Heads, Posters, and Displays.
First use May 7, 1946.

### CLASS 102

### INSURANCE AND FINANCIAL

SN 696,907. Public Relations and Fund Raising Counsel Inc., Syracuse, N. Y. Filed Oct. 21, 1955.

## THE LIFETIME PLAN

For Fund Raising Counselling to Private Educational Institutions in Resolving Long Range Capital Needs.
First use Oct. 12, 1955.

SN 3,088. C. Edward Gabbert, d. b. a. The Red Shield Plan, Clarksburg, W. Va. Filed Feb. 21, 1956.




The RED SHIELD Plan

For Underwriting of Insurance Plans Providing Hospitalisation, Surgical and Medical Care, Sickness and Accident Protection, and Provisions for Accidental Death.
First use Feb. 10, 1956.

### CLASS 103

### CONSTRUCTION AND REPAIR

SN 661,492. Robert A. Parker, d. b. a. R. A. "Bob" Parker Lumber Company, Ponca City, Okla. Filed Feb. 23, 1954.



For Consultation and Advisory Services Rendered in the Purchase, Construction, and Repair of Homes and Other Buildings by Others.
First use Dec. 29, 1953.

SN 3,164. Ekco Products Company, Chicago, Ill. Filed Feb. 23, 1956.

## GLACO

For Cleaning, Repairing, and Coating of Commercial Baking Pans of Others.
First use Sept. 1, 1954.

### CLASS 104

### COMMUNICATION

SN 695,192. United States Independent Telephone Association, Washington, D. C. Filed Sept. 22, 1955. COLLECTIVE MARK.




For Telephone Services.
First use Aug. 6, 1955.

## CLASS 105

### TRANSPORTATION AND STORAGE

SN 692,053. Gateway Transportation Co., La Crosse, Wis. Filed July 28, 1955.




For Transportation of the Goods of Others by Motor Vehicles.
First use July 1, 1954.

SN 693,960. Allied Van Lines, Inc., Broadview, Ill. Filed Aug. 31, 1955.

**KLEEN-PACK**

For Packing of Household Goods Preparatory to Shipment by Motor Vehicle, Ship, and Rail.
First use May 1954.

## CLASS 106

### MATERIAL TREATMENT

SN 3,251. The United Piece Dye Works, Lodi, N. J. Filed Feb. 23, 1956.

**PERFO PRINT**

No claim is made to the word "Print" apart from the mark as shown.
For Printing and Perforating Fabrics of Others—Namely, Cotton, Rayon, Acetate, Linen, Blends of Natural and/or Synthetic Fibers, Cotton and Rayon Mixtures and All-Linen Weave Fabrics To Render the Same Washable, Colorfast, and Wrinkle Resistant, the Perforations Being Bound by Chemical Means To Prevent Fraying of the Processed Fabrics.
First use Nov. 11, 1955.

## CLASS 107

### EDUCATION AND ENTERTAINMENT

SN 1,758. Charles Antell, Inc., Baltimore, Md. Filed Jan. 31, 1956.

**SEARCH FOR BEAUTY**

For Title of a Television Broadcast Program in the Nature of an Entertainment Program Consisting of Music and Dialogue and Audience Participation in a Beauty Contest, the Judging Thereof, and a Description and Presentation of Prizes to the Contest Participants and the Winner.
First use Nov. 12, 1955.

# COLLECTIVE MEMBERSHIP MARKS

## CLASS 200

SN 696,904. The Pi Kappa Alpha Fraternity, Memphis, Tenn. Filed Oct. 21, 1955.

ΠΚΑ

Owner of Reg. No. 222,002.
For Indicating Membership in a National Collegiate Fraternity Engaged in the Organizing of Chapters, Recruiting and Pledging Prospective Members of the Chapters, Maintaining Membership Therein and Furthering the Cultural, Social, and Educational Ideals Thereof.
First use during May 1868.

SN 700,656. Rice Leaders of the World Association, New York, N. Y. Filed Dec. 27, 1955.

*By Invitation Member*



For Indicating Membership in a World Trade Association Which Encourages and Fosters the Practice of Right Business Principles and Character and Represents a High Standing.
First use in the year 1912.

SN 1,266. Phi Mu Fraternity, Memphis, Tenn. Filed Jan. 23, 1956.



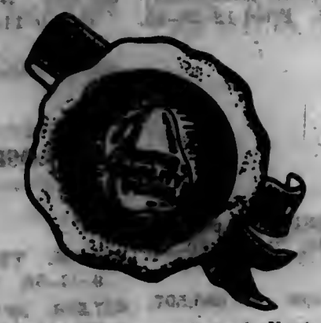
The mark consists of the design as applied to a lapel pin, the design consisting basically of two scrolls, the upper scroll bearing the Greek letters Phi Mu, and the lower bearing three stars, with a likeness of a human hand being disposed between the two scrolls.
For Indicating Membership in a National Collegiate Fraternity Engaged in the Recruiting and Pledging of Prospective Members of the Chapters, Maintaining Membership Therein and Furthering the Cultural, Social, and Educational Ideals Thereof.
First use Sept. 1, 1916.

# CERTIFICATION MARKS

## CLASS A

### GOODS

SN 671,772. Oregon-Washington-California Pear Bureau, Portland, Oreg. Filed Aug. 16, 1954.



The mark is used upon the goods to indicate their quality.
For Fruit.
First use on or about June 1, 1938.

# TRADEMARK REGISTRATIONS ISSUED

## PRINCIPAL REGISTER

### CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

637,568. KISS O' FIRE. Roy M. Liedstrand. SN 691,485. Pub. 9–11–56. Filed 7–18–55.

637,569. ALKOR. Alkor-Werk Karl Lissmann Kommandit-Gesellschaft. SN 700,704. Pub. 9–11–56. Filed 12–28–55.

### CLASS 2

### RECEPTACLES

637,570. AMSCO HAND-E-TOTER AND DESIGN. American Metal Specialties Corporation. SN 677,194. Pub. 7–10–56. Filed 11–24–54.

637,571. ATLAS. Atlas Plywood Corporation. SN 695,597. Pub. 9–11–56. Filed 9–30–55.

637,572. PEST-GUARD. Pest-Guard Products, Inc., d. b. a. Health Guard Bag Company. SN 696,582. Pub. 9–11–56. Filed 10–17–55.

637,573. GCC GROWERS CONTAINER CORPORATION ETC. AND DESIGN. Growers Container Corporation. SN 2,961. Pub. 9–11–56. Filed 2–20–56.

637,574. DURABRITE. Westland Plastics, Inc. SN 3,498. Pub. 9–11–56. Filed 2–27–56.

### CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

637,575. UNITED BRAND. United Leather Goods Corporation. SN 5,691. Pub. 9–11–56. Filed 4–2–56.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

637,576. SHEA AND DESIGN. Shea Chemical Corporation. SN 676,540. Pub. 9–11–56. Filed 11–12–54.

637,577. DB. Borax Consolidated, Limited, d. b. a. Pacific Coast Borax Co., Division of Borax Consolidated, Limited, now by change of name Borax (Holdings) Limited, to United States Borax & Chemical Corporation. SN 684,268. Pub. 1–10–56. Filed 3–28–55.

637,578. FLEE-AWAY. Atlas Canine Products, Inc., to Packers for Pets Inc. SN 689,799. Pub. 9–11–56. Filed 6–20–55.

637,579. MONOBOR-CHLORATE. Borax Consolidated, Limited, d. b. a. Pacific Coast Borax Co., Division of Borax Consolidated, Limited, now by change of name Borax (Holdings) Limited, to United States Borax & Chemical Corporation. SN 693,003. Pub. 6–5–56. Filed 8–15–55.

637,580. VANAJ. R. T. Vanderbilt Company, Inc. SN 698,250. Pub. 9–11–56. Filed 11–14–55.

637,581. CASSELLA AND DESIGN. Cassella Farbwerke Mainkur Aktiengesellschaft. SN 695,694. Pub. 10–2–56. Filed 10–3–55.

637,582. WILBERT PARE. Wilbert W. Haase Co. SN 696,702. Pub. 9–11–56. Filed 11–22–55.

### CLASS 7

### CORDAGE

637,583. LONG JOHN. Kane Import Corporation. SN 2,884. Pub. 9–11–56. Filed 2–17–56.

637,584. WIRELON. Rochester Ropes, Inc. SN 10,954. Pub. 9–11–56. Filed 6–21–56.

### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

637,585. TRUFLITE. Richard M. Cutts. SN 11,317. Pub. 9–11–56. Filed 6–26–56.

637,586. SPR. Richard M. Cutts. SN 11,318. Pub. 9–11–56. Filed 6–26–56.

### CLASS 10

### FERTILIZERS

637,587. VELVETONE. International Toxin Products Limited. SN 654,056. Pub. 9–11–56. Filed 10–1–53.

### CLASS 12

### CONSTRUCTION MATERIALS

637,588. SUNTROL. Pittsburgh Corning Corporation. SN 676,658. Pub. 7–19–55. Filed 11–15–54.

637,589. LAYTITE. The Connor Lumber and Land Company. SN 681,142. Pub. 9–11–56. Filed 2–7–55.

637,590. TYLAST. Gates Engineering Company. SN 686,539. Pub. 9–11–56. Filed 4–29–55.

637,591. REPRESENTATION OF PACK MULE AND DESIGN. Mullin Lumber Co. SN 695,333. Pub. 9–11–56. Filed 9–26–55.

637,592. MON-RAY. Self Storing Window Co., Inc., d. b. a. De Vac, Inc. SN 695,496. Pub. 9–11–56. Filed 9–28–55.

637,593. KELOK. Atlas Plywood Corporation. SN 695,596. Pub. 9–11–56. Filed 9–30–55.

637,594. FLEETLITE ETC. AND DESIGN. Fleet of America, Inc. SN 696,789. Pub. 9–11–56. Filed 10–20–55.

637,595. ART IRON. Art Iron & Wire Works, Inc. SN 699,948. Pub. 9–11–56. Filed 12–14–55.

637,596. CELLUFLOR. Inland Steel Products Co. SN 1,532. Pub. 9–11–56. Filed 1–26–56.

637,597. RAYNOR DOORS AND DESIGN. Raynor Manufacturing Company. SN 4,569. Pub. 9–11–56. Filed 3–14–56.

### CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

637,598. EVENFLO. Gray Company, Inc. SN 634,688. Pub. 9–20–55. Filed 8–30–52.





637,599. KITCHEN KING. Stephen A. Young Corporation. SN 7,142. Pub. 9–11–56. Filed 4–25–56.

637,600. GRIPTITE. United States Steel Corporation. SN 7,297. Pub. 9–11–56. Filed 4–27–56.

637,601. DUALINE. Acme Appliance Manufacturing Company. SN 7,301. Pub. 9–11–56. Filed 4–30–56.

### CLASS 15

### OILS AND GREASES

637,602. LAMWAX. Technical Waxes Limited. SN 690,047. Pub. 9–11–56. Filed 6–22–55.

637,603. BOYER'S. Boyer Chemical Company. SN 696,939. Pub. 9–11–56. Filed 10–24–55.

637,604. MOBIL-KOTE. Socony Mobil Oil Company, Inc. SN 2,919. Pub. 9–11–56. Filed 2–17–56.

637,605. EN-AR-CO. Ashland Oil & Refining Company. SN 3,327. Pub. 9–11–56. Filed 3–1–56.

637,606. FOUR STAR. Prairie States Oil & Grease Company. SN 7,036. Pub. 9–11–56. Filed 4–24–56.

### CLASS 16

### PROTECTIVE AND DECORATIVE COATINGS

637,607. B-W MARBON CHEMICAL BORG-WARNER AND DESIGN. Borg-Warner Corporation. SN 740. Pub. 9–11–56. Filed 1–16–56.

637,608. DAP-R. Linmar, Inc. SN 3,690. Pub. 9–11–56. Filed 3–1–56.

### CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

637,609. LIPOTRATE. Norman Dartell, d. b. a. Dartell Laboratories. SN 676,162. Pub. 7–19–55. Filed 11–8–54.

637,610. SIESTA. Voigt's Laboratories Inc., to Hicks Pharmacal Company. SN 681,466. Pub. 9–11–56. Filed 2–10–55.

637,611. SERPATE. The Vale Chemical Company, Inc. SN 686,789. Pub. 9–11–56. Filed 5–3–55.

637,612. NUTRIL. Nutrilite Products, Inc. SN 689,958. Pub. 12–13–55. Filed 6–21–55.

637,613. NUTRILIFE. Nutrilite Products, Inc. SN 689,959. Pub. 12–13–55. Filed 6–21–55.

637,614. ACI-DERMA. I. Edward Prince, d. b. a. I. E. Prince Pharmaceuticals. SN 692,013. Pub. 9–11–56. Filed 7–27–55.

637,615. D-ANFEROID. Reyman Drug Co., Inc. SN 692,736. Pub. 9–11–56. Filed 8–9–55.

637,616. BONAPHEN. Reyman Drug Co., Inc. SN 692,738. Pub. 9–11–56. Filed 8–9–55.

637,617. SF. Chas. Pfizer & Co., Inc. SN 694,090. Pub. 9–11–56. Filed 9–1–55.

637,618. RSP. Rogers Grain & Feed Co. SN 699,248. Pub. 9–11–56. Filed 12–1–55.

637,619. RSP. Rogers Grain & Feed Co. SN 699,249. Pub. 9–11–56. Filed 12–1–55.

637,620. METALEX. Professional Drug Service, Inc., d. b. a. A A Storck Pharmaceuticals. SN 700,057. Pub. 9–11–56. Filed 12–15–55.

637,621. T-MIST. The Norwich Pharmacal Company. SN 700,114. Pub. 9–11–56. Filed 12–16–55.

637,622. FUNGIZONE. Olin Mathieson Chemical Corporation. SN 820. Pub. 9–4–56. Filed 1–16–56.

637,623. HYROSONE. Whitehall Pharmacal Company. SN 4,075. Pub. 9–11–56. Filed 3–7–56.

637,624. KIP. Kip Inc. SN 4,076. Pub. 9–11–56. Filed 3–21–56.

637,625. COLSEDRON. Crookes Laboratories, Inc. SN 4,079. Pub. 9–11–56. Filed 3–28–56.

637,626. CELUTROPIN. Campbell Pharmaceutical Company. SN 4,096. Pub. 9–11–56. Filed 3–8–56.

637,627. SEDALTINE. Clinical Products Limited. SN 4,097. Pub. 9–11–56. Filed 3–8–56.

637,628. NECROSUL. Merck & Co., Inc. SN 4,136. Pub. 9–11–56. Filed 3–8–56.

637,629. THIMORLONE. Merck & Co., Inc. SN 4,137. Pub. 9–11–56. Filed 3–8–56.

637,630. CO-HYDELTRA. Merck & Co., Inc. SN 4,138. Pub. 9–11–56. Filed 3–8–56.

### CLASS 19

### VEHICLES

637,631. TOOLMOBILE. The Plomb Tool Company. SN 6,283. Pub. 9–11–56. Filed 4–12–56.

### CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

637,632. SOFT SPEAKER. Audio Equipment Co., Inc. SN 660,779. Pub. 8–16–55. Filed 2–9–54.

637,633. BURTCO. Harry A. Dutton, Jr., d. b. a. Burton Electrical Engineering Company. SN 689,822. Pub. 9–11–56. Filed 6–20–55.

637,634. ARISTOCRAT. Electro-Voice, Incorporated. SN 690,143. Pub. 9–11–56. Filed 6–24–55.

637,635. WIMA AND DESIGN. Wilhelm Westermann. SN 693,516. Pub. 9–11–56. Filed 8–22–55.

637,636. I AND DESIGN. Illumitronic Engineering Co. SN 695,817. Pub. 9–11–56. Filed 10–4–55.

637,637. SUNBEAM. Sunbeam Corporation. SN 697,050. Pub. 9–11–56. Filed 10–24–55.

637,638. POWER-O-MATIC. Blue M Electric Company. SN 698,130. Pub. 9–11–56. Filed 11–14–55.

637,639. HELLER. S. Heller Elevator Company. SN 698,523. Pub. 9–11–56. Filed 11–18–55.

637,640. VITASCAN. Allen B. Du Mont Laboratories, Inc. SN 3,660. Pub. 9–11–56. Filed 3–1–56.

637,641. VANODE. The Vanode Company. SN 4,750. Pub. 9–11–56. Filed 3–16–56.

637,642. NORGE BORG-WARNER B-W AND DESIGN. Borg-Warner Corporation. SN 5,161. Pub. 9–11–56. Filed 3–26–56.

### CLASS 22

### GAMES, TOYS, AND SPORTING GOODS

637,643. TROT-KNOT. H & K Sales Co. SN 684,837. Pub. 9–11–56. Filed 4–4–55.

637,644. CHORE BOARD. Frank A. Doupnik, d. b. a. Chore Board Company. SN 689,819. Pub. 9–11–56. Filed 6–20–55.

637,645. BOB 'EM. Frabill Manufacturing Co. SN 696,295. Pub. 9–19–56. Filed 10–12–55.

637,646. NEIGHBORHOOD TIMES AND DESIGN. Louis Crandall, to Louis Crandall Toys, Inc. SN 698,018. Pub. 9–11–56. Filed 11–10–55.





637,729. DOLCELON. Castro Decorators, Inc. SN 7,230.

637,647. THIMK AND DESIGN. Tryne Sales, Inc. SN 690,936. Pub. 9–11–56. Filed 12–13–55.

637,648. GYM-SMITH. Michael K. Ivor. SN 700,035. Pub. 9–11–56. Filed 12–15–55.

637,649. SPORTCAST AND DESIGN. Sunset Line & Twine Co. SN 221. Pub. 9–11–56. Filed 1–5–56.

637,650. "NIPS." Glen L. Evans, Inc. SN 320. Pub. 9–11–56. Filed 1–9–56.

637,651. SONIC. James Heddon's Sons. SN 2,137. Pub. 9–11–56. Filed 2–6–56.

637,652. POOCH. Hasenfeld Bros., Inc. SN 2,701. Pub. 9–11–56. Filed 2–15–56.

637,653. TRI-BALANCE. Ted Williams, Inc. SN 2,936. Pub. 9–11–56. Filed 2–17–56.

637,654. GETZEM. Piper Brace Co., d. b. a. Norkin Laboratories. SN 3,022. Pub. 9–11–56. Filed 2–20–56.

637,655. DAINTEE DOLL. The Excello Paper Products Co. SN 4,011. Pub. 9–11–56. Filed 3–7–56.

637,656. EBLET. Charles Garcia & Co., Inc. SN 4,119. Pub. 9–11–56. Filed 3–8–56.

637,657. PATIO BEACH. J & S Manufacturing Co. SN 4,127. Pub. 9–11–56. Filed 3–8–56.

637,658. MARXMASTER AND DESIGN. Joseph P. Marx. SN 4,131. Pub. 9–11–56. Filed 3–9–56.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

637,659. ROWE-BOT AND DESIGN. Rowe Manufacturing Co., Inc. SN 656,413. Pub. 9–11–56. Filed 12–22–53.

637,660. R AND DESIGN. Regent Cutlery Co. SN 666,216. Pub. 8–30–55. Filed 5–12–54.

637,661. RANSBURG. Ransburg Electro-Coating Corp. SN 680,796. Pub. 9–11–56. Filed 1–31–55.

637,662. RANSBURG AND DESIGN. Ransburg Electro-Coating Corp. SN 680,799. Pub. 9–11–56. Filed 1–31–55.

637,663. GOLDEN TOUCH. Golden Touch Products, Inc. SN 690,160. Pub. 9–11–56. Filed 6–24–55.

637,664. SPERRY. Sperry Rand Corporation. SN 696,388. Pub. 9–11–56. Filed 10–12–55.

637,665. VIZE-AN-AMMER. Aircraft-Marine Products, Inc. SN 697,261. Pub. 9–11–56. Filed 10–28–55.

637,666. F AND DESIGN. Kugelfischer Georg Schäfer & Co. SN 697,280. Pub. 9–11–56. Filed 10–31–55.

637,667. SPRA-SCOPE. Accessories Manufacturing Co., Inc. SN 700,164. Pub. 9–11–56. Filed 12–19–55.

637,668. SEW-DEAR AND DESIGN. Gilbert O. Uker. SN 179. Pub. 9–11–56. Filed 1–4–56.

637,669. WHITAKER BEEF STEAKER. Charles Ray Whitaker. SN 2,609. Pub. 9–11–56. Filed 2–13–56.

637,670. SPORT KING. Hart-Carter Company. SN 3,682. Pub. 9–11–56. Filed 3–1–56.

637,671. NP. National Plastics, Incorporated. SN 3,704. Pub. 9–11–56. Filed 3–1–56.

637,672. SHUNK. Shunk Manufacturing Company. SN 3,715. Pub. 9–11–56. Filed 3–1–56.

637,673. ARO. The Aro Equipment Corporation. SN 4,757. Pub. 9–11–56. Filed 2–19–56.

637,674. MMM. The Motch & Merryweather Machinery Company. SN 4,821. Pub. 9–11–56. Filed 2–19–56.

637,675. BRILLIANCE. Utica Cutlery Company. SN 5,469. Pub. 9–11–56. Filed 3–29–56.

637,676. MINI-JECTOR. William O. Frohring, d. b. a. Newbury Industries. SN 5,769. Pub. 9–11–56. Filed 4–4–56.

637,677. GLENCOE. Portable Elevator Mfg. Co. SN 5,867. Pub. 9–11–56. Filed 4–5–56.

637,678. METAL-URGER. Le Roy Townsend. SN 5,953. Pub. 9–11–56. Filed 4–6–56.

637,679. BRETT-GUARD. Brett-Guard Company, a division of Glenwood Industries, Inc. SN 5,972. Pub. 9–11–56. Filed 4–9–56.

637,680. FLEETWOOD. S. K. S. Machine Co. SN 6,132. Pub. 9–11–56. Filed 4–10–56.

637,681. MARCH AND LETTER M AND DESIGN. March Manufacturing Co. SN 6,173. Pub. 9–11–56. Filed 4–11–56.

637,682. DESIGN OF CONCENTRIC CIRCLES WITH L Therein. Oneida Ltd. SN 6,249. Pub. 9–11–56. Filed 4–12–56.

637,683. PEERLESS. Sewing Machine Sales Corp. SN 6,474. Pub. 9–11–56. Filed 4–16–56.

637,684. JEEP. Gulf Coast Machine & Supply Co. SN 6,520. Pub. 9–11–56. Filed 4–17–56.

637,685. CONTINUOUS-FLO. Pangborn Corporation. SN 6,547. Pub. 9–11–56. Filed 4–17–56.

637,686. BONDWARE. Continental Can Company, Inc. SN 6,591. Pub. 9–11–56. Filed 4–18–56.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

637,687. SERVOFRAX. Servo Corporation of America. SN 648,697. Pub. 11–23–54. Filed 9–13–53.

637,688. CATEX. Optical Development Corporation. SN 669,208. Pub. 9–20–55. Filed 6–30–54.

637,689. SELECTA. Sartorius-Werke Aktiengesellschaft. SN 685,760. Pub. 12–20–55. Filed 4–18–55.

637,690. SPERRY. Sperry Rand Corporation. SN 696,387. Pub. 9–11–56. Filed 10–12–55.

637,691. PROXAR. Carl Zeiss. SN 3,909. Pub. 9–4–56. Filed 3–5–56.

637,692. SMOOTHCHEK. The Sheffield Corporation. SN 4,156. Pub. 9–4–56. Filed 3–8–56.

637,693. SCANDEX. Farrington Manufacturing Company. SN 4,189. Pub. 7–31–56. Filed 3–9–56.

637,694. PRESTO. National Presto Industries, Inc. SN 4,213. Pub. 9–4–56. Filed 3–9–56.

637,695. CONTROL MASTER. National Presto Industries, Inc. SN 4,214. Pub. 9–4–56. Filed 3–9–56.

637,696. MAGI-CLIPS. Niblack Thorne, d. b. a. Niblack Thorne Company. SN 4,494. Pub. 9–11–56. Filed 3–13–56.

637,697. IDOTRON. J. F. Crosfield Limited. SN 4,889. Pub. 9–11–56. Filed 3–20–56.

637,698. SET-O-MATIC. American Chain & Cable Company, Inc. SN 5,016. Pub. 9–11–56. Filed 3–22–56.

637,699. MAGNAGLASS. Magnaglass Mfg. Co., Inc. SN 5,437. Pub. 9–11–56. Filed 3–29–56.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

637,700. BULER. Montres Buler S. A. SN 7,266. Pub. 9–11–56. Filed 4–27–56.

637,701. LOWILL. Louis Perloff, d. b. a. Lowill Watch Company. SN 10,956. Pub. 9–11–56. Filed 6–18–56.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

637,702. DESIGN-LINE DL AND DESIGN. Design-Line Company. SN 699,481. Pub. 9–11–56. Filed 12–6–55.

637,703. RINGMATES. Skalet Manufacturing Co., Inc. SN 4,485. Pub. 9–11–56. Filed 3–13–56.



637,704. GEM-O-RAMA. Hy Frackman, d. b. a. Alsan Manufacturing Company. SN 7,785. Pub. 9–11–56. Filed 5–7–56.

637,705. MARK VII. Watchbands, Inc. SN 3,178. Pub. 9–11–56. Filed 3–11–56.

637,706. HEART-THROB. Speidel Corporation. SN 8,359. Pub. 9–11–56. Filed 5–15–56.

637,707. DESERT FASHIONS. Sanford and Company, Inc. SN 8,706. Pub. 9–11–56. Filed 5–21–56.

637,708. GLITTER-GLO. Feature Ring Co., Inc. SN 8,841. Pub. 9–11–56. Filed 5–28–56.

## CLASS 29

## BROOMS, BRUSHES, AND DUSTERS

637,709. BUFFO. Buffo Corporation. SN 696,494. Pub. 9–11–56. Filed 10–17–55.

637,710. WAX-WIZ AND DESIGN. Pionair Products, Inc. SN 698,755. Pub. 9–11–56. Filed 12–9–55.

637,711. VANI-SOL. National Laboratories, Inc. SN 5,367. Pub. 9–11–56. Filed 3–28–56.

## CLASS 31

## FILTERS AND REFRIGERATORS

637,712. VIMCO AND DESIGN. Victory Metal Manufacturing Co., d. b. a. Victory Metal Manufacturing Corp. SN 666,803. Pub. 8–2–55. Filed 5–20–54.

637,713. COLDISPLAY. Bally Case and Cooler Company. SN 695,268. Pub. 9–11–56. Filed 9–26–55.

637,714. UNI-CHILLER. The Vilter Manufacturing Co. SN 5,888. Pub. 9–11–56. Filed 4–5–56.

637,715. ECONO. Erie Meter Systems, Inc. SN 6,324. Pub. 9–11–56. Filed 4–13–56.

637,716. ECONO. Erie Meter Systems, Inc. SN 6,325. Pub. 9–11–56. Filed 4–13–56.

637,717. BAKERATOR. The Manitowoc Company, Inc. SN 6,342. Pub. 9–11–56. Filed 4–13–56.

## CLASS 32

## FURNITURE AND UPHOLSTERY

637,718. WATSON AND DESIGN. Watson Manufacturing Company, Inc. SN 681,228. Pub. 9–11–56. Filed 2–7–55.

637,719. MAXUPPORT. Adolph Mack, d. b. a. Adjustable Backrest Mfg. Co. SN 685,284. Pub. 9–11–56. Filed 4–11–55.

637,720. LANDE'S EARLY AMERICAN AND DESIGN. Robert I. Lee. SN 691,304. Pub. 9–11–56. Filed 7–14–55.

637,721. BASS-ULTRAFLEX. Jensen Manufacturing Company. SN 980. Pub. 9–11–56. Filed 1–18–56.

637,722. VARAZINI AND DESIGN. Victor Metal Products Corporation. SN 1,030. Pub. 9–11–56. Filed 1–18–56.

637,723. ACE STYLINE. Ace Chrome Corp. SN 1,496. Pub. 9–11–56. Filed 1–26–56.

637,724. PHOTO MATE AND DESIGN. Milton Liss. SN 4,039. Pub. 9–11–56. Filed 3–7–56.

637,725. COHASSET COLONIAL. Hagerty Company. SN 4,323. Pub. 9–11–56. Filed 3–12–56.

637,726. TRIMSTIX. Elco Products Company. SN 4,700. Pub. 9–11–56. Filed 3–16–56.

637,727. MIL-MODE AND DESIGN. Mil-Mode Manufacturing Corporation. SN 4,974. Pub. 9–11–56. Filed 3–21–56.

637,728. CRIMSON SHIELD AND DESIGN. Massachusetts Mattress Company. SN 7,262. Pub. 9–11–56. Filed 4–27–56.

637,729. DOLCELON. Castro Decorators, Inc. SN 7,330. Pub. 9–11–56. Filed 4–30–56.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

637,730. PYRALCHEM PROCESS. Affiliated Gas Equipment, Inc. SN 672,032. Pub. 9–11–56. Filed 8–23–54.

637,731. "FAMOUS ALASKAN" AND DESIGN. Rex-Lea, Inc. SN 673,882. Pub. 9–11–56. Filed 9–17–54.

637,732. VIMCO AND DESIGN. Victory Metal Manufacturing Co., d. b. a. Victory Metal Manufacturing Corp. SN 679,362. Pub. 7–26–55. Filed 1–3–55.

637,733. SONIC-RAY. The Bica Company. SN 699,880. Pub. 9–11–56. Filed 12–13–55.

637,734. FLEXELEX. The Deister Concentrator Company, now by change of name The Deister Concentrator Company, Inc. SN 3,830. Pub. 9–11–56. Filed 3–5–56.

637,735. BELMONT. Samuel Stamping & Enameling Company. SN 7,378. Pub. 9–11–56. Filed 4–30–56.

637,736. HYDROX-O-LATOR. The Silent Glow Oil Burner Corporation, d. b. a. The Outdoor Oven Fireplace Company. SN 7,383. Pub. 9–11–56. Filed 4–30–56.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

637,737. NOW WE KNOW. Columbia Broadcasting System, Inc. SN 691,356. Pub. 9–11–56. Filed 7–15–55.

637,738. LOOK N LISTEN AND DESIGN. Universal Color Corp. SN 694,395. Pub. 9–11–56. Filed 9–8–55.

637,739. RECORD NEST. R. Neal Batterson. SN 11. Pub. 9–11–56. Filed 1–3–56.

637,740. "WAYBEST." George Way Drums, Inc. SN 5,070. Pub. 9–11–56. Filed 3–22–56.

637,741. MERCURY. Mercury Record Corporation. SN 5,116. Pub. 9–11–56. Filed 3–23–56.

637,742. GOLDEN SPIRAL. Otto Kaplan, d. b. a. Kaplan Musical String Company. SN 5,209. Pub. 9–11–56. Filed 3–26–56.

## CLASS 37

## PAPER AND STATIONERY

637,743. ORA-VERSIONS. Ora-Versions, Inc., to Harris S. Bigelow, Inc. SN 663,132. Pub. 9–11–56. Filed 3–9–55.

637,744. EASTEX. East Texas Pulp and Paper Company. SN 684,291. Pub. 9–11–56. Filed 3–28–55.

637,745. MOTELEGRAM SYMBOL OF DISTINCTION AND DESIGN. Harold J. Loland, d. b. a. Loland Enterprises. SN 685,282. Pub. 9–11–56. Filed 4–11–55.

637,746. MARY LAMB. Max Levinson, d. b. a. Newburgh Tissue Company. SN 688,741. Pub. 9–11–56. Filed 6–2–55.

637,747. DEBONAIR. Foreign Products Corporation. SN 698,782. Pub. 9–11–56. Filed 11–23–55.

637,748. ANCILLA. N. V. Papierfabriek Gennep. SN 700,337. Pub. 9–11–56. Filed 12–21–55.

637,749. PALMER METHOD ETC. AND DESIGN. The A. N. Palmer Company. SN 1,008. Pub. 9–11–56. Filed 1–18–56.

637,750. SORT-ALL AND DESIGN. Amberg File and Index Company. SN 1,189. Pub. 9–11–56. Filed 1–23–56.

637,751. ITS AND DESIGN. Royal Register Co. SN 1,726. Pub. 9–11–56. Filed 1–30–56.

## CLASS 39

## CLOTHING

637,752. TRAVEL-TWIN. Berry & Benson. SN 545,075. Pub. 10-21-52. Filed 12-22-47.

637,753. BEACH CLUB. Desmond's, Inc. SN 686,536. Pub. 9-11-56. Filed 4-20-55.

637,754. UNIVERSAL AND DESIGN. Reliance Manufacturing Company. SN 687,002. Pub. 1-10-56. Filed 5-6-55.

637,755. SPRINKLER. Southland Manufacturing Company, Inc. SN 687,828. Pub. 9-11-56. Filed 5-18-55.

637,756. THE BOP AND DESIGN. Rodaine of California, d. b. a. California Imprints. SN 693,850. Pub. 9-11-56. Filed 8-29-55.

637,757. ELITE. C. H. Hyer & Sons, Inc. SN 694,228. Pub. 9-11-56. Filed 9-6-55.

637,758. SPORT LIFE. Herbst Shoe Manufacturing Company. SN 695,222. Pub. 9-11-56. Filed 9-23-55.

637,759. JIMMIE DUGAN. Higginbotham-Bailey Company. SN 146. Pub. 9-11-56. Filed 1-4-56.

637,760. STURDIWEVE. Schloss Bros. & Co., Inc. SN 1,017. Pub. 9-11-56. Filed 1-18-56.

637,761. SHEVLON. The Joseph & Feiss Company. SN 1,593. Pub. 9-11-56. Filed 1-27-56.

637,762. ROCK'N ROLL AND DESIGN. De Luxe for Boys, Inc. SN 1,773. Pub. 9-11-56. Filed 1-31-56.

637,763. KINGSWAY. Aquascutum, Limited. SN 1,932. Pub. 9-11-56. Filed 2-2-56.

637,764. PUPPETEERS AND DESIGN. Natric Sales Co., Inc. SN 1,975. Pub. 9-11-56. Filed 2-2-56.

637,765. TREK. David D. Doniger & Co. Inc, now by change of name to McGregor-Doniger, Inc. SN 2,231. Pub. 9-11-56. Filed 2-7-56.

637,766. THYNN MYNT. David D. Doniger & Co. Inc., now by change of name to McGregor-Doniger, Inc. SN 2,232. Pub. 9-11-56. Filed 2-7-56.

637,767. STRATHWICK. The Strathmore Mfg. Co., Inc. SN 2,392. Pub. 9-11-56. Filed 2-9-56.

637,768. NORTH SHORE. North Shore Manufacturing Company. SN 2,713. Pub. 9-11-56. Filed 2-15-56.

637,769. GLOFINA BY MARCE. Pachter Garment Co., Inc. SN 3,026. Pub. 9-11-56. Filed 2-28-56.

637,770. SHADOBAK. Seamprufe Incorporated. SN 5,798. Pub. 9-11-56. Filed 4-4-56.

637,771. VAN-TEX. The Van Wert Manufacturing Co. SN 6,674. Pub. 9-11-56. Filed 4-23-56.

637,772. BETTY SHAW. The Associated Merchandising Corporation. SN 7,060. Pub. 9-11-56. Filed 4-25-56.

637,773. BEAUTIFLUFF. Dutchess Underwear Corporation. SN 7,236. Pub. 9-11-56. Filed 4-30-56.

637,774. SNAPSHOT AND DESIGN. Sewell Manufacturing Company. SN 10,060. Pub. 9-11-56. Filed 5-4-56.

637,775. TOPCRAFT. Oxford Manufacturing Company, Inc., d. b. a. Topcraft Company. SN 11,316. Pub. 9-11-56. Filed 6-28-56.

637,776. ROYAL STRIDE. H. Glaser & Son, Inc. SN 11,320. Pub. 9-11-56. Filed 7-2-56.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

637,777. THE BUTTON BOX. Clifton D. Lewis. SN 691,050. Pub. 9-11-56. Filed 7-11-55.

637,778. FLEXI-PLANE. Morris M. Langa, d. b. a. Empire Embroidery. SN 4,722. Pub. 9-11-56. Filed 3-16-56.

637,779. SHIRT-STAY. Jacob Sarnoff. SN 4,745. Pub. 9-11-56. Filed 3-16-56.

637,780. SUNNY DAY. N. W. Moody Corporation. SN 6,035. Pub. 9-11-56. Filed 4-9-56.

637,781. COMFY-REST. Kitty Collins Company. SN 6,101. Pub. 9-11-56. Filed 4-10-56.

637,782. CAPRI. L. & R. Lenzi, Inc. SN 6,175. Pub. 9-11-56. Filed 4-11-56.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

637,783. TOOTOILE. Tootal Broadhurst Lee Company Limited. SN 3,318. Pub. 9-11-56. Filed 2-24-56.

637,784. WORK-SAVER. McCampbell & Company, Inc. SN 3,698. Pub. 9-11-56. Filed 3-1-56.

637,785. TEXTUR TUFT. Morgan-Jones, Inc. SN 4,786. Pub. 9-11-56. Filed 3-16-56.

637,786. BURCOTT. Burcott Mills. SN 5,906. Pub. 9-11-56. Filed 4-6-56.

637,787. DESIGN BY LYN AND DESIGN. Madelyn A. Gibson. SN 5,996. Pub. 9-11-56. Filed 4-9-56.

637,788. TRU-TONE. William Skinner & Sons. SN 6,056. Pub. 9-11-56. Filed 4-9-56.

637,789. "EOLIANE." Sopic Corporation. SN 6,060. Pub. 9-11-56. Filed 4-9-56.

## CLASS 43

## THREAD AND YARN

637,790. TEX-LON AND DESIGN. Play Knit Mills, Inc. SN 9,486. Pub. 9-11-56. Filed 6-1-56.

637,791. SOUTH MAID AND DESIGN. Coats & Clark Inc. SN 9,843. Pub. 9-11-56. Filed 6-6-56.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

637,792. SEABREEZE. St. Louis Crystal Water and Soda Company, to Ted L. Kopelman, d. b. a. Seabreeze Mixer Company. SN 665,231. Pub. 8-9-55. Filed 4-26-54.

637,793. MIXETTE. Wauconda Beverage Company. SN 855. Pub. 9-11-56. Filed 1-16-56.

637,794. TOM MOORE AND DESIGN. Thomas Moore, d. b. a. Thomas Moore & Co. SN 5,935. Pub. 9-11-56. Filed 4-6-56.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

637,795. WINTER GARDEN. Keith Metz, Grower and Shipper. SN 638,429. Pub. 6-2-53. Filed 11-21-52.

637,796. SIESTA. Standard Brands Incorporated. SN 638,784. Pub. 9-11-56. Filed 11-20-52.

637,797. FARMCREST AND DESIGN. Farmcrest Dairy Products Corp. SN 643,871. Pub. 8-2-55. Filed 2-12-53.

637,798. SLICK. B. Fischer & Co., Inc. SN 645,406. Pub. 9-11-56. Filed 4-16-53.

637,799. DUBL I-STIX. Good Humor Corporation. SN 648,751. Pub. 7-26-55. Filed 6-15-53.

637,800. MILANI'S. Louis Milani Foods, Inc. SN 654,414. Pub. 9-11-56. Filed 10-9-53.

637,801. BIG SQUEAL AND DESIGN. S. R. Smith Inc. SN 668,126. Pub. 9-11-56. Filed 6-11-54.

637,802. STRATFORD FARMS. Theresa Friedman & Sons, Inc., d. b. a. Stratford Farms Corp. SN 669,421. Pub. 9-11-56. Filed 7-6-54.



637,803. NUTS & BOLTS AND DESIGN. Betty A. Backus. SN 681,569. Pub. 8-9-55. Filed 2-14-55.

637,804. GARDEN PRIDE. Alamo Products Corp., also d. b. a. Alamo Products Company. SN 684,377. Pub. 1-17-56. Filed 3-29-55.

637,805. MASTER CHEF AND DESIGN. Potter-McCune Company. SN 684,465. Pub. 9-11-56. Filed 3-29-55.

637,806. CREAMBURGER AND DESIGN. Nicola Borzillo, d. b. a. Creamburger. SN 689,120. Pub. 9-11-56. Filed 6-8-55.

637,807. COFFEE JOHN AND DESIGN. John W. Hill. SN 691,625. Pub. 9-4-56. Filed 7-20-55.

637,808. KENTUCKY KIST. Supreme Mills, d. b. a. Happy Valley Mills. SN 691,970. Pub. 9-11-56. Filed 7-26-55.

637,809. SWISSTAR. August C. Kirchhoff & Co. SN 692,238. Pub. 9-4-56. Filed 8-1-55.

637,810. SANTUZZA AND DESIGN. Carmela Mia Packing Co. Inc. SN 692,435. Pub. 9-4-56. Filed 8-22-55.

637,811. N AND DESIGN. Nichols Poultry Farm, Inc. SN 693,479. Pub. 9-11-56. Filed 8-22-55.

637,812. MEI-WEI-FEN. International Minerals & Chemical Corporation. SN 694,065. Pub. 9-11-56. Filed 9-1-55.

637,813. GULF PRINCESS AND DESIGN. Rubenstein & Sons, Inc. SN 695,027. Pub. 9-4-56. Filed 9-20-55.

637,814. PICKLE PACKERS AND DESIGN. Luts & Schramm Inc. SN 695,232. Pub. 9-4-56. Filed 9-23-55.

637,815. STARFIRE AND DESIGN. Arrow Lettuce Company. SN 695,677. Pub. 9-4-56. Filed 10-3-55.

637,816. BONITA AND DESIGN. The Southern Cotton Oil Company. SN 696,185. Pub. 9-4-56. Filed 10-10-55.

637,817. CAPTAIN'S CHOICE AND DESIGN. Safeway Stores, Incorporated, d. b. a. Brighton Fish Company. SN 697,024. Pub. 9-11-56. Filed 10-24-55.

637,818. MORNING MAID ETC. AND DESIGN. Leo Zaritzky, d. b. a. Morning Maid Fruit & Juice Co. SN 697,060. Pub. 8-14-56. Filed 10-24-55.

637,819. LIQUI-FRY. Anderson, Clayton & Co. SN 697,265. Pub. 9-4-56. Filed 10-28-55.

637,820. CHINCHOP. George H. Harp-Thomas, d. b. a. Bloomfield Laboratories. SN 697,543. Pub. 9-11-56. Filed 11-2-55.

637,821. REAL GEORGE! AND DESIGN. Andrews-Holcomb Fruit Ranch. SN 697,749. Pub. 9-11-56. Filed 11-7-55.

637,822. FLORENCE BEACH. Florence Beach Candies Company. SN 697,754. Pub. 9-4-56. Filed 11-7-55.

637,823. SENTER'S PRIDE. Sam Senter. SN 697,857. Pub. 9-4-56. Filed 11-7-55.

637,824. RICE NIBS. Converted Rice, Inc. SN 697,902. Pub. 9-11-56. Filed 11-8-55.

637,825. TOM-WEST AND FANCIFUL HUMAN FIGURE. Gene Jennings and Company, to Gene Jennings and Company, Inc. SN 698,173. Pub. 9-11-56. Filed 11-14-55.

637,826. FORT ROSS. Silveira & O'Connell. SN 698,227. Pub. 9-4-56. Filed 11-14-55.

637,827. SAN IRANO. Feather River Olive Growers. SN 698,854. Pub. 9-4-56. Filed 11-25-55.

637,828. IVEY'S KING SUN. Osceola Fruit Distributors. SN 699,090. Pub. 9-11-56. Filed 11-29-55.

637,829. LEVY'S. Henry S. Levy & Son, Inc. SN 699,808. Pub. 9-11-56. Filed 12-12-55.

637,830. EMOS. Eastern Michigan Orchard Supply Co. SN 700,207. Pub. 9-11-56. Filed 12-19-55.

637,831. FRONTIER. The Curtiss Candy Company. SN 244. Pub. 8-21-56. Filed 1-6-56.

637,832. BLUE PIRATE. Northwest Nut Growers. SN 1,538. Pub. 9-11-56. Filed 1-26-56.

637,833. COMEG. Le Roy B. Sanders, d. b. a. Comeg Products Company. SN 1,814. Pub. 9-11-56. Filed 1-31-56.

637,834. CASCADE. Northwest Nut Growers. SN 1,977. Pub. 9-11-56. Filed 2-2-56.

637,835. 3 LITTLE KITTENS. American Crab Meat Co. SN 2,011. Pub. 9-11-56. Filed 2-3-56.

637,836. TANDY-TAKE AND DESIGN. Tasty Baking Company. SN 9,223. Pub. 9-11-56. Filed 5-8-56.

## CLASS 47

## WINES

637,837. RENEE'S. The Old Monastery Company, Inc. SN 6,276. Pub. 9-11-56. Filed 4-12-56.

637,838. SAN ANTONIO. San Antonio Winery, Inc. SN 6,291. Pub. 9-11-56. Filed 4-12-56.

## CLASS 48

## MALT BEVERAGES AND LIQUORS

637,839. IBI AND DESIGN. International Breweries, Inc. SN 5,303. Pub. 9-11-56. Filed 3-27-56.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

637,840. J. BAVET. Schenley Industries, Inc. SN 7,041. Pub. 9-11-56. Filed 4-24-56.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

637,841. FLUOROGRAPHIC. Printing Arts Research Laboratories, Inc. SN 639,775. Pub. 9-11-56. Filed 12-19-52.

637,842. SUNSET RED. Texas Granite Corporation. SN 664,198. Pub. 9-11-56. Filed 4-8-54.

637,843. ROLL RACK. The Roll Rack Co. SN 693,571. Pub. 9-11-56. Filed 8-23-55.

637,844. DURACITE. Claridge Products and Equipment, Incorporated. SN 2,502. Pub. 9-11-56. Filed 2-13-56.

## CLASS 51

## COSMETICS AND TOILET PREPARATIONS

637,845. DEEPTAN. Edna, Inc., d. b. a. Solar Products. SN 681,842. Pub. 9-11-56. Filed 2-17-55.

637,846. TURQUOISE. Lehn & Fink Products Corporation. SN 691,307. Pub. 9-11-56. Filed 7-14-55.

## CLASS 52

## DETERGENTS AND SOAPS

637,847. AFTA AND DESIGN. Afta Solvents Corp. SN 680,991. Pub. 9-11-56. Filed 2-3-55.

637,848. CALIGRAM OF A'S. Avon Products, Inc. SN 3,726. Pub. 9-11-56. Filed 3-2-56.

637,849. NU-PINE. John C. Freeman, d. b. a. Freeman Products Company. SN 4,436. Pub. 9-11-56. Filed 3-13-56.

637,850. ACCLAIM. Economics Laboratory, Inc. SN 6,604. Pub. 9-11-56. Filed 4-18-56.



637,851. SUPER-SUDS. Economics Laboratory, Inc. SN 6,605. Pub. 9-11-56. Filed 4-18-56.

637,852. SUPER-SUDS. Economics Laboratory, Inc. SN 6,606. Pub. 9-11-56. Filed 4-18-56.

637,853. SUPER-SUDS. Economics Laboratory, Inc. SN 6,607. Pub. 9-11-56. Filed 4-18-56.

637,854. SUPER-SUDS. Economics Laboratory, Inc. SN 6,608. Pub. 9-11-56. Filed 4-18-56.

637,855. SUPER-SUDS. Economics Laboratory, Inc. SN 6,609. Pub. 9-11-56. Filed 4-18-56.

637,856. SUPER-SUDS. Economics Laboratory, Inc. SN 6,610. Pub. 9-11-56. Filed 4-18-56.

637,857. SUPER-SUDS. Economics Laboratory, Inc. SN 6,611. Pub. 9-11-56. Filed 4-18-56.

637,858. SUPER-SUDS. Economics Laboratory, Inc. SN 6,612. Pub. 9-11-56. Filed 4-18-56.

637,859. SUPER-SUDS. Economics Laboratory, Inc. SN 6,613. Pub. 9-11-56. Filed 4-18-56.

637,860. SUPER-SUDS. Economics Laboratory, Inc. SN 6,614. Pub. 9-11-56. Filed 4-18-56.

637,861. SUPER-SUDS. Economics Laboratory, Inc. SN 6,615. Pub. 9-11-56. Filed 4-18-56.

637,862. SUPER-SUDS. Economics Laboratory, Inc. SN 6,616. Pub. 9-11-56. Filed 4-18-56.

637,863. SUPER-SUDS. Economics Laboratory, Inc. SN 6,617. Pub. 9-11-56. Filed 4-18-56.

637,864. SUPER-SUDS. Economics Laboratory, Inc. SN 6,618. Pub. 9-11-56. Filed 4-18-56.

637,865. SUPER-SUDS. Economics Laboratory, Inc. SN 6,619. Pub. 9-11-56. Filed 4-18-56.

637,866. SUPER-SUDS. Economics Laboratory, Inc. SN 6,620. Pub. 9-11-56. Filed 4-18-56.

637,867. SUPER-SUDS. Economics Laboratory, Inc. SN 6,621. Pub. 9-11-56. Filed 4-18-56.

637,868. SUPER-SUDS. Economics Laboratory, Inc. SN 6,622. Pub. 9-11-56. Filed 4-18-56.

637,869. SUPER-SUDS. Economics Laboratory, Inc. SN 6,623. Pub. 9-11-56. Filed 4-18-56.

637,870. SUPER-SUDS. Economics Laboratory, Inc. SN 6,624. Pub. 9-11-56. Filed 4-18-56.

637,871. SUPER-SUDS. Economics Laboratory, Inc. SN 6,625. Pub. 9-11-56. Filed 4-18-56.

637,872. SUPER-SUDS. Economics Laboratory, Inc. SN 6,626. Pub. 9-11-56. Filed 4-18-56.

637,873. SUPER-SUDS. Economics Laboratory, Inc. SN 6,627. Pub. 9-11-56. Filed 4-18-56.

637,874. SUPER-SUDS. Economics Laboratory, Inc. SN 6,628. Pub. 9-11-56. Filed 4-18-56.

637,875. SUPER-SUDS. Economics Laboratory, Inc. SN 6,629. Pub. 9-11-56. Filed 4-18-56.

637,876. SUPER-SUDS. Economics Laboratory, Inc. SN 6,630. Pub. 9-11-56. Filed 4-18-56.

637,877. SUPER-SUDS. Economics Laboratory, Inc. SN 6,631. Pub. 9-11-56. Filed 4-18-56.

637,878. SUPER-SUDS. Economics Laboratory, Inc. SN 6,632. Pub. 9-11-56. Filed 4-18-56.

637,879. SUPER-SUDS. Economics Laboratory, Inc. SN 6,633. Pub. 9-11-56. Filed 4-18-56.

637,880. SUPER-SUDS. Economics Laboratory, Inc. SN 6,634. Pub. 9-11-56. Filed 4-18-56.

637,881. SUPER-SUDS. Economics Laboratory, Inc. SN 6,635. Pub. 9-11-56. Filed 4-18-56.

637,882. SUPER-SUDS. Economics Laboratory, Inc. SN 6,636. Pub. 9-11-56. Filed 4-18-56.

637,883. SUPER-SUDS. Economics Laboratory, Inc. SN 6,637. Pub. 9-11-56. Filed 4-18-56.

637,884. SUPER-SUDS. Economics Laboratory, Inc. SN 6,638. Pub. 9-11-56. Filed 4-18-56.

637,885. SUPER-SUDS. Economics Laboratory, Inc. SN 6,639. Pub. 9-11-56. Filed 4-18-56.

637,886. SUPER-SUDS. Economics Laboratory, Inc. SN 6,640. Pub. 9-11-56. Filed 4-18-56.

637,887. SUPER-SUDS. Economics Laboratory, Inc. SN 6,641. Pub. 9-11-56. Filed 4-18-56.

637,888. SUPER-SUDS. Economics Laboratory, Inc. SN 6,642. Pub. 9-11-56. Filed 4-18-56.

637,889. SUPER-SUDS. Economics Laboratory, Inc. SN 6,643. Pub. 9-11-56. Filed 4-18-56.

637,890. SUPER-SUDS. Economics Laboratory, Inc. SN 6,644. Pub. 9-11-56. Filed 4-18-56.

637,891. SUPER-SUDS. Economics Laboratory, Inc. SN 6,645. Pub. 9-11-56. Filed 4-18-56.

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637,893. SUPER-SUDS. Economics Laboratory, Inc. SN 6,647. Pub. 9-11-56. Filed 4-18-56.

637,894. SUPER-SUDS. Economics Laboratory, Inc. SN 6,648. Pub. 9-11-56. Filed 4-18-56.

637,895. SUPER-SUDS. Economics Laboratory, Inc. SN 6,649. Pub. 9-11-56. Filed 4-18-56.

637,896. SUPER-SUDS. Economics Laboratory, Inc. SN 6,650. Pub. 9-11-56. Filed 4-18-56.

637,897. SUPER-SUDS. Economics Laboratory, Inc. SN 6,651. Pub. 9-11-56. Filed 4-18-56.

637,898. SUPER-SUDS. Economics Laboratory, Inc. SN 6,652. Pub. 9-11-56. Filed 4-18-56.

637,899. SUPER-SUDS. Economics Laboratory, Inc. SN 6,653. Pub. 9-11-56. Filed 4-18-56.

637,900. SUPER-SUDS. Economics Laboratory, Inc. SN 6,654. Pub. 9-11-56. Filed 4-18-56.

637,901. SUPER-SUDS. Economics Laboratory, Inc. SN 6,655. Pub. 9-11-56. Filed 4-18-56.

637,902. SUPER-SUDS. Economics Laboratory, Inc. SN 6,656. Pub. 9-11-56. Filed 4-18-56.

637,903. SUPER-SUDS. Economics Laboratory, Inc. SN 6,657. Pub. 9-11-56. Filed 4-18-56.

637,904. SUPER-SUDS. Economics Laboratory, Inc. SN 6,658. Pub. 9-11-56. Filed 4-18-56.

637,905. SUPER-SUDS. Economics Laboratory, Inc. SN 6,659. Pub. 9-11-56. Filed 4-18-56.

637,906. SUPER-SUDS. Economics Laboratory, Inc. SN 6,660. Pub. 9-11-56. Filed 4-18-56.

637,907. SUPER-SUDS. Economics Laboratory, Inc. SN 6,661. Pub. 9-11-56. Filed 4-18-56.

637,908. SUPER-SUDS. Economics Laboratory, Inc. SN 6,662. Pub. 9-11-56. Filed 4-18-56.

637,909. SUPER-SUDS. Economics Laboratory, Inc. SN 6,663. Pub. 9-11-56. Filed 4-18-56.

637,910. SUPER-SUDS. Economics Laboratory, Inc. SN 6,664. Pub. 9-11-56. Filed 4-18-56.

637,911. SUPER-SUDS. Economics Laboratory, Inc. SN 6,665. Pub. 9-11-56. Filed 4-18-56.

637,912. SUPER-SUDS. Economics Laboratory, Inc. SN 6,666. Pub. 9-11-56. Filed 4-18-56.

637,913. SUPER-SUDS. Economics Laboratory, Inc. SN 6,667. Pub. 9-11-56. Filed 4-18-56.

637,914. SUPER-SUDS. Economics Laboratory, Inc. SN 6,668. Pub. 9-11-56. Filed 4-18-56.

637,915. SUPER-SUDS. Economics Laboratory, Inc. SN 6,669. Pub. 9-11-56. Filed 4-18-56.

637,916. SUPER-SUDS. Economics Laboratory, Inc. SN 6,670. Pub. 9-11-56. Filed 4-18-56.

637,917. SUPER-SUDS. Economics Laboratory, Inc. SN 6,671. Pub. 9-11-56. Filed 4-18-56.

637,918. SUPER-SUDS. Economics Laboratory, Inc. SN 6,672. Pub. 9-11-56. Filed 4-18-56.

637,919. SUPER-SUDS. Economics Laboratory, Inc. SN 6,673. Pub. 9-11-56. Filed 4-18-56.

637,920. SUPER-SUDS. Economics Laboratory, Inc. SN 6,674. Pub. 9-11-56. Filed 4-18-56.

637,921. SUPER-SUDS. Economics Laboratory, Inc. SN 6,675. Pub. 9-11-56. Filed 4-18-56.

637,922. SUPER-SUDS. Economics Laboratory, Inc. SN 6,676. Pub. 9-11-56. Filed 4-18-56.

637,923. SUPER-SUDS. Economics Laboratory, Inc. SN 6,677. Pub. 9-11-56. Filed 4-18-56.

637,924. SUPER-SUDS. Economics Laboratory, Inc. SN 6,678. Pub. 9-11-56. Filed 4-18-56.

637,925. SUPER-SUDS. Economics Laboratory, Inc. SN 6,679. Pub. 9-11-56. Filed 4-18-56.

637,926. SUPER-SUDS. Economics Laboratory, Inc. SN 6,680. Pub. 9-11-56. Filed 4-18-56.

637,927. SUPER-SUDS. Economics Laboratory, Inc. SN 6,681. Pub. 9-11-56. Filed 4-18-56.

637,928. SUPER-SUDS. Economics Laboratory, Inc. SN 6,682. Pub. 9-11-56. Filed 4-18-56.

637,929. SUPER-SUDS. Economics Laboratory, Inc. SN 6,683. Pub. 9-11-56. Filed 4-18-56.

637,930. SUPER-SUDS. Economics Laboratory, Inc. SN 6,684. Pub. 9-11-56. Filed 4-18-56.

637,931. SUPER-SUDS. Economics Laboratory, Inc. SN 6,685. Pub. 9-11-56. Filed 4-18-56.

637,932. SUPER-SUDS. Economics Laboratory, Inc. SN 6,686. Pub. 9-11-56. Filed 4-18-56.

637,933. SUPER-SUDS. Economics Laboratory, Inc. SN 6,687. Pub. 9-11-56. Filed 4-18-56.

637,934. SUPER-SUDS. Economics Laboratory, Inc. SN 6,688. Pub. 9-11-56. Filed 4-18-56.

637,935. SUPER-SUDS. Economics Laboratory, Inc. SN 6,689. Pub. 9-11-56. Filed 4-18-56.

637,936. SUPER-SUDS. Economics Laboratory, Inc. SN 6,690. Pub. 9-11-56. Filed 4-18-56.

637,937. SUPER-SUDS. Economics Laboratory, Inc. SN 6,691. Pub. 9-11-56. Filed 4-18-56.

637,938. SUPER-SUDS. Economics Laboratory, Inc. SN 6,692. Pub. 9-11-56. Filed 4-18-56.

637,939. SUPER-SUDS. Economics Laboratory, Inc. SN 6,693. Pub. 9-11-56. Filed 4-18-56.

637,940. SUPER-SUDS. Economics Laboratory, Inc. SN 6,694. Pub. 9-11-56. Filed 4-18-56.

637,941. SUPER-SUDS. Economics Laboratory, Inc. SN 6,695. Pub. 9-11-56. Filed 4-18-56.

637,942. SUPER-SUDS. Economics Laboratory, Inc. SN 6,696. Pub. 9-11-56. Filed 4-18-56.

637,943. SUPER-SUDS. Economics Laboratory, Inc. SN 6,697. Pub. 9-11-56. Filed 4-18-56.

637,944. SUPER-SUDS. Economics Laboratory, Inc. SN 6,698. Pub. 9-11-56. Filed 4-18-56.

637,945. SUPER-SUDS. Economics Laboratory, Inc. SN 6,699. Pub. 9-11-56. Filed 4-18-56.

637,946. SUPER-SUDS. Economics Laboratory, Inc. SN 6,700. Pub. 9-11-56. Filed 4-18-56.

637,947. SUPER-SUDS. Economics Laboratory, Inc. SN 6,701. Pub. 9-11-56. Filed 4-18-56.

637,948. SUPER-SUDS. Economics Laboratory, Inc. SN 6,702. Pub. 9-11-56. Filed 4-18-56.

637,949. SUPER-SUDS. Economics Laboratory, Inc. SN 6,703. Pub. 9-11-56. Filed 4-18-56.

637,950. SUPER-SUDS. Economics Laboratory, Inc. SN 6,704. Pub. 9-11-56. Filed 4-18-56.

637,951. SUPER-SUDS. Economics Laboratory, Inc. SN 6,705. Pub. 9-11-56. Filed 4-18-56.

637,952. SUPER-SUDS. Economics Laboratory, Inc. SN 6,706. Pub. 9-11-56. Filed 4-18-56.

637,953. SUPER-SUDS. Economics Laboratory, Inc. SN 6,707. Pub. 9-11-56. Filed 4-18-56.

637,954. SUPER-SUDS. Economics Laboratory, Inc. SN 6,708. Pub. 9-11-56. Filed 4-18-56.

637,955. SUPER-SUDS. Economics Laboratory, Inc. SN 6,709. Pub. 9-11-56. Filed 4-18-56.

637,956. SUPER-SUDS. Economics Laboratory, Inc. SN 6,710. Pub. 9-11-56. Filed 4-18-56.

637,957. SUPER-SUDS. Economics Laboratory, Inc. SN 6,711. Pub. 9-11-56. Filed 4-18-56.

637,958. SUPER-SUDS. Economics Laboratory, Inc. SN 6,712. Pub. 9-11-56. Filed 4-18-56.

637,959. SUPER-SUDS. Economics Laboratory, Inc. SN 6,713. Pub. 9-11-56. Filed 4-18-56.

637,960. SUPER-SUDS. Economics Laboratory, Inc. SN 6,714. Pub. 9-11-56. Filed 4-18-56.

637,961. SUPER-SUDS. Economics Laboratory, Inc. SN 6,715. Pub. 9-11-56. Filed 4-18-56.

637,962. SUPER-SUDS. Economics Laboratory, Inc. SN 6,716. Pub. 9-11-56. Filed 4-18-56.

637,963. SUPER-SUDS. Economics Laboratory, Inc. SN 6,717. Pub. 9-11-56. Filed 4-18-56.

637,964. SUPER-SUDS. Economics Laboratory, Inc. SN 6,718. Pub. 9-11-56. Filed 4-18-56.

637,965. SUPER-SUDS. Economics Laboratory, Inc. SN 6,719. Pub. 9-11-56. Filed 4-18-56.

637,966. SUPER-SUDS. Economics Laboratory, Inc. SN 6,720. Pub. 9-11-56. Filed 4-18-56.

637,967. SUPER-SUDS. Economics Laboratory, Inc. SN 6,721. Pub. 9-11-56. Filed 4-18-56.

637,968. SUPER-SUDS. Economics Laboratory, Inc. SN 6,722. Pub. 9-11-56. Filed 4-18-56.

637,969. SUPER-SUDS. Economics Laboratory, Inc. SN 6,723. Pub. 9-11-56. Filed 4-18-56.

637,970. SUPER-SUDS. Economics Laboratory, Inc. SN 6,724. Pub. 9-11-56. Filed 4-18-56.

637,971. SUPER-SUDS. Economics Laboratory, Inc. SN 6,725. Pub. 9-11-56. Filed 4-18-56.

637,972. SUPER-SUDS. Economics Laboratory, Inc. SN 6,726. Pub. 9-11-56. Filed 4-18-56.

637,973. SUPER-SUDS. Economics Laboratory, Inc. SN 6,727. Pub. 9-11-56. Filed 4-18-56.

637,974. SUPER-SUDS. Economics Laboratory, Inc. SN 6,728. Pub. 9-11-56. Filed 4-18-56.

637,975. SUPER-SUDS. Economics Laboratory, Inc. SN 6,729. Pub. 9-11-56. Filed 4-18-56.

637,976. SUPER-SUDS. Economics Laboratory, Inc. SN 6,730. Pub. 9-11-56. Filed 4-18-56.

637,977. SUPER-SUDS. Economics Laboratory, Inc. SN 6,731. Pub. 9-11-56. Filed 4-18-56.

637,978. SUPER-SUDS. Economics Laboratory, Inc. SN 6,732. Pub. 9-11-56. Filed 4-18-56.

637,979. SUPER-SUDS. Economics Laboratory, Inc. SN 6,733. Pub. 9-11-56. Filed 4-18-56.

637,980. SUPER-SUDS. Economics Laboratory, Inc. SN 6,734. Pub. 9-11-56. Filed 4-18-56.

637,981. SUPER-SUDS. Economics Laboratory, Inc. SN 6,735. Pub. 9-11-56. Filed 4-18-56.

637,982. SUPER-SUDS. Economics Laboratory, Inc. SN 6,736. Pub. 9-11-56. Filed 4-18-56.

637,983. SUPER-SUDS. Economics Laboratory, Inc. SN 6,737. Pub. 9-11-56. Filed 4-18-56.

637,984. SUPER-SUDS. Economics Laboratory, Inc. SN 6,738. Pub. 9-11-56. Filed 4-18-56.

637,985. SUPER-SUDS. Economics Laboratory, Inc. SN 6,739. Pub. 9-11-56. Filed 4-18-56.

637,986. SUPER-SUDS. Economics Laboratory, Inc. SN 6,740. Pub. 9-11-56. Filed 4-18-56.

637,987. SUPER-SUDS. Economics Laboratory, Inc. SN 6,741. Pub. 9-11-56. Filed 4-18-56.

637,988. SUPER-SUDS. Economics Laboratory, Inc. SN 6,742. Pub. 9-11-56. Filed 4-18-56.

637,989. SUPER-SUDS. Economics Laboratory, Inc. SN 6,743. Pub. 9-11-56. Filed 4-18-56.

637,990. SUPER-SUDS. Economics Laboratory, Inc. SN 6,744. Pub. 9-11-56. Filed 4-18-56.

637,991. SUPER-SUDS. Economics Laboratory, Inc. SN 6,745. Pub. 9-11-56. Filed 4-18-56.

637,992. SUPER-SUDS. Economics Laboratory, Inc. SN 6,746. Pub. 9-11-56. Filed 4-18-56.

637,993. SUPER-SUDS. Economics Laboratory, Inc. SN 6,747. Pub. 9-11-56. Filed 4-18-56.

637,994. SUPER-SUDS. Economics Laboratory, Inc. SN 6,748. Pub. 9-11-56. Filed 4-18-56.

637,995. SUPER-SUDS. Economics Laboratory, Inc. SN 6,749. Pub. 9-11-56. Filed 4-18-56.

637,996. SUPER-SUDS. Economics Laboratory, Inc. SN 6,750. Pub. 9-11-56. Filed 4-18-56.

637,997. SUPER-SUDS. Economics Laboratory, Inc. SN 6,751. Pub. 9-11-56. Filed 4-18-56.

637,998. SUPER-SUDS. Economics Laboratory, Inc. SN 6,752. Pub. 9-11-56. Filed 4-18-56.

637,999. SUPER-SUDS. Economics Laboratory, Inc. SN 6,753. Pub. 9-11-56. Filed 4-18-56.

638,000. SUPER-SUDS. Economics Laboratory, Inc. SN 6,754. Pub. 9-11-56. Filed 4-18-56.

638,001. SUPER-SUDS. Economics Laboratory, Inc. SN 6,755. Pub. 9-11-56. Filed 4-18-56.

638,002. SUPER-SUDS. Economics Laboratory, Inc. SN 6,756. Pub. 9-11-56. Filed 4-18-56.

638,003. SUPER-SUDS. Economics Laboratory, Inc. SN 6,757. Pub. 9-11-56. Filed 4-18-56.

638,004. SUPER-SUDS. Economics Laboratory, Inc. SN 6,758. Pub. 9-11-56. Filed 4-18-56.

638,005. SUPER-SUDS. Economics Laboratory, Inc. SN 6,759. Pub. 9-11-56. Filed 4-18-56.

638,006. SUPER-SUDS. Economics Laboratory, Inc. SN 6,760. Pub. 9-11-56. Filed 4-18-56.

638,007. SUPER-SUDS. Economics Laboratory, Inc. SN 6,761. Pub. 9-11-56. Filed 4-18-56.

638,008. SUPER-SUDS. Economics Laboratory, Inc. SN 6,762. Pub. 9-11-56. Filed 4-18-56.

638,009. SUPER-SUDS. Economics Laboratory, Inc. SN 6,763. Pub. 9-11-56. Filed 4-18-56.

638,010. SUPER-SUDS. Economics Laboratory, Inc. SN 6,764. Pub. 9-11-56. Filed 4-18-56.

638,011. SUPER-SUDS. Economics Laboratory, Inc. SN 6,765. Pub. 9-11-56. Filed 4-18-56.

638,012. SUPER-SUDS. Economics Laboratory, Inc. SN 6,766. Pub. 9-11-56. Filed 4-18-56.

638,013. SUPER-SUDS. Economics Laboratory, Inc. SN 6,767. Pub. 9-11-56. Filed 4-18-56.

638,014. SUPER-SUDS. Economics Laboratory, Inc. SN 6,768. Pub. 9-11-56. Filed 4-18-56.

638,015. SUPER-SUDS. Economics Laboratory, Inc. SN 6,769. Pub. 9-11-56. Filed 4-18-56.

638,016. SUPER-SUDS. Economics Laboratory, Inc. SN 6,770. Pub. 9-11-56. Filed 4-18-56.

638,017. SUPER-SUDS. Economics Laboratory, Inc. SN 6,771. Pub. 9-11-56. Filed 4-18-56.

638,018. SUPER-SUDS. Economics Laboratory, Inc. SN 6,772. Pub. 9-11-56. Filed 4-18-56.

638,019. SUPER-SUDS. Economics Laboratory, Inc. SN 6,773. Pub. 9-11-56. Filed 4-18-56.

638,020. SUPER-SUDS. Economics Laboratory, Inc. SN 6,774. Pub. 9-11-56. Filed 4-18-56.

638,021. SUPER-SUDS. Economics Laboratory, Inc. SN 6,775. Pub. 9-11-56. Filed 4-18-56.

638,022. SUPER-SUDS. Economics Labo

## Service Marks

### CLASS 100

### MISCELLANEOUS

637,851. ONTRA. John R. Thompson Co. SN 3,719. Pub. 9–11–56. Filed 3–1–56.

### CLASS 101

### ADVERTISING AND BUSINESS

637,852. COLORSTAT. Ralph Marks, d. b. a. Colorstat Company and Ralph Marks Color Labs. SN 645,908. Pub. 7–20–54. Filed 4–24–53.

### CLASS 105

### TRANSPORTATION AND STORAGE

637,853. MBL IN A CIRCLE DESIGN. A. L. Mechling Barge Lines, Inc. SN 675,810. Pub. 9–11–56. Filed 11–1–54.

## Certification Marks

### CLASS A

### GOODS

637,854. SCR RE-NU-VENEER. Structural Clay Products Research Foundation. SN 667,466. Pub. 9–11–56. Filed 6–1–54.

637,855. AAGS AND DESIGN. All-America Gladiolus Selections, Inc. SN 700,552. Pub. 9–11–56. Filed 12–27–55.

# SUPPLEMENTAL REGISTER

**These registrations are not subject to opposition.**

### CLASS 11

### INKS AND INKING MATERIALS

637,856. Peerless Imperial Co., Inc., Newark, N. J. SN 683,534. Filed P. R. 3–15–55. Am. S. R. 10–1–56.

ADDISON

For Typewriter Ribbons and Inked Ribbons.
First use Oct. 16, 1930.

### CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

637,857. Benson-Nilen Laboratories, Inc., New York, N. Y. SN 692,502. Filed P. R. 8–5–55. Am. S. R. 7–13–56.

BENSON'S PRUNE MALT

For Laxatives.
First use July 7, 1955.

637,858. Benger's Limited, Holmes Chapel, England. SN 1,197. Filed P. R. 1–23–56. Am. S. R. 9–7–56.

BENGER

Owner of British Reg. No. 695,877, dated Feb. 7, 1951.
For Pharmaceutical Products.

### CLASS 19

### VEHICLES

637,859. Birch Vermillion, Inc., New York, N. Y. SN 407. Filed P. R. 1–10–56. Am. S. R. 9–5–56.

Saftvest

For Combined Safety Vest and Vertical Slide Seat Mounting Therefor for Use in Vehicles.
First use July 10, 1955.

### CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

637,860. Audiosphere, Inc., Newark, N. J. SN 667,074. Filed P. R. 5–26–54. Am. S. R. 8–22–56.

More than Hi-Fi-"BI-FI"

For Amplifiers, Disc and Tape Recorders and Play Back Systems.
First use Mar. 31, 1954.

### CLASS 32

### FURNITURE AND UPHOLSTERY

637,861. B. B. Jensen, Libertyville, Ill. SN 699,727. Filed P. R. 12–9–55. Am. S. R. 9–19–56.

"CREEP NO STAIR"

For Stair Blockades for Infants.
First use Aug. 25, 1955.



### CLASS 34

### HEATING, LIGHTING, AND VENTILATING APPARATUS

637,862. Goetti Bros. Metal Products Inc., Phoenix, Ariz. SN 691,033. Filed P. R. 7–11–55. Am. S. R. 9–24–56.

DUSTRAP

For Evaporative Cooler Pads.
First use June 6, 1955.

### CLASS 36

### MUSICAL INSTRUMENTS AND SUPPLIES

637,863. Kohler & Campbell, Inc., New York, N. Y. SN 683,781. Filed P. R. 3–18–55. Am. S. R. 10–3–56.

WILLIAMSBURG

For Musical Instruments—Namely, Pianos and Organs.
First use on or about Apr. 12, 1953.

### CLASS 37

### PAPER AND STATIONERY

637,864. Premier Materials Co., Chicago, Ill. SN 694,667. Filed P. R. 9–14–55. Am. S. R. 9–18–56.

FONE-PAD

For Holder for Writing Pads and Paper Which Holder Is Attached to a Telephone.
First use Aug. 2, 1955.

### CLASS 39

### CLOTHING

637,865. Seamprufe Incorporated, New York, N. Y. SN 683,561. Filed P. R. 3–15–55. Am. S. R. 9–21–56.

"WHATEVER YOUR HEIGHT IT FITS YOU RIGHT"

For Women's Apparel, Comprising Slips, Bloomers, Petticoats, Nightgowns, Pajamas, Chemises, Step-Ins, and Panties.
First use Jan. 5, 1955.

637,866. Chiropody Research Laboratories, Inc., Quincy, Mass. SN 8,629. Filed 5–21–56.

FORM-IT

For Insoles and Arch-Supporting Devices for Shoes.
First use June 1, 1953.



### CLASS 46

### FOODS AND INGREDIENTS OF FOODS

637,867. Tobin Packing Co., Inc., Rochester, N. Y. SN 672,763. Filed P. R. 9–3–54. Am. S. R. 8–22–56.

OUR PEAK of PERFECTION

For Fresh Pork Cuts; Smoked and Cured Pork and Beef Cuts; Fresh Beef Cuts and Carcass; Dressed Poultry and Parts Thereof and Poultry Pies; Salt Pork; Sausage and Cooked Meat Loaves, Both Whole and Packaged Sliced; Chile-Con-Carne; Lard; Butter; Frozen and Fresh Eggs; Lamb and Veal Cuts and Carcass; and Canned Hams, Picnics and Lunch Meat.
First use January 1943.

637,868. Kansas City Market Co., Inc., Kansas City, Mo., to Burnett Meat Company, Kansas City, Mo. SN 678,461. Filed P. R. 12–16–54. Am. S. R. 7–12–56.

*Meats with Approval*

For Fresh Meats—Namely, Fresh Cuts of Beef, Pork, and Veal.
First use Aug. 19, 1954.

637,869. J. Lyons & Co. (Canada) Limited, Toronto, Ontario, Canada. SN 680,280. Filed 1–21–55.

LYONS 60 TEA BAGS

Priority claimed under Sec. 44(d) on Canadian application filed Oct. 21, 1954; Reg. No. 101,545, dated Oct. 7, 1955.
For Tea and Tea Bags.

637,870. James F. Baker, d. b. a. Baker's Hatchery and Feed Co., Danville, Ark. SN 693,115. Filed P. R. 8–16–55. Am. S. R. 9–6–56.

ARK-N-SAW

For Dressed Poultry.
First use July 1, 1955.

## CLASS 49

### DISTILLED ALCOHOLIC LIQUORS

637,871. Picon & Cie, Levallois-Perret (Seine), France, now by change of name Picon (S. A. P.) Societe anonyme des anciens Etablissements Amer Picon. SN 692,079. Filed P. R. 7-28-55. Am. S. R. 8-22-56.




Owner of U. S. Reg. Nos. 314,131, 316,322, and others.
For Alcoholic Cordials.
First use Mar. 10, 1950; in commerce July 15, 1954.

## CLASS 51

### COSMETICS AND TOILET PREPARATIONS

637,872. Helena Rubinstein, Inc., New York, N. Y. SN 671,060. Filed P. R. 8-3-54. Am. S. R. 9-28-56.

"TORERO PINK"

For Lipsticks.
First use July 7, 1954.

637,873. Clairol Incorporated, Stamford, Conn. SN 673,507. Filed P. R. 9-21-54. Am. S. R. 1-20-56.

PINK SILVER

For Hair Tints, Hair Dyes, and Hair Bleaches.
First use June 1953.

## Service Marks

## CLASS 107

### EDUCATION AND ENTERTAINMENT

637,874. Cecchetti Council of America, Inc., Royal Oak, Mich. SN 630,701. Filed P. R. 6-4-52. Am. S. R. 10-2-53.




For Instructing in the Art of Ballet Dancing.
First use May 16, 1952.

## Certification Marks

## CLASS A

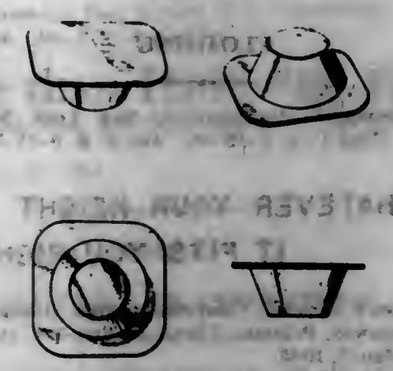
### GOODS

637,875. Societe Generale de l'Horlogerie Suisse S. A. ASUAG (Allgemeine Schweizerische Uhrenindustrie A. G. ASUAG), Bienne, Switzerland. SN 689,884. Filed 6-20-55.



The mark certifies that the manufacturer of the goods has complied with the standards set up by this company. The mark comprises the form of the packing or container for the goods, that is, of a truncated inverted pyramid with rounded corners and with a flanged top with rounded corners in which the goods are packaged and sold. Owner of Swiss Reg. No. 153,641, dated Nov. 15, 1954.
For Timepiece Repair Parts.

637,876. Societe Generale de l'Horlogerie Suisse S. A. ASUAG (Allgemeine Schweizerische Uhrenindustrie A. G. ASUAG), Neuchatel, Switzerland. SN 689,885. Filed 6-20-55.



The mark certifies that the manufacturer of the goods has complied with the standards set up by applicant. The mark comprises the form of the packing or container for the goods, that is, of a truncated inverted cone with rounded corners and with a flanged top with rounded corners. Owner of Swiss Reg. No. 153,642, dated Nov. 15, 1954.
For Timepiece Repair Parts.

# TRADEMARK REGISTRATIONS RENEWED

111,746. SKANDIA. Cl. 23. 8-1-16.
111,991. DESIGN OF COFFEE POT. Cl. 46. 8-15-16.
113,729. BON TON. Cl. 46. 10-31-16.
114,633. F & F AND DESIGN. Cl. 51. 12-26-16.
115,373. DAUNTLESS. Cl. 39. 2-6-17.
115,646. PERFECTION. Cl. 44. 2-27-17.
115,686. FLORA BELLA. Cl. 46. 2-27-17.
336,033. DORIC. Cl. 27. 6-23-36.
336,179. VI-MIN-ALL. Cl. 18. 6-30-36.
336,592. WOODEN SHOES BRAND AND DESIGN. Cl. 46. 7-7-36.
336,593. SILVER SKATES AND DESIGN. Cl. 46. 7-7-36.
337,241. LAWYERS WEEKLY DIGEST. Cl. 38. 8-4-36.
338,328. FORMATE. Cl. 23. 9-1-36.
338,418. ROBERT BRUCE. Cl. 39. 9-8-36.
338,982. DISSOLVO. Cl. 46. 9-22-36.
339,016. SOFWITE AND DESIGN. Cl. 37. 9-22-36.
339,060. MODEL HOME. Cl. 2. 9-22-36.
339,081. CELADUL. Cl. 42. 9-22-36.
339,136. LUMARITH. Cl. 3. 9-29-36.
339,207. AIR-PAREL. Cl. 42. 9-29-36.
339,233. NEO. Cl. 26. 9-29-36.
339,405. PERCLENE. Cl. 52. 10-6-36.
339,537. WEATHERLOK. Cl. 12. 10-13-36.
339,713. LANITAL. Cl. 43. 10-20-36.
339,765. UNISHANK. Cl. 23. 10-20-36.
339,827. ZEROGLOSS. Cl. 16. 10-20-36.
339,976. FIRMTEX. Cl. 2. 10-27-36.
339,993. SHAVEMASTER. Cl. 23. 10-27-36.
340,140. OLD OSCAR PEPPER AND DESIGN. Cl. 49. 11-3-36.
340,154. BELRIDGE. Cl. 39. 11-3-36.
340,472. A C KLEER KLEEN. Cl. 31. 11-10-36.
340,664. ZEROSEAL. Cl. 12. 11-17-36.
340,665. ZEROTEX. Cl. 12. 11-17-36.
340,666. ZEROTAPE. Cl. 12. 11-17-36.
340,835. FILATEX. Cl. 42. 11-24-36.
340,836. FILATEX. Cl. 43. 11-24-36.
340,922. SCANDALE. Cl. 39. 11-24-36.
341,153. RON SUPR. Cl. 49. 12-1-36.
341,301. TOPREM. Cl. 23. 12-1-36.
341,914. LADYSHIP. Cl. 28. 12-29-36.
341,956. NULAID NEWS. Cl. 38. 12-29-36.
342,179. AERO. Cl. 2. 1-5-37.
342,299. ARIDEX. Cl. 6. 1-12-37.
342,307. DEFLUORITE. Cl. 6. 1-12-37.
342,371. CARMELO. Cl. 49. 1-12-37.
342,503. NIBLET-BARS. Cl. 46. 1-19-37.
342,552. BROWN MULE. Cl. 39. 1-19-37.
342,572. MELISANDE. Cl. 39. 1-19-37.
342,692. WAYNE MISTOIL BURNER AND DESIGN. Cl. 34. 1-26-37.
342,717. MELLWOOD. Cl. 49. 1-26-37.
342,820. HEWLETT'S SUPREME. Cl. 45. 2-2-37.
343,064. FOS-FO-TEX. Cl. 6. 2-9-37.
343,067. SCULPTURED TO THE FOOT AND DESIGN. Cl. 39. 2-9-37.
343,334. EASY 3 ZONE WASHER. Cl. 24. 2-16-37.
343,349. PARTNER'S CHOICE. Cl. 49. 2-16-37.
343,391. WHITE HEART RUM AND DESIGN. Cl. 49. 2-16-37.
343,423. INFUSION DE PARFUM YBRY. Cl. 51. 2-23-37.
343,467. BURROUGHS. Cl. 23. 2-23-37.
343,677. THE KRYSTAL AND DESIGN. Cl. 46. 3-2-37.
343,737. TELETALK. Cl. 21. 3-2-37.
343,793. COMPASS BOND. Cl. 37. 3-9-37.
343,822. SANTOLUBE. Cl. 15. 3-9-37.
343,823. SANTOPOUR. Cl. 15. 3-9-37.
343,925. CORONADO. Cl. 34. 3-9-37.
343,957. LESTOIL. Cl. 52. 3-9-37.
344,124. WHITE TAVERN. Cl. 49. 3-16-37.

# TRADEMARK REGISTRATIONS CANCELED

### Section 8

235,500. PACKARD. Cl. 39. 11-22-27.
347,478. BOUNTIFUL ORANGES AND DESIGN. Cl. 46. 6-29-37.
355,057. ROBERT FULTON AND DESIGN. Cl. 46. 3-8-38.
404,714. INCO NICKEL L AND DESIGN. Cl. 14. 12-21-43.
425,260. BANQUET TEA PAKS AND DESIGN. Cl. 46. 11-12-46.
429,775. NOPEEK-OPAKE. Cl. 37. 5-20-47.

*The following registrations issued August 29, 1950*

529,668. MARMON-HERRINGTON AND DESIGN. Cl. 19.
529,672. SUPER COLD. Cl. 31.
529,673. KAISER. Cl. 29.
529,674. WORLD'S BUSINESS AND IMPORTERS GUIDE. Cl. 38.
529,678. ARMSTRONG AND DESIGN. Cl. 39.
529,688. TEX KID AND DESIGN. Cl. 39.
529,693. YANKEE NESTS. Cl. 2.
529,694. PAUL JONES AND DESIGN. Cl. 32.
529,695. FOLD-AWAY. Cl. 24.
529,705. MARVEL KILL-FYR. Cl. 23.
529,710. AUTO-THERM. Cl. 19.
529,715. BLISH'S BEST. Cl. 46.
529,718. RB AND DESIGN. Cl. 19.
529,721. BAR-F BRAND. Cl. 46.
529,722. SPENCER. Cl. 39.
529,724. GOLD BAND. Cl. 6.
529,728. GLAD-HAMPS. Cl. 2.
529,731. KEEPSAKE. Cl. 23.
529,732. LUMI-GLO. Cl. 21.
529,734. LUCKY STRIKE. Cl. 23.
529,736. MUSICOLA. Cl. 21.
529,737. JUVENILE FREE TREAD AND DESIGN. Cl. 39.
529,740. GOLD MEDAL. Cl. 39.
529,741. SUAVITOR. Cl. 6.
529,743. ALASCO. Cl. 46.
529,744. ARMSTRONG'S. Cl. 39.
529,754. LAPLANT CHOATE AND DESIGN. Cl. 19.
529,755. TEMCO AND DESIGN. Cl. 21.
529,756. HOLBROOK. Cl. 39.
529,760. J-K. Cl. 21.
529,763. HUSH. Cl. 39.
529,770. CRO-RINC. Cl. 32.
529,772. DONU EDMOND. Cl. 51.
529,781. HOPETON HOUSE AND DESIGN. Cl. 51.
529,782. GARDEN PAL. Cl. 23.
529,788. BANTAM. Cl. 21.
529,789. FREE FILTER AND DESIGN. Cl. 31.
529,790. SLAX-MASTER. Cl. 32.
529,798. THREE X. Cl. 46.
529,794. SNUG-CLASP. Cl. 32.
529,795. ROGER BENTLEY. Cl. 39.
529,805. NUT-LOK. Cl. 13.
529,809. DYNAPORT. Cl. 21.
529,810. DYNATROPH. Cl. 21.
529,812. BUTTER-CUP. Cl. 44.
529,815. WM AND DESIGN. Cl. 23.
529,824. VEDEO-WHITE. Cl. 6.
529,827. AMBASSADOR. Cl. 50.
529,831. RIDEWELL. Cl. 19.
529,832. STOKES BEST. Cl. 46.
529,838. SLIPOVA. Cl. 39.
529,849. GO-STICK. Cl. 4.
529,850. 2 GUN FRONTIER PANTS. Cl. 39.
529,856. MERCARDIN. Cl. 18.
529,859. THE BUNNYHUG. Cl. 39.
529,862. HY GARDNER'S NEWSREEL. Cl. 38.
529,863. TUMBLE SUDS. Cl. 52.
529,867. HALLOWELL. Cl. 19.
529,876. CHERRI-LITE. Cl. 21.

529,878. "DURAMATIC." Cl. 2.
529,879. MAGICALL. Cl. 21.
529,881. GLAM-O-LACE. Cl. 39.
529,884. GO CO. Cl. 32.
529,888. REGAL. Cl. 21.
529,889. "ELECTRO-VENT." Cl. 2.
529,890. LOUSOLS. Cl. 39.
529,893. CREDIT EXECUTIVE. Cl. 38.
529,896. MULTI-AD-JAC. Cl. 39.
529,897. BOYCO AND DESIGN. Cl. 32.
529,898. NORTHWESTERN. Cl. 39.
529,900. PERMA-SASH. Cl. 39.
529,903. PUFFGLASS. Cl. 31.
529,906. HELYN. Cl. 39.
529,907. ROYL-MAID. Cl. 2.
529,910. COOLERATION AND DESIGN. Cl. 31.
529,911. KANT SPREAD. Cl. 32.
529,914. VIDEO. Cl. 23.
529,915. AUTHORITY LINE WITHIN A DESIGN. Cl. 20.
529,918. DARLING ROMANCE. Cl. 38.
529,919. DARLING LOVE. Cl. 38.
529,920. PERT 'N PRETTY. Cl. 38.
529,923. CANDEE DANDEES AND DESIGN. Cl. 39.
529,928. AIR-WAY. Cl. 19.
529,935. HAREM. Cl. 39.
529,941. ROAD CHIEF. Cl. 19.
529,942. THE VANGNOMES. Cl. 38.
529,945. GRAND HOTEL ROMANCES. Cl. 38.
529,952. VALWARE. Cl. 39.
529,954. THE CAPTOR. Cl. 32.
529,955. THE PRELUDE. Cl. 32.
529,956. BG SERVICE STATION. Cl. 38.
529,962. A VANGUARD GREETING. Cl. 38.
529,966. "ECONOMY." Cl. 19.
529,967. DOINGS. Cl. 38.
529,970. DRUM MAJOR. Cl. 39.
529,971. A-DAY-AHEAD. Cl. 38.
529,973. BAN-BANS. Cl. 39.
529,975. CARTOON-A-TRUTH. Cl. 38.
529,980. MACWELT. Cl. 39.
529,985. HUCK-L-BUKS. Cl. 39.
529,988. KNITRIPLET. Cl. 39.
529,989. F-218. Cl. 6.
529,991. AIRLIFTS. Cl. 39.
529,996. LTPEX. Cl. 6.
529,999. WISE AND DESIGN. Cl. 39.
530,000. STAGEDOOR JOHNNY. Cl. 39.
530,002. GREEN GOOSE. Cl. 105.
530,004. THE WHITE COLLAR GIRL SERVICE. Cl. 101.
530,006. ARLANDRIA. Cl. 103.
530,011. CHALLENGE OF THE YUKON. Cl. 107.
530,012. THE HOUSE OF TRAVEL. Cl. 105.
530,013. PROTOCORD. Cl. 100.
530,020. GOOD-ALL. Cl. 21.
530,029. TY-GRIP. Cl. 23.
530,030. CASPARI. Cl. 39.
530,032. GOLF-PAK. Cl. 22.
530,034. 806 CHILDREN'S ROOM AND DESIGN. Cl. 39.
530,036. JET BLAST AND DESIGN. Cl. 23.
530,037. TRUSTYLE. Cl. 28.
530,039. HUB CITY. Cl. 23.
530,041. JAMES HOUSE AND DESIGN. Cl. 46.
530,046. KAISER. Cl. 21.
530,049. MAIS OUI AND DESIGN. Cl. 51.
530,052. FULL-UP. Cl. 21.
530,053. ALLFULL. Cl. 21.
530,054. THE BELLS OF SARNA. Cl. 13.
530,055. JUST TURN THE "KEE" TO SET YOU FREE. Cl. 13.
530,056. NIGHT COAT. Cl. 39.

# TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

115,109. RED DEVIL. Cl. 29. 1–23–17. Rennoma, Kleinle & Company of Baltimore City. Pittsburgh Plate Glass Company, Pittsburgh, Pa. Amended: In the statement, the identification of goods and the class number and title are deleted and *dusting, sweeping, and scrutch brushes and power driven rotary brushes for industrial use in Class 23, Cutlery, machinery, and tools, and parts thereof* is inserted in lieu thereof.

181,062. HOMAID DENVER SANDWICH ETC. AND DESIGN. Cl. 46. 3–11–24. Barg & Foster Candy Company. Sperry Candy Company, Milwaukee, Wis. Amended: In the statement, column 1, lines 13 to 17, "with the words "Sperry's Homaid Candies" appearing in a circle design at the upper left hand corner, mountains above, and a girl in saddle on horse's back at the right" is deleted, and *on the two panels of the wrapper in which the goods are sold* is inserted in lieu thereof; column 2, lines 7 and 8, "The words "Homaid Candies" are' is deleted, and *The word Candy is* is inserted in lieu thereof; and the drawing is amended to appear:




270,512. DAREX. Cl. 6. 5–6–30. Dewey & Almy Chemical Company. W. R. Grace & Co., Cambridge, Mass. Amended: In the statement, line 4, "North" is deleted; lines 7 and 8, "235 Harvey Street, in said North" is deleted and *62 Whittemore Avenue*, is inserted in lieu thereof; and the drawing is amended to appear:

DAREX

270,767. DAREX. Cl. 39. 5–13–30. Dewey & Almy Chemical Company. W. R. Grace & Co., Cambridge, Mass. Amended: In the statement, line 4, "North" is deleted; line 7, "235 Harvey Street" is deleted and *62 Whittemore Avenue* is inserted in lieu thereof; same line 7, "North" is deleted; line 10, "outer soles," is deleted; line 11, "heels," is deleted; and the drawing is amended to appear:

DAREX

531,974. STRAWKRAFT. Cl. 37. 10–17–50. Central Fibre Products Company Incorporated, now by change of name Central Fibre Products Company, Chicago, Ill. Amended: In the certificate, lines 4 and 15; in the heading and signature to the statement; and in line 1 of the statement, after "Incorporated," *now by change of name Central Fibre Products Company*, is inserted.

531,974. STRAWKRAFT. Cl. 37. 10–17–50. Central Fibre Products Company Incorporated, now by change of name Central Fibre Products Company, Chicago, Ill. Corrected: In the certificate, line 5, and in line 3 of the statement, "Illinois" should be *Delaware*.

630,360. BEKA EUPEN AND DESIGN. Cl. 23. 7–10–56. S. A. Eteco (European Overseas Trading Company), Zwevegem, Belgium. Corrected: In the certificate, line 5, "the Netherlands" should be *Belgium*; and in line 3 of the printed copy of the registration, "Dutch" should be *Belgian*.

631,154. NEO GLIDE. Cl. 12. 7–24–56. Neo Prime Products Co., Detroit, Mich. Corrected: In the certificate, lines 3 and 15, and in line 1 of the printed copy of the registration, "Primer" should be *Prime*.

635,102. USS. Cl. 23. 10–2–56. Westinghouse Air Brake Company, Pittsburgh, Pa. Corrected: In the printed copy of the registration, page 1, column 2, line 40, after "Feb. 1, 1909" (first occurrence), , *on crank stands* should be inserted; page 2, column 1, line 4, "electric" should be *electronic*.

# TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

42,663. OLD NO. 7. Cl. 49. Jack Daniel. 5–24–04. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn., 11–27–56.

44,460. OLD NO. 7. Cl. 49. Jack Daniel. 7–4–05. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn., 11–27–56.

56,594. HYDRONE. Cl. 6. The Roessler & Hasslacher Chemical Co. 10–9–06. New Cert. Sec. 7(c), to Cutler-Hammer, Inc., Milwaukee, Wis., 11–27–56.

75,469. NO. 7. Cl. 49. Jack Daniel. 10–5–09. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn., 11–27–56.

298,102. JACK DANIEL. Cl. 49. Lem Motlow, doing business as Jack Daniel. 10–11–32. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn., 11–27–56.

314,106. TOPAZ AND DESIGN. Cl. 49. Lem Motlow, doing business as Jack Daniel Distilling Co. 6–19–34. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn., 11–27–56.

323,914. JACK DANIEL. Cl. 49. Lem Motlow, doing business as Jack Daniel. 5–7–35. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn., 11–27–56.

362,813. WHISKEY MADE AS OUR FATHERS MADE IT. Cl. 49. Lem Motlow. 11–29–38. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn., 11–27–56.

383,520. LEM MOTLOW ETC. AND DESIGN. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 12–10–40. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

394,017. JACK DANIEL'S NO. 7. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 3–17–42. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

394,018. JACK DANIEL'S NO. 7 ETC. AND DESIGN. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 3–17–42. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

441,002. JACK DANIEL'S. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 10–12–48. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

441,565. LEM MOTLOW AND DESIGN. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 12–7–48. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

444,537. NO. 1 DISTILLERY ETC. AND DESIGN. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 7–31–51. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

512,723. LEM MOTLOW'S. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 7–26–49. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

582,789. JACK DANIEL'S. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 11–24–53. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

603,460. RARE OLD SIPPIN' WHISKEY. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 3–15–55. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

620,518. DESIGN—STATUETTE. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 1–31–56. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

632,940. THE ONLY WHISKEY CHARCOAL MELLOWED ETC. AND DESIGN. Cl. 49. Jack Daniel Distillery, Lem Motlow, Prop., Inc. 8–14–56. New Cert. Sec. 7(c), to Jack Daniel Distillery, Lem Motlow, Prop., Inc. (1956 corp.), Lynchburg, Tenn., 11–27–56.

# REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

## CLASS 5

### ADHESIVES

153,975. Apr. 4, 1922. Bauer & Black, Chicago, Ill. Pub. by The Kendall Company, Boston, Mass.

Tirro

For Adhesive Tape.

## CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

381,403. Sept. 24, 1940. West Bend Aluminum Co., West Bend, Wis. Pub. by registrant.

Laurel
ALUMINUM WARE

The notation "Aluminum Ware" is disclaimed apart from the mark.

For Aluminum Cooking Hollow Ware.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

427,940. Mar. 4, 1947. H. A. Douglas M'f'g Co., Bronson, Mich. Pub. by Kingston Products Corporation, Kokomo, Ind.

HAD

For Electric Connectors, Electric Terminals, Electric Connecting Plugs, Electric Sockets, Electric Wiring Outfits, Dash Incandescent Lamps, Electric Cowl Lamps, Electric Inspection Lamps, Electric Switches, Electric Headlights, Electric Spark Plugs, and Electric Spotlights.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

405,504. Feb. 8, 1944. The Accurate Bushing Company, Garwood, N. J. Pub. by Accurate Bushing Company, Garwood, N. J.

ABC

For Drill Jig Bushings and Liners Therefor.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

338,062. Aug. 25, 1936. Western Clock Company, Peru, Ill. Pub. by General Time Corporation, La Salle, Ill.

TRAVALARM

For Clocks.

338,301. Sept. 1, 1936. Western Clock Company, Peru, Ill. Pub. by General Time Corporation, La Salle, Ill.

Fortune

For Clocks.

## CLASS 30

## CROCKERY, EARTHENWARE, AND PORCELAIN

113,898. Nov. 7, 1916. National X-Ray Reflector Company, Chicago, Ill. Pub. by Curtis Lighting, Inc., Chicago, Ill.

X-RAY

For Porcelain Reflectors for Lighting Fixtures.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

443,580. Nov. 29, 1949. Societe Anonyme des Anciens Etablissements, Martin Freres, Paris, France. Pub. by Societe Anonyme des Anciens Etablissements, Martin Freres, Paris, France.

MARTIN Freres

For Woodwind Musical Instruments—Namely, Clarinets, Oboes and Bassoons, and Reeds Therefor.

## CLASS 37

## PAPER AND STATIONERY

384,932. Feb. 11, 1941. Hasenfeld Bros. Inc., also d. b. a. Prov. Pencil Co., Providence, R. I. Pub. by Hasenfeld Bros., Inc., Central Falls, R. I.

PLAST-O-CAP

No claim is made to the word "Cap" apart from the mark shown on the drawing.

For Wood Encased Lead Pencils.

396,476. July 21, 1942. Checks, Incorporated, Minneapolis, Minn. Pub. by registrant.



For Printed Matter—Namely, Money Order Blank Forms, Payor's Receipt Forms, Collector's Record Forms, Agent's Record Forms, Post Card Draft Forms, Money Order Forms, Remitter's Receipt Blank Forms, Check Forms or Blanks, Traveler's Blank Check Forms, Contract Blank Forms, Invoice Blank Forms, and Instruction Sheet Printed Blank Forms.

## CLASS 39

## CLOTHING

338,814. Sept. 15, 1936. Carson Pirie Scott & Company, Chicago, Ill. Pub. by Carson Pirie Scott & Co., Chicago, Ill.

VELVET-GLO

For Men's and Boys' Outer Shirts.



## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

338,542. Sept. 8, 1936. The Therapeutic Gauze Co., Newark, N. Y. Pub. by registrant.

PYROGAWZ

For Therapeutic Gauze Used as a Special Treatment for Burns.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

113,722. Oct. 31, 1916. Gibbs Preserving Company, Baltimore, Md. Pub. by Gibbs & Company, Incorporated, Baltimore, Md.

BULL HEAD

For Canned Fruits, Canned Vegetables, Canned Oysters, Preserved Berries, Jellies, Apple Butter, Fruit Preserves, Tomato Catsup, Tomato Catsup With Tabasco Sauce, Peanut Butter, Chili Sauce, and Marmalades.

# LIST OF REGISTRANTS OF TRADEMARKS

REGISTERED NOVEMBER 27, 1966

A C Spark Plug Co., Flint, to General Motors Corp., Detroit, Mich. 340,413, ren. 11-10-66. Cl. 31.

Abbott, Charles P., Co., Inc., East Orange, N. J. 638,876. Accessories Mfg. Co., Inc., Kansas City, Mo. 637,067, pub. 9-11-66. Cl. 21.

Accurate Bonding Co. : *See*—

Accurate Bonding Co., The, by Accurate Bonding Co., Garwood, N. J. 106,886, 12(c) pub. 11-27-56. Cl. 24.

Ace Chrome Corp., Chicago, Ill. 637,723, pub. 9-11-66. Cl. 23.

Acme Appliance Mfg. Co., Pasadena, Calif. 637,901, pub. 9-11-66. Cl. 13.

Acme Codec Co., Fort Worth, Tex. 111,981, ren. 8-18-66. Cl. 40.

Adair, Adolphe

Adjustable Backrest Mfg. Co. : *See*—

Adali Chemical Co. : *See*—

Adams-Almond News Forecasting Service, Inc., New York, N. Y., and Washington, D. C. 629,971, case, Cl. 38.

Advertising Service Co., Baltimore, Md. 529,985, case, Cl. 42.

Aeronautical Chemical and Machine Co., Painesville, Ohio. 638,086, case, Cl. 23.

Aeronautronic Corp., Lancaster, Pa. 629,678, case, Cl. 39.

Aeronautronic Corp., Lancaster, Pa. 629,744, case, Cl. 39.

Aero Research Corp., The, Bryan, Ohio. 637,673, pub. 9-11-66. Cl. 23.

Arrow Lettree Co., Alliance, Calif. 637,815, pub. 9-4-66. Cl. 46.

Art Iron & Wire Works, Inc., Toledo, Ohio. 637,996, pub. 9-11-66. Cl. 12.

Ashland Oil & Refining Co., Ashland, Ky. 637,605, pub. 9-11-66. Cl. 16.

Associated Merchandising Corp., The, New York, N. Y. 637,772, pub. 9-11-66. Cl. 39.

Atlas Chains Products, Inc., Brooklyn, N. Y., to Packers for Pets Inc. 637,878, pub. 9-11-66. Cl. 6.

Atlas Plywood Corp., Boston, Mass. 637,871, pub. 9-11-66. Cl. 2.

Atlas Plywood Corp., Boston, Mass. 637,508, pub. 9-12-66. Cl. 12.

Audio Equipment Co., Inc., Great Neck, N. Y. 637,633, pub. 9-16-66. Cl. 21.

Audiosphere, Inc., Newark, N. J. 637,099, Cl. 21.

Austin, Nichols & Co., Inc., Brooklyn, N. Y. 342,371, ren. 1-13-67. Cl. 46.

Avon Products, Inc., New York, N. Y. 637,048, pub. 9-11-66. Cl. 52.

Baetzel, Betty A., Bethel, Kans. 637,906, pub. 9-9-66. Cl. 46.

Baker, James P., & Co., Baker's Hatbery and Prod Co., Dansville, Ala. 637,576, Cl. 46.

Baker's Juneau, Inc., Juneau, Wis. 637,713, pub. 9-11-66. Cl. 31.

Baldy Cone and Coaster Co., Baldy, Pa. 637,718, pub. 9-11-66.

Barg & Foster Candy Co., Sperry Candy Co., Milwaukee, Wis. 181,063, Am. 7(d). Cl. 46.

Barowsky, Jacob L., d. b. a. Adell Chemical Co., to Adell Chemical Co., Holyoke, Mass. 243,367, ren. 2-9-67. Cl. 62

Batteries, R. Neal, Pasadena, Calif. 637,726, pub. 9-11-66. Cl. 26.

Bauer & Black, Chicago, Ill., by The Kendall Co., Boston, Mass. 183,978, 12(c) pub. 11-27-56. Cl. 2.

Bellows & Co., Inc., New York, N. Y., to Geo. G. Sanderson & Co., Ltd., London, England. 242,843, ren. 3-16-67. Cl. 49.

Bemert's Ltd., Holmes Chapel, England. 637,886. Cl. 16.

Benson-Neem Laboratories, Inc., New York, N. Y. 637,867. Cl. 18.

Berry & Benson, Chicago, Ill. 637,762, pub. 10-21-52. Cl. 39.

Bleow, Harris E., Inc. : *See*—

Blue Co., The, Girard, Ohio. 637,932, pub. 9-11-66. Cl. 34.

Bltch Vermillion, Inc., New York, N. Y. 637,889. Cl. 19.

Blue Mullins Co., Seymour, Ind. 629,718, case. Cl. 46.

Blythelmer, George E., Salinas, Calif. 629,928, case. Cl. 18.

Bloomfield Laboratories: *See*—

Bolt-Thomas, George H.

Blue M Electric Co., Blue Island, Ill. 637,686, pub. 9-11-66. Cl. 21.

Borax Consolidated, Ltd., d. b. a. Pacific Coast Borax Co., Div. of Borax Consolidated, Ltd., now by change of name Borax (Holdings) Ltd., to United States Borax & Chemical Corp., Los Angeles, Calif. 637,577, pub. 1-10-66. Cl. 6.

Borax Consolidated, Ltd. : *See*—

Borax (Holdings) Ltd., to United States Borax & Chemical Corp., Los Angeles, Calif. 637,578, pub. 6-6-66. Cl. 6.

Borax Consolidated, Ltd.

Borg-Warner Corp., Chicago, Ill. 637,807, pub. 9-11-66. Cl. 21.

Borg-Warner Corp., Chicago, Ill. 637,642, pub. 9-11-66. Cl. 16.

Borrillo, Nicola, d. b. a. Crestmere, Woodlawn, D. C. 637,006, pub. 9-11-66. Cl. 46.

Bourjois, Inc., New York, N. Y. 230,049, ren. Cl. 51.

Boyer Chemical Co., Chicago, Ill. 637,008, pub. 9-11-66. Cl. 16.

Brett-Guard Co., a div. of Glenwood Industries, Inc., Englewood, N. J. 637,679, pub. 9-11-66. Cl. 22.

Brighton Fish Co. : *See*—

Brotary Stores, Inc.

Brown, Clarence E., & Co., Inc., to Wm. Simpson, Sons & Co., Inc., New York, N. Y. 239,207, ren. 9-28-66. Cl. 42.

Brown Co. : *See*—

Brown, S. H., and Co.

Krewe, Robert, Inc. : *See*—

Bruce, Robert, Inc., Baltimore, Md. 529,986, canc. Cl. 26.

Brown, David, Shoe Co., Inc., Baltimore, Md. 529,985, canc. Cl. 42.

Burgess Knitting Mills, Inc.

Burke Corp., Glendale, Calif. 637,709, pub. 9-11-66. Cl. 29.

Burnett Mills, Chicago, Ill. 637,786, pub. 9-11-66. Cl. 42.

Bureau of National Affairs, Inc., The, Washington, D. C. 337,241, ren. 8-4-66. Cl. 38.

Burnett Meat Co. : *See*—

Burroughs Adding Machine Co.

Burroughs Adding Machine Co., to Burroughs Corp., Detroit, Mich. 243,467, ren. 2-28-67. Cl. 23.

Burroughs Corp. : *See*—

Burroughs Adding Machine Co.

Kansas City Meter Co., Inc.

Burton Mechanical Engineering Co. : *See*—

Butler, Harry A., Jr.

Cable Electric Products, Inc., Brooklyn, N. Y. 629,732, canc. Cl. 21.

Calvert Paramecium Co., New York, N. Y. 637,626, pub. 9-11-66. Cl. 18.

Canterbelle Exquisite S., New York, N. Y. 629,784, canc. Cl. 32.

Carnegie Mfg. Facility Co., Inc., Brooklyn, N. Y. 637,610, pub. 9-4-66. Cl. 46.

Carpenter Paper Co. : *See*—

National Wide Papers, Inc.

Carpenter Paper Co., Omaha, Nebr. 429,775, canc. Cl. 37.

Carson Pirie Scott & Co., Chicago, Ill. 338,514, 12(c) pub. 11-27-56. Cl. 39.

Cassella Farbwerke Mainkur Aktiengesellschaft, Frankfurt am Main, Fechenheim, Germany. 637,881, pub. 10-2-66. Cl. 6.

Castro Decorators, Inc., New Hyde Park, N. Y. 637,729, pub. 9-11-66. Cl. 32.

Cecostin Cereal of America, Inc., Royal Oak, Mich. 637,874. Cl. 107.

Celanese Corp. of America : *See*—

Celanese Corp. of America, New York, N. Y. 239,061, ren. 9-22-56. Cl. 42.

Celluloid Corp., Newark, N. J., to Celanese Corp. of America, New York, N. Y. 239,136, ren. 9-28-56. Cl. 2.

Central Fibre Products Co. : *See*—

Central Fibre Products Co., Inc.

Central Fibre Products Co., Inc., now by change of name Central Fibre Products Co., Chicago, Ill. 631,574, cor. Cl. 37.

Central Fibre Products Co., Chicago, Ill. 631,574, Am. T(d). Cl. 37.



# LIST OF REGISTRANTS OF TRADEMARKS

Central Soya Co., Inc., Fort Wayne, Ind. 529,724, canc. Cl. 6.
Challenge of the Yukon, Inc., Detroit, Mich. 530,011, canc. Cl. 107.
Checks, Inc., Minneapolis, Minn. 296,476, 12(c) pub. 11-27-56. Cl. 37.
Chicago Flexible Shaft Co., to Sunbeam Corp., Chicago, Ill. 539,993, ren. 10-27-56. Cl. 23.
Chiropody Research Laboratories, Inc., Quincy, Mass. 637,866. Cl. 46.
Chore Board Co.: *See*—
Doupnik, Frank A.
Chairol Inc., Stamford, Conn. 637,873. Cl. 51.
Claridge Products and Equipment, Inc., Chicago, Ill. 637,844, pub. 9-11-56. Cl. 50.
Clemente, Jose Gonzales, & Co., Mayagues, Puerto Rico. 341,153, ren. 12-1-56. Cl. 49.
Clinical Products Ltd., Richmond, England. 637,627, pub. 9-11-56. Cl. 18.
Close-Up, Inc., New York, N. Y., Chicago, Ill., St. Louis, Mo., and Los Angeles, Calif. 529,918, canc. Cl. 38.
Close-Up, Inc., New York, N. Y., and Chicago, Ill. 529,919, canc. Cl. 38.
Cluett, Peabody & Co., Inc., Troy, N. Y. 529,722, canc. Cl. 39.
Coats & Clark Inc., New York, N. Y. 637,791, pub. 9-11-56. Cl. 43.
Colorstat Co. and Ralph Marks Color Labs.: *See*—
Marks, Ralph.
Columbia Broadcasting System, Inc., Bridgeport, Conn. 537,737, pub. 9-11-56. Cl. 36.
Columbian Carbon Co., New York, N. Y. 529,906, canc. Cl. 6.
Comeg Products Co.: *See*—
Sanders, Leroy B.
Commander-Larabee Milling Co., d. b. a. Stokes Milling Co., Minneapolis, Minn., now by merger Archer-Daniels-Midland Co. 529,632, canc. Cl. 46.
Connor Lumber and Land Co., The, Laona, Wis. 637,589, pub. 9-11-56. Cl. 12.
Construction Sales Corp., Albany, N. Y. 529,849, canc. Cl. 4.
Continental Can Co., Inc., New York, N. Y. 637,686, pub. 9-11-56. Cl. 23.
Converted Rice, Inc., Houston, Tex. 637,824, pub. 9-11-56. Cl. 46.
Coolerator Co., The, Duluth, Minn. 529,910, canc. Cl. 31.
Coon, W. B., Co., Rochester, N. Y. 529,737, canc. Cl. 39.
Cordwares Co., Inc., The, New York, N. Y. 530,013, canc. Cl. 100.
Crandall, Louis, Phoenix, Ariz., to Louis Crandall Toys, Inc. 637,646, pub. 9-11-56. Cl. 22.
Crandall, Louis, Toys, Inc.: *See*—
Crandall, Louis.
Creamburger: *See*—
Borsillo, Nicola.
Crename, Inc., Chicago, Ill. 529,770, canc. Cl. 32.
Crookes Laboratories, Inc., Mineola, N. Y. 637,625, pub. 9-11-56. Cl. 18.
Curtis Lighting, Inc.: *See*—
National X-Ray Reflector Co.
Curtiss Candy Co., The, Chicago, Ill. 637,831, pub. 8-21-56. Cl. 46.
Cutler-Hammer, Inc.: *See*—
Roessler & Hasslacher Chemical Co., The.
Cutts, Richard M., The Plains, Va. 637,585-6, pub. 9-11-56. Cl. 9.
Daniel, Jack: *See*—
Motlow, Lem.
Daniel, Jack, to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 42,663, new cert. Cl. 49.
Daniel, Jack, to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 44,460, new cert. Cl. 49.
Daniel, Jack, to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 75,466, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc.: *See*—
Daniel, Jack.
Motlow, Lem.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 383,520, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 394,017, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 394,018, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 441,002, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 441,565, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 444,537, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 512,723, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 582,789, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 603,490, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 620,518, new cert. Cl. 49.
Daniel, Jack, Distillery, Lem Motlow, Prop., Inc., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 632,940, new cert. Cl. 49.
Daniel, Jack, Distilling Co.: *See*—
Motlow, Lem.
Dartell Laboratories: *See*—
Dartell, Norman.
Dartell, Norman, d. b. a. Dartell Laboratories, Los Angeles, Calif. 637,669, pub. 7-19-55. Cl. 18.
Decatur Box and Basket Co., Inc., Decatur, Ala. 529,728, canc. Cl. 2.
Deister Concentrator Co., Inc., The: *See*—
Deister Concentrator Co., The.
Deister Concentrator Co., The, Fort Wayne, Ind., now by change of name The Deister Concentrator Co., Inc. 637,734, pub. 9-11-56. Cl. 24.
DeLuxe for Boys, Inc., New York, N. Y. 637,762, pub. 9-11-56. Cl. 39.
Design-Line Co., Lincoln, Nebr. 637,702, pub. 9-11-56. Cl. 28.
Desmond's Inc., Los Angeles, Calif. 637,753, pub. 9-11-56. Cl. 39.
De Vac, Inc.: *See*—
Self Storing Window Co., Inc.
Dewey & Almy Chemical Co. W. R. Grace & Co., Cambridge, Mass. 270,512. Am. 7(d). Cl. 6.
Dewey & Almy Chemical Co. W. R. Grace & Co., Cambridge, Mass. 270,767. Am. 7(d). Cl. 39.
Diamond Metal Products Co.: *See*—
Galter, Oscar.
Dieterich Products Corp., Oak Park, Ill. 529,941, canc. Cl. 19.
Doniger, David D., & Co. Inc., New York, N. Y., now by change of name to McGregor-Doniger, Inc. 637,765-6, pub. 9-11-56. Cl. 39.
Douglas, H. A., M'f'g. Co., Bronson, Mich., by Kingston Products Corp., Kokomo, Ind. 427,940, 12(c) pub. 11-27-56. Cl. 21.
Doupnik, Frank A., d. b. a. Chore Board Co., Piedmont, Calif. 637,644, pub. 9-11-56. Cl. 22.
Drew, Irving, Co., The, Portsmouth, Ohio, to Irving Drew Corp., Lancaster, Ohio. 343,087, ren. 2-9-57. Cl. 39.
Drew, Irving, Corp.: *See*—
Drew, Irving, Co., The.
Du Mont, Allen B., Laboratories, Inc., Clifton, N. J. 637,640, pub. 9-11-56. Cl. 21.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 339,405, ren. 10-6-56. Cl. 52.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 342,299, ren. 1-12-57. Cl. 6.
Dutchess Underwear Corp., New York, N. Y. 637,773, pub. 9-11-56. Cl. 39.
Dutton, Harry A., Jr., d. b. a. Burton Electrical Engineering Co., El Segundo, Calif. 637,633, pub. 9-11-56. Cl. 21.
E. A. Laboratories, Inc., Brooklyn, N. Y. 529,710, canc. Cl. 19.
Earp-Thomas, George H., d. b. a. Bloomfield Laboratories, Hampton, N. J. 637,820, pub. 9-11-56. Cl. 46.
Eastern Michigan Orchard Supply Co., Farmington, Mich. 637,830, pub. 9-11-56. Cl. 46.
East Texas Pulp and Paper Co., Evadale, Tex. 637,744, pub. 9-11-56. Cl. 37.
Easy Washing Machine Corp., to The Murray Corp. of America, Syracuse, N. Y. 343,334, ren. 2-16-57. Cl. 24.
Economics Laboratory, Inc.: *See*—
Essential Chemicals Co.
Economics Laboratory, Inc., St. Paul, Minn. 637,850, pub. 9-11-56. Cl. 52.
Edmond Queen Marie's Beautician, Inc., New York, N. Y. 529,772, canc. Cl. 51.
Edna, Inc., d. b. a. Solar Products, Miami Beach, Fla. 637,845, pub. 9-11-56. Cl. 51.
Ekco Products Co., Chicago, Ill. 637,726, pub. 9-11-56. Cl. 32.
Electro-Voice, Inc., Buchanan, Mich. 637,634, pub. 9-11-56. Cl. 21.
Empire Embroidery: *See*—
Lange, Morris M.
Enrich, Henry A., d. b. a. Henry A. Enrich and Co., to Henry A. Enrich and Co., Inc., New York, N. Y. 339,060, ren. 9-22-56. Cl. 2.
Enrich, Henry A., d. b. a. Henry A. Enrich and Co., to Henry A. Enrich and Co., Inc., New York, N. Y. 339,976, ren. 10-27-56. Cl. 2.
Enrich, Henry A., and Co.: *See*—
Enrich, Henry A.
Enrich, Henry A., and Co., Inc.: *See*—
Enrich, Henry A.
Erie Meter Systems, Inc., Erie, Pa. 637,715-16, pub. 9-11-56. Cl. 31.
Eries Mfg. Co., Erie, Pa. 529,788, canc. Cl. 21.
Essential Chemicals Co., Milwaukee, Wis., to Economics Laboratory, Inc., St. Paul, Minn. 529,663, canc. Cl. 52.
Eteco (European Overseas Trading Co.), Zwevegem, Belgium. 630,360, cor. Cl. 23.
Evans, Glen L., Inc., Caldwell, Idaho. 637,650, pub. 9-11-56. Cl. 22.
Excello Paper Products Co., The, Cincinnati, Ohio. 637,655, pub. 9-11-56. Cl. 22.
Farmcrest Dairy Products Corp., Cape Girardeau, Mo. 637,797, pub. 8-2-55. Cl. 46.
Farrington Mfg. Co., Needham Heights, Mass. 637,693, pub. 7-31-56. Cl. 26.
Feather River Olive Growers, Corning, Calif. 637,827, pub. 9-4-56. Cl. 46.
Feature Ring Co., Inc., New York, N. Y. 637,706, pub. 9-11-56. Cl. 28.
Fees Mfg. Co., Spokane, Wash. 529,789, canc. Cl. 31.
Felice, Joseph C., d. b. a. Felice Products Co., Chicago, Ill. 529,824, canc. Cl. 6.
Felice Products Co.: *See*—
Felice, Joseph C.



Filatex Corp., to Filatex Corp., New York, N. Y. 340,835, ren. 11-24-56. Cl. 42.
Filatex Corp., to Filatex Corp., New York, N. Y. 340,836, ren. 11-24-56. Cl. 42.
Finger Lakes and Hudson Flour Mills, Inc., Troy and Geneva, N. Y. 255,057, canc. Cl. 46.
Fischer, B., & Co., Inc., New York, N. Y. 637,796, pub. 9-11-56. Cl. 46.
Fleet of America, Inc., Buffalo, N. Y. 637,594, pub. 9-11-56. Cl. 12.
Fleischmann Distilling Corp., The, New York, N. Y. 344,124, ren. 2-16-57. Cl. 49.
Florence Beach Candles Co., Evanston, Ill. 637,822, pub. 9-4-56. Cl. 46.
Foreign Products Corp., East Orange, N. J. 637,747, pub. 9-11-56. Cl. 37.
Forstner Chain Corp., Irvington, N. J. 530,087, canc. Cl. 28.
Frabill Mfg. Co., Milwaukee, Wis. 637,645, pub. 6-19-56. Cl. 22.
Frackman, Hy, d. b. a. Alsan Mfg. Co., New York, N. Y. 637,704, pub. 9-11-56. Cl. 28.
Frankfort Distilleries, Inc., to Frankfort Distilleries, Inc., Louisville, Ky. 340,140, ren. 11-3-56. Cl. 49.
Freeman, John C., d. b. a. Freeman Products Co., Jackson, Miss. 637,640, pub. 9-11-56. Cl. 52.
Freeman Products Co.: *See*—
Freeman, John C.
Friedman Theresa, & Sons, Inc., d. b. a. Stratford Farms Corp., Philadelphia, Pa. 637,802, pub. 9-11-56. Cl. 46.
Fries & Fries, to Fries & Fries, Inc., Cincinnati, Ohio. 114,632, ren. 12-26-56. Cl. 51.
Fries & Fries, Inc.: *See*—
Fries & Fries.
Frohring, William O., d. b. a. Newbury Industries, Newbury, Ohio. 637,676, pub. 9-11-56. Cl. 23.
Frye & Co., Seattle, Wash. 529,721, canc. Cl. 46.
Galter, Oscar, d. b. a. Diamond Metal Products Co., Chicago, Ill. 529,734, canc. Cl. 23.
Gamble-Skogmo, Inc.: *See*—
Gamble Stores, Inc.
Gamble Stores, Inc., to Gamble-Skogmo, Inc., Minneapolis, Minn. 343,925, ren. 3-9-57. Cl. 34.
Garcia, Charles, & Co., Inc., New York, N. Y. 637,656, pub. 9-11-56. Cl. 22.
Garden Pal Tractor Co., Portland, Oreg. 529,782, canc. Cl. 23.
Gates Engineering Co., Wilmington, Del. 637,590, pub. 9-11-56. Cl. 12.
Geisha Robe Co., Inc., New York, N. Y. 530,056, canc. Cl. 39.
General Machine Supply Co.: *See*—
O'Donnell, William.
General Motors Corp.: *See*—
A C Spark Plug Co.
General Time Corp.: *See*—
Western Clock Co.
George Way Drums, Inc., Elkhart, Ind. 637,740, pub. 9-11-56. Cl. 36.
Gibbs & Co., Inc.: *See*—
Gibbs Preserving Co.
Gibbs Preserving Co., by Gibbs & Co., Inc., Baltimore, Md. 113,722, 12(c) pub. 11-27-56. Cl. 46.
Gibson, Madelyn A., New York, N. Y. 637,787, pub. 9-11-56. Cl. 42.
Glaser, H., & Son, Inc., Boston, Mass. 637,776, pub. 9-11-56. Cl. 39.
Gleason Works, The, Rochester, N. Y. 338,328, ren. 9-1-56. Cl. 23.
Gleason Works, The, Rochester, N. Y. 341,301, ren. 12-1-56. Cl. 23.
Glester Products, Inc., Chicago, Ill. 529,946, canc. Cl. 19.
Goettl Bros. Metal Products Inc., Phoenix, Ariz. 637,862. Cl. 34.
Golden Touch Products, Inc., Boston, Mass. 637,663, pub. 9-11-56. Cl. 23.
Good-All Electric Mfg. Co., Ogallala, Nebr. 530,020, canc. Cl. 21.
Good Humor Corp., Brooklyn, N. Y. 637,799, pub. 7-26-55. Cl. 46.
Goodstein, Harry M., d. b. a. Vicki Fashions, New York, N. Y. 529,900, canc. Cl. 39.
Gordon, J. M., Co.: *See*—
Gordon, James M.
Gordon, James M., d. b. a. J. M. Gordon Co., Glendale, Calif. 529,884, canc. Cl. 32.
Gotham Hosiery Co., Inc., New York, N. Y. 529,881, canc. Cl. 39.
Grace, W. R., & Co.: *See*—
Dewey & Almy Chemical Co.
Gray Co., Inc., Minneapolis, Minn. 637,598, pub. 9-20-55. Cl. 13.
Gray's, Frances, Agency: *See*—
Hettig, Frances M.
Green Giant Co.: *See*—
Minnesota Valley Canning Co.
Grinnell Lithographic Co., Inc., New York, N. Y. 529,920, canc. Cl. 38.
Grossfeld, J. F., Ltd., London, England. 637,697, pub. 9-11-56. Cl. 26.
Grosser, John, d. b. a. Grosser Products, Cleveland, Ohio. 529,605, canc. Cl. 24.
Grosser Products: *See*—
Grosser, John.
Growers Container Corp., Salinas, Calif. 637,578, pub. 9-11-56. Cl. 2.
Gulf Coast Machine & Supply Co., Beaumont, Tex. 637,644, pub. 9-11-56. Cl. 26.
H & K Sales Co., Kansas City, Mo. 637,843, pub. 9-11-56. Cl. 22.
Hasse, Wilbert W., Co., Forest Park, Ill. 637,582, pub. 9-11-56. Cl. 6.
Hagerty Co., Cohasset, Mass. 637,725, pub. 9-11-56. Cl. 32.
Hallock-Denton Co., Newark, N. J. 113,729, ren. 10-31-56. Cl. 46.
Happy Valley Mills: *See*—
Supreme Mills.
Hart-Carter Co., Peoria, Ill. 637,670, pub. 9-11-56. Cl. 23.
Hassenfeld Bros., Inc., Central Falls, R. I. 384,932, 12(c) pub. 11-27-56. Cl. 37.
Hassenfeld Bros. Inc., Central Falls, R. I. 637,652, pub. 9-11-56. Cl. 22.
Health Guard Bag Co.: *See*—
Pest-Guard Products, Inc.
Heddon's, James, Sons, Dowagiac, Mich. 637,651, pub. 9-11-56. Cl. 22.
Heller, S., Elevator Co., Milwaukee, Wis. 637,639, pub. 9-11-56. Cl. 21.
Herbst Shoe Mfg. Co., Milwaukee, Wis. 637,758, pub. 9-11-56. Cl. 39.
Hersfeld, S., Sportswear Mfg. Co., Fort Worth, Tex. 529,668, canc. Cl. 39.
Hewlett Bros. Co., Salt Lake City, Utah. 342,820, ren. Cl. 45.
Hicks Pharmacal Co.: *See*—
Voigt's Laboratories Inc.
Higginbotham-Bailey Co., Dallas, Tex. 637,709, pub. 9-11-56. Cl. 39.
Hill, John W., Deland, Fla. 637,807, pub. 9-11-56. Cl. 46.
Hirschman, J. C., Co., The, Indianapolis, Ind. 529,911, canc. Cl. 32.
Holmes, S. G., & Sons, Inc., Tulsa, Okla. 529,952, canc. Cl. 39.
Holtzman, Nathan, Corp., New York, N. Y. 536,033, ren. 6-23-56. Cl. 27.
House, James, Miami, Okla. 530,041, canc. Cl. 46.
Hyer, C. H., & Sons, Inc., Olathe, Kans. 637,757, pub. 9-11-56. Cl. 39.
Illumitronic Engineering Co., Sunnyvale, Calif. 637,636, pub. 9-11-56. Cl. 21.
Inland Steel Products Co., Milwaukee, Wis. 637,596, pub. 9-11-56. Cl. 12.
Interchemical Corp., New York, N. Y. 529,915, canc. Cl. 20.
International Breweries, Inc., Detroit, Mich. 637,839, pub. 9-11-56. Cl. 48.
International Minerals & Chemical Corp., Chicago, Ill. 637,812, pub. 9-11-56. Cl. 46.
International Nickel Co., Inc., The, New York, N. Y. 404,714, canc. Cl. 14.
International Shoe Co., St. Louis, Mo. 529,740, canc. Cl. 39.
International Silver Co., to The International Silver Co., Meriden, Conn. 341,914, ren. 12-29-56. Cl. 28.
International Silver Co., The: *See*—
International Silver Co.
International Toxin Products Ltd., Northwich, England. 637,587, pub. 9-11-56. Cl. 10.
Ivor, Michael K., Phoenix, Ariz. 637,648, pub. 9-11-56. Cl. 22.
J S Mfg. Co., Chicago, Ill. 637,657, pub. 9-11-56. Cl. 22.
Jennings, Gene, and Co., Stockton, Calif., to Gene Jennings and Co., Inc. 637,825, pub. 9-11-56. Cl. 46.
Jennings, Gene, and Co., Inc.: *See*—
Jennings, Gene, and Co.
Jensen, B. B., Libertyville, Ill. 637,861. Cl. 32.
Jensen Mfg. Co., Chicago, Ill. 637,721, pub. 9-11-56. Cl. 32.
Johns-Manville Corp., New York, N. Y. 339,537, ren. 10-13-56. Cl. 12.
Johns-Manville Corp., New York, N. Y. 339,827, ren. 10-20-56. Cl. 16.
Johns-Manville Corp., New York, N. Y. 340,664-6, ren. 11-17-56. Cl. 12.
Jones, Paul S., Co., Inc., New York, N. Y. 629,694, canc. Cl. 32.
Joseph & Feiss Co., The, Cleveland, Ohio. 637,761, pub. 9-11-56. Cl. 39.
Kaiser Fleetwings, Inc., Oakland, Calif. 530,046, canc. Cl. 21.
Kalan Uniform Co., Inc., Chicago, Ill. 529,866, canc. Cl. 39.
Kane Import Corp., New York, N. Y. 637,668, pub. 9-11-56. Cl. 7.
Kansas City Market Co., Inc., to Burnett Meat Co., Kansas City, Mo. 637,668. Cl. 46.
Kaplan Musical String Co.: *See*—
Kaplan, Otto.
Kaplan, Otto, d. b. a. Kaplan Musical String Co., South Norwalk, Conn. 637,742, pub. 9-11-56. Cl. 36.
Kendall Co., The: *See*—
Bauer & Black.
Kent-Coffey Mfg. Co., Lenoir, N. C. 529,954-5, canc. Cl. 32.
Kinetic Chemicals, Inc., Wilmington, Del. 529,989, canc. Cl. 6.
Kingsley, Helen, Inc., Minotola, N. J. 529,859, canc. Cl. 39.
Kingston Products Corp.: *See*—
Douglas, H. A., M'f'g. Co.
Klip Inc., Los Angeles, Calif. 637,624, pub. 9-11-56. Cl. 18.
Kirchhoff, August C., & Co., Chicago, Ill. 637,809, pub. 9-4-56. Cl. 46.
Kitty Collins Co., Piedmont, Calif. 637,781, pub. 9-11-56. Cl. 40.
Kohler & Campbell, Inc., New York, N. Y. 637,863. Cl. 36.
Kress, S. H., and Co., New York, N. Y., to Brown Co., Boston, Mass., and Berlin, N. H. 339,016, ren. 9-22-56. Cl. 37.
Krystal Co., The, Chattanooga, Tenn. 343,077, ren. 3-2-57. Cl. 46.
Lackritz, Samuel J., New York, N. Y. 530,055, canc. Cl. 13.
Laber Spring and Tire Corp., Oakland, Calif. 530,052-3, canc. Cl. 21.
Lange, Morris M., d. b. a. Empire Embroidery, Philadelphia, Pa. 637,778, pub. 9-11-56. Cl. 40.
La Plant-Choate Mfg. Co., Inc., Cedar Rapids, Iowa. 529,754, canc. Cl. 19.



Lasher, Stephen, Inc., New York, N. Y. 637,729, pub. 9-11-56. Cl. 39.
Lawrence, Ralph, Co., Inc., Chicago, Ill. 637,811, pub. 9-11-56. Cl. 46.
Lee, H. D., Co., Inc., Kansas City, Mo. 637,719, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,718, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,720, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,722, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,723, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,724, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,727, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,728, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,730, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,731, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,732, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,733, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,735, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,736, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,737, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,738, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,739, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,740, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,741, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,742, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,743, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,744, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,745, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,746, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,747, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,748, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,749, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,750, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,751, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,752, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,754, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,755, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,756, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,759, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,760, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,763, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,764, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,767, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,768, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,769, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,770, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,771, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,772, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,774, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,775, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,777, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,779, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,780, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,782, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,783, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,784, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,785, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,786, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,788, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,789, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,790, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,792, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,793, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,794, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,795, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,798, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,800, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,801, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,803, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,804, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,805, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,806, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,808, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,810, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,813, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,814, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,815, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,816, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,817, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,818, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,819, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,821, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,823, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,825, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,826, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,828, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,829, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,832, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,833, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,834, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,835, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,837, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,838, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,840, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,841, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,842, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,847, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,848, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,849, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,850, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,851, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,852, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,853, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,854, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,855, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,856, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,857, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,858, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,859, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,860, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,865, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,866, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,867, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,868, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,869, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,870, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,871, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,872, pub. 9-11-56. Cl. 39.
Lee, Jack, Co., Inc., Kansas City, Mo. 637,

Lees O' Scotland, Ltd., New York, N. Y. 529,988, canc. Cl. 39.
Lear, Inc., Grand Rapids, Mich. 529,809–10, canc. Cl. 21.
Lee, Robert J., North Hollywood, Calif. 637,720, pub. 9–11–56. Cl. 32.
Lehn & Fink Products Corp., Bloomfield, N. J. 637,846, pub. 9–11–56. Cl. 51.
Lenzi, L. & E., Inc., New York, N. Y. 637,732, pub. 9–11–56. Cl. 40.
Levinson, Max, d. b. a. Newburgh Tissue Co., Newburgh, N. Y. 637,746, pub. 9–11–56. Cl. 37.
Levy, Henry S., & Son, Inc., Brooklyn, N. Y. 637,829, pub. 9–11–56. Cl. 46.
Lewis, Clifton D., Hawthorne, N. J. 637,777, pub. 9–11–56. Cl. 40.
Liedstrand, Roy M., Oakland, Calif. 637,568, pub. 9–11–56. Cl. 1.
Linmar, Inc., Cambridge, Mass. 637,906, pub. 9–11–56. Cl. 16.
Lion, Milton, New York, N. Y. 637,724, pub. 9–11–56. Cl. 32.
Loland Enterprises: *See*—
Loland, Harold J.
Loland, Harold J., d. b. a. Loland Enterprises, St. Charles, Ill. 637,745, pub. 9–11–56. Cl. 37.
Lonsdale Philadelphia, Philadelphia, Pa. 529,890, canc. Cl. 39.
Lowill Watch Co.: *See*—
Perlof, Louis.
Lutz & Schramm Inc., Pittsburgh, Pa. 637,814, pub. 9–4–56. Cl. 46.
Lyons, J., & Co. (Canada) Ltd., Toronto, Ontario, Canada. 637,869. Cl. 46.
Lyskills Mek. Verstads Aktiebolag, to Skandiaverken Aktiebolag, Lyskill, Sweden. 111,746, ren. 8–1–56. Cl. 23.
M & B Industries, Inc., Portland, Oreg. 530,029, canc. Cl. 23.
Mack, Adolph, d. b. a. Adjustable Backrest Mfg. Co., Fort Worth, Tex. 637,719, pub. 9–11–56. Cl. 32.
Magnaglass Mfg. Co., Inc., Fredonia, N. Y. 637,699, pub. 9–11–56. Cl. 26.
Maling, Roy, Everett, Mass. 529,763, canc. Cl. 39.
Manitowoc Co., Inc., The, Manitowoc, Wis. 637,717, pub. 9–11–56. Cl. 31.
March Mfg. Co., Skokie, Ill. 637,681, pub. 9–11–56. Cl. 23.
Marks, Ralph, d. b. a. Colorstat Co. and Ralph Marks Color Labs., New York, N. Y. 637,852, pub. 7–26–54. Cl. 101.
Marmon-Herrington Co., Inc., Indianapolis, Ind. 529,668, canc. Cl. 19.
Marx, Joseph P., Hartford, Wis. 637,668, pub. 9–11–56. Cl. 22.
Marx & Newman Co., Inc., New York, N. Y. 529,985, canc. Cl. 39.
Massachusetts Mattress Co., Boston, Mass. 637,728, pub. 9–11–56. Cl. 32.
Mayer, H. J., & Sons Co., to H. J. Mayer & Sons Co., Inc., Chicago, Ill. 333,962, ren. 9–22–56. Cl. 46.
Mayer, H. J., & Sons Co., Inc.: *See*—
Mayer, H. J., & Sons Co.
McAdoo & Allen Welting Co., Quakertown, Pa. 529,960, canc. Cl. 39.
McCampbell & Co., Inc., New York, N. Y. 637,784, pub. 9–11–56. Cl. 42.
McCormick & Co., Inc., Baltimore, Md. 425,260, canc. Cl. 46.
McGrade, E. W., Mfg. Co., Inc., Marysville, Kans. 529,879, canc. Cl. 21.
McGregor-Doniger, Inc.: *See*—
Doniger, David D., & Co. Inc.
McKay Products Corp., The, New York, N. Y. 529,923, canc. Cl. 39.
Meaker, John W., New York, N. Y. 529,889, canc. Cl. 2.
Mechling, A. L., Barge Lines, Inc., Joliet, Ill. 637,853, pub. 9–11–56. Cl. 105.
Meinecke & Co., Inc., New York, N. Y. 115,646, canc. Cl. 44.
Merck & Co., Inc., Rahway, N. J. 637,628–30, pub. 9–11–56. Cl. 18.
Mercury Record Corp., Chicago, Ill. 637,741, pub. 9–11–56. Cl. 39.
Metz, Keith, Grower and Shipper, Holtville, Calif. 637,795, pub. 9–11–56. Cl. 46.
Milani, Louis, Foods, Inc., Los Angeles, Calif. 637,800, pub. 9–11–56. Cl. 46.
Miller & Bergmann, New York, N. Y. 529,973, canc. Cl. 39.
Mil-Mode Mfg. Corp., Brooklyn, N. Y. 637,727, pub. 9–11–56. Cl. 32.
Minnesota Valley Canning Co., to Green Giant Co., Le Sueur, Minn. 342 508, ren. 1–19–57. Cl. 46.
Modigliani Glass Fibers, Inc., Long Island City, N. Y. 529,903, canc. Cl. 31.
Moench, J. C., Shoe Co., d. b. a. J. C. Moench Shoe Co., Brockton, Mass. 529 901, canc. Cl. 39.
Monk, Carl, New York, N. Y. 530,034, canc. Cl. 39.
Monsanto Chemical Co., St. Louis, Mo. 343,064, ren. 2–9–57. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 343,822–3, ren. 2–9–57. Cl. 15.
Montres Buler S. A., Lengnau, near Bienne, Switzerland. 637,700, pub. 9–11–56. Cl. 27.
Moody, N. W., Corp., Flushing, N. Y. 637,780, pub. 9–11–56. Cl. 40.
Moore, Thomas, d. b. a. Thomas Moore & Co., Minneapolis, Minn. 637,784, pub. 9–11–56. Cl. 45.
Moore, Thomas, & Co.: *See*—
Moore, Thomas.
Morgan-Jones, Inc., New York, N. Y. 637,785, pub. 9–11–56. Cl. 42.
Morning Maid Fruit & Juice Co.: *See*—
Zaritsky, Leo.
Motch & Merryweather Machinery Co., The, Cleveland, Ohio. 637,674, pub. 9–11–56. Cl. 23.
Motlow, Lem, d. b. a. Jack Daniel, to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 298,102, new cert. Cl. 49.
Motlow, Lem, d. b. a. Jack Daniel Distilling Co., to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 314,105, new cert. Cl. 49.
Motlow, Lem, d. b. a. Jack Daniel, to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 323,914, new cert. Cl. 49.
Motlow, Lem, to Jack Daniel Distillery, Lem Motlow, Prop., Inc., Lynchburg, Tenn. 362,613, new cert. Cl. 49.
Mullin-Lumber Co., Los Angeles, Calif. 637,591, pub. 9–11–56. Cl. 12.
Murray Corp. of America, The: *See*—
Easy Washing Machine Corp.
Musicoin Sales Co., Chicago, Ill. 529,736, canc. Cl. 21.
Myers, Harry, and Co., Inc., Baltimore, Md. 529,756, canc. Cl. 39.
N. V. Papierfabriek Geanep, Geanep, Netherlands. 637,748, pub. 9–11–56. Cl. 37.
National Aluminate Corp., Chicago, Ill. 342,307, ren. 1–12–57. Cl. 6.
National Distillers Products Corp., New York, N. Y. 342,717, ren. 1–26–57. Cl. 49.
National Laboratories, Inc., Toledo, Ohio. 637,711, pub. 9–11–56. Cl. 29.
National Plastics, Inc., Knoxville, Tenn. 637,671, pub. 9–11–56. Cl. 23.
National Presto Industries, Inc., Eau Claire, Wis. 637,694–5, pub. 9–4–56. Cl. 26.
National X-Ray Reflector Co., by Curtis Lighting, Inc., Chicago, Ill. 113,898, 12(c) pub. 11–27–56. Cl. 20.
Nation Wide Papers, Inc., Chicago, Ill., to Carpenter Paper Co., Omaha, Nebr. 343,793, ren. 2–9–57. Cl. 37.
Natric Sales Co., Inc., New York, N. Y. 637,764, pub. 9–11–56. Cl. 39.
Neo Prime Products Co., Detroit, Mich. 631,154, cor. Cl. 12.
Newburgh Tissue Co.: *See*—
Levinson, Max.
Newbury Industries: *See*—
Freshring, William O.
New England Box Co., The, Greenfield, Mass. 529,698, canc. Cl. 2.
New Era Optical Co., Chicago, Ill. 330,233, ren. 9–29–56. Cl. 26.
Newman, Sol, Inc.: *See*—
Newman, Solomon.
Newman, Solomon, to Sol Newman Inc., New York, N. Y. 115,379, ren. 2–6–57. Cl. 39.
New York Credit Men's Association, New York, N. Y. 529,893, canc. Cl. 36.
Nichols Poultry Farm, Inc., Kingston, N. H. 637,811, pub. 9–11–56. Cl. 46.
Norkin Laboratories: *See*—
Piper Brace Co.
North Shore Mfg. Co., Duluth, Minn. 637,768, pub. 9–11–56. Cl. 39.
Northwest Nut Growers, Portland, Oreg. 637,832, pub. 9–11–56. Cl. 46.
Northwest Nut Growers, Portland, Oreg. 637,834, pub. 9–11–56. Cl. 46.
Northwestern Knitting Mills, Chicago, Ill. 529,896, canc. Cl. 39.
Norwich Pharmacal Co., The, Norwich, N. Y. 637,621, pub. 9–11–56. Cl. 18.
Nutrilite Products, Inc., Buena Park, Calif. 637,612–13, pub. 12–12–55. Cl. 18.
Occulta, to La Gaine Scandale, Lyon, France. 340,922, ren. 11–24–56. Cl. 39.
O'Donnell, William, d. b. a. General Machine Supply Co., Camden, N. J. 529,705, canc. Cl. 23.
Old Monastery Co., Inc., The, Hammondsport, N. Y. 637,637, pub. 9–11–56. Cl. 47.
Olin Mathieson Chemical Corp., New York, N. Y. 637,632, pub. 9–4–56. Cl. 18.
Oneida Ltd., Oneida, N. Y. 637,662, pub. 9–11–56. Cl. 23.
Optical Development Corp., Chicago, Ill. 637,686, pub. 9–20–55. Cl. 26.
Ora-Versions, Inc., Scarsdale, N. Y., to Harris S. Bigelow, Inc. 637,743, pub. 9–11–56. Cl. 37.
Osceola Fruit Distributors, Kissimmee, Fla. 637,626, pub. 9–11–56. Cl. 46.
Outdoor Oven Fireplace Co., The: *See*—
Silent Glow Oil Burner Corp., The.
Oxford Mfg. Co., Inc., d. b. a. Topcraft Co., Atlanta, Ga. 637,775, pub. 9–11–56. Cl. 39.
Paehter Garment Co., Inc., Kansas City, Mo. 637,769, pub. 9–11–56. Cl. 39.
Pacific Coast Borax Co., Div. of Borax Consolidated, Ltd.: *See*—
Borax Consolidated, Ltd.
Packard, M. A., Co., Brockton, Mass. 236,509, canc. Cl. 39.
Packers for Pets Inc.: *See*—
Atlas Canine Products, Inc.
Palmer, A. N., Co., The, Chicago, Ill. 637,749, pub. 9–11–56. Cl. 37.
Pangborn Corp., Hagerstown, Md. 637,685, pub. 9–11–56. Cl. 23.
Pannier, Abe, d. b. a. Pannier Associates, New York, N. Y. 529,850, canc. Cl. 39.
Pannier Associates: *See*—
Pannier, Abe.
Parade Publication, Inc., New York, N. Y. 529,862, canc. Cl. 38.
Paragon Knitting Mills, Inc., to Robert Bruce, Inc., Philadelphia, Pa. 328,418, ren. 9–8–56. Cl. 39.
Parke, Davis & Co., Detroit, Mich. 529,855, canc. Cl. 18.
Parker, Priscilla, Inc., New York, N. Y. 529,761, canc. Cl. 51.
Peerless Imperial Co., Inc., Newark, N. J. 637,856. Cl. 11.
Perlof, Louis, d. b. a. Lowill Watch Co., Philadelphia, Pa. 637,701, pub. 9–11–56. Cl. 27.



Post-Guard Products, Inc., d. b. a. Health Guard Bag Co., Dallas, Tex. 637,572, pub. 9–11–56. Cl. 2.
Power Cane & Co., Inc., Brooklyn, N. Y. 637,617, pub. 9–11–56. Cl. 18.
Picon & Cie, now by change of name Picon (S. A. P.) Societe Anonyme des Anciens Etablissements Amer Picon, Levallois-Perret (Seine), France. 637,871. Cl. 46.
Picon (S. A. P.) Societe Anonyme des Anciens Etablissements Amer Picon: *See*—
Picon & Cie.
Plemair Products, Inc., Chicago, Ill. 637,710, pub. 9–11–56. Cl. 29.
Piper Brace Co., d. b. a. Norkin Laboratories, Kansas City, Mo. 637,654, pub. 9–11–56. Cl. 22.
Pittsburgh Corning Corp., Pittsburgh, Pa. 637,588, pub. 7–19–56. Cl. 12.
Pittsburgh Plate Glass Co.: *See*—
Rennecon, Kleinle & Co. of Baltimore City.
Play Knit Mills, Inc., New York, N. Y. 637,790, pub. 9–11–56. Cl. 42.
Plomb Tool Co., The, Los Angeles, Calif. 637,631, pub. 9–11–56. Cl. 19.
Portable Elevator Mfg. Co., Bloomington, Ill. 637,677, pub. 9–11–56. Cl. 23.
Potter-McCune Co., McKeesport, Pa. 637,805, pub. 9–11–56. Cl. 46.
Poultry Producers of Central California: *See*—
Purducers Co., Ltd.
Prairie States Oil & Grease Co., Danville, Ill. 637,666, pub. 9–11–56. Cl. 15.
Premier Materials Co., Chicago, Ill. 637,864. Cl. 37.
Prince, I. E., Pharmaceuticals: *See*—
Prince, I. Edward.
Prince, I. Edward, d. b. a. I. E. Prince Pharmaceuticals, Newark, N. J. 637,614, pub. 9–11–56. Cl. 18.
Printing Arts Research Laboratories, Inc., Santa Barbara, Calif. 637,841, pub. 9–11–56. Cl. 50.
Producers Co., Ltd., to Poultry Producers of Central California, San Francisco, Calif. 341,956, ren. 12–29–56. Cl. 39.
Professional Drug Service, Inc., d. b. a. A A Storck Pharmaceuticals, St. Louis, Mo. 637,620, pub. 9–11–56. Cl. 18.
Queen's Work, Inc., The, St. Louis, Mo. 529,975, canc. Cl. 39.
Ransburg Electro-Coating Corp., Indianapolis, Ind. 637,661–2, pub. 9–11–56. Cl. 23.
Raynoc Mfg. Co., Dixon, Ill. 637,597, pub. 9–11–56. Cl. 12.
Regal Electronics Corp., New York, N. Y. 529,588, canc. Cl. 21.
Regent Cutlery Co., New York, N. Y. 637,660, pub. 8–30–55. Cl. 23.
Reliance Mfg. Co., New York, N. Y. 637,754, pub. 1–10–56. Cl. 39.
Rennecon, Kleinle & Co. of Baltimore City, Pittsburgh Plate Glass Co., Pittsburgh, Pa. 115,100, Am. 7(d). Cl. 29.
Resort Airlines, Inc., Pinehurst, N. C. 530,002, canc. Cl. 105.
Rettig, Frances M., d. b. a. Frances Gray's Agency, Los Angeles, Calif. 530,004, canc. Cl. 101.
Rex-Lee, Inc., Los Angeles, Calif., 637,731, pub. 9–11–56. Cl. 34.
Rexall Drug Co., Inc., Baltimore, Md. 637,615–16, pub. 9–11–56. Cl. 18.
Ring & Brewer, Dallas, Tex. 529,795, canc. Cl. 29.
Robbins & Burke, Inc., Cambridge, Mass. 529,718, canc. Cl. 19.
Robinson, James A., d. b. a. Robinson's, Hollywood, Calif. 529,790, canc. Cl. 22.
Robinson's Hollywood: *See*—
Robinson, James A.
Rochester Ropes, Inc., Culpeper, Va. 637,584, pub. 9–11–56. Cl. 7.
Rodaine of Calif., Pomona, Calif. 637,756, pub. 9–11–56. Cl. 39.
Roesler & Hasslacher Chemical Co., The, to Cutler-Hammer, Inc., Milwaukee, Wis. 56,506, new cert. Cl. 6.
Rogers Grain & Feed Co., Ainsworth, Nebr. 637,618–19, pub. 9–11–56. Cl. 18.
Roll Rack Co., The, Youngstown, Ohio. 637,842, pub. 9–11–56. Cl. 50.
Roosevelt Travel Service Inc., New Orleans, La. 530,012, canc. Cl. 105.
Rowe Mfg. Co., Inc., Whippany, N. J. 637,659, pub. 9–11–56. Cl. 23.
Royal Lace Paper Works, Brooklyn, N. Y., now by change of name Royal Lace Paper Works, Inc. 529 907, canc. Cl. 2.
Royal Lace Paper Works, Inc.: *See*—
Royal Lace Paper Works.
Royal Register Co., Nashua, N. H. 637,751, pub. 9–11–56. Cl. 37.
Rubenstein & Sons, Inc., Dallas, Tex. 637,813, pub. 9–4–56. Cl. 46.
Rubinstein, Helena, Inc., New York, N. Y. 637,572. Cl. 51.
S. K. S. Machine Co., New York, N. Y. 637,630, pub. 9–11–56. Cl. 23.
Sachs and Schwartz, New York, N. Y. 530,030, canc. Cl. 39.
Safeway Stores, Inc., d. b. a. Brighton Fish Co., Glasgow, Ky. 637,617, pub. 9–11–56. Cl. 46.
St. Louis Crystal Water and Soda Co., St. Louis, to T. L. Kopelman, d. b. a. Sanbreeze Mixer Co., Brentwood, Mo. 637,792, pub. 9–9–56. Cl. 45.
Samuel Stamping & Enameling Co., Chattanooga, Tenn. 637,726, pub. 9–11–56. Cl. 34.
San Antonio Winery, Inc., Los Angeles, Calif. 637,836, pub. 9–11–56. Cl. 47.
Sandeman, Geo. G., & Co.: *See*—
Bollows & Co., Inc.
Sanders, Leroy B., d. b. a. Comeg Products Co., Lebanon, Pa. 637,633, pub. 9–11–56. Cl. 46.
Sanford and Co., Inc., Los Angeles, Calif. 637,707, pub. 9–11–56. Cl. 26.
Saras, S. S., Inc., New York, N. Y. 530,054, canc. Cl. 18.
Sarnoff, Jacob, Brooklyn, N. Y. 637,779, pub. 9–11–56. Cl. 40.
Sartorius-Werke Aktiengesellschaft, Gottingen, Germany. 637,039, pub. 12–20–55. Cl. 26.
Schiffer, Engelbacher Georg, & Co., Schweinfurt, Germany. 637,066, pub. 9–11–56. Cl. 22.
Schenley Industries, Inc., New York, N. Y. 637,840, pub. 9–11–56. Cl. 49.
Schloss Bros. & Co., Inc., Baltimore, Md. 637,760, pub. 9–11–56. Cl. 39.
Schneierson, L., & Sons, Inc., New York, N. Y. 529,838, canc. Cl. 39.
Schoenman, J., Inc., to J. Schoenman, Inc., Baltimore, Md. 240,154, ren. 11–8–56. Cl. 39.
Schultz, L. H., Mfg. Co., Rochelle, Ill. 530 039, canc. Cl. 23.
Seamprufe Inc., New York, N. Y. 637,770, pub. 9–11–56. Cl. 39.
Seamprufe Inc., New York, N. Y. 637,905. Cl. 39.
Sears, Roebuck and Co., Chicago, Ill. 530,070, canc. Cl. 39.
Self Storing Window Co., Inc., d. b. a. De Vac, Inc., Minneapolis, Minn. 637,892, pub. 9–11–56. Cl. 12.
Semter, Sam, Belle Glade, Fla. 637,822, pub. 9–4–56. Cl. 44.
Servo Corp. of America, New Hyde Park, N. Y. 637,687, pub. 11–22–54. Cl. 26.
Sewell Mfg. Co., Bremen, Ga. 637,774, pub. 9–11–56. Cl. 39.
Sewing Machine Sales Corp., New York, N. Y. 637,663, pub. 9–11–56. Cl. 23.
Shea Chemical Corp., Baltimore, Md. 637,576, pub. 9–11–56. Cl. 6.
Sheffield Corp., The, Dayton, Ohio. 637,692, pub. 9–4–56. Cl. 26.
Silent Glow Oil Burner Corp., The, d. b. a. The Outdoor Oven Fireplace Co., Hartford, Conn. 637,788, pub. 9–11–56. Cl. 44.
Silveira & O'Connell, Sebastopol, Calif. 637,826, pub. 9–4–56. Cl. 46.
Simpson, Wm., Sons & Co., Inc.: *See*—
Brown, Clarence S., & Co., Inc.
Sioux Falls Milling Co., Sioux Falls, S. Dak., to Sioux Falls Milling Co. 529,812, canc. Cl. 46.
Sitterley, J. E., & Sons, Inc., New York, N. Y. 529,674, canc. Cl. 32.
Skalet Mfg. Co., Inc., New York, N. Y. 637,703, pub. 9–11–56. Cl. 28.
Skandiaverken Aktiebolag: *See*—
Lyskills Mek. Verkstads Aktiebolag.
Skinner, William, & Sons, New York, N. Y. 637,788, pub. 9–11–56. Cl. 42.
Skunk Mfg. Co., Bucyrus, Ohio. 637,672, pub. 9–11–56. Cl. 23.
Smith, S. R., Inc., Nashville, Tenn. 637,801, pub. 9–11–56. Cl. 46.
Societa Anonima Snia-Viscosa, Societa Nazionale Industria Applicazioni Viscosa, The, Milan, Italy. 330,718, ren. 10–20–56. Cl. 43.
Societe Anonyme des Anciens Etablissements, Martin Freres, Paris, France. 443,580, 12(c) pub. 11–27–56. Cl. 26.
Societe Generale de l'Horlogerie Suisse S. A. ASUAG (Allgemeine Schweizerische Uhrenindustrie A. G. ASUAG), Bienne, Switzerland. 637,675. Cl. A.
Societe Generale de l'Horlogerie Suisse S. A. ASUAG (Allgemeine Schweizerische Uhrenindustrie A. G. ASUAG), Neuchatel, Switzerland. 637,676. Cl. A.
Socony Mobil Oil Co., Inc., New York, N. Y. 637,604, pub. 9–11–56. Cl. 15.
Standard Brands Inc., New York, N. Y. 637,796, pub. 9–11–56. Cl. 46.
Standard Greetings, Inc., Brooklyn, N. Y. 529,781, canc. Cl. 38.
Solar Products: *See*—
Bdna, Inc.
Sopic Corp., New York, N. Y. 637,789, pub. 9–11–56. Cl. 42.
Southern Cotton Oil Co., The, New Orleans, La. 637,816, pub. 9–11–56. Cl. 46.
Southland Mfg. Co., Inc., Wilmington, N. C. 637,755, pub. 9–11–56. Cl. 39.
Speidel Corp., Providence, R. I. 637,706, pub. 9–11–56. Cl. 28.
Sperry Candy Co.: *See*—
Barg & Foster Candy Co.
Sperry Rand Corp., Great Neck, N. Y. 637,684, pub. 9–11–56. Cl. 23.
Sperry Rand Corp., Great Neck, N. Y. 637,690, pub. 9–11–56. Cl. 26.
Standard Pressed Steel Co., Jenkintown, Pa. 529,867, canc. Cl. 19.
Stokes Milling Co.: *See*—
Commander-Larabee Milling Co.
Storck, A A, Pharmaceuticals: *See*—
Professional Drug Service, Inc.
Strathmore Mfg. Co., Inc., The, Altoona, Pa. 637,767, pub. 9–11–56. Cl. 39.
Street & Smith Publications, Inc., New York, N. Y. 529,956, canc. Cl. 38.
Strohmeyer & Arpe Co., New York, N. Y. 115,686, ren. 2–27–57. Cl. 44.
Structural Clay Products Research Foundation, Chicago, Ill. 637,854, pub. 9–11–56. Cl. A.
Sunbeam Corp.: *See*—
Chicago Flexible Shaft Co.
Sunbeam Corp., Chicago, Ill. 637,637, pub. 9–11–56. Cl. 21.
Sunset Line & Twine Co., Petaluma, Calif. 637,640, pub. 9–11–56. Cl. 22.
Super-Cold Corp., The, Los Angeles, Calif. 529,672, canc. Cl. 31.
Supreme Mills, d. b. a. Happy Valley Mills, Glasgow, Ky. 637,908, pub. 9–11–56. Cl. 46.
Swarts, Helen, San Francisco, Calif. 529,906, canc. Cl. 39.

Tasty Baking Co., Philadelphia, Pa. 637,836, pub. 9–11–56. Cl. 46.
Technical Waxes Ltd., Manchester, England. 637,602, pub. 9–11–56. Cl. 15.
Terra Bella Citrus Association, Terra Bella, Calif. 347,473, canc. Cl. 46.
Texas Granite Corp., Marble Falls, Tex. 637,842, pub. 9–11–56. Cl. 50.
Therapeutic Gauze Co., The, Newark, N. Y. 338,542, 12(c) pub. 11–27–56. Cl. 44.
Thompson, John R., Chicago, Ill. 637,851, pub. 9–11–56. Cl. 100.
Thor Corp., Chicago, Ill. 529,967, canc. Cl. 38.
Thorne, Niblack, d. b. a. Niblack Thorne Co., Scottsdale, Ariz. 637,696, pub. 9–11–56. Cl. 26.
Tobin Packing Co., Inc., Rochester, N. Y. 637,867. Cl. 46.
Tootal Broadhurst Lee Co., Ltd., Manchester, England. 637,783, pub. 9–11–56. Cl. 42.
Topcraft Co.: *See*—
Oxford Mfg. Co., Inc.
Townsend, Le Roy, West Bend, Wis. 637,878, pub. 9–11–56. Cl. 23.
Transmitter Equipment Mfg. Co., Inc., New York, N. Y. 529,755, canc. Cl. 21.
Tryne Sales, Inc., New York, N. Y. 637,647, pub. 9–11–56. Cl. 22.
Uber, Gilbert O., Webster City, Iowa. 637,668, pub. 9–11–56. Cl. 23.
United Board & Carton Corp., New York, N. Y. 529,878, canc. Cl. 2.
United Leather Goods Corp., Brooklyn, N. Y. 637,875, pub. 9–11–56. Cl. 3.
United Shoe Machinery Corp., Flemington, N. J. 339,765, ren. 10–20–56. Cl. 23.
United States Borax & Chemical Corp.: *See*—
Borax Consolidated, Ltd.
United States Envelope Co., Springfield, Mass. 342,179, ren. 1–5–57. Cl. 2.
U. S. Expansion Bolt Co., York, Pa. 529,805, canc. Cl. 13.
United States Steel Corp., Pittsburgh, Pa. 637,600, pub. 9–11–56. Cl. 13.
United States Steel Products Co., New York, N. Y. 529,897, canc. Cl. 32.
U. S. Vitamin Corp., New York, N. Y. 336,179, ren. 6–30–56. Cl. 18.
Universal Color Corp., New York, N. Y. 637,736, pub. 9–11–56. Cl. 36.
Utica Cutlery Co., Utica, N. Y. 637,675, pub. 9–11–56. Cl. 23.
Vale Chemical Co., Inc., The, Allentown, Pa. 637,611, pub. 9–11–56. Cl. 18.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 637,580, pub. 9–11–56. Cl. 6.
Vanguard Corp., Springfield, Mass. 529,962, canc. Cl. 38.
Vanode Co., The, Pasadena, Calif. 637,641, pub. 9–11–56. Cl. 21.
Van Stolk's Commissiehandel: *See*—
Verbeet, G.
Van Stolk's Kominklyke Commissiehandel N. V.: *See*—
Verbeet, G.
Van Wert Mfg. Co., The, Van Wert, Ohio. 637,771, pub. 9–11–56. Cl. 39.
Van Zelm, Louis F., Harrison, Maine. 529,942, canc. Cl. 38.
Verbeet, G., New York, N. Y., to Van Stolk's Commissiehandel, to Van Stolk's Kominklyke Commissiehandel N. V., Rotterdam, Netherlands. 336,592–3, ren. 7–7–56. Cl. 46.
Vicki Fashions: *See*—
Goodstein, Harry M.
Victor Metal Products Corp., New York, N. Y. 637,722, pub. 9–11–56. Cl. 32.
Victory Metal Mfg. Co., d. b. a. Victory Metal Mfg. Corp., Plymouth Meeting, Pa. 637,712, pub. 9–2–56. Cl. 31.
Victory Metal Mfg. Co., d. b. a. Victory Metal Mfg. Corp., Plymouth Meeting, Pa. 637,732, pub. 7–26–56. Cl. 34.
Victory Metal Mfg. Corp.: *See*—
Victory Metal Mfg. Co.
Vilter Mfg. Co., The, Milwaukee, Wis. 637,714, pub. 9–11–56. Cl. 31.
Voigt's Laboratories Inc., East Rutherford, to Hicks Pharmacal Co., Newark, N. J. 637,610, pub. 9–11–56. Cl. 18.
Ward Blenkinsop & Co. Ltd., London, England. 529,741, canc. Cl. 6.
Watchbands, Inc., North Attleboro, Mass. 637,705, pub. 9–11–56. Cl. 28.
Watson Mfg. Co., Inc., Jamestown, N. Y. 637,718, pub. 9–11–56. Cl. 32.
Wauconda Beverage Co., Wauconda, Ill. 637,793, pub. 9–11–56. Cl. 45.
Wayne Home Equipment Co.: *See*—
Wayne Oil Burner Corp.
Wayne Oil Burner Corp., to Wayne Home Equipment Co., Inc., Fort Wayne, Ind. 342,692, ren. 1–26–57. Cl. 34.
Webster Electric Co., to Webster Electric Co., Racine, Wis. 343,737, ren. 3–2–57. Cl. 21.
Wells Lamont Corp.: *See*—
Wells-Lamont-Smith Corp.
Wells-Lamont-Smith Corp., Minneapolis, Minn., to Wells Lamont Corp., Chicago, Ill. 342,532, ren. 1–19–57. Cl. 39.
Wel-Met Co., The, Kent, Ohio. 529,615, canc. Cl. 23.
West Bend Aluminum Co., West Bend, Wis. 381,403, 12(c) pub. 11–27–56. Cl. 13.
Westermann, Wilhelm, Unna, Westphalia, Germany. 637,635, pub. 9–11–56. Cl. 21.
Western Clock Co., Peru, Ill., by General Time Corp., La Salle, Ill. 338,062, 12(c) pub. 11–27–56. Cl. 27.
Western Clock Co., Peru, Ill., by General Time Corp., La Salle, Ill. 338,301, 12(c) pub. 11–27–56. Cl. 27.
Western Plastic & Specialty Co., Inc., Cleveland, Ohio. 530,032, canc. Cl. 22.
Westinghouse Air Brake Co., Pittsburgh, Pa. 635,102, cor. Cl. 23.
Westland Plastics, Inc., Los Angeles, Calif. 637,574, pub. 9–11–56. Cl. 2.
Whitaker, Charles R., Tulsa, Okla. 637,669, pub. 9–11–56. Cl. 23.
White, Keeling (Rum) Ltd., London, England. 343,291, ren. 2–16–57. Cl. 49.
Whitehall Pharmacal Co., New York, N. Y. 637,623, pub. 9–11–56. Cl. 18.
Whiting-Adams Co., Inc., Boston, Mass. 529,673, canc. Cl. 29.
Wilbar's, Inc., Boston, Mass. 530,000, canc. Cl. 39.
Williams, Ted, Inc., Miami, Fla. 637,653, pub. 9–11–56. Cl. 22.
Wischmann, Wm. J., Inc., Brooklyn, N. Y. 529,793, canc. Cl. 46.
Wise Shoe Stores, Inc., New York, N. Y. 529,999, canc. Cl. 39.
Woodwell, Joseph, Co., Pittsburgh, Pa. 529,831, canc. Cl. 19.
World Editions, Inc., New York, N. Y. 529,945, canc. Cl. 38.
Ybry, Inc., Wilmington, Del., to Ybry Inc., New York, N. Y. 343,423, ren. 2–23–57. Cl. 51.
Young, Stephen A., Corp., Flora, Ind. 637,599, pub. 9–11–56. Cl. 13.
Zaritsky, Leo, d. b. a. Morning Maid Fruit & Juice Co., Passaic, N. J. 637,818, pub. 9–14–56. Cl. 46.
Zeiss, Carl, Oberkochen, Wurttemberg, Germany. 637,691, pub. 9–4–56. Cl. 26.

U. S. GOVERNMENT PRINTING OFFICE: 0——1956

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
December 4, 1956 Volume 713 Number 1

# PATENTS

## NOTICES

### Erratum

All references to Patent No. 2,771,310 to John A. Royer, William S. Kimbro, and Harry D. Jacoby, assignors to Buckner Manufacturing Company, Inc., for Rotary Sprinkler Swivel With Thrust Bearing Assembly, appearing in the OFFICIAL GAZETTE of November 20, 1956, should be deleted as the application was withdrawn from issue and the patent was not issued.

### Adjudicated Patents

(C. A. N. Y.) Magnus Patent No. 2,373,129 (84—377) for plastic harmonica reed plate with integral reeds, *Held* invalid. *Magnus Harmonica Corp.* v. *Lapin Products, Inc.*, 236 F.2d 285; — USPQ —.

(C. A. N. Y.) Magnus Patent No. 2,407,312 (84—377) for plastic harmonica reed stick assembled with a plastic reed plate, *Held* invalid. *Id.*

(C. A. N. Y.) Wentworth Patent No. 2,496,969 (88—41) for spectacle sweat bar, *Held* invalid. *Welsh Mfg., Co.* v. *Sunware Products Co.*, 236 F.2d 225; 110 USPQ 161.

### Disclaimer

2,708,916.—*John H. Davids*, Beloit, Wis. FUEL CONTROL SYSTEM FOR INTERNAL COMBUSTION ENGINES. Patent dated May 24, 1955. Disclaimer filed Oct. 29, 1956, by the assignee, *Fairbanks, Morse & Co.*

Hereby enters this disclaimer to claims 4, 5, 6, 7, 9, 10, 12, and 13 of said patent.

### Patents Available for Licensing or Sale

2,691,720. Wall and Ceiling Light Transmitting Means. Elwyn L. Simmons, % Cromwell, Greist & Warden, Room 1617, 38 South Dearborn St., Chicago 3, Ill.

2,742,058. Loom. Augusto Gentilini, Via Malpensata 12, Lecco, Italy. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,753,156. Portable Snow Fence. Hans Rieger, Friedenheimer Str. 126, Munich 42, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,768,624. Hygienic Sanitary Fountain. Joseph C. Lamb, 36 East Commerce St., Bridgeton, N. J.

General Electric Company is prepared to grant non-exclusive licenses on reasonable terms under the following patents to domestic manufacturers.

Applications for licenses under the following patent may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,757,152. Water-Repellent Compositions Comprising a Polysiloxane, a Urea- or Melamine-Formaldehyde Resin and a Curing Agent.

Under the following 25 patents non-exclusive licenses will be granted in the field of radio purposes.

Applications for licenses may be addressed to: Patent Counsel, Defense Electronics Division, General Electric Company, Syracuse, N. Y.

2,548,635. Monitor for Amplitude Modulated Signals.
2,566,981. Low-Distortion Oscillator.
2,728,881. Asymmetrically Conductive Devices.
2,731,423. Electro-Luminescent Materials and Method of Preparation.
2,741,686. Electric Resistor.
2,742,617. Tunable Cavity Resonator.
2,745,910. High Frequency Electric Discharge Device Coupling Apparatus.
2,747,031. Magnetron Amplifier.
2,747,084. High Frequency Electrical Systems Having High Input Impedance.
2,747,087. Electric Discharge Device and High Frequency Systems Therefor.
2,747,137. High Frequency Electrical Apparatus.
2,748,303. High Frequency Power Amplifier.
2,748,279. Magnetron Amplifier.
2,748,280. Magnetron Amplifier.
2,748,307. Magnetically Focused Electron Discharge Device.
2,748,354. Wide Band TV Tuning Circuit.
2,751,555. Extended-Range Phase Comparator.
2,756,396. Wave Guide Attenuator.
2,757,323. Full Wave Asymmetrical Semi-Conductor.
2,760,070. Amplitude Stabilized Transistor Oscillator Circuit.
2,761,061. Broadband Balanced Mixer.
2,763,233. Automatic Machine for Coating Cathode Ray Tube Bulbs.
2,763,432. Electronic Counter Indicator.
2,763,564. Means and Methods for Processing Cathode Ray Tube Bulbs.
2,763,565. Means and Methods for Processing Cathode Ray Tube Bulbs.

### New Applications Received During October 1956

| | |
|---|---|
| Patents | 6,722 |
| Designs | 473 |
| Plants | 9 |
| Reissues | 21 |
| Total | 7,225 |

### Issue

| | | |
|---|---|---|
| Patents | 843—No. | 2,773,415 to No. 2,773,257, incl. |
| Designs | 30—No. | 179,236 to No. 179,265, incl. |
| Plants | 2—No. | 1,532 to No. 1,533, incl. |
| Reissues | 11—No. | 24,242 to No. 24,252, incl. |
| Total | 886 | |



CONDITION OF PATENT APPLICATIONS AS OF OCTOBER 31, 1956

| PATENT EXAMINERS AND SUBJECTS OF INVENTION | Oldest Application |
|---|---|

# CONDITION OF PATENT APPLICATIONS AS OF OCTOBER 31, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217,058 |
| Total number of pending Design applications | 6,831 |
| Total number of applications awaiting action (excluding Designs) | 117,257 |
| Total number of Design applications awaiting action | 2,972 |
| Date of oldest new application | June 27, 1955 |
| Date of oldest amended application | June 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, I. G., CHEMICAL AND RELATED ARTS | 6, 21, 26, 42, 45, 80, 85, 86, 60, 62, 64. |
| II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 16, 28, 28, 37, 43, 44, 48, 51, 54, 69, 70. |
| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 36, 52, 63. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 8, 20, 29, 33, 38, 40, 41, 53, 65. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 5, 9, 10, 15, 22, 23, 45, 47. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 25, 30, 32, 49, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders | 11- 9-55 | 1- 3-55 |
| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 2- 6-56 | 8- 2-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 3-19-56 | 1-14-55 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 2- 1-56 | 2-10-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates | 2- 6-56 | 7- 5-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-20-55 | 5-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-22-55 | 2-21-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 9-23-55 | 1- 5-55 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 2- 1-56 | 2-14-55 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 10-26-55 | 1-20-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Cleaning and Liquid Treatment of Solids | 1- 3-56 | 2-10-55 |
| 12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls | 10-11-55 | 9-16-54 |
| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 1-10-56 | 11-22-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 11-14-55 | 11-16-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 2- 1-56 | 12- 6-54 |
| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 10-19-55 | 8-30-54 |
| 17. (IV) LEIGHEY, R. A., Paper Manufacture; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 12-15-55 | 1-17-55 |
| 18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices | 12-19-55 | 12- 8-54 |
| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 1- 5-56 | 4-20-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 3-20-56 | 2-10-55 |
| 21. (III) MADER, R. C., Textiles | 1-26-56 | 1-26-55 |
| 22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling | 12-27-55 | 12- 6-54 |
| 23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education | 8-23-55 | 7-16-54 |
| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 2- 9-56 | 2- 2-55 |
| 25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus | 1- 3-56 | 8- 9-55 |
| 26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 3- 5-56 | 9- 2-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 2- 1-56 | 3-29-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chain, Skid, Guide and Way Conveyors; Fluid Current Conveyors; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-24-55 | 2-21-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 12- 2-55 | 11-26-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 5- 2-56 | 7- 8-55 |



| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 12-28-55 | 11-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 2-15-56 | 8- 1-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 2- 1-56 | 12- 3-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 12-19-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Flexent Material Handling, Filling; Toilet, Kitchen and Table Articles | 12- 9-55 | 2-16-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 11- 2-55 | 10-19-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 11-30-55 | 5-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Aso, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 2- 1-56 | 10-11-55 |
| 39. (IV) WEIL, L., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-31-56 | 11-10-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 2- 1-56 | 10- 2-55 |
| 41. (V) GURLEY, R. E., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds | 10- 3-55 | 9-10-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 8-27-55 | 11- 3-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus) | 11- 2-55 | 4- 1-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes | 7-22-55 | 9-10-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 11- 4-55 | 2-18-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., Eastonable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 12- 7-55 | 1-12-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 2- 6-56 | 9-13-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 7-20-55 | 9-28-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 11-21-55 | 4- 4-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 1- 6-56 | 11- 3-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 2- 1-56 | 9-13-54 |
| 52. (V) NEFF, P. R., Supports; Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 12- 9-55 | 12-24-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Mailfolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 1-20-56 | 6-24-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 12-12-55 | 12- 1-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminuters | 2-23-55 | 12- 1-54 |
| 56. (I) SPECK, J. E., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 1-26-56 | 11-18-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 4-10-56 | 5- 5-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Feed Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons | 12-14-55 | 4-21-55 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 12-19-55 | 3-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 12-29-55 | 1-24-55 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 2- 6-56 | 2-16-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 2- 6-56 | 2-17-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives; Fats and Metal Containing Carbocyclic or Acyclic Carbon Compounds | 2- 1-56 | 1-13-55 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 2-13-56 | 1- 3-55 |
| 65. (V) LISANN, L., Geometric Instruments; Automatic Weighing Scales; Acoustics | 12-29-55 | 9- 7-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-26-55 | 2-18-55 |
| 69. (II) GALVIN, D. J., Wave Guides; Electric Motors; Sound Recording; Conductors; Insulators | 1- 3-56 | 8-11-54 |
| 70. (II) BREWRINK, J. L., Security laws administration | 3- 2-56 | 1- 9-56 |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 2- 6-56 | 9- 1-55 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 1-12-56 | 8- 3-55 |
| CLASS. DIVS. III WAHL, E. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-26-56 | 9-24-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 2- 2-56 | 2- 1-56 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 4- 4-56 | 5- 3-56 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 3-19-56 | 4-17-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | | |

The following divisions have been abolished: 63 and 66

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1955.*

| | |
|---|---|
| Patents | Numbers 2,181,858 to 2,185,169, inclusive |
| Plant Patent | Numbers 349 to 351, inclusive |

# PATENT SUITS

**Notices under 35 U. S. C. 290; Patent Act of 1952**

2,110,768, R. L. Tweedale, Cooking device, filed Nov. 29, 1954, D. C., E. D. Mich. (Detroit), Doc. 13945, *Ralph L. Tweedale* v. *Sunbeam Corp.* Judgment for defendant Oct. 26, 1956.

2,180,689, 2,264,989, S. J. Geddings, Loom; 2,389,889, same, Let-off mechanism for looms; 2,420,473, same, Feeler controlled filling replenishing mechanism; 2,540,574, same, Felt for papermaking machines, filed Dec. 31, 1953, D. C., E. D. S. C. (Charleston), Doc. 4067, *Mt. Vernon-Woodberry Mills, Inc.* v. *Saint Julian Geddings.* Consent dismissal Sept. 28, 1956.

2,182,198, P. M. Johanning, Stone cutting machine, filed Dec. 7, 1955, D. C., W. D. Okla. (Oklahoma City), Doc. 6908, *G. B. Ents* v. *William (Bill) Grubbs.* Consent judgment; patent held valid and infringed; patent now expired, no injunction issued; cross-complaint dismissed Oct. 1, 1956.

2,235,165, J. W. Heitzel, Adjustable screed, filed Oct. 25, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33179, *Flexible Road Joint Machine Co.* v. *General Road Machines, Inc. et al.*

2,247,786, H. S. Ackerman, Heating boiler, filed July 3, 1950, D. C. N. J. (Newark), Doc. 545/50, *John A. McConce, Receiver for Hook and Ackerman Inc. et al.* v. *George J. Smith.* Action dismissed Oct. 29, 1956.

2,257,695, Valentine and Peña, Powder puffs, and similar articles, and means and method of making the same, filed Mar. 3, 1955, D. C., S. D. N. Y., Doc. 99/116, *Hygienol Co., Inc.* v. *Velcourt, Inc.* Stipulation and order of dismissal Oct. 30, 1956.

2,269,269. (See 2,150,059.)

2,272,769, 2,272,782, 2,272,883, Habib and Gott, Manufacture of articles from liquid dispersions; 2,461,270, Habib and Greenlie, Balloon mold; 2,461,271, same, Method of manufacturing balloons, filed Apr. 30, 1956, D. C. Md. (Baltimore), Doc. 8846, *W. R. Grace & Co.* v. *H. B. Hirsch & Sons, Inc.* Stipulation dismissing complaint and counterclaim without prejudice Oct. 30, 1956.

2,273,769. (See 2,273,769.)

2,273,883. (See 2,273,769.)

2,284,969. (See 2,150,059.)

2,462,468, Galber and Golick, Cold pressure gluing without retaining clamps, filed Oct. 24, 1956, D. C. Oreg. (Portland), Doc. 5860, *Monsanto Chemical Co.* v. *Linn Plywood Corp.*

2,438,473. (See 2,150,059.)

2,443,170, R. S. Smith, Reinforced sheet metal, filed Oct. 30, 1956, D. C. N. J. (Newark), Doc. 863/56, *Rigidized Metals Corp.* v. *The Kenilworth Steel Co.*

2,461,270. (See 2,273,769.)

2,461,271. (See 2,273,769.)

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2,592,134, S. Y. Gibbon, Apparatus for the treatment of croup; 2,694,397, same, Equipment for treatment of respiratory ailments, filed July 22, 1955, D. C., S. D. Tex. (Houston), Doc. 9056, *Air-Shields, Inc.* v. *Lowenstein Corp.* Consent judgment Oct. 24, 1956.

2,630,633, T. F. Peterson, Helically-preformed elements on stranded line; 2,761,272, same, Dead end for cables, filed Oct. 29, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33196, *Preformed Line Products Co.* v. *The Fenner Mfg. Co.*

2,634,327. (See 2,592,134.)

2,637,775, F. L. Albel, Knitted fabric, filed Oct. 26, 1956, D. C., S. D. N. Y., Doc. 114/145, *Artvale, Inc.* v. *North & Co. Inc.*

2,637,956. (See Re. 24,166.)

2,676,943, J. J. Steffan, Keeper mechanism, appeal filed Apr. 9, 1956; C. C. A., 8th Cir., Doc. 15551, *Julius A. Steffan et al.* v. *Weber Heating and Sheet Metal Co. et al.* Judgment of District Court affirmed Oct. 29, 1956.

2,708,578, C. F. Mitchell, Bowling ball finger patch, filed Oct. 30, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33199, *Charles F. Mitchell* v. *Akron Bowling Pin Co. et al.*

2,742,883, A. Rosner, Therapeutically active compositions containing amphetamine, filed Oct. 29, 1956, D. C., S. D. N. Y., Doc. 114/158, *Rosar Pharmacal Corp.* v. *Dolce Chemical Co.*

2,749,886, B. H. Thomas, Dispenser, filed June 12, 1956, D. C. Md. (Baltimore), Doc. 8920, *Bristol-Myers Co.* v. *Carter Products, Inc.* Consent judgment; patent held valid and infringed; defendant enjoined from further infringement (notice Oct. 30, 1956). Same, D. C., S. D. N. Y., Doc. 110/227, *Carter Products, Inc.* v. *Bristol-Myers Co.* Stipulation and order of dismissal Oct. 31, 1956.

2,761,272. (See 2,630,633.)

2,762,289, G. B. Ents, Stone cutting machine; 2,762,631, same, Mechanism for raising and lowering frames of trailers with respect to ground wheels thereof, filed Oct. 18, 1956, D. C., W. D. Ark. (Fort Smith), Doc. 1315, *G. B. Ents* v. *Ezee Stone Cutter Mfg. Co.*

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Des. 178,978, N. G. Wintermantel, Velocipede, filed Oct. 25, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1760, *Junior Toy Corp.* v. *Hedstrom Union Co. et al.*

# REISSUES

## DECEMBER 4, 1956

**Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.**

### 24,242
### ALLOYS AND ELECTRICAL RESISTANCE ELEMENTS

**James M. Lohr, Morristown, N. J., assignor to Driver-Harris Company, Harrison, N. J., a corporation of New Jersey**

**No Drawing. Original No. 2,581,420, dated January 8, 1952, Serial No. 117,516, September 23, 1949. Application for reissue June 29, 1956, Serial No. 595,041**

**16 Claims. (Cl. 75—171)**

*9. An electric resistance element consisting essentially of 50 to 70 percent nickel, 10 to 25 percent chromium, .01 to .20 percent calcium, .01 to 1.0 percent aluminum, a trace to .50 percent of a rare earth metal, balance essentially iron.*

### 24,243
### ALLOYS AND ELECTRICAL RESISTANCE ELEMENTS

**James M. Lohr, Morristown, N. J., assignor to Driver-Harris Company, Harrison, N. J., a corporation of New Jersey**

**No Drawing. Original No. 2,637,954, dated August 31, 1954, Serial No. 252,198, October 19, 1951, which is a division of Serial No. 117,516, September 23, 1949, now Patent No. 2,581,420, dated January 1, 1952. Application for reissue June 29, 1956, Serial No. 595,042**

**8 Claims. (Cl. 75—124)**

*5. An electric resistance element consisting substantially of 35 percent nickel, substantially 20 percent chromium, .001 to .20 percent calcium, .01 to 1.0 percent aluminum, a trace to .50 percent of a rare earth metal, balance essentially iron.*

### 24,244
### ALLOYS AND ELECTRICAL RESISTANCE ELEMENTS

**James M. Lohr, Morristown, N. J., assignor to Driver-Harris Company, Harrison, N. J., a corporation of New Jersey**

**No Drawing. Original No. 2,637,956, dated August 31, 1954, Serial No. 263,989, December 28, 1951. Application for reissue June 29, 1956, Serial No. 595,043**

**6 Claims. (Cl. 75—171)**

*4. An electric resistance element of the 80% nickel 20% chromium type having a greater tolerance for iron without materially affecting its resistance to oxidation at elevated temperatures consisting of about 20% chromium, from 0.2% to 2% of silicon, from 0.05% to 1% manganese, from 0.02% to 0.25% carbon, from 0.1% to 1% aluminum, from 0.01% to 0.2% calcium, a trace to 0.5% of at least one rare earth metal, and the balance nickel.*

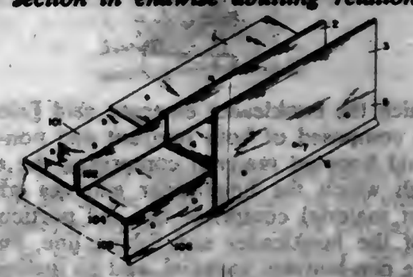
### 24,245
### ROOF GUTTER

**Druz Agar, Miami Beach, Fla.**

**Original No. 2,646,011, dated July 21, 1953, Serial No. 269,235, December 6, 1951. Application for reissue April 5, 1955, Serial No. 499,944**

**3 Claims. (Cl. 108—28)**

*6. In a roof gutter assembly having a trough section including a rear anchor strip adapted to underlie the marginal edge portion of a roof covering, a rear upstanding pleat, a front upstanding pleat spaced forwardly therefrom and a trough bottom intervening therebetween, said front pleat including a downwardly directed fold extending below said trough bottom to define a flashing member, the combination with said trough section, of a spillway section in endwise abutting relation therewith*



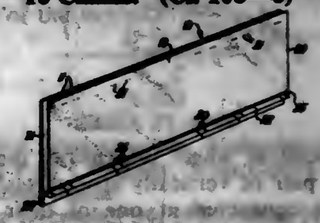
*for the reception of water therefrom, said spillway section having an anchor strip, rear pleat, trough bottom, and flashing member each adapted to partially underlie corresponding parts of said trough section in slideable relation therewith to permit the longitudinal adjustment of said spillway section relative to said trough section.*

### 24,246
### MULTIPLE SHINGLE STRUCTURE

**Carl J. Flink, Clarence, and Charles E. Heintz, Elma, N. Y., assignors to Cree-Dipt Company, Inc., North Tonawanda, N. Y., a corporation of New York**

**Original No. 2,672,831, dated March 23, 1954, Serial No. 321,424, November 19, 1952. Application for reissue March 9, 1956, Serial No. 570,660**

**16 Claims. (Cl. 108—8)**



*11. As an article of manufacture, a multiple shingle structure comprising a row of separate nailable shingles arranged in edge-to-edge relation, separate backing means extending along the greater part, both longitudinally and transversely, of the rear side of said row and of each individual shingle thereof, a narrow nailable strip capable of receiving and also anchoring nails extending along the rear of said backing means along substantially the full length and adjacent one longitudinal edge of said row and remote from the opposite longitudinal edge thereof, said backing means being interposed between said nailable strip and said row of shingles, and means securing each shingle and said backing means adjacent said one longitudinal edge of said row to said nailable strip.*

### 24,247
### COMBINED WEIGHTS AND ASSEMBLY MEMBERS

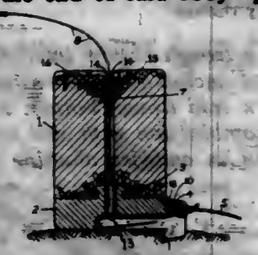
**Walter Gehrig, Flint, Mich.**

**Original No. 2,710,479, dated June 14, 1955, Serial No. 91,032, May 3, 1949. Application for reissue February 9, 1956, Serial No. 564,605**

**14 Claims. (Cl. 43—43.1)**

1. A combined fishing device and assembly member for a fishing line and a flexible hookleader formed with

a looped end, comprising a body having a passageway extending therethrough adapted to receive a portion of the hookleader including the looped end thereof with the remainder of said hookleader protruding beyond one end portion of said body, said passageway having the end thereof through which the hookleader emerges flared into a bell-shaped bending form, means provided for the attachment of the looped end of the hookleader and the fishing line to the end of said body opposite to that



through which the hookleader emerges, said [elongated] body being composed of both buoyant and non-buoyant material, said buoyant material comprising the end portion through which the hookleader emerges while said non-buoyant material comprises the end portion for attachment of the hookleader and fishing line, an anchor hook on the non-buoyant material, and an inclined water current engaging surface on said body slanting downwardly toward the line-attaching means against which water may react to force said anchor downwardly.

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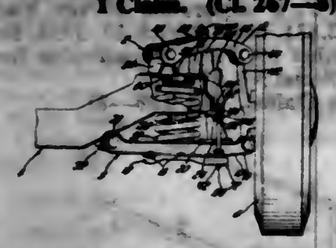
**24,248**

**INDEPENDENT VEHICLE WHEEL SUSPENSIONS**

**Kal H. Hansen, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware**

**Original No. 2,731,257, dated January 17, 1956, Serial No. 318,701, November 4, 1952. Application for reissue September 24, 1956, Serial No. 611,802**

**1 Claim. (Cl. 267—8)**



In an independent wheel suspension, the combination of a frame, a pair of vertically spaced wishbone control arms pivotally connected at one of their ends to said frame, a wheel supporting member pivotally mounted on the other ends of said arms, a mounting plate carried by the lower of said control arms and having an integral extension extending beyond each of the opposite side edges of said arm, a substantially vertically disposed rectilinearly operating shock absorber operatively connected to one of said extensions and to said frame, a vehicle stablizing torsion bar operatively connected to the other of said extensions and to said frame, a [coil] spring disposed between said mounting plate and said frame, said spring engaging said mounting plate [at points disposed] between the points of attachment thereon of said shock absorber and stabilizing torsion bar, and a seat formed in said mounting plate supporting said spring.

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**24,249**

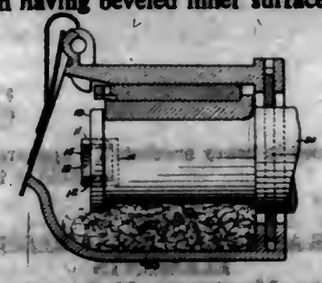
**RAILWAY JOURNAL BOX STABILIZER**

**Milton M. Johnson, Temple, Tex.**

**Original No. 2,704,694, dated March 22, 1955, Serial No. 283,184, April 18, 1952. Application for reissue November 23, 1955, Serial No. 548,797**

**6 Claims. (Cl. 308—40)**

1. In a stabilizing device for a railway car journal box, a pair of shoes each provided with beveled edges at their sides and an arcuate surface, a U-shaped frame including a cross-bar having arms extending therefrom, said arms each having beveled inner surfaces, said frame



adapted to be secured to the inner surface of a journal box and the beveled surfaces of the arms adapted to receive corresponding beveled edges at the sides of the shoes.

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**24,250**

**ELECTRICIAN'S FISH TAPE REEL**

**Henry Waldschmidt, Culver City, Calif.**

**Original No. 2,699,709, dated September 21, 1954, Serial No. 383,461, October 1, 1953. Application for reissue May 23, 1955, Serial No. 510,596**

**24 Claims. (Cl. 254—134.3)**



1. In a fish tape reel, a toroidal reel drum of channel section including a web on which the tape may be wound and a pair of flanges projecting radially outwardly therefrom and having peripheral lips which are axially opposed to define a circumferential slot through which the tape is adapted to pass with an interference fit; a *frame* [handle] of arcuate sleeve form, enclosing a segment of said drum and circumferentially slidable thereon; an actuator lever pivoted to said *frame* [handle] on an axis parallel to the drum axis; and a roller of discus form rotatably mounted in said lever in the plane of said slot and projecting into said slot, said roller having frusto-conical side walls engageable with said lips with a wedging action for spreading the lips adjacent the point of emergence of the tape through said slot when said lever is tilted to move said roller radially inwardly.

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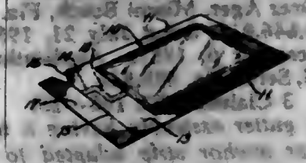
**24,251**

**DISPENSING CONTAINERS FOR LIQUIDS**

**Yale Kaplan, West Hartford, Conn., and Harold M. Rose, Plainfield, N. J., assignors of one-third to Hyman Bodner, Brooklyn, N. Y.**

**Original No. 2,707,581, dated May 3, 1955, Serial No. 473,523, December 7, 1954. Application for reissue May 11, 1956, Serial No. 584,407**

**3 Claims. (Cl. 222—107)**



*3. The combination comprising, a container for liquids formed of two portions of flexible plastic sheet material with a generally flat shaped cavity therebetween containing a body of liquid, said container being completely sealed about its periphery to retain said liquid against escape, at least one side of the periphery of said container including portions of said sheet material which form continuations of the side walls of said container and which are sealed together over a broad area, such broad sealing area of said extensions being interrupted to form a dispensing passage of tortuous shape having an intermediate portion extending substantially transversely of the container, said passage extending from said cavity to and terminating at an intermediate point in said broad sealed area, a transverse portion of said broad area being readily severable from an outer edge thereof at least to said intermediate point whereby when said portion is severed said passage for discharge of said liquid is opened when sufficient pressure is applied to the container walls to cause separation of the passage walls, portions at least of the walls of the tortuous passage acting to come together again upon release of such pressure to check further dispensing of the liquid.*



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**24,252**

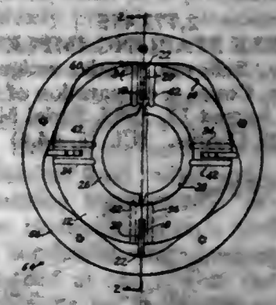
**HYDRAULIC MOTORS**

**Ephraim W. Hagen, Baltimore, Md.**

**Original No. 2,730,076, dated January 10, 1956, Serial No. 290,870, May 31, 1952. Application for reissue August 3, 1956, Serial No. 602,097**

**8 Claims. (Cl. 121—56)**

1. A hydraulic power converter comprising a stator [including a cylindrical body having] *member and a cooperating rotor member, one of which is provided with* equi-spaced radially disposed slots, blades reciprocal in the slots, [a rotor cooperating with said stator and including a ring] *the other of said members* having a channel contoured to provide sine or cosine cam surfaces constituting chambers for the reception of the blades, there being N+1 chambers for every N blades, [means urging the blades radially outward] *said blades being*



*adapted to be urged against said cam surface*, means for delivery of all of the fluid supplied to any chamber back of the respective blades and means for discharge of all of the fluid in each chamber immediately forward of the respective blades, [the variation in spacing of] said [rotor and stator] surfaces being [such] *so related* that the sum of the exposed areas of all the [slidable] blades in said chambers remains substantially constant during rotation of said rotor.

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# PLANT PATENTS

## GRANTED DECEMBER 4, 1956

**Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.**

**1,532**

**PECAN TREE AND NUT**

**Fred A. Mahan, Monticello, Fla.**

**Application November 28, 1955, Serial No. 549,904**

**1 Claim. (Cl. 47—62)**

A new variety of pecan tree as herein disclosed and illustrated being cross bred from the Mahan and Stuart varieties, said tree being rapid in growth, vigorous, having leaves large and rather pointed, and having a bark with prominent markings and blisks which produce buds which are rather sharply pointed at their apex and whose blooms appear a week earlier than the Stuart and whose nuts mature about ten days earlier in the fall than the Stuart variety, and its nuts averaging about 1¼ inches in diameter, and about four inches round and having a length of about two to two and one-quarter inches, the nuts being ovate shaped with a pointed apex at one end and a plump rounded portion at the other end, the kernel being better flavored than the Mahan or Stuart variety and having a moderately high percentage of oil, plump and relatively thick and easily separable from the shell, the shell thereof being of medium brown color, with black markings prominent at the apex end of the shell, said shell being medium thin with striations running longitudinally of the nut.

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**1,533**

**ROSE PLANT**

**Gerrit de Ruiter, Hazerswoude, Netherlands, assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania**

**Application December 30, 1955, Serial No. 556,763**

**1 Claim. (Cl. 47—61)**

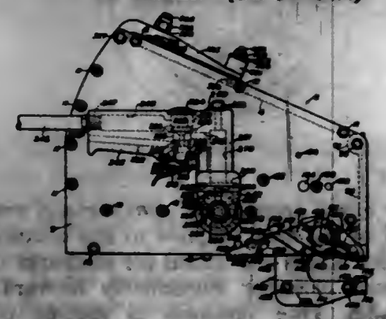
A new and distinct variety of rose plant of the hybrid polyantha class, substantially as herein shown and described, characterized particularly as to novelty by the combination of its vigorous and good habits of growth, the abundance, constancy, exceptionally large size and unusually outstanding sweet fragrance of its flowers, the excellent form and unusually heavy substance of its flowers, and the distinctive progressive color change and complete harmony of the colors at all stages of the flowers as they open and mature, with an attendant and unusual increase in color intensity.

# PATENTS

## GRANTED DECEMBER 4, 1956

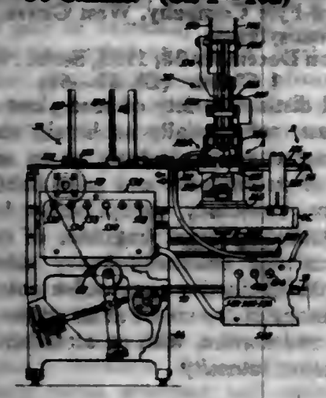
## GENERAL AND MECHANICAL

**2,772,415**
**PORTABLE STAPLING IMPLEMENT**
Robert W. Jenny, Bellevue, Wash., assignor to Bostitch, Inc., Stonington, Conn., a corporation of Rhode Island
Application August 17, 1955, Serial No. 528,867
20 Claims. (Cl. 1—44.4)



1. In a stapling machine having a casing, a staple-driver therein for driving staples, a magazine for containing a supply of staples, and means for feeding the staples to said driver; the combination of an anvil movably mounted on the casing to clamp the work against said casing, a single member connected to said anvil to move it for clamping the work and connected to said driver for moving it to drive a staple thereinto, a chamber for fluid pressure in said casing, and manually-operable means on said casing for releasing said fluid pressure to actuate said member to initially operate said anvil and thereafter operate said staple-driver.

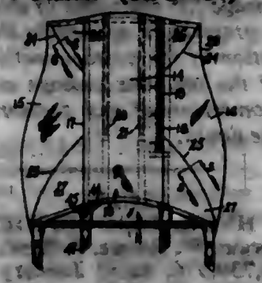
**2,772,416**
**APPARATUS FOR ASSEMBLING WORKPIECES**
Adolph S. Dorsey, Beverly, and Thomas W. Snow, Melrose, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application September 27, 1954, Serial No. 458,328
36 Claims. (Cl. 1—102)



1. Apparatus for assembling components on work pieces comprising a series of machines respectively having tools operative to apply components successively, means for simultaneously feeding a plurality of the work pieces singly from one machine to the next in the series, and positioning and clamping means associated with each machine for disassociating successive work pieces from said feeding means and holding them in fixed relation to the operating paths of said tools.

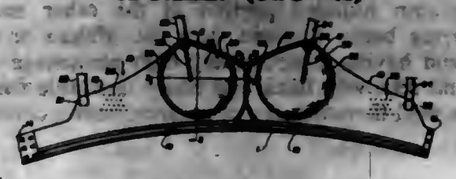


**2,772,417**
**GIRDLE OR LIKE GARMENT**
Emery C. Champagne, Woodbridge, Conn., assignor to The Berger Brothers Company, New Haven, Conn., a corporation of Connecticut
Application March 1, 1954, Serial No. 413,210
1 Claim. (Cl. 2—37)



A girdle-type garment having a rear section and a front section of substantially equal dimensions girthwise, said front section comprising a central front panel of inelastic material and a pair of side panels of elastic material, one on each side of the front panel, each of said side panels having its inner edge joined to the adjacent edge of the front panel and its outer edge joined to a side edge of the rear section to form a body-encircling garment, each of said side panels comprising an inner and an outer ply of elastic material, the outer ply extending from the upper to the lower edge of the garment and being coextensive with the panel of which it forms a part, the inner ply extending from the upper to the lower edge of the garment at the edge of the panel joined to the rear section of the garment and being shorter than the outer ply at its edge joined to the central panel of the front section, whereby the upper edge of the inner ply slopes downwardly and the lower edge of the inner ply is inclined upwardly toward the central panel, and each side panel has substantially triangular-shaped portions of single-ply thickness at the upper and lower edges of the garment adjacent the junction of the side panels with the central panel, and the inner ply being secured by seam lines at all edges thereof to the outer ply.

**2,772,418**
**RUBBER LATEX BRASSIERE**
Lois A. Spaeth, New York, N. Y., assignor to International Latex Corporation, a corporation of Delaware
Application January 11, 1954, Serial No. 403,190
11 Claims. (Cl. 2—42)



1. A brassiere comprising back and breast portions and means for causing a girthwise tension in the breast portions, said breast portions made of readily pliable deposited latex material which elastically embrace and conform to the body, said breast portions each comprising an outwardly extending preformed cup to accommodate the breast, said breast portions having finger-like bands made solely of deposited soft pliable latex, said finger-like bands being elastic but relatively more resistant to stretch than the remainder of said breast portions and positioned in the region of and forming a part of the wall of the breast portions between the center lines of the cups forming a unitary structure with the latex breast portions for resisting lateral separation of the breasts, due to the elasticity of the pliable latex of the remainder of the breast portions when the girthwise tension is produced in the breast portions.

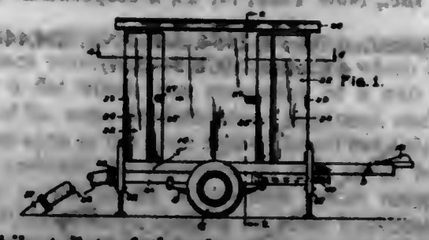


**2,772,419**
**LADIES' UNDERGARMENT**
Murray Silverstein, Great Neck, N. Y.
Application February 23, 1956, Serial No. 567,276
1 Claim. (Cl. 2—224)



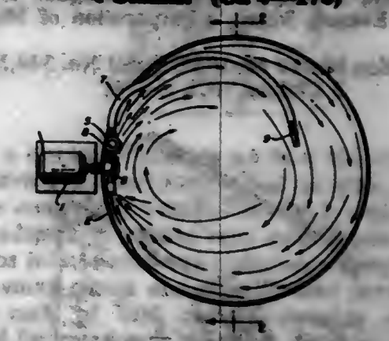
A lady's panty comprising an upper waist enclosing section and a pair of leg encircling sections and formed from two blanks of generally elongated shape, one of said blanks enclosing a major portion of the body of the wearer and having a generally straight upper edge, a lower edge having a plurality of concave edge sections, and opposed, somewhat shorter generally vertical edges, said concave lower edge sections including a relatively short central section and sections on each side thereof which terminate at the outer ends in straight sections, said blank being stretchable in a direction extending around the waist of the wearer, the second blank being stretchably vertically thereof and having a straight upper edge forming the rear upper edge of the garment, a convexly curved lower edge, and opposed lower side edge sections of concave contour and substantially straight upper side edge sections, the latter edge sections being stitched to the opposed vertical edges of the first blank to form a body enclosing section, the lower edge of the second blank being stitched to the central concave lower edge section of the first blank to form a crotch section, the lower concave side edges of the second blank and the remaining lower edge sections of the first blank forming the lower edges of the leg encircling sections, and elastic bands secured to the upper and lower free edges of the garment, the upper edge of the second blank being puckered to provide added fullness upon upon stretching of the waist band.

**2,772,420**
**MOBILE TOILET**
George E. Carter, Fort Lauderdale, Fla.
Application September 20, 1954, Serial No. 457,123
1 Claim. (Cl. 4—11)



A mobile toilet of the character described that comprises a frame having ground wheels and a draft device, a rectangular housing supported on the frame and that is divided transversely to form a pair of substantially identical sections, each of the sections being provided with a door opening at one side of the housing, a combined closure and protective shield for each of the openings, said shield each being hinged at the corners of the housing and with the edge of the shield having latching means whereby they are secured in closed covering position over the openings, each of the shields embodying a closure panel having an inwardly angled free edge whereby the shield when in a predetermined open position will adequately provide a clearance passage to the door opening and simultaneously screen the opening against visual observation to the sections, the panels and their angled portions being rigidly and integrally connected at top and bottom by horizontal webbed portions against flexing, each of the sections being provided with substantially identical flush toilets and urinals, a soil disposal pipe extending longitudinally of the housing beneath the frame, upstanding laterals formed upon the soil pipe that have connection with the flush toilets, the soil pipe being extended at one end of the frame and provided with a coupling for detachable sealing connection with a non-metallic and flexible soil pipe of substantially the same diameter, the flexible soil pipe at its opposite end provided with a coupling device for detachable sealing connection with a sewerage disposal system, the first named soil pipe at its opposite end being provided with a reducing coupling for threaded connection with a pressure water line having a cut-off valve and said water line being co-axial to the soil pipe and whereby the water line serves to flush the soil pipe and the flexible soil pipe throughout its length, the said frame at its corners being provided with adjustable ground engaging props whereby to maintain the housing and associated elements in a rigid position of use.

**2,772,421**
**APPARATUS FOR HYDROTHERAPEUTIC TREATMENT**
Homer C. Friend, Davenport, Iowa
Application April 19, 1954, Serial No. 424,054
4 Claims. (Cl. 4—178)

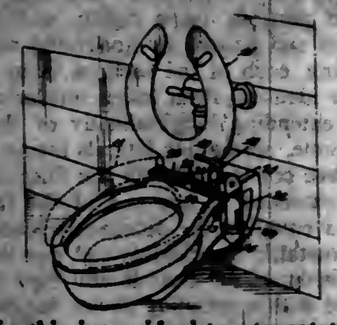


1. In apparatus for hydrotherapeutic treatment, a tank in which the treatment is given, said tank having upright wall portions, a pump to force a stream of water against a person taking a treatment, a motor for operating the pump at a desired speed, a bracket to support the pump and motor on the upper edge of one wall portion of the tank, said bracket being constructed so that the motor is located in laterally outwardly overhanging relation to said one wall portion and the pump is located in laterally inwardly overhanging relation to said one wall portion, and inlet and outlet pipes extending from the pump downwardly to within the tank in close proximity to said one wall portion to intake and discharge ends, respectively, adjacent the bottom of the tank.

**2,772,422**
**LIFTING MECHANISM FOR TOILET SEATS**
Richard R. Kershaw, Chicago, Ill.
Application July 27, 1954, Serial No. 446,014
9 Claims. (Cl. 4—251)

1. In combination with a toilet having a bowl and a pivotally mounted seat provided with spaced anchoring

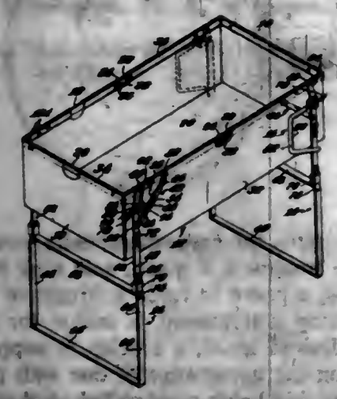
studs for detachably mounting the seat upon the bowl, an attachment for automatically lifting the toilet seat from its lowered position including means for detachably and adjustably mounting said attachment on the bowl and retaining it by said studs, a lifting arm having one end offset and projecting beneath one side of the seat to lift the seat to elevated position when unoccupied and the arm is rotated to its raised position, a housing having a head in which the other end of said arm is journalled and a depending cylinder containing hydraulic fluid, a piston connected to said other end of said arm, spring



means for spring-biasing said piston to rotate said arm and raise the seat, means for controlling the flow of fluid under pressure from one to the opposite side of said piston as said arm is rotated and said seat is raised and lowered whereby said seat may be rapidly lowered manually to compress said spring means and when unoccupied said arm is rotated and said seat is raised slowly from its lowered position during its initial travel and then more rapidly to its fully elevated position by the expansion of said spring means, and in which elevated position the seat is retained by said arm until it is again manually lowered.

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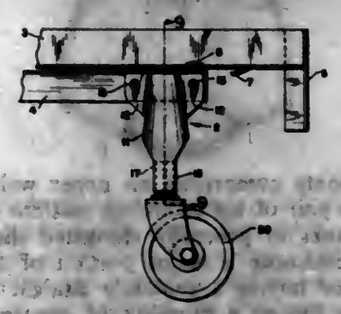
2,772,423
**COMBINATION BASSINET CAR BED**
Samuel Linden, Swampscott, Mass., assignor to Bunny Bear Inc., Everett, Mass., a corporation of Massachusetts
Application March 24, 1953, Serial No. 344,384
3 Claims. (Cl. 5—94)



1. A combination bassinet and car bed comprising a rectangular frame, a hammock suspended from the frame for reception of a mattress, and legs joined to the frame to support it, said legs having upper and lower sections, the lower sections being longer than the upper sections, means pivotally connecting the upper ends of the lower sections to the lower ends of the upper sections in overlapping relation, said lower sections being foldable from lower positions in alignment with the upper sections upwardly into substantially parallel relation with the upper sections in which position the lower ends of the lower sections extend above the top of the frame and provide handle means for carrying the bed, and the lower ends of the upper sections constitute the footing for the bed, locking sleeves mounted on the upper sections slidable thereon into telescoping engagement with the overlapping portions of the upper and lower sections to hold said sections in rigid alignment for supporting the bed at its maximum height, said sleeves being slidable upwardly along the upper sections to disengage them from the overlapping portions of the legs to permit folding the lower leg sections and retaining clips mounted on the upper sections with which the locking sleeves may be engaged to hold them elevated.

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2,772,424
**BEDFRAME SUPPORT LEG**
Melvin E. Roche, Strongsville, and Leslie K. Jackson, Lakewood, Ohio, assignors to The Harvard Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application October 14, 1954, Serial No. 462,264
6 Claims. (Cl. 5—176)



1. In a bedframe of contractible type, a longitudinal frame member having a horizontal support surface, a transverse frame member pivotally secured to the longitudinal member near an end thereof having in at least the end portions thereof a right angle structure with a horizontally depending flange and a vertically depending flange facing longitudinally outwardly from said frame; an integral brace and leg member having vertical portions abutted against and rigidly secured to said vertically depending flange of the transverse frame member near an end thereof, having a horizontal top flange parallel to and facing oppositely to the horizontal flange of said transverse frame member, the transverse edge of said leg flange having a greater depth in the center than at the end and said leg member having substantially throughout its entire length a vertically extending reinforcing channel portion between said vertical portions with the lower part of said channel portion being formed into a socket; said longitudinal frame member having an abutment element spaced longitudinally outward of said pivot and depending from the horizontal surface thereof, said abutment element being adapted to engage an outer transverse edge of said top flange of the leg member to limit pivotal movement thereof.

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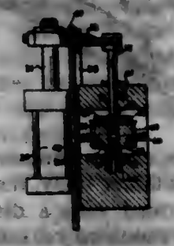
2,772,425
**BED COVERINGS**
Edna S. Brodie, New York, N. Y., assignor to J. P. Stevens & Co., Inc., New York, N. Y., a corporation of Delaware
Application June 4, 1954, Serial No. 434,446
4 Claims. (Cl. 5—334)



1. A bed covering having corner pleats and side and edge portions arranged for disposition at an angle to its body portion, said covering being formed of a sheet having corner portions each cut away to form a plurality of adjacent notches, edge portions of one of said notches being secured together in abutting relation to form a pocket portion arranged to fit over the corner of a mattress and the edge portions of the other notch being superposed and secured together and constituting the end of said pleat.

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2,772,426
**DEVICE FOR INSERTING HEADED MEMBERS IN APERTURED MEMBERS**
Roy W. Bailey, John T. Fink, and Everett Gill, Detroit, Mich., assignors to Detroit Power Screwdriver Company, Detroit, Mich., a corporation of Michigan
Application January 21, 1953, Serial No. 332,363
3 Claims. (Cl. 10—139)



1. A device for inserting headed members in apertured members comprising a body, a pair of resiliently contacting fingers pivotally suspended from said body, a pair of spring-backed opposed jaws in said fingers slightly below the upper ends thereof and forming a first seat for suspending a headed member by its head and adapted to release said head without spreading said fingers, a second seat for an apertured member in said body below said fingers, means for pushing a headed member through said seat into an apertured member, another seat formed by the lower ends of said fingers for a head and adapted to be opened by the spreading of said fingers under pressure on said head, a fixed pin projecting from said body portion between said fingers and engageable by the fingers to limit their inward movement, a guide member adapted to receive a headed member on being pushed through the last named seat, said pin being centered with reference to the path of said guide member and lips on the outer ends of said jaws and engaging the outer surfaces of said fingers to limit the inward movement of the jaws.

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2,772,427
**BOOK BACKBONE STRUCTURE WITH CONCEALED RIVET MEANS AND METHOD OF MAKING SAME**
Edward Charles Rankin, Oak Park, Ill., assignor to Brock & Rankin, Inc., Chicago, Ill., a corporation of Illinois
Application January 18, 1952, Serial No. 267,138
13 Claims. (Cl. 11—2)



4. The method of fabricating a book structure of the round back variety from binder's board, which comprises making a flat blank case consisting of a pair of cover boards of the same predetermined thickness, and an outer backbone strip of the same type of board but only approximately one-half the thickness of said cover boards, all hingedly joined by an outer cloth cover; rounding said outer backbone strip; making an inner backbone strip of the same board and thickness as the outer strip, and separately rounding same to a curvature substantially complementary to that of the outer backbone; fully coating the convex surface of the inner backbone with a glue of the class including hide glues, and pressing the coated inner backbone into seated intrefit with the inner surface of the outer backbone until the glue is dried.

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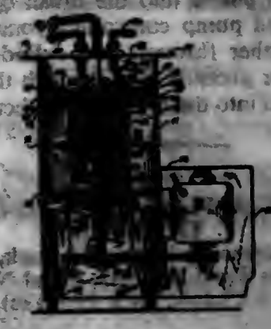
2,772,428
**SHOE PRESS PAD**
Maxwell C. Searles, Erie, Pa., assignor to Lamac Process Company, Erie, Pa., a corporation of Delaware
Application February 18, 1952, Serial No. 272,155
6 Claims. (Cl. 12—30)



3. A shoe press pad comprising a flattened tubular casing having its longitudinal axis extending lengthwise of a shoe to be pressed, said casing having top, side, and bottom sections formed of a sheet of flexible material having its side edges folded inward and cemented together by a central longitudinal seam in the bottom section of the casing, and a fluid pressure bag within the casing.

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2,772,429
**DRINKING GLASS, TUMBLER OR THE LIKE WASHING MACHINE**
Homer Frank Lyman, Nutley, N. J.
Application June 29, 1953, Serial No. 364,800
8 Claims. (Cl. 15—76)



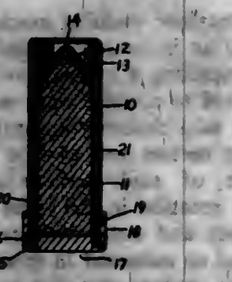
1. In a container washing machine for washing a container having an inner surface and an outer surface, said machine comprising a casing having a washing chamber therein adapted to contain wash-water, container washing apparatus in said chamber comprising upright inner surface cleaning means and upright outer surface cleaning means, each of said surface cleaning means being mounted for rotation in the same direction on a vertical axis, the inner and outer surface cleaning means being so shaped and so mounted in relationship to one another that the inner surface cleaning means engages the inner surface of a container positioned thereover in inverted position and the outer surface cleaning means engages the outer surface of said container, means for rotating said inner and outer surface cleaning means in the same direction, and baffle means positioned in said chamber and extending below the uppermost water level in the chamber, said baffle means comprising horizontally extending, vertically spaced plates positioned adjacent the upper end of said surface cleaning means, said plates being substantially coextensive with said washing chamber and having an opening therein in vertical alignment with said cleaning means through which a container is inserted in inverted position for washing, and baffles extending between said plates in said space therebetween and positioned to direct wash-water toward said surface cleaning means, the lower plate having a plurality of spaced water openings therein.

2,772,430
**DISH CLEANING DEVICE WITH DETERGENT FEED**
Irving J. Moritz, Brooklyn, N. Y.
Application July 13, 1953, Serial No. 367,469
2 Claims. (Cl. 15—133)



1. A dish cleaning device of the character described, comprising a tapered tubular body, a brush head at the contracted end of said body, a one-piece moulded tubular handle member at the other end of said body, said handle member having one-diameter bores opening through both ends, the bore at one end of said member forming a storage chamber for a liquid detergent, a detachable cap for closing said chamber, said bores being divided by a web and an integral hollow cylinder traversing the bores adjacent the other end of said member, the integral structure of said handle member facilitating moulding thereof, said cylinder having a port communicating with the bore at the second named end of said member, the cylinder having a valve controlled aperture opening into said chamber, a manually and spring operated pump in said cylinder and accessible outwardly of said member, a collar mounted in said member and cylinder for retaining the pump against displacement from said cylinder, said head having a discharge passage, through which detergent passes into the brush of said head, and operation of said pump controlling transfer of detergent from said chamber through said cylinder and into said tubular body for pressure feed through the discharge passage of said head into the brush of said head.

2,772,431
**DISPENSING APPLICATOR AND CONTAINER THEREFOR**
Matthew B. Blish, Oak Park, Ill.
Application April 23, 1952, Serial No. 283,820
3 Claims. (Cl. 15—136)



1. In a dispensing applicator container construction comprising a container having an aperture at one end adapted for dispensing matter carried within the container, a refilling aperture closure member fixedly engageable into and removably closing a refilling aperture at the opposing end, a removable container covering cap member having a closed end and an opposing open end, the inside width of said covering cap member being slightly greater than the outside width of the container and adapted to cover said container at a close dimensional tolerance with the container wall portion, in combination therewith the improvement comprising a longitudinally extending peripheral flange carried by said aperture closure member and disposed laterally beyond the peripheral edge of the refilling aperture end of the container and formed to longitudinally extend in parallel alignment with the outer surface of said container side wall portion adjacent to said refilling aperture end of the container and spaced apart from the container wall portion at a slightly greater distance than the thickness of the covering cap member side wall and providing a friction retaining recess between the inner surface of the longitudinally extending peripheral flange and the outer surface of the container side wall portion removably receiving said covering cap member.

2,772,432
**PLASTIC TUBE WITH SPREADER**
John Andreola, Bronx, N. Y.
Application March 30, 1954, Serial No. 419,760
4 Claims. (Cl. 15—139)



1. A combined dispensing container and spreader device comprising a container body, means closing one end of the body and formed with a dispensing aperture, a closure cap movably mounted on said means and having a dispensing opening registrable with said aperture in one position to which the cap is moved, and a spreader device mounted on said means for adjustment between an inoperative position spaced from the cap and an operative position adjacent the dispensing opening of the cap, said means comprising a container end wall and a neck on said end wall having an end wall in which said aperture is formed, said spreader device being pivotally attached to the container end wall, the cap having means engageable by the spreader device on swinging of the spreader device to operative position, said last-named means comprising a wing projecting radially and outwardly from the cap in the path of swinging movement of the spreader device, the cap being rotated by the spreader device to a position in which said opening and aperture move into registration substantially simultaneously with movement of the spreader device to its operative position.

2,772,433
**ECONOMY TOOTHBRUSH**
Nicholas A. Brundo, Boonville, Mo.
Application April 27, 1951, Serial No. 223,285
1 Claim. (Cl. 15—176)



In a toothbrush, a handle having a recess with an inclined bottom portion and inwardly directed side walls, a transversely extending rib on the bottom of the recess, and a body of resilient material having a plurality of bristles to provide a brush portion, said body having an integrally formed downwardly and angularly extending leg provided with a transversely extending notch on its under side arranged to engage the rib on the handle, the body having a slot between the leg and the brush portion to allow the leg to be sprung towards the brush portion to release the notch from the rib, said notch and rib being rounded, the sides of the body at the brush portion being inclined to tightly engage the inwardly directed walls.

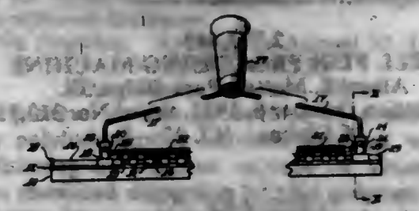


2,772,434
**SHAMPOO BRUSH WITH DETACHABLE HANDLE**
Nathan L. Solomon, Englewood, N. J.
Application February 7, 1955, Serial No. 486,843
5 Claims. (Cl. 15—179)



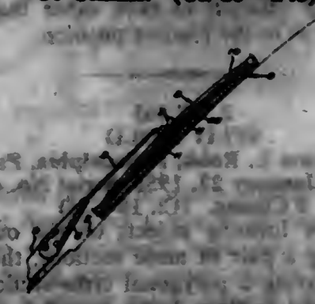
1. The combination with a brush, comprising a body portion having projecting bristles on one surface thereof and a flexible ring centrally on the other surface thereof, said body portion of the brush being octagonal in form providing opposed straight sides on said body, a handle member for detachable mounting upon the body portion of the brush, said handle member having a flexible yoke end mounted in and snugly engaging said ring, said end including inwardly directed hook flanges engaging two opposed sides of said body which are parallel to said ring in retaining the brush against displacement from said yoke end, and said handle member including an extending handgrip portion.

2,772,435
**CURVED SURFACE WIPER**
Frederick B. Lenk, Los Angeles, Calif.
Application February 24, 1953, Serial No. 338,323
5 Claims. (Cl. 15—245)



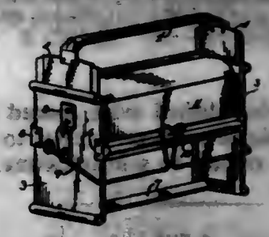
5. Curved surface wiper means effectively adapted to wipe a convex surface of varying radii of curvature, comprising: longitudinal resilient wiper blade means; flexible wiper blade holder means provided with lower finger means in gripping relationship with respect to said wiper blade means and provided with upper longitudinal channel means; pressure-applying yoke means in effective cooperable pressure-applying relation to said wiper blade holder means; and biasing tension spring means attached to said yoke means whereby to effectively reactively maintain contact of said wiper blade means with a curved surface, said spring means being in longitudinal contact with said wiper blade holder means and laterally retained by said upper longitudinal channel means of said wiper blade holder means.

2,772,436
**WINDSHIELD WIPER BLADE**
Raymond Dellal, Cheektowaga, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application January 16, 1953, Serial No. 331,540
10 Claims. (Cl. 15—245)



1. A wiper blade adapted for use on curved window surfaces comprising a rigid primary yoke member having means for attachment to an actuating arm, resilient secondary yoke means including spring-backed levers having a common pivot on said primary yoke member, and an elongated flexible squeegee unit connected at spaced points thereabout to the opposite ends of said primary yoke member and to the ends of said levers.

2,772,437
**SHOE SHINE SERVICE SETS**
Frederick A. Alsen, Chicago, Ill.
Application December 16, 1955, Serial No. 553,524
5 Claims. (Cl. 15—265)



1. A lightweight portable shoe shine box comprising an upstanding housing having an open top and opposed end walls, a frame mounted within said housing for vertical adjustment, a container having bottom and side walls for shoe shine equipment carried by and movable with said frame, a member mounted on and positioned above said frame to serve as a footrest and a handle, resilient latch means on each of said housing end walls to lock said frame in a desired vertical position, and operator-operated means including a single control to simultaneously release said latch means.

2,772,438
**VACUUM DEBRIS COLLECTOR AND INCINERATOR**
Juan Diaz, Baltimore, Md.
Application April 15, 1952, Serial No. 282,364
3 Claims. (Cl. 15—314)



1. A perambulating debris collector comprising a vehicle having means for receiving debris, a roof for said vehicle, a flexible suction pipe above and normally paralleling the roof of the vehicle, a stand pipe connected to one end of the suction pipe and extending within the vehicle, a swivel connection on said stand pipe, means in the vehicle for rotating the portion of the stand pipe connected to the suction pipe, means for bending the front end of the suction pipe towards the debris to be sucked into the vehicle, wherein the means for bending the front end of the suction pipe consist of a winch within the vehicle, means for rotating said winch, and a cable between said winch and the front end of the suction pipe.

2,772,439
**CONNECTION FOR DOORCHECKS**
Russell C. Flint, Princeton, Ill., assignor to LCN Closers, Inc., Princeton, Ill., a corporation of Illinois
Application March 11, 1955, Serial No. 493,629
10 Claims. (Cl. 16—49)

1. In combination with a door closing and checking mechanism having a shaft, an arm secured to said shaft,

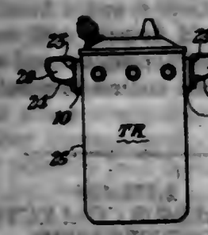
a trackway adapted to be mounted in a recess in a door, and a roller on said arm for movement in said trackway,



said trackway having dished sides spaced at a distance greater than the diameter of said roller to permit tilting of said roller with respect to said trackway.

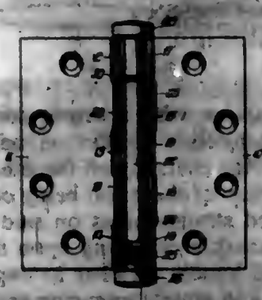
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2,772,440
**MEANS FOR HANDLING ELECTRICAL EQUIPMENT AND THE LIKE**
Robert E. Applegate, Grayson, Ky.
Application November 23, 1955, Serial No. 548,672
2 Claims. (Cl. 16—114)



1. In means for handling an electrical equipment having a single wall metallic outer case for housing electrical apparatus with insulated terminals with weather seals secured in the wall of the case and which equipment is uncrated by purchaser for marking and then handled uncrated at storeroom and at a field installation point, there being no means for taking hold of the case, the combination comprising, a pair of holders each a strip of a steel channel, each said channel with flanges which are welded to the case after the equipment is uncrated and each said holder with the flanges of the channel welded to the equipment case with the web of the channel spaced from the case the width of the flanges, each said holder with the center line of the channel web vertical and the two holders mounted substantially 180 degrees apart on the case and at points on the case selected for the holders to clear the insulated terminals and weather seals, each said holder with two handle eyes in the channel web one above the other a preselected distance, each said handle eye with a circular bottom portion and an upper rectangular portion with vertical edges a preselected distance apart, two metallic handles, each said handle with a face and a hand gripping portion which extends from one end of the face at substantially right angles, a pair of round headed bolts secured in the face of each handle and spaced for the bolts to mate with the spacing of said handle eyes of said holders, each said bolt extending from the face opposite the hand gripping portion with a length of bolt shank slightly greater than the thickness of the channel webs of said holders, each said bolt head of a diameter slightly less than the diameter of said circular portion of said handle eyes, and each said bolt shank of a diameter slightly less than the distance between the edges of said upper portions of said handle eyes.

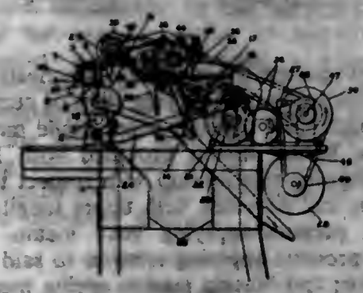
2,772,441
**HINGE**
Clarence B. Rissr, Sterling, Ill., assignor to Lawrence Brothers, Inc., Sterling, Ill., a corporation of Illinois
Application May 13, 1954, Serial No. 429,545
3 Claims. (Cl. 16—169)



1. In a hinge, a pair of hinge leaves formed of sheet material, each of said leaves having a plurality of integral knuckles spaced along one edge thereof, bushings in said knuckles, said knuckles being arranged in interleaved relation with the bushings therein having aligned bores, and a headed pintle engaging in said bores, one of said bushings having an internal peripheral groove in its end which is spaced from the head of the pintle and which faces in the direction opposite the head of the pintle, and a spring-pressed locking member seated in an aperture in the pintle and projecting into the recess in said bushing.

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2,772,442
**SHELL FISH PROCESSING MACHINE**
Albert J. Matter, Park Ridge, Ill.
Application October 8, 1952, Serial No. 313,756
6 Claims. (Cl. 17—2)



1. In a machine for peeling and deveining shrimp, two like, complete units arranged side by side with corresponding ends facing the same way; each unit including an oscillatory member pivotally supported at its lower end for swinging movements in a vertical plane, a single shrimp holder on such member forming the sole support for a shrimp and being in position for loading at one limit of the oscillatory movements of said member and in delivery position at the other limit of such movements; the planes in which said members move being so near each other that an operator is enabled to load both holders without change of his position; and means to oscillate said members continuously in such out of step relation to each other that only one holder at a time is in the loading position.

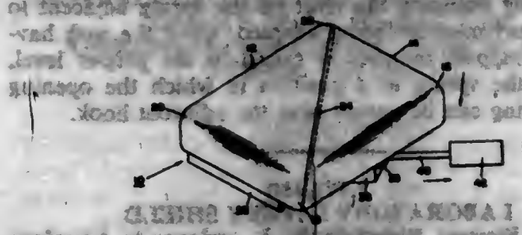
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2,772,443
**SPLIT MOLD**
Morrison L. Robb, Philadelphia, Pa.
Application January 27, 1953, Serial No. 334,421
5 Claims. (Cl. 18—36)

1. A mold for forming objects on the outer surface thereof including a pair of mold sections, the combined mold sections having a polygonal cross-section, the corners of said mold sections being rounded, one of said mold sections being larger than the other, said mold sections being separated along a plane surface angularly



positioned to the vertical at a minor included angle, with said plane of separation being spaced from and on the same side of said diagonal throughout the entire thickness of said mold sections and included within the arc formed by the rounded corners, the larger of said mold sections being provided with means for fixedly securing



the same to a supporting surface, and the smaller of said mold sections being provided with means for moving said mold section along said supporting surface, whereby said smaller mold section may be raised and lowered on the surface of the larger mold section formed by the plane of separation.

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2,772,444
**COMPOSITION COMPRISING A POLYHALOGENATED ETHYLENE POLYMER AND VISCOSE AND PROCESS OF SHAPING THE SAME**
Lawton Arthur Burrows, Mendenhall, Pa., and Walter Edwin Jordan, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 12, 1954, Serial No. 449,522
22 Claims. (Cl. 18—47.5)

1. A process for the production of a shaped article from a polyhalogenated ethylene polymer which comprises forming an aqueous mixture of viscose and an aqueous stabilized dispersion of said polymer; extruding said mixture into a setting medium for said viscose, forming thereby a structure comprising discrete particles of said polymer and a cellulosic matrix; heating the said structure at a temperature sufficiently high to decompose said cellulosic material; and coalescing the said discrete polymer particles by heating them to effect sintering of the said polymer particles, said aqueous mixture containing about 10% to about 60% of the said polyhalogenated ethylene polymer and about 1% to about 8% of cellulose.

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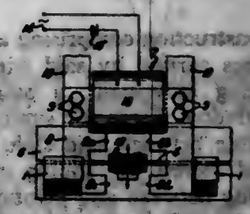
2,772,445
**COTTON PICKER**
Arthur L. Hubbard, Maidell, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application May 11, 1953, Serial No. 354,286
18 Claims. (Cl. 19—72)



1. In a cotton picker in which conveying means having an outlet discharges a stream of material including picked cotton and incidental trash into a receptacle and against separating screen means spaced from the outlet so that trash normally passes through the screen means and outward of the receptacle and cotton is intercepted and retained in the receptacle, the improvement residing in the screen means, comprising: a plurality of screen elements spaced apart to provide such screen means; means mounting certain of the screen elements for movement out of the material stream to remove the restriction by said certain of the screen elements to the material stream; and means connected to and for moving said certain of the screen elements selectively out of and back into the material stream.

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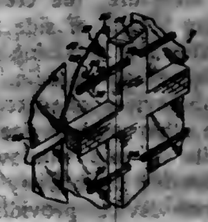
2,772,446
**DOFFER COMB MECHANISM**
Walter W. Wright and Glen P. Robinson, Jr., Atlanta, Ga.
Application January 6, 1954, Serial No. 402,543
2 Claims. (Cl. 19—106)



1. In a doffer comb mechanism, a comb member, and means for supporting and oscillating said comb member in predetermined relation to the card clothing of a carding machine, including flexible arm means for mounting said comb member in spaced relation to a fixed support, and electromagnetic means for imparting vibratory oscillation to said arm means and therethrough to said comb member, said electromagnetic means including a core having two pairs of pole pieces arranged in spaced confronting relation, an armature carried by said arm means in the space between and flanked by said pairs of pole pieces for movement in alternation in the direction of each pair of pole pieces from a neutral position therebetween, a coil on said core, circuit means for connecting said coil to a source of alternating current having a frequency of the order of sixty cycles per second and a half-wave rectifier connected in said circuit, the movable assembly comprising said arm, armature and comb member having a mechanical resonant frequency higher than thirty cycles per second and an operational frequency of one-half that of said source of alternating current.

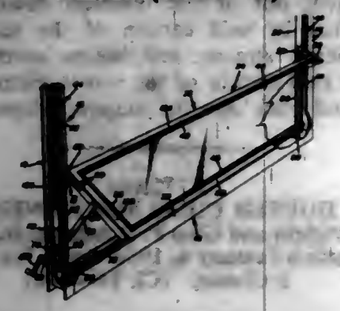
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2,772,447
**CLOSURE DEVICE FOR OPENINGS IN BUILDINGS**
Carl G. Preston, Chicago, Ill., assignor of fifty percent to Robert P. Brunemann, Chicago, Ill.
Application January 5, 1955, Serial No. 479,885
9 Claims. (Cl. 20—40)



1. In a closure device of the character described; the combination of a panel for closing an opening in a wall, said panel positioned with the marginal edges thereof abutting the outer surface of the marginal edges of the wall defining said opening, a brace-bar positioned with its ends abutting the inner surface of the marginal edges of the wall defining said opening, and removable means for adjustably connecting said panel and brace-bar in clamping arrangement with said wall.

2,772,448
**WINDOW CONSTRUCTION**
Arthur J. Cole, Clearwater, Fla.
Application December 31, 1953, Serial No. 401,589
6 Claims. (Cl. 20—62)



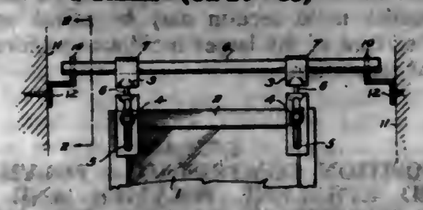
1. A window construction comprising a window frame, a plurality of sashes carried by said window frame for sliding and swinging movement, a pair of slide bars mounted in said window frame for simultaneous sliding, said sashes extending between said slide bars and being pivotally connected thereto for sliding movement therewith, arms extending between and pivotally connected at opposite ends to said sashes and said window frame, and operating means carried by said window frame for actuating at least one of said slide bars, said operating means including a block carried by said one slide bar, said block having a bore therethrough, an operating shaft extending less than the height of said frame and received in said bore, cooperating means on said shaft and in said bore to cause movement of said block along said shaft in response to rotation of said shaft, means for selectively rotating said shaft to impart a sliding movement to said slide bars.

2,772,449
**REMOVABLE SASH WINDOW UNIT**
Frank S. Nicoll, Jr., Baltimore, Md.
Application December 31, 1954, Serial No. 479,081
3 Claims. (Cl. 20—52.2)



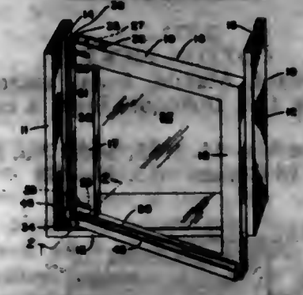
1. In a window structure, the combination, with a window frame having a pair of side stiles, of a set of sashes and means removably retaining said sashes in said frame for vertical movement therein; said means comprising a pair of jamb devices, one fixedly secured to one of said stiles and the other jamb device floatingly mounted on the other stile of said window frame, resilient means urging said floating jamb away from said second stile, each of said jamb devices providing guide channels for the oppositely disposed stiles of each sash, a stiffener plate secured to the upper rear portion of said floating jamb, a set of hooks located one in each guide channel of said floating jamb and extending through the latter and secured to said stiffener plate, said stiffener plate having a set of tongues integral therewith and projecting through said floating jamb one each into one of said guide channels of the floating jamb, each sash having a channel facing said floating jamb, a set of counterbalance springs for suspending said sashes at desired elevations in said window frame, means in the channel of each sash securing to the latter one end of a counterbalance spring, a rivet secured to each of said springs adjacent to the upper end thereof, a support member located at the upper end of the channel in each sash and having an end engageable with one of said rivets, an opening in each counterbalance spring above such rivet, each support member by engaging the rivet on the spring adjacent to said support member being adapted, when the sash having said support member is raised to the proper level, to carry the spring to a position in which the opening in the spring can be passed over the adjacent hook.

2,772,450
**LABORATORY SAFETY SHIELD**
Hugh W. Stewart, Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application September 30, 1953, Serial No. 383,197
1 Claim. (Cl. 20—63)



A safety shield, comprising in combination, a sheet of transparent shatter resistant material encased in a frame, a horizontal bar and sole suspending means to suspend said frame from said horizontal bar, said sole suspending means comprising two separate open end inverted U-shaped members, said U-shaped members overlying said horizontal bar, the other end of each of said U-shaped members having a longitudinal slot, means passing through said slot and said frame fastening the frame to the sole suspending means; a swivel joint located between said open end members and said frame; said horizontal bar resting in a pair of notched brackets, said notched brackets being fixed to side supports, whereby said sheet is free-swinging from said horizontal bar.

2,772,451
**REMOVABLE WINDOW SASH**
Wade D. Lake, Akron, Ohio
Application June 10, 1954, Serial No. 435,686
4 Claims. (Cl. 20—64)



1. A slidable sash for use in a casing having opposed grooves in its opposite side members for confining the sash in sliding engagement, said sash being of less width than the distance between the bottom of one of the grooves and the inner face of the opposite casing adjacent its groove and of greater width than the distance between ungrooved portions of both the side casings adjacent said grooves, the edge face of one side rail of said sash having a clearance groove of less width than the thickness of the sash extending throughout its length, and a displaceable bearing member resiliently mounted in said groove for movement toward and away from said side rail and concealed from the face of the sash when the sash is in place by face portions of the sash rail to permit entry of the sash in the opposing groove of the casing by swinging movement of the sash about one edge thereof entered in one of said grooves.

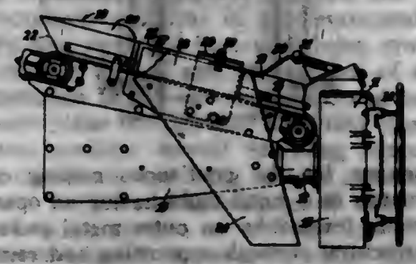


2,772,452
**MOVABLE GUARD STRUCTURE FOR WINDOWS**
Edward S. Mathes, Glendale, Calif.
Application December 30, 1955, Serial No. 556,614
2 Claims. (Cl. 20—71)



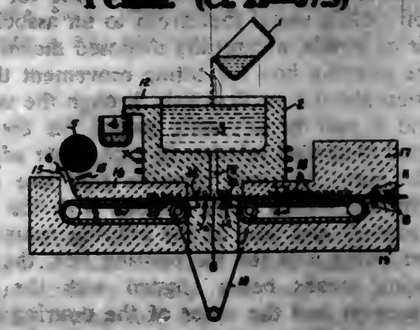
1. In a window assembly, a frame comprising a horizontal sill, respective vertical side members secured to opposite ends of said sill and a horizontal top member secured to the top ends of said side members, respective sash members having horizontal top and bottom portions and vertical opposite side portions slidably mounted in said frame, a plurality of spaced depending parallel bars secured to the horizontal lower portion of one of said sash members and extending slidably through said sill, a horizontal bar member slidably engaged with said depending bars, and abutment elements on the intermediate portions of said depending bars formed and arranged to at times support said horizontal bar member in a position intermediate said sill and said last-named horizontal bottom portion of the sash member.

2,772,453
**FOUNDRY MOULDING APPARATUS**
Austin Sidney Beech, Leighton Buzzard, England, assignor to Foundry Equipment Limited, Leighton Buzzard, England, a British company
Application March 15, 1954, Serial No. 416,306
Claims priority, application Great Britain March 16, 1953
2 Claims. (Cl. 22—36)



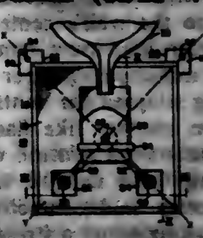
1. A foundry sand-ramming machine comprising in combination a carrier-arm supported for universal horizontal movement, a ramming-head mounted thereon and comprising an impeller and means for rotating the same, a belt conveyor on the carrier-arm delivering into the ramming head, a chute fixed on the carrier arm beside the conveyor and having a downwardly directed opening close to the ramming head, guide walls along each side of the conveyor belt to keep sand in place thereon and a movable section in one of said side walls pivoted so that it can be swung obliquely across the conveyor belt to direct sand therefrom into the chute.

2,772,454
**APPARATUS FOR CASTING**
Joseph B. Brennan, Cleveland, Ohio
Original application June 4, 1949, Serial No. 97,195. Divided and this application May 28, 1952, Serial No. 293,184
1 Claim. (Cl. 22—57.3)



Casting apparatus for continuously producing composite strip metal, comprising a longitudinally extending fluid-cooled ceramic die including a stationary wall and a longitudinally movable wall which are laterally spaced apart a distance corresponding to the thickness of the composite strip which it is desired to produce, means for moving said movable wall, said die having an inlet at one end for solid strip metal and molten metal of lower melting point than the strip metal and an outlet at the other end for emergence of composite strip metal composed of solidified molten metal united to the strip metal, means for conducting a solid metal strip through said die with one side in contact with said movable wall for movement of the strip in synchronism therewith in substantially unstressed condition and with the opposite, exposed side laterally spaced from said stationary wall, molten metal supply means having a discharge opening leading into the inlet of said die for flow of molten metal therethrough in contact with such opposite side of the solid metal strip and with said stationary wall for emergence from the outlet in solidified condition, and induction heating means along said die having a heating field effective (*a*) to inductively heat such opposite side of the solid metal strip as it enters the inlet of said die to a temperature rendering said opposite side plastic and exceeding the melting point of such molten metal, and (*b*) to maintain molten by induced current said molten metal adjacent the inlet of said die whereby said molten metal is united to the solid metal strip, and is hot-formed and troweled in said die while carried by the strip metal in longitudinally sliding contact with the stationary wall of said die, and cooling means in said die extracting heat from the hot-formed and troweled molten metal at a rate to solidify the latter prior to emergence from the outlet of said die.

2,772,455
**METAL POURING APPARATUS FOR CONTINUOUS CASTING**
Rufus Kaiser, Pittsburgh, Pa., and Thomas Y. Wilson, Albany, N. Y., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
Application October 28, 1955, Serial No. 543,323
6 Claims. (Cl. 22—79)



1. In apparatus for controlling the simultaneous pouring of molten metal into a pair of molds, the combination

comprising, a pouring box having a main reservoir and a pair of spaced pouring reservoirs adjacent one end thereof for receiving and holding molten metal, a pair of spaced pouring spouts for connecting the main reservoir with each of the pouring reservoirs, each of the pouring reservoirs having a pouring nozzle for directing the flow of molten metal therefrom to an associated one of the pair of molds, a centrally disposed means for supporting the pouring box for tilting movement thereof in any direction about a vertical axis through the supporting means, and a pair of adjusting means for the pouring box disposed in spaced relation to each other adjacent an end of the main reservoir opposite said one end, one of the adjusting means being aligned with the centrally disposed support and one of the pouring spouts to provide a first tilting axis for the pouring box, the other of the adjusting means being aligned with the centrally disposed support and the other of the pouring spouts to provide a second tilting axis for the pouring box, each of the adjusting means being disposed for independent operation to selectively control the tilting movement of the pouring box about the first or second tilting axis to provide a selective control of the flow of molten metal from the main reservoir through a predetermined one of the pouring spouts without affecting the flow of molten metal through the other of the pouring spouts to thereby selectively control the rate of flow of molten metal from each of the pouring reservoirs to the associated molds.

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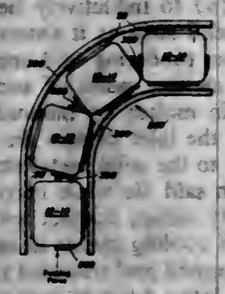
2,772,456

## FOUNDRY MOLD FLASKS WITH NOVEL END BUMPER MEANS

John A. Lanster and Thomas A. Dunkins, Chattanooga, Tenn., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Original application August 25, 1951, Serial No. 243,688. Divided and this application March 31, 1955, Serial No. 498,336

2 Claims. (Cl. 22—96)



1. In a mold flask adapted for use as a drag or as a cope and comprising a frame portion made up of two side walls interconnected by forward and rear end walls at least one of which end walls has a fitting protruding outwardly from about the center thereof, the combination of a bumper fixed to each of said end walls and protruding from the outer face thereof by at least the protrusion distance of the aforesaid fitting, each of said forward and rear end bumpers being located in side-displaced relation to the wall's central fitting and being curvedly tapered from maximum bumper depth adjacent the flask center to minimum bumper depth adjacent the flask side and being adapted for contact with the adjoining end bumper on another like flask when that other flask is placed in end-to-end relation with the first whereby endwise pushing force can be transmitted between the two flasks through said contacting bumpers during travel of the flasks along either a straight or a curved path without dependence on or interference with the said central fittings of the adjoining flask ends.

2,772,457

## METHOD OF SHELL MOLDING

Fred J. Webbere, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application May 9, 1952, Serial No. 287,635

11 Claims. (Cl. 22—193)

4. A method of increasing the permeability of a shell mold having a thermosetting resin binder which comprises reducing said binder to an essentially high carbon material without the formation of carbon dioxide with the atmosphere by subjecting said mold to a baking operation under a non-oxidizing atmosphere for ¼ hour to 1½ hours at a temperature up to 1400° F. to drive substantially all the volatile constituents therefrom.

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2,772,458

## METHOD OF MAKING SMOOTH-SURFACED SAND-RESIN MOLDS

Donald J. Henry, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application May 29, 1951, Serial No. 228,996

1 Claim. (Cl. 22—193)

The process for forming a mold-layer shell-type sand-resin mold which comprises forming a dry mixture of coarse and fine refractory fillers and a thermosetting resin binder wherein said refractory fillers consist of approximately 85% to 95% by weight of a silica sand of substantially uniform particle size and 5% to 15% by weight of silica flour, said binder constituting 4% to 20% of the total weight of the molding mixture, placing the mixture in contact with a hot metal pattern and permitting such contact for an interval sufficient to melt and set the resin binder, removing any excess sand and silica flour, and curing the formed mold shell by heating while in contact with the metal pattern.

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2,772,459

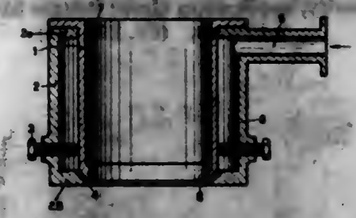
## CONTINUOUS CASTING OF METALS

Hans Wieland, Ulm (Danube), Germany, assignor to Wieland Werke A. G., Ulm (Danube), Germany, a corporation of Germany

Application July 10, 1951, Serial No. 236,987

Claims priority, application Switzerland July 21, 1950

1 Claim. (Cl. 22—200.1)



The process for the continuous casting of oxygen bearing metals in a metal mold having an open top and open bottom, formed by an outer metal jacket of substantial structural strength supporting and reinforcing a relatively thin graphite liner having a thickness such that the inner surface thereof is coolable below a liner reactive temperature of about 600° C. during casting, said mold being unconnected with the container holding the source of metal so that the molten metal in the mold can have its own free surface, said method comprising pouring molten metal into the open top, cooling said jacket and withdrawing the congealed metal from the open bottom, the fit of the liner in the jacket and the thickness of the liner being such that the mold extracts heat from the congealing metal through the liner substantially as intensively as an oil-coated lubricated mold would extract heat, said pouring, cooling and withdrawing being at such rate that a free surface of molten metal



is maintained in said mold, and the upper edge of the congealing crater shell is maintained in close proximity to said free surface, and the crater shell is of considerable depth, but of such thickness as not to break through at the lower edge of the mold.

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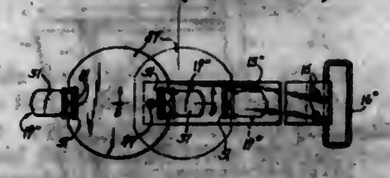
2,772,460

## CLAMPING STRAP FOR BLANKETS

Josefina Berkowicz, New York, and Rosy Turcano, Bronx, N. Y.

Application July 20, 1953, Serial No. 368,964

2 Claims. (Cl. 24—72.5)



1. A blanket holder for a child's crib comprising an elongated plastic strap, a ring swingably supported at one end thereof, a clamping device pivotally connected to the opposite end of said strap, said clamping device being mounted for rotation in a plane parallel to the plane of the body of the strap, said clamping device including a substantially circular plate having opposed cutaway flat portions, said plate having elongated slots closely spaced from the flat portions and being disposed parallel thereto, the pivotal connection between said plate and strap being positioned close to one of said slots, and clamps hingedly connected to the material of the circular plate between the slots and flat portions thereof and extending through said slots and radially beyond said flat portions, whereby upon rotation of the circular plate the effective length of the holder may be varied.

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2,772,461

## COLLAR BUTTONS

Norman P. St. John, Arlington, Va.

Application November 27, 1953, Serial No. 394,628

1 Claim. (Cl. 24—101)



A collar button comprising a top, base, and connecting stem, the greatest horizontal section of the top, and base being substantially elliptical in shape, and the stem being substantially elliptical in any horizontal section thereof, the top, stem and base each being symmetrical about a common vertical axis, the greatest of the horizontal dimensions of the said top, stem, and base lying in a common plane through said axis, said stem having one or more portions thereof extending symmetrically outwardly therefrom, and lying in said common plane, each of said portions being adapted to coact with an adjacent extending portion or with the top or base to form a groove adapted to prevent a collar button from sliding out of a button hole in which said collar button is inserted, the width or dimension of the stem in a plane at right angles to said common vertical plane increasing from the end of the stem near the top to the end of the stem near the base.

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2,772,462

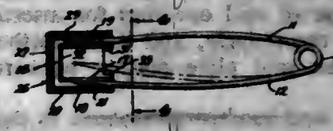
## SAFETY PIN

Fred A. Trechsler, Vallejo, Calif.

Application January 26, 1954, Serial No. 405,788

3 Claims. (Cl. 24—189)

1. In a safety pin, a resilient wire formed in a bight and having two normally diverging arms extending toward the end of said pin opposite said bight, the first of said arms being pointed, a head permanently engaging the second of said arms, said head being U-shaped and comprising a first and a second parallel leg and an intermediate connecting leg, said first leg secured rigidly to said second arm coaxially therewith at the end thereof opposite the bight, said second leg being hollow and formed with a slot extending inward from its end fac-



ing said first leg to a depth sufficient to receive said pointed end of said first arm within said slot, a hollow shell guard slidably fitting over said head and having its open end facing said bight and having a depth substantially equal to the length of said head, and means to prevent slidable disengagement of said shield guard from said first leg.

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2,772,463

## SEPARABLE FASTENER

Jerome Alfred Schauer, Fresh Meadows, N. Y.

Application June 21, 1952, Serial No. 294,831

7 Claims. (Cl. 24—227)



5. The combination with a belt and a buckle at one end of said belt of a separable fastener for securing the other end of said belt in place after being passed through said buckle, said separable fastener including a hook member on the inner face of said belt adjacent said other end, and an eye member detachably receiving said hook member and longitudinally adjustable along said belt toward and away from said buckle, said eye member including a flat piece arranged in coplanar relation and slidable along the under surface of said belt, a flat cross bar offset forwardly from said piece and cooperating therewith to form a belt-receiving channel, and piercing means on said flat piece and engageable in the under surface of said belt for securing said eye member in an adjusted position, whereby upon the hook member being received in said eye member, the free end of said belt is maintained against movement.

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2,772,464

## EYE FOR HOOK AND EYE

Anthony Davies, Los Angeles, Calif.

Application June 13, 1952, Serial No. 293,357

5 Claims. (Cl. 24—227)

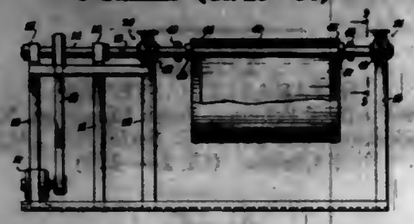


1. An eye for a hook and eye, said eye comprising a plate sheet metal portion of generally rectangular shape having offsets corresponding to the thickness thereof, said offsets being formed on opposite ends of said plate portion and in the same direction, said plate portion being formed at said offsets with openings therethrough, said openings extending through said offsets and toward

the ends of said plate a distance approximately equal to the thickness of the material thereof, an eye forming medial portion and shanks at opposite ends thereof disposed at right angles thereto, said shanks terminating in hooks having barb portions disposed at an angle relative to the body of said shanks respectively, and the barbs associated with the respective shanks being in opposed flared relationship relative to one another, the angle of said flare conforming to the angle of said openings for insertion through said openings respectively, and being further bent and flattened against said plate portion outwardly of said offset.

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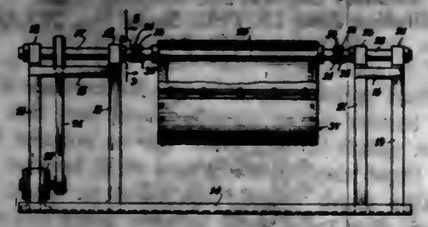
2,772,465
APPARATUS FOR FORMING A HOLLOW BODY OF CONCRETE OR THE LIKE
Hendrik B. Van Rensselaer, Summit, N. J., assignor to Lock Joint Pipe Company, East Orange, N. J., a corporation of New Jersey
Application November 12, 1953, Serial No. 391,414
5 Claims. (Cl. 25—39)



1. Apparatus for forming a hollow body of concrete or the like, comprising a hollow rotary mould having spaced-apart annular members extending radially inwardly of the outer moulding surface of said mould, means rotatably supporting said mould, said supporting means comprising a plurality of separate shafts of which one of the shafts constitutes a roller for suspending said mould, said roller shaft threaded through said mould and extending beyond the ends of said mould, bearing means rotatably supporting said shafts in alignment on a common axis, and radially engageable and disengageable coupling means for engaging said shafts for concomitant rotation thereof, said coupling means constructed and arranged for permitting disengagement of said roller shaft and the moving of said roller shaft radially outwardly from said common axis so as to enable said mould to be carried on the roller shaft laterally away from said bearing means.

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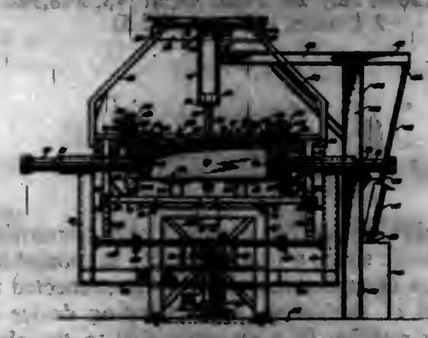
2,772,466
APPARATUS FOR FORMING A HOLLOW BODY OF CONCRETE OR THE LIKE
Hendrik B. Van Rensselaer, Summit, N. J., assignor to Lock Joint Pipe Company, East Orange, N. J., a corporation of New Jersey
Application November 12, 1953, Serial No. 391,415
5 Claims. (Cl. 25—39)



1. Apparatus for forming a hollow body of concrete or the like comprising a hollow rotary mould having spaced-apart annular members extending radially inwardly of the outer moulding surface of said mould, a roller shaft for suspending said mould, said roller shaft extending through said mould and beyond the ends of said mould, means for rotatably supporting said roller shaft, said supporting means comprising a rotatably supported shaft adjacent each end of said roller shaft, means preventing axial movement of said shafts which are adjacent the ends of said roller shaft, and means for engaging the ends of said shafts with said roller shaft.

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2,772,467
MOLDING APPARATUS
Paul M. Mangravite, Kingston, Pa.
Application August 6, 1951, Serial No. 240,693
16 Claims. (Cl. 25—41)



1. Molding apparatus especially useful in forming concrete products comprising a pallet, supporting means for said pallet, a pair of sidewalls and endwalls for cooperation with said pallet to form a casting chamber; means for effecting movement of said side and endwalls to and from a cooperative position with said pallet; a top closure for said casting chamber; means for delivering pressure to said casting chamber to effect compression of its contents; means for effecting vertical movement of said side and endwalls from a position of cooperation with said pallet; supporting means for said pressure means independent of said pallet supporting means; said pressure means having a thrust transferring system associated therewith independent of said supporting means for said pressure means for transferring upward thrust from said pressure means; said thrust transfer system including at least one extending member attached to said pressure means; and means removed from said pressure means for holding said member against upward movement.

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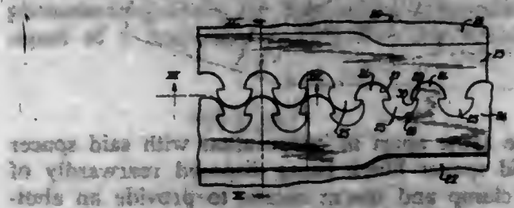
2,772,468
DOWEL BAR OR TIE BAR SUPPORTING SIDE FORMS
John N. Holland, Warren, Ohio; The Union Savings & Trust Company, Warren, Ohio, and Carl J. Holland, executors of said John N. Holland, deceased
Application June 16, 1951, Serial No. 231,981
10 Claims. (Cl. 25—118)



1. A dowel bar supporting form comprising a side form having a vertical web, a grooving strip, a tubular member securing said strip to said web, said tubular member having a smooth through bore for receiving therethrough a dowel bar, and a support carried by said form and having a through passageway in alignment with the bore of said tubular member for receiving therethrough the dowel bar.



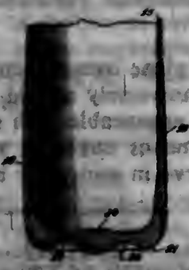
2,772,469
SLIDE FASTENER
Karel Jan Stalkus, Pittsburgh, Ohio, and Emil F. Sysz, New York, N. Y.
Application February 8, 1952, Serial No. 270,681
3 Claims. (Cl. 24—204)



1. A slide fastener comprising: a pair of releasably engageable flexible members having integral interlocking projections spaced along adjoining marginal portions thereof, said projections having enlarged outer portions defining interengaging inwardly facing surfaces with alternate projections having surface portions oppositely inclined with respect to a line normal to a plane through and in the direction of said projections to limit relative movement of said members in any and all directions.

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2,772,470
METALLIC CARTRIDGE CASINGS
George Albert Lyon, Detroit, Mich.
Application December 17, 1951, Serial No. 262,060
3 Claims. (Cl. 29—1.3)



2. A method of making cartridge shell casings which comprises shaping a metal blank into a partially formed casing comprising an elongated tubular side wall and a thickened concave convex bottom wall of substantially uniform inner and outer curvate faces, and coining the bottom wall into substantially flattened condition and forming a thickened central button bulge and an annular outer marginal downwardly projecting thickened bottom rib by displacing material from an annular intermediate bottom face area partially inwardly to form the central bulge said partially outwardly to form the rib.

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2,772,471
ABRADING TOOLS
Arnold Sydney Long, Bilbrook, Staffordshire, England
Application August 23, 1954, Serial No. 529,777
Claims priority, application Great Britain September 24, 1954
4 Claims. (Cl. 29—79)



1. An abrading tool comprising a handle having a flat face across which extends a longitudinally bowed abrasive strip consisting of a plurality of peripherally toothed substantially parallel resilient wires transversely bent to sinuous form.

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2,772,472
ATTACHMENT OF PIN STEM FINDING TO AN ORNAMENT
Frederick A. Ballou, Jr., Providence, R. I., assignor to R. A. Ballou & Co. Incorporated, a corporation of Rhode Island
Application June 24, 1954, Serial No. 439,029
1 Claim. (Cl. 29—160.6)



The method of connecting without heat pin stem findings to an ornament comprising providing each of two co-operating findings with an out of round base of a size larger than the pin stem engaging part thereof, recessing said ornament at two locations in a shape corresponding to the shape of said base with said recesses oriented to align said findings bases for cooperation with each other for functioning together, positioning said bases of said findings in said recesses, and staking the stock about the recesses over the outer surface of the finding bases.

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2,772,473
GLASS TRIMMING TOOL
Joseph A. Pfann, Palo Alto, Calif.
Application October 10, 1952, Serial No. 314,113
3 Claims. (Cl. 29—258)



3. A tool for forcing glass trim comprising a pair of glass engaging and clamping channels, the open sides of which form ways, said channels being placed with their ways opposed and longitudinally coextensive, two adjacent ends of said channels being grip ends and the other two ends being formed as cam follower ends, means positioned intermediate the ends of and pivotally connecting said channels in laterally spaced relationship, each channel having adjacent its grip end a grip pad pivotally secured thereto so that a face of each pad is opposed to a face of the other, a work-engaging head positioned between and guided by said ways for movement longitudinally thereof while being restrained by said ways from rotation, a screw positioned longitudinally between said ways with one end secured to and swiveled in said head and the other end extending between and outwardly beyond said cam follower ends, and nut means having cam surfaces for engagement with said cam follower ends and restrained from rotation relative to said channels while said surfaces are so engaged, said nut means being threadedly carried by said screw to be moved axially along said screw upon rotation thereof so that said cam surfaces engage and move outwardly said cam follower ends thereby forcing said pads together to grip the glass positioned therebetween, and said head and screw being slidable as a unit longitudinally of said ways to permit said head to apply a force to the trim while the glass is gripped by said pads.

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2,772,474
CARPET TRIMMER
Harvey J. Hill, Monterey Park, and Jack W. Petty, Los Angeles, Calif., assignors to Roberts Manufacturing Co., Los Angeles, Calif., a corporation of California
Application May 4, 1953, Serial No. 352,906
9 Claims. (Cl. 30—303)

1. In a device for cutting a carpet laid on the floor of a room, the combination of: a base engageable with the upper surface of the carpet and movable therealong in a first horizontal direction; carpet cutting means including a blade holder and a blade carried thereby; a locating

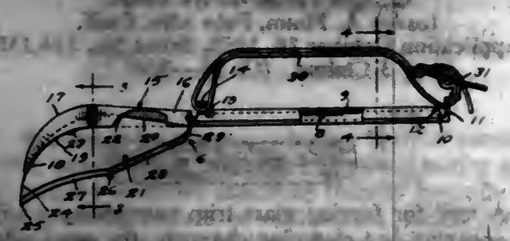
member for said blade holder; vertical adjustment means for rigidly supporting said blade holder and said locating member on said base in any one of a plurality of vertical positions relative to said base; and horizontal adjustment means for rigidly supporting said blade holder in any



one of a series of horizontal positions relative to said base extending in a second horizontal direction perpendicular to said first horizontal direction, including interengageable detent means on said blade holder and said locating member.

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2,772,475
**GRAPEVINE AND TWINE CUTTING KNIFE**
Robert F. McConnell, Parlier, Calif.
Application August 6, 1954, Serial No. 448,314
4 Claims. (Cl. 30—296)



1. A knife of the character described adapted to be attached to and supported on the fingers, comprising an elongated body portion having a rear end forming a handle, said handle being provided with upstanding strap engaging portions adjacent the ends thereof, an adjustable strap connected to and extending between said strap engaging portions and disposed over the handle and lengthwise thereof, the other end of said body portion comprising an elongated blade supporting head, said head having an underside provided with a groove extending substantially from end-to-end thereof and opening outwardly of said underside, a cutting blade having a back edge portion snugly fitting in said groove, means securing said blade to the head, and said blade having a sharpened bottom edge extending substantially from end-to-end thereof and disposed beneath and spaced from the underside of said head, said head having an inner end merging with the forward inner end of the handle and of a thickness substantially greater than the thickness of said handle, said head diminishing in width from the handle to a point substantially intermediate of its ends and increasing in thickness in a direction away from the handle, said aforementioned inner end of the head forming a substantially straight extension of the handle, the other outer end of said head being relatively narrow and being curved outwardly and downwardly relative to the inner end of the head and having a tapered outer end portion.

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2,772,476
**VARIABLE GRIP AND ADJUSTABLE MULTIPLE FUR SLICER**
Jack Glatzer, New York, N. Y.
Application March 3, 1954, Serial No. 413,936
7 Claims. (Cl. 30—304)

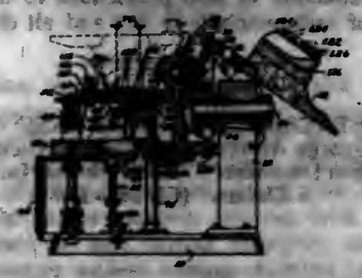
1. A fur slicing hand tool of the multiple blade type comprising a pair of connected side plates spaced apart for at least part of their lengths, blade clamp means, means supporting said blade clamp means on said plates in the space therebetween, a blade retained between said clamp means, spacer means secured on said plates to dispose the blade clamp means a selected distance apart, and a spacer block secured to one of said side plates for



spacing the same apart in cooperation with said spacer means, said spacer block being disposed rearwardly of the blade clamp and spacer means to provide an abutment therefor and for said blade engaged by the blade clamp means.

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2,772,477
**OCCLUSAL PLANE RECORDER**
James S. Miller, Trenton, N. J.
Application December 24, 1952, Serial No. 327,723
15 Claims. (Cl. 32—32)



1. An occlusal plane recorder comprising, in combination, a pair of transversely spaced elongated supports, a flat resilient plate engageable with said supports and vertically movable means engaging said plate to effect a predetermined curve in said plate between said supports.

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2,772,478
**DENTAL PROPHYLACTIC AND HYGIENIC INSTRUMENT**
Edward J. Hatford, Fresno, Calif.
Application December 16, 1954, Serial No. 475,743
3 Claims. (Cl. 32—30)



1. An oral prophylactic instrument comprising a ring adapted for finger wear and rotatable positioning thereon, a tooth cleaning member of substantially uniform width outwardly extended from the ring having a scraping edge, and a tapered tooth cleaning member outwardly extended from the ring diametrically of the tooth cleaning member of uniform width and providing a cleaning point, the cleaning members each providing finger engaging surfaces disposed in the same direction circumferentially of the ring adapted for alternate finger engagement to restrain the ring against rotation.

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2,772,479
**APPARENT-VELOCITY RESPONSIVE SYSTEM**
Irving W. Doyle, Massapequa, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application June 14, 1948, Serial No. 515,364
13 Claims. (Cl. 33—65.5)

1. A system responsive to the apparent velocity of a relatively moving object over a predetermined range of velocities comprising: optical means for forming at a focal plane an image of the relatively moving object; an elongated translucent strip having an opaque transverse repetitive pattern disposed substantially in said focal plane and movable thereby in the direction of image motion; motor means for continuously driving said strip; photoelectric means for developing a periodic electrical signal of a frequency varying with the velocity of the



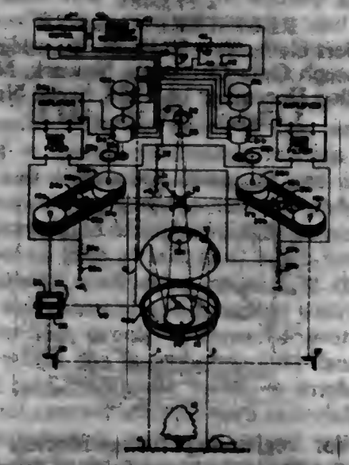
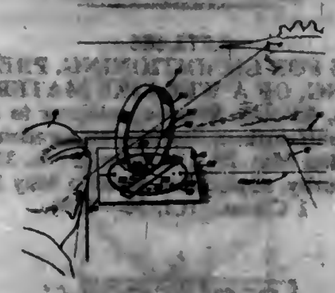


image at the focal plane relative to said repetitive pattern; circuit means responsive to said electrical signal for regulating the speed of said motor means in a sense to reduce the range of frequency variation of said signal as the apparent velocity of the object varies over said predetermined range; and means responsive to the frequency of said signal for developing an effect representative of the apparent image velocity.

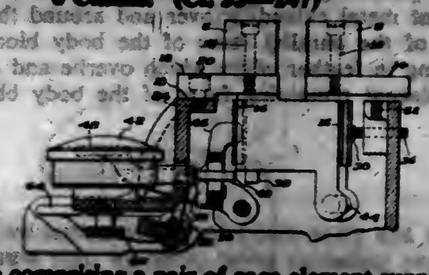
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2,772,480
**PELORUS PROTRACTOR**
Albert S. Vrana, Northport, N. Y.
Application August 16, 1955, Serial No. 528,641
3 Claims. (Cl. 33—67)



1. A position locating device comprising a support base including a circular scale thereon from 0 through 360°, said base including a straight line index thereon extending diametrically through the center of the circular scale to opposite edge portions of said base for permitting said base to be aligned with a reference line representing a known direction on a chart, a pivot axis element at the center of said circular scale, and a pivotal loop pelorus including a circular element pivotally supported on the pivot axis element normal to said support base, said pelorus loop including a side edge portion for alignment with a fixed visible point angularly removed from the moving body upon which a sighting may be made with said pelorus loop, said pelorus loop further including a straight edge base portion intersecting the circular scale and parallel with the support base and constituting a straight edge linear projection of the line of sight contained in a vertical plane extending through the side edge portion of said loop and the base portion of said loop.

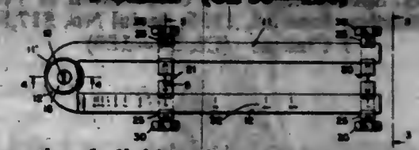
2,772,481
**GAGE HAVING DAMPED GAGING MOVEMENT**
Paul A. Gosney, Springfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application September 17, 1953, Serial No. 380,585
6 Claims. (Cl. 33—147)



1. A gage comprising a pair of gage element supporting members, a gage element on each of said supporting members, means supporting one of said members for yielding substantially rectilinear motion relative to the other of said members in a direction to move said gage elements toward and away from one another to open and close said gage elements, damping means connecting said supporting members, said damping means comprising a flexible member of a material having high temporary set characteristics to provide a low recovery rate when said supporting members are displaced from gaging position, and indicating means responsive to the relative displacement of said supporting members.

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2,772,482
**PROPORTIONAL DIVIDERS**
Maurice E. Downs, Huntington Park, Calif.
Application October 6, 1953, Serial No. 384,484
1 Claim. (Cl. 33—159)



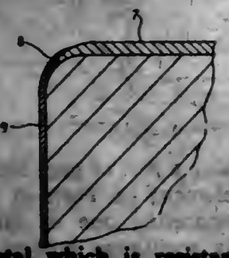
A proportional dividers instrument comprising a pair of legs each having a straight main portion and a laterally projecting end portion, means pivotally connecting said end portions for movement of the legs substantially in a common plane, the pivotal axis being laterally offset from the inner sides of the legs whereby said legs may be disposed in parallel, spaced relation, a pin-holding block slidably mounted on the main portion of each leg, interengaging means on the block and leg preventing rotation of the block about the leg, means in each block for engaging the leg upon which the block is mounted for releasably holding the block in a given position on the leg, a pin in each block, the pin in each block projecting in a plane at right angles to the leg and disposed angularly inwardly of the leg at an angle of less than 90° to the plane of movement of the leg, and a pin mounted adjacent the free end of each leg, said last-mentioned pins projecting respectively corresponding to said first-mentioned pins, all of said pins projecting to one side of the instrument, said pins being so disposed that their outer ends are substantially in alignment midway between the legs on a line passing through the pivotal axis of the legs when the legs are parallel.

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2,772,483
**COMPOSITE GAGE BLOCK**
Raymond A. Gierlich, Shakopee, Minn., assignor to Continental Machines, Inc., Savage, Minn., a corporation of Minnesota
Application May 12, 1955, Serial No. 507,935
3 Claims. (Cl. 33—169)

3. A gage block comprising: a body block of metal having a predetermined hardness, said body block having

a pair of opposite substantially parallel faces; a thin layer of wear resistant metal considerably harder than the metal of which the body block is formed overlying and bonded to each of said substantially parallel faces of the body block and finished to accurate flatness and parallelism to provide gaging surfaces, said layers of hard, wear resistant metal extending over and around the marginal edges of the parallel faces of the body block and terminating in feather edges which overlie and merge with the adjacent remaining faces of the body block; and a



plating of a metal which is resistant to common corrosive substances overlying said remaining faces of the body block and overlapping the adjacent feather edge portions of said hard wear resistant layers, but without extending over the gaging surfaces thereof, so that said corrosive resistant plating covers and seals the junction between the feather edges of said layers of hard wear resistant metal and the body block to prevent entry of corrosive substances between the body block and said layers of hard wear resistant metal.

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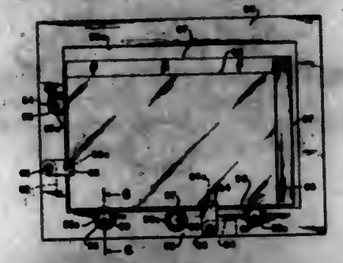
2,772,484
**SQUARENESS-OF-FACE GAGE**
Jeffrey M. Cargill, Weathersfield Bow, and Hugh M. Taft, Springfield, Vt., assignors to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application June 24, 1955, Serial No. 517,862
7 Claims. (Cl. 33—180)



1. A squareness-of-face gage for workpieces having a threaded cylindrical surface and an end surface perpendicular thereto comprising a pair of relatively movable thread gage support members, an upstanding thread gage element mounted on each of said support members for movement toward and away from one another for engagement with the threaded cylindrical surface of a workpiece, a squareness-of-face gage element support mounted on one of said thread gage support members for movement relative thereto in a direction perpendicular to the direction of movement of said upstanding thread gage elements, a pair of squareness-of-face gage elements mounted on said squareness-of-face gage element support and positioned between said workpiece and said thread gage support members for engagement with the end surface of said workpiece adjacent said thread gage support members on opposite sides of the axis thereof, one of said squareness-of-face gage elements comprising an arm rigidly mounted on said squareness-of-face gage element support and the other of said squareness-of-face gage elements comprising an arm pivotally mounted on said squareness-of-face gage element support by flexible metallic strip means for swinging movement between said workpiece and said thread gage support members in a plane perpendicular to the direction of movement of said upstanding thread gage elements, and a dial indicator mounted on said squareness-of-face gage element support and engaging said squareness-of-face gage element mounted for swinging movement, whereby the squareness of the end surface of a workpiece will be indicated upon rotation of a threaded workpiece engaged by the upstanding thread gage elements.

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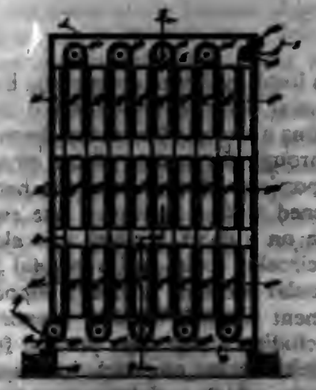
2,772,485
**REGISTERING GAGE**
Herbert Gelb, New York, N. Y., assignor to Joseph Gelb Company, Newark, N. J.
Application December 14, 1954, Serial No. 475,124
1 Claim. (Cl. 33—184.5)



A gage for registering transparencies, photographic plates, and the like, which comprises a frame having two adjacent side portions meeting at an angle; a cylinder mounted on one of said side portions for eccentric rotation with the axis of revolution of said cylinder normal to the plane of said frame, said cylinder having a flange adjacent said side portion; and a plurality of other cylinders mounted on the other of said side portions for eccentric rotation with the axes of revolution of said other cylinders normal to the plane of said frame, each of said other cylinders having a flange adjacent said other of said side portions, whereby a sheet of material, such as a transparency, may be supported by said gage with edges of said sheet in contact with the cylindrical surfaces of at least three of said cylinders and with a flat surface of said sheet in contact with the flanges of at least three of said cylinders.

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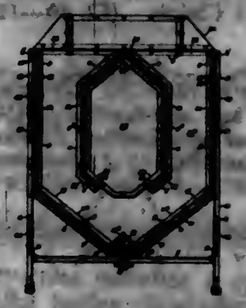
2,772,486
**APPARATUS FOR CONDITIONING, PREFERABLY DRYING, OF A WEB-LIKE MATERIAL**
Erik Johansson, Kiliston, Sweden, assignor to AB Svenska Flaktfabriken, Stockholm, Sweden
Application May 28, 1953, Serial No. 358,106
Claims priority, application Sweden May 29, 1952
1 Claim. (Cl. 34—199)



In apparatus for conditioning a continuous web of material, a casing having upper, side and end walls with an inlet for the web material in one side wall thereof and an outlet for said material in the other side wall thereof, a first series of upper rollers horizontally disposed in equally spaced parallel relation to one another in said casing adjacent the upper wall thereof, a second series of lower rollers horizontally disposed in equally spaced parallel relation to one another in said casing and below said first series of rollers, said first and second series of rollers being disposed in parallel spaced relation to each other with the rollers in one series staggered with respect to the rollers in the other series to support the web material and cause the same to pass through the casing in a succession of vertically spaced parallel courses of the material, a plurality of blast boxes arranged in superposed, vertically spaced, substantially parallel rows, with the boxes of each row disposed in equally spaced relation to one another between adjacent parallel courses of the web material and extending transversely of the casing adjacent the web material, the adjacent blast boxes of each row at opposite sides of each course of material being co-extensive with the width of the web material and positioned in spaced confronting relation relative to one another, and circulating means at one end of said casing for circulating a gaseous medium under pressure from the discharge side of said circulating means to each of said blast boxes, each of said blast boxes having a wall disposed in parallel confronting relation to the adjacent course of the web material and provided with a plurality of discharge orifices evenly interspaced over said wall area through which the gaseous medium from the discharge end of said circulating means is discharged perpendicularly into contact with the web material, the space between the superposed, vertically spaced rows of blast boxes defining discharge passages extending transversely of the web material and between the ends of said casing and communicating with the spaces between the spaced confronting walls of adjacent blast boxes of each row, whereby said circulating means is operable to draw the gaseous medium parallel to and in the direction of travel of the web material and then transversely through said discharge passages toward said one side of said casing and to the inlet side of said circulating means for recirculation through said blast boxes.

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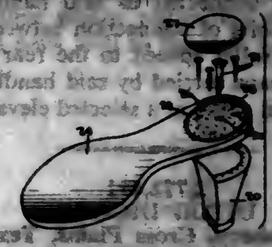
2,772,487
**BATCH DRYING BIN**
Raymond William Arndt, Columbus, Nebr.
Application July 21, 1952, Serial No. 299,940
7 Claims. (Cl. 34—174)



1. In a drying bin for grain and the like, two spaced end walls, a pair of transversely spaced guide-slots formed on each of the inner opposing faces of said end walls and each spaced inwardly of a margin of the associated end wall, said guide-slots of each pair extending downwardly from their top edges for a distance and then being directed inwardly and downwardly and terminating at a point short of meeting, interlocking foraminous wall members having their ends slidably received in opposing slots in opposite end walls respectively for insertion and removal, whereby vertical side walls and compartments between said partitions are provided for said bin, a ramp-plate bridging the space between said converging foraminous wall portions, and a screw-conveyor means supported on the bin and overlying said ramp-plate.



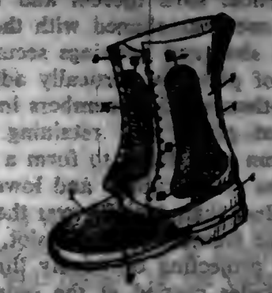
2,772,488
**SHOE HAVING COVERED INSOLE BODY AND NAILED-ON HEEL**
Jack Meltzer, Hollywood, Calif.
Application July 20, 1954, Serial No. 443,331
10 Claims. (Cl. 36—2.5)



1. In a shoe having a covered insole body and a heel beneath its rear end: an insole cover extending over the top surface of said insole body and around its edge, said cover having near its rear end a cut formed in its top surface and shaped to define the outline of a liftable element that may be temporarily lifted and then restored, the lifting of said element permitting the driving of fasteners through the insole body into said heel, the restoration of the element serving to conceal said fasteners, said element having a peripheral edge adapted to abut against and be snugly surrounded by the edge of said cut when the element is in restored position.

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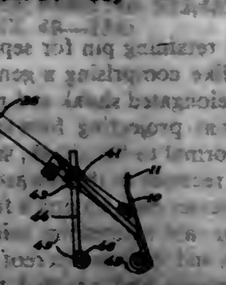
2,772,489
**MANUFACTURE OF FOOTWEAR**
Clinton D. Porter, Granby, Quebec, Canada, assignor to The Miner Rubber Company Limited, Granby, Quebec, Canada
Application January 3, 1956, Serial No. 557,195
7 Claims. (Cl. 36—72)



1. In protective footwear, protective pads inserted in the vamp, sides and tongue structure of the footwear, said protective pads comprising inner and outer sheets of relatively thin rubber and a multitude of thin flat rigid reinforcements laid between said sheets of rubber in a single plane and in a haphazard manner, said sheets of rubber being joined together between said reinforcements.

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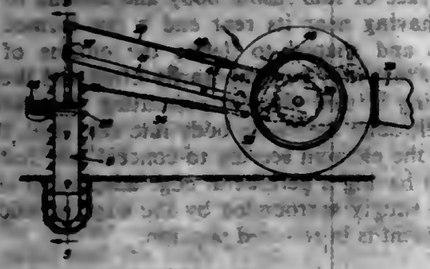
2,772,490
**SNOW SHOVEL**
Philip N. Hunstiberger, South St. Paul, Minn.
Application May 26, 1950, Serial No. 164,309
4 Claims. (Cl. 37—53)



1. A pushing device including an elongated blade, rollers secured to said blade and extending below the

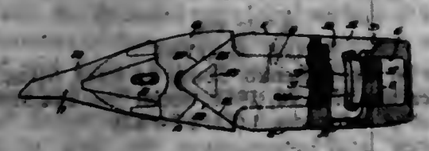
level thereof and closely adjacent the rear thereof to support the same, the axes of said rollers being substantially parallel to the plane of the blade, a handle secured to said blade and extending upwardly and rearwardly therefrom, a pair of braces secured to said blade near opposite ends thereof and connected to said handle at a point spaced from the point of connection between said handle and the blade, a roller spaced to the rear of said blade and adjustable means carried by said handle for supporting said last named roller at a selected elevation.

2,772,491
DITCH DIGGER
William M. Stansbury, Cross Plains, Tex., assignor of fifty percent to Lafayette M. Purvis, Cross Plains, Tex.
Application September 18, 1952, Serial No. 310,195
1 Claim. (Cl. 37—86)



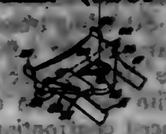
In a ditch digger, a vertically elongated hollow digger frame composed of an upper pair of side plates and a lower pair of side plates and each pair of plates having opposed spaced apart flanges at their marginal edges, said upper and lower pairs of plates overlapping each other in extensibly adjustable arrangement, one pair of plates having vertical slots therein and the other pair of plates having openings aligned with the slots, fastening means in the slots and openings securing the upper and lower pairs of plates in vertically adjusted position relative to each other, spacing members internally of the innermost pair of plates and retaining the opposing flanges spaced from each other to form a slot extending peripherally of the frame, upper and lower sprockets in the frame, an endless chain trained over the sprockets and traveling inside the frame behind the slot, arms attached to the chain and projecting outwardly through the slot, and horizontal blades carried at the outer ends of the arms.

2,772,492
RETAINER PINS FOR DIPPER TEETH
Joseph P. Murtaugh, Pacific Palisades, Calif., assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application February 12, 1953, Serial No. 336,498
4 Claims. (Cl. 37—142)



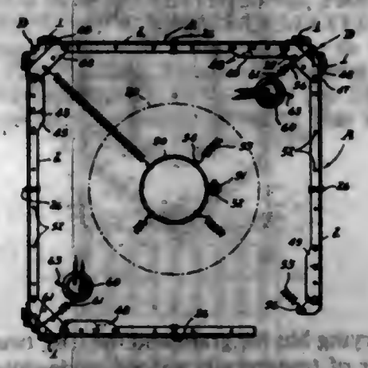
1. A retaining pin for separable parts of a dipper tooth or the like comprising a generally C-shaped member having an elongated shank and relatively short top and bottom extensions projecting forwardly from the shank substantially normal to the shank, said top and bottom extensions having recesses in the inwardly disposed faces thereof and said recesses each having a forward wall, a wedge disposed between said extensions, said wedge having projections at the top and bottom thereof respectively fitting loosely in said recesses and adapted to abut the forward walls of the respective recesses so as to limit displacement of the wedge outwardly in a forward direction in respect of the C-shaped member, and resilient means interposed between the opposed faces of the C-shaped member and the wedge to normally urge the wedge outwardly toward its limit position.

2,772,493
IRONING BOARDS
Robert Turner Hood, Castle Bromwich, near Birmingham, England, assignor to Bradley and Company Limited, Mount Pleasant, Milton, England, a British company
Application February 2, 1954, Serial No. 407,765
4 Claims. (Cl. 38—121)



4. The combination of a flat ironing board member of sheet metal, an elongated rear leg structure pivoted on a nonshifting axis positioned beneath said board member, an elongated front leg structure, said rear and front leg structures being pivoted to each other intermediate their ends in scissors-fashion, guide means fixed to the underside of said board member, projections which are carried by said front leg structure and are slidable along said guide means, said guide means being provided with a series of spaced apertures extending longitudinally of said guide means, spring loaded catch pivoted to and carried by said projections and carrying a detent adapted to engage in said apertures thereby constituting means to arrest said projections in selected positions along said guide means and a manually tiltable plate lying along said guide means and extending therefrom toward the side of said board member, said plate being equipped with means acting to oppose engagement of said detent with said stops and thus to disable the means to arrest said projections, whereby said rear and front leg structures may be folded against said board member.

2,772,494
DISPLAY DEVICE
Robert E. Bishop, Ashland Heights, Ill., assignor to Bishop Publishing Company, Cook County, Ill., a corporation of Illinois
Application January 10, 1951, Serial No. 205,358
21 Claims. (Cl. 40—125)

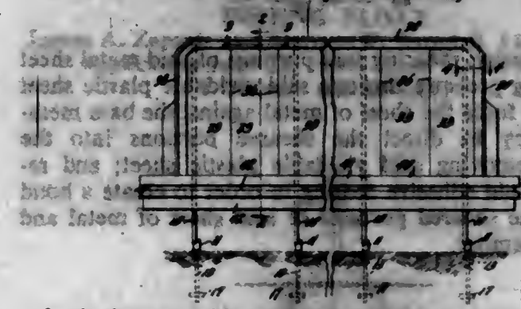


1. In combination in an articulated display, a panel frame having elongated side members and an elongated retaining member connected to one of the side members with the longitudinal axis of the retaining member generally paralleling the longitudinal axis of the one side member, the connection between the members extending along substantially the entire length of one side of the frame and comprising an elongated substantially cylindrical socket on one of the connected members and an elongated rib of substantially circular section complemental to and received in the socket on the other of the connected members for relatively longitudinal sliding movement, a recess in the rib, and means carried



by said one connected member and receivable in the rib recess to locate and retain the connected members in predetermined relative longitudinal positions.

2,772,495
DEMOUNTABLE METAL OUTDOOR ADVERTISING SIGN STRUCTURE WITH A MINIMUM OF SECURING DEVICES
Raymond R. Daniels, Clearwater, Fla., assignor to Panel-Lok Corporation, Clearwater, Fla., a corporation of Florida
Application March 24, 1954, Serial No. 418,345
4 Claims. (Cl. 40—125)



1. A demountable outdoor advertising sign, comprising a plurality of vertical standards disposed in horizontally spaced relation, a plurality of horizontal stringer members extending between and removably secured to said standards in vertically spaced relation, a plurality of vertically disposed horizontally spaced angle iron supports having rearwardly extending diverging faces thereon slidably mounted on one of said stringer members in freely depending relation, and a plurality of substantially flat sheet metal panel members disposed in side by side abutting relation forwardly of said slidably mounted angle iron supports, each panel member terminating at its opposed side edges in rearwardly and inwardly inclined vertical flanges respectively interlocked with the rearwardly diverging faces of an adjacent pair of said slidably mounted angle iron supports, the slidable mounting said angle iron supports on said horizontal stringer member facilitating the interlocking and disengagement of said panel members therewith without the use of separate securing devices.

2,772,496
ILLUMINATED SIGN STRUCTURE
Harold A. Meyrick, Nashville, and Walter E. Ellsworth, Indianapolis, Ind.
Application September 13, 1955, Serial No. 309,462
16 Claims. (Cl. 40—130)



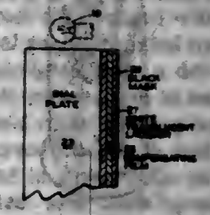
1. A display structure including a member of light-transmitting material having closely spaced cooperable electrodes providing indicia means formed thereon by a transparent light-transmitting, electrically conductive coating material, said member defining an enclosed space between said cooperable electrodes operatively mounted on opposite closely spaced inner faces of the member forming the enclosed space, and an ionizable gas contained within said enclosed space and between said spaced cooperable electrodes.

2,772,497
ILLUMINATED DISPLAY SIGN
George Nelson, Chicago, Ill., assignor to Price Brothers, Inc., Chicago, Ill., a corporation of Illinois
Application November 20, 1953, Serial No. 393,625
2 Claims. (Cl. 40—130)

1. In an illuminated display sign, in combination a hollow horizontally extending base open at its front side and having a top wall and a bottom wall, a lamp mounted in said base in the area of the open front side, a normally vertically extending housing including front and back walls and a bottom wall, said housing having an open lower end, at least one of said housing walls being translucent, hinge means connecting the lower portion of the housing back wall to the base top wall in a manner to permit the housing normally to assume a substantially vertical position while in use and a substantially horizontal position overlying the base during servicing, said housing open lower end registering with the open front side of the base when the housing is in its vertical position to permit illumination of the translucent housing wall.



2,772,498
EDGE ILLUMINATED PANEL
George S. Miles, Englewood, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 23, 1952, Serial No. 283,933
2 Claims. (Cl. 40—130)



1. A device of the type described comprising a transparent base member, a source of illumination positioned and arranged with respect to the base member so that light rays therefrom are transmitted at an edge of the base member, a compensating filter on said base member through which light rays pass, said filter having portions located adjacent the source of illumination which are of greater opacity than the opacity of other portions of said filter located remote from said source to provide uniform illumination therethrough, a translucent layer over said compensating filter, and an indicia carrying layer over said translucent layer.

2,772,499
CARDBOARD FRAMES
Tony F. Fornoci, Seattle, Wash.
Application July 18, 1955, Serial No. 522,435
12 Claims. (Cl. 40—154)



1. A frame comprising a base piece of polygonal form, first marginal strips foldably joined to the respective edges of said base piece to extend along the length of such latter edges, second marginal strips foldably joined

to the respective first marginal strips along fold lines extending parallel to the respective fold lines between the latter and the base piece, said third marginal strips foldably joined to the respective second marginal strips along fold lines extending parallel to the respective fold lines between the first and second marginal strips, said third marginal strips having securing tabs projecting edgewise therefrom transversely to their length to extend generally parallel to said base piece with said first strips folded relative to said base piece to extend generally laterally therefrom, with said second strips folded relative to said first strips to extend generally laterally therefrom to overlie said base piece, and with said third strips folded back on said second strips likewise to extend generally parallel to said base piece and disposed between the latter and said second strips respectively, said base piece having secured thereto a plurality of slotted securing tab elements projecting upwardly therefrom at relative locations corresponding to the respective first-mentioned securing tabs with said strips folded as defined above, to receive the latter tabs in the slots thereof for holding said first, second and third strips in said folded relationship, whereby a sheet-like object may be held between said base piece tabs beneath said third marginal strips.

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**2,772,900**
**PROTECTIVE CLOSURE FOR DECORATIVE ORNAMENTS**
Sidney Cain, New York, and Ralph Paolillo, Brooklyn, N. Y.
Application September 20, 1954, Serial No. 457,086
1 Claim. (Cl. 41—10)



A decorative object comprising a circular base, an ornament thereon, and a transparent cover supported upon the base and encasing said ornament, said ornament including a pedestal and a statuette on said pedestal, said cover including a cylindrical, upstanding hollow body, the upper end of said body merging into a semi-spherical upper end wall, said body being formed wholly of a transparent material, the base having a flat upper surface formed with a marginal upwardly opening groove, the base being formed, in the areas circumscribed by said groove, with an upwardly opening recess and with a plurality of openings, said decorative object further including a sprig of simulated flowers engaged in said recess, said ornament pedestal being formed with a depending series of pegs engageable in selected openings of the base, said pedestal being formed of a pair of superposed sections, the pegs depending from the underside of one of said sections, the other section having openings corresponding in spacing to the pegs to normally receive the same, said last-named section being removable from engagement with the first-named section

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**2,772,901**
**METHOD OF MANUFACTURING ELECTRICAL CIRCUIT COMPONENTS**
Robert J. Malcolm, Arlington Heights, Ill.
Application May 31, 1956, Serial No. 588,323
17 Claims. (Cl. 41—37)

1. A method of forming electrical devices comprising the steps of forming a rigid base member of insulating material having a plurality of grooves at least some of which are connected to form a circuit pattern in at least one surface of said member; substantially covering said base member with a thin sheet of metal having a normally dry, reactivatable adhesive coating on the surface thereof facing the base member with portions of said metal sheet being disposed adjacent the grooves in said one surface; covering said sheet of metal with a sheet of yieldable



plastic material; shearing said portions of said metal sheet by applying pressure through said yieldable plastic sheet in order to force the sheet of metal against the base member, thereby to direct the sheared portions into the grooves; removing said yieldable plastic sheet; and reactivating said adhesive coating in order to create a bond between the sheared portions of said sheet of metal and the base member.

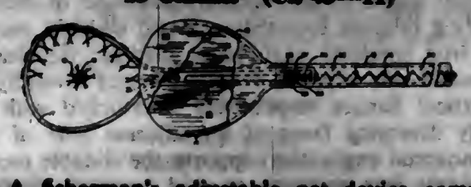
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**ERRATUM**

For Class 41—46 see:
Patent No. 2,772,942

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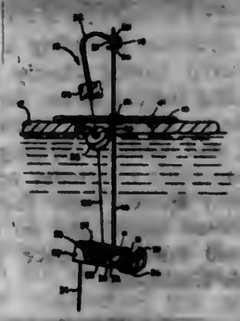
**2,772,902**
**FISHERMAN'S ADJUSTABLE NET**
Leonard H. Norris, Denver, Colo.
Application December 15, 1955, Serial No. 553,377
13 Claims. (Cl. 43—11)



1. A fisherman's adjustable net device comprising a primary handle, a net proper having an extension handle having an end portion slidable into said primary handle, and a housing carried by said primary handle for substantially complete encasement of said net proper when retracted without change in shape of the latter.

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**2,772,903**
**FISHING DEVICE**
Hugo F. Kiffer, Oneida, N. Y.
Application November 22, 1952, Serial No. 321,988
2 Claims. (Cl. 43—17)



1. In a fishing device, a rod member having an end portion thereof bent at right angles to the main axis of said member, signalling means detachably secured to the opposite end of said rod member, an elongated spinner element having a plurality of apertures formed therethrough intermediate the ends thereof, said elements being adapted to be rockably mounted at various angular positions on the bent portion of said rod member and being adapted



to support the reserve windings and slack windings of a fishing line, said reserve windings being located on one side of the selected pivot point and said slack windings being located on the other side thereof, and a trigger element secured to said signalling means and engageable by said slack windings to position the signalling means in a set position, said signalling means being released from the set position to signal a bite when said slack windings are removed from said spinner element by a fish, and said spinner element being adapted to rock on said bent portion as said windings are removed.

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**2,772,904**
**FISHING FLOAT**
James A. Zerante and Norman E. Bergdall, Lima, Ohio
Application June 23, 1954, Serial No. 438,690
1 Claim. (Cl. 43—17)



A fishing float comprising a hollow spherical body with diametrically opposed projecting end portions, a wire extending diametrically across said hollow body in alignment with the end portions, a weight slidably mounted on said wire, said wire constituting means for releasably retaining a line in attached position to the float, said wire also constituting the guiding means for the weight, said weight being in the form of a disc having a diameter less than one-half the diameter of the interior of the hollow body, said weight having a thickness less than one-half the diameter of the interior of the hollow body thereby permitting the weight to shift from a point completely within one end of the hollow body to a point completely within the other end of the body for stabilizing the hollow body with either end portion thereof disposed upwardly, the outer surface of one end portion and the adjacent one-half of the body being colored one distinguishable color and the other end portion and adjacent one-half of the body being colored a different distinguishable color, said body adapted to float in the water with the end portion having the line attaching means and the adjacent portion of the body being revealed above the water, said body adapted to be inverted by a downward pull on the fishing line extending downwardly into the water thereby causing the weight to slide on the wire guide to a position against the diametrically opposed inner surface of the hollow body thereby retaining the other end portion and the adjacent portion of the body above the water for observation thereof whereby the distinguishable colors will indicate the position of the hollow body.

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**2,772,905**
**FISHING DEVICE**
Donald W. Kaiser, Adrian, Mich.
Application May 11, 1954, Serial No. 429,000
7 Claims. (Cl. 43—26)

5. A fishing device comprising: a flexible rod; a handle concentrically journaled on the rear of the rod which has an integral, co-axial spool at its forward end; a crank secured to the rod behind the handle; a plurality of aligned line guides secured to the rod forward of the spool; and a winding guide secured to the rod and projecting from the same side of the rod as the line guides, said winding guide including an upwardly and rearwardly extending



mounting portion which projects over the spool and having and eye therein above the spool the axis of which is substantially parallel to the axis of the spool.

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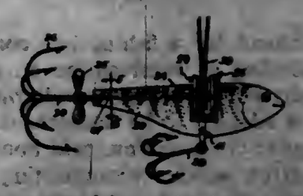
**2,772,906**
**FISHING REEL PUMP DRIVES**
George Hagen, San Diego, Calif.; Marguerite Hagen, administratrix of said George Hagen, deceased
Application March 10, 1953, Serial No. 341,530
2 Claims. (Cl. 43—20)



2. A fishing reel pump drive for a fishing reel mounted upon a fishing pole, said drive including manually operated mechanism all parts of which are housed exteriorly of said pole and operatively connected to drive said reel, and said drive comprising an elongated cylindrical casing removably secured to said pole and having a gear box adjacent to said reel; a one-way threaded drive shaft mounted to rotate within said casing and having one end protruding within said gear box; a disc bevel gear secured to the shaft of said reel and located within said gear box; a pair of conical bevel gears mounted upon said shaft and meshing with said disc bevel gear; a driving collar closely surrounding said shaft and secured to each of said conical bevel gears, each of said collars having tapering cutout portions in the walls thereof leading to said shaft, and spring thrust rollers mounted to slide within said cutout portions and forcibly to contact said shaft upon rotation of said shaft in the direction of said thrust but adapted to be released from said contact upon rotation of said shaft in the opposite direction; a sleeve with attached nut threaded to engage with said shaft and mounted to slide longitudinally within said casing, and a handle slidably mounted longitudinally outside of said casing; said handle having a protruding arm coextensive with said sleeve and connected with the outer end thereof; and means connecting with said casing for preventing the turning of said handle and extension thereof in relation to said casing and sleeve, and for securing said parts in undeviating longitudinal alignment.

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**2,772,907**
**FISH LURE**
Lonnie Edward Shackelford, Lancaster, Calif.
Application July 8, 1955, Serial No. 520,727
2 Claims. (Cl. 43—26.2)

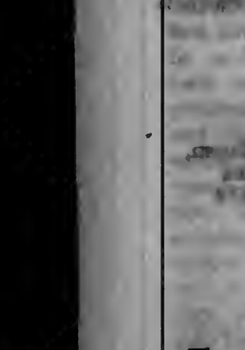


2. A fish lure comprising a body, a shaft disposed in the body and provided with a propeller thereon, said shaft being provided with a fish hook, and means for rotating the shaft; said body being of solid construction and having a channel extending downwardly from the top to

accommodate said shaft, and a pin disposed through the body and across the channel above said shaft to prevent displacement of the latter.

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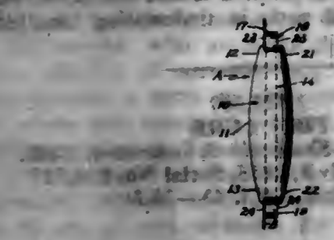
2,772,508
FISH LINE PULLAWAY SINKER
Eli M. Greenlee, Newport, Ky.; Claude A. Greenlee, administrator of the estate of said Eli M. Greenlee, deceased
Application April 28, 1954, Serial No. 426,259
4 Claims. (Cl. 43—43.15)



The combination with a fishing rod having a reel and a line, of a sinker comprising an open frame having a top wall, a bottom wall, and a pair of side walls connecting said top and bottom walls, a spool rotatably mounted between said side walls, the ends of said spool at their periphery extending outwardly beyond the vertical edges of said side walls to facilitate rotation thereof, a second line wound on said spool, said bottom wall having an opening therethrough, said second line passing downwardly through said opening, a stop ring connected to the end of said second line below said bottom wall and adapted to abut the latter when the second line is wound tightly on said spool, a third line connected at one end to said stop ring and at the other to a fish hook, a vertical lug integrally formed in said top wall having an aperture, the end of the first line being secured within said aperture, and a buoy threaded onto said first line intermediate the fishing rod and said frame whereby to retain the first line intermediate said buoy and frame in a substantially vertical position.

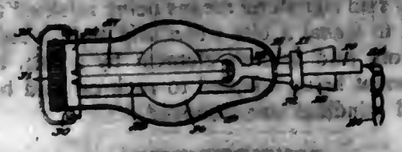
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2,772,509
ATTACHMENTS FOR FISHING LINES
Charles L. Valenzo, St. Paul, Minn.
Original application April 27, 1949, Serial No. 90,030. Divided and this application June 29, 1953, Serial No. 364,503
8 Claims. (Cl. 43—44.91)



1. An attachment for a fishing line comprising an arrangement including in combination an elongated body having an aperture extending therethrough into which a fishing line is adapted to be inserted, said aperture being of rectangular cross section, said body having a slot of relatively narrow width communicating with said aperture, a contractable and expansible core extending through said aperture with its cross-sectional area normally filling the cross-sectional area of the aperture, and a pair of rounded ends on said core, said rounded ends having opposed flat sides.

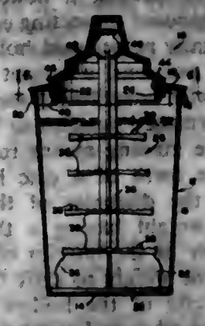
2,772,510
ANIMAL TRAP AUXILIARY GUARD THUMB CATCH
Joseph Norman Rogers, Lafitte, La.
Application September 28, 1954, Serial No. 458,087
2 Claims. (Cl. 43—96)



1. A latch for an auxiliary spring guard of an animal trap of the type having spring actuated jaws and an anchoring chain comprising a bar, laterally extending arm portions on said bar adjacent one end thereof, means on the ends of the arms, for slidably mounting the bar on the trap, means for connecting an extended end portion of the bar to an anchoring chain of the trap, and an offset tongue portion extended from said one end of the bar and positioned to extend over the auxiliary spring guard of the trap.

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2,772,511
DEVICE FOR KILLING INSECTS
Herbert F. Tomasek, Pittsburgh, Pa., assignor to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 19, 1955, Serial No. 502,363
10 Claims. (Cl. 43—131)



1. A device for killing insects comprising a receptacle for containing liquid insecticidal composition and rigid means forming a plurality of vertically spaced horizontal generally planar surfaces for retaining the liquid insecticidal composition for exposure to insects, said means being movable between an inoperative, insecticide receiving position wherein the same is disposed within said receptacle for immersion within the insecticidal composition contained therein and an operative insecticide exposing position wherein said means is supported by said receptacle above the top of the latter.

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2,772,512
PLAYING PIECE FOR GAME
Joseph Modica, Jr., Garden City South, N. Y., assignor to Tudor Metal Products Corporation, Brooklyn, N. Y., a corporation of New York
Application March 23, 1955, Serial No. 496,296
4 Claims. (Cl. 46—1)

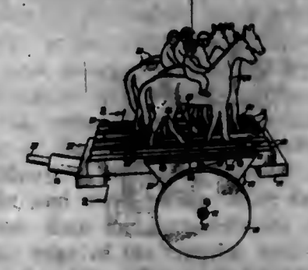
1. In a playing piece for a game, said playing piece including a base having a laterally extending recess in the under face thereof, a section of general U-shaped formation in cross section having a web portion fitting said recess and side flanges provided with inwardly directed projections adapted to engage over the base for securing said section in position thereon with the web portion disposed in said recess, and a flat strip of flexible material secured between said base and the web



portion of said section with the end portions of said strip projecting from said recess at the ends of the web portion and depending from the under side of the base for supporting the playing piece on the end edges of the strip.

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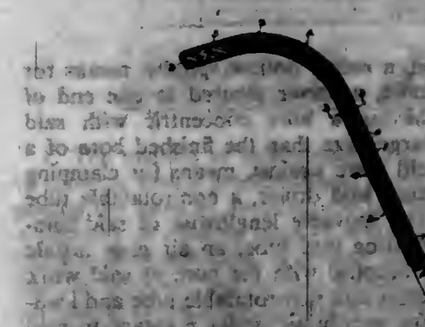
2,772,513
WHEEL ACTUATED TOY VEHICLE
John Hagen, St. Louis County, Mo.
Application May 3, 1954, Serial No. 427,084
6 Claims. (Cl. 46—205)



1. An action toy that comprises a frame, a shaft rotatably supported by said frame, a plurality of ground-engaging elements, at least one of said ground-engaging elements being connected to said shaft to drive said shaft, a guideway on said frame, a slide that is confined by said guideway for reciprocable movement, a second guideway on said frame, a second slide that is confined by said guideway for reciprocable movement, interacting surfaces that reciprocate the first said slide relative to the first said guideway whenever said shaft rotates, and a second set of interacting surfaces that reciprocate said second slide relative to said second guideway whenever said shaft rotates, said interacting surfaces being rollers that move with but are eccentric of said shaft and being slots in said slides that are transverse of said guideways, said slots having recesses contiguous therewith that are parallel to said guideways and that are in register with and can accommodate said shaft.

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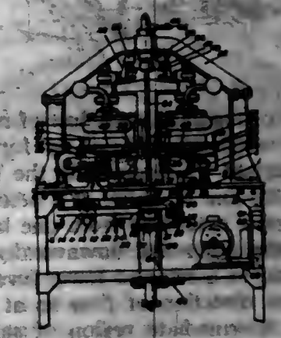
2,772,514
CLUSTER-BUSTER, FRUIT THINNING TOOL
Alvin R. Managanli, Palisade, Colo.
Application May 20, 1954, Serial No. 431,245
4 Claims. (Cl. 47—1)



1. A fruit thinning tool for selectively removing embryo fruit from a cluster including a resilient head comprising an outer sheath of flexible material, a core of flexible material, metallic reinforcement in the core, and a soft fruit striking tip, said tip comprising a soft yieldable striking face.

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2,772,515
MANUFACTURE OF HOLLOW BLOCKS OF GLASS
John Dennett, Windle, St. Helens, England, assignor to Pilkington Brothers Limited, Liverpool, England, a British company
Application June 13, 1952, Serial No. 293,335
Claims priority, application Great Britain July 16, 1951
13 Claims. (Cl. 49—1)



12. Apparatus for use in welding together two half blocks of glass, the rims of which are at such a temperature as to permit welding, the apparatus comprising two platens, means on each platen for locating a half block in predetermined position thereon, so that on tilting the platens upward toward each other, there will be upward progressively increasing contact of the rims in registry, actuating means for tilting up the platens until they are nearly vertical, and independent means effective to operate against the backs of the platens to force the platens into their vertical positions at a controlled speed slow enough to permit the gases from between the half blocks to escape from said half blocks while said half blocks are at the welding temperature, thereby to control the ultimate gaseous pressure in the cavities of the blocks when said blocks are cooled.

13. A method of welding together hollow half blocks of glass to form a hollow glass building block in which the rims of the half blocks are heated to above softening point just prior to welding characterised by locating the half blocks on their bases in spaced side by side relation, heating upwardly extending rims of said half blocks to above the softening point of the glass, tilting up the half blocks with their rims heated so that the soft rims of the lowermost adjacent rim parts meet and the half blocks then roll on to one another as the rims of the side walls approach to close proximity beginning at the bottom, whereby the rapidly expanding gaseous volume encompassed between the half blocks is constrained to exude mainly between the portion of the rims in the uppermost parts of the half blocks, applying a force to each of the half blocks to complete the tilting movement to effect welding over the whole of the rims, regulating the period of time between the side walls reaching the position of close proximity and the moment of welding, so as to permit the gases from between the half blocks to escape from said half blocks while maintaining the rims of said half blocks above the softening point of glass, thereby to control the ultimate gaseous pressure in the cavity of the block when cool, and positively heating the atmosphere above the tilted up half blocks to prevent descent of relatively cold atmospheric air into the cavity encompassed by the half blocks during the final stages of egress of the enclosed gaseous volume.





2,772,520

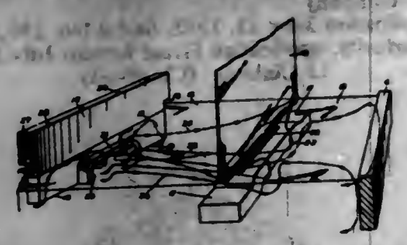
said rings while the rings are abrading the lap surface so

2,772,516

**METHODS OF AND APPARATUS FOR VERTICALLY DRAWING GLASS IN SHEET FORM**

George W. T. Bird, St. Helens, England, assignor to Pilkington Brothers Limited, Liverpool, England, a British company

Application January 3, 1951, Serial No. 204,248
Claims priority, application Great Britain January 13, 1950
9 Claims. (Cl. 49—17)



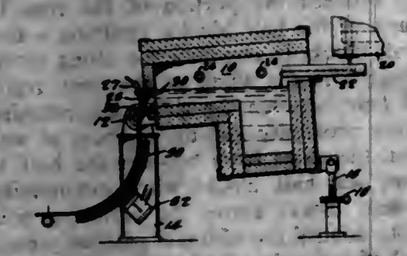
1. A method of regulating the flow of metal in a drawing kiln from which glass in sheet form is vertically drawn, characterised by obstructing the general flow of metal towards the line of draw, at a point remote therefrom and in a zone extending from one lateral boundary of the flow to the other and downwardly from the surface of the metal to a selected lower level of said metal having the same direction of flow as at the surface of said metal, an intermediate region of said zone spaced from said lateral boundaries extending downwardly to a depth less than the other regions of said zone, whereby to constrain a volume of metal to flow from said lower level towards said line of draw and medially of the kiln and to impart to said volume a kinetic energy causing that the whole of the metal which forms the sheet enters the drawing kiln about the centre line thereof and as a layer of shallow depth at said lower level, whereby glass of the same viscosity is fed into both faces of the sheet being drawn.

3. Apparatus for regulating the flow of metal in a drawing kiln from which glass in sheet form is vertically drawn characterised by an obstructing member remote from the line of draw extending across the width of said kiln between the supply of the metal and the line of draw and extending downwardly from the surface of the metal to a selected lower level having the same direction of flow as at the surface, the underside of said obstructing member being arched in a region spaced from and intermediate its ends to direct the flow of metal passing therethrough medially of the kiln in the vicinity of the draw line.

2,772,517

**FEEDER FOR SHEETS OF GLASS AND SIMILAR THERMOPLASTIC MATERIALS**

Urban E. Bowes, Perrysburg, Ohio
Application October 9, 1952, Serial No. 313,957
4 Claims. (Cl. 49—17)

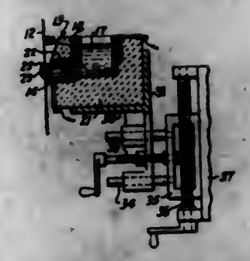


1. A feeder for sheet glass or the like comprising a container for molten glass, a metal alloy body member in an outer wall of said container, a plurality of laterally spaced individual openings formed in said member, said openings extending inwardly and downwardly from the inner face thereof and partially through said member, a laterally extending continuous rectangular discharge opening extending inwardly from the outer face of said member intersecting within said body member the lower ends of all of said individual openings, means for regulating the static pressure head of molten glass over said openings, by changing the height of the glass over said openings, to thereby control the flow of glass through said individual openings to said laterally extending discharge opening, said latter discharge opening having the dimensions of the finally formed sheet, and means to heat said body member to maintain therein a predetermined temperature.

2,772,518

**METHOD OF COATING GLASS FILAMENTS WITH METAL**

Harry B. Whitehurst, Granville, and William H. Otto, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application November 10, 1952, Serial No. 319,724
10 Claims. (Cl. 49—77)

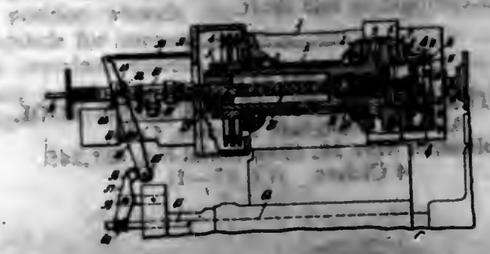


2. The method of coating a glass filament with metal comprising suspending a globule of molten metal in a given position under its own surface tension, passing a continuous filament through said globule at a temperature compatible to receive a coating of said metal, and supplying molten metal for said globule to maintain it in size equilibrium by replenishing molten metal removed from said globule in coating said filament.

2,772,519

**AIR GAGING MECHANISM FOR CENTERLESS GRINDERS**

Walter A. Boyd, Jr., Woodstock, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application February 16, 1954, Serial No. 409,313
2 Claims. (Cl. 51—48)



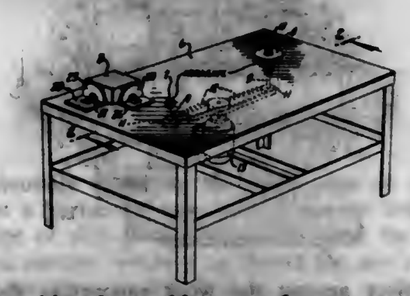
2. In combination, a rotary hollow spindle, means for supporting said spindle, a driver secured to one end of said spindle and having a bore concentric with said spindle of slightly larger size than the finished bore of a work piece to be held there against, means for clamping said work piece against said driver, a non-rotatable tube extending through and movable lengthwise of said spindle, means for supporting said tube, an air gage nozzle held by said tube concentric with the bore of said work piece, an air tube within said non-rotatable tube and leading to said nozzle for supply air under pressure to said nozzle, and means for delivering coolant between said tubes past said nozzle into the work piece.



2,772,520

**MACHINE FOR FORMING PIPE-FITTING COVERS**

Richard C. Jaye, Watertown, Wis., assignor to The Jaye Corporation, Watertown, Wis., a corporation of Wisconsin
Application May 6, 1955, Serial No. 506,645
3 Claims. (Cl. 51—100)

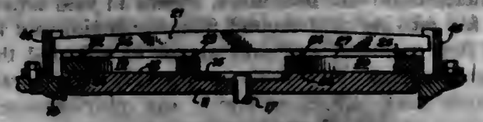


1. A machine for making complementary pipe fitting cover sections, which sections are adapted to mate on a plane of junction coinciding with the median plane of the fitting when the sections are in position on the fitting, comprising: a table; a power driven rotary cutter; means mounting the cutter for rotation about an axis perpendicular to the table with the cutter disposed above the table, said means including a circular base against the top of which the underside of the cutter abuts, and by which the cutter is spaced a definite distance above the surface of the table, said base having a smooth circular periphery; a combined templet and work holder, said templet and work holder being flat and of a thickness not less than the perpendicular distance from the upper outer edge of the circular base to the surface of the table; means on the combined templet and work holder for locating and holding a block of material thereon with the bottom of the block flat against the top of the templet and work holder; said combined templet and work holder having a slot formed therein of a size and shape corresponding to that of the pipe fitting contemplated and of a width sufficient to receive the cutter base, the sides of said slot providing guide edges engageable with the side of the cutter base and extending at least up to said means for locating and holding the block of material, said slot having continuations which extend outwardly beyond said means for locating and holding the block of material so that the cutter may be optionally engaged in or disengaged from the extended end portions of the slot, outwardly of the block of material on the combined templet and work holder; and the cutter being shaped to form a groove in the underside of the block of a size to receive one half of the fitting therein.

2,772,521

**METHOD AND APPARATUS FOR AUTOMATICALLY CONDITIONING A LAP**

Charles F. Voytech, Chicago, Ill.
Application December 18, 1953, Serial No. 398,947
12 Claims. (Cl. 51—129)

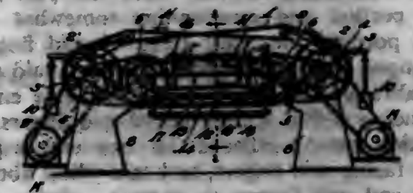


1. The method of conditioning a rotatable lap surface to coincide with a predetermined plane, said method comprising the steps of abrading the lap surface by means of a plurality of rotating rings each ring having substantially radially disposed sides, with one such side of each ring resting upon the lap surface whereby to abrade the lap surface by said side as aforesaid, said two rings being disposed on opposite sides of a lap diameter, placing a common rigid weight upon the other side of at least two of said rings while the rings are abrading the lap surface so as to support said weight by the rings with the center of gravity of the weight located substantially on the axis of rotation of the rotatable lap surface, and limiting the contact between the weight and rings to points which are in a plane parallel with the predetermined plane of the lap surface and on opposite sides of a diameter of each ring which is disposed transversely of a radius of the lap surface.

2,772,522

**MECHANICAL SANDERS**

Masatsugu Minami, Meguro-ku, Tokyo, Japan
Application March 18, 1954, Serial No. 417,162
3 Claims. (Cl. 51—141)

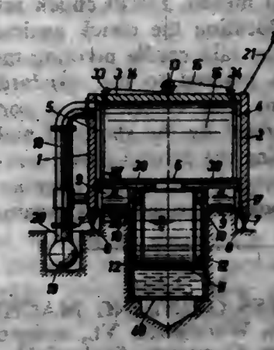


1. A machine for sanding sheet material comprising means for movably supporting and guiding the sheet material during sanding for movement in one direction and in a substantially straight flat position, an endless driven belt having an exterior sanding surface, means movably supporting and directing said belt crosswise of a face of the sheet material being sanded and in a direction substantially perpendicular to the direction of movement of said material, an endless pressing belt, means movably supporting and directing said pressing belt for movement in line with, spaced above, parallel to said sanding belt, means for driving said pressing belt at a speed differing from that of said sanding belt, and a plurality of spaced apart pliable shoes carried by said pressing belt and positioned for rubbing against said sanding belt and pressing the portions of said sanding belt therebeneath against said sheet material.

2,772,523

**PLANT FOR PICKLING METALLIC WORKPIECES**

Othmar Rudiger, Vienna, Austria
Application March 28, 1956, Serial No. 574,585
Claims priority, application Austria March 28, 1955
13 Claims. (Cl. 51—164)



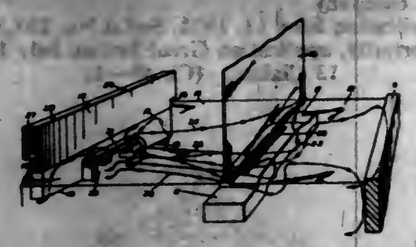
1. A drum-type pickling plant comprising a series of tanks filled with treating liquid, a drum having an apertured shell and rotatable about a horizontal axis, which drum can be lowered into the tanks, supporting and drive rollers for supporting and rotating the said drum, a gate-like frame movable over the series of tanks, a cross-spar which can be lifted and lowered within the said frame, and bearings slidable on said cross-spar for carrying the said supporting and drive rollers for the drum.



32 OFFICIAL GAZETTE DECEMBER 4, 1956

DECEMBER 4, 1956 GENERAL AND MECHANICAL 33

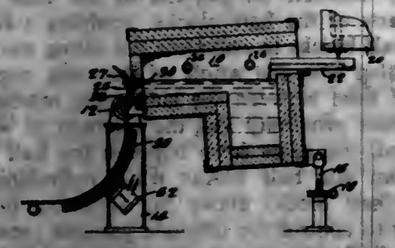
2,772,516
METHODS OF AND APPARATUS FOR VERTICALLY DRAWING GLASS IN SHEET FORM
George W. T. Bird, St. Helens, England, assignor to Pilkington Brothers Limited, Liverpool, England, a British company
Application January 3, 1951, Serial No. 204,248
Claims priority, application Great Britain January 13, 1950
9 Claims. (Cl. 49—17)



1. A method of regulating the flow of metal in a drawing kiln from which glass in sheet form is vertically drawn, characterised by obstructing the general flow of metal towards the line of draw, at a point remote therefrom and in a zone extending from one lateral boundary of the flow to the other and downwardly from the surface of the metal to a selected lower level of said metal having the same direction of flow as at the surface of said metal, an intermediate region of said zone spaced from said lateral boundaries extending downwardly to a depth less than the other regions of said zone, whereby to constrain a volume of metal to flow from said lower level towards said line of draw and medially of the kiln and to impart to said volume a kinetic energy ensuring that the whole of the metal which forms the sheet enters the drawing kiln about the centre line thereof and as a layer of shallow depth at said lower level, whereby glass of the same viscosity is fed into both faces of the sheet being drawn.

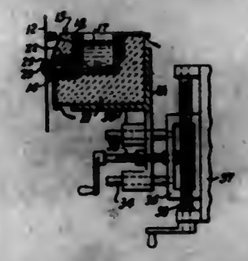
3. Apparatus for regulating the flow of metal in a drawing kiln from which glass in sheet form is vertically drawn characterised by an obstructing member remote from the line of draw extending across the width of said kiln between the supply of the metal and the line of draw and extending downwardly from the surface of the metal to a selected lower level having the same direction of flow as at the surface, the underside of said obstructing member being arched in a region spaced from and intermediate its ends to direct the flow of metal passing therethrough medially of the kiln in the vicinity of the draw line.

2,772,517
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Urban E. Bowes, Perrysburg, Ohio
Application October 9, 1952, Serial No. 313,957
4 Claims. (Cl. 49—17)



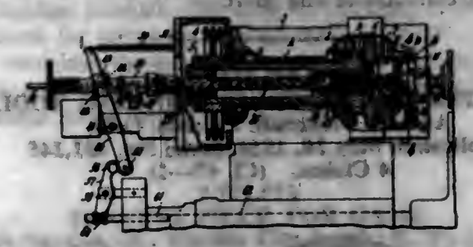
1. A feeder for sheet glass or the like comprising a container for molten glass, a metal alloy body member in an outer wall of said container, a plurality of laterally spaced individual openings formed in said member, said openings extending inwardly and downwardly from the inner face thereof and partially through said member, a laterally extending continuous rectangular discharge opening extending inwardly from the outer face of said member intersecting within said body member the lower ends of all of said individual openings, means for regulating the static pressure head of molten glass over said openings, by changing the height of the glass over said openings, to thereby control the flow of glass through said individual openings to said laterally extending discharge opening, said latter discharge opening having the dimensions of the finally formed sheet, and means to heat said body member to maintain therein a predetermined temperature.

2,772,518
METHOD OF COATING GLASS FILAMENTS WITH METAL
Harry B. Whitehouse, Granville, and William H. Otto, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application November 10, 1952, Serial No. 319,724
10 Claims. (Cl. 49—77)



2. The method of coating a glass filament with metal comprising suspending a globule of molten metal in a given position under its own surface tension, passing a continuous filament through said globule at a temperature compatible to receive a coating of said metal, and supplying molten metal for said globule to maintain it in size equilibrium by replenishing molten metal removed from said globule in coating said filament.

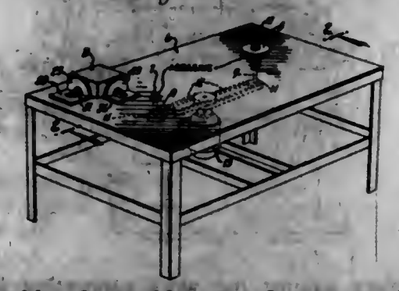
2,772,519
AIR GAGING MECHANISM FOR CENTERLESS GRINDERS
Walter A. Boyd, Jr., Woodstock, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application February 10, 1954, Serial No. 409,313
2 Claims. (Cl. 51—48)



2. In combination, a rotary hollow spindle, means for supporting said spindle, a driver secured to one end of said spindle and having a bore concentric with said spindle of slightly larger size than the finished bore of a work piece to be held there against, means for clamping said work piece against said driver, a non-rotatable tube extending through and movable lengthwise of said spindle, means for supporting said tube, an air gage nozzle held by said tube concentric with the bore of said work piece, an air tube within said non-rotatable tube and leading to said nozzle for supply air under pressure to said nozzle, and means for delivering coolant between said tubes past said nozzle into the work piece.

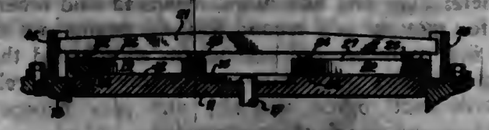


2,772,520
MACHINE FOR FORMING PIPE-FITTING COVERS
Richard C. Jaye, Watertown, Wis., assignor to The Jaye Corporation, Watertown, Wis., a corporation of Wisconsin
Application May 6, 1955, Serial No. 506,645
3 Claims. (Cl. 51—100)



1. A machine for making complementary pipe fitting cover sections, which sections are adapted to mate on a plane of junction coinciding with the median plane of the fitting when the sections are in position on the fitting, comprising: a table; a power driven rotary cutter; means mounting the cutter for rotation about an axis perpendicular to the table with the cutter disposed above the table, said means including a circular base against the top of which the underside of the cutter abuts, and by which the cutter is spaced a definite distance above the surface of the table, said base having a smooth circular periphery; a combined templet and work holder, said templet and work holder being flat and of a thickness not less than the perpendicular distance from the upper outer edge of the circular base to the surface of the table; means on the combined templet and work holder for locating and holding a block of material thereon with the bottom of the block flat against the top of the templet and work holder; said combined templet and work holder having a slot formed therein of a size and shape corresponding to that of the pipe fitting contemplated and of a width sufficient to receive the cutter base, the sides of said slot providing guide edges engageable with the side of the cutter base and extending at least up to said means for locating and holding the block of material, said slot having continuations which extend outwardly beyond said means for locating and holding the block of material so that the cutter may be optionally engaged in or disengaged from the extended end portions of the slot, outwardly of the block of material on the combined templet and work holder; and the cutter being shaped to form a groove in the underside of the block of a size to receive one half of the fitting therein.

2,772,521
METHOD AND APPARATUS FOR AUTOMATICALLY CONDITIONING A LAP
Charles F. Voytech, Chicago, Ill.
Application December 18, 1953, Serial No. 398,947
12 Claims. (Cl. 51—129)



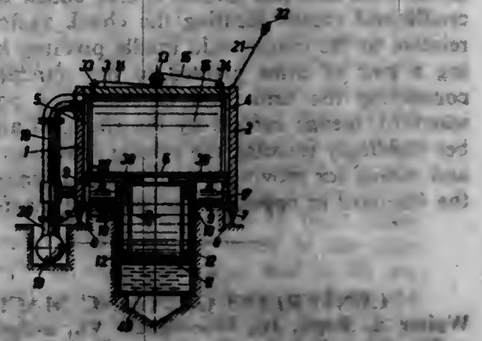
1. The method of conditioning a rotatable lap surface to coincide with a predetermined plane, said method comprising the steps of abrading the lap surface by means of a plurality of rotating rings each ring having substantially radially disposed sides, with one such side of each ring resting upon the lap surface whereby to abrade the lap surface by said side as aforesaid, said two rings being disposed on opposite sides of a lap diameter, placing a common rigid weight upon the other side of at least two of said rings while the rings are abrading the lap surface so as to support said weight by the rings with the center of gravity of the weight located substantially on the axis of rotation of the rotatable lap surface, and limiting the contact between the weight and rings to points which are in a plane parallel with the predetermined plane of the lap surface and on opposite sides of a diameter of each ring which is disposed transversely of a radius of the lap surface.

2,772,522
MECHANICAL SANDERS
Masatsugu Minami, Meguro-ku, Tokyo, Japan
Application March 18, 1954, Serial No. 417,162
3 Claims. (Cl. 51—141)



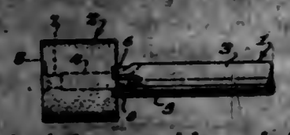
1. A machine for sanding sheet material comprising means for movably supporting and guiding the sheet material during sanding for movement in one direction and in a substantially straight flat position, an endless driven belt having an exterior sanding surface, means movably supporting and directing said belt crosswise of a face of the sheet material being sanded and in a direction substantially perpendicular to the direction of movement of said material, an endless pressing belt, means movably supporting and directing said pressing belt for movement in line with, spaced above, parallel to said sanding belt, means for driving said pressing belt at a speed differing from that of said sanding belt, and a plurality of spaced apart pliable shoes carried by said pressing belt and positioned for rubbing against said sanding belt and pressing the portions of said sanding belt therebeneath against said sheet material.

2,772,523
PLANT FOR PICKLING METALLIC WORKPIECES
Othmar Rußner, Vienna, Austria
Application March 28, 1956, Serial No. 574,505
Claims priority, application Austria March 28, 1955
13 Claims. (Cl. 51—164)



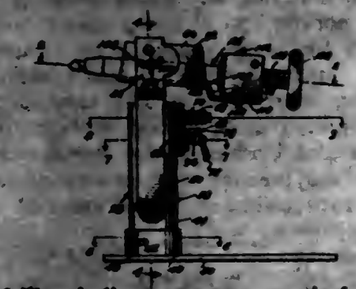
1. A drum-type pickling plant comprising a series of tanks filled with treating liquid, a drum having an apertured shell and rotatable about a horizontal axis, which drum can be lowered into the tanks, supporting and drive rollers for supporting and rotating the said drum, a gate-like frame movable over the series of tanks, a cross-spar which can be lifted and lowered within the said frame, and bearings slidable on said cross-spar for carrying the said supporting and drive rollers for the drum.

2,772,524
ABRASIVE GRINDERS
John F. Koenigsmid, North Tonawanda, N. Y.
Application January 27, 1956, Serial No. 561,857
7 Claims. (Cl. 51—168)



1. An improved grinder comprising a shaft having one end portion of smaller cross sectional area than the other end portion, and an intermediate portion connecting the two end portions and increasing in diameter from said one end portion to the other end portion, said other end portion at its junction with said intermediate portion having fingers extending endwise therefrom past said intermediate portion and overrunning somewhat with said one end portion, the outer faces of said fingers being continuations of the peripheral surface of said other end, said one end portion including within it the ends of said fingers, said one end portion having adjacent its free end a peripheral shoulder facing said fingers, and said wheel abutting said shoulder and said fingers to prevent endwise movement of said wheel along said shaft in both directions, and said fingers also causing rotation of said wheel with said shaft.

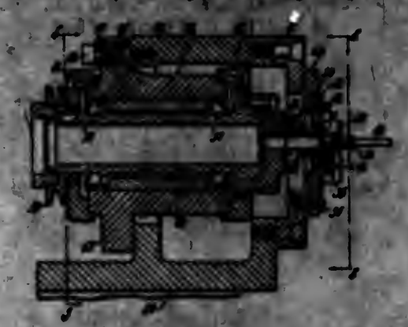
2,772,525
DRILL GRINDER ATTACHMENT
William H. Forster, Elberton, Ga.
Application September 25, 1953, Serial No. 382,399
2 Claims. (Cl. 51—219)



1. In a drill grinding means, a vertical standard, a support, means mounting the standard on the support for limited rotational movement, a cradle pivotally mounted on the standard, means pivoting said cradle at vertically spaced points for separate adjustment about vertically spaced horizontal axes, locking means associated with said last means, a drill chuck resting in said cradle and means locating the chuck against movement relative to the cradle, said cradle pivoting means including a pair of arms pivoted to the standard a member connecting the arms and embracing a portion of the standard, means carried by the standard and said member yieldingly resisting the pivotal movement of the arms and means for moving the arms and member away from the standard in opposition to said last means.

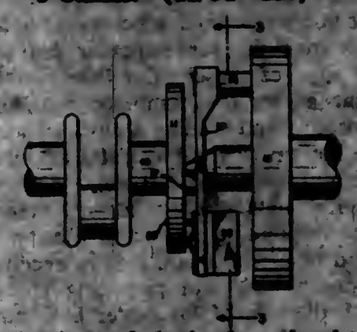
2,772,526
CENTERLESS GRINDING MACHINE
Walter A. Boyd, Jr., Woodstock, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application March 3, 1955, Serial No. 491,842
16 Claims. (Cl. 51—236)

1. In a centerless grinding machine, the combination of a machine housing, a work rotating device mounted from the housing including a rotary work engaging end plate supported to turn on an axis on the housing, means holding the workpiece against the plate for maintaining a frictional driving engagement between the end plate and workpiece, work supporting means comprising radial work supporting shoes against which the work is held to rotate on an axis offset from the axis of the end plate, the work rotational axis determined by said shoes, and the axis of said rotary end plate being disposed to bias



the workpiece against the work supporting shoes, and means for relatively shifting the axis position of the end plate and of said shoes to reverse the radial bias of the rotating end plate upon the workpiece with respect to the shoes, and thereby to displace the workpiece from contact with said shoes.

2,772,527
COUPLER FOR CRANK SHAFT GRINDER
Roy A. Fontaine, La Grande, Oreg.
Application September 21, 1953, Serial No. 381,169
3 Claims. (Cl. 51—237)



1. In combination, a lathe having a headstock, a plate on said headstock, an eccentrically located crank pin on said plate, an automotive crank shaft mounted in said lathe for grinding, an end flange on said crank shaft, a plurality of identical bolt holes in said end flange, said end flange engaged by said headstock, a pair of members forming a composite coupler between said headstock and said flange, said members secured together near their adjacent ends in a position of angularity with respect to each other, an aperture near an end of one of said members, said aperture having the same diameter as said crank pin and engaged by said crank pin, a flange-engaging pin rigidly secured in said first mentioned member and in engagement with one of said bolt holes, a second similar flange-engaging pin adjustably mounted in said other member and in engagement with another of said bolt holes, said flange-engaging pins being of smaller diameter than said bolt holes, means in said other member for moving said second flange-engaging pin towards said first member, and said means so adjusted that said flange-engaging pins will be forcibly urged relatively towards each other, whereby any play between said members and said flange is prevented.

2,772,528
METAL SAWING TABLE
Harry C. Elce, Pittsburgh, Pa.
Application January 9, 1956, Serial No. 558,068
5 Claims. (Cl. 51—249)

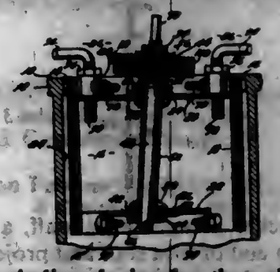
1. A table for metal sawing beneath a saw, comprising a pair of horizontal platens disposed side by side in laterally spaced relation and adapted to support a metal plate extending across the space between them while a rotary saw above said space is moved lengthwise thereof to cut the plate, means above one of said platens to clamp the plate thereon, means to clamp the plate on the other platen,



means pivotally mounting the inner edge of said other platen on a horizontal axis, and means for lowering the outer edge of said pivoted platen to bend the plate between the platens, whereby to spread the saw cut to prevent the saw from binding therein.



2,772,529
CYLINDER BLOCK RIDGE GRINDER
Claude O. Deitz, Joplin, Mo.
Application November 12, 1952, Serial No. 319,870
2 Claims. (Cl. 51—245)



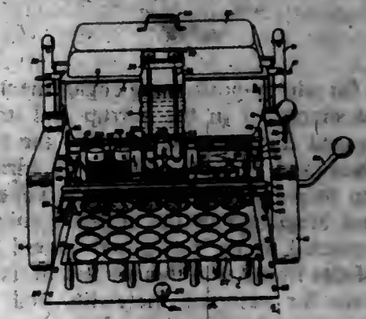
1. A ridge grinding device for the cylinders of engine blocks comprising a body member, centering members carried by said body member and operable to engage slidably the walls of a cylinder into which said body member is inserted, whereby to support said body member for free rotational and axial movement in said cylinder, and a grinding wheel carried rotatably by said body member and positioned to grind the wall of a cylinder in which said body member is positioned, the axis of said grinding wheel being disposed eccentrically to the axis of said body member and inclined slightly relatively thereto in a plane at right angles to the direction of eccentricity thereof, at least certain of said centering members being provided with resilient means urging them radially outwardly relative to the body member, whereby they may be pressed inwardly to permit the insertion of the body member into a cylinder when the wall of said cylinder is ridged.

2,772,530
APPARATUS FOR FORMING, FILLING AND SEALING BAGS
Victor G. Williams, Toronto, Ontario, Canada, assignor to Delamere & Williams Company, Limited, West Toronto, Ontario, Canada, a corporation of Ontario
Application January 30, 1953, Serial No. 334,171
8 Claims. (Cl. 53—180)



1. In a bag-making and filling machine of the character described, in combination, an endless carrier including a plurality of grippers for continuously advancing a longitudinally folded strip of bag-forming material into operative relation to bag forming, filling and closing mechanism, and auxiliary sealing means for sealing the contacting faces of the folded strip along the folded marginal edge only thereof during said continuous advance and prior to being engaged by said gripper carrier, said auxiliary sealing means including a pair of cooperating heat-sealing rollers engageable with said folded marginal edge during the continuous advance thereof, and a pair of coopertaing guide rolls immediately preceding said heat-sealing rolls to guide and maintain the sides of the folded strip in face to face contact during said sealing operation, said marginal seal serving to reinforce said folded edge to prevent rupture thereof during subsequent bag-forming and filling operations.

2,772,531
FILLING AND CAPPING APPARATUS FOR CONTAINERS OF LIQUIDS
Frank Brodsky, Brooklyn, N. Y.
Application August 16, 1954, Serial No. 449,886
4 Claims. (Cl. 53—283)



1. A filling machine for filling containers with cream and other liquids, comprising a reservoir for a liquid, a plurality of liquid metering and dispensing cups disposed underneath the reservoir, a like number of inlet openings formed in the bottom of the reservoir through which the liquid may flow into said cups, outlet openings formed in the bottom of said cups through which the liquid may flow out of said cups, a valve member mounted in each said cup for vertical movement therein, said valve members having a lower position in which they close the outlet openings and open the inlet openings and having an upper position in which they close the inlet openings and open the outlet openings, said valve members being normally gravity-held in their lower positions to permit liquid to flow from the reservoir through the inlet openings to fill the cups while preventing the liquid from flowing out of the cups, an air vent tube connected to each said valve member, said tubes projecting upwardly through said inlet openings and through the liquid in the reservoir, means for advancing rows of empty containers in succession to positions underneath the outlet openings in said cups, and lifting means connected to said tubes to elevate the valve members to their upper positions and thereby to permit the liquid in the cups to flow out through the outlet openings and to fill the containers while preventing a flow of liquid from the reservoir and into the cups through the inlet openings.

2,772,532
SAFETY STIRRUP
Jack L. Tann, Castro Valley, Calif.
Application April 19, 1951, Serial No. 221,892
2 Claims. (Cl. 54—49)

1. In a safety stirrup, a U-shaped support frame having first and second depending sides, a U-shaped foot-piece having the extremity of one side hinged to the extremity of the first frame side and having the extremity of its

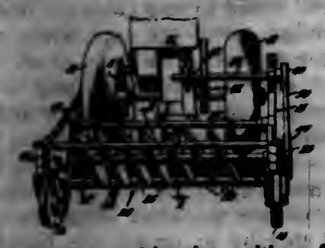
other side normally abutting the extremity of the second frame side in complementary relation thereto, a releasing yoke disposed between said frame sides, first and second hinge pins extending outwardly from the yoke ends and respectively through the first and second frame sides in journalled relation thereto, said yoke comprising a longitudinally arched member for overlying an appreciable length of the instep of a foot normally engaged through the foot-piece and having mutually spaced forward and rearward foot-contacting edges normally disposed at opposite sides of the plane of the frame and respectively provided by a forward section which is longitudinally attached to the frame and a rearward section mounted on the forward section for its fore-and-aft adjustment with respect to the forward section to variably space said forward and rear yoke edges with its said rearward edge



arranged for stirrup-positioning engagement with the front of a foot supported in the stirrup and its said forward edge arranged for its engagement by the top of the foot when it is rocked backwardly from its normal disposal in the stirrup to rearwardly displace the yoke, means fixing the second hinge pin to the engaged yoke end, a hook member carried by the latter said second hinge pin outwardly of the frame side thereat and in fixed radial relation thereto for swinging therewith, and a support pin carried by an outer side of the foot-piece in the path of movement of the hook member and normally engaged by the latter for maintaining the abutment of the second end of the foot-piece with the opposed end of the second frame side, said hook member being releasable from the engaged pin upon said rearward displacement of the yoke by a rider's foot.

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2,772,533
**MOWER HAVING LEDGER PLATE WITH COOPERATING WOBBLE PLATE CUTTER**
Harry B. Shibley, Jr., Coffeyville, Kans.
Application January 17, 1955, Serial No. 482,088
1 Claim. (Cl. 56—252)



In a mower, the combination with a frame, of a stationary cutting member mounted in said frame and extending transversely thereof, said stationary cutting member being formed to provide a continuous series of forwardly projecting teeth, a rotating cutting member supported in said frame and extending transversely thereof, said rotating cutting member being disposed above said stationary cutting member and comprising a shaft mounted at its ends for rotation in said frame and a plurality of cutting discs mounted in spaced relation on said shaft for rotation therewith, the planes defined by said discs forming an acute angle with the axis of said shaft, said discs being of generally elliptical contour to establish and maintain engagement with the toothed portion of said stationary cutting member as said shaft rotates, whereby the zone of contact between each disc and the said toothed portion is displaced laterally of said frame in opposite directions during rotation of said shaft, the toothed portion of said stationary cutting member being shaped to provide on its upper side a continuous groove extending in parallel relation with said shaft, said groove being shaped to conform to and engage with a substantial length of the periphery of the said discs.

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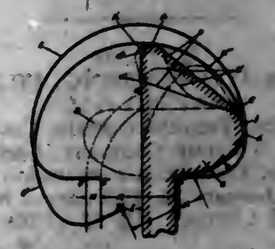
2,772,534
**FRUIT PICKER HAVING A PLURALITY OF PIVOTED KNIFE CARRYING FINGERS**
Savin J. Tarullo, Santa Cruz, Calif.
Application September 8, 1954, Serial No. 454,793
4 Claims. (Cl. 56—335)



1. A fruit picker comprising a staff, a ring rigidly secured to the top end of said staff and projecting outwardly therefrom, a flexible receiving member secured to said ring, a plurality of upwardly extending fingers pivoted to said ring, a bell crank lever having an outer arm and an inner arm projecting from one end of the outer arm, said lever being at the one end of the outer arm pivoted to said staff adjacent said ring, cable means connected to the other end of the outer arm of said lever and arranged to rotate the lever, and means connecting the inner arm of said lever to said fingers and being arranged to rotate said fingers inwardly towards each other responsive to rotation of said lever.

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2,772,535
**RINGS FOR SPINNING MACHINES**
Norio Kobayashi, Kami Kyo-ku, Kyoto City, Japan
Application May 16, 1951, Serial No. 226,607
Claims priority, application Japan June 19, 1950
2 Claims. (Cl. 57—119)



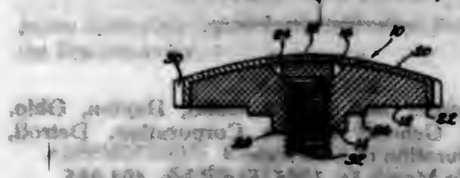
1. A ring for ring spinning machine, which comprises an external body portion of plane cylindrical shape, a rounded top periphery and an inwardly projecting flange formed below said top periphery and having a rounded apex, which is formed by connecting said rounded top periphery and said rounded apex of said inwardly projecting flange to each other by an inverted substantially conical surface, said inner flange being so determined with relation to a traveler, which has a substantially semicircular stem portion and two legs bent toward each other to leave an opening therebetween, that said traveler can



be retained on said ring by said rounded top periphery and the rounded top of said inwardly projecting flange during running of the traveler on the ring leaving a definite clearance between the end of the outer leg of the traveler and the outer surface of the ring, thereby preventing scratching the outside wall of the ring by the top of the outer leg of the traveler.

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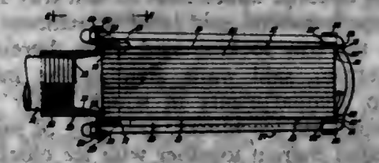
2,772,536
**WATCH CROWN AND METHOD OF ASSEMBLY**
Edward L. Shafran, Chicago, Ill.
Application September 8, 1953, Serial No. 378,763
11 Claims. (Cl. 58—88)



1. A crown assembly comprising a crown member having a bore therethrough, a cap member positioned on said crown member, said cap and crown members defining a cavity in communication with said bore, and a mass of bonding material positioned in said cavity.

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2,772,537
**FLAME AND SPARK ARRESTER**
Constantine Lieiani, Chicago, Ill., assignor to The Protectoseal Company, Chicago, Ill., a corporation of Illinois
Application February 4, 1953, Serial No. 335,131
4 Claims. (Cl. 60—31)



1. As an article of manufacture, an elongated polygonal-shaped tubular casing for a flame arrester comprising an adapter for detachably mounting the flame arrester on a combustible gas conduit at one end and for detachably mounting retainer means for the polygonal-shaped tubular casing on the opposite end, said polygonal-shaped tubular casing complementally formed to the adapter, said polygonal-shaped tubular casing comprising detachable and flanged symmetrical halves about the diagonal through the cross-section of the polygonal-shaped tubular casing at right angles to the longitudinal axis of the polygonal-shaped tubular casing, said flanged symmetrical halves assembled with the flanges thereof in abutting relationship and said polygonal-shaped tubular casing extending longitudinally to a predetermined length greater than the smallest cross-sectional dimension of the polygonal-shaped tubular casing, said polygonal-shaped tubular casing adapted to receive heat exchange members forming a plurality of longitudinally extending passageways in heat exchange relationship with respect to the combustible gas to be discharged therethrough, and said flanges of said symmetrical flanged halves forming the tubular casing being intermediate the ends of said tubular casing and less than the length of the tubular casing.

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2,772,538
**BLADE FORMATIONS FOR TURBO-MACHINES**
Fred E. Ulbery, Detroit, Mich.
Application July 12, 1952, Serial No. 298,560
32 Claims. (Cl. 60—54)

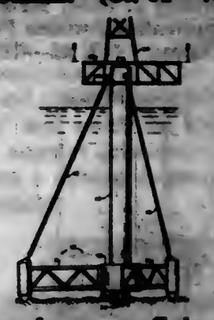
1. In a turbo-machine in which shell and core shroud elements have respective surfaces of revolution formed and arranged about a common axis so as to bound therearound an annular fluid path which has a curving trend in a cross-section cut by a plane containing said axis, a bladed member which occupies at least an annular portion of said annular fluid path and thereat comprises: an annular array of blades circumferentially distributed in said fluid path around said axis, each of said blades being disposed with a blade surface of configuration thereof spanning across said fluid path from a shell-stream edge which conforms with said shell shroud surface of revolution to a core-stream edge which conforms with said core shroud surface of revolution and thereacross extending along said fluid path in the direction of fluid flow from a blade entrance end to a blade exit end; and,



blade support means connecting said blades together in circumferentially spaced and fixed relationship with each other, said blade support means being adapted to transmit torque concurrent with utilitarian blade action change of moment of momentum of passing fluid; and in which, the blade features of each of a plurality of said blades include across said fluid path a blade surface of configuration disposition which across a mid-stream path midway between said shell-stream edge and said core-stream edge is a bias disposition for which at each point along said mid-stream path from the blade entrance end to the blade exit end the bias angle is vectorially positive and has a magnitude of at least 10 degrees.

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2,772,539
**FOUNDATION FOR OFF-SHORE DRILLING RIG**
William Andrew Sandberg, South Pasadena, Calif.
Application January 18, 1951, Serial No. 206,583
6 Claims. (Cl. 61—46.5)



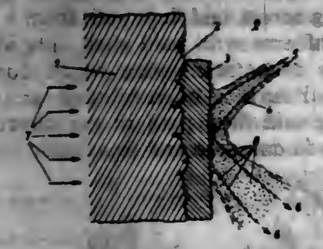
1. A foundation for one off-shore well-drilling rig comprising a metallic cylinder of length exceeding the depth of water at the location of use and of substantially uniform diameter throughout its length, one end of said cylinder being closed and formed to spherical arcuate curvature and being weighted to cause the cylinder to float in an inclined position, the other end of said cylinder being provided with a removable closure and with means for controllably introducing and expelling water, a base member consisting of a hub element having an annular seat with a concave surface mating the curved end of said cylinder and a plurality of rigid legs projected radially from said hub element and formed to engage the ocean floor at their extremities only and to support said hub element free from said floor, a conductor pipe axially disposed within said cylinder, and a plurality of tubular piling guides within said cylinder and spaced around its inner wall, said guides and conductor pipe extending through the curved end of said cylinder and sealed therein and registering with openings formed in said hub element.

2,772,540

## COOLING PROCESS AND DEVICE FOR THE PERFORMANCE OF SAME

Paul Vierhöller, Genoa-Nervi, Italy

Application January 19, 1953, Serial No. 331,860
Claims priority, application Switzerland January 23, 1952
8 Claims. (Cl. 62—1)



1. The process of cooling a metallic surface having an affinity for mercury, comprising the steps of spraying mercury obliquely onto first spaced areas of said surface to cause said mercury to rebound obliquely from said first areas of said surface, directing water toward second spaced areas of said surface located adjacent the paths of movement of said rebounding mercury, whereby said rebounding mercury deflects said water from its original path of movement and substantially screens said second areas from said water, thus effectively preventing said water from contacting said surface, collecting both said mercury and said water together, whereby heat removed from said surface by said mercury is in turn removed from the latter by said water, separating said mercury and said water from each other, and recirculating the same independently of one another for further cooling of said surface.

2,772,541

## HINGED CLOSURE MEMBER FOR LOW TEMPERATURE COOLING COMPARTMENTS

Ragnar Edvard Denfors, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden

Application February 2, 1954, Serial No. 407,720
Claims priority, application Sweden February 6, 1953
15 Claims. (Cl. 62—103)



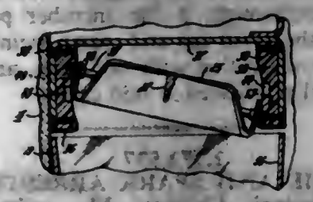
1. In a refrigerator comprising a cabinet including a thermally insulated interior providing a compartment having an access opening, cooling means for cooling said compartment below the freezing temperature of water to maintain the latter as a freezing space, a closure member in the thermally insulated interior for closing the access opening, structure including a plurality of elements in spaced apart relation for mounting said closure member for pivotal movement about a first horizontal axis passing through first regions of said elements and for mounting said elements for pivotal movement about a second fixed horizontal axis passing through second regions of said elements removed from said first regions, resilient means for effecting pivotal movement of said closure member about the first horizontal axis to bias said closure member to its closed position at the access opening, locating means for maintaining said first horizontal axis at a substantially definite position when pivotal movement of said closure member about said first axis is essentially unobstructed in the act of gaining access to said compartment, and said structure being operable to effect pivotal movement of said closure member about said second horizontal axis when a pulling effort greater than normal is required to open said closure member, especially when parts of said closure member at the vicinity of said first axis may be subject to formation of frost or ice.

2,772,542

## ICE TRAY

Richard S. Gaugler and Robert Gaiss, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 14, 1955, Serial No. 494,085
12 Claims. (Cl. 62—105)



1. In combination, an elongated support having an open end, a unitary freezing device including a distortable tray and a plurality of rigid walls therein, said rigid walls having a point of loose attachment to said tray for movement with respect thereto, said loose attachment point of said walls to the tray locking said walls therein against removal therefrom, said walls dividing the interior of said tray into compartments in which water is to be frozen into separated ice blocks, said tray of said device and walls located therein together with ice blocks in said compartments being insertable as a unit into said elongated support in an inverted position through the open end thereof, means on the tray of said unitary device for engaging portions of said support, said means cooperating with said portions of said support and rendered effective automatically in response to moving said device in one direction along said support for flexing and imparting a twist to said tray to bodily shift said walls relative thereto about their loose attaching points and break the bond between ice blocks and their compartments, and means rendered effective by continued movement of said device in said one direction along said support beyond the position of said device at which the tray thereof is twisted for quickly releasing the torsion of said tray while the device is supported in said support to flip ice blocks out of said unitary freezing device.

2,772,543

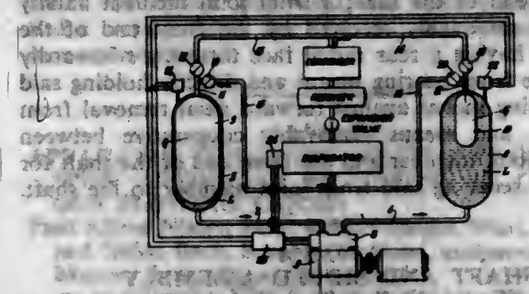
## MULTIPLE HYDRAULIC COMPRESSOR IN A REFRIGERATION SYSTEM

Frank Berry, Carlisle, Mass.

Application March 24, 1953, Serial No. 344,359
1 Claim. (Cl. 62—115)

In a refrigeration system, two reservoirs for expanded refrigerant, said reservoirs being directly connected to a condenser and evaporating system, a hydraulic pump connected to said reservoirs for pumping liquid out of one of said reservoirs through the pump and directly into the other of said reservoirs and alternately to return liquid from said other reservoir to the first reservoir, each reservoir arranged to receive expanded refrigerant from the condenser and evaporating system when said hydraulic pump is removing liquid from said reservoir and transferring said liquid into the other reservoir, and each reservoir further arranged to deliver compressed refrigerant to the condenser and evaporating system when said hydraulic





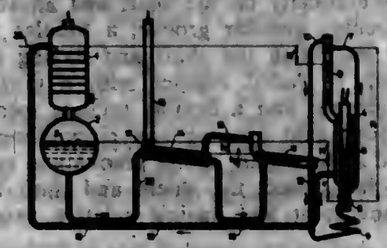
pump is forcing liquid from said other reservoir back into the first reservoir.

2,772,544

## ABSORPTION REFRIGERATING APPARATUS EMPLOYING INERT GAS

Alvar Leaning, Stockholm, Sweden, assignor to Bolinders Fabriks Aktiebolag, Kallhäll, Sweden, a corporation of Sweden

Application November 16, 1953, Serial No. 392,379
Claims priority, application Sweden November 21, 1952
2 Claims. (Cl. 62—119.5)



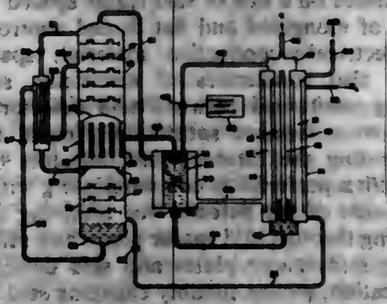
1. In absorption refrigerating apparatus operating with inert gas and comprising a boiler, a thermo-syphon for elevating absorption liquid into the boiler, an absorber, a conduit for weak solution leading from said boiler to said absorber, and an analyzer in which hot vapour from the boiler is brought into direct contact with rich solution, that improvement which consists in conveying hot vapour from said analyzer into a separate vessel in which the vapour gives off condensate in the process of being cooled by rich liquid, through the intermediary of said condensate, the cooling rich solution being then conducted to the analyzer through a conduit which is in heat exchanging relation to said conduit for the weak solution.

2,772,545

## LIQUEFIED GAS PRESSURIZING SYSTEMS

James J. Shanley, Bethesda, Md., assignor to Air Products, Incorporated, a corporation of Michigan

Application May 13, 1952, Serial No. 287,650
23 Claims. (Cl. 62—122)



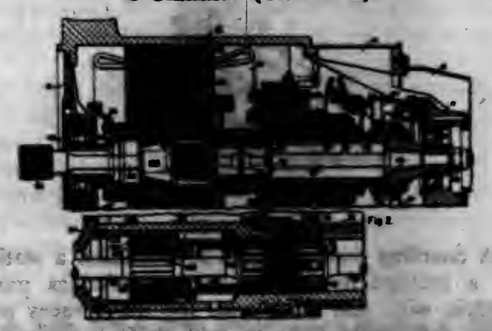
1. The method of transferring in liquid phase liquefied gas at its boiling point from a supply reservoir where it is held at a low pressure to a receiving chamber under a relatively high pressure, which comprises conducting under the influence of gravity liquefied gas from the supply reservoir to a transfer zone at a level lower than the supply reservoir, establishing a pressure in the transfer zone corresponding to the relatively high pressure, conducting liquefied gas under the influence of gravity in the transfer zone to the receiving chamber, and passing a relatively cold fluid in heat exchange relation with the transfer zone to reduce the pressure in the transfer zone to the low pressure after the liquefied gas has been conducted from the transfer zone and then placing the transfer zone in communication with the supply reservoir, the relatively cold fluid being at least as cold as the low pressure liquefied gas.

2,772,546

## FLEXIBLE DRIVE

Robert C. Barrows, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 17, 1955, Serial No. 529,009
6 Claims. (Cl. 64—1)



1. In combination, a hollow driven shaft, a first torsionally resilient spindle extending from one end of said shaft partially through said shaft, a second torsionally resilient spindle extending from the end of said first spindle to the other end of said shaft, means for rigidly connecting one end of said first spindle to one end of said shaft, means for effecting a driving connection between adjacent ends of said first and second spindles comprising, spline teeth on adjacent ends of said first and second spindles, a tubular member having internal splines axially positioned so as to bridge the adjacent ends of said first and second spindles and engage the spline teeth on both of said ends, the engaging teeth having relatively large angular clearance therebetween, and means for effecting a driving connection at the other end of said second spindle.

2,772,547

## UNIVERSAL JOINT AND BUSHING REPLACEMENT ASSEMBLY FOR A DRIVE SHAFT ASSEMBLY

Patrick R. Nolan, Oklahoma City, Okla., assignor of one-half to M. W. Cooper, Oklahoma City, Okla.

Application June 29, 1955, Serial No. 518,800
5 Claims. (Cl. 64—1)



1. In a motor vehicle of the type having a drive assembly including a torque tube and a drive shaft, having a splined forward end with the drive shaft positioned in the torque tube, a universal joint and bushing replacement assembly comprising a bushing sleeve, an oil seal mounted in the inner end of said sleeve and adapted to directly encompass a drive shaft inwardly of the splined end, a bushing mounted in the outer end of said sleeve, a second bushing mounted in said sleeve intermediate

the ends thereof, and a tubular universal joint member supported in said bushings, said member having a length greater than the extent of the splines on said drive shaft and having a bore internally splined from the forward end thereof a distance less than the extent of the splines on said drive shaft with the unsplined rear portion of said bore having a diameter to permit said unsplined bore to engage over the drive shaft beyond the splined end thereof whereby said member may be longitudinally adjusted in use a substantial distance while maintaining contact with both of said bushings.

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2,772,548
COUPLING
Robert A. Covington, Jr. and Vincent H. Waldin, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 7, 1955, Serial No. 499,775
2 Claims. (Cl. 64—2)



1. A coupling comprising in combination a stationary shaft, a multiplicity of anti-friction bearings mounted concentric with said shaft with the inner races of said bearings sufficiently tight to said shaft to remain substantially immovable with respect to said shaft under load applied to the coupling, spacer elements disposed between adjacent bearings, and individual sleeves fixedly attached to the outside peripheries of the outer races of said bearings, said sleeves being provided with cooperating power-transmitting means along adjacent faces.

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2,772,549
SAFETY-SHIELDED POWER-TRANSMITTING ASSEMBLY
Roy E. Harrington, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application January 20, 1955, Serial No. 483,125
10 Claims. (Cl. 64—4)



1. A safety-shielded power-transmitting assembly of the character described, comprising: a shaft of fixed length having front and rear ends; a rear joint member fixed to said rear end and having a front radial face; axially forwardly removable rear bearing means encircling and supported on the shaft ahead of and thrusting rearwardly against said front radial face; an axially forwardly removable safety tube loosely and concentrically surrounding the shaft and having front and rear ends respectively proximate to the front and rear ends of the shaft; rear race means on the rear end of the tube and including a rear thrust ring thrusting rearwardly against the rear bearing means and an adjacent rear radial-load ring received by said rear bearing means to journal the rear end of the tube; front race means on the front end of the tube and including a forwardly facing front thrust ring and an adjacent front radial load-ring loosely encircling the front end of the shaft; front bearing means encircling and supported on the front end of the shaft for free axially slidable removal from the shaft in a forward direction and normally thrusting rearwardly against the front thrust ring and received by the front radial-load ring to journal the front end of the tube; a front joint member axially forwardly removably received by the front end of the shaft and having a rear radial face thrusting rearwardly against the front bearing means and directly holding said front bearing means against forward axial removal from the shaft; and means removably cooperative between the front joint member and the front end of the shaft for releasably securing said front joint member to the shaft.

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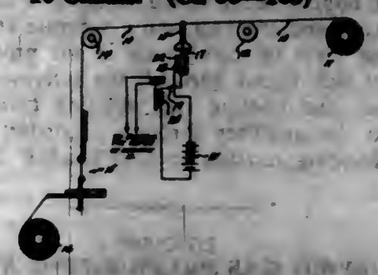
2,772,550
SHAFT AND SHIELD ASSEMBLY
Roy E. Harrington, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application September 2, 1955, Serial No. 532,150
7 Claims. (Cl. 64—4)



1. A power shaft assembly, comprising: a shaft; means concentrically on the shaft and affording an externally opening annular groove; a tubular shield concentrically encircling the shaft and having an opening therethrough in radial register with a portion of the aforesaid groove; and a flexible arcuate member introduced through said opening and circumferentially into and around at least part of the groove and engaging the shield to interconnect the shield and shaft for relative angular movement and against relative axial displacement.

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2,772,551
STOP MOTION FOR FABRIC MAKING MACHINES
Sidney V. Hess, Jr., West Orange, N. J., assignor to Bonnell Mills, Incorporated, New York, N. Y., a corporation of New York
Application July 24, 1953, Serial No. 370,162
10 Claims. (Cl. 66—163)

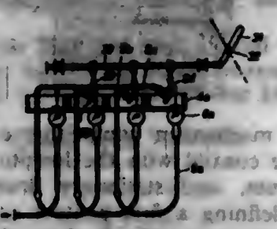


1. A device for automatically stopping warp knitting and similar machines for making mesh fabrics in case of rupture of one or more threads, comprising, a frame, a busbar mounted on a side of said frame spaced therefrom, a plurality of elongated and flat thread controlled detectors of electrically-conductive material, spacer plates which are also conductors of electricity, said spacer plates being positioned between said detectors to space said detectors a distance substantially equal to the distance separating the threads, said detectors each being provided with a perforation communicating with an opening on the side of the detector for receiving a thread, a bar extending through said spacer plates and said detectors for holding said spacer plates and said detectors in assembled relation, means slidably engaging said frame and said busbar for lifting said detectors so that the aforesaid thread receiving openings are positioned just below the tops of said spacer plates during the threading up of said detectors, and connections for connecting said busbar to one side of an electric circuit and connections for connecting said frame to the other side of said circuit, said detectors being adapted to close the electric circuit between said busbar and said frame when a thread breaks and a corresponding one of said detectors drops to contact said busbar.



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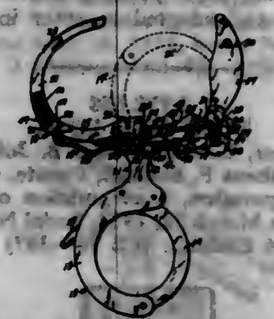
2,772,552
APPARATUS FOR AFTERTREATMENT OF FRESH-SPUN ARTIFICIAL FILAMENTS IN CONTINUOUS FLOWING LIQUID
Paul Alfred Nikles, Bern, Robert Steiger, Muri, near Bern, and Guido Bach, Bern, Switzerland, assignors to Ing. A. Maurer S. A., Bern, Switzerland
Application May 4, 1950, Serial No. 159,892
Claims priority, application Switzerland May 5, 1949
3 Claims. (Cl. 68—181)



1. An apparatus for the continuous wet treatment of fresh spun artificial filament by passing it through a conduit in contact with an aftertreatment liquid comprising a tubular conduit for the treatment of the filament in a continuously flowing stream of the aftertreatment liquid, means for directing the filament into and out of said conduit, means for conveying the filament through said conduit by the action of said liquid comprising a pressure means for forcing said liquid through said conduit in the direction of flow of said filament, and means for facilitating the treatment of said filament and guiding it along the central portion of the conduit and within the liquid therein comprising a section of restricted cross sectional area and a means on said conduit for repeatedly opening the fiber bundle, constituting said filament, comprising sections of enlarged cross sectional area intermediate the ends of the conduit.

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2,772,553
HANDCUFFS
Alfred J. Howe, Oakland, Calif.
Application May 10, 1954, Serial No. 428,689
4 Claims. (Cl. 70—16)



1. A retractile handcuff comprising a lockarm, a guard, a retractile link retractable within said guard and having one end pivoted therein, and a locking link having one end pivoted to the other end of said retractile link, said retractile link having a depending finger extension from said one end, a latch member slidable to two positions and a spring urged plunger cooperative therewith for sliding said latch member to one position for engagement of one end under said depending finger extension for locking said retractile link in retracted position, and a trigger pivoted in said guard and having a cam edge cooperative with the other end of said latch member for retracting said latch member to the other position against the urgence of said spring-urged plunger when said trigger is depressed for releasing said retractile link, and a spring cooperative between said guard and said retractile link for projecting said retractile link outwardly about its pivot to engage said locking link in said lock arm when said latch member is retracted through depression of said trigger, and resiliently actuated retaining means cooperative between said retractile link and said locking link for normally retaining said locking link in open position for direct cooperation with said lockarm.

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2,772,554
LOCKING MEANS FOR A DOOR CONSTRUCTION
Louis L. Schacht, New York, N. Y., assignor to Schacht Associates, Inc., New York, N. Y., a corporation of New York
Application July 22, 1952, Serial No. 300,217
4 Claims. (Cl. 70—120)



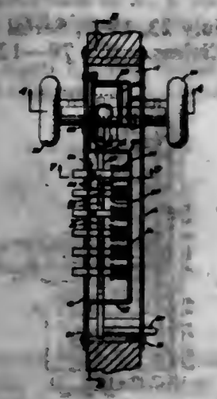
1. A lock for a door construction having a vertically extending hollow stile and a horizontally disposed hollow frame member intermediate the ends theerof, comprising actuating means disposed in said frame member and having a lever mounted for pivotal movement about a horizontal pivot axis disposed in said frame member and laterally spaced from said stile, said lever having an end part extending to said stile, an axially reciprocable member disposed in said hollow stile and operatively connected to said lever end part, and locking elements operatively connected to end portions of said reciprocable member and adapted for simultaneous extension and retraction in response to the axial reciprocation of said reciprocable member, the extended position of said locking elements constituting the locked position thereof and the retracted position of said locking elements constituting the unlocked position thereof, the actuation of said actuating means being effective to pivot said lever about said axis to correspondingly actuate said reciprocable member and said locking elements, and locking means disposed in said frame member at the opposite side of said pivot axis to said stile and operatively associated with said actuating means for controlling the actuation thereof.

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2,772,555
KEYLESS COMBINATION PUSH BUTTON DOOR LOCK
Hurley H. Smith, Elkhart, Ind.
Application August 7, 1953, Serial No. 373,006
2 Claims. (Cl. 70—153)

1. A combination lock comprising a face plate adapted to be secured vertically to a door adjacent one edge of the door, a horizontally extending bolt housing secured to said plate, a bolt slidably mounted in said housing and being arranged to at times project outwardly from said edge, spring means biasing said bolt outwardly, an operating shaft extending transversely into said housing, said bolt being formed with a recess receiving said shaft, a first projection on said shaft engageable with a wall of said recess to retract the bolt responsive to rotation of said shaft, a second projection on said shaft normally depending therefrom, a bracket member secured to said

plate, a vertical locking bar slidably engaged with said bracket member for vertical sliding movement, means on said bar lockingly engageable with said second projection to lock said shaft against rotation when the bar is elevated, a plurality of vertically spaced, upwardly tapered locking lugs on said bar, respective horizontal plunger elements slidably mounted in said plate and said bracket member and being disposed between adjacent locking lugs, said plunger elements being disposed at opposite sides of the locking bar out of the path of said bar, spring means biasing said plunger elements outwardly through said plate to predetermined normal positions, a pin element on each plunger element projecting laterally from the plunger element in the direction of said locking bar, a second pin element on each plunger



element projecting laterally from the plunger element in a direction away from the locking bar, the pin elements of each plunger element being spaced longitudinally of their associated plunger element, and some of the first named pin elements being normally disposed between adjacent locking lugs of the locking bar, the remaining ones of the first named pin elements being located normally forwardly of the locking bar and being movable between adjacent locking lugs when their associated plunger elements are pushed inwardly, said plunger elements being removable from the plate and bracket member and being rotatable through 180° before being returned to position, to dispose the second named pin elements in positions in which they project in the direction of the locking bar, when said combination is to be changed.

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**2,772,556**
**BARREL LOCK**
**Bernhard Nickel, Marburg (Lahn), and Ernst Rilld, Ruttershausen, Germany**
**Application February 16, 1952, Serial No. 272,002**
**Claims priority, application Germany February 17, 1951**
**4 Claims. (Cl. 70—358)**



1. A barrel lock comprising two cylinders concentrically mounted for relative rotation one within the other and having two part locking pins arranged radially in pairs in bores in the cylinders and in at least one radially arranged row, and a key comprising a sleeve having a rod axially movable therein and a plurality of control pins radially movable through bores in the sleeve with a control pin for each of the pairs of locking pins, said rod having cam surfaces spaced intermittently by normal surfaces so that when the control pins are in contact with the cam surfaces the key may be removed out of the inner cylinder with the cylinders in locked position and when the normal surfaces are in contact with the control pins the latter actuate the locking pins whereby the latter are adjusted in the bores in the cylinders so that the locking pins will unlock the cylinders and rotation of the key will permit rotation of the inner cylinder.

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**2,772,557**
**CYLINDER LOCK MECHANISM**
**Adolfo Fernandez Andrito, Rafaela, Argentina**
**Application June 6, 1955, Serial No. 513,531**
**4 Claims. (Cl. 70—363)**



1. A lock mechanism comprising a stationary drum having a bore coaxial with the longitudinal axis of said stationary drum, said stationary drum further having a first base defining a first contact surface having first revolutionary irregularities, a first plurality of spaced apart, substantially radially alined perforations in said first drum and open to said first contact surface, a plurality of springs of which one spring is housed in each of the perforations of said first plurality of perforations, a plurality of pins of which one pin is mounted on each of said springs, said pins being adapted to project out of said perforations, a rotatable drum having a second base defining a second contact surface having second revolutionary irregularities complementary to said first revolutionary irregularities and in rotary sliding contact therewith, a shaft integral with said rotatable drum and projecting through said bore and rotatably supported thereby, a second plurality of spaced apart, substantially radially alined perforations open to said second contact surface and adapted to face said first plurality of perforations, said rotatable drum further having a third base defining a front face, a key slot in said front face, a key way in said movable drum connecting said key slot with said second plurality of perforations, said plurality of pins being capable of entering said second plurality of perforations and facing said key way, and a key for said lock mechanism having a front end portion of complementary shape to the corresponding portion of said first contact surface and adapted to enter in contact therewith.

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**2,772,558**
**PUSH KEY LOCK**
**Edgar J. Gardner, Glendale, Paul B. Johnson, Los Angeles, and Alphous F. Stansell, Pasade, Calif., assignors to Clary Corporation, a corporation of California**
**Application March 31, 1953, Serial No. 345,914**
**6 Claims. (Cl. 70—387)**



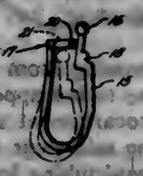
1. A key controlled device comprising the combination of means forming a keyway for guiding a key for longitudinal movement, a movable actuator element, a stationary element, said elements having a plurality of slots therein, said slots extending transversely to the direction of movement of said actuator element, a spring extending between said elements for normally maintaining said actuator element in position to align the slots



therein with the slots of said stationary element, a plurality of tumblers slidable in said slots, said spring yieldably engaging said tumblers whereby to normally maintain said tumblers conjointly in the slots of both said elements to prevent movement of said actuator element, said tumblers having holes extending therethrough, said key being engageable with the edges of said holes in said tumblers upon insertion a predetermined amount whereby to move said tumblers out of the slots in said stationary element, and means operable by said key upon further movement thereof for moving said actuator element.

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**2,772,559**
**KEY HANGER FOR KEY CASES**
**Clyde E. Morrell, Southbridge, Mass., assignor to Buxton, Incorporated, Springfield, Mass., a corporation of Massachusetts**
**Original application May 17, 1951, Serial No. 226,870, now Patent No. 2,657,568, dated November 3, 1953. Divided and this application September 14, 1953, Serial No. 379,863**
**1 Claim. (Cl. 70—458)**



A key hanger formed of organic synthetic plastic unitarily molded in the form of a loop, one end of said loop being provided with an enlarged head and a shoulder spaced therefrom of greater transverse dimension than the head, the other end of the loop being provided with a projection extending substantially at right angles thereto in the direction of the other end portion of the loop and formed with an aperture dimensioned to permit passage of said head therethrough but not said shoulder, the portion of said loop intermediate said projection and shoulder possessing sufficient resilience and flexibility to permit distortion of the loop away from the projection a distance at least equal to the distance between the shoulder and free end of the head to permit the latter to be inserted through and withdrawn from said aperture.

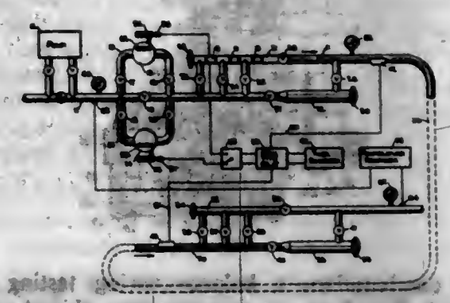
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**2,772,560**
**PICK-UP DEVICE FOR PRE-CAST CONCRETE SLABS**
**Herman P. Neptune, Los Angeles, Calif.**
**Application June 28, 1952, Serial No. 296,208**
**3 Claims. (Cl. 72—105)**



1. In a concrete slab having a plurality of reinforcing rods therein, said rods having a space therebetween, an anchoring device comprising a nut having spaced first and second faces, an axially threaded bore in the nut passing through said faces, the first face of said nut bearing against a plurality of said rods with the threaded bore being accessible through the space therebetween, said second face having a plurality of elongated wire retaining elements secured thereto, said retaining elements having means at the ends thereof engaging said rods at points thereon spaced from said nut and clampingly securing said first face against said rods.

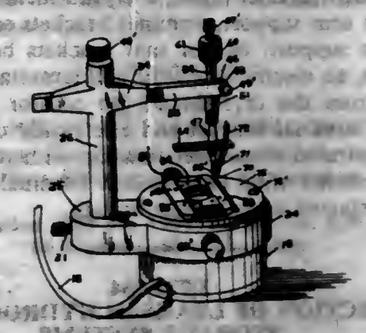
**2,772,561**
**APPARATUS FOR CALIBRATING FLOWMETERS**
**Norris Plastic, East Chicago, Ind., and Sydney S. Smith, Scarsdale, N. Y., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware**
**Application August 18, 1953, Serial No. 374,945**
**5 Claims. (Cl. 73—3)**



1. Apparatus for calibrating an indicating flowmeter in a pipeline comprising plug means insertable in said pipeline to form a movable seal within said pipeline, said plug means being adapted to be propelled through said pipeline by the flowing fluid at the velocity thereof, first and second signal means mounted in longitudinally spaced relationship at predetermined points in said pipeline, said signal means being adapted to be actuated by the arrival of said plug means thereat, and electrical circuit means connecting said first and second signal means with said flowmeter, whereby said indicating flowmeter is energized by the arrival of said plug means at said first signal means and de-energized by the arrival of said plug means at said second signal means.

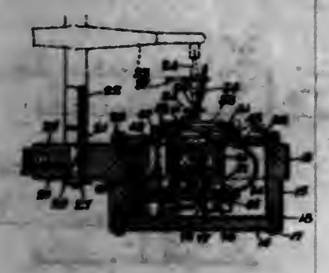
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**2,772,562**
**WATCH BALANCE SPRING TESTING DEVICE**
**George T. Kuwada, New York, N. Y.**
**Application October 15, 1953, Serial No. 386,192**
**8 Claims. (Cl. 73—6)**



1. A watch balance spring testing device comprising a sound box structure having a transmitter therein, a post extending up from the side of the sound box, a horizontally extending arm slidably connected to the upper end of said post, a center pin assembly vertically and rotatably adjustable in the free end of the slidable arm, said center pin assembly including a tubular shaft, a center pin threaded in such shaft for adjustment therethrough and having a bearing adapted to receive the end of a balance wheel shaft, an adjustable arm on the lower end of the center pin assembly, said arm having depending finger jaws adapted to grip the free end of a watch balance spring, adjustable opposing jaw members mounted on the top of the sound box structure adapted to receive and retain a watch works, adjustable screws on the sides of the box for adjusting said jaw members toward and away from each other, and a cable extending from the transmitter and adapted to be connected to a device for recording the watch beats.

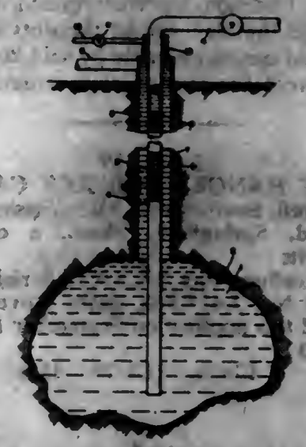
2,772,563
**WATCH BALANCE SPRING TESTING DEVICE AND CRYSTAL MICROPHONE THEREFOR**
George T. Kuwada, New York, N. Y.
Application March 12, 1954, Serial No. 415,780
5 Claims. (Cl. 73—6)



1. In combination, a balance spring testing device having a hollow base, a top supporting plate having an elongated sound box connected to the underside thereof below an elongated opening in said top plate and extending into the hollow base, slide jaw assemblies depending through the elongated opening and into the sound box, adjusting screws for adjusting the assemblies toward and away from one another, said assemblies being adapted to retain and support a watch works, guideway members on the opposite sides of the slide assemblies serving to guide the movement of the slide jaw assemblies, means extending above the base and overlying the jaw assemblies for supporting one end of a balance spring of a watch while the watch is retained between the jaw assemblies, a crystal microphone arrangement comprising a bracket secured to the underside of the elongated sound box and within the hollow base, a pivot arm support journalled upon the bracket, a spring connected between the pivot arm support and the top plate for urging upwardly one end of the pivot arm support, finger means extending upwardly from said pivot arm support through openings in the top plate and the guide way member and adapted to be located in the space between the slide jaw assemblies and to engage with a watch retained there, a crystal member carried by said pivot arm support, terminal brackets secured to said pivot arm support, one of said brackets being insulated therefrom, an electrical resistor and terminal elements extending from the crystal and the resistor to the corresponding terminal bracket and electrically connecting the same in parallel circuit relationship with one another, a wire connected with one of said terminal brackets for directing electric current therethrough.

2,772,564
**DETECTION OF LEAKS IN HYDROCARBON STORAGE SYSTEMS**
Patrick F. Dougherty, Chester Heights, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application March 19, 1954, Serial No. 417,433
3 Claims. (Cl. 73—40.5)

1. In the method of storing a hydrocarbon in a subsurface salt cavity having fluid communication with the ground surface through a tubing positioned within the borehole and through the borehole annulus, said borehole annulus providing fluid communication between the ground surface and the upper portion of said cavity and said tubing providing fluid communication between the ground surface and the lower portion of said cavity, in which method the hydrocarbon to be stored is introduced into said cavity through said annulus to thereby displace brine from the system through said tubing, and in which method the stored hydrocarbon is recovered by introducing brine into said cavity through said tubing to thereby displace stored hydrocarbon from the system through said annulus, the method of detecting and locating leaks in said tubing which comprises the steps of: (1) filling said cavity, said annulus and said tubing with brine, (2) introducing a quantity of hydrocarbon into said tubing sufficient to displace a portion of the brine therefrom and from the system through said annulus, (3) discontinuing the introduction of hydrocarbon for a time sufficient to allow hydrocarbon passing from a leak in said tubing to said annulus to rise to the upper end of said annulus, (4) testing for hydrocarbon at the upper end of said annulus, (5) repeating said steps (2), (3) and (4) until at least a portion of said tubing has been tested, whereby the existence and location of a leak in said tubing is determined.



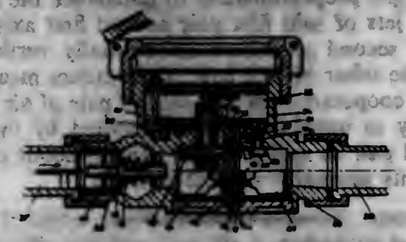
2,772,565
**SMALL BORE ADAPTER FOR SURFACE ROUGHNESS INDICATOR**
Arling Dix Brown, Jr., East Cleveland, Ignacio P. Echegaray and Milton Gross, Cleveland, and Leo F. Valenti, Garfield Heights, Ohio, assignors to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application May 13, 1954, Serial No. 429,644
11 Claims. (Cl. 73—105)



1. An adapter for attachment onto the pickup head of a surface roughness measuring instrument, said adapter comprising a housing having a mounting portion for attachment onto the stylus end of the pickup head of the surface roughness indicator, said housing including elongated tube means of small cross-section extending forward from said mounting portion, a lever of solid cross-section extending lengthwise through said tube means and tapering in either direction away from its pivotal mounting, said lever forward of its pivotal mounting being completely disposed within said tube means, and said tube means being of reduced size at its forward end, a thin stiff wire extending transversely through the lever and fixedly connected thereto midway along the lever, said wire at its opposite ends being snugly received in precisely complementary holes in opposite sides of the tube means which permit the wire to turn therein integral with the lever and thereby provide bearings for pivotal movement of the lever in said tube means, said lever at its forward end carrying a stylus projecting beyond said tube means for engagement with the test surface, and said lever at its opposite end presenting a surface for engagement with the stylus of the pickup head to actuate the pickup head stylus in response to displacement of the lever stylus.

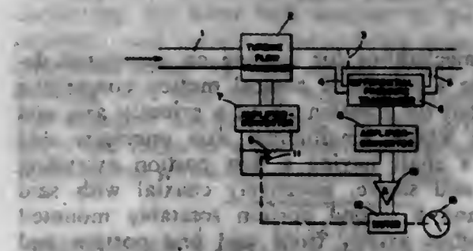


2,772,566
**DEVICE FOR OBTAINING LIQUID TIGHTNESS OF AN ENCLOSED SPACE**
André Farnier, Boulogne-sur-Seine, France
Application April 20, 1951, Serial No. 221,958
Claims priority, application France April 28, 1950
12 Claims. (Cl. 73—229)



4. A liquid meter comprising, in combination, a first container adapted to be filled with oil and including an elongated tubular portion communicating at opposite ends with the interior and exterior of said container, respectively; a counting mechanism located in said first container and including an elongated shaft passing through said tubular portion and being only slightly smaller than the same, said shaft, at that portion thereof which is located in said tubular portion, being spaced at all points from said tubular portion by a distance which is sufficiently small so that the surface tension of the oil at said tubular portion is great enough to prevent the oil from flowing out of said first container through the space about said shaft; a second container located next to said first container and being adapted to have a liquid passing therethrough; a turbine wheel turnably mounted in said second container to be turned by liquid passing therethrough and being operatively connected to said shaft to turn the same; and elongated conduit means passing through a wall portion of said first container and respectively communicating at opposite ends with the interior of said first container and the interior of said second container, said elongated conduit means having, along a substantial portion thereof, a cross section sufficiently small so that the surface tension of the oil at said portion of said conduit means is great enough to prevent oil in said first container from flowing out of the latter through said conduit means, said cross section having its largest dimension greater than said distance between said tubular portion and said shaft.

2,772,567
**MASS FLOWMETER**
Robert H. Boden, Tarzana, and John R. Witherspoon, Canoga Park, Calif., assignors to North American Aviation, Inc.
Application August 21, 1953, Serial No. 375,759
3 Claims. (Cl. 73—231)



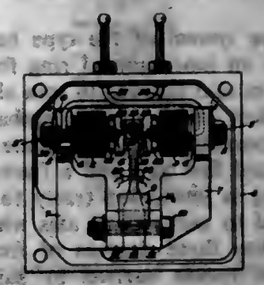
1. Means for measuring the mass flow rate of a fluid in a conduit comprising a venturi section restricting the cross-sectional area of said conduit, a volumetric flowmeter located in said venturi, a differential pressure transducer for measuring the pressure drop across said venturi, and means for dividing the output of said transducer by the output of said meter to yield mass flow rate in said conduit.

2,772,568
**LIQUID FUEL GAUGE FOR AIRCRAFT**
Joseph Sansevino, Hawthorne, Calif.
Application June 7, 1954, Serial No. 434,733
10 Claims. (Cl. 73—322)



1. A gauge for indicating the level of liquid within a tank, comprising: a housing disposed at a side of the tank and having an inlet in fluid communication with the interior thereof; an elongate tube slidable vertically within the housing and projecting thereabove, there being an annular seal between the tube and housing at the upper portion of the latter, there being an annular space between the lower portion of the tube and the lower portion of the housing; valve means for selectively admitting fuel from said inlet into said tube and shutting off said flow, said valve means including a resilient sealing ring disposed within said housing, coaxially beneath the tube and below the level of said inlet, and an inturned annular flange at the lower end of said tube engageable with said sealing ring in response to downward movement of the tube so as to seal said annular space; a bearing at the upper end of said tube; a float slidable in said tube; a graduated rod carried by the float and slidable in said bearing; an annular member fixedly mounted above said tube and through which said rod is upwardly projectible; a door hinged to said annular member; and means on said door operable, when the door is closed down against said annular member, to engage the upper end of said rod and depress the rod so as to retain the float in a position adjacent the lower end of the tube.

2,772,569
**FLUID PRESSURE MEASURING DEVICE**
Arthur C. Rage, Cambridge, Mass., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application July 30, 1951, Serial No. 239,216
16 Claims. (Cl. 73—398)

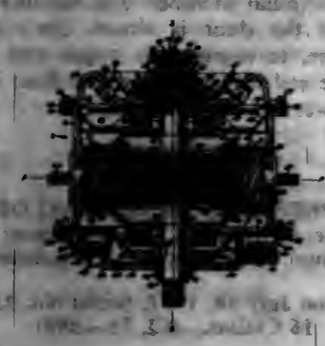


3. Fluid pressure responsive apparatus comprising, in combination, a base, a fluid pressure expansible element having a fixed end supported by said base and the other end free to expand in a given direction in response to an applied fluid pressure, a bending beam having a lengthwise axis which is substantially normal to said direction of expansion of the expansible element and having a surface which undergoes strain as a result of flexing about an axis transverse to said lengthwise axis, one end of said beam being fixed to said base and the other end being free to move so as to flex the beam about the axis transverse to the lengthwise axis, means connecting said free

end of said beam to said free end of the expansible element so as to flex said beam in accordance with expansion of said expansible element, said connecting means including a flexible beam-actuating member extending substantially normal to said beam lengthwise axis whereby the flexible member and beam both flex upon application of pressure to said expansible element, said beam-actuating member having a flexibility substantially larger than that of the expansible element and such that the bellows is substantially relieved of stress transverse to its direction of expansion due to deviation of the free end of the beam from a straight line path during flexing of the beam in response to applied fluid pressure, and strain responsive means secured to the surface of said beam so as to be responsive to the surface strain thereof for determining the extent of flexing thereof as a measure of the fluid pressure applied to the expansible element, said connecting means also including a member engaging said beam and adjustable lengthwise of said beam lengthwise axis and to which the flexible member is connected whereby the moment arm of the beam and expansible element may be varied to adjust the sensitivity of the device, said expansible element being suported by said base through a member having provision for adjusting the position of the expansible element in a direction substantially parallel to said beam lengthwise axis whereby the sensitivity of the device can be further adjusted but to a finer degree than is possible with said other adjustment for a corresponding movement parallel to the beam axis.

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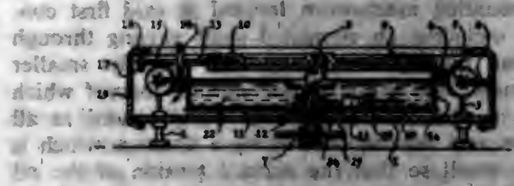
2,772,570
**GYROSCOPE**
Albert L. Jackson, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, Portland, Oreg.
Application December 7, 1953, Serial No. 396,433
6 Claims. (Cl. 74—5.43)



1. A gyroscope system of the type having a housing adapted to form an inner gimbal ring for the system, a rotor journalled in said housing to spin about a normally gravity vertical first axis, an outer gimbal ring in which said housing is journalled freely to rotate about a second axis normal to said first axis and a frame in which said outer gimbal ring is journalled freely to rotate about a third axis normal to said second axis whereby the rotor of said system has three degrees of freedom, together with air erection means carried by said housing and adapted continuously to precess said first axis towards its normal gravity vertical position when displaced therefrom, said air erection means comprising means adapted to maintain a supply of air under pressure in said housing, a first pair of air jets, a second pair of air jets, each of said jets being adapted to emit air at the same rate when all of said jets are unrestricted, the jets of said first pair being located diametrically opposite with respect to said first axis with their axis set at equal angles of between twenty and seventy degrees to said first axis in a plane including said first axis and said second axis, the jets of said second pair being located diametrically opposite with respect to said first axis with their axes set at equal angles of between twenty and seventy degrees to said first axis in a plane including said first axis and said third axis, and a pair of pendulum means each independently freely rotatable about said first axis, one of said pair of pendulum means being adapted to cooperate with said first pair of air jets proportionately to unbalance the air emitted by the jets of said first pair as said first axis departs about said second axis from its normally vertical position, and the other of said pair of pendulum means being adapted to cooperate with said second pair of air jets proportionately to unbalance the air emitted by the jets of said second pair as said first axis departs about said third axis from its normally vertical position.

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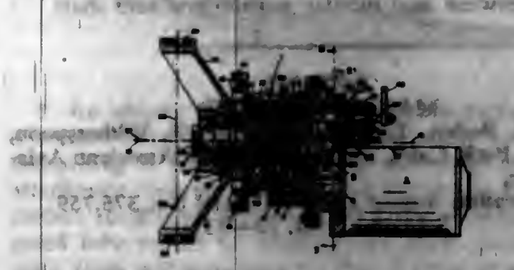
2,772,571
**DEVICE FOR TRANSMITTING ROTARY MOTION**
August C. Rigas, Austin, Minn.
Application January 4, 1956, Serial No. 479,751
5 Claims. (Cl. 74—63)



1. A device for transmitting rotary motion comprising a driven vertical shaft having a crank, a wheel rotatable on the crank of said shaft, and an endless track concentric with said shaft comprising a series of vanes projecting radially from gear-connected shafts arranged in an endless shaft-and-gear train, with the successive vanes in progressive relative rotatable position to provide a sectionalized helix; said endless sectionalized helix track being actuated by the eccentric travel of said crank carried wheel.

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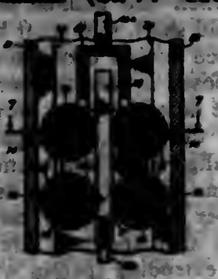
2,772,572
**OSCILLATORY DRIVE MECHANISM**
Albert E. Siler, Compton, and Charles T. Wilcox, Jr., Los Angeles, Calif., assignors to North American Aviation, Inc.
Application September 28, 1953, Serial No. 382,602
10 Claims. (Cl. 74—86)



1. A drive mechanism for causing an associated device to describe a selectable conical motion comprising a sleeve mounted for rotation about a primary axis and having a bore whose longitudinal axis intersects said primary axis, a shaft having a first portion extending outwardly of said sleeve, selectively coaxial with said primary axis and a second portion rotatably mounted in said bore offset axially from said first portion and disposed at the same angle to said first portion as said longitudinal axis makes with said primary axis, releasable locking means for preventing relative rotation of said sleeve and said shaft, and driving means for imparting rotation to said sleeve whereby when said sleeve and said first portion are coaxial said first portion is maintained in a neutral position, and when said sleeve and said first portion are noncoaxial a conical motion is imparted to said first portion.



2,772,573
**STROKE MULTIPLIER**
John V. Thomas, Pasadena, Calif.
Application September 5, 1952, Serial No. 307,975
4 Claims. (Cl. 74—110)



1. In a stroke multiplier for a power operated valve assembly, the combination of: a stationary body having parallel axially extending surfaces, a movable cage within the body having a pair of laterally spaced rubber rollers, each of the rollers engaging one of said surfaces, a driven member extending into the body between said rollers and in engagement therewith, means for adjusting the lateral spacing of said surfaces to vary the squeezing pressure on said rollers, whereby movement of the cage acts to cause the rollers to effect greater movement of the driven member in the same direction.

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2,772,574
**STROKE CHANGING MECHANISM**
John V. Thomas, Pasadena, Calif.
Application December 22, 1952, Serial No. 327,265
1 Claim. (Cl. 74—110)

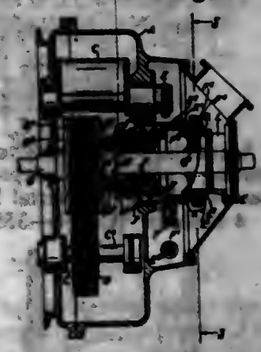


In a stroke changing device for connecting axially aligned reciprocable driving and driven elements, the combination of: a stationary body having a pair of axially extending stationary parallel gear racks fixed relative thereto, a movable carrier member within the body including a pair of laterally spaced plates, means joining the plates for operation as a unit, two axially spaced pairs of gears rotatably mounted on the carrier member between said plates and meshing with said racks, one of said elements having an end portion extending between said plates, pivot means connecting said end portion to said plates, an axially movable member extending between the plates and provided with parallel gear racks meshing with each of said pairs of gears, releasable means connecting the latter said member to the other of said elements, said carrier member being maintained in axial alignment solely by said axially spaced pairs of gears meshing with said racks, whereby movement of one of the members by the driving element acts to cause the gears and racks to move the other element in the same direction but with a different stroke length.

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2,772,575
**INFINITELY VARIABLE RATIO TRANSMISSION MECHANISM**
Ronald Albert Gilbert, North Wembley, England, assignor to D. Napier & Son Limited, London, England, a British company
Application April 18, 1955, Serial No. 502,124
Claims priority, application Great Britain April 26, 1954
2 Claims. (Cl. 74—199)

1. An infinitely variable ratio transmission mechanism including in combination a main shaft, a series of transmission discs mounted to slide but not rotate on the main shaft, at least one lay shaft parallel to but displaced laterally from the main shaft, a series of transmission discs on the lay shaft and extending into the space between the discs on the main shaft, the surfaces of the discs on one of the said shafts being of generally frusto-conical form, and engaged by rim portions of the discs on the other of the said shafts, an abutment, resilient means tending to force the transmission discs on the main shaft toward one another, said resilient means comprising a helical spring assembly arranged coaxially with the discs on the main shaft and acting at one end upon such discs and at the other end upon said abutment, said abutment being arranged coaxially



with the spring assembly, control mechanism for moving the main and lay shafts toward and away from one another to vary the effective transmission ratio of the transmission mechanism according to a predetermined law entirely independent of variations in the torque being transmitted, a control ring interconnected with the transmission mechanism and arranged coaxially with and capable of rocking about the axis of the spring assembly, cam means between the control ring and the adjacent spring abutment whereby such rocking movement of the control ring causes axial movement of the spring abutment to control the force exerted by the resilient means on the discs, as such discs move toward and away from one another.

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2,772,576
**TWO SPEED TRANSMISSION GEAR MECHANISM**
Howard S. Ross, Twin Falls, Idaho
Application January 17, 1955, Serial No. 482,057
13 Claims. (Cl. 74—337)



1. In a gear mechanism of the character described, the combination of: rotary input means; high-speed gearing operatively connected with said input means; low-speed gearing operatively connected with said input means; a first clutch means for operatively connecting said high-speed gearing with said output means, said first clutch means having freedom for a limited range of rotary movement relative to said output means, said clutch means having release positions at the opposite limits respectively of said range to free the output means from said high-speed gearing, said first clutch means having an intermediate position for operatively connecting the high-speed gearing with the output means; and yielding means

to resist movement of said first clutch means from its intermediate position to either of said limit positions thereby to prevent release of the output means from the high-speed gearing when the torque resistance of the output means is below a predetermined magnitude; and a second clutch means for operatively connecting said low-speed gearing with said output means, said second clutch means being an overriding clutch to permit said output means to race ahead of the low-speed gearing when the first clutch is effective.

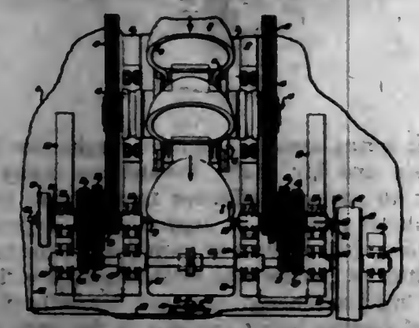
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**ERRATUM**

For Class 74—337.5 see:
Patent No. 2,772,652

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**2,772,577**
**DREDGE DRIVE**
**Bayard Sharp, Alameda, Calif., assignor to Yuba Manufacturing Company, a corporation**
**Application April 2, 1954, Serial No. 420,697**
**4 Claims. (Cl. 74—399)**



1. A dredge drive comprising an upper tumbler shaft, a pair of bull gears fastened one at each end of said upper tumbler shaft, a pair of pinion shafts, bull pinions fast on said pinion shafts and meshing with said bull gears, a pair of clutch webs fast on each of said pinion shafts, drive gears of large diameter journalled with respect to each of said pinion shafts, drive gears of small diameter journalled with respect to each of said pinion shafts, a relatively long drive shaft subject to substantial twist under load disposed parallel to said pinion shafts, drive pinions fast on said drive shaft near the ends thereof and respectively meshing with said large drive gears and said small drive gears, pneumatic clutches engaging each of said clutch webs and for engaging said large drive gears and said small drive gears, and pneumatic connections for simultaneously engaging said clutches for said large drive gears or for simultaneously engaging said clutches for said small drive gears.

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**2,772,578**
**POWER TRANSMISSION WITH DECLUTCHING PROVISION FOR MANUAL OPERATION**
**Nelson G. Kling, Roslyn, N. Y., assignor to Comitech, Ltd., New York, N. Y., a corporation of New York**
**Application June 15, 1953, Serial No. 361,644**
**13 Claims. (Cl. 74—625)**



1. In power transmission apparatus having driven means, a drive shaft operatively associated with said driven means, driving means for actuating said shaft, said driving means comprising a member having at least one aperture, manual means for actuating said shaft independent of said driving means, and means for disconnecting said driving means from operative association with said shaft when said manual means is operatively associated with said shaft, said shaft being apertured and said last mentioned means comprising an axially movable member disposed in said aperture and having a reduced portion, the latter having a movable element operatively associated therewith, said shaft having an aperture adapted to align with said member aperture when said driving means is operatively associated with said shaft, said member being axially movable from a first position in which said apertures are aligned with said movable element extending therein whereby said driving means is operatively associated with said shaft to a second position in which said movable element is retracted from said member aperture and is associated with said reduced portion whereby said driving means is operatively disassociated from said shaft, said manual means comprising a crank having a portion thereof adapted to cooperate with said member when the former is operatively associated with said shaft, said member being automatically movable from said first position to said second position in response to the cooperative association with said member of said crank portion.

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**2,772,579**
**CARD DRIVING MECHANISM**
**James O. Jeffery, North Vassalboro, Maine, assignor of one-half to Harvey E. Gogan, Windsor, Maine**
**Application April 9, 1952, Serial No. 281,359**
**5 Claims. (Cl. 74—665)**



1. A card driving mechanism for a carding cylinder having a driven gear comprising a pair of idler gears having axles parallel to the axis of the driven gear, a pair of driving gears having axles alined with each other and perpendicular to the idler gear axles, a drive chain entrained over all of said gears, a power shaft parallel to said driving gear axles, connecting means between said power shaft and said driving gear axles, resilient means in said driving gears for cushioning contact with said drive chain.

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**2,772,580**
**STEPLESS SPEED-CHANGE MECHANISM**
**Noboru Miura, Toyosaka City, and Hideo Okutani, Arimagun, Japan, assignors of one-half to Nobuki Yamamoto, Toyosaka City, and Seinaburo Ota, Nishinomiya City, Japan**
**Application June 2, 1952, Serial No. 291,132**
**Claims priority, application Japan June 11, 1951**
**2 Claims. (Cl. 74—675)**

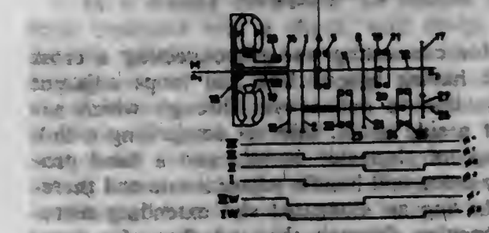


1. A torque control type stepless speed change mechanism comprising a driver having a drive shaft fixed thereto, a driven shaft coaxially inserted into the driver, a gear casing in which the drive shaft and driven shaft are journaled, a plurality of pairs of planet gear shafts journaled side by side in said driver, a plurality of pairs of planet gears mounted on said shafts and engaged with each other, a sun gear rotatable with the driven shaft and fixed to the end of said driver shaft within the driven and engaged with the first planet gear of the first pair of said pairs of planet gears, a plurality of sun gears loosely mounted on said driven shaft one connecting each of said pairs of planet gears by engagement with the second planet gear of one pair of planet gears and the first planet gear of the next adjacent pair of planet gears, a further sun gear loosely mounted on said driven shaft engaged with the second planet gear of the last of said pairs of planet gears, a projection fixed to said driven shaft, a differential planet gear rotatably mounted on said projection and geared to said further sun gear by a gear train, a reaction gear rotatably mounted on said driven shaft and engaged with said differential planetary gear, means to rotate said reaction gear to impart a torque to said differential planet gear, the relative sizes of said sun gears, planet gears and differential planet gear being such that a torque applied to said differential planet gear changes the relative speeds of said driven shaft and driver steplessly.



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**2,772,581**
**TRANSMISSION FOR MOTOR VEHICLES**
**Albert Maier, Otto Schwab, and Julius Kiechle, Friedrichshafen am Bodensee, Germany, assignors to Zahnradfabrik Friedrichshafen Aktiengesellschaft, Friedrichshafen am Bodensee, Germany**
**Application February 5, 1952, Serial No. 270,866**
**Claims priority, application Germany February 10, 1951**
**8 Claims. (Cl. 74—732)**

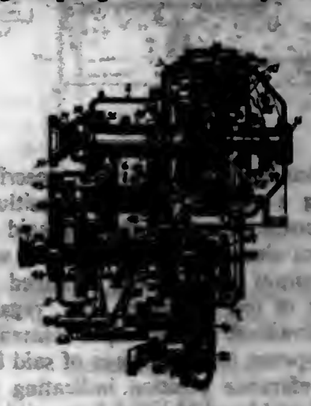


1. In a power transmission, in combination, torque converter means including impeller means and turbine wheel means; drive shaft means driving said impeller means; driven shaft means connected to said turbine wheel means for rotation; releasable clutch means for connecting said drive shaft means with said driven shaft means and being movable between a releasing position in which said torque converter means is operative and said turbine wheel drives said driven shaft means, and a closed position in which said driven shaft means are driven from said drive shaft means; an output shaft; first gear transmission means including a first releasable clutch connecting said driven shaft means with said output shaft; a transmission shaft; second gear transmission means connecting said driven shaft means with said transmission shaft; and a second releasable clutch connecting said transmission shaft means with said output shaft.

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**2,772,582**
**TRANSMISSION**
**Chris Gerst, Detroit, Mich., assignor to The Transmission & Gear Company, Dearborn, Mich., a corporation of Michigan**
**Application April 1, 1954, Serial No. 420,269**
**7 Claims. (Cl. 74—740)**

1. In a power drive transmission comprising a reversing planetary-type gearing and a change speed gearing, an input shaft directly coupled with the planetary-type gearing, a countershaft geared to said planetary-type gearing including driving gears of different sizes rigidly mounted on said countershaft, a primary output shaft arranged parallel to said countershaft including driven gears shiftably and non-rotatably carried by said output shaft to be selectively meshed with the driving gears on said countershaft, a secondary output shaft arranged parallel to said primary output shaft, and clutch-controlled gearing coupling said secondary output shaft with



said primary output shaft, said clutch-controlled gearing including a gear freely rotatably mounted on said primary output shaft and a releasable clutch coupling such gear with the primary output shaft, whereby by selective engagement and disengagement of the releasable clutch said gear may be directly driven by the primary output shaft and impart selective rotation to the secondary output shaft.

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**2,772,583**
**TRANSMISSIONS**
**Watson D. Harbaugh, Evanston, Ill.**
**Application June 13, 1952, Serial No. 293,348**
**24 Claims. (Cl. 74—758)**



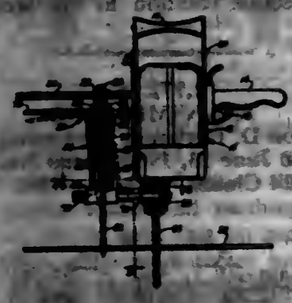
1. A transmission comprising a drive shaft, a planetary gear system including a sun gear driven by said shaft, a planet gear and a ring gear, means for applying varying braking loads to the ring gear of said system, a second planetary including a sun gear, a planet gear and a ring gear, the ring gear of the second system being restrained against rotation and the sun gear being freely rotatable with respect to said drive shaft, a live element supporting the planet gears of both of said systems whereby motion of one set of planet gears is transmitted to the other, a third planetary system including a sun gear, a ring gear and planet gears, said planet gears being supported on an element driven by the sun gear of the second planetary system, means for applying varying braking loads on said element, the sun gear of said third planetary system being driven by said drive shaft, and a driven shaft connected to the ring gear of the third planetary system.

2,772,884
**[illegible] MECHANISM**
[illegible], Md., assignor to [illegible] Company, Inc., [illegible], Md.
Application October 31, 1952, Serial No. 461,760
17 Claims. (Cl. 74—812)



1. In a mechanism of the character described, an input element having a unique reference position and being movable in opposite directions through said reference position, an output element, means coupling said input element to said output element and arranged to drive said output element in one direction only, regardless of the direction of movement of said input element, and means operating in response to the passage of said input element through said reference position indicating the direction of excursion of said input element from said unique reference position thereof.

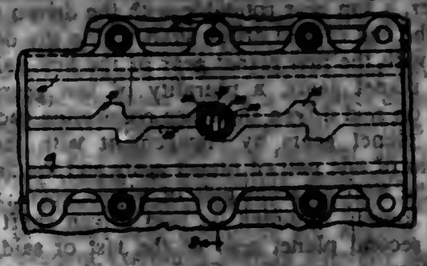
2,772,585
**POWER DRILL ATTACHMENT**
Donald C. Sadler, Wabasso, Minn.
Application April 30, 1954, Serial No. 426,652
6 Claims. (Cl. 77—16)



1. An attachment for a power drill having a steadying handle, comprising a U-shaped bracket dependingly carried by the steadying handle in spaced relation to the drill, a rotatable screw shaft carried by the bracket disposed between the legs thereof, means carried by said shaft at its lower end and operatively connected to the chuck of said drill to impart rotation to said shaft, an arm pivotally carried intermediate its ends upon said shaft and disposed normally thereto for movement longitudinally thereof, said arm extending outwardly from either side of said bracket between said legs, and means carried by said arm for attachment about a workpiece to be drilled, rotation of said shaft upon operation of the drill causing said arm to move in a direction away from said workpiece to feed said drill into the workpiece.

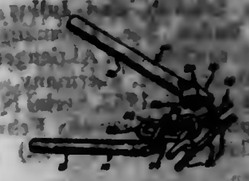
2,772,686
**INDEXING MECHANISM**
Charles H. Jones, Jr., Leominster, Mass., assignor to Gratti Engineering and Sales Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application March 24, 1954, Serial No. 418,398
6 Claims. (Cl. 77—64)

1. Indexing mechanism comprising a first and a second element, said elements being adjacent and relatively movable in a predetermined path, a rotatable member located in said second element adjacent said first element, a spring urging said rotatable member to turn, a track in said first element, said rotatable member having a raised portion slidably engaging said track, said track having a widened portion inwardly facing diametrically transversely on opposite sides of said track and which are offset from each other longitudinally with respect to the track, and further including a clearance allowing said rotatable member to turn within limits when the raised portion enters



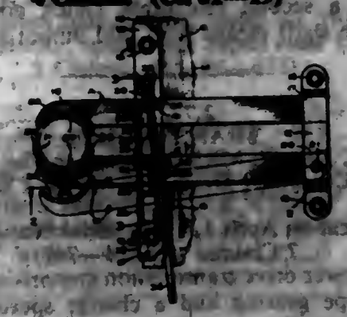
said widened track portion during relative movement of said elements, said faces engaging said raised portion against the force of said spring when the rotatable member is in said turned position thereby passing said rotatable member to resist further relative movement of said elements.

2,772,587
**TOOL SET FOR OPENING AND CLOSING CHAIN LINKS**
Emory R. Woodring and Albert P. Woodring, Oreside Manor, Pa.
Application May 6, 1955, Serial No. 506,426
1 Claim. (Cl. 81—15)



A tool set for connecting and disconnecting a cross chain end link having spaced legs and loops adjacent one end of the link to define eyes through which extends a link of a side chain, said set comprising a link holder including an elongated handle and a head projecting laterally from said handle adjacent one end thereof, said head having an elongated slot extending therethrough and opening through the end thereof remote from said handle, said slot being adapted to receive the legs of the cross chain end link to hold the link against rotation; and a link loop bender including an elongated handle, a flat head carried by said handle and extending longitudinally outwardly therefrom adjacent one end thereof, said tool head having a loop receiving slot opening through one side thereof to define spaced loop engaging side walls to receive a loop therebetween and bend the loop to open or close the loop about a side chain link.

2,772,589
**VISE FOR SUPPORTING PIPE DURING CAULKING**
John H. Jones and Carlos B. Bowen, Carmichael, Calif.
Application September 26, 1955, Serial No. 536,427
4 Claims. (Cl. 81—19)

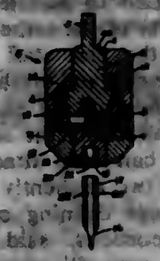


1. In a vise for supporting a pipe during caulking: a base member fastened to an edge portion of a work



bench; an anchor bar fastened to the bench inwardly from said edge portion; a fixed jaw having an inner end secured to the anchor bar, an intermediate portion secured to the base member, and an outer end projecting beyond said edge portion of the bench; a movable jaw having an inner end pivotally attached to the anchor bar, an intermediate portion slidably guided by the base member, and an outer end projecting beyond said edge portion of the bench; the projecting ends of the jaws having coacting saddles thereon, which have gripping surfaces disposed in confronting relation with one another so as to be positioned on opposite sides of a vertically-arranged sewer pipe interposed between the saddles; and means operable for swinging the movable jaw towards the fixed jaw to grip and support such a pipe therebetween.

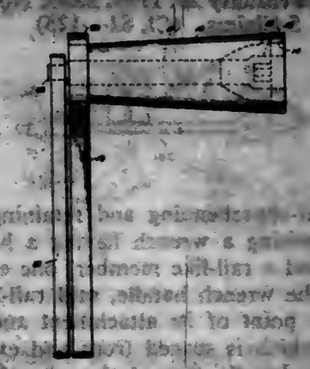
2,772,599
**POWER HAND TOOL ATTACHMENT**
Howard F. Brumbelow, Bethel, Pa., assignor to Drilo Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 15, 1955, Serial No. 488,320
3 Claims. (Cl. 81—52.4)



1. In a driving device for an electric drill having a rotor equipped with a chuck, said device comprising a driving spindle having a portion at its upper end for engagement by the jaws of said chuck and a frictional clutch element at its lower end, a driven spindle having a frictional clutch element at its upper end to receive said clutch element of the driving spindle, means for securing a tool to the lower end of the driven spindle, and a "floating" housing adapted to be held stationary in the hand of the user while enclosing said clutch elements and providing a bearing for a journal portion on each of said rotary spindles, both the chuck-receiving and tool-securing ends of said spindles being severally accessible at the top and bottom of said handle without danger to the fingers of the user during the rotation of the spindles; the invention herein described wherein said driven spindle is enclosed substantially entirely within said stationary handle and includes a bore of hexagonal cross section to provide said tool-securing means, said tool having a shank of complementary cross section for an engagement with said bore, and a detent for releasably securing said tool in assembly with said journal portion of the driven spindle within said handle, with the effect that the body of the tool is substantially the only rotating element exposed below the bottom of the stationary handle.

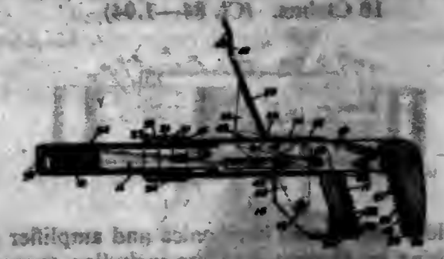
2,772,990
**BOLT HOLDING DUAL SOCKET WRENCH**
John William Wendle, Salina, Kans.
Application July 22, 1955, Serial No. 523,661
1 Claim. (Cl. 81—65)

A wrench structure for dual wheels having inside and outside nuts, comprising a shell having a wrench end for engaging the outside nut and a supplemental wrench for engaging the inside nut, manual means for holding the shell and manual means for actuating the supplemental inside nut wrench, said supplemental wrench consisting of an elongated shaft disposed through the shell and provided with an inside nut engaging socket head, the other end of the shaft being provided with a laterally disposed handle, said last mentioned end of the shaft being provided with a polygonal shaped portion, said



handle being formed with a polygonal shaped opening for detachably receiving the polygonal shaped portion of the shaft.

2,772,591
**TOGGLE-CONTROLLED, SLIDABLE OUTER JAW WRENCH**
Lester W. Munroe, Cascade, Mont.
Application January 21, 1955, Serial No. 483,243
3 Claims. (Cl. 81—98)



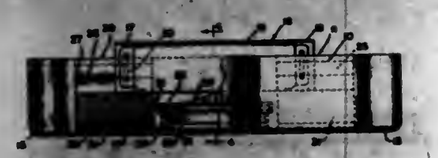
1. A power lock wrench comprising an elongated bar having a first jaw, a housing slidably receiving said elongated bar slidably therethrough, a second jaw carried by said housing, adjustment means for drawing said first and second jaws together, and power lock means mounted on said housing for forcing said first and second jaws together, said adjustment means comprising a reduced externally threaded extension at the end of said bar remote from said first jaw, an internally threaded sleeve screwed onto said extension, and coupling means connecting rotatably the end of said sleeve with the end of said housing adapted to prevent longitudinal displacement therebetween while permitting rotational movement of said sleeve relative to said housing, said power lock means comprising a flat lever having depending plates straddling said housing intermediate said coupling means and said first jaw, said depending plates being pivotally connected to opposite sides of said housing, a pair of links pivotally connected to each of said depending plates on opposite sides of said housing with said pivotal connection of said links being disposed below the pivotal connection of said depending plates with said housing when said lever plate bar is in a lowered or closed position, a pair of plates on opposite sides of said housing pivotally connected to the other ends of said links at their upper ends, said plates intermediate their ends being pivotally connected to a pin piercing said housing, said bar having an elongated slot adapted to receive said pin therealong, said housing at the end thereof adjacent said first jaw having depending plates receiving said second jaw therebetween, a pin fixedly carried by said second jaw and extending outwardly through said depending housing plates, said housing depending plates having elongated downwardly inclined slot receiving said jaw pin therethrough, said plates at their lower ends being pivotally connected to said jaw pin.

2,772,592
**NUT RETAINER FOR WRENCHES**
William W. Garber and John W. Garber, Richmond, Va.
Application February 29, 1956, Serial No. 568,506
5 Claims. (Cl. 81—125)



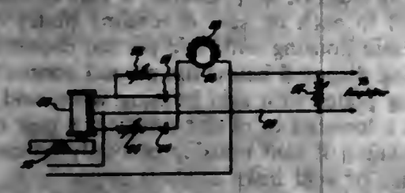
2. A multinut-apprehending and retaining device for wrenches, comprising a wrench having a handle and a wrench head, and a rail-like member, one end of which is attached to the wrench handle, said rail-like member rising from the point of its attachment and forming a linear portion which is spaced from and extends longitudinally of the handle toward the wrench head, said linear portion flowing into an inverted hook-shaped portion which descends substantially perpendicularly to the diameter of said wrench head and terminates at the top center of the opening of said wrench head.

2,772,593
**HARMONICA APPARATUS**
Edward A. Zielinski, Berwyn, Ill., assignor of one-half to Joseph S. Kishel, Brookfield, Ill.
Application May 11, 1953, Serial No. 353,978
10 Claims. (Cl. 84—1.04)



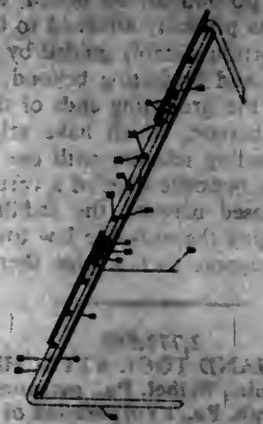
1. A holder unit for an harmonica and amplifier therefor comprising an elongated casing including spaced side walls, end walls, and a bottom wall, and the said casing having an open throat for the reception of an harmonica removably mounted therein, spaced retaining means in the said holder casing for removably retaining an harmonica therein, and means arranged within the said holder casing between the said spaced retaining means for mounting an amplifier microphone pickup within the said holder casing and between the bottom wall of the said holder casing and an harmonica mounted therein.

2,772,594
**APPARATUS FOR PRODUCING CHIME TONES**
Paul Henry Rowe, Los Angeles, Calif., assignor to Manu-Rowe Electronsonic Corporation, Los Angeles, Calif., a corporation of California
Application March 28, 1952, Serial No. 279,352
2 Claims. (Cl. 84—1.11)



1. In an electrical musical instrument: a plurality of parallel circuits, each including in series, means for producing sonic impulses, a saturable reactor energized by said means for adding harmonics to said impulses; a parallel connected rectifier and first variable impedance means, and a second variable impedance means; a common impedance in series with all of the parallel circuits; and means cooperating with said common impedance for translating said impulses to sound.

2,772,595
**GAME FOR TEACHING WRITTEN MUSIC**
Leotis E. Cuffle, Akron, Ohio
Application May 21, 1953, Serial No. 356,341
3 Claims. (Cl. 84—472)



1. A device of the character described for teaching written music, comprising a frame, a plurality of laterally extending bars supported in parallelism on said frame, said bars being in series of the same transversely equally spaced to represent the clef staff lines and separate elements representing notes and symbols of written music, attaching means on the back of each said element for selectively releasably attaching the same in various positions on the staff line bars, said attaching means of each said element including two resiliently mounted, outwardly oppositely arcuate tangs defining outwardly oppositely presented undercut portions, said outwardly arcuate tangs being yieldingly inwardly engageable between two adjacent staff line bars yieldingly to retain the same behind said undercut portions for centering the element between said two adjacent staff line bars, and two inwardly arcuate tangs resiliently mounted intermediate said outwardly opposite arcuate tangs and defining outwardly oppositely presented undercut portions adapted similarly to receive and yieldingly retain a single staff line bar behind the same for centering the element over the last-named line bar.

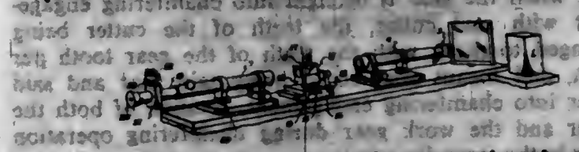
2,772,596
**COMBINATION PAIR OF ADJUSTABLE SHIMS FOR AUTOMOBILE CAMBER AND CASTER CONTROL**
Roger B. Trussell, Richmond, Va.
Application December 7, 1954, Serial No. 473,533
3 Claims. (Cl. 85—50)



1. A pair of cooperating wedge-shaped elongated shim members of general rectangular shape, one of said shims being shorter and termed the fixed shim, said fixed shim having an elongated slot formed therein extending from its thicker end into the shim in the longitudinal direction and along the longitudinal axis to a position just beyond half the length of the shim, said slot being so positioned that it is received over an anchor bolt adapted to extend transversely through the shim so that about half the length of the shim lies each side of the anchor bolt and said fixed shim having guide elements extending along each side of the shim at the thinner end thereof, said other shim being an adjustably positioned shim with respect to the fixed shim and having an elongated slot extending therein from the thinner end along the longitudinal axis thereof for approximately the full length of the shim so as to also be received over the anchor bolt, said adjustably positioned shim being of a width to be easily receivable and guided between the guide members of the fixed shim, said elongated slots being in alignment when the adjustable shim is slid into position along the face of said fixed shim, at least one of said abutting faces of the cooperating shims being roughened so as to provide increased frictional resistance to one shim sliding over the other shim, said guide members on the fixed position shim being of such height that they do not extend above the surface of the adjustably positioned shim in an operative position and whereby movement of said adjustably positioned shim against said fixed position shim in a position where the thicker end of one shim is positioned proximal to the thinner end of the other shim so as to vary the combined thickness provided by the two wedge-shaped shims.



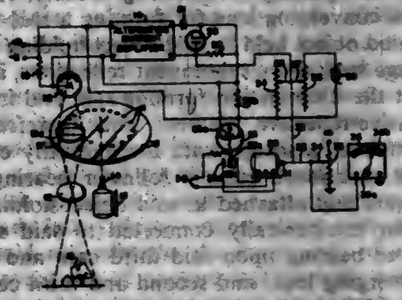
2,772,597
**PRECISION REFRACTOMETER**
Oscar H. Gruner, Kensington, Md., assignor to the United States of America as represented by the Secretary of Commerce
Application February 6, 1953, Serial No. 335,611
3 Claims. (Cl. 88—14)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A precision refractometer for measuring the index of refraction of a specimen to an accuracy within one digit in the fifth decimal place, comprising a monochromatic source of light, a collimator located in the path of the beam of light from said source to render the rays of said beam parallel, an image producing filament located at the focal plane of said collimator, a prism set having an opening for holding said specimen positioned in the path of said parallel rays of light, the faces of said prism set being only approximately parallel and approximately perpendicular to the beam of light, said prism set having an index of refraction which corresponds to the index of refraction of the specimen to within two digits in the second decimal place, a contact liquid forming a film between said prism set and said specimen, said contact liquid having an index of refraction which corresponds to the index of refraction of said specimen to within 3 digits in the third decimal place, a micrometer telescope having filar index means defining a fiducial reference datum in the focal place of said telescope positioned in the path of said light beam, a first portion of said light beam passing substantially undeviated through the body of said prism set only, a second portion of said light beam passing through said prism set and said specimen whereby each of said beam portions projects an undeviated and deviated optical image of said filament respectively on the focal plane of said telescope adjacent said filar index means, and means for measuring the deviation between said undeviated and deviated images with respect to said filar means.

2,772,598
**MINIMUM LUMINANCE RESPONSIVE SYSTEM**
William Hodge, Bayville, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application September 20, 1954, Serial No. 459,140
9 Claims. (Cl. 88—23)

1. A system responsive to the minimum luminance of a scene comprising: a scanning device for sequentially blocking out elemental areas of the scene; means for developing an electrical signal varying with the total luminance of the unblocked area of the scene under examination by said scanning device; and an electrical



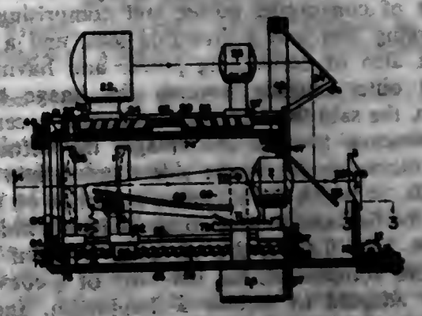
detector responsive to said signal for detecting the peak value thereof over a scanning period, said peak value of said signal being representative of the minimum scene luminance.

2,772,599
**METHOD OF SETTING THE ELEMENTS OF AN OPTICAL SYSTEM AND PROJECTOR AND COPYING CAMERA FOR PERFORMING THE SAME**
Allan Brome, New York, N. Y.
Application June 3, 1950, Serial No. 165,937
8 Claims. (Cl. 88—24)



1. The herein described method of adjusting to conjugate focus a limiting frame aperture and a field locating member arranged along the optical axis and at the opposite sides of an interposed lens which comprises: relatively moving the frame aperture and the lens rectilinearly of the optical axis and relatively moving the lens and field locating member parallel to a straight line drawn from the principal focal point of the lens on the field side thereof to a point in the periphery of the field image of the aperture as projected through the lens when the planes of said field and aperture are in conjugate focus.

2,772,600
**IMAGE SUPERIMPOSITION APPARATUS**
Joseph B. Walker, Los Angeles, Calif.
Application August 3, 1953, Serial No. 371,881
2 Claims. (Cl. 88—24)

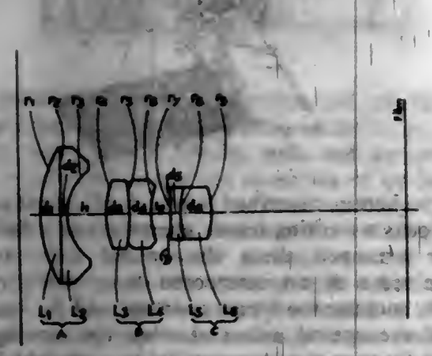


1. In a coupled duplex optical system for superimposing images, a first group of spaced and aligned elements comprising a diverging primary lens, a converging sec-

ondary lens, a transmissive-reflective element and an image surface, a cam for causing motion of said lenses approximately proportionally related to a stationary point between them; a second group of spaced and aligned elements comprising illuminating means, object-holding means, a converging lens for forming a real image of an illuminated object held in said object-holding means upon said image surface by subsequent reflections, and a mirror to direct the illumination forming said real image to said transmissive-reflective element and therefrom to said image surface, a second cam mechanically connected to said first mentioned cam, a follower bearing upon said second cam and attached to said object-holding means, a third cam mechanically connected to said second cam, a follower bearing upon said third cam and attached to said converging lens, said second and third cams defining motions of followers bearing thereupon approximately proportionally related to a stationary point between them, the relation between motions simultaneously imparted by said three cams being such that an image formed upon said image surface by said first group of elements in focus and an image formed upon said surface by said second group of elements in focus remain in focus upon said surface throughout changes in magnification of each said image occasioned by the stated motions of said elements.

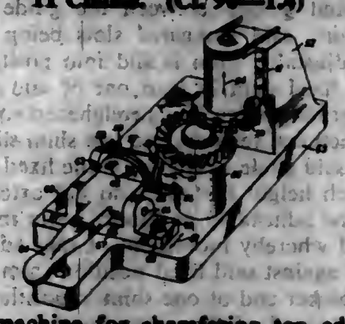
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2,772,601
**WIDE ANGLE PHOTOGRAPHIC OBJECTIVE COMPRISING THREE AIR SPACED COMPONENTS**
Ludwig Jakob Bertele, St. Gall, Switzerland
Application June 13, 1955, Serial No. 515,151
Claims priority, application Switzerland June 18, 1954
8 Claims. (Cl. 88—57)



1. A wide-angle objective consisting of three components, separated by air spaces, namely a first component reckoned from the object side of diverging power and meniscus form convex towards the object and having a focal length within the range of $-0.95\ f$ to $-3.00\ f$, where $f$ is the focal length of the complete objective, the said component comprising at least a converging lens and a diverging lens having the lens curved surfaces of each facing towards each other, a second component of converging power and comprising at least a converging lens and a diverging lens, and a third component also of converging power and having its more curved outer surface towards the image and convex thereto, the said third component having a cemented surface concave towards the image, the refractive index being higher on the image side thereof than on the object side, in which the air-space reckoned on the axis between the first and second components is within the range of $0.06\ f$ to $0.40\ f$, the air-space between the second and third components has the form of a converging lens and is adapted to receive a diaphragm, and the axial separation between the outer surfaces of the second and third components remote from the diaphragm space lies within the range of $0.25\ f$ and $1.4\ f$.

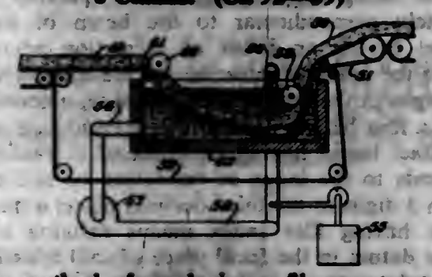
2,772,602
**APPARATUS FOR MANUFACTURING SPIRAL BEVEL AND HYPOID GEARS**
John M. Christman, Grosse Pointe Woods, Mich.
Application March 30, 1951, Serial No. 218,488
11 Claims. (Cl. 90—1.4)



10. In a machine for chamfering top edges of teeth on spiral bevel and hypoid gears, a spindle adapted to receive for rotation a gear to be chamfered, a rotatable cutter having a plurality of chamfering teeth provided thereon, each of said teeth having flat sides and two cutting lips adapted to chamfer simultaneously two gear tooth edges, said cutter being rotatably mounted in said machine to have its axis extending generally perpendicular to the cone surface of the gear, but angularly offset therefrom for an angle to have the plane of cutter rotation coinciding in part with the surface of the gear cone when the gear is brought into chamfering engagement with said cutter, the teeth of the cutter being arranged to mesh with the teeth of the gear tooth per tooth, and means adapted to bring said gear and said cutter into chamfering engagement, rotation of both the cutter and the work gear during chamfering operation being in the same direction.

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2,772,603
**FIBROUS STRUCTURES AND METHODS FOR MANUFACTURING SAME**
Jack H. Waggoner, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application September 12, 1950, Serial No. 184,355
5 Claims. (Cl. 92—39)



1. The method of producing a fibrous structure comprising forming a layer of glass fibers, subjecting a slurry of cellulose pulp fibers to reaction with a solvation compound contained in solution in the slurry, continuing the solvation of the cellulose until the surfaces of the pulp fibers are partially gelatinized, working the slurry of partially gelatinized pulp fibers through the layer of glass fibers substantially completely to impregnate the layer of glass fibers, and then drying the fibrous mass.

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2,772,604
**METHOD OF COATING PAPER WITH HIGH SOLIDS CONTENT COATING MATERIAL**
Gerald D. Maughton, Appleton, Wis., assignor to Combined Locks Paper Co., Combined Locks, Wis., a corporation of Delaware
Application June 3, 1953, Serial No. 359,992
1 Claim. (Cl. 92—40)

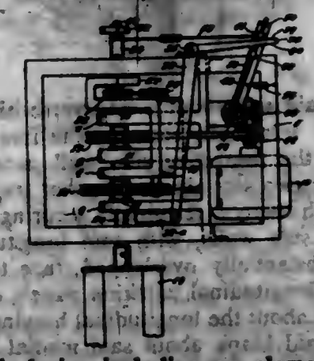
The method of treating paper consisting of passing a web of paper while between 80 percent to 86 percent water content and supported on a felt, between two rolls, the roll in direct contact with the paper having a smooth web contacting surface, applying by a smooth surfaced applicator roll in contact with the roll directly engaging said web a film of paper-coating material having a solids content of between 35 percent to 50 percent to said last-mentioned roll and transferring said film as deposited on said roll to said web.





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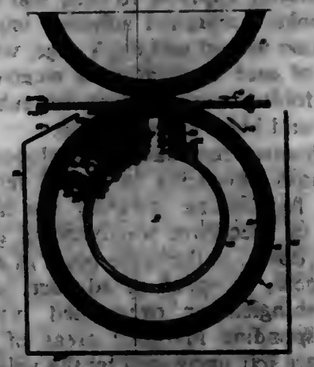
2,772,605
**CONTROL DEVICE**
Henry A. Schlegel, Riverton, Conn.
Application January 27, 1955, Serial No. 484,538
5 Claims. (Cl. 92—46)



1. A control device including an element insertable into a material, a drive shaft connected to said member, a gear on said drive shaft, power transmitting means including a countershaft, a motor for driving said countershaft, a member rotatable about the axis of said countershaft, a second countershaft carried by said member and driven by the first countershaft, a drive pinion on said second countershaft in mesh with the said driving gear, means on said supporting member adapted to be rotated about its axis by the rotating force applied to the gear by the said pinion, a spring member for resisting the rotation of said supporting means, a mechanism for operating a valve, and means actuated by the rotation of said supporting member to actuate the said mechanism and cause operation of the valve in accordance with the amount of movement of said supporting member.

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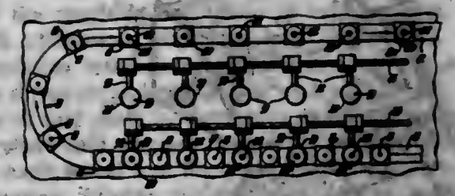
2,772,606
**COMBINATION SUCTION ROLL AND SILENCING AND CLEANING MEANS**
Joseph J. Kelly, Georgetown, S. C.
Application July 29, 1953, Serial No. 525,191
4 Claims. (Cl. 92—83)



1. In combination, an elongated rotatably mounted hollow suction roll, a plurality of perforations in the wall of said roll, a vacuum chamber comprising an elongated tubular member disposed within said roll and spaced from the inner surface thereof, a longitudinally extending slot in said member, packing means slidably mounted on said member on opposite sides of said slot, fluid pressure means for holding said packing means in yieldable engagement with the inner surface of said roll, an elongated boss on said member at the side of said packing means on the trailing side of said slot with respect to the rotation of said roll, a plurality of circumferentially spaced grooves in said boss, a sealing plate slidably mounted in each groove and having an enlarged head, fluid pressure means in each groove for urging said plates outwardly and said heads into yieldable engagement with the inner surface of said roll whereby the inenr ends of said perforations moving out of communication with said chamber will be closed to permit entry of air to such perforations only from the exterior of said roll thereby reducing noise resulting from air rushing in to fill the evacuated perforations, a channel in said boss, an elongated spray head in said channel for directing cleaning fluid into said perforations, a sealing strip slidably mounted on said boss at the trailing side of said channel and air pressure means for urging said sealing strip into yieldable engagement with the inner surface of said roll.

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2,772,607
**APPARATUS FOR MAKING FILTERS**
Russell S. Thatcher, Camden, Tex., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 19, 1954, Serial No. 444,034
4 Claims. (Cl. 92—54)



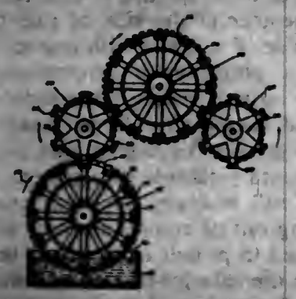
1. Apparatus for forming stacks of accreted plaques comprising a conveyor, a series of vertical mandrels arranged along and in spaced relation on said conveyor, a series of containers arranged along and to one side of said conveyor, a series of suction cups each pivotally mounted alternately to register with one of said containers and a space intermediate adjacent mandrels in timed sequence with movement of said conveyor, pneumatic operative means associated with said conveyor for alternately removing accreted plaques from said cups and depositing them on said mandrels, and means connected with said suction cups for applying suction to the latter when positioned over said containers.

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2,772,608
**REDUCTION OF EDGE FLASHING ON MOLDED PULP ARTICLES**
Richard L. Emery, Waterville, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application November 19, 1951, Serial No. 257,117
4 Claims. (Cl. 92—56)

1. A pulp fiber molding apparatus comprising a movable forming die, said forming die being movable into and out of a fiber pulp slurry bath wherein a mass of fibrous pulp is deposited on said forming die, said forming die being movable into a compacting station, a movable compacting die at said compacting station, said compacting die being constructed and arranged to contact said forming die and to compact the mass of fibrous pulp on said forming die, said forming die and said compacting die having complementary die faces, a movable

pressing die at a second station, transfer means arranged to move said mass of fibrous pulp, after being compacted, toward the pressing die at said second station, said pressing die having a peripheral portion radially outward of its die face which is substantially complementary to the corresponding peripheral portion of said compacting



die, the peripheral portion of said pressing die being constructed and arranged to snugly embrace the corresponding peripheral portion of said compacted mass, when said pressing die and said mass are in operative position, to press any upstanding portions of said mass back into the body thereof.

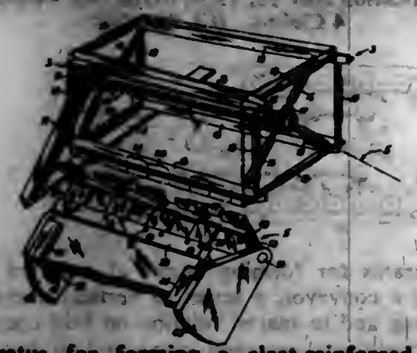
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2,772,609

## BOX MACHINE

Herschel Vlotor Bray and Walwin J. Reschè, Jr., Highland, Ill., assignors to Highland Box Company, Highland, Ill., a corporation of Delaware

Application September 30, 1953, Serial No. 383,362
1 Claim. (Cl. 93—36)



Apparatus for forming a cleat-reinforced container from a paperboard tube, comprising an elongate anvil of angualr cross section, said anvil having a forming recess extending subtantially the entire length of its vertex, clamping means movable toward and away from said anvil to secure portions of the tube adjacent a corner fold, a longitudinal forming element reciprocally mounted opposite the vertex of said anvil for movement into and from said forming recess, said forming element being of a length substantially less than that of said recess to deform a previously-severed corner portion of the tube inwardly as a re-entrant cleat-receiving pocket, and means for moving said clamping means toward the anvil prior to advance of the forming element and to move said clamp means clear of the anvil after retraction of said forming element, thereby permitting lengthwise insertion of a reinforcing cleat while the tube is secured with the forming element clear of said pocket and permitting the tube to be cleared from the machine after insertion of said cleat.

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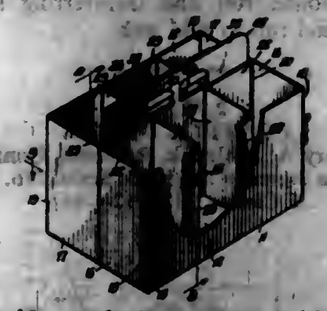
2,772,610

## METHOD OF MAKING ARTICLE CARRIER

Edwin L. Arneson, Morris, Ill., assignor, by mesne assignments, to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York

Application August 22, 1952, Serial No. 305,776
4 Claims. (Cl. 93—49)

1. A method of forming an article carrier from a one-piece paperboard blank characterized by a rectangular bottom panel, side wall panels integrally hinged by longitudinal creases to opposite side margins of said bottom panel, four sets of end wall and partition forming panels having the panels of each set integrally connected by transverse hinging creases to one another and to an end margin of one of said side walls, and a longitudinal partition panel lying between each of a pair of said sets at either end of said respective side wall panels, each of said longitudinal partition panels being integrally connected by a longitudinal hinging crease to a panel of one set of each pair and being separated by a cut from the other set of the pair; said method comprising the steps of folding



all four of said sets about a transverse hinging crease of each thereof, terminally securing the free end of two of said sets to the respective side wall panels, again folding the other two sets about a farther transverse hinging crease of each thereof, terminally securing the last named sets to said side walls, with said longitudinal partition panels in substantially overlapped, face to face contact, folding said longitudinal partition panels unidirectionally and as a unit about the longitudinal hinging creases thereof, folding said blank about said medial bottom crease, and securing the longitudinal partition panels in face to face relation to one another and to corresponding panels of said four folded sets.

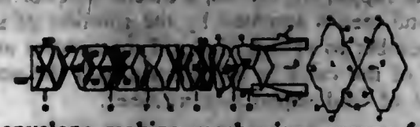
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2,772,611

## ENVELOPE MAKING METHOD AND MECHANISM

Vincent E. Heywood, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a corporation of Maine

Application June 16, 1951, Serial No. 231,950
49 Claims. (Cl. 93—62)



1. In envelope making mechanism, means for folding over the side flaps of successive substantially rhombic blanks advancing flatwise in spaced relation, means for overtaking each so-folded blank by the next-following so-folded blank but only to an extent such that lower edges of the folded-over side flaps of the one are slightly overlapped by the seal flap edge of the other, and means for thereafter separately applying to each seal flap of the so-overlapper blanks a marginal adhesive imprint, in overgumming relation to said seal flap's edge, whereby the excess adhesive of each application is received on the adjacent blank's folded-over side flaps, for subsequent sticking thereto of said blank's bottom flap.

41. In mechanism for making envelopes from a succession of blanks advancing in spaced relation at high speed, means for folding inwardly the lateral pocket-forming flaps of successive so-advancing blanks, means for so slowing down, at the same point in each so-folded blank's movement, its speed of advance, as to create a slow-moving shingled or overlapped blank assembly wherein corresponding marginal areas of each blank's infolded flaps are left uncovered by the adjacent blank of said assembly, means for imprinting with adhesive the successive so-uncovered areas of said slow-moving blank



assembly, means operative on each blank, after such application thereto of adhesive, to restore its high speed advancement and its spaced relation to the next-following blank, and means operative on each blank during its restored high speed advancement for folding inwardly its lower pocket-forming flap into adhesive-seam connection with the imprinted marginal areas of said previously-folded lateral pocket-forming flaps.

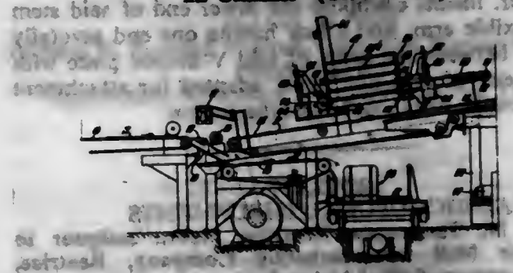
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2,772,612

## SHEET PILING MECHANISMS

Daniel E. Folck, Duquesne, and William G. Gibbs and Roy E. Howell, Pittsburgh, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

Application March 12, 1954, Serial No. 415,768
12 Claims. (Cl. 93—93)



3. In a sheet processing line which includes a conveyor system, a gate for passing prime sheets and diverting defective sheets, and a counter for registering the number of prime sheets passing said deflector, the combination therewith of a piler for the prime sheets comprising means located at the exit end of said conveyor system for supporting a pallet in position to receive sheets from said conveyor system with the sheets forming a pack of a definite number on the pallet, a circuit connected to said counter for stopping feeding of sheets to said conveyor system after a predetermined number of prime sheets several short of a full pack has been counted, the sheets on the conveyor system ahead of the counter tending to supply the difference to the pack, means controlled by said counter for removing the pallet and sheet pack from said supporting means after a predetermined larger number of prime sheets equal to a full pack has been counted, and means for resuming feeding of sheets to said conveyor system when another pallet is positioned to receive them.

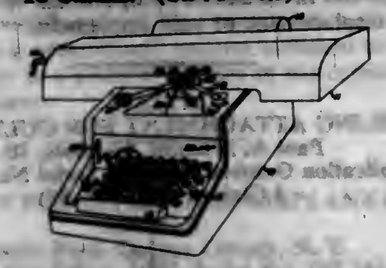
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2,772,613

## PHOTOCOMPOSING APPARATUS AND JUSTIFYING APPARATUS

Woodbury Williams, Rockville Centre, N. Y.

Application March 18, 1955, Serial No. 495,115
18 Claims. (Cl. 95—4.5)



1. A photocomposing apparatus comprising a frame, a carriage slidably mounted on said frame, a photographic film magazine on said carriage, means for intermittently feeding film from said magazine, a lightproof housing enclosing film fed from said magazine, said housing having an aperture to admit light rays to a limited area of said film to expose the same, a shutter for momentarily opening and closing said aperture, a light source providing a light beam focused on said aperture, a plurality of type bars pivotally mounted on said frame, a type face on each type bar, a transparent character outline mounted on each type bar, a plurality of finger engaging keys providing a keyboard for actuating said type bars to move said character outline into alignment with said aperture and light beam, shutter operating mechanism operable by said type bars to actuate said shutter and expose said film to provide an image of said character thereon, a paper tape, means for feeding said tape in juxtaposition to said type bars in operative position whereby each type face prints a character on said tape, a shift key and a space bar on said keyboard, a rack bar on said carrige, mechanism for controlling step by step forward movements of said carriage in accordance with the widths of characters to be printed and the spaces between words, said mechanism comprising a base slidably mounted on said frame for movement parallel to the movement of said carriage, a shaft rotatably mounted on said base, a pinion fixed to said shaft and meshing with said rack bar, a keyway in said shaft, a first character ratchet wheel fixed to said shaft adjacent one end, a plurality of additional character ratchet wheels rotatably mounted on said shaft, a last character ratchet wheel rotatably mounted on said shaft adjacent the opposite end, the teeth on each wheel having a pitch different from the teeth on other wheels, the pitch of the teeth on each wheel corresponding to the width of a character or group of characters on said type bars, an escapement mechanism carried by each additional wheel and cooperating with the teeth on the next preceding wheel to control step by step rotation of all preceding wheels and said shaft to advance said carriage step by step in accordance with the pitch of the teeth on said next preceding wheel, a last escapement mounted on said frame and cooperating with said last wheel to control the step by step rotation of all of said wheels and said shaft and the resulting movement of said carriage, a pawl on each additional wheel and said last wheel, said pawls permitting rotation of said wheels relative to said shaft in one direction and engageable with said keyway upon rotation of said shaft by the return movement of said carriage to return said wheels to starting position, a ring surrounding each wheel and fixed against rotation, an escapement actuating thimble slidably mounted in each ring, cam means for moving each thimble axially to actuate each escapement, a plurality of rock shafts mounted on said frame, an arm slidably and non-rotatably mounted on each rock shaft, means connecting each arm with one of said cam means, means connecting said rock shafts and said keys to operate said rock shafts in response to operation of said keys, a justifying drum rotatably mounted on said frame, a plurality of spirally disposed ratchet teeth on said drum, the pitch of said last named teeth continuously increasing from one end of said drum to the other, a spacing escapement on said base and cooperating with the teeth on said drum to control the step by step movement of said base in accordance with the pitch of the teeth on said drum, spring means for rotating said drum in one direction, a brake for preventing rotation of said drum, a manually operable key for releasing said brake and linkage means operable by said space bar to actuate said spacing escapement whereby upon determining the number of character spaces and word spaces in a line of printing said drum may be rotated to provide the proper pitch of the teeth thereon in engagement with said spacing escapement to justify such line of printing.

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2,772,614

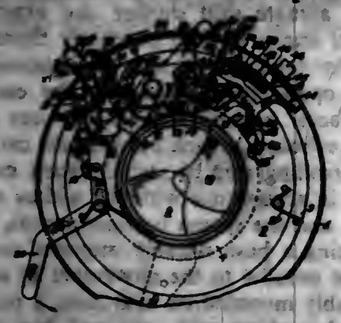
## INTRA LENS SHUTTER

Waldemar Traugott Rentschler, Calmbach (Enz), Germany, assignor to Alfred Gauthier G. m. b. H., Calmbach (Enz), Germany, a corporation of Germany

Application December 17, 1952, Serial No. 326,466
Claims priority, application Germany January 26, 1952
13 Claims. (Cl. 95—11.5)

1. A photographic intra-lens shutter of the type provided with a flash contact comprising a set of normal shut-

ter blades, a power system for actuating said normal shutter blades, a set of cover shutter blades, a second independent power system for actuating said cover blades, means to simultaneously set both of said power systems, release means to release said cover blade power system and



close the flash contact, said cover blade power system being provided with means to release said normal power system, the arrangement of parts being such that a predetermined time lag exists between the time the flash contact is closed and the time the normal shutter blades are opened.

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2,772,615
REVERSIBLE DISC PLOW
Fred T. Smith, Golden, Colo., assignor, by mesne assignments, to The Calhoun Manufacturing Company
Application November 29, 1952, Serial No. 323,189
4 Claims. (Cl. 97—31)

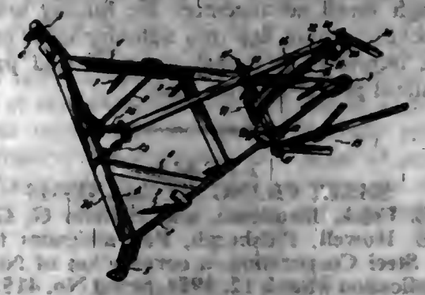


4. A reversible disc plow comprising a draft frame adapted to be supported by a tractor, a generally horizontal plow beam pivotally secured forwardly of its center to the rear portion of said frame for movement about an upright axis, plow discs on the beam for engagement with the soil, a rearwardly projecting horizontal arm freely pivoted to the rearward portion of the beam, adjustable stops carried by the beam limiting arcuate movement between the beam and the arm, a vertical spring arm comprising a member rigid in a transverse plane and resilient only in an upright plane extending through said horizontal arm, said member being secured to said arm and extending downwardly therefrom, and a substantially flat upright sub-soiling blade disposed for soil penetration and having a soil penetrating edge sloping forwardly and downwardly in the direction of movement, said blade being fixed to the lower extremity of said vertical spring arm, whereby side thrust of the plow discs is transmitted to the sub-soiling blade through said horizontal arm and stops.

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2,772,616
POWER LIFTING DEVICE APPLICABLE TO AGRICULTURAL IMPLEMENTS
Angel Rodriguez Gonzalez, Remedios, Las Villas, Cuba
Application September 15, 1953, Serial No. 380,257
1 Claim. (Cl. 97—47.62)

A power lifting device, applicable to agricultural implements, comprising a frame, a transverse bar fixed to and adjacent the front end of said frame, links for connecting said crossbar to the hydraulic system of a tractor, a flexible bar rising perpendicularly from said transverse bar, brace bars disposed at the front and rear of said flexible bar and fixed to said transverse bar, a tie bar extended downwardly and rearwardly from the top of said flexible bar, two divergent chains connecting the rear end of said tie bar with said frame, the forward end of said tie bar being perforated and a Y-shaped piece having a stem extending down through the perforation in



said tie bar, means clamping the lower end of said stem to said flexible arm, and a link having one end pivotally connected between the arms of said Y-shaped piece with the other end of said link being adapted for attachment to the hydraulic lifting system of the tractor.

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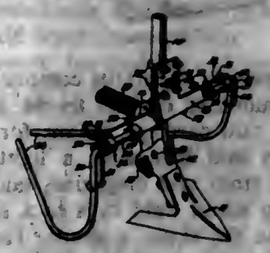
2,772,617
AGRICULTURAL IMPLEMENTS
Lawrence N. Tangeman, Beatrice, Nebr., assignor to Dempster Mill Manufacturing Company, Beatrice, Nebr., a corporation of Nebraska
Application December 17, 1952, Serial No. 326,421
5 Claims. (Cl. 97—47.65)



5. In a tractor having a rear axle housing and a pair of rearwardly extended parallel lift arms to which is attached a frame member of an agricultural implement, a ground engaging and cutting element adapted to cut through the ground ahead of such implement and steerably mounted on said frame member for steering movement about a vertical axis, a forwardly extending steering lever operatively connected at its rear end to said ground engaging element, and means connecting the forward end of said steering lever to said lift arms to shift said lever automatically as an incident to undesired lateral displacement of said implement in a given lateral direction relative to said tractor to impart steering movement to said ground cutting element in an opposite corrective direction and in an amount proportional to the undesired lateral displacement of said implement.

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2,772,618
LEVELING ATTACHMENT FOR CULTIVATORS
Paul A. Schmidt, Mendota, Ill.
Application October 26, 1953, Serial No. 388,128
3 Claims. (Cl. 97—56)



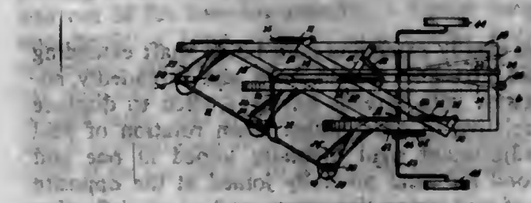
1. A leveler attachment for a cultivator including a generally vertical supporting shank and a cultivator shoe



carried by the lower end of the shank, said attachment comprising a bracket, mounting means on the bracket to secure it to the supporting shank above the shoe, a pair of arms pivoted to the bracket on opposite sides of the shank on a common horizontal axis, the arms extending downward at opposite sides of the shoe and terminating in horizontal converging end portions trailing the shoe, coil springs engaging the arms at one end and connected to the bracket at their other ends urging the arms about their pivots in a direction to move the end portions downward, and collars adjustably secured to the arms and having locking screws projecting radially therefrom to engage the bracket and limit movement of the arms in said direction.

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2,772,619
GANG PLOWS
Edward N. Benedict, Warren, Ohio, and Watson G. Pfouts, Pittsburgh, Pa.
Application September 3, 1953, Serial No. 378,274
3 Claims. (Cl. 97—93)



3. In a gang plow construction, a frame, plow beams on the frame having depending curved portions, a horizontal bore on each depending portion below and substantially parallel to the main portion of the beams, a pin in said bore, a landside pivoted on said pin, a plowshare and moldboard fixed to said landside and pivotal therewith, a rod extending transversely across the top of each moldboard, means pivotally connecting the top edge of each moldboard with said rod, lever means pivoted on the frame, link means connecting the lever means and the connecting rod and moving the connecting rod transversely across the top of the moldboards whereby the moldboards and landsides are pivoted in unison about the pins in the depending ends of the plow beams, a vertical sleeve on each plow beam in advance of the depending portion, a crank arm rotatably mounted in each of said sleeves, coulter means rotatably mounted on one end of each crank arm, a second connecting rod connecting the ends of the crank arms opposite the coulters and extending generally transversely of the beams and parallel to the first connecting rod on the moldboards and means connecting the second connecting rod to the lever means whereby the said second rod moves simultaneously and proportionally to the connecting rod on the moldboards to rotate the crank arms in the vertical sleeves a proportional amount sufficient to maintain the coulters in a position in front of the cutting edge of the plow shares.

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2,772,620
AIR INLET FOR SUPERSONIC AIRPLANE OR MISSILE
Antonio Ferri, Queens County, N. Y.
Application July 3, 1952, Serial No. 297,194
2 Claims. (Cl. 98—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

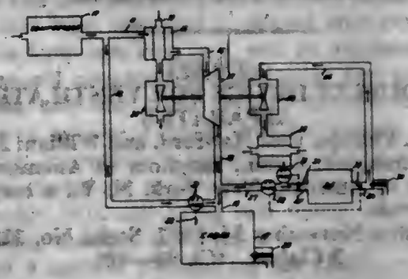
1. An air inlet for aircraft operating at supersonic speeds comprising a flow passage disposed substantially in line with the air stream, said flow passage having a forwardly facing opening in the air stream, and means in said flow passage to enable said passage to accept and decelerate the air with low external compression and with high pressure recovery, said means comprising at least one vane extending across said passage at the inlet end thereof, said vane extending downstream from adjacent the inlet end of said passage and having a streamlined



bulge intermediate its upstream and downstream edges, whereby to form a convergent divergent passage.

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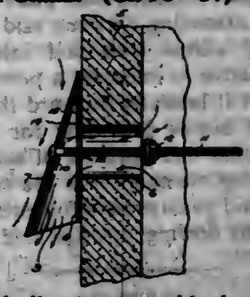
2,772,621
AIRCRAFT AIR CONDITIONING SYSTEM
Walter E. Arnold, West Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application November 16, 1953, Serial No. 392,104
13 Claims. (Cl. 98—1.5)



1. In combination with an aircraft air conditioning system of the type adapted to maintain cabin air at a selected temperature and including an air supply for the cabin, means to adapt the system to maintain air at another temperature in an isolated compartment which has an inlet and an outlet, said means including a first conduit interconnecting said air supply and said inlet, a second conduit interconnecting said outlet and said inlet, means in said second conduit for compensating the pressure drop in said compartment and for circulating air from said outlet to said inlet, and thermo-responsive flow control means in said first conduit adjacent said inlet and including a thermo-sensitive element disposed in said outlet.

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2,772,622
WALL VENTILATOR
Carl J. Stower, Fort Lauderdale, Fla.
Application May 24, 1955, Serial No. 510,758
1 Claim. (Cl. 98—37)



A ventilator for hollow concrete block walls and whereby to create air circulation within the walls for discharge to the exterior, that comprises a hollow hood that is adapted to be disposed over an opening formed through an outer web of concrete block embodied in the wall, the said hood being semi-circular in cross-section and formed open at its rear side and bottom and with the open bottom defining a relatively large semi-circular air

discharge opening, the open rear of the hood defining an elongated upwardly tapering opening having marginal edges that are flat and co-planar and that are convergent upwardly and whereby to constitute an uninterrupted bearing surface throughout the height of the hood, a flat compressible weathering gasket for the hood that is shaped to conform to the rear opening and that is co-extensive with the marginal edges, the gasket being provided with an elongated opening having a dimension greater than the opening formed in the block, an insect screen co-extensive with and disposed over the gasket and with the hood, the gasket and the screen disposed in overlying relation to the face of the block and in overlying relation to the block opening and whereby the block opening is fully exposed through the opening of the gasket for communication with the hood and whereby air within the hollow block wall may be discharged through the discharge opening of the hood and a toggle bolt passing through the hood, the gasket and the screen and arranged co-axial with the block opening whereby a toggle head carried by the bolt may have clamping engagement upon the inner surface of the block web to either side of the block opening and whereby to securely clamp the hood and its associated gasket and screen in weathering engagement with the outer face of the block.

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2,772,623
**AIR OUTLET DEVICE FOR VENTILATING APPARATUS**
Leonard R. Phillips, East Hartford, and William J. Waeldner, Farmington, Conn., assignors to Anemostat Corporation of America, New York, N. Y., a corporation of Delaware
Application November 24, 1952, Serial No. 322,265
3 Claims. (Cl. 98—40)

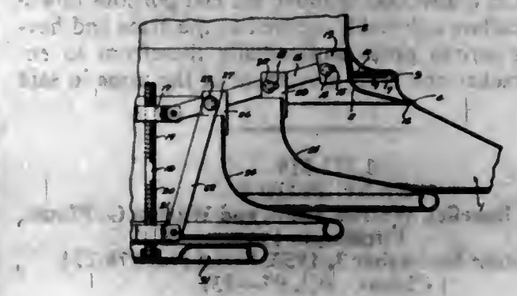


1. An air outlet device comprising an outer open-ended hollow flaring member, through the smaller or rear end of which air is supplied to the device, an inner hollow flaring member, and an intermediate open-ended hollow flaring member, said members being spaced apart to provide between them outer and inner passageways flaring forwardly relative to the longitudinal axis of the device for flow of supply air therethrough into an enclosure, a plate including stepped portions extending across the rear ends of said passageways, respectively said stepped portions having therein apertures disposed in side to side spaced apart relationship to each other to cause supply air flowing through said passageways to be divided into side to side spaced apart streams, said plate further including a flared portion extending between said stepped portions and substantially alined with said intermediate flaring member and effective to intercept a portion of the supply air and to deflect it laterally outward through said outer passageway, and means providing for flow of ambient air through the rear end portions of said inner and said intermediate flaring members into the rear end portions, respectively, of said passageways for intermixture with the supply air streams flowing through said passageways.

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2,772,624
**DIFFUSER**
Wilbur R. F. Carnes, Madison, Wis., assignor to W. R. Carnes Company, Verona, Wis., a corporation of Wisconsin
Application November 6, 1952, Serial No. 319,146
9 Claims. (Cl. 98—40)

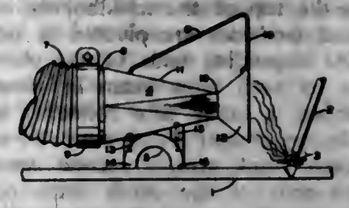
6. In a diffuser the combination comprising an outer circular shell, a first hub centrally disposed within said shell for axial movement with respect to said shell, a plurality of supporting struts angularly spaced about said first hub and each extending between and cooperatively engaged with said first hub and said shell by a tiltable connection with each and wherein one of the connections has a sliding engagement to allow for tilting movement and radial displacement of a strut end as said first hub is moved axially, a second hub axially spaced from said



first hub, an axially extending adjustment shaft extending between said first and second hubs and threadedly engaged therewith with threads having a pitch to displace said hubs relative to one another upon rotation of said shaft, an adjustment strut pivotally joined at one end to said second hub and pivotally joined at the opposite end to one of said supporting struts, and an air deflecting shell carried by said supporting struts for axial movement upon rotation of said adjustment shaft.

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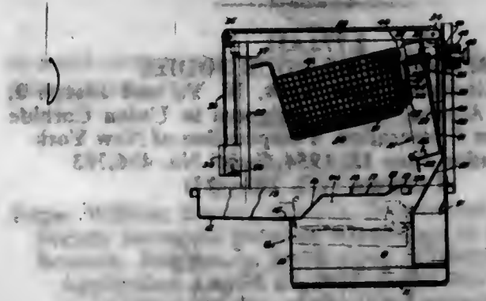
2,772,625
**EXHAUST DEVICE**
John A. Clark, Jr., Wood River, Ill., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application June 15, 1953, Serial No. 361,455
3 Claims. (Cl. 98—115)



1. A portable fume exhaust nozzle comprising a hollow body portion having at one end a narrow slot-like intake orifice elongated for collection of fume laden atmosphere over a linearly extending region of space and at the opposite end of said body portion an opening for discharging the collected fume to a flexible duct, a funnel mouth portion carried by said body portion and surrounding said elongated orifice, a permanent magnet mounted on one side of said body portion having poles projecting beyond the confines of said body and funnel mouth portions so that the poles are adaptable for attractive contact with a surface to which the nozzle is to be removably and adjustably attached near the source of fume evolution with an elongated dimension of said orifice nearest the surface, and disposed on the side of said body opposite said magnet a handle mounted on the nozzle and having an erect portion positioned adjacent said orifice and surrounding funnel mouth portion to project substantially perpendicularly away from the surface to which the nozzle is to be attached, said magnet being carried on said body portion and displaced from said handle so as to permit application of manual force by means of said handle with leverage on the magnet for removing the fume exhaust nozzle from the surface of attachment.



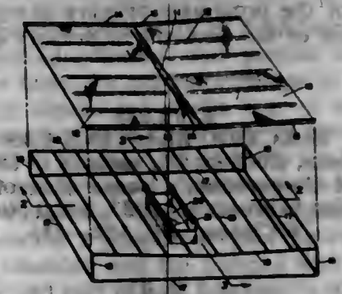
2,772,626
**SEMIAUTOMATIC FLOATING COVERS FOR FRY KETTLES**
Harold N. Shaw, Erie, Pa.
Application February 16, 1954, Serial No. 410,590
11 Claims. (Cl. 99—403)



1. In combination, a fry kettle having a fat receiving portion, a cover of a size to fit within said fat receiving portion, a food basket of a size to fit within said kettle, guiding means for directing movement of said cover into and out of fat covering position, a basket hanger above said kettle, a latch adjacent said hanger positioned to releasably maintain said cover in raised position means for elevating said cover to a position where it is engaged by said latch, said latch having a movable release portion which is positioned to be engaged by said basket when the latter is on the hanger to permit release of said cover.

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2,772,627
**DISPOSABLE BROILER PANS**
James T. Newell, Eugene, Oreg.
Application November 5, 1954, Serial No. 466,960
2 Claims. (Cl. 99—425)



1. In combination, a grill for supporting a broiler pan sheet, said grill comprising a pair of spaced substantially parallel side supporting members, a plurality of spaced supporting members extending transversely of said side members and having their opposed ends secured thereto, means for supporting said longitudinally extending and transversely extending supporting members in elevated position, said longitudinally extending members being bent into a substantially V-shaped configuration and having at least one of said transverse supporting members disposed on opposite sides of the apex thereof, a receptacle detachably secured to said last-named transversely extending supporting members and depending below all of said supporting members, a disposable broiler pan supported on said supporting members and comprising an elongated sheet of material having a substantially V-shaped longitudinal cross-sectional configuration conforming to and complementing the V-shaped configuration of said grill, said sheet having a trough formed therein and projecting laterally from a side thereof at the apex of said sheet, said trough having a drainage aperture formed therein and disposed within said receptacle, a plurality of spaced parallel ribs formed in said sheet and projecting away from the other side of said sheet, and each longitudinally extending edge of said sheet having a flange projecting away from said other side of said sheet.

2,772,628
**BALE METERING AND TRIPPING MECHANISM**
Edwin R. Nolt, New Holland, Pa., assignor to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Original application September 6, 1950, Serial No. 183,321. Divided and this application November 26, 1952, Serial No. 322,717
2 Claims. (Cl. 100—4)



1. In an automatic hay baler comprising a bale case, a plunger normally reciprocable therein, and a normally non-operating banding means for forming bands around completed bales, the combination comprising a latch mounted on said bale case for movement into operative engagement with the plunger to lock said plunger in an advanced position, mechanism associated with said latch for moving said latch to and from an operative position in operative engagement with said plunger, said mechanism including a toggle arm pivoted on said bale case having an end pivotal between a first over-center position adjacent said bale case and a second over-center position remote from said bale case, and an overcenter spring having one end connected to said toggle arm end and at its opposite end connected directly to said latch, said spring urging said latch toward and away from its operative position responsive to positioning of the toggle arm end in its respective overcenter positions, a source of power, means interconnecting said source of power and said banding means, including a normally disengaged clutch and a control element for the clutch, and means directly connecting said control element to the latch whereby on movement of the latch said control element is actuated.

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2,772,629
**SHELL LOADING PRESS**
Lyle S. Corcoran, Hollywood, Calif.
Application February 25, 1954, Serial No. 412,476
1 Claim. (Cl. 100—283)



A hand operated tool for reloading ammunition shells comprising: a head; a base; three cylindrical guide rods securely anchored in said base and projecting upwardly therefrom; said guide rods being equidistantly spaced circumferentially and at a common radius from and parallel to a major axis of the press, said rods each having reduced externally threaded end portions at both ends thereof and having shoulders at the bases of said threaded portions; said head and base each having three bores through which said respective reduced threaded portions of the guide rods project; nuts threaded on said threaded portions and clamping said head and base against said shoulders; a plunger caged within the guide rods and having a cylindrical external surface bearing against all three of said guide rods in tangent relation to the surfaces of the guide rods, said plunger having therein a pair of slots; a pair of parallel flat bar links having their upper ends received

in said slots and pivotally connected to said plunger on an axis extending diametrically thereof; a bell crank lever including a handle portion at one end and a bifurcated lever portion at its other end, said bell crank being pivotally connected to said base on an axis disposed diametrically thereof and parallel to said axis of pivotal connection of the links to the plunger, said bifurcated lever portion including respective furcations spaced laterally, straddling one of said guide rods; and pivots connecting the lower ends of the respective links to the outer ends of the respective furcations; said links closely embracing said one guide rod; said bell crank being operative to move said plunger upwardly when the handle is moved downwardly; said plunger being in the form of a solid metal cylinder having a central bore in which a shell reloading tool may be positioned.

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2,772,630
METHOD AND MEANS OF DECORATING METAL STRIP, BY OFFSET PRINTING
Jerome R. Shaw, Chicago, Ill., assignor to Litho-Strip Corporation, a corporation of Illinois
Application August 28, 1952, Serial No. 306,815
5 Claims. (Cl. 101—228)



1. In apparatus to print repetitive patterns on metal strip, the improvement wherein the moving strip drives the printing mechanism in synchronism therewith and wherein vibrations in the strip are damped out in the printing zone, comprising: power driven take-up means for pulling the strip through the apparatus; a rigid rotatable back-up roll at the printing zone; first roller means positioned on one side of the back-up roll, bearing against the strip, and causing a pronounced change in the direction of strip travel; second roller means positioned on the other side of said back-up roll, bearing against the strip, and causing another pronounced change in the direction of strip travel, said first and second roller means pressing said strip against said back-up roll so that the movement of said strip drives said back-up roll in synchronism therewith; printing rollers positioned to print on said strip while the same is in contact with said back-up roll; means whereby said back-up roll drives said printing rollers; and means whereby the unprinted strip is supplied to the apparatus.

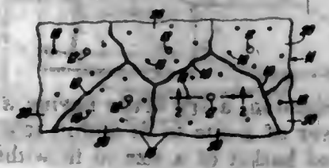
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2,772,631
METHOD OF LOCATING PICTORIAL CUTS ON NEWSPAPER PAGES
Arnold L. Isaacson, Menicone, Mass.
Application April 26, 1955, Serial No. 504,071
1 Claim. (Cl. 101—426)

The method of arranging cuts of photographs, drawings and the like interspersed with type impressions on the pages of newspapers and similar printed matter for the improved reproduction of said cuts comprising the steps of registering in sequence individual transparent sheets on each of the makeup forms of pages planned and arranged in advance of similar forms for the pages which are to be ultimately printed in back to back relation on the reverse side of each of the pages for which said first forms were prepared, marking on the transparent sheets registered with each of said first prepared forms an outline of the location of the cuts positioned on the forms, then as each of said reverse page forms is being made up, registering the transparent sheet bearing the outline of the cuts to be printed in said backed relation, and, with the marked face of said sheet against said form locating the cuts planned for said reverse page form to coincide in printing location with the printing location of the marked outlines of the cuts of the first prepared form.

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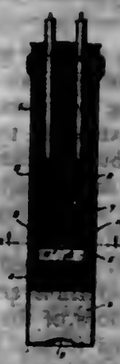
2,772,632
BLASTING OF ROCK BODIES
Robert B. Aitchison, New York, N. Y., and Joseph J. Calaman, Aurora, Minn., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application June 15, 1954, Serial No. 436,763
5 Claims. (Cl. 102—23)



1. In the art of blasting difficult-to-fragment rock bodies, the process which comprises, providing at least one row of substantially vertical primary blast holes in said body, said rows being substantially parallel to a face of said body; providing a plurality of smaller diameter substantially vertical satellite blast holes positioned in proximity with and around each of said primary blast holes, said satellite holes having a shallow depth relative to the depth of said primary blast holes; charging each of said primary and satellite blast holes with an explosive charge; successively detonating, in the order of their distance from said face of said body, each row of said primary explosive charges; and detonating each plurality of satellite charges up to about 50 milliseconds after the detonation of the proximate primary charge but before the detonation of the next row of primary charges.

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2,772,633
ELECTRIC BLASTING CAP
Aldo J. Barocca, Godfrey, Ill., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application February 25, 1953, Serial No. 338,743
6 Claims. (Cl. 102—28)

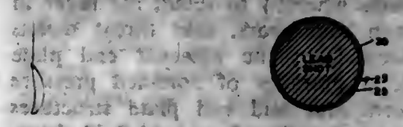


1. In an electric blasting cap having an electric heating element and an ignition composition in contact with said element, said composition comprising a substantial amount of lead trinitroresorcinate intimately mixed with a substantial amount of cyclotrimethylenetrinitramine.

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2,772,634
SHOTGUN CARTRIDGE AND SHOT FOR THE SAME
George G. Oberfell, Bartlesville, Okla.
Application February 16, 1950, Serial No. 144,588
4 Claims. (Cl. 102—42)

2. Shot for use in shotguns comprising metal pellets coated with a coating consisting essentially of barium salts of substituted phenol-formaldehyde condensate, said coating being sufficiently thick to inhibit oxidation, metal



to metal contact and welding and sticking together of the pellets during use.

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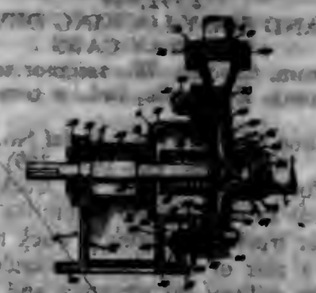
2,772,635
RIFLE GRENADE
Edgar William Brandt, Geneva, Switzerland, assignor to Societe Anonyme Belge de Mecanique et d'Armement, Brussels, Belgium, a corporation of Belgium
Application August 17, 1953, Serial No. 374,532
Claims priority, application Luxemburg September 15, 1953
2 Claims. (Cl. 102—65.2)



1. A rifle grenade adapted to be fired from a launcher fixed at the end of a firearm, said grenade comprising a charge carrier body, an explosive charge in said carrier body, a vaned tubular tail at the rear of said body to stabilize the grenade on its trajectory, an axial and cylindrical chamber in the rear of said body, the front part of said chamber being in said charge and the rear part of the chamber extending rearwardly an equal distance in said tail, providing a peripheral space between the rear part of said chamber and the internal wall of said tail to receive the end part of said launcher, a striker carried by the front part of said chamber, an inertia base fuse inside said chamber, said fuse including a detonator lodged in the projecting part of said chamber when in inoperative position, and a safety device for retaining the detonator in inoperative position, the total length of said chamber being at least twice the length of said detonator.

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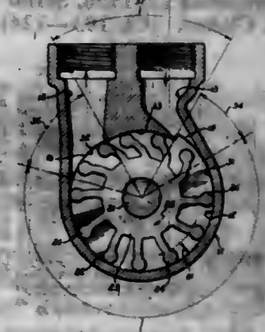
2,772,636
CENTRIFUGAL PUMP
De Witt E. Yates, Chippewa Falls, Wis., assignor to W. S. Darley & Co., Chicago, Ill., a corporation of Illinois
Application October 17, 1955, Serial No. 540,758
4 Claims. (Cl. 103—103)



1. A centrifugal pump adapted to displace a liquid and comprising a horizontally elongated tubular supporting structure provided at one end thereof with an outwardly extending annular flange, a volute casing positioned adjacent to said one end of the supporting structure, consisting of a front wall, a rear wall and a continuous spiral side wall between the outer margins of the front and rear walls, having in the central portion of the front wall thereof an inlet with means for connecting it to a source of the liquid to be pumped, embodying on the portion of its side wall that is of maximum radius a substantially tangential outlet with means for connecting it to a discharge pipe, having a hole in the central portion of its rear wall, and provided on the outer margin of said rear wall with a right angle flange in the form of a cylindrical rearwardly extending flange part that extends snugly around, and is rotatable with respect to, the outwardly extending flange on said one end of the supporting structure and forms with the last mentioned flange a mounting arrangement whereby the casing may be rotatively adjusted with respect to the supporting structure in order properly to position the outlet with respect to the discharge pipe and an annular flange part that is connected to, and extends outwards from, the rear end portion of said cylindrical flange part and is provided with a plurality of spaced apart rearwardly extending lugs with open ended screw threaded holes in the imaginary center lines of which are normal to and intersect the rear side surface of said outwardly extending flange on the one end of the supporting structure, setscrews extending through, and in screw threaded relation with, the holes in the lugs and adapted when tightened to have the inner ends thereof so grip said rear side surface of the outwardly extending flange on the one end of the supporting structure that they serve not only to lock the casing in its various adjusted positions with respect to said supporting structure but also firmly to clamp the rear wall of the casing against said one end of the supporting structure, a horizontal drive shaft extending centrally and longitudinally through the supporting structure and arranged so that the front end thereof extends through said hole in the central portion of the rear wall of the casing and into the casing interior, and an impeller disposed within the casing interior and mounted on, and connected for drive by, said front end of the drive shaft.

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2,772,637
IMPELLER PUMP
Warren Doble, North Hollywood, Calif., assignor, by mesne assignments, to Jabsco Pump Company, Burbank, Calif., a corporation of California
Application March 20, 1952, Serial No. 277,595
4 Claims. (Cl. 103—117)

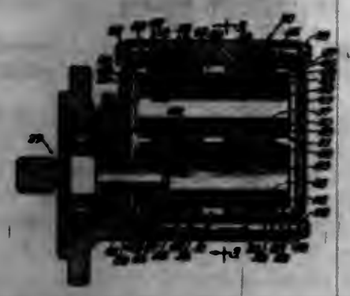


1. In a device for pumping a fluid, the combination of: a housing having therein a generally cylindrical impeller chamber providing an axis and provided with a peripheral wall, said housing also having therein inlet and outlet passages for the fluid to be pumped, said inlet and outlet passages respectively terminating in inlet and outlet ports which communicate with said impeller chamber, said peripheral wall including a first circumferentially extend-

ing segment of a maximum radius relative to said axis, a second circumferentially extending segment of a gradually decreasing radius relative to said axis and a third circumferentially extending segment of a minimum radius relative to said axis, said peripheral wall having a substantially radial segment relative to said axis at the junction of said third and first circumferentially extending segments so that the radius of said peripheral wall relative to said axis increases abruptly from said minimum to said maximum at the junction of said third and first circumferentially extending segments, said inlet port having a first edge located substantially in radial alignment relative to said axis with said radial segment of said peripheral wall, and having a second edge circumferentially spaced from said first edge thereof and located intermediate the ends of said first circumferentially extending segment, said outlet port communicating with said chamber adjacent said second circumferentially extending segment, and said third circumferentially extending segment being located intermediate said inlet and outlet ports; an externally driven shaft extending into said impeller chamber with its center line coinciding with said axis; and an impeller rotatable in said impeller chamber and having radially extending, flexible vanes the radii of which relative to said axis are at least equal to said maximum radius when said vanes are unflexed so that the ends of said vanes are engageable with each of said first, second and third circumferentially extending segments of said peripheral wall, said impeller being rotatable by said externally driven shaft in a direction to move said vanes over said first, second and third circumferentially extending segments in that order to pump fluid entering said impeller chamber through said inlet passage and said inlet port into said outlet port and said outlet passage, said vanes snapping from engagement with said third circumferentially extending segment into engagement with said first circumferentially extending segment as they move across said inlet port from a position where they are substantially in radial alignment relative to said axis with said first edge of said inlet port to a position wherein they are substantially in radial alignment relative to said axis with said second edge of said inlet port, whereby the energy released by said vanes as they snap from engagement with said third circumferentially extending segment into engagment with said first circumferentially extending segment in moving across said inlet port is transferred to the fluid in said inlet port and said inlet passage to draw it into said impeller chamber.

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**2,772,638**
**GEAR PUMP OR MOTOR**
John L. Nagoly, Lagrange, Ohio
Application September 13, 1950, Serial No. 184,612
22 Claims. (Cl. 103—126)



1. In a gear-type liquid displacement device of the character described, a housing, a pair of end plate structures mounted in said housing in sealing relation therewith and in spaced relation to each other to form with said housing a fluid chamber therein, a pair of meshed gears mounted in said chamber between said end plate structures, a pair of gear shafts carrying said gears and having their opposite ends journaled in the respective end plate structures, and thrust means mounted on said shafts at the ends thereof in operative relationship with said end plate structures whereby to retain the latter in operative relation with said gears, said thrust means having portions spaced from the adjacent end plate structures to provide a plurality of confined pressure chambers therebetween, and said end plate structures having fluid passageways extending from said fluid chamber to said pressure chambers whereby to urge said end plate structures inwardly against the gears by means of fluid under pressure.

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**2,772,639**
**STORAGE INSTALLATIONS IN PARTICULAR WITH TRACTION CABLE**
Hans Ingold, Lucerne, Switzerland
Application August 29, 1952, Serial No. 307,036
Claims priority, application Switzerland December 12, 1951
7 Claims. (Cl. 104—202)

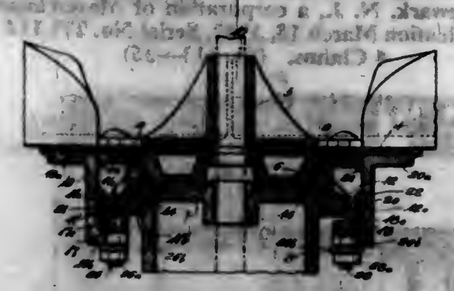


1. Drive means for displaceable storage containers, shelves and like devices comprising at least two traction elements arranged for continuous movement in opposed direction to each other and accommodated below said storage containers, supporting means for said containers means supported by at least one of said containers and constructed for coaction with one of said elements, said latter means including an axle disposed on the lower portion of said one container, an operable member connected to said axle and extending therefrom outside of said one container for manipulation by an operator, respective movable and stationary clamping means supported by said lower container portion, said stationary clamping means slidably supporting said traction elements, respectively, said movable clamping means being, respectively, actuatable by said operable member against one of said stationary clamping means to thereby couple the latter with one of said traction elements for movement therewith and against another of said stationary clamping means to thereby uncouple said one stationary clamping means and to couple said other stationary clamping means for movement with the other traction element, means operatively connected to and normally maintaining said movable clamping means in uncoupled position and brake means mounted for displacement about said axle and engageable with said supporting means of said containers, said brake means being operatively connected to and actuable by said operable member in predetermined positions of the latter.

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**2,772,640**
**TRUCK AND BODY LOCKING DEVICE FOR RAILWAY CARS**
Karl F. Nystrom, Chicago, Ill., assignor to International Steel Company, Evansville, Ind., a corporation of Indiana
Application May 27, 1953, Serial No. 357,691
18 Claims. (Cl. 105—199)

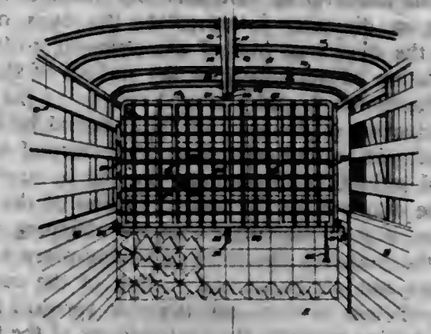
6. Means for locking railway car trucks with respect to a railway car structure while permitting orientation of the railway car truck comprising a truck bolster, a body center plate, a pair of lock bases extending parallel to the axis of the railway car structure and depending beneath opposite sides of said body center plate, said truck bolster having an annular portion interfitting with said body center plate, the annular portion of said truck bolster including diametrically disposed projections extending laterally therefrom, said lock bases having flanges on the lower extremities thereof directed toward said truck bolster, lock bars detachably mounted on said flanges in a position engaging the undersurface of said projections and in positions aligned with the side walls



of the truck bolster, said lock bars being provided with curved faces on their opposite end portions forming limiting stops for the side walls of said truck bolster as said truck bolster orients during the negotiation of curves by the truck along a track system for establishing abutments beyond which said truck bolster is prevented from orienting.

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**2,772,641**
**ADJUSTABLE PARTITION FOR CARS, TRUCKS AND WAREHOUSES**
Don Roberts, Wilkes-Barre, and Harold Heckenbury, Forty Fort, Pa., assignors, by mesne assignments, to said Roberts
Application July 23, 1952, Serial No. 300,402
2 Claims. (Cl. 105—369)

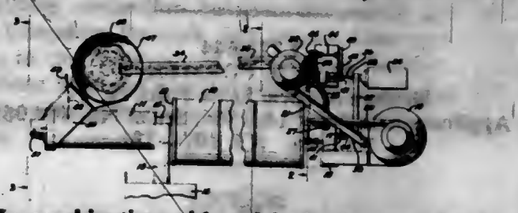


1. In a structure for use with trucks, freight cars or warehouses to hold partial or whole loads of stored merchandise in predetermined positions, a movable partition, a support positioned above the storage space, and a track secured to said support comprising two longitudinal angle members held in fixed relation to each other with a narrow longitudinal slot between the lower flanges thereof, and a connecting element between said track and said partition, said connecting element including a T-shaped member having laterally extending arms adapted to rest on the upper surface of the lower flanges of said track angle members and longer than the width of said slot and too thick to pass through said slot, the vertical element of said T-shaped member having a thickness with respect to the width of said slot as to permit said T-shaped member to be rotated in said slot, and said T-shaped member being rigidly connected to said arms thereof and connected to said partition and said T-shaped element being capable of rocking on said arms resting on the flanges of said track and said vertical element extending downwardly through said slot and free to slide lengthwise thereof.





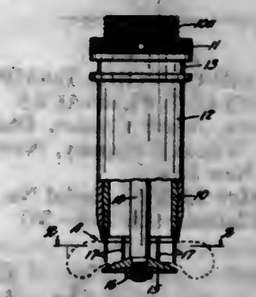
**2,772,642**
**DEHYDRATING AND PELLETING APPARATUS**
Gordon J. Lindi, Milwaukee, Wis., assignor to Arnold Dryer Co., Milwaukee, Wis., a corporation of Wisconsin
Application June 8, 1954, Serial No. 435,271
3 Claims. (Cl. 107—4)



1. In combination with a dehydrating machine having a drying unit for receiving a product to be dehydrated and having a furnace connected with said drying unit and having discharge means for the dehydrated product, a pelleting device positioned to receive the dehydrated product from said discharge means, a pellet cooler having an open top spaced a substantial distance from said pelleting device, an endless conveyor exposed to the atmosphere having one end positioned to receive pellets from the pelleting device and having its other end positioned to discharge pellets by gravity into the open top of said cooler, means for drawing atmospheric air into said cooler around said stream of falling pellets and through the pellets in the cooler so that said air cools the pellets while they are falling from the conveyor and while in the cooler and so that said air itself becomes preheated, and means for conducting said preheated air into said dehydrating machine for use as a drying medium and to furnish the secondary combustion air for the furnace.

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**2,772,643**
**METHOD AND APPARATUS FOR PRODUCING DOUGHNUT DOUGH FORMATIONS HAVING SCALLOPED INNER AND OUTER PERIPHERAL SURFACES**
William R. Coyne, Minneapolis, Minn., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware
Application August 18, 1951, Serial No. 242,474
7 Claims. (Cl. 107—14)

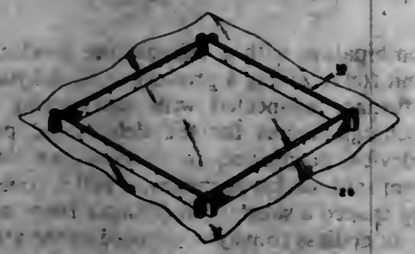


4. Apparatus for producing generally annular dough formations having scalloped inner and outer peripheries, said apparatus comprising a generally upright hollow cylindrical extrusion spout, a centrally disposed hole-forming island member mounted in spaced relation below the lower end of said spout a sufficient distance to produce a peripheral extrusion opening at the bottom of the spout member of sufficient depth to form a generally annular dough formation when extruded therethrough, a cutoff sleeve slidably mounted on said spout and closing said opening by engagement with said island member when disposed in downwardly projected position, a plurality of peripherally spaced dough severing fingers extending between the top surface of said island member and the lower end of said spout and traversing substantially the entire distance therebetween to sever into a plurality of annularly arranged separate individual segments when dough is extruded through the peripheral opening between

the spout and island member when said cutoff sleeve is in raised position, the severing fingers being only of sufficient width and depth with respect to the thickness of the extruded dough segments to permit said segments to subsequently flow together when cut off by downward projection of said cutoff sleeve to close said opening.

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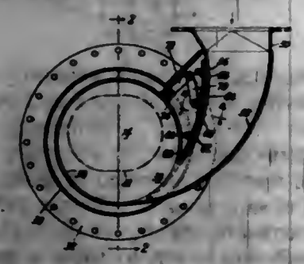
**2,772,644**
**FUDGE FORMER**
**Stephen Musica, Little Falls, N. Y.**
**Application January 14, 1954, Serial No. 404,065**
**1 Claim. (Cl. 107—19)**



A light weight open square fudge mold consisting of four interlocking elongated bars of uniform thickness of styrene having a smooth non-adhering surface, unaffected by temperatures used in the making of fudge, each bar having one long narrow face having five equi-spaced transverse indentations therein for guiding a knife in the cutting of the fudge into blocks of uniform size and thickness when the fudge in the mold has hardened to the desired consistency, and two locking slots spaced as far from the proximate indentations as the distance between indentations, said slots extending half way between the narrow faces of the bar and being of a width equal to the thickness of the bar, the space from the end of the bar to the proximate slot being greater than the width of the slot, each bar having at its opposite long narrow face guiding indentations spaced equally from the inside corners of the square mold when assembled to correspond with the indentations on said one face, so that a bar may be used either up or down, and the four corners of the bars being rounded at the junctions of the ends and the narrow faces, said four bars being identical so that the fudge mold can be formed by a single die.

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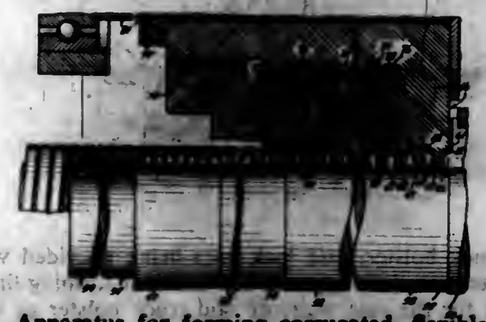
**2,772,645**
**FUEL AND AIR CONTROL DAMPER FOR CYCLONE FURNACES**
**Ralph M. Hardgrove, North Canton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey**
**Application May 22, 1952, Serial No. 289,377**
**5 Claims. (Cl. 110—28)**



1. Fuel burning apparatus comprising means defining a furnace chamber, a fuel inlet chamber communicating with said furnace chamber and having a curved wall forming substantially the entire peripheral wall thereof, means for supplying a combustible mixture substantially tangentially to the peripheral wall of said fuel inlet chamber comprising a fuel supply conduit having curved converging plates forming the inner and outer walls thereof, and a slidably mounted damper having a curvature corresponding to the curvature of said conduit inner wall and movable therealong in closing relationship to said outer wall to a position forming an extension of the chamber end of said inner wall in the curvilinear plane thereof.

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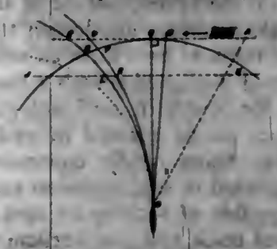
**2,772,646**
**MAKING AND COMPRESSING CORRUGATED FLEXIBLE HOSE IN ONE OPERATION**
**Philip M. Padgett, Newark, N. J., assignor to Titeflex, Inc., Newark, N. J., a corporation of Massachusetts**
**Application March 18, 1952, Serial No. 277,114**
**4 Claims. (Cl. 113—35)**



1. Apparatus for forming corrugated, flexible tubing, including a multi-section mandrel and guide means that feed a longitudinally corrugated strip to the mandrel in a direction to wrap in a helix around the mandrel with the edges of adjacent convolutions engaging one another to form a seam, and a roller with its axis of rotation radially outward from the mandrel and adjacent to the mandrel and having fins which extend into the corrugations of the tubing to strip the tubing from a first section of the mandrel progressively as the tubing is formed on said first section, the fins on the roller being of progressively less width toward the discharge end of the mandrel for crowding at least the upper parts of the corrugations together as they are progressively stripped from the first section of the mandrel by said fins, the mandrel having a reduction in diameter intermediate the ends of the roller near the discharge end of the stripping roller for relieving friction of the tubing on the surface of the first section of the mandrel, and a second section of the mandrel, the reduction in diameter of the mandrel being the beginning of said second section, and the second section beyond said reduction in diameter having a taper that increases the diameter of the second section of the mandrel to a size that frictionally resists the stripping of the tube from the mandrel, the increase taking place toward the discharge end of the second section of the mandrel and being sufficient to cause resistance to forward movement of the tubing whereby the corrugations of the tubing are further crowded together as the stripper roller forces the tubing over the second section of the mandrel beyond the stripping roller and beyond the location of said reduction in diameter.

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**2,772,647**
**SPECIAL COURSE TORPEDO**
**David C. White, Honolulu, Territory of Hawaii**
**Application April 27, 1951, Serial No. 223,427**
**1 Claim. (Cl. 114—23)**
**(Granted under Title 35, U. S. Code (1952), sec. 266)**

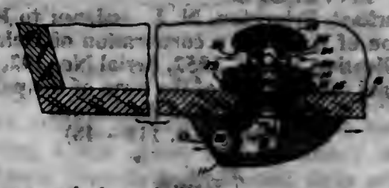


The method of effecting an intecept of a torpedo adapted to be launched from a submarine with a target moving in water along a substantially fixed course of unknown range from the submarine and at a continuing substantially constant but unknown speed, which comprises determining the rate of change of bearing of the target relative to the submarine prior to launching the torpedo, and thereafter effecting movement of the torpedo along a circular arc course of predetermined radius, said radius being predetermined and commensurate with said rate of change of bearing.



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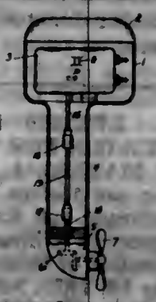
**2,772,648**
**AUTOMATIC BOAT BAILERS**
**John L. De Persia, Grand Haven, Mich.**
**Application January 7, 1955, Serial No. 480,496**
**2 Claims. (Cl. 114—185)**



1. An automatic boat bailer comprising a housing provided with an upstanding pipe section adapted to be inserted upwardly through a hole in a boat bottom, said housing having a rounded nose portion and rear face sloping upwardly and outwardly from the bottom to the top thereof, there being a passage formed in said housing extending inwardly from the portion of the top enclosed by said pipe section to and out of the sloping rear face, means securing said housing exteriorly of and on the boat bottom with said pipe section received in the hole provided and with said face facing the stern of the boat, said pipe section being formed with an annular recess at the lower end thereof, a valve seat extending transversely across said pipe section and partially bridging the end of the passage opening through the top of the housing and having its periphery received in said recess, a freely floatable ball in said passage seatable on said valve seat to prevent passage of water upwardly through said pipe section, and a plug threadedly engaged in said pipe section at the upper end thereof, said plug being provided with a bore extending upwardly from its lower end and terminating adjacent the upper end, and ports in said plug adjacent the upper end connecting in communication with said bore, said plug being movable in said pipe section from a position with said inlet ports open and in communication with the interior of the boat to a position closing said ports.

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**2,772,649**
**MOTOR MOUNTING SYSTEM**
**Joseph R. Gensheimer and Victor J. Grunblatt, Erie, Pa., assignors to Lord Manufacturing Company, Erie, Pa., a corporation of Pennsylvania**
**Application June 1, 1954, Serial No. 433,760**
**7 Claims. (Cl. 115—5)**



1. A mounting system for an outboard motor having a housing having at its upper end a support for a vertical shaft motor and a depending vertical tubular section connected at its lower end to a gear casing for the propeller shaft, the housing with the tubular section and gear case comprising a structural unit, a pair of resilient mountings on opposite sides of the motor connected in load carrying relation between the motor and its support, a vertical driven shaft in the gear case, and a power transmitting connection between the motor and driven shafts extending through and spaced from the tubular section of the housing and including a flexible coupling of resilient material supplementing the mountings in resiliently resisting rocking of the motor about a horizontal axis.

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**2,772,650**
**TIMING INDICATOR TAPE**
**Edward Donald Cook, Arroyo Grande, Calif.**
**Application July 15, 1955, Serial No. 522,280**
**1 Claim. (Cl. 116—124)**



In a rotary balance wheel for an internal combustion engine, a timing marker comprising a strip of tearable flexible material disposed transversely on the rim of the wheel, and a coating of pressure-sensitive adhesive material on the surface of the strip adjacent the rim of the wheel, the other surface of the strip being darkened over its entire area except for a narrow area spaced midway between and extending parallel to the side edges of the strip.

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**2,772,651**
**INSTRUMENT ILLUMINATOR**
**Gaetano V. Amico, Levittown, N. Y., assignor to the United States of America as represented by the Secretary of the Navy**
**Application August 21, 1952, Serial No. 305,719**
**11 Claims. (Cl. 116—129)**
**(Granted under Title 35, U. S. Code (1952), sec. 266)**



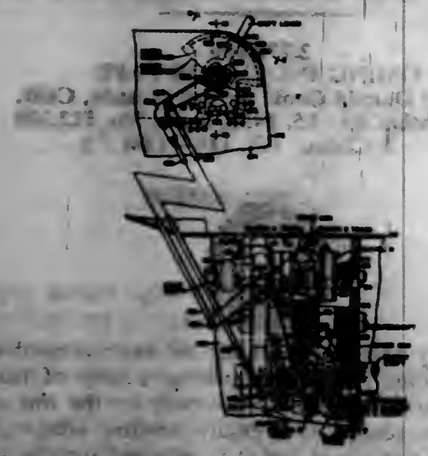
1. In an instrument device, a housing, an instrument window mounted in said housing, a dial spaced from said instrument window in said housing, a reflector mounted behind said dial, aligned apertures in said window and dial, a lighting assembly secured in said window aperture, said assembly being apertured in axial alignment with said dial and window apertures, and lamp means removably retained in the aperture in said lighting assembly, said lamp extending into said dial aperture to provide uniform edge, back and front illumination of the dial.

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**2,772,652**
**TRANSMISSION AND CONTROL THEREFOR**
**Wallace H. Du Shane, Waterloo, and Vernon L. Rugen, Cedar Falls, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa**
**Application August 8, 1955, Serial No. 526,971**
**13 Claims. (Cl. 74—337.5)**

1. A transmission and control therefor, comprising: input, output and countershafts; multi-range drive means

for driving the countershaft from the input shaft and including a range clutch shiftable among neutral and first and second active positions; multi-speed drive means for driving the output shaft from the countershaft and including a speed clutch shiftable among neutral and first and second active positions; a speed selector movable among neutral and first and second active positions for achieving corresponding positions of the speed clutch and having a laterally opening shifter-receiving notch; a shifter alongside and movable relative to said selector both laterally of and parallel to said selector and normally received in said notch; and a range selector movable par-



allel and relative to the speed selector among neutral and first and second active positions for achieving corresponding positions of the range clutch, said range selector having a bar portion opposed to the speed selector notch when both selectors are in neutral so as to confine the shifter to the speed selector notch, said range selector having additional notches angularly offset from said bar portion so that after the speed selector is moved by the shifter to either active position independently of the range selector said shifter may be moved laterally into one of said range selector notches whereby said shifter may move said range selector to either of its active positions independently of the speed selector.

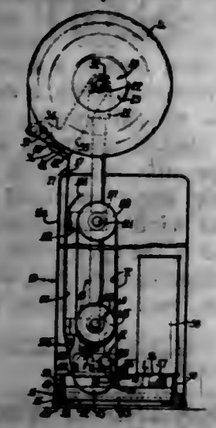
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2,772,653

**APPARATUS FOR COATING STRIP MATERIAL**

Donald G. Williamson, Skokie, Melvin W. Snover, Winnetka, and Hilmar A. Andresen and Raymond H. Andresen, Barrington, Ill., assignors to Williamson Adhesives, Inc., Skokie, Ill., a corporation of Illinois

Application May 12, 1955, Serial No. 507,794
10 Claims. (Cl. 118—43)



1. In a device for applying a liquid to one surface only of a flexible strip, a casing forming a reservoir for said liquid and a unitary removable sub-assembly providing with said casing an entrance and exit for a flexible strip into and out of said casing, said sub-assembly comprising a member having an arcuate surface operatively immersed in said reservoir, a doctor mounted on said member and having a non-rotating convex portion in opposed closely spaced relation to said arcuate surfaced member at a point on the exit side thereof and oppositely acting resilient and adjustable stop means also mounted on said member for holding said convex doctor portion in gauged relation to said member, whereby a flexible strip moved over the said arcuate surface from said entrance to said exit and passing between said opposed convex portion and said arcuate surface comes into contact with said liquid on one side of said strip only.

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2,772,654

**APPARATUS FOR APPLYING A CONDUCTIVE COATING TO THE INSIDE OF A TUBULAR GLASS ENVELOPE**

Paul G. Herkart, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application June 6, 1952, Serial No. 292,156
The terminal fifteen years of the term of the patent to be granted has been disclaimed
3 Claims. (Cl. 118—48)



1. Apparatus for forming a transparent conductive coating on the inner closed end of an elongated tubular glass envelope, said apparatus comprising a support for said envelope, heating means near said support and adapted to surround said envelope and apply heat thereto, a hollow container near said heating means for holding a quantity of coating substance at one end thereof, a vaporizer within said container at said one end thereof for vaporizing said substance and directing the vaporized substance against the inner wall of said container, said vaporizer including a gas inlet tube provided with a plurality of restricted orifices extending radially outward towards the wall of said container and a plurality of liquid supply tubes having restricted openings positioned adjacent to said restricted orifices, a tubular member at another end of said container extending from and communicating with the interior of said container and adapted to have one end inserted within said tubular envelope with said one end closely adjacent to the area to be coated, and means including a peripheral ridge on the inner wall of said container intermediate said vaporizer and said tubular member for removing droplets from the vaporized substance.

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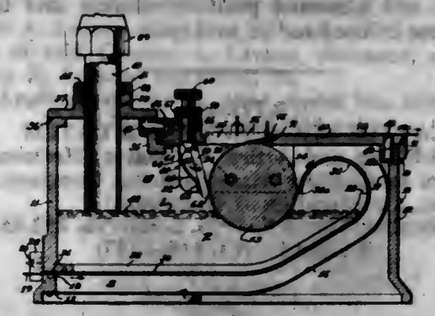
2,772,655

**COATING APPLICATOR FOR FLEXIBLE STRIP MATERIAL**

Donald G. Williamson and Melvin W. Snover, Winnetka, and Hilmar A. Andresen and Raymond H. Andresen, Chicago, Ill., assignors to Williamson Adhesives, Inc., Skokie, Ill., a corporation of Illinois

Application May 14, 1953, Serial No. 355,094
10 Claims. (Cl. 118—126)

1. An applicator for applying a liquid to a flexible backing strip, which comprises an open-top casing having bottom, side and end walls, a separate wall member spaced from said bottom and one end wall and joined to said side and other end walls to form a reservoir thereabove for said liquid and a guiding surface under said reservoir, said other end wall having a slot for admitting said flexible strip for passage along said guiding surface,



a stationary member having an arcuate surface extending into said reservoir, a doctor blade resiliently urged toward said arcuate surface, and a closure for said open top providing a slot above said stationary member for the withdrawal therethrough of said strip after passage thereof through said reservoir in contact with said stationary member and past said doctor blade.

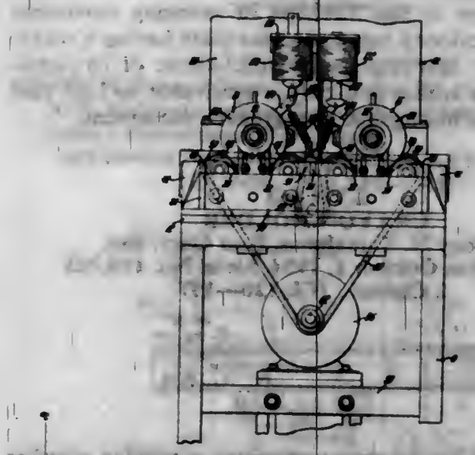
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2,772,656

**FILTER IMPREGNATION INJECTION MACHINE**

Warner E. Remington, Davison, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 23, 1952, Serial No. 327,642
3 Claims. (Cl. 118—302)



1. In apparatus of the class described, a support, a pair of longitudinally extending spaced guide rails to support and guide a hollow rotatable member during longitudinal movement, a pair of rolls rotatably mounted on said support adjacent an end of said rails in longitudinal alignment therewith and positioned to receive the member from said rails and rotate and support the member, the length of said rails and said rolls being substantially the same and slightly greater than the length of said member, each of said rolls having an integral flange adjacent their inner ends to limit the longitudinal movement of said member and position said member on said rolls, means to rotate said rolls, an elongated nozzle having outlets mounted on said support and extending along and above said rolls toward said rails, a valve mechanism to close said nozzle outlets, means to supply fluid to said nozzle, means to supply air under pressure to said nozzle to clear the fluid from said nozzle, a reciprocating member mounted below said rolls, a wiper mounted on said reciprocating member and engaging said nozzle to clean said nozzle, means mounted on said reciprocating member to move said hollow member from said guide rails onto said rolls to surround said nozzle and off said rolls and away from said nozzle and onto said guide rails.

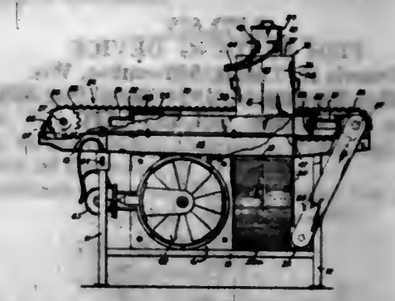
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2,772,657

**FABRIC ARTICLE TREATING APPARATUS**

Samuel P. Parker, La Grange, Ga., assignor to Callaway Mills Company, La Grange, Ga., a corporation of Georgia

Application September 22, 1953, Serial No. 381,585
6 Claims. (Cl. 118—315)



1. An apparatus for treating articles with a liquid, which comprises an endless conveyor belt with an upper horizontal stretch, a hood above the belt having an open lower end lying close to the upper stretch of the belt, means for discharging a spray of the liquid downward through the hood toward the belt, a pan structure including a pan below the belt having bottom openings at opposite sides of the belt beneath the hood, ducts within the pan structure leading upwardly from the respective bottom openings to about the level of the upper stretch of the belt, a chamber below the pan structure and closed at the top by the bottom of the pan structure, the ducts being open at their lower ends to the chamber, and the chamber having an outlet opening, a condenser in front of the opening, an exhaust chamber connected through the outlet opening to the first chamber, and a fan for exhausting the exhaust chamber.

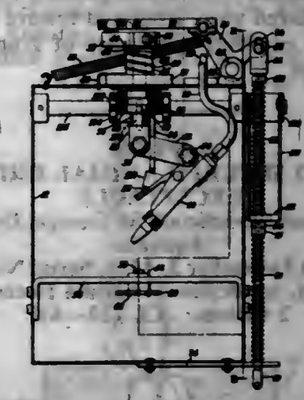
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2,772,658

**SPRAYING APPARATUS FOR CEMENT LASTING**

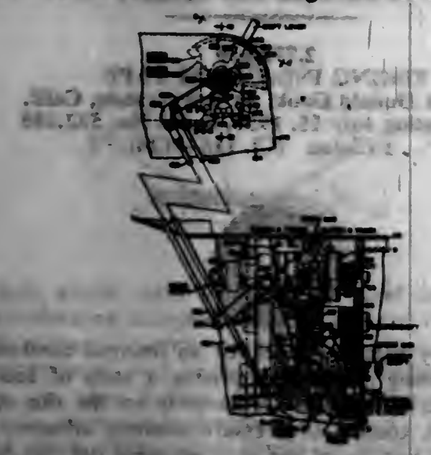
Norman V. Germany and Stephen A. Makovski, Leicester, England, assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application April 24, 1953, Serial No. 351,098
Claims priority, application Great Britain May 9, 1952
3 Claims. (Cl. 118—323)



1. In combination, a spray booth, a spray gun, a support for said gun including a rotatable spindle mounted in said booth, means mounted in said booth for engagement with a work piece to position the same in fixed relation to the outlet end of said gun, manual means for rotating said spindle to move the gun in one direction through a limited curved path relatively to the work piece, means independent of said manual means for automatically rotating the spindle in the opposite direction upon release of said manual means, a trigger on the gun,

for driving the countershaft from the input shaft and including a range clutch shiftable among neutral and first and second active positions; multi-speed drive means for driving the output shaft from the countershaft and including a speed clutch shiftable among neutral and first and second active positions; a speed selector movable among neutral and first and second active positions for achieving corresponding positions of the speed clutch and having a laterally opening shifter-receiving notch; a shifter alongside and movable relative to said selector both laterally of and parallel to said selector and normally received in said notch; and a range selector movable par-



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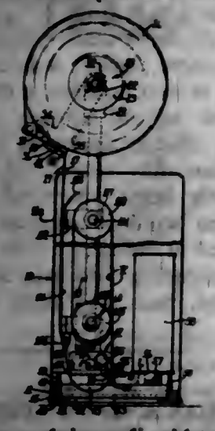
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2,772,653

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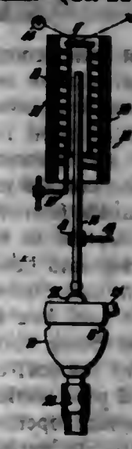
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2,772,654

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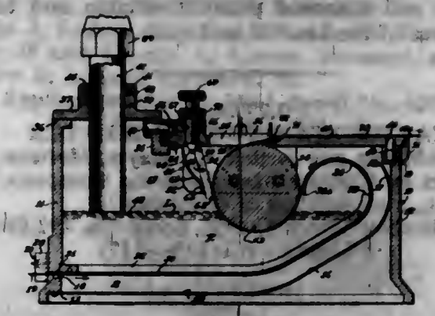
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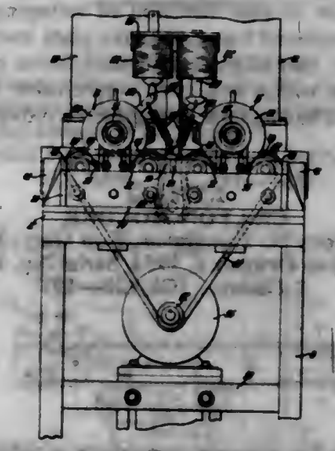
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2,772,656

**FILTER IMPREGNATION INJECTION MACHINE**

Warner E. Remington, Davison, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

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3 Claims. (Cl. 118—302)



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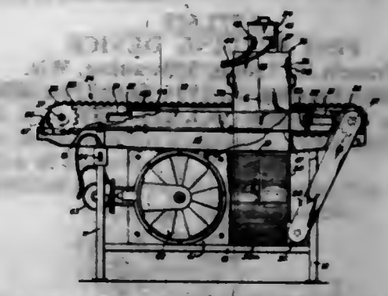
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2,772,657

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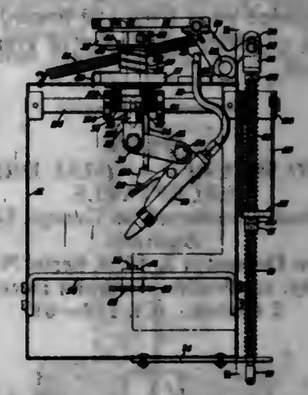
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2,772,658

**SPRAYING APPARATUS FOR CEMENT LASTING**

Norman V. Germany and Stephen A. Makovski, Leicester, England, assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application April 24, 1953, Serial No. 351,008
Claims priority, application Great Britain May 9, 1952
3 Claims. (Cl. 118—323)

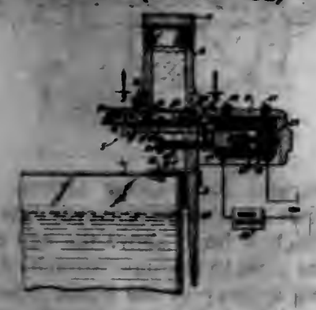


1. In combination, a spray booth, a spray gun, a support for said gun including a rotatable spindle mounted in said booth, means mounted in said booth for engagement with a work piece to position the same in fixed relation to the outlet end of said gun, manual means for rotating said spindle to move the gun in one direction through a limited curved path relatively to the work piece, means independent of said manual means for automatically rotating the spindle in the opposite direction upon release of said manual means, a trigger on the gun,

means associated with the spindle and operated by said manual means to actuate the trigger in any position of the gun, said trigger actuating means being operative to maintain the trigger in actuated condition during rotation of the gun in both directions, and means associated with said manual means and effective to cause the trigger actuating means to operate the trigger prior to initiation of the rotation of the gun in said one direction and to release the trigger at the conclusion of the rotation of the gun in said opposite direction.

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2,772,659
FISH FEEDING DEVICE
Francis H. Tennis, Milwaukee, Wis.
Application January 11, 1954, Serial No. 403,418
8 Claims. (Cl. 119—51)



1. Apparatus for periodically dispensing a quantity of granular material such as fish food, said apparatus comprising: a body including a supporting bracket for mounting the apparatus above a location to which granular material is to be dispensed; means on said body defining a downwardly opening feed passage for granular material; a substantially horizontal trough on said body into which said feed passage opens, said trough having an open discharge mouth at one end thereof spaced a distance to one side of the outlet of said feed passage; a pusher movably mounted in the body for reciprocation in the trough toward and from the mouth thereof along a path adjacent to the outlet of the feed passage but spaced a distance therebeneath so that the pusher is incapable of blocking communication between the feed passage and the trough; means yieldingly biasing the pusher in one of its directions of reciprocation; and a solenoid mounted on the body and having a reciprocable plunger connected with the pusher to reciprocate the pusher so that in consequence of each cycle of energization and de-energization of the solenoid the pusher is moved away from and toward the mouth of the trough, for expelling a quantity of granular material out of the trough.

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2,772,660
GROUND SECURED ANIMAL DRINKING RECEPTACLE
Leslie V. Saul, Elvanbrook St. George, Queensland, Australia
Application December 3, 1954, Serial No. 472,981
Claims priority, application Australia December 8, 1953
2 Claims. (Cl. 119—61)



1. An improved drinking receptacle, for dogs and other animals, comprising an annular trough with a central crown, said crown having a central aperture therein, a spike extending through said aperture, a head upon said spike adapted to pass through said aperture, said spike having a length sufficient to locate said head above said central crown when said spike is in anchoring engagement with the ground, and a flat hook pivotally mounted upon said central crown adjacent said aperture, said hook being pivotal between a first position wherein said hook is located between the head of said spike and said central crown to prevent withdrawal of said annular trough from said spike and a second position wherein said hook is located clear of the head of said spike.

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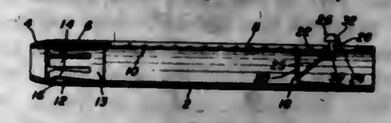
2,772,661
CATTLE STANCHION AND LATCH
Paul O. Schilling and Arthur G. Mayer, Horicon, Wis., assignors to Gardner Manufacturing Company, Horicon, Wis., a corporation of Wisconsin
Application March 8, 1955, Serial No. 492,856
8 Claims. (Cl. 119—147)



1. In a stanchion, the combination comprising a first stanchion bar having an arm extending laterally, a movable stanchion bar having an upper end movable laterally relative to said first bar, a retractable locking bolt projecting from an upper end portion of the movable bar, said arm comprising a channel opening downwardly and provided interiorly with a strike plate between the channel sides in the path of the bolt and having one end disposed at an angle to said path to force the bolt to its retracted position in one direction of swinging movement of the last mentioned bar, said strike plate having a socket to which said bolt is guided in the course of its movement and into which said bolt is receivable to lock said last mentioned bar against retrogressive movement.

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2,772,662
CRAYON HOLDER
Anthony N. Tamakumas, East Gary, Ind.
Application October 1, 1954, Serial No. 459,723
2 Claims. (Cl. 120—19)



1. A holder for crayons comprising a tubular member for receiving the crayon, the inside diameter of said tubular member being constant for the major portion of its length and slightly greater than the diameter of the largest crayon to be carried thereby, the inside diameter of said tubular member being reduced at its forward end so as to grip the largest crayon to be carried, said tubular member having an annular recess in its forward inner surface with a shoulder at each end, a resilient gripping member disposed in said recess, said gripping member being made of a sheet of spring-like metal having a solid rearward portion and a plurality of spaced fingers extending forwardly therefrom, said fingers being bent inwardly adjacent their ends to an inside diameter substantially the same as the smallest crayon to be carried, whereby said inside diameter is adjustable to the size of the largest crayon to be carried when the ends of said gripping member contact said shoulders, said tubular member having a slot therein extending from a point adjacent its rearward end to a point adjacent its forward end, a generally U-shaped spring member disposed in said tubular member adjacent its rearward end with the base of the U-shaped



member facing forwardly, and a member attached to the end of one of the legs of the U-shaped member and extending through said slot to the outside of said tubular member.

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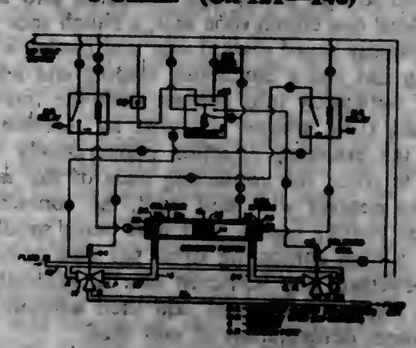
2,772,663
AIR DRIVEN SANDER
George A. Larson, Rockford, Ill.; Alice R. Larson, executrix of said George A. Larson, deceased, assignor to Alice R. Larson, Rockford, Ill.
Application May 14, 1954, Serial No. 429,868
16 Claims. (Cl. 121—3)



1. A reciprocating air motor comprising a cylinder having air inlet ports spaced inwardly from the opposite ends and air outlet ports spaced farther inwardly from said ends, a piston reciprocable in said cylinder, valves slidable as pistons relative to and adapted to cover and uncover the intake ports alternately and arranged to be engaged and moved outwardly by the piston, spring means normally urging said valves inwardly, a secondary cylinder in spaced parallel relation to the first mentioned cylinder having air exhaust ports spaced inwardly from the opposite ends communicating with said outlet ports, a slide reciprocable in said secondary cylinder and adapted to cover and uncover said exhaust ports alternately, and means connecting said piston and slide to reciprocate in unison.

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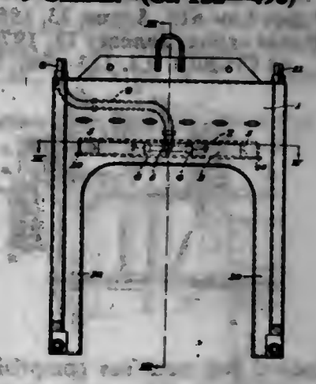
2,772,664
FLUID FLOW METER
Clifton H. Jones, Nixon, and Charles W. Foust, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application December 11, 1953, Serial No. 397,598
1 Claim. (Cl. 121—148)



In an apparatus for measuring fluid flow through a conduit system including upstream and downstream sections of said system, a measuring cylinder closed at each end, a free piston within said cylinder adapted for reciprocal movement between the ends thereof, a pair of 3-way valves, each communicating with said cylinder at opposite ends thereof and alternately with each of said upstream and downstream conduit sections, electrical valve operating means adapted alternately to establish fluid flow into and from said cylinder from opposite ends from and to said respective upstream and downstream conduit sections, whereby said piston is moved reciprocally in said cylinder from end to end by fluid flow from said upstream section, an inter-acting series of electrical circuits to actuate said valve operating means alternately and successively, the improvement which comprises a switch mechanism at each end of said cylinder including a reciprocal switch operating probe extending axially into said cylinder for pressure engagement by said piston at the end of each full stroke thereof, and an electrical shock absorber spring disposed internally of said cylinder at each end thereof, co-axially with said probe and cylinder and extended inwardly of the cylinder beyond the inner end of said probe, each of said shock absorber springs being connected in said electrical circuits as a ground connection between one of said switches and said cylinder, and wherein said piston, at each end of its reciprocal stroke, engages one of said springs immediately prior to engagement with the probe with which said spring is associated.

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2,772,665
WATER COOLED FURNACE STRUCTURES
Oscar M. Fox, Pittsburgh, Pa., assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application March 19, 1949, Serial No. 82,463
9 Claims. (Cl. 122—498)



3. A hollow water cooled furnace part having inlet and outlet openings, comprising a body portion, a hollow offset margin portion, a water manifold connected with the inlet opening, oppositely projecting nozzles on said manifold introducing water into the offset portion at a pressure differential with respect to the water in the body portion, partitions in the body portion directing the flow of water, said partitions and nozzles being spaced relative to one another to create an aspiratory action whereby the water is caused to flow between the body portion and the marginal portion and outlet means for carrying water out of the part.

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2,772,666
INTERNAL COMBUSTION ENGINE
Anthony V. Zapf, Bronx, N. Y.
Application April 12, 1955, Serial No. 500,867
1 Claim. (Cl. 123—74)

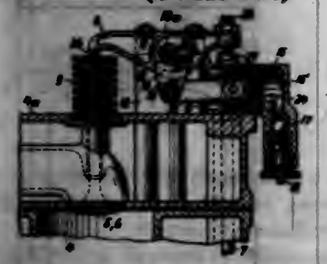


In an internal combustion engine, a cylinder, a piston rod slidably disposed within one end of said cylinder, means for supplying combustible gases to the other end of said cylinder, a frusto-conical portion secured to the inner end of said piston rod, a depending hollow, cylindrical portion connected to said frusto-conical portion and slidable within said cylinder, said cylinder having a bypass port extending from the combustion chamber to the center of the cylinder, said frusto-conical portion

and cylindrical portion having an air port bore extending therethrough and connecting the interior thereof with said bypass port at the end of the piston stroke, said cylinder having a plurality of exhaust openings in the side wall thereof adapted to be opened upon the movement of said piston rod to the extreme end of its stroke after the explosion whereby to relieve the pressure in the combustion chamber, said cylinder having an air intake opening below said bypass port adapted to be opened when the piston is in the other extreme position just prior to the explosion whereby to fill the other end of the cylinder with air under vacuum action.

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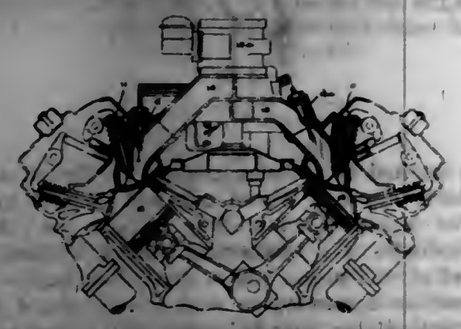
2,772,667
VALVE-CONTROL
Friedrich K. H. Nallinger, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application May 15, 1951, Serial No. 226,351
In Germany January 13, 1950
Public Law 619, August 23, 1954
Patent expires January 13, 1970
10 Claims. (Cl. 123—90)



1. Valve control for machines comprising a valve, a push rod, a rocking lever for transmitting the control motion from said push rod to said valve, means for supporting said rocking lever including an eccentric member, a lever connected with said eccentric member, a piston member connected with said lever, a rigidly arranged cylinder for said piston member, said piston member performing a forward and backward movement in said cylinder, a pressure means having a pressure medium, duct means from said pressure means to one side of said piston member for urging said piston member and said eccentric member by said pressure medium in the direction of compensation of play occurring in the direction of movement of said rocking lever, and means located on the other side of said piston for constantly urging said piston in the direction from the other side toward said one side.

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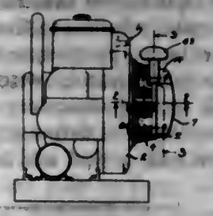
2,772,668
FUEL INJECTION SYSTEM
Carl H. Nystrom, West Springfield, Edward M. Bach, Longmeadow, and Arthur E. Huse, Springfield, Mass., assignors to American Bosch Arma Corporation, a corporation of New York
Application February 17, 1954, Serial No. 410,906
6 Claims. (Cl. 123—140)



1. In a device of the character described, a housing having a bore comprising spaced bore sections and a sump intermediate said bore sections, a fuel pumping and distributing member mounted for rotation and reciprocation in said bore, a plurality of outlets communicating with said bore, a face cam operatively connected to said pumping and distributing member adjacent an end thereof for effecting movement of said member in one direction, means for effecting the return stroke of said member, said member having a hollow portion adjacent the end thereof opposite said face cam and a distributing port communicating with said hollow portion of said member, said distributing port being adapted to communicate with each of said outlets successively upon rotation of said member, said member also having fill and metering ports communicating with said hollow portion of said member and with said sump and an adjustable sleeve in said sump and surrounding said member adjacent said metering port for controlling the passage of fuel through said metering port and means whereby said member may be rotated for effecting simultaneous rotation and reciprocation thereof.

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2,772,669
ENGINE PULL STARTER
Werner E. Armstrong, Milwaukee, Wis., assignor, by mesne assignments, to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application September 8, 1953, Serial No. 378,765
10 Claims. (Cl. 123—185)



1. In a pull starter the combination comprising a circular shell attachable to the crankshaft of an engine to be started, a stationary mounting including a stationary pivot in alignment with said shell, a spring-retrieved wrapped-cord pulley rotatably mounted on said pivot, a clutch support secured to said pulley and extending into said shell having at least one clutch shoe seat, a clutch shoe received on and normally urged toward said seat having a contacting trailing end and a contacting leading end adapted to be shifted outwardly into contact with the interior surface of said shell, means activated by rotation of said pulley in the cranking direction cooperatively engaging said shoe to force the contacting ends of the same outwardly into contact with said shell, the contacting portions of the trailing end of said shoe being small in area to impose a high contacting stress per unit of area sufficient to penetrate any lubricant film accidentally adhering to the interior surface of said shell without substantial permanent deformation of said shell.

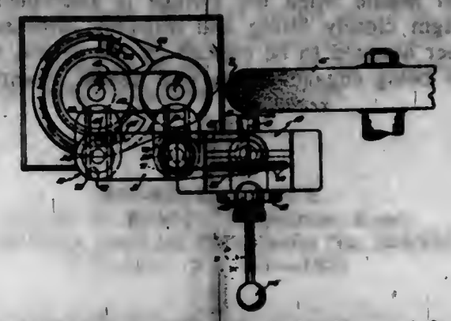
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2,772,670
GRINDING WHEEL TRUING MECHANISM
Charles H. Jones, Jr., Lunenburg, Mass., assignor to Gould Engineering and Sales Co., Inc., Leominster, Mass., a corporation of Massachusetts
Application April 19, 1954, Serial No. 423,984
10 Claims. (Cl. 125—11)

1. Grinding wheel truing mechanism including a truing tool, indexing means for the tool comprising a first and a second element, said tool being supported in one of said elements, said elements being adjacent and relatively movable in a predetermined path, a rotatable member seated in said second element adjacent said first element, a spring urging said rotatable member to turn, a track in said first element corresponding to said path, said rotatable member having a raised portion slidably engaging said track, said track having a widened portion including co-



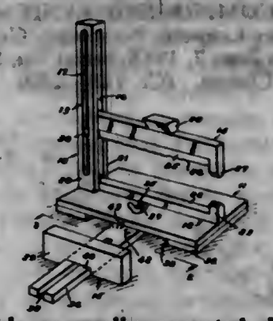
operating faces angularly disposed to said track which are offset from each other thereby allowing said rotatable member to turn within limits when its said raised portion enters said widened track portion during relative move-



ment of said elements, said angularly disposed faces engaging said raised portion against the force of said spring when the rotatable member is in said turned position thereby causing said rotatable member to resist further relative movement of said elements.

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2,772,671
MASON'S BRICK CUTTER
James E. Nowak, Detroit, and Herbert Bischoff, East Detroit, Mich.
Application March 28, 1955, Serial No. 497,124
5 Claims. (Cl. 125—23)

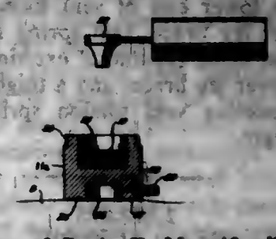


1. A portable manually operated device for cutting bricks and the like comprising a base, a fixed elongated blade rigidly secured to said base, said fixed blade extending vertically upwardly from said base and having an upper cutting edge, a movable elongated blade directly above said fixed blade and having a lower cutting edge opposed to the upper cutting edge of said fixed blade, means mounting said movable blade for sliding movement and for swinging movement about one end thereof relative to said fixed blade in a vertical plane including said fixed blade, said mounting means including a guide fixed to said base at one end of said fixed blade and extending vertically upwardly from said base, means connecting said one end of said movable blade to said guide for vertical sliding movement along said guide and for swinging movement in a vertical plane to permit the insertion of a brick or the like to be cut into the space between said blades by movement of the brick in a lengthwise direction relative to said blades between the swinging end of said movable blade and the corresponding end of said fixed blade when said movable blade is moved upwardly by sliding and swinging sufficiently to permit such insertion.

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2,772,672
MEANS AND METHODS FOR EXAMINING THE NATURE OF CARDIAC ACTIVITY
Samuel Lesser, Brooklyn, N. Y., assignor to Jewish Sanitarium and Hospital for Chronic Diseases, Kings County, N. Y., a corporation of New York
Application March 30, 1953, Serial No. 345,555
7 Claims. (Cl. 128—2.05)

1. A combination for studying cardiac impulses including a container substantially of cylindrical shape of about two inches in height and two inches in diameter and provided with a cavity about one inch deep and one and one half inches in diameter, the container weighing between eight and ten ounces; a dark liquid



having a viscosity of S. A. E. No. 40 oil in the cavity and about half filling same, and a lighted otoscope above the level of the liquid for shining a light onto the surface of the liquid and for observing the reflection of the light from the surface.

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2,772,673
ARTIFICIAL RESPIRATION APPARATUS
Thomas C. Huxley III, Manhasset, N. Y., assignor to Coniloch, Ltd., New York, N. Y., a corporation of New York
Application June 18, 1952, Serial No. 294,163
26 Claims. (Cl. 128—30)



1. Apparatus for producing artificial respiration comprising a casing adapted to fit over and enclose at least the frontal portion of the patient's abdominal region, said casing having a suction duct in communication with the interior thereof, means for supporting said casing at its lower end whereby to relieve the patient of the full weight of the apparatus, means for sealing said casing to the patient's frontal portion at the marginal edges of the former, and means at the lower end of said casing to automatically adjust the width thereof to the patient, said last mentioned means comprising a resilient member associated with a side portion of said casing and said sealing means, said member being in operative relation with said sealing means and adapted to resiliently urge adjacent portions thereof laterally inwardly whereby to lightly clamp said sealing means to associated portions of the patient's body when said apparatus is fitted to the patient's body.

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2,772,674
ORTHOPEDIC TORSION LEG BRACE
Edward Swiech and Vesuna A. Swiech, Seattle, Wash.
Application November 25, 1953, Serial No. 394,312
6 Claims. (Cl. 128—80)

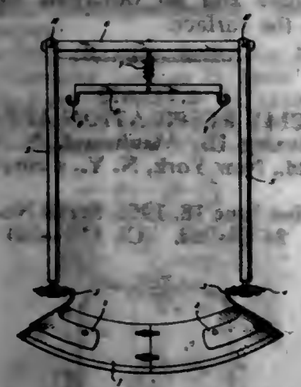


4. In a torsion leg brace, a waist encircling pelvic band; a calf engaging leg band; a lower leg brace having its

upper end connected with said calf engaging leg band and having shoe engaging means at its lower end; torsion spring means; devices connecting the upper end of said torsion spring means with said pelvis band; other devices connecting the lower end of said torsion spring means with said lower leg brace, said spring means when torsionally stressed being capable of exerting a constant torsion on said lower leg brace; and a thigh encircling band rotatively supporting said torsion spring means intermediate its length.

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2,772,675
**HEAD SUPPORT**
Benjamin F. Simmons, Lake Charles, La.
Application July 2, 1954, Serial No. 443,498
9 Claims. (Cl. 128—87)



1. A neck traction device comprising a base shoulder rest, a head bridging structure having a pair of spaced uprights and means interconnecting their upper ends to accommodate their tilting adjustment one relative to the other, means attached to the upper portion of said head bridging structure for yieldably suspending a head harness and pivotal connection means between the head bridging structure and said base shoulder rest, accommodating limited universal swivel movement therebetween and including interengaging abutment stops precluding rotation of said uprights about their longitudinal axes.

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2,772,676
**CONNECTING DEVICE FOR BONE FRACTURES IN THE NEIGHBORHOOD OF JOINTS**
Ernst Pohl, Kiel, Germany
Application December 4, 1952, Serial No. 323,970
Claims priority, application Germany December 6, 1951
11 Claims. (Cl. 128—92)

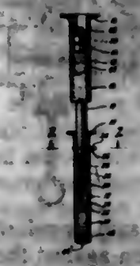


1. Connecting device for fractures in the neighborhood of joints, more particularly for femoral neck and subtrochanteric fractures, consisting of two connecting elements to be separately driven through the femoral neck into the femoral head, said elements being loosely coupled at their outer ends to allow a relative longitudinal movement.

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2,772,677
**SYRINGE ASSEMBLY**
Izaak A. Ulert, Walter J. Haldas, and Walter J. Larke, Houston, Tex.
Application February 18, 1953, Serial No. 337,466
8 Claims. (Cl. 128—215)

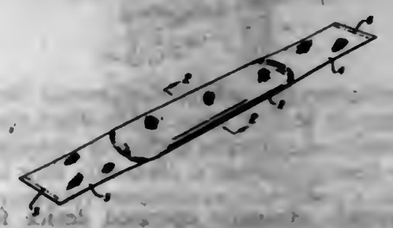
8. A hypodermic syringe assembly comprising, in combination, a syringe including a barrel, a plunger movable in the barrel, a projecting head member on the barrel, and an injection needle extending from the head member; and a container releasably and movably connected to said syringe and movably receiving said head member and needle when the syringe is assembled, and a diaphragm closely fitting and movably disposed in the container adapted to be pierced by the needle, said diaphragm being engageable by said needle, inward move-



ment of the needle in the container serving to effect engagement of the needle with the diaphragm and to pierce and move the diaphragm inwardly thereby forcing liquid in the container through the needle and into the barrel into contact with medicament therein; and means on the plunger and container for connecting the container to the plunger whereby upon connection thereof the container serves as a handle for the plunger.

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2,772,678
**FOLDED AND COMPRESSED SANITARY NAPKIN**
Curt Walter Leupold, Nurnberg, Germany
Application June 7, 1955, Serial No. 513,656
7 Claims. (Cl. 128—290)



1. Folded and compressed sanitary napkin, folded upon itself approximately midway between its ends, rolled up and then compressed, the end margins being placed one a little after the other, said end margins being free from attachment to each other along their lateral edges, whereby unfolding of the napkin by separation of one of the end margins from the other is facilitated.

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2,772,679
**OPTICAL PHOTOLUMINESCENT INDICATING DEVICE FOR HIGH FREQUENCY THERAPEUTIC TREATMENT CIRCUIT**
Arnulf Grabbert, Wiesbaden, Germany
Application July 11, 1952, Serial No. 298,322
2 Claims. (Cl. 128—421)

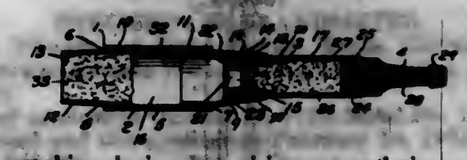


1. In combination with an electro-therapeutic short wave apparatus; a casing, perforated covering means on said casing, an output circuit, an indicating device comprising a luminescent element including a transparent carrier which is at least partly coated on its inner side with a luminescent material, holder means for said element including a pair of clamps each having a flat lower face, a slotted pin in said flat face, a knurled screw adapted to fasten the clamp on the element, whereby the element can be secured to the casing of the apparatus by plugging said slotted pins into any of the perforations, and means for coupling said element with said output circuit in such a way that the state of tuning and the output of said circuit are optically indicated by the length of the luminous column and the intensity thereof, respectively.



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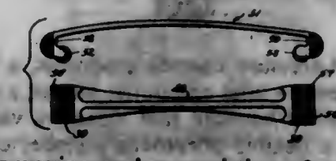
2,772,680
**SMOKING DEVICE**
George W. Rohfeld, Manhattan, Kans.
Application April 26, 1952, Serial No. 284,537
2 Claims. (Cl. 131—182)



2. A smoking device comprising a mouthpiece, a stem, and a tobacco receptacle all interconnected in axial alignment with the tobacco receptacle having an annular wall provided with a tapered portion at one end engaging a tapered end on the stem and said receptacle having an open opposite end through which tobacco is inserted into the tobacco receptacle, said stem having a filter chamber therein for containing a filtering material and said tapered end having a smoke passageway of smaller diameter than the filter chamber for communicating the filter chamber with the tobacco receptacle, said stem being reciprocable within the receptacle and the tapered portion of said stem having an annular tamping face encircling the smoke passageway and a surrounding annular lip engaging the wall of the receptacle to dislodge burnt tobacco from the receptacle and to pack tobacco within the open end portion of the receptacle upon reciprocation of the stem to and from a position with the tapered portion of the stem engaging the tapered portion of the receptacle, said mouthpiece having an end removable from the end of the stem opposite the tapered end thereof to permit the insertion of filtering material into the filter chamber and replaceable to retain the filtering material, the mouthpiece having a bit portion of slightly greater width than the tapered portion of the receptacle adapted to cooperate with the tapered end of the stem in retaining the stem in connection with the receptacle, and said tapered portion of the receptacle being yieldable to permit removal of the stem.

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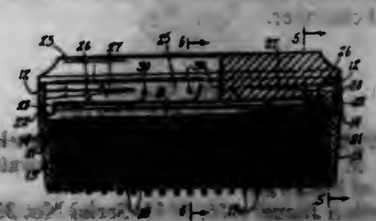
2,772,681
**APPARATUS FOR WAVING HAIR**
James A. Swenson, Waltham, William E. Burns, Norfolk, and Richard H. Sloan, Revere, Mass.
Application June 27, 1951, Serial No. 233,818, now Patent No. 2,648,340, dated August 11, 1953, which is a division of application Serial No. 117,597, September 24, 1949, now Patent No. 2,584,760, dated February 5, 1952. Divided and this application March 12, 1953, Serial No. 341,904
3 Claims. (Cl. 132—40)



1. A hair-waving curler consisting of a main or body member of elongated form and a wholly structurally separate cooperating second member, also of elongated form for positioning in generally parallel laterally spaced relation on and along the body member in end engagement therewith, said body member having at each end an enlarged head with a longitudinal outwardly open socket, and the cooperating second member having opposed reversely inwardly directed rounded knobs receivable in the head sockets of the body member to effect said mutual positioning of the two members, and said two members each having at the respective ends mutually cooperable holding formations for restraining the body member from rotative movement about a longitudinal axis and relative to the second member, said formations comprising a series of elongate recesses distributed circumferentially about such longitudinal axis of the body member upon the surface of each of the heads thereof, together with jutting edge formations on the second member adjacent the respective knobs thereof and adapted for interlocking rotation-restraining engagement with any opposite recess of the series thereof on the corresponding head of the body member.

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2,772,682
**COMB**
Walter Pfaeger and Henry Angenstein, Newark, N. J.
Application July 18, 1955, Serial No. 522,739
2 Claims. (Cl. 132—135)



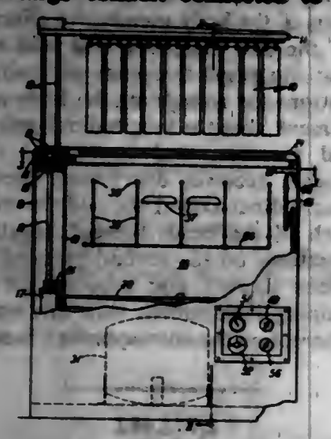
1. A comb comprising a fixed comb section and a removable and swingable comb section, said fixed comb section having a hollow body portion open at the top and with spaced openings in the bottom, integral spaced teeth depending from the bottom of said body portion, said removable and swingable body section including a shaft rotatably mounted in the bottom of said hollow body portion, and integral teeth on said shaft extending through the openings in the bottom of the body portion and disposed between the teeth on the hollow body portion, and a back portion seated on said hollow body portion, and means carried by said back portion and body portion for interlocking the comb sections and back portion, said interlocking means including spring fingers on the back portion engageable with the shaft of the swingable section, and complementary and coacting protuberances and depressions on the back portion and body portion, respectively.

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2,772,683
**MASK-CLEANING MACHINE**
Harry Szczepanski, Grand Rapids, Mich.
Application July 18, 1952, Serial No. 299,540
4 Claims. (Cl. 134—44)

1. A mask-cleaning machine, comprising: means forming a spray chamber; rack means for supporting masks in said spray chamber; spray means disposed within said chamber to direct spray at masks supported by said rack means; a solvent container disposed below said chamber; drain means connecting the bottom of said chamber with said container, said drain means including a one-way valve preventing flow from said container; condult means connecting said container with said spray means to supply solvent thereto; air-pressure supply means including control means and adapted to apply pressure to said container to induce flow of solvent to said spray means, said air-pressure supply means including air release valve means, timing means actuating said air release valve means to exhaust the air pressure from said container on completion of a solvent-spraying action; and purging means in-

cluding selector valve means in the conduit means connecting said container with said spray means and adapted to divert flow therefrom, said purging means including an extensible discharge conduit connected to said selector



valve means, the end of said discharge conduit being normally disposed within said spray chamber for discharge thereinto and extendable therefrom for discharge externally of said chamber.

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2,772,684
ADJUSTABLE CANOPY
Alfred E. Puls and Donald R. Hoag, Cleveland, Ohio, assignors to Robco-Tonda License Corporation, a corporation of Delaware
Application January 26, 1953, Serial No. 333,044
3 Claims. (Cl. 135—5)



1. A canopy comprising a curved support having a slot in the curved portion thereof, a bolt extending through said slot and having a head operatively engaging said support, a plurality of canopy support arms pivotally carried by said bolt on a side of said support space from the bolt head, a lock nut in threaded engagement with said bolt intermediate said support and the said support arms and spaced from said support, spring means compressed intermediate said support and said support arms by engaging said lock nut, and lock nut means on said bolt for pressing said support arms against said lock nut to secure said support arms in position whereby the assembly of said bolt and support arms can be slid along in said slot when additional compressive pressure is exerted on said spring means and said bolt head is released from engaging said support.

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2,772,685
TELESCOPIC POCKET UMBRELLA
Benno Leo Koch, Geneva, Switzerland
Application September 22, 1953, Serial No. 381,546
Claims priority, application Switzerland October 25, 1952
1 Claim. (Cl. 135—26)

A telescopic pocket umbrella comprising a central rod having upper and lower ends, a rosette on the upper end of said central rod, said rosette being provided with a plurality of recesses, a plurality of supporting rods having upper and lower ends, the upper ends of said supporting rods being hook-shaped and seating in said recesses of said rosette, respectively, ring means hingedly connecting said hook-shaped ends of said supporting rods to said rosette for pivotal movement of said supporting rods with respect to said central rod, said central rod and said supporting rods including a plurality of tubular rod sections of stepped diameters telescopically displaceable within each other, respectively, each of said rod sections including stop means for maintaining said rods in extended position, said stop means comprising a conical head including a projecting edge at one end of each of said rod sections, respectively, and two oppositely directed inwardly bent tongues at the other end of each of said rod sections, respectively, said tongues defining a slot therebetween, said head of each of said rod sections extending into the adjacent rod section for cooperation with the slot of said adjacent rod section,



sleeve means on one of the rod sections of said central rod, said sleeve means being displaceable upwardly along said one rod section in moving from closed to open position of said umbrella, a plurality of rod members hingedly connecting said sleeve means with said supporting rods, respectively, and flange means provided with an upright rim and carried on said lower end of said central rod, the lower ends of said supporting rods, respectively, being secured in said rim of said flange means in closed position of said umbrella, whereby upon telescopically extending said central rod said supporting rods are simultaneously extended, upward movement of said sleeve means then effecting pivotal displacement of said supporting rods to open said umbrella.

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2,772,686
VALVE MECHANISM
Irving R. Versay, New Haven, and Frederic D. Meller, Orange, Conn., assignors to The Berger Brothers Company, New Haven, Conn., a corporation of Connecticut
Application November 28, 1952, Serial No. 322,864
2 Claims. (Cl. 137—39)



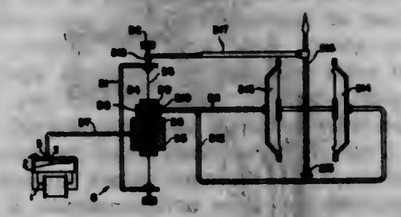
1. In a fluid-pressure control apparatus, a casing having positive pressure inlet and outlet means, a port affording communication between said means, a valve controlling said port, a flexible pneumatic member connected to said valve and biased to urge the valve to closed position, means normally subjecting both sides of said member to the fluid pressure in said inlet means to hold the valve in closed position, means controlled by the action of centrifugal force to vent to the atmosphere the fluid pressure



on one side of said member and effect the opening of the valve, said last-named means comprising a vent port leading from said one side of said member, a weighted valve member moved by centrifugal force to control said port, and a spring acting against the weight of said weighted valve member to bias the valve member toward closed position, a second flexible member, exposed on one side thereof, to the pressure in said outlet means and on the other side to atmospheric pressure, said second flexible member being connected to said first valve to urge it toward closed position when subjected to the pressure in said outlet means after said first valve is opened under the influence of said first flexible member.

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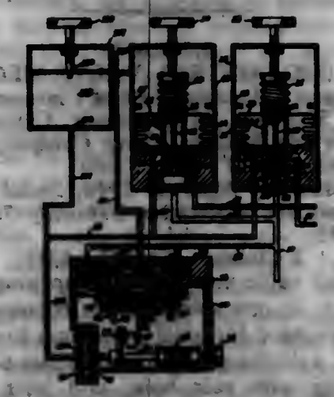
2,772,687
PRECISION GALVANOMETER
Guido Wilnsch and Horst Ziegler, Berlin, Germany, assignors to Askania-Werke, A. G., a corporation of Germany
Original application October 19, 1950, Serial No. 191,958. Divided and this application February 24, 1953, Serial No. 340,000
Claims priority, application Germany (U. S. Zone) October 29, 1949
7 Claims. (Cl. 137—83)



1. In a galvanometer having a coil deflectable relative to a field and about a vertical axis by a small electromagnetic torque, a deflection measuring device comprising wall means secured to the coil to form a hollow body deflectable with the coil; a vertically facing air inlet port, intersected by said axis, in said wall means; a laterally facing air outlet port, located laterally of said axis, in said wall means; jet supply means adapted to direct a vertical air flow along said axis and into the inlet port; and laterally facing jet relay received nozzle means opposite the air outlet port.

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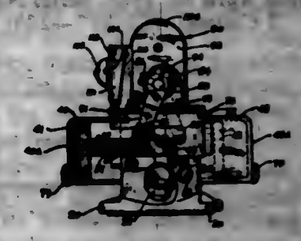
2,772,688
PNEUMATIC CYCLE TIMER
Peter R. Brock, Hagerstown, Md., and Alexander v. d. Luft and William F. Schmeckebier, Martinsburg, W. Va., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application September 13, 1954, Serial No. 455,452
4 Claims. (Cl. 137—102)



1. A pneumatic cycle timer comprising in combination a gas pressure source, at least one pair of pneumatic relays each having service gas inlets in communication with said gas pressure source and service gas outlets each in communication with at least one individual signal line, a cycling relay having a chamber provided with a valved port in communication with said gas pressure source and a second valved port venting to atmosphere, said cycling relay being further provided with gas pressure-actuated means for opening and closing said valved ports in alternation upon the application of preselected pressures to said pressure-actuated means, a gas storage reservoir provided with two gas storage chambers, a throttling valve connecting said two gas storage chambers, gas passage means connecting said chamber in said cycling relay with one of said gas storage chambers, and other gas passage means connecting the other of said gas storage chambers in operative relationship with said pressure-actuated means and with the actuating means of said pneumatic relays.

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2,772,689
MILKING MACHINE TIMING DEVICE
Theodore Asti, Milwaukee, Wis.
Application January 22, 1952, Serial No. 267,570
14 Claims. (Cl. 137—103)



1. A vacuum-actuated milking device adapted to pulse vacuum alternately to one and then another conduit and comprising in combination, a motor cyclically shiftable by vacuum from one limit position to another and then back, a valve operated by and under control of the motor, the valve having one setting corresponding to the said one limit position of the motor whereat vacuum is adapted to be pulsed to the one conduit and having another valve setting corresponding to the said other limit position of the motor whereat vacuum is adapted to be pulsed to the other conduit, the valve having an intermediate position corresponding to an intermediate position of the motor whereat both conduits are closed to atmosphere to maintain vacuum in the lines, counting means arranged in said device and adapted to count the cyclic movements of the motor, means cyclically shiftable between limit positions with the motor for moving the counting means one unit for each cyclic movement of the motor, said last-named means having an intermediate position determinative of the said intermediate position of the motor, and means for locking the counting means at a predetermined number to maintain the means cyclically shiftable with the motor and the valve at the said intermediate positions thereof.

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2,772,690
BLEEDER VALVE
Jean Mercier and Jacques H. Mercier, New York, N. Y.
Continuation of abandoned application Serial No. 648,711, February 19, 1946. This application March 31, 1953, Serial No. 345,986
16 Claims. (Cl. 137—119)

1. A bleeder valve comprising a casing having an inlet port, an outlet port and a bleeder port, a main valve controlling flow from said inlet port to said outlet port, resilient means normally retaining said main valve in closed position, an auxiliary valve controlling flow from said inlet port to said bleeder port, means normally urging said auxiliary valve to closed position, means operatively connecting said two valves and retaining said auxiliary valve in open position when said main valve is closed, and means associated with said main valve when said main valve is

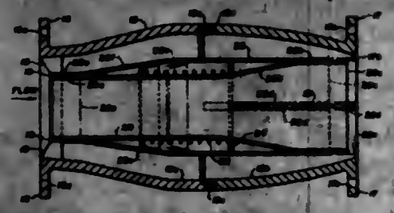
open, upon liquid flow to produce suction by venturi effect to overbalance the resilient means normally retaining the main valve in closed position, whereby when the



liquid flow rate falls below a predetermined amount required to overbalance the resilient means, said main valve will close to open said auxiliary valve for bleeding of liquid and gas through said bleeder port.

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2,772,691
FLUID FLOW REGULATOR
James David Hoffman, Pacific Palisades, Calif., assignor to North American Aviation, Inc.
Application April 22, 1953, Serial No. 350,473
2 Claims. (Cl. 137—220)



1. In a flow regulating device, a body member having inlet and outlet portions and an intermediate wall portion, support means disposed across said body inlet, support means disposed across said body outlet, an inner tubular element fixedly supported by said inlet and said outlet support means, an outer tubular element slidingly mounted upon said inner tubular element and having a tapered portion intermediate its ends merging in a portion of enlarged cross-section greater than that of the adjacent portion of the inner tubular element thereby forming a hollow space between the said inner and outer tubular elements, said tubular elements arranged to permit fluid flow through said inner element and outside of said outer element whereby increased flow rates of a predetermined magnitude cause axial movement of said outer tubular element to cause a portion thereof to assume a position adjacent said outlet to restrict said outer fluid flow and confine the fluid flow to a substantially predetermined rate through said inner tubular element, and resilient means disposed within the hollow space between said tubular elements in the vicinity of the tapered portion of said outer tubular element to oppose said axial movement of said outer tubular element.

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2,772,692
INFLATION VALVE WITH MANUAL OPERATOR
Lloyd E. Russell, Springfield, Ohio, assignor to Peters & Russell, Inc., Springfield, Ohio, a corporation of Ohio
Application March 5, 1953, Serial No. 340,490
12 Claims. (Cl. 137—223)



1. An inflator or like valve, including a cylindrical bushing presenting at its one end a valve seat and in inwardly spaced relation to said valve seat internal screw threads, a hollow adjustment member received in said bushing with external screw threads and having one end projecting through and beyond the other end of said bushing for manual rotation, said one end of the adjustment member being internally adapted to receive an air hose or the like, the other end of said adjustment member being formed with projecting fingers, and a valve element supported by said fingers for relative rotary motion and engageable and disengageable with respect to said valve seat under control of said adjustment member.

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2,772,693
DOUBLE ACTING VALVE
Arthur H. Bolleen and Charles J. Rayman, Cedar Rapids, Iowa, and Francis S. Beard, Chicago, Ill., assignors to Cherry-Burrell Corporation, Wilmington, Del., a corporation
Original application October 22, 1948, Serial No. 56,022, now Patent No. 2,665,628, dated January 12, 1954. Divided and this application April 3, 1952, Serial No. 281,113
3 Claims. (Cl. 137—512.3)



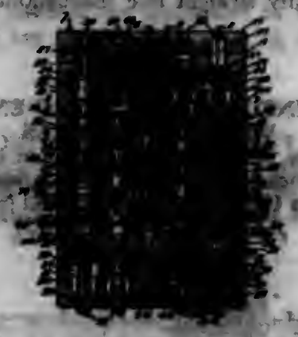
1. In a double acting valve of the class described the combination of a valve body having an inlet chamber with an inlet port at one end thereof, an outlet chamber having a lateral outlet port, said outlet chamber being disposed at an angle with respect to said inlet chamber and communicating therewith remote from said inlet port, and a piston valve in each of said chambers, said inlet chamber being provided with a groove extending from adjacent the inlet port toward said outlet chamber, the piston valve in said inlet chamber being weight biased toward said inlet port and retractable to permit bypass through said groove, and said outlet chamber being provided with a seat between the inlet chamber and the outlet port, the piston valve in said outlet chamber being resiliently biased toward said seat and retractable under pressure therefrom to permit flow therepast.

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2,772,694
HYDRAULIC CONTROL VALVE MECHANISM
Leon E. Simmons, deceased, late of Claremont, N. H., by Gladys L. Simmons, administratrix, Claremont, N. H., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Original application April 1, 1946, Serial No. 18,465. Divided and this application February 7, 1951, Serial No. 209,745
2 Claims. (Cl. 137—621)

1. A control valve mechanism comprising a valve box having a bore, an operator shiftable balanced spool type slide valve arranged for axial movement in said bore, an inlet passage, a discharge chamber, bypass passage means communicating with said bore, said inlet passage and said discharge chamber and through which liquid freely flows when said valve is in neutral position from said inlet passage to said discharge chamber, said valve having passage means between certain of the spools thereof for permitting such flow when said valve is in neutral position and said valve cutting off such flow when it is moved out of neutral position, a transverse pressure passage communicating with said bore, and a spring loaded pilot valve normally cutting off communication of said pressure passage with said inlet passage when said slide valve is in neutral position and said bypass passage means is open, said pilot valve having a pressure area subjected to liquid under pressure in said inlet passage and passage means openable, due to the building

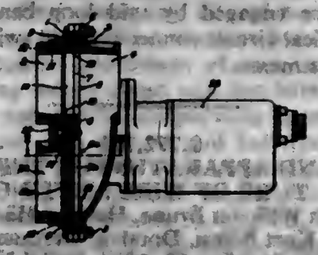




up of pressure in said inlet passage when said slide valve is moved out of neutral position as aforesaid, to effect liquid flow from said inlet passage to said transverse pressure passage, said pilot valve having spring means for opposing movement of said pilot valve toward open position, and loading means for said spring means set to exert different pressures, said pilot valve moving under the influence of liquid under pressure into a position so that its passage means connects said transverse pressure passage in communication with said discharge chamber whenever the pressure in the system becomes excessive.

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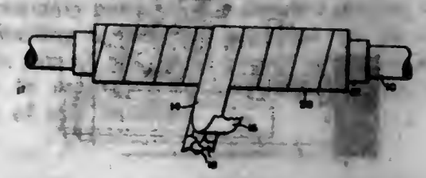
2,772,695
MIXING VALVES
Walter Mostyn Harrison, Cefn Coed, near Merthyr Tydfil, South Wales, assignor to Teddington Aircraft Controls Limited, Cefn Coed, Wales
Application March 1, 1952, Serial No. 274,411
Claims priority, application Great Britain March 20, 1951
1 Claim. (Cl. 137—625.4)



In valve structure for effecting a controlled admixture of fluids, housing structure defining two side-by-side fluid inlets and an outlet common to said inlets, said housing also including a common manifold chamber to which said outlet delivers fluid delivered from said inlets, said housing including internal recesses, slotted grid structure, means fixedly mounting said grid structure in said housing to form a partition between said inlets and said outlet, said housing recesses being located on one side of said partition, a pair of slotted gates of self-lubricating material, means mounting said gates for rectilinear guided motion in said housing recesses with the gates located against one side of said partition, actuator means for gates including frames embracing said gates for effecting simultaneous sliding movement thereof in opposite directions, said frames having extension portions having slots defined therein, driver means disposed in said slots for actuating said frames and gates, rotatable driven means upon which said drivers are eccentrically mounted for simultaneously actuating said frames and gates with sliding movement in opposite directions, said housing having internal pockets located adjacent said recesses, said gates having edge portions guided in said recesses and springs in said pockets acting against said edge portions for sealing said gates against said grid.

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2,772,696
FLEXIBLE RESIN BONDED MICA MEMBERS
William Schneider, Pittsburgh, Pa., and Aubrey W. Worthington, Irving, Tex., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 21, 1953, Serial No. 350,034
8 Claims. (Cl. 138—55)



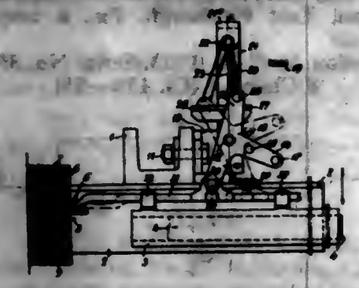
1. A flexible tube comprising a plurality of layers of helically wrapped mica tape, the tape comprising a sheet backing and mica flakes disposed thereon, and a thermosettable resinous binder impregnating the spaces and interstices between the layers of mica tape and between the mica flakes, the resinous binder composed of a partly cured composition comprising essentially from 30% to 60% by weight of a liquid vinyl aryl monomer and from 70% to 40% by weight of an unsaturated polyester of an ethylenic dicarboxylic acid and a polyhydric alcohol dissolved therein, the composition being heat-treated for a sufficient period of time and at a temperature to produce a partly cured resin having a flexibility corresponding substantially to that secured by heating for a period of from 3 to 4 hours at 135° C. a composition composed of 50% by weight of monostyrene and 50% by weight of a polyester of a viscosity of 1,000 poises at 25° C. prepared from 44 mole percent of adipic acid, 6 mole percent of fumaric acid and 50 mole percent of propylene glycol catalyzed with 0.5 percent by weight of tert-butyl peroxide.

7. In the process of preparing flexible mica tubing from mica flakes and a thermosettable resinous impregnant, the steps comprising applying to the surface of a mandrel a layer of parting material, wrapping on the treated surface of the mandrel a plurality of layers of sheet mica material, the sheet mica material comprising a sheet backing and a layer of mica flakes disposed on the sheet backing, and a liquid resinous binder applied to unite the mica flakes and sheet backing, the resinous binder having a viscosity of from 25 to 10,000 poises at 25° C., impregnating the mica sheet wrapping on the mandrel with a liquid, completely reactive, thermosettable resinous composition, which is compatible and miscible with the liquid resinous binder, the liquid, completely reactive, thermosettable resinous composition comprising essentially from 30% to 60% by weight of a liquid vinyl aryl monomer and from 70% to 40% by weight of an unsaturated polyester of an ethylenic dicarboxylic acid and a polyhydric alcohol dissolved in the liquid vinyl aryl monomer, wrapping the impregnated mica layers with an impervious sheet material to prevent escape of the liquid impregnant, heat-treating the entire mandrel assembly at a temperature and for a period of time to partly cure the resinous impregnant to produce a partly cured resin having a flexibility corresponding substantially to that secured by heating for a period of from 3 to 4 hours at 135° C. a composition composed of 50% by weight of monostyrene and 50% by weight of a polyester of a viscosity of 1,000 poises at 25° C. prepared from 44 mole percent of adipic acid, 6 mole percent of fumaric acid and 50 mole percent of propylene

glycol catalyzed with 0.5 percent by weight of tert-butyl peroxide, removing the impervious sheet material and removing the resulting mica tube from the mandrel.

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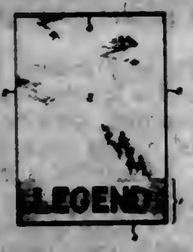
2,772,697
**SHUTTLELESS WEAVING LOOMS**
Raymond Dewas, Asnieres, France
Application August 4, 1953, Serial No. 372,283
Claims priority, application Great Britain August 6, 1952
6 Claims. (Cl. 139—35)



1. Means for controlling the warp threads in selvedges produced in a shuttleless weaving loom, comprising two stationary stops, an element mounted on the slay of the loom to slide into the shed and a spring urged toggle mechanism mounted on the slay and having projections that contact with said stationary stops as the slay moves to and fro initially to move the element positively until the toggle mechanism passes the point of unstable equilibrium when the full travel of the element is rapidly completed by the spring.

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2,772,698
**REVERSIBLE WOVEN FLAT FABRICS**
William A. Linehan, Jr., Raleigh, N. C., assignor to Raico Fabric, Raleigh, N. C., a partnership of North Carolina composed of William A. Linehan, Jr., and William L. Steele
Application September 17, 1954, Serial No. 456,824
4 Claims. (Cl. 139—384)




1. A reversible woven flat fabric comprising a predominant portion of single thickness, a tubular portion of a plurality of thicknesses and extending in one of the longitudinal and transverse dimensions of said fabric, and a design woven into each of the outer thicknesses of said tubular portion.

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2,772,699
**WOVEN WEBS**
Thomas M. Scruggs, Richmond Heights, Mo., assignor to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri
Application February 12, 1953, Serial No. 336,530
3 Claims. (Cl. 139—419)

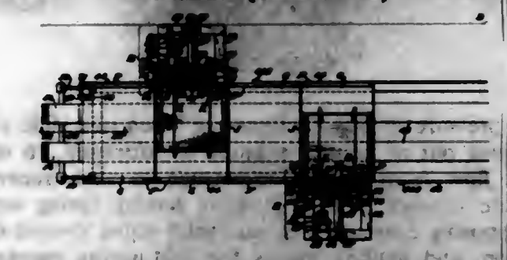
1. A leno-woven open-mesh web having paired warp and single filler strands, and a warpwise reference line adjacent one edge of the web extending continuously throughout the length of the web and established by having one warp strand of a pair adjacent said one edge of the web of a distinctively contrasting appearance with respect to the remainder of the web, each portion of said distinctive warp strand which lies between adjacent filler strands, in the unstressed condition of the web, being out of sidewise contact with adjacent portions of said distinctive



warp strand, and said distinctive warp strand extending as a substantially straight line throughout the length of the web.

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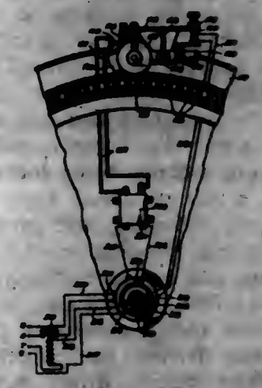
2,772,700
**MACHINE FOR ATTACHING ENDS TO WIREBOUND BOXES**
Richard L. Rice, Madison, N. J., assignor to Stapling Machines Co., Rockaway, N. J., a corporation of Delaware
Application October 20, 1951, Serial No. 252,261
3 Claims. (Cl. 140—93)



1. Apparatus for attaching the ends to wirebound box and crate blanks comprising a support for said blanks, a movably mounted clamp adapted to engage said blanks and hold them against movement on said support, movably mounted loop bending members adapted to engage wire loops projecting from said ends through openings in said blanks, a first motive means for moving said clamp into forcible engagement with said box blanks, a second motive means for driving said loop bending members to bend said loops around a part of said blanks to secure said ends to said blanks, a switch connected to control both said motive means, said switch being positioned to be actuated by certain parts of said blanks when said blanks reach the point where said loops are in position to be engaged by said loop bending members and an electrical circuit connecting said switch for control of said motive means.

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2,772,701
**PROCESS AND APPARATUS FOR THE MANUFACTURE OF WIRE NETTING**
Heinrich Wilhelm Brune, Herbert Hildrich, and Kurt Bähre, Dorsten, Germany
Application October 12, 1951, Serial No. 251,008
Claims priority, application Germany May 29, 1951
5 Claims. (Cl. 140—112)



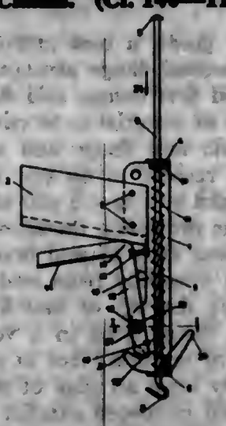
1. An apparatus for making wire netting including a revoluble wheel member having an annular fixed welding



plate connected to one side thereof, said plate being provided with circumferentially spaced recesses in the outer surface thereof, movable welding supports mounted in said recesses, an annular series of movable electrodes spaced outwardly from said supports, a guiding member positioned above said welding member, means for feeding spaced longitudinally disposed wires over said support and said guiding member, means for moving spaced transversely disposed wires externally over the longitudinal wires before the latter reaches the guiding member, and means for moving the electrodes to weld the transverse wires to the longitudinal wires at their points of intersection.

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2,772,702
**BINDING INSTRUMENT**
Donat Guignard, Sainte-Croix, Switzerland
Application May 28, 1953, Serial No. 356,243
Claims priority, application Switzerland June 13, 1952
4 Claims. (Cl. 140—119)

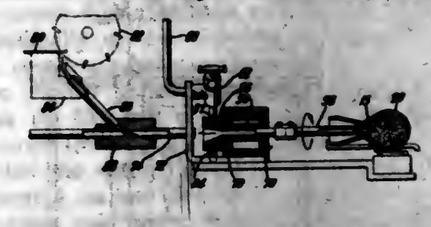


1. A binding instrument comprising a body having two ends, a handle projecting from said body, first and second perforated lugs rigid with said ends of said body, respectively, a bar slidably carried in the perforations of said lugs, respectively, and having first and second terminals extending beyond said first and second lugs, respectively, hook means on said first terminal of said bar, pin means on said second terminal of said bar for limiting longitudinal movement of said bar in one direction, stop means on said bar intermediate said lugs for limiting longitudinal movement of said bar in opposite direction, spring means about said bar between said first lug and said stop means, cooperating formations on at least one of said lugs and on said bar, respectively, for causing rotation of said bar when longitudinally displaced relative to said lugs, bell crank means pivotally secured to said body, and lock means on said bell crank means, said bell crank means and said handle together forming a pistol grip for said instrument, whereby upon relative dsiplacement between said body and said bar to compress said spring means and to cause rotation of said bar with said hook means, actuation of said bell crank means brings about engagement of said stop means with said lock means so as to retain said bar and said body in relatively displaced position thereof, deactuation of said bell crank means thereafter effecting release of said lock means from said stop means and reverse rotation of said hook means with said bar upon return of the latter to its starting position under the action of said spring means.

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2,772,703
**METHOD AND APPARATUS FOR FILLING FLASHBULBS**
Sedgwick Rusling Bennett and Allen Mertz, Williamsport, Pa., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application October 26, 1950, Serial No. 192,224
15 Claims. (Cl. 141—1)

15. In an apparatus for use in introducing and arranging filamentary particles in a flashbulb envelope, means comprising conduits for transporting filamentary particles in a gas stream from a source of supply to said envelope, said conduits including a hollow member adapted to receive and transport filamentary particles



and a nozzle in communication therewith for projecting said filamentary particles in a directed stream, and means for supporting a flashbulb envelope on an axis offset from the axis of the discharge end of the nozzle and in position to receive said stream directly on the inside sidewall of said envelope.

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2,772,704
**FLUID CONTAINER**
John N. McConnell, Evanston, and Harlan F. Boris, Chicago, Ill., assignors to American Hospital Supply Corporation, Evanston, Ill., a corporation of Illinois
Application August 21, 1952, Serial No. 305,654
5 Claims. (Cl. 141—24)



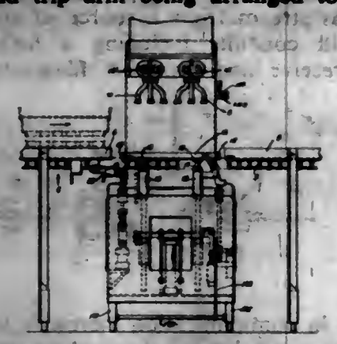
5. In combination, a container for fluids to be dispensed in drops and comprising a body portion, a neck portion providing an opening into the interior of the body portion, a cap removably mounted on said neck portion for closing the same, and a straight bore eye dropper mounted on said cap and extending into said container, one wall of said body portion having an inwardly directed shallow indentation adjacent the lower end of said one wall with the upper inner surface of the indentation forming the lower inner surface of an internal drop-receiving depression having an intermediate sump portion, said drop-receiving depression having the upper inner surface thereof positioned adjacent said neck portion and inclined from said sump portion gradually toward the oppositely disposed edge at the open end of the neck portion and at an angle such that the straight bore dropper is inclined from said oppositely disposed edge of the neck portion to lie substantially along the upper inner surface of said drop-receiving depression with the tip of the dropper projecting into the sump portion to pick up the last drop of fluid when the said drop-receiving depression is positioned lowermost with respect to the remainder of the said one wall of the body portion.

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2,772,705
**MOLD FILLING MACHINE**
Ralph F. Anderson, Rockford, Ill.
Application August 13, 1951, Serial No. 241,588
30 Claims. (Cl. 141—167)

2. In a mechanism for filling receptacles carried on a conveyor, the combination of an elevating table positioned intermediate the ends of said conveyor to receive a receptacle from the conveyor, a trip arm interposed in the path of movement of the receptacle advancing onto the elevating table, and means operative in response to the engagement of said trip arm by the receptacle which has advanced onto the elevating table for raising the elevating table and said receptacle to the filling position and for lowering said table after the receptacle carried thereby

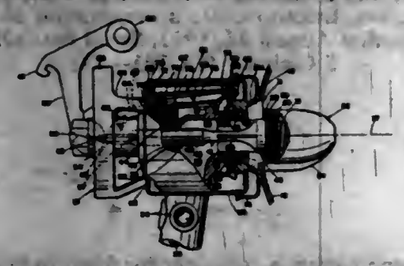
has been filled to discharge that receptacle back onto the conveyor, said trip arm being arranged to be engaged



by the receptacle as the latter is lowered and removed thereby out of the path of movement of the receptacle on the conveyor.

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2,772,706
NOZZLE
Erik Petas, Los Angeles, Calif., assignor to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application June 7, 1954, Serial No. 434,753
5 Claims. (Cl. 141—346)



1. A nozzle and adapter combination for filling a tank with fluid from a conduit, said nozzle connecting with the conduit for control of flow therethrough, and said adapter being attachable to a tank so as normally to close a hole therein, comprising: an adapter comprising an adapter body having a central axis and a passage therethrough for permitting fluid flow from one side of the adapter to the other, a closure member for closing said passage, said closure normally closing said passage and being movably mounted so as to permit fluid flow through said passage, and hook engaging means so disposed and arranged so as to be outside the tank when the adapter is installed thereon; and a nozzle comprising a nozzle body having a central axis, an opening through a side thereof and an internal flow chamber interconnecting said conduit and said outlet, a poppet valve adapted to plug said outlet in one position and to open said outlet in another position, an actuator handle mounted on the nozzle, said poppet being slidable by movement of said handle, a cam plate rotatably mounted with respect to the nozzle body, and interlocking means pivotally mounted to said nozzle comprising a retention member having a hook portion adapted to grasp said hook engaging means and a locking member so disposed and arranged that in one position it prevents rotation of the cam plate in one direction by standing in the way of the cam plate, and in another position permits such rotation, said interlocking means being tiltable and spring loaded so that a portion of the interlocking means changes its distance from the central axis when the nozzle is connected and disconnected to and from the adapter, and latching means actuatable by said actuator handle pivotally mounted so as to be moved to prevent rotation of said cam plate in a first position of the handle and to permit rotation of the cam plate in a second position of said handle, said second position being possible only when the nozzle is closed; whereby pressing the nozzle against the adapter causes the retention members to engage the hook engagement means thereby holding the nozzle and adapter together, and the locking member to release the cam plate for rotation, whereby the handle can be turned to move the poppet and open the outlet in the nozzle body and also to open the adapter, and whereby the interlocking means prevent the detaching of the nozzle from the adapter when the poppet valve is open.

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2,772,707
LENGTH AND SQUARE GUIDE FOR A POWER HAND SAW
Arnie E. Leino, Warrenville, Ill.
Application February 8, 1955, Serial No. 486,841
1 Claim. (Cl. 143—47)



In a power saw guide, a base embodying a horizontal first flange, a second flange arranged at right angles with respect to said first flange, said flanges adapted to engage a first piece of material to be cut, a bar extending outwardly from said first flange and arranged at a 90 degree angle with respect to an end thereof, said bar adapted to be engaged by a saw, a pair of hollow brackets on said base for the projection therethrough of a second piece of material and each of said brackets including a first arm extending upwardly from said first flange, said first flange engaging the top of said first piece of material, said second flange lying in a vertical plane and engaging the edge of the first piece of material, a finger extending outwardly from an edge of said first flange, a second arm arranged in spaced parallel relation with respect to said first arm and extending from said finger, a web extending between said first and second arms and arranged at right angles with respect to said arms, a securing element extending through each of the webs of said brackets, and a stop member adjustably mounted on said second piece of material and including an adjustable securing element.

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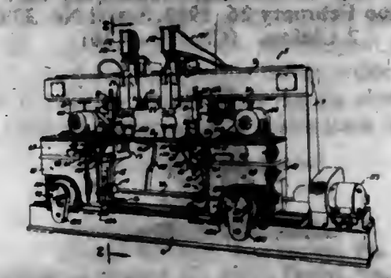
2,772,708
INTEGRAL LOOP BLADE-ANCHORING MEANS FOR HIGH-FREQUENCY RECIPROCATING SAWS
Francois M. Miquel, Paris, France, assignor to Société Anonyme Tabest, Paris, France, a French company
Application November 28, 1955, Serial No. 549,530
Claims priority, application France December 3, 1954
3 Claims. (Cl. 143—133)



1. A saw-blade of the type having both its ends provided with anchoring means to hold said blade taut upon its engagement into aligned anchoring slots, provided in the ends of the arms of the support of a vibrating saw of the type described, said blade being characterized by the feature that the anchoring means of at least one of its ends are constituted by said end itself bent into a loop adapted to bear under elastic deformation against the outer edges of one of said slots upon engagement of said blade into both of said slots, whereby said loop permanently remains in contact with said edges upon vibration of said arms under alternate re-assuming of its non strained initial shape and further increase of said elastic deformation.



2,772,709
AUTOMATIC MORTISING AND TENONING MACHINE
Theodore David Foster, Cincinnati, Ohio, assignor to The Bell Machine Company, Oshkosh, Wis., a corporation of Wisconsin
Application August 15, 1952, Serial No. 304,503
21 Claims. (Cl. 144—87)



1. In an automatic mortising and tenoning machine: an elongated cutter head having a row of side-by-side power driven cutters constrained to rotate on parallel axes normal to the longitudinal axis of the cutter head; a carrier for the cutter head; means mounting the cutter head in bearings at one end of the carrier and adjustably holding the cutter head in either a mortise cutting position at which the common plane containing the cutter axes is upright, with the cutters facing upward, or a tenon cutting position in which the common plane containing the cutter axes is horizontal and the cutters face outwardly from said end of the carrier, and in both of which positions the cutter head is constrained to move with the carrier; means mounting the carrier for vertical reciprocation and for horizontal movement along two right angularly disposed axes, one of which is parallel to the longitudinal axis of the cutter head; motion imparting means for imparting to the carrier only vertical reciprocation between defined limits; motion imparting means for imparting to the carrier only horizontal back and forth motion between defined limits in the direction parallel to the longitudinal axis of the cutter head; synchronizing means constraining said two motion imparting means to move in timed relation so that they cooperate in imposing upon the carrier a resultant orbital tenon cutting motion; an instrumentality for imparting only horizontal back and forth movement to the carrier along an axis normal to the longitudinal axis of the cutter head to impart in and out mortise cutting movement to the carrier; a driver; and means for selectively connecting with said driver either said two motion imparting means or said last-named instrumentality.

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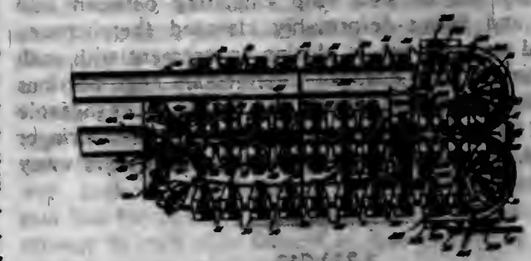
2,772,710
FRUIT CUTTING, SPREADING, AND FITTING MACHINE
Charles V. Rinehart, Tucson, Ariz.
Application December 30, 1953, Serial No. 401,256
6 Claims. (Cl. 146—28)



1. A machine of the character described comprising a supporting structure, an elongated table-top supported thereby, a pair of endless conveyors disposed in side-by-side relation and each extending from end-to-end of the table-top, means mounting said endless conveyors adjacent the ends of the table-top and positioning the upper flights of the endless conveyors for movement longitudinally along the upper surface of the table-top, a rotary cutting knife, a shaft fixed to said cutting knife, means supporting said shaft above the table-top spaced from the ends thereof and positioning a lower portion of the knife between said upper flights of the endless conveyors, driving means connected to said shaft for revolving the knife, and means forming a driving connection between said shaft and said endless conveyor mounting means and causing the upper flights of said endless conveyors to travel longitudinally of the table-top in one direction, said endless conveyors being maintained in close adjacency to one another by said mounting means whereby an apricot or the like will be conveyed by the pair of endless conveyors toward the knife to be cut in half thereby and so that the severed fruit halves will be subsequently supported on and conveyed separately by said endless conveyors, said means forming a driving connection including means intermittently driving said endless conveyors for conveying the fruit by a step-by-step movement from end-to-end of the table-top, said knife including a plurality of circumferentially spaced blades movable in synchronized relation to the endless conveyors whereby successive apricots will be cut successively by the different blades of the knife.

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2,772,711
FRUIT HALVING DEVICES
Ellsworth W. Carroll, Redwood City, Calif., assignor to S & W Fine Foods, Inc., San Francisco, Calif., a corporation of California
Original application June 10, 1949, Serial No. 98,260. Divided and this application May 11, 1951, Serial No. 225,731
1 Claim. (Cl. 146—73)



In a machine for halving fruit, the combination of a carrier movable over a fixed horizontal path, power means connected to drive said carrier over said path, support means mounted on said carrier to receive and support a fruit fed thereinto for movement over said path, lateral fruit restraining members pivotally mounted on each side of said carrier for movement thereby, said restraining members being normally spring locked in position above and on each side of said fruit support means and loosely spaced around a fruit fed onto said support to permit free movement of said fruit therewithin during movement thereof over said path, a power saw vertically mounted in the path of said carrier, the cutting edge of said saw being positioned to bisect said fruit being moved over said path, and cam lever means mounted on each side of said carrier, said cam lever means being located in said path of said restraining members to contact and unlock said normally spring locked restraining members, said members being movable by gravity from said position loosely spaced around said fruit to a position closely spaced around said fruit to grip said fruit as said fruit is moved through the cutting edge of said saw for halving thereby.

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2,772,712
ACTUATOR FOR ZIPPERS AND POUCH EMBODYING THE SAME
Louis Post, Bronx, N. Y., assignor to Flexigrip, Inc., New York, N. Y., a corporation of New York
Application March 14, 1952, Serial No. 276,475
8 Claims. (Cl. 150—3)

8. A sliderless fastener structure of the type that is closable by being manually pressed together longitudinally

thereof, comprising flexible stringers of heat sealable plastic material having sheet-like portions and integral thickened edge portions, the sheet-like portions extending away from each other and lying generally in the same plane and the edge portions overlapping each other and having on confronting faces longitudinally extending grooves and ridges, each of said ridges having an enlarged head portion and a constricted neck portion and each of said grooves having a restricted opening and an enlarged bottom portion, said grooves in one of said thickened edge portions being aligned with and corresponding in cross-section to the ridges in the other of said edge portions and vice versa whereby said edge portions may be interengaged by being pressed together progressively along the lengths thereof, corresponding ends of said edge



portions being so interengaged and being integrally united to each other and to said sheet-like portions, and an actuator to form a localized gap in the engagement of said edge portions intermediate said ends, comprising a thin, narrow, flexible strip having a manually engageable outwardly projecting end and an inner anchoring portion secured to the inside of one of said stringers, the intermediate portion of said strip extending between said stringers and being deformably clamped therebetween when said stringers are in closing engagement with each other, whereby said engaged intermediate edge portions can be disengaged by pulling said manually engageable end away from the sheet-like portion of said other stringer to exert a separating force upon said one stringer away from said other stringer.

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2,772,713
**LADY'S HANDBAG WITH MULTIPLE COMPARTMENTS**
Richard Koret, Bedford Hills, N. Y., assignor to Koret, Inc., New York, N. Y., a corporation of New York
Application June 12, 1956, Serial No. 590,942
7 Claims. (Cl. 150—28)



1. A lady's handbag comprising in combination a pair of generally vertical side wall panels, a bottom wall panel joining said side wall panels along their bottom edges, a pair of generally vertical end wall panels joining the side edges of one of said side wall panels with corresponding side edges of the other of said side wall panels and joining with said bottom wall panel, said panels forming a handbag body and defining an open-topped receptacle, said end wall panels being foldable inwardly of said receptacle upon movement of said side wall panels toward each other, releasable means engaging said side wall panels approximately midway between the top and bottom edges thereof for limiting the separation of said side wall panels and substantially closing off the bottom portion of said receptacle to form upper and lower compartments therein, at least the upper portions of said side walls being relatively flexible and being separable when said side walls are engaged by said releasable means, and pocket means exposed in said upper compartment.

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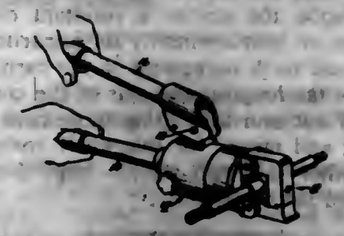
2,772,714
**RUBBER VALVE STEM**
Oakley W. Hosking, Monroe, N. Y.
Application February 26, 1953, Serial No. 339,127
2 Claims. (Cl. 152—430)



1. In a valve stem, an elongate tubular resilient rubber body having imbedded in its walls and coaxial therewith a rigid tubular member, said member having a neck projecting beyond the body for receiving a valve inside and having an anchorage portion comprising a tubular section provided on its outer peripheral surface with longitudinal outwardly radially extending fins joined with said neck, said tubular section and fins being completely enclosed on their inside, outside and one end by said rubber body in which the neck portion of the tubular member includes a tapered collar connected to the anchorage portion, said collar having a skirt surrounding a part of the anchorage portion and fins and secured to the latter, the rubber of the body occupying the space inside said skirt.

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2,772,715
**CRIMPING TOOL**
Kenneth L. Neijstrom, Camp Hill, Kenneth E. Peterson, New Cumberland, and William R. Evans, Oberlin, Pa., assignors to Aircraft-Marine Products, Inc., Harrisburg, Pa.
Application March 24, 1954, Serial No. 418,348
3 Claims. (Cl. 153—1)



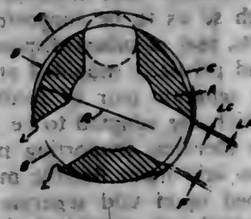
2. In a tool for crimping electrical conductors, of the type having a die member movable on the tool body toward a die element supported on the tool head, the improvement whereby said die element can be latched in a closed position and is automatically latched and locked in predetermined position on the tool head opposite said die member when it is closed and automatically swings into the fully open position when unlatched, said improvement comprising: a unitary die element support having an L-shape as seen in elevation including a top portion adapted to support said die-element and a side arm integrally attached to said top portion, first pivot means connecting the butt end of said side arm to the tool body at one side thereof, said support being swingable about said first pivot between a closed position in which said top portion is opposite said die member and an open position in which said top portion is offset laterally from the tool body, first spring means urging said unitary die element support toward its open position, said top portion having a first latch surface thereon, a unitary releasable latch, second pivot means connecting said latch to the tool body on the opposite side thereof from said first pivot means, said latch having a second latching surface adapted to overlap and



lock with the latch surface of said top portion when closed, and second spring means urging said latch into engaging position with said second latch surface overlapping and locking with said first latch surface to hold said support in its predetermined closed position against the action of said first spring means, whereby said first spring means urges the die element support into tight locking engagement with the latch in the closed position firmly holding the top portion of the die element support in a predetermined position opposite the movable die member and said first spring means urges the die element support into the fully open position when the latch is released.

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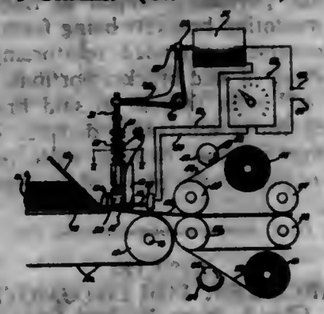
2,772,716
**TUBE-EXPANDING TOOL**
Walter E. Story, Levittown, Pa.
Application August 27, 1954, Serial No. 452,571
9 Claims. (Cl. 153—82)



5. A roller-cage, for a roller-type tube-expanding tool, having a plurality of angularly spaced roller-slots in which the rollers of said tool may be contained and guided so that said rollers may be rotatable about the tapered mandrel of said tool and radially movable as said mandrel is axially advanced relative to said roller-cage, with said roller-cage having a clearance hole extending longitudinally through said cage to provide for the axial movement of said mandrel, relative to said roller-cage, with said angularly spaced roller-slots being separated by ligaments; wherein the outer surface of each of said ligaments, in said roller-cage, is flattened by being formed to a curved shape with the profile of said curved shape being a curve with radius larger than one-half the external diameter of the ligament portion of said roller-cage.

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2,772,717
**METHOD AND APPARATUS FOR MAKING PAPER COVERED WOOD VENEER ASSEMBLIES**
Richard N. Ware, Jr., Tallulah, La., assignor to Chicago Mill and Lumber Company, Chicago, Ill., a corporation of Delaware
Application September 21, 1954, Serial No. 457,486
9 Claims. (Cl. 154—1.6)

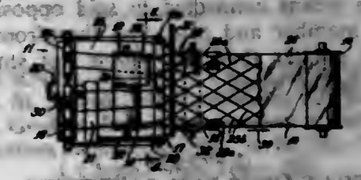


2. The method of making box blanks which comprises successively urging panels or the like against a stop, freeing the panels from the stop in sequential timed relation to control the spacing between the panels, advancing the freed panels in uniformly spaced relation between sheets of paper, and gluing the spaced panels to the paper.

7. Apparatus for forming paper covered veneer panels which comprises means for supporting a stack of veneer panels, a conveyor means arranged to transport a single panel from said stack, an abutment means arranged to be engaged by said single panel during its movement, a switch in said abutment means arranged to be engaged by said panel when said panel engages said abutment means, an electrically operated impact means arranged to impact against said panel when said panel engages said abutment means, a time delay mechanism in series with said switch, said mechanism being arranged to delay the operation of said impact means for a predetermined interval after said panel engages said switch, and paper applicator means arranged to receive said panel from said conveyor means and apply a sheet of paper on each side of said panel.

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2,772,718
**APPARATUS AND METHOD FOR MAKING REINFORCED SHEET MATERIAL**
Elton E. Magnuson, Ann Arbor, Mich.
Original application October 17, 1951, Serial No. 251,729. Divided and this application November 6, 1952, Serial No. 319,699
8 Claims. (Cl. 154—1.76)

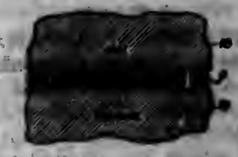


1. The method of forming a reinforced, webbed sheet which comprises conducting a continuous plastic film along a straight path, laminating a plurality of individual filaments to said film while it is moving along said path, and continuously rotating the plurality of filaments transversely of said path, some of said filaments moving in the opposite direction than other of said filaments at any given time to produce an overlapping diamond pattern of the web, each of said filaments extending longitudinally of said film for a predetermined distance in proximate spaced relation to each edge thereof so that succeeding filaments overlap to form reinforcing beads.

2. A device of the class described comprising a laminating means, means for conducting a continuous plastic film through said laminating means, a plurality of spools for supplying filaments to said laminating means, a moveable conveyor element having guide eyelets thereon for guiding filaments from said spools and between said laminating means, said eyelets moving transversely to said means and beyond the edges of the film to cause said filaments to overlap and guide bars set perpendicularly to the film for confining movement of the filament to positions within the edges of said film and forming a reinforcing therealong.

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2,772,719
**METHOD OF WELDING RUBBER ARTICLES**
Robert L. Wills, Blue Island, Ill.
Application July 9, 1954, Serial No. 442,403
9 Claims. (Cl. 154—14)



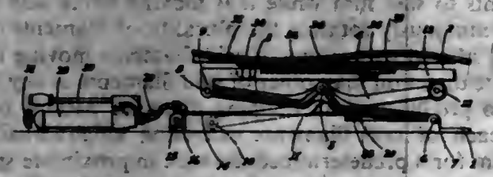
1. The method of welding sheet rubber which consists entirely of buffing opposed edges that are to be joined and areas on the underside of the sheet material adjacent the said edges, applying only one strip of tube gum intermediately the said edges, and vulcanizing the tube gum by the application of heat and pressure simultaneously causing said tube gum to be swaged into an inverted T formation.

2,772,720
**GOLF CART SEAT**
Forrest F. Zody and John E. Kay, Jr., Houston, and Wood N. Tayler, Jr., Bellaire, Tex., assignors to Junior Achievement, Inc., New York, N. Y., a corporation of Massachusetts
Application February 3, 1955, Serial No. 485,896
9 Claims. (Cl. 155—5)



1. A seat adapted to be operatively associated with the wheel of a golf cart or the like comprising a seat member including a portion having a slot for receiving a portion of a wheel with which said seat is adapted to be operatively associated and including an opposite portion, and leg means connected to said opposite portion of said seat member and extending therefrom an effective distance greater than the radius but smaller than the diameter of the wheel.

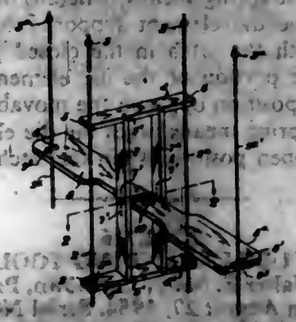
2,772,721
**SEAT UNIT FOR BATHTUBS**
Harry Baird Saunders, Woodland, Calif.
Application November 9, 1954, Serial No. 467,763
4 Claims. (Cl. 155—36.5)



1. A portable, vertically adjustable seat unit adapted for use on a bathtub or the like, comprising a base, a platform disposed above the base, transversely spaced pairs of lever arms extending between the base and platform, the lever arms of each pair intersecting and being pivoted together intermediate their ends, means pivoting one arm of each pair at the adjacent ends to the base and platform, a roller on the lower end of the other arm of each pair, guide channels on the base corresponding to and having the corresponding rollers therein, a roller on the upper end of said other arm of each pair, said last named rollers supporting the platform from below, a fluid pressure actuated power cylinder extending along the base between the guide channels, means securing the power cylinder at one end to the base, links connected between the opposite end of the power cylinder and the lower ends of said other arms of the pairs, and a seat mounted on the platform.

2,772,722
**RECREATIONAL APPARATUS**
Theodore F. Passman, Chinook, Mont.
Application April 28, 1954, Serial No. 426,094
3 Claims. (Cl. 155—63)

1. A swing comprising a pair of main flexible members the upper ends of which are adapted to be connected to and depend from elevated supporting means, the lower end portions of said members being provided with supports releasably clamped thereupon, a frame consisting of upper and lower parallel transverse members, the opposite outer corresponding end portions of which are respectively formed with alined openings through which said flexible members extend, and spaced parallel struts extending between and rigidly secured at their opposite ends to said transverse members, said lower transverse member being arranged to engage and to rest upon said supports, whereby said frame is supported on and swingable with said flexible members relative to the elevated supporting means, a shaft in the form of a bolt disposed



between and parallel to said transverse members and extending through so as to be supported at its opposite ends on said struts, seat members disposed at right angles to said frame and pivotally mounted at their inner ends on said shaft, a separate pair of flexible members the upper ends of which are adapted to be connected to and depend from the elevated supporting means in a plane at right angles to said main flexible means, and means releasably clamped upon said separate pair of flexible members for supporting engagement with the outer ends of said seat members and arranged to co-operate with said shaft to support said seat members substantially horizontally.

2,772,723
**SPRING UNIT FOR PLATFORM ROCKING CHAIR**
Jack B. Tunnell, Hickory, N. C., assignor to Hickory Springs Manufacturing Company, Inc., a corporation of North Carolina
Application February 8, 1954, Serial No. 408,717
3 Claims. (Cl. 155—71)



1. A spring unit for a platform rocking chair, said unit comprising a pair of mounting brackets for attachment respectively to a rocking chair and platform base therefor, and a pair of springs assembled with said brackets for reacting in opposed relation to rocking movement of said chair on said platform base, each of said mounting brackets having a mounting flange portion and a spring assembly flange portion arranged at right angles, and each of said mounting brackets being formed with a plurality of transversely extended reinforcing ribs spaced along the juncture of said bracket portions, said ribs each extending at 45° with respect to said bracket portions and continuing for a substantial distance in said spring assembly flange portion formed with its outer edge parallel with respect to the plane of said spring assembly flange portion.

2,772,724
**ADJUSTABLE REST FOR LOCOMOTIVE SEAT**
Glen L. Nass, Willard, Ohio
Application November 3, 1952, Serial No. 318,480
1 Claim. (Cl. 155—160)

An adjustable back rest device for a seat comprising: upwardly extending support means adapted to be secured to a seat; a back rest portion having a rigid back member; slide means connected to the back side of said back member and in slidable engagement with said support means whereby said back rest portion can slide up and down with respect to said support means to adjust the vertical height of said back rest portion with respect to

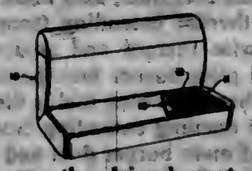


said seat; locking means connected to said back member and in engagement with said support means for locking said back member to said support means at any one of a number of fixed positions, said locking means comprising a locking plate having a plurality of spaced apart holes mounted on said upwardly extending support, a tube secured to said back member with one open end facing the holes in said plate, an L-shaped slide bolt one leg of which is slidably and rotatably mounted within said tube, and a stop mounted on said back member at a location spaced from the end of said tube opposite said locking plate, the end of one leg of said slide bolt in its locking position being within one of the holes in said locking plate and the other leg extending downwardly between



said stop and the end of said tube, said stop preventing the withdrawal of said slide bolt in this position, said other leg of said bolt being turned about said first leg within said tube clearing said stop to permit withdrawal of the end of said slide bolt from said hole in said locking plate; said support means including a fixed member adapted to be connected to said seat, a movable member, and angularly adjustable means connecting said movable member to said seat whereby the angular position of said movable member with respect to said seat can be altered; and manually controlled locking means connected to said support means for locking the movable member of said support means to said fixed member at any one of a plurality of fixed angular positions.

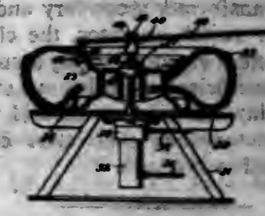
2,772,725
**DRIVER-REST PAD**
Stanley Lozano, Antofagasta, Chile
Application February 1, 1955, Serial No. 485,501
1 Claim. (Cl. 155—182)



A pad for use on the driver's seat of an automobile whereby the fatigue of the operator may be relieved comprising a seat portion having a bottom covering sheet, a top covering sheet and a sheet of stiffener material situated between said top and bottom covering sheets, and a support portion at the right extremity of said pad and extending from front to back of said pad, said support portion comprising a roll of foam rubber substantially semicircular in cross section, the radius of said roll diminishing from front to back of said pad.

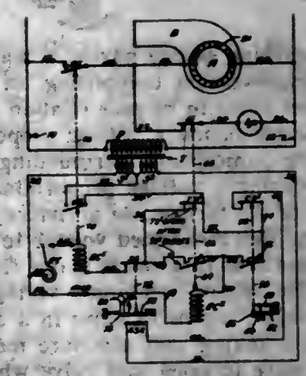
2,772,726
**CIRCUMFERENTIALLY TRAVELING TYPE TIRE MOUNTING AND DEMOUNTING APPARATUS**
Vincent F. Mercaldo, Philadelphia, Pa.
Application September 16, 1952, Serial No. 309,884
5 Claims. (Cl. 157—1.24)

1. Equipment for servicing tires including a table for supporting a tire and rim, a vertical rod projecting from said table at a central location with respect to the tire and rim when in position, a detachable fitting for slidably, rotatably and pivotally connecting a tire manipulating device to the upper end of said vertical rod, said device incorporating an elongated handle, a tire and rim engaging part attached to and located below said handle, said



part having a groove formed by two flanges at its inner side for engaging the peripheral edge of the rim and a smooth curved external surface for engaging the edge of the tire and moving it to the outside of said rim when said device is rotated about the axis of said rod in one direction and for moving the edge of the tire into position inside the rim when rotated in the opposite direction.

2,772,727
**OIL BURNER SAFETY CONTROL SYSTEM**
Paul Schell, St. Joseph, Mich., assignor to Penn Controls, Inc., Goshen, Ind., a corporation of Indiana
Application January 4, 1954, Serial No. 401,745
1 Claim. (Cl. 158—28)

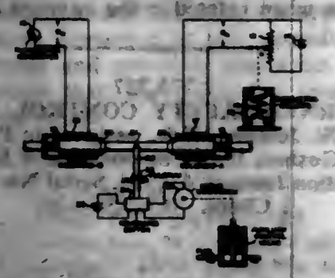


An oil burner control mechanism of the type which controls an oil burner and its ignition means in response to actuation of a remote control switch, said mechanism comprising: a main switch, burner motor and ignition circuits controlled thereby; a transformer providing a source of electrical power; a control circuit network connected across the secondary of said transformer, a room thermostat, a holding switch, a safety switch, and a delayed safety switch actuator all connected in said circuit network; an electromagnetic operator connected in said network and adapted upon energization to close said main switch and said holding switch; combustion responsive means including in said network cold contacts closed only in the absence of combustion and hot contacts closed only in the presence of combustion; a transfer switching mechanism including normally open and normally closed contacts in said network and a transfer switch operator therefor; said control circuit network including an initial energizing circuit for said electromagnetic operator comprising said transformer secondary, room thermostat, safety switch, normally closed transfer switch, closed cold combustion contacts and said safety switch actuator; a holding circuit for said electromagnetic operator energized by a segment of said transformer secondary and including the elements of said initial circuit but by-passing said closed cold combustion contacts and said safety switch actuator by means of said holding switch; a maintaining circuit for said electromagnetic operator energized by a segment of said transformer secondary and including said room thermostat, safety switch, normally open transfer

switch, closed hot combustion contacts and said holding switch; and means controlling energization of said transfer switch operator and consequently the transfer of the energizing circuit for said electromagnetic operator from said holding circuit to said maintaining circuit, said last mentioned means including a circuit energized by a segment of said transformer secondary and connecting in series said transfer switch operator, the closed hot combustion contacts and a resistor having a substantial negative temperature coefficient of resistance said resistor being adapted to delay energization of said last mentioned circuit for a predetermined time after closure of said closed hot combustion contacts.

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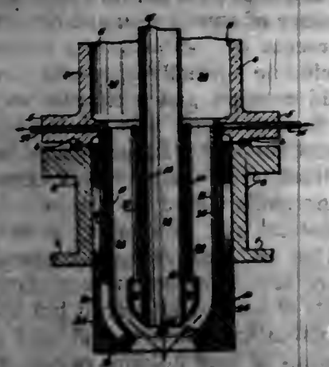
2,772,728
**TURBOJET IDLE-SPEED CONTROL**
Emil A. Mallick, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application March 17, 1952, Serial No. 276,948
3 Claims. (Cl. 158—36)



1. In a gas-turbine engine having a main fuel supply control, the improvement comprising, in combination: an auxiliary fuel valve in by-pass relation with said control; means for producing a voltage proportional to the pressure of the atmosphere surrounding said engine; means for producing a voltage proportional to the rotational velocity of the turbine; an armature means; means for applying the first-mentioned voltage to tend to cause movement of said armature means in one direction; means for applying the second-mentioned voltage to tend to cause said armature means to move in a different direction; and means linking said armature means with said auxiliary fuel valve to open said valve when said armature means moves in the first-mentioned direction and to throttle said valve when said armature means moves in the latter-mentioned direction.

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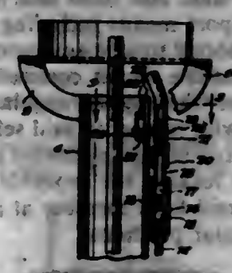
2,772,729
**APPARATUS FOR COMBUSTION OF HYDROCARBONS**
Robert L. Mayhew, Great Neck, N. Y., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey
Application May 3, 1951, Serial No. 224,283
3 Claims. (Cl. 158—109)



1. A burner assembly for combustion of fuel gas comprising an inner conduit of uniform circular cross section terminating in a discharge port of the same cross section, an outer conduit disposed coaxially about said inner conduit in spaced relationship therewith to define an annular passage between the conduits, said outer conduit comprising a relatively elongated upstream section of uniform diameter and a downstream section of gradually reduced diameter extending beyond the discharge end of said inner conduit and terminating in a discharge port having a diameter larger than that of said discharge port of said inner conduit, and means for cooling said discharge end of said inner conduit at said discharge port thereof comprising an annular cooling chamber located at and surrounding said discharge end of said inner conduit, said cooling chamber diminishing in diameter downstream toward said discharge end of said inner conduit and forming a sharp edge therewith, said annular passage defined by said outer conduit being restricted by said cooling chamber at said discharge end of said inner conduit thereby providing a high velocity gas flow therethrough without a corresponding large pressure drop due to conduit friction, said outer conduit having an annular cooling chamber in contact with said section of gradually reduced diameter and being located at said discharge end of said outer conduit and spaced opposite said means for cooling said discharge end of said inner conduit.

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2,772,730
**GAS BURNER AND CONSTANT PILOT**
Robert I. Warnecke, Cheektowaga, N. Y., assignor to Roberts-Gordon Appliance Corporation, Buffalo, N. Y.
Application August 14, 1953, Serial No. 374,221
2 Claims. (Cl. 158—115)



1. A gas burner for re-igniting the fuel after flareback of burnt gas during the ignition of the burner, said burner including a main fuel duct having a fuel discharge outlet, a pilot burner tube located adjacent to said main fuel duct and terminating at its upper end above said discharge outlet of said main fuel duct, said main fuel duct having a slot in a side thereof extending from said outlet substantially lengthwise thereof and adjacent to said pilot burner tube, said pilot burner tube having an opening in the side thereof through which fuel is discharged to maintain a flame, said opening extending below the lower end of said slot in said main burner duct and adjacent said slot whereby gas flowing from said slot will pass by said opening, and gas deflecting means in said main fuel duct for deflecting some of the fuel flowing therein outwardly toward said opening in said pilot tube through said slot and in igniting relation thereto, said deflecting means including a channel-shaped member secured to the interior of the main duct and having the open side thereof extending across said slot, said channel being open at the lower end thereof and having a deflector at the upper end thereof for deflecting fuel from said channel through said slot.

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2,772,731
**WINDOW SCREEN**
George Kerbs, Lynwood, Calif.
Application May 21, 1954, Serial No. 431,425
3 Claims. (Cl. 160—28)

3. In combination, a window frame having vertical side members having lower ends, a sill extending between said lower ends, and a vertically slidable sash mounted on



said vertical side members, said sash having a lower end and an outer side, a housing superimposed upon said sill and extending between said vertical side members, said housing having open ends, a top panel, an outer panel, and a bottom panel, and being devoid of an inner panel and being open at its inner side, said top panel and bottom panel having facing slots at the open ends of the housing, bracket plates secured to the frame side members at the lower ends of the side members near the sill at points outwardly of said sash, said bracket plates having upper and lower edges engaged removably in said facing slots with the bracket plates closing the open ends of the housing, a roller within the housing, means on the bracket plates mounting the roller at its ends, and a flexible screen



circumposed on said roller and secured thereto at one end, the roller having another end extending through the open inner side of the housing, and means securing the said other end of the screen to the outer side of the sash at its lower end, said securing means comprising an outwardly projecting flange terminating in a depending flange, and said top panel of the housing having an upstanding lip extending therealong over which said depending flange engages in a lowered position of said sash, and a vertical channel guide secured to a frame side member above said housing, said screen having a side edge slidably engaged in the channel guide and the guide having a lower end provided with an outset tab engaged over the upstanding lip on the housing.

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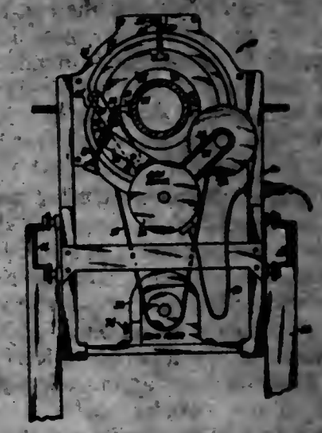
2,772,732
**WEB SLITTING APPARATUS**
Bernard Joseph Kerwin, Tonawanda, and Elias Wech, Buffalo, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application August 11, 1953, Serial No. 373,566
4 Claims. (Cl. 164—39)



1. In a web slitting apparatus comprising two spaced web guide means over which a continuous web is passed under tension and severing means operative to slit the continuous web along its longitudinal axis at predetermined transverse intervals as it passes between said guide means, said severing means positioned above and extending transversely of the path of travel of the web between said guide means, an improved severing means comprising a screw threaded shaft; a plurality of flat plates mounted in face-to-face contact by means of registered holes on said shaft, portions of alternate plates being cut away to provide slots, said slots adapted to seat a cutter blade with a portion of the cutting edge projecting into the path of travel of the web and with the top edge of the blade opposite the cutting edge extending above the top edge of the plate; cutter blades seated in said slots, the thickness of said cutter blades being at least equal to the thickness of said slot-providing plates; means at both ends of said shaft adapted to press the assembled plates together to form a plate assembly rotatable with the shaft; a cover plate bearing on the top edges of the cutter blades, extending the entire length and width of the plate assembly, and rotatable independently of said plate assembly about the axis of said shaft.

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2,772,733
**PIPE-CUTTING APPARATUS**
Henning T. Tornberg, Ridgewood, N. J., assignor to Modern Plastic Machinery Corp., Lodi, N. J., a corporation of Delaware
Application November 30, 1953, Serial No. 399,941
12 Claims. (Cl. 164—68)



1. In a pipe-cutting apparatus of the character described, a member having an opening therethrough, a ring rotatably mounted on said member whereby a pipe may be positioned through said opening and said ring, means on said member to releasably hold said pipe secured to said member, means to rotate the ring, an electric motor pivotally mounted on the ring, a cutting element driven by said motor and carried along therewith; the axes of the ring, the motor shaft and the pivotal connection of the motor on the ring being in parallel spaced relation, a cam track on said member endlessly around said opening and a cam track follower carried along by the motor and in engagement with said track to pivot the motor and saw toward and away from the axis of the pipe; the nature of said track being such that upon rotation of said ring, the cutting element will be moved towards the axis of the ring at the commencement of rotation of said ring and moved away from the axis of said ring at the conclusion of one revolution of said ring.

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2,772,734
**BIAS CUTTING MACHINE**
David N. Judelson, New York, N. Y., assignor to Oscar I. Judelsohn, Inc., New York, N. Y., a corporation of New York
Application July 28, 1954, Serial No. 446,374
36 Claims. (Cl. 164—61)



1. A bias cutting machine for material in seamed tubular form comprising an elongated mandrel, cutting means adjacent one end of said mandrel for severing the material in tubular form passing over said mandrel into bias-cut material, take-off mechanisms adjacent said one end of said mandrel for removing bias-cut material from said mandrel at a predetermined rate, means for presenting the

material in seamed tubular form to the other end of said mandrel for pull over and along said mandrel by said take-off mechanisms, means at a point along the path of travel of the material through the machine for sensing the movement of seams in the material past said point, and means under control of said sensing means and operatively connected to the presenting means for controlling the presentation of the material in seamed tubular form to said mandrel in dependence upon travel of said seams past said point.

2. In a bias-cutting machine, an elongated relatively flat mandrel over which goods pass under substantially constant tension, said mandrel being of adjustable width and having a center line, a cutting knife arranged angularly of said mandrel and at one side thereof for bias cutting goods, and a windup mechanism including a roller extending substantially across said mandrel at one end thereof, the center line of said mandrel in any position of adjustment intersecting said roller at a point within the lateral limits of said roller which receives bias cut goods.

4. In a machine for bias cutting material comprising a mandrel having a tensioning member movable radially inwardly and outwardly of the center of said mandrel, a cutting knife arranged angularly of said mandrel for bias cutting material, and a windup mechanism for pulling a tube of material over said mandrel and past said cutting knife, and loading means acting on said tensioning member and including a live load operatively connected to said tensioning member and urging said tensioning member outwardly of said mandrel and a dead load operatively connected to said tensioning member and resisting movement of said tensioning member both inwardly and outwardly of said mandrel, the difference between said dead and live loads providing tension on said tube of material and the summation of said dead and live loads providing a reacting force to the pull exerted by said windup mechanisms.

9. In a bias-cutting machine for a tube of material, an elongated mandrel over which material passes under substantially constant tension, a cutting knife arranged angularly of said mandrel at one side thereof for bias cutting said tube of material, and a windup mechanism for pulling said tube over and along said mandrel, said mandrel being relatively flat whereby opposite side edges of said material when bias cut lie in substantially a common plane and including a stationary side bar, an adjustable side bar parallel to said stationary side bar, and cooperating therewith to define the mandrel proper, an extension operatively connected to said adjustable side bar and extending beyond one end of said stationary side bar, and a cantilever support outwardly of said mandrel proper extending transversely of said bars, said cantilever support being operatively connected to said extension and mounting said adjustable side bar for movement toward and away from said stationary side bar.

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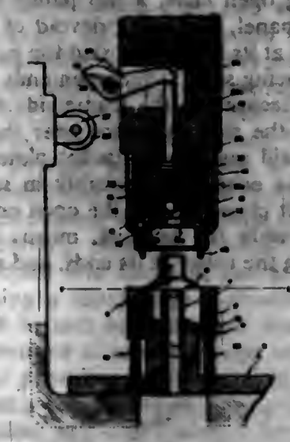
**2,772,735**

## MULTIPLE SLIDE PRESS FOR CUTTING SHEET METAL PARTS

Ronald L. Wakeley, Chicago, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application October 9, 1953, Serial No. 385,089
3 Claims. (Cl. 164—86)

2. A punch press for cutting off and removing the end of a sheet metal cylinder comprising a vertically arranged tubular punch formed with a circular cutting edge at its upper outer periphery and as a shaping die at its upper inner periphery, said punch being so proportioned as to fit closely within the cylindrical workpiece and to support the end thereof, a head vertically slidable above said punch, an annular cutting die carried by said head, said die having a cutting edge at its lower inner periphery for shearing engagement around the cutting edge of the



punch, and an ejecting punch slidable centrally of said die and movable into the tubular punch.

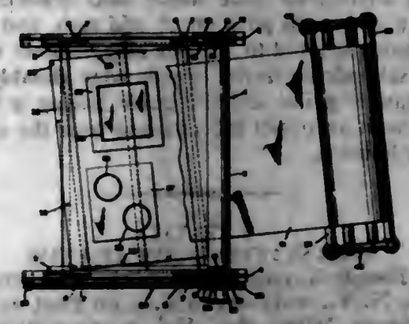
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**2,772,736**

## ROLLER DIE CUTTER

John F. Campbell, Cuyahoga Falls, Ohio

Application May 4, 1953, Serial No. 352,651
10 Claims. (Cl. 164—226)



1. In roller cutter die apparatus, a frame, a sub-frame at each lateral margin of said frame, means for adjusting the vertical positions of said sub-frames with relation to said frame, said sub-frames having longitudinally extending elongate slots therein, a roller, carriage means engaging said elongate slots in said sub-frame to be accurately positioned thereby and engaging said roller to position said roller and hold it fixedly with relation to movement normal to said slots, means for positioning dies on said frame, and means for moving said roller along said frame and for rotating said roller as it is so moved.

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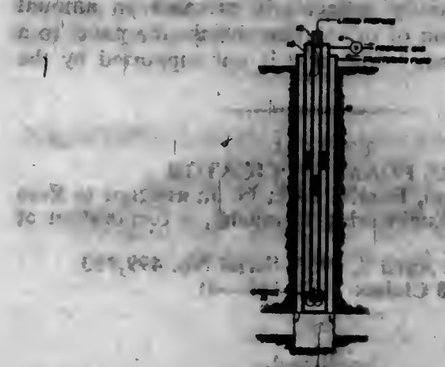
**2,772,737**

## FRACTURING OIL AND GAS PRODUCING FORMATIONS

Donald C. Bond and Orvin C. Holbrook, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application December 21, 1954, Serial No. 476,851
8 Claims. (Cl. 166—22)

1. A process for improving the penetrability characteristics of a subterranean, geological formation traversed by a well bore, which comprises introducing into said bore hole a low viscosity liquid having a high, viscosity-temperature coefficient, whereby the viscosity of said liquid at normal temperatures is increased at least tenfold by a decrease in temperature of 25° to 50° F. below the temperature of the formation being treated, cooling said liquid within said borehole sufficiently to produce a high-viscosity, thermal-reversible fracturing fluid having low penetrating characteristics, disposing said fluid adjacent



said formation, and applying to said fracturing medium a pressure sufficient to overcome the overburden pressure of said formation and produce fractures therein.

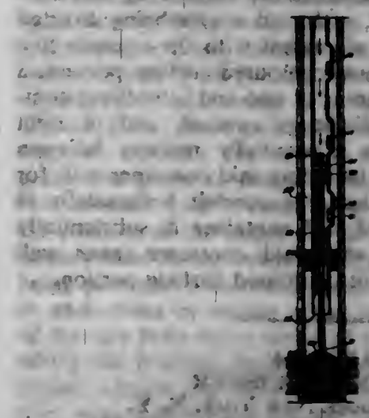
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**2,772,738**

## METHOD FOR COMPLETION OF WELLS HAVING HIGH BOTTOM HOLE PRESSURES

Gilbert H. Tausch, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application October 19, 1953, Serial No. 386,767
8 Claims. (Cl. 166—22)



1. A method for cementing a high bottom hole pressure well provided with a perforated casing in a stratum pierced by said well and having a tubing arranged therein with its lower end located above said stratum without contaminating said stratum with mud which comprises forming a first column of mud and a second column of mud and water in said well casing with the volume of water in the second column exceeding the volume of mud in the first column, said columns being parallel to and in fluid communication with each other, equalizing said columns to provide hydrostatic heads in said columns in excess of the bottom hole pressure of the well, replacing the mud in the first column with water, pumping cement into said first column and conducting the water from the first column to a point adjacent the perforations, pumping fluid into said first column after the cement, conducting the cement from the first column to said point adjacent the perforations, forcing a sufficient amount of said cement into the perforations to seal the perforations, pumping mud into the second column, conducting the pumped mud in the second column into contact with the cement to remove excess fluid cement up the first column, and then displacing the pumped mud with water after the cement has set in said perforations.



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**2,772,739**

## METHOD OF TEMPORARILY CLOSING PORTION OF WELL AND COMPOSITION THEREFOR

Arie Brakel, Maracaibo, Venezuela, and Norman Healey, St. Albans, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application September 22, 1954, Serial No. 457,786
Claims priority, application Netherlands September 24, 1953
3 Claims. (Cl. 166—22)

2. In well drilling operations, the step of temporarily closing a portion of a well by forming therein a lightweight acid-soluble closure comprising a mixture of hydraulic cement and lightweight expanded limestone having at least a 30% porosity, allowing said mixture to set and form a closure and subsequently causing disintegration of said closure by subjecting the same to the action of acid to open the well.

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**2,772,740**

## WELL PACKER

Jack E. Edwards, Houston, Tex., assignor to M. L. Mayfield, Houston, Tex.

Application November 16, 1953, Serial No. 392,139
10 Claims. (Cl. 166—129)



3. A well packer comprising a generally tubular body, said body having a reduced external diameter extending from a point adjacent its upper portion downwardly throughout its length, a packing band secured about the body above the reduced portion, a sleeve member slidably disposed about the reduced diameter section of the body and below the packing band, slips secured to the sleeve member for radial expansion and contraction into and out of frictional engagement with an inner wall of a casing, a slip expander slidably secured to the body and engaging the slips, said slip expander and slips having guide and slide surfaces for such radial expansion and contraction of said slips, shoulders on the body and slip expander abutting and confining the packing band whereby upon relative downward movement of said body with respect to said sleeve member, said slips are expanded into such frictional engagement thereby fixing said slip expander against further downward movement, continued downward movement of said body compressing said packing band between said shoulders thereby expanding the packing band into sealing engagement with said wall of the casing, a tubular mandrel slidably extending throughout the length of said body and said sleeve member adapted to be connected to a string of pipe for raising, lowering and manipulating the well packer in said casing, an unrestricted annular passageway between the mandrel and the body for circulation of drill fluid, enlargements rigidly connected on the mandrel disposed exteriorly of and spaced from each end of the body for engaging each such end for moving said body relative to said sleeve member, such enlargements and such ends of the body including coacting and engageable valve seating surfaces for selec-

tively closing the passageway at each end at least one J-slot and pin slidable therein on the sleeve member and mandrel releasably locking said mandrel and sleeve member from relative movement, said pin engaging and supporting a lower portion of said body when the J-slot and pin are in locked position, and friction means on the sleeve member yieldingly and frictionally engaging said wall of the casing for holding the sleeve member substantially stationary during movement of said mandrel and body when said J-slot and pin are released.

10. The well packer of claim 3 where the sleeve member extends downwardly below the lower end of the body and the lower end of the body has a recessed portion proximate an inner end of the J-slot so that the mandrel may be elevated to engage the valve seating surfaces on the lower enlargement and lower end of the body by moving the pin into the recessed portion, and upon rotation of the mandrel with respect to the sleeve member the pin is moved out of said recessed portion and into locked position with the J-slot thereby placing the valve seating surfaces on the lower enlargement and lower end of the body in spaced relationship to one another.

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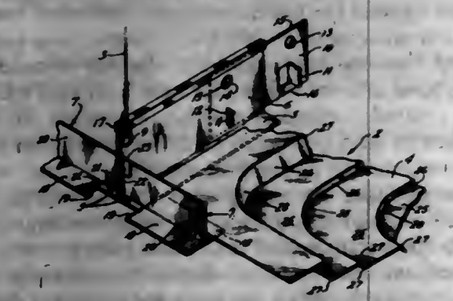
**2,772,741**
**COMBINATION PARAFFIN SCRAPER AND ROD GUIDE**
Paul Poteon, Pampa, Tex.
Application June 20, 1952, Serial No. 294,643
5 Claims. (Cl. 166—176)



3. In a paraffin scraper and sucker rod guide for installation at spaced intervals along and concentrically of a sucker rod within a well tubing, in combination with a sucker rod, a tubular cylindrical element, the top and bottom edges of which are parallel to each other and inclined to the vertical, and the side walls of which are parallel to the axis of said sucker rod, a supporting shank integral with each edge and on diametrically opposite sides of said element, the said shanks being inclined inwardly and having their outer ends lying against said rod, and means embracing said rod for securing the said shanks thereto.

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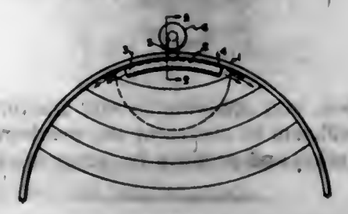
**2,772,742**
**CEILING CONSTRUCTION**
Cortes N. Sprankle, West Hartford, Conn., assignor to Plax Corporation, West Hartford, Conn., a corporation of Delaware
Application July 12, 1954, Serial No. 442,532
10 Claims. (Cl. 169—1)



1. A ceiling construction including a supporting structure and a ceiling supported by said structure, said ceiling being spaced from said supporting structure and defining an open cavity concealed by the ceiling, said ceiling comprising supporting grid members and a plurality of translucent light diffusing thermoplastic panels bridging the grid members and supported thereby, the plastic of said panels being biaxially molecularly oriented an amount such that relaxation of orientation shrinks the panel to a size which does not bridge and is not supported by the grid members.

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**2,772,743**
**FIRE FOAM APPLICATOR**
Lester A. Eggleston, Roselle Park, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application April 7, 1955, Serial No. 499,903
8 Claims. (Cl. 169—4)



1. Means for applying fire foam over the exposed surface of a liquid material in a walled container, having an upper end portion and an inner wall surface, comprising a substantially elongated foam discharge conduit, at least one continuous, contoured surface portion longitudinally of said conduit, said surface portion substantially corresponding to the surface contour of said container inner wall surface in a direction horizontally thereof, a foam discharge nozzle substantially defined by said conduit at each end thereof, each said nozzle being directed in substantially parallel alignment with the contour line of said conduit continuous, contoured surface portion, a foam supply conduit opening at one end into direct communication with said discharge conduit, and in right angular relation thereto substantially midway between said nozzles, and means including said container wall for supporting said foam discharge conduit horizontally in the upper end portion of said container in substantially coincident engagement with said container inner wall surface along said conduit contoured surface portion.

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**2,772,744**
**FIRE EXTINGUISHER**
Simon C. Beaudet, New York, N. Y.
Application May 3, 1954, Serial No. 427,076
2 Claims. (Cl. 169—31)



1. A fire extinguishing device comprising a frangible thin walled glass container for fire extinguishing liquid under pressure, said container having at the upper end thereof liquid entry means and liquid dispensing means, protective means for said container comprising a thin light weight sheath like member enclosing the lower portion of said container and tightly attached to the outer surface of said container portion, and a thin light weight sheathlike member enclosing the upper portion of said container, adjacent portions of said members being in



overlapping relation and the second mentioned member closely hugging the opposed portion of said container and being slidably removable from said container to expose said dispensing means while said first mentioned member provides holding means for said device in the operative position thereof.

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**2,772,745**
**HELICOPTER WITH DUAL COAXIAL VARIABLE PITCH ROTORS**
Ferdinando Bordoni, Rome, Italy
Application April 2, 1951, Serial No. 218,841
Claims priority, application Italy April 8, 1950
5 Claims. (Cl. 170—135.24)



1. In a helicopter of the type having two rotors rotating in opposite directions, the combination of a stationary tube, an upper rotor and a lower rotor supported in superposed relation by said tube, a driving shaft contained in the said tube, blades on said rotors being allowed to take incidences variable to a desired extent, said rotors each comprising a drum rotating around said tube, a central pinion in said drum for said lower rotor mounted on said driving shaft, an annular gear adjacent to the inner wall of said drum, three pairs of pinions, each pair being interposed between the central pinion and said annular gear, said pairs of pinions being adapted to impart to said annular gear a rotation in a direction opposite to the rotation of the upper one of said two rotors, said stationary tube being interrupted at said lower drum and being provided with two flanges, said flanges being joined to each other by means of six bolts axially bored, three of the said bolts being arranged to form the shafts around which the internal pinions of said three pairs of pinions rotate, a lower and an upper swash plate mounted on said tube underneath the lower and upper rotors, each of said swash plates being formed by two concentric rings, the internal one of which is tiltable with respect to and slidable on the stationary tube and the external one is rotatable around said inner ring, a hub for each of said rotors which surrounds its respective drum and is pivoted thereon by means of two pivots perpendicular to the tube for tilting in a vertical direction, each of said tilting hubs being provided with two projecting arms perpendicular to said pivots last mentioned, a sleeve mounted on each of said arms and rotatable around its longitudinal axis with respect to the tilting hub, a pivot mounted on the free end of each of said sleeves and perpendicular to the latter, a blade introduced into each of said sleeves and pivoted on the pivot of the latter to flap in a vertical direction, an articulated link fixed at one end of each of said sleeves and pivoted at the other end on said external rings of said swash plates, manually operable controlling means to move said lower swash plate and said upper swash plate, said controlling means comprising six rods, three of which are connected to said lower swash plate and the other three are connected to said upper swash plate, the three rods last mentioned passing through three of said bored bolts which connect the flanges of said stationary tube, said six rods being adapted to change the pitch of said blades.

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**2,772,746**
**SEISMIC EXPLORATION APPARATUS**
Eugen Merten, Houston, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 18, 1955, Serial No. 522,543
3 Claims. (Cl. 181—.5)



1. Apparatus for generating seismic waves for geophysical exploration purposes, said apparatus comprising a heavy thick-walled bell adapted to be positioned with its open side in contact with the surface of the ground, thereby defining a closed chamber, a flexible diaphragm closing the open side of said bell in a gastight manner, valved conduit means through the wall of said bell for introducing an explosive gas mixture into said chamber, ignition means extending into said bell adapted to explode the gas within the chamber of said bell, and valved conduit means through the wall of said bell for releasing exploded gases therefrom.

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**2,772,747**
**ADSORBER APPARATUS**
Frank M. Browning, New York, N. Y., and William B. Leighton, Maplewood, N. J., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application August 18, 1955, Serial No. 529,273
7 Claims. (Cl. 183—4.5)



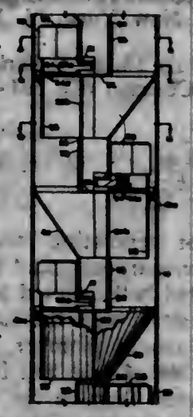
1. An adsorber for recovering fluids and vapors from mixtures thereof with gases, comprising a container vessel, a basket within said vessel, a bed of adsorbent material contained by said basket, a fluid-tight canopy over said basket forming a closed gas space above said bed of adsorbent material, said basket comprising a skeleton framework and removeable corrosion resistant panels, and detachable means for securing said panels to said framework for ready selective removal and replacement of said panels.

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**2,772,748**
**CONTACTING FLUIDS WITH ENTRAINMENT AND INERTIA SEPARATION**
Earl Manning, Jr., Houston, Tex., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application July 21, 1953, Serial No. 369,387
18 Claims. (Cl. 183—22)

1. Method of contacting a liquid with a fluid having a different density, which comprises the steps of: continuously supplying said liquid to an entrainment zone and forming therein a horizontal layer of the liquid; flowing said fluid at a high upward velocity in lateral contact with said layer of liquid and entraining liquid in the fluid substantially at the same rate as that at which liquid is supplied to said zone and forming a high velocity, confined upwardly moving two-phase stream containing liquid distributed over the cross sectional area thereof and in turbulent motion, said liquid being discharged from the entrainment zone substantially only by entrainment in said fluid; flowing said stream in a confined path with a sudden change in direction and at reduced velocity

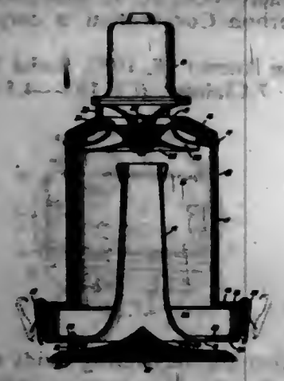
through a separation zone which has an enlarged cross sectional area and is isolated from said entrainment zone



and thereby effecting separation of the phases thereof by inertia; and separately collecting the separated phases.

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2,772,749
**SEPARATOR**
Anthony J. Nerad, Alplaus, and Robert H. Johnson and Olaf Brandal, Scotia, N. Y., assignors to General Electric Company, a corporation of New York
Application December 16, 1953, Serial No. 398,562
2 Claims. (Cl. 183—36)

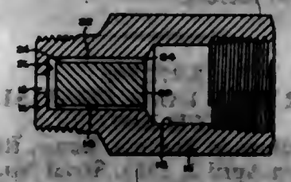


1. A dust separator comprising in combination, a base, an annular dust chamber supported concentrically with and adjacent said base, a cylindrical casing coaxially supported by and in register with the upper opening in said dust chamber, a top wall structure on said cylindrical casing having an opening therein, a blower within the said casing adjacent the top wall structure opening and arranged to direct air entering through said opening in a vortical downward movement along the inner surface of said casing, and an upwardly narrowing diameter sleeve having a wide angle diverging lowermost portion, said sleeve being positioned coaxially within said casing with said lowermost portion in register with the annular dust chamber bottom opening, and an uppermost portion extending near said blower, the interior of said sleeve defining an air passage extending through said sleeve and radially outward between said sleeve and said base, whereby vortically downwardly moving air from said blower reverses near the lowermost portion of said sleeve and flows upwardly spirally about the said sleeve to again reverse and exit through said air passage.

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2,772,750
**COALESCING FITTING**
Joseph C. Bystricky, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application May 12, 1954, Serial No. 429,175
3 Claims. (Cl. 183—75)

1. A coalescing fitting for use in an oil aersol lubricating system comprising, a body having an axial large diameter bore therein and having a radially inwardly extending flange at one end of the bore defining an outlet opening therefrom opening outwardly along the extended axis of the bore, and a generally cylindrical plug having at least one groove in its cylindrical surface generally



parallel to the axis of the plug and open longitudinally outward at opposite ends of the plug, the groove having a cross sectional area which is only a very small fraction of the cross sectional area of the bore, said plug having a press fit in the bore and having one end spaced a short distance from the inner surface of the flange on the body.

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2,772,751
**PISTON LUBRICATOR AND CYLINDER DUST GUARD**
Edgar W. Patterson, Downey, Calif.
Application September 29, 1954, Serial No. 459,025
4 Claims. (Cl. 184—18)



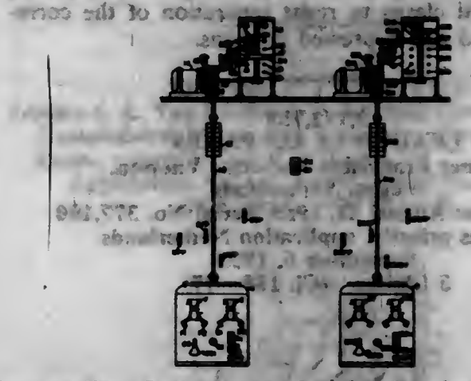
1. In an air balance, the combination of: a cylinder, one end of which is closed and the other end of which is open; a piston slidably reciprocable in said cylinder, said piston sufficiently closely fitting said cylinder and having such a substantial length/diameter ratio as to maintain said piston and cylinder in co-axial alignment; a dust guard mounted on said piston and comprising a cylindrical tube concentrically disposed within said cylinder and extending from said piston to the open end of said cylinder with the piston at its maximum extension into said cylinder, the outer surface of said dust guard being out of contact with and closely spaced from the inner surface of said cylinder; means for effecting relative reciprocation between said cylinder and said piston; means for supplying lubricating oil to the space between said piston and said cylinder, certain portions of said oil thus supplied tending to leak past said piston; oil recovery means disposed adjacent the lower end of said piston and above the upper end of said guard for recovering from the walls of said cylinder a major portion of the oil tending to leak past said piston; and means for returning said recovered oil to said lubricating oil supply means.

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2,772,752
**ELEVATOR SYSTEMS**
John Sacco, Paramus, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 25, 1954, Serial No. 405,744
40 Claims. (Cl. 187—29)

38. In an elevator system, a structure having a pair of terminal floors and a plurality of intermediate floors intermediate the terminal floors, an elevator car, means mounting the elevator car for movement relative to the structure to serve the floors, motive means operable for moving the elevator car relative to the structure, call registering means for each of the intermediate floors, the call registering means comprising for each of the intermediate floors, a first call registering relay, a second call registering relay, an operating device operable from the associated floor for operating the first call registering relay, and transfer means operable for rendering the operating device ineffective for operating the first call registering relay and effective for operating the second call registering relay, and control means having a first condition wherein the elevator car is conditioned to stop at each of the

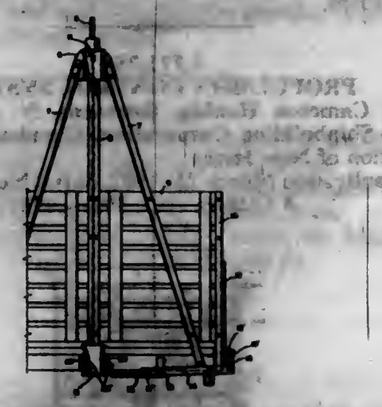




intermediate floors approached by the elevator car in a first direction for which a call is registered by one of the first call registering relays, said control means having a second condition wherein the elevator car is conditioned to stop at each of the intermediate floors approached by the elevator car in said first direction for which a call is registered by one of the second call registering relays, said control means when in the first condition being ineffective to initiate a stopping operation of the elevator car in response to calls registered by said second call registering relays, and the control means when in the second condition being ineffective to initiate a stopping operation of the elevator car in response to calls registered by said first call registering relays.

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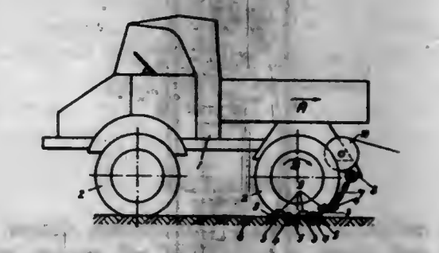
2,772,753
**LIFT STAGE AND CAGE ASSEMBLY**
Per O. Nordgård, Arboga, Sweden
Application December 15, 1951, Serial No. 261,817
5 Claims. (Cl. 187—76)



1. A lift stage and cage assembly comprising a cage, a gang-plank hinged to the cage and movable between a position substantially within the outline of the cage as seen in the direction of the up and down movement of the cage within the stage and a position laterally extending from the cage, locking means mounted on the cage movable between a position laterally protruding from the cage and a position withdrawn within the outline of the cage, and transmission means operatively coupling the gang-plank with said locking means for control of the latter by the position of the gang-plank so that the locking means are in the protruding position when the gang-plank is extending from the cage and in the withdrawn position when the gang-plank is situated within the outline of the cage; and the said lift stage comprising support means engageable with said locking means in the protruding position thereof thereby supporting the cage relative to the stage when the said gang-plank is swung outwardly.

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2,772,754
**DEVICE FOR ANCHORING A ROAD VEHICLE**
Heinrich G. F. Roessler, Gaggenau, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application April 9, 1952, Serial No. 281,307
1 Claim. (Cl. 188—4)



In a road vehicle with wheels and having a hoisting mechanism used to hoist, tow or draw objects to the vehicle, a pair of readily removable anchoring devices adapted to be placed beneath two of said wheels, each of said anchoring devices including a plurality of substantially rectangular plate members and of annular link members interconnecting adjacent plate members to thereby form a flexible chain-like structure in which said plate members alternate in succession with said link members, each plate member being provided with an angularly bent, downwardly projecting flange portion integrally formed therewith along the side thereof opposite said hoisting mechanism and extending over the entire width thereof to ensure a firm grip on the road when weighed down by a wheel and two upwardly extending lateral portions to accommodate the wheel therebetween, a frame member located in the rear of the vehicle, and chain means connecting each anchoring device to said frame member to be pulled taut when the vehicle is moved rearwardly to anchor said plates under the wheels of the vehicle and to thereby keep the vehicle in the anchored position when used to draw an object toward the vehicle.

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2,772,755
**PUMP TYPE HYDRAULIC BRAKE**
Friedrich K. H. Nallinger and Joseph Dunbea, Stuttgart, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application July 6, 1951, Serial No. 235,522
Claims priority, application Germany July 13, 1950
9 Claims. (Cl. 188—91)

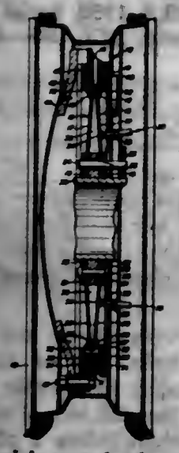


1. In a vehicle, the combination with a member connected with the vehicle wheels to be driven thereby of a pump of the variable delivery type, said pump comprising a rotor connected to said member to be driven there-

by, at least two stators surrounding said rotor, means for mounting each of said stators for adjustment between a co-axial non-feeding position and an eccentric feeding position relative to said rotor, and means for adjusting said stators in opposite directions.

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2,772,756
DISK-TYPE BRAKE
Claude Hector May, Columbus, James E. Ballmer, Canal Winchester, and Thomas M. Trainer, Columbus, Ohio, assignors, by direct and mesne assignments, to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware
Application August 30, 1952, Serial No. 307,356
15 Claims. (Cl. 188—152)



1. A brake comprising: a brake ring; a pair of brake disks oppositely disposed about said brake ring; mechanical connecting means holding the inner portions of said disks in fixed spaced relationship to each other; a fluid, normally under pressure, between said disks; and means for controlling the pressure of said fluid; each said disks comprising a surface of revolution having: an annular, substantially flat, inner first portion, substantially perpendicular to the axis of said disk; an annular, intermediate second portion comprising the lateral surface of a shallow, conical frustum extending from said first portion toward the other disk; an annular, intermediate third portion comprising the lateral surface of a steep, conical frustum extending from said second portion away from the other disk; and an annular, outer fourth portion substantially perpendicular to said axis of said disk.

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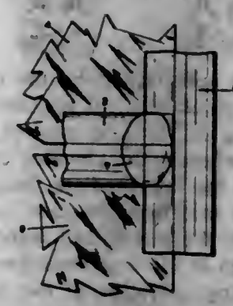
2,772,757
STRUCTURAL MATERIAL
Gordon Hammond, Ashland, Va.
Application November 19, 1952, Serial No. 321,349
3 Claims. (Cl. 189—34)



1. A cellular core for use in a structural panel, comprising a plurality of superimposed elongated metal foil strips having transversely extending alternately raised and depressed portions, the raised portions of each of said strips abutting the depressed portions of an adjacent strip and forming transverse cells therewith between said raised and depressed portions, and at least two clasps each formed from a pair of metal foil tongues extending from at least some of the abutting raised and depressed portions of said strips, and securing said strips together, the pair of tongues in each said clasp being integral respectively with one of said strips and said strip adjacent thereto, and extending from the walls of aligned apertures through two of said abutting portions thereof, one foil tongue in each clasp extending from its corresponding foil strip through the aperture in the adjacent foil strip and thence being superimposed over the other of said tongues of each said clasp, the foil tongues in each of said clasps including portions having interengaging bends resisting separation of said tongues and separation of their corresponding foil strips, at least one of said clasps extending in a direction opposite to that of another of said clasps to resist separation of the corresponding raised and depressed portions.

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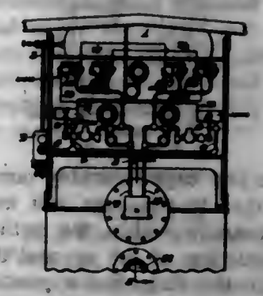
2,772,758
LEADED GLASS PANES
Joannes Franciscus Hubertus Vaessen, Vught, Netherlands
Application August 28, 1953, Serial No. 377,190
Claims priority, application Netherlands September 6, 1952
3 Claims. (Cl. 189—77)



1. A corner joint for two strips of thermoplastic supports for windowpanes and the like, said supports being H-shaped and supporting the edge of a pane between the legs of the H, comprising the end of one of said strips inserted between the legs of the H of the other of said strips to form a depression between the outside surface of said one strip and the ends of the legs of the other said strips, said one strip being heat bonded between the legs of the H of said other strip, a filler of molten resin in said depression, and a layer of low melting point plastic solder over said filler and the adjacent portions of said strips.

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2,772,759
PROPULSION CONTROL SYSTEM
Donald Cameron Hankin, Rancocas, N. J., assignor to RTC Shipbuilding Corporation, Camden, N. J., a corporation of New Jersey
Application March 21, 1952, Serial No. 277,865
8 Claims. (Cl. 192—.098)

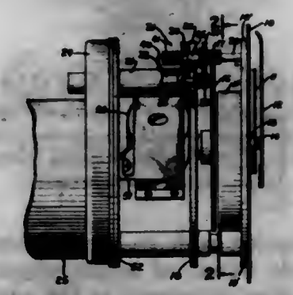


1. In apparatus of the character described, the combination with an internal combustion engine, a driving member operable by said engine, a pair of driven members, and throttle mechanism controlling the supply of fuel to said engine, of fluid operable clutching mechanisms for connecting said driving member with the respective driven members, valve mechanism controlling the fluid pressure actuating one of said clutching mechanisms, means responsive to the fluid pressure actuating the other of said clutching mechanisms for controlling said valve mechanism, a second valve mechanism controlling the fluid pressure actuating said last named clutching mechanism, means responsive to the fluid pressure actuating the said first named clutching mechanism for controlling said second named valve mechanism, and latching means including mechanism responsive to fluid pressure actuating either of said clutching mechanisms for limiting the movement of said throttle mechanism.



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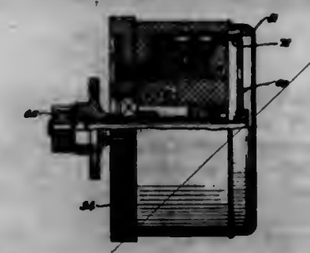
2,772,760
TRANSMISSION DEVICE
Loisius J. A. Van Lieshout, Bethlehem, Conn., assignor to Consolidated Electronics Industries Corp., Waterbury, Conn., a corporation of Delaware
Application August 1, 1955, Serial No. 525,435
11 Claims. (Cl. 192—4)



1. A transmission device for drivingly connecting a driving member and a driven member which comprises a support mounted for pivotal movement, a transmission member mounted on said support and in engagement with said driving member and engageable with said driven member upon pivotal movement of said support in one direction, a brake member fixedly secured to said driven member, a brake mounted on said support and engageable with said brake member upon pivotal movement of said support in the other direction, means normally maintaining said support in its pivoted position in which said brake is in engagement with said brake member and said transmission member is out of engagement with said driven member, and means for pivoting said support to a position so that said brake is out of engagement with said brake member and said transmission member is in engagement with said driven member.

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2,772,761
ELECTROMAGNETIC CLUTCH WITH PARTICULATE CLUTCHING MEDIUM
Gunnar H. Jansen, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich.
Application December 17, 1951, Serial No. 262,027
11 Claims. (Cl. 192—21.5)



1. An electromagnetic clutch including a driving element adapted for connection to a source of power and a driven element, both elements being mounted for relative rotation and having opposed face portions defining a magnetic gap, means for establishing a magnetic field in said gap, and material in said field and responsive thereto for establishing a load transmitting bond between said face portions, said material comprising finely divided magnetically susceptible particles and a colloidal suspension of graphite in a vehicle comprising an alkyd resin.

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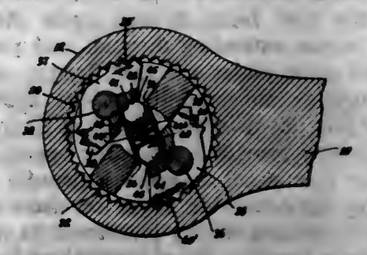
2,772,762
MAGNETIC DRIVE
Reynold F. Gemmell and George R. Pipes, Mayfield Heights, Ohio, assignors to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application February 17, 1953, Serial No. 337,404
10 Claims. (Cl. 192—21.5)



1. A clutch comprising relatively rotatable magnetic members, means for generating a single flux field between the members, portions of said rotatable members having a fixed air gap therebetween, magnetic means supported for rotation with one of the rotatable members and relatively movable toward and away from another portion of the other member, and fluid magnetic material in the fixed air gap, said generated flux field passing between the members across the fixed air gap and between the means supported for relative movement toward and away from the one portion of the other member, and the one portion of the other member, in a single continuous path providing for a dual coupling action between the members.

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2,772,763
RATCHET WRENCH
Walter J. Johnson, Buffalo, N. Y., assignor to J. H. Williams & Co., Buffalo, N. Y., a corporation of New York
Application January 12, 1951, Serial No. 205,626
4 Claims. (Cl. 192—43.1)

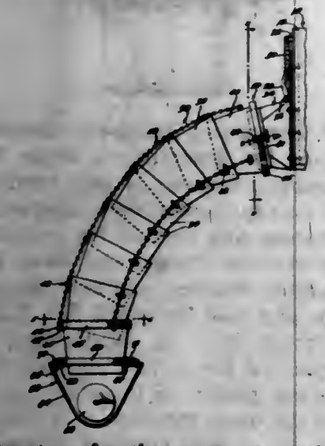


1. In a ratchet mechanism, the combination of a driving member having an internally toothed wall, a driven member rotatively mounted in the driving member, two double-ended, multi-toothed pawls journaled on shafts substantially diametrically opposite each other mounted in the driven member and parallel to the axis thereof for selective coaction with the teeth on the driving member, the teeth on one end of one of the pawls being normally in engagement with the teeth on the driving member while the teeth on the corresponding end of the other pawl are offset one-half tooth pitch in relation to the teeth on the driving member, resilient means biasing the pawls to the aforementioned positions, a shifter bolt rotatably and coaxially mounted in the driven member and supporting the resilient biasing means, manually operable means for rotating the shifter bolt to selectively en-

gage the teeth on one end of the pawl with the teeth in the driving member and the teeth on the corresponding end of the other pawl into offset relation, the shifter bolt having integral abutments for mechanically engaging and moving the pawls about their shafts, for reversing the operation of the wrench, when the shifter bolt is manually rotated, the driven member having a hub formed with segmental slots therein to provide pairs of flanges within which the shafts of the pawls are journaled, and a recessed gland mounted in the top of the driving member providing a bearing for the driven member and serving as a reinforcement for the upper flanges to interrupt and retard the expansive forces of the upper flanges at the pawl-shaft journals, which forces otherwise would be transmitted directly to the driving member.

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**2,772,764**
**GRAIN UNLOADER**
**David B. McClellan, Dutton, Mont.**
**Application September 3, 1953, Serial No. 378,206**
**1 Claim. (Cl. 193—4)**

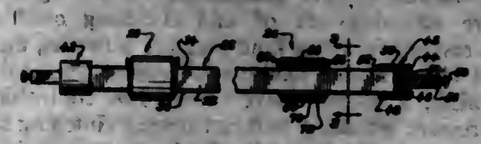


A tailgate structure for the open rear end of the body of a vehicle, said body having bottom and side walls, said structure comprising a pair of upstanding posts secured to the rear ends of said side walls, a pair of vertically disposed base plates, each plate abutting the rear face of one post, a pair of guide plates, each guide plate abutting the rear face of one base plate, a rearwardly offset portion on each guide plate to provide with the associated base plate a pair of vertical opposed guide channels, a frusto-conical hood having edge flanges abutting the rear faces of said guide plates, common fastening means extending through said posts, said base plates, said guide plates and said flanges, said hood having an aperture substantially at the apex thereof, an outwardly and downwardly extending flange surrounding said aperture to provide a discharge opening, a generally rectangular gate panel disposed forwardly of said hood and having opposite side edges received in said guide channels for vertical sliding movement to close and open said discharge opening, rearwardly extending spaced ribs on said panel, gate panel operating mechanism mounted on said posts, links pivotally connected to said ribs and said mechanism and spaced notches in the upper edge of said hood for receiving said ribs to permit vertical movement of said panel by said mechanism.

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**2,772,765**
**BAIL FOR TYPEWRITERS AND THE LIKE**
**Arthur M. Mareth, Wilton, Conn., assignor to The J. J. Kennedy Corporation, Byram, Conn., a corporation of Connecticut**
**Application March 28, 1955, Serial No. 497,054**
**11 Claims. (Cl. 197—138)**

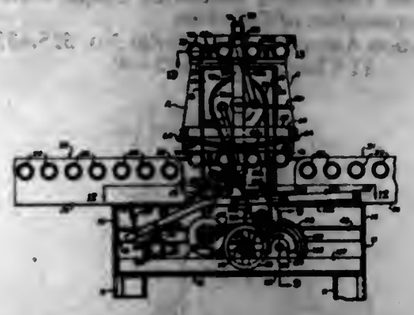
1. A cross-rod portion for the paper lock assembly of a typewriter and the like; said cross-rod portion comprising an elongated, rectangular bar of transparent plastic material, and thin metal strips extending along and adhered to two opposed surfaces of said bar to resist bend-



ing and warping of the latter about the neutral axis of the bar extending parallel to said two opposed surfaces, while permitting viewing of typed material through said bar in directions generally parallel to said neutral axis.

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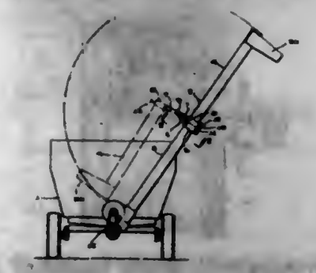
**2,772,766**
**ARTICLE INVERTING APPARATUS**
**James A. Kellam, Biscoe, N. C.**
**Application February 17, 1954, Serial No. 410,855**
**14 Claims. (Cl. 198—33)**



8. The combination with an article turning machine having a rotatable frame, of article gripping platforms mounted for relative movement in the rotatable frame, each platform comprising a row of idle rollers, said rows of rollers being adapted to engage opposite ends of an article, means to prevent rotation of at least one of the rollers in each platform in but one direction, links carried by the gripping frames and extending inwardly, a rotatable element mounted axially with respect to the rotatable frame but for movement relative to the rotatable frame and to substantially diametrically opposed points of which the proximal ends of said links are connected, friction means normally restraining rotation of said rotatable frame, and means under control of the article for effecting rotation of said rotatable element whereby said rotatable element will initially cause inward movement of said links and said gripping platforms until the inertia of said friction means is overcome and whereupon the rotatable element will then impart rotation to the rotatable frame for inverting the article.

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**2,772,767**
**VEHICLE MOUNTED LOAD DISCHARGING ELEVATOR**
**Walter R. Seifert, Auburn, Ill., assignor to Hotchkiss Steel Products Co., Bradford, Ill., a corporation of Illinois**
**Application January 8, 1954, Serial No. 402,935**
**2 Claims. (Cl. 198—115)**



1. In a load discharging elevator for grain wagons and the like, a pair of tubular sections formed open at their opposite ends and adapted to be coaxially aligned in end-



abutting relation; auger conveyors extending within the respective sections; means connecting the conveyors for joint rotation in the aligned, end-abutting position of the sections; a pair of parallel links on each section, the links of each pair being rigid at one end with and extending laterally outwardly from the section on which they are mounted adjacent said one end of the section; a pin connecting the respective pairs of links at the other ends of the links to hingedly mount one section upon the other for swinging movement about an axis offset laterally from and extending transversely of the sections, said pairs converging in said position of the sections at an acute angle to each other in a direction away from the sections, to form a V-shaped brace straddling the abutting ends of the sections and reinforcing the sections against deviation from their coaxial relationship; and means releasably interengaging the sections against relative swinging movement in said coaxially aligned positions thereof.

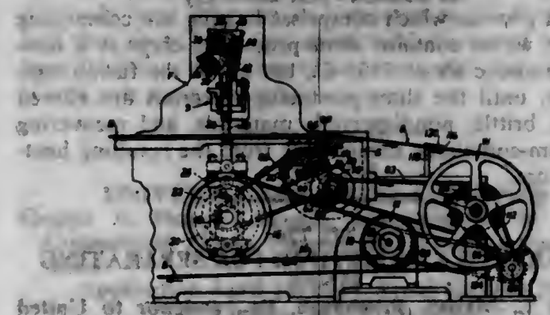
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**ERRATUM**

For Class 198—192 see:
Patent No. 2,773,257

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**2,772,768**
**BOX MACHINE CONVEYOR DRIVE**
**William J. Hogan, Dover, N. J., assignor to Stapling Machines Co., Rockaway, N. J., a corporation of Delaware**
**Application June 3, 1954, Serial No. 434,305**
**2 Claims. (Cl. 198—203)**

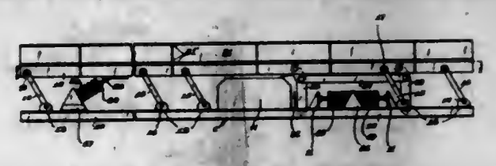


1. Means for driving the conveyor bands of a wire-bound box making machine comprising motor means, a primary train of drive elements mechanically connecting said motor means to said conveyor bands, said primary drive train having such a drive ratio as to cause said motor means to drive said conveyor bands at a predetermined basic speed and including an over-running clutch permitting said conveyor bands to be driven independently of said primary drive train at speeds in excess of said basic speed, and a secondary train of drive elements mechanically connecting said motor means to said conveyor bands, said secondary drive train including a clutch for rendering said secondary drive train ineffective to drive said conveyor bands and at least one adjustable element giving said secondary drive train a variable drive ratio to permit variation of the speed at which said conveyor bands are driven by said secondary drive train within a range of speeds in excess of said basic speed.

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**2,772,769**
**SHAKER CONVEYING APPARATUS**
**George W. Behnke and Russell G. Westcott, Durand, Mich., assignors to Simplicity Engineering Company, Durand, Mich., a corporation of Michigan**
**Application May 9, 1955, Serial No. 506,904**
**6 Claims. (Cl. 198—220)**

1. In a shaker conveyor for transporting material in a given direction, a support structure, a conveyor pan above said structure, means pivotally connected to said structure and to said pan for supporting the latter above said support structure, depending lever means pivotally connected at one end thereof to said pan, eccentric means pivotally connected to said lever means interjacent its ends and at a point spaced to one side from a vertical plane passing through the point of connection of said lever means to said pan to oscillate the same, a frame member pivotally connected at the other end of said lever means and being movable relatively to said support structure, spring engageable means carried by said frame



member, and spring means reacting between said support structure and said spring engageable means opposing pivoting of said lever means about the point of its connection to said eccentric means to maintain said pan at a predetermined level above said support structure for a given load but permitting settling of said pan relative to the eccentric means with increased load to automatically increase the stroke of the pan.

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**2,772,770**
**SHAKER CONVEYORS**
**Ernst R. Bergmann, Evergreen Park, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois**
**Application July 11, 1952, Serial No. 298,263**
**15 Claims. (Cl. 198—220)**



1. A shaker conveyor comprising an inby unit and an outby unit supporting a material conveying belt having reciprocating motion, a shaker drive mounted on one of said units for imparting reciprocating motion to said belt, fluid pressure means mounted on the other of said units and operable only upon the movement of said belt in a direction tending to buckle same for placing tension on said belt to prevent buckling thereof, and means actuated by the reciprocation of said belt for controlling said fluid pressure means.

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**2,772,771**
**DISPERSED GETTER ELEMENTS**
**Robert Joseph Wheldon, Cricklewood, London, Arthur Everard Widdowson, and Kenneth Herbert Wilkinson, Wembley, England, assignors to The M-O Valve Company Limited, London, England**
**Application July 14, 1955, Serial No. 522,008**
**Claims priority, application Great Britain July 23, 1954**
**5 Claims. (Cl. 206—.4)**



2. A dispersed getter element comprising a quantity of getter material, and an imperforate container in which the getter material is disposed and which is substantially completely closed at normal temperatures, the container being entirely constructed of materials whose melting points are higher than the volatilisation temperature of the getter material and at least two of which have different coefficients of thermal expansion, and the container including two parts which engage closely with one another at normal temperatures and which on heating to said volatilisation temperature expand differential-

ly to provide an opening between said two parts which allows the volatilised getter material to escape from the container.

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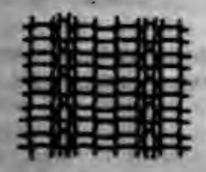
2,772,772
**TABLET DISPENSER**
Eugene V. Taylor, Chicago, Ill.
Application April 29, 1954, Serial No. 426,438
2 Claims. (Cl. 206—42)



1. A tablet dispenser comprising a cylindrical body member having a plurality of longitudinal openings formed therethrough with the axes of the latter being spaced from the central axis of the body member, closure means at the lower end of said body member, each of said longitudinal openings being adapted to receive a plurality of tablets, said body member having apertures in the wall thereof communicating respectively with the longitudinal openings, a tubular dispensing head slidably and rotatably mounted on the lower end of said body member and having an aperture therein, an actuator member extending through the longitudinal center of said body member and said closure means, means connecting the lower end of said actuator member to said dispensing head, spring means mounted between said body member and said actuator for normally maintaining said dispensing head in a position where the aperture therein is out of register with the apertures in said body member, said actuator and dispensing head being manually rotatable relative to said body member so as to permit the aperture in the latter to be brought into alignment with any one of the longitudinal openings, and said actuator when manually depressed serving to shift said dispensing head axially relative to said body member for moving the aperture in the latter into register with the adjacent aperture in the body member so as to permit a tablet to drop from the selected opening in the body member and through the apertures in register upon tilting of the tablet dispenser.

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2,772,773
**FABRIC WRAP**
Raymond H. Pestell, Old Hickory, Tenn., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application September 29, 1953, Serial No. 382,970
3 Claims. (Cl. 206—59)



1. Rib-knit wrap fabric containing both continuous-filament yarn and staple-fiber yarn and having ribbed wales of staple yarn separated from one another by pluralities of plain wales of the two types of yarn interknit with one another.

2,772,774
**TAPE ROLL AND CORE**
George R. Rabuse, St. Paul, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application March 19, 1953, Serial No. 343,431
2 Claims. (Cl. 206—59)



2. As a new article of manufacture, an assembly comprising an annular core having a roll of pressure-sensitive adhesive tape wound upon it, said assembly providing a tape roll which is resistant to lateral displacement of said tape on said core by reason of compression of the edge portions of said tape, the peripheral surface of said core being curved axially of the core so that the edge portions of said peripherial surface will be further inward, radially of the core, than the mid-portion thereof, whereby said adhesive tape, circumvolutely wound upon said core is supported only by said mid-portion of said core, the edge portions of said tape thereby being displaceable radially inward when compression occurs.

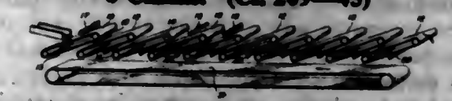
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2,772,775
**TREATMENT OF SYLVINITE ORE**
George E. Atwood, Carlsbad, N. Mex., assignor to International Minerals & Chemical Corporation, a corporation of New York
No Drawing. Application March 2, 1953, Serial No. 339,917
13 Claims. (Cl. 209—11)

11. A process which comprises heating ore comprising sylvinite which contains slime-producing clays at a temperature above about 180° C., but below the fusion temperature, until the slime-producing materials are altered to hard, brittle, nondispersible materials, and recovering potassium-containing compounds from the resulting heat-treated ore.

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2,772,776
**APPARATUS AND METHOD FOR SEPARATING FINES**
Thomas L. Myron, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application January 7, 1954, Serial No. 402,725
8 Claims. (Cl. 209—45)



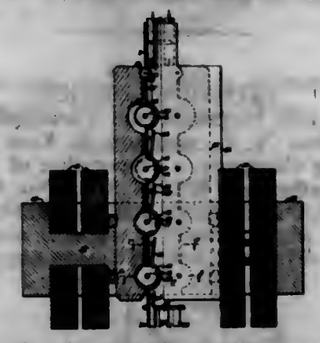
1. An apparatus for separating fines from wet granular materials comprising a series of power driven belt conveyors arranged in tandem with each spaced a minimum distance of about two feet above the conveyor which follows and having its discharge end located thereover, whereby material discharging from each conveyor tends to stratify according to size as it falls on the next conveyor, particle removing means mounted adjacent the lower flights of each of said conveyors for removing clinging fines therefrom, the downward projection of at least some of said particle removing means lying ahead of the next conveyor, means for collecting fines removed by said particle removing means, and means situated above and beyond at least one of said conveyors for directing air streams backwardly against material discharging therefrom.

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2,772,777
**APPARATUS FOR MAGNETIC SEPARATION OF ORES**
Augustin L. J. Queneau, Far Hills, N. J.
Application October 20, 1954, Serial No. 463,394
5 Claims. (Cl. 209—219)

1. In an apparatus for the wet magnetic separation of materials consisting of mixtures of magnetically susceptible particles and magnetically non-susceptible particles, the combination which comprises a vertically-extending separator box having enclosing side and bottom walls for receiving and maintaining a liquid suspension of such material under a controlled hydrostatic head, means defining a restricted discharge opening in the bottom portion of said box through which to maintain a controlled discharge of a residue of such a liquid suspension, said box having opposite side walls provided with opposed inwardly extending arcuate recesses defining between them a relatively narrow flow passage for the liquid suspension

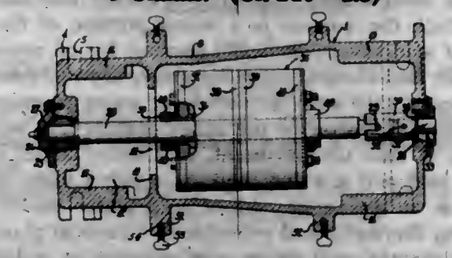




being treated therein, a pair of electromagnetic poles pieces positioned at opposite sides of said separator box and having arcuate recesses therein positioned in registering relation to the arcuate recesses in the side walls of said box, cylindrical end pieces mounted for rotation within said registering recesses, said arcuate recesses in said pole pieces being developed on radii of circles of a relatively large diameter as compared to the diameter of said end pieces, and semi-cylindrical sleeves of magnetic material fitting in seating engagement with the side walls of said pole piece recesses.

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2,772,778
**UNIVERSAL MAGNETIC CLARIFIER**
George B. Furey, Lebanon, Ind., assignor to Indiana Commercial Filters Corporation, a corporation of Indiana
Application April 16, 1954, Serial No. 423,587
3 Claims. (Cl. 210—1.5)

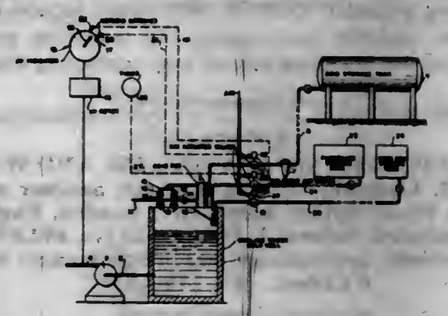


1. In a magnetic clarifier, a tank having an inlet for contaminated liquid at one end and an outlet for cleaned liquid at the other end and through which the liquid flows lengthwise of the tank, a shaft extending through said tank lengthwise thereof for rotation in a direction substantially transverse to the direction of liquid flow, a magnetic pick-up drum of uniform diameter on said shaft, the side and bottom walls of the tank converging toward the outlet end, said drum being mounted on said shaft within the region encompassed by said converging walls.

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2,772,779
**METHOD FOR pH CONTROL IN CIRCULATING WATER**
Donald E. Norris, Hammond, Ind., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine
Application January 29, 1952, Serial No. 268,862
2 Claims. (Cl. 210—29)

1. A method for control of pH in a continuously circulating stream of water containing polyphosphate corrosion inhibitors by the addition of aqueous acid solution thereto, which comprises continuously measuring the pH value of the circulating water, introducing aqueous acid solution at a regulated rate to the stream of water at a point upstream from the point at which the pH measurement is taken in a repeated cycle commencing when the pH attains a predetermined maximum value on the acid side and terminating when the measured pH is reduced to a predetermined intermediate value, introducing



aqueous sodium base solution at a regulated rate to the stream of water at a point upstream from the point at which the pH measurement is taken in a repeated cycle commencing when the measured pH attains a predetermined minimum value less than said intermediate value and terminating when the measured pH is raised to a predetermined value intermediate said maximum and minimum values, and introducing an aqueous solution of polyphosphates to the water stream at equally spaced intervals of time and selected duration.

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2,772,780
**APPARATUS FOR CONTACTING LIQUIDS WITH GRANULAR SOLID MATERIALS**
Joe E. Penick, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application July 17, 1951, Serial No. 237,265
7 Claims. (Cl. 210—42.5)



5. An apparatus for the continuous percolation of liquid through a downwardly moving bed of granular solids, which comprises in combination: an enclosed contacting chamber adapted to confine a bed of granular solids, a liquid plenum chamber beneath said contacting chamber, at least one short nipple for liquid flow extending upwardly from said plenum chamber into the lower section of said contacting chamber and removably attached to a wall of said plenum chamber, an orifice plate with flow restricting orifice therein extending laterally across said nipple, a deflecting baffle fixed centrally a spaced distance above the upper end of said nipple, a screen enclosing the space between said baffle and the upper end of said nipple, said screen being less in mesh size than said contact material, the area for liquid flow between said baffle and the adjacent end of said nipple



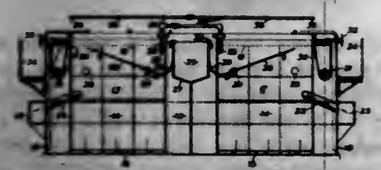


cleaning the cylindrical interior wall of the tank and wiper cover into separate filtrate chambers each having an in-

and the area for liquid flow between said baffle and the wall of said plenum chamber to which said nipple is attached and the total area of the openings in said screen each being greater than the area of said orifice in said orifice plate, means for introducing liquid into said plenum chamber whereby liquid flows from said plenum chamber through said nipple, orifice and screen into said contacting chamber, means for removing liquid from the upper section of said contacting chamber, means for introducing granular solids into the upper section of said contacting chamber and means for removing granular solids from the lower section of said contacting chamber.

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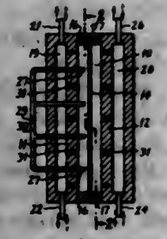
**2,772,781**
**APPARATUS FOR SEPARATING OIL AND WATER**
George R. Unthank, London, England, assignor of one-half to Henry Arthur John Silley, London, England
Application January 7, 1954, Serial No. 402,680
Claims priority, application Great Britain January 8, 1953
6 Claims. (Cl. 210—52)



1. Apparatus for separating oil and water comprising a tank, an open-topped, channel-section conduit for discharging liquid into the tank and disposed in the upper part of the tank, at least one of the conduit side walls providing a weir over which liquid entering the tank from the conduit must flow, discharge means for oil which separates from the liquid in the tank and which collects in the upper part of the tank between said open-topped conduit and said discharge means, a primary partition wall disposed closely adjacent at least one tank side wall and providing a first passage which is open at its lower end into the tank adjacent the tank floor to permit flow into the first passage of water from the lower part of the tank, the primary partition wall providing at its upper end a first weir over which water flowing upward in the first passage passes, discharge means for water which has passed over the said first weir, and at least one baffle extending from the side wall of the open-topped conduit toward said oil discharge means, the smaller part of said baffle nearer to the open-topped conduit being shaped to direct the downward flow of liquid passing over the conduit side wall in an outward direction toward said oil discharge means, and the greater part of said baffle further from the open topped conduit being perforated to allow the water to separate from the oil and sink to the bottom of the tank and flow into said first passage.

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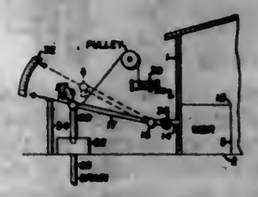
**2,772,782**
**LIQUID THERMAL DIFFUSION APPARATUS AND METHOD**
John C. Jansma, Maple Heights, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application April 28, 1953, Serial No. 351,528
6 Claims. (Cl. 210—52.5)



1. Liquid thermal diffusion apparatus comprising an elongated separation chamber formed by closely spaced, substantially parallel, liquid-impervious, opposed walls, means for relatively heating one of said walls and cooling the other of said walls to maintain a temperature gradient across the separation chamber, an inlet for introducing a liquid mixture into the chamber, said inlet extending into said chamber and terminating intermediate the chamber-forming walls, and a plurality of outlets in and extending substantially across said opposed walls and spaced from said inlet for withdrawing liquid fractions from said separation chamber at locations closely adjacent the chamber-forming walls.

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**2,772,783**
**SKIMMING DEVICE**
William C. Ludi, Matawan, and Christopher E. Loeser, Scotch Plains, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application July 9, 1954, Serial No. 442,274
1 Claim. (Cl. 210—60)

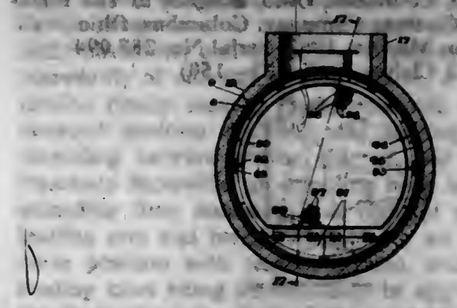


An apparatus for separating and separately withdrawing oil from a mixture of oil and water, comprising a receiving vessel for a batch of said mixture, wherein the oil and water are separated from said batch by gravity to form a superposed layer of the oil on the water, a weir plate having parallel and opposite longitudinal upper and lower edge portions, and end edge portions, said plate being secured along its lower edge portion to the floor of said vessel, and extending upwardly therefrom to a height at its upper edge portion which is a minor portion of the height of said vessel, said weir plate being secured at each end edge portion to a wall of said vessel and therewith defining a compartment, opening upwardly into said vessel, of which the volume is a minor portion of the total volume of said vessel, an outlet conduit for oil communicating with said compartment interiorly thereof below the upper edge of said weir, an outlet for water communicating with said vessel below the upper edge of said weir and exteriorly of said compartment, said water outlet having an outer end and a valve therein, a swing joint conduit connection at the outer end of said water outlet communicating therewith and movable in a vertical plane with reference thereto, said swing joint connection including a discharge end and vacuum breaker means adjacent said end, a stop support for said swing joint conduit connection disposed exteriorly of said vessel to engage said swing joint conduit and support said discharge end thereof at a depressed level thereof substantially in a plane common to the upper edge of said weir, and means for elevating said swing joint conduit discharge end to, and for retaining said end at a level above said weir substantially equal to the thickness of a layer of oil separated from and superposed on a layer of water in said vessel.

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**2,772,784**
**TANK FOR TRANSPORTING VISCOUS LIQUIDS**
James F. Cyphers, Milton, and Francis C. Doherty, Jamaica Plain, Mass., assignors to General Foods Corporation, New York, N. Y., a corporation of Delaware
Application December 30, 1952, Serial No. 328,782
15 Claims. (Cl. 210—206)

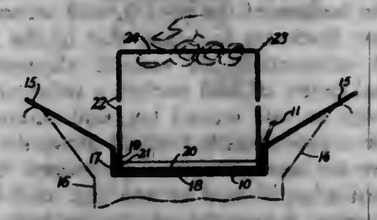
1. In a portable substantially cylindrical tank unit having a bottom outlet, cleanout means inside the tank including ring-like wiper means movable axially therein for cleaning the cylindrical interior wall of the tank and wiper means rotatable in engagement with an end wall of said



tank, and operating means outside of said tank having driving connections to said cleanout means therein.

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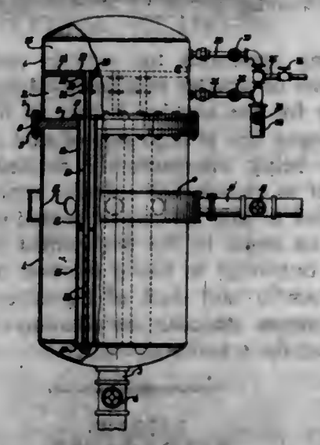
**2,772,785**
**MILK FILTER OR THE LIKE**
Lewis L. Kramer, New York, N. Y.
Application August 17, 1954, Serial No. 450,321
3 Claims. (Cl. 210—158)



7. In a filter assembly comprising a funnel or reservoir having a filter seat and superimposed strainers for holding a milk filter on said filter seat, the combination therewith of a filter sheet of the class consisting of milk filter paper, carded cotton milk filter sheets and carded cellulose milk filter sheets including a body portion and a border anchored by one of said strainers, said body portion having a gripping tab projecting to one side of a strainer and severable while holding the strainer in position, whereby the contaminating influence in contacting the tab may be removed before filtering.

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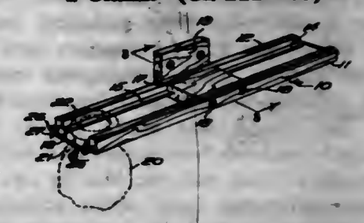
**2,772,786**
**OUTLET ARRANGEMENT FOR BLOW-DOWN CLARIFIER**
Alfred W. Gardes, Lebanon, Ind., assignor to Indiana Commercial Filters Corporation, a corporation of Indiana
Application February 16, 1953, Serial No. 337,068
4 Claims. (Cl. 210—182)



1. In a liquid clarifying apparatus, a casing having an inlet for contaminated liquid, a removable inverted cup-like cover on said casing, a transverse partition in the middle region of said cover and a transverse partition adjacent the lower end of said cover, said partitions dividing the cover into separate filtrate chambers each having an individual outlet, an elongated filter in said casing comprising upper and lower transversely separated filter elements of which the upper extends through the lower partition and discharges into the lower filtrate chamber, and a pipe extending through said elements in communication with the lower element only and also extending through the upper partition whereby the lower element discharges into the upper filtrate chamber.

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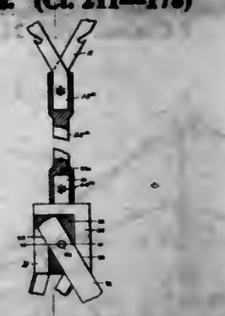
**2,772,787**
**BOTTLE RACK**
Thomas O. Lee, Rumford, R. I.
Application February 12, 1954, Serial No. 409,941
1 Claim. (Cl. 211—75)



A bottle holder comprising a pair of uniformly spaced arms, a lip along the length of each arm extending inwardly toward the other arm, a spacer block midway of the length of said arms and secured to said arms to provide an H-shaped frame with open ends to receive a bottle neck between the arms from either side of said block, a bracket secured to the outer edge of one arm at the location of said block for supporting the holder and leaving the ends open for positioning bottles therein from either side.

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**2,772,788**
**LAUNDRY OR CLOTHES RACK**
Walter L. Gill, Redlands, Calif.
Application September 15, 1954, Serial No. 456,214
6 Claims. (Cl. 211—178)



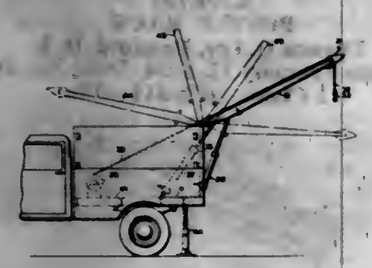
1. A uniting block for racks of the type which comprise a plurality of garment supporting arms and a plurality of separate swinging legs, said block consisting of a polygonal unitary member which in horizontal cross section presents a plurality of external flat faces indented to provide recesses over a portion of their interior areas and leaving outstanding stop edges at the juncture of the indented portions, and integral studs outstanding from said indented areas and so positioned with respect to said ledges that legs pivoted upon said studs will be limited by said ledges in their outward swinging movement, to lie at an angle to support said block.

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**2,772,789**
**BOOM LIFTING DEVICE**
James C. Hunsong, Pikesville, Md., and Kirwan Y. Mesick, Arlington, Va., assignors to Thompson Trailer Corporation, Pikesville, Md., a corporation of Virginia
Application October 28, 1954, Serial No. 465,312
4 Claims. (Cl. 212—8)

1. In a lifting device comprising first and second spaced apart supporting means, a first boom pivotally mounted

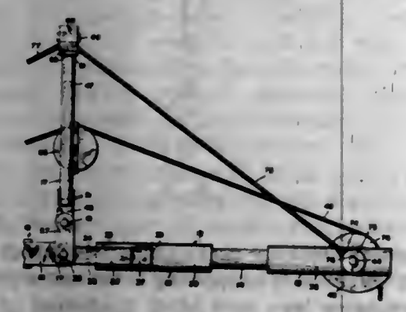
at an upper portion of said first supporting means, a second boom pivotally mounted at an upper portion of said second supporting means, said booms being joined radially outward from their pivot points, first and second single acting hydraulic lift means respectively pivotally mounted in association with lower portions of said first and second supporting means and with said first and second booms, said first hydraulic lift means being mounted on its supporting means at a point to a first side of the vertical plane of the boom pivot points so that when the first hydraulic lift means is fully extended



the booms' center of gravity is to a second side of the vertical plane of the boom pivot points, said second hydraulic lift means being mounted on its supporting means so that when the second lift means is fully extended the center of gravity of the booms is to the first side of the vertical plane of the boom pivot points, said first and second hydraulic lift means being effective to move the booms back and forth between an approximately horizontal position on the first side of the boom pivot points to an approximately horizontal position on the second side of the boom pivot points.

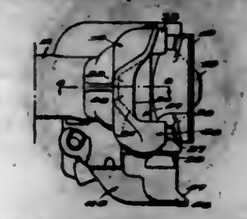
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**2,772,790**
**VARIABLE LENGTH BOOM EXTENSION**
Roy D. Kaufman, Washington, D. C.
Application May 9, 1955, Serial No. 506,740
7 Claims. (Cl. 212—144)



1. A boom extension comprising an extension assembly composed of three separable sections, and a support assembly for maintaining the extension assembly sections in proper relationship on an associated boom, said extension assembly including a base section adapted to be pivotally connected to the end of a boom, an end section, and a tubular intermediate section telescopically and rotatably received in both the base and end sections and spacing them apart, said support assembly having its lower end connected to said base section and having an anchor post at its upper end, there being first and second cable means connecting said anchor post respectively to said end section and to the associated boom, the first cable means consisting of a length of cable secured at its opposite ends to the end section and passing freely over said anchor post to permit said end section to twist relative to the intermediate and base sections without imparting torsional stresses thereto.

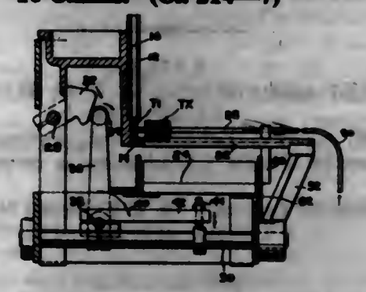
**2,772,791**
**RAILWAY COUPLER**
Harry H. Wolfe, Columbus, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio
Application May 16, 1952, Serial No. 288,094
3 Claims. (Cl. 213—150)



1. In an interlocking type railway coupler, a coupler head having a guard arm thereon, a knuckle mounted for pivoting movements on the coupler head, an aligning wing projection extending forwardly of the guard arm terminating in a wedge-shaped nose portion, means at the other side of the knuckle providing an aligning wing pocket on the coupler head including a bottom wall and an outboard wall, a lug carried by the coupler head at the top of said pocket, a second lug carried by the coupler head at the bottom of the pocket, said second lug having a transverse thickness less than that of the first lug and positioned substantially in vertical alignment with the longitudinal center of said pocket, a substantially vertical forward edge on said second lug, said outboard wall terminating in a substantially vertical forward edge immediately above the second lug and positioned rearwardly of the forward edge of said second lug, said bottom wall being cut-away outwardly of the second lug, a shelf carried by the coupler head below the knuckle, and a third lug projecting forwardly from the shelf between a vertical plane defined by the longitudinal center of the coupler head and a vertical plane extending through the second lug.

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**2,772,792**
**COUNTING AND STACKING TABLETS**
Elno E. Lakso, Fitchburg, Mass.
Application July 10, 1953, Serial No. 367,250
16 Claims. (Cl. 214—7)



7. Stacking apparatus for articles comprising means guiding a line of articles in edge-to-edge contacting relation, a stop for the articles, a pair of toothed counting wheels arranged one at each side of said stop, said counting wheels being intermittently rotated to cause the teeth thereof to engage and transfer seriatim a predetermined number of said articles from said stop into stacked relation at an angle to the first-named line of advance, and means operating in timed relation to said counting wheels to transfer said stack of a predetermined number of articles, means stopping the rotation of said counting wheels during the transfer operation.

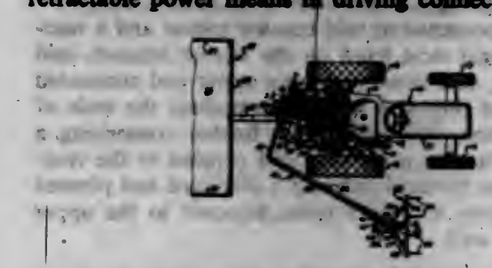
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**2,772,793**
**BALE LOADER**
Reinhard C. Brunewitz, Bagley, Minn.
Application January 13, 1954, Serial No. 403,860
5 Claims. (Cl. 214—42)

1. A bale loading device for picking up bales and the like from the ground beside a traveling vehicle such



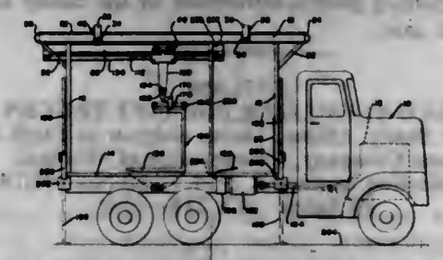
as a tractor and depositing them on a transporting apparatus drawn at the rear of said vehicle, said bale loading device comprising a rotatable shaft journaled substantially horizontal and angulated outwardly and somewhat rearwardly of one side of said vehicle, a loading arm extension rigidly secured to the rotatable shaft and at an outward position thereon, said loading arm normally extending forward at the side of said vehicle and in clearance therewith, an impaling head having forwardly extending tines mounted at a forward position on said loading arm and being swingable to an upwardly transverse position with respect thereto, said forwardly extending tines being substantially in alignment with said longitudinal center line of the traveling vehicle in its normal lowered position so that said tines can engage a bale and the like in impaling relation, extensible and retractable power means in driving connection with said



shaft for rotating the shaft through an arc and thereby swinging said loading arm upwardly and rearwardly toward a medial area of the transporting apparatus, resilient means interposed between said loading arm and said impaling head urging said impaling head into general alignment with the loading arm, and abutment means operably associated with said extensible and retractable power means for limiting the movement of said loading arm in its upward and rearward travel so as to stop the arm together with a bale impaled on said tines in upstanding relation in its rearwardmost travel toward the medial area of said transporting apparatus, whereby the momentum of said bale will cause said impaling head to be swung against the influence of said resilient means to permit ejection of the bale in the direction of said medial area of the transporting apparatus.

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**2,772,794**
**MATERIAL HOISTING AND HANDLING MECHANISM FOR VEHICLE**
George L. Cramer, Amos Raffensberger, and Eli R. Strine, York, Pa., assignors to Side-O-Matic Unloader Corporation, York, Pa., a corporation of Pennsylvania
Application March 30, 1954, Serial No. 419,644
18 Claims. (Cl. 214—75)



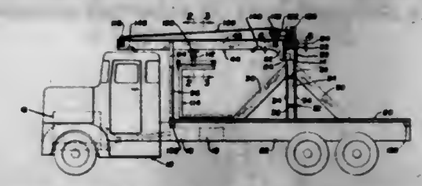
1. In combination with a vehicle, material hoisting and handling mechanism comprising a pair of substantially parallel track members extending substantially in spaced parallel relationship to each other and the bed of said vehicle, means adjacent opposite ends of and extending above said bed means supporting said tracks fixedly in elevated position above said bed, a frame extending between said track members substantially within the plane thereof and movable longitudinally along said members, means operable to propel said frame along said track members, a circular track member connected



to said frame substantially within the plane thereof, the interior of said circular track being substantially unobstructed, an auxiliary frame extending substantially diametrically across said circular track and supported at its ends within said track by rollers engaging said track for movement within the plane of said track and about the axis thereof, a boom extending along and fixed to the underside of said auxiliary frame and at one end projecting therebeyond to comprise a cantilever type extension, a sheave supported by rollers for movement along said boom and depending therefrom, a hoisting cable supported by said sheave and movable relative thereto, a hoisting drum mounted on said auxiliary frame and around which said cable is coiled for actuation thereby, drive means for said auxiliary frame carried thereby and including gears rotatable at opposite ends of said frame engageable with means on said circular track, power energizable prime movers carried by said auxiliary frame and respectively operable selectively to drive said sheave along said boom and actuate said hoisting drum and rotate said auxiliary frame and boom about the axis of said circular track, a sheave supported by said hoisting cable, load supporting means, frame-like means connected to said load supporting means and spaced thereabove in normal use position, and means depending from said sheave on said hoisting cable and adjustably carried by said frame-like means for movement selectively within a normally substantially horizontal plane in directions substantially transverse to each other, whereby said sheave on said hoisting cable may be positioned vertically above the center of gravity of a load on said load supporting means.

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**2,772,795**
**SELF-LOADING VEHICLE HOIST**
George L. Cramer, Amos Raffensberger, and Eli R. Strine, York, Pa., assignors to Side-O-Matic Unloader Corporation, York, Pa., a corporation of Pennsylvania
Application October 8, 1954, Serial No. 461,262
12 Claims. (Cl. 214—75)



1. A hoist attachable to the bed of a vehicle and comprising in combination a hollow mast having a cylindrical upper portion and constructed and arranged to be fixed at its lower end to said vehicle bed and extend vertically upward therefrom, a substantially relatively short cylindrical bracing sleeve concentrically surrounding and extending downward from the upper end of said mast in spaced relationship thereto, two sets of anti-friction rotating members positioned within the space between said sleeve and mast respectively adjacent opposite ends of said sleeve, a cantilever boom having one end abutting said bracing sleeve, means rigidly connecting said abutting end of said boom to said sleeve adjacent the upper end thereof and said boom extending substantially horizontally outward from said sleeve, said boom having a cross-sectional heighth less than the length of said sleeve, a compact bracing bracket extending between the lower surface of said boom and the lower end of said sleeve and secured thereto, mast-bracing members extending angularly outward and downward from said mast directly beneath the lower end of said sleeve and connected at the lower ends thereof to the bed of said vehicle, the height of said mast and position of said boom on said bracing sleeve affording clearance for said boom above a load of material upon said vehicle bed when loaded and said bracing sleeve and connecting means constituting the sole

means preventing tilting of said boom relative to said mast, a load supporting sheave mounted upon said boom for longitudinal movement therealong between the ends thereof, and means interconnected to said boom and sleeve and operable to rotate the same in either direction about the axis of said mast.

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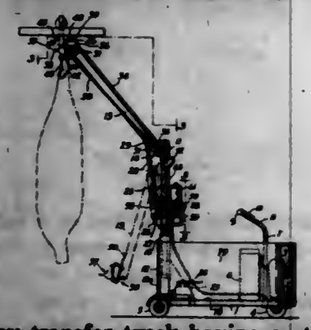
2,772,796
**WAGON UNLOADER**
Elmer K. Hansen, Sioux City, Iowa
Application May 27, 1955, Serial No. 511,484
7 Claims. (Cl. 214—83.14)



1. A material unloading device for a container having a bottom wall and side walls, said device including a plurality of substantially horizontal vertically aligned shafts extended across one end of said container, flipper members carried by said shafts, a conveyor mounted in said container adjacent said bottom wall for delivering material to said flipper members, power means for rotating said shafts and moving said conveyor, and clutch means operatively associated with said power means and said conveyor operable to transmit variable power to said conveyor only during rotation of said shafts.

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2,772,797
**TROLLEY TRANSFER TRUCK**
Irvin F. Schrock, South Euclid, Ohio
Application June 8, 1954, Serial No. 435,114
8 Claims. (Cl. 214—132)

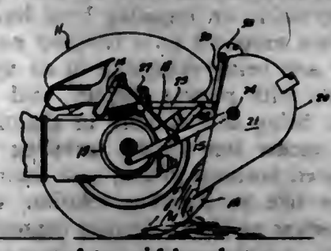


1. In a trolley transfer truck having a steering means and a reversible propelling mechanism, the combination therewith of a mast mounted on said truck to turn about a vertical axis, an operator's platform adjacent the base of said mast, a boom pivoted to said mast to swing about a horizontal axis, a trolley engaging fork pivoted to said boom at its outer end for lateral swinging movements, manually controlled means for raising and lowering said boom and holding it in adjusted position, and a manually operable actuating member attached to said fork and extending along said boom to within reach of the operator on said platform for swinging said fork laterally on said boom to aline a trolley carried by said fork with an overhead track.

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2,772,798
**AUTOMATIC DUMP MECHANISM FOR A SCOOP**
Robert W. McClenny, Suffolk, Va.
Application December 15, 1953, Serial No. 398,366
2 Claims. (Cl. 214—140)

1. In combination, a tractor having lift arms and means for elevating and depressing said lift arms, a pair of supporting arms having forward ends pivoted to the tractor and rearward ends, a scoop having side walls, a bottom wall, and a rear wall having an upper end, means pivoting the rearward ends of the support arms to said side walls, links extending between and pivoted to said lift arms and intermediate portions of the supporting arms, bracket means fixed on the tractor at a level above said supporting arms, link means comprising a forward link having a



forward end connected to said bracket means and a rearward end, a rigid strut fixed on the tractor beneath said bracket means, said strut having an upper end connected to said forward link at a point intermediate the ends of said forward link, said link means further comprising a rearward link having a forward end pivoted to the rearward end of the forward link and a rearward end pivoted to the scoop rear wall at a point adjacent to the upper end of the rear wall.

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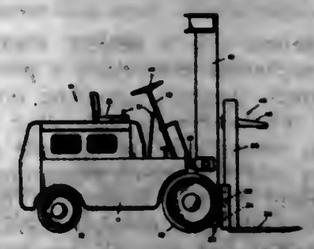
2,772,799
**BOAT LOADER**
Leon J. Brininger, Lansing, Mich.
Application January 16, 1953, Serial No. 331,617
1 Claim. (Cl. 214—450)



A boat loading device for use with a vehicle comprising a vertical upright rigidly secured to a bumper of said vehicle, a clamp provided with swiveling connection means between the clamp and the upright permitting rotation of the clamp about a vertical axis, said clamp having means adapted to engage the stern wall of a boat preparatory to swinging the boat to rest its position upon the roof of a vehicle, said swiveling connection means including a shaft depending from the clamp structure, said upright being in the form of a tube for receiving the shaft, said shaft being rotatable about a vertical axis of the tube, and hinge means connecting the clamp and the shaft permitting pivotal movement of the clamp about a horizontal axis.

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2,772,800
**LOAD STABILIZER FOR LIFT TRUCKS**
Joseph L. Brady, Albion, Mich., assignor to Clark Equipment Company, a corporation of Michigan
Application January 7, 1954, Serial No. 402,791
8 Claims. (Cl. 214—654)



1. For use with an industrial truck having an upwardly and downwardly movable load supporting carriage and



forwardly projecting load carrying means secured to the load supporting carriage, the combination of vertical frame means secured to the load supporting carriage, normally forwardly projecting horizontal load engaging means vertically movable in said frame means above the load carrying means for engaging the upper portion of a load supported by the load carrying means, means for vertically moving said load engaging means within said frame means, and means carried by said frame means for automatically swinging said load engaging means to a substantially vertical non-load-engaging position upon lowering of the latter below a predetermined point.

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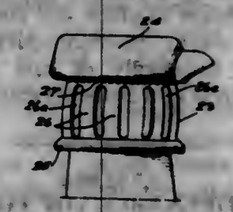
2,772,801
**BABY BOTTLE PROTECTIVE HARNESS**
Jesse Schwartz, Bronx, N. Y.
Application October 28, 1954, Serial No. 465,290
2 Claims. (Cl. 215—11)



2. A holder for a nursing bottle comprising an outer and an inner ring spaced from one another and adapted to extend about a nursing bottle, side strap members connected to and extending between the rings to extend longitudinally of said bottle, and retaining means extending from the outer ring and adapted for connection to an adjacent support, the strap members being integral at one end with the outer ring, and being overlapped with one another and connected at the location of said overlapping at their other ends, the inner ring being formed with a circumferential series of slits, the several strap members being extended through the slits of the inner ring intermediate the ends of the strap members, said retaining means being formed as an elongated strip integral at one end with said outer ring.

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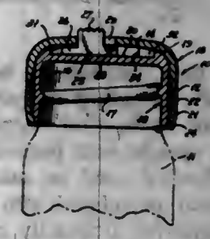
2,772,802
**REUSABLE BOTTLE STOPPER WITH SEVERABLE SKIRT PORTION**
Leszek Weydatt and Rodolphe Chwialkowski, Paris, France
Application October 26, 1951, Serial No. 253,286
Claims priority, application France October 27, 1950
1 Claim. (Cl. 215—41)



A unitary closure device for a receptacle having a neck with a rim defining a mouth, comprising a cup-shaped cap portion having a side wall for covering and surrounding said rim of said neck and having a base for closing said mouth, said side wall adjacent the junction thereof with said base being thinner than at its edge remote from said base, a skirt portion having a main central section of substantially uniform wall thickness less than the thickness of said edge of said side wall, said skirt portion further having a first edge section of lesser wall thickness than said central section and a second edge section of greater wall thickness than said central section, said first edge section of said skirt portion being joined to said edge of said side wall and thus forming a prolongation of said side wall, said skirt portion being constructed to fit around said neck below said rim thereof and being provided with a plurality of substantially parallel longitudinal slots in said central section, said slots extending approximately from said first edge section to said second edge section, whereby the flexibility and thus the neck-embracing characteristics of said skirt portion are materially enhanced, a substantially hollow cylindrical member protruding from said base of said cap portion and positioned interiorly of and concentrically with said side wall and said skirt portion, whereby an annular groove is defined between the outer surface of said cylindrical member on the one hand and the inner surface of said side wall and said skirt portion on the other hand, said groove being shaped to receive said rim of said receptacle upon positioning of said cap portion on said neck and upon insertion of said cylindrical member into said mouth, said cylindrical member extending from said base of said cap portion to a location beyond the junction between said edge of said side wall and said first edge section of said skirt portion, and a lug attached to and extending from the outer surface of said side wall at a location substantially adjacent said edge thereof, said lug being provided with a pressure surface essentially directed toward said second edge section of said skirt portion, whereby upon application of pressure against said pressure surface of said lug and in a direction toward said base said first edge section of said skirt portion will be ruptured to enable said cap portion together with said cylindrical member to be severed from said skirt portion and removed from said receptacle and retained for reuse with the latter without said skirt portion.

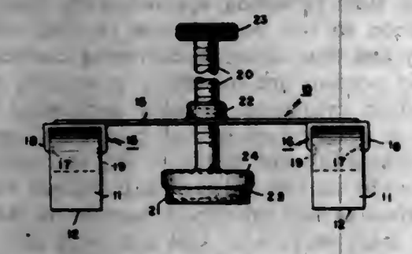
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2,772,803
**SAFETY CONTAINER CLOSURE**
James Pasquariello, Paterson, N. J., assignor of twelve percent to Frank P. Bello, Paterson, N. J., and twenty-eight percent to Robert Poganik, Bridgeport, Conn.
Application December 27, 1954, Serial No. 477,770
4 Claims. (Cl. 215—43)



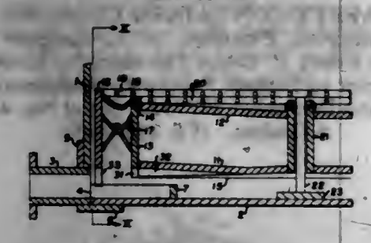
1. A safety cap for containers having an externally threaded neck comprising: a first, outer cup-like member having a transverse upper end, a second, inner cup-like container neck engaging member having a transverse upper end telescoped within the first member with the closed ends of each member confronting each other, said second member having a thread engaging means on its inner side wall, means rotatably connecting the two members against separation, the transverse upper end of the second member having a large central recess in its upper surface, a dog mounted in said recess for reciprocation radially thereof, means retaining the dog from rotation with respect to the first member, the wall of the recess having at least one dog receiving depression, and thumb-engageable operating means having a stem rectangular in section connected to the dog and projecting through an elongated opening in the transverse wall of the first member in which the stem fits slidably but non-rotatably to move the dog into and out of said depression.

2,772,804
MAGNETIC STOPPER
John J. Byrnes, Newark, N. J.
Application August 16, 1954, Serial No. 449,827
6 Claims. (Cl. 220—24)



1. A device for stopping the flow of a fluid from holes or openings in metal tanks, pipes and other containers or conductors, comprising in combination two permanent magnets spaced laterally from each other and having flat pole faces, an elongated member having it ends fastened to the central portions of the magnets to normally hold the pole faces of the magnets in a single plane, said member being a strip of resilient sheet metal which may bow longitudinally and flex laterally, a nut at the center of said member and a stopper-actuating screw threaded through said nut.

2,772,805
FLOATING ROOF LIQUID STORAGE TANK STRUCTURE
Henry Grundig, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 14, 1954, Serial No. 475,226
7 Claims. (Cl. 220—26)



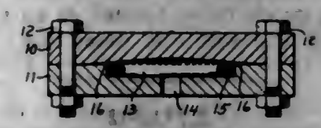
1. In a storage tank, including a bottom wall, a cylindrical upright wall extending upwardly from said bottom wall, a conduit connection nozzle opening into said tank through said upright wall immediately adjacent said bottom wall, a floating roof in said tank, including a floor and a vertical peripheral rim portion, said roof adapted to be supported primarily on the surface of a liquid contained in said tank, and thereon to be positioned at various levels within the tank as said liquid is introduced and withdrawn, said roof also including rigid support means extended downwardly from said floor adapted to establish a lower most position for said roof at a level which is below a horizontal plane tangent to said nozzle and in vertically spaced relation to the tank bottom wall, a vertical sealing ring resiliently supported on said roof rim in substantially parallel radially spaced relation thereto and in substantially fluid tight surface contact with the inner surface of the tank wall, an arcuate notch portion extending upwardly in said ring, an arcuate notch portion extending upwardly in said rim, and a channelled course defined in the roof floor opening downwardly therefrom, said channeled course extending radially inward from said rim and coincident at its outer end with said rim notch portion, each of said sealing ring and rim notch portions having a radius of curvature greater than that of said nozzle and disposed in opposite alignment with said nozzle radially of said tank and roof.

2,772,806
PRESSURE COOKER
Theophil Pfeffer, Esslingen (Neckar), Germany, assignor to Heinrich Ritter Aluminiumwarenfabrik, Esslingen (Neckar), Germany
Application January 21, 1954, Serial No. 405,340
Claims priority, application Germany January 21, 1953
7 Claims. (Cl. 220—44)



1. A cooking vessel comprising in combination a pot and a cover therefor, said pot and said cover each having surfaces adapted to contact each other, a projection on the outer wall of said pot, a portion on said cover extending outwardly beyond and downwardly below said projection, locking means adapted to act upon the lower surface of said projection and including a shaft rotatably mounted on said cover portion, a guide slot and pin for said shaft and said cover portion whereby said shaft moves axially upon rotation of the shaft, and a spring element and means mounted on the inner end of said shaft, so that when rotating said shaft, said spring element is first moved in a substantially horizontal direction toward the outer wall of said pot and below said projection, and then in an upward direction against the lower surface of said projection so as to lock said cover onto said pot.

2,772,807
SEALING CONSTRUCTION
Harry T. Booth, Dayton, Ohio, assignor to United Aircraft Products, Inc., Dayton, Ohio, a corporation of Ohio
Application July 23, 1953, Serial No. 369,896
2 Claims. (Cl. 220—46)

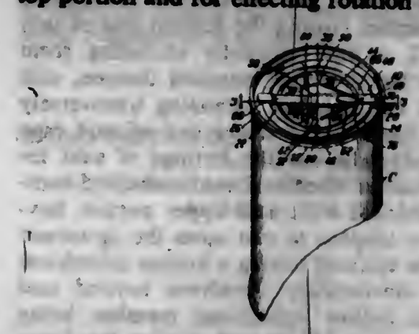


1. A sealing construction, including a pair of non-resilient elements in opposing relation to one another, a resilient deformable ring seal between said elements and spaced inwardly from the edges thereof, non-deformable shim means positioned between said elements in a relatively narrow annular path outwardly of said ring seal, said means permitting a relative approaching motion of said elements sufficient to place said ring seal under compression, and tie means interconnecting said elements at a point radially outwardly of said shim means and tightened to pre-stress said elements about said shim means as a fulcrum.

2,772,808
HAND-OPENABLE TOP FOR CANS
Louis Fried, Philadelphia, Pa.
Application October 31, 1952, Serial No. 318,130
10 Claims. (Cl. 220—48)

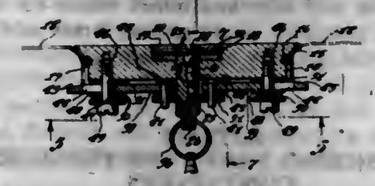
1. A hand-openable can top comprising a substantially flat plate of a shape similar to that of a can to which it is to be applied, a pair of slits in said plate with both ends of one slit terminating adjacent the respective ends of the other slit providing narrow joinders between the slits lying in a diametrical line of the plate, the major portion of each slit being spaced from the corresponding portion of the other slit so as to define a can top portion substantially separate from an encircling portion and extending across said diametrical line and the major part of the top portion between the slits, and means carried by said can top portion for effecting displacement of said can top portion and for effecting rotation of the same relative





to the encircling portion on said diametrical line so as to provide an opening in said can top for access to the contents of the can.

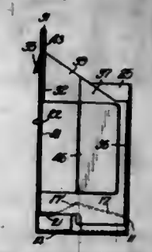
2,772,809
TANK FILLER CAP
Orrin E. Rose, Seaford, N. Y.
Application February 5, 1954, Serial No. 408,383
5 Claims. (Cl. 220—55)



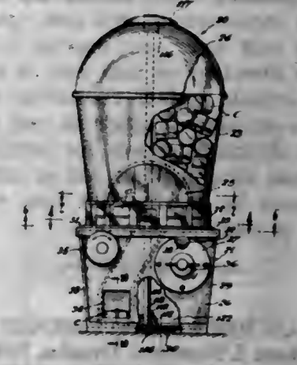
1. A filler cap for tanks or the like having a filler opening comprising an adaptor on the tank surrounding the filler opening therein, said adaptor being of substantially L-shaped cross section and presenting an inwardly extending substantially cylindrical opening, a plug adapted to fit within and close said cylindrical opening, a central axle rotatably mounted within said plug along the longitudinal axis of said cylindrical opening, the upper surface of said plug having a recessed portion surrounding the upper end of said axle, a handle adapted to fit within said recessed portion and having an opening at its inner end receiving the upper end of said axle, said handle and axle being pivotally connected, said axle extending downwardly through said plug, a plate secured to said axle below said plug, a plurality of pawls pivotally connected at their inner ends to the periphery of said plate, the outer ends of said pawls being adapted to extend beyond the lower edge of said adaptor surrounding said cylindrical opening when said handle is within said grooved portion whereby to prevent removal of said filler cap except by first raising and rotating said handle, said plate having a plurality of radially spaced openings, the inner end of each of said pawls having an opening aligned with one of said plate openings, pins within said aligned openings, each of said pins having an enlarged head disposed intermediate the upper surface of said pawls and the undersurface of said plug and spring washer means on each of said pins intermediate said plate and said pawls.

2,772,810
ARTICLE CARRIER
Edwin L. Arneson, Morris, Ill., assignor, by mesne assignments, to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York
Application February 20, 1952, Serial No. 272,623
5 Claims. (Cl. 220—111)

1. A collapsible paperboard article carrier formed from a one-piece blank and comprising opposed side walls, a bottom extending therebetween and hinged to the lower margins thereof, said bottom being subdivided into a pair of sections by a medial crease about which the bottom is vertically collapsible to bring said walls into coplanar, face-to-face relation, end flaps integrally hinged to opposite ends of said bottom and having medial creases corresponding with the crease in the bottom, and a cross partititon unit hinged to one of said side walls along a top horizontal margin thereof, said cross partition unit including a plurality of panel integrally hinged to one another, one of said panels being secured in face-to-face relation to the opposite side wall, other of said panels constituting cross partitions adapted to extend between said side walls when the carrier is erected and being collapsible upon themselves about medial vertical creases, and terminal panels integrally hinged to said collapsible panels and secured in face-to-face relation to said side wall to which said cross partition unit is hinged, said bottom end flaps having notches in their inner edges and being swung upwardly about their hinged connection to said bottom when said carrier is in erected condition to bring the inner edges thereof into engagement with said cross partitions with the bottom edges of the latter engaged in said notches to brace the cross partitions laterally.

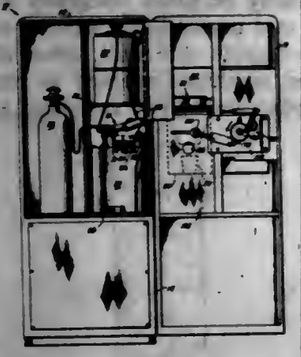


2,772,811
SELECTIVE BULK MERCHANDISE VENDING MACHINE
Harold M. Schaef, Chicago, Ill., assignor to Victor Vending Corp., Chicago, Ill., a corporation of Illinois
Application January 19, 1955, Serial No. 482,749
11 Claims. (Cl. 221—155)



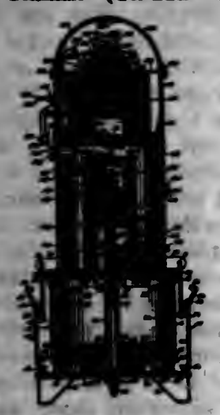
1. In a coin-controlled vending machine including a pedestal base, a dispensing chute and dispensing actuating means; a bulk merchandise storage member, a selective merchandise member positioned on said pedestal base and below said storage member, said selective merchandise member having a plurality of outwardly exposed individual compartments each adapted to receive at least one item of merchandise from said storage member, a transparent housing enclosing said selective merchandise member with at least the compartment disposed above the dispensing chute positioned in the line of sight through a wall of said transparent housing, said selective merchandise member mounted for movement in a fixed path to position any selected compartment over said dispensing chute, selecting means for freely moving the selective mechandise member so as to dispose said selected compartment over said dispensing chute, and means for dispensing the merchandise from the selected compartment into said dispensing chute.

2,772,812
**DISPENSING VALVE AND OPERATING MEANS FOR BEVERAGE VENDING MACHINES**
Jack J. Booth, Dallas, Tex.
Application March 26, 1952, Serial No. 278,721
6 Claims. (Cl. 222—70)



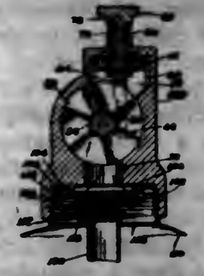
1. A mixed drink dispensing machine comprising a source of carbonated water under pressure; a source of syrup under pressure; a mixing and dispensing valve having a body provided with a mixing chamber; means connecting said mixing chamber to the source of syrup; means connecting said mixing chamber to said source of carbonated water, said body having an outlet opening communicating with said mixing chamber and closed by a valve; an actuating lever for opening said valve mounted on said body; a mechanical timer operatively associated with said actuating lever for contacting said actuating lever and moving it to open the valve for a predetermined period of time whereby a predetermined quantity of carbonated water and syrup is dispensed each time the timer is actuated, said mechanical timer including a reciprocable rod mounted adjacent said actuating lever, said rod having a plurality of longitudinally spaced teeth, a gear rotatably mounted adjacent said rod and meshing with said gear teeth, a cam secured to said gear for rotation therewith, said cam having an arcuate outer surface, said actuating lever having an end projecting into the path of movement of said cam, said arcuate surface contacting said lever and moving it from its rest position in one direction as said gear is rotated in one direction, said arcuate surface contacting said lever and moving it in the opposite direction as said gear is rotated in the opposite direction, means for predetermining the rate of movement of said timer rod in said opposite direction; and means for moving said timer rod a predetermined distance in said one direction.

2,772,813
**GREASE CAN RECEIVING GREASE EJECTOR**
Phillmas L'Heureux, Omaha, Nebr.
Application November 7, 1952, Serial No. 319,358
4 Claims. (Cl. 222—82)



1. A grease ejector having a lower portion and an upper portion, the lower portion having an upwardly extending cylindrical side wall adapted to receive an open grease can in inverted position thereon and having a bottom closure member closing the bottom end of said cylindrical side wall, a pipe upwardly extending from said bottom closure member and mounted thereon, said pipe having at least one aperture extending transversely into the upper end thereof, the upper end of said pipe being disposed closely adjacent the bottom of said inverted grease can at times when said can is received completely on said cylindrical wall, said upper portion having an under surface adapted to rest upon the up-turned bottom of said grease can and having a hollow cylindrical member extending downwardly therefrom beyond said under surface, said hollow cylindrical member being snugly and slidably receivable in and against the inner wall of said upwardly extending pipe, the opening in the hollow cylindrical member being disposed in registry with said aperture in the upper end of said pipe for the flow of grease through said opening and said aperture at times when said under surface of said upper portion is disposed against the up-turned bottom of said grease can; and grease pump means having a pumping chamber having inlet means disposed in communication with said cylindrical member and having outlet means from said chamber, check valves in said inlet and outlet means for cooperating with said pump to pump grease from said cylindrical member through said outlet means.

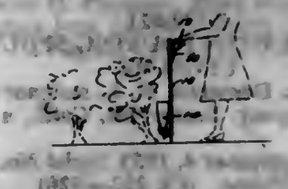
2,772,814
**MEASURING VALVE FOR PRESSURE CONTAINERS**
David Meyers, Elkins Park, Pa.
Application April 28, 1953, Serial No. 351,561
12 Claims. (Cl. 222—82)



1. A dispensing head for use with pressure cans and adapted to deliver a relatively constant predetermined volume of the pressurized expansible fluid contents of the can with each operation thereof, said dispensing head comprising a housing having a metering chamber formed therein and having an outlet passageway and nozzle communicating with said chamber, an outlet valve mounted in said housing and constructed and arranged to open and close said outlet passageway, means including an inlet passageway formed in said housing and communicating with said metering chamber for delivering the pressurized fluid can contents to said chamber, manually operable actuating means mounted in said housing and including a reciprocable operating member connected with said outlet valve, said operating member being normally spring-tensioned to outermost position and being manually movable inward against spring-tension to actuate the outlet valve, and a control member movably mounted within said housing and operatively connected to said operating member for movement therewith, said control member being constructed and arranged to control the flow of fluid from the inlet passageway through said metering chamber, said actuating means being constructed and arranged to initiate delivery of the pressurized fluid can contents to the metering chamber following inward movement of the operating member and, during subsequent outward movement of the operating member, to terminate such delivery after a predetermined volume of the pressurized fluid can contents has been delivered to the chamber and then to permit the pressurized fluid in the chamber to expand and escape through the outlet valve, outlet passageway and nozzle.



2,772,815
**HAND DISPENSER FOR DRY FLUENT MATERIAL**
Paul Clark Bye, Pasadena, Calif.
Application October 25, 1954, Serial No. 464,216
4 Claims. (Cl. 222—185)



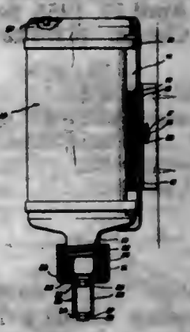
1. A hand dispenser for dry fluent material comprising a flat elongate member disposed upright on end for ground contact when in use, a receptacle carried on one side of said member in spaced relation with respect to the lower end thereof and having a downwardly directed discharge opening, a rotary measuring member supported in the receptacle above the opening, an elongate element carried vertically on the opposite side of said member for reciprocal movement, said elongate member having a vertical slot opposite the discharge end of said receptacle, and a finger carried at the lower end of said element and projecting through said slot for imparting a step turning movement to said rotary measuring member.

2,772,816
**SPRAYING DEVICES FOR POWDER**
George Denver, St. Mary's Terrace, London, England
Application March 8, 1954, Serial No. 414,829
Claims priority, application Great Britain March 12, 1953
13 Claims. (Cl. 222—189)



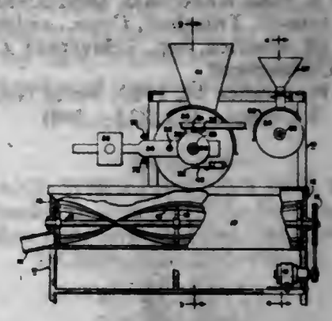
1. A powder spraying device comprising an inner cylinder forming a powder container, an outer cylinder slidably mounted on said inner cylinder, an outlet in the bottom of said outer cylinder and a one-way valve in conjunction with said outlet, whereby the cylinders together form a reciprocatory air pump, an air-tube passing through the inner cylinder, positioned close to the wall of the inner cylinder, to terminate in a position near the top of the powder container, and a one-way valve in association with the top of the air-tube, to define between the said valve and the top of the air tube a powder reservoir, the arrangement being such that, for downward or horizontal spraying, the air tube delivers a stream of air, through the powder in the area between the top of the air tube and the top of the inner cylinder, to carry powder to a spraying orifice, whilst, for upward spraying, the powder in the reservoir is carried to the spraying orifice.

2,772,817
**DISPENSING PUMPS**
Robert J. Jasch, Fort Wayne, Ind.
Application March 1, 1952, Serial No. 274,390
5 Claims. (Cl. 222—207)



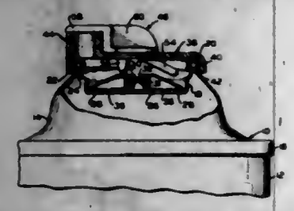
1. A pump for a fluid dispensing container having a wall defining a drain opening, said pump comprising a resilient walled barrel which is in communication with said container drain opening for receiving fluid discharged therethrough, a discharge opening in the lower end of said barrel, a valve for controlling the flow of fluid through said discharge opening, said valve being normally closed and opened in response to compressive stress exerted on said barrel to cause the same to deform and force liquid through said discharge opening, a check valve in the upper end of said barrel for controlling the flow of fluid into said barrel from said container, said check valve being normally closed and forced open in response to pressure produced by the vacuum created in said barrel upon the release of the compressive stress deforming said barrel.

2,772,818
**AUTOMATIC PROPORTIONING DEVICE**
Arthur B. McLauchlan, Salem, Oreg.
Application June 1, 1954, Serial No. 433,692
8 Claims. (Cl. 222—368)



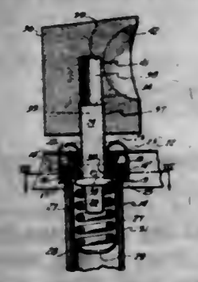
1. In a device of the character described including a frame, a rotatable drum having measuring pockets, and a rotatable shaft for said drum, a movable support in said frame for said shaft enabling said shaft and drum to be moved down and up, from normal raised position to lowered position, in response to the deposit of predetermined amounts of material in said pockets, a disc secured on said shaft, members on said disc corresponding in arrangement to said drum pockets respectively, a stop adapted to be contacted by said members when said drum is in normal raised position but not capable of being contacted by said members when said drum is in lowered position, and means on said disc, together with coacting means mounted on said frame and engaged by said first mentioned means, for lifting said disc and therewith said drum to normal raised position as the rotation of said disc brings one of said members into registration with said stop.

2,772,819
LEVER TYPE DISPENSER SYSTEM FOR PRESSURIZED CONTAINERS
Arthur E. Pearch, Mill Valley, and Paul E. Harrison, Gustine, Calif., assignors to Aveest Company, San Francisco, Calif., a corporation of Delaware
Application April 27, 1955, Serial No. 504,288
6 Claims. (Cl. 222—394)



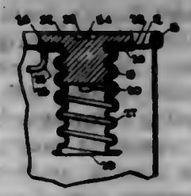
1. In combination with a container for pressurized material, said container having a fixed top closure member provided with an upwardly directed discharge opening, and a yieldingly depressable and accessible valve closure element normally disposed in closing relation to said opening: a resilient cap attached to the upper end of said container, said cap having a discharge spout, a lever member carried by said cap and journalled for rotation about a vertical axis in said cap, a valve operating pin depending from said lever member, an arm formed on said lever member and disposed above said cap, said lever member and said opening being out of axial alignment whereby said lever member may be selectively rotated to bring said pin into and out of alignment with said opening, a pivot toe formed on said lever member and disposed within said cap, and pivot toe engaging means formed in said closure member adapted to receive said pivot toe and hold the toe against vertical movement when said lever member is rotated to bring said pin into alignment with said opening, whereby said arm may be depressed to yieldingly depress said cap and cause said pin to depress said valve closure element out of closing relation with respect to said opening.

2,772,820
VALVE FOR AEROSOL DISPENSER
William R. O'Donnell, Trumbull, Conn., assignor to Valve Corporation of America, Inc., Bridgeport, Conn., a corporation of Connecticut
Application November 20, 1953, Serial No. 393,420
3 Claims. (Cl. 222—394)



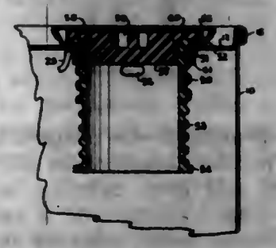
1. A spray discharge valve for dispensing a fluid from a container, comprising a cover member for said container, said cover member having an aperture, a sheet metal tubular valve housing disposed in said aperture, one end of said housing having the wall thereof crimped to form annular surfaces for contact with opposite surfaces of said cover member to support said housing within said container, a disk of flexible material positioned in said housing and having a central aperture, a tubular member slidably fitting said disk aperture, said tubular member being closed at one end to provide a chamber, an annular flange formed from the wall of said tubular member and disposed intermediate the ends of said tubular member, a tension member for normally holding said flange in contact with one surface of said disk, said tubular member having a lateral passage in the wall thereof positioned to be closed by the wall of said disk aperture when said annular flange is in contact with said disk, the other end of said housing having an aperture for the passage of fluid to said chamber when said annular flange is moved from contact with said disk, a packing ring surrounding the perimeter of the aperture in said cover, said crimped wall of said housing retaining said packing ring in sealing relation to said cover aperture.

2,772,821
CONTAINER WITH POURING SPOUT AND CLOSURE
Clifton H. Phillips, Demarest, N. J., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application September 4, 1953, Serial No. 378,615
8 Claims. (Cl. 222—520)



1. A container for liquid comprising a top having a discharge opening therein; a nozzle fixed to said top about said opening and forming a part thereof, said nozzle having internal screw threads; a pouring spout having a tubular part with external and internal screw threads situated within and in threaded engagement with said nozzle and having a peripheral flexible seal flange extending laterally outwards from the tubular part in sealed relation thereto and situated above said top for sealing engagement therewith; and an inverted type closure having a shank with external screw threads situated within and in threaded engagement with the said tubular part of the spout and having a peripheral rim extending laterally beyond the shank and over said seal flange for sealing engagement therewith and for urging said seal flange down against the top.

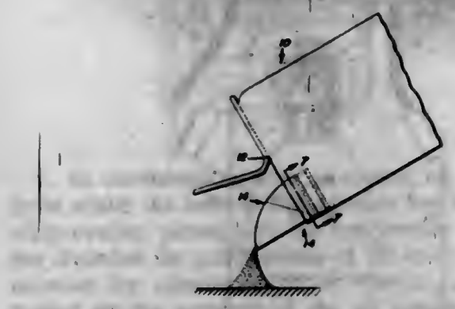
2,772,822
CONTAINER WITH SCREW OUT POURING SPOUT AND CLOSURE
Clifton H. Phillips, Demarest, N. J., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application December 17, 1954, Serial No. 475,863
6 Claims. (Cl. 222—520)



1. A container for fluid comprising a top having a discharge opening therein; a nozzle fixed to said top about said opening and forming a part thereof, said nozzle having internal screw threads; a pouring spout having a tubular part with external and internal screw threads situated within and in threaded engagement with said nozzle for movement relative thereto and having a peripheral, flexible seal flange extending laterally outwards from the tubular part in sealed relation thereto and situated above said top for sealing engagement therewith when the spout is retracted within the nozzle; an inverted type closure having a shank with external screw threads situated within and in threaded engagement with the said tubular part of the spout and having a peripheral rim extending laterally beyond the shank and over said seal flange for sealing engagement therewith and for urging said seal flange down against the top and a retaining element fixed to said top extending upward about the said seal flange and a tamper-proof seal cap over said closure engaged to said retaining element.



2,772,823
BAG SPOUT
Richard H. Plamann, Black Creek, Wis.
Application June 28, 1954, Serial No. 439,757
4 Claims. (Cl. 222—527)



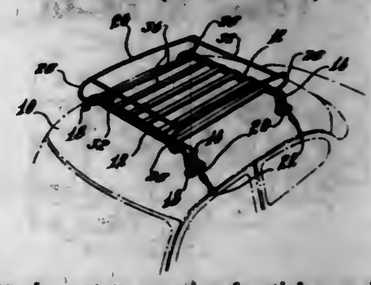
4. In combination with a flexible bag having an openable top, a foldable pouring spout attached to the interior surface of the bag, said spout comprising a generally rectangular portion attached to the inner surface of said bag and having the top edge thereof generally parallel to the top of the bag, a spout forming portion foldably attached to the top edge of said rectangular section and disposed below said top edge in its folded position, said spout forming portion being unfoldable to a pouring position extending above the top of said bag when the bag is opened.

2,772,824
AUTOMOBILE TOP CARRIER FOR ELONGATE ARTICLES
Kenneth W. Binding, Medford, Mass., assignor to Leo M. Beckwith, Brookline, Mass.
Application September 23, 1953, Serial No. 381,783
4 Claims. (Cl. 224—42.1)



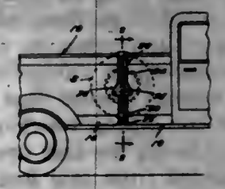
1. For attachment to a pair of unitary rigid article carrier bars for automobile tops which bars when mounted on an automobile top are in spaced parallel relation and extend transversely of the top, the bars having bridge portions intermediate their ends vertically spaced above the top and provided with a plurality of apertures spaced lengthwise thereof, a carrier attachment for each carrier bar for carrying elongate articles thereacross, each carrier attachment comprising a bracket designed to be positioned at substantially the midpoint and overlying one aperture of said bridge portion, a pair of rigid keeper bars extending from the bracket in opposite directions over the bridge portion and pivotally mounted at their adjacent ends to the bracket for movement from a clamping position parallel to the bridge portion to an angular position elevated therefrom, means at the opposite ends of the keeper bars extending through other apertures in the bridge portion near its ends when the keeper bars are in clamping position and engageable with the edges of the apertures to lock the bars in clamping position, and means for detachably fastening the bracket to the bridge portion including a fastening element extending through the said one aperture of the bridge portion.

2,772,825
AUTOMOBILE TOP CARRIER FOR LUGGAGE
Kenneth W. Binding, Medford, Mass., assignor to Leo M. Beckwith, Brookline, Mass.
Application September 23, 1953, Serial No. 381,784
2 Claims. (Cl. 224—42.1)



1. For attachment to a pair of article carrier bars for automobile tops which bars when mounted on an automobile top are in spaced parallel relation and extend transversely of the top, the bars having bridge portions intermediate their ends vertically spaced above the top and provided with a plurality of apertures spaced lengthwise thereof, a luggage carrier attachment comprising a pair of transversely spaced longitudinal guard rails extending substantially parallel to the sides of the automobile and the ends of which extend over and adjacent the ends of the bridge portions of the bars and have apertures in registry with certain of the apertures in said bridge portions, longitudinally spaced transverse rails attached at their ends to the guard rails near the opposite ends of said guard rails, a plurality of longitudinally extending transversely spaced slats spanning the space between the bars and having apertures at their ends in registry with certain other of the apertures in said bridge portions of the bars, and fastening elements extending through the registered apertures of the guard rails and bridge portions of the bars and through the registered apertures of the slats and bridge portions of the bars, respectively, for detachably fastening the guard rails and slats to the bars.

2,772,826
TIRE AND WHEEL MOUNT FOR TRUCKS
Charles H. Krengel, Twin Falls, Idaho
Application February 12, 1954, Serial No. 409,914
1 Claim. (Cl. 224—42.24)

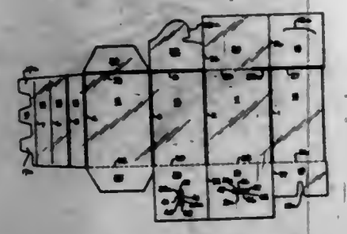


In a tire and wheel mount for a vehicle of the character described, the combination with a body structure supported on a chassis, said body structure having a sidewall terminating at the upper edge in an outwardly and upwardly extending flange, of a standard disposed vertically and in outwardly spaced relation to said sidewall, a longitudinally extending slot in said standard, a bracket fixed to said flange, screw threaded means on said bracket extending through said slot adjacent the upper end to secure the upper end of said standard to said sidewall, means adjacent the lower end of said standard for securing the same to said chassis, a wheel bracket, fastening means on said last named bracket

extending through said slot for securing said last named bracket on said standard in vertically adjusted position, means on said last named bracket to removably secure a wheel thereto, a tire rest and fastening means on said tire rest extending through said slot for securing said tire rest in vertically adjusted position on said standard.

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2,772,827
FOOD PACKAGE
Bennie A. Rafoth and Howard N. Hovland, Appleton, Wis., assignors to Marathon Corporation, Menasha, Wis., a corporation of Wisconsin
Application January 17, 1955, Serial No. 482,144
2 Claims. (Cl. 229—51)

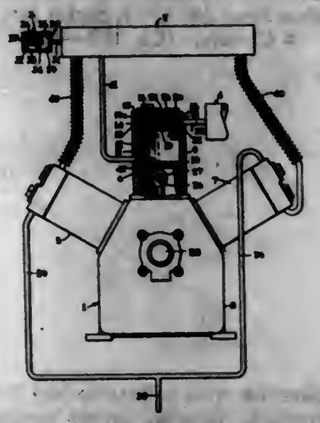


1. A carton for packaging a block of a comestible therein and for receiving a handle, the carton being formed from a single blank suitably cut and scored to provide a front wall, a first side wall, a rear wall and a second side wall, said walls being hingedly connected by score lines, a glue panel hingedly connected to said second side wall, said glue panel being adapted to be folded over and adhered to the said front wall, each of said front, rear and side walls being provided with closure flaps at their upper and lower portions, the upper closure flap of the said front wall being provided with a slit portion for engagingly receiving a tongue portion therein, the upper closure flap of the rear wall being provided with a tongue portion for engagement in the slit portion of said closure flap of the front wall, the upper closure flap of said first side wall being hingedly connected to said wall along a perforated score line extending substantially the entire length of said side wall but stopping short of the hinge line connecting said side wall to said front wall, the lower closure flap of said first side wall being provided with a handle-receiving internal slit extending parallel to the hinge line of said closure flap, the lower closure flap of said rear wall being provided with an internal slit for receiving a handle therethrough and extending along a line perpendicular to the hinge line connecting said rear wall and said lower flap, said lower closure flap of said first side wall and said lower closure flap of said rear wall being hingedly connected to said walls along perforated hinge lines, whereby upon pulling the said glue panel and releasing same from the said front wall the walls, upper closure flaps and front and second side wall bottom closure flaps are strippable from the block of the comestible which may be retained in said carton while leaving the said two lower flaps having said slits disconnected from said first side wall and rear wall in frictional engagement with the handle inserted therethrough and in supporting relation to such block of comestible.

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2,772,828
AIR COMPRESSOR
Rankin J. Bush, Greensburg, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application October 25, 1952, Serial No. 316,876
3 Claims. (Cl. 230—46)

1. In combination with a reservoir for storing compressed air, first, second, and third air compressing means, each of said compressing means including a cylinder and piston, all said compressing means being of substantially the same capacity and all said pistons being connected to the same prime mover for operation thereby, means connected to said first and second compressing means for cooling and storing the outputs thereof, said third compressing means having an inlet and an outlet, said outlet being connected to the reservoir, and means for admitting cooled air from said cooling and storing means to said third compressing means for addition to the air in said last named compressing means admitted through said inlet to



increase the output of compressed air from the third compressing means and limit the temperature rise therein resulting from heat of compression to a low value, said first and second compressing means supplying air to said cooling and storing means at a greater rate than it is delivered from said cooling and storing means to said third compressing means to thereby insure that a substantial amount of cooled air at a substantial pressure is always readily available for introduction into said third compressing means.

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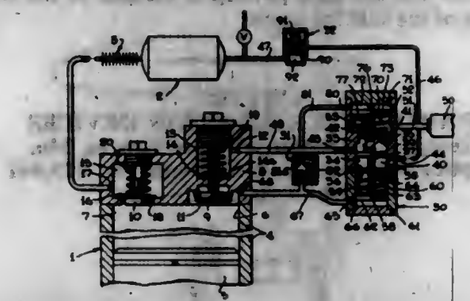
2,772,829
INFLATION ASPIRATOR
James V. Crawford and Richard A. Fischer, Los Angeles, and Dan B. Le May, Palos Verdes Estates, Calif., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application May 2, 1955, Serial No. 507,355
(Filed under Rule 47(a) and 35 U. S. C. 116)
8 Claims. (Cl. 230—95)



1. In apparatus for inflating a container, an aspirator comprising a tubular body having inlet and outlet ends, said body being formed for attachment to the container to be inflated; check valve means at the inlet end of said body, said check valve means being movable between an open position providing for the entrance of atmospheric air into said container and a closed position preventing the escape of air from said container; and nozzle means projecting into said body and terminating inwardly beyond said check valve means in a restricted orifice for directing a jet of fluid axially of said body, said nozzle means being formed for communicating with a source of fluid under pressure.



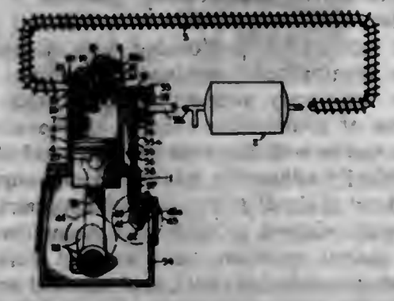
2,772,830
AIR COMPRESSING APPARATUS
George L. Cotter, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application June 22, 1953, Serial No. 363,202
11 Claims. (Cl. 230—208)



1. In combination with a source of compressed air from which the heat of compression has been removed, a reciprocating piston type air compressor having a cylinder chamber for compression of air and an inlet communication for admittance of air thereto, and means controlled by the pressure of the air obtaining in said cylinder chamber to connect said inlet communication selectively to the atmosphere and to said source during each successive inlet stroke and compression stroke, respectively, of said compressor.

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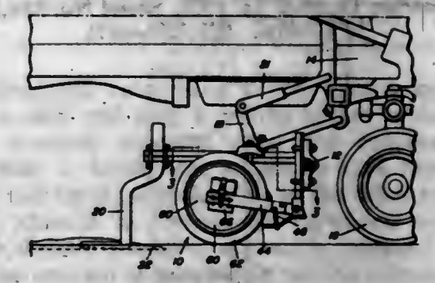
2,772,831
AIR COMPRESSOR
George L. Cotter, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application February 16, 1953, Serial No. 337,141
4 Claims. (Cl. 230—211)



1. In combination with a source of cooled gas under pressure, a compressor having a gas compressing chamber and piston means defining an end wall of said chamber movable alternately and successively through a suction stroke in which said chamber is expanded from a minimum size and through a compression stroke in which said chamber is contracted from a maximum size to its minimum size, a rotatable crankshaft operatively connected to said piston means, pressure differential operated inlet valve means connected to said chamber and responsive to reduction in pressure of gas in said chamber resultant from movement of said piston means through its suction stroke to open said chamber for admission thereto of an initial charge of gas to be compressed, cooling-gas-admission-control valve means connected to said chamber and to said source for controlling admission of gas under pressure from said source into said chamber, bias means connected to and urging said cooling-gas-admission-control valve means towards a closed position, and cam means operatively connected to said cooling-gas-admission-control valve means and connected to said crankshaft for rotation in synchronism therewith to open said cooling-gas-admission-control valve means for a period during the compression stroke of said piston means and permitting said cooling-gas-admission-control valve means to be closed by said bias means at all other times.

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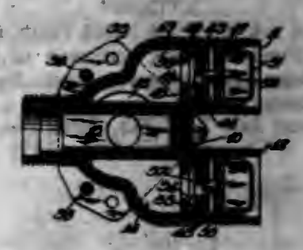
2,772,832
ROW CROP METER
Jesse Lassiter, Four Oaks, N. C.
Application July 1, 1955, Serial No. 519,425
3 Claims. (Cl. 235—95)



1. A row crop meter adapted to be attached to a farm implement tool bar comprising a bracket, a yoke extending from said bracket, a ground engaging wheel journaled on said yoke, said yoke being pivotally attached to said bracket, spring means urging said wheel into engagement with the ground surface, an indicating counter mounted on said yoke, means interconnecting the counter and wheel for registering the rotation of the wheel, said wheel adapted to be mounted closely behind and in the path of movement of a tractor wheel whereby the wheel will engage the packed track of the tractor wheel for providing an accurate reading, a scraper mounted on said yoke in closely spaced relation to the wheel for removing excessive soil therefrom, a braking bar disposed adjacent the periphery of said wheel below the horizontal center line thereof, said spring means urging said yoke and wheel downwardly into engagement with the braking bar when the bracket and wheel are raised.

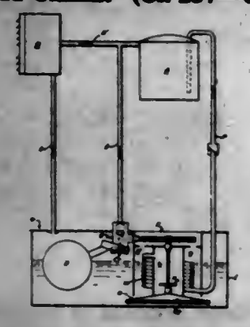
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2,772,833
FLUID MIXING DEVICE
Thomas B. Chace, Winnetka, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application September 28, 1951, Serial No. 248,829
11 Claims. (Cl. 236—12)



1. A fluid control means providing a substantially constant rate of flow regardless of pressure variations of the fluid at the source and adjusting the flow rate in accordance with the temperature of the fluid comprising a conduit, a deformable flow control annulus seated therein and flexing in the direction of flow through said conduit, a member on the upstream side of said annulus at least partially projecting into said annulus, said member being shaped to vary the effective size of the opening in said annulus upon axial movement with respect thereto, and a temperature responsive element carrying said member and moving said member axially with respect to said annulus as the temperature of the fluid varies.

2,772,834
**STEAM TURBINE OPERATED CENTRIFUGAL PUMP MECHANISMS**
Paul F. Swenson, Cleveland Heights, and Myron T. Cooperrider, East Cleveland, Ohio, assignors, by mesne assignments, of thirty-seven percent to Otto Wanek, two percent to Kenneth J. Kitchen, ten percent to Paul F. Swenson, ten percent to Marcus O. Swenson, four percent to Myron T. Cooperrider, eleven percent to Wilma G. Stupka, eleven percent to Wilma G. Stupka, trustee, ten percent to J. A. Weeks, and five percent to Earl P. Schneider, trustee
Application October 22, 1952, Serial No. 316,212
11 Claims. (Cl. 237—67)



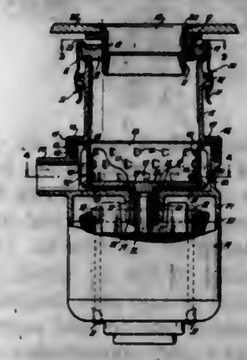
8. An apparatus for a closed circuit system employing a steam generator, a heat exchange apparatus supplied with steam thereby, and a condensate return line; said apparatus comprising a vented condensate reservoir tank adapted for connection to the return line, a steam turbine adapted for connection to receive steam from the generator and having an upright exhaust-steam-condensing chamber within the condensate reception space of the tank, said chamber having a continually open outlet into the tank in a position to be always sealed by condensate in the tank, a condensate pump permanently connected for operation by the turbine and having its inlet in the tank and its outlet uncommunicated with the interior of the tank and adapted for connection with the generator, a turbine steam supply valve, and operating means for the valve arranged and connected for operation of the valve cyclically from "on" to "off" valving positions as a function of high and low quantity respectively of condensate in the tank, whereby the reception space for turbine exhaust steam in the condensing chamber is automatically enlarged as the quantity of condensate in the tank is diminished by progression of the cycle toward completion.

2,772,835
**ELASTIC CLAMP FOR FIXATION OF RAILS**
Marcel Prot, Paris, France, assignor to Societe Industrielle de Liaisons Electriques, Paris, France, a corporation of France
Application July 24, 1953, Serial No. 369,998
4 Claims. (Cl. 238—349)



1. In combination, a sleeper, a flange type rail resting on said sleeper, a metallic elastic clamp for securing the rail to said sleeper, a lag screw to secure said clamp to said sleeper, said sleeper having a notch therein near said rail, said clamp comprising a piece of spring sheet steel forming a flat shoe portion resting solidly upon the sleeper and having a generally trapezoidal form and including a large base applied against the edge of the rail flange and a small base pressing against the edge of said notch, opposed wings extending upwardly from opposite sides of the flat shoe in spiral form and having the extremities free and directed towards the large base and slightly inclined towards the rail flange so that the extremities overhang in relation to the large base of the shoe and bear elastically on the rail flange to exercise a pressure on said flange resulting from the elastic deformation of the said wings when the flat shoe portion is secured to the sleeper by means of the said lag screw.

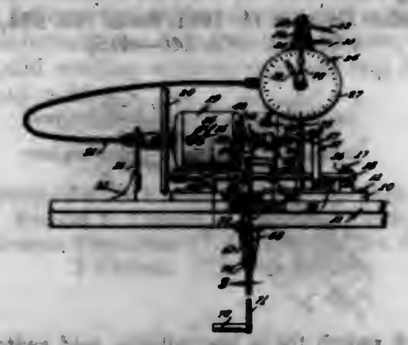
2,772,836
**FOOD-WASTE REDUCTION DEVICES**
George D. Gebhart, Webster Groves, Mo.
Application March 8, 1952, Serial No. 275,481
8 Claims. (Cl. 241—46)



1. In a shredder device for food refuse, a rotary shredder element mounted for operation about a vertical axis, a housing for and coacting with the shredder element, the housing being of a vertically elongate proportion, and adapted to be mounted below the drain opening of a sink or the like, a motor supported by the housing, a drive connection of slidably interfitting type, between the motor and the shredder element, a plurality of quick-acting clamps adapted to support the device from a sink or the like above the shredder element, a support rotatably threadedly connectible to a sink tail piece or the like, said support being provided with clamp engageable seats, the clamps being arranged to engage said clamp seats for temporary support of the device incident to completion of connections thereto, clamp screws threadedly engageable with the said support, said clamp screws being vertically adjustable relative to said support, means located about said tail piece above the support, said clamp screws being adapted to abut said means to secure said support against rotation, said support being provided with a lower annular channel, said channel being adapted to receive the upper periphery of said housing in sealing relation upon closing of said quick-acting clamps, and connections through which the motor is supported and detachably connectible to the housing independently of the connection of the housing to the tail piece or the like of the associated sink.

2,772,837
**COIL WINDING MACHINE**
James L. Carroll, Indianapolis, Ind.
Application May 10, 1954, Serial No. 428,659
4 Claims. (Cl. 242—9)

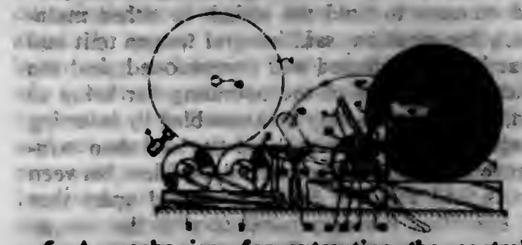
4. In a machine for winding coils, a base, clamps secured to said base, a rod extending between said clamps and secured thereto, a motor supported by said rod and connected to a source of electrical energy, a handwheel connected to said motor, a flexible shaft operated by said motor, a counter operated by said flexible shaft and including movable pointers, a solenoid arranged contiguous to said counter and including a core mounted for movement into and out of blocking engagement with a pointer of said counter, said solenoid being connected to said power source, a drive shaft extending from said motor, a sleeve mounted on said shaft, a bushing mounted on said sleeve and secured thereto, a collar slidably mounted on said sleeve and mounted for movement towards and away from said bushing, resilient means mounted on said sleeve and interposed between said bushing and collar, said collar being provided with an inner recess, a chuck



including pivotally mounted jaws having fingers engaging said recess, said jaws clamping therebetween a coil form lead, a tailstock supported by said rod and provided with a slit therein for receiving the other coil form lead, and means for operating said jaws.



2,772,838
**MECHANISM FOR EXTRACTING THE REWIND SHAFT FROM A CORE OF A REWOUND ROLL AND INSERTING THIS SHAFT INTO THE CORE OF A ROLL TO BE REWOUND**
Bernhard Lenz, Duesseldorf, Germany, assignor of one-half to Jagenberg-Werke Akt.-Ges., Duesseldorf, Germany
Application November 3, 1953, Serial No. 389,977
8 Claims. (Cl. 242—55)



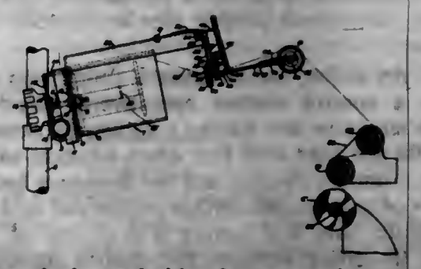
5. A mechanism for extracting the central reel bar from the tubular core of a wound reel and inserting the extracted bar into the core of a reel to be wound and which reel bar is of the type having a protruding portion terminating in a grippable end and extending beyond the core of a wound reel, said mechanism including means for displacing a wound reel from a winding position to a supported position, reel bar gripping means mounted for movement in opposite directions axially of a reel bar, means for swinging the gripping means in opposite directions about an axis parallel to the axis of a supported wound reel from a position in the path of movement of the protruding portion of the bar to an intermediate bar extracting position and then to a bar inserting position, said gripping means including bar engaging surfaces adapted to engage the grippable end of the reel bar responsive to movement of the gripping means to said intermediate position, reversible means operative when the gripping means is in the intermediate position to move the same and thus the bar engaged by the gripping means axially outward of the wound reel to extract the bar, swingably mounted means for supporting the opposite end of the reel bar after extraction thereof, the means for swinging the gripping means being operative to swing the last mentioned swingable means and the supported and gripped reel bar into bar inserting position whereupon reverse movement of said reversible means moves the gripping means in the reverse direction axially of the bar to insert the bar into a core of a reel to be wound.

2,772,839
**FISHING REEL**
Cullen F. Morton, Booneville, Miss.
Original application August 10, 1954, Serial No. 448,862. Divided and this application August 29, 1955, Serial No. 530,931
1 Claim. (Cl. 242—84.5)



A fishing reel comprising a reel seat, a spindle attached to said reel seat, a reeling spider having a hub portion rotatably mounted upon and concentric with said spindle, a brake arm hinged to said reel seat at one end and having a brake shoe at the other end which may be adjusted to contact the peripheral surface of said hub thereby providing adjustable frictional retardation to the rotation of said hub, a tension adjusting screw received by a threaded hole in a flanged portion of said reel seat, said tension adjusting screw having a shoulder below the threaded portion which contacts one end of a coiled tensioning spring, said tension adjusting screw having an unthreaded portion of reduced diameter below said shoulder which portion passes concentrically through said tensioning spring and through a hole in said brake arm thereby confining said tensioning spring between said shoulder and said arm, a circumferential groove about the lower end of said unthreaded portion of said tension adjusting screw which groove carries a retaining ring which forms a shoulder about the lower end of said unthreaded portion below said hole in said arm thereby preventing the accidental removal of said tension adjusting screw and also affording a means whereby continued rotation of said tension adjusting screw in the proper direction will cause said retaining ring to contact said brake arm whereupon further rotation of the screw in the same direction will cause said brake shoe to be removed from contact with said hub, thereby releasing the adjustable frictional retardation of reel rotation entirely from operating and permitting freest possible rotation of the reel.

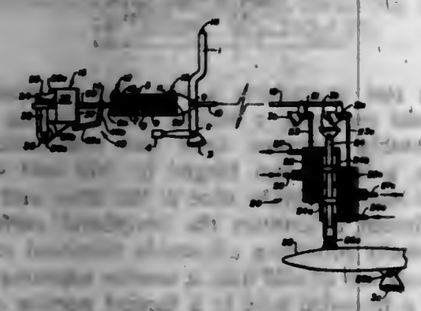
2,772,840
**TENSION-DEVICE**
William V. Goodhue, North Kingstown, R. I., and Curt J. Rohland, Seekonk, Mass., assignors to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts
Application August 6, 1953, Serial No. 372,656
5 Claims. (Cl. 242—128)



1. In a tension-device, a holder for supporting a spool or other container for wound strand material, a pair of resilient pads spaced from said holder and arranged in contact to adapt the strand to draw therebetween, a pivoted arm, resilient means for controlling the pivoting of said arm, a flanged pulley mounted on said arm in position to adapt the strand to feed thereabout as it draws between the resilient pads, and a resilient annulus of cylindrical cross-sectional form surrounding said pulley

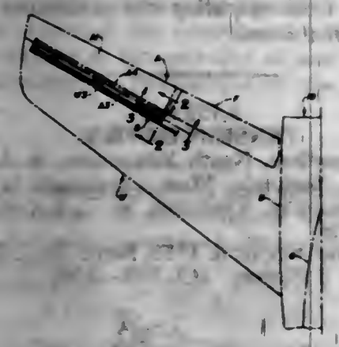
to adapt it to bear against the strand and force it laterally against the flange of said pulley to apply resistance to its draft.

2,772,841
AIRCRAFT TRIM CONTROL
Donald H. Benstead, Inglewood, Calif., assignor to North American Aviation, Inc.
Application April 28, 1955, Serial No. 504,487
5 Claims. (Cl. 244—83)



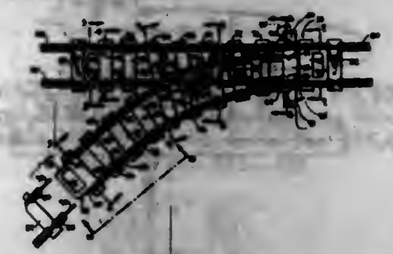
1. In combination with an airplane control, elastic means operatively connected to said control for exerting opposed restoring forces to said control to urge said control toward a neutral position, trim means including an eddy current damper operatively connected to said elastic means, means for selectively locking and releasing said trim means whereby displacement of said control from said neutral position and selective releasing of said trim means permits dampened movement of said trim means under the influence of the restoring force developed by said elastic means for establishing a new neutral position for said control.

2,772,842
CONTROL SURFACE SEAL
Vesa L. Darby, Redondo Beach, Calif., assignor to North American Aviation, Inc.
Application May 25, 1953, Serial No. 357,270
5 Claims. (Cl. 244—90)



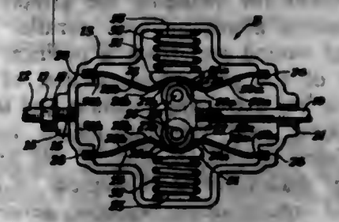
1. An aerodynamic balance comprising a wing structure, a control surface operatively mounted upon said wing structure and having a forwardly extending balance paddle provided with free edges adjacent said wing structure, a unitary flexible seal for the space between the free edges of said control surface paddle and said adjacent wing structure, said seal having a first area of greater width than the space between the control surface paddle and the wing structure, said first area having a first margin attached to the control surface and an opposite margin attached to the wing structure, said first area disposed substantially in the plane of said control surface paddle, said seal having a second area folded with respect to said first area and having its opposite margins attached to said control surface and to the wing structure, respectively, said second area being disposed in the direction of the thickness of said control surface.

2,772,843
MOLDED PLASTIC TRACK SWITCH FOR A TOY RAILWAY
Willis E. Rexford, Girard, Pa., assignor to Louis Marx & Company, Inc., New York, N. Y., a corporation of New York
Application January 11, 1951, Serial No. 205,540
4 Claims. (Cl. 246—415)



1. A track switch for a toy railway, said switch comprising only two pieces each molded out of a suitable molding plastic which is rigid at room temperature, one piece having main line rails, branch line rails, a common end for the outer rails, a frog for the inner rails, and simulated ties, said parts being all molded integral, and the other piece being a pivoted tongue unit comprising a base above said ties, a main line rail, a branch line rail, and an operating bar all molded integrally with said base, said rails of said tongue unit being beveled at one end to mate with the frog and being tapered at the other end to form tongues cooperating with the outer rails, said movable operating bar being disposed beneath the outer rails at the common end, said bar having an integrally molded upwardly projecting finger piece to facilitate operation of the switch, the bottom of said common end and the top of said operating bar having mating detent projections and recesses to hold the switch in either main-line or branch line position, said integral tongue unit and operating bar being so shaped and dimensioned, and the simulated ties on each side of the operating bar being so spaced apart, that the parts may be assembled by inserting the tongue upwardly between the said ties and then turning the tongue down to its horizontal position between the outer rails, and said ties being so spaced apart that the integral operating bar may oscillate with the tongue as the bar is moved longitudinally to operate the switch.

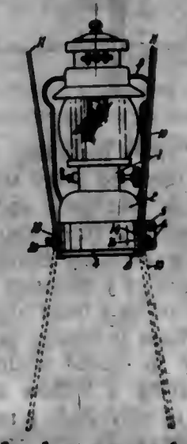
2,772,844
RAILWAY SWITCH CONNECTING ROD
Kenneth J. J. McGowan, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application December 16, 1952, Serial No. 326,333
5 Claims. (Cl. 246—452)



1. Apparatus for interconnecting an element of a railway switch with an element of a switch stand, comprising a deformable spring cam for connection with one of said elements and having symmetrical working surfaces about a median point, a cam follower for connection with the other of said elements and cooperating with the working surfaces of said cam, and resilient means biasing the median point of said cam in engagement with said cam follower to maintain said cam follower in engagement with said cam at its median point when said switch stand element is operated to throw said switch, the working surfaces of said cam being such that when said switch element is moved by a trailing vehicle the bias of said resilient means is increased and said cam is deformed due to the relative movement between said cam follower and said working surfaces, a predetermined relative movement between said working surfaces and said cam follower permitting the stressed resilient means and the deformed cam to increase the relative movement between said working surfaces and said cam follower to reverse said switch.



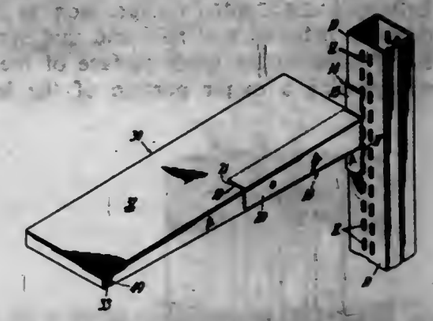
2,772,845
SUPPORTS FOR LANTERNS AND THE LIKE
Ronald E. Conant, Kalamazoo, Mich.
Application December 17, 1951, Serial No. 261,940
2 Claims. (Cl. 248—150)



1. In a support for lanterns and the like, the combination of an annular split resilient body member for clampingly receiving the base of a lantern therein having angularly spaced inturned lantern supporting lugs on its lower edge and having outturned ears at the ends thereof, a clamping screw disposed through said ears, said supporting lugs being disposed on a level below that of said out-turned ears and clamping screw, angularly spaced pivots disposed on a level above that of said supporting lugs and projecting radially from said body member, legs swingably mounted on said pivots and each having an inwardly facing recess providing spaced lugs on opposite sides of each of said pivots, said body member being provided with slot-like keepers spaced from said pivots to receive one lug of each leg when the legs are in erected position extending vertically downwardly from said pivots, and the other lug of each leg when the legs are in collapsed position extending vertically upwardly from said pivots, and springs arranged on said pivots at the outer sides of the legs and acting to urge the legs yieldingly inward for releasably retaining the lugs in engagement with the keepers.

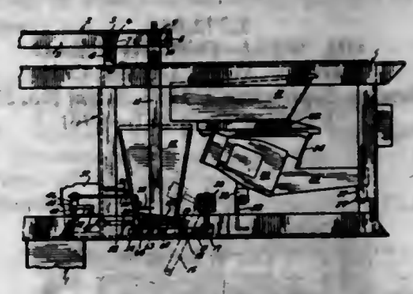
2,772,846
SHELF BRACKET
John G. L. Skar, Jamestown, N. Y., assignor to Art Metal Construction Company, Jamestown, N. Y.
Application May 25, 1951, Serial No. 228,288
5 Claims. (Cl. 248—243)

3. In adjustable shelving, in combination, an angular sectioned support member having front and side wall portions and apertures in vertically spaced relation through said front wall portion, a shelf bracket of generally T-shaped form comprising an upright first member of generally channel sectioned bent metal form having a front wall and a side wall and a series of vertically aligned hook devices extending vertically from said front wall and adapted to hook-fit into the apertures of said support member while the front and side wall of said first bracket member embrace the front and side wall portions respectively of said support member, said bracket comprising also a second member of channel section bent metal form disposed horizontally and having a top wall portion thereof abutting said first member front wall and having a side wall portion formed with a branch section extending



to lie alongside said side wall of said first bracket member; said bracket members being welded together at positions of contiguity thereby providing an integral generally T-shaped bracket unit.

2,772,847
APPARATUS FOR FEEDING BULK MATERIAL AND CONTROL THEREFOR
Frank L. Hopkins, Minneapolis, Minn., assignor to Bemis Bro. Bag Co., St. Louis, Mo., a corporation of Missouri
Application January 14, 1955, Serial No. 481,948
7 Claims. (Cl. 249—45)

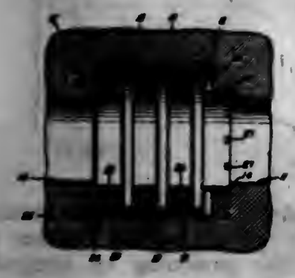


1. In a machine for weighing and dispensing bulk material; a hopper having a discharge opening in its bottom portion; power operated mechanism for causing material to be fed to said hopper; a gate normally closing said discharge opening; a latch element and a cooperating strike element, one operatively mounted on said hopper and the other operatively mounted on said gate; mechanism for tripping said latch element to cause opening of the gate; a locking element engaging said latch element to releasably lock said latch element in its tripped position when the gate is open; and control means for said power operated mechanism including a control element operated by said latch tripping mechanism to render the power operated mechanism inoperative responsive to latch tripping movements of said tripping mechanism, and to render the power operated mechanism operative responsive to release of the latch element by the locking means therefor upon closing of said gate.

2,772,848
FLUID SEAL ELEMENT
Theodore H. Holzer and Donald C. Asbury, Glendale, Calif., assignors, by mesne assignments, to The Parker Appliance Company, Cleveland, Ohio, a corporation of Ohio
Application November 28, 1952, Serial No. 322,862
1 Claim. (Cl. 251—172)

In a sealing device of the class described, the combination of: a first member having a fluid passage and a counterbore communicating therewith, said first member also having a shoulder, a second relatively movable member having a sealing surface and a port communicating with said surface, a sealing unit received in the counter-

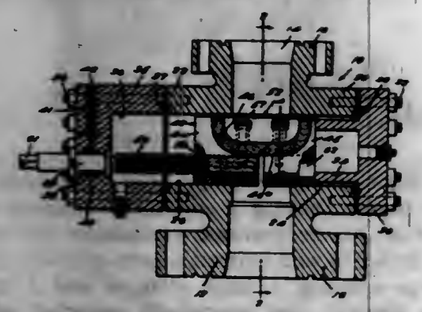
bore, the sealing unit including metallic bellows having one end engaging the shoulder, a ring fixed to the other end of the bellows and provided with a relatively narrow sealing lip having a sealing face engaging the said sealing surface, the bellows having initial compression to maintain sealing pressure between said face and said surface, a rubber sleeve bonded to the outer surface of the bellows and encompassing a major portion of the length



thereof, the outer surface of the rubber sleeve being of greater diameter than said ring and forming a seal with said counterbore, passage means establishing communication between the fluid passage and the counterbore at a location at the opposite end of the bellows from the ring, whereby fluid pressure in the passage acts to expand the rubber sleeve radially and also acts to increase the axial sealing pressure on the ring.

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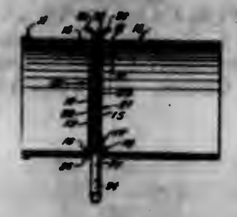
2,772,849
**OIL WELL TUBING HEAD**
Melvin C. Davis, Denver, Colo.
Application September 3, 1953, Serial No. 378,370
1 Claim. (Cl. 251—194)



An oil well tubing head comprising a body having a tool and tubing passage therethrough, means carried by the body at each end of said passage for securing the body to and in line with well apparatus, aligned arms integral with said body and extending radially of said passage, said arms having aligned longitudinal passages forming a tubular chamber intersecting the body passage, a closure member at the outer end of each arm passage, a cylindrical valve body slidably positioned in said chamber for movement to a position across the body passage to close the latter, said valve body comprising two spaced cylindrical members having curved recesses formed across the sides thereof and opening through their adjacent ends, a single body of packing material lying in said recesses and bridging the space between the members, a transversely arcuate saddle member lying upon the body of packing material, said body of packing material having a continuous edge lying flush with the cylindrical surface of the valve body, said saddle member having end faces opposing correspondingly formed faces of the recesses, said packing material being pressed between said opposing faces, means loosely coupling the saddle and the cylindrical members whereby relative movement between the same is permitted, the periphery of the packing material being arranged to encircle the body passage when the valve is in closing position thereacross, and means for effecting axial movement of the valve body and for forcing the cylindrical members thereof toward one another when it is in said closing position to effect the compression of the packing element and lateral projection of the periphery thereof beyond the periphery of the valve body members.

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2,772,850
**FLOW CONTROL GATE**
Nelson C. Eaton, Lubbock, Tex.
Application May 9, 1955, Serial No. 507,072
10 Claims. (Cl. 251—306)



1. A flow control valve including a cylindrical body having diametrically opposed holes therein, a bifurcated shaft extending through said holes and said body, a rigid disc interposed between the furcations of said shaft and of a diameter less than the inner diameter of said body, a disc of resilient material of a diameter substantially equal to the inner diameter of said body affixed to one face of said rigid disc and whose perimeter is in sealing engagement with said body in closed position of said valve, said resilient disc having a hollow diametrical rib receiving one furcation of said shaft, a pair of diametrically opposed resilient segments on the opposite face of said rigid disc receiving the companion furcation of said shaft, means integral with said resilient disc and said segments for sealing the openings in said body about said shaft, means for actuating said shaft to open and close said valve and means for precluding longitudinal displacement of said shaft.

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2,772,851
**ROTOR CONSTRUCTION**
Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan
Application June 14, 1950, Serial No. 167,981
11 Claims. (Cl. 253—39)

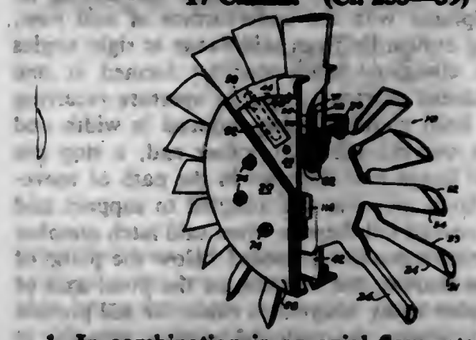


1. In combination in a compressor rotor, a hub structure, axially spaced disk shaped side plates fixed at their radially inner portions to said hub structure, each said plate having a slot extending radially inward from the periphery thereof, a hollow blade having chordwise extending flanges along the leading and trailing edges of the root portion thereof fitting into respective said slots in opposite plates, each said flange being bonded to the walls of its respective said slot, and peripherally extending segments radially outward of and in centrifugal load supporting relation with said flanges and bonded to each side plate across said slot to transmit peripheral stress thereacross.





2,772,852
**ROTOR CONSTRUCTION FOR FLUID MACHINES**
Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan
Application August 3, 1950, Serial No. 177,480
17 Claims. (Cl. 253—39)



1. In combination in an axial flow rotor, a hub structure including a radially extending side plate, a plurality of blades supported on said structure and spaced peripherally thereabout tending to produce vibrations in said side plate in operation, means joining each said blade to said plate, said plate having a cavity formed therein extending in a generally radial direction, a cover fixed to said plate and extending across said cavity defining an opposed wall portion thereof, and a vibration damper within said cavity attached to one wall of said cavity and frictionally engaging on another said wall thereof with a pressure varying with the rate of rotation of said rotor.

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2,772,853
**COMPRESSOR DISCS**
Lee R. Woodworth, Los Angeles, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 7, 1952, Serial No. 280,866
3 Claims. (Cl. 253—39)



1. Coupling apparatus for securing first and second turbine discs in a predetermined adjacent relationship comprising a plurality of bosses mounted in circumferentially spaced relationship on each of said turbine discs, inner and outer radially overhanging uniting portions on each of said bosses, mating surfaces on each of said bosses of said first turbine disc, corresponding mating surfaces on said bosses of said second turbine disc adapted to be effectively placed in contact with said mating surfaces of said bosses of said first turbine disc, a plurality of uniting means for coupling said bosses in fixed relationship when said mating surfaces are in contact, one of said uniting means adapted to coact with said inner overhanging portions of said bosses, another of said uniting means adapted to coact with said outer overhanging portions of said bosses, each of said uniting means comprising a member having axially spaced lugs mounted in circumferentially spaced relationship thereon which are adapted to coact with the overhanging uniting portions of said circumferentially spaced bosses when the overhanging portions are in mating contact, said lugs being positioned with respect to each other on each of said uniting means so that when each of said uniting means is circumferentially moved relative to said bosses said lugs come into engagement with said overhanging uniting portions of said bosses, and means for rigidly fastening said uniting means to said bosses when said bosses and said uniting means are in assembled relationship.

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2,772,854
**VIBRATION DAMPING MEANS FOR BLADINGS OF TURBO-MACHINES**
René Anxionnaz, Paris, France, assignor of one-half to Societe Rateau (Societe Anonyme), Paris, France, a company of France
Application February 12, 1952, Serial No. 271,258
Claims priority, application France February 27, 1951
3 Claims. (Cl. 253—77)



1. In a turbo-machine rotor having a plurality of rotary blades circumferentialy spaced around the entire periphery of said rotor, means for damping vibrations of said blades comprising laterally protruding members on both sides of each blade, integral therewith at one end and free at the other end whereby said members undergo deflection when subjected to bending stress due to centrifugal force, the respective members of each pair of adjacent members belonging respectively to each two consecutive blades having substantially different mean lengths as measured between said ends and having opposed overlapping and parallel free surfaces adapted to come into frictional contact with each other, the said surfaces lying in planes substantially parallel to the axis of said rotor.

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2,772,855
**FLUID TURNING BLADES**
Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan
Application August 3, 1950, Serial No. 177,479
5 Claims. (Cl. 253—77)



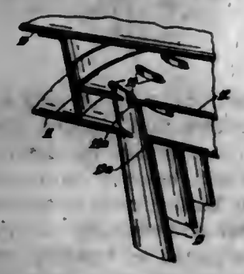
1. A hollow sheet metal fluid turning blade having leading and trailing edges and a predetermined airfoil contour as assembled comprising a base wall of sheet metal shaped to form the lower face of said blade and having spanwise recesses inwardly of and adjacent both leading and trailing edges thereof forming portions of reduced thickness substantially at the leading and trailing edges less than that of the adjacent portions of said base wall, said reduced thickness portion adjacent the leading edge being folded upon itself, forming a short radius bend the outer surface of which defines the nose of the blade, and a complementary blade wall of sheet metal supported in mating relation on said base wall, said complementary wall being shaped to form the upper face of said blade and having a contoured edge fitting within and fairing with said tapered marginal edge of said base wall, said walls being bonded together at the contiguous interfitting portions thereof.

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2,772,856
**STRUCTURAL ELEMENTS FOR TURBO-MACHINES SUCH AS COMPRESSORS OR TURBINES OF GAS-TURBINE ENGINES**
Nelson Hector Kent, Allestree, and Cyril Armer, Chellaston, near Derby, England, assignors to Rolls-Royce Limited, Derby, England, a British company
Application July 3, 1953, Serial No. 366,021
Claims priority, application Great Britain July 11, 1952
10 Claims. (Cl. 253—78)

1. A structural element for a turbo-machine having a working fluid passage, comprising a first circumferential-

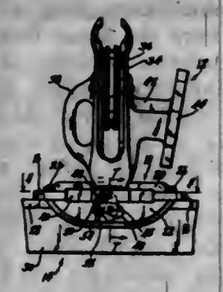
ly-extending sheet-metal skin to afford a section of the wall of said working fluid passage, a second circumferentially-extending sheet-metal skin secured coaxially with the first skin and spaced therefrom on the side thereof remote from said working fluid passage, each of said skins being formed with circumferentially-spaced slots, each slot in one skin being aligned with a corresponding slot in the other skin, and a plurality of aerofoil-section blade elements of a blade row of the turbo-machine supported by said spaced skins to extend cantileverwise across said working fluid passage, each blade element having an end portion engaged in an aligned pair of said slots, the end portion having cut-aways at its leading and trailing edges



to provide abutment shoulders facing in the direction of the lengthwise axis of the blade element towards the second skin, said shoulders being at a position lengthwise of the blade element to be in abutment with one of said skins, and each blade element having at least one slot in that part of the end portion which projects through the slot in the second skin to form a pair of oppositely-directed tangs, each tang having a surface which is inclined to the lengthwise axis of the blade element and faces towards said shoulders, and each tang extending laterally from the general contour of the blade element with its inclined surface bearing on the surface of said second skin remote from the working fluid passage, whereby said shoulders are drawn into abutment with said one of the skins.

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2,772,857
**PULLEY BLOCK AND BASE**
Everett M. Bush, South Nyack, N. Y.
Application March 24, 1954, Serial No. 418,436
2 Claims. (Cl. 254—195)



1. A pulley block and base comprising a pulley frame, a pulley rotatable within said frame, a flat non-circular supporting member secured to the bottom of said frame with the plane thereof substantially parallel to the axis of rotation of said pulley, an arm secured to and extending from one side of said pulley frame and a second flat, non-circular support member identical in size and shape and interchangeable with said first support member secured to the end of said arm, the plane of said second support being inclined slightly to the plane of rotation of said pulley, a substantially U-shaped base in plan having a flat undersurface adapted to rest on a truck bed or the like, means for securing said base around its periphery to a truck bed or the like, said base having a non-circular opening therethrough adapted to receive therewithin one of said supports, an overhanging lip secured to the upper surface of said base around said opening and adapted to retain one of said supports within said opening against vertical displacement, and means for preventing lateral displacement of said one non-circular support through the open end of said base, said last mentioned means being releasable, said last mentioned means comprising a flange depending from the free ends of said base and having an upper edge coplanar with the undersurface of said base, a pin extending outwardly from said flange at right angles thereto, a flat elongated latch member formed at one end with a widened portion having an aperture receiving said pin, said latch member being reduced in width and formed with a curving tail at its other end, a stop pin carried by said flange and disposed in the path of movement of said latch member and adapted to support said latch member curved tail thereon when said latch member is in an inoperative position disposed below the plane of the upper edge thereof, the location of the pivot axis of said latch member being adapted to cause the tail portion thereof to overbalance the widened portion whereby to retain said latch member in the operative position when rotated through 90 degrees away from said stop pin.

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2,772,858
**POWER HAMMERS**
Francisco Galves, Solvay, N. Y., assignor of one-half to Joseph C. Novack, Syracuse, N. Y.
Application April 25, 1955, Serial No. 503,407
10 Claims. (Cl. 255—39)



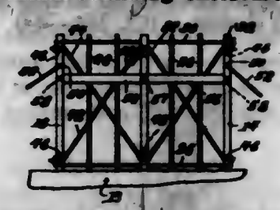
4. A power hammer comprising a reciprocating inertia member, a frame including a guide way for said member, a coil spring having one end bearing against said inertia member, and the other secured within said guide way, a single throw crank shaft extending transversely of the axis of movement of said member and journalled on said frame beyond the other end of said coil spring, an articulated connecting rod connecting the throw of said crank shaft with said inertia member to compress said spring, said rod being composed of at least three links serially and pivotally connected on axes parallel with said shaft, rotatable driving means freely rotatable on said crank shaft, means providing for limited relative angular movement between said driving means and crank shaft whereby said crank shaft may accelerate in reference to said driving means in response to spring recoil, said means comprising an arcuate slot on one of said rotatable means and crank shaft, and a crank pin angularly rotatable therewithin on the other, and power means for rotating said driving means at a substantially uniform angular velocity.

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2,772,859
**COLLAPSIBLE ENCLOSURE FOR INFANTS**
Rex B. Knorr, Charlotte, N. C.
Application August 21, 1953, Serial No. 375,651
2 Claims. (Cl. 256—25)

1. A collapsible enclosure for infants comprising: a plurality of corner posts, said corner posts being rectangularly spaced to provide a pair of corner posts at each end of the enclosure; flexible stringer means extending from post to post to connect the same together; a series of slats strung upon said stringer means in the spaces between the posts to cooperate with the posts in forming an infant-confining enclosure; end posts dis-





posed between the posts of each end of the enclosure, said end posts being strung upon said means; and swingable brace members carried by the end posts and separably connectible to the corner posts, to provide a rigid bracing assembly at each end of the enclosure adapted for holding the corner posts in upright, stationary positions upon a supporting structure.

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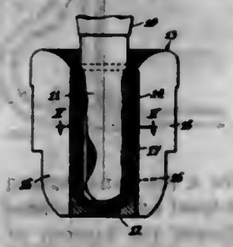
2,772,860
**VESSEL WITH CONTINUOUS HELICAL LINER**
George A. Nelson, Berkeley, Calif., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application July 28, 1953, Serial No. 370,741
2 Claims. (Cl. 257—268)



1. A metallic vessel having a lining formed of a strip of flat protective metal laid helically against the inner surface of the vessel in a plurality of spaced turns so as to leave a helical gap between adjoining turns, the inner surface of said strip being in engagement with said surface of the vessel across the full width of the strip and at least one of the said surfaces being rough to provide a continuous helical passageway between the strip and the vessel, a protective metal covering in said helical gap and including a continuous weldment within said gap connecting each edge of the said strip to the vessel, and at least one hole through the wall of the vessel communicating with the said helical passageway.

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2,772,861
**RADIATOR FOR ELECTRON DISCHARGE DEVICE**
Hampton J. Dailey, deceased, late of Verona, N. J., by Ruth M. Dailey, executrix, Verona, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Original application June 29, 1951, Serial No. 234,216. Divided and this application September 28, 1953, Serial No. 382,538
2 Claims. (Cl. 257—263)



1. An electron discharge device comprising a copper anode, an aluminum radiator mounted on said anode, a liner of copper interposed between the anode and radiator, with a fused copper-aluminum bond integrating said liner and radiator as a unit, and solder interposed between said anode and liner securing the said liner on the anode.

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2,772,862
**DEVICE FOR THE TRANSMISSION OF MECHANICAL VIBRATIONS TO A MATERIAL MEDIUM**
Harold van Suchtelen, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application February 10, 1954, Serial No. 409,495
Claims priority, application Netherlands February 25, 1953
2 Claims. (Cl. 259—1)



1. A device for treating a material medium with ultrasonic vibrations comprising a pipe having spaced inlet and outlet ports, a ribbon-like member, means for securing said ribbon-like member to opposite ends of said pipe to extend said member substantially parallel to the axis of said pipe, means for adjusting the resonating frequency of said member, a vibrating member, and mechanical means for transmitting vibrations from said vibrating member to said ribbon-like member to vibrate said ribbon-like member in a given number of stationary half-waves.

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2,772,863
**MIXING PUMP**
Doran B. Harney, Compton, and Wilburn O. Shepherd, Whittier, Calif., assignors to Pacific Pumps, Inc., Huntington Park, Calif., a corporation of California
Application August 30, 1954, Serial No. 453,052
1 Claim. (Cl. 259—7)

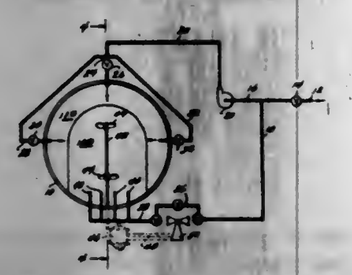


In a mixing pump, the combination of: a hollow generally cylindrical housing defining a flow channel for a fluid; a tubular supply conduit for a second fluid extending axially of said flow channel and having threaded radial openings in the side wall thereof; means fixedly supporting said conduit in said housing; openings through the wall of said housing in radial alignment with the threaded openings in said conduit; radially disposed tubes threaded into said threaded openings and communicating with the interior of said conduit, said tubes extending outwardly through said openings in said housing and having closed end portions outside said housing; sealing means between said tubes and the outside of said housing and means on siad tubes, outside said housing, retaining said sealing means in place; openings in the

side walls of said tubes within said housing and facing axially of said flow channel in one direction; a shaft journalled in said tubular conduit and extending from an end thereof in said housing; and axial-flow pumping means mounted on said shaft in said housing upstream of said tubes for pumping said fluid through said flow channel in said one direction.

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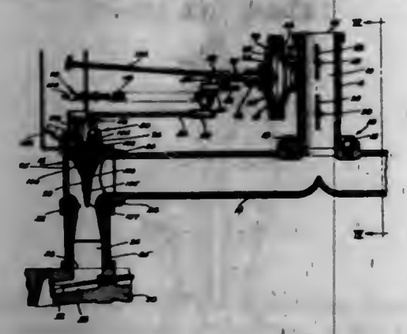
2,772,864
**METHOD AND APPARATUS FOR EVACUATING PULP FROM HIGH DENSITY STORAGE TOWERS**
John P. Rich and Arthur L. Whiteside, Nashua, N. H.
Application December 8, 1954, Serial No. 473,982
3 Claims. (Cl. 259—37)



1. In a pulp storage tower, a substantially flat bottom having an outlet formed therein; a plurality of high pressure nozzles penetrating said tower and directed inwardly adjacent said bottom; means for oscillating said nozzles about an axis substantially parallel to the axis of the tower; means for agitating and circulating pulp adjacent said bottom, said means having a suction side and a discharge side; and low pressure nozzles penetrating said tower and directed inwardly toward the suction side of said means.

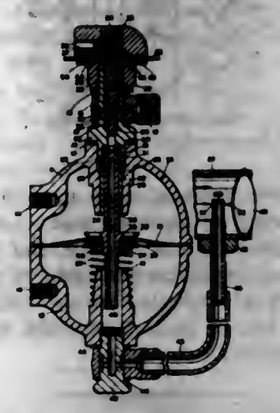
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2,772,865
**ENGINE FUEL SYSTEM**
Hugo F. Budzien, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application June 15, 1953, Serial No. 361,707
4 Claims. (Cl. 261—23)



1. In a fuel system for a multi-cylinder engine having an inlet port for each cylinder, an air intake manifold including an air intake passage in communication with the atmosphere and having spaced openings in communication with said inlet ports, fuel valves disposed adjacent said inlet ports, a throttle valve for said air intake passage of said manifold, a linkage connecting said valves for conjoint operation, a member connected to said linkage and exerting a biasing force thereon in a direction to open said valves, a diaphragm connected to said linkage and subjected to the pressure in said air intake passage on the intake side of said throttle valve, normally effective to exert a force on said linkage system in a direction to closed said valves, and means to vary the amount of biasing force applied to said linkage by said member.

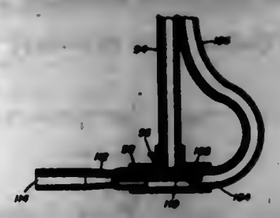
2,772,866
**MEANS FOR SUPPLYING ANTI-DETONANT TO AN INTERNAL-COMBUSTION ENGINE**
John Cecil Ridley, Kenilworth, and Stuart Audley Saxton, Southam, England
Application March 15, 1954, Serial No. 416,322
Claims priority, application Great Britain March 17, 1953
2 Claims. (Cl. 261—44)



1. Means for enabling a predetermined quantity of liquid anti-detonant to be induced into the induction system of an internal-combustion engine in a position where the pressure is sub-atmospheric, said means comprising a casing formed in two portions, a diaphragm peripherally clamped between said casing portions to divide the latter into two chambers, one of said chambers communicating with the atmosphere and the other being sealed, a needle valve controlling an inlet for anti-detonant to said sealed chamber, manual means controlling the degree of opening of said needle valve, a second valve between said needle valve and said sealed chamber, a communication from said needle valve to said second valve, said second valve having a movable member, said movable member fast with said diaphragm and extending therethrough into both said chambers, means biassing said movable member to close said second valve, a guide for said movable member in the chamber which communicates with the atmosphere, said movable member having an internal duct establishing a communication between the downstream side of said second valve and said sealed chamber, an inlet for air at atmospheric pressure into said duct, said movable member when closing said second valve also closing said air inlet, and a communication from said position in said induction system to said sealed chamber whereby, when a sub-atmospheric pressure exists in said position, said diaphragm is deflected against the biassing means to move said movable member to open said second valve and said air inlet for permitting said induction system to inspire a mixture of air and anti-detonant.

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2,772,867
**AERATOR**
Howard R. Clechner, Tipp City, Ohio
Application February 11, 1953, Serial No. 336,420
2 Claims. (Cl. 261—77)

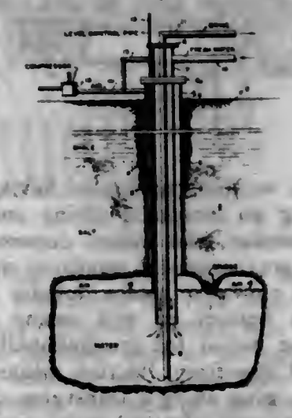


1. An aerator for a fish tank having water maintained at a predetermined level and comprising a hollow T member positioned adjacent the bottom of said tank, a vertical air conduit extending from the center connection of said T member to the atmosphere, a venturi element extending from one of the end connections of said T member, a water supply pipe having one end connected to the other of said T member end connections, said water supply pipe end tapering inwardly, and a discharge tube smaller in diameter than said water supply pipe connected to the tapered end of said water supply pipe and extending through said T member into proximity with the throat of said venturi, said venturi being adjacent the bottom of said tank and positioned to direct a jet of water and air parallel to said tank bottom to agitate the water and to remove carbon dioxide therefrom throughout the entire tank.



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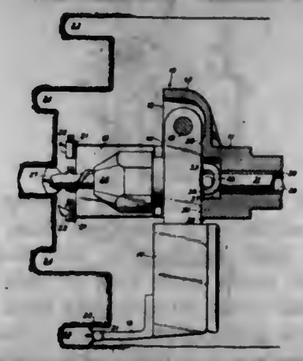
2,772,868
**APPARATUS FOR CONTROL OF ROOF LOCATION IN THE FORMATION OF UNDERGROUND CAVERNS BY SOLUTION MINING**
Carl T. Brandt, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application January 18, 1954, Serial No. 404,476
6 Claims. (Cl. 262—3)



1. An apparatus for underground mining of a soluble material by means of a liquid solvent said apparatus comprising in combination means for introducing solvent into an underground bed of said soluble material, means for withdrawing solvent having soluble material dissolved therein from said bed, means for introducing a non-solvent lighter than said solvent and non-miscible therewith to top of said solvent introduced to said bed, and an open conduit communicating from the desired solvent level in said bed to the atmosphere above the surface of the earth, said conduit being adjustable vertically.

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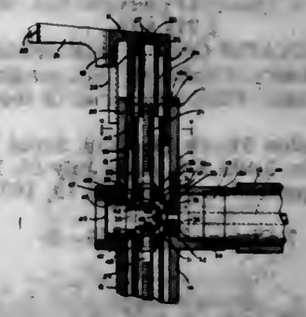
2,772,869
**CONTRACTIBLE BORING TYPE CUTTING HEAD FOR CONTINUOUS MINING MACHINE**
Benjamin F. Tracy, Point Pleasant, W. Va., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application May 3, 1955, Serial No. 505,701
9 Claims. (Cl. 262—7)



1. A boring type cutting head for a continuous mining machine of the type having a rotatable hub, an arm supported by the hub, and a cutter bit bracket projecting forwardly from the outer end of the arm; the improvement comprising: a hinge joint connecting the inner end of the arm to the side of the hub opposite the outer end of said arm; said hinge joint including a hinge pin mounted on an extension of the hub which is offset from the hub in a direction opposite the outer end of the arm.

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2,772,870
**ROTARY BORING HEAD HAVING RADIALLY ADJUSTABLE CUTTING ARMS**
Edward L. Anderson, and Emil J. Hlinsky, Chicago, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application January 4, 1956, Serial No. 557,268
4 Claims. (Cl. 262—7)



1. In a rotary boring head comprising a hollow hub and a plurality of radial arms, each of said arms comprising an inner arm portion with a cutter-carrying telescopic end section at the outer end thereof, the inner arm section having a smooth bore opening to its outer end, the telescopic end section having a cylindrical inner end portion with its outer surface slidably engaged in said bore, a hollow sleeve having its inner end fixed centrally of said hub, and having its outer surface in slidable splined engagement with the inner surface of said cylindrical end portions, an inner sleeve fixed on said telescopic end section adapted to project into said splined sleeve, a bushing fixed to said splined sleeve adjacent the axis of said head, a screw member having its outer end threadedly engaged in said inner sleeve, and its inner end journalled in said bushing, and means in said hub for rotating said threaded member to effect adjustment of said telescopic end section relative to said inner arm section.

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2,772,871
**SAFETY ROOF CONTROL APPARATUS FOR CONTINUOUS MINER**
Kenneth E. Caine, Pittsburgh, Pa., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 23, 1954, Serial No. 451,352
2 Claims. (Cl. 262—34)



1. In a continuous mining machine having a mobile main frame and a mining head at the forward end thereof for mining coal in a continuous operation without shooting and having an operator's station spaced rearwardly of said mining head, the improvements comprising safety means protecting the operator's station from falling roof comprising a pivoted roof supporting arm pivoted to said main frame adjacent the rear end thereof and extending along the top of said main frame a substantial distance in advance of said operator's station and having an uninterrupted plain top surface accommodat-

ing a timber to be slidably moved therealong, cylinder and piston means connected between said main frame and arm intermediate the ends thereof for elevating said arm, and a timber carrying cradle freely pivoted to the free end of said arm eccentric of the center of said cradle, said cradle having a plate forming a continuation of the top surface of said arm and movable by gravity into position flush with the top surface of said arm when the arm is in a horizontal position and having a flange at the outer end thereof forming a stop for a timber, the eccentricity of said cradle mounting accommodating said cradle to engage a timber with a mine roof in generally parallel relation with respect thereto and to conform to the plane of the roof when holding a timber in engagement therewith.

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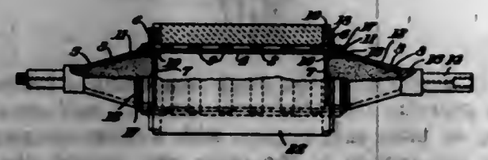
2,772,872

## FURNACE CONVEYOR ROLL

Nathaniel B. Ornitz, Pittsburgh, Pa., assignor to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware

Original application March 11, 1950, Serial No. 149,079, now Patent No. 2,683,578, dated July 15, 1952. Divided and this application December 19, 1951, Serial No. 262,413

7 Claims. (Cl. 263—6)



6. A furnace conveyor roll comprising a body continuous from end to end of the roll and having trunnions at its ends for rotatably supporting the roll, the body having a generally cylindrical central portion, a work-engaging sleeve disposed about and mounted directly upon the generally cylindrical central portion of the body and abutment portions carried by the body engaging the sleeve at the respective ends thereof and fastened to the body to maintain the sleeve in position axially of the body, at least one of said abutment portions interfitting with the sleeve and bearing against the sleeve circumferentially and axially only to hold the sleeve against turning relatively to the body.

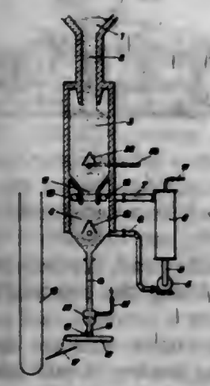
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2,772,873

## METHOD OF OPERATING PEBBLE-TYPE HEAT-CARRIERS

Friedrich Dannstadt, Frankfurt am Main, Paul Schmalfeld, Bad Homburg vor der Hohe, and Paul Rudolph, Oberhausen-Holten, Germany, assignors to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, Germany, a German corporation

Application January 30, 1952, Serial No. 268,988
Claims priority, application Germany February 2, 1951
5 Claims. (Cl. 263—52)



1. In a method for effecting thermal processes in which heat carriers are passed downward through at least one thermal process zone having a pressure in excess of atmospheric, the improvement for discharging the heat carriers from the zone while maintaining the operating pressure in said zone, which comprises establishing a long, narrow, downward discharge path for heat carriers from said zone, and passing heat carriers out of said zone through said discharge path while, simultaneously therewith, passing gaseous medium under pressure through said discharge path in co-current flow with said heat carriers.

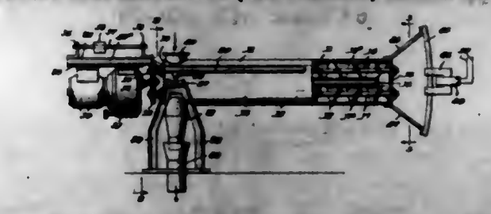
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2,772,874

## APPARATUS FOR CONTROLLING FLOWABLE SOLID MATERIALS

Carl W. Brabender, Minneapolis, Minn., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware

Application June 6, 1950, Serial No. 166,442
16 Claims. (Cl. 265—29)



1. Continuous weighing apparatus having a weighing beam comprising an elongated casing containing conveyor means, tubular inlet means disposed on top of said casing for gravitationally supplying material to be weighed to said conveyor means, tubular outlet means disposed at the bottom of said casing coaxial with said tubular inlet means for gravitationally discharging weighed material therefrom, fulcrum means for pivotally supporting said casing along a transverse axis which extends intermediate said inlet and outlet means and intersects a line coinciding with the axes thereof, said tubular inlet and outlet means forming in said casing open areas respectively above and below said conveyor means which extend relative thereto and longitudinally thereof substantially equally from either side of the axis of the respective inlet and outlet means so as to direct the respective gravitationally moving material supplied to said conveyor means and moving for discharge therefrom in substantially vertically effective flows along either side of the transversally extending axis of said fulcrum means to cause said fulcrum means to absorb positive and negative impacts produced by said material respectively supplied to said conveyor means and moving therefrom.

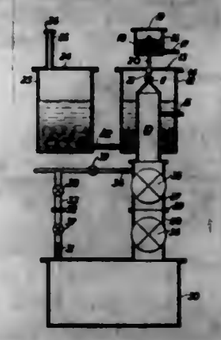
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2,772,875

## PRODUCTION OF PURE TITANIUM AND ZIRCONIUM

Joseph Peppo Levy, Acton, London, England

Application February 18, 1953, Serial No. 337,475
5 Claims. (Cl. 266—33)



1. Apparatus for the production of pure titanium which comprises an upright reaction vessel, the upper part of which is surrounded by a closed vessel for holding boiling magnesium, said reaction vessel converging at the top above the level of the molten magnesium in the outer vessel in a venturi throat and disposed centrally above the latter, an inlet pipe passing through the cover of the outer vessel and terminating in a nozzle, said inlet pipe being connected to a supply of argon, the said reaction vessel being also provided with an inlet for titanium tetrachloride passing through the sides of the outer vessel and the reaction vessel and terminating within the latter at a point below the venturi throat, the lower part of the reaction vessel opening into a cooling vessel and receiver, the said cooling vessel and the receiver being provided with an outlet for carrying away argon and excess titanium tetrachloride.



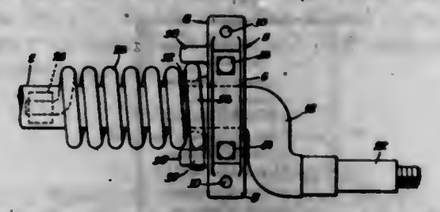
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2,772,876

## AXLE BRACKET

Bernard J. McGuire, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Application July 22, 1953, Serial No. 369,560
8 Claims. (Cl. 267—58)



7. As an article of manufacture, a bearing base for use in an axle asembly of the type described, said base partially defining a journal opening, lugs fixedly secured to the base on opposite sides of the opening, a spring shelf disposed between and spaced from said lugs, said lugs extending from one side of said base to engage a coil of a spring against said shelf, said base being formed and arranged for use on either end of said axle assembly.

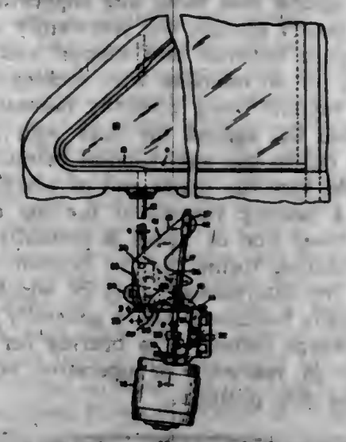
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2,772,877

## POWER OPERATED MECHANISM FOR VEHICLE BODY VENTILATOR WINDOWS

Joseph Pickles, Dearborn, Mich., assignor to Ferro Stamping Company, Detroit, Mich., a corporation of Michigan

Application October 18, 1954, Serial No. 462,821
7 Claims. (Cl. 268—120)



1. A power operated ventilator window assembly comprising a pivot shaft supported for rotation about a substantially vertical axis, a ventilator fixed to said pivot shaft and movable by said shaft about its axis, a first toothed sector fixed to said pivot shaft and occupying a plane perpendicular thereto, a mounting bracket, an electric motor having a drive shaft, a threaded shaft coupled to said drive shaft, means mounting said motor, drive shaft, and threaded shaft on said bracket for limited rocking movement with respect thereto in a plane containing said drive shaft and threaded shaft which plane is substantially parallel to the axis of said pivot shaft, a nut on said threaded shaft, a second toothed sector pivotally mounted on said bracket for rocking movement about an axis perpendicular to and intersecting the axis of said pivot shaft, the teeth of said sectors being meshed, and an operating arm on said second sector pivotally secured to said nut.

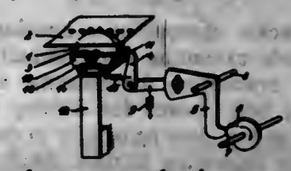
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2,772,878

## DEVICE FOR ADVANCING TAPE RECORDS IN TELEGRAPH APPARATUS

Herbert Wüsteney, Munich-Thalkirchen, Josef Bauder, Munich-Solln, and Robert Stubenau, Berlin-Spandau, Germany, assignors to Siemens & Halske Aktiengesellschaft, Berlin and Munich, Germany, a corporation of Germany

Application October 9, 1952, Serial No. 313,962
Claims priority, application Germany October 29, 1951
2 Claims. (Cl. 271—2.4)



1. In a telegraph apparatus having a perforated tape, a device for advancing said tape step-by-step and for controlling and securing the stepwise advance thereof substantially free of blacklash, said device comprising a stationary shaft, a sprocket wheel freely rotatable on said shaft, said sprocket wheel having teeth for engaging perforations in said tape, a pawl disposed alongside said sprocket wheel, means for resiliently biasing said pawl in a direction radially inwardly of said sprocket wheel to cause the free end thereof to assume a normal position between two adjacent sprocket teeth, means for reciprocating said pawl to impart thereto successive drive strokes during each of which said pawl exerts a driving force on a sprocket tooth engaged thereby so as to rotate said sprocket wheel by one step and to advance said tape accordingly, said pawl sliding during the return stroke thereof along a sprocket tooth to its normal position from which it is subsequently moved to execute the next successive drive stroke thereby exerting a force on said sprocket wheel tending to rotate it in opposite backlash direction, and a movable generally semicircular generally flat brake member in resilient frictional engagement with one side of said sprocket wheel along an area thereof which includes only a portion thereof lying below said stationary shaft to counteract said backlash force so as to hold said sprocket wheel in any angular position to which it had been advanced during the corresponding drive stroke of said pawl.

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2,772,879

## AUTOMATIC CENTERING APPARATUS

Edwin T. Lorig, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application September 17, 1953, Serial No. 380,646
3 Claims. (Cl. 271—2.6)



1. Apparatus for automatically centering an object passing thereover comprising a rotatable member having an outer peripheral surface adapted to contact said object, said member having a radial separation on a trans-

verse central plane extending to its outer periphery, a plurality of flexible laminations of one material on its outer periphery arranged on both sides of said transverse central plane, means for causing said laminations to rotate in unison, said laminations normally being in contact with one another but being movable with respect to each other and being inclined radially toward the axis of the roll away from the said transverse central plane.

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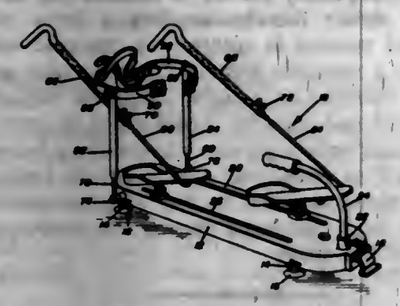
**2,772,880**
**SHEET STACKER**
**Elmer E. Garrett, Freeport, N. Y., assignor, by mesne assignments, to E. G. Staude Manufacturing Company, Inc., Concord, N. H., a corporation of New Hampshire**
**Application March 5, 1953, Serial No. 340,586**
**5 Claims. (Cl. 271—74)**



1. A sheet stacker comprising a housing having a slot in its bottom side extending longitudinally of the housing, means for evacuating the housing, an endless perforated stacking belt, means for driving the belt longitudinally under and in close proximity to the said slot, conveyor means for delivering flexible sheets in overlapped relation to the underside of the receiving end of said belt whereby the leading exposed portion of each sheet is successively held against the belt by suction as it passes underneath the slot and is released from the belt as it leaves the slot, and stop guides for the sheets disposed angularly with respect to the path of said belt and sheets, one of said stop guides being parallel to the leading edge of the sheets and located in advance of the slot a distance substantially equal to the length of the leading exposed portions of the sheets.

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**2,772,881**
**EXERCISING APPARATUS**
**Earl H. Fundeen, West Liberty, Ohio; Doris Jane Fundeen, executrix of said Earl H. Fundeen, deceased**
**Application January 21, 1954, Serial No. 405,276**
**6 Claims. (Cl. 272—58)**



1. An exercising apparatus comprising a base having a pair of spaced slots therein, a pair of pulleys rotatably mounted below said base, an endless belt entrained about said pulleys with bight portions of said belt positioned below said slots and in alignment therewith, clamp members engaging said bight portions and extending upwardly through said slots, and pedals adjustably pivotally mounted on said clamp members.

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**2,772,882**
**BALL HOLDER**
**Robert F. Anson, Delaware, Ohio**
**Application September 28, 1953, Serial No. 382,560**
**1 Claim. (Cl. 273—26)**

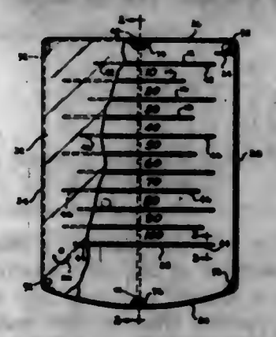
For use in sports apparatus, a ball holder comprising a bag having an open upper end permitting ingress and egress of a ball, a drawstring carried by an upper part of said bag selectively reducing the size of said open upper end to retain a ball in said bag, opposed straps secured to said bag and projecting upwardly from said



upper part as a continuation thereof, and aligned eyes in the ends of said straps for receiving an attaching member.

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**2,772,883**
**TILTING GAME BOARD**
**Joseph J. Schigas, Erie, Pa., assignor to Louis Marx & Company, Inc., New York, N. Y., a corporation of New York**
**Application March 6, 1953, Serial No. 340,843**
**4 Claims. (Cl. 273—110)**



3. A rockable ball-control game device comprising a single generally upright body of molded transparent plastic comprising a front wall and edge walls, a series of collateral shelf-like guide walls terminating at both ends short of the edge walls for passage of a ball, the ends of some of said walls being offset relative to the ends of others to permit rolling of a ball from an upper shelf to a lower shelf, said shelves being formed integrally with the front and edge walls and projecting rearwardly therefrom, a back wall stamped out of sheet material appropriately printed with score values, means to secure the back wall in position, and a support projecting rearwardly from the back wall of the game device for bearing against said table and supporting the game device in a nearly upright but rearwardly sloping position, the contact between said support and table being so limited as not to interfere with rocking of the game device, said support being pivotally mounted so that it may be folded flat against the back wall of the game device when not in use, said support comprising a piece of heavy rigid wire the upper end of which is pivotally received in a bearing formed at the top of the game device, the lower end of which is pivotally received in an aligned bearing formed at the bottom of the game device, and the intermediate part of which is bent to form a generally horizontal and a generally upright side, and detent means formed at a bearing for holding the wire support in rearward or operative position when turned out to that position.

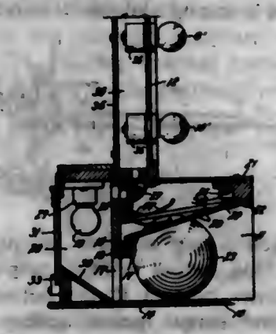
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**2,772,884**
**SIMULATED BOWLING GAME DEVICE**
**Robert Harvey Galbreath, Denver, Colo.**
**Application September 14, 1953, Serial No. 379,841**
**7 Claims. (Cl. 273—127)**

1. A simulated bowling game comprising: an elongated housing adapted to be positioned transversally of the path of a rolling ball; a plurality of aligned illuminated target windows in said housing; an elongated open-fronted,



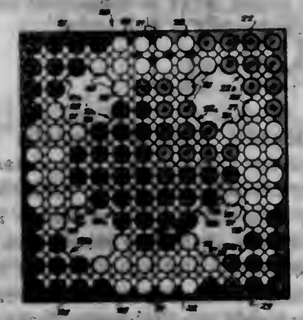
ball-receiving chamber positioned forwardly of said windows; a floor in said chamber; a plurality of hinged flaps forming the ceiling over said ball-receiving chamber, there being one of said flaps positioned forwardly of and above each window, said flaps being positioned relative to said floor so that when said ball rolls onto said floor, it will



wedge between the floor and one of said flaps so as to force the flap upwardly; signal lamps; and an electric switch positioned to be actuated in consequence of the upward movement of each of said flaps, each of said switches being in circuit with one of said signal lamps so as to give an indication when the flap associated therewith is swung upwardly.

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**2,772,885**
**GAME APPARATUS**
**George F. Wales, Kenmore, N. Y.**
**Application December 15, 1952, Serial No. 325,999**
**1 Claim. (Cl. 273—131)**

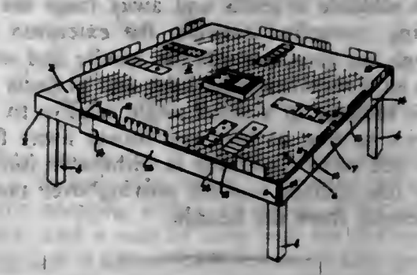


A game apparatus comprising a gameboard having a generally polygonal playing surface comprising a central area divided into a plurality of spaces for movement of gamepieces, and a plurality of corner areas disposed wholly outside said central area and each divided into a number of spaces for gamepieces, the number of spaces in the several corner areas being equal, said central area being divided into as many sections as there are corner areas, each section having as many spaces as a corner area, the spaces in each corner area being triangularly arranged with the space which constitutes the apex of the triangle being disposed in a corner of the playing surface, the spaces in each section also being triangularly arranged, each of the several corner areas bearing different indicia differing from the indicia borne by other corner areas, and each of the several center sections bearing different indicia differing from the indicia borne by the other center sections, but the indicia of the different center sections being the same as, respectively, the indicia of the several corner areas, respectively, the triangle, in which the spaces of a center section are arranged, being inverted with reference to the triangle, in which the spaces of the corner area, which bears the same indicia, are arranged, the base of the triangle of each center section being parallel to the base of the triangle of the corner area which bears the same indicia, and the spaces constituting the apices of the two triangles which bear the same indicia being remote from one another, and a plurality of gamepieces for playing a game on said gameboard, said gamepieces being divided into as many sets as there are corner areas of the gameboard, each set of gamepieces bearing the same indicia but the different sets of gamepieces bearing indicia differing, respectively, from the indicia borne by the other sets of gamepieces, and the indicia of the several sets of gamepieces being, respectively, the same as the indicia borne by the several corner areas, respectively.



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**2,772,886**
**CARD TABLE COVERS**
**Walter B. Parmele, Minnetonka Beach, Minn.**
**Application November 10, 1954, Serial No. 468,046**
**2 Claims. (Cl. 273—136)**



1. A flexible attachment for a card table, said card table having a flat top surface bounded by a surrounding narrow edge portion depending vertically therefrom, said edge portion having a plurality of straight side portions and a vertically disposed corner at each juncture of said side portions, comprising: a flexible skirt formed to overlie and snugly fit said edge portion all around said table, said skirt comprising a plurality of sections, one for each of said side portions, each said section comprising an inner wall for overlying one of said side portions and an outer wall attached to the lower edge of said inner wall and extending upwardly therefrom substantially the height of said inner wall, said outer wall being attached to said inner wall between the top and bottom thereof at points spaced along said section to form narrow vertically disposed pockets open at the top and adapted to hold playing cards with their upper portions extending above the top of said section so that the indicia of said cards is visible, said section having opposite end edges shaped to lie rsepectively along the vertically disposed corners at the opposite ends of said one of said side portions, and means for holding said skirt against said narrow edge portion with each said skirt section end edge in position closely adjacent the respective corners of said edge portion.

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**2,772,887**
**INSTRUCTIONAL DEVICE FOR USE IN CONNECTION WITH BALL GAMES**
**Minden Vaughan Blake, London, England**
**Application October 30, 1953, Serial No. 389,383**
**Claims priority, application Great Britain November 12, 1952**
**7 Claims. (Cl. 273—186)**

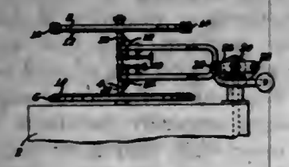


1. A device for discovering the way in which a player swings a club, bat, racket or the like comprising a handle, a parallel-sided hollow extension of the handle rigidly connected to the handle and having an axially-extending slot in the wall thereof, a weighted ring slidably mounted on the extension for movement towards and away from the handle, a movable stop located on the extension and provided by at least one member one end

of which, in one position, is spring urged to project through said slot such that the end lies in the path of the weighted ring and in another position the end is withdrawn into said extension such that it lies out of the path of said ring, a fixed abutment on the extension which fixed abutment is located on the side of said movable stop remote from said handle and projects from the surface of the extension into the path of the weighted ring so as to prevent said ring sliding off the extension, and automatic control means connected to the other end of said member and operative to move said member so that the first said end lies out of the path of the weighted ring at a particular angular velocity, which automatic control means comprises a mass connected to said other end of said member, which mass is contained within said extension and is slidable towards and away from the handle, and a spring connected between the extension and the mass to urge the mass towards the handle and wherein a surface on said member, when the end projects through said slot, is inclined at a small angle relative to the axis of the device so that as the mass moves away from the handle the end of said member is withdrawn into the extension by the inclined surface moving over the end of said slot remote from the handle.

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2,772,888
## MANUFACTURE OF STEREOPHONIC PHONOGRAPH RECORDS
Daniel P. Doncaster, Long Island City, N. Y., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York
Application December 18, 1952, Serial No. 326,706
11 Claims. (Cl. 274—46)



1. The method of manufacturing a phonograph record of flat disk shape having on its opposite faces two stereophonically related recordings adapted to be played back with reproducing styli engaging said record along a line parallel to the axis thereof which comprises cutting spiral sound grooves in two master records rotated at the same angular speed by transducers energized with trains of oscillations respectively representative of stereophonically related versions of the same sounds, stereophonically related oscillations in said trains arriving simultaneously at the styli of said transducers, cutting in said master records phasing grooves by means of transducers energized with trains of substantially sinusoidal oscillations of a common audio frequency and of known phase relation at said transducers and having a discontinuity of time separation known to a tolerance not exceeding one cycle of said frequency, no other than equal angular rotations of said master records intervening between the cutting of said spiral sound grooves and phasing grooves, reproducing the trains of sinusoidal oscillations represented by the phasing grooves, and indexing said master records in accordance with the trains of sinusoidal oscillations at points of known spacing circumferentially of said master records with respect to stereophonically related undulations in said spiral grooves.

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2,772,889
## WHEELED SUPPORT FOR CONTAINERS
Scott E. Reynolds, Sunnyvale, Calif.
Application March 10, 1955, Serial No. 493,345
5 Claims. (Cl. 280—35)

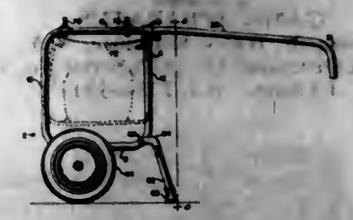
1. A wheeled support for a can-type container having a downwardly extending bottom flange thereon, comprising a plurality of radially extending arms, means pivotally connecting the inner ends of said arms to each other, a caster mounted on the outer end of each arm, each caster comprising a pintle mounted on the arm and extending upwardly therefrom, a caster support wheel swiveled to each pintle, a clamp member mounted on the outer end of each arm and slidable relative to the caster



pintle thereon, each clamp member having an upwardly extending jaw portion spaced from its respective pintle to receive the container bottom flange between the flange and the pintle, and screw means acting between each pintle and its clamp member to move the jaw portion relative to the pintle to grip the container bottom flange therebetween.

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2,772,890
## MAIL SACK CARRIER CART
Frank A. Gastright, Fort Lauderdale, Fla., assignor, by mesne assignments, to Morris Weintraub, Newport, Ky.
Application May 26, 1954, Serial No. 432,555
4 Claims. (Cl. 280—40)



1. A foldable cart adapted normally to be rolled along the ground for transporting a mail sack of the type utilized by letter carriers, and being foldable to fit within a mail or relay box, comprising a frame having spaced upper and lower bars extending lengthwise of the direction of cart movement and spaced front and rear bars respectively joined to the upper and lower bars, a pair of wheels, deformable parallelogram linkage retractably mounting said wheels on the lower bar for swinging between an extended position in which said wheels extend downwardly and outwardly from the lower bar and a retracted position in which said wheels are disposed upwardly from the lower bar and inwardly alongside said frame, a handle, means for removably attaching said handle to the frame adjacent the juncture of the upper and rear bars, a retractable ground-engaging post pivoted to said frame adjacent the juncture of the lower and rear bars, said post being pivoted between an extended position in which it extends downwardly from the frame and a retracted position in which it lies alongside the frame, and a pair of spaced pegs extending upwardly from the top bar for hangingly supporting an upper portion of a mail sack whereby the body of the sack hangs downwardly alongside the frame.

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2,772,891
## VEHICLE SPRING AND END CONNECTION ARRANGEMENT
Fred D. Bonnin, Malaga, Calif.
Application April 1, 1955, Serial No. 498,554
3 Claims. (Cl. 280—124)

1. In a spring suspension system for a vehicle having an elongated leaf spring having transversely flat upper and lower surfaces and opposite end portions, means pivotally mounting the spring intermediate its ends in supporting relation on the vehicle with the ends of the spring



forwardly and rearwardly extended from the mounting means, means interconnecting the forward end portion of the spring and the vehicle resiliently resisting pivotal movement of the spring, and an axle transversely disposed beneath the rearward end portion of the spring, said rearward end portion of the spring being of substantially uniform thickness for an appreciable distance forwardly from the extreme rearward end thereof; the combination of a bearing bracket mounted on the axle in supporting relation to the rearward end portion of the



spring, said bracket having a pocket therein defined in part by a flat bottom wall receiving the spring flatly thereagainst and a transversely downwardly convex top wall engageable downwardly against the upper surface of the spring along a line longitudinally of the spring, and means connected to the bearing bracket and to the vehicle holding the bearing bracket against sliding movement longitudinally of the spring but accommodating rocking movement of the bracket transversely of the spring.

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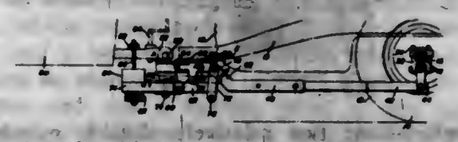
2,772,892
## LOAD DISTRIBUTING GOOSENECK FOR LOW BED TRAILER
Glenn F. Hake and James D. Hake, Philadelphia, Pa.
Application December 6, 1954, Serial No. 473,186
6 Claims. (Cl. 280—405)



1. A tractor-trailer train comprising a low bed trailer adapted to carry heavy loads, said low bed trailer having a low hung platform supported by a front extension and a rear extension integral with said low bed trailer, spring means positioned at the rear end of said platform, a fulcrum support on said rear extension of the low bed trailer, a walking beam supported on said fulcrum, said walking beam having its front end extending over said spring means, said spring means being adapted to exert a predetermined upward thrust on said walking beam, the rear end of said walking beam being provided with a fifth wheel, said fifth wheel being supported upon a wheeled vehicle for supporting the load transmitted by said walking beam.

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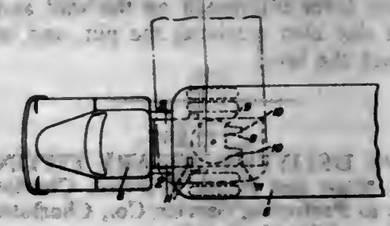
2,772,893
## LOAD EQUALIZING TRAILER HITCH
Lee Emile Wettstein, Madison, Ind.
Application July 23, 1954, Serial No. 445,247
6 Claims. (Cl. 280—406)



1. A trailer hitch comprising a bifurcated frame, hinge members adapted to connect said frame to the axle housing of a vehicle, a reach member longitudinally adjustable on said frame, a hinge bar vertically swingable on the end of said reach member, a hook bar mounted on said hinge bar to swing therewith, a transverse bar on said hook bar adapted to engage the frame of a vehicle, a toggle arm hingedly connected to said reach member and to said hinge bar, said toggle arm extending rearwardly of said hook bar, a resilient connection adjacent the end of said toggle arm adapted to adjustably engage a trailer, and a hitch member on said hook bar for coupling to a corresponding hitch member on a trailer tongue.

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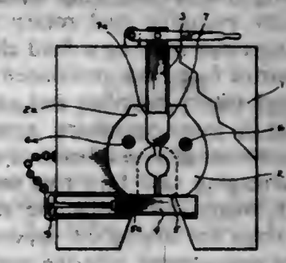
2,772,894
## FIFTH WHEEL STOP FOR TRACTOR TRAILERS
William K. Oats, Claremore, Okla.
Application August 25, 1954, Serial No. 452,080
1 Claim. (Cl. 280—432)



A safety device for a tractor trailer combination including a forked fifth wheel coupling carried by the tractor for coupling with a pivot pin at the underside of the trailer, and a pair of stop lugs on the underside of the trailer and at substantially diametrically opposite sides of the pivot pin and engageable with opposite sides of the fork of the coupling to limit turning movement of one part of the tractor trailer combination relative to the other.

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2,772,895
## FIFTH WHEEL SAFETY LOCK
Walter D. Steeves and Raymond V. Meaden, Vancouver, British Columbia, Canada
Application October 19, 1954, Serial No. 463,209
2 Claims. (Cl. 280—432)



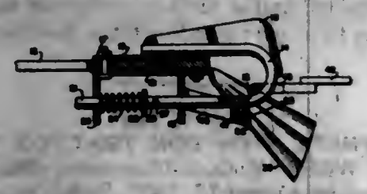
1. In a coupling means for a trailer and tractor vehicle having a fifth wheel plate on the tractor vehicle and a king pin on the trailer for engagement in a slot in the fifth wheel plate, a pair of parallel clamping members pivotally mounted intermediate their ends on the fifth wheel plate having jaws in the confronting edges of their forward ends for engagement with the king pin of the trailer, a locking bar slidably mounted on the fifth wheel plate for longitudinal movement between the rear ends of said clamping members to hold the forward ends of said clamping members in engagement with the king pin, and a second locking bar slidably mounted on said fifth wheel plate for transverse movement across the slot of the plate in bearing engagement with the forward ends of said clamping members for holding said members against pivotal movement.

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2,772,896
## SELF-COUPLING TRACTOR HITCH MEMBER OPENED BY COMPLEMENTARY HITCH MEMBER
Ronald J. Kemper, Defiance, Ohio
Application April 14, 1954, Serial No. 423,125
2 Claims. (Cl. 280—510)

2. A hitch comprising complementary coupling members, a wall rigidly connected to one of said coupling

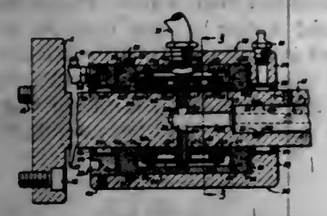
members, a keeper biased to a closed position on said one member, a pin laterally projecting from the keeper, said wall adjacent the keeper having a guide slot through



which the pin projects and moves back and forth with the keeper, a trip lever fulcrumed on the wall and having a curved cam slot also receiving the pin, and means connected to rock the lever.

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**2,772,897**
**SIDE DELIVERY ROTARY FITTING**
**Harmon L. Shaw and Frank E. Frost, Charlotte, N. C., assignors to Perfecting Service Co., Charlotte, N. C., a corporation of North Carolina**
**Application July 27, 1953, Serial No. 370,590**
**6 Claims. (Cl. 285—190)**



1. A side delivery rotary fitting comprising a housing, a rotary member mounted in and extending through said housing and having a fluid passageway therein communicating with the interior of said housing, a pair of spaced combination sealing and bearing rings fixed in said housing and frictionally engaging said rotary member, said sealing and bearing rings defining a fluid chamber within said housing, a pair of face rings positioned in said chamber and about said rotary member and each having an annular groove in its inner periphery, a resilient O-ring positioned in the annular groove of each of said face rings and frictionally engaging said face ring and said rotary member, resilient means contacting the proximate surfaces of the face rings and urging the opposed surfaces of the face rings into engagement with the sealing and bearing rings, a drive drum positioned around said rotary member, means connecting the rotary member and the drive drum, the drive drum being keyed to the external surfaces of the face rings to cause the same to rotate with the rotary member while permitting axial movement relative thereto, and means for introducing fluid through said housing and into said fluid chamber.

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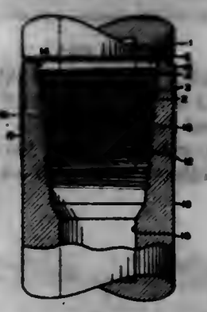
**2,772,898**
**QUICK DISCONNECT COUPLING FOR HIGH PRESSURE GAS OR LIQUID**
**Henry W. K. Seeler, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force**
**Application August 30, 1951, Serial No. 244,445**
**2 Claims. (Cl. 285—190)**
**(Granted under Title 35, U. S. Code (1952), sec. 266)**



1. A coupling for connecting conduits carrying a high pressure fluid comprising, a male member having a first and a second cylindrical member in axial alignment separated from each other by a first groove, said first cylindrical member having a diameter slightly smaller than said second cylindrical member, said male member having a first bore connecting with said first groove and adapted to be connected with a conduit, a female member having second and third bores slidably receiving said first and second cylindrical members on said male member, a second groove in said female member radially disposed about said first groove in said male member when in coupled relationship, a fourth bore within said female member adapted to be connected to a conduit, means forming a passage between said second groove and said fourth bore, whereby pressure within said first and second grooves tends to separate said male and female members by a force proportional to the difference in the diameters of said first and second cylindrical members on said male member, and quick release means for releasably securing said male and female members together.

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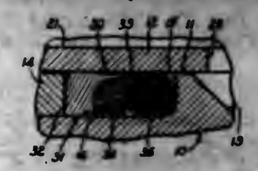
**2,772,899**
**THREADED OIL WELL DRILL STEM CONNECTION WITH THE THREADS HAVING INCLUDED CREST ANGLE OF 90 DEGREES**
**Seth Evans, Houston, Tex., assignor to Hughes Tool Company, Houston, Tex., a corporation of Delaware**
**Application May 15, 1948, Serial No. 27,247**
**3 Claims. (Cl. 285—333)**



3. An improved oil well drill stem threaded connection of the shouldered pin and box type comprising, interfitting, tapered pin and box members having complemental transverse radial shoulders in compression when the joint is made up, interfitting V-type threads on said members, the flanks of the threads on the members being complemental and adjacent flanks on each member converging at an angle of approximately 90°, whereby tightness in excess of a predetermined minimum is maintained after relaxation of the made up connection.

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**2,772,900**
**SEALING DEVICE**
**Rodney B. Campbell, Glendale, Calif., assignor, by mesne assignments, to Wm. R. Whittaker Co., Ltd., Los Angeles, Calif., a corporation of California**
**Application January 2, 1953, Serial No. 329,385**
**3 Claims. (Cl. 286—26)**



1. In combination: two relatively slidable members one having therein a groove which faces the other of said members and which extends transversely of the direction of relative sliding movement of said members, said groove having bottom and side walls; a sealing element of substantially L-shaped cross section disposed in said groove, said sealing element having a rigid base which engages the bottom wall and a side wall of said groove and having a flexible, resilient flange provided



with a concave side which faces and engages said other member, said base and said flange including substantially a right angle therebetween and providing a recess therebetween; and a compressible packing element in said recess and engaging the other side of said flange and the bottom wall of said groove, said packing element being compressible toward said base under pressure existing between said members so as to expand transversely of said direction to deflect said concave side of said flange into sealing engagement with said other member and to flatten said concave side of said flange against said other member.

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**2,772,901**
**WINDOW REGULATOR CONNECTING MEANS**
**John H. Roethel, Coral Gables, Fla.**
**Application November 24, 1954, Serial No. 470,856**
**2 Claims. (Cl. 287—3)**



1. Connecting means for an end of a swinging regulator arm having a transverse stud secured to the end of the arm, comprising a unitary member having a front vertical wall formed with a longitudinal channel to provide vertically spaced upper and lower longitudinally extending generally horizontal bearing walls terminating at their outer edges in a single upright back wall joining said edges together, said back wall being formed with a longitudinal slot receiving said stud, a bearing element, said bearing element comprising a cup shaped cylindrical member having its outer cylindrical surface in bearing engagement with said bearing walls, a flange portion engaging the front wall of said unitary member and a sleeve portion journalling said cylindrical bearing means on said stud, and spring means carried by said stud between said regulator arm and an interior portion of said cylindrical member, said spring means overlying said sleeve portion and maintaining the regulator arm in spaced relation to said unitary member and holding said bearing element within said bearing surfaces.

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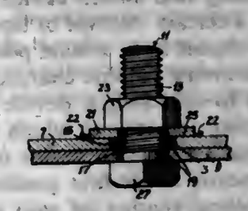
**2,772,902**
**SWIVEL CONNECTOR**
**Franklin C. A. Lind, Randolph, Minn.**
**Application August 20, 1952, Serial No. 305,447**
**5 Claims. (Cl. 287—91)**



1. A swivel connector for joining in relatively rotatable relation two articles such as a fishline and a fish lure which comprises a body having a fastener at one end and a bearing surface at the other end, a spindle having an elongated and reduced shank with a fastener at one end and a bearing point at the opposite end thereof, at least one of said spindle bearing point and said body being magnetized and the other being constructed of magnetically attractable material, the spindle bearing point and the body bearing surface normally being in low friction rotative bearing contact, casing means attached to said body and surrounding said spindle in close clearance therewith and in opposed relation with respect to the spindle bearing point at the elongated and reduced shank, whereby, upon divergently pulling the respective fasteners of the body and of the spindle, the spindle bearing point and the bearing surface will be separated and the casing and the spindle will be brought into rotative bearing engagement.

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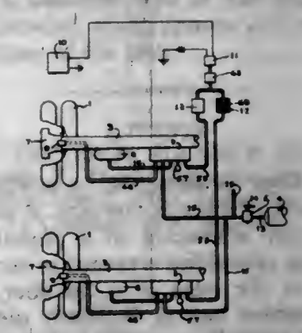
**2,772,903**
**SEALING MEMBER**
**Paul S. Sussenbach, Brentwood, Mo., assignor, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois**
**Application January 17, 1951, Serial No. 206,358**
**1 Claim. (Cl. 288—20)**



A sealing member for use with a fastener such as a screw fastener, comprising a washer formed of a soft, tacky, extrudable sealing material having such plasticity that it maintains its shape under normal handling but which will cold-flow under pressure with permanent deformation, with the flow characteristic of the sealing material such as to permit cold extrusion thereof into voids around a fastener and from between metal parts that are forced together by the fastener, said sealing material consisting of approximately 8.4 parts by weight of a copolymer of butadiene and styrene containing 23.5% styrene, 8.4 parts by weight of polyisobutylene having an average molecular weight of approximately 11,000, 56.8 parts by weight of blown asphalt having an MP of 240 and an NP of 2.5 mm., 0.3 parts by weight of trimethyl dihydroxy quinoline, and 26.1 parts by weight of filler.

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**2,772,904**
**BRAKE CONTROL APPARATUS**
**Charles Doolittle, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania**
**Application December 29, 1954, Serial No. 478,311**
**9 Claims. (Cl. 291—2)**



9. A brake control apparatus comprising, in combination, a brake application device operable in response to fluid pressure for effecting a brake application on a vehicle wheel and to relief of such pressure for releasing said brake application, a sanding device operable in response to electrical energization for causing sand to be discharged immediately in front of the vehicle wheel and in response to deenergization for stopping said discharge of sand, a fluid pressure operable switch device responsive to fluid pressure and to release of fluid pressure for effecting closing and opening, respectively, of an electrical circuit for energizing and deenergizing said sanding device, a source of fluid under pressure, conduit means providing for flow of fluid under pressure from said source to

said brake application device and said switch device, first valve means interposed in said conduit means and having a control chamber charged with fluid under pressure from said conduit means, said valve means including a unitary valve element operable, in response to fluid pressure in said control chamber, to a normal position in which fluid pressure may be supplied to said brake application device and cut off from said switch device and, in response to venting of fluid pressure from said control chamber, to a release position in which said brake application device is relieved of fluid pressure and said pressure switch is supplied with fluid pressure, timing means operable automatically for causing said switch device to maintain said circuit closed for a certain interval of time upon operation of said first valve means to its release position, said timing means including a timing volume charged with fluid under pressure supplied to said switch device and check valve means for restricting the rate at which fluid under pressure is vented from said switch device upon operation of said first valve means to its first position, second valve means for controlling venting of said control chamber, and a control device for operating said second valve means, said control device being responsive to a slipping of said wheel for operating said second valve means to cause venting of said control chamber and responsive to cessation of said wheel-slipping for operating said second valve means to a position in which venting of said control chamber is cut off.

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2,772,905

## DOOR LATCH MECHANISM

Leon F. Dusing, Kenmore, N. Y., assignor to Dusing and Hunt, Inc., Buffalo, N. Y.

Application July 14, 1954, Serial No. 443,219

7 Claims. (Cl. 292—36)



1. In a fire-door construction, a multiple latch bolt door locking arrangement comprising a main latch bolt assembly operably connected to a plurality of supplemental latch bolt assemblies arranged in vertically aligned relation adjacent the edge of a fire-door, each of the latch bolt assemblies having resiliently outwardly urged bolt means and pivotally mounted bell crank means having one arm of each thereof in engagement with said bolt means, the opposite arms of said bell crank means being pivotally interconnected by a link member for simultaneous movements thereof, said main latch bolt assembly being offset laterally away from the inside door face out of alignment with the supplemental latch bolt assemblies whereby the bolt means of said main latch bolt assembly will strike its keeper plate in advance of the arrival of the bolt means of the supplemental latch bolt assemblies at their respective keeper plates, whereby the bolt means in said main latch bolt assembly will be retracted upon striking its keeper plate and thereby simultaneously retract the bolt means of the supplemental latch bolt assemblies out of contact with their respective keeper plates.

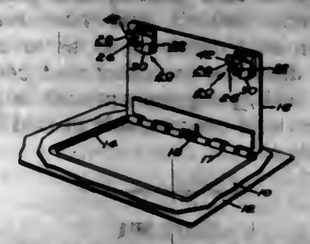
2,772,906

## LOCK FASTENER

Stanley W. Esmond, Buffalo, N. Y., assignor to Bell Aircraft Corporation, Wheatfield, N. Y.

Application October 26, 1953, Serial No. 388,117

2 Claims. (Cl. 292—212)



1. A fastener device for a door mounted in relation to a door frame comprising, an anchor block mounted adjacent the edge of the door and having upstanding shoulder means thereon, an elongated locking bar having a centrally located boss formed with a threaded aperture, and a screw journaled through the door and said anchor block and engaged in threaded relation with said boss through said locking bar member, whereby turning of said screw rotates said locking bar member within limits defined by said anchor block shoulder means to alternately engage and disengage a portion of the door frame, said anchor block being provided with stepped bearing lands adjacent said upstanding shoulder means thereof, said screw extending through the lower of said lands and one end of said locking bar member bearing on an intermediate land and the other end of said locking bar member bearing against the higher of said lands when said locking bar member is in door frame engaging position, whereby self-locking and self-unlocking of said locking bar member in door frame engaged position is facilitated and whereby continued turning of said screw after said locking bar member is in door frame engaging position will resiliently flex said locking bar member between its ends.

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2,772,907

## TOGGLE-OPERATED CLOSURE FASTENER

William F. Paste, Chicago, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application November 4, 1953, Serial No. 390,167

6 Claims. (Cl. 292—256.69)



1. A locking cover for a drum or the like having a depending peripheral skirt having spaced parallel tongues curled ends for the tongues, a flexible wire held in the said curled ends, the ends of the wire being formed as hooks, a toggle-plate overlying the skirt and having a depending outwardly offset central portion, laterally spaced bearings on the plate and a link connecting each bearing with a hooked end of the wire inwardly of said offset central portion.

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2,772,908

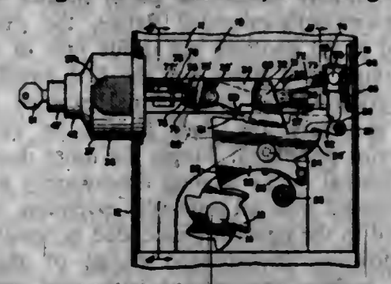
## VEHICLE DOOR LATCH

Burnie J. Craig, Pasadena, Calif.

Original application December 18, 1950, Serial No. 201,283, now Patent No. 2,705,884, dated April 12, 1955. Divided and this application March 7, 1955, Serial No. 492,611

3 Claims. (Cl. 292—280)

1. In a door lock, a base having a flange arranged at right angles thereto, a bolt pivoted on the base to rotate about an axis perpendicular to the base, a ratchet coaxial with the bolt pivot, bolt holding and releasing means engaging the ratchet for holding the bolt in engagement with a strike, a movably mounted release member, an actuating member, pivotal means supporting the actuating member on the release member, the actuating member being movable in a path to and from a locked position, the actuating member also being movable with the release member in a bolt releasing path, said holding and releasing means having an arm which has a tongue extending therefrom, said actuating member having a shoulder thereon, said tongue being normally disposed out of the path of the shoulder on the actuating member when the actuating member is in its locked position, said tongue being disposed in the path of said actuating member shoulder when the actuating member is in unlocked position for movement by the release member to bolt releasing position, means for moving the release member to bolt releasing position, a locking arm, means pivotally supporting the locking arm on the flange, means to hold the locking arm in either locking or in unlocking position, means including a shiftable member which has an upper finger engaging portion accessible from within the vehicle for moving the locking arm from locked to unlocked position and vice versa, the actuating member having a tongue at its free end, said tongue fitting in a



slot on the locking arm for moving the locking arm to and from locked position, said actuating member being effective to free the bolt holding and releasing means when it is moved while the locking arm is in unlocked position and said actuating member being ineffective to release the bolt holding and releasing means when it is moved while the locking arm is in unlocked position, said holding and releasing means including an ear directed towards said flange, an arm pivoted on said flange, the axis of said last mentioned arm being perpendicular to the flange, said arm including a portion engaging said ear, remote control means within the vehicle for rocking the last mentioned arm to move the holding and releasing means to bolt releasing position, said actuating member including a shoulder facing towards the ratchet and engageable with a portion of the holding and releasing means which faces away from the ratchet when the actuating member is in non-bolt releasing position and operable when the bolt is turned by engagement with a strike to restore the actuating member to unlocked position, said shoulder being disposed so that it is out of the path of the holding and releasing means portion which faces away from the ratchet and is inoperable when the actuating member is in locked position and is held in bolt releasing position, when the bolt is turned by engagement with a strike to move the actuating member to unlocked position.

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2,772,909

## BAG SEAL

Sigurd M. Mobert, Pompton Plains, N. J., assignor to E. J. Brooks Company, Newark, N. J., a corporation of New Jersey

Application December 21, 1954, Serial No. 476,634

3 Claims. (Cl. 292—308)

1. A sealing device for application to the mouth of a bag of flexible material for closing the same, comprising a deformable seal member having a pair of approximately parallel bores extending therethrough, an elongate, flexible shackle member, opposite end portions of which are extensible through said bores and an intermediate portion of which constitutes a loop which is extensible about the neck of a bag to which the device is applied, and a stiff guard member of thin sheet material between said seal member and said loop; said seal member having an arcuate, deformable arch, in contact with said guard member and extending from an outer side wall portion of one of said bores to an opposite outer side wall portion of the other of said bores, and said guard member having a substantially flat wall, in contact with said arch, with an elongate aperture therein through which said shackle member extends, said flat wall being approximately perpendicular to said bores and said aperture in the guard member being of a length less than the



distance between said opposite outer side wall portions of said bores at said arch and of a width less than the thickness of said arch; said shackle member being adapted to be tensioned tightly about such a bag neck, said seal member being adapted to be deformed to tightly grip portions of the shackle member extending through said bores, and the deformability of said arch of the seal member being such that, upon such tensioning of the shackle member and such deformation of the seal member, portions of said flat wall, defining opposite sides of said elongate aperture, become embedded in opposite side portions of said arch, causing an intermediate portion of the arch to protrude into said elongate aperture, and edges of the material of the guard member which define opposite ends of said elongate aperture being adapted to tightly pinch adjacent parts of the shackle member's end portions between said opposite end edges and said protruding portion of the arch.

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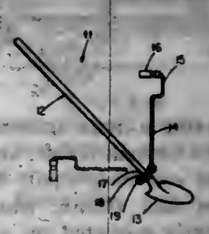
2,772,910

## AUXILIARY CONTROL HANDLE FOR SHOVELS

Orville K. Doyle, Fullerton, Calif.

Application May 4, 1953, Serial No. 352,839

4 Claims. (Cl. 294—58)

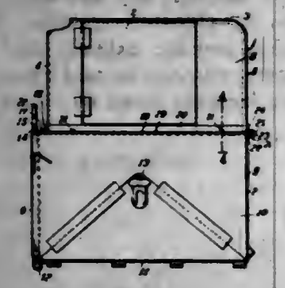


4. An auxiliary handle for use with a spade or the like, comprising an arm having provisions at one end for universal type connection to the handle of a spade, said arm being movable to a position in which it extends along the length of said spade handle, said arm having at its other end a pair of spaced substantially parallel laterally extending portions adapted to extend respectively on opposite sides of said spade handle, a plane including said laterally extending portions being inclined to a line ex-

tending between said other end of said arm and said provisions, and a grip secured to one of said laterally extending portions, said grip having a recess in which said spade handle may be seated.

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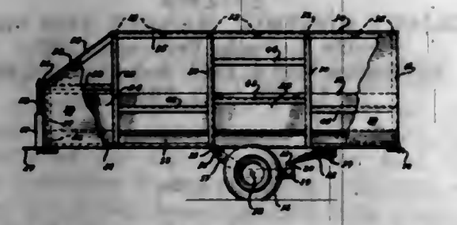
**2,772,911**
**ENCLOSED CONTAINERS**
**John Saylor Dempster, Knoxville, Tenn., assignor to Dempster Brothers, Inc., Knoxville, Tenn., a corporation of Tennessee**
**Application July 28, 1952, Serial No. 301,310**
**4 Claims. (Cl. 294—69)**



1. An enclosed container comprising top and bottom sections, each having surrounding side walls with enclosed top and bottom portions thereon, respectively, the front and end walls of the bottom section having inturned flanges thereon forming rims along the upper edges of said side walls, a bail connected with the bottom section of the container at the front thereof and extending therefrom for lifting and supporting the container, an angle bar fixed rigidly to the upper edge of the rear side wall of the bottom section with an outturned flange thereon, angle bars secured rigidly to the lower edges of the side walls of the top section and having outturned flanges seated upon the flanges on the bottom section, detachable fasteners extending through said flanges and detachably connecting the sections together for removal of the top section and permitting inversion thereof into nested relation within the bottom section, said bottom section including a drop bottom door hinged thereto and having means thereon for detachable engagement by a lifting vehicle.

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**2,772,912**
**COMBINATION BOAT CARRYING AND HOUSE TRAILER**
**Robert F. Neff, Phoenix, Ariz.**
**Application August 23, 1954, Serial No. 451,498**
**4 Claims. (Cl. 296—23)**



1. In a trailer having a main frame, a vertically movable bed, road wheels on said frame, and power means to vertically reciprocate said bed, a pair of horizontally disposed side rails on said frame, wheel carrying arms pivotally and resiliently mounted on said side rails having means to rotatably mount said road contacting wheels within the sidewise confines of said side rails, upstanding hollow wall frames on said side rails, a roof carried on said wall frames, outside wall panels secured to the outside faces of said wall frames, a floor in said bed, side walls rigidly secured to said bed closely fitting between the inside faces of said wall frames of said main frame so as to form a closure for the spaces in said hollow wall frames when said bed is in raised position, end cross members fixed transversely under the bottom of said bed, lug pieces on said side rails, and locking pins adapted to secure said cross members to said side rails to support said bed in raised position and restrain said side rails against relative horizontal transverse movement.

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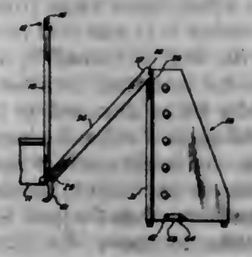
**2,772,913**
**SIDE STRUCTURES OF UTILITY TRUCK BODIES**
**James Howard Holan, Rocky River, and Herman J. Troche, Fairview Park, Ohio, assignors to J. H. Holan Corporation, Cleveland, Ohio, a corporation of Ohio**
**Application September 3, 1953, Serial No. 378,361**
**6 Claims. (Cl. 296—28)**



1. A truck body upper side structure comprising a panel formed at its upper end to buttress a body roof, said panel forming a rub rail and having a lower end inwardly-extended flange forming a drip molding, a second and substantially horizontal panel formed with an inner end downwardly-extended flange, the outer end of said second panel abutting the inside face of the first panel and serving as a brace for the first panel, and a body door having spaced longitudinal exterior and interior panel members, the door having an upwardly-extended exterior peripheral flange, the inner door panel having a peripheral flange sloping downwardly and outwardly and formed with an upwardly-extending terminal portion secured to the upwardly-extended peripheral door flange, the downwardly-extended flange of the brace panel having sealing engagement with said upwardly-extended exterior peripheral door flange inwardly of the drip molding, and the brace panel being formed with an inwardly-extending substantially horizontal door jamb part having a water block disposed within the vertical longitudinal planes defining said downwardly and outwardly-sloping inner door panel flange, whence water dripping from the water block falls freely and drains longitudinally along said inner door panel flange.

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**2,772,914**
**DETACHABLE END GATE APPARATUS**
**Elmer K. Hansen, Sioux City, Iowa**
**Application May 27, 1955, Serial No. 511,631**
**1 Claim. (Cl. 296—53)**



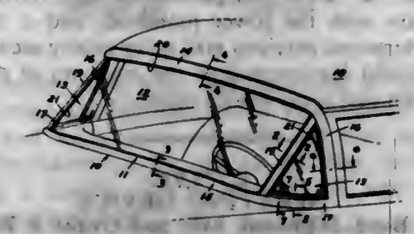
End gate apparatus for a wagon having an upright frame at one end thereof, said apparatus including an end gate structure movable to a first position supported in a back-to-back relation with said frame and to a second position supported on the ground, means for movably supporting said end gate structure for movement between said two positions therefor comprising a pair of link members, means pivotally connecting the upper ends of said link members to transversely spaced upper portions of said gate structure, other means for pivotally connecting the lower ends of said link members to



transversely spaced lower portions of said upright frame, with one of said connecting means being releasable to provide for the removal of said end gate structure from said frame, when said end gate structure is in said second position therefor, and means for releasably holding said end gate structure in said first moved position therefor.

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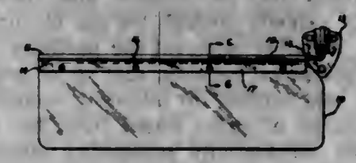
**2,772,915**
**WINDOW ASSEMBLY FOR VEHICLE BODIES**
**Donald G. Renno, Birmingham, Mich., assignor to Motor Products Corporation, Detroit, Mich., a corporation of New York**
**Application June 1, 1954, Serial No. 433,421**
**10 Claims. (Cl. 296—84)**



1. A vehicle body window assembly comprising a frame defining a window opening and having a member extending along the bottom of the opening and a member extending along each side of the opening, a ventilator panel supported within the opening for swinging movement about an upwardly inclined axis, a weatherstrip having a first part extending around the bottom frame member and one of said side frame members at the outer side of the frame to provide a weatherseal between the latter frame members and adjacent body structure, and a second part extending along the bottom frame member and said one of said side frame members at the inner side of the frame, a second weatherstrip coextensive with the second part aforesaid of the first weatherstrip and having portions engageable with the adjacent edges of the ventilator panel in the closed position of the latter to provide a weatherseal, and an interlocking connection between the second weatherstrip and the second part aforesaid of the first weatherstrip.

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**2,772,916**
**VISOR FOR VEHICLES**
**William R. Jones, Cleveland, Ohio, assignor of one-half to George F. Metzger, Cleveland, Ohio**
**Application August 16, 1954, Serial No. 450,099**
**5 Claims. (Cl. 296—97)**

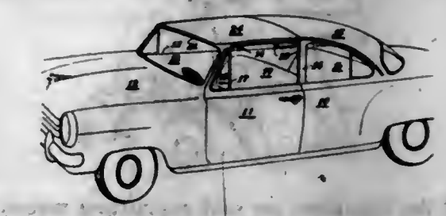


5. A sun shield for an automobile comprising a plate, a round rod for the support thereof, a channel enveloping said rod and mounted on said plate in straddled relation therewith and spring metal strips intermediate said plate and the flanged portions of said channel the upper edges of said strips being disposed in impinged relation with a portion of the side wall of said rod.

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**2,772,917**
**CONVERTIBLE HARD TOP AUTOMOBILE BODY**
**Ida Goldman, Youngstown, Ohio**
**Application December 28, 1953, Serial No. 400,720**
**1 Claim. (Cl. 296—137)**

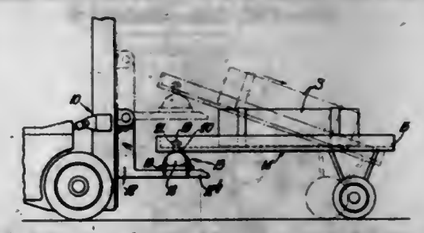
An automobile body having a fixed top portion, a fixed windshield portion and doors spacing said fixed portions longitudinally of said body, a frame defining said fixed windshield portion and having panel receiving formations on its upper inner edge, a hard top portion movably positioned in said fixed top portion for movement outwardly therefrom and inwardly thereinunder,



said fixed top portion having vertically spaced parallel guide rails on either side thereof for receiving and guiding said hard top portion, the lower rails being provided with rollers on their foremost ends and said ends comprising spring members normally urging said hard top portion upwardly.

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**2,772,918**
**DUMPING TRACTOR-TRAILER VEHICLE**
**William B. Klinger, Niles, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey**
**Application April 9, 1953, Serial No. 347,772**
**1 Claim. (Cl. 298—5)**



In combination, a truck which includes a vertically movable fork at its front end, said fork having a pair of horizontally spaced apart tines, a trailer which includes a floor and a pair of wheels adjacent the front end of said floor, the front end of said floor being unobstructed to permit a load to be dumped therefrom when the back end is lifted, and a device attaching said trailer to said truck, said device comprising a base plate bridging the space between said tines and being removably fastened to said tines, a hemispherical bearing affixed to the top of said base plate and having an upwardly curved spherical surface, a screw threaded vertically extending stud upstanding from the spherical surface of said bearing, said floor having an opening adjacent its back end loosely receiving said stud, and a fastener screw-threadedly engaged with said stud above said floor, the underside of said floor resting on the spherical surface of said bearing irrespective of the vertical position of said fork or the inclination of said floor to provide a positive support for the back end of the floor and for lifting it for dumping.

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**2,772,919**
**SUMP-TYPE CONTAINERS FOR TRANSPORTING AND DUMPING EQUIPMENT**
**Harry W. Jones, Knoxville, Tenn., assignor to Dempster Brothers, Inc., Knoxville, Tenn., a corporation of Tennessee**
**Application December 29, 1952, Serial No. 328,310**
**15 Claims. (Cl. 298—30)**

14. The combination with a vehicle, of a container, means on the vehicle for supporting the container in a position inclined toward the front of the vehicle, said container having a bottom hinged thereto substantially at the bottom of the front wall thereof, said bottom having a sump formed therein, and a wall extending upwardly from the door and outwardly away from the hinge

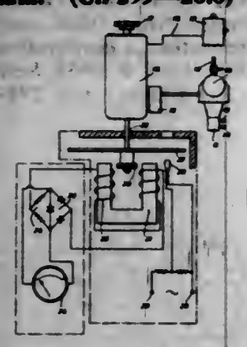
thereof forming a receptacle along said hinge edge open in the direction of the sump to receive liquid therefrom upon



tilting of the container on said supporting means toward the front of the vehicle.

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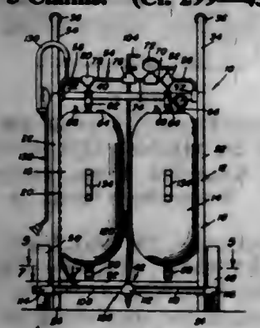
**2,772,920**
**HOT METAL SPRAY GUNS**
**William O. Lee, Stopsley, and Cledwyn Williams, Oakley, England, assignors to D. Napier & Son Limited, London, England, a British company**
**Application July 29, 1955, Serial No. 525,303**
**Claims priority, application Great Britain August 5, 1954**
**1 Claim. (Cl. 299—28.8)**



A hot metal spray gun comprising means for heating one end of a metal rod to a substantially molten state, means for supplying a blast of gas adjacent said end of the metal rod to project the molten metal in the form of spray, and means for feeding the metal rod progressively towards the heating means including a motor, at least one feed wheel bearing on the rod, and a reduction gear interposed between the motor and the wheel, and means for indicating the rate of feed of the metal rod comprising a dynamo-electric generator driven directly by the feed motor at the same speed and an electrical indicator device comprising an electric motor selected from the class including voltmeters and ammeters to which the output from the generator is led.

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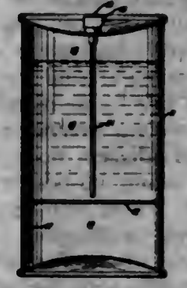
**2,772,921**
**GARDEN SPRAYING DEVICE**
**James R. Nance, Winchester, Ind.**
**Application December 5, 1955, Serial No. 551,032**
**5 Claims. (Cl. 299—43)**



1. A portable sprayer assembly comprising a hand-truck type wheeled frame, a first transverse manifold extending across a lower portion of said frame, first and second tank members supported in side-by-side relation on said frame, means detachably securing lower end portions of said tank members on said manifold and permitting communication between the first of said tanks and the manifold, a second transverse manifold removably supported across an upper portion of said frame, means detachably connecting upper end portions of the tank members to said second manifold and permitting communication therebetween, means on the first tank permitting said tank to be filled with a liquid to be sprayed, means on the second tank permitting said tank to be pressurized, first valve means interposed between the second tank and the second manifold for controlling pressure communication to said second manifold, said valve means interposed between the first tank and the first valve means controlling the pressure directed to said first tank, spray nozzle means supported on the lower end portion of said frame in communication with the lower manifold, and a third valve means interposed between said spray nozzle means and the first manifold for controlling the emission of pressurized liquid from said spray nozzle means.

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**2,772,922**
**SPRAYING DEVICE**
**Loyd Q. Boyd, Highland, Ind., and Griffin J. Baker, Lansing, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana**
**Application January 31, 1955, Serial No. 485,260**
**1 Claim. (Cl. 299—95)**



A hand spraying device for spraying liquid by means of a liquefied propellant, which device comprises a vertical, closed container having top and bottom closures, a substantially horizontal partition for sealing the interior of the container into a relatively small lower chamber for liquefied propellant and a relatively large upper chamber for liquid to be sprayed, a capillary tube having an internal diameter of at least about 0.02 inch but less than 0.25 inch extending from a point adjacent the bottom of the lower chamber through said partition to a point adjacent the top of the upper chamber, a spray nozzle positioned above the top closure and connected to a conduit which extends through the top closure to a point in the upper chamber adjacent the partition and a valve mechanism interposed between said spray nozzle and the lower end of said conduit for initiating, stopping and controlling discharge of spray liquid from the nozzle, said capillary tube substantially preventing intermingling of liquefied propellant with liquid to be sprayed whereby a much smaller amount of liquefied propellant is required for spraying a given amount of liquid than is required when liquid to be sprayed and liquefied propellant are admixed.

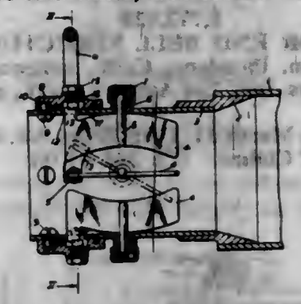
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**2,772,923**
**NOZZLE**
**Thomas Anthony Henshaw, Kew Gardens, and Cecil Kennerson, Hounslow, England, assignors to The Pyrene Company Limited, Brentford, England, a British company**
**Application October 27, 1953, Serial No. 388,476**
**Claims priority, application Great Britain November 3, 1952**
**3 Claims. (Cl. 299—117)**

1. A nozzle comprising a tube open at both ends, a plurality of vanes extending longitudinally within said



tube, means located at the center of said vanes pivotally mounting said vanes to said tube, said means lying in a common plane perpendicular to the axis of said tube, and supplying substantially radial axes for turning movement of said vanes, and means for turning said vanes by actuating one end of said vanes, said second means comprising



a ring encircling said tube and mounted to turn on it without moving axially, mechanical connections between said ring and said vanes, whereby all said vanes are adjusted simultaneously by turning the ring, and further comprising a handle rigidly attached to said ring by which the nozzle is held in use.

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**2,772,924**
**WHEEL COVER**
**Stanford Landell, Fayetteville, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware**
**Application August 24, 1953, Serial No. 376,097**
**1 Claim. (Cl. 301—37)**

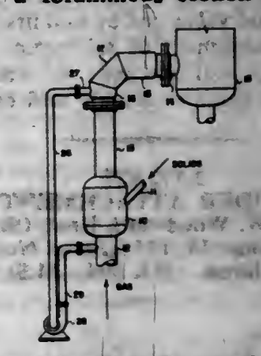


A wheel cover structure for a vehicle wheel having a multi-flanged tire rim, said cover structure comprising a concave-convex outer portion having a rearwardly inturned outer marginal portion, a radially inclined annular flange, an axially rearwardly directed continuous flange integral with said inclined flange, said axially directed flange being provided intermediate thereof at spaced intervals with integral V-shaped struck-out portions having their pointed ends directed radially outwardly and axially forwardly from the surface thereof, said V-shaped portions being connected to said axially directed flange at their axially rearwardmost extremity and being adapted to flex inwardly when said cover is forced axially inwardly on said wheel and to bitingly engage a portion of said rim parallel with said axially directed flange to prevent axial outward movement of said cover, and a peripheral inturned bead on said axially directed flange providing a pilot perimeter for initially locating said cover on said wheel.

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**2,772,925**
**PROTECTING WALLS AGAINST EROSION BY SOLID PARTICLES**
**Justin C. Dygert, Walnut Creek, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware**
**Application September 20, 1955, Serial No. 535,381**
**5 Claims. (Cl. 302—64)**

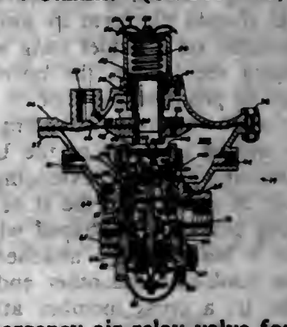
1. In apparatus wherein a suspension of erosive solid particles in a fluid move with the gross flow of said fluid generally parallel to the bounding surface of a wall, the improvement of a structure for resisting erosion of said wall including a foraminous section in said wall and



means for maintaining the other surface of the wall at a pressure lower than that of the fluid suspension to form and maintain on said bounding surface a protective layer of said solid particles.

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**2,772,926**
**EMERGENCY AIR RELAY VALVE**
**Rollin W. Fishwood, Vancouver, Wash., and Norman C. Williams, Portland, Oreg., assignors to Power Brake Equipment Company, Portland, Oreg., a corporation of Oregon**
**Application August 16, 1954, Serial No. 449,831**
**4 Claims. (Cl. 303—63)**

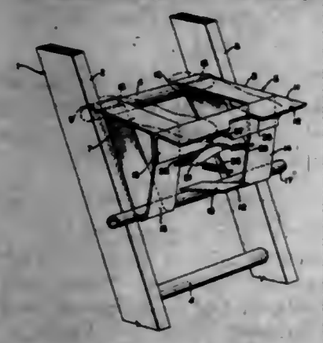


1. In an emergency air relay valve for a trailer brake actuator of an automotive truck-trailer combination vehicle: a hollow guide member of generally cylindrical shape open at one end, a first barrier formed in said guide adapted to divide the interior thereof into a first space and a second space, said first barrier having a central first air port formed therethrough; a valve stem guided for axial movement with air conducting clearance through said first air port, means carried on said stem to close said first air port at one position of said stem; a first opening formed through the wall of said guide member adapted to connect said first space with a source of air; a second opening formed through the wall of said guide adapted to connect said second air space with an air storage means; a hollow generally cylindrical valve box open at one end slidably guided in said guide member for axial movement therealong, the open end of said box being open to said second space, a second barrier formed in said box adapted to form therein a third space separated from said second space, a hole formed in the wall of said box adapted to connect said third space with said air actuating means for a trailer brake, a brake inlet air port formed centrally through said second barrier, an inlet valve seat formed around said inlet air port, an inlet valve carried on said stem, said inlet valve and said inlet valve seat when closed one on the other being adapted to close said inlet air port; a first biasing means adapted to bias said valve box toward the closed position of said inlet valve seat on said inlet valve; a second biasing means adapted to bias said valve stem towards the open position of said inlet valve on said inlet valve seat; opposing means adapted variably to oppose both said biasing means to control the movement of said valve stem in response

to a condition; and means adapted, when both said biasing means overcome said opposing means and move said stem to close said first air port in said first barrier, to limit the movement of said valve box by said first biasing means whereby further movement of said stem will raise said inlet valve from its seat and pass air from said second space to said third space to actuate said brake.

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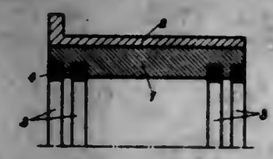
**2,772,927**
**LADDER ATTACHMENT**
**Alva W. Woodward, Kent, Ohio**
**Application June 14, 1954, Serial No. 436,422**
**2 Claims. (Cl. 304—31.5)**



1. A step for use with a ladder having a pair of side rails and spaced rungs extending therebetween comprising a generally U shaped platform to support a person thereon when mounted on a ladder rung with the opening of the U facing the ladder, the opening providing space for a person to position one foot on the rung free of the platform; a downwardly extending rung engaging hook on the end of each leg of the U at the open end; a pair of mounting members extending downwardly from the underside of each leg of the U of the platform, each member being generally V shaped with one of the open ends of the V being rigidly attached to the platform adjacent the hook and the other end adjacent the closed end of the U; a cross member attached to the mounting members adjacent the closed end of the V and adapted to engage the side rails of the ladder to hold the platform in position with respect to the ladder; and a saddle member resiliently attached to the mounting members and spaced from the cross member to releasably engage the upper portion of a foot when inserted between said cross member and said saddle member to permit the worker to move the platform up or down the ladder with his foot.

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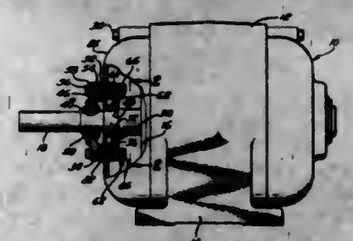
**2,772,928**
**BEARINGS OR BUSHINGS**
**Hans Traugott Schulz, Nurnberg, and Friedrich Rittmann, Ruckersdorf, Mittelfranken, Germany, assignors to C. Conradty, Nurnberg, Germany**
**Application February 25, 1953, Serial No. 338,814**
**Claims priority, application Germany March 21, 1952**
**1 Claim. (Cl. 308—36.1)**



A bearing which is self-contained, self-lubricating and self-packing comprising a cylindrical body of carbon having at each end at least one groove arranged circumferentially in the internal surface of the body and a ring of felt provided in each of said grooves so that said rings are deformable to form secure packings, said rings being impregnated with hard wax so that each felt ring will be bonded to adjacent parts of the respective groove to thereby form a self-contained bearing structure, said rings projecting a slight distance inwardly beyond the internal peripheral surface of the body of carbon.

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**2,772,929**
**MOTOR END BELL STRUCTURE**
**John R. Eastman, Pasadena, Calif., assignor to Sterling Electric Motors, Inc., Los Angeles, Calif., a corporation of California**
**Application March 31, 1955, Serial No. 498,312**
**7 Claims. (Cl. 308—236)**



1. In a structure of the character described, the combination of: an end bell for an electric motor, said end bell having an internal bearing recess therein; a bearing in said recess; pivotable means in said end bell adjacent said recess and pivotable over the inner side of said bearing; and means extending through said end bell and operable from the exterior thereof for pivoting said pivotable means over the inner side of said bearing.

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**2,772,930**
**BEARINGS**
**Otto Schubert, Sr., and Otto Schubert, Jr., Erlangen, Germany**
**Application July 23, 1952, Serial No. 300,382**
**Claims priority, application Germany March 21, 1952**
**10 Claims. (Cl. 308—238)**



1. Bearing comprising in combination a metallic backing and a sliding surface layer consisting of a thin layer of hard, polymerized, synthetic resinous composition applied to the metallic surface of the backing, and hardened by heat under atmospheric pressure, comprising a thermosetting resin which undergoes shrinkage during polymerization and a comminuted filler having a stronger adhesion to the resinous binder than the inner adhesion forces of said filler, said layer containing a plurality of not oriented capillary passages, at least some of which discharge to the surface of said layer and at least some of which are connected with each other, said layer being capable of taking up lubricant and discharging it during movement of the sliding surfaces.

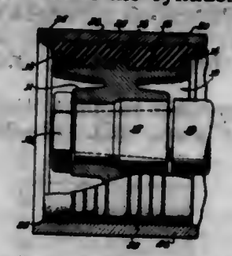
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**2,772,931**
**PISTON FOR RECIPROCATING PUMPS**
**Paul R. G. Biedermann, Los Angeles, Calif.**
**Application November 6, 1953, Serial No. 390,480**
**8 Claims. (Cl. 309—4)**

1. A piston construction for use in a cylinder of a reciprocating pump or the like that comprises: a centrally located metal body adapted to be attached to a piston rod for reciprocation within a cylinder; and an annular sealing ring of rubber-like material surrounding and mounted upon the metal body, said ring having a normal diameter in excess of the cylinder diameter when free of externally



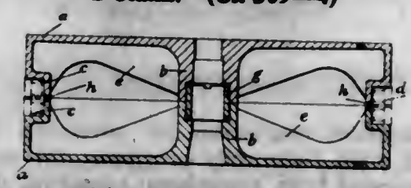
applied compressive forces so that when in place on the body and confined within the cylinder the ring is under



radial compression at all positions and has internal strains tending to expand the ring radially to its normal diameter.

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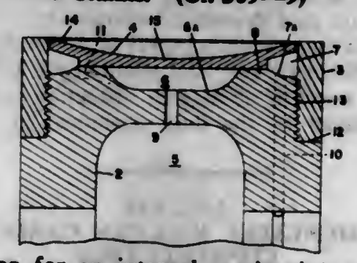
**2,772,932**
**PISTONS**
**Henry Edward Muckley, Barnt Green, England, assignor to Bellis & Morcom Limited, Birmingham, England**
**Application March 11, 1955, Serial No. 493,729**
**Claims priority, application Great Britain April 6, 1954**
**1 Claim. (Cl. 309—4)**



A piston comprising a pair of coaxially arranged similar halves provided with central hollow bosses which at their adjacent ends are in contact with each other, and are internally enlarged and screw threaded, and a complementary screw threaded bush interconnecting the screw-threaded ends of the bosses, the adjacent ends of the outer peripheral portions of the two halves being stepped to provide jointly a circumferential groove around the piston, and the contiguous edges of the steps being united by a metallic bonding agent.

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**2,772,933**
**PISTONS**
**William M. Nichols, Schenectady, N. Y., assignor to Alco Products, Incorporated, New York, N. Y., a corporation of New York**
**Application June 22, 1955, Serial No. 517,331**
**5 Claims. (Cl. 309—9)**

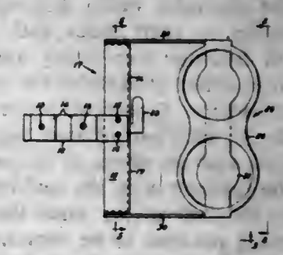


1. A piston for an internal combustion engine comprising a main body having a reduced portion, a ring carrier secured to the reduced portion, a preloaded disk seated upon the top of the piston body and welded to the ring carrier to form a crown for the piston, the arrangement of the parts being such that the disk is under a permanent state of tension thereby increasing the capacity of the crown to withstand the pressures of comustion.

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**2,772,934**
**FOOD SERVICE TRAY**
**Harold K. Eraut, Portland, Oreg.**
**Application August 1, 1955, Serial No. 525,588**
**1 Claim. (Cl. 311—21)**

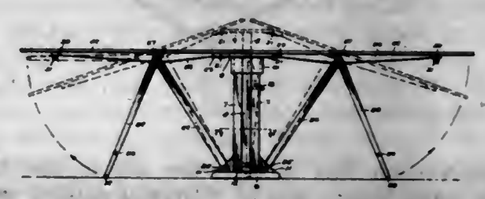
In a food service tray combination which includes a stationary hinge bracket, a tray, means for securing said bracket to a support, hinging means hingedly securing said tray to said bracket, latching means cooperatively formed on said bracket and said support for latching said tray in a service position with respect to said bracket and unlatching means carried on said bracket manually operable to release said tray for rotation about the hinging axis of said hinging means to a storage position: the combination of a pair of laterally spaced opposite end faces formed on said bracket, a pair of laterally spaced opposite end faces formed on said tray to mate respectively with the adjacent end faces on said bracket, one of said pair of laterally spaced opposite end faces being formed with a pair of coaxial bearing holes therethrough, a pair of coaxial journals secured respectively to the other of said



pair of opposite end faces to extend oppositely through said bearing holes hingedly to support said tray on said bracket, means resiliently supporting one of said opposite end faces at one end of said bracket and said tray for lateral movement with respect to the other of said end faces, latch means cooperatively formed on said resiliently supported one of one of said pair of said opposite end faces and the adjacent one of the other of said pair of said opposite end faces to latch said tray in a service position with respect to said bracket and lever means pivotally carried on said bracket manually operable to displace said resiliently supporting means to separate said faces on which said latch means are cooperatively formed to release said tray for rotation to a storage position.

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**2,772,935**
**FOLDING GAME TABLE**
**Clyde M. Read, Miami Shores, Fla.**
**Application May 11, 1955, Serial No. 507,541**
**1 Claim. (Cl. 311—89)**

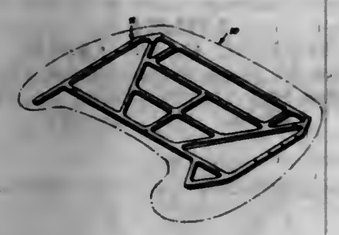


A folding table that includes a rectangular pedestal having base members at opposite ends, each base member rigidly supporting a pair of spaced apart square bars that are parallel and vertically arranged and with the pairs of bars at the opposite ends of the pedestal being parallel, square plunger bars slidable in a vertical plane between the pairs of bars, cross frame members at the upper and lower ends of the pedestal whereby to rigidly connect the pairs of bars, a rectangular panel member that is rigidly connected to the upper ends of the plunger bars along its longitudinal center line, a pair of relatively large leaf members that are hingedly connected to the opposite longitudinal edges of the panel, each of the leaf members being co-extensive in length and width, transverse strips fixed to the under side of the leaf members inwardly of their inner ends and with the strips constituting the point of connection for the hinge, the leaf members being swingable in a vertical plane from a horizontal table forming position to a folded position, the said leaf members when in table forming position having their inner ends in overlying and parallel relation to the panel whereby their

inner ends terminate along the longitudinal center line of the panel, a pair of fulcrum bars disposed at opposite sides of the pedestal and with their lower ends being pivotally connected at each base member and their upper ends being pivotally connected with the under side of the leaf members intermediate and adjacent each side of the leaf members, the said leaf members swingable downwardly from their outer ends upon the fulcrum bars whereby to cause their inner ends to be elevated for elevating the said panel and its associated plunger bars through the medium of the hinge connection, the elevating of the panel and the plunger bars transmitting a similar movement to the opposite leaf member upon its associated fulcrum bars, the leaf members when in the fully folded position of the table being disposed in a vertical plane to be parallel to each other and parallel to the pedestal, the said fulcrum bars being angled outwardly from the pedestal in either position of the table and underlying the leaf members, a pair of brace legs for each leaf member and with each pair of brace legs being pivotally connected to the leaf members at the points of pivotal connection for the fulcrum bars, the said legs being swingable downwardly on their pivots when the leaf members are in table forming position to be outwardly angled and in floor engagement for bracing the leaf members against fulcrumed movement upon the fulcrum bars, the said legs adapted to be swung to nested position beneath the leaf members when the leaf members are to be shifted to a folded position and cable means carried by the pedestal and connected with each plunger bar whereby to mechanically shift the leaf members to and from a table forming position.

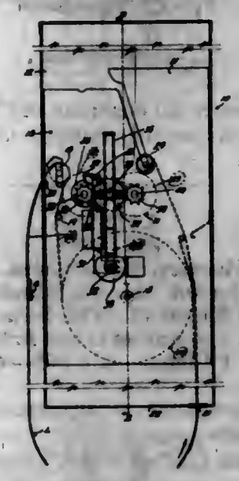
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**2,772,936**
**DESK OR TABLE TOP SUPPORT FRAME**
**William James Bargen, Waukegan, Ill.**
**Application April 21, 1955, Serial No. 502,900**
**1 Claim. (Cl. 311—105)**



A combination desk or table top and support frame therefor comprising a pair of elongated parallel spaced apart side members, a pair of parallel elongated cross members extending between and joined to said side members forming a substantially rectangular configuration, said side members each extending a substantial distance beyond one of said cross members, a pair of bracing members extending from the opposite junctures of said side members with the other of said cross members at a converging angle to each other terminating at spaced apart medial points on said one cross member, said bracing members being integrally joined to said cross members and said side members, a pair of cross brace members parallel to and equispaced from said cross members extending between and joined integrally to said brace members, a central member integrally joined to the medial points of said cross brace members and said one cross member, said members each having an inverted U-shaped cross section, means on each of said members for securing said frame to a support, a top panel extending over said frame, and means bonding said frame to said top whereby the combined strength of said frame of said top is materially increased.

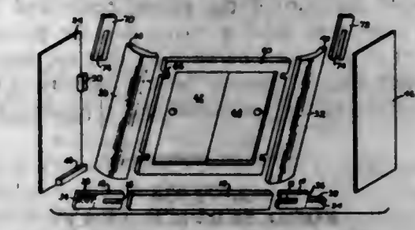
**2,772,937**
**ESCAPEMENT MECHANISM FOR WEB-DISPENSING APPARATUS**
**Leslie R. Tansley, Columbus, Ohio, assignor to White Castle System, Inc., Columbus, Ohio, a corporation of Delaware**
**Application September 16, 1954, Serial No. 456,382**
**4 Claims. (Cl. 312—38)**



1. Escapement mechanism for governing the withdrawal of webs from rolls containing the same in a spirally wrapped form, comprising: supporting means for such a web-containing roll; an escapement-operating roller carried by the supporting means in spaced relation to the web roll, said roller being rotated by the passage of a web withdrawn from said roll into contacting engagement with the periphery of said roller; a shouldered element mounted for rotation in unison with said roller; a movable stop member carried by said supporting means in coacting relation with said shouldered element; a permanent magnet having spaced poles mounted rigidly on said stop member; a magnet-attracting body normally disposed in the pole field of said magnet; a fluid-containing carrier means in which said body is movably mounted; a pivotal support for said carrier means; and means responsive to roller rotation to impart turning movement to said carrier means, whereby to provide a timed cycle of movement for said body in which the carrier means is positioned so that the body is removed from the field of said magnet to cause the stop member associated therewith to engage said shouldered element and to stop roller rotation following the withdrawal of a determinate length of the web from its roll, and wherein the return of said body to its position of magnet attraction and roller release is delayed by the fluid contained in said carrier means.

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**2,772,938**
**ADJUSTABLE KITCHEN CABINET CONSTRUCTION**
**Patsy Oculato, Valley Stream, N. Y.**
**Application April 11, 1955, Serial No. 500,495**
**3 Claims. (Cl. 312—210)**

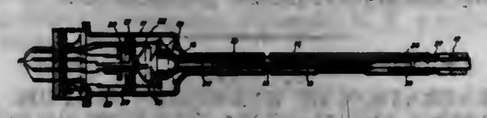


1. An adjustable enclosure or cabinet of the character described, comprising a baseboard, a pair of extension pieces adjustably secured to the ends of said baseboard, a pair of corner panels mounted on said extension pieces, a pair of side boards secured to said corner panels and extension pieces, a front frame adjustably secured to said corner panels, and a pair of vertically adjustable supports secured to said corner panels at the upper ends of said corner panels to support a sink or the like on said cabinet enclosure, said extension pieces being longitudinally slotted and secured to said baseboard by means of screws extending through said slots and engaging said baseboard, said front frame being provided with a plurality of slots in its side edges, said slots extending horizontally, and screws extending through said horizontal slots and engaging the corner panels to secure said front frame to said corner panels, said supports being provided with longitudinally and vertically extending slots and screws extending through said slots and engaging the corner panels to secure said supports to said corner panels.



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**2,772,939**
**MANUFACTURE OF TRAVELING WAVE TUBES**
**Joseph P. Laico, Springfield, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York**
**Application October 21, 1953, Serial No. 387,362**
**2 Claims. (Cl. 316—18)**



1. In the manufacture of traveling wave tubes, the process for obtaining a controlled collapse of an elongated glass envelope portion onto helix support rods comprising the steps of slidably inserting helix support rods to which a helix has been attached into an elongated glass envelope, evacuating said envelope, passing a current through said helix sufficient to heat said helix and said envelope but insufficient of itself to soften the glass enough to cause atmospheric pressure to collapse the glass onto the helix support rods, reflecting the heat from said helix back upon said envelope adjacent the portions thereof to be collapsed to provide the additional temperature rise sufficient to soften the glass for collapse thereof, and discontinuing the collapse of said glass after said glass has collapsed onto said helix support rods and before said glass is contiguous to said helix.

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**2,772,940**
**AUTOMATIC RECORDING DEVICE FOR MANEUVERING SHIPS**
**Richard Golze, Staten Island, N. Y.**
**Application October 28, 1953, Serial No. 388,759**
**1 Claim. (Cl. 346—8)**



In automatic recording apparatus for maneuvering ships, a housing, a chart therein, a transverse guide bar supported in the housing, a bar dependent from and slidable along said guide bar, said slidable bar having a bifurcated end with openings in its bifurcations, means for sliding said dependent bar, and a stylus recording device carried by said slidable bar, said device consisting of a tubular ink reservoir closed at one end and open at the other end, a tubular holder for said reservoir, a plate extension on said holder, a hook on the end of said plate extension, a plate hingedly connecting the plate extension and the bifurcated end of the sliding bar, said connecting plate having opposed perforated ears at one end disposed in alignment with the bifurcations on the end of the sliding bar, the upper end of the plate extension being hooked over the upper end of said connecting plate between said perforated ears, spring clips on the other end of the connecting plate encircling said extension plate, a shaft extending through the aligned openings and perforations in the bifurcations and perforated ears, respectively, a goose-neck tubular scribing element supported in the tubular ink reservoir and extending outwardly through the open end thereof, and a spring coil on the shaft normally urging the tubular holder so that the scribing element engages the chart in operative position.

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**2,772,941**
**HIGH SPEED SEQUENCE CAMERA**
**Charles A. Hulcher, Hampton, Va.**
**Application May 19, 1952, Serial No. 288,637**
**3 Claims. (Cl. 346—107)**



1. In a sequence camera comprising a casing, strip film feeding and film take-up means within said casing operated at constant speed, a film gate through which said film passes and means intermittently engaging said film for effecting intermittent pull down of said film through said film gate and with a period of dwell between successive pull downs, the improvement which resides in means for establishing timing marks on said film, said means including a light source providing light pulses at a predetermined repetition rate and means actuated in timed relation with said film pull down means for sweeping the light pulses emitted from said light source longitudinally back and forth along said strip film at said film gate, the sweep of said light pulses during the dwell period between successive pull downs being in the direction opposite to that traveled by the film and in the same direction as that traveled by the film during the pull down.

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**2,772,942**
**PHOTOLITHOGRAPHIC PRINTING ART**
**Mark A. Mattaro, Aldie, Va.**
**Application June 8, 1951, Serial No. 230,560**
**5 Claims. (Cl. 41—46)**

1. A method of making an addition to a master negative from which a lithographic printing plate is to be produced, said method comprising providing a transparent master negative plate with indicia thereon and which indicia requires changes, ink printing a positive legend of said changes on a transparent strip, exposing the positive printed transparent strip to a sensitized plate to obtain a printing plate, pulling an ink impression in negative form on transparent material from the printing plate, forming a transparent area in the master negative plate at the position requiring said changes, and securing the transparent material carrying the pulled negative impression in the transparent area of the master negative plate.

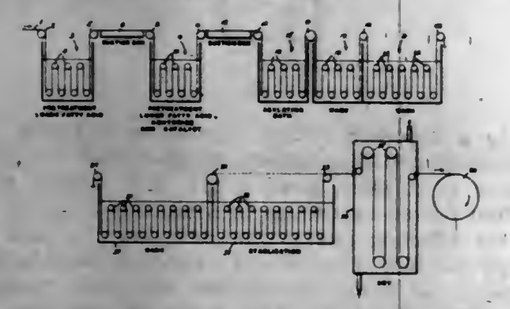
# CHEMICAL

**2,772,943**
**PROCESS OF DYEING WOOL-POLYACRYLONITRILE BLEND**
**Lejaren Arthur Hiller, Jr., Waynesboro, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware**
**No Drawing. Application August 28, 1952, Serial No. 306,936**
**1 Claim. (Cl. 8—21)**

A process for selectively dyeing a fibrous acrylonitrile polymer, containing at least 40% acrylonitrile by weight, in a blend with wool which comprises subjecting the blend to the action of an aqueous dye bath containing a basic cyanine dye and having a pH between about 3.0 and about 5.0, removing any dye from the wool and then subjecting the resultant blend to the action of an aqueous dye bath containing an acid dye.

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**2,772,944**
**PROCESS FOR THE ACETYLATION OF REGENERATED CELLULOSE FIBERS AND PRODUCT RESULTING THEREFROM**
**Arthur L. Allewelt, West Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware**
**Application March 27, 1953, Serial No. 345,140**
**3 Claims. (Cl. 8—121)**

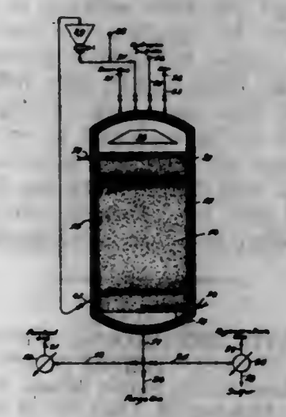


1. A process for the acetylation of regenerated cellulose fibers with retention of their fibrous structure comprising successively impregnating regenerated cellulose fibers in their swollen, wet gel state and containing between 35% and 60% by weight of water with (1) glacial acetic acid and (2) a mixture containing between about 2% and 10% by weight of acetic anhydride, a small amount by weight of an acetylation catalyst and the balance glacial acetic acid, said successive impregnations effecting the substitution of acetic acid for substantially all of the water contained by the wet gel fibers while maintaining the fibers in a swollen state, removing the excess acetic acid solution to provide the fibers with an acetic acid content between 35% and 60% by weight, then immersing the swollen fibers for from 15 seconds to 150 seconds in an acetylating bath maintained at a temperature between 35° C. and 60° C., said bath comprising by weight, between 5% and 25% acetic anhydride, between 0.05% and 0.1% of an acetylation catalyst and between 75% and 95% of an organic diluent for the acetic anhydride, the organic diluent being substantially inert to cellulose acetate, washing the acetylated fibers and finally drying the acetylated fibers.

3. As an article of manufacture, a regenerated cellulose fiber acetylated only at its surface and outer peripheral zone formed by successively impregnating a swollen wet gel regenerated cellulose fiber containing between 35% and 60% by weight of water with (1) glacial acetic acid and (2) a mixture containing between about 2% and 10% by weight of acetic anhydride, a small amount by weight of an acetylation catalyst and the balance glacial acetic acid, said successive impregnations effecting the substitution of acetic acid for substantially all of the water contained by the wet gel fibers while maintaining the fibers in a swollen state, removing the excess acetic acid solution to provide the fibers with an acetic acid content between 35% and 60% by weight and then immersing the swollen fibers in an acetylating bath maintained at a temperature between 35° C. and 65° C., said bath comprising, by weight, between 5% and 25% of acetic anhydride, between 0.05% and 0.1% of an acetylation catalyst and between 75% and 95% of an organic diluent for the acetic anhydride, the organic diluent being substantially inert to cellulose acetate, and washing and finally drying the acetylated fiber, said fiber having an acetyl content of between 6% and 22%, a dry tenacity of at least 2.5 grams per denier, a wet tenacity of 1.45 grams per denier and a wet and dry extensibility of at least 15%.

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**2,772,945**
**REGENERATION OF HYDROGEN SULFIDE ABSORBENT AND MANUFACTURE OF SULFUR**
**Herbert N. Dunning, Bartlesville, Okla., and Arthur P. Lien, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana**
**Application November 27, 1953, Serial No. 394,804**
**10 Claims. (Cl. 23—3)**



8. A process which comprises contacting a gaseous stream containing hydrogen sulfide with a hydrogen sulfide absorbent consisting essentially of an intimate mixture of at least one alkali metal hydroxide selected from the class consisting of sodium hydroxide and potassium hydroxide with at least one member selected from the class consisting of alkaline earth metal oxides and hydroxides until said absorbent becomes at least partially spent; forming on a substantial portion of the surface of said spent absorbent, a thin layer of a combustion initiator consisting essentially of absorbent in its active state, at least a portion of said initiator consisting of regenerated absorbent; introducing concurrently a hydrogen sulfide-containing gas and an oxidizing gas therefor selected from the class consisting of air and sulfur dioxide into said combustion initiator layer in amounts at least about sufficient to cause a high temperature zone of about 1600 to 1800° F. to develop within said initiator layer; discontinuing the introduction of said hydrogen sulfide-containing gas; and continuing the introduction of said oxidizing gas through said initiator layer and said spent absorbent whereby said high-temperature zone traverses said spent absorbent and effects regeneration thereof.





**2,772,946**
**PREPARATION OF DOUBLE FLUORIDES OF TITANIUM AND AN ALKALI METAL**
**Quentin H. McKenna, Cleveland, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey**
**No Drawing. Application August 19, 1954, Serial No. 451,061**
**13 Claims. (Cl. 23—88)**

1. The method of producing alkali metal fluotitanates in which the titanium has a valence of at least two and not greater than three which comprises bringing titanium carbide into contact with an alkali metal fluotitanate in which the titanium has a valence of four and maintaining the reactants at an elevated temperature between about 800° C. and about 1100° C. whereby they react to produce a product containing at least one alkali metal fluotitanate in which the titanium has a valence of at least two and not greater than three.

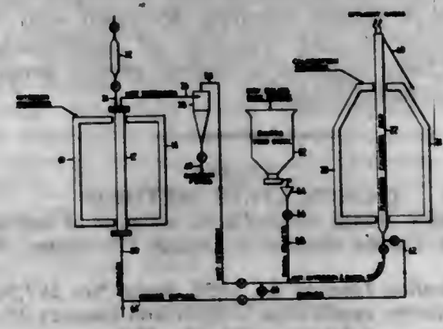
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**2,772,947**
**PROCESS FOR CONVERTING NICKEL SULFIDE TO NICKEL SULFATE**
**Elbert O. Sowerwine, Jr., Wapiti, Wyo., assignor to Wigton-Abbott Corporation, Plainfield, N. J., a corporation of New Jersey**
**No Drawing. Application March 23, 1951, Serial No. 217,310**
**2 Claims. (Cl. 23—117)**

2. The process for converting nickel sulfide to nickel sulfate that comprises heating nickel sulfide at a moderately elevated temperature not in excess of about 400° C. in an atmosphere containing in excess of 80% sulfur dioxide and about 3 to 10% of oxygen, while maintaining a superatmospheric pressure.

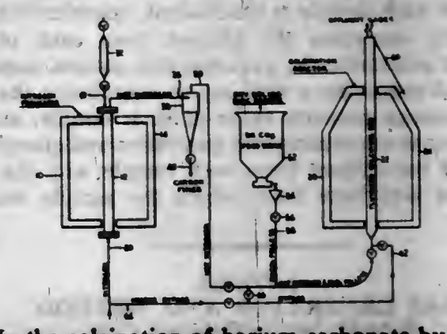
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**2,772,948**
**CALCINATION OF BARIUM CARBONATE**
**Henry W. Rahn and Charles J. Sindlinger, Corpus Christi, Tex., assignors to Columbia-Southern Chemical Corporation**
**Application June 10, 1955, Serial No. 514,562**
**11 Claims. (Cl. 23—186)**



1. A method of calcining barium carbonate which comprises heating a bed of porous barium carbonate granules comprising finely divided barium carbonate and carbon bonded together, the preponderant portion of said granules having a particle size of 4 to 80 mesh, at a temperature of 850 to 1025° C. while fluidizing said bed in an upwardly rising stream of nitrogen containing gas flowing at a rate of 1 to 7 feet per second while correlating the rate of calcination and the rate of nitrogen introduction so that the concentration of nitrogen in the evolved gas flowing from the bed is at least 70 percent by volume of said gas, maintaining the amount of carbon dioxide, $H_2O$, and elemental oxygen in the nitrogen supplied to the bed each below 0.5 percent by volume, and supplying the heat for the calcination through a wall while maintaining the fluidized bed in contact with said wall.

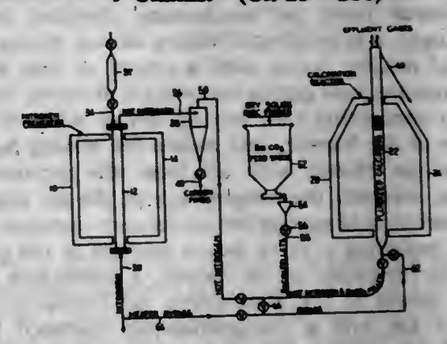
**2,772,949**
**CALCINATION OF BARIUM CARBONATE**
**Henry W. Rahn and Charles J. Sindlinger, Corpus Christi, Tex., assignors to Columbia-Southern Chemical Corporation**
**Application June 7, 1952, Serial No. 292,284**
**2 Claims. (Cl. 23—186)**



1. In the calcination of barium carbonate by establishing a fluidized bed comprising barium carbonate and carbon in an upwardly rising stream of inert gas, said bed being disposed in a reactor having a metal wall, while heating the bed by transfer of heat into the reactor from a point exteriorly thereof through said metal wall, the improvement which comprises heating said bed through a metal wall which is coated on the side in contact with the fluidized bed with an adherent coating of a member of the group consisting of barium oxide and mixtures of barium oxide and barium carbonate, said coating being less than ⅛ inch in thickness.

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**2,772,950**
**CALCINATION OF BARIUM CARBONATE**
**Henry W. Rahn and Charles J. Sindlinger, Corpus Christi, Tex., assignors to Columbia-Southern Chemical Corporation**
**Application April 1, 1952, Serial No. 279,786**
**9 Claims. (Cl. 23—186)**



1. A method of calcining barium carbonate which comprises calcining a mixture of barium oxide and barium carbonate while maintaining the barium oxide content of the mixture in excess of 50 percent by weight of the total amount of the mixture substantially throughout the period of calcination.

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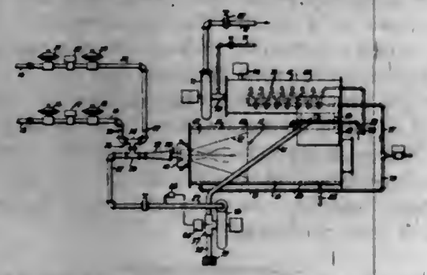
**2,772,951**
**LOGGING SHALES**
**Donald C. Bond, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio**
**No Drawing. Application August 2, 1951, Serial No. 240,058**
**4 Claims. (Cl. 23—230)**

4. A geophysical well logging process for determining the characteristics and position of clayey strata containing exchangeable cations in the clayey constituents of the strata which comprises collecting samples of said clayey strata at spaced intervals along a bore hole, comminuting each of said samples to produce a plurality of samples each having substantially the same particle size, leach-

ing each of said samples with an ammonium chloride solution to produce an effluent from each of said samples whereby all of the exchangeable cations in each sample are substantially completely replaced by the $NH_4^+$ cation contained in said solution and are contained in said effluent, determining the amount of $NH_4^+$ cation adsorbed by each of said samples, whereby the total cation exchange capacity of each sample is ascertained, quantitatively and qualitatively analyzing the effluent from each of said samples to determine the exchangeable cations contained therein and preparing a well log by correlating the total cation exchange capacity value of each sample, and the determinations of the aforesaid qualitative and quantitative analysis of the effluent from each sample with the position in the well bore from which the sample was obtained.

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**2,772,952**
**GAS GENERATOR AND METHOD**
**John H. Jacobs, Oakland, Calif.**
**Application January 12, 1952, Serial No. 266,182**
**1 Claim. (Cl. 23—281)**

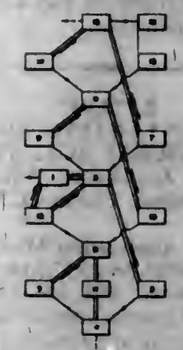


In a gas generator, a combustion chamber, a burner head disposed to discharge into the chamber, a heat exchanger in communication with the combustion chamber, an air pump or blower, piping means for supplying hot air to the intake side of the blower, heating means serving to heat the air supplied to the blower, said means being in heat exchange relation with products of combustion being delivered from the combustion chamber to the heat exchanger, a proportional mixing device, piping connecting said mixing device with a source of fuel gas at constant pressure, said piping including a metering orifice, piping also connecting said mixing device with the discharge side of the blower, and means for mixing hot air supplied to the blower with air from the surrounding atmosphere, whereby the temperature of the air supplied by the blower to said mixing device remains constant, said last means including a valve means inserted in the piping connected to the intake of the blower, a connection from said valve means to the atmosphere for introduction of atmospheric air, and a thermostatically operated valve member in said valve means to regulate the proportional intermixing of hot and cool atmospheric air.

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**2,772,953**
**PROCESS OF CONCENTRATING**
**Allen F. Reid, Dallas, Tex.**
**Application January 13, 1954, Serial No. 403,862**
**2 Claims. (Cl. 23—311)**

1. In a process for progressively varying the relative proportions of constituents A, B of a fluid mixture AB in a series *a*, *b*, *c*, *d*, of separation treatment stages, each stage comprising a conditioning treatment and a separation treatment, the steps comprising pre-conditioning said mixture to respond to the action of an agent adapted to separate and retain a portion of the mixture, subjecting said pre-conditioned mixture to the action of said agent in a stage *a* to separate out and retain a portion of said constituents A, B in which the amount of constituent B is reduced relative to constituent A and so that the residual unretained portion of said mixture correspondingly has constituent A relatively decreased with respect to constituent B, subjecting said residual unretained portion from stage *a* to the conditioning treatment of stage *c* serially two positions further along in the system and applying the said portion so conditioned to materal previously separated and retained as a mixture of constituents A and B at said stage *c* to remove said material therefrom conditioning the resultant mixture of constituents A and B for separation and retention in stage *b* between stages *a* and *c* and subjecting said mixture to said separation and retention by an agent in stage *b* to separate out and retain a portion of said mixture constituents A, B in which the amount of constituent B is reduced relative to constituent A and so that the residual unretained portion of said mixture correspondingly has constituent A further relatively decreased with respect to constituent B, subjecting said residual unretained portion from stage



*b* to the conditioning of stage *d* two positions further along the system, applying said portion so conditioned to material previously separated and retained as a mixture of constituents A and B at said stage *d* to remove said material therefrom, conditioning the resultant mixture of constituents A and B for separation and retention treatment in stage *c* between stages *b* and *d*, and subjecting said mixture so conditioned to said separation and retention treatment by an agent in said stage *c* to separate and retain a portion of said mixture of constituents A, B in which the amount of constituent B is reduced relative to constituent A and so that the residual unretained portion of said mixture correspondingly has constituent A further relatively decreased with respect to constituent B, said sequences of conditioning and treatment being repeated to desired relative proportioning of constituents A and B.

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**2,772,954**
**GASIFICATION METHOD**
**Léon Jéquier, Basel, Switzerland, assignor of one-half to Amonia Casale Societa Anonima, Massagno, Ticsin, Italy**
**Application January 24, 1952, Serial No. 267,948**
**Claims priority, application Switzerland January 29, 1951**
**1 Claim. (Cl. 48—202)**



The method of gasifying a powdered fuel mass which comprises the steps of feeding said mass into a fluidization column and along a substantially vertical downward path through said column, dividing said mass during such downward feed into a plurality of discrete layers of substantially equal height spaced from one another along said downward path of feed through said fluidization column, discharging said mass from the lowermost layer into a gasification zone, introducing unused gasification medium into said gasification zone, controlling the velocity of flow of said unused gasification medium within said gasification zone in an upward direction toward said fluidization column, to thereby ensure that said discharged mass when in said gasification zone is maintained in suspended condition therein for combustion purposes, directing used gasification medium and combustion gases from said gasification zone upwardly through said fluidization column to thereby transform said powdered mass into substantially fluidized condition in said column, maintaining throughout said gasification zone a substantially constant temperature sufficient to cause incipient fusion of ash of said mass, to thereby ensure complete combustion of said mass within said gasification zone, and conducting said unused gasification medium as a confined stream at least partly through and in indirect heat exchange with said layers in said fluidization column and in the same direction as the direction of feed of said mass through said fluidization column and simultaneously in indirect heat exchange with said used gasification medium and combustion gases passing through said discrete layers from said gasification zone and in a direction opposite to the direction of feed of said mass prior to the admission of said unused medium to said gasification zone.

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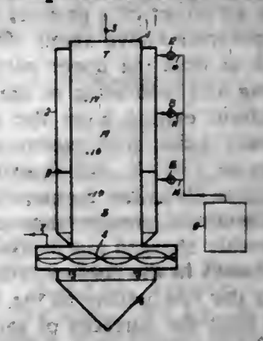
**2,772,955**
**PROCESS FOR THE PRODUCTION OF HYDROGEN AND CARBON MONOXIDE FROM LIQUID FUELS (HEAVY MINERAL OILS)**
**Giacomo Fauser, Milan, Italy, assignor to Montecatini, società generale per l'Industria Mineraria e Chimica, a corporation of Italy**
**No Drawing. Application July 6, 1953, Serial No. 366,378**
**Claims priority, application Italy July 11, 1952**
**11 Claims. (Cl. 48—215)**

1. A process for the production of a synthesis gas consisting substantially of carbon monoxide and hydrogen, said process comprising preheating heavy mineral oil to a temperature of the order of 100 to 150° C., intimately admixing therewith a catalytic amount of a chemical selected from the group consisting of calcium nitrate and magnesium nitrate, atomizing said admixture into an atmosphere of steam and oxygen preheated to a temperature of at least 300° C. and not more than 600 to 700° C., permitting the reaction to take place and adjusting the proportions between said heavy mineral oil, steam and oxygen to maintain a reaction temperature between 1100 and 1200° C.

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**2,772,956**
**PRODUCTION OF CARBONYL IRON POWDER**
**De Witt Henry West, Port Eynon, and William Thomas Phelps, Swansea, Wales, assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware**
**Application June 24, 1955, Serial No. 517,876**
**Claims priority, application Great Britain June 28, 1954**
**5 Claims. (Cl. 75—.5)**

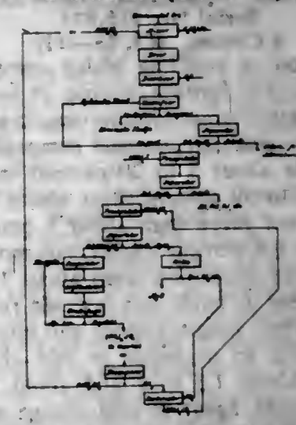
1. A process for producing directly in the decomposition space of a carbonyl decomposer a carbonyl-iron powder characterized by a substantially uniform particle size and high Q values at high frequencies of the order of about 20 to 50 megacycles per second and above comprising feeding into the decomposer iron-carbonyl vapor, carbon monoxide, and effective amounts of ammonia in a volumetric ratio of ammonia to iron carbonyl of up to about 1:1, so heating the decomposer that the bottom zone thereof is maintained at a higher temperature than the portions of the decomposer above the bottom zone, the temperature of the bottom zone being between about 370° C. and 500° C., and controlling the grade of carbonyl-iron powder produced by regulating the temperature of the upper zone of the decomposer at a temperature lower than the temperature



of the bottom zone and within the range of from about 270° C. to about 320° C., the fineness of the carbonyl-iron powder produced increasing proportionately as the temperature of the upper zone of the decomposer is increased within the foregoing upper zone temperature range.

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**2,772,957**
**METHOD OF PROCESSING DISSEMINATED CHROMITE ORES**
**Alfred M. Thomsen, San Francisco, Calif., assignor to American Chrome Company, a corporation of Nevada**
**Application November 9, 1953, Serial No. 391,023**
**2 Claims. (Cl. 75—1)**



1. In a process for resolving a complex ore wherein disseminated chromite is scattered through a matrix composed of a complex metal silicate, the steps consisting in mixing the ore with a sufficient amount of an aqueous solution of ammonium bisulfate to decompose and combine with substantially all of the metal present except chromium, but insufficient to react with the chromite present, whereby there is formed a mixture of metal sulfates, chromite and released silica, heating the mixture to about 500° F. for a period sufficient to dehydrate partially the liberated silica, adding water to the heated mixture to dissolve soluble metal sulfates present and provide a sulfate solution and the silica as one phase and chromite as a solid phase, and separating the two phases.

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**2,772,958**
**INDURATING PROCESS**
**Donald Beggs, Toledo, Ohio, and Earl R. Johnson, Aurora, Minn., assignors to Erie Mining Company, Hibbing, Minn., a corporation of Minnesota**
**No Drawing. Application February 24, 1953, Serial No. 338,584**
**1 Claim. (Cl. 75—5)**

In the process of indurating initially moist balled-up fluent masses or pellets of finely divided oxidic iron ore

material in a shaft-type indurating furnace, according to which a column of the pellets is established in the furnace and is maintained by withdrawing indurated pellets from the bottom thereof and charging to the stockline thereof raw pellets containing approximately 10% moisture in amounts to maintain substantially the height of the column and wherein a current of a gaseous heating medium initially at a temperature above about 1000° F. is forced upwardly through at least the upper part of the column to effect the drying and indurating of the pellets the gaseous heating medium exiting from the stockline of the column substantially laden with moisture and at a dew point of the order of 130° F., which exit temperature is materially lower than its initial temperature, the method of preventing substantial condensation of moisture on surfaces of the freshly charged moist raw pellets and formation of mud chunks in the column which method consists in delivering the raw pellets to the stockline of the column while at least the surfaces of said pellets are at a temperature not more than 30% lower than the dew-point of the exiting gaseous heating medium and within the range of from about 100° to about 140° F. while the moisture concentration in said pellet surfaces is not significantly altered from said initial moisture concentration.

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2,772,959

## METHOD OF ELECTRIC FURNACE SMELTING OF SILICATE ORES

Lyall J. Lichty and Robert T. C. Rasmussen, Ottawa, Ontario, Canada, assignors to Quebec Metallurgical Industries Ltd., Ottawa, Ontario, Canada, a corporation of Canada

No Drawing. Application March 12, 1954, Serial No. 415,977
4 Claims. (Cl. 75—11)

1. The method of smelting which comprises feeding into an electric arc furnace having at least two electrodes an intimate charge mixture consisting of a reducing agent and an oxidized material comprising by weight on the dry basis about 8 to 20 percent iron present as oxide, about 30 to 50 percent silica, about 10 to 30 percent magnesia, not more than about 5 percent alumina, from about 0 to 0.6 percent copper, not more than about 4 percent calcium oxide and from about 1 to 7 percent of a metal present as oxide and selected from the group consisting of nickel, cobalt, copper and mixtures thereof, the ratio of silica to magnesia in said charge mixture being between about 1.5 to 1 and about 2.5 to 1, the amount of reducing agent in said charge mixture being about equal to the stoichiometric amount required to reduce to metal all of said metal oxide and a desired amount of iron oxide, maintaining the power input at not greater than about 27 kilowatts per square foot of hearth area, and maintaining the electrode periphery resistance R within the range from about 1.3 to 2.7 ohm-inches as computed by the formula

$$R \text{ equals } \frac{E}{I} \text{ times } 3.1416 \text{ times } D$$

where E equals the potential drop from electrode to hearth in volts, and I equals current per electrode in amperes and D equals electrode diameter in inches.

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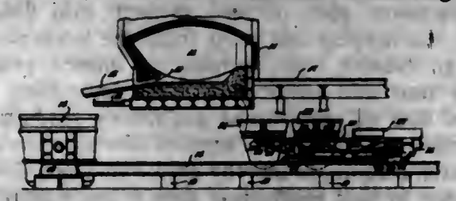
2,772,960

## SLAG CAR FOR OPEN HEARTH FURNACES

George H. Todd, Ashland, Ky., and Hugh C. Barnes, Franklin, Ohio, assignors to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio

Application August 11, 1955, Serial No. 527,675
10 Claims. (Cl. 75—43)

1. The method of handling the effervescent slag resulting from the flushing of an open hearth furnace, which includes the steps of receiving the flushed off slag alternately in two slag pots, changing from one slag pot to the other before the level of the effervescent slag in such



pot reaches the brim of such pot, and permitting the slag in the one, partially filled pot, to subside.

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2,772,961

## METHOD OF SMELTING

Claude A. Seger, Cobalt, Ontario, Canada, and Philip B. Dettmer, Oakland, Calif., assignors to Quebec Metallurgical Industries Limited, Ottawa, Ontario, Canada, a Canadian company

No Drawing. Application May 16, 1955, Serial No. 508,822
10 Claims. (Cl. 75—82)

1. The method of smelting a finely divided metal compound selected from the group consisting of the hydroxide, oxide, carbonate and mixtures thereof of a metal selected from the group consisting of cobalt and nickel which comprises forming small tightly compressed briquettes of said compound substantially free of slag-forming constituents, forming and maintaining a molten bath consisting essentially of the selected metal in the bottom of a furnace, periodically introducing a carbonaceous reductant upon the molten bath to maintain the metal highly carburized, periodically introducing said briquettes upon the molten bath in amounts to permit said briquettes and reductant to float in a thin layer on said bath and maintain said compound in an unfused condition and be reduced to metal and the latter to be dissolved in the molten bath, discontinuing said introduction of the reductant and briquettes when substantially the desired amount of metal has accumulated in the bottom of the furnace, and thereafter introducing additional briquettes on the bath in amounts such as to cause said compound to be reduced to metal by the residual carbon in the molten metal without fusing said compound and thereby lower the carbon content of the molten metal to a desired amount.

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2,772,962

## Cu-Mn-Zn RESISTANCE ALLOY

William J. Reichenecker, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application January 21, 1954, Serial No. 405,517
6 Claims. (Cl. 75—157.5)

1. A cast electrical resistance member composed of an alloy comprising as its essential ingredients from 10 to 12.5% by weight manganese, from 9 to 13% by weight zinc and the balance being copper, the cast members of the alloy having from 3.5% to 4.3% of the electrical conductivity of copper.

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2,772,963

## INERT-GAS SHIELDED-ARC WELDING OF 90-10 TYPE COPPER-NICKEL MATERIAL

George Raymond Pease, Westfield, and Theodore Ephraim Kihlgren, Berkeley Heights, N. J., assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application November 6, 1953, Serial No. 390,733
15 Claims. (Cl. 75—159)

5. As an article of manufacture for the use in the inert gas-shielded arc welding of iron-bearing copper-nickel parts, a welding rod composed of an alloy having as essential ingredients at least about 80.4% copper, about 5% to 15% nickel, about 0.1% to 2.0% iron, about 0.1% to 1% manganese, about 0.05% to 0.5% silicon and about 0.02% to 0.5% titanium, the composition of the aforementioned welding rod being controlled so that any lead contamination in the resultant weld metal does not exceed the amount expressed by the equation

$$\text{Maximum percent lead in weld} = 0.08 - 0.2 \times \text{percent silicon in weld}$$

whereby the weld is free from hot cracking.



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2,772,964

## ZIRCONIUM ALLOYS

Donald E. Thomas, Kenneth M. Goldman, Robert B. Gordon, and William A. Johnson, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application March 15, 1954, Serial No. 416,396
6 Claims. (Cl. 75—177)

1. An alloy consisting essentially of from 0.1% to 2.5% by weight of tin, and a total of at least 0.1% but not exceeding approximately 2% by weight of at least one metal from period 3 of the periodic table selected from the group consisting of iron, nickel and chromium, carbon not exceeding 0.05%, the balance being zirconium and less than 0.5% by weight of incidental impurities.

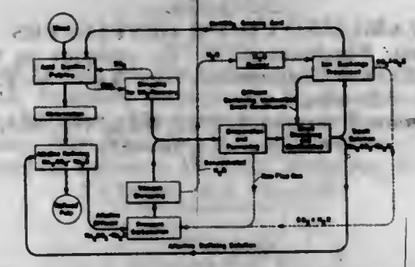
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2,772,965

## RECOVERY OF CHEMICALS IN WOOD PULP PREPARATION

Kenneth Russell Gray, Hartzell Lance Crosby, and John Charles Steinberg, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

Application June 2, 1953, Serial No. 359,146
19 Claims. (Cl. 92—2)



1. In the process of preparing wood pulp wherein an alkaline digestion is carried out with a sodium sulfide-containing solution and in which sulfide-containing waste black liquor is evaporated and burned to produce a smelt for the recovery of chemicals, the improvement which comprises carbonating the waste black liquor with carbon dioxide under pressure and then stripping hydrogen sulfide from the carbonated liquor under a vacuum reducing the sulfide sulfur content of the liquor substantially, thereby reducing sulfur losses, recovering concentrated hydrogen sulfide, and minimizing obnoxious odors, and then evaporating the stripped liquor and burning the resulting concentrate.

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2,772,966

## CATIONIC ROSIN SIZES

John H. Daniel, Jr., and Sewell T. Moore, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 28, 1954, Serial No. 446,396
10 Claims. (Cl. 92—3)

10. Paper composed of cellulosic fibers sized by a uniformly distributed content of from about 1% to 5%, based on the dry weight of the fibers, of the cationic rosin size formed by reacting an ester gum at about 175°–250° C. with a water-soluble polyalkylenepolyamine containing at least three nitrogen atoms, the ratio of the rosin solids in said ester gum to the nitrogen atoms of said polyalkylenepolyamine being between about 3:7 and 2:3, at least until the reaction product as its acetate salt forms a colloidal dispersion when agitated with water.

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2,772,967

## SIZED PAPER

John J. Padbury, Old Greenwich, and John H. Daniel, Jr., and Sewell T. Moore, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 28, 1954, Serial No. 439,913
10 Claims. (Cl. 92—3)

1. Paper composed of cellulosic fibers sized by a uniformly adsorbent content within the range of about 1% to 4%, based on the weight of the fibers, of a product corresponding to that formed by heating 1 mol of an amine selected from the group consisting of the lower water-soluble dialkanolamines, the lower water-soluble trialkanolamines and mixtures thereof with a saturated monocarboxylic fatty acid of 16–20 carbon atoms, the molar equivalence ratio of said fatty acid to the hydroxyl groups of said alkanolamine being between about 0.33 and 1.0, at an esterification temperature up to about 225° C. until reaction of said fatty acid with said alkanolamine is at least about 50% complete.

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2,772,968

## PROCESS OF PULPING CELLULOSIC MATERIALS WITH TRIETHYLENE GLYCOL

Bror L. Grondal and Piotr Zenczak, Seattle, Wash., assignors to Research Corporation, New York, N. Y., a corporation of New York

No Drawing. Application June 6, 1951, Serial No. 230,254
1 Claim. (Cl. 92—9)

Process for pulping wood chips which comprises immersing wood chips in a bath of triethylene glycol containing from 0.03% to 0.50% by weight of anhydrous aluminum chloride on the basis of the wood chips, maintaining said bath at a temperature of from about 120° C. to 135° C. for a period of from about 1 to 4 hours at atmospheric pressure, and thereafter separating the cellulosic fibers from the digestion liquor.

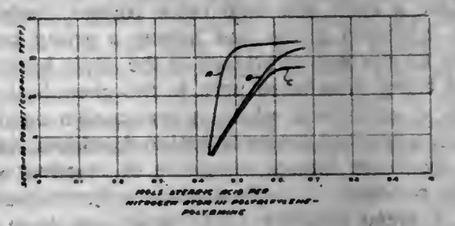
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2,772,969

## SIZING OF PAPER WITH FATTY ACID POLYALKYLENEPOLYAMINE COMPOSITIONS

Walter F. Reynolds, Jr., and Leonart A. Lundberg, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application November 20, 1952, Serial No. 321,606
8 Claims. (Cl. 92—21)



1. A method of producing sized paper which comprises: adsorbing on cellulosic fibers in the absence of rosin size between about 0.2% and 5%, based on the dry weight thereof, of a long chain fatty acid-polyalkylenepolyamine

reaction product corresponding to that formed by heating a water-soluble polyalkylenepolyamine at an acylation temperature with between about 3/7 and 3/3 molecule of a higher saturated fatty acid for each nitrogen atom in the polyalkylenepolyamine, until between about 50% to about 99% of the fatty acid has reacted with the amine with evolution of water, thereby forming a water-insoluble higher fatty acid salt of a higher fatty acid acylated polyalkylenepolyamine, said polyalkylenepolyamine containing between 3 and 5 nitrogen atoms and said fatty acid containing 14 to 22 carbon atoms, and combining said water-insoluble acylated polyalkylenepolyamine salt with a water-soluble acid to render said acylated polyalkylenepolyamine salt water-dispersible; and heating said treated fibers at between about 105° C. and 150° C. for about ½ to 3 minutes to dry the same and develop the water-repellent properties of the acylated polyalkylenepolyamine thereon.

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**2,772,970**

## METHOD OF MAKING FIBROUS SHEET MATERIAL CONTAINING A SYNTHETIC RUBBER BINDER

**David A. Feigley, Jr., Manheim Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania**

**No Drawing. Application April 4, 1952, Serial No. 280,657**
**11 Claims. (Cl. 92—21)**

1. The method of making fibrous sheet material containing a synthetic rubber binder comprising forming a slurry containing papermaking fibers, a synthetic rubber latex, and about 2% to about 20% by weight based on said binder of a coagulating agent which is a water-soluble reaction product of relative proportions of about 1 equivalent weight of a water-soluble aluminum salt and at least about 0.6 equivalent weight of a compound selected from the group consisting of water-soluble alpha-omega, carbon chain, aliphatic polycarboxylic acids and water-soluble salts thereof, agitating the resulting slurry to coagulate the solids content of said latex onto said fibers, and forming the slurry of coated fibers into a sheet.

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**2,772,971**

## PRODUCTION OF SUBTRACTIVELY COLORED PHOTOGRAPHIC MATERIAL

**Joseph A. Sprung, Binghamton, N. Y., and Willy A. Schmidt, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware**

**No Drawing. Original application January 19, 1951, Serial No. 206,938, now Patent No. 2,708,625, dated May 17, 1955. Divided and this application July 9, 1953, Serial No. 367,118**
**10 Claims. (Cl. 96—22)**

1. The process of producing subtractively colored images in a photographic color tripack comprising a base, a red sensitive silver halide emulsion on the base containing a color former capable of reacting with the oxidation products of a primary aromatic amino developer to produce a cyan dye, said color former containing a phenolic hydroxyl group and having a group rendering the color former non-migratory in the silver halide emulsion and being substituted para to the phenolic hydroxyl group by a substituent which is replaceable on development with a primary aromatic amino developer but which renders the color former incapable of reacting with the oxidation products of a β-aromatic sulfonhydrazide developer, a green sensitive silver halide emulsion on the red sensitive emulsion containing a magenta azo color former capable of reacting with the oxidation products of a primary aromatic amino developer, said color former bearing a group rendering it non-migratory in the emulsion and having a free coupling position selected from the class ortho and para to the coupling directing group, and a blue sensitive silver halide emulsion on the green sensitive emulsion containing a yellow azo color former capable of reacting with the oxidation products of a primary aromatic amino developer and having a group rendering it non-migratory in the emulsion, which comprises exposing said tripack, developing it in a black and white developer, re-exposing the tripack to white light, color developing the blue and green sensitive layers only with a β-aromatic sulfonhydrazide developer and subsequently color developing the red sensitive layer with a primary aromatic amino developer.

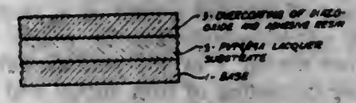
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**2,772,972**

## POSITIVE DIAZOTYPE PRINTING PLATES

**Clifford E. Herrick, Jr., Chenango Forks, Peter T. Woitach, Jr., Johnson City, and Edward J. Trojnar, Binghamton, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware**

**Application August 20, 1954, Serial No. 451,271**
**20 Claims. (Cl. 96—33)**



1. A plate capable of conversion to an offset printing plate comprising a base, a hydrophobic layer on said base comprising essentially a copolymer of vinyl methyl ether and maleic anhydride on said base and an overcoating on said hydrophobic layer of a water-insoluble, alkali-resistant adhesive resin and a light-sensitive, water-insoluble diazo oxide which is soluble in a solvent selected from the class consisting of liquid aliphatic esters, aliphatic ketones and aliphatic alcohols.

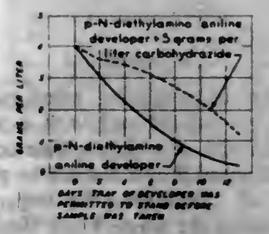
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**2,772,973**

## STABILIZED COLOR DEVELOPERS

**J W Britain, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware**

**Application February 2, 1955, Serial No. 485,756**
**5 Claims. (Cl. 96—55)**




1. A color developer containing as the active color developing principle a primary aromatic amino developing agent and as a stabilizer therefor against air oxidation the reaction product of carbohydrazide with a compound selected from the class consisting of alkali metal carbonates and bicarbonates.

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**2,772,974**

## LIGHT SENSITIVE DIAZOTYPE MATERIALS

**Joseph F. Kosalek, Binghamton, and John Salich, Jr., Endicott, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware**

**No Drawing. Application February 10, 1954, Serial No. 409,523**
**12 Claims. (Cl. 96—91)**

1. A light sensitive composition for diazotype materials comprising a compatible aqueous dispersion of a light sensitive diazonium compound, coupling component, a polymeric binder material selected from the class consisting of water soluble to water dispersible starches and water soluble polyvinyl compounds and finely divided alumina.



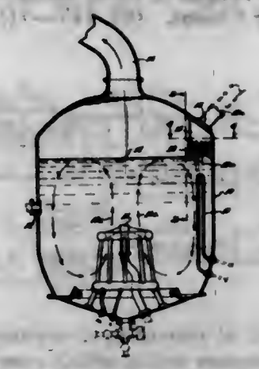
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**2,772,975**

## INJECTING OF HOPS IN THE BREWING OF BEER

**Frank Otto Rickers, Cincinnati, Ohio, assignor to The Geo. Wiedemann Brewing Co., Inc., Newport, Ky., a corporation of Kentucky**

**Application July 8, 1955, Serial No. 520,814**
**8 Claims. (Cl. 99—50.5)**



8. The method of brewing malt beverages, comprising the steps of boiling the wort, adding the hops to the boiling wort at a point where the boiling wort is moving downwardly, while producing in the boiling wort, adjacent the point where the hops are being added, a supplementary, highly localized ebullition of such intensity as to produce a fountain, playing onto the hops being added and immediately and thoroughly wetting them down as they are being added, and introducing them under the surface of the wort.

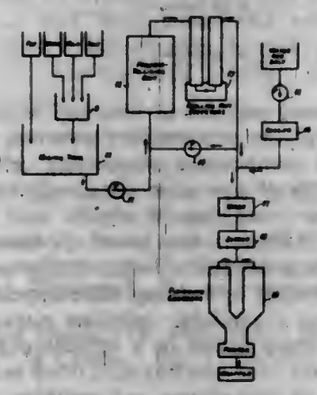
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**2,772,976**

## METHOD OF MAKING MARGARINE

**Werner H. Schmidt, Englewood, N. J., and Stanley I. Shafer, Melrose, Mass., assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine**

**Application February 18, 1953, Serial No. 337,457**
**7 Claims. (Cl. 99—122)**



1. A method of making margarine from preselected proportions of fat, milk, salt and water which comprises cooling and agitating an emulsion of the fat, milk, a major part of the preselected proportion of salt and a part of the preselected proportion of water to precrystallize the higher melting glycerides therein, rapidly chilling and agitating said emulsion to supercool it, and blending the remainder of the preselected proportions of salt and water with the supercooled emulsion.

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**2,772,977**

## SPICE SUBSTANCE AND METHOD OF PREPARING SAME

**Harry R. Ansel, Chicago, Ill., assignor to Wm. J. Stange Co., Chicago, Ill., a corporation of Illinois**

**No Drawing. Application December 9, 1954, Serial No. 474,299**
**17 Claims. (Cl. 99—140)**

1. The method of making a spice composition from a spice substance as hereinafter defined, comprising grinding the solid components of the spice substance in the presence of a fibrous material, said spice substance being one which in the absence of said fibrous material grinds to a gummy consistency.

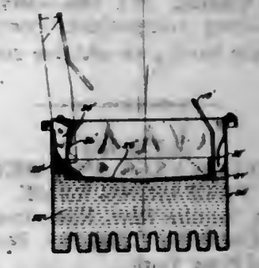
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**2,772,978**

## FRY KETTLES WITH FLOATING COVERS

**Harold N. Shaw, Erie, Pa.**

**Application September 26, 1950, Serial No. 186,734**
**18 Claims. (Cl. 99—163)**



18. A method of maintaining fat in proper cooking condition in a fry kettle comprising applying heat to the bottom portion of the kettle to keep the fat continuously hot, and protecting the fat against surface oxidation by placing a cover directly in the fat to contact substantially the entire top surface thereof during intervals when the fat is not being used and while heat is still being applied to the bottom portion thereof.

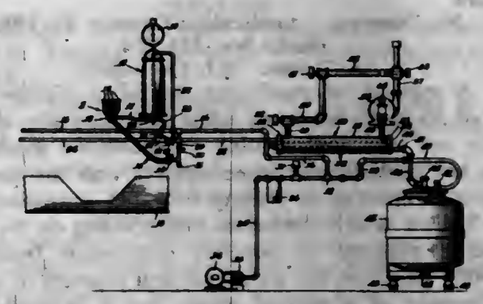
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**2,772,979**

## METHOD FOR PROCESSING MILK PRODUCTS

**Roy R. Graves, Valparaiso, Ind., assignor to The Graves-Stambaugh Corporation, a corporation of Delaware**

**Application April 12, 1952, Serial No. 281,961**
**5 Claims. (Cl. 99—184)**



1. The process of producing a canned sterilized milk product, having flavor and odor characteristics comparable to fresh milk and long time keeping characteristics without refrigeration, comprising, initially treating fresh milk to decrease the oxygen content thereof by subjecting the same to partial vacuum and elevated temperatures to provide an initially treated milk having substantially the same percentage of total solids as the fresh milk and an oxygen content of substantially 0.09 volume percent, and then homogenizing, sterilizing and canning the initially treated milk, all without substantial contact with air, which further reduces the oxygen content in the sterilized canned milk to substantially 0.05 volume percent.

2,772,980
**PREPARATION OF ANIMAL BRAINS**
Jean N. Lasparro, Chicago, and Chester J. Filipowicz, Lockport, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application November 28, 1952, Serial No. 323,154
8 Claims. (Cl. 99—194)

1. The process of treating animal brains which comprises the steps of cleaning and conditioning the brains in sodium chloride and sodium citrate solutions and thereafter blanching the brains.

2,772,981
**PAPER COATING COMPOSITION**
William F. Smart, Sayreville, N. J., assignor to National Starch Products Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application March 17, 1953, Serial No. 342,977
5 Claims. (Cl. 106—283)

1. A paper-coating composition comprising a paper coating pigment slip having an additive consisting of hemicellulose.

2,772,982
**PIGMENTED WAXES AND METHOD OF PREPARING SAME**
Vincent C. Vesce, Smoke Rise, Kinnelon, N. J., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
No Drawing. Application June 2, 1953, Serial No. 359,223
The portion of the term of the patent subsequent to August 18, 1970, has been disclaimed and dedicated to the Public
16 Claims. (Cl. 106—272)

6. A solid organic wax color master batch consisting essentially of pigmented solid organic wax in the form of free-flowing particles possessing a chromaticity not substantially less than the pigment portion thereof.

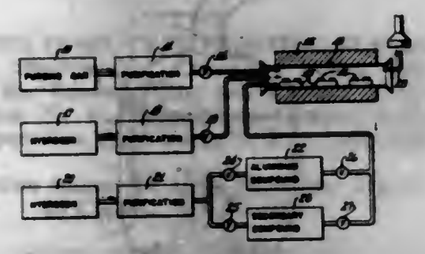
2,772,983
**ORGANIC PIGMENT PRODUCTION**
Godfrey Grimm, Short Hills, and Alfred A. Brizzolara, Belleville, N. J., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 20, 1952, Serial No. 315,254
5 Claims. (Cl. 106—289)

5. A method of stabilizing Benzidine Yellow against loss of strength on aging while retaining the ability to confer on inks and coating compositions made therefrom substantially the same opacity and the same rheological properties as freshly prepared untreated Benzidine Yellow which comprises precipitating on the freshly prepared pigment in aqueous suspension from about 10–30% based on the weight of said pigment of a metallic rosinate of a second group metal between atomic numbers 12 and 56 in the presence of a dialkyl ester of an alkali metal sulfo succinate containing from 1–8 carbon atoms in each alkyl radical.

2,772,984
**PIGMENT**
Bertram M. Helfner, Hamburg, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application July 12, 1952, Serial No. 298,624
7 Claims. (Cl. 106—289)

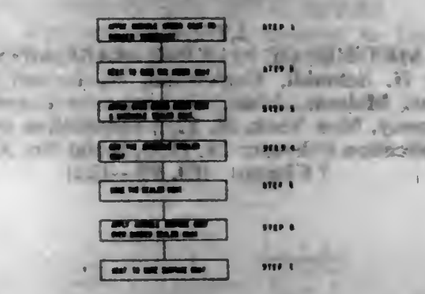
1. Pigments of improved dispersibility and tinctorial value comprising a water-insoluble organic color in finely divided form admixed with an activated silica gel having a surface area of at least 100 square meters per gram, an oil absorption value of at least 100, and an average particle size of from 0.01 to 50 microns, said silica gel being present in amount of from 1/50 to 20 parts by weight per part by weight of organic color.

2,772,985
**COATING OF MOLYBDENUM WITH BINARY COATINGS CONTAINING ALUMINUM**
Eugene Wainer, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application August 8, 1951, Serial No. 240,862
3 Claims. (Cl. 117—71)



1. The method of providing a corrosion-resistant surface on a molybdenum article which comprises depositing a layer of aluminum on said article, and thereafter reacting the resulting coated article with an element selected from the group consisting of boron, silicon, titanium, and zirconium.

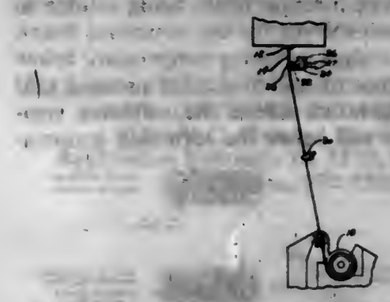
2,772,986
**METHOD OF FINISHING WOOD AND PRODUCT THEREOF**
Allen C. Buck, Drexel Hill, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 28, 1954, Serial No. 426,312
9 Claims. (Cl. 117—72)



1. An improved method of finishing wood comprising the steps of applying to a wooden substrate a polymerizable undercoat composition comprising cellulose nitrate and at least 45% of a monomeric acrylic diester selected from the group consisting of acrylic acid diesters and methacrylic acid diesters of a lower aliphatic dihydric alcohol in a volatile organic solvent, curing said undercoat to an insoluble stage by heating, superimposing over said cured undercoat a sandable cellulose nitrate containing sealer coating composition in a volatile organic solvent, drying said sealer coat, sanding said dried sealer coat to a desired degree of smoothness and applying over the said sanded sealer at least one coat of polymerizable surface coating composition comprising cellulose nitrate and at least 45% of a monomeric acrylic diester selected from the group consisting of acrylic acid diesters and methacrylic acid diesters of a lower aliphatic dihydric alcohol in an organic volatile solvent, and heating said polymerizable surface coating to cure said acrylic diester, said percentages being based on the total weight of non-volatile film forming components in the respective compositions.



2,772,987
**GLASS COMPOSITION AND METAL COATED GLASS FIBER**
Harry B. Whitehurst, Granville, and William H. Otto, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application November 7, 1952, Serial No. 319,388
5 Claims. (Cl. 117—126)



1. Metal coated fibers of a glass composition comprising by weight:

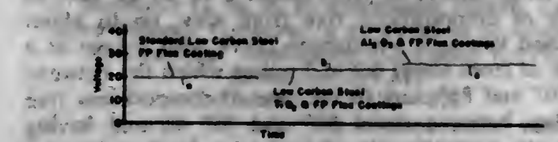
| | Percent |
|---|---|
| $SiO_2$ | 56.9 |
| $Al_2O_3$ | 5.4 |
| $MgO$ | 2.5 |
| $CaO$ | 6.1 |
| $B_2O_3$ | 6.4 |
| $Na_2O$ | 0.5 |
| $K_2O$ | 0.2 |
| $SrO$ | 11.3 |
| $CuO$ | 9.0 |
| $Li_2O$ | 1.7 |

and only minor proportions of any other oxides as impurities.

2,772,988
**METHOD OF WATERPROOFING LEATHER**
Jürgen Plapper and Rudi Heydes, Duesseldorf, Germany, assignors to Böhme Fettchemie G. m. b. H., Duesseldorf, Germany, a corporation of Germany
No Drawing. Application March 16, 1956, Serial No. 571,871
Claims priority, application Germany November 18, 1955
6 Claims. (Cl. 117—135.5)

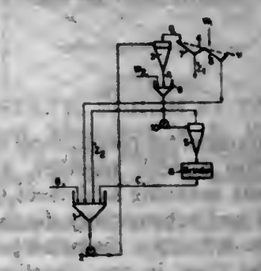
1. The method of water-proofing leather which comprises impregnating tanned leather with a solution comprising about 1 to 15% by weight, based upon the dry weight of the leather, of an organic metal complex compound produced by reacting a basic salt of a polyvalent metal with an acid phosphoric acid ester of higher-molecular hydroxyl compounds in the presence of a lower-molecular monohydroxy alcohol, and drying the impregnated leather.

2,772,989
**TREATED WIRE FOR ARC WELDING ELECTRODES**
Edward R. Gansberg, Irwin, and Howard C. Ludwig, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 19, 1953, Serial No. 331,884
14 Claims. (Cl. 117—204)




1. A consumable welding electrode particularly for use in welding in open air as distinct from welding in an inert gas atmosphere consisting of a homogeneous metallic wire core selected from the group consisting of iron, nickel, and alloys consisting essentially of iron and nickel having on its surface a layer only of a dissociable oxygen containing arc stabilizing compound selected from the class consisting of metal oxides and metal phosphates, said layer having on its surface a flux coating which during the welding operation prevents oxidation of the weld, the compound being in intimate contact with the surface of the core and being present in sufficient thickness to stabilize the arc without producing oxidation of the weld considering the diameter of the core.

2,772,990
**CORN-STARCH PROCESS INVOLVING VORTICAL CLASSIFICATION**
Pieter W. Hage, Koog aan de Zaan, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application August 26, 1952, Serial No. 306,389
Claims priority, application Netherlands September 5, 1951
2 Claims. (Cl. 127—67)



1. In the wet milling process of manufacturing corn starch wherein a mill stream containing process water, starch, bran, gluten and cell conglomerates is produced, the improvement which comprises the steps of vortically separating said mill stream into two fractions, the first of said fractions containing the bulk of the coarse cell conglomerates exceeding a size within the range of from 100 to 200 microns, and the second of said fractions containing the bulk of the process water, starch, bran, gluten and fine cell conglomerates, grinding said first fraction, recycling the ground first fraction with fresh feed to the vortical separation step, screening said second fraction to remove coarse bran exceeding a size within the range of from 100 to 200 microns therefrom, and then separating the final starch product from said second fraction.

2,772,991
**PROCESS OF CLEANING A RESIDUAL POWDER IMAGE FROM AN ELECTROPHOTOGRAPHIC PLATE**
Michael A. Insalaco, Rochester, N. Y., assignor to The Haloid Company, Rochester, N. Y., a corporation of New York
No Drawing. Application December 14, 1954, Serial No. 475,304
10 Claims. (Cl. 134—7)

1. The process of cleaning a residual powder image from an element comprising a photoconductive insulating layer on a conductive backing carrying such image, which process comprises passing across said photoconductive insulating surface a mixture of finely-divided barium sulfate and a water insoluble metaphosphate salt.

2,772,992
**PROCESS OF PRODUCING STAINLESS STEEL**
George C. Kiefer and Joseph A. Ferree, Brackenridge, Pa., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
No Drawing. Application July 13, 1953, Serial No. 367,766
6 Claims. (Cl. 148—12)

1. A process of producing chromium ferritic stainless steel for deep drawing purposes, said steel consisting of 15 to 22% chromium, not more than .50% nickel, not

more than .25% carbon, not more than 1.25% manganese, not more than 1% silicon and the balance substantially all iron, including as steps an initial hot rolling of the steel followed by at least one cold rolling treatment, which process is characterized by the step of heating the hot rolled steel prior to cold rolling to develop a temperature above about 1900° F. and up to about 2150° F. therein, said processed chromium steel having the characteristic of being capable of being deep drawn without developing roping.

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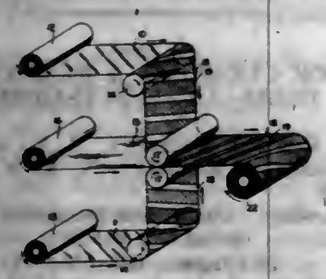
2,772,993
**REINFORCED LAMINATED SHEET**
Elton E. Magnuson, Ann Arbor, Mich.
Application October 17, 1951, Serial No. 251,729
6 Claims. (Cl. 154—52)



1. A laminated transparent plastic sheet comprising two layers of plastic film bonded together, and continuous overlapping filaments spanning said sheet transversely on two sets of parallel and substantially diagonal lines intersecting one another defining a diamond pattern, the filaments traversing the sheet in one direction lying on top of the filaments traversing it in the other direction, each of said filaments extending longitudinally of said layers for a predetermined distance in proximate spaced relation to the edges of said layers so that the several filaments overlap and form reinforcing beads, and all of said filaments being disposed between said layers of film, the edges of the film being folded inwardly around the reinforcing beads.

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2,772,994
**LAMINATED THREAD**
George H. Lacy, Cleveland, Ohio, assignor to The Dobeckmun Company, Cleveland, Ohio, a corporation of Ohio
Application October 18, 1954, Serial No. 462,753
12 Claims. (Cl. 154—53.6)

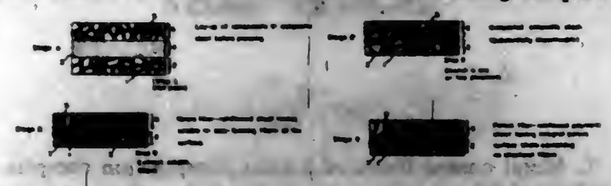


1. A thread comprising a metal film interposed between laminated long narrow strips of transparent thermoplastic, and at least one printed color deposit of a given color intermittently overlying said metal film along the length of said long narrow strips, said at least one color deposit being covered by at least one of said narrow strips.

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2,772,995
**LEATHER REPLACEMENT COMPOSITIONS AND PROCESS**
Joseph Durant Cooper Wilson II, New Castle, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application May 7, 1954, Serial No. 428,356
12 Claims. (Cl. 154—124)

1. The process of forming non-woven, porous leather replacement fabrics which comprises associating substantially water vapor-impermeable, relatively extensible, initially thermoplastic, elastomeric, polymeric binder material with a fibrous sheet comprising essentially a non-woven base stratum of uniformly dispersed structural fibers of relatively non-extensible material, and a non-woven surface stratum of uniformly dispersed soluble pore-forming fibers and free of structural fibers to form an initial sheet, said pore-forming fibers being soluble in a solvent which is a non-solvent for the structural fibers, said binder material having a softening temperature below the softening temperature of said fibers; hot-pressing said initial sheet at a temperature above the softening temperature of said binder and below the softening tempera-



ture of said fibers, whereby to form a compacted substantially water vapor-impermeable sheet wherein said fibers are embedded in said binder; stretching said compacted sheet 10% to 50% in at least one direction to form channels substantially contiguous with the structural fibers distributed uniformly throughout the base stratum; and dissolving out said pore-forming fibers with a liquid which is a solvent for said pore-forming fibers and a non-solvent for said structural fibers and said binder material, whereby to form a porous, water vapor-permeable sheet of polymeric binder material reinforced with structural fibers and having a porous surface stratum free of fibers.

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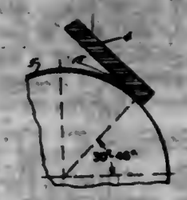
2,772,996
**BORATED-SILICATE-STARCH LAMINATING ADHESIVES AND MANUFACTURE OF COMBINED FIBERBOARD THEREWITH**
Robert H. Sams, Darby, Pa., assignor to Philadelphia Quartz Company, Philadelphia, Pa., a corporation of Pennsylvania
Application October 15, 1953, Serial No. 386,230
17 Claims. (Cl. 154—138)

8. In the manufacture of laminated paper board on high-speed laminating machines wherein at least two plies are combined with an adhesive containing a sodium silicate solution as its aqueous phase having a viscosity within the range of from about 0.25 to 15 poises and a gravity of from about 30 to 50° Bé. at 20° C. with a percent ratio of $NaO_2$ to $SiO_2$ within the range of from about 1:2 to 1:4.2 and containing substantially uniformly dispersed therein from about 1.5 to 10 percent by weight of a raw unswelled starch-like material which has the property of swelling by hydration before going into solution when heated in water to temperatures within the range of from about 55° to 80° C., from about 15 to 150 percent by weight of an alkali metal borate based on the starch-like material in the adhesive, and usually from about 1 to 25 percent by weight of a finely-divided solid siliceous material having an average particle size not substantially exceeding 2 microns; the said silicate solution constituting at least about 50 percent of the adhesive as a whole; the said adhesive having an over-all viscosity at operating temperatures of from about 0.2 to 15 poises, a filter test at operating temperatures of from about 2 to 20 cc. and, in the case of compositions free from clay, up to about 30 cc., and having a Viscograph curve with a knee at a viscosity of from about 0.2 to 3 poises which lies between about 70° and 85° and, in the case of compositions free from clay, between about 60° and 75° C. and having the characteristic property of increasing in viscosity at a rate substantially higher than that of a similar adhesive free from said alkali metal borate when heated to temperatures within the range of from about 55° to 90° C.; the process which comprises applying to the face of a ply to be laminated the adhesive defined above, immediately combining the adhesive-coated face with another ply under pressure and heating the adhesive substantially simultaneously with its application to temperatures within the range of from about 55° to 90° C., whereby a flash bond is produced capable of withstanding cutting, scoring and other mechanical operations and stronger than that produced by a similar adhesive free from said borate.

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2,772,997
**ILLUMINATED AND EDGE-LIGHTED ARTICLES AND METHODS OF MAKING SAME**
Richard C. Webster, Burlington, Mass.
Application February 13, 1950, Serial No. 143,945
8 Claims. (Cl. 154—138)



4. In the forming of an edge-lighted display element comprising a flexible sheet having a fibrous interstitial decorated surface adhesively secured to a transparent plate like member of material having the property of internally reflecting light rays supplied through an edge of the member, a method of obtaining a display that does not exhibit any greyish or silvery haze at the zone of adhesion and which thus affords a brilliant unhazed front view of the surface decoration of the sheet when viewed through the member under conditions of edge illumination, which method consists in arranging the sheet decorated face up as a convex arc, arranging the plate like member at a downward inclination and in tangential contact with a linear edge of the arched sheet below the crest of its arc, maintaining a pressure of the plate like member against the line of tangential contact at less than that which would appreciably distort the fibers of the sheet, flowing over the arcuate surface of the sheet a bubble free liquid capable of wetting the sheet and producing an adhesive bond between the sheet and the plate like member equal in index of refraction to that of the body of the plate like member and forming a well of said liquid between the arched sheet and plate adjacent the line of tangency thereof, then simultaneously linearly moving the plate like member and peripherally rotating the arcuate sheet to bring them progressively into liquid submerged contact at the line of tangency thereof while maintaining the well of bubble free liquid thereat so that the undeformed fibrous surface of the sheet is impregnated and its interstices filled with liquid adhesive material to the exclusion of bubbles and gaseous voids, and permitting the bond to set.

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2,772,998
**CHOLINE SALT TABLET AND PROCESS OF MAKING SAME**
Hermann Rudy, Heidelberg, Germany, assignor to Joh. A. Benckiser G. m. b. H. Chemische Fabrik, Ludwigshafen (Rhine), Germany, a corporation of Germany
No Drawing. Application November 7, 1952, Serial No. 319,417
9 Claims. (Cl. 167—82)

2. A process for tableting choline salts, comprising thoroughly mixing a hygroscopic choline salt with a smaller quantity of dehydrated calcium citrate and with a mold lubricant, said dehydrated calcium citrate and said mold lubricant being present in a quantity which renders the formed mixture substantially non-adherent to the tableting mold and tableting the formed mixture.

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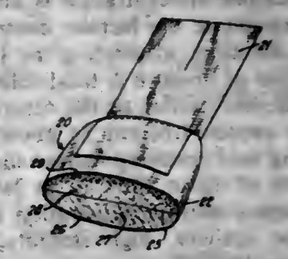
2,772,999
**HEMOSTATIC SURGICAL COMPOSITIONS AND DRESSINGS**
Joseph N. Masci, Metuchen, and William L. George, Middlesex, N. J., assignors to Johnson & Johnson, a corporation of New Jersey
Application June 6, 1952, Serial No. 292,144
18 Claims. (Cl. 167—84)



1. A surgical composition for coagulating blood containing a hemostatic amount, at least about 2%, of cellulose derivative of the group consisting of free acid cellulose glycolic acid ether and free acid cellulose hydroxypropionic acid ether having degree of substitution at least about 0.5, and degree of neutralization in the approximate range 0 to 60% but sufficiently low so that the free carboxy content of the cellulose is at least 0.5 per glucose unit.

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2,773,000
**HEMOSTATIC SURGICAL DRESSINGS**
Joseph N. Masci, Metuchen, N. J., William H. Ashton, Philadelphia, Pa., and Julius Wiland, New Brunswick, N. J., assignors to Johnson & Johnson, a corporation of New Jersey
Application June 6, 1952, Serial No. 292,145
10 Claims. (Cl. 167—84)



1. A surgical dressing having adjacent a wound-contacting external surface thereof, a non-toxic hydrophilic aliphatic poly-ol compound normally existing in non-crystalline condition and in amount sufficient to produce easy removal of said dressing from a clot of blood, said dressing also containing cellulose derivative of the group consisting of free acid cellulose glycolic acid ether and free acid cellulose hydroxypropionic acid ether in hemostatic amount at least about 0.30 mg. per square inch of said surface, said cellulose derivative having degree of substitution at least about 0.5 and degree of neutralization in the approximate range of 0 to 60% and sufficiently low so that the free carboxy content of the cellulose is at least 0.5 per glucose unit, said cellulose derivative further having degree of polymerization indicated by viscosity of a 0.50% by weight solution of the free acid in a 0.50 N NaOH solution at 25.50° C. of at least 5.7 seconds as determined in a modified Ostwald-Fenske viscosimeter pipette ASTM D-445 #300, as compared with a zero pipette reading of 5.0 seconds for a 0.50 N. NaOH solution at the same temperature.

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2,773,001
**METHOD OF PREPARING CITRATE ION-DERIVED L-GLUTAMIC ACID**
Carl V. Smythe, Moorestown, N. J., and Hsing T. Huang, Elkins Park, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application May 27, 1954, Serial No. 432,907
8 Claims. (Cl. 195—30)

1. A method for preparing L-glutamic acid which comprises treating with a lysate of a yeast which oxidizes citric and glutamic acids an aqueous solution contain-

ing citrate ions as the exclusive carbon atom-yielding starting material and ammonium ions in an amount at least molecularly proportional to the citrate, said solution having a pH of 6 to 8.5, being at a temperature of 20° to 40° C., and having a concentration between 0.01 and about 0.2 molar with respect to citrate, permitting the lysate to act on said solution, whereby at least one decarboxylation occurs and at least one amination takes place, and recovering the resulting citrate derived glutamate content.

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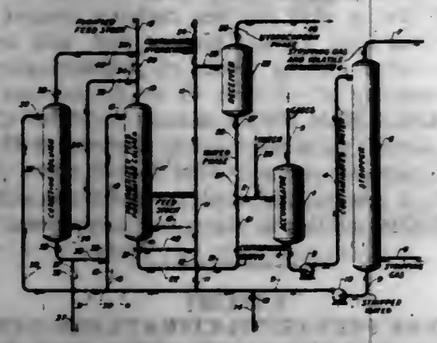
**2,773,002**
**PURIFICATION OF LACTASE ENZYME AND SPRAY-DRYING WITH SUCROSE**
**William M. Connors, Bay Shore, and Theodore Sfortunato, Patchogue, N. Y., assignors to National Dairy Research Laboratories, Inc., Islip, N. Y., a corporation of Delaware**
**No Drawing. Application March 31, 1955, Serial No. 498,434**
**7 Claims. (Cl. 195—63)**

1. A process for the isolation and purification of lactase from a dried lactase yeast which comprises agitating a dried lactase yeast in an aqueous potassium phosphate buffer solution having a solids content of about 5% to 15% at a pH within the range from about 6.5 to 7.2 and a temperature of less than about 40° C. for about 4 to 20 hours, centrifuging a lactase solution from the resulting slurry, cooling the lactase solution to about 40° F. and adding acetone at about 40° F. to said lactase solution until the acetone concentration is about 40 to 50% by weight to precipitate the lactase, centrifuging the lactase from said solution, suspending the lactase in water to a concentration of about 8% total solids, centrifuging, and adding a sucrose carrier to the centrifugate to bring the final solids content thereof to about 12% to 20% and spray drying said resulting lactase-sucrose dispersion at a temperature of about 175° F. to 265° F., whereby a spray-dried lactase-sucrose preparation is obtained having high lactase activity, high stability, and excellent flavor in milk products.

7. A lactase preparation having high lactase activity, high stability and excellent flavor in milk products consisting of homogeneous spray-dried particles of lactase and sucrose.

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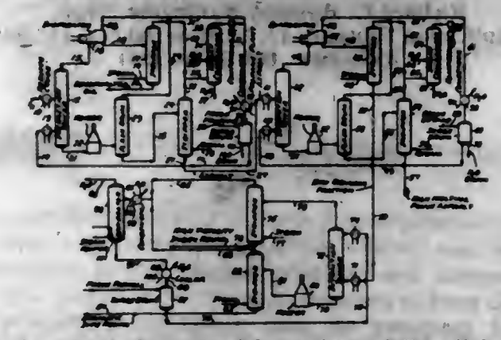
**2,773,003**
**WASTE WATER TREATMENT**
**Kenneth M. Brown, Hinsdale, and James E. Gantt, Elmwood Park, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware**
**Application April 16, 1953, Serial No. 349,282**
**7 Claims. (Cl. 196—1)**



1. The method of treating waste water from petroleum refining processes to remove volatile contaminants and phenols therefrom which comprises passing said waste water into countercurrent contact with a stream of stripping gas, separately recovering the resultant volatile contaminant-containing stripping gas stream and a treated water stream containing phenols, and passing at least a portion of said treated water stream into contact with volatile contaminant-containing hydrocarbons to remove volatile contaminants from the hydrocarbons and to effect a transfer of phenols from the water stream to the hydrocarbons.

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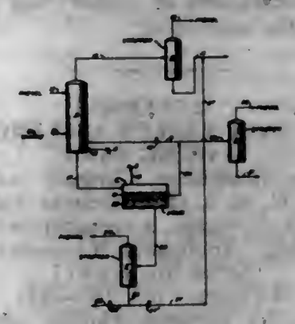
**2,773,004**
**SOLVENT RECOVERY OF RESINS FROM PRECIPITATED ASPHALT**
**Edward J. Martin, Homewood, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine**
**Application March 18, 1952, Serial No. 277,203**
**2 Claims. (Cl. 196—14.15)**



1. A process for recovering substantially oil-free high viscosity index resins and substantially oil-free aromatic type resins in petroleum which comprises contacting a residual stock with a liquid, normally gaseous paraffin precipitant to precipitate an asphalt fraction which contains a raw resinous fraction, contacting the asphalt fraction with a butane solvent at a butane to asphalt ratio exceeding about 5 to 1 at an elevated temperature below the critical temperature of the solvent and under superatmospheric pressure sufficient to maintain the solvent in liquid phase, separating the raw resinous fraction as extract, stripping the solvent from the raw resinous fraction, subjecting the raw resinous fraction to extraction at a temperature of about 160° to 260° F. with a selective solvent having a high selectivity for aromatic components at a total solvent to raw resin ratio of about 0.5 to 5:1, and recovering a high viscosity index resinous fraction from the raffinate and an aromatic resinous fraction from the extract.

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**2,773,005**
**METHOD FOR OBTAINING AN OXIDATION INHIBITOR AND AN OXIDATION RESISTANT LUBRICATING OIL**
**Herbert W. H. Meyer and Edward F. Wadley, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware**
**Application September 17, 1954, Serial No. 456,700**
**2 Claims. (Cl. 196—14.17)**

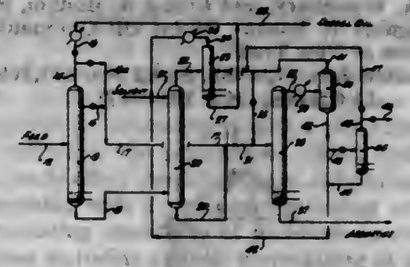


1. A method for obtaining an improved oxidation resistant lubricating oil including the steps of extracting in a first extraction zone in the presence of phenol and water a paraffinic light motor oil distillate to separate it into an extract phase and a raffinate phase, removing said raffinate phase from said first extraction zone and stripping phenol therefrom to recover a motor oil fraction, removing the first extract phase from said first extraction zone, passing it to a separation zone and there adding from 3% to 6% by volume water thereto to cause phase separation therein to form a second extract fraction and a second raffinate fraction, separately removing said second extract fraction and said second raffinate fraction from said separation zone, stripping the phenol from said second extract fraction to recover a finished oxidation inhibitor and admixing at least a portion of said finished oxidation inhibitor with said motor oil fraction to recover a finished oxidation resistant lubricating oil.



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**2,773,006**
**SEPARATION OF HYDROCARBONS**
**Harold E. Carver, Brea, and George R. Lake, Long Beach, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California**
**Application March 4, 1955, Serial No. 492,176**
**14 Claims. (Cl. 196—14.25)**

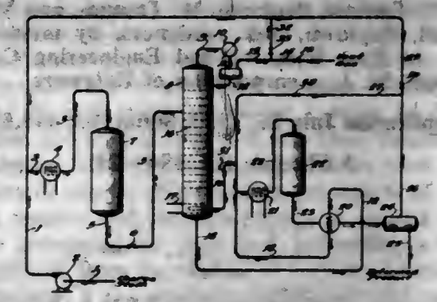


1. A process for segregating a hydrocarbon oil containing aromatic and non-aromatic hydrocarbons boiling over the same temperature range of at least about 80° F. into a relatively aromatic portion and a relatively non-aromatic portion, which comprises fractionally distilling said oil to recover (1) a bottoms fraction amounting to between about 30% and 70% by volume of the feed oil, and (2) a lower-boiling fraction amounting to the major part of the total feed oil boiling below said bottoms fraction; subjecting said bottoms fraction to solvent extraction with a solvent which (1) is a selective solvent for aromatics, (2) is a selective azeotrope former for non-aromatics, and (3) boils approximately within the boiling range of said lower-boiling fraction of feed; recovering from said extraction a hydrocarbon raffinate which is relatively non-aromatic and an extract which contains a relatively aromatic hydrocarbon solute; subjecting said extract plus said lower-boiling fraction to mutual azeotropic distillation, recovering from said azeotropic distillation a bottoms fraction which is relatively rich in aromatic hydrocarbons, and an azeotropic overhead of solvent plus relatively non-aromatic hydrocarbons; separating the solvent from said azeotropic overhead and combining said relatively non-aromatic hydrocarbons from said azeotropic overhead with said relatively non-aromatic hydrocarbon raffinate.

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**2,773,007**
**PROCESS FOR HYDROFINING AND REFORMING FEED STOCKS**
**Clarence G. Gerhold, Riverside, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware**
**Application July 24, 1952, Serial No. 300,642**
**7 Claims. (Cl. 196—28)**

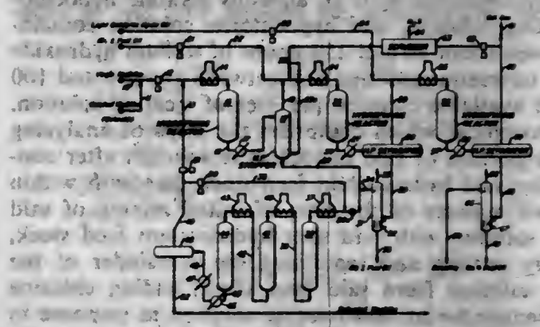
6. A process for the conversion of a sulfur-containing hydrocarbon distillate boiling in the gasoline range which comprises contacting said distillate in a treating zone with a hydrogenation catalyst in the presence of hydrogen under conditions to convert sulfur compounds to hydrogen sulfide, introducing the effluent of the treating zone into a separating zone and therein contacting the same with an ascending gas stream to strip hydrogen sulfide therefrom, removing the desulfurized gasoline distillate from the separating zone and catalytically reforming the same in the presence of hydrogen, separating a hydrogen-containing gas from the resultant reformed



gasoline products, introducing at least a portion of the last-named gas to the separating zone as said ascending gas stream and supplying hydrogen-containing gas from the separating zone to said treating zone.

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**2,773,008**
**HYDROFINING-HYDROFORMING SYSTEM**
**Robert J. Hengstebeck, Valparaiso, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana**
**Application April 26, 1954, Serial No. 425,461**
**12 Claims. (Cl. 196—28)**



1. A hydrocarbon conversion process which comprises hydrofining a sulfur-containing naphtha at a pressure in the range of about 200 to 1500 p. s. i. g. and a temperature in the range of 600–800° F. in a first hydrofining zone, cooling the effluent from the first hydrofining zone at substantially hydrofining pressure to condense hydrocarbons higher boiling than hexane without condensing appreciable amounts of pentanes and lower boiling hydrocarbons, separating in a first separation zone at a temperature above 200° F. condensed hydrocarbons from a hydrogen stream containing $H_2S$ and uncondensed hydrocarbons, contacting said hydrogen stream and a distillate hydrocarbon fuel which is higher boiling than gasoline with a hydrofining catalyst in a second hydrofining zone at a temperature in the range of about 600 to 800° F. and at a slightly lower pressure than that maintained in the first named hydrofining step so that the hydrogen stream requires no further compression between said first and second hydrofining zones, cooling the second hydrofining reaction zone effluent, separating condensed hydrocarbons therefrom at substantially hydrofining pressure in a second separation zone and distilling said separated hydrocarbons to obtain a distillate fuel oil and a naphtha fraction, contacting said first named condensed hydrocarbons with a platinum-on-alumina catalyst at a temperature in the range of about 850 to 950° F. under a pressure in the range of about 200 to 750 p. s. i. to effect hydroforming, separating a hydrogen stream containing low boiling hydrocarbons from hydrocarbons produced in the hydroforming step, recycling most of the last named separated hydrogen stream to the hydroforming step and introducing the remainder to the first named hydrofining step.

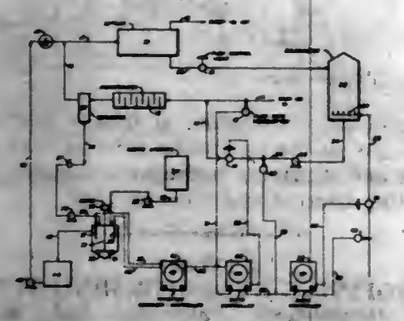
2,773,009

## CONTROLLED HYPOCHLORITE SWEETENING PROCESS

Harold W. Earhart, Benjamin W. Thomas, and Mathis T. Waddell, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application July 26, 1954, Serial No. 445,555

3 Claims. (Cl. 196—29)



1. In a continuous hypochlorite sweetening process in which a sour petroleum hydrocarbon feed stock is intimately contacted with an aqueous alkaline hypochlorite treating solution, said hypochlorite solution containing between about 50 and 250 grams of sodium hydroxide per liter of treating solution and between about 1 and 100 grams of available chlorine per liter of treating solution, the improvement which comprises the steps of analyzing a sample portion of said hypochlorite solution after contacting the said hydrocarbon feed stock therewith within about two minutes of the time of initial mixing of said treating solution with said sour hydrocarbon feed stock, separately settling and separating the remainder of the treating solution from said feed stock, adding chlorine to said remainder of said treating solution in response to said analysis in an amount sufficient to reactivate the same and employing said reactivated solution containing said added chlorine to contact additional quantities of said sour hydrocarbon feed stock, the amount of chlorine added in response to said analysis being sufficient to provide an available chlorine content for said sample portion within the range of about 0.1 to 1.0 grams of available chlorine per liter of sample solution.

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2,773,010

## DOCTOR PROCESS

Mathew L. Kalinowski, Chicago, and Garbis H. Meguerian, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application April 16, 1954, Serial No. 423,840

4 Claims. (Cl. 196—33)

1. A doctor sweetening process which comprises (1) adding to a sour petroleum distillate boiling below about 750° F. between about 0.001 and 0.1 weight percent of at least one aliphatic amine selected from the class consisting of (*a*) primary aliphatic amines containing at least 8 carbon atoms, (*b*) secondary aliphatic amines containing at least 5 carbon atoms in each aliphatic group and (*c*) tertiary aliphatic amines containing at least 3 carbon atoms in each aliphatic group, (2) contacting said amine-containing sour oil with doctor solution and with free sulfur in an amount at least sufficient to sweeten said distillate, and (3) separating an essentially sweet amine-containing distillate from doctor solution.

2,773,011

## HYDROGEN REFINING HYDROCARBONS IN THE PRESENCE OF AN ALKALI METAL-CONTAINING PLATINUM CATALYST

Vladimir Haensel, Hinsdale, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application August 30, 1951, Serial No. 244,451

13 Claims. (Cl. 196—36)

2. A process for the purification of a hydrocarbon fraction containing nitrogen compounds which comprises subjecting said fraction to treatment with hydrogen at a temperature of from about 400° to about 850° F. in the presence of a catalyst comprising alumina, platinum and a component selected from the group consisting of alkali metals and compounds thereof.

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2,773,012

## METHOD AND APPARATUS FOR CONTINUOUS PERCOLATION OF OILS

Joe E. Penick, Woodbury, and Ernest A. Bodkin, Pitman, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application July 17, 1951, Serial No. 237,266

11 Claims. (Cl. 196—47)



1. A method for effecting countercurrent contact with a moving adsorbent and liquid hydrocarbons which remain in the liquid phase during the contacting which comprises, passing an adsorbent in palpable particle form downwardly as a column of gravitating particles through a confined treating zone, supplying the liquid hydrocarbon feed to at least one plenum space near the lower end of said column, ejecting the liquid feed from said plenum space through a plurality of uniformly spaced flow restricting passages whereby a plurality of liquid streams are formed and directing said streams into the lower section of said column, the number of said streams, N, depending upon the height, L, in feet and the horizontal cross-sectional area, A, of said column in square feet, and being equal at least to that defined by the equation

$$N=\frac{96.7A}{L^{1.07}}$$

and less than that defined by the equation

$$N=\frac{537A}{L^{1.39}}$$

passing the liquid hydrocarbons upwardly through said column at a velocity controlled below the column disrupting velocity whereby the hydrocarbons are effectively countercurrently contacted with the adsorbent, withdrawing the treated liquid hydrocarbons from the upper section of said column, passing the contacted adsorbent downwardly past but out of communication with said plenum space and withdrawing it from the lower end of the treating zone so as to cause the adsorbent to flow downwardly in said column.



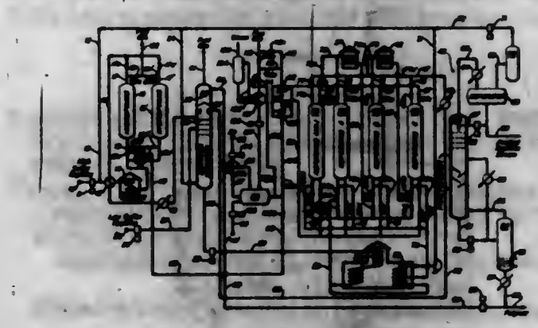
2,773,013

## HYDROCARBON REFORMING SYSTEM FOR HIGH SULFUR NAPHTHAS

Joseph E. Wolf and Donnell H. Wagner, Hammond, and James A. Bock, Crown Point, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application April 9, 1953, Serial No. 347,634

15 Claims. (Cl. 196—50)



1. The method of converting a low octane number naphtha containing more than .1 percent sulfur and rich in paraffins and naphthenes into a high octane number naphtha product which method comprises hydrofining said naphtha by contacting it with a sulf-active hydrogenation catalyst in the presence of added hydrogen under conditions to effect desulfurization, reforming said hydrofined naphtha with a platinum-containing reforming catalyst consisting essentially of platinum-on-alumina under conditions including an inlet temperature of at least about 950° F. for increasing the octane number of said naphtha and producing hydrogen, separating hydrogen from the reforming product stream, recycling a part of said hydrogen to the reforming step, recycling another part of said hydrogen to the hydrofining step, periodically regenerating at least a part of the platinum-containing catalyst while other parts of the platinum-containing catalyst are on-stream by contacting said part of the platinum-containing catalyst with flue gas containing added oxygen to substantially remove carbonaceous deposits of combustion and then contacting the substantially carbon-free catalyst with a gas having an oxygen partial pressure of at least .4 atmosphere at a temperature approximating the temperature employed in the reforming step for a time sufficient to restore the catalyst substantially to its original activity, recycling gas leaving the regenerating step through a temperature control zone back to said regeneration step and employing at least a part of the recycled gas stream from the temperature control zone for effecting regeneration of a part of the hydrofining catalyst while said last named catalyst is not on-stream.

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2,773,014

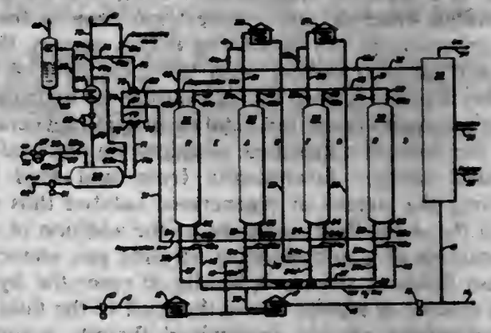
## HYDROCARBON REFORMING WITH PLATINUM CATALYST AND REGENERATION SYSTEM THEREFOR

John F. Sauger, Chicago, Ill., and James A. Bock, Crown Point, and Joseph E. Wolf, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application April 9, 1953, Serial No. 347,635

17 Claims. (Cl. 196—50)

1. A regenerative, platinum-catalyst, naphtha hydroforming system which comprises at least four reactors herein called alternate, first, second and third reactors respectively, each adapted to contain a bed of platinum catalyst, a lower regeneration gas line, a connection including a valve between the bottom of each reactor and said lower regeneration gas line, an upper regeneration gas line, a connection including a valve between the top of each reactor and the upper regeneration gas line, a regeneration system connected to said lower and upper regeneration gas lines, a charging stock heater, first reheater and second reheater respectively, an inlet at one end of each reactor and an outlet at the other end thereof, a charging stock heater discharge line alternately connected by lines each containing a valve to discharge only to the alternate reactor and the first reactor inlets, a first reheater discharge line connected by lines each containing a valve to discharge only to the alternate reactor and the second reactor inlets, a second reheater discharge line connected by lines each containing a valve to discharge only to the alternate reactor and the third reactor inlets, a first reheater inlet line connected by lines each containing a valve to receive effluent from the outlets of only the alternate reactor and the first reactor, a second reheater inlet line connected by lines each containing a valve to receive effluent from the outlets of only the alternate and second reactor, a gas separator having an inlet connected by lines each containing a valve to receive effluent from the alternate reactor and the third reactor, whereby a naphtha charge flows in series through the heater, first reactor, first reheater, second reactor, second reheater, and third reactor to the gas separator while catalyst in the alternate reactor is undergoing regeneration and whereby the alternate reactor may be connected in parallel with any selected one of the first, second and third reactors respectively and take the place thereof in any desired sequence so that any selected reactor may be taken off stream for regeneration without interrupting charging stock flow through the system or changing the order of said flow through the preheaters of the system.



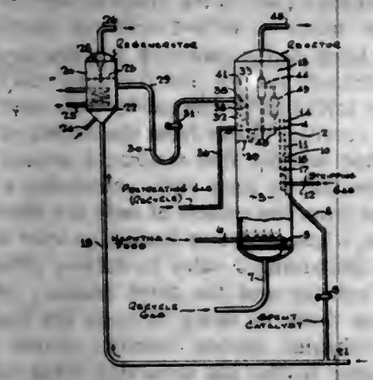
13. In a platinum-catalyst, naphtha hydroforming process wherein a naphtha charge of low sulfur content is preheated and introduced with preheated hydrogen to a first reaction zone, effluent from the first zone is reheated and introduced into a second reaction zone, effluent from the second zone is reheated and finally introduced into a last reaction zone from which it is passed through a cooling zone to a separation zone and hydrogen is recycled from the separation zone through a preheating zone for introduction to the first zone, the improved method of operation which comprises periodically connecting any selected reaction zone in parallel with an alternate reaction zone of approximately the same size as the first, second and last reaction zones respectively, each of the reaction zones containing a bed of supported platinum catalyst, blocking off the selected reaction zone to take it off stream while the alternate zone takes its place in the on-stream sequence, purging hydrogen from the off-stream reaction zone, then regenerating catalyst in the off-stream reaction zone by burning carbonaceous deposits therefrom with a gas having a low oxygen content, then purging oxygen from the off-stream zone and thereafter replacing the purge gas with hydrogen, then placing the selected reaction zone back on stream and thereafter taking the alternate reactor off stream, and in the same manner replacing other of the first, second and last reaction zones with the alternate reaction zone in any desired sequence so that each of the reaction zones including the alternate may undergo regeneration while in off-stream position without interrupting the on-stream flow and without changing the sequence of flow through the preheating and the two reheating steps.

**2,773,015**

## FLUID HYDROFORMING PROCESS

Richard J. Yoder, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 30, 1952, Serial No. 285,146
3 Claims. (Cl. 196—50)



1. In a process for hydroforming hydrocarbons in the naphtha boiling range using a finely divided solid metal oxide hydroforming catalyst according to the fluidized solids technique, the improvement which comprises continuously withdrawing a dense fluidized stream of spent catalyst particles from a fluid bed of catalyst maintained within a reaction zone, conveying the said spent catalyst particles to a separate regeneration zone, subjecting the spent catalyst entering said regeneration zone to the action of an oxidizing gas containing excess oxygen, thereby at least partly removing from the spent catalyst carbonaceous deposits formed thereon during the hydroforming reaction, maintaining the catalyst in said regeneration zone in the form of a fluid bed, withdrawing oxidized and regenerated catalyst downwardly from said fluid bed, maintaining the stream of regenerated catalyst thus withdrawn in the dense fluid condition by the addition of only small amounts of a non-reducing aerating gas, conveying this dense fluidized stream upwardly to enter the hydroforming reactor at a point above the level of the fluid bed of hydroforming catalyst maintained therein, maintaining a stripping section at an upper level within said reactor, causing said regenerated catalyst stream to enter said stripping section and to fall therein countercurrently to a rising stream of a reducing and stripping gas present in an amount sufficient to partially reduce the oxidized catalyst and to entirely remove the water vapor formed by said partial reduction, feeding a hydrogen-containing reducing gas to said stripping section at a point above said fluid bed level, removing the stripping gas overhead out of contact with the catalyst in said fluid bed but in mixture with the vaporous reaction products from said fluid bed and passing stripped catalyst downward from said stripping zone into the main fluid bed of hydroforming catalyst.

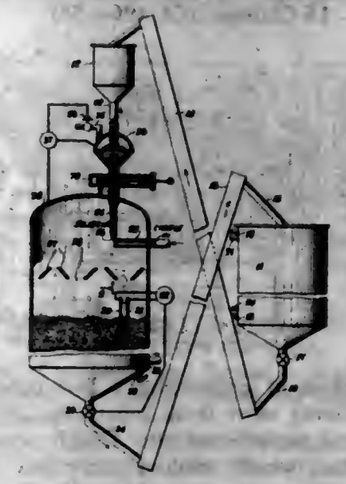
**2,773,016**

## METHOD OF FEEDING GASEOUS HYDROCARBONS IN A MOVING BED HYDROCARBON CONVERSION PROCESS

Raymond R. Halik, Pitman, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application February 25, 1953, Serial No. 338,771
15 Claims. (Cl. 196—52)

1. A continuous process for the conversion of gaseous reactants in the presence of a moving mass of granular contact material maintained within a confined conversion zone, which comprises: gravitating at least 75 percent of the total granular contact material supply for said conversion zone into a mixing zone, supplying the total gaseous reactants to be supplied to said conversion zone to said mixing zone at a temperature at least 50° F. different from the temperature of the contact material supplied to the mixing zone and thoroughly mixing contact material and gaseous reactants in said mixing zone whereby the temperatures of substantially all of the contact material and substantially all of the reactant are brought within at least 50° F. of each other, passing contact material and reactant from the mixing zone downwardly through a plenum space and onto the surface of a substantially compact bed of contact material maintained within a confined conversion zone with upper surface at a level below the mixing zone, passing the reactant downwardly through said bed to effect the desired conversion, removing the products of conversion from said bed and removing contact material from the lower section of said bed.

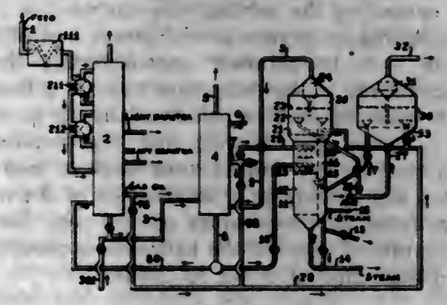


**2,773,017**

## INTEGRATED REFINING OF CRUDE OIL

Frank T. Barr, Summit, James W. Brown, Elizabeth, Harvey E. W. Burnside, Locust, and Charles E. Jahnig, Red Bank, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application August 5, 1952, Serial No. 302,646
6 Claims. (Cl. 196—52)



1. An integrated heavy oil refining process which comprises introducing an oil containing constituents vaporizable at atmospheric pressure into a fractional distillation zone operating at least at atmospheric pressure, removing and passing a gas oil fraction from said distillation zone to a fluid catalytic conversion zone, removing and passing a residual fraction boiling above about 800° F. from said distillation zone to a low-conversion zone wherein inert finely divided heat transfer solids are maintained as a fluid bed at a temperature in the range of 800 to 1100° F. and wherein said residual fraction is converted to coke and hydrocarbon vapors, directly passing the resulting hydrocarbon vapors without appreciable cooling to said fluid catalytic conversion zone wherein finely divided cracking catalyst is maintained as a fluid bed at a temperature in the range of 850 to 1100° F. and wherein said hydrocarbon vapors and gas oil fraction are converted into lower boiling catalytic conversion products, directly passing said lower boiling conversion products in vapor form from said catalytic conversion zone to said



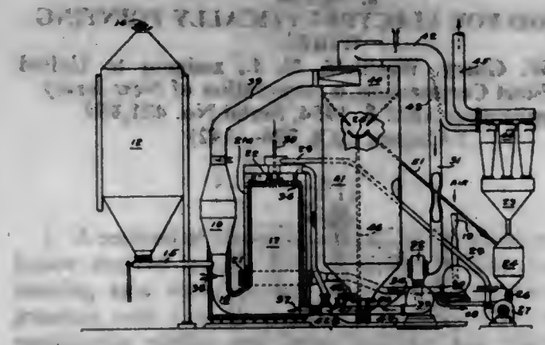
distillation zone, recovering a catalytically cracked gasoline fraction from an upper part of said distillation zone, removing coke-containing catalyst from said catalytic conversion zone, burning coke deposits therefrom in a regeneration zone in the presence of an oxygen-containing gas, returning catalyst so regenerated to said catalytic conversion zone, and supplying heat to said low-conversion zone by heat exchange between catalyst withdrawn from said regeneration zone and said heat transfer solids.

**2,773,018**

## CONTINUOUS PROCESS FOR DRYING, PREHEATING, AND DEVOLATILIZATION OF CARBONACEOUS MATERIALS

Vernon F. Parry, Wheatridge, Colo., assignor to the United States of America as represented by the Solicitor of the Department of the Interior

Application August 12, 1952, Serial No. 304,051
7 Claims. (Cl. 202—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The process of drying, preheating and devolatilizing carbonaceous materials which comprises passing finely divided carbonaceous low rank coal particles entrained in a stream of hot gases flowing upwardly at relatively low velocity through the bottom of and upwardly through a drying and preheating zone, where the sensible heat in the gases is transferred to the carbonaceous particles and evaporates the moisture therefrom, and the particles are preheated to about 250°–300° F., passing said stream at increased velocity from said drying and preheating zone to a separating zone and there separating the dried carbonaceous particles from the moisture vapor and spent gases of said stream, passing the dried heated particles entrained in air upwardly through the bottom of and upwardly through a reaction zone while suddenly raising the temperature of the particles in said zone to a temperature in the range of about 850° to 1000° F. to form char, tar and process gases and withdrawing said char, tar and process gases through the top of said reaction zone.

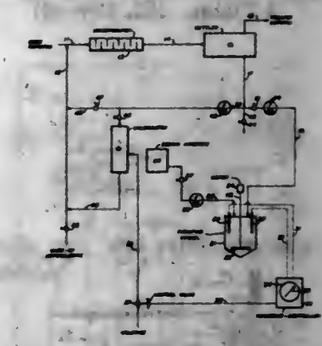
**2,773,019**

## CONTROL OF HYPOCHLORITE TREATING OPERATION

Mathis T. Waddell, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application July 26, 1954, Serial No. 445,554
2 Claims. (Cl. 204—1)

1. A method operable in an analysis system comprising spaced electrodes and means for detecting a voltage generated therebetween for determining the available chlorine remaining in a spent aqueous alkaline hypochlorite solution utilized for the treatment of sour petroleum hydrocarbons, said hypochlorite solution containing from about 50 to 250 grams of sodium hydroxide per liter and from about 0.1 to 1.0 gram per liter of available chlorine, said method comprising the steps of continuously mixing an aqueous sodium meta-arsenite solution of fixed concentration and containing from about 0.2 to about 3.0 grams per liter of sodium meta-arsenite with said spent hypochlorite treating solution and flowing said mixture through said system in contact with said electrodes, said sodium meta-arsenite solution being admixed with said hypochlorite solution in an amount sufficient to provide a voltage within the range of about 0 to 200 millivolts at a flow rate within the range of about 0.5 to 5 volumes of sodium meta-arsenite solution per volume of hypochlorite solution per minute, whereby said voltage is a measure of the available chlorine content of said hypochlorite solution.

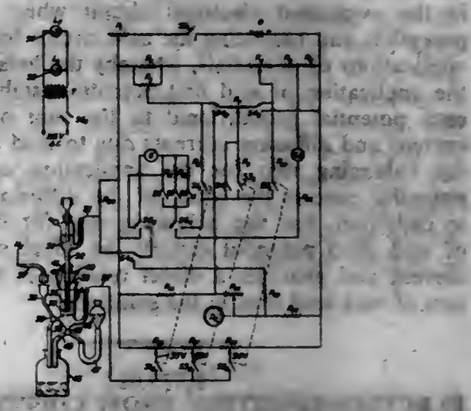


**2,773,020**

## METAL ION DETERMINATION BY DIRECT READING SYSTEM

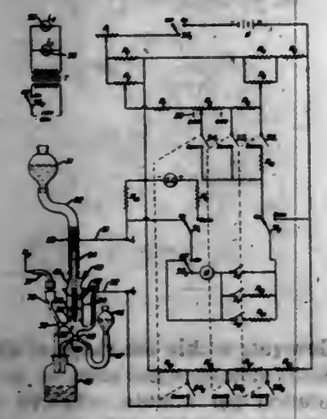
Elmer Bradley Offutt, Independence, and Leonard V. Sorg, Kansas City, Mo., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application May 31, 1951, Serial No. 229,208
1 Claim. (Cl. 204—1)



In the method of polarographic analysis of aqueous solutions containing lead ions, the improvement which comprises segregating a measured quantity of such solution, adding a known proportion of cadmium ions to the aqueous solution under test, maintaining said solution of mixed ions between a dropping mercury electrode and a submerged electrode, applying in series a first potential of about 0.30 to 0.37 volt, a second potential of about 0.82 to 0.9 volt, and a third potential of about 0.57 to 0.60 volt, progressively stepwise across said electrodes, measuring the current flowing between said electrodes and in the associated electrical circuit when applying said potentials and balancing the said circuit for each of said applications of potentials, whereby the balancing step for the application of said first potential cancels the effect of the residual diffusion current, the balancing step for the application of said second potential cancels the effect of the cadmium diffusion current, and the balancing step for the application of said third potential provides a direct reading of the concentration of said lead ions in the solution.

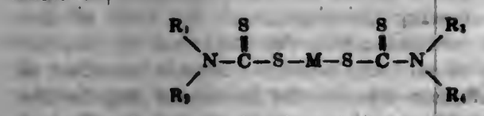
2,773,021
**DIRECT READING SYSTEM FOR METAL ION DETERMINATION**
Elmer Bradley Offutt, Independence, and Leonard V. Sorg, Kansas City, Mo., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application November 28, 1952, Serial No. 323,104
1 Claim. (Cl. 204—1)



In the method of polarographic analysis of aqueous solutions containing lead ions, the improvement which comprises segregating a measured quantity of such solution, adding a known proportion of cadimum ions to the aqueous solution under test, maintaining said solution of mixed ions between a dropping mercury electrode and a submerged electrode, applying in series a first potential of about 0.82 to 0.90 volt, a second potential of about 0.57 to 0.60 volt, and a third potential of about 0.30 to 0.37 volt, progressively stepwise across said electrodes, measuring the current flowing between said electrodes and in the associated electrical circuit when applying said potentials and balancing the said circuit for each of said applications of potentials, whereby the balancing step for the application of said first potential establishes a reference potential proportional to the sum of the residual current and diffusion currents due to lead and cadmium, the balancing step for the application of said second potential cancels the effect of the diffusion current due to cadmium, and the balancing step for the application of said third potential cancels the effect of the residual current and provides a direct reading of the concentration of said lead ions in the solution.

2,773,022
**ELECTRODEPOSITION FROM COPPER ELECTROLYTES CONTAINING DITHIOCARBAMATE ADDITION AGENTS**
Dennis R. Turner, New Providence, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application August 17, 1953,
Serial No. 374,818
4 Claims. (Cl. 204—52)

1. An aqueous electroplating electrolyte for plating bright or semi-bright copper as the sole metal to be plated, the electrolyte comprising an aqueous solution of a copper salt having admixed therein from .0005 to 1.0 ounce per gallon of a brightening agent having the nucleus



where M is a metal selected from the group consisting of cadmium, cobalt, nickel, and zinc and $R_1$, $R_2$, $R_3$, $R_4$ are selected from at least one of the group consisting of monovalent hydrocarbon radicals containing from 1 to 6 carbon atoms.

2,773,023
**REMOVAL OF OXYGEN FROM METALS**
Bertram C. Raynes and Merle E. Sibert, Euclid, Ohio, assignors, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey
No Drawing. Application April 26, 1954,
Serial No. 425,768
2 Claims. (Cl. 204—140)

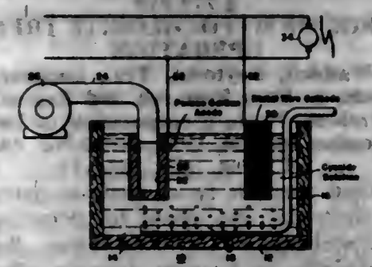
1. The method of removing oxygen from oxygen-containing metals of the group consisting of titanium and zirconium which comprises anodically electrolyzing said oxygen-containing metal at a cell voltage below about 2 volts in a fused halide salt electrolyte containing carrier ions of said metal, continuing the electrolysis until a substantial portion of the oxygen content of the anodic metal has been transported to the cathode and has thereby been removed from the anodic metal, and recovering the resulting deoxidized anodic metal.

2,773,024
**METHOD FOR ELECTROLYTICALLY POINTING WIRE**
Robert W. Gurry, Westfield, N. J., assignor to United States Steel Corporation, a corporation of New Jersey
Application April 8, 1954, Serial No. 421,859
2 Claims. (Cl. 204—142)



2. A method of forming a point on the end portion of a wire comprising housing the wire in a J-shaped impervious open-ended tube which is inert to electrolytic action, the tip of the wire terminating approximately even with the shorter arm of the tube, immersing the tube and wire in an electrolyte with the shorter arm of the tube and the end portion of the wire extending vertically upward and the tube housing the entire immersed portion of the wire allowing the electrolyte access to the wire only through the open end, and applying electric current to the wire as an anode and to a cathode surrounding the wire and tube.

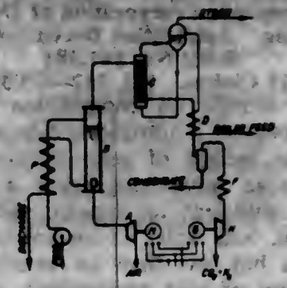
2,773,025
**DESTROYING CYANIDES IN AQUEOUS CYANIDE SOLUTIONS**
Herbert E. Ricks and Warren M. Trigg, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 10, 1953, Serial No. 379,442
4 Claims. (Cl. 204—149)



1. In the process of rapidly reducing to a low concentration the cyanide content of an aqueous solution of a cyanide, the steps comprising disposing in the aqueous solution an inert cathode and an insoluble anode having porous walls, passing through the walls of the porous anode a gas containing free oxygen, the gas forming a stream of fine bubbles at the surface of the anode, and, simultaneously with the passage of the gas through the walls of the anode, passing a direct electrical current at a density of at least 5 amperes per square foot at the anode, the amount of the gas being sufficient to provide oxygen in an amount in substantial excess of that required to react with the cyanide to form relatively non-toxic products comprising essentially carbon dioxide, carbon monoxide, and nitrogen.



2,773,026
**REMOVAL OF DISSOLVED OR DISPERSED ORGANIC MATERIAL FROM AQUEOUS SOLUTIONS AND SUSPENSIONS**
Karl Nicolaus Cederquist, Falun, Sweden, assignor to Stora Kopparbergs Bergslags Aktiebolag, Falun, Sweden, a joint-stock company limited of Sweden
Application July 2, 1953, Serial No. 365,755
7 Claims. (Cl. 210—2)



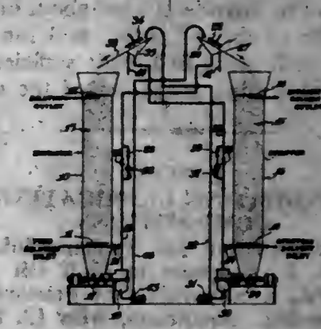
1. A method of removing organic material from a waste liquor derived from a pulping process which comprises treating said waste liquor at elevated temperature and pressure with oxygen-containing gases in order to effect combustion within said liquor utilizing heat liberated in the combustion in order to carry out the pressure treatment, and allowing said combustion to continue at least to the stage at which substantially the remaining organic substance forms an insoluble carbonous residue in the liquor.

2,773,027
**HOLLOW CARBOXYMETHYL CELLULOSE BEAD AND METHOD FOR MAKING**
William Richards Powers, Penns Grove, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 9, 1952,
Serial No. 287,049
17 Claims. (Cl. 210—8.5)

9. A process for the preparation of substantially spherical beads having an aqueous core within a surrounding envelope of a water-insoluble salt of carboxymethylcellulose which comprises introducing individual drops of an aqueous solution of water-soluble sodium carboxymethyl cellulose into an aqueous solution of a metal salt, said metal salt being selected from the group consisting of aluminum, titanium, chromium, iron, nickel, copper, zinc, zirconium, silver, tin and lead salts, and said aqueous solution of water-soluble carboxymethylcellulose having a concentration in the range of from about 1% to about 15%, by weight, of the cellulose ether.

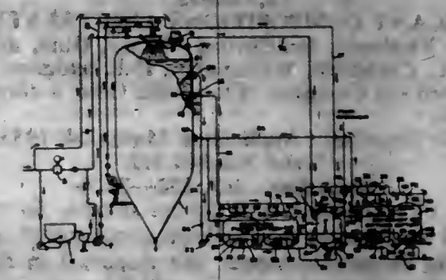
2,773,028
**DIALYSIS PROCESS**
Gilbert P. Monet, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 29, 1952, Serial No. 285,035
8 Claims. (Cl. 210—8.5)

1. A process for the separation of the dissolved components of a dialyzable solution comprising contacting said dialyzable solution with a dialytic separation medium in the form of a loose granular gel substantially inert chemically to said solution and to any substances dissolved in said solution, effecting transfer of at least part of the dialyzable components from said solution



into said granular gel, and removing said granular gel from said solution.

2,773,029
**WATER TREATING SYSTEM**
Joseph F. Schaid, Bloomfield, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application April 16, 1954, Serial No. 423,579
9 Claims. (Cl. 210—16)



1. The method of bringing the ion exchange type secondary softener battery of a precipitating type water softening system up to operating temperature which consists in simultaneously passing steam and water to a direct contact heater, recirculating the water through said heater to heat and to deaerate the water, delivering the preheated and deaerated water to said secondary softener battery to gradually heat the ion exchange material therein up to operating temperature, and passing the cooled water from said secondary softener battery to waste.

2,773,030
**DRILLING MUDS**
Rodolfo J. Taillour, San Tome, Venezuela, assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 28, 1954, Serial No. 465,417
38 Claims. (Cl. 252—8.5)

1. A drilling mud of enhanced lubricating properties comprising an oil-in-water emulsion containing clay solids and a water-insoluble, oil-soluble sulfurized organic compound, said sulfurized compound being present in an amount sufficient to increase the Timken load-carrying capacity of the mud to at least about 30 pounds, said mud containing no amount of alkali metal hydroxide sufficient to destroy the enhanced lubricating properties of the mud.

2,773,031
**DRILLING MUDS**
Rodolfo J. Taillour, San Tome, Venezuela, assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application October 28, 1954,
Serial No. 465,418
21 Claims. (Cl. 252—8.5)

1. A drilling mud of enhanced lubricating properties comprising an oil-in-water emulsion containing clay

solids, an asphalt in the oil phase, said asphalt having chemically combined sulfur and being present in an amount sufficient to provide at least about one percent of sulfur by weight of the oil phase, said mud containing no amount of alkali metal hydroxide sufficient to destroy the enhanced lubricating properties of the mud.

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2,773,032
RUST INHIBITING LUBRICATING OIL COMPOSITIONS
Troy L. Cantrell, Drexel Hill, Pa., and John G. Peters, Audubon, N. J., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application May 13, 1954, Serial No. 429,686
1 Claim. (Cl. 252—32.5)

A composition comprising a major amount of a mineral lubricating oil, and about 0.024 percent by weight of the composition of dimerized linoleic acid, and about 0.016 percent by weight of the composition of a salt of a primary alkyl amine containing 8 to 18 carbon atoms per molecule and 3-methylbutyl, 2- ethylhexyl orthophosphate.

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2,773,033
LUBRICANT COMPOSITIONS AND TREATMENT
John D. Bartleson, Beachwood Village, Ohio, and Margaret L. Christoph, Wilmington, Del., assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application March 24, 1953, Serial No. 344,462
20 Claims. (Cl. 252—32.7)

1. An oil-dispersible composition suitable for use as a lubricant additive comprising from about 0.01% to about 1% of an oil-soluble copper salt dispersed in the reaction product of a phosphorus sulfide-oxygen-containing organic compound-olefin polymer reaction product, the oxygen-containing organic compound being selected from the group consisting of those compounds containing hydroxy, carbonyl, ether and carboxy radicals, and having a boiling point of at least 225° F. with potassium hydroxide produced by reacting the last-mentioned reaction product with an amount of solid potassium hydroxide in excess of the amount required just to neutralize the reaction product within the range from over 125 equivalent up to about three equivalents per mole of the said reaction product at an elevated temperature at which the materials react for a time to complete the reaction and, separating insoluble materials from the reaction mixture to obtain an improved reaction product, and characterized by improved color, color stability and stability against liberation of hydrogen sulfide.

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2,773,034
TREATMENT OF LUBRICANTS WITH POTASSIUM HYDROXIDE AND PRODUCTS
John D. Bartleson, Beachwood Village, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 17, 1953, Serial No. 337,446
16 Claims. (Cl. 252—32.7)

1. A process for improving the color, color stability and stability against liberation of hydrogen sulfide of phosphorus sulfide-oxygen-containing organic compound-olefin polymer reaction products, said oxygen-containing organic compound being selected from the group consisting of those compounds containing hydroxy, carbonyl, ether and carboxy radicals, and having a boiling point of at least 225° F. which comprises reacting the reaction product with an amount of solid potassium hydroxide in excess of the amount required just to neutralize the reaction product within the range from over 1.25 equivalent up to about three equivalents per mole of the reaction product at an elevated temperature at which the materials react for a time to complete the reaction and separating insoluble materials from the reaction mixture to obtain an improved reaction product.

5. As an oil-dispersible composition suitable for use as a lubricant additive the reaction product of a phosphorus sulfide-oxygen-containing organic compound-olefin polymer reaction product with solid potassium hydroxide produced by the process in accordance with claim 1 and characterized by improved color, color stability and stability against liberation of hydrogen sulfide.

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2,773,035
SOLUBLE OIL COMPOSITIONS
Stanley P. Waugh, Westfield, N. J., assignor to Tidewater Oil Company, a corporation of Delaware
No Drawing. Application December 12, 1951, Serial No. 261,381
11 Claims. (Cl. 252—33.3)

1. A stable soluble oil composition comprising, in homogeneous solution, a lubricating base in major amount based upon the weight of said composition, a water soluble soap as an emulsifying agent, a coupling agent in an amount sufficient to disperse said soap in said lubricating base, and water in an amount sufficient to inhibit gelation but less than an amount sufficient to induce separation of said composition, said lubricating base comprising (*a*) a predominantly aromatic extract obtained by furfural extraction of a petroleum fraction and (*b*) a mineral oil fraction which has not been solvent extracted.

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2,773,036
EXTREME PRESSURE SOLUBLE OIL COMPOSITIONS
Stanley P. Waugh, Westfield, N. J., assignor to Tidewater Oil Company, a corporation of Delaware
No Drawing. Application December 27, 1951, Serial No. 263,697
9 Claims. (Cl. 252—33.4)

1. A stable soluble oil composition comprising, in homogeneous solution, a lubricating base in major amount based upon the weight of the composition a predominantly aromatic extract obtained by furfural extraction of a mineral oil fraction, a water-soluble soap as an emulsifying agent, an extreme pressure agent, and water in an amount sufficient to inhibit said composition against gelation but less than an amount sufficient to induce separation of said composition.

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2,773,037
CONCENTRATES USEFUL AS ADDITIVES IN MINERAL OIL COMPOSITIONS AND MINERAL OIL COMPOSITIONS CONTAINING SAME
John W. Bishop, Plainfield, N. J., assignor to Tidewater Oil Company, a corporation of Delaware
No Drawing. Application March 27, 1953, Serial No. 345,221
4 Claims. (Cl. 252—46.6)

1. A lubricating composition comprising a mineral oil in major amount based upon the weight of said composition and a small amount, sufficient to impart anti-oxidant and anti-corrosion properties to said composition, of an oil-soluble phosphorus- and sulfur-containing reaction product of (*a*) an alkyl ester of an acid from the group consisting of propenoic acid and alkyl-substituted propenoic acids with (*b*) an acidic, phosphorus- and sulfur-containing product of reaction between an excess of a phosphorus sulfide and a predominantly aromatic extract obtained by furfural extraction of a mineral oil.



2,773,038
LUBRICANTS
William B. Whitney and William N. Axe, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application November 20, 1951, Serial No. 257,410
18 Claims. (Cl. 252—48.8)

2. A lubricating oil composition comprising a mineral oil having a viscosity index of at least 50 and containing an amount sufficient to impart anticorrosion properties thereto, of a product of sulfurization of a diarylalkane containing from 4 to 12 alkane carbon atoms, obtained when employing sulfur monochloride as the sulfurizing agent.

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2,773,039
MAGNETICALLY STRONG FERROMAGNETIC MAGNESIUM-ZINC TYPE OF FERRITE
Ernst Albers Schoenberg, Metuchen, N. J., assignor to Steatite Research Corporation, Keasbey, N. J., a corporation of Delaware
No Drawing. Application November 24, 1952, Serial No. 322,339
1 Claim. (Cl. 252—62.5)

A fired ferromagnetic body of high permeability properties and having a Curie point above 120° C. consisting essentially of the following ingredients in the proportions indicated:

| | Mol percent |
|---|---|
| MgO | 8–25 |
| ZnO | 25–14 |
| CuO | 2–11 |
| NiO | 3–12 |
| $Li_2O$ | 0–3 |
| $Fe_2O_3$ | 47.4–52.4 |

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2,773,040
HEAT-PRODUCING COMPOSITIONS
George Walton, Sharonville, Ohio, assignor to The Drackett Company, Cincinnati, Ohio, a corporation of Ohio
No Drawing. Application May 19, 1953, Serial No. 356,091
3 Claims. (Cl. 252—157)

1. A composition liberating heat when added to water, comprising, in admixture in substantially dry and divided form, and as discrete particles, from about 2% to about 8% aluminum by weight of the composition, and an alkali metal hydroxide in an amount at least twice the theoretical amount required for combination with the aluminum, the aluminum being in the form of particles of substantially uniform size averaging from about 150 to about 350 particles per gram.

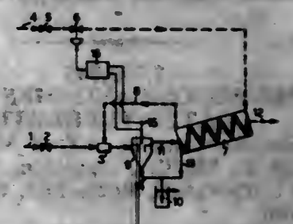
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2,773,041
DEFOAMING COMPOSITION
Rudolph H. Larsen, Oakland, and Shek Ying Lam, San Francisco, Calif., assignors to Fred Bresee, Jr., doing business as Balab, Oakland, Calif.
No Drawing. Application July 16, 1951, Serial No. 237,076
1 Claim. (Cl. 252—358)

A composition having defoaming properties comprising from 50–70% by weight of kerosene; 10–15% by weight of stearic acid; from 2 to 6% by weight of a poly-oxyethylene ester of tall oil; from 5 to 10% by weight of a deflocculated, finely-divided compound selected from the group consisting of alumina hydrate and magnesium carbonate; from 1 to 5% by weight of monoethanolamine; and from 10 to 30% by weight of water, the composition being substantially free of metallic soap and containing the reaction product formed by the reaction of the fatty acid with the organic base, the composition being in the form of an oil-water emulsion and exhibiting marked immediate and sustained defoaming action when added to latices normally susceptible to foaming.

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2,773,042
PROCESS OF AND APPARATUS FOR REGULATING THE COMPOSITION OF VAPOR-GAS MIXTURES
Petrus F. A. M. Hendrikx, Sittard, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application December 4, 1953, Serial No. 396,163
Claims priority, application Netherlands December 12, 1952
2 Claims. (Cl. 252—372)



1. Process of regulating the composition of steam-oxygen containing gas mixtures comprising the steps of separately supplying steam and gas, saturating the steam by cooling, mixing the saturated steam with the gas, the temperature of the gas being such that the resultant mixture is steam saturated, removing water condensate from said mixture, detecting the temperature of said saturated steam-gas mixture, controlling the rate of steam supply in accordance with said detected temperature, and subsequently reheating the steam-gas mixture with the heat which has been removed in saturating the steam.

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2,773,043
RESINOUS COMPOSITIONS COMPRISING THERMOSETTING EPOXIDE RESINS AND THERMOPLASTIC POLYVINYL RESINS AND BENTONITE-AMINE REACTION PRODUCTS
Florian J. Zakas, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application September 28, 1954, Serial No. 458,989
8 Claims. (Cl. 260—3.3)

1. A hardenable, normally liquid resinous composition comprising from 20 to 80 parts by weight of a thermosetting resin comprising a glycidyl polyether of a polyhydric phenol having a 1,2-epoxy equivalency of between 1 and 2 and which is devoid of other reactive substituents than phenolic hydroxyl groups, and an insoluble catalyst therefor, the catalyst being present in an amount of from 6% to 50% by weight based on 100 parts by weight of the glycidyl polyether, from 80 to 20 parts by weight of a thermoplastic resin comprising a plastisol including a resin selected from the group consisting of non-volatile halogen-containing high molecular weight vinylidene polymers, halogenated paraffin waxes, and halogenated natural rubber and a plasticizer therefor, and a bentonite-amine reaction product in an amount sufficient to maintain the catalyst in suspension in the liquid resins whereby the composition may be converted to a homogeneous solid having excellent flexibility characteristics and impact resistance.

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2,773,044
PIGMENTED ORGANIC PLASTICS AND METHOD FOR PREPARING THE SAME
Vincent C. Vesce, Smoke Rise, Kinnelon, N. J., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
No Drawing. Application June 2, 1953, Serial No. 359,222
14 Claims. (Cl. 260—22)

1. A process of dispersing pigment in an alkyd resin plastic which comprises milling pigment and alkyd resin

plastic in a liquid grinding medium comprising water and a liquid organic water-miscible solvent in which the alkyd resin plastic is at least partially soluble, the water and solvent being present throughout the milling operation in such proportions that the liquid gringing medium does not dissolve a substantial amount of the alkyd resin plastic and does not cause substantial agglomeration of the alkyd resin plastic, the liquid grinding medium being present at all times in such amounts as to give a fluidity to the mixture which permits effective milling action, continuing the milling action until a dispersion of pigment in alkyd resin plastic is obtained, and thereafter separating the solid portion from the liquid portion of the milled mixture.

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2,773,045

## WAX COMPOSITIONS AND SHEET MATERIALS COATED THEREWITH

Linton E. Sinecri, Menasha, Alfred M. Heald, Neenah, and George P. Mueller, Appleton, Wis., assignors to Marathon Corporation, Rothschild, Wis., a corporation of Wisconsin

No Drawing. Application February 20, 1951, Serial No. 211,968
10 Claims. (Cl. 260—28.5)

1. A heat-sealable sheet material comprising a fibrous paper base sheet having a superficial coating comprising a solid polymer of ethylene and isopropanol having the formula



wherein $R_1$ and $R_2$ are methyl groups and $R_3$ is a $CH_3—(C_2H_4)_n$ group where the average value for $n$ is in the range of about 60 to 100, said polymer being present in amounts from .25% to 5% by weight and having a molecular weight in the range of from 500 to about 3000 and having a melting point of from about 210° F. to about 240° F., 1% to 5% by weight of solid polyethylene, and 75% to about 98.75% of petroleum wax having a melting point of from about 130° F. to about 170° F.

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2,773,047

## PREPARATION OF SPINNABLE SOLUTIONS OF POLYACRYLONITRILE AND RELATED POLYMERIZATES

Ernst Pirot, Erkenbrech (Rhein), and Eduard Hantelmann, Aachen, Germany, assignors to Vereinigte Glanzstoff-Fabriken A. G., Wuppertal-Elberfeld, Germany, a corporation of Germany

Application November 17, 1954, Serial No. 469,495
Claims priority, application Germany November 21, 1953
2 Claims. (Cl. 260—32.6)



1. Method of preparing a solution of polyacrylonitrile for spinning which comprises maintaining a solution of polyacrylonitrile in dimethylformamide in the boiling state under reflux at a pressure of 100 mm. Hg, continuously introducing a stream of a cold dispersion of polyacrylonitrile in dimethylformamide and simultaneously withdrawing and filtering the same to obtain a filtrate for spinning.

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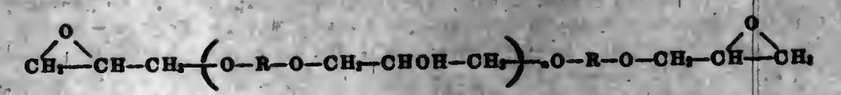
2,773,048

## EPOXY RESIN COMPOSITION CONTAINING PARA, PARA' DIAMINO DIPHENYLMETHANE

Jerome L. Ferme, Lionel H. Le Gault, Luther L. Belstad, and Arthur D. Stuning, Minneapolis, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Minnesota

No Drawing. Application August 25, 1952, Serial No. 306,306
21 Claims. (Cl. 260—37)

1. A composition of matter comprising para, para' diamino diphenylmethane together with an epoxy resin having the structural formula



wherein R stands for the hydrocarbon radical of a dihydric phenol and $n$ stands for a number ranging from more than 0 up to about 20, the said diamino compound being commingled with said epoxy resin in an amount ranging from ½ to 30% by weight of said resin.

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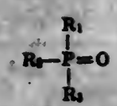
2,773,046

## VINYL RESIN PLASTICIZED WITH A POLYHALOPHENYL PHOSPHATE

James H. Dunn and Paul E. Weimer, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 3, 1953, Serial No. 396,058
6 Claims. (Cl. 260—30.6)

1. A plastic alloy comprising an ethylenic polymer selected from the group consisting of polyvinyl chloride, polystyrene, polymethyl methacrylate, polyvinylidene chloride and polyvinyl acetate and a compound having the general formula:



wherein $R_1$ and $R_2$ are halophenoxy radicals having between 3 and 5 nuclear substituted halogen atoms and $R_3$ is a radical selected from the group consisting of OH and a halophenoxy radical having between 3 and 5 nuclear substituted halogen atoms, said halophenoxy radicals having the combined total of at least eight halogen atoms, said halogen atoms being selected from the group consisting of chlorine and bromine.

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2,773,049

## SALICYLIC ACID ESTER AS COLOR INHIBITOR FOR POLYESTER-MONOMER RESINS

Merle Cowee, Milwaukee, Wis., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

No Drawing. Application December 7, 1953, Serial No. 396,737
8 Claims. (Cl. 260—45.4)

1. A hard resinous product having a high color stability and comprising an interpolymer of (A) a polyester of a dihydric alcohol and an alpha-beta ethylenic dicarboxylic acid (B) a monomer containing a >C=CH₂ group and (C) an ester of salicylic acid said ester being incorporated in the interpolymer.



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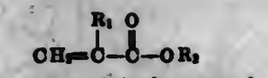
2,773,050

## WATER VAPOR PERMEABLE COMPOSITIONS AND ARTICLES CONTAINING A POLYACRYLIC ESTER AND POLYVINYL ALCOHOL

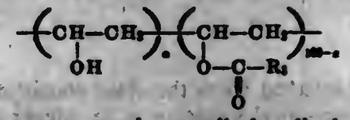
John E. Caldwell and Russell Gilley, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 30, 1952, Serial No. 285,316
13 Claims. (Cl. 260—45.5)

3. A process for preparing a synthetic resinous composition which resists the passage of liquid water but permits transmission of water vapor comprising (A) polymerizing in an aqueous medium at a temperature of from about 45° C. to about 120° C. in the presence of a water-soluble peroxide polymerization catalyst (*a*) from about 25 to about 80 parts by weight of an ethylenically unsaturated polymerizable material wherein all carboxy groups are esterified and which consists of at least 50 mole percent of at least one acrylic ester having the formula:



wherein $R_1$ represents a substituent selected from the group consisting of a hydrogen atom and a lower alkyl radical containing from 1 to 4 carbon atoms and $R_2$ represents an alkyl radical containing from 1 to 6 carbon atoms, (*b*) while in admixture with from about 75 to about 20 parts by weight of a vinyl polymer having hydroxy radicals which can be depicted as follows:



wherein $R_3$ represents a lower alkyl radical, $x$ represents the percentage of this polymer having groups based on vinyl alcohol and 100—$x$ represents the percentage based on a lower alkaloic acid ester of vinyl alcohol, the numerical value of $x$ being from about 80 to 100, (B) and adding from about 1 to about 10% (based on the weight of the polyvinyl alcohol content) of a hardening and cross-linking agent for the polyvinyl alcohol content of the resin.

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2,773,051

## PREPARATION OF RESINS FROM $C_5$ FRACTIONS AND CYCLOPENTADIENE DIMERS

Robert F. Leary, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application July 3, 1953, Serial No. 366,061
2 Claims. (Cl. 260—82)

1. A process for preparing soluble petroleum resins which comprises blending a $C_5$ steam-cracked petroleum fraction relatively free of cyclopentadienes and dimers thereof and isoprene and boiling up to 38° C. with from 10–50 wt. percent of cyclopentadiene dimers, subjecting the resulting blend to polymerization at temperatures of from —20 to +90° C. in the presence of aluminum halide and isolating the resin produced thereby.

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2,773,052

## COPOLYMERS OF PROPENYLBENZENE

Lester S. Cohen, Albert P. Giraitis, and Joseph R. Zietz, Jr., Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 1, 1953, Serial No. 365,534
5 Claims. (Cl. 260—88.1)

1. A copolymer of propenylbenzene and another polymerizable monomer selected from the group consisting of isobutylene and styrene, said copolymer being formed at a temperature between about —190° C. and 150° C. and in the presence of a Friedel-Crafts catalyst selected from the group consisting of boron trifluoride and a mixture of an aluminum halide and the corresponding halide acid, said propenylbenzene being present in said copolymer in a concentration of from about 2 to about 97 percent by weight, the balance of said copolymer being said polymerizable monomer.

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2,773,053

## ETHYLENE POLYMERIZATION WITH CATALYST OF GROUP VA METAL OXIDE AND ALKALINE EARTH HYDRIDE

Edmund Field, Chicago, and Morris Feller, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application July 22, 1953, Serial No. 369,723
15 Claims. (Cl. 260—94.9)

1. In a process for the production of a polymer having a molecular weight of at least about 300, the steps of contacting ethylene at a reaction temperature between about 75° C. and about 325° C. with an alkaline earth metal hydride and a catalyst prepared by treating a Group VA metal pentoxide supported upon a difficultly reducible metal oxide with a reducing gas at a temperature between about 350° C. and about 850° C. to produce a catalyst containing a lower-valent Group VA metal oxide, and separating a polymer having a molecular weight of at least about 300 thus produced.

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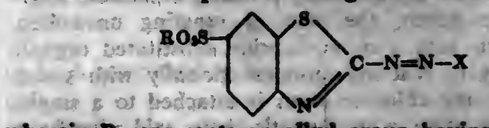
2,773,054

## 6-ALKYLSULFONYLBENZOTHIAZOLE AZO COMPOUNDS

James M. Straley and David J. Wallace, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 14, 1953, Serial No. 374,414
10 Claims. (Cl. 260—155)

1. The azo compounds having the formula:



wherein R represents an alkyl group having 1 to 4 carbon atoms and X represents a member selected from the group consisting of a 1-alkyl-1,2,3,4-tetrahydroquinoline nucleus joined through the carbon atom in its 6-position to the azo bond shown, a 1-hydroxyalkyl-1,2,3,4-tetrahydroquinoline nucleus joined through the carbon atom in its 6-position to the azo bond shown, a 1,2,3,4-tetrahydrobenzo(h)quinoline nucleus joined through the carbon atom in its 6-position to the azo bond shown, a 1-alkylaminonaphthalene nucleus joined through the carbon atom in its 4-position to the azo bond shown and a 1-hydroxyalkylaminonaphthalene nucleus joined through the carbon atom in its 4-position to the azo bond shown.

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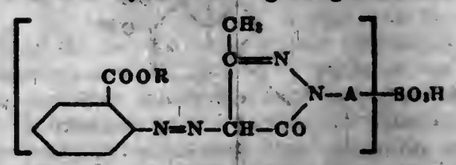
2,773,055

## YELLOW MONOAZO DYESTUFFS

Peter Hindermann, Betterle, Basel, and Jean-Pierre Jung, Rieben, near Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application February 24, 1953, Serial No. 338,586
Claims priority, application Switzerland March 5, 1952
7 Claims. (Cl. 260—163)

1. A monoazo dyestuff having the general formula:



wherein R represents an aliphatic hydrocarbon radical of 8–12 carbon atoms and A represents a member selected from the group consisting of aromatic radicals of the benzene and naphthalene series.

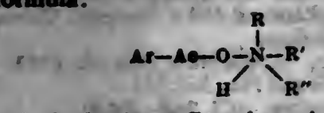
2,773,056

## STABLE FINELY DIVIDED ALKYL AMINE DYES

Bertram M. Haffner, Hasbrouck Heights, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application July 12, 1952, Serial No. 298,625
3 Claims. (Cl. 260—208)

1. A dry free-flowing particulate dyestuff consisting of an organic amine non-hygroscopic salt having the following formula:



in which Ar is the dyestuff nucleus, Ac is from the group consisting of —CO—, and —$SO_2$—, and is joined directly to an aromatic carbon of the dyestuff, R and R′ are each an alkyl radical containing from 4 to 20 carbon atoms, and R″ is from the group consisting of hydrogen and an alkyl radical containing from 4 to 20 carbon atoms admixed with 1 to 25 parts per 100 parts by weight of said salt, of activated silica gel having a surface area of at least 100 square meters per gram, an oil absorption value of at least 100, and having an average particle size of from 0.01 to 50 microns.

2,773,057

## METHOD OF PREPARING STARCH ETHER DERIVATIVES AND NEW STARCH ETHER DERIVATIVES PRODUCED THEREBY

Erling T. Hjermstad and Carl C. Kesler, Cedar Rapids, Iowa, assignors to Penick & Ford, Ltd., Incorporated, Cedar Rapids, Iowa, a corporation of Delaware

No Drawing. Application February 28, 1952, Serial No. 272,712
10 Claims. (Cl. 260—233.3)

1. In a method of producing partially etherified, filterable, granule starch, the step of reacting unswollen, granule starch with a monochlorine substituted organic etherifying agent reacting monofunctionally with starch and in which the chlorine atom is attached to a single-bonded carbon atom in an aliphatic chain, said etherifying agent being free of hydroxyl and epoxy groups, said reaction being carried out in an alkaline aqueous reaction medium in the presence of a sufficient amount of an alkali metal salt capable of inhibiting gelatinization of starch so that said starch remains filterable during the course of said reaction, said alkali metal salt being selected from the group consisting of sodium, potassium, and lithium, chlorides, carbonates, acetates, nitrates and sulfates.

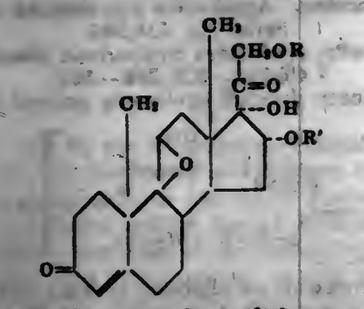
2,773,058

## $\Delta^4$-PREGNENES

Seymour Bernstein, Pearl River, N. Y., and Robert Herman Lenhard, Ridgefield Park, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 30, 1955, Serial No. 519,248
3 Claims. (Cl. 260—239.55)

1. A compound selected from those having the general formula:



in which R and R′ are members of the group consisting of hydrogen and lower alkanoyl radicals.

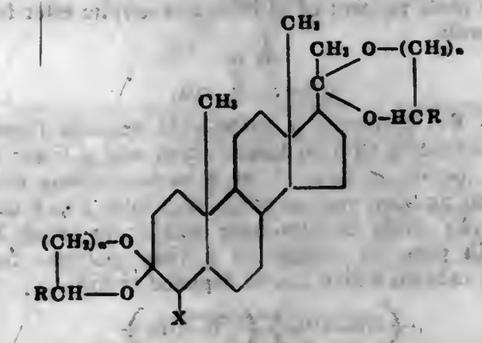
2,773,059

## STEROID α-HALO KETALS

Barney J. Magerlein and A Vern McIntosh, Jr., Kalamazoo, and Robert H. Levin, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 16, 1952, Serial No. 304,852
21 Claims. (Cl. 260—239.55)

1. A process for the production of a steroid 4-halo-3, 20-dione 3-cyclic monoketal which comprises: mixing together an acid hydrolyzing agent and a steroid 4-halo-3, 20-dione, 3,20-cyclic diketal having the following basic general formula:



wherein R is selected from the class consisting of hydrogen and a lower-alkyl group, *n* is an integer from one to two, and X is a halogen of atomic weight from 35 to 80, to cause selective hydrolysis of the 20-cyclic ketal group to form a 20-ketone group.

2,773,060

## STEROID KETALS

Robert H. Levin, Kalamazoo Township, Kalamazoo County, and Barney J. Magerlein and A Vern McIntosh, Jr., Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 16, 1952, Serial No. 304,851
22 Claims. (Cl. 260—239.55)

20. 4-chloropregnane-3,20-dione 3,20-ethylene glycol diketal.

2,773,061

## PROCESS OF MAKING 4-(p-AMINOBENZENE-SULPHONYL) AMINO-PYRIMIDINES

Werner Loop, Hamburg-Lockstedt, Germany

No Drawing. Application May 22, 1953, Serial No. 356,897
Claims priority, application Germany June 15, 1949
2 Claims. (Cl. 260—239.75)

2. A method of manufacturing 4-(p-aminobenzene-sulfonyl)-amino-2,6-dimethylpyrimidine, comprising the steps of reacting one mol of dry 4-amino-2,6-dimethyl-pyrimidine with about two mols of dry p-acetylsulphanilic acid chloride in the presence of an organic solvent free of hydroxyl groups and in the further presence of about two mols of trimethylamine, thereby forming a reaction product; and subjecting said reaction product to hydrolysis.



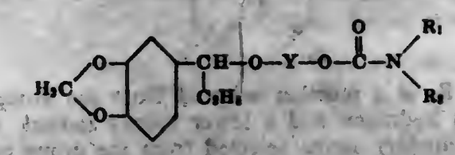
2,773,062

## ORGANIC COMPOUNDS AND INSECTICIDAL COMPOSITIONS

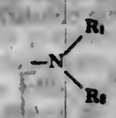
Edward A. Prill, Yonkers, N. Y., assignor to Boyce Thompson Institute for Plant Research, Inc., a corporation of New York

No Drawing. Application October 6, 1953, Serial No. 384,523
4 Claims. (Cl. 260—247.2)

1. The compound represented by the formula



wherein Y is a member of the group consisting of divalent alkylene radicals containing from 2 to 6 carbon atoms and divalent alkylene radicals containing from 2 to 6 carbon atoms which are interrupted by an ethereal oxygen atom, $R_1$ and $R_2$ are selected from the group consisting of the following elements: The hydrogen atom, monovalent alkyl radicals having 1 to 20 carbon atoms, monovalent hydrocarbon cycloalkyl radicals having not more than six carbon atoms in a cyclic ring and having not more than 20 carbon atoms in the radical, monovalent alkoxyalkyl radicals having not more than 12 carbon atoms, the phenyl radical, monovalent aralkyl radicals having 7 to 10 carbon atoms, the furfuryl radical wherein not more than one of $R_1$ and $R_2$ is the furfuryl radical, the tetrahydrofurfuryl radical wherein not more than one of $R_1$ and $R_2$ is the tetrahydrofurfuryl radical, not more than one of $R_1$ and $R_2$ being hydrogen, and elements which form, with the nitrogen atom of



to which they are attached, the piperidino radical, the morpholino radical, the 2-methylpiperidino radical, the 5-ethyl-2 methylpiperidino radical, and the pyrrolidino radical.

2,773,063

## PREPARATION OF ACRYLAMIDES

Edward H. Specht, Huntingdon Valley, Andrew Neuman, North Hills, and Harry T. Neher, Bristol, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 29, 1954, Serial No. 407,174
18 Claims. (Cl. 260—247.2)

1. A process for preparing acrylamides which comprises first reacting together at a temperature between 20° and 100° C. acetylene, nickel carbonyl, an organic carboxylic acid RCOOH where R is an aliphatic hydrocarbon group of not over three carbon atoms, and a basic nitrogen compound having hydrogen on the amino nitrogen thereof, and while these are reacting, introducing carbon monoxide into the reaction mixture and their reacting it at a reacting temperature between 20° and 100° C.

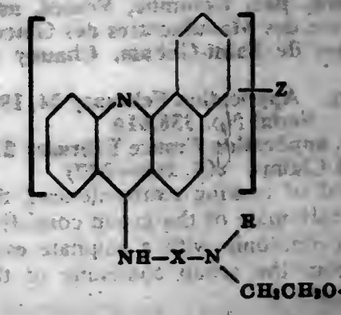
2,773,064

## 7-SUBSTITUTED AMINO-BENZ [c] ACRIDINES AND SALTS THEREOF

Edward F. Elslager, Harper Woods, Franklin W. Short, St. Clair Shores, and Marie-Jo Sullivan, Grosse Pointe Woods, Mich., assignors to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application December 2, 1953, Serial No. 395,830
9 Claims. (Cl. 260—279)

1. A compound of the class consisting of a free base and its acid addition salts, said free base having the formula,



where Z is a member of the group consisting of hydrogen, halogen, alkyl and alkoxy radicals, said alkyl and alkoxy radicals containing not more than 2 carbon atoms; X is a divalent alkyl group containing from 2 to 5 carbon atoms; R is a member of the group consisting of hydrogen and lower alkyl radicals and lower hydroxyalkyl radicals and acyl derivatives thereof having the formula alkylene·O·Acyl; and Acyl is an aliphatic carboxylic acid acyl residue containing from 2 to 18 carbon atoms.

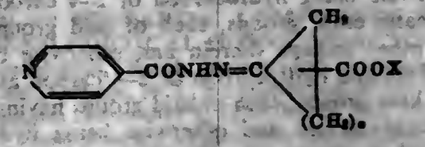
2,773,065

## CYCLOALKANONECARBOXYLIC ACID ISONICOTINYLHYDRAZONES AND THEIR SALTS

Gino Carrara, Milan, Italy, assignor to Lepetit S. p. A., Milan, Italy

No Drawing. Application October 13, 1953, Serial No. 385,886
Claims priority, application Italy October 23, 1952
3 Claims. (Cl. 260—295)

1. A compound of the formula



wherein X is a member of the group consisting of hydrogen and non-toxic alkali and alkaline earth metals, and *n* is an integer from 3 to 4.

2,773,066

## PROCESS FOR PRODUCING POLY-PYRIDYLS

Robert H. Linnell, Winston-Salem, N. C., and Antoine B. Zahlan, Syracuse, N. Y., assignors to Research Corporation, New York, N. Y., a corporation of New York

No Drawing. Application November 19, 1953, Serial No. 393,234
4 Claims. (Cl. 260—296)

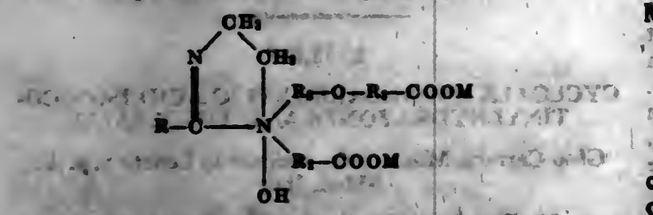
1. In making polypyridyls, the process which comprises bringing sodium metal into contact with a dry pyridine in which a 2 position is unsubstituted, selected from the group consisting of pyridine and $C_1$–$C_4$ alkyl substituted pyridines, maintaining the proportion of sodium metal in unreacted condition in contact with the selected pyridine under reaction conditions at all times at a level not above about 0.01 mole for 1 mole of the selected pyridine, warming the sodium and selected pyridine until reaction between them is substantially complete, oxidizing the thus reacted mixture, this oxidation producing polypyridyls and sodium hydroxide and leaving an unreacted pyridine, and then separating the polypyridyls from the said pyridine and sodium hydroxide.

2,773,667
PREPARATION OF OXAZOLIDONES-2
Marcel Jean Viard, Bois Colombe, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny et Cirey, Paris, France
No Drawing. Application February 24, 1953, Serial No. 338,614
Claims priority, application France February 25, 1952
16 Claims. (Cl. 260—307)

14. The method of making oxazolidones-2 that comprises reacting a carbonate of the group consisting of the alkali metals and ammonia with a sulphate ester of an ethanol amine from the group consisting of the alkali metals and ammonia.

2,773,668
SUBSTITUTION DERIVATIVES OF IMIDAZOLINE ALKANOIC QUATERNARY AMMONIUM HYDROXIDE AND PROCESS OF PREPARING SAME
Hans S. Mannheimer, New York, N. Y.
No Drawing. Application July 11, 1955, Serial No. 521,393
8 Claims. (Cl. 260—309.6)

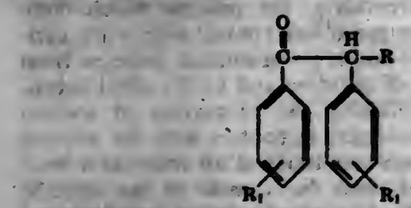
1. A compound of the following formula:



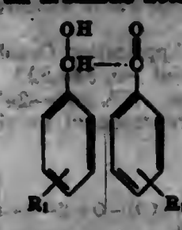
in which R is a hydrocarbon radical of 4 to 18 carbon atoms, $R_2$ and $R_3$ are selected from the group consisting of (*a*) aliphatic hydrocarbon groups of 1–4 carbon atoms, (*b*) hydroxy substituted aliphatic hydrocarbon groups of 1–4 carbon atoms, (*c*) aliphatic ether groups, each of said group having a single ether linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*d*) aliphatic ether groups, each of said groups having a single ether linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, (*e*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydrocarbon of 2–4 carbon atoms, (*f*) aliphatic keto groups, each of said groups having a single keto linkage therein and otherwise being hydroxy substituted hydrocarbon of 2–4 carbon atoms, and M is an alkali metal.

2,773,669
AMINES
Richard V. Heinzelman, Kalamazoo Township, Kalamazoo County, and Brooks D. Aspergren, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application November 12, 1952, Serial No. 320,125
10 Claims. (Cl. 260—326.5)

1. A process for the preparation of tertiary N-desylamines of the formula:



wherein R is a tertiary cyclic amino radical selected from the group consisting of pyrrolidino, piperidino, morpholino, decahydroquinolino radicals, and lower-alkyl substituted pyrrolidino, piperidino, morpholino and decahydroquinolino radicals and $R_1$ is a member selected from the group consisting of hydrogen and a lower alkoxy radical, which includes the step of reacting at an elevated temperature and in the presence of an acidic condensing agent, an aromatic ketone of the formula:



wherein $R_1$ is a member selected from the group consisting of hydrogen and a lower alkoxy radical, with a cyclic secondary amine selected from the group consisting of pyrrolidine, piperidine, morpholine, decahydroquinoline, and lower-alkyl substituted pyrrolidines, piperidines, morpholines and decahydroquinolines, to obtain the corresponding desired tertiary N-desylamine.

2,773,670
CATALYTIC PROCESS FOR PRODUCING ALKYLENE CARBONATES
Myril Lichtenwalter, Austin, and Justin F. Cooper, Port Arthur, Tex., assignors to Jefferson Chemical Company, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application October 31, 1952, Serial No. 318,682
13 Claims. (Cl. 260—340.2)

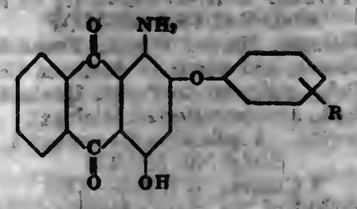
1. The process of preparing alkylene carbonates which comprises reacting an alkylene oxide with a molar excess of carbon dioxide at a temperature between 100 and 225° C. and a pressure in excess of 300 pounds per square inch gauge in the presence of an ammonium halide catalyst selected from the group consisting of (*a*) compounds having the formula



in which X is an ion selected from the group consisting of fluoride, chloride, bromide and iodide, and $R_1$, $R_2$, $R_3$, and $R_4$ are each radicals selected from the group consisting of (1) hydrogen, (2) alkyl containing from 1 to 20 carbon atoms, (3) phenyl, (4) lower alkenyl (5) alkylphenyl in which the alkyl group contains from 1 to 4 carbon atoms, and (6) phenyl-substituted alkyl radicals in which the alkyl group contains from 1 to 4 carbon atoms, and (*b*) compounds having the above noted formula in which $R_1$ and $R_2$ have the values above noted, and in which $R_3$ and $R_4$ are interconnected to form with the basic nitrogen atom a heterocyclic ring selected from the group consisting of the pyridine, piperidine, pyrrolidine, pyrroline, morpholine, and thiomorpholine series.

2,773,671
ANTHRAQUINONE DYES
Roy A. Pizzarello, Mount Vernon, and Boris Gutoff, Far Rockaway, N. Y., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio
No Drawing. Application January 26, 1954, Serial No. 406,332
6 Claims. (Cl. 260—380)

1. A new red dye having the structural formula:



wherein R is a member of group consisting of hydroxyl



group, an alkoxy group containing one to four carbon atoms, an hydroxy alkyl group containing one to four carbon atoms, and an hydroxyalkoxy group containing two to four carbon atoms.

2,773,672
STEROID HYDROLYSIS
Milton E. Herr, Kalamazoo Township, Kalamazoo County, and Frederick W. Heyl, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application June 17, 1953, Serial No. 362,404
8 Claims. (Cl. 260—397.3)

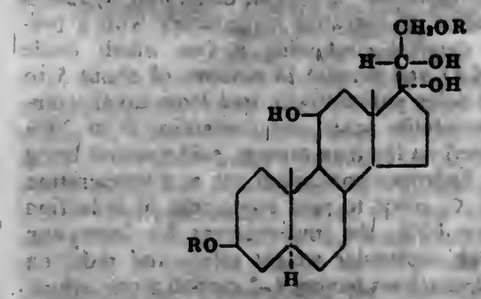
1. A process for the production of a 3-keto steroid selected from cholestane and pregnane compounds which comprises: mixing a 3-tertiary amino steroid selected from cholestene and pregnene compounds, having an unconjugated double bond alpha to the amino nitrogen atom, with an essentially neutral organic solvent containing water to produce a secondary amine and said 3-keto steroid compound.

2,773,673
CYCLOPENTANOPHENANTHRENE COMPOUNDS AND METHOD FOR PREPARATION THEREOF
George Rosenkranz, Mexico City, Mexico, and Carl Djerassi, Birmingham, Mich., assignors, by mesne assignments, to Syntex S. A., Mexico City, Mexico, a corporation of Mexico
No Drawing. Application September 22, 1952, Serial No. 310,934
Claims priority, application Mexico October 8, 1951
3 Claims. (Cl. 260—397.3)

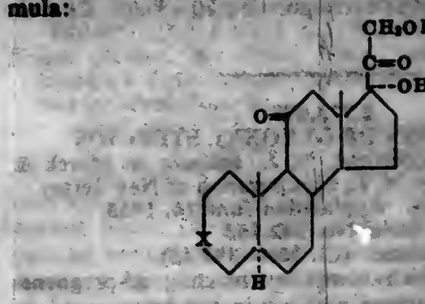
1. A method for the preparation of pregnane-3,11,20-trione compounds, which comprises treating spirostan-3,11-dione compounds with acetic anhydride under pressure and at a temperature of approximately 200° C., thereafter oxidizing the $\Delta^{20(22)}$-furostene-26-ol-3,11-dione acetate formed with chromic anhydride followed by hydrolysis with alumina to produce the corresponding $\Delta^{14}$-pregnene compound, and thereafter hydrogenating the $\Delta^{14}$-pregnene-3,11,20-trione in the presence of a palladium hydrogenation catalyst.

2,773,674
PROCESS FOR THE PRODUCTION OF ALLOPREGNANE-3β, 11β, 17α, 20β, 21-PENTOLS
Carl Djerassi, Birmingham, Mich., and George Rosenkranz, Mexico City, Mexico, assignors, by mesne assignments, to Syntex S. A., Mexico City, Mexico, a corporation of Mexico
No Drawing. Application July 30, 1952, Serial No. 301,982
Claims priority, application Mexico August 1, 1951
9 Claims. (Cl. 260—397.5)

1. A process for the production of a compound of the following formula:



wherein R is selected from the group consisting of hydrogen, a lower fatty acid acylate and benzoate, which comprises subjecting a compound of the following formula:



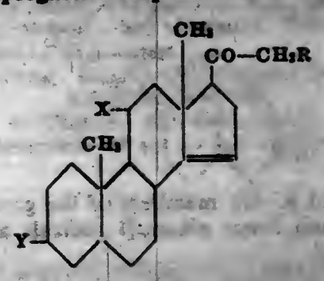
wherein R represents the same group previously set forth and X is selected from the group consisting of C—O and CH—OR, to reduction with lithium aluminum hydride.

2,773,675
CHEMICAL COMPOUNDS AND PROCESSES OF PREPARING THE SAME
Evelyn H. Wilson, East Orange, and Max Tishler, Westfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey
No Drawing. Application May 18, 1951, Serial No. 227,102
10 Claims. (Cl. 260—397.45)

1. The process of preparing $\Delta^1$-3,11,20-triketo-17α-hydroxy-21-acetoxy-allopregnene which comprises reacting $\Delta^4$-3,11,20-triketo-17α-hydroxy-21-acetoxy pregnene with hydrogen in the presence of palladium catalyst thereby producing 3,11,20-triketo-17α-hydroxy-21-acetoxy-allopregnane, reacting the latter compound with bromine to form 2-bromo-3,11,20-triketo-17α-hydroxy-21-acetoxy-allopregnane, and reacting said 2-bromo-3,11,20-triketo-17α-hydroxy-21-acetoxy-allopregnane with a dehydrohalogenating agent.

2,773,676
PROCESS OF PREPARING COMPOUNDS HAVING ADRENO-CORTICAL HORMONE ACTIVITY
Tadeus Reichstein, Basel, Switzerland, assignor to Organon, Inc., Orange, N. J., a corporation of New Jersey
Application November 5, 1951, Serial No. 254,880
Claims priority, application Netherlands September 13, 1947
12 Claims. (Cl. 260—397.45)

1. A $\Delta_{14,15}$-pregnene compound of the formula



wherein X and Y are substituents selected from the group consisting of the hydroxyl group, a lower alkanoyloxy group, a carbo-(lower) alkoxy group, the benzoyloxy group, a lower alkoxy group, and the keto group, and R is the hydroxyl group and a lower alkanoyloxy group.

2,773,677
PREPARATION OF STEROID 21-ALDEHYDES
John P. Conbere, Fanwood, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey
No Drawing. Application June 16, 1953, Serial No. 362,135
6 Claims. (Cl. 260—397.45)

6. A process which comprises reacting a compound selected from the group consisting of 20 - keto - 21-hydroxypregnenes, 20 - keto - 21 - hydroxy - allopreg-

nanes and 20 - keto - 21 - hydroxypregnanes with cupric acetate to produce the corresponding 20 - keto - 21 - aldehyde compound.

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2,773,078

## PREPARATION OF GLYOXYL STEROIDS

John Wolfhard, Maplewood, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application June 16, 1953, Serial No. 362,153
14 Claims. (Cl. 260—397.45)

2. A process which comprises reacting $\Delta^4$-pregnene-17α,21-diol-3,11,20-trione with air in the presence of an oxidation catalyst selected from the group consisting of alcohol-soluble iron salt oxidation catalysts and alcohol-soluble copper salt oxidation catalysts to form $\Delta^4$-pregnene-17α-ol-21-al-3,11,20-trione.

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2,773,079

## CYCLOPENTANOPHENANTHRENE DERIVATIVES AND METHOD FOR PREPARATION THEREOF

Carl Djerassi, Birmingham, Mich., and George Rosenkranz, Mexico City, Mexico, assignors, by mesne assignments, to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application September 3, 1952, Serial No. 307,722
Claims priority, application Mexico September 20, 1951
2 Claims. (Cl. 260—397.45)

2. A new compound consisting of allopregnane-3β, 11α, 17α-triol-20-one having a melting point of 253°–255° C.

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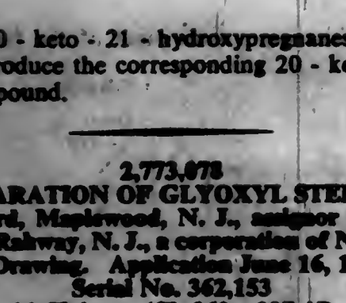
2,773,080

## $\Delta^4$-PREGNENES

Seymour Bernstein, Pearl River, N. Y., and Robert Herman Lenhard, Ridgefield Park, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 30, 1955, Serial No. 519,249
6 Claims. (Cl. 260—397.45)

1. A compound selected from those having the general formula:



in which R and R' are members of the group consisting of hydrogen and lower alkanoyl radicals and Hal is a halogen radical.

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2,773,081

## PREVENTION OF HYDROGENATION ODOR

Leo C. Brown and Dwight R. Merker, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application December 31, 1952, Serial No. 329,116
1 Claim. (Cl. 260—409)

A method for retarding the development of characteristic odors of hydrogenation in hydrogenated fatty materials, which comprises steam: deodorizing said fatty material prior to hydrogenation thereof; supplying a blanket of inert gas thereto subsequent to deodorization thereof, whereby non-oxidizing conditions exist; and thereafter, subjecting said material under such conditions to hydrogenation.

2,773,082

## TREATMENT OF RAW MATERIALS CONTAINING FATTY MATERIALS

Israel Harris Chayen, London, England, assignor to British Glues and Chemicals Limited, Garden City, England, a British company

No Drawing. Application February 13, 1953, Serial No. 336,887
14 Claims. (Cl. 260—412)

1. The process of recovering fatty material from fatty-material-containing raw material, a substantial portion of the residue of which after removal of the fatty material therefrom is at least colloidally soluble in water so as to produce a difficultly separable mixture when pieces of said raw material are subjected to intense impacts in the presence of water, said process comprising, subjecting pieces of said raw material to said intense impacts while surrounded by an organic solvent inert to said material in an amount several times the amount of said raw material and in which at least some of said raw material is substantially less soluble than in water so as to produce a resulting mixture in which fatty material is removed from said pieces to leave residues of said pieces which are readily separable from said resulting mixture, and separating said residues of said pieces from said resulting mixture to leave said solvent containing the removed fatty material.

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2,773,083

## PROCESS OF PRODUCING ORGANIC IRON AND ALUMINIUM ALCOHOLATES

Fritz Schmidt and Otto Bayer, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application August 8, 1951, Serial No. 240,974
Claims priority, application Germany August 23, 1950
5 Claims. (Cl. 260—439)

1. A process for the production of metal alcoholates, which comprises dissolving an anhydrous metal halide selected from the group consisting of iron halide and aluminum halide in a lower alkanol, in the molar ratio of at least 3 mols of alcohol per mol of metal halide, substantially neutralizing the resulting acidic alcoholic solution of said halide with an anhydrous nitrogen compound selected from the group consisting of ammonia and cyclohexyl amine, and recovering metal alcoholates.

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2,773,084

## CATALYTIC CARBON MONOXIDE HYDROGENATION WITH HIGH ESTER YIELD

Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, and Luigi Gesellschaft für Wasserstoffchemie m. b. H., Frankfurt am Main Heddernheim, Germany

No Drawing. Application April 2, 1952, Serial No. 280,172
Claims priority, application Germany April 12, 1951
1 Claim. (Cl. 260—449.6)

In the method for the catalytic hydrogenation of carbon monoxide with the production of synthesis products containing a major portion of oxygenous compounds in which a carbon monoxide hydrogen containing synthesis gas is contacted at an elevated temperature with a precipitated iron catalyst containing a free alkali oxide calculated as $K_2O$ and present in amount of about 5 to 12% $K_2O$ and being substantially free from alkali compounds of non-volatile acids and containing 0 to 20% inert carrier based on the iron present, said catalyst being reduced with a hydrogen containing gas at a temperature of 250 to 350° C. prior to said contacting to reduction value of at least 60%, the improvement for increasing the yield of high molecular weight esters and reducing the yield of hydrocarbons having 1–2 carbon atoms which comprises effecting said contacting with a synthesis gas containing from 0.5 to 1.2 parts by volume of hydrogen



for every part by volume of carbon monoxide, and recovering the hydrogenation products produced containing a high yield of high molecular weight esters and a low yield of hydrocarbons having 1–2 carbon atoms.

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2,773,085

## PRODUCTION OF CARBON MONOXIDE HYDROGENATION PRODUCTS WITH A HIGH CONTENT OF OXYGENOUS COMPOUNDS

Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, and Luigi Gesellschaft für Wasserstoffchemie m. b. H., Frankfurt am Main, Heddernheim, Germany

No Drawing. Application March 10, 1951, Serial No. 215,010
Claims priority, application Germany March 24, 1950
12 Claims. (Cl. 260—449.6)

1. Method for the catalytic hydrogenation of carbon monoxide with the production of synthesis products containing more than 60% oxygenous compounds which comprises contacting a synthesis gas which contains at least 1.2 parts by volume of hydrogen for each part by volume of carbon monoxide with a precipitated iron catalyst at elevated temperature at a pressure of about 10 to 100 atmospheres in excess of atmospheric pressure, said precipitated iron catalyst containing a free alkali oxide calculated as $K_2O$ present in amounts of about 5 to 12% $K_2O$ and being substantially free from alkali compounds of non-volatile acids, and containing 0–20% of an inert carrier based on the iron present, said catalyst being reduced with a hydrogen-containing gas at a temperature of about 250 to 350° C. prior to said contacting to a reduction value of at least 60%, and recovering carbon monoxide hydrogenation synthesis products containing more than 60% oxygenous compounds.

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2,773,086

## PRODUCTION OF ISOCYANATES FROM SUBSTITUTED UREAS

Robert J. Slocombe, Dayton, Ohio, and James H. Saunders, Anniston, Ala., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application January 19, 1953, Serial No. 332,086
13 Claims. (Cl. 260—453)

2. The method of preparing monocarbamyl chlorides and the corresponding isocyanic acid esters, which comprises reacting, in the vapor phase and at a temperature within the range of about 300° C. to about 500° C., hydrogen chloride and a disubstituted urea of the following general formula:

RNH—CO—NHR

wherein R is a substituent selected from the group consisting of alkyl, cycloalkyl, aryl and halogen derivatives thereof, said reactants being employed in a hydrogen chloride/disubstituted urea molar ratio of from 1:1 to at least 2:1.

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2,773,087

## METHOD FOR THE PRODUCTION OF α-SUBSTITUTED ORGANIC CARBONYL COMPOUNDS

Gilbert Stork, Leonia, N. J.

No Drawing. Application September 3, 1954, Serial No. 454,199
7 Claims. (Cl. 260—464)

1. A method for the preparation of an α-substituted organic carbonyl compound selected from the group consisting of aldehydes and ketones containing a hydrogen atom on a carbon atom contiguous to the carbonyl group which comprises condensing the organic carbonyl compound with a secondary amine to form an enamine, reacting the enamine with an α,β-unsaturated organic compound in an organic solvent to effect substitution in the α position, and decomposing the resulting α-substitution product with water.

2,773,088

## METHOD FOR THE MUTUAL SEPARATION OF ACRYLONITRILE, ACETONITRILE, AND PROPIONITRILE FROM AQUEOUS SOLUTIONS

Frank Medina, Brookline, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

Application May 18, 1955, Serial No. 509,140
5 Claims. (Cl. 260—465.1)

1. A method for the mutual separation of acrylonitrile, acetonitrile and propionitrile from an aqueous solution thereof which comprises feeding said aqueous solution into an acetonitrile extractor, introducing into said extractor a selective solvent for acetonitrile comprised of an aqueous solution substantially saturated with acrylonitrile and propionitrile, withdrawing from said acetonitrile extractor a fraction comprising an aqueous acetonitrile solution containing less than about 15 percent acrylonitrile and propionitrile, introducing said impure aqueous acetonitrile solution into an extractive distillation column, introducing water into the top of said extractive distillation column as solvent, withdrawing an aqueous solution of substantially pure acetonitrile from the bottom of said extractive distillation column, removing a mixture of acrylonitrile, propionitrile and less than about 15 percent water overhead from said extractive distillation column and feeding said mixture to said acetonitrile extractor as solvent, removing from said acetonitrile extractor a second fraction comprising a mixture of acrylonitrile, propionitrile and less than about 15 percent water, introducing said latter mixture into an azeotropic distillation column, removing overhead from said azeotropic column the water azeotropes of acrylonitrile and propionitrile, separating said water azeotropes of acrylonitrile and propionitrile into an aqueous phase saturated with acrylonitrile and propionitrile and an organic phase, feeding said aqueous phase to said acetonitrile extractor as solvent, returning said organic phase to said azeotropic distillation column as reflux, withdrawing a substantially anhydrous mixture of acrylonitrile and propionitrile from the bottom of said azeotropic distillation column, introducing said substantially anhydrous mixture into a fractional distillation column and recovering substantially pure anhydrous acrylonitrile and propionitrile therefrom.

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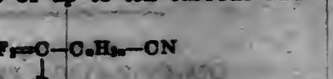
2,773,089

## FLUORINATED OLEFINIC NITRILES

John Lynde Anderson, Northwood, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 29, 1954, Serial No. 465,748
11 Claims. (Cl. 260—465.7)

3. A difluoronitrile of up to ten carbons and of the formula



wherein $n$ is a cardinal number up to six and R is a member of the class consisting of hydrogen and monovalent hydrocarbon radicals free of aliphatic unsaturation, R and $C_nH_{2n}CN$ totaling up to eight carbons.

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2,773,090

## PROCESS FOR PREPARING PURE DIMETHYLTEREPHTHALATE FROM THE CARBONYLATION OF AROMATIC HALIDES

Henry J. Lolkema, Orange, Tex., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 10, 1953, Serial No. 341,683
4 Claims. (Cl. 260—475)

1. In a process for preparing dimethylterephthalate containing an amount of acidic impurity not in excess of

0.01 milliequivalent per gram, from the crude reaction products obtained by heating a carbonylation mixture comprising p-dichlorobenzene, carbon monoxide, nickel carbonyl, and an esterifying component comprising methanol, at a temperature within the range of 275 to 425° C. and a pressure within the range of 300 to 1000 atm., the steps which comprise separating the liquid phase from the said crude reaction products, stripping readily volatile ingredients therefrom, adding methanol to the resulting crude ester, heating the resulting mixture at a temperature of 200 to 325° C. under autogenous pressure, and distilling the resulting mixture whereby a dimethylterephthalate fraction containing an amount of acidic impurity not in excess of 0.01 milliequivalent per gram is obtained.

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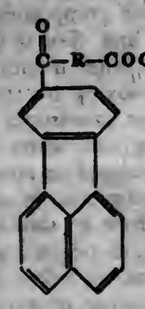
2,773,091

## FLUORANTHENEOXOCARBOXYLIC ACIDS AND THE PRODUCTION THEREOF

Robert R. Burtner, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application October 12, 1953, Serial No. 385,673
10 Claims. (Cl. 260—515)

1. An ω-oxo-ω-8-fluoranthenecarboxylic acid derivative of the formula



wherein R is selected from the group consisting of bivalent, saturated, acyclic, hydrocarbon radicals of empirical formula

$C_nH_{2n}$

and bivalent, unsaturated, acyclic, hydrocarbon radicals of empirical formula

$C_nH_{2n-2}$

*n* in the preceding empirical formulas being a positive integer greater than 1 and less than 9, and Z is selected from the group consisting of hydrogen and one equivalent of a cation.

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2,773,092

## DIMERIZATION PROCESS

David R. Carley and Walter E. Foster, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 6, 1954, Serial No. 473,487
8 Claims. (Cl. 260—533)

1. The process for dimerization of a conjugated hydrocarbon polyene in the presence of an alkali metal to produce a dialkali metal polyene adduct comprising adding a conjugated polyene having between 4 and 16 carbon atoms to a reaction medium maintained at a temperature below about 50° C. containing finely dispersed alkali metal having a particle size not greater than 50 microns, between about 0.0001 and 10 percent of a diaryl ketone and at least 300 percent of an aliphatic solvent selected from the group consisting of ethers, acetals and tertiary amines, both percentages being based upon the weight of said alkali metal, said polyene being employed in a total quantity not exceeding about 1 mole per mole of alkali metal.

2. The process of claim 1 wherein the reaction mixture so-formed, including said diaryl ketone, is thereafter treated with a Grignard reactant selected from the group consisting of carbonyl, thionyl and nitrile compounds.

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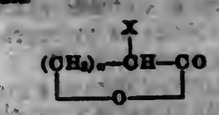
2,773,093

## PROCESS FOR THE PRODUCTION OF AMINOCARBOXYLIC ACIDS AND THEIR N-SUBSTITUTED DERIVATIVES

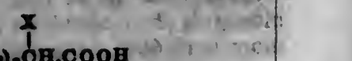
Adolf Christian Josef Opfermann, Bergisch-Gladbach, Germany

No Drawing. Application September 16, 1952, Serial No. 309,538
Claims priority, application Germany September 17, 1951
4 Claims. (Cl. 260—534)

1. A process for the preparation of an ω-aminocarboxylic acid, which comprises the steps of heating a lactone of the formula



wherein *n* is a whole number from 2 to 5 inclusive, and X is selected from the group consisting of H, Br and $NH_2$, with a carboxylic acid amide, selected from the group consisting of formamide, acetamide, propionamide, palmitamide, stearamide, salicylamide and benzoylamide, whereby splitting of the lactone ring takes place with formation of the corresponding N-substituted aminocarboxylic acid of the formula



wherein *n* and X have the aforesaid significances and R.CO.NH is the radical of the aforesaid carboxylic acid amide, and then converting the said N-substituted aminocarboxylic acid into the corresponding ω-aminocarboxylic acid of the formula



wherein *n* and X again have the aforesaid significances, by means of a saponifying agent.

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2,773,094

## OXIDATION OF FATTY ACIDS

Robert D. Englert, Palo Alto, and Lawrence M. Richards, Los Altos, Calif., assignors to Tallow Research, Inc., San Francisco, Calif., a corporation of California

Application December 14, 1953, Serial No. 398,020
13 Claims. (Cl. 260—537)

1. The process of converting saturated fatty acids of 14 to 18 carbon atoms to dibasic acids of lower molecular weight which comprises intimately contacting said fatty acids with an oxidizing agent consisting of dilute nitric acid at a temperature of 100 to 250° C. and a pressure in the range of about 50 to 500 p. s. i. gage, the mol ratio of nitric acid to fatty acid charged being within the range of about 4:1 to 30:1 and separating from the unconverted fatty acid, dibasic organic acids of lower molecular weight.

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2,773,095

## PRODUCTION OF DIBASIC ACIDS

Robert D. Englert, Menlo Park, and Lawrence M. Richards, Los Altos, Calif., assignors to Tallow Research, Inc., San Francisco, Calif., a corporation of California

Application November 1, 1952, Serial No. 318,252
12 Claims. (Cl. 260—537)

1. The process of making dibasic acids by cleaving unsaturated fatty acids of about 14 to 18 carbon atoms which comprises subjecting them to the action of an oxidizing agent consisting of dilute nitric acid at a temperature of about 125–200° C. and pressure of about 10–500 p. s. i. gage and thereafter isolating dibasic acids from the reaction products.

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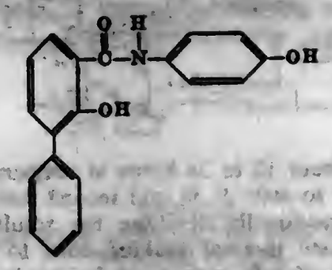
2,773,096

## N-(4-HYDROXYPHENYL)-3-PHENYLSALICYLAMIDE

Melville Sahyun, John A. Faust, and Leonard H. Jules, Santa Barbara, Calif., assignors, by mesne assignments, to Cutter Laboratories, Inc., Berkeley, Calif., a corporation of California

No Drawing. Application February 12, 1953, Serial No. 336,646
2 Claims. (Cl. 260—559)

1. N-(4-hydroxyphenyl)-3-phenylsalicylamide having the formula:



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2,773,097

## ALKALI SPLITTING OF SECONDARY AND TERTIARY FORMAMIDES

Harry E. Albert, Akron, and Richard W. Kibler, Cuyahoga Falls, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 14, 1953, Serial No. 380,090
8 Claims. (Cl. 260—563)

2. Method of producing a primary amine which includes the step of reacting a N-substituted formamide with a solid alkali metal hydroxide, substantially in the absence of water.

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2,773,098

## PREPARATION OF N,N'-DIBENZYLETHYLENEDIAMINE

Melvin A. Rebenstorf, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 28, 1952, Serial No. 306,968
3 Claims. (Cl. 260—570.9)

1. In a process for the production of N,N'-dibenzylethylenediamine by the catalytic hydrogenation of N,N'-dibenzalethylenediamine, the improvement which comprises conducting the reduction of said N,N'-dibenzalethylenediamine in a solution of a lower-alkyl acetate.

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2,773,099

## METHOD FOR THE PREPARATION OF α-SUBSTITUTED ORGANIC CARBONYL COMPOUNDS

Gilbert Stork, Locust, N. J.

No Drawing. Application September 3, 1954, Serial No. 454,209
16 Claims. (Cl. 260—586)

1. A method for the preparation of α-substituted five- and six-numbered ring compounds containing a keto group which comprises condensing a compound selected from the group consisting of five- and six-membered saturated cyclic ring compounds containing a keto group with a secondary amine to form an enamine, reacting the enamine with a member of the group consisting of alkylating and acylating agents in an organic solvent to effect substitution in the α position, and decomposing the resulting α-substitution product with water.

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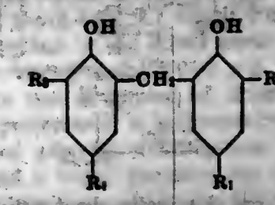
2,773,100

## PREPARATION OF 2,2'-METHYLENE-BIS-4,6-DIALKYL PHENOLS

Hugh Wendell Stewart, Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 30, 1955, Serial No. 556,455
3 Claims. (Cl. 260—619)

1. In the process of preparing a 2,2'-methylene-bis-4,6-dialkyl phenol of the formula



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2,773,101

## CATALYTIC REACTIONS WITH OSMIUM OXIDE CATALYSTS

Curtis W. Smith and Roy T. Holm, Berkeley, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application July 25, 1952, Serial No. 300,926
4 Claims. (Cl. 260—635)

1. In a process of hydroxylating an olefinic compound by reaction with hydrogen peroxide under the catalytic influence of osmium tetroxide, the improved method of recovering catalyst from the reaction mixture which comprises adding to the reacted mixture sufficient of said olefinic compound to react with the osmium tetroxide present, heating the mixture to about 60° C. to 100° C. to convert the osmium tetroxide to dioxide before distillation of the reaction mixture, then distilling the mixture to remove hydroxylation product therefrom, adding sufficient hydrogen peroxide to the remaining undistilled osmium dioxide to oxidize said dioxide to the tetroxide, distilling off osmium tetroxide from the mixture, and using the thus recovered tetroxide to catalyze further reaction.

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2,773,102

## TREATMENT OF BENZENE HEXACHLORIDE

John T. Clarke and Heyt J. Cragg, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 19, 1952, Serial No. 299,913
1 Claim. (Cl. 260—648)

A process for enhancing the gamma isomer concentration of a benzene hexachloride isomer mixture containing the gamma isomer, comprising extracting the gamma isomer from said mixture with ethylene glycol, cooling the extract obtained therefrom to effect crystallization of an enhanced gamma isomer benzene hexachloride product and recovering said product, the extraction being carried out at a temperature above about 80° C.

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2,773,103

## ENHANCEMENT OF GAMMA BENZENE HEXACHLORIDE CONTENT

George Calingaert, Geneva, N. Y., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Original application December 24, 1949, Serial No. 135,022. Divided and this application May 5, 1953, Serial No. 353,081
7 Claims. (Cl. 260—648)

1. In a process for the production of a product containing an enhanced proportion of gamma benzene hexachloride by partially dissolving crude benzene hexachloride obtained from the additive chlorination of benzene

in a solvent selected from the group consisting of lower aliphatic alcohols, benzene, trichlorobenzene, lower alkyl acetates and lower alkyl ethers, said solvent being employed in quantities sufficient to dissolve substantially all the gamma benzene hexachloride contained in said crude benzene hexachloride, separating the thereby



formed solution from the undissolved solids and crystallizing a product containing an enhanced proportion of gamma benzene hexachloride from said solution, the improvement comprising recycling substantially all the solids and solvent of the mother liquor from said crystallization step to said partial dissolution step.

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2,773,104

**MANUFACTURE OF HEXACHLOROBENZENE**

Waldo B. Liggett, Berkley, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 30, 1951, Serial No. 234,673
11 Claims. (Cl. 260—650)

1. A process for the manufacture of hexachlorobenzene comprising treating benzene hexachloride with chlorine in the presence of a catalyst selected from the group consisting of antimony, iron, aluminum, arsenic, bismuth and tin and the halides and oxyhalides thereof at a temperature between about 200° C. and 350° C. until a substantial proportion of hexachlorobenzene is produced.

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2,773,105

**DEHYDROCHLORINATION OF BENZENE HEXACHLORIDE**

Alfred J. Kolka, Birmingham, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 24, 1951, Serial No. 258,100
4 Claims. (Cl. 260—650)

1. A process for making trichlorobenzene having an enhanced 1,2,4-trichlorobenzene concentration by dehydrochlorination of benzene hexachloride, which comprises contacting benzene hexachloride at a temperature of between about 180° C. and a temperature at which substantial decomposition of trichlorobenzene takes place with activated carbon.

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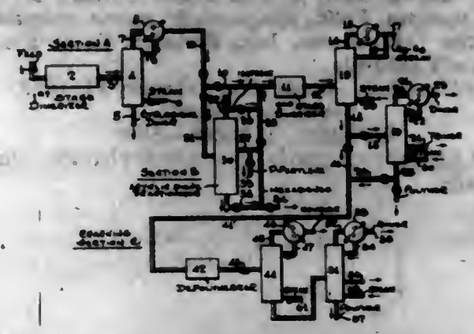
2,773,106

**PROCESS FOR RECOVERY OF ACYCLIC DIENE DIMERS**

Glen P. Hammer, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application March 19, 1952, Serial No. 277,422
5 Claims. (Cl. 260—666)

1. A process for separating and recovering cyclic $C_5$–$C_6$ diolefins as dimers and polymers and separately $C_5$–$C_6$ acylic diolefins as dimers and higher polymers from a cracked hydrocarbon fraction rich in monomers of the $C_5$–$C_6$ diolefins, which comprises thermally soaking said fraction at temperatures in the range of 180° to 240° F. for about 4 to 12 hours until the cyclic diolefins present in said fraction are dimerized selectively with negligible dimerization and negligible codimerization of the acyclic diolefins, fractionally distilling the undimerized components of said fraction including said acyclic diolefins from the resulting cyclic diolefin dimer and polymer product, passing the distilled undimerized components containing the acyclic diolefins into a second thermal soaking zone, subjecting the acyclic diolefins to thermal



soaking for about 12 to 24 hours at temperatures in the range of 250° to 400° F. in said second thermal soaking zone, then fractionally distilling the resulting product from the second thermal soaking zone to remove unreacted acyclic diolefin monomers from a bottoms liquid heated to 300° to 340° F., and fractionating said bottoms liquid to separate an intermediate fraction of acyclic diolefin dimers boiling in the range of 300° F. to 400° F. from higher boiling trimers and polymers.

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2,773,107

**RECOVERY OF AROMATIC HYDROCARBONS FROM HF-$BF_3$ AGENT**

Charles D. Kalfadelis, Hammond, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application February 3, 1955, Serial No. 486,021
5 Claims. (Cl. 260—668)

1. In the process where a benzene hydrocarbon is treated with liquid HF–$BF_3$ agent to produce a solution comprising HF–$BF_3$-polyalkylbenzene complex and liquid HF, said polyalkylbenzene containing from 2 to 4 alkyl groups with each alkyl group containing from 1 to 4 carbon atoms, and the hydrocarbons in said solution are recovered as a liquid drainoff product by distilling HF and $BF_3$ from said solution, the improvement which comprises introducing into said solution in said distillation zone $BF_3$ stripping gas.

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2,773,108

**ETHYLATION PROCESS**

Edwin F. Peters, Lansing, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application October 29, 1954, Serial No. 465,754
5 Claims. (Cl. 260—671)

1. A process for the ethylation of an aromatic hydrocarbon, which process comprises contacting said aromatic hydrocarbons with ethylene at a temperature between about 100° F. and about 350° F. in the presence of an acidic catalyst consisting essentially of a major proportion by weight of silica and a minor proportion by weight of alumina, which catalyst has been activated before use in said ethylation by treatment with hydrogen under a pressure of at least about 20 p. s. i. at a temperature between about 400° F. and about 1000° F. for a period of time sufficient to effect substantial activation of said catalyst for said ethylation of an aromatic hydrocarbon.



2,773,109

**ETHYLBENZENE DISPROPORTIONATION**

Arthur P. Lien, Highland, Ind., and David A. McCaulay, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application July 20, 1954, Serial No. 444,672
6 Claims. (Cl. 260—671)

1. A disproportionation process which comprises contacting ethylbenzene, in the absence of reactive hydrocarbons, under substantially anhydrous conditions, with at least about 3 moles of liquid HF and with at least about 0.4 moles of $BF_3$ respectively per mole of ethylbenzene at a temperature of at least 75° C. for about a time at least one-half hour, thereby producing a reaction product mixture wherein triethylbenzene predominates over diethylbenzene and removing HF and $BF_3$ to obtain a reaction product mixture comprising essentially benzene, ethylbenzene, 1,3-diethylbenzene and 1,3,5-triethylbenzene.

2,773,110

**PURIFICATION OF PARAFFIN HYDROCARBONS BOILING ABOVE ABOUT 380° C.**

Robert Liben, Oberhausen, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany

No Drawing. Application June 11, 1952, Serial No. 292,977
Claims priority, application Germany June 19, 1951
5 Claims. (Cl. 260—676)

1. Process for the purification of paraffin hydrocarbons boiling above about 380° C. which comprises contacting such a hydrocarbon in the liquid phase with hydrogen at a temperature between about 100 and 300° C. at an elevated pressure not in excess of about 30 atmospheres gauge in the presence of a hydrogen-transferring catalyst and a saturated aliphatic hydrocarbon having 7 to 9 carbon atoms and a vapor pressure not in excess of about 1 atmosphere absolute at about 100° C. and recovering the purified hydrocarbon formed.

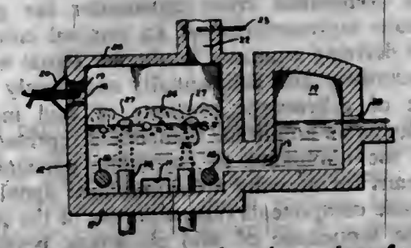
## ELECTRICAL

2,773,111

**METHOD AND APPARATUS FOR MANUFACTURING GLASS**

Pierre Arbeit, Paris, and André Mathey, St. Romain le Puy, France, assignors to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France

Application July 1, 1952, Serial No. 296,552
Claims priority, application France January 23, 1948
13 Claims. (Cl. 13—6)



4. The method of fining glass in a glass furnace that comprises maintaining above the glass undergoing fining beneath the crown of the furnace a temperature circa 1000–1100° C. whereby to form a persisting bubble blanket, and fining the glass beneath the blanket by Joule effect.

5. A furnace for making glass having a thin, heat dissipating crown above the fining zone, a set of horizontal electrodes beneath the operating glass level, and a set of upright electrodes beneath the operating glass level, both sets being in the fining zone.

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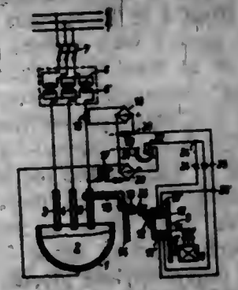
2,773,112

**ARRANGEMENT FOR POSITIONING ELECTRODES OF AN ELECTRIC ARC FURNACE**

Otto Grebe, Olpe, Westphalia, Albert Driller, Frankfurt am Main, and Kurt Rühring, Frankfurt, Bockenheim, Germany, assignors to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany

Application October 5, 1953, Serial No. 384,212
Claims priority, application Germany October 3, 1952
11 Claims. (Cl. 13—13)

1. An arrangement for adjusting the position of an electrode of an electric arc furnace, comprising, in combination, a receiver adapted to hold a charge to be melted; support means having an electrode carrier portion adapted to hold an electrode over said charge in said receiver so as to enable formation of an arc between said electrode and said charge, said support means being movable toward and away from said charge in said receiver; rotatable driving means; means for permanently rotating said driving means; and coupling means having a variable transmission ratio for interconnecting said movable support means and said driving means during rotation of the



latter for moving said electrode carrier portion of said support means toward and away from said charge in said receiver.

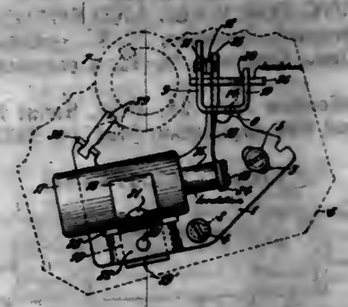
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2,773,113

**BREAKER POINT MECHANISM**

Albert I. Alstrom, Longmeadow, Mass., assignor, by mesne assignments, to Globe-Union Inc., a corporation of Delaware

Application December 21, 1953, Serial No. 399,225
3 Claims. (Cl. 123—146.5)

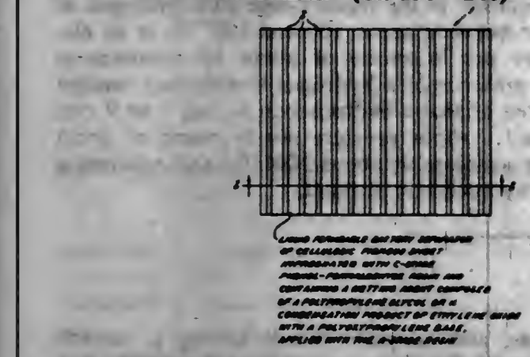


3. Breaker-point mechanism, comprising, a supporting member having first and second arms disposed in spaced and substantially parallel relation, a breaker point fixed to the first arm facing toward the second arm, a plunger extending between said arms and slidably mounted at its ends therein for movement in a direction at right angles thereto, said plunger having at a location intermediate its ends and between said arms an opening which extends through it at right angles to the direction of its sliding movement, a spring breaker arm fixedly supported at one end from said member and extending in a direction substantially at right angles to said direction through said opening and having an end projecting beyond the plung-

er, and a breaker point fixed to said breaker arm and held to the first-named breaker point by the spring pressure of the breaker arm.

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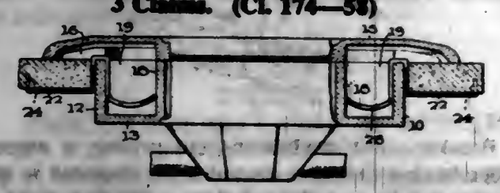
**2,773,114**
**BATTERY SEPARATOR AND METHOD OF MAKING SAME**
Robert R. McAuliss, Cranston, R. I., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application August 31, 1954, Serial No. 453,332
10 Claims. (Cl. 136—146)



1. A liquid permeable battery separator made from a bibulous cellulosic fibrous sheet having an air permeability (Gurley) of from 4 to 19 seconds (using a 5 ounce cylinder and a ¼ square inch orifice), having an alpha cellulose content of at least 90 percent and exhibiting uniform "formation" thoroughly impregnated with an intimate mixture of a C-stage phenol-formaldehyde resin formed by curing an A-stage phenol-formaldehyde resin uniformly deposited in and around the fibers of the sheet by drying from solution in a solvent therefor, said C-stage phenol-formaldehyde resin being in intimate admixture with a nonionic surface active agent selected from the group consisting of polypropylene glycols having a molecular weight of at least 1250 and the products of condensation of ethylene oxide with a polyoxypropylene base, said products of condensation containing up to 60 percent of ethylene oxide and at least 40 percent of a polyoxypropylene base and having a molecular weight of from 890 to 3600, in amount equal to from 0.1 to 5 percent by weight based on the weight of said C-stage phenol-formaldehyde resin.

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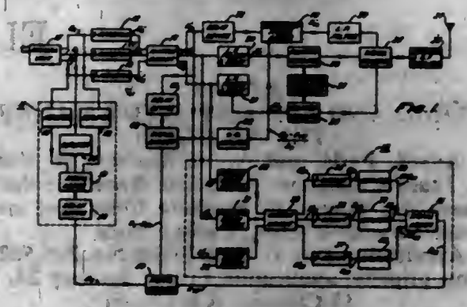
**2,773,115**
**MOUNTING FOR WALL AND SWITCH BOXES**
Victor R. Despard, Syracuse, N. Y., assignor to Pass & Seymour Inc., Syracuse, N. Y., a corporation of New York
Original application June 25, 1951, Serial No. 233,313. Divided and this application May 19, 1952, Serial No. 288,725
3 Claims. (Cl. 174—58)



1. The combination of an electric wiring box for mounting from the exposed or room side of and through an opening in a finished wall and box holding supports for engaging the concealed or back face of the wall and the free edges surrounding the open side of the box, said box being formed of moulded plastic material having end and side walls forming a rectangular configuration open at the front or face adapted to be flush with the exposed side of the wall and closed at the opposite face, electric contacts and terminals permanently mounted and exposed in said box intermediate its ends, an integral flange near each front corner of the box projecting to engage the exposed wall face adjacent the corners of the opening therein, each box holding support having a sheet metal head to engage the concealed face of the wall and a strap extending therefrom to pass between an end wall of the box and an end of the wall opening for bending over the free edge of said end wall, said box having an integral wall spaced from each end wall to define therewith an inside compartment to receive and isolate the bent-over end of the adjacent support strap from the said electrical contacts and terminals.

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**2,773,116**
**LUMINANCE CORRECTION APPARATUS FOR COLOR TELEVISION SYSTEMS**
John B. Chatten, Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application August 20, 1953, Serial No. 375,505
9 Claims. (Cl. 178—5.2)



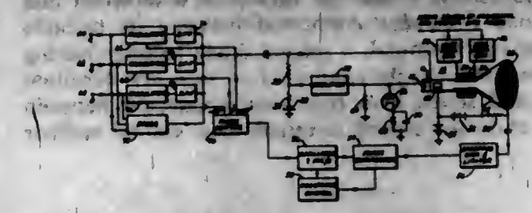
1. In a compatible color transmitter for generating transmissions representative of an original color image: means for deriving a normal luminance signal which represents accurately and substantially completely the total luminance of achromatic portions of said image and which contains an amplitude component representative of a part of the luminance of chromatic portions of said image; means for deriving a chrominance signal containing amplitude components representative of the remaining part of the luminance of said chromatic portions; frequency-discriminatory means for limiting said chrominance signal to a bandwidth substantially less than that of said luminance signal, thereby to introduce deficiencies in the representation of higher-frequency variations in the luminance of said chromatic image portions; means for generating a true-luminance signal representative of the total luminance of said image throughout a frequency band greater than that of said chrominance signal; means responsive to said normal luminance signal and to said chrominance signal to produce an output signal indicative of those luminance variations which will be produced in the reproduced image of an ideal receiver supplied with said normal luminance signal and said chrominance signal; means for comparing said output signal with said true-luminance signal to derive difference signals indicative of discrepancies in the luminance of said reproduced image; and means responsive to said difference signals to generate a correction signal for combination with said normal luminance signal, to counteract said deficiencies in luminance representation.

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**2,773,117**
**CATHODE RAY TUBE BEAM INTENSITY CONTROL**
Richard G. Clapp, Narberth, and Lincoln W. Hershberger, Oreland, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application February 23, 1954, Serial No. 411,758
15 Claims. (Cl. 178—5.4)

1. A cathode ray tube system comprising a cathode ray tube having means for generating an electron beam, means including a control electrode for varying the intensity of said beam and a beam intercepting member, means for producing a signal having variations determined by the intensity variations of said beam, means coupled to said signal producing means for limiting the amplitude of

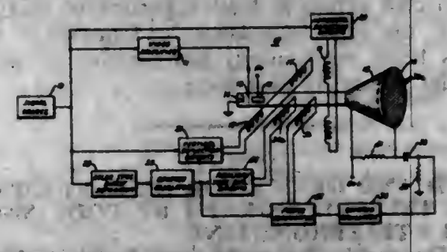




said signal when said beam intensity exceeds a given value, and means for applying said signal to said beam intensity control means in a sense to oppose variations in the intensity of said beam when the intensity value thereof is less than said given value.

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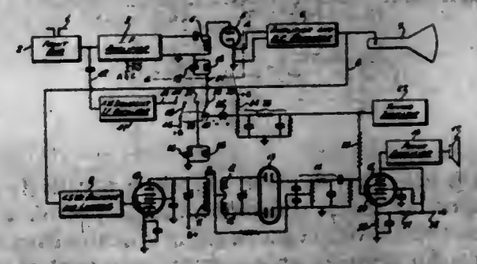
**2,773,118**
**TELEVISION DEFLECTION CONTROL SYSTEM**
Robert C. Moore, Erdenheim, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application July 27, 1953, Serial No. 370,299
7 Claims. (Cl. 178—5.4)



1. In a cathode ray tube display system: means for producing a signal comprising successive portions representative of different intelligence components occurring in a predetermined order, signal portions representative of a particular component recurring at a predetermined rate; a cathode ray tube for producing visible indications of the intelligence represented by said signal, said tube comprising a screen structure, means for projecting an electron beam toward said screen structure and means supplied with said signal and responsive thereto to control the intensity of said beam, said screen structure comprising a plurality of parallel phosphor strips and a plurality of indexing strips, each pair of said indexing strips being associated with one of said phosphor strips and being disposed substantially parallel thereto, the different members of each pair of indexing strips being disposed near opposite edges of the associated phosphor strip and different pairs of said indexing strips being associated with different phosphor strips; means for deflecting said beam across said screen in first and second different directions and at rates such as to trace a plurality of substantially parallel paths upon said screen, successive ones of said parallel paths normally following different ones of said phosphor strips, said rate of beam deflection in said first direction being subject to fortuitous variations which cause the beam to deviate in said first direction from its normal path along said phosphor strips; means for producing cyclical deflections of said beam across said screen in said first direction at a rate substantially equal to said rate of recurrence of portions of said signal representative of a particular intelligence component and with an amplitude sufficient to cause said beam to traverse the width of a phosphor strip during each cycle of said deflection; means for deriving a signal in response to impingement of said beam on said indexing strips; and means for utilizing said derived signal to control the rate of beam deflection in said first direction so as to maintain each of said parallel paths substantially centered within one of said phosphor strips.

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**2,773,119**
**TUNING SYSTEM FOR RADIO AND TELEVISION RECEIVERS**
Louis W. Parker, Little Neck, N. Y.
Application April 4, 1950, Serial No. 151,279
19 Claims. (Cl. 178—5.8)



1. A television receiver of the vestigial side band type for receiving a video modulated carrier having a portion of one video side band removed and having a frequency modulated audio channel operating just beyond the limit of the other video side band, comprising in combination, tunable means for receiving the modulated radio waves and producing a radio frequency signal having a band of modulations thereon conforming substantially to those on the received waves, a detector for rectifying the output of said means, means responsive to the video signals existing in the output of said detector for displaying a picture, a selector connected to the output of said detector for selecting the frequency modulated audio signals, a frequency discriminator fed by the output of said selector, an audio amplifier fed by said frequency discriminator, selective means connected to said first-named means and sharply peaked as compared to the band width of the video modulated signals, said selective means being peaked at a frequency within the band of the video signals near the end thereof opposite that which carries the audio modulation, and tuning indicator means responsive to the output of said selective means for increasing the gain of said audio amplifier to increase the output thereof when said selective means is fed with signals at its resonant frequency.

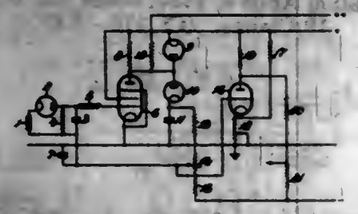
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**2,773,120**
**MAGNETIC RECORDING OF HIGH FREQUENCY SIGNALS**
Earl E. Masterson, Palmyra, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 30, 1950, Serial No. 198,370
10 Claims. (Cl. 178—6.6)



1. Apparatus for recording high frequency signals on a magnetic tape comprising, in combination, a pair of cylinders disposed in spaced apart, end-to-end relation, said cylinders being coaxial and substantially the same diameter and constituting a mandrel for the tape, a rotary member mounted for rotation on the common axis of said cylinders, driving means for rotating said member, a continuously operable magnetic record-reproduce head mounted on said member in a position to extend into the space between the adjacent ends of said cylinders and engage said tape when wrapped about said mandrel, and a reeling system for driving said tape helically about said mandrel.

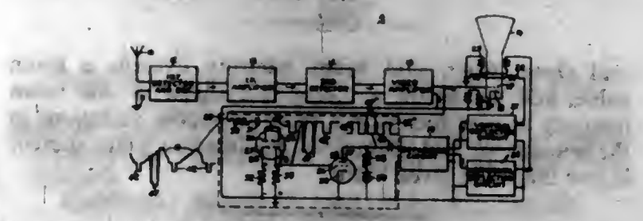
2,773,121
**VIDEO AMPLIFIER WITH SIGNAL-INTENSITY-DETERMINED THRESHOLD**
Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application November 1, 1951, Serial No. 254,258
Claims priority, application Netherlands November 9, 1950
9 Claims. (Cl. 178—7.3)



8. In a television receiver wherein a negatively-modulated incoming signal is demodulated to provide a video signal combined with negative-going synchronizing pulses, apparatus for deriving an automatic gain control voltage from the demodulated signal and for separating the synchronizing pulses from the demodulated signal, comprising first, second and third electron discharge tubes each having a cathode, a grid and an anode, a source of operating voltage having a positive-polarity terminal and a negative-polarity terminal, two resistors connected respectively between the anodes of said first and third tubes and said positive-polarity terminal, means connecting the cathodes of said first and third tubes to said negative-polarity terminal, a source of positive potential, a resistor connected between the anode of said second tube and said source of positive potential, a capacitor connected between the cathodes of said first and second tubes, a source of negative bias potential, a resistance connected between the cathode of said second tube and said source of negative bias potential, means connecting the grid of said first tube to a point on said resistance, said negative bias potential having a value to normally bias said first tube with a constant bias so as to pass relatively little current in the absence of said signal, means to apply the demodulated signal to the grid of said first tube to produce an alternating voltage at the anode thereof, a connection between the anode of said first tube and the grid of said second tube whereby a variable bias voltage is developed at said capacitor in accordance with said alternating voltage and is applied to the grid of said first tube thereby stabilizing said alternating voltage and whereby said synchronizing pulses appear at the anode of said second tube, means connected to derive said synchronizing pulses from the anode of said second tube, a resistor connected between the cathode of said third tube and said negative-polarity terminal, a resistor connected between the grid of said third tube and said source of negative bias potential, thereby to bias said third tube in cut-off condition, means connected to apply said variable bias voltage to the grid of said third tube to render said third tube conductive only when said variable bias voltage exceeds a predetermined value, thereby producing an automatic gain control voltage at the anode of said third tube, and means connected to derive said automatic gain control voltage from the anode of said third tube.

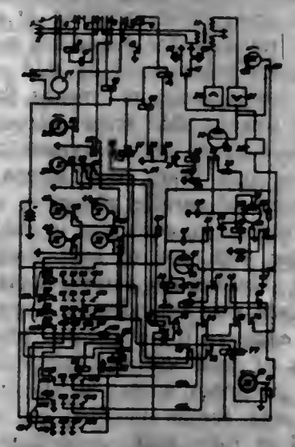
2,773,122
**VIDEO FROM SYNC SIGNAL SEPARATOR**
Robert B. Dome, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application September 20, 1951, Serial No. 247,422
5 Claims. (Cl. 178—7.3)

4. In a television receiver comprising first and second input terminals and having a condenser for impressing a composite television signal wave on said first terminal, said wave having periodic synchronizing pulse portions extending in a negative direction with respect to the alternating-current axis of said wave at said first terminal and intermediate video signal portions extending in a positive sense from said axis at said first terminal, the combination therewith of a first diode rectifier having its anode conductively connected to said first terminal and a series load resistance connected between its cathode and said second terminal, a second diode rectifier having its cathode conductively connected to said first terminal and a second series load resistance connected between its anode and said second terminal, said second resistor



being small enough with respect to said first resistor that the net positive charge on said condenser allows said cathode of said second diode rectifier to be depressed below that of said anode of said second diode rectifier only by the synchronizing pulses a video signal utilization circuit connected across at least a portion of said first resistance and a synchronizing pulse utilization circuit connected across at least a portion of said second resistance, the total impedance load presented to said terminals being substantially non-reactive at all signal frequencies present in said wave.

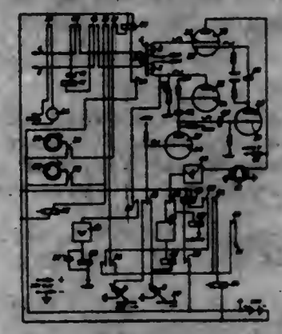
2,773,123
**METHOD AND DEVICE FOR DISTANT CONTROL OF A TELEPHONOGRAPH BY CODE SIGNALS OVER A TELEPHONE LINE**
Max G. Handschin, Kusnacht, near Zurich, Switzerland, assignor to Promundo, Schaan, Liechtenstein, a firm
Application December 27, 1951, Serial No. 263,548
10 Claims. (Cl. 179—6)



5. A telephonograph apparatus including means for reproducing a recorded message over a connected telephone line in response to a coded succession of separate sounds on said telephone line each of a predetermined relative syllabic content corresponding substantially to a predetermined time interval, comprising a series of sound-actuated relays each responsive only to a signal sound of a predetermined duration on said telephone line to successively energize another similar relay responsive to a sound of predetermined duration which may be different from said first duration, and switching means for controlling the successive operation of said relays according to a predetermined code, and means controlled by the last operating relay of the series to initiate reproduction of said message over said telephone line.

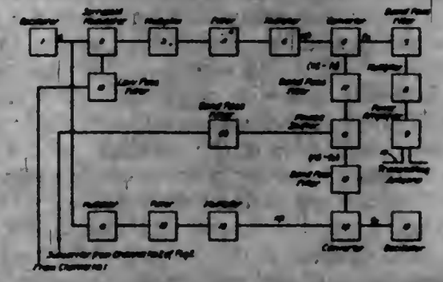


2,773,124
**METHOD AND DEVICE FOR CONTROLLING A TELEPHONOGRAPH**
Max G. Handschin, Kusnacht, near Zurich, Switzerland, assignor to Promundo, Schaan, Liechtenstein, a firm
Application December 31, 1951, Serial No. 264,317
5 Claims. (Cl. 179—6)



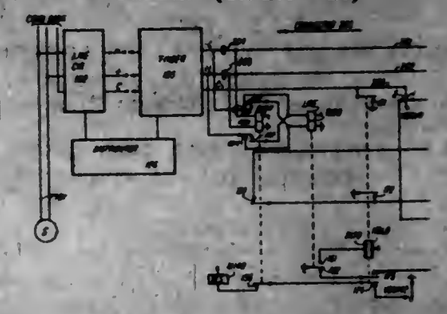
1. In apparatus for controlling a telephonograph of the type having a recording device and a reproducing device for recording and reproducing messages over a telephone line, and a coding device connected to control said telephonograph in response to signals received over such a line during operation of said reproducing device; the improvement which comprises means for isolating said telephonograph from signals imposed on said line from its reproducing device, said isolating means comprising a repeater transformer having a primary winding connected to said line and having first and second secondary windings, an amplifier connected from the first of said secondary windings to the input of said coding device, a second amplifier connected from the output of said reproducing device to said second secondary winding, and a phase reversing device connected between said amplifiers, whereby signals originating in said reproducing device are cancelled between said amplifiers while signals from said line are amplified and transmitted to said coding device.

2,773,125
**MULTIPLEX FREQUENCY MODULATION TRANSMITTER**
Edwin H. Armstrong, New York, N. Y.; Esther M. Armstrong, executrix of said Edwin H. Armstrong, deceased
Application October 12, 1953, Serial No. 385,483
2 Claims. (Cl. 179—15)



1. A frequency modulation multiplex transmitter for a main channel and at least one auxiliary channel, said transmitter comprising: a first oscillator; a main channel phase shift modulator supplied with current derived from said first oscillator and having an input for the modulating signal of the main channel; an auxiliary phase shift modulator having a modulation input for the modulating signal of the auxiliary channel; circuit means supplying said auxiliary phase shift modulator with current derived from said first oscillator, said circuit means including a first frequency multiplier and a first converter; a second oscillator coupled to said first converter and altering the frequency of the current supplied by said circuit means by a submultiple of the frequency to be transmitted; a second converter coupled to the output of said auxiliary channel modulator; a second frequency multiplier connected between the output of said main channel modulator and said second converter and having the same factor of multiplication as said first frequency multiplier; a filter connected to the output of said second converter and having a characteristic which selects from the output of said second converter the frequency of said second oscillator modified by the modulations of said main and auxiliary modulators; and further frequency multiplying means coupled to the output of said filter for multiplying said modulated second oscillator frequency up to said frequency to be transmitted by said transmitter.

2,773,126
**AUTOMATIC TELEPHONE SYSTEM PROVIDED WITH PARTY LINES AND TRUNK LINES**
Clarence E. Lomax, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application January 13, 1955, Serial No. 481,567
8 Claims. (Cl. 179—17)



8. A telephone system comprising a plurality of trunk lines serving an operator position station, a party line including a given number of stations thereon, each of said lines being provided with a pair of line conductors and a control conductor, said control conductor carrying thereon an indication of the idle or busy conditions of the corresponding line, a signaling conductor, a given number of marking conductors respectively corresponding to said party lines, a generator for applying in timed sequence in repeated cycles a given number of signals respectively corresponding to said party line stations to said signaling conductor and a marking potential to said marking conductors, whereby a particular signal is applied to said signaling conductor simultaneously with the application of said marking potential to the corresponding particular marking conductor, a connector switch including in a first level contact sets connecting said party line on a terminal-per-station basis and in a second level consecutively arranged contact sets serving said operator station on a terminal-per-line basis, each of said contact sets including a pair of line contacts terminating the line conductors of the respectively associated line and a first control contact terminating the control conductor of corresponding line and a second control contact, said second control contacts in said first level respectively terminating said marking conductors and in said second level being connected to the control conductor of the correspondingly terminated trunk line except in the last of said consecutive contact sets, a wiper set for selectively engaging said contact sets, a wiper motor for driving said wiper set over the contact sets in said levels, a level switch operated when said wiper set is at said second level, a level relay operated in response jointly to the operation of said level switch and to the selection of a one of said contact sets in said second level for connecting a given one of said marking conductors to said connector switch, a test relay, a switch-through relay, means responsive to the selection of a contact set having a busy condition indication on the first control contact thereof for operating said test relay and responsive to the selection of a contact set hav-

ing an idle condition indication on the first control contact thereof for operating said switch-through relay and for thereafter operating said test relay during the periods of the marking potential applied to said connector switch via the second control contact of said contact set or via said level relay, busy means responsive to the operation of said test relay in the absence of operation of said switch-through relay for rendering a busy indication, means responsive to the conjunct operation of said test relay and switch-through relay for connecting said signaling conductor to one of the line contacts of said contact set during the periods of the applied marking potential, and a step relay rendered operative in response jointly to the operation of said level relay and to the operation of said test relay in the absence of operation of said switch-through relay and operated thereafter in response to a busy condition indication on the second control contact of said selected contact set for operating said wiper motor, whereby said wiper set is stepped to the next consecutive contact set.

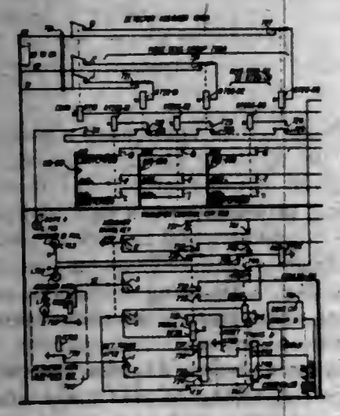
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2,773,127

## CALLING LINE IDENTIFICATION APPARATUS

Ivan V. Coleman, Naperville, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware

Application February 11, 1955, Serial No. 487,572
24 Claims. (Cl. 179—18)



1. A line identification circuit for a telephone system having a group of subscriber lines and having a different multi-digit designation for each line in said group, comprising a single gas-filled electronic device individual to each of said lines, each of said devices having only two electrodes, one of said electrodes of each of said devices connected to a corresponding one of said lines, means controlled over any one of said lines responsive to a call initiated thereover for rendering only the associated one of said gas-filled devices conducting between its electrodes, a first control means connected to the other of said electrodes of all of said devices operated responsive to the conductivity of any one of said devices, a plural digit register, a second control means operated responsive to the operation of said first control means for operating said register to register therein a portion of the multi-digit designation of said one calling line, a group of third control devices including at least one device for each of said lines in said group of lines, connecting means operated in response to the operation of said second control means for connecting said group of third control devices respectively to the one electrode of each of said gas-filled electronic devices connected to said lines in order to operate the particular third control device corresponding to the particular calling one of said lines, means controlled in response to the operation of said third control device for operating said register to register the remaining portion of the multi-digit designation of said calling line, a signal device common to the group of said gas-filled devices corresponding to said group of subscriber lines, means controlled responsive to the initiation of said call on said one line for preparing said signal device for operation, and additional means controlled by said connecting means for illuminating said signal device to indicate the group of gas-filled devices including the conducting gas-filled device individual to said line.

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2,773,128

## CROSSBAR-SWITCH CONNECTOR SYSTEM

Robert W. Hutton and Edward J. Leonard, Chicago, Ill., assignors to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland

Application February 28, 1955, Serial No. 490,892
6 Claims. (Cl. 179—22)



1. In a switching system for interconnecting separately seizable calling trunks with lines called thereover, a crossbar switch including two switching sections and having select magnets common to both sections, each section including a set of horizontal multiples individually selectable by the common select magnets, each section further including a separate set of hold magnets and an associated set of vertical multiples intersecting the horizontal multiples of the section, each section further including crosspoint means for connecting any horizontal multiple of the section to any vertical multiple thereof under the joint control of the hold magnets of the section and the common select magnets, a separate group of the lines and a separate group of the calling trunks associated with each section, with the lines of any section connected to respective multiples of one said set of multiples of the section, and with the associated trunks connected to respective multiples of the other set of multiples of the section, whereby the crosspoint means of the last-said section can interconnect any associated trunk with any associated line, register means and means controlled over any seized trunk for setting it to indicate the line identity of any desired called one of the lines in the group of lines associated with one switch section and to indicate the line identity of a respectively corresponding line in the group of lines associated with the other switch section, a controller common to both switch sections and means for temporarily individualizing it with any trunk over which the said register means has been set, means controlled according to the individualization of the controller with a trunk of one of said trunk groups for indexing one of said groups of lines, and means controlled jointly by the said line-indicating means and group-indexing means for controlling the select magnets of the switch and the hold magnets of the section associated with the individualized trunk to actuate the specific crosspoint means required to connect the individualized trunk to the line called thereover.

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2,773,129

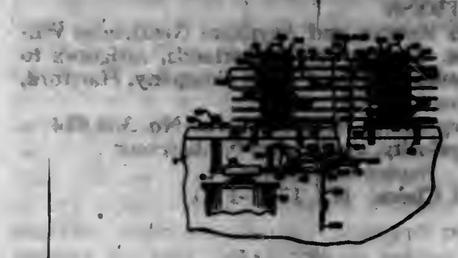
## FLAT-BANK CROSSBAR SWITCH

Edwin L. Earle, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland

Application July 27, 1955, Serial No. 524,632
3 Claims. (Cl. 179—27.54)

1. A contact bank comprising a succession of upstanding stackups of contact members arranged in a row to provide a longitudinal row of multi-conductor switching groups equal to one less than the number of said stackups, with each switching group including flexible contact members supported by one stackup and extending forwardly into cooperative underlying relationship with respective fixed contact members supported by the next succeeding stackup, each stackup including interspersed contact members and insulating sheets and means clamping them together, each intermediate stackup having clamped therein the base portions of the flexible contact members which extend forwardly therefrom, with each overlaid by a fixed contact member which extends rearwardly from the stackup for cooperation with a flexible contact member supported by the next preceding stackup, each fixed contact member in any stackup succeeding the first being immediately underlaid by an insulating sheet which is sufficiently narrow to provide room under the rearwardly extending portion of such member for the free end of





the cooperating flexible contact member held by the preceding stackup to be moved into and out of contact with the fixed member, the last said insulator in any intermediate stackup being underlaid by the clamped base portion of a flexible contact member, any last said clamped base portion being underlaid by an insulating sheet which is widened to provide a portion which extends rearwardly to underlie the free end of the corresponding contact member which extends forwardly from the next preceding stackup, whereby a definite insulated stopping barrier is provided for each flexible contact member of the switching group in its open, or relaxed, condition, each last said insulator above the lowermost one in the stackup overlying a fixed contact member and barring contact therewith by the free end of the flexible contact member which lies above it.

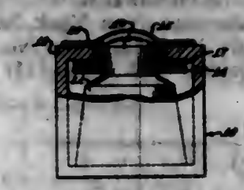
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2,773,130

## ACOUSTICAL RESISTANCE FOR PRESSURE TYPE MICROPHONES

Harry F. Olson, Princeton, and John Preston, Metedeconk, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application March 31, 1953, Serial No. 345,979
5 Claims. (Cl. 179—115.5)



1. A microphone comprising a diaphragm, a pair of pole pieces having an air gap therebetween, a conductor secured to said diaphragm and disposed within said air gap, acoustical resistance means being disposed adjacent one end of said air gap and between said pole pieces, said acoustical resistance means comprising a reticulated annular member having one surface thereof adjacent at least one of said pole pieces, said member providing criss-cross air chambers and passages between said one surface thereof and the surface of said pole piece adjacent thereto, and a backing member secured to the surface of said annular member opposite to said one surface.

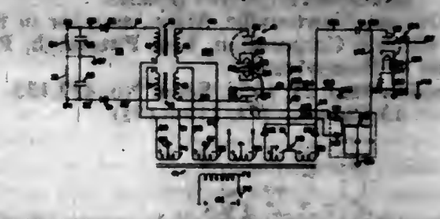
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2,773,131

## MAGNETIC AMPLIFIER

Masao Sakamoto, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application April 6, 1953, Serial No. 347,099
7 Claims. (Cl. 179—171)



1. A hybrid magnetic amplifier comprising, a pair of magnetic cores, each core having a power winding and a control winding positioned thereon in inductive relation therewith, an alternating current source of power having a plurality of terminals, circuit means connecting one terminal of each of said power windings to said source of power and another terminal of each of said power windings through unidirectional current conducting devices respectively through load means which circuit is completed to another terminal of said source of power, additional circuit means connecting each of said control windings to a terminal of said source of power and further connecting each of said control windings to anodes of a pair of triodes respectively each triode having a control element and a cathode with the additional circuit being completed through common connections of said cathode and said source of power, control circuit means including biasing resistance means connected to the control element of said triodes, means for applying a reference signal to said biasing resistance means, and means applying an alternating signal voltage of variable phase and magnitude to said biasing resistance means.

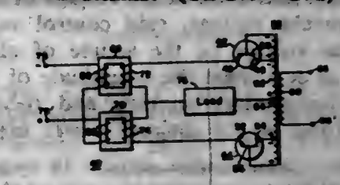
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2,773,132

## MAGNETIC AMPLIFIER

Richard L. Bright, Adamsburg, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 2, 1954, Serial No. 433,876
2 Claims. (Cl. 179—171)




1. In a self-saturating magnetic amplifier for supplying energy to a load, the combination comprising, a magnetic core member, a load winding disposed in inductive relationship with the magnetic core member, a transistor comprising a semiconductive body having an emitter electrode, a collector electrode, and a base electrode all in operative contact therewith, means, interconnected with the load and with the load winding, for providing two synchronous alternating voltages, circuitry connecting said means to the collector electrode and to the emitter electrode so that one of the synchronous alternating voltages is applied between the collector electrode and the emitter electrode, other circuitry connecting the said means to the collector electrode and to the base electrode so that the other synchronous alternating voltage is applied between the collector electrode and the base electrode, the instantaneous polarity of said two synchronous alternating voltages during alternate half-cycles being such that the base electrode is positive with respect to the collector electrode and with respect to the emitter electrode, whereby the transistor during said alternate half-cycles prevents current from flowing through the load winding and the load, and con-



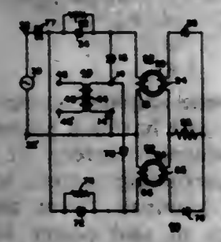


to said unwounded terminals a phase splitter stage com- of said connecting means to thereafter be controllable

trol means, including a control winding disposed in inductive relationship with the magnetic core member, for controlling the flux level in the magnetic core member.

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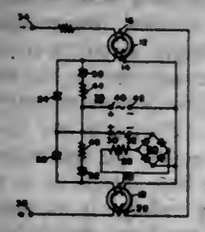
2,773,133
MAGNETIC AMPLIFIERS
Wallace J. Dunnet, Newtonville, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 25, 1954, Serial No. 432,135
13 Claims. (Cl. 179—171)



1. In a magnetic amplifier for controlling the electrical conditions imposed on a load, the combination comprising, a saturable reactor comprising a magnetic core member, a primary winding, and a secondary winding disposed in inductive relationship with the magnetic core member, the secondary winding being connected in circuit relationship with the load, a source of control voltage, a rectifier connected in series circuit relationship with the source of control voltage, a source of alternating-current voltage, the primary winding being connected in parallel circuit relationship with the series circuit comprising the source of control voltage and the rectifier, and circuit means, including an impedance member disposed in non-inductive relationship with respect to the magnetic core member, for connecting said parallel circuit to the source of alternating-current voltage, the voltage of the source of alternating-current voltage being of greater magnitude than the voltage of the source of control voltage, and the rectifier being so disposed that, during one half-cycle of the voltage of the source of alternating-current voltage, the voltage of the source of alternating-current voltage effects a substantially complete magnetic saturation of the magnetic core member, and during the next half-cycle of the voltage of the source of alternating-current voltage, said control voltage cooperates with the voltage of the source of alternating-current voltage to determine the magnitude of the reset-voltage across the primary winding and therefore the amount of resetting of the magnetic core member.

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2,773,134
MAGNETIC AMPLIFIERS
Wallace J. Dunnet, Newtonville, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 25, 1954, Serial No. 432,134
9 Claims. (Cl. 179—171)



1. In a magnetic amplifier for supplying energy to a load, the combination comprising, a magnetic core member, a winding disposed in inductive relationship with the magnetic core member, a rectifier, means for connecting the load, the rectifier, and the winding in circuit relationship with one another, said circuit being connected to be energized by a main supply voltage, and a compensating circuit, the compensating circuit and the winding being energized by an auxiliary supply voltage, the auxiliary supply voltage being of greater magnitude than the main supply voltage, and the compensating circuit being so interconnected with the load, the rectifier, and with the winding that a back-voltage appears across the rectifier to thereby prevent exciting current from flowing through the load while the auxiliary supply voltage is effecting a substantially complete magnetic saturation of the magnetic core member.

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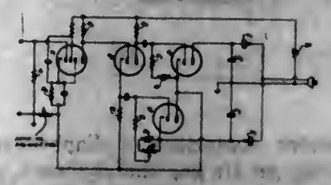
2,773,135
NEUTRALIZING CIRCUIT-ARRANGEMENT FOR AMPLIFYING HIGH-FREQUENCY OSCILLATIONS
Jacobus Johannes Reegen and Abraham Geertrudus Wilhelmus Uitjens, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application September 10, 1952, Serial No. 308,874
Claims priority, application Netherlands September 19, 1951
1 Claim. (Cl. 179—171)



An amplifier circuit comprising an electron tube containing two sections in a single envelope, each of said sections comprising a cathode, a control grid and an anode, said sections being positioned with respect to one another so that a parasitic capacitance occurs between said anodes, means connected to apply a signal to the control grid of a first one of said sections, a transformer having a primary winding connected at an end thereof to the anode of said first section and having a secondary winding connected to the control grid of the second one of said sections, an output circuit connected to the anode of said second section, a first capacitor connected at one terminal thereof to the remaining end of said primary winding and connected at the other terminal thereof jointly to said cathodes, and a second capacitor connected between the anode of said second tube and said remaining end of the primary winding and having a value of capacitance to neutralize said parasitic capacitance.

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2,773,136
AMPLIFIER
Julius Futterman, New York, N. Y.
Application July 30, 1953, Serial No. 371,318
13 Claims. (Cl. 179—171)

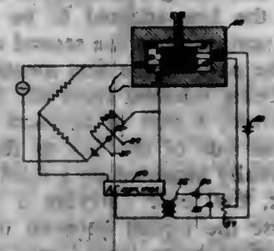


1. A transformerless high fidelity low distortion amplifier system for a low impedance load comprising a first voltage amplifier stage having a single-ended input with one terminal grounded and one ungrounded terminal, said stage having a first tube with an anode, a cathode and a control electrode, a biasing arrangement connected directly to said cathode, said low impedance load being connected between said biasing arrangement and said grounded terminal, said control electrode being connected to said ungrounded terminal; a phase splitter stage comprising a second tube having an anode, a cathode and a control electrode, a first output impedance connected to said latter anode, a second output impedance connected to said latter cathode, said latter control electrode being directly conductively connected to said first tube anode, said cathode output impedance being connected to the junction of said first stage biasing arrangement and said load; a common source of plate supply potential for said first and second stages; a push-pull output stage comprising third and fourth tubes, each having a cathode, and anode and a control electrode, said third tube having its control electrode coupled to said second tube anode and having its cathode directly conductively connected to said fourth tube anode, the control electrode of said fourth tube being coupled to the cathode of said second tube; a source of plate supply potential for said third tube connected directly between said third tube anode and ground, a source of plate supply potential for said fourth tube connected between said fourth tube cathode and ground, the cathode of said third tube and the anode of said fourth tube being jointly connected to the said junction between said voltage amplifier stage biasing arrangement and said load, whereby said load carries the discharge current of all said tubes to provide negative feedback for said voltage amplifier stage and for said push-pull output stage and positive feedback for said phase splitter stage.



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2,773,137
ELECTRIC AMPLIFIERS WITH NONLINEAR PIEZOIDS
Hans E. Hollmann, Oxnard, Calif.
Application November 8, 1951, Serial No. 255,507
3 Claims. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)

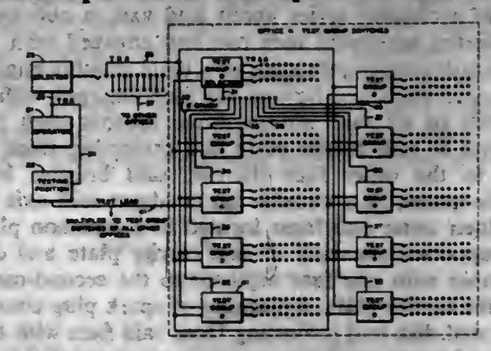


2. In a piezoelectric amplifier, a bridge circuit having four arms, at least one of said arms including a piezoelectric dielectric capacitor, an alternating current source connected across said bridge circuit, means effective to connect an input voltage across all piezoelectric dielectric bridge arm capacitors, an alternating current amplifier connected to the bridge diagonals, means to rectify the output of said alternating current amplifier, a piezoelectric dielectric feedback capacitor mechanically coupled to each of said piezoelectric dielectric bridge arm capacitors, and means effective to impress said rectifier amplifier output across said feedback capacitor.

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2,773,138
TELEPHONE LINE SELECTING SYSTEM
Frank Kessler, Los Angeles, Calif., assignor to General Dynamics Corporation, a Delaware corporation
Application November 17, 1955, Serial No. 547,440
8 Claims. (Cl. 179—175.2)

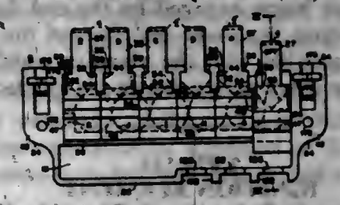
1. A telephone network including a plurality of groups of lines, connecting means for each group of lines, an input circuit for each connecting means, circuit means for connecting the input circuits of all of the connecting means in multiple, means controllable over said input circuits for causing only a predetermined one of said connecting means to operate, and means responsive to the operation of said predetermined connecting means for selecting one of said connecting means to thereafter be controllable over said input circuits to be operated to connect with a



line in the group of lines available to the selected connecting means.

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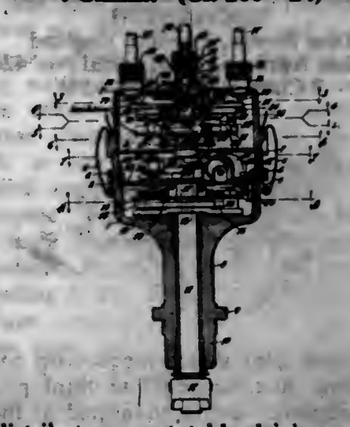
2,773,139
SWITCH
Edward E. Forstrom, Fairfield, and William F. Allenby, Stratford, Conn., assignors to The Bryant Electric Company, Bridgeport, Conn., a corporation of Connecticut
Application November 4, 1952, Serial No. 318,708
18 Claims. (Cl. 200—5)



1. A switch comprising a formed switch casing, a plurality of push-button operating members arranged in a plurality of laterally adjacent rows, said push-button operating members being positioned in and extending through openings in said casing, interlocking means located between each of said rows of said push buttons having portions mechanically engageable by each of said push-button members adjacent thereto to confine the operation of all of said push-button members to a predetermined mode, a plurality of switches each including a stationary contact and a movable contact positioned in said casing member, each of said push-button members when depressed operating at least one of said switches.

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2,773,140
CIRCUIT CONTROL APPARATUS FOR CONDENSER-DISCHARGE IGNITION SYSTEMS
Glen A. Guernsey and John C. Garea, West Springfield, and Arthur H. Green, East Longmeadow, Mass., assignors, by mesne assignments, to Globe-Union Inc., a corporation of Delaware
Application February 23, 1954, Serial No. 411,903
4 Claims. (Cl. 200—24)



1. In a distributor, a rotatable driving member having a face normal to its axis of revolution and three studs each

fixed at one end to said member and projecting from said face parallel to said axis, said studs being angularly-spaced in a circular series about said axis, a coil spring encompassing each stud with one end engaged with said face, a brush carrier consisting of a plate slidably engaged with all said studs and having one face engaged with the other ends of all said springs, three brushes each fixed at one end to said carrier plate and projecting from and normal to the other face thereof, said brushes being angularly-spaced in a circular series about said axis and having their outer end faces located in a common plane, a disk supported coaxially of said carrier plate and driving member with one face adjacent to the second-named face of the carrier plate, a plurality of spark plug contacts fixed to said disk and projecting from said face with their outer end faces located in a common plane parallel to the first-named plane, said contacts being equally-spaced in circular series about the axis of said disk, a distributor brush contact fixed at one end to the carrier plate and projecting from its second-named face, the outer end face of said brush contact being parallel to the first-named plane and adapted to successively move into confronting relation with the end faces of the spark plug contacts, and a circular track fixed to said face of said disk and having its outer face parrallel with the second-named plane, said track being engaged by the end faces of said brushes to position the outer end face of the distributor brush contact parallel with the plane in which the outer end faces of the spark plug contacts are located.

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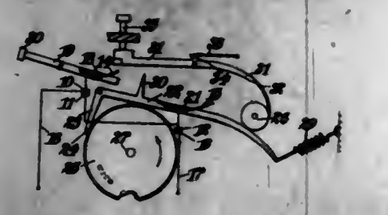
**2,773,141**
**IGNITION ELEMENT**
**Stephen C. Baker, North Riverside, Ill.**
**Application December 24, 1953, Serial No. 400,175**
**10 Claims. (Cl. 200—31)**



8. A breaker arm construction for an ignition system contact maker and breaker of the cam operated type comprising a substantially Z-shaped strip of sheet material forming a pair of flanges each connected to the other at relatively opposite edges by a web, the free edge of one of said flanges serving as a pivot and a free edge of the other of said flanges serving as a cam follower, an arm projecting from the pivot flange generally oppositely of said web, and a contact point carried by said projecting arm substantially at the end thereof.

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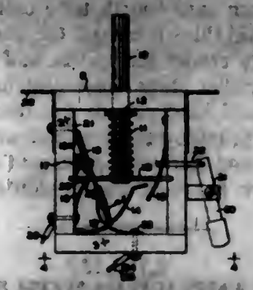
**2,773,142**
**CLOCKWORK CONTROLLED ELECTRIC SWITCH MECHANISM**
**Tom Bowen, London, England**
**Application April 13, 1954, Serial No. 424,189**
**7 Claims. (Cl. 200—38)**



1. A clock controlled switch mechanism comprising a clock mechanism, first, second and third pivoted lever arms, a first snap-over spring connected to the said first lever arm, a first switch operating member moving with said first snap-over spring, a cam rotatably adjustable on a driven shaft of the said clock mechanism and engaged by a part of the said second lever arm, spring means maintaining said part in engagement with said cam, a second snap-over spring connected to the said second lever arm, a second switch operating member moving with said second snap-over spring, a stop device connected to the said third lever arm and adapted to control the clock mechanism, a yielding detent for holding said stop device in its limiting positions, said third lever arm being formed with parts which are arranged in the path of movement of parts of the said first and second lever arms, and a manually controlled member adapted to engage said third lever arm.

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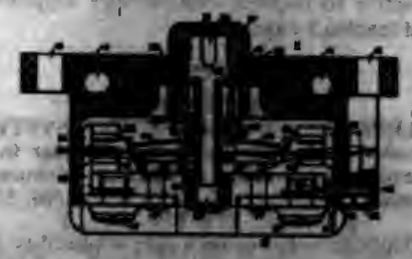
**2,773,143**
**TRACTOR IGNITION SYSTEM**
**James A. Morrison, Washington, Iowa**
**Application January 19, 1953, Serial No. 331,866**
**2 Claims. (Cl. 200—61.58)**



1. In a tractor having a seat, an electric circuit comprising switches, a plunger for operation of one of the switches, said switches comprising a box secured under the seat, a lever mounted on a side of the box, a link extending through the side of the box, a holding spring in the box, the link being connected to the spring, a second spring in the box adapted to be engaged by the first mentioned spring, when the second mentioned spring is flexed into the path of the first mentioned spring, the second spring being released from the first spring when the lever is moved, a pair of contacts mounted in the box on the same side of the box as the second spring, and a lever pivotally mounted on a third side of the box, within the box, the lever carrying a bridging contact which may close the circuit between the two contacts, the bridging contact being forced into engagement with the two contacts, when the second spring is released by operation of the first spring.

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**2,773,144**
**SNAP ACTION SWITCH**
**Ralph B. Immel and Martin Wikell, Williamsville, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania**
**Application April 30, 1953, Serial No. 352,096**
**9 Claims. (Cl. 200—67)**



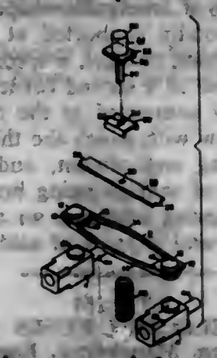
1. In a switch, in combination, a generally rectangular contact base of insulating material, a pair of spaced contact members disposed in line with one dimension of the base and secured to the base, an additional contact member disposed above and spaced from each one of the first-named contact members, said additional contact members being secured to the base, a bridging contact member



movable into and out of bridging engagement with said secured contact members, a reciprocating operating member having two oppositely disposed slots therein, a separately mounted substantially flat operating spring disposed in each slot in the operating member, substantially rigid toggle levers connecting said springs and said bridging contact member to actuate the latter, said bridging contact member having a generally rectangular opening therein for receiving the toggle levers, a guide pin disposed in the operating member between said springs, means extending from the guide pin for engaging the springs to retain them in the operating member, a cover for the switch, a recess in said base, and a bearing in said recess for the lower end of said guide pin, said bridging contact member being rotatable about said guide pin as an axis in a plane parallel to the contact base when the lower end of the guide pin is in said bearing and prior to the installation of the cover.

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**2,773,145**
**SNAP ACTION SWITCH**
**Ralph B. Immel, Williamsville, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania**
**Application July 19, 1954, Serial No. 443,997**
**7 Claims. (Cl. 200—67)**

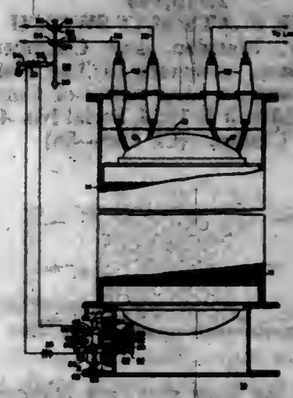


1. A two position snap switch comprising two pairs of stationary contacts, electrical insulating means mounting the corresponding contacts of the respective pairs in spaced confronting relation, a movable contact bridge of electrical conducting spring metal having a pair of spaced contact platforms interconnected by a pair of flat oppositely bowed spring members the planes of which are substantially at right angles to the planes of the contact platforms, contacts mounted on said platforms, a flat actuating spring member bowed in a first position between the confronting edges of said platforms exerting forces thereon in opposition to those of said oppositely bowed flat spring members, a plunger slidably mounted in said electrical insulating means, and means on said plunger engaging said flat actuating spring member and positioning said movable contacts against one pair of said stationary contacts, movements of said plunger in a direction to reversely bow said actuating spring member from said first position causing said actuating spring member to move said movable contacts away from each other against the tension of said oppositely bowed flat spring members, reverse bowing of said actuating spring member being effective to drive said movable contact bridge in a direction to engage the contacts thereon with the remaining pair of stationary contacts.

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**2,773,146**
**PRESSURE SWITCH**
**Louis E. Sauer, Sharon, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania**
**Application November 23, 1954, Serial No. 470,639**
**3 Claims. (Cl. 200—83)**

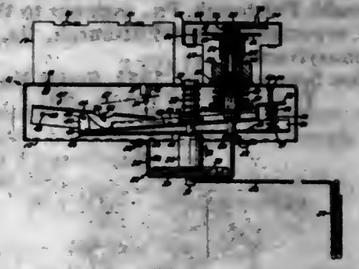
1. In combination, a receptacle containing a fluid under pressure, an arm pivoted about a predetermined pivot point, a switch having operating means for effecting an actuation of the switch, the switch being mounted on the pivoted arm for movement therewith, a mass also mounted on the pivoted arm for movement therewith, said mass being adjustable so that its distance from the pivot point can be varied, pressure responsive means including an actuating member disposed to engage and effect an actuation of said switch operating means, said actuating mem-



ber being responsive to the pressure of the fluid for actuating the switch in response to sudden changes in fluid pressure and for effecting bodily movement of the pivoted arm and switch, without actuating the switch, in response to gradual changes in the fluid pressure, and means for limiting the movement of the switch so that the said actuating member can effect an actuation of the switch when the fluid pressure reaches a predetermined value.

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**2,773,147**
**LIMIT CONTROL**
**Albert L. Judson, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, Portland, Oreg.**
**Application May 3, 1954, Serial No. 427,125**
**3 Claims. (Cl. 200—83)**



1. An alternative direct or reverse acting limit control comprising a frame, an electric switch secured on said frame, said switch having an open position and a closed position, a condition responsive means secured on said frame, an actuating lever for said switch, a pivot pin, said frame and said lever having a first set of bearings for said pivot pin formed thereon and a second set of bearings for said pivot pin formed thereon, said actuating lever being adapted when pivoted to said frame by said pin in either of said sets of bearings to rotate in the same direction about said pin to operate said switch to one of its said positions, a second lever, a third lever, means hinging one end of each of said second and third levers to said actuating lever at a point intermediate said first and said second bearing positions, the free ends of said second and third levers extending in the same direction from said hinging means, means resiliently biasing the free end of said second lever from the free end of said third lever, adjustable stop means carried on said frame, means adapting said adjustable stop means to limit the movement of said second and said third levers by said resilient biasing means, and means adapting said condition responsive means to rock said second and third lever about said ad-

justable stop means to rock said actuating lever at said hinging means about said pivot pin to actuate said switch between its open position and its closed position, said control being direct acting when said pivot pin is engaged in one of said sets of bearings and reverse acting when said pivot pin is engaged in the other of said sets of bearings.

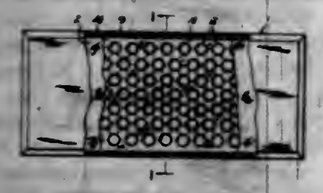
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2,773,148

## FOUR PLATE MAT SWITCH

Sheldon S. Roby, Meriden, and Chamberlain Ferry, Kensington, Conn., assignors to The Stanley Works, New Britain, Conn., a corporation of Connecticut

Application March 4, 1954, Serial No. 414,024
6 Claims. (Cl. 200—86)



1. A switch of the floor mat type comprising a stack of four metal plates including a base plate and three superposed flexible plates adapted to be flexed together responsive to pressure thereon to effect electrical contact between at least two adjacent plates, and first, second and third sheets of non-conducting material respectively separating adjacent plates of said stack, each of said sheets having perforations defining a plurality of holes therein, said perforations in each sheet being laterally staggered relative to the perforations in the other sheets with each perforation in each sheet disposed in equilateral triangular and mutually overlapping relation with corresponding perforations in the other sheets.

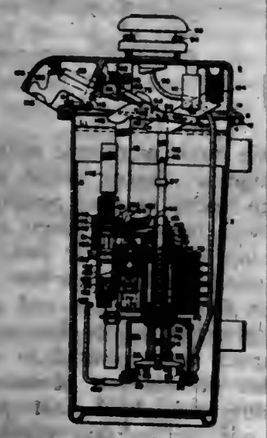
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2,773,149

## TEMPERATURE COMPENSATED RECLOSERS

Alert M. Opsahl, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 30, 1952, Serial No. 312,283
15 Claims. (Cl. 200—89)



8. In a circuit interrupter, separable contacts, dashpot means delaying movement of said contacts, and means venting said dashpot means including a thermostatic valve having a bushing with an axial bore and a threaded extension at one end, said bushing having an axial extension at the other end on one side of the bore and said bore having an enlarged portion defining a valve seat, a valve member disposed in said enlarged portion, a valve lifter slidably disposed in said bore, a shaft rotatably supported by the axial extension and projecting transversely of the bore, means operable to lock the shaft in different rotational positions, a cam rotatably mounted on said shaft to engage the lifter, and a spiral bimetallic operating member connecting the shaft and cam to effect rotation of the cam with changes in temperature.

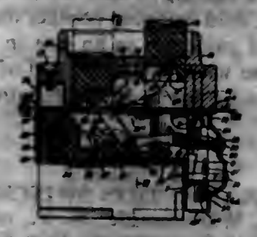
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2,773,150

## ELECTRIC SWITCHES AND CIRCUIT BREAKERS

Thomas Daniel Gey Wintle, Birmingham, England, assignor to J. A. Crabtree & Co. Limited, Walsall, England, a British company

Application February 19, 1954, Serial No. 411,494
Claims priority, application Great Britain February 26, 1953
14 Claims. (Cl. 200—116)



1. In an electric switch or circuit breaker provided with devices for tripping the switch or circuit breaker on overload, a lever actuated by such tripping mechanism, a swinging bracket of triangular shape carried on said lever, a toggle pivotally supported at one end on one corner of said swinging bracket, a second lever pivotally connected at one end to a second corner of said bracket, a trip bar pivotally connected at the other end of said second lever, a screw with which the third corner of said bracket has abutting engagement, and a spring coiled around one corner of said swinging bracket, the respective ends of said spring engaging an abutment on said bracket and the pivotal support of said second lever.

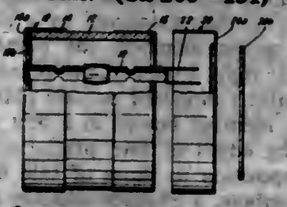
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2,773,151

## ELECTRIC FUSES

Eric William Sugden, Manchester, England, assignor to Parmiter, Hope & Sugden Limited, Manchester, England

Application May 3, 1955, Serial No. 505,734
Claims priority, application Great Britain May 7, 1954
4 Claims. (Cl. 200—131)



1. An electric fuse comprising a cylindrical insulating cartridge casing, a single chamber within said casing, a number of strip-like fuse links arranged in parallel within said chamber, circular metal end caps on the ends of said casing, slits in each of said end caps whereby the ends of said fuse links are supported, said slits lying at an angle not exceeding 80° and substantially above 0° with respect to the radii of said end caps which pass through the mid-points of said slits, said angle being such that said fuse links are made to lie as far as possible from each other as is consistent with their being as far as possible from the inner surface of said casing.

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2,773,152

## PROTECTIVE FUSE STRUCTURES FOR TRANSFORMERS

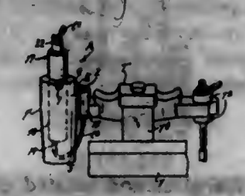
Peter W. Mueehong, St. Louis, Mo., assignor to Moloney Electric Company, St. Louis, Mo., a corporation of Delaware

Application June 18, 1952, Serial No. 294,223
7 Claims. (Cl. 200—133)

1. In a fuse-protected transformer, a terminal block affixed to said transformer and having a boss thereon, a



fuse assembly comprising a mounting bracket carrying a fuse, said bracket having an extension provided with an opening to receive said boss, a stud projecting from said boss and extending through said opening, a terminal lug electrically connected to said fuse by a conductor, said



terminal lug adapted for electrical and mechanical engagement with said stud, and a removable fastener for securing the terminal lug to the stud and securing the extension on said boss whereby the fuse assembly can be replaced as a unit by removal of said fastener.

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2,773,153

## TEMPERATURE-RESPONSIVE SWITCH MOUNTING AND INSTALLATION

Leo L. Verkuil, Norwalk, Conn., assignor to Edwards Company, Inc., Norwalk, Conn., a corporation of New York

Application October 3, 1955, Serial No. 538,140
8 Claims. (Cl. 200—138)



1. A thermostatic switch mounting means comprising a mounting plate having a relatively large round opening therein with threaded screw holes spaced therefrom and adapted to form a closure for an outlet box, a housing of insulating material having a front wall provided with an aperture surrounded by a collar, said collar having an outside diameter so that it is receivable in said mounting plate opening, a thermostatic switch structure supported within said housing and having a part comprising a bimetallic disk positioned to substantially close off said aperture at said collar, said switch structure having terminal connectors within said housing, said housing having a peripheral side wall and a rear closure plate of insulating material and removably associated therewith, said rear closure plate having a relatively large round opening therein that is smaller than the opening in said mounting plate and that is coaxial with said collar, said housing and rear closure plate having means forming spaced screw passages of the same spacing as the threaded holes in said mounting plate, and threaded screws to extend through said passages for threading into said threaded holes from the rear end of said housing with the front wall of the latter resting against the inside face of said mounting plate and said collar received in the mounting plate opening or from the front wall with said rear closure plate resting against the outside face of said mounting plate and with the smaller opening in said insulating rear closing plate substantially coaxial with the larger opening in said mounting plate to substantially peripherally insulate the latter opening for the passage of connecting conductors therethrough to said connecting terminals.

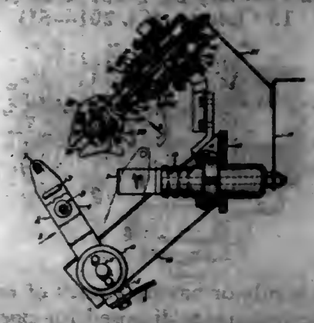
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2,773,154

## ELECTRIC SWITCH

Ernest Williams, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York

Application September 19, 1955, Serial No. 535,150
3 Claims. (Cl. 200—146)



3. In an electrical apparatus comprising a main electrical switch and a switching duty shunt switch, mechanism for first closing said shunt switch as said main switch is actuated to closed position but before said main switch has reached closed position and then opening said shunt switch after said main switch has reached closed position comprising a pivotally mounted switch arm of said main switch, an outer end of said arm movable through an arc as said arm is pivoted, a pivotally mounted cam having a notch formed in a peripheral edge portion thereof, a portion of said notch disposed in said arc and adapted to receive a portion of said arm outer end as said arm is pivoted to cause pivotal movement of said cam, a pair of spaced concave surfaces formed in another peripheral edge portion of said cam separated by a convex surface of said another peripheral edge portion, and a cam follower engageable with said concave and convex surfaces for imparting closing and opening movement to a movable contact member of said shunt switch as said arm is pivoted from open to closed position.

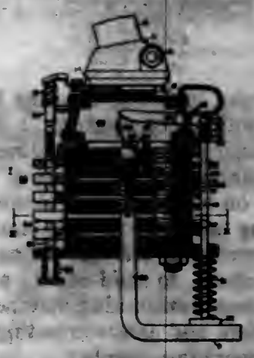
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2,773,155

## CIRCUIT INTERRUPTER

Robert E. Friedrich, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 27, 1953, Serial No. 394,578
15 Claims. (Cl. 200—150)



1. A circuit interrupter of the fluid-blast type including separable contact means for establishing an arc, a first venting means, means for sending a flow of fluid against the arc and out the first venting means, auxiliary second venting means, valve structure normally closing the second venting means, and electromagnetic means responsive to the average value of the current passing through the interrupter during the period the contact means is separating to effect opening of the valve structure at a predetermined average current magnitude during the time the arc is established.

justable stop means to rock said actuating lever at said hinging means about said pivot pin to actuate said switch between its open position and its closed position, said control being direct acting when said pivot pin is engaged in one of said sets of bearings and reverse acting when said pivot pin is engaged in the other of said sets of bearings.

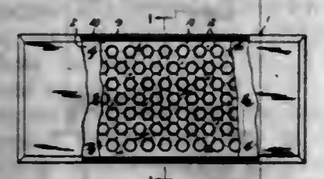
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2,773,148

## FOUR PLATE MAT SWITCH

Sheldon S. Roby, Meriden, and Chamberlain Ferry, Kensington, Conn., assignors to The Stanley Works, New Britain, Conn., a corporation of Connecticut

Application March 4, 1954, Serial No. 414,024
6 Claims. (Cl. 200—86)



1. A switch of the floor mat type comprising a stack of four metal plates including a base plate and three superposed flexible plates adapted to be flexed together responsive to pressure thereon to effect electrical contact between at least two adjacent plates, and first, second and third sheets of non-conducting material respectively separating adjacent plates of said stack, each of said sheets having perforations defining a plurality of holes therein, said perforations in each sheet being laterally staggered relative to the perforations in the other sheets with each perforation in each sheet disposed in equilateral triangular and mutually overlapping relation with corresponding perforations in the other sheets.

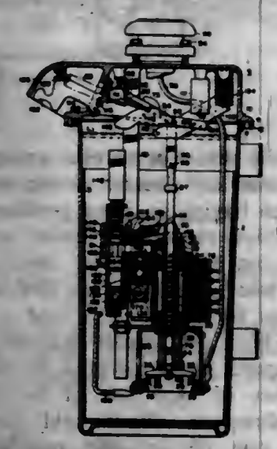
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2,773,149

## TEMPERATURE COMPENSATED RECLOSERS

Alert M. Opsahl, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 30, 1952, Serial No. 312,283
15 Claims. (Cl. 200—89)



8. In a circuit interrupter, separable contacts, dashpot means delaying movement of said contacts, and means venting said dashpot means including a thermostatic valve having a bushing with an axial bore and a threaded extension at one end, said bushing having an axial extension at the other end on one side of the bore and said bore having an enlarged portion defining a valve seat, a valve member disposed in said enlarged portion, a valve lifter slidably disposed in said bore, a shaft rotatably supported by the axial extension and projecting transversely of the bore, means operable to lock the shaft in different rotational positions, a cam rotatably mounted on said shaft to engage the lifter, and a spiral bimetallic operating member connecting the shaft and cam to effect rotation of the cam with changes in temperature.

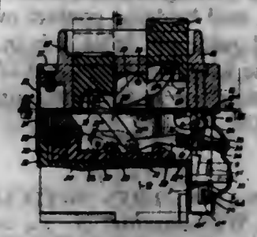
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2,773,150

## ELECTRIC SWITCHES AND CIRCUIT BREAKERS

Thomas Daniel Guy Windle, Birmingham, England, assignor to J. A. Crabtree & Co. Limited, Walsall, England, a British company

Application February 19, 1954, Serial No. 411,494
Claims priority, application Great Britain February 26, 1953
14 Claims. (Cl. 200—116)



1. In an electric switch or circuit breaker provided with devices for tripping the switch or circuit breaker on overload, a lever actuated by such tripping mechanism, a swinging bracket of triangular shape carried on said lever, a toggle pivotally supported at one end on one corner of said swinging bracket, a second lever pivotally connected at one end to a second corner of said bracket, a trip bar pivotally connected at the other end of said second lever, a screw with which the third corner of said bracket has abutting engagement, and a spring coiled around one corner of said swinging bracket, the respective ends of said spring engaging an abutment on said bracket and the pivotal support of said second lever.

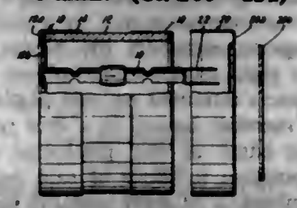
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2,773,151

## ELECTRIC FUSES

Eric William Sugden, Manchester, England, assignor to Parmiter, Hope & Sugden Limited, Manchester, England

Application May 3, 1955, Serial No. 505,734
Claims priority, application Great Britain May 7, 1954
4 Claims. (Cl. 200—131)



1. An electric fuse comprising a cylindrical insulating cartridge casing, a single chamber within said casing, a number of strip-like fuse links arranged in parallel within said chamber, circular metal end caps on the ends of said casing, slits in each of said end caps whereby the ends of said fuse links are supported, said slits lying at an angle not exceeding 80° and substantially above 0° with respect to the radii of said end caps which pass through the mid-points of said slits, said angle being such that said fuse links are made to lie as far as possible from each other as is consistent with their being as far as possible from the inner surface of said casing.

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2,773,152

## PROTECTIVE FUSE STRUCTURES FOR TRANSFORMERS

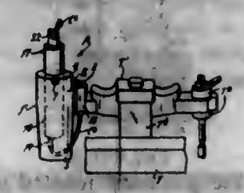
Peter W. Muschong, St. Louis, Mo., assignor to Moloney Electric Company, St. Louis, Mo., a corporation of Delaware

Application June 18, 1952, Serial No. 294,223
7 Claims. (Cl. 200—133)

1. In a fuse-protected transformer, a terminal block affixed to said transformer and having a boss thereon, a



fuse assembly comprising a mounting bracket carrying a fuse, said bracket having an extension provided with an opening to receive said boss, a stud projecting from said boss and extending through said opening, a terminal lug electrically connected to said fuse by a conductor, said



terminal lug adapted for electrical and mechanical engagement with said stud, and a removable fastener for securing the terminal lug to the stud and securing the extension on said boss whereby the fuse assembly can be replaced as a unit by removal of said fastener.

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2,773,153

## TEMPERATURE-RESPONSIVE SWITCH MOUNTING AND INSTALLATION

Leo L. Verkuil, Norwalk, Conn., assignor to Edwards Company, Inc., Norwalk, Conn., a corporation of New York

Application October 3, 1955, Serial No. 538,140
8 Claims. (Cl. 200—138)



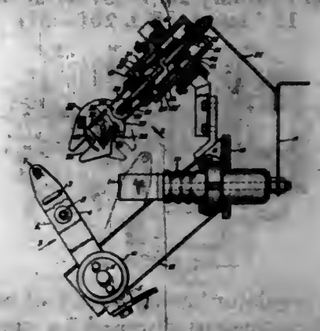
1. A thermostatic switch mounting means comprising a mounting plate having a relatively large round opening therein with threaded screw holes spaced therefrom and adapted to form a closure for an outlet box, a housing of insulating material having a front wall provided with an aperture surrounded by a collar, said collar having an outside diameter so that it is receivable in said mounting plate opening, a thermostatic switch structure supported within said housing and having a part comprising a bimetallic disk positioned to substantially close off said aperture at said collar, said switch structure having terminal connectors within said housing, said housing having a peripheral side wall and a rear closure plate of insulating material and removably associated therewith, said rear closure plate having a relatively large round opening therein that is smaller than the opening in said mounting plate and that is coaxial with said collar, said housing and rear closure plate having means forming spaced screw passages of the same spacing as the threaded holes in said mounting plate, and threaded screws to extend through said passages for threading into said threaded holes from the rear end of said housing with the front wall of the latter resting against the inside face of said mounting plate and said collar received in the mounting plate opening or from the front wall with said rear closure plate resting against the outside face of said mounting plate and with the smaller opening in said insulating rear closing plate substantially coaxial with the larger opening in said mounting plate to substantially peripherally insulate the latter opening for the passage of connecting conductors therethrough to said connecting terminals.

2,773,154

## ELECTRIC SWITCH

Ernest Williams, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York

Application September 19, 1955, Serial No. 535,150
3 Claims. (Cl. 200—146)



3. In an electrical apparatus comprising a main electrical switch and a switching duty shunt switch, mechanism for first closing said shunt switch as said main switch is actuated to closed position but before said main switch has reached closed position and then opening said shunt switch after said main switch has reached closed position comprising a pivotally mounted switch arm of said main switch, an outer end of said arm movable through an arc as said arm is pivoted, a pivotally mounted cam having a notch formed in a peripheral edge portion thereof, a portion of said notch disposed in said arc and adapted to receive a portion of said arm outer end as said arm is pivoted to cause pivotal movement of said cam, a pair of spaced concave surfaces formed in another peripheral edge portion of said cam separated by a convex surface of said another peripheral edge portion, and a cam follower engageable with said concave and convex surfaces for imparting closing and opening movement to a movable contact member of said shunt switch as said arm is pivoted from open to closed position.

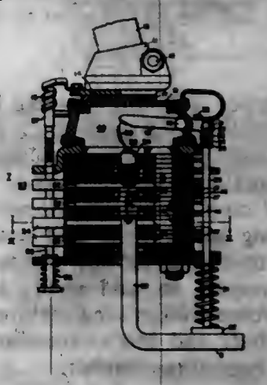
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2,773,155

## CIRCUIT INTERRUPTER

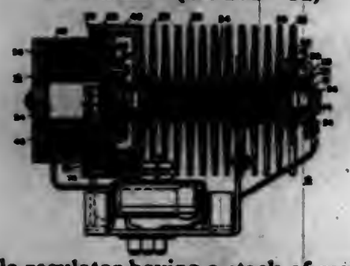
Robert E. Friedrich, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 27, 1953, Serial No. 394,578
15 Claims. (Cl. 200—150)



1. A circuit interrupter of the fluid-blast type including separable contact means for establishing an arc, a first venting means, means for sending a flow of fluid against the arc and out the first venting means, auxiliary second venting means, valve structure normally closing the second venting means, and electromagnetic means responsive to the average value of the current passing through the interrupter during the period the contact means is separating to effect opening of the valve structure at a predetermined average current magnitude during the time the arc is established.

2,773,156
ELECTRIC REGULATOR
Lewis R. Lowry, Jr., and Harrison H. C. Richards, Jr., Lima, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 26, 1953, Serial No. 338,986
13 Claims. (Cl. 201—51)



1. In a pile regulator having a stack of resistance material and an electromagnet disposed for operation to control the pressure applied to the stack, the combination comprising, a core member for the electro-magnet, a support member carried by the electromagnet, the support member having a ridge disposed thereon, an armature member for the electromagnet disposed in magnetic relationship with the core member, a spring member disposed to have a linear force-deflection characteristic and disposed to be carried by the armature member, the spring member extending outwardly beyond the periphery of the armature member to seat on the ridge of the support member and make substantially line contact engagement therewith so that on movement of the armature member the spring member pivots about the ridge, and a holding member carried by the armature member disposed in seating engagement with the spring member intermediate opposite ends thereof to maintain the spring member positioned between the armature member and the holding member.

2,773,157
CONTROL DEVICE
Chester S. Ingraham, East Aurora, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application May 8, 1953, Serial No. 353,728
5 Claims. (Cl. 201—55)



1. A control device including a casing having at least two parallel walls with alined apertures, a shaft traversing said casing and passing through the alined apertures, a pair of contacts within said casing one of which is movable and mounted on a leaf spring extending toward the shaft, an operating member in said casing, said pair of contacts and operating member being diametrically positioned with respect to said shaft, and means including a bowed force transmitting member partially encompassing the shaft and interconnecting the movable contact with the operating member.

2,773,158
HOUSING STRUCTURE FOR PHOTOCELL OR THE LIKE AND METHOD OF MAKING THE SAME
Thomas E. Myers, Batavia, Ill., assignor to Electrol Laboratory & Sales Co., Cape Girardeau, Mo., a corporation of Missouri
Application January 27, 1953, Serial No. 333,493
10 Claims. (Cl. 201—63)

1. A housing for a sensing resistance comprising in combination: a cup-like member having a pair of spaced holes in its bottom and defining an annular seat adjacent its lip; a glass plate seated on the seat and having a pair of conducting rods extending inwardly of the cup-like member and through the holes; a sensing resistance on



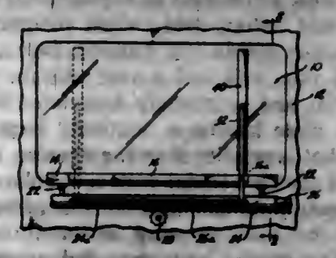
the inner face of the glass and located generally between the rods; beads of conducting adhesive extending along the inner face of the glass from the rods to the ends of the resistance, respectively; and a plastic filling within the housing and filling substantially the entire space therein.

2,773,159
WIRE-WOUND RESISTANCE UNITS
Robert W. Taggart, Indianapolis, Ind.
Application September 30, 1954, Serial No. 459,560
5 Claims. (Cl. 201—63)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. A resistor unit comprising, a resistor form of heat-resistant dielectric material having an intermediate portion between two end flanges, relatively heavy wire prongs molded integral therein and disposed in parallel relation and extending outwardly through said end flanges, relatively light resistance wire wrapped around said intermediate portion, a means at each end of said resistor form for connecting said relatively light resistance wire to said relatively heavy wire prongs, and a means on each said end flanges for mounting said resistor unit so as to minimize rotational motion.

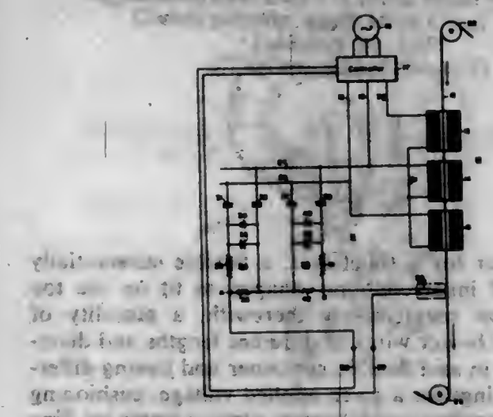
2,773,160
WINDOW ANTI-ICING DEVICES
Robert L. Campbell, Seattle, and Stanley E. Rea, near Kent, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application January 11, 1954, Serial No. 403,244
4 Claims. (Cl. 219—10.73)



1. A window anti-icing device comprising, in combination with a window of dielectric material, an elongated narrow electrical conductor of a length to span across one dimension of a window area to be heated for anti-icing purposes, means mounting said conductor closely adjacent and parallel to one window surface with the length of said conductor extending across said window area as aforementioned, means for moving said conductor reciprocatively generally transversely of its length back and forth across said area, a second electrical conductor, said second electrical conductor being positioned closely adjacent said window in spaced generally parallel relation to said first conductor whereby application of high frequency voltage to said conductors produces an electric field therebetween passing through the window material, and a source of high frequency electrical energy having opposite terminals connected respectively to said conductors and having an operating frequency and output voltage sufficient to heat the window to effective anti-icing temperature during continued reciprocative movement of said first conductor.



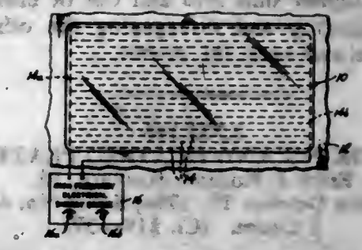
2,773,161
COMBINATION CONTROL SYSTEM FOR CONTINUOUS HEAT TREATMENT
Robert M. Baker, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 25, 1954, Serial No. 432,115
7 Claims. (Cl. 219—10.77)



1. In apparatus for the heat treatment of moving metallic strip and operable with a power supply providing an output voltage and having a control member, the combination of an induction heating member adapted to be connected to said power supply to receive said output voltage, a control circuit connected between said induction heating member and said control member, said control circuit comprising a temperature detector element and first and second control networks, said temperature detector element providing an output signal responsive to the temperature of the moving strip, said first control network having a first time constant and being connected to said power supply to be responsive to variations in said output voltage to provide a first control voltage, said second control network having a second time constant and being connected to said power supply to be responsive to variations in said output voltage to provide a second control voltage, with said first and second control networks being connected to said temperature detector element such that said output signal is combined with said first and second control voltages for controlling the temperature of said strip.

2,773,162
ANTI-ICING OF WINDOWS BY DIELECTRIC HEATING
Orland M. Christensen, Edmonds, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application January 14, 1954, Serial No. 404,045
7 Claims. (Cl. 219—10.81)

1. Window anti-icing means comprising, in combination with a window of dielectric material, a plurality of elongated conductors incorporated within said window and spaced apart in substantially parallel relationship to form an electrode grid occupying a general plane substantially parallel to an exposed surface of said window, said grid extending over a window area to be heated for anti-icing purposes, said grid conductors being formed and arranged to set up dielectric lines of force therebetween fringing outwardly from said general plane and extending along said exposed window surface when voltage is applied with alternately opposite polarity to successively adjacent conductors in said grid, a source of high frequency electrical energy having output terminals, and means con-



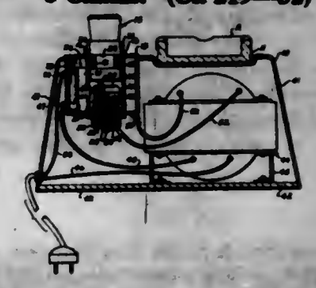
necting said conductors to said source terminals with successively adjacent conductors in said grid having opposite polarity, the frequency and voltage of said energy source being sufficient to heat the window dielectrically to anti-icing temperature along the exposed surface area thereof.

2,773,163
HEATABLE ENGRAVING STYLUS ASSEMBLY
John A. Boyajean, Huntington, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application September 28, 1953, Serial No. 382,821
4 Claims. (Cl. 219—29)



1. A heatable stylus assembly for engraving a plate of thermally deformable material comprising: a metallic shaft having a cylindrical portion terminating in a pyramidal tapered deforming tip and having a longitudinal slot extending into said tapered tip and having a tapered end complementary to the tapered tip and reducing the cross section thereof to a substantially uniform thickness of the order of 1/10 that of the slotted cylindrical portion; and means for causing an electric current to flow through the shaft and through said slotted tapered tip thereof, whereby the heat generated by current flow is concentrated in said slotted tapered tip.

2,773,164
CIGAR AND CIGARETTE LIGHTER
Lawrence W. Bushin, Charlotte, N. C.
Application June 11, 1954, Serial No. 436,163
5 Claims. (Cl. 219—32)



5. In an electric lighter having a receptacle adapted to receive a lighter unit provided with a heating element and adapted to be moved into and out of energizing position, a switch associated with the lighter unit and arranged in circuit therewith, said switch comprising a lever bumper extending parallel to and in engagement with the outer surface of the receptacle, a projection on

said lever bumper extending through the wall of the receptacle into the path of the lighter unit, a spring member normally maintaining the lever bumper projection in the path of the lighter unit, a pair of opposed contacts and one of said contacts being carried by said lever bumper adjacent one end thereof and responsive to movement of the lighter unit into and out of energizing position for engaging and disengaging the other contact point to close and open the circuit.

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**2,773,165**
**COOKING AND HEATING PLATES**
**Erich J. Konrad, Harvard, Ill.**
**Application October 29, 1954, Serial No. 465,493**
**1 Claim. (Cl. 219—37)**



A cooking and heating plate assembly for a stove or range having a stationary stove housing, including a rotatably mounted disk occupying at least a portion of the upper part of the stove and having a plurality of openings, heating plates with heating units located individually in said openings and capable of individually being brought to the fore part of the stove by manually rotating the disk at will, means for supplying heating medium to the heating units, means for controlling said medium supplied to any heating unit and heating plate upon said disk, said stove housing having a casing mounted in the upper portion thereof with a bottom therein, an upright post pivotally mounted upon the bottom for guiding and supporting the disk in rotation, a plurality of radial arms beneath the disk having rollers therebetween rolling upon said bottom distant from the post to support the disk in all rotated positions, a rim upon the disk periphery with hand holds recessed into its edge, said post having a cylinder surrounding it and provided with commutator rings connected to the heating units on the disk, and movable contact brushes connected to a current supply in contact with the rings and with switches controlling the brushes.

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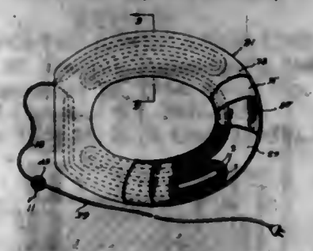
**2,773,166**
**COFFEE PERCOLATOR**
**Fredric Lafargue Best, Felixstowe, England, assignor of one-half to Best Products Limited, Felixstowe, England, a British company**
**Application April 30, 1954, Serial No. 426,798**
**Claims priority, application Great Britain April 23, 1954**
**3 Claims. (Cl. 219—44)**



1. In a coffee-percolator, the combination of a liquid-containing vessel, an electrical immersion heater element comprising a resistance in two sections, a heat-conductive tubular casing having a closed end in contact with said heater element, a shaft rotatable in said casing, a fusible alloy in said casing normally holding said shaft stationary, an arm rotatable on said shaft, a one-way clutch adapted to engage said arm with said shaft, a spring tending to rotate said arm and clutch and shaft, a first normally closed switch controlling the supply of current to said percolator operatively connected to said arm and operable automatically to interrupt the current by said spring moving said arm when said fusible alloy is melted, and operable in the opposite direction, by manual movement of said arm, a second normally closed switch controlling the current in one section of said resistance in said heater element, thermally actuated means adapted to open said switch on a rise of temperature, said actuating means being adjustable to select the temperature at which it operates to be lower than the melting point of said fusible alloy.

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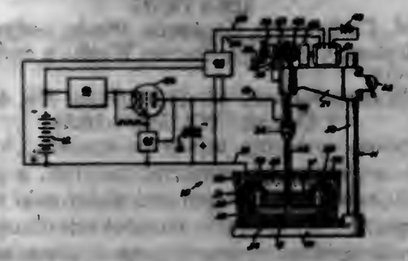
**2,773,167**
**COMMODE SEAT HEATING PAD**
**Richard Jerry Arbaugh, Iowa, La.**
**Application February 4, 1954, Serial No. 406,214**
**2 Claims. (Cl. 219—46)**



1. In a cover for a toilet seat, a flexible substantially moisture-proof inner container shaped to fit on the top of a toilet seat coextensively therewith, a plurality of spirally wound heater wires of different lengths and diameters mounted in said flexible container and having different heating ratings for a given applied voltage, cushioning material surrounding said heater wires, a pair of line conductors, a selector switch connected between said line conductors and said heater wires and being formed and arranged to selectively connect said heater wires to said line conductors, an outer cover overlying said inner container, said outer cover comprising a single piece of flexible material generally conforming in shape to said inner container but having a width substantially greater than that of said inner container and extending on opposite sides of said inner container substantial distances so that its marginal portions may be folded under a toilet seat on which said inner container is mounted, and spaced grommets in the opposite edge portions of said outer cover adapted to receive a fastening cord, whereby such fastening cord may secure the outer cover around the inner container and the toilet seat by being engaged alternately through the grommets of said opposite edge portions, and may be tied at its ends.

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**2,773,168**
**HIGH-SPEED SPARK MACHINING APPARATUS**
**Everard M. Williams, Pittsburgh, Pa., assignor to Firth Sterling Inc., Pittsburgh, Pa., a corporation of Pennsylvania**
**Application January 22, 1953, Serial No. 332,621**
**9 Claims. (Cl. 219—69)**

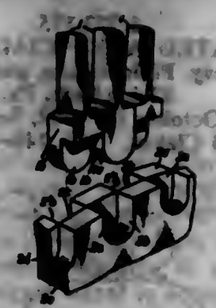


7. In a spark cutting apparatus for dislodging particles from a conductive workpiece by repetitive time-spaced sparks through an ionizable dielectric medium in the spark gap defined between the workpiece and an electrode tool, means for connecting the spark gap directly across a capacitive energy storage means, a charging circuit including a series connected switching means therein connecting said capacitive storage means to an electrical power source, said switching means being responsive to the charged condition of said capacitive storage means to open said charging circuit, and means responsive to the discharging of the capacitive storage means for closing said switch a delay interval thereafter to permit deionization of said spark gap.



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**2,773,169**
**WELDING OF BLADED ROTORS FOR TURBINES, COMPRESSORS, ETC.**
**George Lees, Leicester, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company**
**Application February 18, 1952, Serial No. 272,001**
**Claims priority, application Great Britain February 26, 1951**
**3 Claims. (Cl. 219—117)**

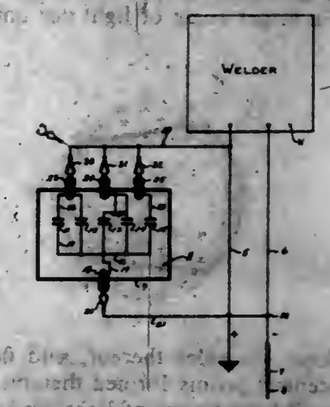


1. A method of constructing a turbine-bladed rotor by welding a ring of blades around the rim of the rotor which consists in first forming the rotor with a plurality of recesses therearound extending inwards from one end face and extending to the periphery of the rotor, alternating with like recesses extending inwards from the other end face, and forming the blade roots with steps to provide faces thereon complementary to the faces at the bottom of each recess, these complementary faces lying in planes which are transverse to the direction of the rotor axis, then placing a blade in one of said recesses in one end face, heating the now opposed complementary faces by arcing or sparking resulting from the passage of electric current from one to the other, with pressure applied to weld said opposed complementary faces together, and repeating this operation with another blade in the next recess in said one end face and so on until half of the blades (i. e. the first, third, fifth etc.) have been welded to the rotor, and finally repeating the sequence with the second, fourth, sixth and remaining blades in the recesses on the other end face of the rotor.

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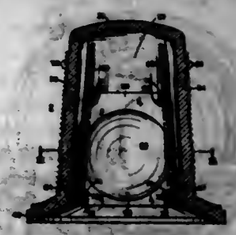
**2,773,170**
**ATTACHMENT FOR WELDING MACHINES**
**Julius A. Barthel, Milwaukee, Wis.**
**Application November 19, 1953, Serial No. 393,159**
**1 Claim. (Cl. 219—131)**

An attachment for an electric welding machine to stabilize the welding arc comprising a case, a plurality of capacitors of a predetermined definite capacity disposed in said case, a negative binding post carried by said case and extending outwardly therefrom, means electrically connecting the negative terminals of all of the capacitors to the binding post, a plurality of positive terminals carried by the case and extending outwardly therefrom, means electrically connecting certain capacitors to certain terminals, positive and negative conductor wires for connection with the positive and negative leads of the welding machine, a clamp for the conductor for the negative lead detachably engaging the negative binding post, and a plurality of clamps electrically connected with the conductor wire for the positive lead for selective engagement with the terminals for bringing one or more capacitors into use.




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**2,773,171**
**LUMINAIRE**
**Willis A. Pomow, Cleveland, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania**
**Application April 26, 1952, Serial No. 284,562**
**8 Claims. (Cl. 240—1.2)**



3. A luminaire comprising, a support, means on said support for receiving a light source, a lens also mounted on said support at a predetermined position relative to said source receiving means, said lens having spaced integral projecting ribs on its inner surface extending away from one edge of the lens in substantially the same direction, an auxiliary light controlling element having yieldable portions at least at opposite sides thereof extending toward said ribs, respectively, said yieldable portions having the free ends thereof spaced apart a greater distance than the distance between the inner sides of said ribs at least at the operative position of said element, so that the yieldable portions are adapted to be inserted between said ribs at said one edge of the lens and moved longitudinally of the ribs inwardly to the operative position of said element where its yieldable portions engage inner sides of said ribs under stress to definitely locate said element in a direction relative to said lens transverse to said ribs, while permitting removal of said element by merely withdrawing it longitudinally of the ribs from said one edge of the lens.

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**2,773,172**
**LIGHTING UNIT**
**Willis A. Pomow, Cleveland, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania**
**Application August 25, 1951, Serial No. 243,672**
**15 Claims. (Cl. 240—1.2)**

1. A lighting unit comprising a light source, a one-piece tubular transparent lens surrounding said light source and comprising substantially opposed flat lens portions and intermediate curved lens portions connecting





said flat lens portions at opposite sides, respectively, said



relative to said housing, lead-in wires, and a filament hav-

to derive a D.-C. control voltage in accordance with said

tuning shaft, a radial bracket secured to said actuating

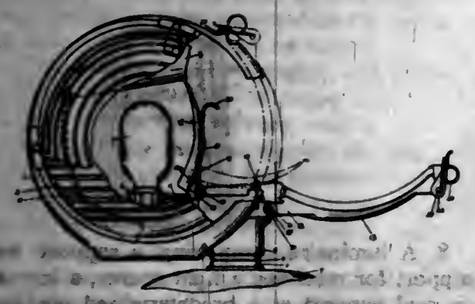
said flat lens portions at opposite sides, respectively, said flat lens portions comprising chordal portions with respect to said curved lens portions so as to be closer to the light source than a cylindrical portion subtended thereby, to thus accept a larger angle of light per unit of area at all



points between the sides thereof, said flat lens portions having concentric prisms formed thereon so as to project opposed pencil type beams of light, and said curved lens portions having non-circular prisms formed on both inner and outer surfaces thereof to transmit light therethrough in a different manner.

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2,773,173
LIGHT PROJECTOR
Philip R. Clark, South Milwaukee, and Joseph G. Atwood, Wauwatosa, Wis., assignors to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application June 15, 1953, Serial No. 361,706
4 Claims. (Cl. 240—1.2)

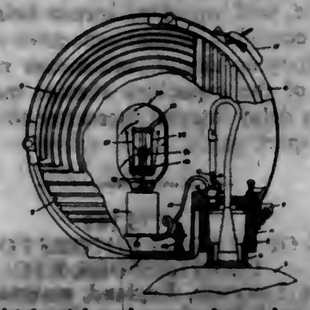


1. In a light projector comprising a housing having a lens-receiving opening, a lens positioned in said opening and a projector lamp having a longitudinal axis therethrough; said housing defining an access opening therein, a removable closure for said access opening, a pivotally mounted reflector for said lamp positioned intermediate said lamp and said access opening, the axis of rotation of said pivotally mounted reflector being substantially normal to said longitudinal axis of said projector lamp, said reflector being pivotally movable from a normal reflecting position relative to said lamp axis to a second operating position, said reflector and said closure being in spaced apart relationship and each being independently movable relative to one another, whereby said reflector may be pivotally rocked to said second position and said closure may be removed to open position to permit manual access to the interior of said housing with said lens remaining undisturbed in normal operating position.

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2,773,174
LIGHT PROJECTOR
Harry V. Leide, East Stroudsburg, Pa., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application November 19, 1952, Serial No. 321,447
16 Claims. (Cl. 240—1.2)

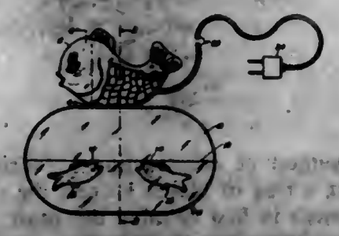
1. A contact or runway light projector comprising a housing, a lens having a focal axis and being mounted on said housing, and a light source for said projector comprising a light transmitting envelope in fixed position relative to said housing, lead-in wires, and a filament having supports projecting therefrom and being supported in a predetermined position relative to the focal axis of said lens, said filament being arranged for electrical con-



nection with said lead-in wires, and a prime mover being operatively associated with said filament to move said filament relative to said focal axis responsive to the quantity of energy supplied to said prime mover.

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2,773,175
ILLUMINATED ARTIFICIAL AQUARIUM
Richard A. Levy, Philadelphia, and Charles J. Levy, Elkins Park, Pa.
Application October 15, 1952, Serial No. 314,926
3 Claims. (Cl. 240—10)



1. An illuminated artificial aquarium comprised by a tank of two mating sections of transparent material with flanges thereon adapted to be positioned in edge to edge relation and having flat surfaces adapted to form the top of the tank, a hollow opaque body simulating a fish having a flat bottom section mounted on the top of the tank, and upwardly curved sections on either side of said flat bottom section with holes therein, and a lamp within said hollow opaque body for radiating light to the tank through said holes.

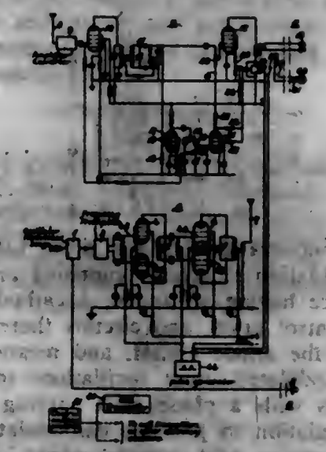
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2,773,176
RADIO COMMUNICATION SYSTEM
Dirk Johan Bruin, Louis Francois Lietz, and Cornelis Roosjen, Hilversum, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application October 21, 1950, Serial No. 191,428
Claims priority, application Netherlands October 22, 1949
5 Claims. (Cl. 250—6)

1. A radio system for communication via a plurality of dual frequency channels comprising a principal transceiver station provided with a transmitting section including means to generate a carrier wave corresponding in frequency to one frequency in one of said channels, a clearing signal generator means selectively to modulate in one condition said carrier wave in said transmitting section with an intelligence signal to be transmitted and in another condition with said clearing signal, and a receiving section including means to detect incoming noise signals and coupled to the clearing signal generator in said transmitting section to cut-off said clearing signal when the detected noise signals fall below a predetermined amplitude, said means to detect incoming noise signals comprising a rectifier, a filter connected to feed said noise signals to said rectifier and exclude other signals, and a load impedance connected to said rectifier



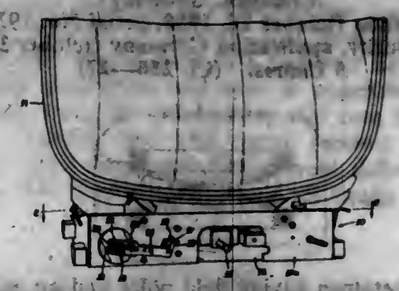
to derive a D.-C. control voltage in accordance with said noise signals, said clearing signal generator being controlled by said control voltage, means responsive to an intercepted carrier wave whose frequency corresponds to the other frequency in said one channel to actuate the selective means in said transmitting section to transfer the same from said other condition to said one condition; a group of auxiliary transceivers each having a



transmitting section including means selectively to transmit one carrier wave from a plurality of carrier waves whose frequencies correspond respectively to said other frequencies in said plurality of channels, and a receiving section including means responsive to a carrier wave modulated by said clearing signal to actuate the selective means in the transmitting section for effecting transmission on the other frequency in the channel containing said clearing signal modulated carrier wave.

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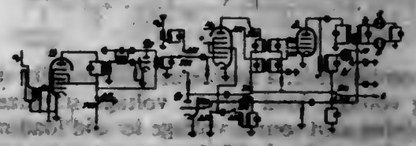
2,773,177
CONVERTER MECHANISM FOR TV RECEIVER
Roy White, Wheaton, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application December 26, 1952, Serial No. 328,048
3 Claims. (Cl. 250—16)



1. In a television receiver for receiving television signals in two distinct frequency ranges and which includes a front panel, a tuning device for selectively tuning the receiver to different television signal channels in a first frequency range, and a tuning shaft for actuating said tuning device extending through the front panel, the combination of a disc-like cam secured to the tuning shaft having a notched peripheral portion corresponding to a selected angular position of said shaft, a converting device for enabling the receiver to utilize television signals in a second frequency range and for selectively tuning the receiver to such signals, a rotary switch having a first operating position in which said converting device is rendered inoperative and having a second operating position in which said converting device is rendered operative, an actuating shaft for said switch extending through the aforesaid front panel parallel to but spaced from said tuning shaft, a radial bracket secured to said actuating shaft, an arm having one end pivoted to said bracket and having a bifurcated portion at its other end embracing the tuning shaft, resilient means secured to said arm and to the tuning shaft for biasing said arm towards the tuning shaft, and a cam follower rotatably mounted on said arm and engaging the periphery of the aforesaid cam, whereby said switch is actuated to its second operating position when the tuning shaft is in the aforesaid selected angular position.

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2,773,178
RADIO RECEIVING CIRCUIT FOR FREQUENCY MODULATION AND AMPLITUDE MODULATION BANDS
Henri Herman van Abbe and Abraham Geertrudus Wilhelmus Uitjens, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application September 10, 1952, Serial No. 308,871
Claims priority, application Netherlands September 17, 1951
1 Claim. (Cl. 250—20)



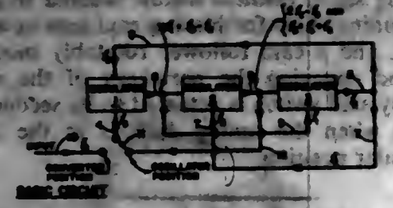
A radio receiving circuit for selectively receiving frequency modulated signals and amplitude modulated signals, comprising a first shielded combination tube having a triode section and a multi-grid section, a second shielded combination tube having a triode section and a multi-grid section, and switching means for selectively connecting said tubes in a first arrangement for receiving said frequency modulated signals and a second arrangement for receiving said amplitude modulated signals, said first arrangement comprising means for connecting the multi-grid section of said first tube as a high-frequency amplifier stage to amplify said frequency modulated signals, means for connecting the triode section of said second tube as a self-oscillating mixer stage coupled to receive the output signal of said amplifier stage, and means for connecting the multi-grid section of said second tube as an intermediate frequency amplifier stage coupled to receive the output signal of said mixer stage, said second arrangement comprising means for connecting the multi-grid section of said second tube as a mixer stage, means for feeding said amplitude modulated signals to the last-named mixer stage, and means for connecting the triode section of said first tube as a local oscillator coupled to said last-named mixer stage.

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2,773,179
ELECTRONIC CIRCUITS FOR GENERATION OF OSCILLATION, FREQUENCY CONVERSION, AND OTHER FUNCTIONS
David M. Makow, Ottawa, Ontario, Canada
Application June 6, 1955, Serial No. 513,371
5 Claims. (Cl. 250—36)

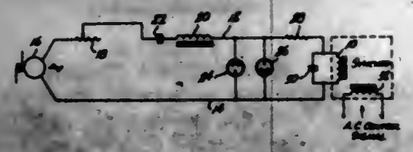
1. An electrical circuit comprising three modulators a first, second and third modulator, each having two inputs and one output, the output of the first modulator being connected to one input of the second modulator and to one input of the third modulator, the output of the sec-

cuit modulator being connected to one input of the third modulator, the output of the third modulator being connected to one input of the first modulator and to the second input of the second modulator.



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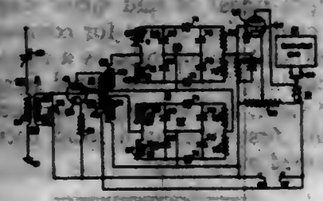
2,773,180
ALTERNATING VOLTAGE MODULATION SUPPRESSORS
Minoo Sabljan and John R. Ullenbruch, Seattle, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application November 10, 1952, Serial No. 319,688
13 Claims. (Cl. 250—27)



10. In combination, a source of substantially sinusoidal alternating voltage, load means, voltage stabilizer circuit means applying said source voltage to said load means including an element having inductance carrying current to said load means and having associated means forming a ferromagnetic flux path for said inductance element, said ferromagnetic flux path being materially saturated by flow of load current in said inductance element so as to peak the positive and negative half-cycles of alternating voltage applied by said circuit without materially changing the shape of the base portions of such voltage half-cycles, and voltage limiter means incorporated in said stabilizer circuit removing the positive and negative peaks from said peaked alternating voltage wave while leaving such base portions thereof substantially unaltered before application thereof to said load means.

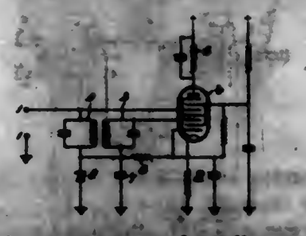
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2,773,181
FREQUENCY DISCRIMINATOR SYSTEM
John B. Siegel, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 25, 1951, Serial No. 253,867
8 Claims. (Cl. 250—27)



1. In a frequency selective receiver, the combination comprising a first discriminator unit comprising a pair of tuned circuits one of which is tuned to a mean frequency, the other being tuned to a frequency slightly below the mean frequency, a second discriminator unit comprising a pair of tuned circuits one of which is tuned to said mean frequency, the other being tuned to a frequency slightly above the mean frequency, means for applying an input signal to said discriminators, and means connected to add the outputs of said discriminators in a sense such as will produce a maximum output at said mean frequency.

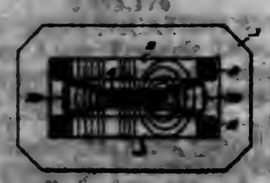
2,773,182
CIRCUIT-ARRANGEMENT FOR SILENT TUNING IN A FREQUENCY-MODULATION RECEIVER
Leendert Pattenmaker, Pieter Johannes Herbertus Janssen, and Hendrik Jacobus Otte, Hoeksewaard, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application June 20, 1952, Serial No. 295,692
Claims priority, application Germany July 19, 1951
3 Claims. (Cl. 250—37)



1. A circuit-arrangement for silent tuning in a frequency-modulation receiver comprising an electron discharge device having an anode, a cathode, and a plurality of control grids, and circuits therefor, a resistor disposed in the anode circuit, and means for applying frequency-modulated input oscillations to two of said control grids with a phase shift varying with the frequency-modulation to produce demodulated oscillations across said resistor, said applying means including means for producing grid-current rectification at both of said control grids, a single smoothing filter coupled to both of said control grids, means for producing a single control-grid bias voltage and means to apply said bias voltage to both of said control grids, said resistor having a value at which in the absence of the input oscillations said device operates on a portion of its anode current versus anode voltage curve having a steep slope and when the input oscillations have at least a predetermined magnitude the bias voltages vary automatically to operate said device on a portion of its anode current versus anode voltage characteristic curve having a gradual slope.

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2,773,183
DEVICE FOR CONTROLLING THE FLOW OF ELECTRONS IN A BETATRON
Konrad Gund, Hans Berger, and Kurt von Sanden, Erlangen, Germany
Application October 28, 1950, Serial No. 192,732
Claims priority, application Germany October 31, 1949
5 Claims. (Cl. 250—27)

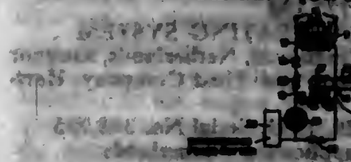


1. In a betatron having field poles and an exciter coil therefor which is excited in an alternating current circuit for producing respectively a magnetic guiding field and a magnetic accelerating field, said fields increasing in operation in accordance with the 1:2 condition, and having a vacuum vessel forming an accelerating chamber in which electrons are to be accelerated along a stabilized orbital path, said electrons being injected into said accelerating space from an electron source disposed outside of said stabilized orbital path; a device for disturbing said 1:2 condition to trap an increased number of electrons injected for acceleration so as to increase the yield of accelerated electrons, said device comprising an auxiliary coil completely surrounded circumferentially by said vessel, a capacitor, a thyratron, means for connecting said auxiliary coil and said capacitor and said thyratron in a resonance circuit, means controlled by said exciter circuit shortly after the instant of zero passage of the current therein and coincident with the instant of injection of electrons from said electron source for causing said thyratron to become momentarily conductive for the purpose of producing at said instant of electron injection in said auxiliary coil a current impulse which decays substantially sinusoidally, said impulse causing said disturbance of said 1:2 condition, the characteristics of said resonance circuit and the direction of current flow of said impulse through said auxiliary coil causing distribution of the injected electrons along a spiral path substantially throughout the entirety of said acceleration chamber to increase the density of injected and trapped electrons at the instant of injection thereof.



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2,773,184
CONSTANT-CURRENT PULSE GENERATOR
Erich H. F. W. Rolf, Nuremberg, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany
Application September 4, 1952, Serial No. 307,745
Claims priority, application Germany September 10, 1951
7 Claims. (Cl. 250—27)



1. A constant-current pulse generator, comprising a capacitor and a saturable reactor, said reactor comprising a saturable magnetic core with a load winding inductively coupled thereto, said load winding being connected in series with said capacitor, magnetizing means operatively associated with said core and maintaining a constant magnetomotive force acting thereon at least sufficient to saturate said core, cyclically operative charging means connected to said capacitor for charging said capacitor periodically to a predetermined potential, a load circuit, and circuit control means operating in synchronism with said cyclically operative means, said circuit control means being connected to said load winding and to said capacitor and periodically connecting the series combination of said load winding and said capacitor to said load circuit with said capacitor in a charged condition and disconnecting said series combination therefrom after discharge of said capacitor into said load circuit, the direction of current flow through said load winding during discharge of said capacitor having a polarity which magnetizes said core in opposition to said magnetizing means for desaturating said core during said discharge, whereby said load circuit receives successive pulses of substantially constant current delivered at a repetition rate determined by said cyclically operative means.

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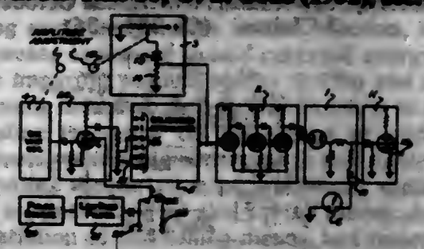
2,773,185
LOW FREQUENCY RANDOM-NOISE GENERATOR
Albert S. Fulton and Robert R. Bennett, Los Angeles, Calif., assignors, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application January 5, 1952, Serial No. 265,176
6 Claims. (Cl. 250—36)



1. A very low frequency random noise generator for generating a selected narrow band of low frequencies including zero comprising: generating means for generating electrical random noise over a selected frequency spectrum extending well up in the audio region; a tunable bandpass filter having a passband of approximately twice the width of said selected narrow band of low frequencies centered about a selected relatively high audio frequency in said frequency spectrum, said filter being electrically connected to said generator means; a square wave generator for generating a square wave signal having a frequency equal to said selected relatively high audio frequency; and a balanced ring demodulator electrically coupled to said bandpass filter and to said square wave generator, said demodulator heterodyning said selected high audio band of frequencies with said square wave signal thereby producing said low frequency random noise over said narrow band of frequencies including zero.

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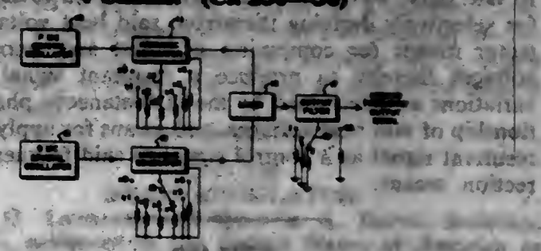
2,773,186
SIGNAL-TO-NOISE GENERATORS
Joseph E. Herrmann, Jr., Indianapolis, Ind.
Application January 28, 1955, Serial No. 484,888
11 Claims. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A signal-to-noise ratio measuring system comprising a noise generator, an amplifier with bandpass characteristic, and a linear detector coupled in cascade, the output of the noise generator being adjustable to produce a current through the detector at a midpoint on the linear portion of the voltage-current characteristic of the detector; a high frequency generator, a gate tube with a control grid and an auxiliary grid, and a calibrated adjustable attenuator coupled in cascade and to the input to said amplifier; and means coupled to the auxiliary grid to selectively open and close the gate tube, with further means to selectively open the gate tube for long periods of time or for repetitive microsecond periods of time.

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2,773,187
CRYSTAL OSCILLATOR CIRCUITS OR THE LIKE
Norman J. Regnier, San Leandro, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application February 1, 1954, Serial No. 407,413
4 Claims. (Cl. 250—36)



1. A selectable frequency signal generator for generating a plurality of signal frequencies having a uniform frequency spacing including, in combination, a first crystal-controlled oscillator, means responsive to the output signal from said first oscillator for selectively multiplying the frequency of said signal by one of a plurality of low multiplication factors, a second crystal-controlled oscillator having a frequency of 1 megacycle removed from the frequency of said first crystal-controlled oscillator, means responsive to the output signal from said second oscillator for selectively multiplying the fre-

quency of such signal by one of a plurality of low multiplication factors, intermodulation means responsive to the output signals from both frequency multiplying means for intermodulating such signals, filter means responsive to the output signal from said intermodulation means to pass selectively signals at the desired frequency, and said oscillator frequencies ($x$ and $y$) and said multiplication factor ranges ($a$ and $b$) of each of said frequency multiplying means satisfying the following equations:

$$\pm a(x)+b(y)=z$$
$$x-y=1 \text{ (mc. where } x \text{ and } y \text{ are in mc.)}$$

where $z$ is a desired frequency.

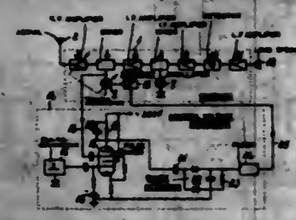
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2,773,188

## AUTOMATIC FREQUENCY CONTROL

Edward Herman Hamerschlag, Hilversum, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application September 25, 1952, Serial No. 311,421
Claims priority, application Netherlands October 17, 1951
3 Claims. (Cl. 250—36)



1. A circuit arrangement comprising oscillator means for producing a first wave at a first given frequency value, frequency correction means coupled to said oscillator means, a source of pulse wave having a given pulse recurrence frequency value and having harmonic components at frequency values less than and greater than the said first given frequency value, means coupled to said oscillator means and said pulse source for producing a first beat voltage having a frequency equal to the difference between the frequencies of said first wave and a first of said harmonic components having a frequency less than said first given frequency value and for producing a second beat voltage having a frequency equal to the difference between the frequencies of said first wave and a second of said harmonic components having a frequency greater than said first given frequency value, said first and second harmonic components having frequency values at which said beat voltages have substantially equal frequency values, said beat voltage producing means comprising a mixing stage selectively conductive in response to said pulse wave and filter means coupled to said stage for selectively deriving therefrom said beat voltages, detector means for combining said first and second beat voltages thereby to produce a resultant signal having variations as determined by the instantaneous phase relationship of said beat voltages, and means for applying said resultant signal as a control signal to said frequency correction means.

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2,773,189

## CIRCUIT-ARRANGEMENT FOR SYNCHRONIZING AN OSCILLATOR TO A PILOT WAVE

Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application October 28, 1952, Serial No. 317,309
Claims priority, application Netherlands November 6, 1951
5 Claims. (Cl. 250—36)

1. Apparatus for synchronizing an oscillator in accordance with a pilot wave comprising a phase-comparison stage, means to apply a first wave derived from said pilot wave as an input to said stage, means including a phase-shifting network to apply a second wave derived from said oscillator as an input to said stage to compare in phase with said first wave whereby said stage develops a control voltage depending on the phase difference therebetween, said network comprising a resonant circuit



tuned to the nominal fundamental frequency of said second wave for imparting a phase-shift to said second wave in a direction counteracting the phase displaced between said first and second waves, and means to apply said control voltage produced by said stage to said oscillator to effect said synchronism.

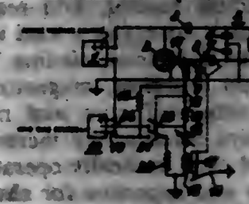
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2,773,190

## HIGH-FREQUENCY HEATING SYSTEM

Jacob Willem de Ruiter, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application October 29, 1953, Serial No. 388,995
Claims priority, application Netherlands November 29, 1952
2 Claims. (Cl. 250—36)



1. A high-frequency heating system comprising an oscillator, said oscillator comprising an electron discharge tube having a control grid and a feedback circuit coupled to said control grid, said feedback circuit comprising a variable impedance coupled to said control grid, a direct current circuit coupled to said control grid, a control member coupled to said variable impedance whereby variation in position of said control member produces variation in the impedance value of said variable impedance thereby varying the excitation of said control grid, a spring disposed to exert a force in a given direction on said control member, said direct current circuit including a coil disposed to exert a force on said control member in a direction opposite to said given direction, said last-mentioned force having a magnitude as determined by the magnitude of the current in said direct current circuit, a grid bias source, means for selectively applying a negative grid bias from said source to said tube to cut off said tube, and means operative substantially simultaneously with said last-mentioned means for applying a current from said source through said coil thereby exerting a force on said control member in a direction opposite to said given direction whereby minimum excitation of said control grid is produced when said negative grid bias cuts off said tube.

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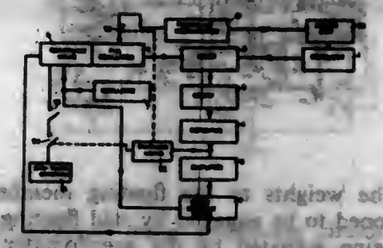
2,773,191

## AUTOMATIC FREQUENCY CONTROL

Thomas Brown Watkins, London, England, assignor to The General Electric Company Limited, London, England

Application October 25, 1950, Serial No. 191,961
Claims priority, application Great Britain November 2, 1949
9 Claims. (Cl. 250—36)

1. An oscillation generator for generating electrical oscillations of very high frequency comprising a first electrical means to generate first electrical oscillations of very high frequency, a second electrical means to generate second electrical oscillations of substantially lower frequency which oscillations are frequency modulated at still lower frequency, a mixer, circuit means connecting said first and second electrical means to said mixer, detector means, band-pass filter means having a relatively narrow band width through which output oscillations from said mixer are fed to the detector means, frequency dis-



criminating means supplied from the said second electrical means, means responsive to the output signal from said detector means to control the mean operating frequency of the second electrical means, and means responsive to the output signal from said frequency discriminator means to control the operating frequency of the first electrical means so that the frequency of the first electrical oscillations is determined essentially by the mid-band frequency of said band-pass filter.

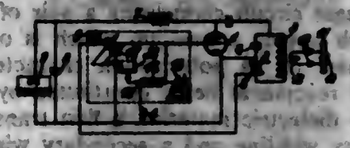
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2,773,192

## STABILIZED OSCILLATOR

Lourens Blok, Gerrit Stavre, Gosliwa Zwanenburg, and Jacob Willem de Ruiter, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application April 10, 1952, Serial No. 281,642
Claims priority, application Netherlands April 18, 1951
8 Claims. (Cl. 250—36)



1. A high frequency wave generator for a furnace comprising an oscillator provided with an electron discharge tube having a control grid and an anode and circuits therefor, an output circuit coupled to said anode and a feedback circuit coupling said output circuit to the grid circuit of said tube to sustain oscillations, and a stabilizing device for said oscillator including an electromagnet having a coil interposed in said grid circuit and a control member positioned for deflection by said coil in accordance with direct current flow in said grid circuit, said control member being coupled to said feedback circuit to vary the extent of said feedback as a function of grid current flow, and a spring element loading said control member, said electromagnet having a predetermined characteristic curve representing the attractive force exerted magnetically on said control member by the direct current flow in said grid circuit in the condition of approximately maximum permissible oscillator excitation in accordance with deflection of said control member, said spring element having a given curve representing the spring force acting on said control member in accordance with deflection thereof which is a mirror image of said predetermined curve with respect to the axis on which said deflection is plotted, whereby said control member occupies a position of equilibrium independently of its deflection.

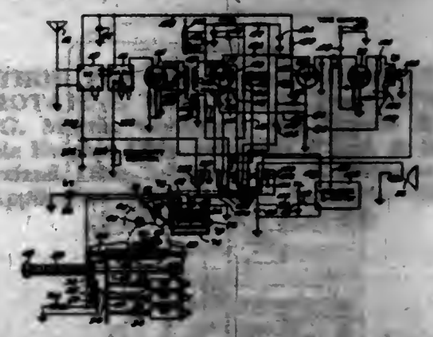


2,773,193

## SIGNAL TUNED RADIO APPARATUS

Edward F. Andrews, Chicago, Ill., assignor, by mesne assignments, to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 13, 1950, Serial No. 195,161
11 Claims. (Cl. 250—40)



1. In signal tuned radio apparatus, variable tuning means, potential energy storage means connected thereto for varying said tuning means in one direction, manually movable means connected to said potential energy storage means for imparting manual energy thereto and for moving said tuning means in the opposite direction to positions corresponding to partial or full charge of said storage means, means operatively connected to said tuning means for terminating the variation of said tuning means in response to a signal tuned by said tuning means, means for starting variation of said tuning means, and remote means unidirectionally connected to said manual means whereby said manual means may be operated independently of said remote means while appropriate operation of said remote means effects partial or full charge of said storage means and corresponding positioning of said tuning means.

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2,773,194

## EXTENDED-RANGE HIGH-FREQUENCY TUNING DEVICE AND CIRCUIT

William F. Sands, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application January 16, 1952, Serial No. 266,678
The terminal 15 years of the term of the patent to be granted has been disclaimed
6 Claims. (Cl. 250—40)



1. A high frequency tuning inductor of the variable permeability type comprising a pair of helical windings, in substantially end-to-end relation on a common axis, capacitor means interposed between and coupling the adjacent ends of said windings, and variable tuning means longitudinally movable with respect to and in the field of said windings.

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2,773,195

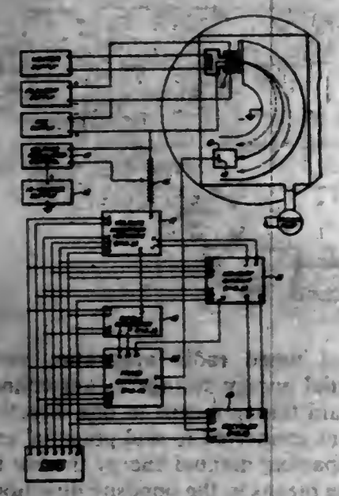
## BEAM REGULATOR

Ernest O. Lawrence and Quentin A. Kerns, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 25, 1948, Serial No. 16,928
8 Claims. (Cl. 250—41.9)

1. In a calutron including an ion source and an ion accelerating voltage for forming an accurate beam of polyisotopic ions and a collecting element disposed in said beam for collecting and discharging a selected portion of the ions therein, a beam regulator comprising in combination voltage altering means for adjusting said ion accelerating voltage whereby the maximum current portion of said beam of ions is temporarily directed toward said collecting

element for a relatively short time-interval sufficient to orient the selected portion of the beam in a desired position with respect to said collector, timing means for periodically altering said ion accelerating voltage a predetermined fraction thereof, whereby the maximum current portion of said beam of ions is deflected a precise



distance with respect to said collecting element, and voltage regulating means for maintaining the position of said deflected beam constant for a relatively long time-interval as compared with the interval during which the maximum current portion of said beam is temporarily directed toward said collecting element until said timing means effects a subsequent alteration of said accelerating voltage.

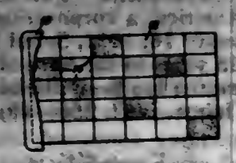
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2,773,196

## IDENTIFICATION CARD

Leonard I. Hall, Rochester, N. Y.

Application February 18, 1953, Serial No. 337,670
1 Claim. (Cl. 250—106)



An identification card comprising a central layer and two outside layers, said central layer being disposed between the two outside layers and being ruled off in a plurality of columns of squares, certain of said squares being impregnated with radio-active material, that is invisible to the naked human eye, the location of an impregnated square in a column designating a specific number, and the number of the card being determined by the location of all the impregnated squares, and the two outside layers being made of material opaque to visible light, one of said outside layers bearing a number visible to the naked human eye.

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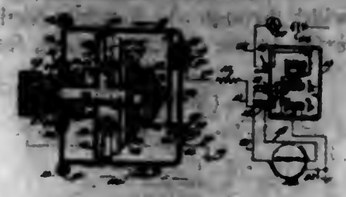
2,773,197

## AUXILIARY GENERATOR CHARGING RATE CONTROL

Bryant Y. Gray, Houston, Tex.

Application October 25, 1954, Serial No. 464,486
4 Claims. (Cl. 290—30)

1. A charging rate control comprising a generator having a field winding, a generator regulator including a conventional resistance, a speedometer cable, an auxiliary resistor connected in parallel with said conventional resistance whereby the amount of current in the field winding of the generator is increased with the vehicle traveling at low speed, and a governor including a housing, a shaft rotatably mounted in the housing, a floating member slidably mounted on the shaft, spaced plates with slots therein carried by the shaft, weights positioned to travel in the slots of the plates, means operatively



connecting the weights to the floating member, and a switch positioned to be engaged by said floating member, said shaft being actuated by the speedometer cable of the vehicle and said switch cutting out the auxiliary resistor as the speed of the vehicle reaches a predetermined amount.

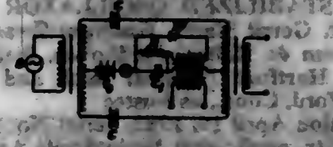
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2,773,198

## TRIGGER CIRCUIT OF THE MAGNETIC OR DIELECTRIC TYPE

Simon Duinker, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application July 23, 1953, Serial No. 369,793
Claims priority, application Netherlands August 7, 1952
17 Claims. (Cl. 307—88)



17. A trigger circuit comprising a pair of variable reactances each having a medium which is operable in a non-linear part of its polarization characteristic curve, each of said reactances being constituted by a capacitor containing a dielectric material, a first transformer having a primary winding and a secondary winding having a tap thereon, a second transformer having a primary winding having a tap thereon and a secondary winding, one end of the secondary winding of said first transformer being connected to one end of the primary winding of said second transformer through one of said reactances, the other end of the secondary winding of said first transformer being connected to the other end of the primary winding of said second transformer through the other of said pair of reactances, a direct current source, a pulsatory oscillation source, a coupling capacitor, a third transformer having a first winding, a second winding and a third winding, said sources, said coupling capacitor and said first winding being serially connected between said taps, a source of local oscillation connected across the primary winding of said first transformer, said local oscillation having a frequency which is high as compared with the frequency of said pulsatory oscillations, a resistor connected across said coupling capacitor, and a rectifier connected serially with the second winding of said third transformer across said resistor, whereby the secondary winding of said second transformer has an output voltage comprising only components the frequencies of which are odd multiples of the frequency of the local oscillation and the third winding of said third transformer has an output voltage comprising only components the frequencies of which are even multiples of the frequency of the local oscillation.

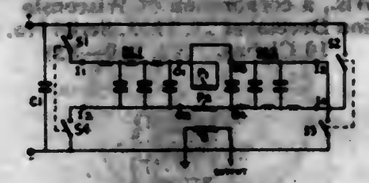


2,773,199

## ELECTRICAL PULSE GENERATING CIRCUIT ARRANGEMENTS

Graham John Sealey, East Sheen, London, England, assignor to Metropolitan-Vickers Electrical Company Limited, London, England, a British company

Application August 15, 1952, Serial No. 304,507
Claims priority, application Great Britain August 28, 1954
4 Claims. (Cl. 307—106)



4. An electrical pulse generating circuit arrangement comprising a pair of substantially similar pulses forming networks, each of said networks comprising a chain of sections of series inductance and shunt capacitance, input and output ends to each of said networks, a pair of terminals to each of said network ends, a load transformer, a pair of primary windings to said load transformer said windings cross connecting corresponding output terminals of the two networks, a secondary winding to said load transformer, a source of direct voltage and switching means for connecting said direct voltage source to the input ends of said two networks alternately whilst maintaining the input end of the other network open circuited, the connections being such that recurrent unidirectional pulses are generated in the load transformer secondary winding.

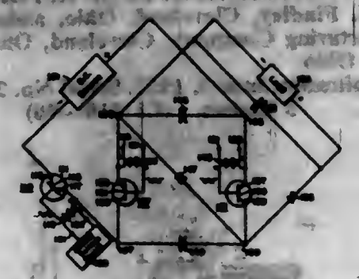
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2,773,200

## DIRECT CURRENT TRANSFORMATION DEVICE

Walter B. Gregg, Snyder, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 22, 1954, Serial No. 463,936
5 Claims. (Cl. 307—110)



5. Apparatus for transforming the output of a direct voltage source having a given terminal voltage to a second voltage across a load comprising: first and second sets of capacitor means; first half-wave rectifier means serially connecting the capacitors in each set of capacitor means; a plurality of first transistor switch means each having emitter, base and collector electrodes adapted to connect said first set of capacitor means in said set of capacitors in parallel through the emitter-to-collector current conduction path thereof; a plurality of second transistor switch means each having emitter, base and collector electrodes adapted to connect said second set of capacitor means in parallel through the emitter-to-collector current conduction path thereof; means connecting said first and second sets of capacitor means to said load and said source including third and fourth transistor switch means each having emitter, base and collector electrodes and respectively associated with said first and second sets of transistor and second half-wave rectifier means, the coupling action of said third and fourth transistor means being through the emitter-to-collector current conduction path thereof; means coupled to each of said base electrodes and an electrode adjoining thereto adapted to actuate said first and second transistor switch means in 180° relationship, and said third and fourth transistor means in 180° relationship.



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2,773,201

## METHOD FOR EVAPORATIVE COOLING OF ROTATING ELECTRICAL MACHINERY

Cecil G. Martin, Cleveland, and Harold H. Hempel, Maple Heights, Ohio, assignors to Jack & Heintz, Inc., Cleveland, Ohio, a corporation of Delaware

Application April 16, 1954, Serial No. 423,636
3 Claims. (Cl. 310—54)



1. In a rotating electrical machine including a housing and a stationary mounting frame therein, a stator and a hollow rotor mounted inside of said stator with an air gap therebetween, a rotatably driven shaft rigid with said rotor and supported by said frame, a supply line for supplying coolant liquid under pressure from an external source to the internal annular surface of said hollow rotor to be vaporized in said machine into an evaporant, a hollow tube extending radially inwardly from said air gap to a point radially inwardly disposed with respect to the internal surface of said rotor to maintain a reservoir of a predetermined column of liquid coolant, through the centrifugal force of the rotation of said rotor, before being conveyed through said tube to said air gap upon the occurrence of coolant liquid in excess of said predetermined column, a thermally responsive element carried by said stator, valve means for controlling the supply of coolant liquid to said rotor, electrically actuated means for normally maintaining said valve means closed, an external electric power source and a normally open switch means in circuit with said electrically actuated means and electric power source, said thermally responsive element, upon exposure to the existence of a predetermined degree of heat, being adapted to close said switch means and actuate said electrically actuated means to open said valve means to supply additional coolant liquid to said rotor and convey evaporant therefrom through said tube to said air gap to cool said stator.

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2,773,202

## INDUCED CURRENT TORQUE TRANSMITTER

Henry S. Jacobs, Shorewood, and Jeremiah M. Curtis, Milwaukee, Wis., assignors to Heinicke Instrument Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application February 11, 1952, Serial No. 271,822
10 Claims. (Cl. 310—64)

1. In an electro-magnetic torque transmitting apparatus of the induced current type, the combination comprising a field member adapted to be electrically excited to produce a magnetic flux, an induced current member relatively rotatable with respect to said field member including a hollow circular drum of magnetic material, said circular drum having a plurality of circumferentially spaced axially extending openings open at both ends to permit passage of air therethrough, a lining for each of said axially extending openings extending substantially

throughout the same and composed of material having a greater heat conductivity and electrical conductivity than the magnetic material of said drum, and said drum having a plurality of spaced slots extending axially across the outer surface of said drum, said slots being spaced between said axially extending openings to reduced thermally induced stresses in the surface of said drum.



7. In an electro-magnetic torque transmitting apparatus of the induced current type, the combination comprising a circular field member having an even number of radially elongated slots therein dividing the same into an even number of pole pieces, a pair of windings having radially offset winding sides in each of said slots, one of said windings comprising a coil with multiple turns encircling the pole on one side of said slot and the other of said windings comprising a coil with multiple turns encircling the pole on the opposite side of said slot, said windings being connected to magnetize said poles with opposite polarity in sequence around the circumference of said field member when said windings are excited, and a hollow circular drum of magnetic material mounted within and in relatively rotatable relation with said circular field member, said drum having a plurality of spaced slots extending axially across the outer surface thereof.

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2,773,283

## DYNAMOELECTRIC MACHINE

Lawrence G. Opel, Tonawanda, and Albert W. Kimball, Sr., Buffalo, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 28, 1953, Serial No. 377,062

1 Claim. (Cl. 310—65)



A dynamoelectric machine having a stator member and a rotor member, said rotor member including a laminated rotor core comprising a plurality of thin laminations disposed in contact with each other in a stack, said core having peripheral slots and a winding in said slots, the rotor core having a plurality of axial ventilating passages extending therethrough, and a plurality of vent laminations disposed between certain of the laminations of the core and spacing the core laminations apart to form a radial duct, said vent laminations being coaxial with the core laminations and having generally radial arms, the diameter of the vent laminations at the ends of the arms being less than the diameter at the bottom of said slots of the core laminations to provide circumferential cooling passages at the bottom of said winding, and the radial arms forming slots between them communicating with said axial ventilating passages and extending to the periphery of the vent laminations.

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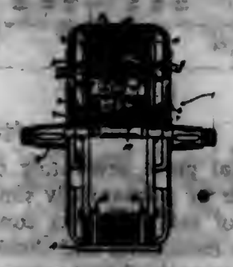
2,773,284

## ELECTRO-MAGNETIC APPARATUS FOR TORQUE TRANSMISSION

Henry S. Jacobs, Shorewood, and Theodore M. Fast, West Allis, Wis., assignors to Harnischfeger Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application December 29, 1953, Serial No. 400,941

10 Claims. (Cl. 310—93)



1. In an induced current torque transmitting apparatus the combination of a field member having circumferentially spaced magnetic poles, an induced current member relatively rotatable with respect to said field member having a rim of magnetic material with an air gap surface closely spaced from said poles and a back face oppositely disposed with respect to the air gap surface, a plurality of rotor bars of relatively low electrical resistance supported by said induced current member to traverse flux extending from said magnetic poles through said rim upon relative rotation of said field and induced current members to induce currents therein, and a plurality of conducting fins each of relatively high electrical resistance with respect to that of a rotor bar that are connected between the ends of the rotor bars and extending along the back face of said rim.

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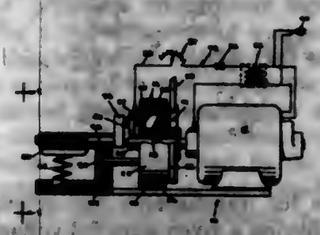
2,773,285

## POWER TRANSMITTING APPARATUS

Howard J. Findley, Cleveland, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application June 3, 1952, Serial No. 291,460

5 Claims. (Cl. 310—96)



1. A power transmitting apparatus comprising a standard, an electromagnetic clutch supported for rotation on the standard, including cooperative concentrically disposed driving and driven members, power means connected to the driving member of the clutch, a brake band engageable with the driven member of the clutch radially outwardly of the driving and driven members of the clutch, having one end anchored on the standard and its other end resiliently urged in a direction to impose a braking load on the driven member, means supported on the standard, engageable with the resiliently urged end of the brake band for actuating the brake band in opposition to the resilient load of the band and said brake band being selectively engageable and disengageable while said electromagnetic clutch is energized whereby said clutch slips when said brake is engaged.



2,773,286

## MAGNETIC POSITIVE DRIVE COUPLINGS

Igor V. Zozulin, George J. Okulitch, George M. Volkoff, Vladimir J. Okulitch, and Alec S. J. Elliott, Vancouver, British Columbia, Canada, assignors, by mesne assignments, to Torque Transmissions Limited, Vancouver, British Columbia, Canada

Application May 18, 1954, Serial No. 430,963

3 Claims. (Cl. 310—100)



1. A magnetic positive drive coupling comprising a hub sleeve having an outer end portion adapted for connection to a drive shaft and an outer sleeve concentric therewith having one end forming a power take off, said outer sleeve supporting at its outer end a housing, said housing having an outer rim forming a bimetallic rotor and a clutch drum, said outer sleeve having an annular row of magnets mounted in driving opposition to the bimetallic rotor, a plurality of clutch shoes movable to engage the inner periphery of the clutch drum and other magnets adapted to hold the clutch shoes retracted from engagement with the clutch drum until the slip between the bimetallic rotor and its magnets is reduced to a predetermined magnitude, said last named magnets being carried by the outer sleeve to rotate in unison with the annular row of magnets.

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2,773,287

## FLYWHEEL MAGNETO

Hugo F. Rudaisa, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois

Application November 12, 1953, Serial No. 391,642

2 Claims. (Cl. 310—153)



1. In a flywheel assembly for a flywheel magneto, a unitary cast flywheel member formed of non-magnetic material and providing an annular rim, a permanent bar magnet of predetermined relatively short length, a pair of pole shoes each being a pre-formed unitary element of compressed sintered magnetic material, each pole shoe being formed to provide a pole portion presenting an arcuate pole face of a length less than the length of said bar magnet and a portion projecting laterally from the back side of the pole portion and terminating in a flange, said projecting portion and flange cooperating with the part of the pole portion adjacent said projecting portion and underlying said flange, to form a recessed seat for embracing an end of the bar magnet, and said bar magnet and pole shoes having the bar magnet ends in magnetic engagement in the recessed seats of the pole shoes, being cast in situ in said annular rim of the cast flywheel member in a position therein such that only the arcuate pole faces of the pole shoes are exposed at the inner periphery of said annular rim.

2,773,288

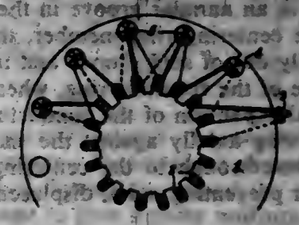
## RING WINDING FOR ELECTRICAL MACHINES

Philip Richardson, Newcastle-upon-Tyne, England, assignor to C. A. Parsons & Company Limited, Newcastle-upon-Tyne, England

Application January 6, 1954, Serial No. 402,444

Claims priority, application Great Britain January 13, 1953

2 Claims. (Cl. 310—202)



1. A ring winding for a polyphase electrical machine containing 3 phases wherein the conductors around the periphery remote from the air gap are arranged in groups containing an equal number of ampere conductors from each phase.

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2,773,209

## CARBON BRUSH HOLDER

William P. Kirkwood, North Royalton, Ohio

Application April 14, 1955, Serial No. 501,342

9 Claims. (Cl. 310—247)



1. A carbon brush holder comprising an insulating body having a bore for receiving a carbon brush therein, a removable end cap on said insulating body, and a metal electrical conductor in said insulating body and extending from end to end thereof, said conductor protruding from the end of said insulating body remote from said cap, said conductor having a plurality of convolutions formed therein some of which are exposed by said bore to reinforce a section thereof but with other convolutions being completely embedded in said insulation body for reenforcing it.

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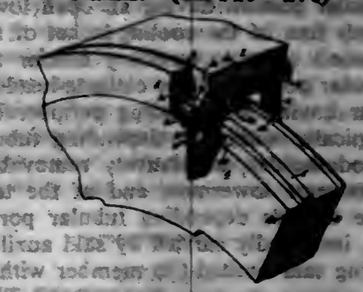
2,773,210

## RETAINING RING STRUCTURE FOR END WINDINGS OF DYNAMOELECTRIC MACHINE

George H. Vogt, Wakefield, Mass., assignor to General Electric Company, a corporation of New York

Application August 29, 1955, Serial No. 531,210

3 Claims. (Cl. 310—270)

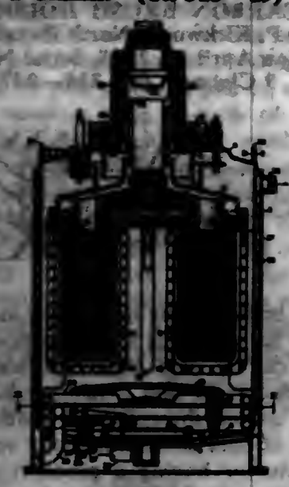


1. In retaining ring structure for a dynamoelectric machine rotor having conductors disposed in axial slots in the rotor body with a plurality of conductor end portions extending circumfereatially through an arc around a reduced diameter end portion of the rotor, the combination of a first centering ring member on the reduced diameter end portion of the rotor and spaced axially from the rotor body, a retaining ring member surrounding the conductor end portions and having a first inwardly projecting

flange portion contacting the circumferential surface of said first ring member, an outwardly extending flange defined by said centering ring member disposed adjacent said first flange whereby the retaining ring is prevented from moving axially in one direction relative to the centering ring, means for preventing the retaining ring from moving axially in the other direction comprising a snap ring disposed in an annular groove in the circumferential surface of the centering ring member, the snap ring extending radially out of said groove and into contact with an end surface of the retaining ring, whereby axial forces due to thermal expansion of the conductors tend to move the retaining ring axially against the snap ring and are transmitted therethrough to the centering ring, and second means for preventing radial displacement of the snap ring.

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2,773,211
LARGE SEALED IGNITRON-TUBE
August P. Colaluca, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 14, 1955, Serial No. 481,787
2 Claims. (Cl. 313—19)

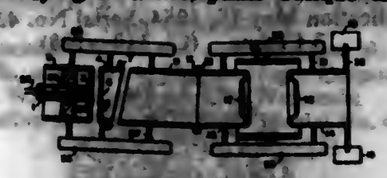


1. A vapor-arc tube having an evacuated metal container comprising an upright cylindrical side-wall having a cooling-jacket, a cathode-header having a cooling-jacket, and an anode-header; said tube also having an anode-structure which is insulatedly carried by the anode-header, a cathode-pool in a central portion of the cathode-header, and a limited-life member which is supported within the tube from the cathode-header; said cathode-header being relatively permanently joined to the side-wall; said cathode-header having a smaller depending tubular portion having an open lowermost end which extends free of the cooling-jacket of the cathode-header, a small separate auxiliary header for said depending tubular portion of the cathode-header, said auxiliary header having a depending peripheral flange, fitting telescopically within its depending tubular portion of the cathode-header, a relatively removable joint between the extreme lowermost end of the telescopically fitting flange and its depending tubular portion, and a support-rod, insulatedly carried by said auxiliary header, for supporting said limited-life member within the tube.

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2,773,212
ELECTRON GUN
James A. Hall, Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 14, 1953, Serial No. 374,249
5 Claims. (Cl. 313—82)

1. An electron gun comprising a control electrode and a screen-grid electrode, said electrodes comprising coaxial cylinders of inside diameter D having diaphragms normal to their common axis and with apertures lying on said axis, an electron source on said axis on the side of said control electrode aperture remote from said screen-grid electrode, a rim of said screen-grid remote from said control grid lying in a first plane oblique to said axis,



the major length of said screen-grid being not over .55 D, a first anode cylinder of diameter D and having a rim adjacent to said screen-grid lying in a second plane parallel to said first plane and separated therefrom by a gap substantially 0.20 D wide, and an electron lens at the other end of said first anode cylinder such that substantially all focussing effect occurs in it.

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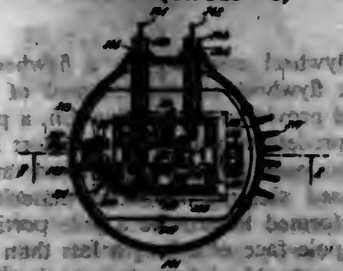
2,773,213
ELECTRON BEAM TUBES
Wellesley J. Dodds, Allentown, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 13, 1951, Serial No. 215,236
17 Claims. (Cl. 315—3.6)



1. An electron tube of the traveling wave type comprising an elongated conductive helix, means for projecting a beam of electrons through and in energy-coupling relation with the entire length of said helix, and means for limiting the amplifying bandwidth of said helix comprising at least one elongated transmission line inductively coupled to said helix at least at equally-spaced points distributed along substantially the entire length of said helix, and means causing the combination of said helix and said coupled transmission line to be dispersive along substantially the entire length thereof.

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2,773,214
VELOCITY MODULATION TUBES
Jean P. Vega, Paris, France
Application February 17, 1951, Serial No. 211,506
9 Claims. (Cl. 315—6)

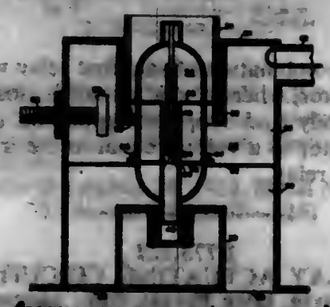


4. A velocity modulation electron discharge device comprising in combination narrow rectangular cathode and collector electrodes, buncher and catcher re-entrant prismatic cavity resonators of different cross sections but of substantially the same height with each other and with said cathode and collector electrodes, and adapted to have a ribbon-shaped electron stream emitted by said cathode pass through narrow electron permeable sections extending over the total height thereof, the buncher resonator being short-circuited at both ends and the catcher resonator being short-circuited at one end only, a supplementary cavity resonator coupled to the other end of said catcher resonator, the buncher resonator being adapted to oscillate in a system of standing waves having a half-phase-wavelength equal to its height and the catcher resonator being adapted to oscillate in a system of standing waves having a quarter-phase-wavelength equal to its height, means for applying input energy to said buncher resonator located near one end thereof, and means for extracting output amplified energy from the catcher resonator located near the junction of the catcher and supplementary resonators.



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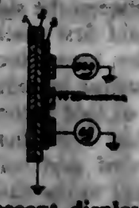
2,773,215
HIGH-FREQUENCY APPARATUS
Coleman J. Miller, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 22, 1952, Serial No. 267,671
10 Claims. (Cl. 315—41)



1. A high frequency apparatus comprising a cavity resonator, a wall of conducting material extending across said cavity resonator dividing said cavity resonator into a first part and a second part, said wall having a hole therethrough, a rod of conducting material extending through said hole, said rod having cross-sectional dimensions at the point where it passes through said hole which are substantially less than the dimensions of said hole, said rod being electrically separated from said wall, means connected to said first part for supplying high-frequency oscillations to said first part and means connected to said second part for deriving high-frequency oscillations from said second part.

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2,773,216
ANIMATED DISPLAY DEVICE
Theodore Edmonds, Danvers, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application January 9, 1953, Serial No. 330,513
11 Claims. (Cl. 315—169)



1. An electroluminescent display device comprising a layer of electroluminescent material whose emission color varies with the frequency of the field applied thereto, at least one electrode on one side of said layer, and at least two electrodes on the other side of said layer and electrically insulated from each other.

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2,773,217
FLUORESCENT LAMP SYSTEM
Robert J. Cassidy, Mansfield, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 29, 1952, Serial No. 268,841
5 Claims. (Cl. 315—198)

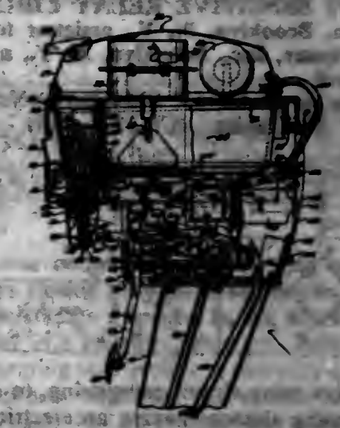
1. In a control circuit for gas-filled lighting tubes, a source of variable frequency A. C. power whose higher frequencies are several times the lower ones and which varies over the range during normal operation, a transformer having a primary and a secondary winding, said primary winding being connected to the source of power and the secondary winding connected to the tubes, and



a condenser connected across the secondary winding whose value is selected to provide a resonant condition at a predetermined frequency toward the upper end of the frequency range to give a more uniform output from the source and to increase the output to the tubes at the higher frequencies.

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2,773,218
LIQUID DISPENSING MECHANISMS
Frederick H. Newman, Jr., Port Washington, Wis., assignor to Superdisplay Incorporated, Milwaukee, Wis., a corporation of Wisconsin
Application September 29, 1952, Serial No. 312,095
7 Claims. (Cl. 317—123)



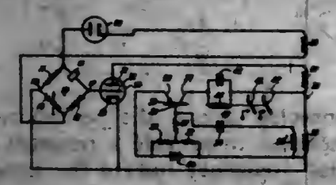
1. In combination a solenoid having a normally retracted plunger movable to a projected position; a power circuit for said solenoid; a pivotally mounted motion transmitting lever connected to said solenoid plunger; a switch connected in the power circuit to said solenoid to control the same and having a button movable on an axis normal to the axis of said plunger; and a trigger blade mounted for axial movement parallel with the axial movement of said switch button, said blade having a portion positioned to engage the end of said button whereby switch-button-depressing axial movement of said trigger blade causes projecting movement of said plunger, the mounting of said blade also permitting movement in a transverse plane parallel to the axis of said solenoid plunger, said blade being positioned in the path of movement of said solenoid plunger to be moved transversely by said plunger out of engagement with the end of said switch button when said plunger moves to projected position.

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2,773,219
LIGHT SENSITIVE RELAY CIRCUIT
Mitchell Aron, Brooklyn, N. Y., assignor to Radio Receptor Company, Inc., Brooklyn, N. Y., a corporation of New York
Application November 10, 1954, Serial No. 467,972
13 Claims. (Cl. 317—124)

1. A sensitive relay circuit comprising, in combination, a light energy sensing element having an electrical resistance variable as a function of the light energy received thereby; a transistor oscillator having an output circuit; a relay having an operating coil in series with the collector

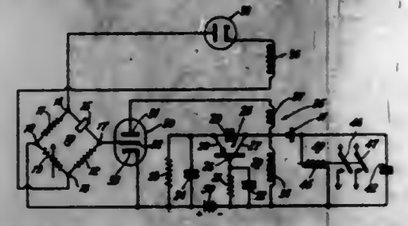
electrode of said transistor oscillator; a low voltage source of D. C. potential connected to supply operating potential to said oscillator; an amplifier having an input circuit including said element connected in series with the amplifier control component, and an output circuit coupled in series with said oscillator output circuit; means, including circuit connections for applying across said amplifier in-



put circuit a rectified operating potential derived from said oscillator output circuit; and sensitivity adjustment means in series with said element in said input circuit to adjust the bias of said input circuit to a value such that said amplifier is conductive when no light is incident on said element; whereby, when no light is incident on said element, said amplifier will damp the oscillator output to a value insufficient to energize said coil.

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2,773,220
LIGHT SENSITIVE RELAY CIRCUIT
Mitchell Aron, Brooklyn, N. Y., assignor to Radio Receptor Company, Inc., Brooklyn, N. Y., a corporation of New York
Application November 10, 1954, Serial No. 467,909
10 Claims. (Cl. 317—130)

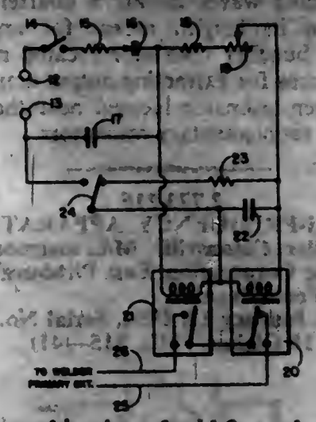


1. A sensitive relay circuit comprising, in combination, an energy sensing element having an electrical resistance variable as a function of the energy received thereby; a transistor oscillator having an output circuit; a relay having an operating coil connected in said output circuit for energization thereby; a low voltage source of D. C. potential connected to supply operating potential to said oscillator and in circuit connection with said relay operating coil; an amplifier having an input circuit including said element connected in series with the amplifier control element, and an output circuit coupled in series with said oscillator output circuit; means, including circuit connections, for applying across said amplifier input circuit a rectified operating potential derived from said oscillator output circuit; and sensitivity adjustment means in series with said element and said input circuit to adjust the bias of said input circuit to a value such that said amplifier is conductive when no light is incident on said element; whereby, when no light is incident on said element, said amplifier will damp the oscillator output to a value insufficient to energize said coil.

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2,773,221
TIMING CIRCUIT
Lloyd E. Shaw, Newburyport, Mass., assignor to Columbia Broadcasting System, Inc., a corporation of New York, doing business as Hytron Radio & Electronics Co., Salem, Mass., a division of Columbia Broadcasting System, Inc.
Application August 12, 1952, Serial No. 303,986
4 Claims. (Cl. 317—135)

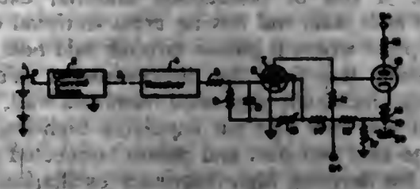
1. A timer for opening and closing a circuit comprising, a first normally closed relay and a second normally open relay having their contacts in series relationship in said circuit, a first capacitor in parallel with said first relay, a second capacitor, means for charging said second capacitor, means for applying the charge from said second capacitor directly to the winding of said second relay, and



to the parallel combination of said first relay winding and said first capacitor, whereby said circuit is closed substantially immediately and reopened upon the charging of said first capacitor to a voltage equal to the tripping voltage of said first relay.

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2,773,222
RELAY ACTUATING CIRCUIT
David M. Chauvin, Glen Burnie, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 14, 1954, Serial No. 429,956
2 Claims. (Cl. 317—149)



1. In combination with a source of voltage pulses, a first electron discharge device having an anode, cathode and at least two grids included therein, one of said grids being a control grid, means for applying said voltage pulses to said control grid, a plate circuit for said discharge device, a first resistor of a magnitude in the order of ten times the plate resistance of said discharge device included in said plate circuit, a second electron discharge device having an anode, a cathode and grid included therein, a connection between the side of said first resistor nearest the anode of said first discharge device and the grid of said second device, means including the energizing coil of a relay and a resistive impedance element in series connecting the cathode of said second device to the other side of said first resistor, a further impedance element connecting the junction of said coil and said first-mentioned impedance element to the cathode of the first electron discharge device, a second resistor connecting the cathode of said first device to the other grid of said first device, and a third resistor of a magnitude in the order of ten times the magnitude of said second resistor connecting said other grid to said other side of the first resistor.

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2,773,223
HIGH IMPEDANCE TELEPHONE SUBSTATION RINGER
Arthur S. Howell, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application May 16, 1955, Serial No. 508,575
17 Claims. (Cl. 317—171)

1. In a telephone ringer, a magnetic base, a core supported from said base, a coil mounted on a portion of said core, and adapted to be energized by ringing current, a bar type permanent magnet having coincident polar and longitudinal axes, said magnet having its ends in fixed abutting relationship with respect to said core and to said base, respectively, a yoke carried by said



base and having spaced-apart parallel portions arranged to constitute pole portions, an armature, and means for supporting said armature in edgewise relation with respect to said pole portions and in operative relation with respect to said core.

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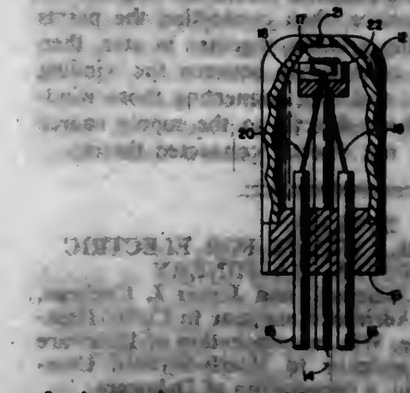
2,773,224
TRANSISTOR POINT CONTACT ARRANGEMENT
Kurt Lehovec, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application December 31, 1952, Serial No. 328,948
6 Claims. (Cl. 317—235)



1. A transistor comprising a body of a semiconducting material, means defining at least two closely-spaced apertures through said body, wire probe means passing through said apertures, insulating means separating said wire means from said body in said apertures, point contact means formed on the tips of said probe means, said point contact means forming rectifying contacts with parts of said body about 1 to 5 mils apart.

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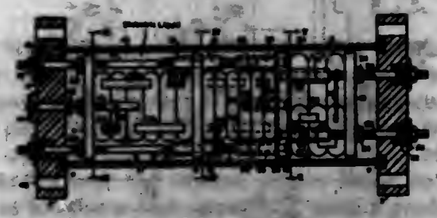
2,773,225
SEMICONDUCTOR DEVICE
Robert L. Jones, Danvers, Mass., assignor to Columbia Broadcasting System, Inc., a corporation of New York, doing business under the name of Hytron Radio & Electronics Co., a division of Columbia Broadcasting System, Inc., Danvers, Mass.
Application April 6, 1953, Serial No. 347,061
4 Claims. (Cl. 317—235)



3. A transistor comprising, a cylindrical plastic housing having one open end and an opening formed in the other end thereof, a plug inserted and sealed into said open end, three conducting leads sealed through said plug and insulated from one another, a whisker of beryllium copper mounted on one of said leads within said housing, a whisker of Phosphor bronze mounted on a second of said leads within said housing, said whiskers being mounted on said leads in normally diverging relationship, an L-shaped member mounted on the third of said leads within said housing, one leg of said L-shaped member being parallel to the axis of said cylindrical housing, the other leg being perpendicular thereto, a cube of germanium being mounted on said other leg and facing said open end, and a disk-shaped locating member having an aperture formed therein attached to said L-shaped member and being disposed adjacent said cube, said aperture being larger than the total diameters of said whiskers by a predetermined amount, said whiskers passing through said aperture and being restrained from divergence beyond said predetermined amount, said whiskers each having an S-shaped bend formed therein to cause them to bear upon said cube of germanium with a predetermined pressure, and said opening in said housing permitting the introduction of an impregnating compound.

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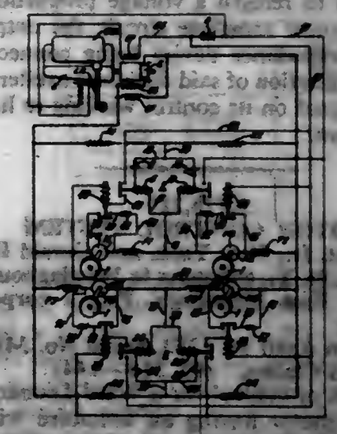
2,773,226
CAPACITOR
Hamilton Brooks, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 11, 1953, Serial No. 373,508
5 Claims. (Cl. 317—242)



1. A capacitor comprising an insulating housing, insulating end caps closing the ends of the housing, a plurality of capacitor elements disposed in the housing and connected together in a plurality of groups, insulating spacer members separating said groups, a plurality of conducting clamping members engaging the spacer members and extending through the end caps, and means for electrically connecting different groups of capacitor elements to different ones of the conducting members.

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2,773,227
WHEEL SLIP CONTROL SYSTEM
Torsten O. Lilliedal, La Grange Park, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 17, 1953, Serial No. 398,705
8 Claims. (Cl. 318—52)



7. In a generating electric locomotive having a plurality of traction wheels, a plurality of electric traction motors, each of said motors being connected in driving relation to a traction wheel to drive said plurality of

wheels at equal speeds, a prime mover driven electric generator connected in balanced electrical power circuit relation with said plurality of traction motors when the traction wheels are driven at equal speeds thereby, a normally open shunt circuit including a shunting resistor therein connected across the armatures of each of said motors, and a polarized electrical relay control connected in balanced electric relation with said traction motors and alternately operable upon unbalanced electrical power relations between said motors upon slippage of any traction wheel to complete said shunt circuit around the armature of the motor connected to said slipping traction wheel to reduce its speed and eliminate slippage of the wheel connected thereto.

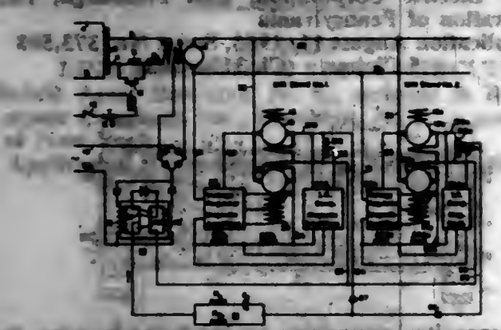
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2,773,228

**ELECTRICAL CONTROL SYSTEMS**

Raymond W. Moore, Snyder, and Robert E. Hull, Buffalo, N. Y., and Loren F. Steinger, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 31, 1953, Serial No. 389,406
26 Claims. (Cl. 318—87)



10. A control system for a motor connected in a loop circuit with a main generator which has its excitation determined by a reference voltage comprising, a reference exciter to determine the reference voltage, field excitation means for said reference exciter, impedance means, means to insert said impedance means in series with said excitation means for the reference exciter and to remove said impedance means from the series circuit, said impedance means having such a magnitude as to reduce the reference voltage at a rate which will tend to cause the motor to decelerate at a rate to cause regenerative current in excess of the permissible amount when inserted in series with said excitation means for said reference exciter, a saturable core impedance device having main windings and a control winding, a differentiating circuit connected in series with the control winding for said saturable core impedance device, said differentiating circuit and control winding being connected to receive a voltage proportional to the current in the motor armature circuit, the output of said saturable core impedance device being connected to determine the energization of said reference exciter in accordance with the signal on its control winding to limit the regenerative current.

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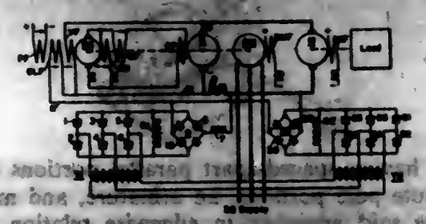
2,773,229

**MOTOR CONTROL SYSTEM**

William T. Hunt, Jr., New York, and Gerald E. Mathias, Williamsville, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 16, 1953, Serial No. 348,846
3 Claims. (Cl. 318—144)

1. In a system of control for a Ward-Leonard drive, in combination, a motor having an armature winding and having a field winding, a main generator having a field winding and having an armature winding, said armature winding being connected in a loop circuit with the armature winding of the motor, an impedance connected in the loop circuit, a regulating generator connected to furnish excitation to the main generator field winding, said regulating generator having field winding means normally so excited as to produce a relatively flat voltage characteristic with respect to load on the main generator from no-load to a selected loading of the generator, additional field winding means on the regulating generator



wound to act differentially to the first field winding means, and means for exciting the additional field winding means at a certain rate of increase with a rise in voltage drop across said impedance greater than one selected voltage drop and means for exciting the additional field winding at a greater rate of increase with a rise in voltage drop across said impedance greater than another selected voltage drop which is greater than said first one selected voltage drop.

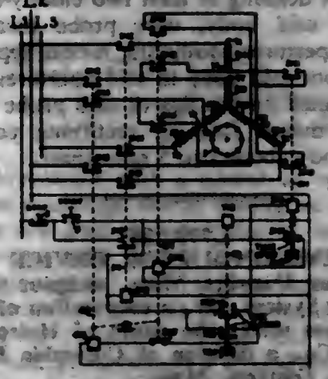
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2,773,230

**METHOD OF AND MEANS FOR STARTING PART WINDING MOTORS**

Philip W. Easley, Glendale, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application August 23, 1954, Serial No. 451,527
4 Claims. (Cl. 318—226)



1. The method of starting part winding polyphase induction motors, which comprises first connecting the winding sections of each phase in series and together in star with the supply source, then connecting the points intermediate the winding sections together in star, then interrupting the series connections between the winding sections of each phase, and then connecting those winding sections of each phase directly to the supply source which were previously not directly connected thereto.

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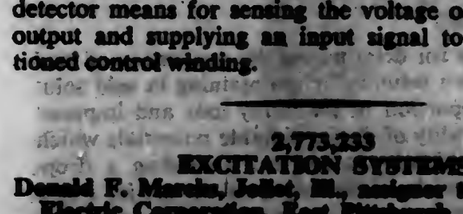
2,773,231

**SAFETY CONTROL CIRCUIT FOR ELECTRIC MOTOR DRIVEN MACHINERY**

John R. Adriansen, Cincinnati, and James J. Cochran, Dayton, Ohio; said Adriansen assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware and said Cochran, assignor to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware

Application July 13, 1954, Serial No. 443,356
2 Claims. (Cl. 318—443)

1. In a safety control circuit for an electric motor the combination of a pair of normally open double pole single throw switches arranged to be closed upon manual depression thereof, said switches being connected in parallel to each other through one set of contacts and in series with each other through the other set of contacts, said one set of contacts being connected in circuit with said motor to provide for actuation thereof upon depression of either said switch, a double pole normally open relay having an energizing coil, an energizing circuit for said relay including said other set of contacts and said coil wired in series with each other for energization of said



coil upon depression of both said switches, circuit means for by-passing all said contacts of said pair of switches upon energization of said relay including both contacts of said relay connected in parallel with said switches, and a holding circuit for said relay including one contact of said relay connected in series with said coil to maintain energization of said coil upon opening of said switches.

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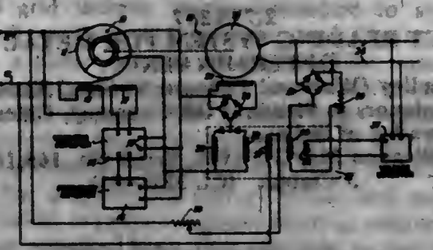


2,773,232

**MOTOR GENERATOR SET**

John A. Herbst, Montville, and Warren J. Dornhoefer, Woodcliff Lake, N. J., assignors to Bogue Electric Manufacturing Co., Paterson, N. J., a corporation of New Jersey

Application May 11, 1954, Serial No. 428,925
3 Claims. (Cl. 322—16)



1. In combination, a direct current motor and an alternator driven by said motor, said motor comprising an armature and slip rings associated therewith for providing an alternating current output, and a field winding, a first magnetic amplifier, frequency detector means for sensing the frequency of said alternating current output and supplying an input signal to said amplifier, said amplifier being energized by said alternating current output and providing an output for energizing said motor field winding, a second magnetic amplifier including a power winding in circuit with said alternating current output and the field winding of said alternator, and a control winding, voltage detector means for sensing the voltage of the alternator output and supplying an input signal to said last mentioned control winding.

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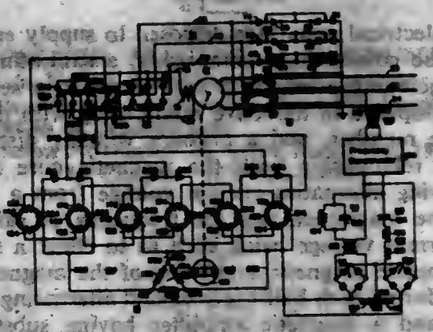
2,773,233

**EXCITATION SYSTEMS**

Donald F. Marsh, Joliet, Ill., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 20, 1954, Serial No. 424,374
9 Claims. (Cl. 322—25)

9. In an excitation system for an alternating-current generator that is provided with a field winding and is disposed to be connected in parallel with another generator, the combination comprising, means for obtaining a measure of the output current of the alternating-current generator, the field winding of the alternating-current generator being responsive to the output of said means, a shunt circuit connected in shunt circuit relationship with the field winding of the alternating-current generator, the shunt circuit also being responsive to the output of the said means and including a voltage responsive impedance member whose impedance is a function of the magnitude of the voltage across the voltage responsive impedance member, to thus prevent excessive excitation of the alternating-current generator under short circuit conditions, a regulator system responsive to the output voltage of the alternating-current generator for controlling the voltage across the field winding of the alternating-current generator, a current transformer having a secondary winding and disposed to be responsive to the output current of the alternating-current generator, circuit



means for so connecting the secondary winding of the current transformer to the regulator system as to provide droop compensation for the alternating-current generator, and another shunt circuit, including two crystal diodes, connected to the secondary winding of the current transformer, the crystal diodes being so interconnected as to offer a high impedance until a predetermined voltage is developed across the secondary winding of the current transformer and once the predetermined voltage is developed the impedance offered by the crystal diodes decreases so that if a large increase in current were to flow through the crystal diodes only a slight increase in voltage would appear across the secondary winding of the current transformer, to thereby prevent excessive droop compensation of the alternating-current generator.

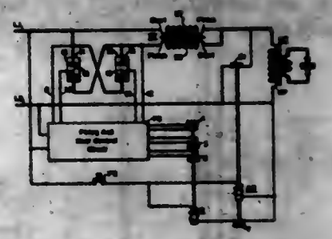
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2,773,234

**ELECTRIC DISCHARGE APPARATUS**

William E. Large, Lancaster, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 29, 1951, Serial No. 264,061
10 Claims. (Cl. 323—24)



4. In combination, a pair of terminals for supplying a potential; an alternating transformer having a first winding and a second winding; a pair of electric discharge paths each defined by an anode and a cathode connected in inverse-parallel; means connecting said paths, said second winding and said first winding in a closed network; means for connecting in series said terminals, said network and a load, and means for rendering said paths conducting during successive alternate half periods of said potential.

2,773,235

## MAGNETIC AMPLIFIERS

Franklin S. Mallick, Milwaukee, Wis., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 2, 1953, Serial No. 378,111
10 Claims. (Cl. 323—69)



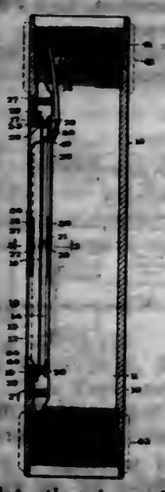
1. In electrical apparatus disposed to supply energy to a load, the combination comprising, a saturating transformer including a magnetic core member, a secondary winding disposed in inductive relationship with the magnetic core member, and a primary winding disposed in inductive relationship with the magnetic core member for receiving alternating-current voltage from a suitable source, the magnitude and the frequency of said alternating-current voltage being such as to effect a substantially complete magnetic saturation of the magnetic core member during each half cycle of said alternating-current voltage, and a magnetic amplifier having substantially 100 percent feedback, the magnetic amplifier including magnetic core means, a control winding disposed in inductive relationship with the magnetic core means for receiving a control signal, and a load winding disposed in inductive relationship with the magnetic core means and interconnected between the secondary winding of the saturating transformer and the load, the magnitude of the current flow through the load being substantially independent of the magnitude of said alternating-current voltage applied to the primary winding of the saturating transformer.

2,773,236

## APPARATUS FOR DETECTING INGRESS AND EGRESS OF FLUID IN A BOREHOLE

R. G. Martin, Houston, Tex., and Ralph D. Wyckoff, Pittsburgh, Pa., assignors, by direct and mesne assignments, to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application June 3, 1953, Serial No. 359,358
5 Claims. (Cl. 324—2)



1. Apparatus for detecting irregularities of fluid flow in a borehole containing an electrically-conducting fluid which comprises flow-carrying means adapted to be inserted in the borehole and having a flow channel arranged to transmit at least a part of the fluid flow in the borehole, movable means interposed in said flow channel arranged to be deflected by flow through said channel, a first electrode on said movable means, a second electrode fixedly mounted on said flow-carrying means spaced on one side of said first electrode in the line of movement thereof, a third electrode fixedly mounted on said flow-carrying means spaced on the other side of said first electrode in the line of movement thereof, circuit means including an electrical source for passing an electric current through the fluid via said second and third electrodes, and potential-difference detecting means connected with said circuit means and with said first electrode.

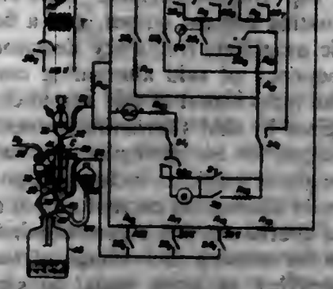
2. Apparatus for measuring flow rate of an electrically-conducting fluid which comprises flow-carrying means having a flow channel arranged to transmit at least a part of the fluid flow, movable means interposed in said flow channel arranged to be deflected by flow through said channel, a first electrode immersed in the flowing fluid and mounted on said movable means, a second electrode immersed in the flowing fluid and fixedly mounted on said flow-carrying means and spaced on one side of said first electrode in the line of movement thereof, an electrical conductor contacting the fluid, an electric circuit including means for establishing a difference of potential between two points of said circuit, means electrically connecting one of said circuit points to said conductor, means electrically connecting the other of said circuit points to one of said electrodes whereby an electric current will flow through the fluid, and potential-difference detecting means responsive to the potential difference between the other of said electrodes and a point of said circuit whose potential change as a result of motion of said movable means is different from the potential change of said other electrode as a result of the same motion of said movable means.

2,773,237

## DIRECT READING SYSTEM FOR METAL ION DETERMINATION

Elmer Bradley Offutt and Leonard V. Sorg, Kansas City, Mo., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application May 31, 1950, Serial No. 165,164
3 Claims. (Cl. 324—31)



1. An apparatus for determining the proportion of lead ions in an unknown solution by maintaining in said solution a known proportion of antimony ions and impressing stepwise a plurality of distinguishable potentials which comprises in combination a test cell including a dropping mercury electrode, a mercury pool electrode, a first conductor connected to said dropping mercury electrode and a second conductor connected to said mercury pool electrode, a source of potential, a circuit including said test cell, a plurality of individually controlled dividers of the potential from said source, a plurality of gang switches, a plurality of voltage balancing means in said circuit selectively controlled by said gang switches, a means in said circuit adapted to indicate electrical balance and unbalance of said circuit, said voltage balancing means including potentiometer means associated with each of said potential dividers for balancing the circuit and thereby measuring the electrical current passing through said test cell, and switch means for selectively impressing potentials from said potential dividers of about 0.05 to 0.1 volt, about 0.25 to 0.4 volt, and about 0.6 to 0.8 volt across said electrodes.

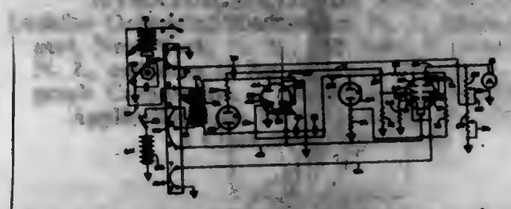


2,773,238

## ELECTRICAL TACHOMETER FOR INTERNAL COMBUSTION ENGINES

Merlin O. Peterson, Grayslake, and Thomas E. Bjorn, Chicago, Ill., assignors to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia

Application September 17, 1953, Serial No. 380,702
8 Claims. (Cl. 324—70)



1. An electrical tachometer adapted to be interconnected with the ignition system of an internal combustion engine and comprising, in combination, a power supply and electrical isolation transformer having a low impedance primary winding adapted to be connected in series with the ignition system, rectifier and filtering circuit means connected to receive the output voltage of the transformer secondary, voltage limiting means connected to limit the output voltage of the rectifier and filtering circuit means to a uniform value, frequency meter means including a vacuum tube amplifier having a control grid therein, means connected to apply the output voltage from said rectifier and filtering circuit means as a plate potential on the amplifier, means connected to apply voltage pulses from said transformer secondary to the amplifier control grid, rectifier tube means connected to rectify the output of said amplifier tube means, means interconnected with the output of said rectifier and filtering circuit means and said rectifier tube means to apply a reduced bucking voltage against the voltage supplied from said amplifier to said rectifier tube means, and a graduated ammeter connected to the output of said rectifier tube means.

2,773,239

## ELECTRICAL INDICATING INSTRUMENTS

Louis W. Parker, Great Neck, N. Y.

Application May 14, 1952, Serial No. 287,704
18 Claims. (Cl. 324—150)



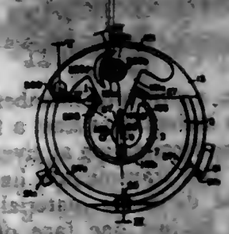
1. An electrical measuring instrument comprising a disc of conducting material, two coils mounted on one face of the disc with their centers on a common diameter and said centers being on opposite sides of the center of the disc, two coils mounted on the other side of the disc respectively substantially coaxial with two coils on the first side of the disc, said disc being metallic and having the surfaces of both of its faces composed of an insulating compound that includes part of the metal of the disc and is bonded to the metal of the disc and the coils being lines of conducting material on the surface of the insulating compound, means connecting said coils in series with the fields of complementary coaxial coils additive and the fields of coils on opposite sides of the center of the disc being in opposite directions, means for biasing the disc to zero position, U-shaped magnet means on each side of said disc for producing magnetic flux through the disc parallel to the axis thereof with increasing field strength along the path of rotation of the coils, said magnet means producing flux in one direction through the coils on one side of the center of the disc and in the opposite direction through the coils on the other side of the center of the disc, and means for indicating the rotary position of the disc.

2,773,240

## MOVING-COIL ELECTRICAL INSTRUMENTS

Douglass A. Young, East Orange, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 18, 1950, Serial No. 196,429
13 Claims. (Cl. 324—150)



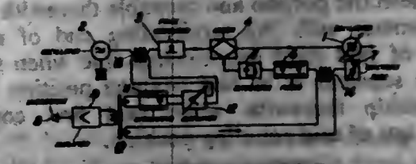
1. In an electroresponsive device, a magnetic structure comprising a magnetic core member, a pole piece member spaced from the core member for defining an air gap therebetween, and means for establishing a magnetomotive force between said members to provide a magnetic field in the air gap, a coil having a coil side in said air gap, means mounting the coil for movement about a first axis relative to the magnetic structure to carry the coil side through the air gap, and mechanism mounting one of said members for adjustable movement relative to the other of said members and relative to the first-named means about a second axis substantially parallel to the first axis, said coil side being substantially included in a plane defined by said axes when the coil side is substantially at one end of the path of its movement.

2,773,241

## AUTOMATIC FREQUENCY CONTROL

Edward Herman Hagenbeek, Hilversum, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application May 22, 1953, Serial No. 356,781
Claims priority, application Netherlands May 27, 1952
7 Claims. (Cl. 332—19)



1. A stabilized frequency-modulation apparatus comprising a source of alternating control voltage, means for producing stabilization pulses at a repetition rate corresponding to the frequency of said alternating control voltage, a high-frequency oscillator for producing a high-frequency alternating voltage at a harmonic frequency of the frequency of said alternating control voltage, a frequency modulator coupled to said oscillator to control the frequency thereof, a mixing stage connected to receive and mix said stabilization pulses and said high-frequency alternating voltage and produce therefrom

pulses forming an automatic frequency control voltage, said mixing stage being normally cut off and being released only upon the occurrence of said stabilization pulses, an automatic frequency control circuit comprising an integrating network and a low-pass filter, means for feeding said automatic frequency control voltage successively through said integrating network and low-pass filter and to said frequency modulator, a source of modulation voltage, a phase modulator connected to modulate the positions of said stabilization pulses in response to said modulation voltage, and means coupling said modulation voltage to said frequency modulator independently of said automatic frequency control circuit.

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2,773,242

**MICROWAVE SWITCHING ARRANGEMENTS**

Donald D. Grieg, North Caldwell, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application April 2, 1952, Serial No. 280,165
2 Claims. (Cl. 333—7)



1. In combination, a switching member and a plurality of transmission lines including at least a first, second and third transmission line terminating at given distances from each other, each of said transmission lines comprising a planar strip of solid dielectric material, a first planar conductor lying flat against one face of said dielectric strip, a second planar conductor lying flat against the opposite face of said dielectric strip, said conductors extending parallel to each other, said dielectric strips spacing said conductors a fraction of a quarter wavelength apart, said second conductor being wider than the corresponding first conductor so that the electric field of a wave traveling along said transmission line is distributed between said conductors in a manner approximating the TEM mode, said switching member comprising a transmission line segment including a first conductive segment, a second wider conductive segment, a dielectric member extending the full length between said segments and separating them by a thickness of dielectric which is equal to the thickness of said dielectric strips, at least a portion of said dielectric member being movable, said first conductive segment being carried by said movable dielectric portion into and out of coupling position in which it couples together said first conductors of said first and second transmission lines, said second conductive segment of said switching member coupling said second conductor of said first and second transmission lines to the second conductor of said third transmission line, and a terminating impedance embedded in and terminating in the dielectric for absorbing microwave energy propagated along the line and carried on said movable dielectric portion and movable therewith into immediate contact with the terminating end of said first conductor of said third transmission line when said first conductive segment is in said couping position and out of relationship therewith when said first conductive segment is out of said coupling position.

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2,773,243

**WAVE GUIDE WITH DUAL PURPOSE GAS DISCHARGE DEVICE**

Ladislas Goldstein, Urbana, Ill., and Herbert F. Engelmann, Mountain Lakes, N. J., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland

Application July 25, 1952, Serial No. 300,998
3 Claims. (Cl. 333—13)

1. A combination T-R and attenuating switch gas discharge device system providing selective T-R action and attenuation of low-power radio-frequency energy comprising means defining a resonant chamber, an ionizable gas filling said chamber, first and second electrodes disposed within said chamber and insulated from one another for direct current and electrically connected to the means defining a resonant chamber at radio frequency, means to couple a source of biasing voltage between said first and second electrodes whereby said electrodes serve as keep-alive electrodes, and a third electrode spaced from said first and second electrodes and insulated therefrom, said first and third electrodes being so disposed that high-power radio-frequency energy propagating through said



chamber will cause ionization of said gas and a discharge directly between said first and third electrodes, low-power radio-frequency energy being insufficient of itself to cause said discharge, a source of voltage, and switching means operable independently of high-power radio-frequency energy propagating through said chamber to couple said source of voltage between said first and third electrodes whereby during the on period of operation of said switching means low-power radio-frequency energy propagating through said chamber will cause a discharge directly between said first and third electrodes thereby attenuating said energy in its passage through the chamber.

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2,773,244

**BAND PASS FILTER**

Donald D. Grieg, North Caldwell, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application August 2, 1952, Serial No. 302,292
1 Claim. (Cl. 333—73)



A microwave bandpass filter comprising a hollow waveguide filter of the distributed parameter type having signal input and output sections, each of said sections having an opening therein, a coaxial transmission line coupled between said sections with the inner conductor thereof extending through the openings into said sections to provide a bypass communication about said waveguide filter to bypass a portion of the signal energy from said input section to said output section to reduce the selectivity of the filter during tuning adjustments, and means to interrupt the bypass communication after tuning to introduce the selectivity characteristics of said filter, said bypass coaxial transmission line including a coupling section coupled to each of said input and output sections and a central section coupled between said coupling sections, the center conductor of said coupling sections being disposed in sliding contact relation with the ends of the center conductor of said central section, the ends of the center conductor of said coupling sections extending through the opening in said input and output sections to provide a



probe type coupling in said input and output sections, said coupling sections being extended beyond the point of sliding contact with the center conductor of said central section, said means included in this extended portion to short the inner and outer conductors of said coupling sections to provide a quarter wave choke section therein at the operating frequency of said filter to cooperate in impedance matching, and said means to interrupt bypass communication includes means coupled to the center conductors of said coupling sections to control the probe lengths thereof extending into said input and output sections.

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2,773,245

**GYRATOR METHODS AND MEANS**

Ladislas Goldstein, Weehawken, N. J., Murray A. Lampert, New York, N. Y., and John F. Heney, Clifton, N. J., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland

Application June 18, 1951, Serial No. 232,148
3 Claims. (Cl. 333—98)



1. A method for rotating the polarization of a plane-polarized wave propagated in a waveguide structure and for maintaining the attenuation at a low value, said waveguide structure having an ionizable body of a gaseous medium therein and means for establishing a magnetic field having a major component substantially parallel to the longitudinal axis of said waveguide disposed thereabout to interact with the electrons of said gaseous medium, comprising propagating a guided electromagnetic wave having a given signal frequency within said waveguide, maintaining said magnetic field at an intensity which establishes an electron gyromagnetic frequency within said gaseous medium above the signal frequency of said propagated wave, and pulsing the ionization thereof to establish a decaying gas discharge plasma within said gaseous medium whereby the electric field of said electromagnetic wave interacts with the electrons of the decaying gas discharge plasma, the duration of said decaying gas discharge plasma being prolonged for a period of time so that its electron temperature is decreased to substantially that of the un-ionized gas.

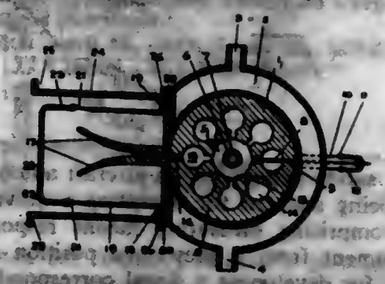
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2,773,246

**SEALED SAPPHIRE WAVE GUIDE WINDOW**

Frank Brook, Barrow, England, assignor to The General Electric Company Limited, London, England, a British company

Application October 16, 1952, Serial No. 315,113
Claims priority, application Great Britain October 19, 1951
3 Claims. (Cl. 333—98)



1. An electrical device including a hollow metal tube arranged to act as a waveguide carrying high frequency energy in operation of the device and closed by a thin closure member of insulating material, said closure member consisting of a central flat sapphire disk and an annular glass piece, the outer periphery of said annular glass piece being sealed to the metal tube and the inner periphery of said annular glass piece being sealed to the periphery of the sapphire disk.

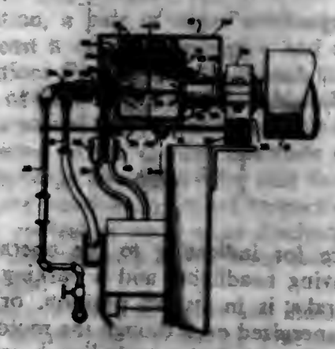
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2,773,247

**CURRENT COLLECTOR FOR ROTARY SHAFT OF ELECTROPLATING APPARATUS**

John E. Erhardt, Jr., Baltimore, Md., assignor to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York

Application October 3, 1951, Serial No. 249,511
3 Claims. (Cl. 339—5)



1. In apparatus having a current roll for electro-plating and the like, a shaft extending from the current roll at one end thereof, a bearing having a cap portion for rotatably supporting the shaft, a current transfer device frame supported by the bearing, a cylindrical current transfer shoe supported on the shaft, a plurality of brushes mounted on the frame and positioned to ride against the cylindrical surface of the current transfer shoe, the transfer shoe being supported on the shaft by means of a split coupling, one portion of the split coupling being removable from engagement with the shoe and shaft to permit movement of the shaft away from the shoe in a direction transverse to the axis of the shoe, the arrangement being such that removal of the said bearing cap and the said one portion of the split coupling will permit removal of the current roll and shaft from the shoe while the shoe remains substantially in its original position with respect to the brushes and said frame and brushes remain in alignment with said bearing.

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2,773,248

**WIRING DEVICE**

Clarence M. Smith, Trumbull, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a corporation of Connecticut

Application May 5, 1954, Serial No. 427,733
11 Claims. (Cl. 339—164)



1. A wiring device comprising a hollow casing of insulating material having a terminal located in fixed relationship therein, said terminal having a plurality of resilient staggered jaws each of which is spaced a different distance from a movable jaw so that each staggered jaw forms a spaced pair of jaws in conjunction with said movable jaw, each of said pair of jaws being spaced to receive a known size inserted conductor therebetween, means whereby a conductor may be inserted between any one of said pairs of jaws from the exterior of said casing, and an opening in said casing adjacent said movable jaw so that said movable jaw is accessible to be moved and thereby release said inserted conductor from said one pair of jaws.

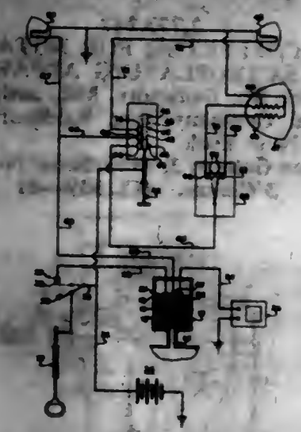
2,773,249

**REMINDER TO DISCONNECT VEHICLE LIGHTS OR TO SET THE HAND BRAKE**

Ernest R. De Sanlis, Glenolden, Pa.

Application January 31, 1955, Serial No. 485,110

1 Claim. (Cl. 340—52)



A device for indicating to the operator of a motor vehicle having headlights and a parking brake, that the parking brake is in its off position, or that the headlights are energized even though the motor of said vehicle is turned off, said device including a casing, a conducting plate movably mounted in said casing, means normally biasing said plate to a first position within said casing, means connecting said casing to the suction manifold of the motor whereby said plate is moved to a second position within said casing when the motor is operating, a first, a second and a third terminal, all of said terminals being fixed in a common plane within said casing and arranged for simultaneous contact with said plate when said plate is in said first position, an electrically operated signal, a first conductor connecting said first terminal to said signal, a first circuit for energizing said headlights, a first switch included in said first circuit, a second conductor connecting said second terminal to said first circuit through said first switch, a second circuit including a second switch, means connecting said second circuit to said parking brake in such a manner that said second switch is opened when the parking brake is in its on position and closed when said brake is in its off position, a conductor connecting said third terminal to one side of said second switch, and means connecting either of said circuits to the electric system of the vehicle subject to the control of either of said switches.

2,773,250

**DEVICE FOR STORING INFORMATION**

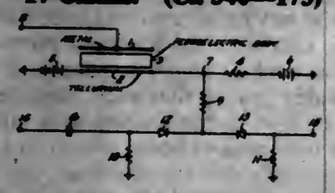
Pierre Raoul Roger Aigrain and Georges Benoit Antoine Liandrat, Paris, France, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of New York

Continuation of abandoned application Serial No. 426,173, April 28, 1954. This application May 5, 1955, Serial No. 526,927

Claims priority, application France May 13, 1953

(Filed under Rule 47(b) and 35 U. S. C. 118)

17 Claims. (Cl. 340—173)



1. An information storing device characterized in this that said device comprises a condenser having a first electrode of metal, a second electrode of a thin layer of a semi-conductor containing impurities of the p type, and a dielectric body of a ferro-electric material between said electrodes, means for applying electric potentials to said first electrode, and means for detecting variations in the electrical characteristics of said second electrode which take place in response to potentials applied to said first electrode.

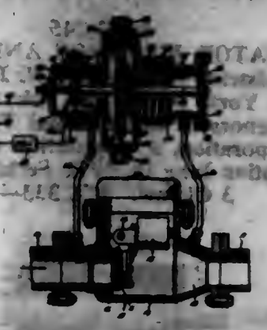
2,773,251

**BACKFLOW PREVENTION AND ALARM DEVICE**

Leonard L. Snyder, Los Angeles, Calif., assignor to Backflow Engineering & Equipment Co., a copartnership

Application November 24, 1952, Serial No. 322,327

5 Claims. (Cl. 340—242)



1. In a device for use with a check valve connecting a supply conduit to a consumers conduit, the check valve having a movable closure establishing a pressure drop from the supply conduit to the consumers conduit under conditions of normal flow therethrough and establishing a certain value of pressure differential at cessation of flow, the combination of: a differential pressure switch having a diaphragm interposed between two chambers, relatively movable electrical contact elements connected for operation by said diaphragm, piping connecting one of the said chambers to reflect pressure in the supply conduit and connecting the other of the chambers to reflect pressure in the consumers conduit, whereby the contacts are closed whenever the pressure in the consumers conduit approaches the pressure in the supply conduit within the range between zero p. s. i. differential and said certain value of pressure differential established by the movable closure at cessation of flow, and an electrical circuit having an alarm device in series with said contact elements.

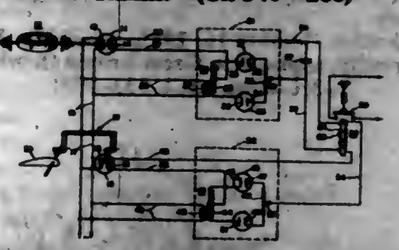
2,773,252

**AUTOMATIC PILOT MONITOR**

Paul A. Noxon, Teaneck, and John C. Owen, Palisades Park, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application October 21, 1949, Serial No. 122,791

7 Claims. (Cl. 340—268)



1. A safety system for an aircraft automatic pilot, the latter being adapted for operating a movable craft surface, comprising measuring means responsive to craft displacement from a prescribed position about an axis thereof for developing a signal corresponding in amount and direction to the amount and direction of craft displacement from the prescribed position, a second measuring means separate and distinct from the automatic pilot responsive to surface movement by said automatic pilot as a result of automatic pilot operation for developing a signal corresponding in amount and direction to the amount and direction of surface movement by said automatic pilot, and monitor means connected for operation by said signals for monitoring the operation of said automatic pilot.



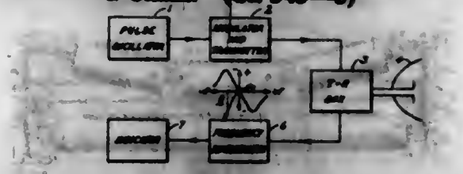
2,773,253

**METHOD OF DETECTING DISCONTINUITIES IN THE REFLECTIVE PROPERTIES OF SURFACES**

David E. Sunstein, Cynwyd, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application August 24, 1946, Serial No. 692,851

1 Claim. (Cl. 343—5)



In a radar system comprising a transmitter of high frequency energy, a receiver of reflections of said transmitted energy from target objects and an indicator for indicating the relative intensities of said reflections, the method of enhancing the indications produced by said indicator in response to reflections of said transmitted energy from target objects at which substantial discontinuities in reflective properties obtain, which comprises: transmitting signals comprising a band of frequency components, said band being of sufficient width to cause transmitted signals reflected from a target region at which a discontinuity in reflective properties in excess of a predetermined minimum obtains to undergo a momentary shift in frequency in excess of a predetermined shift in frequency undergone by signals reflected from targets moving radially with respect to said transmitter at a predetermined maximum velocity, reflecting said transmitted signals from target regions at which said discontinuities in reflective properties obtain thereby to produce shifts in the frequency of the reflected signals in excess of the shift in frequency undergone by said signals in response to reflection from targets moving radially with respect to said transmitter at said predetermined minimum velocity, and modifying the intensities of signals received by said receiver differently as a function of their frequencies and so as to enhance the intensities of signals which have been subjected to relatively greater frequency shift by reflection from target regions at which substantial discontinuities in reflective properties obtain relative to the intensities of signals which have been subjected to no appreciable frequency shift or to lesser frequency shift by reflection from targets moving radially with respect to said transmitter.

2,773,254

**PHASE SHIFTER**

Herbert F. Engelmann, Mountain Lakes, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application April 16, 1953, Serial No. 349,118

11 Claims. (Cl. 343—100)



1. An antenna for radiating circularly polarized electromagnetic waves comprising a ground conductor having a planar surface, dielectric material in the form of a disc, and a conductor in the form of a planar helix carried by said disc in substantially parallel relation to the planar surface of said ground conductor.

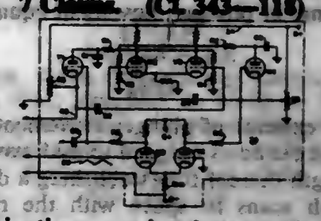
2,773,255

**ELECTRONIC DETECTING AND INDICATING SYSTEM**

Ward M. Meier and Basil M. Lide, Baltimore, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 27, 1950, Serial No. 192,506

7 Claims. (Cl. 343—118)



1. In combination, a pair of space discharge devices each having at least a cathode, an anode and a control electrode, connections from the anode of each tube to the control electrode of the other to provide a bi-stable multivibrator circuits, a pair of pulse-forming gaseous discharge tubes each connected to the control electrode of an associated space discharge device to drive said devices into non-conducting and conducting states respectively, and means under the control of each space discharge device for disabling the non-associated tube when said device is in a conducting state.

5. In combination, a radio detection and indicating system of the type employing a scanning antenna and an oscilloscopic indicator of the plan position type, means for deriving a periodic voltage wave having a different magnitude corresponding to each scan position of said antenna, and means controlled by said voltage wave for periodically brightening a trace of said indicator corresponding to a predetermined point in the excursion of said antenna, said means controlled by said voltage wave comprising a bi-stable multivibrator circuit, pulse forming means responsive to a condition of said voltage wave for triggering said circuit from a first stable condition to another stable condition at a first predetermined point on said voltage wave, and pulse forming means responsive to a different condition of said voltage wave for restoring said circuit to its original condition at a second predetermined point on said voltage wave.

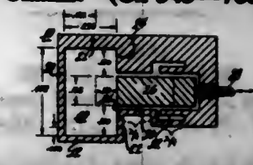
2,773,256

**SCANNER WAVE GUIDE**

John R. Ford, Narberth, Pa., and Richard W. Howery, Haddonfield, N. J., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application November 30, 1950, Serial No. 198,306

6 Claims. (Cl. 343—768)



1. An electromagnetic energy scanning apparatus comprising, a rectangular hollowpipe waveguide having a longitudinal axis and including a waveguide section a plurality of wavelengths long at the operating frequency, said waveguide section having three fixed walls and a fourth wall having a portion thereof adapted to receive a movable metallic plunger, a metallic plunger extending the length of said waveguide section transversely movable through said fourth wall in a direction normal to said axis toward and away from the wall opposite said fourth wall for varying the wave velocity of energy propagated in said waveguide section, said waveguide section having effective dimensions $a_1$ and $b_1$ and energy propagated therethrough having a guide wavelength of $\lambda_{g1}$ when said plunger is at one extreme of said transverse movement, said waveguide section having effective dimensions of $a_2$

and $b_2$ and energy propagated therethrough having a guide wavelength of $\lambda_{g2}$ when said plunger is at the other extreme of said transverse movement,

$$\frac{\lambda_{g2}}{a_2^2 b_2}$$

for one extreme of plunger movement equalling

$$\frac{\lambda_{g2}}{a_2^2 b_2}$$

for the other extreme of plunger movement, and a plurality of antenna elements coupled to said waveguide section along the length thereof for establishing a directive energy pattern which scans in space with the motion of said plunger.

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**2,773,257**

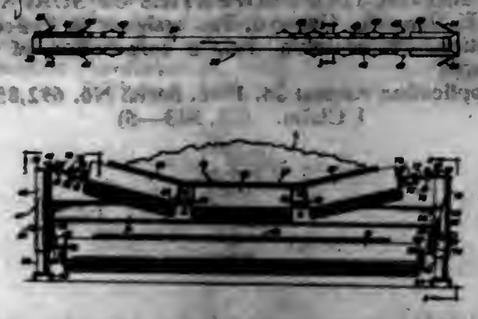
**CONVEYOR HAVING FLEXIBLE STRAND SIDE FRAMES AND TROUGHING ROLLER ASSEMBLY THEREFOR**

Joseph Crapps and Keith McCann, Taylorville, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

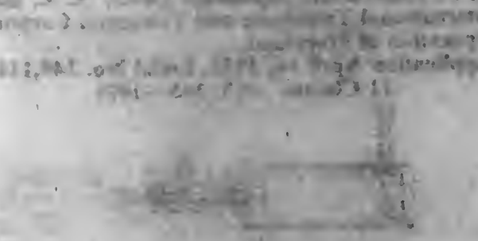
Continuation of application Serial No. 521,355, July 11, 1955. This application July 27, 1956, Serial No. 600,418

40 Claims. (Cl. 198—192)

1. In a belt conveyor having flexible strand means trainable along a course, supporting means for supporting said flexible strand means, an elongated belt carrying anti-friction means adapted to have the load carrying run of a movable belt supported for movement thereacross, said anti-friction means being flexible in a direction transverse to the length thereof, connecting means connecting said anti-friction means to said strand means remote from said supporting means for concurrent flexing movements of the strand means and anti-friction means under loads applied to said anti-friction means; said flexible strand means, flexible anti-friction means, and connecting means cooperating to absorb impact by the cumulative flexing of said flexible anti-friction means and of said flexible strand means remote from said supporting means.



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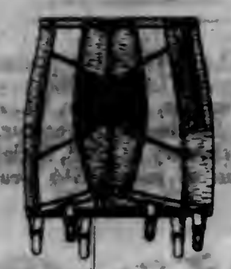
# DESIGNS

## DECEMBER 4, 1956

**179,336**
**GIRDLE**

Anna Y. Bayer, North Haven, Conn., assignor to The Strouse Adler Company, New Haven, Conn., a corporation of Connecticut

Application August 6, 1956, Serial No. 42,528
Term of patent 14 years
(Cl. D26—2)

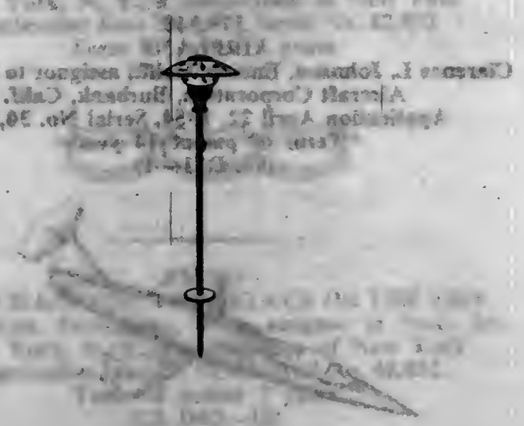


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**179,337**
**GARDEN LAMP**

Thornton H. Brown, Essex, Conn., assignor to Verplex Company, Essex, Conn., a corporation of Connecticut

Application March 14, 1956, Serial No. 40,611
Term of patent 3½ years
(Cl. D48—31)



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**179,338**
**ASH TRAY**

John G. Clarke, Toledo, Ohio, assignor to Owens-Illinois Glass Company, Toledo, Ohio, a corporation of Ohio

Application October 19, 1955, Serial No. 38,455
Term of patent 3½ years
(Cl. D85—2)

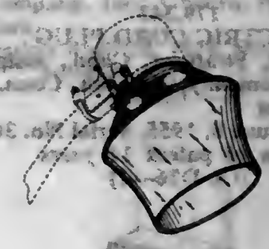


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**179,339**
**LUMINAIRE**

Philip B. Clark, Hales Corners, and Donald W. Harling, Milwaukee, Wis., assignors to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware

Application April 30, 1956, Serial No. 41,247
Term of patent 14 years
(Cl. D48—31)



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**179,340**
**CLOCK**

Dominic J. Delpidio, Belmont, Mass.

Application April 18, 1956, Serial No. 41,117
Term of patent 14 years
(Cl. D42—7)

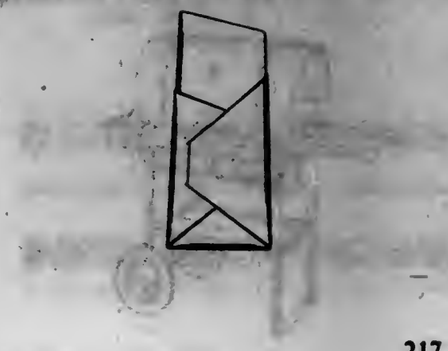


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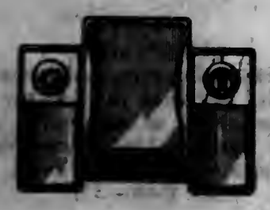
**179,341**
**SPECTACLE CASE**

Robert G. De Weese, Rochester, N. Y., assignor to Sharon Optical Company, Inc., Geneva, N. Y., a corporation of New York

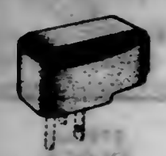
Application May 7, 1956, Serial No. 41,367
Term of patent 14 years
(Cl. D57—1)



179,342
**TELEPHONE TRAY**
Leo Flicht, Skokie, Ill., assignor to M and M Corporation, Skokie, Ill., a corporation of Illinois
Application April 25, 1956, Serial No. 41,198
Term of patent 14 years
(Cl. D26—14)



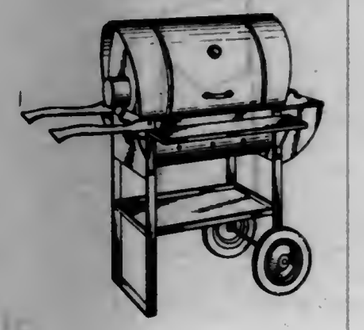
179,343
**ELECTRIC CORD PLUG**
Andrew J. Gesmer, Stratford, Conn., assignor to The Whitney Blake Company, Hamden, Conn., a corporation of Connecticut
Application June 8, 1955, Serial No. 36,426
Term of patent 14 years
(Cl. D26—1)



179,344
**COVER FOR A BOX**
Benjamin Greenstein, Bronx, and Carl Molk, New York, N. Y.
Application September 19, 1955, Serial No. 37,988
Term of patent 7 years
(Cl. D58—11)



179,345
**OUTDOOR STOVE**
Larry S. Henry and George F. Henry, Morton Grove, Ill., assignors to George Henry Company, Morton Grove, Ill., a corporation of Illinois
Application November 29, 1955, Serial No. 39,076
Term of patent 14 years
(Cl. D61—10)



179,346
**KNOB ROSE**
Glen Holland, Villanova, Pa.
Application March 23, 1956, Serial No. 40,759
Term of patent 3½ years
(Cl. D50—6)



179,347
**XYLOPHONE**
Grover C. Jenkins, Decatur, Ill., assignor to G. C. Jenkins Co., Decatur, Ill.
Application February 3, 1955, Serial No. 34,347
Term of patent 3½ years
(Cl. D56—1)



179,348
**AIRPLANE**
Clarence L. Johnson, Encino, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application April 22, 1954, Serial No. 30,122
Term of patent 14 years
(Cl. D71—1)



179,349
**CHRISTMAS ORNAMENT**
Ralph O. Johnson, Bristol, Conn., assignor to Associated Spring Corporation, Bristol, Conn., a corporation of Delaware
Application August 18, 1955, Serial No. 37,558
Term of patent 14 years
(Cl. D29—1)

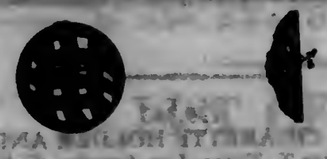




179,350
**SHOE OR SIMILAR ARTICLE**
Felo Joyce, Pasadena, Calif., assignor to Joyce, Inc., Pasadena, Calif., a corporation of California
Application May 5, 1955, Serial No. 35,829
Term of patent 3½ years
(Cl. D7—7)



179,351
**BROOCH OR THE LIKE**
Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 42,021
Term of patent 7 years
(Cl. D45—19)



179,352
**LINK CHAIN FOR A NECKLACE OR THE LIKE**
Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 42,031
Term of patent 7 years
(Cl. D45—16)



179,353
**LINK CHAIN FOR A NECKLACE OR THE LIKE**
Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 42,032
Term of patent 7 years
(Cl. D45—16)



179,354
**LINK CHAIN FOR A BRACELET OR THE LIKE**
Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 42,033
Term of patent 7 years
(Cl. D45—4)



179,355
**LINK CHAIN FOR A NECKLACE OR THE LIKE**
Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 42,035
Term of patent 7 years
(Cl. D45—16)



179,356
**SPECTACLE CASE**
Richard F. Mihalyi, Rochester, N. Y., assignor to Sharon Optical Company, Inc., Geneva, N. Y., a corporation of New York
Application April 16, 1956, Serial No. 41,076
Term of patent 14 years
(Cl. D57—1)



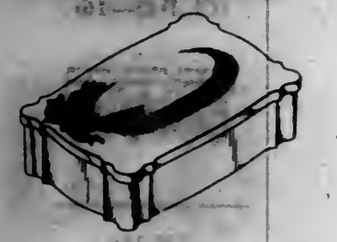
179,357
**FENDER FLAP FOR AUTOMOBILES**
Harold Price, Chicago, Ill.
Application March 3, 1955, Serial No. 34,856
Term of patent 3½ years
(Cl. D14—6)

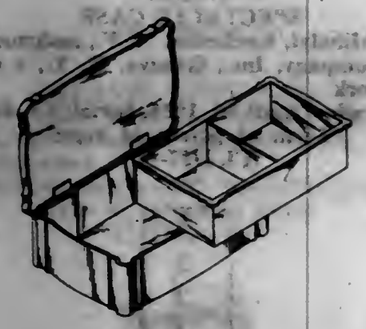


179,358
**EXPANSIBLE WRISTWATCH BRACELET**
John F. Sand, Convent Station, N. J., assignor, by mesne assignments, to The Gemex Corporation, Union, N. J., a corporation of New Jersey
Application August 2, 1954, Serial No. 31,714
Term of patent 14 years
(Cl. D45—4)



179,359
**PLASTIC CIGARETTE BOX**
John Schwarz, Glendale, Calif.
Application July 2, 1956, Serial No. 42,123
Term of patent 14 years
(Cl. D85—2)

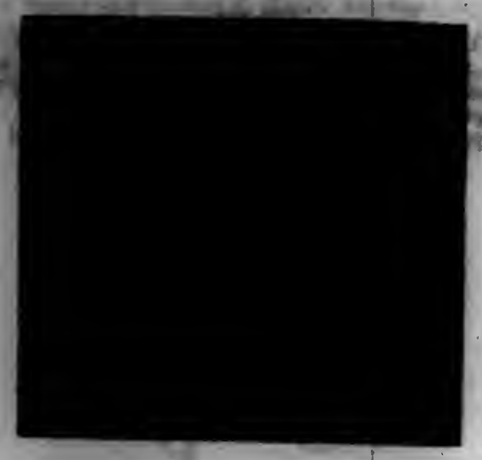




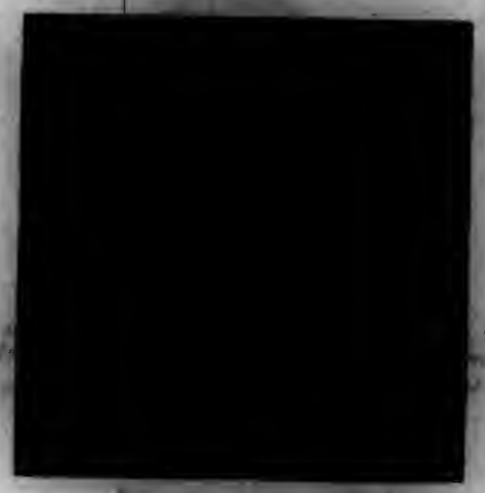
179,360
**COMBINED DISPLAY STAND AND PICTURE PROJECTOR**
James W. Small, Chicago, Ill.
Application October 10, 1955, Serial No. 38,316
Term of patent 3½ years
(Cl. D60—9)



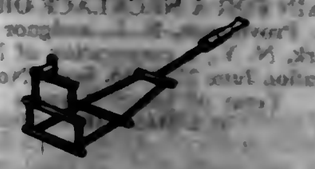
179,361
**TEXTILE**
Leslie Tillett, New York, N. Y., assignor to Golding Bros. Company, Inc., New York, N. Y., a corporation
Application August 31, 1956, Serial No. 42,801
Term of patent 3½ years
(Cl. D92—1)



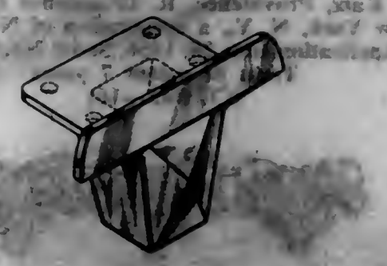
179,362
**TEXTILE**
Leslie Tillett, New York, N. Y., assignor to Golding Bros. Company, Inc., New York, N. Y., a corporation
Application August 31, 1956, Serial No. 42,802
Term of patent 3½ years
(Cl. D92—1)



179,363
**COMBINED CIGARETTE HOLDER AND FILTER**
Booker T. Tyree, Los Angeles, Calif.
Application May 21, 1956, Serial No. 41,572
Term of patent 14 years
(Cl. D85—8)



179,364
**SUPPORT FOR FURNITURE**
Forest Wilson, Chicago, Ill.
Application August 1, 1955, Serial No. 37,258
Term of patent 3½ years
(Cl. D33—1)



179,365
**TELEPHONE DIALER OR THE LIKE**
Cecil B. Woofter, Minneapolis, Minn., assignor to U. O. Colson Company, Paris, Ill., a corporation of Delaware
Application May 17, 1956, Serial No. 41,526
Term of patent 14 years
(Cl. D26—14)



# LIST OF REISSUE PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 4TH DAY OF DECEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Ager, Dres. Roof gutter. Re. 24,245, 12–4–56, Cl. 108—28.
Bodner, Hyman: *See*—
Kaplan, Yale, and Ross. Re. 24,251.
Creo-Dipt Co., Inc.: *See*—
Fink, Carl J., and Heintz. Re. 24,246.
Driver-Harris Co.: *See*—
Lohr, James M. Re. 24,242.
Lohr, James M. Re. 24,243.
Lohr, James M. Re. 24,244.
Fink, Carl J., and C. E. Heintz, to Creo-Dipt Co., Inc. Multiple shingle structure. Re. 24,246, 12–4–56, Cl. 106—6.
Gehrig, Walter. Combined weights and assembly members. Re. 24,247, 12–4–56, Cl. 42—43.1.
General Motors Corp.: *See*—
Hansen, Kai H. Re. 24,248.
Hansen, Kai H., to General Motors Corp. Independent vehicle wheel suspensions. Re. 24,248, 12–4–56, Cl. 267—8.
Heintz, Charles E.: *See*—
Fink, Carl J., and Heintz. Re. 24,246.
Hogue, Ephraim W. Hydraulic motors. Re. 24,252, 12–4–56, Cl. 121—56.
Johnson, Milton M. Railway journal box stabilizer. Re. 24,249, 12–4–56, Cl. 308—40.
Kaplan, Yale, and H. M. Ross, ½ to H. Bodner. Dispensing containers for liquids. Re. 24,251, 12–4–56, Cl. 222—107.
Lohr, James M., to Driver-Harris Co. Alloys and electrical resistance elements. Re. 24,242, 12–4–56, Cl. 75—171.
Lohr, James M., to Driver-Harris Co. Alloys and electrical resistance elements. Re. 24,243, 12–4–56, Cl. 75—124.
Lohr, James M., to Driver-Harris Co. Alloys and electrical resistance elements. Re. 24,244, 12–4–56, Cl. 75—171.
Ross, Harold M.: *See*—
Kaplan, Yale, and Ross. Re. 24,251.
Waldschmidt, Henry. Electrician's fish tape reel. Re. 24,250, 12–4–56, Cl. 254—134.3.

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Conard-Pyle Co., The: *See*—
De Ruiter, Gerrit. 1,533.
De Ruiter, Gerrit, to The Conard-Pyle Co. Rose plant. 1,533, 12–4–56, Cl. 47—61.
Mahan, Fred A. Pecan tree and nut. 1,532, 12–4–56, Cl. 47—62.

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Associated Spring Corp.: *See*—
Johnson, Ralph O. 179,349.
Bayer, Anna Y., to The Stroude Adler Co. Girdle. 179,336, 12–4–56, Cl. D20—2.
Brown, Thornton H., to Verplex Co. Garden lamp. 179,337, 12–4–56, Cl. D48—31.
Clarke, John G., to Owens-Illinois Glass Co. Ash tray. 179,338, 12–4–56, Cl. D85—2.
Clark, Philip B., and D. W. Harling, to McGraw Electric Co. Luminaire. 179,339, 12–4–56, Cl. D48—31.
Colson, U. O., Co.: *See*—
Woofter, Cecil B. 179,365.
Coro, Inc.: *See*—
Katz, Adolph. 179,351–179,355.
Delpidio, Dominic J. Clock. 179,340, 12–4–56, Cl. D42—7.
De Weese, Robert G., to Sharon Optical Co., Inc. Spectacle case. 179,341, 12–4–56, Cl. D57—1.
Flight, Lee, to M and M Corp. Telephone tray. 179,342, 12–4–56, Cl. D26—14.
Gemex Corp., The: *See*—
Sand, John F. 179,358.
Golding Bros. Co., Inc.: *See*—
Tillett, Leslie. 179,361.
Tillett, Leslie. 179,362.
Gombar, Andrew J., to The Whitney Blake Co. Electric cord plug. 179,343, 12–4–56, Cl. D26—1.
Greenstein, Benjamin, and C. Molk. Cover for a box. 179,344, 12–4–56, Cl. D52—11.
Harling, Donald W.: *See*—
Clark, Philip B., and Harling. 179,339.
Henry, George, Co.: *See*—
Henry, Larry S. and G. F. 179,345.
Henry, George F.: *See*—
Henry, Larry S. and G. F. 179,345.
Henry, Larry S. and G. F., to George Henry Co. Outdoor stove. 179,345, 12–4–56, Cl. D61—10.
Holland, Glen. Knob rose. 179,346, 12–4–56, Cl. D50—6.
Jenkins, G. C., Co.: *See*—
Jenkins, Grover C. 179,347.
Jenkins, Grover C., to G. C. Jenkins Co. Xylophone. 179,347, 12–4–56, Cl. D56—1.
Johnson, Clarence L., to Lockheed Aircraft Corp. Airplane. 179,348, 12–4–56, Cl. D71—1.
Johnson, Ralph O., to Associated Spring Corp. Christmas ornament. 179,349, 12–4–56, Cl. D29—1.
Joyce, Pale, to Joyce, Inc. Shoe or similar article. 179,350, 12–4–56, Cl. D7—7.
Joyce, Inc.: *See*—
Joyce, Pale. 179,350.
Katz, Adolph, to Coro, Inc. Brooch or the like. 179,351, 12–4–56, Cl. D45—19.
Katz, Adolph, to Coro, Inc. Link chain for a necklace or the like. 179,352, 12–4–56, Cl. D45—16.
Katz, Adolph, to Coro, Inc. Link chain for a necklace or the like. 179,353, 12–4–56, Cl. D45—16.
Katz, Adolph, to Coro, Inc. Link chain for a bracelet or the like. 179,354, 12–4–56, Cl. D45—4.
Katz, Adolph, to Coro, Inc. Link chain for a necklace or the like. 179,355, 12–4–56, Cl. D45—16.
Lockheed Aircraft Corp.: *See*—
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M and M Corp.: *See*—
Flight, Lee. 179,342.
McGraw Electric Co.: *See*—
Clark, Philip B., and Harling. 179,339.
Mihalyi, Richard F., to Sharon Optical Co., Inc. Spectacle case. 179,356, 12–4–56, Cl. D57—1.
Molk, Carl: *See*—
Greenstein, Benjamin, and Molk. 179,344.
Owens-Illinois Glass Co.: *See*—
Clarke, John G. 179,338.
Price, Harold. Fender flap for automobiles. 179,357, 12–4–56, Cl. D14—6.
Sand, John F., to The Gemex Corp. Expansible wristwatch bracelet. 179,358, 12–4–56, Cl. D48—4.
Schwarz, John. Plastic cigarette box. 179,359, 12–4–56, Cl. D85—2.
Sharon Optical Co., Inc.: *See*—
De Weese, Robert G. 179,341.
Mihalyi, Richard F. 179,356.
Small, James W. Combined display stand and picture projector. 179,360, 12–4–56, Cl. D60—9.
Stroude Adler Co., The: *See*—
Bayer, Anna Y. 179,336.
Tillett, Leslie, to Golding Bros. Co., Inc. Textile. 179,361, 12–4–56, Cl. D92—1.
Tillett, Leslie, to Golding Bros. Co., Inc. Textile. 179,362, 12–4–56, Cl. D92—1.
Tyree, Booker T. Combined cigarette holder and filter. 179,363, 12–4–56, Cl. D85—8.
Verplex Co.: *See*—
Brown, Thornton H. 179,337.
Whitney Blake Co., The: *See*—
Gombar, Andrew J. 179,343.
Wilson, Forest. Support for furniture. 179,364, 12–4–56, Cl. D33—1.
Woofter, Cecil B., to U. O. Colson Co. Telephone dialer or the like. 179,365, 12–4–56, Cl. D26—14.





Baker, Stephen C. Ignition element. 2,772,141, 12–4–56.
Binding, Kenneth W., to L. M. Beckwith. Automobile top

# LIST OF PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 4TH DAY OF DECEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AB Svenska Flaktfabriken: *See*—
Johanson, Erik. 2,772,486.

Adriansen, John R., and J. J. Cochran; said Adriansen assor. to Cutler-Hammer, Inc., and said Cochran assor. to Harris-Seybold Co. Safety control circuit for electric motor driven machinery. 2,773,231, 12–4–56, Cl. 318—443.

Aerojet-General Corp.: *See*—
Petas, Erik. 2,772,706.

Aigrain, Pierre R. R., and G. B. A. Liandrat, to International Standard Electric Corp. Device for storing information. 2,773,250, 12–4–56, Cl. 340—173.

Aircraft-Marine Products, Inc.: *See*—
Neijstrom, Kenneth L., Peterson, and Evans. 2,772,715.

Air Force, United States of America as represented by the Secretary of the: *See*—
Ford, John R., and Howery. 2,773,256
Seeler, Henry W. K. 2,772,898.

Air Products, Inc.: *See*—
Shanley, James J. 2,772,545.

Aitchison, Robert B., and J. J. Calaman, to Union Carbide and Carbon Corp. Blasting of rock bodies. 2,772,632, 12–4–56, Cl. 102—23.

Aktiebolaget Elektrolux: *See*—
Dentgen, Ragnar E. 2,772,541.

Albert, Harry E., and R. W. Kibler, to The Firestone Tire & Rubber Co. Alkali splitting of secondary and tertiary formamides. 2,773,097, 12–4–56, Cl. 260—563.

Alco Products, Inc.: *See*—
Nichols, William M. 2,772,933.

Allegheny Ludlum Steel Corp.: *See*—
Easton, Rufus, and Wilson. 2,772,455.
Kiefer, George C., and Ferree. 2,772,992.

Allenby, William F.: *See*—
Forstrom, Edward E., and Allenby. 2,773,139.

Allewelt, Arthur L., to American Viscose Corp. Process for the acetylation of regenerated cellulose fibers and product resulting therefrom. 2,772,944, 12–4–56, Cl. 8—121.

Allied Chemical & Dye Corp.: *See*—
Helfaer, Bertram M. 2,772,984.
Helfaer, Bertram M. 2,778,056.

Alsen, Frederick A. Shoe shine service sets. 2,772,437, 12–4–56, Cl. 15—265.

Alstrom, Albert L., to Globe-Union Inc. Breaker point mechanism. 2,773,113, 12–4–56, Cl. 123—146.5.

American Bosch Arma Corp.: *See*—
Nystrom, Carl H., Bach, and Huse. 2,772,668.

American Brake Shoe Co.: *See*—
Murtaugh, Joseph P. 2,772,492.

American Chrome Co.: *See*—
Thomsen, Alfred M. 2,772,957.

American Cyanamid Co.: *See*—
Bernstein, Seymour, and Lenhard. 2,773,058.
Bernstein, Seymour, and Lenhard. 2,773,060.
Daniel, John H., Jr., and Moore. 2,772,966.
Padbury, John J., Daniel, and Moore. 2,772,967.
Reynolds, Walter F., Jr., and Lundberg. 2,772,969.
Stewart, Hugh W. 2,772,450.
Stewart, Hugh W. 2,773,100.

American Hospital Supply Corp.: *See*—
McConnell, John N., and Borin. 2,772,704.

American Instrument Co., Inc.: *See*—
Boos, Hugh N. 2,772,584.

American-Marietta Co.: *See*—
Sussenbach, Paul S. 2,772,903.

American Steel Foundries: *See*—
McGuire, Bernard J. 2,772,876.

American Viscose Corp.: *See*—
Allewelt, Arthur L. 2,772,944.

Amico, Gaetano V., to the United States of America as represented by the Secretary of the Navy. Instrument illuminator. 2,772,651, 12–4–56, Cl. 116—129.

Amonia Casale Societa Anonima, Massagno: *See*—
Jéquier, Léon. 2,772,954.

Anderson, Edward L., and R. J. Hlinsky, to Goodman Mfg. Co. Rotary boring head having radially adjustable cutting arms. 2,772,870, 12–4–56, Cl. 262—7.

Anderson, John L., to E. I. du Pont de Nemours and Co. Fluorinated olefinic nitriles. 2,773,089, 12–4–56, Cl. 260—465.7.

Anderson, Ralph F. Mold filling machine. 2,772,705, 12–4–56, Cl. 141—167.

Andreola, John. Plastic tube with spreader. 2,772,432, 12–4–56, Cl. 15—128.

Andresen, Hilmar A.: *See*—
Williamson, Donald G., Snover, and H. A and R. H. Andresen. 2,772,653.
Williamson, Donald G., Snover, and H. A and R. H. Andresen. 2,772,655.

Andresen, Raymond H.: *See*—
Williamson, Donald G., Snover, and H. A. and R. H. Andresen. 2,772,653.
Williamson, Donald G., Snover, and H. A. and R. H. Andresen. 2,772,655.

Andrews, Edward F., to General Motors Corp. Signal tuned radio apparatus. 2,773,193, 12–4–56, Cl. 250—40.

Anemostat Corp. of America: *See*—
Phillips, Leonard E., and Waeldner. 2,772,623.

Ansel, Harry R., to Wm. J. Stange Co. Spice substance and method of preparing same. 2,772,977, 12–4–56, Cl. 99—140.

Anson, Robert F. Ball holder. 2,772,883, 12–4–56, Cl. 273—26.

Anxionnaz, René, ½ to Societe Rateau (Societe Anonyme). Vibration damping means for bladings of turbo-machines. 2,772,854, 12–4–56, Cl. 253—77.

Applegate, Robert E. Means for handling electrical equipment and the like. 2,772,440, 12–4–56, Cl. 16—114.

Arbaugh, Richard J. Commode seat heating pad. 2,773,167, 12–4–56, Cl. 219—46.

Arbeit, Pierre, and A. Mathey, to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Method and apparatus for manufacturing glass. 2,773,111, 12–4–56, Cl. 13—6.

Armco Steel Corp.: *See*—
Todd, George H., and Barnes. 2,772,960.

Armer, Cyril: *See*—
Kent, Nelson H., and Armer. 2,772,856.

Armour and Co.: *See*—
Lesparre, Jean N., and Filipowicz. 2,772,980.

Armstrong Cork Co.: *See*—
Feigley, David A., Jr. 2,772,970.

Armstrong, Edwin H., deceased; E. M. Armstrong, executrix. Multiplex frequency modulation transmitter. 2,773,125, 12–4–56, Cl. 178—15.

Armstrong, Esther M.: *See*—
Armstrong, Edwin H. 2,773,125.

Armstrong, Werner E., to Fairbanks, Morse & Co. Engine pull starter. 2,772,669, 12–4–56, Cl. 123—185.

Arndt, Raymond W. Batch drying bin. 2,772,487, 12–4–56, Cl. 34—174.

Arneson, Edwin L., to Federal Paper Board Co., Inc. Method of making article carrier. 2,772,610, 12–4–56, Cl. 93—49.

Arneson, Edwin L., to Federal Paper Board Co., Inc. Article carrier. 2,772,610, 12–4–56, Cl. 220—111.

Arnold Dryer Co.: *See*—
Lindl, Gordon J. 2,772,642.

Arnoldi, Walter E., to United Aircraft Corp. Aircraft air conditioning system. 2,772,621, 12–4–56, Cl. 98—1.5.

Aron, Mitchell, to Radio Receptor Co., Inc. Light sensitive relay circuit. 2,773,219, 12–4–56, Cl. 317—124.

Aron, Mitchell, to Radio Receptor Co., Inc. Light sensitive relay circuit. 2,773,220, 12–4–56, Cl. 317—130.

Art Metal Construction Co.: *See*—
Skar, John G. L. 2,772,646.

Asbury, Donald C.: *See*—
Holser, Theodore H., and Asbury. 2,772,848.

Ashton, William H.: *See*—
Masci, Joseph N., Ashton, and Wiland. 2,773,000.

Askania-Werke, A. G.: *See*—
Wünsch, Guido, and Ziegler. 2,772,637.

Aspergren, Brooks D.: *See*—
Heinselman, Richard V., and Aspergren. 2,773 069.

Asti, Theodore. Milking machine timing device. 2,772,889, 12–4–56, Cl. 137—103.

Atwood, George E., to International Minerals & Chemical Corp. Treatment of sylvinite ore. 2,772,775, 12–4–56, Cl. 209—11.

Atwood, Joseph G.: *See*—
Clark, Philip R., and Atwood. 2,773,173.

Augenstein, Henry: *See*—
Pflueger, Walter, and Augenstein. 2,772,682.

Automatic Electric Laboratories, Inc.: *See*—
Coleman, Ivan V. 2,773,127.
Lomax, Clarence E. 2,773,126.

Avoset Co.: *See*—
Poarch, Arthur E., and Harrison. 2,772,819.

Axe, William N.: *See*—
Whitney, William B., and Axe. 2,773,038.

Babcock & Wilcox Co., The: *See*—
Hardgrove, Ralph M. 2,772,845.

Babee-Tonda License Corp.: *See*—
Puls, Alfred E., and Heag. 2,772,684.

Bach, Edward M.: *See*—
Nystrom, Carl H., Bach, and Huse. 2,772,668.

Bach, Guido: *See*—
Niklas, Paul A., Steiger, and Bach. 2,772,552.

Backflow Engineering & Equipment Co.: *See*—
Snyder, Leonard L. 2,773,251.

Bailey, Roy W., J. T. Faull, and R. Gill, to Detroit Power Screwdriver Co. Device for inserting headed members in apertured members. 2,772,426, 12–4–56, Cl. 10—155.

Baker, Griffin J.: *See*—
Boyd, Loyd Q., and Baker. 2,772,922.

Baker, Robert M., to Westinghouse Electric Corp. Combination control system for continuous heat treatment. 2,773,161, 12–4–56, Cl. 219—10.77.





Baker, Stephen C. Ignition element. 2,773,141, 12–4–56, Cl. 200—31.

Balab: *See*—
Larsen, Rudolph H., and Lam. 2,773,041.

Baldwin-Lima-Hamilton Corp.: *See*—
Ruge, Arthur C. 2,772,568.

Ballmer, James R.: *See*—
May, Claude H., Ballmer, and Trainer. 2,772,756.

Ballou, B. A., & Co. Inc.: *See*—
Ballou, Frederick A., Jr. 2,772,472.

Ballou, Frederick A., Jr., to B. A. Ballou & Co. Inc. Attachment of pin stem finding to an ornament. 2,772,472, 12–4–56, Cl. 29—160.6.

Bargen, William J. Desk or table top support frame. 2,772,936, 12–4–56, Cl. 311—105.

Barnes, Hugh C.: *See*—
Todd, George H., and Barnes. 2,772,960.

Barocca, Aldo J., to Olin Mathieson Chemical Corp. Electric blasting cap. 2,772,625, 12–4–56, Cl. 102—28.

Barr, Frank R., J. W. Brown, H. E. W. Burnside, and C. E. Jahnig, to Esso Research and Engineering Co. Integrated refining of crude oil. 2,772,017, 12–4–56, Cl. 196—52.

Barrows, Robert C. to Westinghouse Electric Corp. Flexible drive. 2,772,846, 12–4–56, Cl. 64—1.

Barthel, Julius A. Attachment for welding machines. 2,773,170, 12–4–56, Cl. 219—121.

Bartleson, John D., and M. L. Christoph, to The Standard Oil Co. Lubricant compositions and treatment. 2,773,033, 12–4–56, Cl. 252—32.7.

Bartleson, John D., to The Standard Oil Co. Treatment of lubricants with potassium hydroxide and products. 2,773,034, 12–4–56, Cl. 252—32.7.

Bauder, Josef: *See*—
Whiteney, Herbert, Bauder, and Stabenau. 2,772,878.

Bayer, Otto: *See*—
Schmidt, Fritz, and Bayer. 2,773,083.

Beaudet, Simeon C. Fire extinguisher. 2,772,744, 12–4–56, Cl. 169—31.

Beaunit Mills, Inc.: *See*—
Haas, Sidney V., Jr. 2,772,551.

Beckwith, Leo M.: *See*—
Binding, Kenneth W. 2,772,824.
Binding, Kenneth W. 2,772,825.

Beech, Austin S., to Foundry Equipment Ltd. Foundry moulding apparatus. 2,772,452, 12–4–56, Cl. 22—36.

Begrs, Donald, and M. E. Johnson, to Erie Mining Co. Indurating process. 2,772,958, 12–4–56, Cl. 75—5.

Behnke, George W., and R. G. Westcott, to Simplicity Engineering Co. Shaker conveying apparatus. 2,772,709, 12–4–56, Cl. 198—220.

Bell Aircraft Corp.: *See*—
Esmond, Stanley W. 2,772,906.

Bell Machine Co., The: *See*—
Foster, Theodore D. 2,772,709.

Bell Telephone Laboratories, Inc.: *See*—
Laico, Joseph P. 2,772,939.

Bellim & Morcom Ltd.: *See*—
Muckley, Henry H. 2,772,932.

Bello, Frank P.: *See*—
Pasquariello, James. 2,772,803.

Bemis Bro. Bag Co.: *See*—
Hopkins, Frank L. 2,772,847.
Scruggs, Thomas M. 2,772,669.

Benckiser, Joh. A., G. m. b. H. Chemische Fabrik: *See*—
Rudy, Herman. 2,772,966.

Bendix Aviation Corp.: *See*—
Miles, George S. 2,772,498.
Noxon, Paul A., and Owen. 2,773,252.

Benedek, Edward N., and W. G. Pfouts. Gang plows. 2,772,619, 12–4–56, Cl. 97—93.

Bennett, Robert R.: *See*—
Fulton, Albert S., and Bennett. 2,773,185.

Bennett, Sedgwick R., and A. Mertz, to Sylvania Electric Products Inc. Method and apparatus for filling flashbulbs. 2,772,703, 12–4–56, Cl. 141—1.

Benson, Custer R.: *See*—
Jones, John H., and Benson. 2,772,586.

Bergdall, Norman E.: *See*—
Zerante, James A., and Bergdall. 2,772,504.

Berger Brothers Co., The: *See*—
Champagne, Emory C. 2,772,417.
Versoy, Irving R., and Moller. 2,772,686.

Berger, Hans: *See*—
Gund, Konrad, Berger, and von Sanden. 2,773,183.

Bergmann, Ernst E., to Goodman Mfg. Co. Shaker conveyors. 2,772,770, 12–4–56, Cl. 198—220.

Berkowics, Josedne, and R. Turcsan. Clamping strap for blankets. 2,772,460, 12–4–56, Cl. 24—72.5.

Bernstein, Seymour, and R. H. Lenhard, to American Cyanamid Co. Δ4-pregnenes. 2,773,058, 12–4–56, Cl. 260—239.55.

Bernstein Seymour, and R. H. Lenhard, to American Cyanamid Co. Δ4-pregnenes. 2,773,060, 12–4–56, Cl. 260—397.45.

Berry, Frank. Multiple hydraulic compressor in a refrigeration system. 2,772 543, 12–4–56, Cl. 62—116.

Bertele, Ludwig J. Wide angle photographic objective comprising three air spaced components. 2,772,601, 12–4–56, Cl. 88—57.

Best, Fredric L., ½ to Best Products Ltd. Coffee percolator. 2,773 166, 12–4–56, Cl. 219—44.

Best Products Ltd.: *See*—
Best, Fredric L. 2 773,166.

Biedermann, Paul R. G. Piston for reciprocating pumps. 2,772,931, 12–4–56, Cl. 309—4.

Binding, Kenneth W., to L. M. Beckwith. Automobile top carrier for elongate articles. 2,772,824, 12–4–56, Cl. 224—42.1.

Binding, Kenneth W., to L. M. Beckwith. Automobile top carrier for luggage. 2,772,825, 12–4–56, Cl. 224—42.1.

Bird, George W. T., to Pilkington Brothers Ltd. Methods of and apparatus for vertically drawing glass in sheet form. 2,772,516, 12–4–56, Cl. 49—17.

Bischoff, Herbert: *See*—
Nowak, James E., and Bischoff. 2,772,671.

Bishop, John W., to Tidewater Oil Co. Concentrates useful as additives in mineral oil compositions and mineral oil compositions containing same. 2,773,037, 12–4–56, Cl. 252—46.6.

Bishop Publishing Co.: *See*—
Bishop, Robert B. 2,772,494.

Bishop, Robert B., to Bishop Publishing Co. Display device. 2,772,494, 12–4–56, Cl. 40—125.

Bjertz, Thomas E.: *See*—
Petroff, Merlin O., and Bjorn. 2,773,235.

Blake, Minden V. Instructional device for use in connection with ball games. 2,772,887, 12–4–56, Cl. 273—186.

Blaw-Knox Co.: *See*—
Fox, Oscar M. 2,772,695.
Ornitz, Nathaniel B. 2,772,872.

Blish, Matthew B. Dispensing applicator and container therefor. 2,772,431, 12–4–56, Cl. 15—186.

Blok, Lourens, G. Starre, G. Zwanenburg, and J. W. de Ruiter, to Hartford National Bank and Trust Co., as trustee. Stabilised oscillator. 2,773,192, 12–4–56, Cl. 250—36.

Board, Francis S.: *See*—
Bolleau, Arthur H., Rayman, and Board. 2,772,693.

Bock, James A.: *See*—
Saugey, John F., Bock, and Wolf. 2,773,014.
Wolf, Joseph E., Wagner, and Bock. 2,773,013.

Boden, Robert H., and J. E. Witherspoon, to North American Aviation, Inc. Mass flowmeter. 2,772,567, 12–4–56, Cl. 73—231.

Bodkin, Ernest A.: *See*—
Penick, Joe E., and Bodkin. 2,773,012.

Boeing Airplane Co.: *See*—
Campbell, Robert L., and Rea. 2 773,160.
Christensen, Orland M. 2,773,162.
Sekijima, Mikuo, and Utterstrom. 2,773,180.

Bogue Electric Mfg. Co.: *See*—
Herbst, John A., and Dornhoefer. 2,773,232.

Böhm, Kurt: *See*—
Brune, Heinrich W., Hädrich, and Böhm. 2,772,701.

Böhme Fettchemie G. m. b. H.: *See*—
Plapper, Jürgen, and Heyden. 2,772,968.

Bolleau, Arthur H., C. J. Rayman, and F. S. Board, to Cherry-Burrell Corp. Double acting valve. 2,772,693, 12–4–56, Cl. 137—512.3.

Bolinders Fabriks Aktiebolag: *See*—
Leuning, Alvar. 2,772,544.

Bolstad, Luther L.: *See*—
Forno, Jerome L., Le Gault, Bolstad, and Sinning. 2,773,048.

Bond, Donald C., and O. C. Holbrook, to The Pure Oil Co. Fracturing oil and gas producing formations. 2,772,737, 12–4–56, Cl. 166—22.

Bond, Donald C., to The Pure Oil Co. Logging shales. 2,772,951, 12–4–56, Cl. 23—230.

Bonnin, Fred D. Vehicle spring and end connection arrangement. 2,772,891, 12–4–56, Cl. 280—124.

Bonsteel, Donald H., to North American Aviation, Inc. Aircraft trim control. 2,772,841, 12–4–56, Cl. 244—83.

Booth, Harry T., to United Aircraft Products, Inc. Sealing construction. 2,772,807, 12–4–56, Cl. 220—46.

Booth, Jack J. Dispensing valve and operating means for beverage vending machines. 2,772,812, 12–4–56, Cl. 222—70.

Bordoni, Ferdinando. Helicopter with dual coaxial variable pitch rotors. 2,772,745, 12–4–56, Cl. 170—135.24.

Borin, Harlan F.: *See*—
McConnell, John N., and Borin. 2,772,704.

Bosché, Walwin J., Jr.: *See*—
Bray Herschel V., and Bosché. 2,772,609.

Bostitch, Inc.: *See*—
Jenny, Robert W. 2,772,415.

Bowen, Tom. Clockwork controlled electric switch mechanism. 2,773,142, 12–4–56, Cl. 200—38.

Bowes, Urban E. Feeder for sheets of glass and similar thermoplastic materials. 2,772,517, 12–4–56, Cl. 49—17.

Boyajean, John A., to Fairchild Camera and Instrument Corp. Heatable engraving stylus assembly. 2,773,163, 12–4–56, Cl. 219—29.

Boyce Thompson Institute for Plant Research, Inc.: *See*—
Prill, Edward A. 2,773,062.

Boyd, Loyd Q., and G. J. Baker, to Standard Oil Co. Spraying device. 2,772,922, 12–4–56, Cl. 299—95.

Boyd, Walter A., Jr., to Bryant Chucking Grinder Co. Air gaging mechanism for centerless grinders. 2,772,519, 12–4–56, Cl. 51—48.

Boyd, Walter A., Jr., to Bryant Chucking Grinder Co. Centerless grinding machine. 2,772,526, 12–4–56, Cl. 51—236.

Braak, Dirk J., L. F. Liera, and C. Romeijn, to Hartford National Bank and Trust Co. Radio communication system. 2,773,176, 12–4–56, Cl. 250—6.

Brabender, Carl W., to Pillsbury Mills, Inc. Apparatus for controlling flowable solid materials. 2,772,874, 12–4–56, Cl. 265—29.

Bradley and Co. Ltd.: *See*—
Hood, Robert T. 2,772,493.

Brady, Joseph L., to Clark Equipment Co. Load stabilizer for lift trucks. 2,772,800, 12–4–56, Cl. 214—654.

Brakel, Arie, and N. Healey, to Shell Development Co. Method of temporarily closing portion of well and composition therefor. 2,772,739, 12–4–56, Cl. 166—22.

Brandt, Carl T., to Phillips Petroleum Co. Apparatus for control of roof location in the formation of underground caverns by solution mining. 2,772,868, 12–4–56, Cl. 262—3.

Brandt, Edgar W., to Societe Anonyme Belge de Mecanique et D'Armement. Rifle grenade. 2,772,635, 12-4-56, Cl. 102—65.2.

Bray, Herschel V., and W. J. Beech6, Jr., to Highland Box Co. Box machine. 2,772,609, 12-4-56, Cl. 93—36.

Brenholts, Howard F., to Drilo Corp. Power hand tool attachment. 2,772,589, 12-4-56, Cl. 81—52.4.

Breanan, Joseph B. Apparatus for casting. 2,772,464, 12-4-56, Cl. 22—57.3.

Bresse, Fred, Jr.: *See*—
Larsen, Rudolph H., and Lam. 2,773,041.

Bridinger, Leon J. Boat loader. 2,772,799, 12-4-56, Cl. 214—450.

Bright, Richard L., to Westinghouse Electric Corp. Magnetic amplifier. 2,773,132, 12-4-56, Cl. 179—171.

Britain, J W, to General Aniline & Film Corp. Stabilized color developers. 2,772,973, 12-4-56, Cl. 96—55.

British Glues and Chemicals Ltd.: *See*—
Chayen, Israel H. 2,773,062.

Brizzolara, Alfred A.: *See*—
Grimm, Godfrey, and Brizzolara. 2,772,983.

Brock, Peter E., A. v. d. Luft, and W. F. Schmauss, to E. I. du Pont de Nemours & Co. Pneumatic cycle timer. 2,772,686, 12-4-56, Cl. 137—102.

Brock & Rankin, Inc.: *See*—
Rankin, Edward C. 2,772,427.

Brodie, Edna S., to J. P. Stevens & Co., Inc. Bed coverings. 2,772,425, 12-4-56, Cl. 5—334.

Brodsky, Frank. Filling and capping apparatus for containers of liquids. 2,772,531, 12-4-56, Cl. 53—283.

Broma, Allan. Method of setting the elements of an optical system and projector and copying camera for performing the same. 2,772,589, 12-4-56, Cl. 88—24.

Brook, Frank, to The General Electric Co. Ltd. Sealed sapphire wave guide window. 2,773,246, 12-4-56, Cl. 333—98.

Brooks, E. J., Co.: *See*—
Moberg, Sigurd M. 2,772,909.

Brooks, Hamilton, to Westinghouse Electric Corp. Capacitor. 2,773,226, 12-4-56, Cl. 317—242.

Brown, Arling D., Jr., I. P. Echeagaray, M. Gross, and L. F. Valenti, to Clevite Corp. Small bore adapter for surface roughness indicator. 2,772,565, 12-4-56, Cl. 73—105.

Brown, Kenneth M., and J. E. Gantt, to Universal Oil Products Co. Waste water treatment. 2,773,003, 12-4-56, Cl. 196—1.

Brown, Leo C., and D. R. Merker, to Swift & Co. Prevention of hydrogenation odor. 2,773,061, 12-4-56, Cl. 260—409.

Browning, Frank M., and W. B. Leighton, to Union Carbide and Carbon Corp. Adsorber apparatus. 2,772,747, 12-4-56, Cl. 183—4.5.

Brunda, Nicholas A. Economy toothbrush. 2,772,433, 12-4-56, Cl. 15—176.

Brune, Heinrich W., H. Hildrich, and K. Böhm. Process and apparatus for the manufacture of wire netting. 2,772,701, 12-4-56, Cl. 140—112.

Brunsman, Robert P.: *See*—
Preston, Carl G. 2,772,447.

Brusdal, Olaf: *See*—
Nerad, Anthony J., Johnson, and Brusdal. 2,772,749.

Brusewitz, Reinhard C. Bale loader. 2,772,793, 12-4-56, Cl. 214—42.

Bryant Chucking Grinder Co.: *See*—
Boyd, Walter A., Jr. 2,772,519.
Boyd, Walter A., Jr. 2,772,526.
Cargill, Jeffrey M., and Taft. 2,772,464.
Grobey, Paul A. 2,772,481.

Bryant Electric Co., The: *See*—
Forstrom, Edward E., and Allenby. 2,773,139.
Smith, Clarence M. 2,773,248.

Buck, Allen C., to E. I. du Pont de Nemours and Co. Method of finishing wood and product thereof. 2,772,986, 12-4-56, Cl. 117—72.

Buckeye Steel Castings Co., The: *See*—
Wolfe, Harry H. 2,772,791.

Budslen, Hugo F., to Fairbanks, Morse & Co. Engine fuel system. 2,772,865, 12-4-56, Cl. 261—23.

Budslen, Hugo F., to Fairbanks, Morse & Co. Flywheel magneto. 2,773,207, 12-4-56, Cl. 310—153.

Bühring, Kurt: *See*—
Grebe, Otto, Driller, and Bühring. 2,773,112.

Bunny Bear Inc.: *See*—
Linden, Samuel. 2,772,423.

Burns, William E.: *See*—
Swenson, James A., Burns, and Ste l. 2,772,681.

Burnside, Harvey E. W.: *See*—
Derr, Frank T., Brown, Burnside, and Jahnig. 2,772,017.

Burrows, Lawton A., and W. E. Jordan, to E. I. du Pont de Nemours & Co. Composition comprising a polyhalogenated ethylene polymer and viscose and process of shaping the same. 2,772,444, 12-4-56, Cl. 18—47.5.

Burtner, Robert R., to G. D. Searle & Co. Fluoranthenoxocarboxylic acids and the production thereof. 2,772,091, 12-4-56, Cl. 260—515.

Busbin, Lawrence W. Cigar and cigarette lighter. 2,773,164, 12-4-56, Cl. 219—32.

Bush, Everett M. Pulley block and base. 2,772,857, 12-4-56, Cl. 254—195.

Bush, Rankin J., to Westinghouse Air Brake Co. Air compressor. 2,772,828, 12-4-56, Cl. 230—46.

Buxton, Inc.: *See*—
Morrell, Clyde E. 2,772,559.

Bye, Paul C. Hand dispenser for dry fluent material. 2,772,815, 12-4-56, Cl. 222—185.

Byrnes, John J. Magnetic stopper. 2,772,804, 12-4-56, Cl. 220—24.

Bystricky, Joseph C., to Stewart-Warner Corp. Coalescing fitting. 2,772,750, 12-4-56, Cl. 183—75.

Caine, Kenneth E., to Goodman Mfg. Co. Safety roof control apparatus for continuous miner. 2,772,871, 12-4-56, Cl. 262—34.

Calaman, Joseph J.: *See*—
Aitchison, Robert B., and Calaman. 2,772,632.

Caldwell, John R., and R. Gilkey, to Eastman Kodak Co. Water vapor permeable compositions and articles containing a polyacrylic ester and polyvinyl alcohol. 2,773,050, 12-4-56, Cl. 260—45.5.

Callingaert, George, to Ethyl Corp. Enhancement of gamma benzene hexachloride content. 2,773,103, 12-4-56, Cl. 260—648.

Calkins Mfg. Co., The: *See*—
Smith, Fred T. 2,772,615.

Callaway Mills Co.: *See*—
Parker, Samuel P. 2,772,687.

Campbell, John F. Roller die cutter. 2,772,736, 12-4-56, Cl. 164—226.

Campbell, Robert L., and S. E. Rea, to Boeing Airplane Co. Window anti-icing device. 2,773,160, 12-4-56, Cl. 219—10.73.

Campbell, Rodney E., to Wm. R. Whittaker Co., Ltd. Sealing device. 2,772,900, 12-4-56, Cl. 286—36.

Cantrell, Troy L., and J. G. Peters, to Gulf Oil Corp. Rust inhibiting lubricating oil compositions. 2,773,032, 12-4-56, Cl. 252—32.5.

Cargill, Jeffrey M., and H. M. Taft, to Bryant Chucking Grinder Co. Squareness-of-face gage. 2,772,484, 12-4-56, Cl. 33—180.

Carley, David R., and W. E. Foster, to Ethyl Corp. Dimerization process. 2,773,092, 12-4-56, Cl. 260—653.

Carnes, W. E., Co.: *See*—
Carnes, Wilbur E. F. 2,772,624.

Carnes, Wilbur E. F., to W. E. Carnes Co. Diffusor. 2,772,624, 12-4-56, Cl. 98—40.

Carrara, Gino, to Lepetit S. p. A. Cycloalkanonecarboxylic acid isonicotinylhydrazones and their salts. 2,773,065, 12-4-56, Cl. 260—295.

Carroll, Ellsworth W., to S & W Fine Foods, Inc. Fruit halving devices. 2,772,711, 12-4-56, Cl. 146—73.

Carroll, James L. Coil winding machine. 2,772,837, 12-4-56, Cl. 242—9.

Carter, George E. Mobile toilet. 2,772,420, 12-4-56, Cl. 4—11.

Carver, Harold E., and G. R. Lake, to Union Oil Co. of California. Separation of hydrocarbons. 2,773,006, 12-4-56, Cl. 196—14.25.

Cassidy, Robert J., to General Motors Corp. Fluorescent lamp system. 2,773,217, 12-4-56, Cl. 315—188.

Cederquist, Karl N., to Stora Kopparbergs Bergslags Aktiebolag. Removal of dissolved or dispersed organic material from aqueous solutions and suspensions. 2,773,026, 12-4-56, Cl. 210—2.

Chace, Thomas B., to The Dole Valve Co. Fluid mixing device. 2,772,833, 12-4-56, Cl. 236—12.

Champagne, Emory C., to The Berger Brothers Co. Girdle or like garment. 2,772,417, 12-4-56, Cl. 2—37.

Chatten, John B., to Philco Corp. Luminance correction apparatus for color television systems. 2,773,116, 12-4-56, Cl. 178—5.2.

Chauvin, David M., to Westinghouse Electric Corp. Relay actuating circuit. 2,773,222, 12-4-56, Cl. 317—149.

Chayen, Israel H., to British Glues and Chemicals Ltd. Treatment of raw materials containing fatty materials. 2,773,062, 12-4-56, Cl. 260—412.

Cherry-Burrell Corp.: *See*—
Bolleau, Arthur H., Rayman, and Beard. 2,772,693.

Chicago Mill and Lumber Co.: *See*—
Ware, Richard N., Jr. 2,772,737.

Christensen, Orland M., to Boeing Airplane Co. Anti-icing of windows by dielectric heating. 2,773,162, 12-4-56, Cl. 219—10.81.

Christman, John M. Apparatus for manufacturing spiral bevel and hypoid gears. 2,772,602, 12-4-56, Cl. 90—1.4.

Christoph, Margaret L.: *See*—
Bartleson, John D., and Christoph. 2,773,033.

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Clapp, Richard G., and L. W. Hershinger, to Philco Corp. Cathode ray tube beam intensity control. 2,773,117, 12-4-56, Cl. 178—5.4.

Clark Equipment Co.: *See*—
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Clark, John A., Jr., to Olin Mathieson Chemical Corp. Exhaust device. 2,772,625, 12-4-56, Cl. 98—115.

Clark, Philip B., and J. G. Atwood, to McGraw Electric Co. Light projector. 2,773,173, 12-4-56, Cl. 240—1.2.

Clarke, John T., and H. J. Cragg, to Ethyl Corp. Treatment of benzene hexachloride. 2,773,102, 12-4-56, Cl. 260—648.

Clary Corp.: *See*—
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Cleckner, Howard R. Aerator. 2,772,867, 12-4-56, Cl. 261—77.

Clevite Corp.: *See*—
Brown, Arling D., Jr., Echeagaray, Gross, and Valenti. 2,772,565.

Cochran, James J.: *See*—
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Cohen, Lester S., A. P. Giraitis, and J. R. Zietz, Jr., to Ethyl Corp. Copolymers of propenylbenzene 2,773,052, 12-4-56, Cl. 260—88.1.

Colaiaco, August P., to Westinghouse Electric Corp. Large sealed ignitron tube. 2,773,211, 12-4-56, Cl. 313—19.

Cole, Sidney, and E. Paolillo. Protective closure for decorative ornaments. 2,772,560, 12-4-56, Cl. 41—10.

Coleman, Ivan V., to Automatic Electric Laboratories, Inc. Calling line identification apparatus. 2,773,127, 12-4-56, Cl. 179—16.

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Doncaster, Daniel P. 2,772,868.
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Rahn, Henry W., and Sindlinger. 2,772,950.

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Lasater, John A., and Deakins. 2,772,456.

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Grauer, Oscar H. 2,772,897.

Conant, Ronald E. Supports for lanterns and the like. 2,772,845, 12-4-56, Cl. 248—150.

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Connors, William M., and T. Stortzmato, to National Dairy Research Laboratories, Inc. Purification of lactase enzyme and spray-drying with sucrose. 2,773,002, 12-4-56, Cl. 195—63.

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Cook, Edward D. Timing indicator tape. 2,772,650, 12-4-56, Cl. 116—124.

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Corcoran, Lyle S. Shell loading press. 2,772,629, 12-4-56, Cl. 100—283.

Cote, Arthur J. Window construction. 2,772,448, 12-4-56, Cl. 20—42.

Cotter, George L., to Westinghouse Air Brake Co. Air compressing apparatus. 2,772,830, 12-4-56, Cl. 230—206.

Cotter, George L., to Westinghouse Air Brake Co. Air compressor. 2,772,831, 12-4-56, Cl. 230—211.

Covington, Robert A., Jr., and V. H. Waldin, to E. I. du Pont de Nemours and Co. Coupling. 2,772,548, 12-4-56, Cl. 64—2.

Cowee, Merle, to Pittsburgh Plate Glass Co. Salicylic acid ester as color inhibitor for polyester-monomer resins. 2,773,049, 12-4-56, Cl. 260—45.4.

Coyne, William R., to Pillsbury Mills, Inc. Method and apparatus for producing doughnut dough formations having scalloped inner and outer peripheral surfaces. 2,772,643, 12-4-56, Cl. 107—14.

Crabtree, J. A., & Co., Ltd.: *See*—
Wintle, Thomas D. G. 2,773,150.

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Cragos, Joseph, and K. McCann, to Goodman Mfg. Co. Conveyor having flexible strand side frames and troughing roller assembly therefor. 2,773,257, 12-4-56, Cl. 198—192.

Craig, Burnie J. Vehicle door latch. 2,772,908, 12-4-56, Cl. 292—280.

Cramer, George L., A. Raffensberger, and E. R. Strine, to Side-O-Matic Unloader Corp. Material hoisting and handling mechanism for vehicle. 2,772,794, 12-4-56, Cl. 214—75.

Cramer, George L., A. Raffensberger, and E. R. Strine, to Side-O-Matic Unloader Corp. Self-loading vehicle hoist. 2,772,795, 12-4-56, Cl. 214—75.

Crawford, James V., R. A. Fischer, and D. B. Le May, to The Garrett Corp. Inflation aspirator. 2,772,829, 12-4-56, Cl. 230—95.

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Dailey, Hampton J., deceased, by R. M. Dailey, executrix, to Westinghouse Electric Corp. Radiator for electron discharge device. 2,772,841, 12-4-56, Cl. 257—263.

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Daimler-Benz Aktiengesellschaft: *See*—
Nallinger, Friedrich K. H. 2,772,667.
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Daniel, John H., Jr., and S. T. Moore, to American Cyanamid Co. Cationic resin sizes. 2,772,966, 12-4-56, Cl. 92—3.

Daniels, Raymond R., to Panel-Lok Corp. Demountable metal outdoor advertising sign structure with a minimum of securing devices. 2,772,495, 12-4-56, Cl. 40—125.

Danulat, Friedrich, P. Schmalfeld, and P. Rudolph, to Metallgesellschaft Aktiengesellschaft. Method of operating pebble-type heat-carriers. 2,772,873, 12-4-56, Cl. 263—52.

Darby, Vene L., to North American Aviation, Inc. Control surface seal. 2,772,842, 12-4-56, Cl. 244—90.

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Yates, De Witt R. 2,772,626.

Dauben, Joseph: *See*—
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Davis, Melvin C. Oil well tubing head. 2,772,849, 12-4-56, Cl. 251—194.

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Lasater, John A., and Deakins. 2,772,456.

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Harrington, Roy E. 2,772,550.

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Delbel, Raymond, to Trico Products Corp. Windshield wiper blade. 2,772,436, 12-4-56, Cl. 15—245.

Delamer & Williams Co., Ltd.: *See*—
Williams, Victor G. 2,772,530.

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Dempster, John S. 2,772,911.
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Dempster, John S., to Dempster Brothers, Inc. Enclosed containers. 2,772,911, 12-4-56, Cl. 294—89.

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Dennett, John, to Pilkington Brothers Ltd. Manufacture of hollow blocks of glass. 2,772,515, 12-4-56, Cl. 49—1.

Denyer, George. Spraying devices for powder. 2,772,816, 12-4-56, Cl. 222—189.

De Persia, John L. Automatic boat bailers. 2,772,648, 12-4-56, Cl. 114—185.

De Ruiter, Jacob W.: *See*—
Blok, Lourens, Starre, Zwanenburg, and de Ruiter. 2,773,192.

De Ruiter, Jacob W., to Hartford National Bank and Trust Co., as trustee. High-frequency heating system. 2,773,100, 12-4-56, Cl. 250—36.

De Santis, Ernest R. Reminder to disconnect vehicle lights or to set the hand brake. 2,773,249, 12-4-56, Cl. 340—52.

Despard, Victor R., to Pass & Seymour Inc. Mounting for wall and switch boxes. 2,773,115, 12-4-56, Cl. 174—58.

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Dettmer, Philip B.: *See*—
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Deutgen, Ragnar E., to Aktiebolaget Elektrolux. Hinged closure member for low temperature cooling compartments. 2,772,541, 12-4-56, Cl. 62—103.

Dewas, Raymond. Shuttleless weaving looms. 2,773,697, 12-4-56, Cl. 139—35.

Diaz, Juan. Vacuum debris collector and incinerator. 2,772,438, 12-4-56, Cl. 15—314.

Djerassi, Carl: *See*—
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Djerassi, Carl, and G. Rosenkranz, to Syntex S. A. Process for the production of allopregnane-3β,11β,17α,20β,21-pentols. 2,773,074, 12-4-56, Cl. 260—397.5.

Djerassi, Carl, and G. Rosenkranz, to Syntex S. A. Cyclopentanophenanthrene derivatives and method for preparation thereof. 2,773,079, 12-4-56, Cl. 260—397.45.

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Doble, Warren, to Jabsco Pump Co. Impeller pump. 2,772,637, 12-4-56, Cl. 103—117.

Dodds, Wellesley J., to Radio Corp. of America. Electron beam tubes. 2,773,212, 12-4-56, Cl. 315—3.6.

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Cyphers, James F., and Doherty. 2,772,784.

Dole Valve Co., The: *See*—
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Dome, Robert B., to General Electric Co. Video from sync signal separator. 2,773,122, 12-4-56, Cl. 178—7.3.

Doncaster, Daniel P., to Columbia Broadcasting System, Inc. Manufacture of stereophonic phonograph records. 2,772,888, 12-4-56, Cl. 274—46.

Doolittle, Charles, to Westinghouse Air Brake Co. Brake control apparatus. 2,772,904, 12-4-56, Cl. 291—2.

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Doross, Adolph S., and T. W. Snow, to United Shoe Machinery Corp. Apparatus for assembling workpieces. 2,772,416, 12-4-56, Cl. 1—102.

Dougherty, Patrick F., to Sun Oil Co. Detection of leaks in hydrocarbon storage systems. 2,772,564, 12-4-56, Cl. 73—40.5.

Davies, Anthony. Eye for hook and eye. 2,772,464, 12-4-56, Cl. 24—227.

Downs, Maurice E. Proportional dividers. 2,772,482, 12-4-56, Cl. 33—150.

Doyle, Irving W., to Fairchild Camera and Instrument Corp. Apparent-velocity responsive system. 2,772,479, 12-4-56, Cl. 33—40.5.

Doyle, Orville K. Auxiliary control handle for shovels. 2,772,910, 12-4-56, Cl. 294—58.

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Drilo Corp.: *See*—
Brenholts, Howard F. 2,772,589.

Duinker, Simon, to Hartford National Bank and Trust Co., as trustee. Trigger circuit of the magnetic or dielectric type. 2,773,198, 12-4-56, Cl. 307—88.

Dunn, James H., and P. E. Weimer, to Ethyl Corp. Vinyl resin plasticized with a polyhalophenyl phosphate. 2,773,046, 12–4–56, Cl. 260—30.6.

Dunnet, Wallace J., to Westinghouse Electric Corp. Magnetic amplifiers. 2,773,133, 12–4–56, Cl. 179—171.

Dunnet, Wallace J., to Westinghouse Electric Corp. Magnetic amplifiers. 2,773,134, 12–4–56, Cl. 179—171.

Dunning, Herbert N., and A. P. Lien, to Standard Oil Co. Regeneration of hydrogen sulfide absorbent and manufacture of sulfur. 2,772,945, 12–4–56, Cl. 23—3.

Du Pont, E. I., de Nemours and Co.: *See*—
Anderson, John L. 2,773,089.
Brock, Peter R., Luft, and Schmauss. 2,772,688.
Buck, Allen C. 2,772,986.
Burrows, Lawton A., and Jordan. 2,772,444.
Covington, Robert A., Jr., and Waldin. 2,772,548.
Grimm, Godfrey, and Brizzolara. 2,772,983.
Hiller, Lejaren A., Jr. 2,772,943.
Kerwin, Bernard J., and Wach. 2,772,732.
Leibu, Henry J. 2,773,000.
Monet, Gilbert P. 2,773,028.
Pestell, Raymond H. 2,772,773.
Powers, William R. 2,773,027.
Wilson, Joseph D. C., II. 2,772,995.

Du Shane, Wallace H., and V. L. Rugen, to Deere Mfg. Co. Transmission and control therefor. 2,772,652, 12–4–56, Cl. 74—337.5.

Dusing and Hunt, Inc.: *See*—
Dusing, Leon F. 2,772,905.

Dusing, Leon F., to Dusing and Hunt, Inc. Door latch mechanism. 2,772,905, 12–4–56, Cl. 292—36.

Dutro, Claude O. Cylinder block ridge grinder. 2,772,529, 12–4–56, Cl. 51—245.

Dygert, Justin C., to Shell Development Co. Protecting walls against erosion by solid particles. 2,772,925, 12–4–56, Cl. 302—64.

Earhart, Harold W., B. W. Thomas, and M. T. Waddell, to Esso Research and Engineering Co. Controlled hypochlorite sweetening process. 2,773,009, 12–4–56, Cl. 196—29.

Earle, Edwin L., to International Telephone and Telegraph Corp. Flat-bank crossbar switch. 2,773,129, 12–4–56, Cl. 179—27.54.

Eastman, John R., to Sterling Electric Motors, Inc. Motor end bell structure. 2,772,929, 12–4–56, Cl. 308—236.

Eastman Kodak Co.: *See*—
Caldwell, John R., and Gilkey. 2,773,050.
Straley, James M., and Wallace. 2 773 054.

Easton, Rufus, and T. Y. Wilson, to Allegheny Ludlum Steel Corp. Metal pouring apparatus for continuous casting. 2,772 485, 12–4–56, Cl. 22—79.

Eaton Mfg. Co.: *See*—
Findley, Howard J. 2,773,206.
Gamundi, Reynold F., and Pipes. 2,772,762.

Eaton, Nelson C. Flow control gate. 2,772,850, 12–4–56, Cl. 251—306.

Echeagaray, Ignacio P.: *See*—
Brown, Arling D., Jr., Echeagaray, Gross, and Valenti. 2,772,565.

Edmonds, Theodore, to Sylvania Electric Products Inc. Animated display device. 2,773,216, 12–4–56, Cl. 315—169.

Edwards Co., Inc.: *See*—
Verkuil, Leo L. 2,773,153.

Edwards, Jack E., to M. L. Mayfield. Well packer. 2,772,740, 12–4–56, Cl. 166—129.

Eggleston, Lester A., to Esso Research and Engineering Co. Fire foam applicator. 2,772 743, 12–4–56, Cl. 169—4.

Electrol Laboratory & Sales Co.: *See*—
Myers, Thomas E. 2,773,158.

Ellett, Alec S. J.: *See*—
Zoguilin, Igor V., Okulitch, Volkoff, Okulitch, and Ellett. 2,773 206.

Ellsworth, Walter E.: *See*—
Mevrick, Harold A., and Ellsworth. 2 772,496.

Elze, Harry C. Metal sawing table. 2,772,628, 12–4–56, Cl. 51—240.

Eislager, Edward F., F. W. Short, and M. J. Sullivan, to Parke, Davis & Co. 7-substituted amino-beta [e] acridines and salts thereof. 2,773,064, 12–4–56, Cl. 260—279.

Emery, Richard L., to Keyes Fibre Co. Reduction of edge flashing on molded pulp articles. 2,772,608, 12–4–56, Cl. 92—56.

Emley, Philip W., to Cutler-Hammer, Inc. Method of and means for starting part winding motors. 2,773,230, 12–4–56, Cl. 318—226.

Engelmann, Herbert F.: *See*—
Goldstein, Ladislas, and Engelmann. 2,773 243.

Engelmann, Herbert F., to International Telephone and Telegraph Corp. Phase shifter. 2,773,254, 12–4–56, Cl. 343—100.

Englert, Robert D., and L. M. Richards, to Tallow Research, Inc. Oxidation of fatty acids. 2,773,094, 12–4–56, Cl. 260—537.

Englert, Robert D., and L. M. Richards, to Tallow Research, Inc. Production of dibasic acids. 2,773,095, 12–4–56, Cl. 260—537.

Fraut, Harold K. Food service tray. 2,772,934, 12–4–56, Cl. 311—21.

Erhardt, John E., Jr., to Crown Cork & Seal Co., Inc. Current collector for rotary shaft of electroplating apparatus. 2,773,247, 12–4–56, Cl. 339—5.

Erie Mining Co.: *See*—
Beggs, Donald, and Johnson. 2,772,958.

Esmond, Stanley W., to Bell Aircraft Corp. Lock fastener. 2,772,906, 12–4–56, Cl. 292—212.

Esso Research and Engineering Co.: *See*—
Barr, Frank T., Brown, Burnside, and Jahnig. 2,772,017.
Earhart, Harold W., Thomas, and Waddell. 2,773,009.
Eggleston, Lester A. 2,772,743.
Grundig, Henry. 2,772,805.
Hamner, Glen P. 2,773,106.
Jones, Clifton H., and Foust. 2,772,664.
Leary, Robert F. 2,773,061.
Ludi, William C., and Loeser. 2,772,783.
Meyer, Herbert W. H., and Wadley. 2,773,005.
Tausch, Gilbert H. 2,772,738.
Waddell, Mathis T. 2,773,019.
Yoder, Richard J. 2,773,015.

Ethyl Corp.: *See*—
Calingaert, George. 2,773,103.
Carley, David R., and Foster. 2,773,092.
Clarke, John T., and Cragg. 2,773,102.
Cohen, Lester S., Giraitis, and Zietz. 2,773,052.
Dunn, James H., and Weimer. 2,773,046.
Kolka, Alfred J. 2,773,105.
Ligett, Waldo B. 2,773,104.

Evans, Seth, to Hughes Tool Co. Threaded oil well drill stem connection with the threads having included crest angle of 90 degrees. 2,772,899, 12–4–56, Cl. 285—333.

Evans, William R.: *See*—
Neijstrom, Kenneth L., Peterson, and Evans. 2,772,715.

Fairbanks, Morse & Co.: *See*—
Armstrong, Werner E. 2,772,669.
Budsien, Hugo F. 2,773 955.
Budsien, Hugo F. 2,773,207.

Fairchild Camera and Instrument Corp.: *See*—
Boyajean, John A. 2,773,163.
Doyle, Irving W. 2,772,479.
Hotine, William. 2,772,598.

Farbenfabriken Bayer Aktiengesellschaft: *See*—
Schmidt, Fritz, and Bayer. 2,773,083.

Farnam, Roy A. Coupler for crank shaft grinder. 2,772,527, 12–4–56, Cl. 51—237.

Farnier, Andre. Device for obtaining liquid tightness of an enclosed space. 2,772,566, 12–4–56, Cl. 73—229.

Fast, Theodore M.: *See*—
Jacobs, Henry S., and Fast, 2,773,204.

Faull, John T.: *See*—
Bailey, Roy W., Faull, and Gill. 2,772,426.

Fauser, Giacomo, to Montecatini, societa generale per l'Industria Mineraria e Chimica. Process for the production of hydrogen and carbon monoxide from liquid fuels (heavy mineral oils). 2,772,955, 12–4–56, Cl. 48—215.

Faust, John A.: *See*—
Sahyun, Melville, Faust, and Julea. 2,773,096.

Federal Paper Board Co., Inc.: *See*—
Arneson, Edwin L. 2,772,610.
Arneson, Edwin L. 2,772,810.

Feick, Daniel E., W. G. Gibbs, and R. E. Howell, to United States Steel Corp. Sheet piling mechanisms. 2,772,612, 12–4–56, Cl. 93—93.

Feigley, David A., Jr., to Armstrong Cork Co. Method of making fibrous sheet material containing a synthetic rubber binder. 2,772,970, 12–4–56, Cl. 92—21.

Feller, Morris: *See*—
Field, Edmund, and Feller. 2,773,059.

Fernandez Andicio, Adolfo. Cylinder lock mechanism. 2,772,557, 12–4–56, Cl. 70—363.

Ferree, Joseph A.: *See*—
Kiefer, George C., and Ferree. 2,773,992.

Ferri, Antonio. Air inlet for supersonic airplane or missile. 2,772,620, 12–4–56, Cl. 98—1.

Ferro Stamping Co.: *See*—
Pickles, Joseph. 2,772,877.

Ferrucci, Tony F. Cardboard frames. 2,772,499, 12–4–56, Cl. 40—154.

Ferry, Chamberlain: *See*—
Roby, Sheldon S., and Ferry. 2,773,148.

Field, Edmund, and M. Feller, to Standard Oil Co. Ethylene polymerization with catalyst of group VA metal oxide and alkaline earth hydride. 2,773,063, 12–4–56, Cl. 260—94.9.

Filipowicz, Chester J.: *See*—
Lesparre, Jean N., and Filipowicz. 2,772,980.

Findley, Howard J., to Eaton Mfg. Co. Power transmitting apparatus. 2,773,205, 12–4–56, Cl. 310—96.

Firestone Tire & Rubber Co., The: *See*—
Albert, Harry E., and Kibler. 2,773,097.

Firth Sterling Inc.: *See*—
Williams, Everard M. 2,773,168.

Fischer, Richard A.: *See*—
Crawford, James V., Fischer, and Le May. 2,772,829.

Fishwood, Bollis W., and N. C. Williams, to Power Brake Equipment Co. Emergency air relay valve. 2,772,926, 12–4–56, Cl. 303—63.

Flexigrip, Inc.: *See*—
Post, Louis. 2,772,712.

Flint, Russell C., to LCN Closers, Inc. Connection for door-checks. 2,772,439, 12–4–56, Cl. 16—49.

Ford, John R., and E. W. Howery, to the United States of America as represented by the Secretary of the Air Force. Scanner wave guide. 2,773,256, 12–4–56, Cl. 343—768.

Formo, Jerome L., L. H. Le Gault, L. L. Bolstad, and A. D. Sinning, to Minneapolis-Honeywell Regulator Co. Epoxy resin composition containing para, para' diamino diphenylmethane. 2,773,048, 12–4–56, Cl. 260—37.

Forstrom, Edward E., and W. F. Allenby, to The Bryant Electric Co. Switch. 2,773,139, 12–4–56, Cl. 200—5.

Foster, Theodore D., to The Bell Machine Co. Automatic mortising and tenoning machine. 2,772,709, 12–4–56, Cl. 144—87.

Foster, Walter E.: *See*—
Carley, David R., and Foster. 2,773,092.

Foundry Equipment Ltd.: *See*—
Beech, Austin S. 2,772,453.





Foust, Charles W.: *See*—
Jones, Clifton H., and Foust. 2,772,664.

Fowler, William H. Drill grinder attachment. 2,772,525, 12–4–56, Cl. 51—219.

Fox, Oscar M., to Blaw-Knox Co. Water cooled furnace structures. 2,772,665, 12–4–56, Cl. 122—498.

Fried, Louis. Hand-openable top for cans. 2,772,808, 12–4–56, Cl. 220—48.

Friedrich, Robert E., to Westinghouse Electric Corp. Circuit interrupter. 2,773,155, 12–4–56, Cl. 200—150.

Friend, Homer C. Apparatus for hydrotherapeutic treatment. 2,772,421, 12–4–56, Cl. 4—178.

Frost, Frank E.: *See*—
Shaw, Harmon L., and Frost. 2,772,697.

Fulton, Albert S., and R. R. Bennett, to Hughes Aircraft Co. Low frequency random-noise generator. 2,773,185, 12–4–56, Cl. 250—36.

Fundom, Doris J.: *See*—
Fundom, Earl H. 2,772,881.

Fundom, Earl H., deceased; D. J. Fundom, executrix. Exercising apparatus. 2,772,681, 12–4–56, Cl. 272—58.

Furey, George B., to Indiana Commercial Filters Corp. Universal magnetic clarifier. 2,772,778, 12–4–56, Cl. 210—1.5.

Futterman, Julius. Amplifier. 2,773,136, 12–4–56, Cl. 179—171.

Gagne, Harvey E.: *See*—
Jeffery, James O. 2,772,579.

Galbreath, Robert H. Simulated bowling game device. 2,772,884, 12–4–56, Cl. 273—127.

Galin, Robert: *See*—
Gaugler, Richard S., and Galin. 2,772,542.

Galves, Francisco, ½ to J. C. Novack. Power hammers. 2,772,858, 12–4–56, Cl. 255—30.

Gamberg, Edward E., and H. C. Ludwig, to Westinghouse Electric Corp. Treated wire for arc welding electrodes. 2,772,999, 12–4–56, Cl. 117—204.

Gamundi, Reynold F., and G. R. Pipes, to Eaton Mfg. Co. Magnetic drive. 2,772,762, 12–4–56, Cl. 192—21.5.

Gantt, James E.: *See*—
Brown, Kenneth M., and Gantt. 2,773,003.

Garber, John W.: *See*—
Garber, William W. and J. W. 2,772,592.

Garber, William W. and J. W. Nut retainer for wrenches. 2,772,592, 12–4–56, Cl. 81—125.

Gardes, Alfred W., to Indiana Commercial Filters Corp. Outlet arrangement for blow-down clarifier. 2,772,786, 12–4–56, Cl. 210—182.

Gardner, Edgar J., P. B. Johnson, and A. F. Stansell, to Clary Corp. Push key lock. 2,772,558, 12–4–56, Cl. 70—387.

Gardner Mfg. Co.: *See*—
Schilling, Paul O., and Mayer. 2,772,661.

Garen, John C.: *See*—
Guernsey, Glen A., Garen, and Green. 2,773,140.

Garrett Corp., The: *See*—
Crawford, James V., Fischer, and Le May. 2,772,829.

Garrett, Elmer E., to E. G. Staude Mfg. Co., Inc. Sheet stacker. 2,772,880, 12–4–56, Cl. 271—74.

Gastright, Frank A., to M. Weintraub. Mail sack carrier cart. 2,772,890, 12–4–56, Cl. 280—40.

Gaugler, Richard S., and R. Galin, to General Motors Corp. Ice tray. 2,772,542, 12–4–56, Cl. 62—105.

Gauthier, Alfred, O. m. b. H.: *See*—
Bentschler, Waldemar T. 2,772,614.

Gebhart, George D. Food-waste reduction devices. 2,772,836, 12–4–56, Cl. 241—46.

Geigy, J. R., A. G.: *See*—
Hindermann, Peter, and Jung. 2,773,055.

Gelb, Herbert, to Joseph Gelb Co. Registering gage. 2,772,485, 12–4–56, Cl. 33—184.5.

Gelb, Joseph, Co.: *See*—
Gelb, Herbert. 2,772,485.

General Aniline & Film Corp.: *See*—
Britain, J W. 2,772,973.
Herrick, Clifford E., Jr., Woitach, and Trojnar. 2,772,972.
Kosalek, Joseph F., and Sulich. 2,772,974.
Sprung, Joseph A., and Schmidt. 2,772,971.

General Dynamics Corp.: *See*—
Howell, Arthur S. 2,772,223.
Kessler, Frank. 2,773,138.

General Electric Co.: *See*—
Dome, Robert R. 2,773,122.
Nerad, Anthony J., Johnson, and Brasdale. 2,772,749.
Vogt, George H. 2,773,210.
Williams, Ernest. 2,773,184.

General Electric Co. Ltd., The: *See*—
Brook, Frank. 2,773,246.
Watkins, Thomas B. 2,773,191.

General Foods Corp.: *See*—
Cyphers, James F., and Doherty. 2,772,784.

General Motors Corp.: *See*—
Andrews, Edward F. 2,773,193.
Cassidy, Robert J. 2,773,217.
Gaugler, Richard S., and Galin. 2,772,542.
Henry, Donald J. 2,772,458.
Landell, Stanford. 2,772,924.
Liliquist, Torsten O. 2,772,227.
Thatcher, Russell S. 2,772,607.
Remington, Warner E. 2,772,656.
Webbere, Fred J. 2,772,457.

Gensheimer, Joseph R., and V. J. Grumbiatt, to Lord Mfg. Co. Motor mounting system. 2,772,640, 12–4–56, Cl. 115—0.5.

George, William L.: *See*—
Masci, Joseph N., and George. 2,772,909.

Gerhold, Clarence G., to Universal Oil Products Co. Process for hydrofining and reforming feed stocks. 2,773,007, 12–4–56, Cl. 196—28.

Germany, Norman V., and S. A. Makovski, to United Shoe Machinery Corp. Spraying apparatus for cement lasting. 2,772,658, 12–4–56, Cl. 118—323.

Gerst, Chris, to The Transmission & Gear Co. Transmission. 2,772,582, 12–4–56, Cl. 74—740.

Gibbs, William G.: *See*—
Feick, Daniel E., Gibbs, and Howell. 2,772,612.

Gierlich, Raymond A., to Continental Machines, Inc. Composite gage block. 2,772,483, 12–4–56, Cl. 33—168.

Gilbert, Ronald A., to D. Napier & Son Ltd. Infinitely variable ratio transmission mechanism. 2,772,575, 12–4–56, Cl. 74—199.

Gilkey, Russell: *See*—
Caldwell, John R., and Gilkey. 2,773,050.

Gill, Everett: *See*—
Bailey, Roy W., Faull, and Gill. 2,772,426.

Gill, Walter L. Laundry or clothes rack. 2,772,788, 12–4–56, Cl. 211—178.

Giraitis, Albert P.: *See*—
Cohen, Lester S., Giraitis, and Zietz. 2,773,052.

Gits, Henricus J.: *See*—
Poldervaart, Leendert, Janssen, and Gits. 2,773,182.

Globe-Union Inc.: *See*—
Alstrom, Albert I. 2,773,113.
Guernsey, Glen A., Garen, and Green. 2,773,140.

Glotzer, Jack. Variable grip and adustable multiple fur slicer. 2,772,476, 12–4–56, Cl. 30—304.

Goldman, Ida. Convertible hard top automobile body. 2,772,917, 12–4–56, Cl. 296—137.

Goldman, Kenneth M.: *See*—
Thomas, Donald E., Goldman, Gordon, and Johnson. 2,772,964.

Goldstein, Ladislas, and H. F. Engelmann, to International Telephone and Telegraph Corp. Wave guide with dual purpose gas discharge device. 2,773,243, 12–4–56, Cl. 333—13.

Goldstein, Ladislas, M. A. Lampert, and J. F. Heney, to International Telephone and Telegraph Corp. Gyrator methods and means. 2,773,245, 12–4–56, Cl. 333—98.

Golze, Richard. Automatic recording device for maneuvering ships. 2,772,940, 12–4–56, Cl. 346—8.

Gonzales, Angel R. Power lifting device applicable to agricultural impements. 2,772,616, 12–4–56, Cl. 97—47.62.

Goodhue, William V., and C. J. Rohland, to Universal Winding Co. Tension-device. 2,772,840, 12–4–56, Cl. 242—128.

Goodman Mfg. Co.: *See*—
Anderson, Edward L., and Hilinsky. 2,772,870.
Bergmann, Ernst R. 2,772,770.
Caine, Kenneth E. 2,772,871.
Craggs, Joseph, and McCann. 2,773,257.
Tracy, Benjamin F. 2,772,869.

Goodrich, B. F., Co., The: *See*—
Vesce, Vincent C. 2,772,982.
Vesce, Vincent C. 2,773,044.

Gordon, Robert B.: *See*—
Thomas, Donald E., Goldman, Gordon, and Johnson. 2,772,964.

Gould Engineering and Sales Co., Inc.: *See*—
Jones, Charles H., Jr. 2,772,586.
Jones, Charles H., Jr. 2,772,670.

Grabbert, Arnulf. Optical photoluminescent indicating device for high frequency therapeutic treatment circuit. 2,772,679, 12–4–56, Cl. 128—421.

Grauer, Oscar H., to the United States of America as represented by the Secretary of Commerce. Precision refractometer. 2,772,597, 12–4–56, Cl. 88—14.

Graves, Roy R., to The Graves-Stambaugh Corp. Method for processing milk products. 2,772,979, 12–4–56, Cl. 99—184.

Graves-Stambaugh Corp., The: *See*—
Graves, Roy R. 2,772,979.

Gray, Byrant Y. Auxiliary generator charging rate control. 2,773,197, 12–4–56, Cl. 290—50.

Gray, Kenneth R., H. L. Crosby, and J. C. Steinberg, to Rayonier Inc. Recovery of chemicals in wood pulp preparation. 2,772,905, 12–4–56, Cl. 92—2.

Grebe, Otto, A. Driller, and K. Bühring, to Licentia Patent-Verwaltungs-G. m. b. H. Arrangement for positioning electrodes of an electric arc furnace. 2,773,112, 12–4–56, Cl. 13—13.

Green, Arthur H.: *See*—
Guernsey, Glen A., Garen, and Green. 2,773,140.

Greenlee, Claude A.: *See*—
Greenlee, Ell M. 2,772,508.

Greenlee, Ell M., deceased; C. A. Greenlee, administrator of the estate of said E. M. Greenlee. Fish-line pullaway sinker. 2,772,508, 12–4–56, Cl. 43—43.15.

Grieg, Donald D., to International Telephone and Telegraph Corp. Microwave switching arrangements. 2,773,242, 12–4–56, Cl. 333—7.

Grieg, Donald D., to International Telephone and Telegraph Corp. Band pass filter. 2,773,244, 12–4–56, Cl. 333—73.

Grimm, Godfrey, and A. A. Brizzolara, to E. I. du Pont de Nemours & Co. Organic pigment production. 2,772,983, 12–4–56, Cl. 106—289.

Grobey, Paul A., to Bryant Chucking Grinder Co. Gage having damped gaging movement. 2,772,481, 12–4–56, Cl. 33—147.

Grondal, Bror L., and P. Zenczak, to Research Corp. Process of pulping cellulosic materials with triethylene glycol. 2,772,988, 12–4–56, Cl. 92—9.

Gross, Milton: *See*—
Brown, Arling D., Jr., Echeagaray, Gross, and Valenti. 2,772,565.

Grumbiatt, Victor J.: *See*—
Gensheimer, Joseph R., and Grumbiatt. 2,772,649.

Grundig, Henry, to Esso Research and Engineering Co. Floating roof liquid storage tank structure. 2,772,805, 12–4–56, Cl. 220—26.

Guernsey, Glen A., J. C. Garen, and A. H. Green, to Globe Union Inc. Circuit control apparatus for condenser-discharge ignition systems. 2,773,140, 12–4–56, Cl. 200—24.

Guggi, Walter B., to Westinghouse Electric Corp. Direct current transformation device. 2,773,200, 12–4–56, Cl. 307—110.

Guignard, Donat. Binding instrument. 2,772,702, 12-4-56, Cl. 140—119.

Gulf Oil Corp.: *See*—
Cantrell, Troy L., and Peters. 2,773,032.
Taillour, Rodolfo J.. 2,773,030.
Taillour, Rodolfo J. 2,773,031.

Gulf Research & Development Co.: *See*—
Martin, B. G., and Wyckoff. 2,773,236.

Gund, Konrad, H. Berger, and K. von Sanden. Device for controlling the flow of electrons in a betatron. 2,773,183, 12-4-56, Cl. 250—27.

Gurry, Robert W., to United States Steel Corp. Method for electrolytically polating wire. 2,773,024, 12-4-56, Cl. 204—142.

Gutoff, Boris: *See*—
Pizzarello, Roy A., and Gutoff. 2,773,071.

Haas, Sidney V., Jr., to Beaunit Mills, Inc. Stop motion for fabric making machines. 2,772,551, 12-4-56, Cl. 66—163.

Hädrich, Herbert: *See*—
Brune, Heinrich W., Hädrich, and Böhm. 2,772,701.

Haensel, Vladimir, to Universal Oil Products Co. Hydrogen refining hydrocarbons in the presence of an alkali metal-containing platinum catalyst. 2,773,011, 12-4-56, Cl. 196—36.

Hage, Pieter W., to Stamicarbon N. V. Corn-starch process involving vortical classification. 2,772,990, 12-4-56, Cl. 127—67.

Hagen, George, deceased; M. Hagen, administratrix of said G. Hagen. Fishing reel pump drives. 2,772,506, 12-4-56, Cl. 43—20.

Hagen, John. Wheel actuated toy vehicle. 2,772,513, 12-4-56, Cl. 46—205.

Hagen, Marguerite: *See*—
Hagen, George. 2,772,506.

Hake, Glenn F. and J. D. Load distributing gooseneck for low bed trailer. 2,772,892, 12-4-56, Cl. 280—405.

Hake, James D.: *See*—
Hake, Glenn F. and J. D. 2,772,892.

Haldas, Walter J.: *See*—
Ulert, Isaak A., Haldas, and Larke. 2,772,677.

Halford, Edward J. Dental prophylactic and hygienic instrument. 2,772,478, 12-4-56, Cl. 32—50.

Halik, Raymond R., to Socony Mobil Oil Co., Inc. Method of feeding gaseous hydrocarbons in a moving bed hydrocarbon conversion process. 2,773,016, 12-4-56, Cl. 196—52.

Hall, James A., to Westinghouse Electric Corp. Electron gun. 2,773,212, 12-4-56, Cl. 313—82.

Hall, Leonard I. Identification card. 2,773,196, 12-4-56, Cl. 250—106.

Haloid Co., The: *See*—
Insalaco, Michael A. 2,772,991.

Hammond, Gordon. Structural material. 2,772,757, 12-4-56, Cl. 189—34.

Hamner, Glen P., to Esso Research and Engineering Co. Process for recovery of acyclic diene dimers. 2,773,106, 12-4-56, Cl. 260—666.

Handschin, Max G., to Promundo. Method and device for distant control of a telephonograph by code signals over a telephone line. 2,773,123, 12-4-56, Cl. 179—6.

Handschin, Max G., to Promundo. Method and device for controlling a telephonograph. 2,773,124, 12-4-56, Cl. 179—6.

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Harbaugh, Watson D. Transmissions. 2,772,583, 12-4-56, Cl. 74—758.

Hardgrove, Ralph M., to The Babcock & Wilcox Co. Fuel and air control damper for cyclone furnaces. 2,772,645, 12-4-56, Cl. 110—28.

Harney, Doran B., and W. O. Shepherd, to Pacific Pumps, Inc. Mixing pump. 2,772,863, 12-4-56, Cl. 259—7.

Harnischfeger Corp.: *See*—
Jacobs, Henry S., and Curtin. 2,773,202.
Jacobs, Henry S., and Fast. 2,773,204.

Harrington, Roy E., to Deere & Co. Safety-shielded power-transmitting assembly. 2,772,549, 12-4-56, Cl. 64—4.

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Pearch, Arthur E., and Harrison. 2,772,819.

Harrison, Walter M., to Teddington Aircraft Controls Ltd. Mixing valves. 2,772,695, 12-4-56, Cl. 137—625.4.

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Brakel, Arie, and Healey. 2,772,739.

Heinselman, Richard V., and B. D. Aspergren, to The Upjohn Co. Amines. 2,773,069, 12-4-56, Cl. 260—326.5.

Helfaer, Bertram M., to Allied Chemical & Dye Corp. Pigments. 2,772,984, 12-4-56, Cl. 106—289.

Helfaer, Bertram M., to Allied Chemical & Dye Corp. Stable finely divided alkyl amine dyes. 2,773,056, 12-4-56, Cl. 260—206.

Heltzel, Carl J.: *See*—
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Heltzel, John N., deceased; The Union Savings & Trust Co. and C. J. Heltzel, executors. Dowel bar or tie bar supporting side forms. 2,772,468, 12-4-56, Cl. 25—116.

Hendriks, Petrus F. A. M., to Stamicarbon N. V. Process of and apparatus for regulating the composition of vapor-gas mixtures. 2,773,042, 12-4-56, Cl. 252—372.

Heney, John F.: *See*—
Goldstein, Ladislas, Lampert, and Heney. 2,773,245.

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Henry, Donald J., to General Motors Corp. Method of making smooth-surfaced sand-resin molds. 2,772,458, 12-4-56, Cl. 22—193.

Henshaw, Thomas A., and C. Kennerson, to The Pyrene Co. Ltd. Nozzle. 2,772,923, 12-4-56, Cl. 299—117.

Herbst, John A., and W. J. Dornhoefer, to Bogue Electric Mfg. Co. Motor generator set. 2,773,232, 12-4-56, Cl. 322—16.

Herkart, Paul G., to Radio Corp. of America. Apparatus for applying a conductive coating to the inside of a tubular glass envelope. 2,772,654, 12-4-56, Cl. 118—48.

Herr, Milton E., and F. W. Heyl, to The Upjohn Co. Steroid hydrolysis. 2,773,072, 12-4-56, Cl. 260—397.3.

Herrick, Clifford E., Jr., P. T. Woltzach, Jr., and E. J. Trojnar, to General Aniline & Film Corp. Positive diasotype printing plates. 2,772,972, 12-4-56, Cl. 96—33.

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Heyl, Frederick W.: *See*—
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Tunnell, Jack B. 2,772,723.

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Hill, Harvey J., and J. W. Petty, to Roberts Mfg. Co. Carpet trimmer. 2,772,476, 12-4-56, Cl. 30—293.

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Hindermann, Peter, and J. Jung, to J. R. Geigy A. G. Yellow monoazo dyestuffs. 2,773,055, 12-4-56, Cl. 260—163.

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Hnastchenko, Philip N. Snow shovel. 2,772,490, 12-4-56, Cl. 37—53.

Hoag, Donald R.: *See*—
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Hoffman Electronics Corp.: *See*—
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Hoffman, James D., to North American Aviation, Inc. Fluid flow regulator. 2,772,691, 12-4-56, Cl. 137—220.

Hogan, William J., to Stapling Machines Co. Box machine conveyor drive. 2,772,788, 12-4-56, Cl. 198—203.

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Holan, James H., and Troche. 2,772,913.

Holan, James H., and H. J. Troche, to J. H. Holan Corp. Side structures of utility truck bodies. 2,772,913, 12-4-56, Cl. 296—28.

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Holser, Theodore H., and D. C. Asbury, to The Parker Appliance Co. Fluid seal element. 2,772,848, 12-4-56, Cl. 251—172.

Hood, Robert T., to Bradley and Co. Ltd. Ironing boards. 2,772,493, 12-4-56, Cl. 38—121.

Hopkins, Frank L., to Bemis Bro. Bag Co. Apparatus for feeding bulk material and control therefor. 2,772,847, 12-4-56, Cl. 249—45.

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Raynes, Bertram C., and Sibert. 2,773,023.

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Howell, Arthur S., to General Dynamics Corp. High impedance telephone substation ringer. 2,773,223, 12-4-56, Cl. 317—171.





Howell, Roy E.: *See*—
Feick, Daniel E., Gibbs, and Howell. 2,772,612.

Howery, Richard W.: *See*—
Ford, John R., and Howery. 2,773,256.

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Hubbard, Arthur L., to Deere Mfg. Co. Cotton picker. 2,772,445, 12-4-56, Cl. 19—72.

Hugenholtz, Eduard H., to Hartford National Bank and Trust Co., trustee. Automatic frequency control. 2,773,188, 12-4-56, Cl. 250—36.

Hugenholtz, Eduard H., to Hartford National Bank and Trust Co., trustee. Automatic frequency control. 2,773,241, 12-4-56, Cl. 332—19.

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Fulton, Albert S., and Bennett. 2,773,185.

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Hulcher, Charles A. High speed sequence camera. 2,772,941, 12-4-56, Cl. 346—107.

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Hussong, James C., and K. Y. Messick, to Thompson Trailer Corp. Boom lifting device. 2,772,789, 12-4-56, Cl. 212—8.

Hutton, Robert W., and E. J. Leonard, to International Telephone and Telegraph Corp. Crossbar-switch connector system. 2,773,125, 12-4-56, Cl. 179—22.

Huxley, Thomas C., III, to Conitech, Ltd. Artificial respiration apparatus. 2,772,673, 12-4-56, Cl. 128—30.

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Jones, Robert L. 2,773,225.
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Garden, Alfred W. 2,772,786.

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Nikles, Paul A., Stelger, and Bach. 2,772,552.

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Ingraham, Chester S., to Sylvania Electric Products Inc. Control device. 2,773,157, 12-4-56, Cl. 201—55.

Insalaco, Michael A., to The Haloid Co. Process of cleaning a residual powder image from an electrophotographic plate. 2,772,991, 12-4-56, Cl. 134—7.

Interchemical Corp.: *See*—
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Parry, Vernon F. 2,774,018.

International Latex Corp.: *See*—
Spanel, Lois A. 2,772,418.

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International Nickel Co., Inc., The: *See*—
Pease, George E., and Ehlgren. 2,772,963.
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International Standard Electric Corp.: *See*—
Algrain, Pierre R. R., and Liandrat. 2,773,250.

International Steel Co.: *See*—
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Martin, Cecil G. and Humpal. 2,773,201.

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Jacobs, Henry S., and J. M. Curtis, to Harnischfeger Corp. Induced current torque transmitter. 2,773,202, 12-4-56, Cl. 310—64.

Jacobs, Henry S., and T. M. Fast, to Harnischfeger Corp. Electro-magnetic apparatus for torque transmission. 2,773,204, 12-4-56 Cl. 310—93.

Jacobs, John H. Gas generator and method. 2,772,952, 12-4-56, Cl. 23—281.

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Jahnig, Charles E.: *See*—
Barr, Frank T., Brown, Burnside, and Jahnig. 2,772,017.

Jansen, John C., to The Standard Oil Co. Liquid thermal diffusion apparatus and method. 2,772,782, 12-4-56, Cl. 210—52.5.

Jansen, Gunnar H., to Lear, Inc. Electromagnetic clutch with particulate clutching medium. 2,772,761, 12-4-56, Cl. 192—21.5.

Janssen, Peter J. H.: *See*—
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Janssen, Peter J. H., to Hartford National Bank and Trust Co., as trustee. Video amplifier with signal-intensity-determined threshold. 2,773,121, 12-4-56, Cl. 178—7.3.

Janssen, Peter J. H., to Hartford National Bank and Trust Co., as trustee. Circuit-arrangement for synchronizing an oscillator to a pilot wave. 2,773,189, 12-4-56, Cl. 250—36.

Jauch, Robert J. Dispensing pumps. 2,772,817, 12-4-56, Cl. 222—207.

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Jeffrey, James O., ½ to H. E. Gagne. Card driving mechanism. 2,772,570, 12-4-56, Cl. 74—665.

Jenny, Robert W., to Bostitch, Inc. Portable stapling implement. 2,772,415, 12-4-56, Cl. 1—44.4.

Jéquier, Léon, ½ to Amonia Casale Societa Anonima. Gasification method. 2,772,954, 12-4-56, Cl. 48—202.

Jewish Sanitarium and Hospital for Chronic Diseases: *See*—
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Johansson, Erik, to AB Svenska Flaktfabriken. Apparatus for conditioning, preferably drying, of a web-like material. 2,772,486, 12-4-56, Cl. 34—159.

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Masci, Joseph N., and George. 2,772,999.

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Johnson, Robert H.: *See*—
Nerad, Anthony J., Johnson, and Brusdale. 2,772,749.

Johnson, Walter J., to J. H. Williams & Co. Ratchet wrench. 2,772,763, 12-4-56, Cl. 192—43.1.

Johnson, William A.: *See*—
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Jones, Charles H., Jr., to Gould Engineering and Sales Co., Inc. Grinding wheel truing mechanism. 2,772,670, 12-4-56, Cl. 125—11.

Jones, Clifton H., and C. W. Foust, to Esso Research and Engineering Co. Fluid flow meter. 2,772,664, 12-4-56, Cl. 121—148.

Jones, Harry W., to Dempster Brothers, Inc. Sump-type containers for transporting and dumping equipment. 2,772,919, 12-4-56, Cl. 298—30.

Jones, John H., and C. R. Benson. Vise for supporting pipe during caulking. 2,772,588, 12-4-56, Cl. 81—19.

Jones, Robert L., to Columbia Broadcasting System, Inc., d. b. a. Hytron Radio & Electronics Co., a division of Columbia Broadcasting System, Inc. Semiconductor device. 2,773,225, 12-4-56, Cl. 317—235.

Jones, William R., ¼ to G. F. Metzger. Visor for vehicles. 2,772,916, 12-4-56, Cl. 296—97.

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Judson, Albert L., to Iron Fireman Mfg. Co. Limit control. 2,773,147, 12-4-56 Cl. 200—83.

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Kalinowski, Mathew L., and G. H. Meguerian, to Standard Oil Co. Doctor process. 2,773,010, 12-4-56, Cl. 196—33.

Kaufman, Roy D. Variable length boom extension. 2,772,790, 12-4-56, Cl. 212—144.

Kellam, James A. Article inverting apparatus. 2,772,766, 12-4-56, Cl. 198—33.

Keller, Hugo F. Fishing device. 2,772,503, 12-4-56, Cl. 43—17.

Kelly, Joseph J. Combination suction roll and silencing and cleaning means. 2,772,606, 12-4-56, Cl. 92—53.

Kemper, Ronald J. Self-coupling tractor hitch member opened by complementary hitch member. 2,772,896, 12-4-56, Cl. 280—510.

Kennedy, J. J., Corp., The: *See*—
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Kent, Nelson H., and C. Armer, to Rolls-Royce Ltd. Structural elements for turbo-machines such as compressors or turbines of gas-turbine engines. 2,772,856, 12-4-56, Cl. 253—78.

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Zody, Forrest F., Key, and Taylor. 2,772,720.
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Emery, Richard L. 2,772,608.
Kibler, Richard W.: *See*—
Albert, Harry E., and Kibler. 2,773,097.
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Swenson, Paul F., and Cooperrider. 2,772,834.
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Klinger, William B., to United States Steel Corp. Dumping tractor-trailer vehicle. 2,772,918, 12-4-56, Cl. 298—5.
Knorr, Rex B. Collapsible enclosure for infants. 2,772,859, 12-4-56, Cl. 256—25.
Knudsen, Richard E. Lifting mechanism for toilet seats. 2,772,422, 12-4-56, Cl. 4—251.
Kobayashi, Norio. Rings for spinning machines. 2,772,535, 12-4-56, Cl. 57—119.
Koch, Renno L. Telescopic pocket umbrella. 2,772,685, 12-4-56, Cl. 135—26.
Kolka, Alfred J., to Ethyl Corp. Dehydrochlorination of benzene hexachloride. 2,773,105, 12-4-56, Cl. 260—650.
Konrad, Erich J. Cooking and heating plates. 2,773,165, 12-4-56, Cl. 219—37.
Kopczynski, John F. Abrasive grinders. 2,772,524, 12-4-56, Cl. 51—168.
Korba, George. Window screen. 2,772,731, 12-4-56, Cl. 160—28.
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Koret, Richard, to Koret, Inc. Lady's handbag with multiple compartments. 2,772,713, 12-4-56, Cl. 150—28.
Kosalek, Joseph F., and J. Sulich, Jr., to General Aniline & Film Corp. Light sensitive diazotype materials. 2,772,974, 12-4-56, Cl. 96—91.
Kramer, Lewis L. Milk filter or the like. 2,772,785, 12-4-56, Cl. 210—158.
Krengel, Charles H. Tire and wheel mount for trucks. 2,772,826, 12-4-56, Cl. 224—42.24.
Kuwada, George T. Watch balance spring testing device. 2,772,562, 12-4-56, Cl. 73—6.
Kuwada, George T. Watch balance spring testing device and crystal microphone therefor. 2,772,563, 12-4-56, Cl. 73—6.
LCN Closers, Inc.: *See*—
Flint, Russell C. 2,772,439.
Lacy, George H., to The Dobeckmun Co. Laminated thread. 2,772,994, 12-4-56, Cl. 154—53.6.
Laico, Joseph P., to Bell Telephone Laboratories, Inc. Manufacture of traveling wave tubes. 2,772,939, 12-4-56, Cl. 316—18.
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Carver, Harold E., and Lake. 2,773,006.
Lakso, Elmo E. Counting and stacking tablets. 2,772,792, 12-4-56, Cl. 214—7.
Lam, Shek Y.: *See*—
Larsen, Rudolph H., and Lam. 2,773,041.
Lamac Process Co.: *See*—
Suerken, Maxwell C. 2,772,428.
Lampert, Murray A.: *See*—
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Landell, Stanford, to General Motors Corp. Wheel cover. 2,772,924, 12-4-56, Cl. 301—37.
Large, William E., to Westinghouse Electric Corp. Electric discharge apparatus. 2,773,234, 12-4-56, Cl. 323—24.
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Larsen, Rudolph H., and S. Y. Lam, to F. Bresee, Jr., d. b. a. Balab. Defoaming composition. 2,773,041, 12-4-56, Cl. 252—358.
Larson, Alice R.: *See*—
Larson, George A. 2,772,663.
Larson, George A., deceased, A. R. Larson, executrix, to A. R. Larson. Air driven sander. 2,772,663, 12-4-56, Cl. 121—3.
Lassiter, John A., and T. A. Deaking, to Combustion Engineering, Inc. Foundry mold flasks with novel end bumper means. 2,772,456, 12-4-56, Cl. 22—96.
Lassiter, Jesse. Row crop meter. 2,772,832, 12-4-56, Cl. 234—95.
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Lawrence, Ernest O., and Q. A. Kerns, to the United States of America as represented by the United States Atomic Energy Commission. Beam regulator. 2,773,195, 12-4-56, Cl. 250—41.9.
Lear, Inc.: *See*—
Janson, Gunnar H. 2,772,761.
Leary, Robert F., to Esso Research and Engineering Co. Preparation of resins from Cs fractions and cyclopentadiene dimers. 2,773,051, 12-4-56, Cl. 260—82.
Leasure, Stanley. Driver-rest pad. 2,772,725, 12-4-56, Cl. 155—182.
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Makow, David M. Electronic circuits for generation of oscillation, frequency conversion, and other functions. 2,773,179, 12-4-56, Cl. 250—20.
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Oculato, Patsy. Adjustable kitchen cabinet construction. 2,772,938, 12–4–56, Cl. 312—210.
O'Donnell, William R., to Vale Corp. of America, Inc. Valve for aerosol dispenser. 2,772,820, 12–4–56, Cl. 222—394.
Offutt, Elmer B., and L. V. Sorg, to Standard Oil Co. Metal ion determination by direct reading system. 2,773,020, 12–4–56, Cl. 204—1.
Offutt, Elmer B., and L. V. Sorg, to Standard Oil Co. Direct reading system for metal ion determination. 2,773,021, 12–4–56, Cl. 204—1.
Offutt, Elmer B., and L. V. Sorg, to Standard Oil Co. Direct reading system for metal ion determination. 2,773,237, 12–4–56, Cl. 324—31.
Oketani, Hideo: *See*—
Miura, Noboru, and Oketani. 2,772,580.
Okulitch, George J.: *See*—
Zosulin, Igor V., Okulitch, Volkoff, Okulitch and Ellett. 2,773,206.
Okulitch, Vladimir J.: *See*—
Zosulin, Igor V., Okulitch, Volkoff, Okulitch and Ellett. 2,773,206.
Olin Mathieson Chemical Corp.: *See*—
Barocca, Aldo J. 2,772,633.
Clark, John A., Jr. 2,772,625.
Olson, Harry F., and J. Preston, to Radio Corp. of America. Acoustical resistance for pressure type microphones. 2,773,130, 12–4–56, Cl. 179—115.5.
Opel, Lawrence G., and A. W. Kimball, Sr., to Westinghouse Electric Corp. Dynamoelectric machine. 2,773,203, 12–4–56, Cl. 310—65.
Opfermann, Adolf C. J. Process for the production of amino-carboxylic acids and their N-substituted derivatives. 2,773,093, 12–4–56, Cl. 260—534.
Opsahl, Alert M., to Westinghouse Electric Corp. Temperature compensated reclosers. 2,773,149, 12–4–56, Cl. 200—89.
Organon, Inc.: *See*—
Reichstein, Tadeus. 2,773,076.
Ornitz, Nathaniel R., to Blaw-Knox Co. Furnace conveyor roll. 2,772,872, 12–4–56, Cl. 263—6.
Ota, Seizaburo: *See*—
Miura, Noboru, and Oketani. 2,772,580.
Otto, William H.: *See*—
Whitehurst, Harry B., and Otto. 2,772,518.
Whitehurst, Harry B., and Otto. 2,772,987.
Owen, John C.: *See*—
Noxon, Paul A., and Owen. 2,773,252.
Owen-Corning Fiberglas Corp.: *See*—
Waggoner, Jack H. 2,772,603.
Whitehurst, Harry B., and Otto. 2,772,516.
Whitehurst Harry B., and Otto. 2,772,987.
Pacific Pumps, Inc.: *See*—
Harney, Doran B., and Shepherd. 2,772,863.
Padbury, John J., J. H. Daniel, Jr., and S. T. Moore, to American Cyanamid Co. Sized paper. 2,772,967, 12–4–56, Cl. 92—3.
Padgett, Philip M., to Titeflex, Inc. Making and compressing corrugated flexible hose in one operation. 2,772,646, 12–4–56, Cl. 113—35.
Panel-Lok Corp.: *See*—
Daniels, Raymond R. 2,772,495.
Paolillo, Ralph: *See*—
Cole, Sidney, and Paolillo. 2,772,500.
Parke, Davis & Co.: *See*—
Risleger, Edward F., Short, and Sullivan. 2,773,064.





Parker Appliance Co., The: *See*—
Holser, Theodore H., and Asbury. 2,772,848.
Parker, Louis W. Tuning system for radio and television receivers. 2,773,119, 12–4–56, Cl. 178—5.8.
Parker, Louis W. Electrical indicating instruments. 2,773,239, 12–4–56, Cl. 324—150.
Parker, Samuel P., to Callaway Mills Co. Fabric article treating apparatus. 2,772,657, 12–4–56, Cl. 118—315.
Parmele, Walter B. Card table covers. 2,772,886, 12–4–56, Cl. 272—136.
Parmiter, Hope & Sugden Ltd.: *See*—
Sugden, Eric W. 2,773,151.
Parry, Vernon F., to the United States of America as represented by the Solicitor of the Department of the Interior. Continuous process for drying, preheating, and devolatilization of carbonaceous materials. 2,773,018, 12–4–56, Cl. 202—27.
Parsons, C. A., & Co. Ltd.: *See*—
Richardson, Philip. 2,773,208.
Pasquerielle, James, 12% to F. P. Bello, and 28% to R. Pogamik. Safety container closure. 2,772,803, 12–4–56, Cl. 215—43.
Pass & Seymour Inc.: *See*—
Despard, Victor R. 2,773,115.
Patterson, Edgar W. Piston lubricator and cylinder dust guard. 2,772,751, 12–4–56, Cl. 184—18.
Paumen, Theodore F. Recreational apparatus. 2,772,722, 12–4–56, Cl. 155—43.
Pease, George R., and T. E. Kihlgren, to The International Nickel Co., Inc. Inert-gas shielded-arc welding of 90–10 type copper-nickel material. 2,772,963, 12–4–56, Cl. 75—159.
Penick & Ford, Ltd., Inc.: *See*—
Hjermstad, Erling T., and Kesler. 2,773,057.
Penick, Joe E., to Socony Mobil Oil Co., Inc. Apparatus for contacting liquids with granular solid materials. 2,772,780, 12–4–56, Cl. 210—42.5.
Penick, Joe E., and E. A. Bodkin, to Socony Mobil Oil Co., Inc. Method and apparatus for continuous precolation of oils. 2,773,012, 12–4–56, Cl. 196—47.
Penn Controls, Inc.: *See*—
Schell, Paul. 2,772,727.
Pennow, Willis A., to Westinghouse Electric Corp. Luminaire. 2,773,171, 12–4–56, Cl. 240—1.2.
Pennow, Willis A., to Westinghouse Electric Corp. Lighting unit. 2,773,172, 12–4–56, Cl. 240—1.2.
Perfecting Service Co.: *See*—
Shaw, Harmon L., and Frost. 2,772,897.
Pestell, Raymond H., to E. I. du Pont de Nemours and Co. Fabric wrap. 2,772,773, 12–4–56, Cl. 206—59.
Petau, Erik, to Aerojet-General Corp. Nozzle. 2,772,706, 12–4–56, Cl. 141—346.
Peters, Edwin F., to Standard Oil Co. Ethylation process. 2,773,106, 12–4–56, Cl. 260—671.
Peters, John G.: *See*—
Cantrell, Troy L., and Peters. 2,773,032.
Peters & Russell, Inc.: *See*—
Russell, Linus E. 2,772,692.
Peterson, Kenneth E.: *See*—
Neijstrom, Kenneth L., Peterson, and Evans. 2,772,715.
Petroff, Merlin O., and T. E. Bjorn, to Stewart-Warner Corp. Electrical tachometer for internal combustion engines. 2,773,238, 12–4–56, Cl. 324—70.
Petty, Jack W.: *See*—
Hill, Harvey J., and Petty. 2,772,474.
Pfann, Joseph A. Glass trimming tool. 2,772,473, 12–4–56, Cl. 29—258.
Pfeffer, Theophil, to Heinrich Ritter Aluminiumwarenfabrik. Pressure cooker. 2,772,806, 12–4–56, Cl. 220—44.
Pflueger, Walter, and H. Augenstein. Comb. 2,772,682, 12–4–56, Cl. 132—135.
Pfouts, Watson G.: *See*—
Benefiel, Edward N., and Pfouts. 2,772,619.
Phelps, William T.: *See*—
West, De Witt H., and Phelps. 2,772,956.
Philadelphia Quartz Co.: *See*—
Sams, Robert H. 2,772,996.
Philco Corp.: *See*—
Chatten, John B. 2,773,116.
Clapp, Richard G., and Hershinger. 2,773,117.
Moore, Robert C. 2,773,118.
Sunstein, David E. 2,773,253.
Phillips, Clifton H., to Shell Development Co. Container with pouring spout and closure. 2,772,821, 12–4–56, Cl. 222—520.
Phillips, Clifton H., to Shell Development Co. Container with screw cap pouring spout and closure. 2,772,822, 12–4–56, Cl. 222—520.
Phillips, Leonard R., and W. J. Waeldner, to Anemostat Corp. of America. Air outlet device for ventilating apparatus. 2,772,623, 12–4–56, Cl. 98—40.
Phillips Petroleum Co.: *See*—
Brandt, Carl T. 2,772,868.
Mallick, Emil A. 2,772,728.
Whitney, William E., and Axe. 2,773,038.
Pickles, Joseph, to Ferro Stamping Co. Power operated mechanism for vehicle body ventilator windows. 2,772,877, 12–4–56, Cl. 268—120.
Pilkington Brothers Ltd.: *See*—
Bird, George W. T. 2,772,516.
Dennett, John. 2,772,515.
Pillsbury Mills, Inc.: *See*—
Brabender, Carl W. 2,772,874.
Coyne, William E. 2,772,643.
Pipes, George R.: *See*—
Gammill, Reynold F., and Pipes. 2,772,763.
Pirot, Ernst, and H. Hasselmann, to Vereinigte Glanzstoff-Fabriken A. G. Preparation of spinnable solutions of polyacrylonitrile and related polymerizates. 2,773,047, 12–4–56, Cl. 260—32.6.
Pittsburgh Coke & Chemical Co.: *See*—
Tomasek, Herbert F. 2,772,511.
Pittsburgh Plate Glass Co.: *See*—
Cowee, Merle. 2,773,049.
Pizzarello, Roy A., and B. Gutoff, to Interchemical Corp. Anthraquinone dyes. 2,773,071, 12–4–56, Cl. 260—380.
Plamann, Richard H. Bag spout. 2,772,823, 12–4–56, Cl. 222—527.
Plank, Norris, and S. S. Smith, to Shell Development Co. Apparatus for calibrating flowmeters. 2,772,561, 12–4–56, Cl. 73—3.
Plapper, Jörgen, and R. Heyden, to Böhme Fettchemie G. m. b. H. Method of waterproofing leather. 2,772,988, 12–4–56, Cl. 117—135.5.
Plax Corp.: *See*—
Sprankle, Cortes N. 2,772,742.
Poarch, Arthur E., and P. E. Harrison, to Avoset Co. Lever type dispenser system for pressurized containers. 2,772,819, 12–4–56, Cl. 222—394.
Pogamik, Robert: *See*—
Pasquarielle, James. 2,772,803.
Pohl, Ernst. Connecting device for bone fractures in the neighborhood of joints. 2,772,676, 12–4–56, Cl. 128—92.
Poldervaart, Leendert, P. J. H. Janssen, and H. J. Gits, to Hartford National Bank and Trust Co. Circuit-arrangement for silent tuning in a frequency-modulation receiver. 2,773,182, 12–4–56, Cl. 250—27.
Poison, Paul. Combination paraffin scraper and rod guide. 2,772,741, 12–4–56, Cl. 166—176.
Porter, Clinton D., to The Miner Rubber Co. Ltd. Manufacture of footwear. 2,772,489, 12–4–56, Cl. 36—72.
Post, Louis, to Flexigrip, Inc. Actuator for zippers and pouch embodying the same. 2,772,712, 12–4–56, Cl. 150—3.
Power Brake Equipment Co.: *See*—
Fishwood, Rollin W., and Williams. 2,772,926.
Power Jets (Research and Development) Ltd.: *See*—
Lees, George. 2,773,169.
Powers, William R., to E. I. du Pont de Nemours and Co. Hollow, carboxymethyl cellulose bead and method for making. 2,773,027, 12–4–56, Cl. 210—8.5.
Preston, Carl G., 50% to R. P. Brunsman. Closure device for openings in buildings. 2,772,447, 12–4–56, Cl. 20—40.
Preston, John: *See*—
Olson, Harry F., and Preston. 2,773,130.
Price Brothers, Inc.: *See*—
Nelson, George. 2,772,497.
Prill, Edward A., to Boyce Thompson Institute for Plant Research, Inc. Organic compounds and insecticidal compositions. 2,773,062, 12–4–56, Cl. 260—247.2.
Promundo: *See*—
Handschin, Max G. 2,773,123.
Handschin, Max G. 2,773,124.
Prot, Marcel, to Societe Industrielle de Liaisons Electriques. Elastic clamp for fixation of rails. 2,772,835, 12–4–56, Cl. 238—349.
Protectoseal Co., The: *See*—
Lisciani, Constantine. 2,772,537.
Puls, Alfred E., and D. R. Hoag, to Babee-Tenda License Corp. Adjustable canopy. 2,772,684, 12–4–56, Cl. 135—5.
Punte, William F., to Continental Can Co., Inc. Toggle-operated closure fastener. 2,772,907, 12–4–56, Cl. 292—256.69.
Pure Oil Co., The: *See*—
Bond, Donald C. 2,772,951.
Bond, Donald C., and Holbrook. 2,772,737.
Purvis, Lafayette M.: *See*—
Stansbury, William M. 2,772,491.
Pyrene Co. Ltd., The: *See*—
Henshaw, Thomas A., and Kennerson. 2,772,923.
Quebec Metallurgical Industries Ltd.: *See*—
Lichty, Lyall J., and Rasmussen. 2,772,959.
Seger, Claude A., and Dettmer. 2,772,961.
Queneau, Augustin L. J. Apparatus for magnetic separation of ores. 2,772,777, 12–4–56, Cl. 209—219.
RTC Shipbuilding Corp.: *See*—
Hankin, Donald C. 2,772,759.
Rabuse, George R., to Minnesota Mining & Mfg. Co. Tape roll and core. 2,772,774, 12–4–56, Cl. 206—59.
Radio Corp. of America: *See*—
Dodds, Wellesley J. 2,773,213.
Herkart, Paul G. 2,772,654.
Masterson, Earl E. 2,773,120.
Olson, Harry F., and Preston. 2,773,130.
Sands, William F. 2,773,194.
Radio Receptor Co., Inc.: *See*—
Aron, Mitchell. 2,773,219.
Aron, Mitchell. 2,773,220.
Raffensberger, Amos: *See*—
Cramer, George L., Raffensberger, and Strine. 2,772,794.
Cramer, George L., Raffensberger, and Strine. 2,772,795.
Rafoth, Bennie A., and H. N. Hovland, to Marathon Corp. Food package. 2,772,827, 12–4–56, Cl. 229—51.
Rahn, Henry W., and C. J. Sindlinger, to Columbia-Southern Chemical Corp. Calcination of barium carbonate. 2,772,948, 12–4–56, Cl. 23—186.
Rahn, Henry W., and C. J. Sindlinger, to Columbia-Southern Chemical Corp. Calcination of barium carbonate. 2,772,949, 12–4–56, Cl. 23—186.
Rahn, Henry W., and C. J. Sindlinger, to Columbia-Southern Chemical Corp. Calcination of barium carbonate. 2,772,950, 12–4–56, Cl. 23—186.
Ralco Fabric: *See*—
Linehan, William A., Jr. 2,772,696.
Rankin, Edward C., to Brock & Rankin, Inc. Book backbone structure with concealed rivet means and method of making same. 2,772,427, 12–4–56, Cl. 11—2.
Rasmussen, Robert T. C.: *See*—
Lichty, Lyall J., and Rasmussen. 2,772,959.

Rayman, Charles J.: *See*—
Boileau, Arthur H., Rayman, and Board. 2,772,093.

Raynes, Bertram C., and M. E. Sibert, to Horizons Titanium Corp. Removal of oxygen from metals. 2,773,023, 12–4–56, Cl. 204—140.

Rayonier Inc.: *See*—
Gray, Kenneth R., Crosby, and Steinberg. 2,772,965.

Rea, Stanley: *See*—
Campbell, Robert L., and Rea. 2,773,160.

Read, Clyde M. Folding game table. 2,772,935, 12–4–56, Cl. 311—89.

Rebenstorf, Melvin A., to The Upjohn Co. Preparation of N, N'-dibenzylethylenediamine. 2,773,098, 12–4–56, Cl. 260—570.9.

Regnier, Norman J., to Hoffman Electronics Corp. Crystal oscillator circuits or the like. 2,773,187, 12–4–56, Cl. 250—36.

Rehfeld, George W. Smoking device. 2,772,680, 12–4–56, Cl. 131—182.

Reichenecker, William J., to Westinghouse Electric Corp. Cu-Mn-Zn resistance alloy. 2,772,962, 12–4–56, Cl. 75—157.5.

Reichstein, Tadeus, to Organon, Inc. Process of preparing compounds having adrenocortical hormone activity. 2,773,076, 12–4–56, Cl. 260—397.45.

Reid, Allen F. Process of concentrating. 2,772,953, 12–4–56, Cl. 23—311.

Remington, Warner E., to General Motors Corp. Filter impregnation injection machine. 2,772,656, 12–4–56, Cl. 118—302.

Reano, Donald G., to Motor Products Corp. Window assembly for vehicle bodies. 2,772,915, 12–4–56, Cl. 296—84.

Rentschler, Waldemar T., to Alfred Gauthier G. m. b. H. Intra lens shutter. 2,772,614, 12–4–56, Cl. 95—11.5.

Research Corp.: *See*—
Greendal, Bror L., and Zenczak. 2,772,968.
Linnell, Robert H., and Zehlan. 2,773,066.

Rexford, Willis E., to Louis Marx & Co., Inc. Molded plastic track switch for a toy railway. 2,772,843, 12–4–56, Cl. 246—415.

Reynolds, Scott E. Wheeled support for containers. 2,772,889, 12–4–56, Cl. 280—35.

Reynolds, Walter F., Jr., and L. A. Lundberg, to American Cyanamid Co. Sizing of paper with fatty acid polyalkylenepolyamine compositions. 2,772,969, 12–4–56, Cl. 92—21.

Rice, Richard L., to Stapling Machines Co. Machine for attaching ends to wirebound boxes. 2,772,700, 12–4–56, Cl. 140—93.

Rich, John P., and A. L. Whiteside. Method and apparatus for evacuating pulp from high density storage towers. 2,772,964, 12–4–56, Cl. 259—37.

Richards, Harrison H. C., Jr.: *See*—
Lowry, Lewis R., Jr., and Richards. 2,773,156.

Richards, Lawrence M.: *See*—
Englert, Robert D., and Richards. 2,773,094.
Englert, Robert D., and Richards. 2,773,095.

Richardson, Phillip, to C. A. Parsons & Co. Ltd. Ring winding for electrical machines. 2,773,208, 12–4–56, Cl. 310—202.

Rickers, Frank O., to The Geo. Wiedemann Brewing Co., Inc. Injecting of hops in the brewing of beer. 2,772,975, 12–4–56, Cl. 99—50.5.

Ricks, Herbert E., and W. M. Trigg, to Westinghouse Electric Corp. Destroying cyanides in aqueous cyanide solutions. 2,773,025, 12–4–56, Cl. 204—149.

Ridley, John C., and S. A. Saxton. Means for supplying anti-detonant to an internal-combustion engine. 2,772,866, 12–4–56, Cl. 261—44.

Rinehart, Charles V. Fruit cutting, spreading, and pitting machine. 2,772,710, 12–4–56, Cl. 146—28.

Ripke, August C. Device for transmitting rotary motion. 2,772,571, 12–4–56, Cl. 74—63.

Riser, Clarence B., to Lawrence Brothers, Inc. Hinge. 2,772,441, 12–4–56, Cl. 16—160.

Ritter, Henrich, Aluminiumwarenfabrik: *See*—
Pfeffer, Theophil. 2,772,806.

Rittmann, Friedrich: *See*—
Schuls, Hans T., and Rittmann. 2,772,928.

Robb, Morrison L. Split mold. 2,772,443, 12–4–56, Cl. 18—35.

Roberts, Don, and H. Hockenbury; said Hockenbury assor. to said Roberts. Adjustable partition for cars, trucks and warehouses. 2,772,641, 12–4–56, Cl. 105—369.

Roberts-Gordon Appliance Corp.: *See*—
Warnecke, Robert L. 2,772,730.

Roberts Mfg. Co.: *See*—
Hill, Harvey J., and Petty. 2,772,474.

Robinson, Glen P., Jr.: *See*—
Wright, Walter W., and Robinson. 2,772,446.

Roby, Sheldon S., and C. Ferry, to The Stanley Works. Four plate mat switch. 2,773,148, 12–4–56, Cl. 200—86.

Roche, Melvin E., and L. K. Jackson, to The Harvard Mfg. Co. Bedframe support leg. 2,772,424, 12–4–56, Cl. 5—176.

Roessler, Heinrich G. F., to Daimler-Benz Aktiengesellschaft. Device for anchoring a road vehicle. 2,772,754, 12–4–56, Cl. 188—4.

Roethel, John H. Window regulator connecting means. 2,772,901, 12–4–56, Cl. 287—3.

Rogers, Joseph N. Animal trap auxiliary guard thumb catch. 2,772,510, 12–4–56, Cl. 43—96.

Rohland, Curt J.: *See*—
Goodhue, William V., and Rohland. 2,772,840.

Rohm & Haas Co.: *See*—
Smythe, Carl V., and Huang. 2,773,001.
Specht, Edward H., Neuman, and Neher. 2,773,063.

Rolf, Erich H. F. W., to Siemens-Schuckertwerke Aktiengesellschaft. Constant-current pulse generator. 2,773,184, 12–4–56, Cl. 250—27.

Rolls-Royce Ltd.: *See*—
Kent, Nelson H., and Armer. 2,772,856.

Romeijn, Cornelis: *See*—
Braak, Dirk J., Liers, and Romeijn. 2,773,176.

Rongen, Jacobus J., and A. G. W. Uitjens, to Hartford National Bank and Trust Co., as trustee. Neutralising circuit-arrangement for amplifying high-frequency oscillations. 2,773,135, 12–4–56, Cl. 179—171.

Rosenkrans, George: *See*—
Djerassi, Carl, and Rosenkrans. 2,773,074.
Djerassi, Carl, and Rosenkrans. 2,773,079.

Rosenkrans, George, and C. Djerassi, to Syntex S. A. Cyclopentanophenanthrene compounds and method for preparation thereof. 2,773,073, 12–4–56, Cl. 260—397.3.

Ross, Howard S. Two speed transmission gear mechanism. 2,772,576, 12–4–56, Cl. 74—337.

Ross, Hugh N., to American Instrument Co., Inc. Reversible mechanism. 2,772,584, 12–4–56, Cl. 74—812.

Ross, Orrin R. Tank filler cap. 2,772,800, 12–4–56, Cl. 220—55.

Rottig, Walter, to Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft für Waermetechnik m. b. H. Catalytic carbon monoxide hydrogenation with high ester yield. 2,773,084, 12–4–56, Cl. 260—449.6.

Rottig, Walter, to Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft für Waermetechnik m. b. H. Production of carbon monoxide hydrogenation products with a high content of oxygeneous compounds. 2,773,085, 12–4–56, Cl. 260—449.6.

Rowe, Paul H., to Maas-Rowe Electromusic Corp. Apparatus for producing chime tones. 2,772,594, 12–4–56, Cl. 84—1.11.

Rudolph, Paul: *See*—
Danulat, Friedrich, Schmalfeld, and Rudolph. 2,772,873.

Rudy, Hermann, to Joh. A. Benckiser G. m. b. H. Chemische Fabrik. Choline salt tablet and process of making same. 2,772,998, 12–4–56, Cl. 167—82.

Ruge, Arthur C., to Baldwin-Lima-Hamilton Corp. Fluid pressure measuring device. 2,772,569, 12–4–56, Cl. 73—398.

Rugen, Vernon L.: *See*—
Du Shane, Wallace H., and Rugen. 2,772,652.

Rühl, Ernst: *See*—
Nickel, Bernhard, and Rühl. 2,772,556.

Ruhrchemie Aktiengesellschaft: *See*—
Lüben, Robert. 2,773,110.
Rottig, Walter. 2,773,084.
Rottig, Walter. 2,773,085.

Russell, Linus E., to Peters & Russell, Inc. Inflation valve with manual operator. 2,772,692, 12–4–56, Cl. 137—223.

Ruthner, Othmar. Plant for pickling metallic workpieces. 2,772,523, 12–4–56, Cl. 51—164.

S & W Fine Foods, Inc.: *See*—
Carroll, Ellsworth W. 2,772,711.

Sahyun, Melville, J. A. Faust, and L. H. Jules, to Cutter Laboratories, Inc. N-(4-hydroxyphenyl) - 3 - phenylsalicylamide. 2,773,096, 12–4–56, Cl. 260—559.

St. John, Norman P. Collar buttons. 2,772,461, 12–4–56, Cl. 24—101.

Sakamoto, Masao, to Minneapolis-Honeywell Regulator Co. Magnetic amplifier. 2,773,131, 12–4–56, Cl. 179—171.

Salfer, Donald G. Power drill attachment. 2,772,585, 12–4–56, Cl. 77—14.

Samaritano, Joseph. Liquid fuel gauge for aircraft. 2,772,568, 12–4–56, Cl. 73—322

Sams, Robert H., to Philadelphia Quartz Co. Borated-silicate-starch laminating adhesives and manufacture of combined fiberboard therewith. 2,772,996, 12–4–56, Cl. 154—128.

Sandberg, William A. Foundation for off-shore drilling rig. 2,772,539, 12–4–56, Cl. 61—46.5.

Sands, William F., to Radio Corp. of America. Extended-range high-frequency tuning device and circuit. 2,773,194, 12–4–56, Cl. 250—40.

Sauer, Louis E., to Westinghouse Electric Corp. Pressure switch. 2,773,146, 12–4–56, Cl. 200—83.

Saul, Leslie V. Ground secured animal drinking receptacle. 2,772,660, 12–4–56, Cl. 119—61.

Saunders, Harry B. Seat unit for bathtubs. 2,772,721, 12–4–56, Cl. 155—36.5.

Saunders, James H.: *See*—
Slocombe, Robert J., and Saunders. 2,773,086.

Saxton, Stuart A.: *See*—
Ridley, John C., and Saxton. 2,772,866.

Schacht Associates, Inc.: *See*—
Schacht, Louis L. 2,773,584.

Schacht, Louis L., to Schacht Associates, Inc. Locking means for a door construction. 2,772,554, 12–4–56, Cl. 70—120.

Schaef, Harold M., to Victor Vending Corp. Selective bulk merchandise vending machine. 2,772,811, 12–4–56, Cl. 221—155.

Schell, Paul, to Penn Controls, Inc. Oil burner safety control system. 2,772,727, 12–4–56, Cl. 158—28.

Scheuer, Jerome A. Separable fastener. 2,772,463, 12–4–56, Cl. 24—227.

Schigas, Joseph J., to Louis Marx & Co., Inc. Tilting game board. 2,772,883, 12–4–56, Cl. 273—110.

Schilling, Paul O., and A. G. Mayer, to Gardner Mfg. Co. Cattle stanchion and latch. 2,772,661, 12–4–56, Cl. 119—147.

Schlapak, Henry A. Control device. 2,772,605, 12–4–56, Cl. 92—46.

Schmalfeld, Paul: *See*—
Danulat, Friedrich, Schmalfeld, and Rudolph. 2,772,873.

Schmauss, William F.: *See*—
Brock, Peter R., Luft, and Schmauss. 2,772,688.

Schmidt, Fritz, and O. Bayer, to Farbenfabriken Bayer Aktiengesellschaft. Process of producing organic iron and aluminium alcoholates. 2,773,083, 12–4–56, Cl. 260—439.

Schmidt, Paul A. Leveling attachment for cultivators. 2,772,618, 12–4–56, Cl. 97—50.





Schmidt, Werner H., and S. I. Shafer, to Lever Brothers Co. Method of making margarine. 2,772,976, 12–4–56, Cl. 99—122.

Schmidt, Willy A.: *See*—
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Schubert, Otto, Sr., and O. Schubert, Jr. Bearings. 2,772,930, 12–4–56, Cl. 308—238.

Schuls, Hans T., and F. Rittmann, to C. Conradty. Bearings or bushings. 2,772,928, 12–4–56, Cl. 308—36.1.

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Maier, Albert, Schwab, and Kiechle. 2,772,581.

Schwortz, Jesse. Baby bottle protective harness. 2,772,801, 12–4–56, Cl. 215—11.

Scoles, Graham J., to Metropolitan-Vickers Electrical Co. Ltd. Electrical pulse generating circuit arrangements. 2,773,199, 12–4–56, Cl. 307—108.

Scruggs, Thomas M., to Bemis Bro. Bag Co. Woven webs. 2,772,690, 12–4–56, Cl. 139—419.

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Sebald, Joseph F., to Worthington Corp. Water treating system. 2,773,020, 12–4–56, Cl. 210—16.

Seeler, Henry W. K., to the United States of America as represented by the Secretary of the Air Force. Quick disconnect coupling for high pressure gas or liquid. 2,772,898, 12–4–56, Cl. 285—190.

Seger, Claude A., and P. B. Dettmer, to Quebec Metallurgical Industries Ltd. Method of smelting. 2,772,961, 12–4–56, Cl. 75—82.

Seifert, Walter R., to Hotchkiss Steel Products Co. Vehicle mounted load discharging elevator. 2,772,767, 12–4–56, Cl. 198—115.

Sekijima, Misuo, and J. R. Utterstrom, to Boeing Airplane Co. Alternating voltage modulation suppressors. 2,773,180, 12–4–56, Cl. 250—27.

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Shanley, James J., to Air Products, Inc. Liquefied gas pressurizing systems. 2,772,545, 12–4–56, Cl. 62—122.

Share, Jerome R., to Litho-Strip Corp. Method and means of decorating metal strip, by offset printing. 2,772,630, 12–4–56, Cl. 101—228.

Sharp, Bayard, to Yuba Mfg. Co. Dredge drive. 2,772,577, 12–4–56, Cl. 74—359.

Shaw, Harmon L., and F. E. Frost, to Perfecting Service Co. Side delivery rotary fitting. 2,772,897, 12–4–56, Cl. 285—190.

Shaw, Harold N. Semiautomatic floating covers for fry kettles. 2,772,626, 12–4–56, Cl. 99—403.

Shaw, Harold N. Fry kettles with floating covers. 2,772,978, 12–4–56, Cl. 99—163.

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Plank, Norris, and Smith. 2,772,561.
Smith, Curtis W., and Holm. 2,773,101.

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Harney, Doran B., and Shepherd. 2,772,863.

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Risinger, Edward F., Short, and Sullivan. 2,774,064.

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Raynes, Bertram C., and Sibert. 2,773,023.

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Siemens & Halske Aktiengesellschaft: *See*—
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Simmons, Leon E., deceased; G. L. Simmons, administratrix, to Joy Mfg. Co. Hydraulic control valve mechanism. 2,772,694, 12–4–56, Cl. 137—621.

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Sinclair Refining Co.: *See*—
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Rahn, Henry W., and Sindlinger. 2,772,949.
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Smith, Clarence M., to The Bryant Electric Co. Wiring device. 2,773,248, 12–4–56, Cl. 339—164.

Smith, Curtis W., and R. T. Holm, to Shell Development Co. Catalytic reactions with osmium oxide catalysts. 2,773,101, 12–4–56, Cl. 260—635.

Smith, Fred T., to The Calkins Mfg. Co. Reversible disc plow. 2,772,615, 12–4–56, Cl. 97—31.

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Snover, Melvin W.: *See*—
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Snuggs, John F., J. A. Bock, and J. E. Wolf, to Standard Oil Co. Hydrocarbon reforming with platinum catalyst and regeneration system therefor. 2,773,014, 12–4–56, Cl. 196—50.

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Socony Mobil Oil Co., Inc.: *See*—
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Penick, Joe K. 2,772,780.
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Stalker, Edward A., to The Stalker Development Co. Rotor construction for fluid machines. 2,772,852, 12–4–56, Cl. 253—39.

Stalker, Edward A., to The Stalker Development Co. Fluid turning blades. 2,772,855, 12–4–56, Cl. 253—77.

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Standard Oil Co. (Illinois): *See*—
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Field, Edmund, and Feller. 2,773,053.
Hengstebeck, Robert J. 2,773,008.
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Standard Oil Co. (Ohio), The: *See*—
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Stevens, J. P., & Co., Inc.: *See*—
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Stewart, Hugh W., to American Cyanamid Co. Preparation of 2,2'-methylene-bis-4,6-dialkyl phenols. 2,773,100, 12–4–56, Cl. 260—619.

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Stork, Gilbert. Method for the production of α-substituted organic carbonyl compounds. 2,773,067, 12–4–56, Cl. 260—464.

Stork, Gilbert. Method for the preparation of α-substituted organic carbonyl compounds. 2,773,099, 12–4–56, Cl. 260—586.

Straley, James M., and D. J. Wallace, to Eastman Kodak Co. 6-alkylsulfonylbenzothiazole azo compounds. 2,773,054, 12–4–56, Cl. 260—155.

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Cramer, George L., Raffensberger, and Strine. 2,772,795.

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Swiech, Edward and V. A. 2,772,674.

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Tarello, Savin J. Fruit picker having a plurality of pivoted knife carrying fingers. 2,772,534, 12–4–56, Cl. 56—335.

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Trussell, Roger B. Combination pair of adjustable shims for automobile camber and caster control. 2,772,596, 12–4–56, Cl. 85—50.

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Universal Oil Products Co.: *See*—
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## Classification of Designs


D. 7— 7: Des. 179,239
D14— 6: Des. 179,257
D20— 2: Des. 179,226
D26— 1: Des. 179,243
14: Des. 179,242
D26—14: Des. 179,225
D29— 1: Des. 179,249
D29— 1: Des. 179,264
D42— 7: Des. 179,240
D45— 4: Des. 179,254
D45— 4: Des. 179,228
16: Des. 179,262
Des. 179,253
Des. 179,255
19: Des. 179,261
D48—31: Des. 179,227
Des. 179,229
D49— 6: Des. 179,245
D49— 1: Des. 179,247
D67— 1: Des. 179,241
D67— 1: Des. 179,243
D71— 11: Des. 179,244
D71— 1: Des. 179,246
D72— 8: Des. 179,230
D81—10: Des. 179,245
D85— 2: Des. 179,226
Des. 179,250
8: Des. 179,258
D92— 1: Des. 179,231
Des. 179,232



# OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

December 4, 1956 Volume 713 Number 1


# TRADEMARKS

## NOTICES

### Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 333,230 (DERMETICS). The Rilling-Dermetics Co., Toilet preparations, etc., filed Oct. 26, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20644-TC, *The Rilling-Dermetics Co.* v. *Charm Laboratories.*

TM 350,350 (Ann Sutton CREATION), Lew L. Gluck, Inc., Women's and misses' dresses, filed Oct. 29, 1956, D. C., S. D. N. Y., Doc. 114/171, *Samuel Litt et al.* v. *Sutton Casuals Inc.*

TM 490,866 (PETRO), Clayton Mark & Co., Unions for connecting pipes or rods, and union check valves, filed Oct. 24, 1956, D. C., E. D. Wash. (Spokane), Doc. 1455, *Clayton Mark & Co.* v. *Industrial Coupler Co. et al.*

TM 519,096 ("HELANCA" and design), Heberlein & Co., A. G. (now Heberlein Patent Corp.), Wool-like threads and yarns of rayon; TM 891,785 (Helanca), Heberlein Patent Corp., Treating yarns and threads, etc.; TM 612,234, same, Stretchable yarns and threads, etc., filed Oct. 29, 1956, D. C., M. D. N. C. (Greensboro), Doc. 1063-G, *Heberlein Patent Corp.* v. *Silver Knit Hosiery Mills, Inc.*

TM 535,123 (STRAIGHTLINE), Kamkap, Inc., Outdoor and indoor clothes dryers, filed July 21, 1953, D. C., E. D. Pa. (Philadelphia), Doc. 15577, *Kamkap, Inc.* v. *Auto Boys et al.* Action dismissed Oct. 2, 1956.

TM 891,785. (See TM 519,096.)

TM 612,234. (See TM 519,096.)

### Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

Mussy, Inc., New York, N. Y., Reg. No. 440,978, Canc. No. 6744.

Graham B. Peake, New York, N. Y., Reg. No. 533,457, Canc. No. 6763.

Magee-Kirby Company, Beverly Hills, Calif., Reg. No. 426,738, Canc. No. 6764.

Shetland Sales Company, Inc., New York, N. Y., Reg. No. 429,395, Canc. No. 6775.

William Whitman Company, Inc., Boston, Mass., Reg. No. 376,582, Canc. No. 6789.

The Airite Corporation, Stamford, Conn., Reg. No. 431,641, Canc. No. 6790.

Remo Co., Inc., Meriden, Conn., Reg. No. 366,696, Canc. No. 6792.

DAPHNE LEEDS,
*Assistant Commissioner of Patents.*

## CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 2, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] ..... 7,310
Date of oldest new application ..... Apr. 19, 1956
Date of oldest amended application ..... Jan. 19, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

| TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION | Oldest Application: New | Oldest Application: Amended |
|---|---|---|
| I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 26, 34, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 44 and Certification Marks (Goods) Class A | 5-2-56 | 5-10-56 |
| II. SHEYOCK, R. F., Classes 6, 18, 45, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B | 4-19-56 | 4-25-56 |
| III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 35, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52 | 8-1-56 | 1-19-56 |
| Renewals (All Classes) | 10-9-56 | ---------- |
| Sec. 12 (c) Publications (All Classes) | 10-5-56 | ---------- |

Applications Filed During the Month of October 1956—1,925

Registrations Issued ..... 358—No. 637,877 to No. 638,234
Renewals Issued ..... 63


The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.60 additional; single copies, 20 cents each.






SN 5,075. American Synthetic Rubber Corporation, Louisville, Ky. Filed Mar. 23, 1956.

SN 10,239. Kleinwanzlebener Saatzucht vorm. Rabbethge & Giesecke Aktiengesellschaft, Einbeck, Hannover, Germany.

# MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

## CLASS 1

## RAW OR PARTLY PREPARED MATERIALS

SN 690,746. Lee Patten Seed Company, Jersey City, N. J. Filed July 5, 1955.

Long Islander

For Lawn and Seed Mixture.
First use May 11, 1955.
Subj. to Intf. with SN 691 and SN 2,028.

SN 696,791. Flex-O-Glass, Inc., d. b. a. Warp Brothers, Chicago, Ill. Filed Oct. 20, 1955.

**POLYWRAP**

For Thin Plastic Sheets.
First use January 1955.

SN 699,072. Halvorson Trees, Inc., Duluth, Minn. Filed Nov. 29, 1955.




For Christmas Trees.
First use Nov. 12, 1955.

SN 657. Canadian International Paper Company, Montreal, Quebec, Canada. Filed Jan. 13, 1956.

**BRIGHTCELL**

Priority claimed under Sec. 44(d) on Canadian application filed Dec. 14, 1955; Reg. No. 104,226, dated Aug. 24, 1956.
For Cellulose Pulp for Use in the Production of Viscose.

SN 691. Pedigreed Seed Co., Jersey City, N. J. Filed Jan. 13, 1956. Sec. 2(f).




Without waiving its common law rights, applicant disclaims the map of Long Island and the words "Grass Seed Mixture," apart from the mark as shown.
For Lawn Grass Seed.
First use in 1940.
Subj. to Intf. with SN 2,028 and SN 690,746.

SN 2,028. Garfield Williamson, Inc., Jersey City, N. J. Filed Feb. 3, 1956.

**LONG ISLAND**

For Grass Seed.
First use April 1949.
Subj. to Intf. with SN 691 and SN 690,746.

SN 3,276. Charter Seed Company, Twin Falls, Idaho. Filed Feb. 24, 1956.



The drawing is lined for blue, red, and yellow.
For Vegetable Seeds.
First use Jan. 11, 1956.

SN 5,053. Pittsburgh Consolidation Coal Company, Pittsburgh, Pa. Filed Mar. 22, 1956.




The drawing is lined for red. Owner of Reg. Nos. 116,944, 581,289, and others.
For Coal.
First use Dec. 13, 1955.

SN 5,056. Proban Limited, London, England. Filed Mar. 22, 1956.

**PROBAN**

Owner of British Reg. No. 745,070, dated Aug. 9, 1955.
For Textile Fibres.





SN 5,075. American Synthetic Rubber Corporation, Louisville, Ky. Filed Mar. 23, 1956.




For Polymers Such as Synthetic Rubber.
First use May 14, 1955.

SN 8,648. Henry Field Seed & Nursery Company, Shenandoah, Iowa. Filed May 21, 1956.

**HY-X**

For Tomato Seeds and Plants.
First use Apr. 10, 1956.

SN 9,453. The Fair, Chicago, Ill. Filed June 1, 1956.

**FAIRVIEW**

For Grass Seed.
First use December 1930.

SN 9,566. Mitchell Farms, Windfall, Ind. Filed June 4, 1956.



The drawing is lined for red and yellow, but applicant does not wish to be bound by said colors. Owner of Reg. Nos. 391,481, 527,090, and 540,010.
For Seed Corn.
First use Feb. 21, 1956.

SN 9,919. Interplastics Corporation, New York, N. Y. Filed June 11, 1956.




For Raw Materials for the Plastics Industry—Namely, Synthetic Resin Material in the Form of Powder, Pellets, Flakes, Granules, Sheets, Rods, Bars and Tubes.
First use Feb. 6, 1956.

SN 10,239. Kleinwanzlebener Saatzucht vorm. Rabbethge & Giesecke Aktiengesellschaft, Einbeck, Hannover, Germany. Filed June 14, 1956.

**TRIBETA**

Owner of German Reg. No. 607,002, dated May 8, 1951.
For Sugar Beets, Sugar-Beet Seed, Fodder Beets, and Fodder-Beet Seed.

SN 11,131. Basic Ceramics, Inc., Cleveland, Ohio. Filed June 28, 1956.

**CERAMAKOTE**

For Materials Used in Forming Shell Molds for Precision Metal Castings.
First use Sept. 9, 1952.

SN 11,268. Loren Products Corporation, New York, N. Y. Filed June 29, 1956.

**SPRAY-BOND**

For Batting Made of Natural Fibres, of Synthetic Fibres, and of Combinations Thereof.
First use Nov. 15, 1955.

SN 12,246. American Artists' Color Works, Inc., Hazleton, Pa. Filed July 17, 1956.

**MAGICLAY**

For Clay Modeling Sets for Children and Adults.
First use July 10, 1956.

SN 12,806. The R. T. French Company, Rochester, N. Y. Filed July 25, 1956. Sec. 2(f).

**FRENCH'S**

Owner of Reg. No. 519,858.
For Bird and Pet Supplies—Namely, Bird and Aquarium Gravel, Cuttlebone, Nesting Hair, and Catnip Mice.
First use May 1922 on cuttlebone.

SN 13,139. Celanese Corporation of America, New York, N. Y. Filed July 31, 1956.

**CELACLOUD**

For Fibrous Filling Material for Use in Upholstery, Pillows, Mattresses, and the Like.
First use July 18, 1956.

## CLASS 4

## ABRASIVES AND POLISHING MATERIALS

SN 294. S. M. Arnold, Inc., St. Louis, Mo. Filed Jan. 9, 1956.

**SPUN GOLD**

For Polisher Discs and Bonnets, Wax Applicator Pads, and Mitts for Cleaning and Polishing.
First use on or before Apr. 9, 1954.

SN 6,438. Leavitt Machine Company, Orange, Mass. Filed Apr. 16, 1956.

**STEL O DEX**

For Abrasive Facing Members for a Grinding Machine.
First use Mar. 26, 1954.

## CLASS 5

### ADHESIVES

SN 7,235. Branded Products Corp., Hackensack, N. J. Filed Apr. 27, 1956.

**SO-E-Z**

For Liquid Adhesive Applied to Fabrics To Be Mended, the Fabrics To Which the Adhesive Has Been Applied Being Then Pressed Together.
First use Mar. 2, 1956.

## CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

SN 680,825. James Robert Tully, d. b. a. Wood Preservatives Products, Seattle, Wash. Filed Jan. 31, 1955.

**Penwa-Stik**

For Chemical Wood Preservatives in the Form of Rods for Insertion Into Holes in Wood.
First use May 5, 1954.

SN 691,449. Eastman Kodak Company, Rochester, N. Y. Filed July 18, 1955. Sec. 2(f).

**Eastman**

Owner of Reg. Nos. 67,012, 513,160, and others.
For Polyethylene Waxes, and Waxes Made From Polyethylene.
First use May 19, 1955.

SN 693,565. Pennsylvania Refining Company, d. b. a. Penreco, Butler, Pa. Filed Aug. 23, 1955.

**SUKROIL**

No claim is made to the word "Oil" apart from the mark as shown.
For Self Emulsifying, Highly Refined Petroleum Oil Used To Eliminate and Inhibit the Growth of Secondary Leaves on Tobacco Plants Commonly Referred to as "Suckers."
First use June 27, 1955.

SN 696,958. Diamond Black Leaf Company, Cleveland, Ohio. Filed Oct. 24, 1955.

**NICO-FUME**

Owner of Reg. No. 49,622.
For Insecticidal Compound for Fumigating Greenhouses.
First use June 8, 1904.

SN 696,977. Halben Chemical Co. Inc., New York, N. Y. Filed Oct. 24, 1955.

**CHLOR-O-GAS**

For Insecticides and Mothicides—Namely, Crystals for Killing and Preventing Moths and Compositions for Killing Larvae and Eggs Consisting of Paradichlorobenzene.
First use January 1955.

SN 697,237. Nu-Vita Products Company, Pittsburgh, Pa. Filed Oct. 27, 1955.

**MICROJET**

Applicant disclaims the word "Sanitation."
For Household Germicide and Disinfectant.
First use December 1952.

SN 1,796. Lanolized, Incorporated, New York, N. Y. Filed Jan. 31, 1956.

**Lano-septic**

For Finishes for Textile Fabrics or Natural or Synthetic Fibers, and for Paper and Paper Products.
First use Nov. 28, 1955.

SN 3,768. Perdeck Solder Products Limited, Waltham Abbey, Essex, England. Filed Mar. 2, 1956.

**EPATAM 3311**

The numerals "3311" are disclaimed apart from the mark as shown. Owner of British Reg. No. 707,391, dated May 23, 1952.
For Soldering Preparations.

SN 4,657. Monsanto Chemical Company, St. Louis, Mo. Filed Mar. 15, 1956.




The drawing is lined for red. Owner of Reg. Nos. 333,369, 500,123, and others.
For Antifreeze.
First use Oct. 1, 1945.

SN 6,990. Crosby Chemicals, Inc., De Ridder, La. Filed Apr. 24, 1956.

**CROFATOL**

For Fatty Acids.
First use on or about Aug. 9, 1955.

SN 7,031. Metal and Thermit Corporation, Woodbridge, N. J. Filed Apr. 24, 1956.

**TBTO**

For Organic Chemicals Containing Tin.
First use on or about Apr. 6, 1956.



SN 7,254. Edwin R. Joseph, d. b. a. E. R. Joseph Co., Trooper, Norristown, Pa. Filed Apr. 27, 1956.

**ERJO**

For Brazing Flux.
First use Apr. 1, 1946.

SN 7,337. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Apr. 30, 1956. Sec. 2(f).

**DU PONT**

Owner of Reg. Nos. 374,883, 606,570, and others.
For Anhydrous Ammonia, Cyclohexanol, Cyclohexanone, Diglycolic Acid, Dimethyl Sulfate, Formamide, Hydroxyacetic Acid, Fatty Alcohols, Methacrylate Monomers, Methyl Formate, and Urea.
First use Sept. 6, 1949.

SN 7,767. Constructional Chemicals, Inc., Austin, Tex. Filed May 7, 1956.

**SEPTAMENE**

For Liquid Additive To Control the Setting and Quality of Concrete Mix.
First use March 1954.

SN 7,970. The Dow Chemical Company, Midland, Mich. Filed May 9, 1956.

**SEPARAN**

For Water-Soluble Organic Polymer Sold as a Flocculating Agent.
First use Sept. 24, 1954.

SN 8,694. R-Columbia Products Co., Highwood, Ill. Filed May 21, 1956.

**FONO-MAGIC**

For Liquid Compound for Application to Phonograph Drives To Eliminate Slippage.
First use May 10, 1956.

## CLASS 10

### FERTILIZERS

SN 6,027. Roderick I. McLellan, d. b. a. Rod McLellan Co., South San Francisco, Calif. Filed Apr. 9, 1956.

**Wonderbark**

For Plant Matrix Consisting of Fir Bark To Which Nutrients for Orchids and Other Plants Have Been Added.
First use Oct. 15, 1955.

SN 12,389. South Memphis Stockyard Company, Memphis, Tenn. Filed July 18, 1956.

**GRO! GRO!!!**

For Plant Food.
First use May 22, 1956.

## CLASS 11

### INKS AND INKING MATERIALS

SN 9,601. Speedry Products, Inc., Richmond Hill, N. Y. Filed June 4, 1956.

**MAGIC MARKER**

Applicant disclaims the term "Marker" apart from the mark as a whole.
For Felt Nib Marking Pens Comprising Small Containers for Such Ink, Equipped With Caps and Having Felt Nibs at Their Ends for Marking.
First use on or about Sept. 1, 1952.

SN 11,798. Scripto, Inc., Atlanta, Ga. Filed July 9, 1956.

**SATELLITE**

For Ink.
First use June 27, 1956.

SN 11,800. Scripto, Inc., Atlanta, Ga. Filed July 9, 1956.

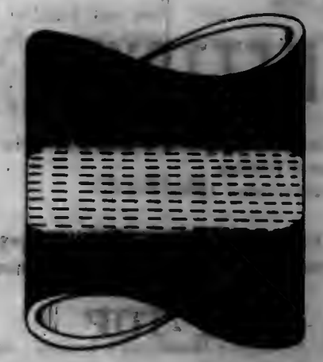
**SPACE MASTER**

For Ink.
First use June 27, 1956.

## CLASS 12

### CONSTRUCTION MATERIALS

SN 687,401. Orangeburg Manufacturing Co., Inc., Orangeburg, N. Y. Filed May 12, 1955.



The mark consists of a grey circumferential band which is sprayed directly onto or otherwise applied directly to the goods. Applicant disclaims the representation of the goods.
For Conduit, Ducts, and Pipes Made of Fibre Composition.
First use Feb. 1, 1955.

SN 691,653. American-Marietta Company, Chicago, Ill. Filed July 21, 1955.

**AMSEAL**

For End Rings for Pipe Formed of Concrete and the Like.
First use on or about July 1, 1954.

SN 696,926. The Adapane Company, Winnipeg, Manitoba, Canada. Filed Oct. 24, 1955.

ADAPANE

For Glazing and Weather Strips for Windows and Doors.
First use October 1954.

SN 700,295. Basic Refractories Incorporated, Cleveland, Ohio, now by change of name Basic, Incorporated. Filed Dec. 20, 1955. Sec. 2(f).

"Spreads like warm butter"

For Hydrated Lime for Building and Construction Purposes.
First use May 1, 1920.

SN 2,374. Orchard Brothers Incorporated, Rutherford, N. J. Filed Feb. 9, 1956.

ERECTANGLE

For Metal Structural Members—Namely, Channels, Angles, Beams, and the Like.
First use Jan. 26, 1956.

SN 2,933. Tarr and Wonson, Limited, Gloucester, Mass. Filed Feb. 17, 1956.

SEA JACKET

For Bedding Compound, Non-Skid Compound, Wood Filler, and Seam Compound.
First use September 1954.

SN 3,377. Fair Haven Slate Company, Inc., Fair Haven, Vt. Filed Feb. 27, 1956.

METTOWEE

For Slate Stone Flooring, Slate Stone Hearth Flooring, and Slate Stone Mantel Facing.
First use about October 1950.

SN 5,662. Northwest Ga. Enterprises, Inc., Rome, Ga. Filed Apr. 2, 1956.

TIP-TOP

For Prefabricated Boat Houses.
First use Mar. 5, 1956.

SN 6,249. Globe Roofing Products Co., Inc., Whiting, Ind. Filed Apr. 12, 1956.

EVERGLAZE

For Mineral Surfaced Asphalt Shingles.
First use Sept. 5, 1945.

SN 7,951. Sears, Roebuck and Co., Chicago, Ill. Filed May 8, 1956.

VERTI-STRIPE

For Metal Awnings.
First use on or about June 1, 1953.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 696,832. Safe-T Flow Corporation, Barre, Mass. Filed Oct. 20, 1955.

SAFE-T-FLOW

For Float-Type Automatic Shut-Off Devices for Overflow of Fuel Oil Burners and the Like.
First use Nov. 1, 1954.

SN 2,936. Alfonso J. Diletto, d. b. a. Enterprise Ornamental Statuary Products, Meadowbrook, Pa. Filed Feb. 20, 1956.

CONCEAL-A-VENT

For Ornamental Figures for Concealing Roof Plumbing Vent Pipes.
First use Oct. 10, 1955.

SN 7,752. Buckeye Iron & Brass Works, Dayton, Ohio. Filed May 7, 1956. Sec. 2(f).

PRESTITE

Owner of Reg. No. 388,452.
For Fill Caps for Closing Liquid Conduit Openings.
First use Mar. 22, 1951.

SN 8,440. Russell Sabor, Minneapolis, Minn. Filed May 16, 1956.

SPRINK-O-MATIC

For Automatic Valves for Dispensing and Distributing Liquids in an Irrigation Sprinkling System From a Main Source to the Individual Channels Through Mechanical Means.
First use Jan. 4, 1955.

SN 11,273. Market Forge Company, Everett, Mass. Filed June 29, 1956. Sec. 2(f).

STEAM-IT

Owner of Reg. No. 545,771.
For Pressure Cookers.
First use Nov. 11, 1949.

SN 11,484. Melvin J. Houck, d. b. a. Mel Houck Products, Tulare, Calif. Filed July 3, 1956.




First use October 1951.
For Drawer Slides.



SN 11,646. Snell-Jones Mfg. Co., Inc., Brockton, Mass. Filed July 3, 1956.

PRESTO

For Wire and Cut Tacks, Nails, Staples, Brads, and Double Pointers.
First use Jan. 1, 1940.

CLASS 15

OILS AND GREASES

SN 700,936. Paragon Oil Company, Incorporated, Long Island City, N. Y. Filed Dec. 27, 1955.

paragon
None Better

"None Better," "Gasoline," and "Motor Oils" are disclaimed apart from the mark as shown. Owner of Reg. No. 554,167.
For Gasoline and Petroleum Lubricating Oils.
First use Apr. 1, 1925.

SN 14,299. Union Carbide and Carbon Corporation, New York, N. Y. Filed Aug. 20, 1956.

UNION CARBIDE

For Synthetic Lubricant.
First use June 20, 1956.

SN 14,602. Victrylite Candle Company, Oshkosh, Wis. Filed Aug. 24, 1956.

HERITAGE

For Candles.
First use July 1, 1956.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 686,522. American-Marietta Company, Chicago, Ill. Filed Apr. 29, 1955.

Jell-O MAGIC

The drawing is lined for red but no claim is made to color. Applicant claims exclusive right to the use of the word "Jelled" as a part of its mark, but not otherwise. Owner of Reg. No. 617,380.
For Thixotropic Gel Paint.
First use on or about Mar. 7, 1955.

SN 8,430. The O'Brien Corporation, South Bend, Ind. Filed May 16, 1956.

BONANZA

For Wall Paint.
First use Feb. 1, 1955.

SN 8,862. The Marsol Corporation, Bay City, Tex. Filed May 23, 1956.

CRETO

For Waterproof and Preservative Coating Compound.
First use Jan. 13, 1956.

CLASS 17

TOBACCO PRODUCTS

SN 7,533. Riggio Tobacco Corporation, Brightwaters, N. Y. Filed May 2, 1956.

REGENT
High Quality
CIGARETTES

The drawing is lined for red. The words "High Quality Cigarettes" are disclaimed apart from the mark. Owner of Reg. No. 369,300.
For Cigarettes.
First use Jan. 9, 1956.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 696,117. The Central Pharmacal Company, Seymour, Ind. Filed Oct. 10, 1955.

PALATABS

For Sweetened Flavored Medicinal Tablets Especially for Children, for the Relief of Headaches, Neuralgia, Minor Aches and Pains, and Discomforts Due to Colds.
First use 1932.

SN 698,613. E. W. Heun Co., St. Louis, Mo. Filed Nov. 21, 1955.

GASTROSEAL

For Enteric Coated Pharmaceutical Tablets.
First use September 1952.

SN 78. Dr. L. D. Le Gear Medicine Company, St. Louis, Mo. Filed Jan. 3, 1956.



PIG SWIG

Owner of Reg. Nos. 291,444, 600,912, and others.
For Liquid Wormer for the Removal of Large Round Worms and Nodular Worms From Swine.
First use Nov. 10, 1955.

SN 238. Clover Chemical Company, Eightyfour, Pa. Filed Jan. 6, 1956.

CLOVER-FEEN

For Anthelmintic for Removing Internal Parasites From Livestock, Comprising Flavored Phenothiazine.
First use Oct. 15, 1955.

SN 478. Botan Pharmaceutical Company, Providence, R. I. Filed Jan. 11, 1956.

KIN

For Skin Ointment for the Protection of the Skin and Treatment of Skin Irritations.
First use Aug. 26, 1955.

SN 2,589. Sun-Gold Vitamin Supply Co., Seattle, Wash. Filed Feb. 13, 1956.

SUN-GOLD

For Vitamin and Mineral Food Supplement.
First use Dec. 29, 1955.

SN 3,028. Protein Feed Corp., Tennent, N. J. Filed Feb. 20, 1956.

PRO-VI-MIN

For Pharmaceutical in Concentrated Form Having as Essential Ingredients Thereof Selected Vitamins, Minerals, and Proteins, Used as a Feed Supplement for Animal Feeds.
First use May 1952.
Subj. to Intf. with Reg. No. 621,690.

SN 3,375. Eric, Kirk & Gary, Inc., Cincinnati, Ohio. Filed Feb. 27, 1956.




For Drugs and Medicines—Namely, Vitamins in Capsule, Tablet or Liquid Form; Cardio-Vascular Drugs in Capsule or Tablet Form.
First use Jan. 12, 1956.

SN 4,586. S. J. Tutag & Company, Detroit, Mich. Filed Mar. 14, 1956.

TRE-O-TABS

For Anorectic-Hormonal Preparation for Use in Obesity.
First use February 1945.

SN 4,587. S. J. Tutag & Company, Detroit, Mich. Filed Mar. 14, 1956.

TRE-O-CAPS

For Anorectic-Hormonal Preparation for Use in Obesity.
First use February 1953.

SN 4,980. Nysco Laboratories, Inc., Long Island City, N. Y. Filed Mar. 21, 1956.

PENTASERPINE

For Medicinal Relaxant and Sedative Preparation.
First use Mar. 1, 1956.

SN 6,270. Nordmark Pharmaceutical Laboratories, Inc., Irvington, N. J. Filed Apr. 12, 1956.

PANZYNORM

For Extract of the Hog Stomach Mucosa To Be Used as a Pharmaceutical Preparation for the Deficiency of Gastric Secretion.
First use Mar. 21, 1956.

SN 6,879. George S. Varner, d. b. a. Varner Mills, Rock Island, Ill. Filed Apr. 20, 1956.

VARO-VITA

For Cattle Feed Supplement Containing Vitamins and Sulphates.
First use Apr. 2, 1956.

SN 7,053. Harvey Wolfson, d. b. a. Columbia Medical Company, New York, N. Y. Filed Apr. 24, 1956.

SPEEDRIN

For Buffered Aspirin.
First use Feb. 3, 1956.

SN 7,456. Premo Pharmaceutical Laboratories, Inc., South Hackensack, N. J. Filed May 1, 1956.

VITA RESPITAL

Owner of Reg. No. 630,301.
For Therapeutic Composition for Malnourished and/or Mentally Disturbed Persons.
First use Oct. 15, 1955.

SN 8,477. George Wayne Edwards, d. b. a. Deaf Smith County Pharmaceutical Co., Hereford, Tex. Filed May 17, 1956.

FLUORAMIN

For Vitamin Preparation in Tablet Form.
First use Apr. 26, 1956.

SN 8,519. Xtrium Co., Chicago, Ill. Filed May 17, 1956.

RYTHROSITE

For Dietary Supplement in Treatment of Anemia.
First use Mar. 1, 1956.

SN 8,602. Abbott Laboratories, North Chicago, Ill. Filed May 21, 1956.

TERGEMIST

For Solution for Aerolisation for Relief of Bronchial Congestion.
First use Feb. 7, 1956.



SN 9,234. The Borden Company, New York, N. Y. Filed May 31, 1956.

D-Q

For Vitamin A and D Concentrate and for Vitamin-Mineral Mixture.
First use May 31, 1954.

SN 9,468. Hoffmann-La Roche Inc., Nutley, N. J. Filed June 1, 1956.

TASHAN

For Therapeutic Skin Cream.
First use Mar. 28, 1956.

SN 12,696. Ortho Pharmaceutical Corporation, Raritan, N. J. Filed Aug. 13, 1956.

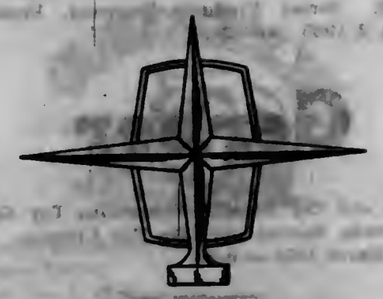
RARICAL

Owner of Reg. No. 590,771.
For Dietary Supplements Containing Minerals.
First use Oct. 29, 1953.

CLASS 19

VEHICLES

SN 691,762. Ford Motor Company, Dearborn, Mich. Filed July 22, 1955.



The mark comprises an emblem having four right-angled points overlying a generally rectangular frame. Owner of Reg. No. 606,637.
For Motor Cars.
First use June 24, 1955.

SN 9,435. Boles-Aero, Inc., Burbank, Calif. Filed June 1, 1956.

ZENITH

For Trailer Coaches.
First use May 5, 1956.

SN 9,558. Loria-Cournand, Inc., Havre de Grace, Md. Filed June 4, 1956.

SKIMBOAT

For Motor Boats.
First use May 14, 1956.

SN 9,588. Stanley F. Raczynski, d. b. a. Nashua Manufacturing Co. of California, Tulare, Calif. Filed June 4, 1956.

NASHUA

For House Trailers.
First use May 1, 1949.



SN 9,859. Goodyear Aircraft Corporation, Akron, Ohio. Filed June 8, 1956.

INFLATOPLANE

For Airplanes.
First use Feb. 1, 1956.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 3,506. Zayon Corporation, Seattle, Wash. Filed Feb. 27, 1956.




For Electrical Glass Heating Assemblies.
First use Jan. 2, 1955.

SN 3,612. Julius Kupfer, Inc., New York, N. Y. Filed Feb. 29, 1956.

HOLLY-LITES

For Christmas Tree Lights.
First use May 1, 1952.

SN 3,701. Municipal Street Sign Co., Inc., Brooklyn, N. Y. Filed Mar. 1, 1956.




For Sound Producing Device Incorporating an Automatic Sound Recording and/or Reproducing System and/or Microphone for Instantaneous Sound Reproduction.
First use May 1955.

SN 5,511. Doyle Vacuum Cleaner Company, Grand Rapids, Mich. Filed Mar. 30, 1956. Sec. 2(f).

DOYLE

Owner of Reg. No. 536,491.
For Electrical Vacuum Cleaners and Attachments Therefor and Vacuum Cleaner Bags.
First use on or about Sept. 1, 1938.

SN 5,790. Radiant Products, Inc., Monroe, N. C. Filed Apr. 4, 1956.

KOZY KIDDY

For Heated Baby Play Pen Pad.
First use Nov. 25, 1955.

SN 7,251. Given Manufacturing Co., Los Angeles, Calif., now by change of name Waste King Corporation. Filed Apr. 27, 1956.

**WASTE KING**

Owner of Reg. Nos. 444,294 and 570,172.
For Electrically Operated Automatic Dishwashers and Electric Machines for Grinding Up Garbage.
First use in February 1947 on electric machines for grinding up garbage.

SN 7,258. Lodge Plugs Limited, Rugby, England. Filed Apr. 27, 1956.

**SINTOX**

Owner of British Reg. No. 687,996, dated Apr. 6, 1950; and U. S. Reg. No. 370,078.
For Electrical Insulating Material and Electrical Insulator Parts, All Made Principally of Alumina.

SN 8,885. Sprague Electric Company, North Adams, Mass. Filed May 23, 1956.

**FABMIKA**

For Electrical Capacitors.
First use May 4, 1956.

SN 9,118. Control Products, Inc., Harrison, N. J. Filed May 28, 1956.

**FLAT-STAT**

For Electric Switch.
First use May 14, 1956.

SN 9,267. Hermes Sonic Company, New York, N. Y. Filed May 29, 1956.

Hermes sonic

For Ultrasonic Watch Cleaning Machine.
First use May 2, 1956.

SN 9,772. Comet Lamp Company, New York, N. Y. Filed June 7, 1956.

*TRAC-O-LITE*

For Interchangeable Lighting Fixture.
First use January 1956.

SN 10,084. Duro-Test Corporation, North Bergen, N. J. Filed June 12, 1956.

**SUPER-LUMEN**

For Incandescent and Fluorescent Lamps.
First use May 17, 1956.

SN 10,087. General Cable Corporation, New York, N. Y. Filed June 12, 1956.

**GENCATROL**

For Insulated Electrical Wires.
First use May 26, 1956.

SN 10,186. New York Merchandise Co., Inc., New York, N. Y. Filed June 13, 1956.

**FLIK-A-LITE**

For Electric Christmas Tree Lights and Decorations.
First use Feb. 1, 1956.

## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

SN 691,687. Gerber Products Company, Fremont, Mich. Filed July 21, 1955. Sec. 2(f) as to "Gerber."

**The Gerber Baby**

For Dolls and Toy Utensils—Namely, Toy Spoons, Dishes, Bottles, Brushes, Bubble Pipes and Like Toy Utensils, and Dolls' Clothing—Namely, Boots, Dresses, and Sleeping Garments.
First use Dec. 31, 1954; March 1936 as to "Gerber."

SN 692,325. Gerber Products Company, Fremont, Mich. Filed Aug. 2, 1955. Sec. 2(f).

**Gerber**

For Dolls and Toy Utensils Comprising Toy Nursing Bottles, Toy Bowls, Spoons and Like Toy Utensils.
First use March 1936 on dolls.

SN 694,008. Sifo Company, St. Paul, Minn. Filed Aug. 31, 1955.

*Fran-Tick the Train*

For Pull Train Toy.
First use Apr. 1, 1955.

SN 694,009. Sifo Company, St. Paul, Minn. Filed Aug. 31, 1955.

**ROCK-A-BYE TWIN BUILD-UP**

For Platform and Build Up Blocks.
First use Apr. 5, 1955.

SN 694,014. Sifo Company, St. Paul, Minn. Filed Aug. 31, 1955.

**KINDER-SCHOOL**

For Children's Bag and Container in Combination With Play Blocks or Toys.
First use Apr. 5, 1955.



SN 694,201. Consolidated Research and Development Corporation, Monrovia, Calif. Filed Sept. 6, 1955.

Aqua-Glide

Owner of Reg. No. 558,258.
For Water Skis.
First use Nov. 15, 1949.

SN 700,418. La Chemise Lacoste, Paris, France. Filed Dec. 19, 1955.



Owner of French Reg. No. 393,011, dated Mar. 30, 1949 (Paris); Natl. Inst. No. 448,089.
For Sports Equipment—Namely, for Tennis Racquets, Tennis Balls, Golf Clubs, and Golf Balls.

SN 4,339. Maxwell Manufacturing Company, Vancouver, Wash. Filed Mar. 12, 1956.




The drawing is lined for red.
For Fishing Tackle.
First use June 1, 1946.

SN 4,346. Monsanto Chemical Company, St. Louis, Mo. Filed Mar. 12, 1956.

**MONSANTO**

For Golf Balls and Golf Tees.
First use Feb. 15, 1939, on golf tees.

SN 4,439. Gerber Products Company, Fremont, Mich. Filed Mar. 13, 1956.



The representation of an infant's head is an artistic drawing of a picture of Ann Turner Cook taken when a child, consent of record.
For Toys—Namely, Blocks, Balls, Building Sets, Sand Pile Sets—Namely, Sand Sieves, Pails, Shovels and Molds, Bottles, Wagons and Wagon Sets, Sprinklers and Sprinkler Sets, Wheelbarrows and Wheelbarrow Sets.
First use August 1955.

SN 4,730. Cyril Edmond McDonald, Washington, D. C. Filed Mar. 16, 1956.

**CHAMPION**

For Medium for Scoring Amateur and Professional Boxing Matches (Prize Fights).
First use Mar. 1, 1956.

SN 4,883. E. L. Blair & Son, Williamsport, Pa. Filed Mar. 20, 1956.

**PER-F-ECT**

For Salmon Egg Hooks; Minnow Wires; Snelled Worm Gangs; Nylon Snelled Hooks; Leaders and Spinning Nylon Lines.
First use Jan. 10, 1948.

SN 9,493. Lewis Sargent, Kernville, Calif. Filed June 1, 1956.




For Fishing Lures.
First use Feb. 2, 1954.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 676,624. Geraetebau-Anstalt, Balsers, Balsers, Liechtenstein. Filed Nov. 15, 1954.

**BALZERS**

Owner of Liechtenstein Reg. No. 344, dated Oct. 22, 1953.
For Vacuum Machinery and Parts and Accessories Thereof for Use in Connection With Smelting, Melting, Casting, Annealing, Sintering, De-Gassing and Distillation of Metals and for Impregnation, Distillation, Drying and the Coating of Eye and Spectacle Glasses, Lenses and Other Optical Goods With Thin Films for Producing Reduced or Increased Absorption or Reflection.

SN 685,503. Kwikset Locks, Inc., Anaheim, Calif. Filed Apr. 14, 1955.




For Powdered Metal Parts, Such as Sprockets, Gears, Brush Holders.
First use Jan. 19, 1954.

SN 692,903. Daniel M. Cecharlo, West Hollywood, Calif. Filed Aug. 12, 1955.

STA-GREEN

For Hand Tool for Removing Pock Marks on Golf Courses.
First use during the month of November 1954.

SN 1,461. Nordischer Maschinenbau Rud. Baader, Lubeck, Germany. Filed Jan. 25, 1956.

## STRAIGHTLINE

Owner of German Reg. No. 675,447, dated May 4, 1955.
For Machines for Decapitating, Eviscerating, Boning, Cleaning and Filleting Fish Bodies and Drives for Such Machines.

SN 6,806. Horne-Wilson, Inc., Atlanta, Ga. Filed Apr. 20, 1956.

Readi-Flo

The drawing is lined for red, but no claim is made to color.
For Pumps and Water Systems.
First use Apr. 3, 1956.

SN 6,950. Noble Company, Oakland, Calif. Filed Apr. 23, 1956.

## BATCHMOBILE

For Cement and Aggregate Batching Plants.
First use Apr. 2, 1956.

SN 8,538. Taylor E. Decker, d. b. a. Decker Manufacturing Co., Rockford, Ill. Filed May 18, 1956.

## HYDRO-FLATER

For Tire Liquid Inflaters and Accessories Therefor.
First use Mar. 9, 1956.

SN 8,591. Triangle Package Machinery Company, Chicago, Ill. Filed May 18, 1956.

## ELEC-TRI-FLEX

For Automatic Bag Making, Filling, and Sealing Machines.
First use on or about Mar. 29, 1956.

SN 8,671. Frank C. Kopecky, d. b. a. Pewaukee Novelty Mfg. Co., Pewaukee, Wis. Filed May 21, 1956.

## CICLE BUSTER

For Device To Split Twin Water Ice Novelties.
First use Aug. 20, 1955.

SN 9,064. Underwood Corporation, New York, N. Y. Filed May 25, 1956.

## GOLDEN TOUCH

For Typewriters and Parts Thereof.
First use Apr. 9, 1956.

SN 9,408. Dr. Otto Stader, d. b. a. Ardmore Specialties, Ardmore, Pa. Filed May 31, 1956.

## "HooKouT"

For Fisherman's Pliers.
First use Mar. 25, 1956.

SN 9,417. Stevens Walden Inc., Worcester, Mass. Filed May 31, 1956.

SW

For Adjustable, Box, Open End, and Combination Wrenches and Special Wrenches, Screw-Drivers, Flaring Tools, Tubing Cutters, Valve Tools, and Piston Vices.
First use Jan. 3, 1956.

SN 9,440. Clinton Machine Company, Clinton, Mich. Filed June 1, 1956.

CLINTON

For Internal Combustion Engines, Outboard Motors, Chain Saws, and Parts Thereof.
First use at least as early as 1946 on internal combustion engines and parts thereof.

SN 9,507. The Waterbury Farrel Foundry & Machine Company, Waterbury, Conn. Filed June 1, 1956.

## HEADMASTER

For Machine Tools—Namely, Headers Employed in the Making of Bolts and Screws.
First use May 9, 1956.

SN 9,643. Joy Manufacturing Company, Pittsburgh, Pa. Filed June 5, 1956.

## COPPERHEAD

For Drill Bits.
First use Feb. 3, 1954.



SN 9,649. Kwikset Locks, Inc., Anaheim, Calif. Filed June 5, 1956.

K P M P

For Structural Parts—Namely, Rotating Bands and Cams.
First use Jan. 18, 1954.

SN 9,668. Regie Nationale des Usines Renault, Billancourt, Seine, France. Filed June 5, 1956.

## VENTOUX

Owner of French Reg. No. 450,425, dated Apr. 15, 1955 (Seine); Natl. Inst. No. 55,215.
For Motors for Motor Vehicles.
First use February 1956.

SN 9,831. Viber Company, Burbank, Calif. Filed June 7, 1956.

## UNIVIBER

Owner of Reg. Nos. 297,997 and 623,385.
For Machines for Vibrating, Placing, and Packing Wet Concrete in Forms and Molds.
First use on or about May 1, 1956.

SN 9,835. Worthington Corporation, Harrison, N. J. Filed June 7, 1956. Sec. 2(f).

## WORTHINGTON

For Pumps, Compressors, Blowers, Ejectors, Internal Combustion Engines, Comminutors, Condensing and Evaporating Apparatus, Accumulators, Oil Separators, Boiler Feedwater Apparatus, Machinery, Apparatus and Valve Elements for Raising, Forcing, Controlling and Regulating Flow of Liquids, Gases or Steam.
First use in the year 1845.

SN 9,865. The International Silver Company, Meriden, Conn. Filed June 8, 1956.

## MARK III

For Stainless Steel Flatware—Knives, Forks, and Spoons.
First use Apr. 26, 1956.

SN 9,876. John M. R. Lyeth, Jr., d. b. a. Lyeth Engineering Company, East Detroit, Mich. Filed June 8, 1956.

HI-TORK

For Vehicle Differential Assemblies.
First use Oct. 7, 1953.

SN 9,951. Joseph B. Cox, d. b. a. Omark Industries, Portland, Oreg. Filed June 11, 1956.

Omark

The shaded portions denote color contrast.
For Powder Actuated Tools, Drive Pins, Drill Anchors, and Tool Kits.
First use May 25, 1956.

SN 10,000. Midas, Inc., Chicago, Ill. Filed June 11, 1956.

MIDAS

Owner of Reg. No. 620,322.
For Mufflers for Internal Combustion Engines and Parts Thereof—Namely, Tail Pipes, Exhaust Pipes, and Muffler Clamps.
First use June 1955.

SN 10,082. A. B. Dick Company, Niles, Ill. Filed June 12, 1956.

Owner of Reg. Nos. 352,367, 547,242, and 599,022.
For Machines for Offset Duplication and Parts Thereof.
First use Oct. 13, 1955.

SN 16,002. Markwell Manufacturing Co. Inc., New York, N. Y. Filed Oct. 8, 1956.

## STAPLE-MASTER

The term "Staple" is hereby disclaimed apart from the mark as shown.
For Stapling Machines Used for Fastening Papers, Cardboard, Fabrics, Metal, Etc.; Together Also for Fastening Papers, Cardboard, Fabrics, Metal, Etc. on to Wood, Etc.
First use Aug. 26, 1936.

SN 16,003. Markwell Manufacturing Co. Inc., New York, N. Y. Filed Oct. 8, 1956.

## PUNCHMASTER

For Hand-Carried Punches Used for Punching Holes in Tickets, Papers, Cardboard, and Cloth Fabrics.
First use July 10, 1940.

SN 16,004. Markwell Manufacturing Co. Inc., New York, N. Y. Filed Oct. 8, 1956.

## ATOMIC

For Stapling Machines Used for Fastening Papers, Cardboard, Fabrics, and Metal Together, and Also for Fastening Papers, Cardboard, Fabrics, and Metal on to Wood.
First use Aug. 9, 1945.

SN 16,007. Thomas Collators Inc., New York, N. Y. Filed Oct. 9, 1956.



For Mechanical Fingers for Gathering Paper Sheets in Their Proper Sequence Termed Collators.
First use May 1947.

SN 16,311. Geo. J. Meyer Manufacturing Co., Cudahy, Wis. Filed Oct. 10, 1956. Sec. 2(f).

MEYER-DUMORE

For Bottle Washing Machines, Bottle Filling Machines, and Pasteurisers.
First use Jan. 1, 1919.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

SN 686,596. A. S. Aloe Company, St. Louis, Mo. Filed May 2, 1955.

DISPENSA-SLIDE

For Containers for Microscope Slides.
First use Apr. 20, 1955.

SN 1,439. Emil C. Hellwig, d. b. a. E. C. Hellwig, Burlington, Iowa. Filed Jan. 25, 1956.




For Guides for Aligning Pipe When Being Bent.
First use Sept. 12, 1955.

SN 4,955. Heia Manufacturing Corp., New York, N. Y. Filed Mar. 21, 1956.

CLIP-PER CASE

Applicant disclaims the word "Case" apart from the mark as shown.
For Eye Glass Cases.
First use Mar. 1, 1954.

SN 15,430. Perry Industries Incorporated, Brooklyn, N. Y. Filed Sept. 13, 1956.

ACCOFIL

For Filling Machine for Rapid and Accurate Premeasured Filling of Vials in Small Containers by Vacuum With Powder and Other Free Flowing Materials Other Than Liquids.
First use Apr. 26, 1948.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

SN 686,453. Importadora de Relogios Sul-Americana S. A., Rio de Janeiro, Brazil. Filed Apr. 28, 1955.

Langton

Priority is claimed under Sec. 44(d) on Brazilian application filed Nov. 8, 1954; Reg. No. 187,978, dated Aug. 31, 1956.
For Watches and Clocks.

SN 8,709. Pierre Seitz, Les Breuets, Switzerland. Filed May 21, 1956.




Priority claimed under Sec. 44(d) on Swiss Reg. No. 160,055, dated Feb. 14, 1956.
For Shock Absorbers for Watches and Parts of Watches.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

SN 1,154. Gale Creations, Inc., New York, N. Y. Filed Jan. 20, 1956.




For Costume Jewelry, Not Including Watches.
First use July 1, 1955.

SN 12,820. D. Lisner & Co. Inc., New York, N. Y. Filed July 25, 1956.

JUNIOR PROM

For Jewelry—Namely, Necklaces, Bracelets, Earrings, and Brooches for Personal Wear or Adornment, Not Including Watches.
First use June 11, 1956.



## CLASS 31

## FILTERS AND REFRIGERATORS

SN 2,680. Arizona Minerals Corporation, Yuma, Ariz. Filed Feb. 15, 1956.

AMCO

For Water Conditioning Material—Namely, Natural Ion Exchange Materials, Artificial Sodium Aluminosilicate Cation Exchange Material, Artificial Resinous Cation, and Anion Exchange Materials.
First use Oct. 3, 1955.

SN 3,343. The Barnebey-Cheney Company, Columbus, Ohio. Filed Feb. 27, 1956.

BLACK MAGIC

For Gas and Liquid-Conditioning Filters Containing Activated Charcoal.
First use Oct. 24, 1955.

SN 8,186. Carl L. Boehler, d. b. a. C. L. B. Company, Houston, Tex., to C. L. B. Company, Houston, Tex. Filed May 14, 1956.

CLIP IT

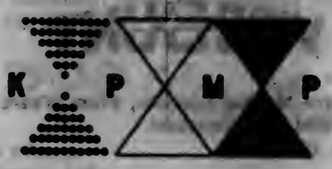
For Air Filters.
First use on or about Apr. 11, 1956.

SN 9,646. Kwikset Locks, Inc., Anaheim, Calif. Filed June 5, 1956.




Owner of Reg. Nos. 518,394, 625,287, and others.
For Filters.
First use Dec. 9, 1954.

SN 9,650. Kwikset Locks, Inc., Anaheim, Calif. Filed June 5, 1956.




For Filters.
First use Dec. 9, 1954.

SN 9,715. Fram Corporation, Providence, R. I. Filed June 6, 1956.

FRAM

Owner of Reg. No. 337,799.
For Filters and Filter Elements for Filtering Liquids and Gases, and for Separating Liquids.
First use about September 1948.

## CLASS 32

## FURNITURE AND UPHOLSTERY

SN 685,775. Speed Products Company, Inc., Long Island City, N. Y., now by change of name Swingline, Inc. Filed Apr. 18, 1955.

Swingline

Owner of Reg. Nos. 358,506, 628,205, and others.
For Office Cabinets and Display Cabinets.
First use June 15, 1952.

SN 4,154. Sedgwick Equipment Corporation, New York, N. Y. Filed Mar. 8, 1956.

MONO-AISLE

For Storage Systems Comprising Mobile Shelving Racks Mounted on Rollers and Tracks Therefor.
First use Dec. 20, 1955.

SN 5,951. Tepper's Plainfield, Plainfield, N. J. Filed Apr. 6, 1956.

NETHERWOOD

For Foam Rubber Mattresses, Box Springs, Innerspring Mattresses, Foam Rubber and Innerspring Divans and Studios, Innerspring and Foam Rubber Sofa Beds, Folding Cots, Boudoir Chairs; Bedroom Furniture of Maple, Mahogany, Colonial and Provincial Cherry, Consisting of Single, Double and Triple Dressers, Chests, Chest on Chest, Beds, Headboards, and Night Tables, Student Desks, Knechole Desks; Bachelor Chests of Mahogany, Cherry, Oak and Maple, Twin Chests, Vanity Desks; Dining Room Furniture of Mahogany, Cherry and Provincial Cherry, Consisting of Buffets, Regular and Corner China Cabinets, Servers, Breakfronts, Tables, Drop Leaf Tables and Chairs, Mahogany, Maple, Pine and Cherry Wall Shelves; Colonial, Provincial, Traditional and Modern Sofas, Chairs, Love Seats, Sectional Sofas, Occasional Chairs; Desks, Secretaries, Breakfronts of Cherry, Mahogany and Oak, Occasional Tables, Credenzas, Magazine Racks, and Valet Stands.
First use Sept. 21, 1955.

SN 7,089. Holman-O. D. Baker Co. Inc., East Boston, Mass. Filed Apr. 25, 1956.

Treasury
OF SLEEP

For Mattresses and Box Springs.
First use Mar. 28, 1956.

SN 7,545. Topcraft, Inc., Baltimore, Md. Filed May 2, 1956.




For Tabletops, Sinktops, Countertops, Bartops, Shelves, Bathroom Vanitories and Bathroom Medicine Cabinets, All Made Substantially of Formica and Other Compressed Plastics.
First use July 1949.

SN 8,302. Williams Furniture Corporation, Sumter, S. C. Filed May 14, 1956.

## SPICE BOX

For Furniture—Namely, Benches, Bookcases, Buffets, Cabinets, Chairs, Chests, Chests of Drawers, Commodes, Desks, Dressers, Mirrors, Night Stands, Stools, and Tables.
First use Jan. 26, 1949.

SN 8,507. Sherrill Furniture Corporation, New York, N. Y. Filed May 17, 1956.

## WONDERBRASS

For All Varieties of Brass Furniture, Such as Brass Tables, Brass Chairs, Brass Bedsteads, Brass Bars, Etc.
First use Nov. 1, 1954.

SN 8,711. William L. Shepherdson, Phoenix, Ariz. Filed May 21, 1956.

## NU-FOLD

For Folding Tables and Chairs.
First use Dec. 21, 1955.

SN 9,979. The Globe-Wernicke Co., Norwood, Cincinnati, Ohio. Filed June 11, 1956.




The representation of the tray drawer and the words "Modern Secretarial Efficiency" are disclaimed apart from the mark as shown.
For Stationery Tray Drawer for Typewriter Desks.
First use May 25, 1956.

SN 12,800. The Dayton Rubber Company, Dayton, Ohio. Filed July 25, 1956.

## SLEEPER-ETTE

For Pillows.
First use June 8, 1956.

SN 13,024. Columbia Bedding Company, Chicago, Ill. Filed July 30, 1956.

## BETSY ROSS

For Mattresses and Box Springs.
First use June 1, 1946.

SN 13,166. Nepenge, Inc., New York, N. Y. Filed July 31, 1956.

## FURNITURE ACCENTS

The word "Furniture" is disclaimed apart from the mark as shown.
For Furniture Made Wholly or Partly of Wrought Iron—Namely, Bars, Beds, Benches, Bookcases, Buffets, Chairs, Cocktail Tables, Desks, End Tables, Headboards, Hutch Tops, Lamp Tables, Luggage Racks, Magazine Racks, Record Cabinets, Record Album Beds, Room Dividers, Servers, Stools, Wall Racks, and Wall Storage Units.
First use on or about Jan. 2, 1956.

### CLASS 34

### HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 8,139. Axeman-Anderson Company, Williamsport, Pa. Filed Feb. 23, 1956.



The colors are red, black, and silver or white.
For Fuel Burning Heaters and Boilers and Accessories Therefor.
First use in October 1947.

SN 3,245. Thermica, Societe Anonyme, Casablanca, Morocco. Filed Feb. 23, 1956.

## FRIVAP

Priority is claimed under Sec. 44(d) on Moroccan Reg. No. 13,233, dated Dec. 20, 1955.
For Air Humidifying and Cooling Apparatus.

SN 8,474. Doray Lamp Co., Inc., Chicago, Ill. Filed May 17, 1956.

## TIGER-EY

Owner of Reg. No. 254,392.
For Safety Reflecting Signal Lenses.
First use June 5, 1928.

SN 9,261. Goldy-Harvey-Reese Enterprises, Inc., d. b. a. G. H. R. Enterprises, Inc., North Hollywood, Calif. Filed May 29, 1956.

## VISCOUNT

For Machine for Making Popcorn, From Which the Popcorn Is Hand-Drawn and Not Dispensed.
First use Apr. 10, 1956.

SN 10,500. Utility Appliance Corp., Los Angeles, Calif. Filed June 18, 1956.

## IM-PAK

For Blowers.
First use Apr. 9, 1956.

SN 10,634. Whirlpool-Seeger Corporation, St. Joseph, Mich. Filed June 20, 1956.

## WHIRLPOOL

For Incinerators.
First use May 24, 1956.



SN 10,975. Beacon-Morris Corporation, Boston, Mass. Filed June 26, 1956.

## Dampermatic

For Baseboard Radiators.
First use Sept. 11, 1955.

SN 11,170. Jackes-Evans Manufacturing Company, St. Louis, Mo. Filed June 28, 1956.

## Bathmaster

For Space Heaters.
First use Feb. 20, 1956.

### CLASS 36

### MUSICAL INSTRUMENTS AND SUPPLIES

SN 2,586. Aileen Stanley, New York, N. Y. Filed Feb. 13, 1956.

## PRINCESS

For Grooved Phonograph Records.
First use Dec. 27, 1955.

SN 6,098. Choreo Record Company, Dallas, Tex. Filed Apr. 10, 1956.

## CHOREO

For Mechanically Grooved Phonograph Records.
First use Feb. 20, 1956.

SN 11,837. Auto-Pneumatic Action Co. Inc., New York, N. Y. Filed July 10, 1956.

## MASTER Play

For Action for Player Pianos.
First use July 1, 1955.

SN 12,083. Hardman, Peck & Company, New York, N. Y. Filed July 13, 1956.

## DUO Matic

For Player Pianos.
First use July 1, 1955.

### CLASS 37

### PAPER AND STATIONERY

SN 681,826. American Lead Pencil Company, Hoboken, N. J. Filed Feb. 17, 1955.

## Non-Repro

For Lead Pencils.
First use Jan. 6, 1955.

SN 688,203. American Lead Pencil Company, Hoboken, N. J. Filed May 25, 1955.

## COLORAY

For Colored Pencils.
First use Apr. 29, 1955.

SN 689,349. Crocker, Burbank Papers Inc., Fitchburg, Mass. Filed June 13, 1955. Sec. 2(f).

## ART MAT

For Printing Paper.
First use in the year 1922.

SN 689,350. Crocker, Burbank Papers Inc., Fitchburg, Mass. Filed June 13, 1955. Sec. 2(f).

## ART GLOSS

For Printing Paper.
First use in the year 1924.

SN 700,593. Ferber Pen Corp., Englewood, N. J. Filed Dec. 27, 1955.

## riviera

For Ball Point Pens and Ball Point Pencils.
First use Nov. 1, 1955.

SN 6,598. Doeskin Products, Inc., New York, N. Y. Filed Apr. 18, 1956.

## MARTHA WASHINGTON

For Cleansing Tissues and Bathroom Tissues.
First use Sept. 1, 1934.

SN 6,599. Doeskin Products, Inc., New York, N. Y. Filed Apr. 18, 1956.

## WILLOW

For Cleansing Tissues and Bathroom Tissues.
First use Nov. 1, 1934.

SN 6,645. Sitrue Inc., New York, N. Y. Filed Apr. 18, 1956.

## CHEEKIST

For Facial Tissues.
First use May 1, 1934.

SN 7,588. Garrett-Buchanan Company, Philadelphia, Pa. Filed May 3, 1956.

## PURI-TUF

For Wrapping Paper.
First use Mar. 8, 1956.

SN 9,471. Hollywood Novelty Co., Inc., New York, N. Y. Filed June 1, 1956.

## FRATERNITY

For Ball Point Pens.
First use Apr. 26, 1956.

SN 9,491. St. Clair Specialty Manufacturing Co., Chicago, Ill. Filed June 1, 1956.

**ST. CLAIR**

For Gift Wrapping Paper and Foil.
First use August 1947 on gift wrapping paper.

SN 9,585. The Frederick Post Co., Chicago, Ill. Filed June 4, 1956.

**WHITEX**

For Transparent Tracing Sheets for Drafting.
First use in or about February 1936.

SN 9,586. The Frederick Post Co., Chicago, Ill. Filed June 4, 1956.

**BLUTEX**

For Transparent Tracing Sheets for Drafting.
First use in about the fall of 1946.

## CLASS 38

## PRINTS AND PUBLICATIONS

SN 684,080. Union Carbide and Carbon Corporation, New York, N. Y. Filed Mar. 23, 1955. Sec. 2(f).

*Chemical Progress*

For Periodical Publication.
First use on or about Feb. 11, 1955.

SN 1,668. V. Wesley Carmack, Arlington, Va. Filed Jan. 30, 1956.




Owner of Reg. No. 558,491.
For Newspaper Feature.
First use Jan. 27, 1956.

SN 10,701. New York Herald Tribune Inc., New York, N. Y. Filed June 21, 1956.

**JOHNNY REB**
AND BILLY YANK

For Syndicated Comic Strip.
First use June 6, 1956.

SN 10,750. John L. Davenport, d. b. a. The Kindle Press, Lido Beach, N. Y. Filed June 22, 1956.

**KINDLE**

For Literary Pamphlets Published at Irregular Intervals.
First use May 4, 1956.

SN 10,788. M D Publications, Inc., New York, N. Y. Filed June 22, 1956.

**THE WAITING ROOM**

For Periodical Intended for Circulation Among Physicians.
First use June 8, 1956.

SN 10,816. Tover, Inc., Chicago, Ill. Filed June 22, 1956.

**TOVER**

For Decorative Pictures.
First use on or about June 10, 1956.

## CLASS 39

## CLOTHING

SN 682,077. Stein's Stores Inc., New York, N. Y. Filed Feb. 21, 1955. Sec. 2(f).

**STEIN'S**

AMERICA'S GREATEST CLOTHIERS

Owner of Reg. Nos. 275,038, 508,317, and others.
For Men's Suits, Trousers, Coats, and Overcoats.
First use Sept. 15, 1927.

SN 684,220. Hickey-Freeman Company, Rochester, N. Y. Filed Mar. 25, 1955.

*Crieketeen*

For Men's Suits.
First use Feb. 23, 1955.

SN 684,221. Hickey-Freeman Company, Rochester, N. Y. Filed Mar. 25, 1955.

*SHADOLITE*

For Men's Suits.
First use Feb. 23, 1955.

SN 687,502. Savada Bros. Inc., New York, N. Y. Filed May 13, 1955.

*Pippet-Jama*

For Children's Pajamas and Dolls Packaged and Sold as a Unit.
First use May 5, 1954.

SN 688,071. Palm Beach Company, Sanford, Maine. Filed May 23, 1955.

CELEBRITY

Owner of Reg. No. 603,040.
For Men's, Boys', and Children's Suits, Consisting of Coats, Vests, and Trousers; Topcoats; Slacks, Sport Coats, Walking Shorts, and Sport Shirts.
First use Mar. 22, 1955.

SN 690,090. National Sales Associates, Inc., Chicago, Ill. Filed June 23, 1955. Sec. 2(f).

*terry tyon*

For Men's and Boys' Wrap-Around Dressing or Toilet Garments That Are Fastened About the Waist of the User so as To Hang in a Skirt-Like Fashion.
First use on or about Jan. 31, 1950.



SN 692,817. Suburban Fashions, Inc., New York, N. Y. Filed Aug. 10, 1955.

SUBURBAN FASHIONS, INC.

For Ladies' Sportswear—Separates (Blouses, Skirts, Walking Shorts, and Sport Pants).
First use Jan. 12, 1954.

SN 700,577. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Dec. 27, 1955.

**LENOX**

For Collars.
First use 1917.

SN 27. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Jan. 3, 1956.

**GRAD**

Owner of Reg. No. 209,264.
For Boys' Outer Shirts and Neckties.
First use 1953 on boys' shirts.

SN 30. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Jan. 3, 1956.

**WINTER CARNIVAL**

For Men's and Boys' Underwear.
First use Aug. 1, 1955.

SN 177. Techno Efficiency Council, Inc., Brooklyn, N. Y. Filed Jan. 4, 1956.

**MICRO-AIRE**

For Men's, Women's, and Children's Clothing—Namely, Underwear, Undershirts, Shorts, Union Suits, Outershirts and Blouses, Suits, Coats, Vests, Pants, Topcoats and Overcoats, Jackets, Snowsuits, Dresses, Hats, Caps, Hoods and Neckerchiefs, Gloves and Mittens, and Hosiery.
First use Nov. 1, 1955.

SN 178. Techno Efficiency Council, Inc., Brooklyn, N. Y. Filed Jan. 4, 1956.

**MICOTEMP**

For Men's, Women's, and Children's Clothing—Namely, Underwear, Undershirts, Shorts, Union Suits, Outershirts and Blouses, Suits, Coats, Vests, Pants, Topcoats and Overcoats, Jackets, Snowsuits, Dresses, Hats, Caps, Hoods and Neckerchiefs, Gloves and Mittens, and Hosiery.
First use Nov. 1, 1955.

SN 572. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Jan. 12, 1956.

**ARROW JAC**

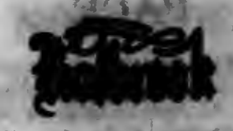
For Men's and Boys' Jackets.
First use August 1955.

SN 832. Resistol Hats, Inc., Garland, Tex. Filed Jan. 16, 1956.

**"PAK-IT"**

For Men's Hats.
First use Oct. 11, 1955.

SN 985. Holbrook Hat Company, Perth Amboy, N. J. Filed Jan. 18, 1956. Sec. 2(f).




Owner of Reg. No. 376,679.
For Men's Hats.
First use September 1933.

SN 3,540. Lady Fashions, Inc., New York, N. Y. Filed Feb. 28, 1956.

*Travelaine*

For Ladies' Suits, Coats, and Skirts.
First use Jan. 29, 1956.

SN 8,112. Basford Products Corporation, Bloomfield, N. J. Filed May 11, 1956.

**SLIP'N CLIP**

For Children's Aprons.
First use Dec. 20, 1955.

SN 8,643. Eagle Bros., New York, N. Y. Filed May 21, 1956.

**TATTEN-HALL**

For Men's and Boys' Outer Shirts.
First use May 1, 1956.

SN 8,708. J. Schoeneman, Incorporated, Baltimore, Md. Filed May 21, 1956.

**ICE-O-LITE**

For Suits, Coats, Vests, and Trousers for Men.
First use Sept. 13, 1955.

SN 8,715. Smith Brothers Manufacturing Co., Carthage, Mo. Filed May 21, 1956.

**BUCKAROO**

Owner of Reg. No. 536,357.
For Western Style Overalls, Jackets, and Shirts for Men and Boys.
First use September 1925.

SN 8,784. Man Size, Inc., Brooklyn, N. Y. Filed May 22, 1956.

**HE-MAN**

For Men's Apparel—Namely, Suits, Coats, Raincoats, Dress Shirts, Sport Shirts, Sweat Shirts, Bathing Suits, Sweaters, Pajamas, Bath Robes, Underwear, Socks, Leather Gloves, Belts for Outerwear, Neckties, Hats, and Caps.
First use Feb. 1, 1955.

SN 9,087. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956.

**TU WAY**

Owner of Reg. No. 600,402.
For Swim Wear.
First use Jan. 4, 1956.

SN 9,090. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956.

**PACE**

For Outer Shirts.
First use December 1954.

SN 9,091. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956.

**SHOREHAM**

Owner of Reg. No. 376,992.
For Outer Shirts.
First use April 1932.

SN 9,100. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956.

**CONTINENTAL**

For Swimwear.
First use Jan. 16, 1956.

SN 9,318. Windsor Shirt Co., Inc., Ashland, Ala. Filed May 29, 1956.

**NORSEMAN**

For Men's and Boys' Shirts.
First use May 9, 1956.

SN 9,562. Melrose Corporation, Los Angeles, Calif. Filed June 4, 1956.

**COL-TEES**

For Flannel Covers for the Chest and Throat.
First use Apr. 2, 1956.

SN 9,744. Radcliffe Shoes, Inc., Brockton, Mass. Filed June 6, 1956.

Piccolos by Romettes

Owner of Reg. No. 550,941.
For Shoes, Slippers, and Sandals for Ladies, Misses, and Children and Made From Leather, Composition Materials, Plastic, Fabric, Rubber, and Combinations Thereof.
First use May 26, 1956.
Subj. to Intf. with SN 9,120.

SN 10,127. Brown Company, Boston, Mass. Filed June 13, 1956.

d-i

For Innersoles for Shoes.
First use Nov. 16, 1955.

SN 11,207. Florence C. Wells, New York, N. Y. Filed June 28, 1956.

**BIB-DIT**

For Children's Bibs.
First use May 12, 1956.

SN 11,366. D. Glasgow & Sons, New York, N. Y. Filed July 2, 1956.

**GO-N-DRY**

For Baby Pants.
First use June 11, 1956.

SN 11,468. Bristol Knitting Mills, Inc., Fall River, Mass. Filed July 3, 1956.

**BRISTOL**

For Misses' and Women's Knitted Sweaters.
First use May 8, 1956.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 665,262. Philip Wick Co., Inc., New York, N. Y., to A-Q Mills, Inc. Filed Apr. 26, 1954.

CHROMA Q

Owner of Reg. Nos. 406,144 and 542,704.
For Fabrics in the Piece Made of Acetate.
First use on or about Mar. 20, 1954.

SN 742. Marcus Breier Sons, Inc., Amsterdam, N. Y. Filed Jan. 16, 1956.

***INFRA RAY***

For Linings and Interlining Fabrics for Men's, Women's, and Children's Jackets.
First use Nov. 21, 1955.

SN 7,704. Southerland Fabrics, Inc., New York, N. Y. Filed May 4, 1956.

STERIL-SET

For Acetate Tricot Piece Goods.
First use Mar. 15, 1956.

SN 10,313. Herbert Glatt, d. b. a. Magla Products, Newark, N. J. Filed June 15, 1956.

**I.B.C.**

For Yard Goods Comprising Reflective Plastic-Coated Cloth and Padding for Use in Ironing Pads and Covers.
First use June 4, 1956.

SN 11,490. Massachusetts Textile Company—Bernhard Altmann, Inc., New York, N. Y. Filed July 3, 1956.

**COLERAINE**

For Woolen Fabrics.
First use June 15, 1956.



SN 11,847. D. B. Fuller & Co., Inc., New York, N. Y. Filed July 10, 1956.

**FASHION FAIR**

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use May 9, 1955.

SN 11,865. Massachusetts Textile Company—Bernhard Altmann, Inc., New York, N. Y. Filed July 10, 1956.

**ALTOCRAT**

For Woolen Fabrics.
First use July 3, 1956.

SN 12,068. Irving S. Cohen, Inc., New York, N. Y. Filed July 13, 1956.

**IRVCO**

For Fabrics Made of Silk, Wool, Cotton, Man-Made Fibers, and Combinations Thereof.
First use Dec. 30, 1955.

SN 12,102. F H Paul & Stein Bros. Inc., New York, N. Y. Filed July 13, 1956.

**BLUTEX**

For Nylon Screen Cloth Used for Bolting, Filtering, and Screen Printing.
First use June 1, 1954.

## CLASS 43

## THREAD AND YARN

SN 12,617. Howard G. Godfrey & Co., Inc., New York, N. Y. Filed July 23, 1956.

GODFREY AROUND THE WORLD

For Yarn.
First use June 22, 1956.

SN 14,120. The American Thread Company, New York, N. Y. Filed Aug. 17, 1956.

**ATCO**

Owner of Reg. No. 54,861.
For Thread.
First use in or about January 1900.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 3,775. Shampaine Electric Company, Inc., New Rochelle, N. Y. Filed Mar. 2, 1956.

*Steracyclic Control*

For Control Units for Sterilisers.
First use July 1, 1955.

SN 6,452. Mine Safety Appliances Company, Pittsburgh, Pa. Filed Apr. 16, 1956.

**NOISEFOE**

For Ear Cushions With Spring-Type Head Suspension for Effective Protection in High Level Noise Areas.
First use at least as early as Sept. 17, 1954.

SN 6,667. Youngs Rubber Corporation, New York, N. Y. Filed Apr. 10, 1956.

**THINEX**

For Prophylactic Rubber Articles for the Prevention of Contagious Diseases.
First use Sept. 20, 1930.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

SN 667,731. National Tea Co., Chicago, Ill. Filed June 4, 1954. Sec. 2(f).

Garden FRESH

For Canned Tomato Juice, Canned Vegetables, Canned Hominy, Canned Tomato Puree, and Tomato Catsup.
First use April 1933.

SN 668,760. Korbro Oil Corporation, Brooklyn, N. Y. Filed June 23, 1954.

Sun

The drawing is lined for red.
For Edible Imitation Olive Oil.
First use March 1930.

SN 676,072. Omaha Cold Storage Company, d. b. a. Ocoma Feed Mills, Omaha, Nebr., now by change of name Ocoma Foods Company. Filed Nov. 4, 1954.

**DOUGLAS**

For Buttermilk and Poultry, Turkey and Livestock Feeds.
First use May 31, 1939.

SN 684,414. C. K. Foods, Inc., Duluth, Minn. Filed Mar. 29, 1955.

CK

For Beef Sauce, Mushroom Sauce, and Chicken Sauce.
First use on or about Jan. 1, 1955.



SN 14,121. The American Thread Company, New York, N. Y. Filed Aug. 17, 1956.

**ATCO**

Owner of Reg. No. 54,861.
For Thread.
First use in or about January 1900.

## CLASS 45

## SMOKERS' ARTICLES, MATCHES

SN 11,208. Florence C. Wells, New York, N. Y. Filed June 28, 1956.

**BIB-DIT**

For Children's Bibs.
First use May 12, 1956.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

SN 11,367. D. Glasgow & Sons, New York, N. Y. Filed July 2, 1956.

**GO-N-DRY**

For Baby Pants.
First use June 11, 1956.

SN 11,469. Bristol Knitting Mills, Inc., Fall River, Mass. Filed July 3, 1956.

**BRISTOL**

For Misses' and Women's Knitted Sweaters.
First use May 8, 1956.

SN 11,491. Massachusetts Textile Company—Bernhard Altmann, Inc., New York, N. Y. Filed July 3, 1956.

**COLERAINE**

For Woolen Fabrics.
First use June 15, 1956.

SN 11,848. D. B. Fuller & Co., Inc., New York, N. Y. Filed July 10, 1956.

**FASHION FAIR**

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use May 9, 1955.

SN 11,866. Massachusetts Textile Company—Bernhard Altmann, Inc., New York, N. Y. Filed July 10, 1956.

**ALTOCRAT**

For Woolen Fabrics.
First use July 3, 1956.

SN 12,069. Irving S. Cohen, Inc., New York, N. Y. Filed July 13, 1956.

**IRVCO**

For Fabrics Made of Silk, Wool, Cotton, Man-Made Fibers, and Combinations Thereof.
First use Dec. 30, 1955.

SN 12,103. F H Paul & Stein Bros. Inc., New York, N. Y. Filed July 13, 1956.

**BLUTEX**

For Nylon Screen Cloth Used for Bolting, Filtering, and Screen Printing.
First use June 1, 1954.

## CLASS 47

## FISH AND EDIBLE SEAFOOD

SN 11,209. Florence C. Wells, New York, N. Y. Filed June 28, 1956.

**BIB-DIT**

For Children's Bibs.
First use May 12, 1956.



SN 11,368. D. Glasgow & Sons, New York, N. Y. Filed July 2, 1956.

**GO-N-DRY**

For Baby Pants.
First use June 11, 1956.

SN 11,470. Bristol Knitting Mills, Inc., Fall River, Mass. Filed July 3, 1956.

**BRISTOL**

For Misses' and Women's Knitted Sweaters.
First use May 8, 1956.

SN 11,492. Massachusetts Textile Company—Bernhard Altmann, Inc., New York, N. Y. Filed July 3, 1956.

**COLERAINE**

For Woolen Fabrics.
First use June 15, 1956.

SN 11,849. D. B. Fuller & Co., Inc., New York, N. Y. Filed July 10, 1956.

**FASHION FAIR**

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use May 9, 1955.

SN 11,867. Massachusetts Textile Company—Bernhard Altmann, Inc., New York, N. Y. Filed July 10, 1956.

**ALTOCRAT**

For Woolen Fabrics.
First use July 3, 1956.

SN 12,070. Irving S. Cohen, Inc., New York, N. Y. Filed July 13, 1956.

**IRVCO**

For Fabrics Made of Silk, Wool, Cotton, Man-Made Fibers, and Combinations Thereof.
First use Dec. 30, 1955.

SN 12,104. F H Paul & Stein Bros. Inc., New York, N. Y. Filed July 13, 1956.

**BLUTEX**

For Nylon Screen Cloth Used for Bolting, Filtering, and Screen Printing.
First use June 1, 1954.

SN 696,907. Honeggers' & Co., Inc., Fairbury, Ill. Filed May 5, 1955. Sec. 2(f).

Honeggers

Owner of Reg. Nos. 416,290, 431,782, and others.
For Feeds for Poultry, Livestock, and Cats and Dogs.
First use April 1942.

SN 692,221. Flavor Corporation of America, Chicago, Ill. Filed Aug. 1, 1955.

PETNIP

For Spice Seasonings for Animal Feeds.
First use July 11, 1955.

SN 692,483. Milwaukee Nut Company, Milwaukee, Wis. Filed Aug. 4, 1955.

Schnaps

For Shelled Salted Nuts.
First use Oct. 20, 1954.

SN 694,048. Central Soya Company, Inc., Fort Wayne, Ind. Filed Sept. 1, 1955.

Calorized

For Broiler Feeds.
First use May 26, 1955.

SN 697,268. Paul F. Beich Company, Bloomington, Ill. Filed Oct. 28, 1955.

KATHRYN BEICH

Owner of Reg. Nos. 117,021 and 610,026.
For Candy.
First use Oct. 18, 1955.

SN 698,088. Terra Bella Citrus Association, Terra Bella, Calif. Filed Nov. 10, 1955. Sec. 2(f).

TERRA BELLA

Owner of Reg. Nos. 334,834 and 347,473.
For Fresh Citrus Fruits.
First use 1919.

SN 56. Fitzsimmons Stores, Ltd., d. b. a. Smart & Final Iris Co., Smart & Final Co., Smart & Final Co., Ltd., and Haas Baruch & Co., Los Angeles, Calif. Filed Jan. 3, 1956.

CALLA

For Canned Fruits and Vegetables.
First use 1925.

SN 57. Fitzsimmons Stores, Ltd., d. b. a. Smart & Final Iris Co., Smart & Final Co., Smart & Final Co., Ltd., and Haas Baruch & Co., Los Angeles, Calif. Filed Jan. 3, 1956.

TABLE QUEEN

For Canned Fruits, Apple Sauce, Vegetables, Tomato Sauce, Tomato Puree, Fruit and Vegetable Juices, Olives, Edible Olive Oil, Pickles, Fish, Shell Fish, Catsup, Popped Popcorn, White Hominy, Imitation Maple Syrup and Imitation Vanilla Flavor for Food Purposes, and Pork and Beans.
First use 1928.

SN 493. J. P. Frits Candy Company, Inc., d. b. a. Frits Candy Co., Newport, Minn. Filed Jan. 11, 1956.

Small Fry Treats

For Assorted Candies.
First use Sept. 1, 1955.

SN 3,177. Franklin Foods, Inc., Ann Arbor, Mich. Filed Feb. 23, 1956.

franklin

Owner of Reg. No. 544,878.
For Shelled, Salted Edible Nuts.
First use Dec. 12, 1955.

SN 3,473. A. E. Staley Manufacturing Company, Decatur, Ill. Filed Feb. 27, 1956.

Target

Owner of Reg. Nos. 219,972 and 232,066.
For Feed for Livestock and Poultry.
First use Dec. 22, 1954; on design Sept. 19, 1912; on the form of the word as early as 1919.

SN 3,769. Peter Justesen Company, Incorporated, d. b. a. Calgold Food Products, New York, N. Y. Filed Mar. 2, 1956.

CALGOLD

For Canned Fruit.
First use on or about Mar. 1, 1956.



SN 5,129. Phillips Packing Co., Inc., Cambridge, Md. Filed Mar. 23, 1956. Sec. 2(f) as to "Phillips."

Phillips
FINER FLAVOR

No claim is made to the words "Finer Flavor" apart from the mark as shown. Owner of Reg. Nos. 530,242, 530,243, and others.
For Canned Soups, Canned Vegetables, Canned Pork and Beans.
First use Jan. 4, 1956.

SN 5,259. Washington Canners Cooperative, d. b. a. Washington Canners, Vancouver, Wash. Filed Mar. 26, 1956.

MELLOWEST

Owner of Reg. Nos. 537,735 and 146,907.
For Canned Fruits and Canned Vegetables.
First use Apr. 15, 1928, on canned fruits.

SN 6,274. K. R. Nutting, d. b. a. K. R. Nutting Co., Salinas, Calif. Filed Apr. 12, 1956.

BROKEN DRUM

Owner of Reg. No. 297,003.
For Fresh Vegetables.
First use Sept. 1, 1931.

SN 6,420. Gem Canning Company, Emmett, Idaho. Filed Apr. 16, 1956. Sec. 2(f).

Earfresh

Owner of Reg. No. 505,902.
For Canned Corn.
First use Oct. 16, 1947.

SN 6,841. Slendora Candy Company, Los Angeles, Calif. Filed Apr. 20, 1956.

Slendora

For Candy.
First use on or about Feb. 24, 1955.

SN 6,936. Mead Johnson & Company, Evansville, Ind. Filed Apr. 23, 1956.

LACTICAM

Owner of Reg. No. 335,494.
For Modified Milk.
First use Mar. 23, 1956.

SN 7,101. Meat Industry Suppliers, Inc., Chicago, Ill. Filed Apr. 25, 1956. Sec. 2(f).

MISS CHICKEN

Owner of Reg. No. 502,206.
For Chicken Style Soup Base.
First use Oct. 28, 1946.

SN 7,139. D. E. Winebrenner Company, Inc., Hanover, Pa. Filed Apr. 25, 1956.

BC
BEVERAGE COCKTAIL

Owner of Reg. No. 355,887.
For Canned Blend of Fruit Juices.
First use Mar. 15, 1955.

SN 7,140. D. E. Winebrenner Company, Inc., Hanover, Pa. Filed Apr. 25, 1956.

BC

For Canned Blend of Fruit Juices.
First use Mar. 15, 1955.

SN 7,159. Cain's Marcelle Potato Chip Company, Inc., Bowling Green, Ohio. Filed Apr. 26, 1956.

Plateau

For Potato Chips.
First use Apr. 10, 1956.

SN 7,551. Oscar E. Widmer, d. b. a. Candy Service Company, Madison, Tenn. Filed May 2, 1956.

Mister Candy's

For Candies.
First use Aug. 5, 1955.
Subj. to Intf. with SN 4,174.

SN 8,471. The City Baking Company, d. b. a. Rice's Bakery, Baltimore, Md. Filed May 17, 1956.

WEEKENDER

For Bread.
First use May 11, 1956.

SN 8,583. Southern Foods Company, McAllen, Tex. Filed May 18, 1956.

TIME OUT

Owner of Reg. No. 538,497.
For Canned Citrus Juices and Canned Green Beans.
First use February 1947 on canned citrus juices.

SN 8,612. Arrowhead Ranches, Inc., Glendale, Ariz. Filed May 21, 1956.

Your Kind

For Fresh Lettuce.
First use Apr. 7, 1956.

SN 8,691. Plymouth Citrus Growers Association, Plymouth, Fla. Filed May 21, 1956.

PLYMOUTH ROCK

Owner of Reg. No. 184,580.
For Fresh Citrus Fruits.
First use 1923.

SN 9,136. The R. T. French Company, Rochester, N. Y. Filed May 28, 1956. Sec. 2(f).

French's

For Barbecue Sauce.
First use Apr. 21, 1953.

SN 9,211. Washington Candy Co., Brooklyn, N. Y. Filed May 28, 1956.

LIGHT AND LOW

For Chocolate Covered Coconut Bars.
First use August 1955.

SN 9,266. Hawaiian Pineapple Company, Limited, Honolulu, Territory of Hawaii. Filed May 29, 1956. Sec. 2(f).

DOLE

Owner of Reg. Nos. 308,689, 515,402, and others.
For Canned Fruits, Canned Fruit Juices, Canned Fruit Nectars, Canned Fruit Cocktail, Canned Vegetables, Canned Vegetable Juices, Canned Pie Filling, Frozen Fresh Fruit, and Canned Frozen Concentrated Fruit Juices.
First use 1927 on canned fruit.

SN 15,334. Oscar E. Widmer, d. b. a. Candy Service Company, Madison, Tenn. Filed Sept. 7, 1956.

Mister Candy's

For Candies.
First use Aug. 5, 1955.
Subj. to Intf. with SN 4,174.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

SN 14,010. Schenley Distillers, Inc., d. b. a. Number One Distilling Company, New York, N. Y. Filed Aug. 15, 1956.

MARIGOLD

For Gin and Vodka.
First use Apr. 13, 1956.

SN 14,358. Puerto Rico Distillers, Inc., Arecibo, Puerto Rico. Filed Aug. 21, 1956.

PALO VIEJO



The Spanish words "Palo Viejo" mean "old stick."
For Rum.
First use 1906.

SN 14,359. Puerto Rico Distillers, Inc., Arecibo, Puerto Rico. Filed Aug. 21, 1956.

PALO VIEJO

The Spanish words "Palo Viejo" mean "old stick" or "old tree."
For Rum.
First use 1906.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 699,702. Colonial-Hites Company, West Columbia, S. C. Filed Dec. 9, 1955.

LOLITE

For Outdoor Advertising Letters, Not Illuminated.
First use Nov. 22, 1955.

SN 5,359. D. C. Hey Co., Inc., Minneapolis, Minn. Filed Mar. 28, 1956.

VISO-DESKPLATE

For Transparent Desk Shelf Coverings.
First use Jan. 31, 1956.



SN 8,576. The Rock of Ages Corporation, Burlington, Vt. Filed May 18, 1956.

ROCK OF AGES

Owner of Reg. Nos. 95,516, 284,826, and 286,033.
For Granite Surface Plates.
First use Aug. 24, 1953.

SN 9,897. Rock of Ages Corporation, Burlington, Vt. Filed June 8, 1956.

ROCK OF AGES

Owner of Reg. Nos. 95,516, 284,826, and 286,033.
For Granite Monuments and Memorials.
First use Apr. 15, 1938.

SN 12,074. Henry A. Rarich and Co., Inc., New York, N. Y. Filed July 13, 1956.

MODEL

For Travel Kits, Comprising: Bottles, Jars, Clip-Hangers, Draw-String Laundry Bags, Emery Boards, Orange Sticks, Nail Brushes, Sewing Kits, Utility Cases, Tooth Brush Caps, Tooth Brush Holders, Shower Caps, Face Cloths, Hair Brushes, Combs, Hair Nets.
First use June 1, 1955.

SN 12,761. Berglund-Swenson Co., Inc., Arlington, N. J. Filed July 25, 1956.

Nametes

For Name Plates.
First use June 28, 1956.

SN 13,402. The Warner Brooder Corporation, North Manchester, Ind. Filed Aug. 3, 1956.

WARNER JET-84

For Chicken Brooders.
First use Jan. 12, 1956.

## CLASS 51

## COSMETICS AND TOILET PREPARATIONS

SN 687,761. Ernest Braun, Portland, Maine. Filed May 18, 1955.

SURGEX

For Body Deodorant Cream Having Antiperspirant Properties.
First use Jan. 3, 1955.

SN 688,854. Nailtex, Inc., Brooklyn, N. Y. Filed June 1, 1955.

Liquid NAILS

For Fingernail Polish.
First use Dec. 20, 1954.

SN 693,012. Chanel, Inc., New York, N. Y., to Chanel Industries Inc., New York, N. Y. Filed Aug. 15, 1955. Sec. 2(f).

THE MOST TREASURED NAME IN PERFUME

Owner of Reg. No. 528,533.
For Perfume, Toilet Water, Eau de Cologne, Lipstick, Face Powder, and Bath Powder.
First use in the fall of 1942 on perfume.

SN 696,517. Dragoco, Spezialfabrik Kosm. Riech- und Aromastoffe, Gerberding & Co. G. m. b. H., d. b. a. Dragoco, Holzminden-Weser, Germany. Filed Oct. 17, 1955.




For Essential Oils and Aromatic Chemicals, Perfume Bases and Perfume Compounds, All Being Ingredients for Perfumes and for Cosmetic Preparations.
First use 1935.

SN 696,727. Perfumeria Parera, Sociedad Anonima, Badalona, Barcelona, Spain. Filed Oct. 19, 1955.

Madrocios

The mark consists of the word "Madrocios" which in Spanish means little balls or tassels.
For Perfumes, Toilet Waters, Eau de Cologne, Lipstick, Cosmetic Face Powder, Face, Hand, and Skin Cream, Rouge, Mascara, and Eye Shadow, Brilliantine and Hair Fixative.
First use Apr. 27, 1953.

SN 698,837. Edgar James Callahan, d. b. a. E. J. Callahan, Hialeah, Fla. Filed Nov. 25, 1955.

C. H. B.

For Hair Dressing.
First use June 14, 1955.

SN 1,928. The Wella Corporation, Englewood, N. J. Filed Feb. 1, 1956.

WELLITE

Owner of Reg. No. 575,178.
For Hair Bleach Preparation.
First use Dec. 6, 1955.



SN 8,612. Arrowhead Ranches, Inc., Glendale, Ariz. Filed May 21, 1956.

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First use Apr. 7, 1956.

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SN 12,761. Berglund-Swenson Co., Inc., Arlington, N. J. Filed July 25, 1956.

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SN 13,402. The Warner Brooder Corporation, North Manchester, Ind. Filed Aug. 3, 1956.

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First use Jan. 12, 1956.

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SN 696,517. Dragoco, Spezialfabrik Kosm. Riech- und Aromastoffe, Gerberding & Co. G. m. b. H., d. b. a. Dragoco, Holzminden-Weser, Germany. Filed Oct. 17, 1955.




For Essential Oils and Aromatic Chemicals, Perfume Bases and Perfume Compounds, All Being Ingredients for Perfumes and for Cosmetic Preparations.
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SN 696,727. Perfumeria Parera, Sociedad Anonima, Badalona, Barcelona, Spain. Filed Oct. 19, 1955.

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SN 698,837. Edgar James Callahan, d. b. a. E. J. Callahan, Hialeah, Fla. Filed Nov. 25, 1955.

C. H. B.

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First use June 14, 1955.

SN 1,928. The Wella Corporation, Englewood, N. J. Filed Feb. 1, 1956.

WELLITE

Owner of Reg. No. 575,178.
For Hair Bleach Preparation.
First use Dec. 6, 1955.

SN 2,627. Four Penny Products Co., Inc., Chicago, Ill. Filed Feb. 14, 1956.

Four Penny

Owner of Reg. No. 362,235.
For Dandruff Remover Tonic and After-Shave Lotion, Hair Lotion, Hair Dressing, and Cream Oil Used as a Hair Conditioner.
First use July 1932.

SN 4,353. Old 97 Manufacturing Co., d. b. a. Marti Dare, Tampa, Fla. Filed Mar. 12, 1956.




For Perfume and Cologne.
First use Oct. 20, 1955.

SN 4,479. Roux Laboratories, Inc., New York, N. Y. Filed Mar. 13, 1956.

ROULETTE

Owner of Reg. Nos. 355,034, 413,541, and 500,998.
For Hair Coloring.
First use Feb. 21, 1956.

SN 5,233. Frank Pessek, d. b. a. Northern Beauty Products, St. Paul, Minn. Filed Mar. 26, 1956.

MAR-VON

For Antiperspirant and Deodorant.
First use Mar. 10, 1956.

SN 5,341. Comfort Manufacturing Company, Chicago, Ill. Filed Mar. 28, 1956.

BE-DECK

For Hair and Scalp Conditioner.
First use Mar. 1, 1956.

CLASS 52

DETERGENTS AND SOAPS

SN 6,683. Atlas Supply Company, Newark, N. J. Filed Apr. 19, 1956.

ATLAS

Owner of Reg. Nos. 328,307, 508,260, and others.
For Solvent for Removing Tar From Automobile Bodies and Upholstery.
First use Apr. 10, 1956.

SN 8,832. Devon Inc., Buffalo, N. Y. Filed May 23, 1956.
For Shampoo.

DEVONGLO

First use Nov. 28, 1955.

# SERVICE MARKS

CLASS 101

ADVERTISING AND BUSINESS

SN 229. The American Hospital and Life Insurance Company, San Antonio, Tex. Filed Jan. 6, 1956.




The top panel is shown in deep black, the middle panel in light black, and the bottom panel in gray.
For Underwriting of Hospital, Health and Accident, and Life Insurance Policies.
First use Dec. 19, 1955.

CLASS 102

INSURANCE AND FINANCIAL

SN 691,883. Northwestern Bank of Commerce, Duluth, Minn. Filed July 25, 1955.

(No Drawing)

The Mark Consists of the Audio and Visual Representation of a Coin Spinning on a Hard Surface

The mark comprises the audio and visual representation of a coin spinning on a hard surface, used in TV advertising.
For Banking Services.
First use Jan. 25, 1953, as to audio representation.

SN 696,183. Paul L. Smith Agency, Inc., New Bedford, Mass. Filed Oct. 10, 1955.



The words "Protection," "Security," "Assurance," and "Service" are disclaimed apart from the mark as shown.
For General Insurance Brokerage Services.
First use in or about August 1955.



SN 696,370. Managed Funds Incorporated, St. Louis, Mo. Filed Oct. 13, 1955. Sec. 2(f) as to "Managed Funds Incorporated."




For Services Rendered in the Investing of Mutual Funds.
First use Sept. 7, 1954.

SN 696,682. Wolf & Dessauer Company, Inc., Fort Wayne, Ind. Filed Oct. 18, 1955.

CHARGA-PARKING

For Extension of Credit to Customers, Certified by Applicant, Who Park Cars at Subscribing Garages and Parking Lots, and Making Collections From Such Customers Through a Central Billing System.
First use Sept. 6, 1955.

CLASS 106

MATERIAL TREATMENT

SN 2,150. The Marley Company, Kansas City, Mo. Filed Feb. 6, 1956.

MARTREAT

For Treating Lumber of Cooling Towers and Like Structures Where the Lumber is Subjected to Moisture, To Prevent Decay and Preserve the Material.
First use Mar. 4, 1954.

SN 5,946. T. P. Sales Corporation, New York, N. Y. Filed Apr. 6, 1956.

EVRON

For Decorating the Fabrics of Others by Applying Stencil Lacquer Printing Thereon.
First use September 1954.

SN 5,947. T. P. Sales Corporation, New York, N. Y. Filed Apr. 6, 1956.



For Decorating the Fabrics of Others by Printing and by Applying Flocking Thereon.
First use in September 1954.

SN 5,948. T. P. Sales Corporation, New York, N. Y. Filed Apr. 6, 1956.

MISTIQUE

For Applying Low Pile Flocking to the Fabrics of Others.
First use in September 1954.

SN 5,949. T. P. Sales Corporation, New York, N. Y. Filed Apr. 6, 1956.

TUFF-PUFF

For Applying Regular Flocking by Stencil or Roller to the Fabrics of Others.
First use September 1954.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 2,423. Theodore Granik, Washington, D. C. Filed Feb. 10, 1956.

WHAT'S YOUR ALIBI

For the Title of a Television Show Consisting of a Panel Show in Which Members of the Panel Think Up Alibis for Posed Embarrassing Situations.
First use Nov. 29, 1955.

# CERTIFICATION MARKS

CLASS A

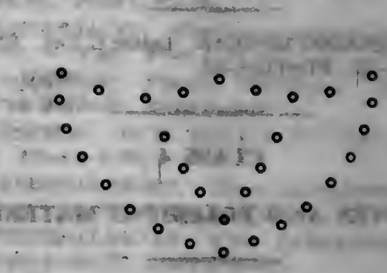
GOODS

SN 685,043. Porcelain Enamel Institute, Inc., Washington, D. C. Filed Apr. 6, 1955.



No claim is made to the exclusive use of the words "Safe Transit" apart from the mark as shown. The mark certifies that the goods have been packaged in accordance with the pre-shipment testing procedures of the applicant. Owner of Reg. No. 587,392.
For Packaged Goods Packaged for Transit.
First use on or about Jan. 1, 1955.

SN 11,212. United States Department of Agriculture, Washington, D. C. Filed June 27, 1956.



The mark certifies livestock which has been vaccinated against brucellosis. The mark is tattooed on the ears of animals and, in use, numbers are placed to the left and right of the mark to designate the quarter and year in which vaccination occurred.
For Livestock.
First use December 1955.



CLASS 7

CLASS 16

# TRADEMARK REGISTRATIONS ISSUED

## PRINCIPAL REGISTER

### CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

637,877. SUPER X. Olin Industries, Inc., now by merger and change of name Olin Mathieson Chemical Corporation. SN 669,019. Pub. 9–18–56. Filed 6–28–54.

637,878. CAL-STOP. Calada Materials Company. SN 691,276. Pub. 9–18–56. Filed 7–14–55.

637,879. CUPRADOR. Farbenfabriken Bayer Aktiengesellschaft. SN 694,561. Pub. 9–18–56. Filed 9–13–55.

637,880. CONTROLGEL. Mud Control Laboratories, Inc. SN 897. Pub. 9–18–56. Filed 1–17–56.

637,881. CONTROLTAN. Mud Control Laboratories, Inc. SN 900. Pub. 9–18–56. Filed 1–17–56.

### CLASS 2

### RECEPTACLES

637,882. TIPSY TIM. Reldon G. Pinney, d. b. a. Renel Manufacturing Company. SN 685,074. Pub. 9–18–56. Filed 4–4–55.

637,883. KEAPSIT. The American Thermos Bottle Company, now by change of name The American Thermos Products Company. SN 700,292. Pub. 9–18–56. Filed 12–20–55.

637,884. H AND DESIGN. H. D. Hudson Manufacturing Company. SN 2,037. Pub. 9–18–56. Filed 2–3–56.

637,885. BACCA-PAK. Container Corporation of America. SN 2,284. Pub. 9–18–56. Filed 2–8–56.

637,886. "QUIKTAINER." Schmidt Lithograph Company. SN 3,036. Pub. 9–18–56. Filed 2–20–56.

637,887. SALISBURY ARTISANS. The Salisbury Cutlery Handle Co., Inc. SN 4,370. Pub. 9–18–56. Filed 3–12–56.

### CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

637,888. TUMBLING THOMAS. Lester L. Cox. SN 648,374. Pub. 12–15–53. Filed 6–8–53.

### CLASS 4

### ABRASIVES AND POLISHING MATERIALS

637,889. ALOXITE. The Carborundum Company. SN 123. Pub. 9–18–56. Filed 1–9–56.

637,890. "AERO-POWER." Kent-Moore Organization, Inc. SN 1,594. Pub. 9–18–56. Filed 1–27–56.

637,891. DESIGN OF WOMAN. Fitzpatrick Bros., Inc. SN 3,934. Pub. 9–18–56. Filed 3–6–56.

### CLASS 5

### ADHESIVES

637,892. POLYMARK AND DESIGN. Polymark Limited. SN 640,062. Pub. 6–23–53. Filed 11–24–52.

637,893. HYDROCOR. Corn Products Refining Company. SN 699,623. Pub. 9–18–56. Filed 12–8–55.

637,894. LAMILITE. The Jennison-Wright Corporation. SN 2,637. Pub. 9–18–56. Filed 2–14–56.

637,895. RAPCO. Radio Active Products Corp., d. b. a. Rapco Products. SN 3,227. Pub. 9–18–56. Filed 2–23–56.

637,896. BAZOOKA PAC. Mastro Plastics Corp. SN 5,733. Pub. 9–18–56. Filed 4–3–56.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

637,897. VIPLA. Aziende Colori Nazionali Affini. A. C. N. A. S. p. A. SN 671,132. Pub. 9–18–56. Filed 8–5–54.

637,898. SH-BOOM. Demert & Dougherty, Inc. SN 689,815. Pub. 9–18–56. Filed 6–20–55.

637,899. NEUTROLOX. The Pennsylvania Salt Manufacturing Company. SN 690,190. Pub. 9–18–56. Filed 6–24–55.

637,900. COLORSLIP. C. G. Pardee Co., Inc. SN 690,314. Pub. 9–18–56. Filed 6–27–55.

637,901. TEXCOLOR. C. G. Pardee Co., Inc. SN 690,316. Pub. 9–18–56. Filed 6–27–55.

637,902. AVCOSET. American Viscose Corporation. SN 690,424. Pub. 9–18–56. Filed 6–29–55.

637,903. BRIFISOL. Joh. A. Benckiser GMBH. SN 690,524. Pub. 9–18–56. Filed 6–30–55.

637,904. BELORAN. Ciba Limited. SN 690,534. Pub. 9–18–56. Filed 6–30–55.

637,905. FUNGITEX. Ciba Limited. SN 690,537. Pub. 9–18–56. Filed 6–30–55.

637,906. LANFRAX. Malmstrom Chemical Corp. SN 692,723. Pub. 9–18–56. Filed 8–9–55.

637,907. LANURGIC. Malmstrom Chemical Corp. SN 692,725. Pub. 9–18–56. Filed 8–9–55.

637,908. CAVIARE CUT. Imperial Chemical Industries Limited. SN 697,555. Pub. 9–18–56. Filed 11–2–55.

637,909. LUKONITE. Lukon, Inc. SN 700,039. Pub. 9–18–56. Filed 12–15–55.

637,910. GRAVIDIAN. Remington-Douglas Corp. SN 165. Pub. 9–18–56. Filed 1–4–56.

637,911. MWM AND DESIGN. Mid-West Mineral Co. SN 351. Pub. 9–18–56. Filed 1–9–56.

637,912. LOMAR. Jacques Wolf & Co. SN 2,473. Pub. 9–18–56. Filed 1–17–56.

637,913. MOBILBEAD. Socony Mobil Oil Company, Inc. SN 2,917. Pub. 9–18–56. Filed 2–17–56.

637,914. GRAINULOSE. Malt Products Corporation of New Jersey. SN 3,210. Pub. 9–18–56. Filed 2–23–56.





### CLASS 7

### CORDAGE

637,915. VHS. American Chain & Cable Company, Inc. SN 5,010. Pub. 9–18–56. Filed 3–22–56.

637,916. DUALOC. American Chain & Cable Company, Inc. SN 5,815. Pub. 9–18–56. Filed 4–5–56.

### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

637,917. ZIPPER. The Marlin Firearms Company. SN 688,438. Pub. 9–18–56. Filed 5–27–55.

### CLASS 10

### FERTILIZERS

637,918. BOVUNG. Walker-Gordon Laboratory Company, Inc. SN 2,732. Pub. 9–18–56. Filed 2–15–56.

637,919. RATH BLACK HAWK AND DESIGN. The Rath Packing Company. SN 5,869. Pub. 9–18–56. Filed 4–5–56.

637,920. STEAMBOAT AND DESIGN. Mississippi River Fuel Corporation, d. b. a. Mississippi River Chemical Company. SN 6,030. Pub. 9–18–56. Filed 4–9–56.

### CLASS 11

### INKS AND INKING MATERIALS

637,921. CITATION. Manifold Supplies Company. SN 5,652. Pub. 9–18–56. Filed 4–2–56.

637,922. FLEXOGEM. Interchemical Corporation. SN 5,729. Pub. 9–18–56. Filed 4–3–56.

### CLASS 12

### CONSTRUCTION MATERIALS

637,923. LITE HOUSE AND DESIGN. Walter M. Krants, d. b. a. Lite House Storm Window Company. SN 644,326. Pub. 2–8–55. Filed 3–27–53.

637,924. STAYON. Colonial Cedar Company, Inc. SN 684,400. Pub. 9–18–56. Filed 3–29–55.

637,925. CONTINENTAL HOMES AND DESIGN. Continental Homes, Inc. SN 699,476. Pub. 9–18–56. Filed 12–6–55.

### CLASS 15

### OILS AND GREASES

637,926. RED LINE 76 AND DESIGN. Union Oil Company of California. SN 687,425. Pub. 9–18–56. Filed 5–12–55.

### CLASS 16

### PROTECTIVE AND DECORATIVE COATINGS

637,927. ACRYLOTONE. Robert G. Gibbs, d. b. a. Gibbs Chemical Company. SN 3,531. Pub. 9–18–56. Filed 2–28–56.

637,928. WONDER-MATIC YOUR COLOR LIBRARY. Devoe & Raynolds Company, Inc. SN 4,697. Pub. 9–18–56. Filed 3–16–56.

637,929. WONDER-PRUF. Devoe & Raynolds Company, Inc. SN 4,893. Pub. 9–18–56. Filed 3–20–56.

637,930. SHER-GIDE. The Sherwin-Williams Company. SN 4,992. Pub. 9–18–56. Filed 3–21–56.

### CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

637,931. ENERGAL. Pharmaceutical Corporation of America. SN 656,837. Pub. 6–29–54. Filed 11–23–53.

637,932. DARTRINS. Norman Dartell, d. b. a. Dartell Laboratories. SN 676,183. Pub. 6–21–55. Filed 11–8–54.

637,933. BECHOLINE. W. James Taylor, d. b. a. Taylor Drug Company. SN 690,765. Pub. 9–18–56. Filed 7–5–55.

637,934. ANBESOL ETC. AND DESIGN. The Anbesol Company, Inc. SN 692,758. Pub. 9–18–56. Filed 8–10–55.

637,935. THREE LOST LINKS. Billings Lee. SN 693,156. Pub. 9–18–56. Filed 8–16–55.

637,936. FOOT JOY AND DESIGN. Ernie Barbush. SN 695,135. Pub. 9–18–56. Filed 9–22–55.

637,937. LIPNOCAINE. Barfred Research Laboratories. SN 695 679. Pub. 9–18–56. Filed 10–3–55.

637,938. PANATAL. Gray Pharmaceutical Company, to Warner-Lambert Pharmaceutical Company, Inc. SN 697,548. Pub. 9–18–56. Filed 11–2–55.

637,939. CHYMAR. Armour and Company. SN 698,395. Pub. 9–18–56. Filed 11–17–55.

637,940. TRISULES. Charles C. Haskell & Co., Inc. SN 698,521. Pub. 9–18–56. Filed 11–18–55.

637,941. CYTOMEL. Smith Kline & French Laboratories. SN 698,555. Pub. 9–18–56. Filed 11–18–55.

637,942. DR. MACDONALD'S THRIFT-T-MIX. Robert W. Dodds, administrator of the estate of John R. Macdonald, deceased, d. b. a. Dr. Macdonald's Vitamised Feed Co. SN 700,205. Pub. 9–18–56. Filed 12–19–55.

637,943. IVERSAL. Farbenfabriken Bayer Aktiengesellschaft. SN 585. Pub. 9–18–56. Filed 1–12–56.

637,944. PRADASE. E. S. Miller Laboratories, Inc. SN 818. Pub. 9–18–56. Filed 1–16–56.

637,945. ALBAMYCIN. The Upjohn Company. SN 1,297. Pub. 9–18–56. Filed 1–23–56.

637,946. AQUATRACIN. Whitmoyer Laboratories, Inc. SN 2,733. Pub. 9–18–56. Filed 2–15–56.

637,947. CODISTAN. Chicago Pharmacal Company. SN 3,652. Pub. 9–18–56. Filed 3–1–56.

637,948. ANCHOL. G. D. Searle & Co. SN 3,773. Pub. 9–18–56. Filed 3–2–56.

637,949. MEDIHALER-EPI. Riker Laboratories, Inc. SN 4,148. Pub. 9–18–56. Filed 3–8–56.

637,950. MEDIHALER-ISO. Riker Laboratories, Inc. SN 4,149. Pub. 9–18–56. Filed 3–8–56.

637,951. TENTITE. George Gibson Meredith. SN 4,340. Pub. 9–18–56. Filed 3–12–56.

637,952. SINTOCINON. Sandoz Chemical Works, Inc. SN 4,480. Pub. 9–18–56. Filed 3–13–56.

637,953. PYRIHIST. Ormont Drug & Chemical Company, Inc. SN 4,558. Pub. 9–18–56. Filed 3–14–56.

637,954. PYRIMIST. Ormont Drug & Chemical Company, Inc. SN 4,559. Pub. 9–18–56. Filed 3–14–56.

637,955. C. B. F. U. S. Vitamin Corporation. SN 4,590. Pub. 9–18–56. Filed 3–14–56.

637,956. NUTRI-SCIENCE. Nutritional Science Corporation. SN 4,659. Pub. 9–18–56. Filed 3–15–56.

637,957. TYLENOL. McNeil Laboratories, Incorporated. SN 4,815. Pub. 9–18–56. Filed 3–19–56.

637,958. BISLUMINA. Mining and Chemical Products Limited. SN 4,817. Pub. 9–18–56. Filed 3–19–56.

637,959. SENEFORT. White Laboratories, Inc. SN 4,869. Pub. 9–18–56. Filed 3–19–56.

637,960. ELDEC. Parke, Davis & Company. SN 5,047. Pub. 9–18–56. Filed 3–22–56.

637,961. TYLANDRIL. Eli Lilly and Company. SN 5,218. Pub. 9–18–56. Filed 3–26–56.

## CLASS 19

## VEHICLES

637,962. AQUAMAID AND DESIGN. Skyline Products, Inc. SN 684,890. Pub. 9–18–56. Filed 4–4–55.

637,963. INDIANAP. Indianapolis Boat Co., Inc. SN 696,805. Pub. 9–18–56. Filed 10–20–55.

637,964. SIKORSKY. United Aircraft Corporation. SN 635. Pub. 9–18–56. Filed 1–12–56.

637,965. AMBLEWAGON. Automotive Conversion Corporation. SN 1,503. Pub. 9–18–56. Filed 1–26–56.

637,966. RACK N' ROLL. McDonough Co., d. b. a. O. Ames Co. SN 4,133. Pub. 9–18–56. Filed 3–8–56.

637,967. FORGED-TRAK. Athey Products Corporation. SN 5,579. Pub. 9–18–56. Filed 4–2–56.

637,968. MINISUB. Aerojet-General Corporation. SN 6,391. Pub. 9–18–56. Filed 4–16–56.

637,969. HOOK-MOBILE. Pree-To-Line Corp. of America. SN 6,465. Pub. 9–18–56. Filed 4–16–56.

637,970. MARLITE. Marston Excelsior Limited. SN 6,539. Pub. 9–18–56. Filed 4–17–56.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

637,971. DONMAR. Donmar Products, Inc. SN 689,365. Pub. 9–18–56. Filed 6–13–55.

637,972. PORT-ABOUT. Atlas Tool & Manufacturing Co. SN 693,655. Pub. 9–18–56. Filed 8–25–55.

637,973. ELECTROLINES. Dean McCormick Boyd, d. b. a. Lectrolines Company. SN 694,770. Pub. 9–18–56. Filed 9–16–55.

637,974. TELEXECUTIVE. Teleprompter Corporation. SN 696,849. Pub. 9–18–56. Filed 10–20–55.

637,975. ELECTROPANEL. Globe American Corporation. SN 700,601. Pub. 9–18–56. Filed 12–27–55.

637,976. HOOD SHADE. Swivelier Company, Inc. SN 530. Pub. 9–18–56. Filed 1–11–56.

637,977. TOPLITE. Swivelier Company, Inc. SN 532. Pub. 9–18–56. Filed 1–11–56.

637,978. SONOWELD. Aeroprojects, Inc. SN 1,418. Pub. 9–18–56. Filed 1–25–56.

637,979. UNIVERSAL ATOMICS. Universal Atomics Corp. SN 1,489. Pub. 9–18–56. Filed 1–25–56.

637,980. SONOBRAZE. Aeroprojects, Inc. SN 2,735. Pub. 9–18–56. Filed 2–16–56.

637,981. TELE-PAGE. Private Tele-Communications, Inc. SN 3,024. Pub. 8–14–56. Filed 2–20–56.

637,982. AUTOCHARGE. Quick Charge, Inc. SN 5,057. Pub. 9–18–56. Filed 3–22–56.

637,983. WIRY JOE. The Crescent Company, Inc. SN 5,715. Pub. 9–18–56. Filed 4–3–56.

637,984. KAAR IMP AND DESIGN. Kaar Engineering Corp. SN 5,844. Pub. 9–18–56. Filed 4–5–56.

637,985. QUICK-GRIP. Kuhlman Electric Co. SN 6,018. Pub. 9–18–56. Filed 4–9–56.

637,986. PROWELD. Welding Processes, Inc. SN 6,078. Pub. 9–18–56. Filed 4–9–56.

## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

637,987. SPORTSMAN. P–G Sales & Exports, Inc. SN 689,737. Pub. 9–18–56. Filed 6–17–55.

637,988. DOO-D-LONE. Florence George. SN 699,636. Pub. 9–18–56. Filed 12–8–55.

637,989. PRIMO. Sunset Line & Twine Co. SN 1,740. Pub. 9–18–56. Filed 1–30–56.

637,990. I'M GINNETTE. Vogue Dolls, Inc. SN 3,493. Pub. 9–18–56. Filed 2–27–56.

637,991. PEG-EZE. Caspen Products, Inc. SN 5,974. Pub. 9–18–56. Filed 4–9–56.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

637,992. HOLLYWOOD DEEP TONE. Hollywood Deep Tone Mfg. Co. SN 662,795. Pub. 9–18–56. Filed 3–17–54.

637,993. HOLLYWOOD DEEP TONE AND DESIGN. Hollywood Deep Tone Mfg. Co. SN 662,796. Pub. 9–18–56. Filed 3–17–54.

637,994. STEAMVEYOR ETC. AND DESIGN. Power Plant Contractors, Limited. SN 678,885. Pub. 9–18–56. Filed 12–23–54.

637,995. MICRO-X. James W. Howden Company, Inc. SN 682,805. Pub. 9–18–56. Filed 3–4–55.

637,996. JOHNSON AND DESIGN OF ROOSTER AND TRIANGLE. Gordon Johnson Company. SN 686,913. Pub. 9–18–56. Filed 5–5–55.

637,997. POWER HANDLE. Toro Manufacturing Corporation of Minnesota. SN 688,197. Pub. 9–18–56. Filed 5–24–55.

637,998. MARLIN AND DESIGN. Marlin Pool Equipment Company. SN 697,811. Pub. 9–18–56. Filed 11–7–55.

637,999. UNIPUNCH. Punch Products Corporation. SN 699,924. Pub. 9–18–56. Filed 12–13–55.

638,000. CINCINNATI AND DESIGN. The Cincinnati Shaper Co. SN 1,848. Pub. 9–18–56. Filed 2–1–56.

638,001. KNITTAX. Karl Steinbof, d. b. a. Karl Steinbof, Apparatefabrik. SN 1,911. Pub. 9–18–56. Filed 2–1–56.

638,002. CLUB AND DESIGN. Club Razor & Blade Mfg. Co. SN 2,283. Pub. 9–18–56. Filed 2–8–56.

638,003. BROWNSTAG. Camillus Cutlery Company. SN 2,497. Pub. 9–18–56. Filed 2–13–56.

638,004. MARINA. The International Silver Company. SN 2,704. Pub. 9–18–56. Filed 2–15–56.

638,005. S AND DESIGN. Sterling Aluminum Products, Inc. SN 2,927. Pub. 9–18–56. Filed 2–17–56.

638,006. ESTEEM. The International Silver Company. SN 2,989. Pub. 9–18–56. Filed 2–20–56.

638,007. SHOWPIECE. The International Silver Company. SN 2,990. Pub. 9–18–56. Filed 2–20–56.

638,008. AMPLI TORC AND DESIGN. Minneapolis-Moline Company. SN 3,440. Pub. 9–18–56. Filed 2–27–56.

638,009. DIE-DRAULIC. Grand Valley Machine and Tool Company. SN 3,605. Pub. 9–18–56. Filed 2–29–56.

638,010. ACCRA-FEED AND DESIGN. David E. Fornell, d. b. a. Fornell Equipment Co. SN 3,841. Pub. 9–18–56. Filed 3–5–56.



638,011. MASTER GRADE. Underwood Corporation. SN 3,900. Pub. 9–18–56. Filed 3–5–56.

638,012. JIBO. Dixie-Jibo Company. SN 4,185. Pub. 9–18–56. Filed 3–9–56.

638,013. ROD-O-MATIC. Spartan Tool Company. SN 4,385. Pub. 9–18–56. Filed 3–12–56.

638,014. W-S HYDRAULIC AND DESIGN. Farrel-Birmingham Company, Incorporated. SN 4,432. Pub. 9–18–56. Filed 3–13–56.

638,015. MIGNON. Olympia Werke A. G. Wilhelmshaven. SN 4,469. Pub. 9–18–56. Filed 3–13–56.

638,016. MASTERHOE. Clair S. Linton, d. b. a. The Masterhoe Company. SN 4,550. Pub. 9–18–56. Filed 3–14–56.

638,017. SUPER-EDGE. Utica Cutlery Company. SN 4,677. Pub. 9–18–56. Filed 3–15–56.

638,018. KING AND DESIGN. The Turner & Seymour Manufacturing Company. SN 6,877. Pub. 9–18–56. Filed 4–20–56.

## CLASS 25

## LOCKS AND SAFES

638,019. 400 LINE. Kwikset Locks, Inc. SN 668,175. Pub. 7–19–55. Filed 6–14–54.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

638,020. CV CONTINUOUS VISION LENSES AND DESIGN. The Univis Lens Company. SN 610,302. Pub. 9–18–56. Filed 2–19–51.

638,021. WALTHER AND DESIGN. Walther Buromaschinen Gesellschaft, to Walther-Buromaschinen G. m. b. H. SN 659,019. Pub. 9–18–56. Filed 1–5–54.

638,022. COLOR TRU. Lyndon V. Grover, d. b. a. Grover Photo Products. SN 693,460. Pub. 9–18–56. Filed 8–22–55.

638,023. JK PRODUCTS AND DESIGN. The James Knights Company. SN 694,491. Pub. 9–18–56. Filed 9–12–55.

638,024. ZELLWEGER USTER AND DESIGN. Zellweger Ltd. SN 694,685. Pub. 9–18–56. Filed 9–14–55.

638,025. OPTITHERM. Barnes Engineering Company. SN 694,846. Pub. 9–18–56. Filed 9–19–55.

638,026. ATOMICS INTERNATIONAL. North American Aviation, Inc. SN 696,456. Pub. 9–18–56. Filed 10–14–55.

638,027. ATOMICS INTERNATIONAL AI ETC. AND DESIGN. North American Aviation, Inc. SN 696,457. Pub. 9–18–56. Filed 10–14–55.

638,028. CHEK-WEIGHT. Norman Finard, d. b. a. General Commerce Company. SN 696,487. Pub. 9–18–56. Filed 12–6–55.

638,029. AGTRON. Roy M. Magnuson, d. b. a. Magnuson Engineers, to Agtron, Inc. SN 75. Pub. 9–18–56. Filed 1–3–56.

638,030. LORD. Kabushiki-Kaisha Hattori Tokei-Ten, d. b. a. K. Hattori & Co., Ltd. SN 1,448. Pub. 9–18–56. Filed 1–25–56.

638,031. FERRACTOR. Sperry Rand Corporation. SN 3,242. Pub. 9–18–56. Filed 2–23–56.

638,032. MIGNON. Olympia Werke A. G., Wilhelmshaven. SN 4,470. Pub. 9–18–56. Filed 3–13–56.

638,033. FROSTLINE. American Machine and Metals, Inc. SN 9,836. Pub. 9–18–56. Filed 6–8–56.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

638,034. SYLVETTE. Saul Frisch. SN 3,217. Pub. 9–18–56. Filed 5–14–56.

638,035. "PLANETE." Juvenia Watch Agency, Inc. SN 8,417. Pub. 9–18–56. Filed 5–16–56.

638,036. HERALDIC DESIGN. Sears, Roebuck and Co. SN 8,445. Pub. 9–18–56. Filed 5–16–56.

## CLASS 29

## BROOMS, BRUSHES, AND DUSTERS

638 037. WET-PAK. Glovemakers, Inc., d. b. a. Sterling Novelty Products. SN 6,517. Pub. 9–18–56. Filed 4–17–56.

638,038. GLO-BRITE. Chicopee Manufacturing Corporation. SN 6,787. Pub. 9–18–56. Filed 4–20–56.

## CLASS 30

## CROCKERY, EARTHENWARE, AND PORCELAIN

638,039. TREND. Onondaga Pottery Company. SN 7,827. Pub. 9–18–56. Filed 5–7–56.

## CLASS 31

## FILTERS AND REFRIGERATORS

638,040. PLASTI-GLASS. California Manufacturing and Equipment Co. SN 686,027. Pub. 9–18–56. Filed 4–22–55.

638,041. ARROW. Arrow Tools, Incorporated. SN 700,002. Pub. 9–18–56. Filed 12–15–55.

638,042. SUPPLE-TWO. Luber-Finer Incorporated. SN 2,240. Pub. 9–18–56. Filed 2–7–56.

638,043. SNO CAP. Stryker Manufacturing Co., Inc. SN 4,073. Pub. 9–18–56. Filed 3–7–56.

## CLASS 32

## FURNITURE AND UPHOLSTERY

638,044. DARLING AND DESIGN. Darling Carriage Co., Inc. SN 686,430. Pub. 9–18–56. Filed 4–28–55.

638,045. DAV-N-REST. Schnadig Corporation. SN 691,786. Pub. 9–18–56. Filed 7–22–55.

638,046. DAV-N-REST IMPERIAL. Schnadig Corporation. SN 691,787. Pub. 9–18–56. Filed 7–22–55.

638,047. PROVINCETOWN. The Dearborn Company. SN 4,779. Pub. 9–18–56. Filed 3–19–56.

638,048. DEARBORN PROVINCETOWN ETC. AND DESIGN. The Dearborn Company. SN 4,780. Pub. 9–18–56. Filed 3–19–56.

638,049. DEARBORN. The Dearborn Company. SN 4,781. Pub. 9–18–56. Filed 3–19–56.

638,050. THE BLIND MAN AND DESIGN. Hiram S. Chamberlain, d. b. a. Venetian Blind Mfg. Co. SN 5,166. Pub. 9–18–56. Filed 3–26–56.

638,051. MOLTOPREN. Farbenfabriken Bayer Aktiengesellschaft. SN 5,290. Pub. 9–18–56. Filed 3–27–56.

638,052. TIE CATCHER AND DESIGN. Jaydo, Inc. SN 7,508. Pub. 9–18–56. Filed 5–2–56.

638,053. MEDIC. Louisville Bedding Company, Inc. SN 7,817. Pub. 9–18–56. Filed 5–7–56.

638,054. PRESTO. Presto Sales Corp. SN 8,021. Pub. 9–18–56. Filed 5–9–56.

638,055. SLYD-A-DOR. Wolf Appliance Corp. SN 8,107. Pub. 9–18–56. Filed 5–10–56.





638,102. O'BRIEN TEXTILES ETC. AND DESIGN. O'Brien

## CLASS 46

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

638,056. KAYMOR AND DESIGN. Morry Hollow. SN 695,625. Pub. 9–18–56. Filed 9–30–55.

638,057. SILATUF. Reiss Manufacturing Corporation. SN 2,310. Pub. 9–18–56. Filed 2–8–56.

638,058. PRESS-SEAL. Press-Seal Gasket Corp. SN 2,911. Pub. 9–18–56. Filed 2–17–56.

638,059. CHEM PATCH PANG AND DESIGN. Patch Rubber Company. SN 3,548. Pub. 9–18–56. Filed 2–28–56.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

638,060. MUS O-MAT IC AND DESIGN. Vincent M. Kling. SN 3,866. Pub. 9–18–56. Filed 3–5–56.

## CLASS 37

## PAPER AND STATIONERY

638,061. LYRATO. Lyra-Bleistift-Fabrik, Johann Froescheis. SN 673,999. Pub. 9–18–56. Filed 9–29–54.

638,062. MARY LAMB AND DESIGN. Max Levinson, d. b. a. Newburgh Tissue Company. SN 690,718. Pub. 9–18–56. Filed 7–5–55.

638,063. MECCA. Oregon Pulp and Paper Company. SN 698,999. Pub. 9–18–56. Filed 11–28–55.

638,064. TINSEL-TINT. Eberhard Faber Pencil Company. SN 1,949. Pub. 9–18–56. Filed 2–2–56.

638,065. STA-MARK. M. L. Bitterman and J. W. Taylor. SN 2,080. Pub. 9–18–56. Filed 2–6–56.

638,066. BLACKOL. Standard Packaging Corporation. SN 2,665. Pub. 9–18–56. Filed 2–14–56.

## CLASS 38

## PRINTS AND PUBLICATIONS

638,067. OFFICE EQUIPMENT EXPORTER AND DESIGN. Office Publications Company. SN 687,215. Pub. 9–18–56. Filed 5–10–55.

638,068. "AUTOGRAPH." Bourges Color Corporation. SN 691,650. Pub. 9–18–56. Filed 7–21–55.

638,069. HY-GLOS. Tompkins' Label Service. SN 693,213. Pub. 9–18–56. Filed 8–16–55.

638,070. MONSANTO. Monsanto Chemical Company. SN 506. Pub. 9–18–56. Filed 1–11–56.

638,071. HOME TOWN. Leon G. Kruse and Clifford Engberg. SN 886. Pub. 9–18–56. Filed 1–17–56.

## CLASS 39

## CLOTHING

638,072. KEEP YOUR BABY "SOCIALLY ACCEPTABLE." International Latex Corporation. SN 628,537. Pub. 9–18–56. Filed 4–23–52.

638,073. FRONT ROW. Federated Department Stores, Inc., d. b. a. Wm. Filene's Sons Company. SN 674,669. Pub. 2–21–56. Filed 10–12–54.

638,074. JOHNNY MOCCASIN. Johnny Moccasin, Inc. SN 688,251. Pub. 9–18–56. Filed 5–25–55.

638,075. LIFTS. Vesta Underwear Company, to Modern Globe, Inc. SN 692,102. Pub. 9–18–56. Filed 7–28–55.

638,076. SPIN-HIGH THE TOP IN SKIRTS AND SEPARATES ETC. AND DESIGN. Spin-High Sportswear, Inc. SN 694,925. Pub. 9–18–56. Filed 9–19–55.

638,077. PETER RABBIT AND DESIGN. Heathcote Hosiery Company. SN 698,353. Pub. 9–18–56. Filed 11–16–55.

638,078. SEA/LURE. Catalina, Inc. SN 698,406. Pub. 9–18–56. Filed 11–17–55.

638,079. KAY CEE. K C Boyswear Mfg. Co. SN 1,247. Pub. 9–18–56. Filed 1–23–56.

638,080. STETSON. John B. Stetson Company. SN 1,738. Pub. 9–18–56. Filed 1–30–56.

638,081. NORDIC AND DESIGN. Harold Stein, d. b. a. Nordic Headwear Co. SN 2,587. Pub. 9–18–56. Filed 2–13–56.

638,082. SPORTSGUIDE. Fred R. Aramony, d. b. a. Timely Sportswear Company. SN 2,615. Pub. 9–18–56. Filed 2–14–56.

638,083. MR. D'. Dorchester Hat Co., Inc. SN 2,692. Pub. 9–18–56. Filed 2–15–56.

638,084. KAYSER CREDOE. Julius Kayser & Co. SN 5,433. Pub. 9–18–56. Filed 3–29–56.

638,085. DIAMOND LIL. Lucille of Hollywood, Inc., d. b. a. Lucille of Hollywood. SN 5,650. Pub. 9–18–56. Filed 4–2–56.

638,086. PLAYVILLE. American Playsuit Company. SN 7,556. Pub. 9–18–56. Filed 5–3–56.

638,087. GOLDEN CINCH. Rosedale Knitting Company. SN 7,848. Pub. 9–18–56. Filed 5–7–56.

638,088. GULF PARK. Craddock-Terry Shoe Corporation. SN 8,117. Pub. 9–18–56. Filed 5–11–56.

638,089. SENIOR CLASS. Knit Products Corporation. SN 8,135. Pub. 9–18–56. Filed 5–11–56.

638,090. BUR-MIL CAMEO AND DESIGN. Burlington Industries, Inc. SN 8,316. Pub. 9–18–56. Filed 5–15–56.

638,091. BEAU MANCE. S. D. Arrowood & Company, Incorporated. SN 8,379. Pub. 9–18–56. Filed 5–16–56.

638,092. COOL-TREDS. The Covol Company. SN 8,384. Pub. 9–18–56. Filed 5–16–56.

638,093. SOUTHERN COMFIT. Southern Hosiery Mill, Inc. SN 8,510. Pub. 9–18–56. Filed 5–17–56.

638,094. AUBURN MAID. Auburn Maid Footwear, Inc. SN 8,527. Pub. 9–18–56. Filed 5–18–56.

638,095. FOOT-RITE. Foot-Rite Products Corporation. SN 8,541. Pub. 9–18–56. Filed 5–18–56.

638,096. LAWRENCE MAID. Lawrence Maid Footwear, Inc. SN 8,564. Pub. 9–18–56. Filed 5–18–56.

638,097. MAGIC WEB. Ervin H. Fishman, d. b. a. Magic Webb Hosiery Company. SN 8,652. Pub. 9–18–56. Filed 5–21–56.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

638,098. KENTUCKY MAID. Sidney Meyer, d. b. a. F. Wolkow & Sons. SN 691,633. Pub. 9–18–56. Filed 7–20–55.

638,099. ARTEK AND DESIGN. Edward P. Klein Company, Inc. SN 696,548. Pub. 9–18–56. Filed 10–17–55.

638,100. "TWO-FRONT." Emsig Manufacturing Co. SN 5,183. Pub. 9–18–56. Filed 3–26–56.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

638,101. STONEHENGE. Malcolm Kenneth Co. SN 693,809. Pub. 9–18–56. Filed 4–2–54.



638,102. O'BRIEN TEXTILES ETC. AND DESIGN. O'Brien Textiles Corporation. SN 691,231. Pub. 9–18–56. Filed 7–12–55.

638,103. CANNON'S NEW EXCLUSIVE "EZY-MATIC" CORNERS. Cannon Mills Company. SN 694,851. Pub. 9–18–56. Filed 9–19–55.

638,104. MELLOFLEX. Dubin-Haskell-Jacobson, Inc. SN 699,143. Pub. 9–18–56. Filed 11–30–55.

638,105. FUSETEX. Dubin-Haskell-Jacobson, Inc. SN 1,775. Pub. 9–18–56. Filed 1–31–56.

638,106. TROCADERO. The Associated Merchandising Corporation. SN 2,218. Pub. 9–18–56. Filed 2–7–56.

638,107. PAL-MAC. Palmer & Mackay Ltd. SN 5,785. Pub. 9–18–56. Filed 4–4–56.

638,108. FIBERTHIN. United States Rubber Company. SN 5,886. Pub. 9–18–56. Filed 4–5–56.

638,109. MIDNIGHT. Amerotron Corporation. SN 6,146. Pub. 9–18–56. Filed 4–11–56.

638,110. "PLYLON" AND DESIGN. Melatex Products Co. Inc. SN 6,182. Pub. 9–18–56. Filed 4–11–56.

638,111. VERCEL. Etablissements Félix Vercel & Cie. SN 6,414. Pub. 9–18–56. Filed 4–16–56.

638,112. SHAM-E-FLEX. Rayflex Fabrics, Inc. SN 6,466. Pub. 9–18–56. Filed 4–18–56.

638,113. GLENOIT. Glenoit Mills, Inc. SN 6,613. Pub. 9–18–56. Filed 4–18–56.

638,114. LONI. Reeves Brothers, Inc. SN 6,638. Pub. 9–18–56. Filed 4–18–56.

638,115. MARK V. Sidney Blumenthal & Co., Inc. SN 6,685. Pub. 9–18–56. Filed 4–18–56.

638,116. MARK VII. Sidney Blumenthal & Co., Inc. SN 6,686. Pub. 9–18–56. Filed 4–19–56.

## CLASS 43

## THREAD AND YARN

638,117. MP NONE BETTER. Max Pollack & Company, Inc. SN 698,726. Pub. 9–18–56. Filed 11–22–55.

638,118. SPUN-GEE. National Spinning Co., Inc. SN 10,098. Pub. 9–18–56. Filed 6–12–56.

638,119. HILAYA AND DESIGN. Mount Vernon Mills, Inc. SN 10,793. Pub. 9–18–56. Filed 6–22–56.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

638,120. DERMALIFT. Fastel Corporation, Inc. SN 679,041. Pub. 9–18–56. Filed 12–28–54.

638,121. MIRACLE-EAR. The Dahlberg Company. SN 695,703. Pub. 9–18–56. Filed 10–3–55.

638,122. NOBILTONE. Nobilium Processing Company of Chicago. SN 700,523. Pub. 9–18–56. Filed 12–23–55.

638,123. JOY-FUTURAMA. Rex Cutlery Corporation. SN 1,170. Pub. 9–18–56. Filed 1–20–56.

638,124. A-G. C. R. Bard, Inc. SN 3,341. Pub. 9–18–56. Filed 2–27–56.

638,125. CUSHION GRIP. Cameo, Inc. SN 5,025. Pub. 9–18–56. Filed 3–22–56.

638,126. TROJANS. Youngs Rubbber Corporation. SN 5,476. Pub. 9–18–56. Filed 3–29–56.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

638,127. CIT-ROZE. C. E. Groves Limited. SN 696,976. Pub. 9–18–56. Filed 10–24–55.



## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

638,128. WORLD'S FINEST. World's Finest Chocolate, Inc. SN 621,597. Pub. 3–1–55. Filed 11–23–51.

638,129. MILANI'S PATIO. Louis Milani Foods, Inc. SN 635,373. Pub. 9–18–56. Filed 9–17–52.

638,130. SEVEN-ELEVEN. Abraham Maser, d. b. a. A. Maser and Seven Eleven Fres-N-Fresh Meat Co. SN 637,490. Pub. 9–18–56. Filed 11–1–52.

638,131. CONSERVAS ORTIZ EL VELERO AND DESIGN. José Ortiz de Zarate. SN 653,906. Pub. 9–18–56. Filed 9–29–53.

638,132. FISHER'S AND DESIGN. Fisher Flouring Mills Company. SN 675,779. Pub. 9–18–56. Filed 11–1–54.

638,133. VMD VETERINARY MAINTENANCE DIET. Canné Veterinary Products Co. SN 678,092. Pub. 9–21–55. Filed 12–10–54.

638,134. LUCILLE MOHLER'S. Lucille and James Mohler. SN 683,901. Pub. 9–18–56. Filed 3–21–55.

638,135. DUCHESS. West Coast Grocery Company. SN 686,709. Pub. 9–18–56. Filed 5–2–55.

638,136. STAN-WHITE. Standard Milling Company. SN 688,592. Pub. 9–18–56. Filed 5–31–55.

638,137. LACKADAY FARMS. W. E. Gallant and Sons. SN 691,126. Pub. 9–18–56. Filed 7–12–55.

638,138. CARNIVAL. Paramount Bakers. SN 692,158. Pub. 9–18–56. Filed 7–29–55.

638,139. NIEHAUS AND DESIGN. Niehaus Bros. SN 692,860. Pub. 9–18–56. Filed 8–11–55.

638,140. ZIP. Zest Packing Company. SN 693,643. Pub. 9–18–56. Filed 8–24–55.

638,141. BEEDO. Charles A. Bloedorn, d. b. a. Bloedorn Products. SN 695,384. Pub. 9–18–56. Filed 9–27–55.

638,142. LIPROTEIN. The Upjohn Company. SN 696,331. Pub. 9–18–56. Filed 10–12–55.

638,143. DAIRY-TONE. F. H. Peavey & Company, d. b. a. King Midas Feed Mills. SN 697,111. Pub. 9–18–56. Filed 10–25–55.

638,144. ATCO FEEDS AND DESIGN. Athens Milling Company. SN 698,681. Pub. 9–18–56. Filed 11–22–55.

638,145. SHINE. Anderson, Clayton & Co. SN 699,046. Pub. 9–18–56. Filed 11–29–55.

638,146. YANKEE. Drake Bakeries Incorporated. SN 699,207. Pub. 9–18–56. Filed 12–1–55.

638,147. THE CAKE BOX AND DESIGN. The Cake Box Bakers, Inc. SN 699,770. Pub. 9–18–56. Filed 12–12–55.

638,148. RED WING. The Red Wing Company, Inc. SN 700,526. Pub. 9–18–56. Filed 12–23–55.

638,149. ORANGE BEE. Florida Juice, Inc. SN 2,410. Pub. 9–18–56. Filed 2–10–56.

638,150. ALL STATES. A and H Packing Co. SN 2,489. Pub. 9–18–56. Filed 2–13–56.

638,151. CONSUMERS GUILD. Pacific Olive Company. SN 2,559. Pub. 9–18–56. Filed 2–13–56.

638,152. SELINE. Schucki & Co., Inc. SN 2,579. Pub. 9–18–56. Filed 2–13–56.

638,153. LAUCO. Lauritzen and Company, Inc. SN 10,957. Pub. 9–18–56. Filed 6–15–56.

## CLASS 47

## WINES

638,154. KOPKE. C. N. Kopke & Ca., Lda. SN 700,418. Pub. 9–18–56. Filed 12–7–55.

638,155. GUILD AND DESIGN. Wine Growers Guild. SN 5,095. Pub. 9–18–56. Filed 4–2–56.





## CLASS 104

## CLASS 106

### CLASS 49

### DISTILLED ALCOHOLIC LIQUORS

638,156. BONNWOOD BRAND. Plaza Royale. SN 694. Pub. 9–18–56. Filed 1–13–56.

### CLASS 50

### MERCHANDISE NOT OTHERWISE CLASSIFIED

638,157. LITTLE RED HEN ETC. AND DESIGN. The Silent Glow Oil Burner Corporation, d. b. a. The Little Red Hen Equipment Company. SN 683,815. Pub. 9–18–56. Filed 3–18–55.

638,158. MIRAFELT. The Felters Company. SN 698,255. Pub. 6–5–56. Filed 11–14–55.

638,159. DIKE-O-PAD. Richard L. Olson. SN 5,741. Pub. 9–18–56. Filed 4–3–56.

638,160. HOLD A PLATE AND DESIGN (CHILD AND DOG). Jack Graham, d. b. a. Hold-A-Plate Company. SN 1,157. Pub. 9–18–56. Filed 1–20–56.

638,161. "THE SYMPATHETIC EAR." Art Anson, Inc. SN 2,616. Pub. 9–18–56. Filed 2–14–56.

638,162. SHOE VALET. Knomark Manufacturing Co., Inc. SN 3,759. Pub. 9–18–56. Filed 3–2–56.

### CLASS 51

### COSMETICS AND TOILET PREPARATIONS

638,163. PANTÈNE. Panteen, A. G. SN 688,660. Pub. 9–18–56. Filed 6–1–55.

638,164. SOPHISTI-POUDRE. Richard Hudnut. SN 691,040. Pub. 9–18–56. Filed 7–11–55.

638,165. SHERBROOKE. Lee Nusbaum, d. b. a. Sherbrooke Co., to Pennco Engineering Company. SN 697,390. Pub. 9–18–56. Filed 10–31–55.

638,166. SHERBRON. Lee Nusbaum, d. b. a. Sherbrooke Co., to Pennco Engineering Company. SN 697,391. Pub. 9–18–56. Filed 10–31–55.

638,167. EZY-STRATE. J. Strickland & Co. SN 699,112. Pub. 9–18–56. Filed 11–29–55.

638,168. ROBERTA OWENS. Arcinco, Inc. SN 699,274. Pub. 9–18–56. Filed 12–2–55.

638,169. BLUE CHIP. Coty, Inc. SN 576. Pub. 9–18–56. Filed 1–12–56.

638,170. ADDED ATTRACTION. Prince Matchabelli, Inc. SN 1,169. Pub. 9–18–56. Filed 1–20–56.

### CLASS 52

### DETERGENTS AND SOAPS

638,171. ZEROSPOT. The Diversey Corporation. SN 683,246. Pub. 9–18–56. Filed 2–24–55.

638,172. SANI-FLUSH AND DESIGN. The Hygienic Products Company, to Boyle-Midway, Inc. SN 688,327. Pub. 9–18–56. Filed 5–26–55.

638,173. AUTOMATIC. Fitzpatrick Brothers, Inc. SN 693,817. Pub. 9–18–56. Filed 8–29–55.

638,174. STRIP AID. Klem Chemicals Inc. SN 696,892. Pub. 9–18–56. Filed 10–21–55.

638,175. AQUID. Diamond Alkali Company. SN 696,019. Pub. 9–18–56. Filed 11–10–55.

638,176. KO. Ker Corporation. SN 2,142. Pub. 9–18–56. Filed 2–6–56.

638,177. TURCO. Turco Products, Inc. SN 3,785. Pub. 9–18–56. Filed 3–2–56.

638,178. CLEAN FAMILY AND DESIGN. Eugene M. Oberlin, d. b. a. E. M. O. Co. SN 4,220. Pub. 9–18–56. Filed 3–9–56.

638,179. X-TOL. Carolyn Company. SN 4,286. Pub. 9–18–56. Filed 3–12–56.

638,180. HOPPE'S. Frank A. Hoppe, Inc. SN 4,450. Pub. 9–18–56. Filed 3–13–56.

638,181. LEADING LADY. The Fuller Brush Company. SN 5,192. Pub. 9–18–56. Filed 3–26–56.

638,182. SOFTASILK. The Gerson Stewart Corporation. SN 5,198. Pub. 9–18–56. Filed 3–26–56.

638,183. WOOL-KARE. David Traum Company, Incorporated. SN 6,568. Pub. 9–18–56. Filed 4–17–56.

## Service Marks

### CLASS 100

### MISCELLANEOUS

638,184. FREEDOM IN ACTION AND DESIGN. Freedom in Action, Inc. SN 691,616. Pub. 9–18–56. Filed 7–20–55.

638,185. HOPE CHEST. National Multiple Sclerosis Society. SN 905. Pub. 9–18–56. Filed 1–17–56.

638,186. NUCLIBADGE. Nuclear Instrument and Chemical Corporation. SN 2,441. Pub. 9–18–56. Filed 2–10–56.

638,187. SAN-O-LET. San-O-Let Service, Inc. SN 4,914. Pub. 9–18–56. Filed 3–20–56.

### CLASS 101

### ADVERTISING AND BUSINESS

638,188. THE MOST WIDELY-READ BOOK IN AMERICA. The Diamond Match Company. SN 652,994. Pub. 9–18–56. Filed 9–10–53.

638,189. F S GOLD STAMP. Saunders Distributors, Inc., d. b. a. Gold Stamp Premium Company. SN 697,641. Pub. 9–18–56. Filed 11–3–55.

638,190. RED SCISSORS COUPONS AND DESIGN. Premium Associates, Inc. SN 445. Pub. 9–18–56. Filed 1–10–56.

### CLASS 102

### INSURANCE AND FINANCIAL

638,191. RITE CHEK AND DESIGN. The Fort Worth National Bank. SN 696,135. Pub. 9–18–56. Filed 10–10–55.

638,192. DREYFUS FUND INC AND DESIGN. The Dreyfus Fund Incorporated. SN 490. Pub. 9–18–56. Filed 1–11–56.

### CLASS 103

### CONSTRUCTION AND REPAIR

638,193. CATHODIC PROTECTION ERP AND DESIGN. Electro Rust-Proofing Corporation. SN 685,677. Pub. 9–18–56. Filed 4–18–55.

638,194. PENETRED. Penetred Corporation. SN 697,315. Pub. 9–18–56. Filed 10–28–55.

638,195. HAND-CRAFT. Hand-Craft One Hour Cleaners, Inc. SN 700,316. Pub. 9–18–56. Filed 12–20–55.



### CLASS 104

### COMMUNICATION

638,196. W U ALL AROUND THE WORLD AND DESIGN. The Western Union Telegraph Company. SN 692,881. Pub. 9–18–56. Filed 8–11–55.

### CLASS 105

### TRANSPORTATION AND STORAGE

638,197. CLIPPER. Clipper Carloading Company. SN 605,350. Pub. 9–18–56. Filed 10–24–50.

638,198. WORLD AA ETC. AND DESIGN. World Automobile Association, Inc. SN 623,626. Pub. 9–1–53. Filed 1–15–52.

638,199. COSCO AND DESIGN. Commercial Services Co., Inc. SN 680,517. Pub. 9–18–56. Filed 1–26–55.

638,200. COAST AUTO RENTAL SERVICE, INC. ETC. AND DESIGN. Coast Auto Rental Service, Inc. SN 683,579. Pub. 9–18–56. Filed 3–16–55.

### CLASS 106

### MATERIAL TREATMENT

638,201. VELVETEX. Velveray Corporation. SN 666,800. Pub. 9–18–56. Filed 5–20–54.

638,202. DESIGN OF WOMAN HOLDING FABRIC. The Fabric Maid. SN 676,715. Pub. 9–18–56. Filed 11–16–54.

638,203. CASUAL CARE. Associated Dye & Print Co. Inc. SN 694,406. Pub. 9–18–56. Filed 9–9–55.

### CLASS 107

### EDUCATION AND ENTERTAINMENT

638,204. THIS IS YOUR CHANCE. Parkview Drugs, Inc. SN 685,648. Pub. 9–18–56. Filed 4–19–55.

638,205. "THE" FILM CENTER AND DESIGN. CMC Corporation, d. b. a. "The" Film Center of Washington, D. C. SN 2,018. Pub. 9–18–56. Filed 2–3–56.

## SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

638,206. Diamond Head Oil Refining Co., Inc., Kearny, N. J. SN 1,672. Filed P. R. 1–30–56. Am. S. R. 10–3–56.

**DRI-Z-ALL**

For Non Combustible Granular Compound Which Is an Absorbent of Oil, Grease, Water, and Other Liquids, and Which Also Absorbs Dampness and Deodorizes.
First use on or about Apr. 15, 1955.

### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

638,207. George R. Krusell, d. b. a. Krusell Gunsmithing Works, Bay City, Mich. SN 690,955. Filed P. R. 7–8–55. Am. S. R. 10–10–56.

Kruzell

For Scope Mount for Guns.
First use Apr. 20, 1955.

### CLASS 12

### CONSTRUCTION MATERIALS

638,208. Lloyd A. Fry Roofing Co., Summit, Ill. SN 692,591. Filed P. R. 8–8–55. Am. S. R. 9–12–56.

**"FROM RAGS TO ROOFING"**

For Roofing Materials—Namely, Asphalt Shingles, Slate Roll Roofing, Roll Dry Felt, Roll Saturated Felt.
First use on or about June 14, 1955.

### CLASS 26

### MEASURING AND SCIENTIFIC APPLIANCES

638,209. Henry A. Gardner Laboratory, Inc., Bethesda, Md. SN 698,421. Filed 11–17–55.

GARDNER LABORATORY

For Scientific and Physical Testing Equipment for Laboratory Use—Namely, Multi-Purpose Reflectometers, Gonio Photometers, Bubble Viscometers, Sand Abrasers, Water Baths, Film Applicators, Hardness Rockers, Impact Testers, Abrasion Testing Machines, Drying Time Recorders, Film Thickness Gages.
First use February 1954.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

638,210. Swanson Manufacturing Company, Owosso, Mich. SN 677,536. Filed P. R. 11-30-54. Am. S. R. 10-9-56.

Swanson

For Range Hoods Used for Ventilating Kitchens.
First use Aug. 1, 1954.

CLASS 38

PRINTS AND PUBLICATIONS

638,211. The Sporting Goods Publishing Company, St. Louis, Mo. SN 685,857. Filed P. R. 4-19-55. Am. S. R. 10-1-56.

LET'S GO HUNTING

For Magazine or Periodical Features Published at Regular Intervals.
First use August 1950.

638,212. The Sporting Goods Publishing Company, St. Louis, Mo. SN 685,858. Filed P. R. 4-19-55. Am. S. R. 10-1-56.

Let's Play Golf

For Magazine or Periodical Features Published at Regular Intervals.
First use April 1954.

638,213. The Sporting Goods Publishing Company, St. Louis, Mo. SN 685,859. Filed P. R. 4-19-55. Am. S. R. 10-1-56.

Let's Play Tennis

For Magazine or Periodical Features Published at Regular Intervals.
First use May 1950.

638,214. The Sporting Goods Publishing Company, St. Louis, Mo. SN 685,860. Filed P. R. 4-19-55. Am. S. R. 10-1-56.

"Let's Play Ball"

For Magazine or Periodical Features Published at Regular Intervals.
First use February 1950.

638,215. The Sporting Goods Publishing Company, St. Louis, Mo. SN 685,861. Filed P. R. 4-19-55. Am. S. R. 10-1-56.

LET'S GO FISHING

For Magazine or Periodical Features Published at Regular Intervals.
First use March 1950.

638,216. Hitchcock Publishing Company, Wheaton, Ill. SN 686,645. Filed P. R. 5-2-55. Am. S. R. 2-23-56.

GRINDING
Honing, Lapping, Superfinishing

For Publication Published Quarterly.
First use Feb. 15, 1955.

638,217. Earl W. G. Hatch, North Hollywood, Calif. SN 693,461. Filed P. R. 8-22-55. Am. S. R. 8-16-56.

SPINETTE SPECIALS



The mark comprises the words "Spinette Specials" and a caricature drawing of the applicant playing an organ.
For Sheet Music.
First use Aug. 11, 1955.

CLASS 39

CLOTHING

638,218. Howard B. Schneidewind, Inc., New York, N. Y. SN 1,810. Filed P. R. 1-31-56. Am. S. R. 9-24-56.

MADE FOR EACH OTHER

For Ladies' and Misses' Dresses, Blouses, Coats, Suits, Jackets, Outer Skirts, Beach and Lounging Robes, Halters, Playshorts, Playsuits and Slacks.
First use Aug. 1, 1955.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

638,219. Rosewood Fabrics, Inc., New York, N. Y. SN 696,379. Filed P. R. 10-13-55. Am. S. R. 10-12-56.

THE FABRIC THAT PRESSES ITSELF

For Woven Piece Goods of One or More Synthetic Fibers With or Without Vegetable Fibers Such as Cotton, and Animal Fibers Such as Mohair.
First use June 6, 1955.

638,220. D. B. Fuller & Co., Inc., New York, N. Y. SN 8,951. Filed P. R. 5-24-56. Am. S. R. 9-24-56.

INTAGLIO

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres and Mixtures Thereof.
First use Feb. 8, 1955.



CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

638,221. Nathan Ginsburg, d. b. a. Nu-Komfort Manufacturing Co., Philadelphia, Pa. SN 679,768. Filed P. R. 1-12-55 Am. S. R. 7-17-56.

Seep-Pruf

For Colostomy Apparatus for Application to the Human Body.
First use Jan. 4, 1954.

638,222. O-So Grape Co., Peoria, Ill. SN 1,466. Filed P. R. 1-25-56. Am. S. R. 9-10-56.

O-So good

For Soft Drinks, and Syrups, Extracts, and Concentrates for Making the Same.
First use May 24, 1954.

CLASS 46

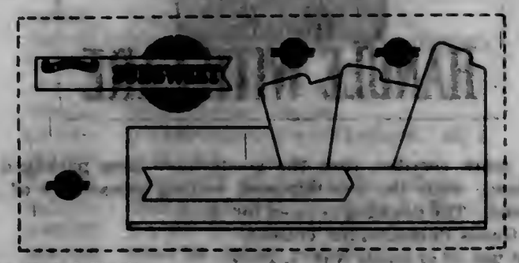
FOODS AND INGREDIENTS OF FOODS

638,223. The Ambriola Co., Inc., d. b. a. Ditta Giovanni Ambriola, New York, N. Y. SN 666,247. Filed P. R. 5-13-54. Am. S. R. 3-7-55.



The Italian words are translated as follows: Pecorino—sheep; Romano—Rome; Formaggio—cheese; Ditta—house, business; Giovanni—John. The drawing is lined for gold, yellow, blue, and red, but no claim is made to color.
For Cheese.
First use Feb. 6, 1946.

638,224. California Prune and Apricot Growers Association, San Jose, Calif. SN 687,847. Filed P. R. 5-12-55. Am. S. R. 6-28-56.



For Dried Fruit.
First use November 1954.

638,225. Comet Rice Mills, Houston, Tex. SN 695,618. Filed P. R. 9-30-55. Am. S. R. 9-24-56.

COMET PRE-FLUFFED

For Rice.
First use Aug. 16, 1955.

638,226. Lundy Packing Company, Clinton, N. C. SN 696,996. Filed P. R. 10-24-55. Am S. R. 9-27-56.

Lundy's

For Meat and Meat Products—Namely, Lard; Pork Liver; Pork Sausage, Bacon, Smoked Hams; Fresh Hams; Pork Spareribs; Pork Loins; Pork Chitterlings; Pork Neck Bones; Pork Shoulders; Pork Butts; Pork Picnics; Pork Dry Salt Fatback; Pork Dry Salt Bellies; Pork Frost and Hind Feet; Pork Tails and Ears; Pork Snouts; Pork Headmeat, and Headmeat Trimmings; Pork Neck Bone Trimmings; Pork Diaphragm Trimmings; Pork Kidneys, Melts and Brains; Hog Casings; Hog Carcasses; Pork Meat and Bone Meal; Pork Blood; Meat and Bone Meal; Dried Pork Blood; Pork Skins, Lips, Tongues, and Tongue Trimmings; and Pork Jowls and Stomachs.
First use June 1, 1951.

CLASS 47

WINES

638,227. Beaulieu Vineyard, San Francisco, Calif. SN 694,954. Filed P. R. 9-20-55. Am. S. R. 10-1-56.

BEAUFORT

For Wines.
First use Sept. 1, 1955.

CLASS 48

MALT BEVERAGES AND LIQUORS

638,228. Aktieselskabet de Forenede Bryggerier, d. b. a. A/S Tuborgs Bryggerier (Tuborg Breweries Ltd.), Copenhagen, Denmark. SN 687,438. Filed P. R. 5-13-55. Am. S. R. 3-29-56.



The drawing shows the body of a beer can in a plane state and the lid seen from above. The drawing is lined for black, green, gold and red. Priority claimed under Sec. 44(d) on Danish application No. 2746/1954, filed Nov. 19, 1954; Reg. No. 270—1955, dated Feb. 19, 1955. Owner of U. S. Reg. Nos. 283,927, 437,127, and others.
For Beer.

638,229. Aktieselskabet de Forenede Bryggerier, Copenhagen, Denmark. SN 687,439. Filed P. R. 5–13–55. Am. S. R. 3–29–56.



The lining in the drawing indicates the colors black, green, gold, and red. Priority claimed under Sec. 44(d) on Danish application filed Nov. 19, 1954; Reg. No. 2747/1954, dated Feb. 19, 1955.
For Beer.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

638,230. Priv. Fabbrica Maraschino "Excelsior" Girolamo Luxardo S. p. A., Torreglia, Padova, Italy. SN 1,543. Filed 1–26–56.



Priority is claimed under Sec. 44(d) on Italian application filed Oct. 29, 1955; Reg. No. 123,328, dated June 15, 1956.
For Alcoholic Cordials, and Brandy.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

638,231. Standard Packaging Corporation, Chicago, Ill. SN 690,500. Filed P. R. 6–29–55. Am. S. R. 10–11–56.

KOVRSEAL

For Laminated Closures to Be Used on Preformed Containers.
First use June 28, 1955.

638,232. Dorrie Process Co., Inc., Brooklyn, N. Y. SN 967. Filed P. R. 1–18–56. Am. S. R. 10–10–56.

DORAY

For Metallised Plastic Film in Sheets and for Metallised Plastic Film Bonded to Various Backing Materials in the Piece.
First use Sept. 24, 1954.

## Certification Marks

## CLASS A

## GOODS

638,233. Porcelain Enamel Institute, Inc., Washington, D. C. SN 631,685. Filed P. R. 6–24–52. Am. S. R. 3–10–54.

NATIONAL SAFE TRANSIT PROGRAM

The mark certifies that the goods have been packaged in accordance with the pre-shipment testing procedures of the applicant.
For Goods Packaged for Transit.
First use on or about Nov. 1, 1949.

638,234. Porcelain Enamel Institute, Inc., Washington, D. C. SN 631,686. Filed P. R. 6–24–52. Am. S. R. 3–10–54.

HOME APPLIANCES
NATIONAL SAFE TRANSIT PROGRAM
HANDLE WITH CARE

The mark certifies that the goods have been packaged in accordance with the pre-shipment testing procedures of the applicant. The drawing is lined for black.
For Goods Packaged for Transit.
First use on or about Nov. 1, 1949.

# TRADEMARK REGISTRATIONS RENEWED

112,903. BANQUET. Cl. 46. 10–3–16.
112,947. CHOLLY KNICKERBOCKER. Cl. 38. 10–3–16.
112,961. RUB-STEEL. Cl. 35. 10–3–16.
113,178. LOVELY. Cl. 46. 10–10–16.
113,268. DESIGN OF A SPINNING WHEEL. Cl. 42. 10–10–16.
113,481. TYLIKE. Cl. 12. 10–17–16.
114,248. KELLOGG'S. Cl. 45. 12–5–16.
114,795. DELHI. Cl. 35. 1–2–17.
114,968. BEACH CLOTH AND DESIGN. Cl. 39. 1–16–17.
115,703. BLUE BIRD AND DESIGN. Cl. 39. 2–27–17.
115,850. DOROTHY DIX. Cl. 38. 3–13–17.
115,901. DECCA. Cl. 36. 3–20–17.
336,966. PENN SQUARE. Cl. 39. 7–21–36.
339,139. HI-SPOT AND DESIGN. Cl. 46. 9–29–36.
339,171. MISTER PHILPLUG AND DESIGN. Cl. 12. 9–29–36.
339,297. HUNGRY JACK. Cl. 46. 10–6–36.
339,320. ANTIQUE AND DESIGN. Cl. 49. 10–6–36.
339,497. AMAPRO. Cl. 6. 10–13–36.
339,794. SUPER LASTIQUE. Cl. 42. 10–20–36.
339,795. TWIN LASTIQUE. Cl. 42. 10–20–36.
339,806. WELLINGHAM AND DESIGN. Cl. 39. 10–20–36.
339,828. FI AND DESIGN. Cl. 31. 10–20–36.
339,829. DESIGN OF CIRCLES. Cl. 31. 10–20–36.
339,830. FI AND DESIGN. Cl. 31. 10–20–36.
340,120. PALEMID. Cl. 15. 11–3–36.
340,121. LUBROLUX. Cl. 15. 11–3–36.
340,122. PENNALUX. Cl. 15. 11–3–36.
340,210. PAL. Cl. 13. 11–3–36.
340,324. LUBRAVION. Cl. 15. 11–3–36.
340,376. LACE LASTIQUE. Cl. 42. 11–10–36.
340,546. FRANKFORT AND DESIGN. Cl. 49. 11–17–36.
340,783. SUPER CONTROL. Cl. 39. 11–24–36.
341,155. ROYAL PALM BEACH AND DESIGN. Cl. 42. 12–1–36.
341,330. BALLANTINE'S AND DESIGN. Cl. 49. 12–8–36.
341,609. KING PHILIP. Cl. 46. 12–15–36.
341,808. KUMFYREST. Cl. 44. 12–22–36.
341,893. BELLE-SHARMEER AND DESIGN. Cl. 39. 12–29–36.
341,945. MISTO. Cl. 52. 12–29–36.
341,953. SILVER HORN. Cl. 46. 12–29–36.
342 099. DREDNAUT. Cl. 13. 1–5–37.
342,357. FLAMENOL. Cl. 21. 1–12–37.
342,467. DESIGN OF PENCIL WITH BLACK BAND. Cl. 37. 1–19–37.
342,490. MAGNAVOX CONCERTO. Cl. 36. 1–19–37.
342,491. CHESTER BARRIE AND DESIGN. Cl. 39. 1–19–37.
342,589. PROPHYLINE. Cl. 18. 1–19–37.
342,759. CHAMBERLIN ROCK WOOL AND DESIGN. Cl. 12. 1–26–37.
342 860. HONEY-KRUST AND DESIGN. Cl. 46. 2–2–37.
343,144. CUTEX. Cl. 18. 2–9–37.
343,146. FOREVER YOURS AND DESIGN. Cl. 46. 2–9–37.
343,193. SWANSOFT. Cl. 37. 2–9–37.
343,504. JARMAN FRIENDLY SHOE AND DESIGN. Cl. 39. 2–23–37.
343,752. TOPMOST. Cl. 42. 3–2–37.
343,900. PRIVATE STOCK AND DESIGN. Cl. 47. 3–9–37.
343,947. SHADOW KID. Cl. 6. 3–9–37.
343,977. PARAMI. Cl. 51. 3–9–37.
344,036. IOFLOW. Cl. 18. 3–9–37.
344,132. DAMIT AND DESIGN. Cl. 12. 3–16–37.
344,139. LOUIS. Cl. 27. 3–16–37.
344,160. LUBRICREAM AND DESIGN. Cl. 15. 3–16–37.
344,180. GLOBE TROTTER AND DESIGN. Cl. 3. 3–16–37.
344,185. GOLD FILM. Cl. 15. 3–16–37.
344,285. OLD SPICE. Cl. 52. 3–16–37.
344,386. 20TH CENTURY. Cl. 37. 3–23–37.

# TRADEMARK REGISTRATIONS CANCELED

### Section 7

603,772. EMPRESS CHINCHILLA. Cl. 1. 3–29–55.
621,344. COUNTER-SPYING AND DESIGN. Cl. 38. 2–14–56.

### Section 8

189,854. OCEAN BREEZE. Cl. 46. 9–30–24.
269,195. "TODD'S RHEUMATISM CAPSULES." Cl. 18. 4–1–30.
270,069. "GERTELLE GERTZ JAMAICA" AND DESIGN. Cl. 39. 4–22–30.
270,070. PARAMOUNT. Cl. 39. 4–22–30.
270,206. "MIRABELLE GERTZ JAMAICA" AND DESIGN. Cl. 39. 4–29–30.
271,484. SEMESAN JR. Cl. 6. 6–10–30.
271,487. KODATAPE. Cl. 5. 6–10–30.
329,717. KOOLAIR. Cl. 46. 11–6–35.
354,072. MOUNTAIN AIR. Cl. 46. 2–1–38.
355,281. ROUYER, GUILLET AND DESIGN. Cl. 49. 3–8–38.
357,791. OCEAN AIR. Cl. 46. 6–14–38.

*The following registrations issued Sept. 5, 1950*

530,059. DOS-A-CAPS. Cl. 18.
530,062. PHILIPS METALIX AND DESIGN. Cl. 44.
530,063. A F AND DESIGN. Cl. 18.
530,066. LORD ADAM. Cl. 51.
530,072. TUF TWIST. Cl. 39.
530,073. GREENEBAUM'S HYD-RAW. Cl. 1.
530,074. FISCHER. Cl. 44.
530,075. FISCHER AND DESIGN. Cl. 44.
530,076. GREENEBAUM'S G HYD RAW. Cl. 1.
530,078. FAIRY BELLS. Cl. 46.
530,079. SILVER KING. Cl. 23.
530,082. ZIP-TIPPER. Cl. 23.
530,085. WITCH. Cl. 23.
530,086. CAMBRIC. Cl. 46.
530,091. DURO-STYLE FABRICS. Cl. 39.
530,099. RADIANT. Cl. 46.
530,100. OPAL. Cl. 46.
530,103. KANT-SKRATCH. Cl. 50.
530,104. NORMANDY. Cl. 46.
530,107. STAR AND BULL DESIGN. Cl. 35.
530,109. DECKOSIT. Cl. 12.
530,110. PIETRA LONGA. Cl. 46.
530,113. SUNSET. Cl. 23.
530,114. SKY CHAMPION. Cl. 21.
530,120. S I H. Cl. 23.
530,123. IDA PAK. Cl. 46.
530,126. BEAUTY VAC. Cl. 44.
530,127. ZEMAREX. Cl. 18.
530,134. DEL-LEE. Cl. 39.
530,142. LEXASULFIN. Cl. 18.
530,150. THE EARTH CONTRIBUTES ETC. AND DESIGN. Cl. 18.
530,155. COTTONLEATHER. Cl. 50.
530,163. BLASTING BISCUITS. Cl. 9.
530,164. BOSTRENE. Cl. 50.
530,165. "LONGHORN" AND DESIGN. Cl. 9.
530,171. CSDM. Cl. 1.
530,181. CUYAMACA. Cl. 46.
530,182. DINAH. Cl. 46.
530,186. VINE AT HOLLYWOOD AND DESIGN. Cl. 39.
530,187. LA GISEE. Cl. 51.
530,188. GEORGE W. SLATTER. Cl. 18.
530,190. DAIRY MAID. Cl. 46.
530,193. ROADALL. Cl. 23.
530,195. PEPSINIC SELTZER. Cl. 18.
530,199. GAINSBOROUGH. Cl. 22.

530,200. BUR KRO. Cl. 22.
530,201. CRYSTAL BALL AND DESIGN. Cl. 46.
530,202. CERABEL. Cl. 12.
530,204. PICTURE TILE. Cl. 12.
530,209. FAS-FROZ. Cl. 46.
530,210. SCOTCH FIGURE. Cl. 22.
530,217. HOOSIER MADE AND DESIGN. Cl. 46.
530,218. SOIL SULPHAID AND DESIGN. Cl. 10.
530,227. INTRA. Cl. 14.
530,234. NILISTINE. Cl. 18.
530,235. GLYCOCILIN. Cl. 6.
530,245. UNITRIM. Cl. 12.
530,248. NORTH STAR. Cl. 6.
530,251. SHADE KING IN DESIGN. Cl. 12.
530,253. PROLONOTIC. Cl. 18.
530,259. F M G AND DESIGN. Cl. 10.
530,260. TOBIN'S TRIPLE TREAT. Cl. 46.
530,266. PROTOCORD. Cl. 35.
530,269. PLATI-BUS. Cl. 22.
530,281. DICKI-BOAT. Cl. 22.
530,284. WASHINGTON TREMLETT. Cl. 39.
530,287. ORANGE STRIPE. Cl. 46.
530,290. EASTERN GAS & FUEL AND DESIGN. Cl. 14.
530,296. WILD BILL FRONTIER PANTS. Cl. 39.
530,301. WELMET. Cl. 46.
530,302. KUMERPHYL. Cl. 18.
530,306. BEHOLD WITHIN DESIGN. Cl. 51.
530,307. ZINOLITH. Cl. 14.
530,312. WARCO. Cl. 23.
530,313. THREE-FER. Cl. 46.
530,314. HOPI. Cl. 1.
530,320. "ZIPPO." Cl. 9.
530,321. ROXCO WITHIN OVAL DESIGN. Cl. 23.
530,322. AN-AMO. Cl. 51.
530,327. ROBERTS KERVAL AND DESIGN. Cl. 35.
530,334. UNDERPHENO. Cl. 16.
530,337. BILLY WEST. Cl. 39.
530,344. EDGETTE. Cl. 39.
530,362. SELECTOR. Cl. 23.
530,363. APTROL. Cl. 18.
530,366. JET. C. M. Cl. 35.
530,374. INDUROSE. Cl. 18.
530,376. LURADOL. Cl. 6.
530,378. ZOK. Cl. 6.
530,379. FARMRITE SUPERGREEN. Cl. 10.
530,382. VANTOSTOL. Cl. 18.
530,391. KAPOST. Cl. 10.
530,394. QUA-LASTIC AND DESIGN. Cl. 35.
530,396. SAFE HOME AND DESIGN. Cl. 9.
530,398. "FLY WITH THE SEASONS" AND DESIGN. Cl. 105.
530,404. PERF-X-SOFT. Cl. 103.
530,409. PATH OF GOLD. Cl. 102.
530,410. THE PIONEER PLAN. Cl. 102.
530,411. ARK VALLEY BOYS. Cl. 107.
530,412. F I B AND DESIGN. Cl. 105.
530,413. PANAMIZE. Cl. 103.
530,414. GOMIL FAILLE. Cl. 106.
530,415. T. M. DESIGN. Cl. 102.
530,416. PERSONALITY HOMES. Cl. 103.
530,419. JACK ROWE. Cl. 38.
530,422. T. M. DESIGN. Cl. 6.
530,423. WEAVEWOOD. Cl. 2.
530,425. CARIWEL. Cl. 2.
530,429. CANFIELD NON-SKID SORB. Cl. 6.
530,431. SPORTS WORLD. Cl. 38.
530,433. DAVID-ANDERSEN. Cl. 28.
530,434. ROMANCE IN REDWOOD. Cl. 2.
530,435. DUBLE POWER. Cl. 6.
530,441. WOODLAKE GOLD. Cl. 46.
530,443. SORITE. Cl. 23.

**Section 18**

356,953. HARMONICA BAR. Cl. 46. 5-17-38. Canc. 6690.
372,578. KENTUCKY PRIDE. Cl. 49. 11-7-39. Canc. 6677.
417,934 SPARTAN. Cl. 6. 11-20-45. Canc. 6674.

# REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

## CLASS 15

## OILS AND GREASES

174,332. Oct. 16, 1923. The Pure Oil Company, Columbus, Ohio. Pub. by The Pure Oil Company, Chicago, Ill.

GUARDIAN

For Cylinder Oil.

338,664. Sept. 15, 1936. A. Gross Candle Company, Inc., Baltimore, Md. Pub. by A. Gross Candle Co. Inc., Linden, N. J.

LUX VITAE

For Candles, Votive, Sanctuary and Tabernacle Lights Made of Oils, Fats and/or Waxes Similar to Candles.

338,665. Sept. 15, 1936. A. Gross Candle Company, Inc., Baltimore, Md. Pub. by A. Gross Candle Co. Inc., Linden, N. J.

GREGORIAN

For Candles, Votive, Sanctuary and Tabernacle Lights Made of Oils, Fats and/or Waxes Similar to Candles.

## CLASS 16

## PROTECTIVE AND DECORATIVE COATINGS

54,414. June 26, 1906. The Prince Mfg. Co., New York, N. Y. Pub. by The Prince Manufacturing Company, Bowmanstown, Pa.

A "DOUBLE LABEL"




IS OUR TRADE MARK.

For Metallic Paint in Dry Powder and in Oil.



303,796. June 6, 1933. Cook & Dunn Paint Corporation, Newark, N. J. Pub. by Cook & Dunn Paint Corporation, Newark, N. J.



For Dry, Paste, and Ready Mixed Paints, Varnishes, Lacquers, Paint Enamel.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

333,113. Mar. 10, 1936. Crescent Cable Company, Pawtucket, R. I. Pub. by The Crescent Company, Inc., Pawtucket, R. I.

SILVER CREST

The crest design and the word "Crest" are displayed in silver.

For Automobile Wire and Cable for Electric Uses.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

336,799. July 21, 1936. The American Foundry Equipment Company, Mishawaka, Ind. Pub. by Wheelabrator Corporation, Mishawaka, Ind.

TUM-BLAST

No claim is made to the right to the exclusive use of the word "Blast" except in association with the word "Tum" as it appears on the drawing.

For Abrasive Blast Apparatus Such as Mills, Cabinets, Containers and Conveyors Used in Cleaning, Abrading and/or Treating Metallic Castings, Forgings, Stampings, Bars, Billets, Sheets and Like Articles by Means of an Abrasive Blast.



## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

331,642. Jan. 14, 1936. Hydrox Corporation, Chicago, Ill. Pub. by registrant.

BIG SHOT

For Ice Cream Cones and Frozen Confections Sold in Cups.

341,640. Dec. 15, 1936. A. D. Makepeace Company, Wareham, Mass. Pub. by registrant.

CRANNIES

For Dehydrated Cranberries.

## CLASS 51

## COSMETICS AND TOILET PREPARATIONS

441,622. Dec. 21, 1948. Henry F. Taylor, Glendale, Calif. Pub. by Harry F. Taylor, Glendale, Calif.

Western Gentlemen

For Men's Talcum Powder, Hair Tonic, After Shave Lotion, Deodorants, and Cologne.



# LIST OF REGISTRANTS OF TRADEMARKS

## REGISTERED DECEMBER 4, 1956

A and H Packing Co., Glendale, Ariz. 638,150, pub. 9–18–56. Cl. 46.

A/S Tuborgs Bryggerier, (Tuborg Breweries Ltd.) : *See*—
Aktieselskabet De Forenede Bryggerier.

Abbott Laboratories, North Chicago, Ill. 530,127, canc. Cl. 18.

Ackerman, Simon, Clothes, Inc., to Chester Barrie, Ltd., New York, N. Y. 342,491, ren. 1–19–57. Cl. 39.

Ada Milling Co., Ada, Okla. 530,086, canc. Cl. 46.

Adams' City Hatters : *See*—
Adams, Joseph D.

Adams, Joseph D., d. b. a. Adams' City Hatters, Tampa, Fla. 530,413, canc. Cl. 102.

Aerojet-General Corp., Azusa, Calif., 637,968, pub. 9–18–56. Cl. 19.

Aeroprojects, Inc., West Chester, Pa. 637,978, pub. 9–18–56. Cl. 21.

Aetna Industrial Corp., New York, N. Y. 530,321, canc. Cl. 25.

Aktieselskabet De Forenede Bryggerier, d. b. a. A/S Tuborgs Bryggerier. (Tuborg Breweries Ltd.), Copenhagen, Denmark. 638,228. Cl. 46.

Aktieselskabet De Forenede Bryggerier, Copenhagen, Denmark. 638,229. Cl. 46.

Allied Chemical & Dye Corp. : *See*—
Barrett Mfg. Co.

Allied Kid Co., Boston, Mass. 343,947, ren. 3–9–57. Cl. 6.

Ambriola Co., Inc., The, d. b. a. Ditta Giovanni Ambriola, New York, N. Y. 638,223. Cl. 46.

American Aniline Products, Inc., New York, N. Y. 339,497, ren. 10–13–56. Cl. 6.

American Chain & Cable Co., Inc., Bridgeport, Conn. 637,915–16, pub. 9–18–56. Cl. 7.

American Foundry Equipment Co., The, by Wheelabrator Corp., Mishawaka, Ind. 336,799, 12(c) pub. 12–4–56. Cl. 23.

American Machine and Metals, Inc., Sellersville, Pa. 638,083, pub. 9–18–56. Cl. 26.

American Playsuit Co., New York, N. Y. 638,086, pub. 9–18–56. Cl. 39.

American Thermos Bottle Co., The, Cincinnati, Ohio, now by change of name The American Thermos Products Co. 637,883, pub. 9–18–56. Cl. 2.

American Thermos Products Co., The : *See*—
American Thermos Bottle Co., The.

American Viscose Corp., Philadelphia, Pa. 637,902, pub. 9–18–56. Cl. 6.

Amerotron Corp., New York, N. Y. 638,109, pub. 9–18–56. Cl. 42.

Ames, O., Co. : *See*—
McDonough Co.

Anabolic Food Products, Inc., Glendale, Calif. 530,063, canc. Cl. 18.

Anbesol Co., Inc., The, Newark, N. J. 637,934, pub. 9–18–56. Cl. 18.

Anderson, Clayton & Co., Sherman, Tex. 638,145, pub. 9–18–56. Cl. 46.

Anson Art, Inc., Allentown, Pa. 638,161, pub. 9–18–56. Cl. 50.

Anthony Products Co. : *See*—
Viscio, Frank A.

Aramony, Fred R., d. b. a. Timely Sportswear Co., Worcester, Mass. 638,062, pub. 9–18–56. Cl. 39.

Arcinco, Inc., Passaic, N. J. 638,168, pub. 9–18–56. Cl. 51.

Armour and Co., d. b. a. Charlotte Leather Belting Co., Chicago, Ill. 530,107, canc. Cl. 35.

Armour and Co., Chicago, Ill. 637,939, pub. 9–18–56. Cl. 18.

Arrow Tools, Inc., Chicago, Ill. 638,041, pub. 9–18–56. Cl. 31.

Arrowood, S. D., & Co., Inc., New York, N. Y. 638,091, pub. 9–18–56. Cl. 39.

Artistic Foundations, Inc., New York, N. Y. 339,794, ren. 10–20–56. Cl. 42.

Artistic Foundations, Inc., New York, N. Y. 339,795, ren. 10–20–56. Cl. 42.

Artistic Foundations, Inc., New York, N. Y. 340,876, ren. 11–10–56. Cl. 42.

Artistic Foundations, Inc., New York, N. Y. 340,783, ren. 11–24–56. Cl. 39.

Asher, Chester A., Philadelphia, Pa. 530,078, canc. Cl. 46.

Associated Dye & Print Co. Inc., Paterson, N. J. 638,208, pub. 9–18–56. Cl. 106.

Associated Merchandising Corp., The, New York, N. Y. 638,106, pub. 9–18–56. Cl. 42.

Athens Milling Co., Athens, Ga. 638,144, pub. 9–18–56. Cl. 46.

Athey Products Corp., Chicago, Ill. 637,967, pub. 9–18–56. Cl. 19.

Atlas Tool & Mfg. Co., St. Louis, Mo. 637,972, pub. 9–18–56. Cl. 21.

Auburn Maid Footwear, Inc., Auburn, N. Y. 638,094, pub. 9–18–56. Cl. 39.

Automatic Pencil Sharpener Co. : *See*—
Spengler-Loomis Mfg. Co.

Automotive Conversion Corp., Birmingham, Mich. 637,965, pub. 9–18–56. Cl. 19.

Azienda Colori Nazionali Affini A. C. N. A. S. p. A., Milan, Italy. 637,897, pub. 9–18–56. Cl. 6.

Bain & Co., Inc., Sharpsburg, Pa. 530,251, canc. Cl. 12.

Ballantine, George, & Son Ltd. : *See*—
Ballantine, George, & Son, Ltd.

Ballantine, George, & Son, Ltd., Glasgow, to George Ballantine & Son Ltd., Dumbarton, Scotland. 341,330, ren. 12–8–56. Cl. 49.

Bank of America National Trust and Savings Association, San Francisco, Calif. 530,415, canc. Cl. 102.

Barbush, Ernie, Harrisburg, Pa. 637,936, pub. 9–18–56. Cl. 18.

Bard, C. R., Inc., Summit, N. J. 638,124, pub. 9–18–56. Cl. 44.

Barfred Research Laboratories, Coral Gables, Fla. 637,937, pub. 9–18–56. Cl. 18.

Barnes Engineering Co., Stamford, Conn. 638,025, pub. 9–18–56. Cl. 26.

Barrett Co., The : *See*—
Barrett Mfg. Co.

Barrett Mfg. Co., by change of name The Barrett Co., to Allied Chemical & Dye Corp., New York, N. Y. 113,481, ren. 10–17–56. Cl. 12.

Barrie, Chester, Ltd. : *See*—
Ackerman, Simon, Clothes, Inc.

Battenfeld Grease & Oil Corp., The, Kansas City, Mo. 344,132, ren. 2–16–57. Cl. 12.

Baumer Foods, Inc., New Orleans, La. 530,201, canc. Cl. 46.

Beacon Falls Rubber Shoe Co., The, Beacon Falls, Conn. 270,070, canc. Cl. 39.

Beaulieu Vineyard, San Francisco, Calif. 638,227. Cl. 47.

Bell Syndicate, Inc., The : *See*—
Gilmer, Elizabeth M.

Benckiser, Joh. A., G. m. b. H., Ludwigshafen (Rhine), Germany. 637,903, pub. 9–18–56. Cl. 6.

Beringer Bros., Inc., St. Helena, Calif. 343,900, ren. 3–9–57. Cl. 47.

Bitterman, M. L., and J. W. Taylor, Dallas, Tex. 638,065, pub. 9–18–56. Cl. 37.

Blish Milling Co., Seymour, d. b. a. Crescent Mills, Crothersville, Ind. 530,217, canc. Cl. 46.

Bloedorn, Charles A., d. b. a. Bloedorn Products, Washington, D. C. 638,141, pub. 9–18–56. Cl. 46.

Bloedorn Products : *See*—
Bloedorn, Charles A.

Blumenthal, Sidney, & Co., Inc., New York, N. Y. 638,115–16, pub. 9–18–56. Cl. 42.

Boston Drug & Chemical Co., d. b. a. Prince Toiletries, Boston, Mass. 417,934, canc. Cl. 6.

Boston Woven Hose and Rubber Co., Cambridge, Mass. 530,164, canc. Cl. 50.

Bourges Color Corp., New York, N. Y. 638,068, pub. 9–18–56. Cl. 38.

Boyd, Dean McCormick, d. b. a. Lectrolines Co., Decatur, Ill. 637,973, pub. 9–18–56. Cl. 21.

Boyle-Midway, Inc. : *See*—
Hygienic Products Co., The.

Burgio Bros., Inc. : *See*—
Victorius, A. V., & Co.

Bur-Kro Mfg. Co., New York, N. Y. 530,200, canc. Cl. 22.

Burlington Industries, Inc., New York, N. Y. 638,090, pub. 9–18–56. Cl. 39.

Business Flyers, Inc., Des Moines, Iowa. 530,412, canc. Cl. 105.

CMC Corp., d. b. a. "The" Film Center of Washington, D. C., Washington, D. C. 638,205, pub. 9–18–56. Cl. 107.

Cake Box Bakers, Inc., The, Kansas City, Mo. 638,147, pub. 9–18–56. Cl. 46.

Calada Materials Co., Long Beach, Calif. 637,878, pub. 9–18–56. Cl. 1.

California Mfg. and Equipment Co., Downey, Calif. 638,040, pub. 9–18–56. Cl. 31.

California Prune and Apricot Growers Association, San Jose, Calif. 638,224. Cl. 46.

Calvert Distilling Co., The, Baltimore, Md. 372,578, canc. Cl. 49.

Cameo, Inc., Toledo, Ohio. 638,125, pub. 9–18–56. Cl. 44.

Camillus Cutlery Co., Camillus, N. Y. 638,003, pub. 9–18–56. Cl. 23.

Canfield Oil Co., Cleveland, Ohio. 530,429, canc. Cl. 6.

Cannon Mills Co., Kannapolis, N. C. 638,103, pub. 9–18–56. Cl. 42.

Carborundum Co., The, Niagara Falls, N. Y. 637,889, pub. 9–18–56. Cl. 4.

Carolyn Co., Columbus, Ohio. 638,179, pub. 9–18–56. Cl. 52.

Caspen Products, Inc., Aspen, Colo. 637,991, pub. 9–18–56. Cl. 22.

Catalina, Inc., Los Angeles, Calif. 638,078, pub. 9–18–56. Cl. 39.

Catex Chemical Sales Co., The : *See*—
Janoski, John C.

Central Chemical Corp., Hagerstown, Md. 530,379, canc. Cl. 10.

Chamberlain, Hiram S., d. b. a. Venetian Blind Mfg. Co., Chattanooga, Tenn. 638,060, pub. 9–18–56. Cl. 32.

Chamberlin Co. of America : *See*—
Chamberlin Metal Weather Strip Co.

Chamberlin Metal Weather Strip Co., to Chamberlin Co., of America, Detroit, Mich. 342,759, ren. 1–26–57. Cl. 12.

Charlotte Leather Belting Co. : *See*—
Armour and Co.

Chicago Pharmacal Co., Chicago, Ill. 637,947, pub. 9–18–56. Cl. 18.
Chicopee Mfg. Corp., New Brunswick, N. J. 638,038, pub. 9–18–56. Cl. 29.
Ciba Ltd., Basel, Switzerland. 637,904, pub. 9–18–56. Cl. 6.
Ciba Ltd., Basel, Switzerland. 637,905, pub. 9–18–56. Cl. 6.
Cincinnati Shaper Co., The, Cincinnati, Ohio. 638,009, pub. 9–18–56. Cl. 23.
Clayton Mfg. Co., The, Bristol, Conn. 530,113, canc. Cl. 23.
Clean-Rite Vacuum Stores of Washington, Inc., Washington, D. C. 530,443, canc. Cl. 23.
Clipper Carloading Co., Chicago, Ill. 638,197, pub. 9–18–56. Cl. 105.
Clue Razor & Blade Mfg. Co., Newark, N. J. 638,002, pub. 9–18–56. Cl. 23.
Coane Veterinary Products Co., Trenton, N. J. 638,183, pub. 6–21–55. Cl. 46.
Coast Auto Rental Service, Inc., New York, N. Y. 638,200, pub. 9–18–56. Cl. 105.
Colgate-Palmolive Co.: *See*—
Colgate-Palmolive-Peet Co.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 343,977, ren. 3–8–57. Cl. 51.
Colgate-Palmolive-Peet Co., Jersey City, N. J. 530,308, canc. Cl. 51.
Colonial Cedar Co., Inc., Seattle, Wash. 637,924, pub. 9–18–56. Cl. 12.
Comet Rice Mills, Houston, Tex. 638,225. Cl. 46.
Commercial Services Co., Inc., Alexandria, Va. 638,199, pub. 9–18–56. Cl. 105.
Compania Swift de Montevideo, S. A., Montevideo, Uruguay. 530,171, canc. Cl. 1.
Continental Homes, Inc., Martinsville, Va. 637,925, pub. 9–18–56. Cl. 12.
Cook & Dunn Paint Corp., Newark, N. J. 303,796, 12(c) pub. 12–4–56. Cl. 16.
Cooper, Harry L., Hosiery Mills, Southampton, Pa. 530,344, canc. Cl. 39.
Cookwares Co., Inc., The, New York, N. Y. 530,266, canc. Cl. 35.
Corn Products Refining Co., New York, N. Y. 637,893, pub. 9–18–56. Cl. 5.
Cotz, Inc., New York, N. Y. 638,169, pub. 9–18–56. Cl. 51.
Covel Co., The, Kansas City, Mo. 638,092, pub. 9–18–56. Cl. 39.
Cox, Lester L., University City, Mo. 637,888, pub. 12–15–53. Cl. 2.
Craddock-Terry Shoe Corp., Lynchburg, Va. 638,088, pub. 9–18–56. Cl. 39.
Crane Co., Chicago, Ill. 342,099, ren. 1–5–57. Cl. 13.
Crescent Co., Inc., The, Pawtucket, R. I. 333,113, 12(c) pub. 12–4–56. Cl. 21.
Crescent Co., Inc., The, Pawtucket, R. I. 637,983, pub. 9–18–56. Cl. 21.
Crescent Mills: *See*—
Bilsh Milling Co.
Croftset, Nielsen and Co., Chicago, Ill. 530,082, canc. Cl. 23.
Dahlberg Co., The, Minneapolis, Minn. 638,121, pub. 9–18–56. Cl. 44.
Darling Carriage Co., Inc., New York, N. Y. 638,044, pub. 9–18–56. Cl. 32.
Dartell Laboratories: *See*—
Dartell, Norman.
Dartell, Norman, d. b. a. Dartell Laboratories, Los Angeles, Calif. 637,932, pub. 6–21–55. Cl. 18.
David-Anderson, Oslo, Norway. 530,433, canc. Cl. 28.
Dearborn Co., The, Chicago, Ill. 638,047–9, pub. 9–18–56. Cl. 32.
Del-Lee Dress Co., Philadelphia, Pa. 530,134, canc. Cl. 39.
Delbert & Dougherty, Inc., Chicago, Ill. 637,898, pub. 9–18–56. Cl. 6.
Devoe & Raynolds Co., Inc., Louisville, Ky. 637,928–9, pub. 9–18–56. Cl. 16.
De Larrate, José Ortin, Ondarroa (Viscaya), Spain. 638,131, pub. 9–18–56. Cl. 46.
Diamond Alkali Co., Cleveland, Ohio. 638,175, pub. 9–18–56. Cl. 52.
Diamond Head Oil Refining Co., Inc., Kearny, N. J. 638,206. Cl. 6.
Diamond Match Co., The, New York, N. Y. 530,396, canc. Cl. 9.
Diamond Match Co., The, New York, N. Y. 638,188, pub. 9–18–56. Cl. 101.
Ditta Giovanni Ambriola: *See*—
Ambriola Co., Inc., The.
Diversey Corp., The, Chicago, Ill. 638,171, pub. 9–18–56. Cl. 52.
Dixie-Jibo Co., St. Louis, Mo. 638,012, pub. 9–18–56. Cl. 23.
Dodds, Robert W., Administrator of the Estate of John R. MacDonald, deceased, d. b. a. Dr. MacDonald's Vitamized Feed Co., Fort Dodge, Iowa. 637,942, pub. 9–18–56. Cl. 18.
Dommar Products, Inc., Denver, Colo. 637,971, pub. 9–18–56. Cl. 21.
Doral Fabrics Corp.: *See*—
Hollywood Piece Dye Works, Inc.
Dorchester Hat Co., Inc., New York, N. Y. 638,083, pub. 9–18–56. Cl. 39.
Dorrie Process Co., Inc., Brooklyn, N. Y. 638,232. Cl. 50.
Drake Bakeries Inc., Brooklyn, N. Y. 638,146, pub. 9–18–56. Cl. 46.
Dreyfus Fund Inc., The, New York, N. Y. 638,192, pub. 9–18–56. Cl. 102.
Dobin-Haskell-Jacobson, Inc., New York, N. Y. 638,104–5, pub. 9–18–56. Cl. 42.
Doble-Power Chemical Co., Portland, Oreg. 530,435, canc. Cl. 6.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 271,484, canc. Cl. 6.
E. M. O. Co.: *See*—
Oberlin, Eugene M.
Eastern Gas and Fuel Associates, Boston, Mass. 530,290, canc. Cl. 14.
Eastman Kodak Co., Rochester, N. Y. 271,487, canc. Cl. 5.
Edminster, Leichester H., Wichita, Kans. 530,411, canc. Cl. 107.
El Cajon Valley Citrus Association, El Cajon, Calif. 530,181, canc. Cl. 46.
Electro-Acoustic Products Co., to The Magnavox Co., Fort Wayne, Ind. 342,490, ren. 1–19–57. Cl. 36.
Electro Rust-Proofing Corp., Belleville, N. J. 638,193, pub. 9–18–56. Cl. 103.
Emsig Mfg. Co., New York, N. Y. 638,100, pub. 9–18–56. Cl. 40.
Endo Products Inc., Richmond Hill, N. Y. 530,302, canc. Cl. 18.
Engberg, Clifford: *See*—
Kruse, Leon G., and Clifford Engberg.
Etablissements Félix Vercel & Cie., Paris, France. 638,111, pub. 9–18–56. Cl. 42.
Faber, Eberhard, Pencil Co., Brooklyn, N. Y. 342,467, ren. 1–19–57. Cl. 37.
Faber, Eberhard, Pencil Co., Brooklyn, N. Y. 638,064, pub. 9–18–56. Cl. 37.
Fabric Maid, The, Scarsdale, N. Y. 638,202, pub. 9–18–56. Cl. 106.
Fairchild, E. E., Corp., Rochester, N. Y. 530,199, canc. Cl. 22.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 637,879, pub. 9–18–56. Cl. 1.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 637,942, pub. 9–18–56. Cl. 18.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 637,943, pub. 9–18–56. Cl. 18.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 638,051, pub. 9–18–56. Cl. 32.
Farmers Chilachilla Cooperative of America, Inc., Salt Lake City, Utah. 603,772, canc. Cl. 1.
Farrel-Birmingham Co., Inc., Ansonia, Conn. 638,014, pub. 9–18–56. Cl. 23.
Fast Frozen Foods, Inc., Chicago, Ill. 530 209, canc. Cl. 46.
Fastel Corp., Inc., Chicago, Ill. 638,120, pub. 9–18–56. Cl. 44.
Federal Mill, Inc., Lockport, N. Y., to International Milling Co., Minneapolis, Minn. 530,190, canc. Cl. 46.
Federated Department Stores Inc., d. b. a. Wm. Filene's Sons Co., Boston, Mass. 638,073 pub. 2–21–56. Cl. 39.
Felters Co., The, Boston, Mass. 638,158, pub. 6–5–56. Cl. 50.
Filene's, Wm., Sons Co.: *See*—
Federated Department Stores, Inc.
Finard, Norman, d. b. a. General Commerce Co., Boston, Mass. 638,028, pub. 9–18–56. Cl. 26.
Fischer, H. G., & Co., Chicago, Ill. 530 074, canc. Cl. 44.
Fischer, H. G., & Co., Chicago, Ill. 530 075, canc. Cl. 44.
Fisher Flouring Mills Co., Seattle, Wash. 638,182, pub. 9–18–56. Cl. 46.
Fishman, Ervin H., d. b. a. Magic Webb Hosiery Co., Philadelphia, Pa. 638,097, pub. 9–18–56. Cl. 39.
Fitzpatrick Bros., Inc., Chicago, Ill. 637,891, pub. 9–18–56. Cl. 4.
Fitzpatrick Brothers, Inc., Chicago, Ill. 638,173, pub. 9–18–56. Cl. 52.
Flaklce Corp., Brooklyn, N. Y. 339,828, ren. 10–20–56. Cl. 31.
Flaklce Corp., Brooklyn, N. Y. 339 829, ren. 10–20–56. Cl. 31.
Flaklce Corp., Brooklyn, N. Y. 339 830, ren. 10–20–56. Cl. 31.
Florida Juice, Inc., Miami, Fla. 638 149, pub. 9–18–56. Cl. 46.
Fonda Container Co., Inc., St. Albans, Vt. 530,425, canc. Cl. 2.
Foot-Rite Products Corp., New York, N. Y. 638,095, pub. 9–18–56. Cl. 39.
Fornell, David E., d. b. a. Fornell Equipment Co., Detroit, Mich. 638,010, pub. 9–18–56. Cl. 23.
Fornell Equipment Co.: *See*—
Fornell, David E.
Fort Worth National Bank, The, Fort Worth, Tex. 638,191, pub. 9–18–56. Cl. 102.
Frankfort Distilleries, Inc., to Frankfort Distilleries Inc., Louisville, Ky. 339,320, ren. 10–8–56. Cl. 49.
Frankfort Distilleries, Inc., Louisville, Ky. 340,546, ren. 11–17–56. Cl. 49.
Frank's Market Garden: *See*—
Kouril, Frank, Jr.
Freedom in Action, Inc., Houston, Tex. 638,184, pub. 9–18–56. Cl. 100.
Frisch, Saul, Bellerose, N. Y. 638,034, pub. 9–18–56. Cl. 27.
Fry, Lloyd A., Roofing Co., Summit, Ill. 638,208. Cl. 12.
Fuller Brush Co., The, Hartford, Conn. 638,131, pub. 9–18–56. Cl. 52.
Fuller, D. B., & Co., Inc., New York, N. Y. 638,220. Cl. 42.
Gallant, W. E., and Sons, Anderson, S. C. 638,137, pub. 9–18–56. Cl. 46.
Garcia & Maggini Co., San Francisco, Calif. 189,854, canc. Cl. 46.
Gardner, Henry A., Laboratory, Inc., Bethesda, Md. 638,209. Cl. 26.
General Aniline & Film Corp., New York and Binghamton, N. Y. 530,376, canc. Cl. 6.
General Commerce Co.: *See*—
Finard, Norman.
General Electric Co., Bridgeport, Conn. 342,357, ren. 1–12–57. Cl. 21.
General Shoe Corp., Nashville, Tenn. 342,504, ren. 2–23–57. Cl. 39.
General Tire & Rubber Co., The, Akron, Ohio. 530,366, canc. Cl. 35.
George, Florence, Columbus, Ind. 637,969, pub. 9–18–56. Cl. 22.
Gerson Stewart Corp., The, Cleveland, Ohio. 638,183, pub. 9–18–56. Cl. 52.
Gertz, B., Inc., Jamaica, N. Y. 270 069, canc. Cl. 39.
Gertz, B., Inc., Jamaica, N. Y. 270,206, canc. Cl. 39.



Gibbs Chemical Co.: *See*—
Gibbs, Robert G.
Gibbs, Robert G., d. b. a. Gibbs Chemical Co., Washington, D. C. 637,927, pub. 9–18–56. Cl. 16.
Gilmer, Elizabeth M., to The Bell Syndicate, Inc., New York, N. Y. 115,850, ren. 3–13–57. Cl. 38.
Ginsburg, Nathan, d. b. a. Nu-Komfort Mfg. Co., Philadelphia, Pa. 638,221. Cl. 44.
Glenolt Mills, Inc., Glen Rock, N. J. 638,113, pub. 9–18–56. Cl. 42.
Globe American Corp., Kokomo, Ind. 637,975, pub. 9–18–56. Cl. 21.
Glovemakers, Inc., d. b. a. Sterling Novelty Products, Chicago, Ill. 638,037, pub. 9–18–56. Cl. 29.
Glycolizer Corp.: *See*—
Templeton, John M.
Gold Stamp Premium Co.: *See*—
Saunders Distributors, Inc.
Goodall-Sanford, Inc.: *See*—
Goodall Worsted Co.
Goodall Worsted Co., Sanford, Maine, and New York, N. Y., to Goodall-Sanford, Inc., Sanford, Maine. 114,968, ren. 1–16–57. Cl. 39.
Goodall Worsted Co., to Goodall-Sanford, Inc., Sanford, Maine. 341,165, ren. 12–1–56. Cl. 42.
Goodrich-Gamble Co., St. Paul, Minn. 530,253, canc. Cl. 18.
Graham, Jack, d. b. a. Hold-A-Plate Co., Sacramento, Calif. 638,160, pub. 9–18–56. Cl. 50.
Grand Union Co., The: *See*—
Grand Union Tea Co.
Grand Union Tea Co., New York, N. Y., to The Grand Union Co., East Paterson, N. J. 341,945, ren. 12–29–56. Cl. 52.
Grand Union Tea Co., New York, N. Y., to The Grand Union Co., East Paterson, N. J. 342,589, ren. 1–19–57. Cl. 18.
Grand Valley Machine and Tool Co., Grand Rapids, Mich. 638,009, pub. 9–18–56. Cl. 23.
Gray Pharmaceutical Co., Kansas City, Mo., to Warner-Lambert Pharmaceutical Co., Inc., New York, N. Y. 637,938, pub. 9–18–56. Cl. 18.
Greenebaum, J., Tanning Co., Chicago, Ill. 530,073, canc. Cl. 1.
Greenebaum, J., Tanning Co., Chicago, Ill. 530,076, canc. Cl. 1.
Grocers Baking Co., Inc., Louisville, Ky. 342,860, ren. 2–2–57. Cl. 46.
Gross, A., Candle Co., Inc., Linden, N. J. 338,664, 12(c) pub. 12–4–56. Cl. 15.
Gross, A., Candle Co., Inc., Linden, N. J. 338,665, 12(c) pub. 12–4–56. Cl. 15.
Grover, Lyndon V. d. b. a. Grover Photo Products, Los Angeles, Calif. 638,022, pub. 9–18–56. Cl. 26.
Grover Photo Products: *See*—
Grover, Lyndon V.
Groves, O. R., Ltd., London, England. 638,127, pub. 9–18–56. Cl. 45.
Hallicrafters Co., The, Chicago, Ill. 530,114, canc. Cl. 21.
Hand-Craft One Hour Cleaners, Inc., Knoxville, Tenn. 638,195, pub. 9–18–56. Cl. 103.
Haskell, Charles C., & Co., Inc., Richmond, Va. 637,940, pub. 9–18–56. Cl. 18.
Hatch, Earl W. G., North Hollywood, Calif. 638,217. Cl. 38.
Hattori, K., & Co., Ltd.: *See*—
Kabushiki-Kaisha Hattori Tokei-Ten.
Hausser, F. J., & Sons, Brawley, Calif. 530,182, canc. Cl. 46.
Hearst Corp., The: *See*—
Star Co.
Heathcote Hosiery Co., New York, N. Y. 638,077, pub. 9–18–56. Cl. 39.
Hillman Periodicals, Inc., New York, N. Y. 530,431, canc. Cl. 38.
Hitchcock Publishing Co., Wheaton, Ill. 638,216. Cl. 38.
Hold-A-Plate Co.: *See*—
Graham, Jack.
Hollow, Merry, Archibald, Pa. 638,056, pub. 9–18–56. Cl. 35.
Hollywood Deep Tone Mfg. Co., Los Angeles, Calif. 637,902–3, pub. 9–18–56. Cl. 23.
Hollywood Piece Dye Works, Inc., Passaic, N. J., to Doral Fabrics Corp., New York, N. Y. 530,414 canc. Cl. 106.
Hopkins, J. L., & Co., New York, N. Y. 530,150, canc. Cl. 18.
Hoppe, Frank A., Philadelphia, Pa. 638,180, pub. 9–18–56. Cl. 52.
Howden, James W., Co., Inc., Hawthorne, N. J. 637,935, pub. 9–18–56. Cl. 23.
Hudnut, Richard, New York, N. Y. 638,164, pub. 9–18–56. Cl. 51.
Hudson, H. D., Mfg. Co., Chicago, Ill. 637,884, pub. 9–18–56. Cl. 2.
Hurler's, New York, N. Y. 339,139, ren. 9–29–56. Cl. 46.
Hydrox Corp., Chicago, Ill. 331,642, 12(c) pub. 12–4–56. Cl. 46.
Hygienic Products Co., The, Canton, Ohio, to Boyle-Midway, Inc., New York, N. Y. 638,172, pub. 9–18–56. Cl. 52.
Imperial Chemical Industries Ltd., London, England. 637,906, pub. 9–18–56. Cl. 6.
Indianapolis Boat Co., Inc., Indianapolis, Ind. 637,963, pub. 9–18–56. Cl. 19.
Interchemical Corp., New York, N. Y. 637,922, pub. 9–18–56. Cl. 11.
Intercoast Hospitalization Insurance Ass'n, Sacramento, Calif. 530,410, canc. Cl. 102.
International Explosives Corp., Reno, Nev. 530,163, canc. Cl. 9.
International Latex Corp., Dover, Del. 638,072, pub. 9–18–56. Cl. 39.
International Milling Co.: *See*—
Federal Mill, Inc.
International Silver Co., The, Meriden, Conn. 638,004, pub. 9–18–56. Cl. 23.
International Silver Co., The, Meriden, Conn. 638,006, pub. 9–18–56. Cl. 23.
International Silver Co., The, Meriden, Conn. 638,007, pub. 9–18–56. Cl. 23.
Janeski, John C., d. b. a. The Catex Chemical Sales Co., Philadelphia, Pa. 530,378, canc. Cl. 6.
Jaydo, Inc., New York, N. Y. 638,052, pub. 9–18–56. Cl. 32.
Jennison-Wright Corp., The, Toledo, Ohio. 637,894, pub. 9–18–56. Cl. 5.
Johnny Moccasin, Inc., Hollywood, Calif. 638,074, pub. 9–18–56. Cl. 39.
Johns & Cook, Phoenix, Ariz. 530,301, canc. Cl. 46.
Johnson, Gordon, Co., Kansas City, Mo. 637,996, pub. 9–18–56. Cl. 23.
Jonas & Colver (Nove) Ltd., Sheffield, England. 530,227, canc. Cl. 14.
Jones, T. P., & Co., New York, N. Y., to McCormick & Co., Inc., Baltimore, Md. 112,903, ren. 10–9–56. Cl. 46.
Juvenia Watch Agency, Inc., New York, N. Y. 638,035, pub. 9–18–56. Cl. 27.
K C Boyswear Mfg. Co., Kansas City, Mo. 638,079, pub. 9–18–56. Cl. 39.
Kaar Engineering Corp., Palo Alto, Calif. 637,964, pub. 9–18–56. Cl. 21.
Kabushiki-Kaisha Hattori Tokei-Ten, d. b. a. Hattori & Co., Ltd., Chuo-Ku, Toyko-To, Japan. 638,030, pub. 9–18–56. Cl. 26.
Kalin, Alma S., d. b. a. Kalin Compost Co., Cleveland, Ohio. 530,391, canc. Cl. 10.
Kalin Compost Co.: *See*—
Kalin, Alma S.
Kansas Laboratories, Inc., New York, N. Y. 530,248, canc. Cl. 6.
Kayser, Julius, & Co., New York, N. Y. 638,084, pub. 9–18–56. Cl. 39.
Kellogg Co.: *See*—
Kellogg Toasted Corn Flake Co.
Kellogg Toasted Corn Flake Co., to Kellogg Co., Battle Creek, Mich. 114,248, ren. 12–5–56. Cl. 46.
Kenneth, Malcolm, Co., Boston, Mass. 638,101, pub. 9–18–56. Cl. 42.
Kent-Moore Organization, Inc., Detroit, Mich. 637,890, pub. 9–18–56. Cl. 4.
King Midas Feed Mills: *See*—
Peavey, F. H., & Co.
Klein, Edward P., Co., Inc., New York, N. Y. 638,099, pub. 9–18–56. Cl. 40.
Klein, Richard K., Cleveland, Ohio. 530,281, canc. Cl. 22.
Klem Chemicals Inc., Dearborn, Mich. 638,174, pub. 9–18–56. Cl. 52.
Kling, Vincent M., Rochester, Minn. 638,060, pub. 9–18–56. Cl. 26.
Knights, James, Co., The, Sandwich, Ill. 638,023, pub. 9–18–56. Cl. 26.
Knit Products Corp., Belmont, N. C. 638,089, pub. 9–18–56. Cl. 39.
Knomark Mfg. Co., Inc., Brooklyn, N. Y. 638,162, pub. 9–18–56. Cl. 50.
Kopke, C. N., & Ca., Lda., Villa Nova de Gaia (Oporto), Portugal. 638,154, pub. 9–18–56. Cl. 47.
Kor Corp., Gary, Ind. 638,176, pub. 9–18–56. Cl. 52.
Kouril, Frank, Jr., d. b. a. Frank's Market Garden, Springfield, Mass. 530,259, canc. Cl. 10.
Krantz, Walter M., d. b. a. Lite House Storm Window Co., Pontiac, Mich. 637,923, pub. 2–8–55. Cl. 12.
Kroells, E. E., d. b. a. Kroells Handcraft, Lindsay, Calif. 530 434, canc. Cl. 2.
Kroells Handcraft: *See*—
Kroells, E. E.
Kroger Co., The: *See*—
Kroger Grocery & Baking Co.
Kroger Grocery & Baking Co., The, to The Kroger Co., Cincinnati, Ohio. 343,193, ren. 2–9–57. Cl. 37.
Kruse, Leon G., and Clifford Engberg, Minot, N. Dak. 638 071, pub. 9–18–56. Cl. 38.
Krusell, George R., d. b. a. Krusell Gunsmithing Works, Bay City, Mich. 638,207. Cl. 9.
Krusell Gunsmithing Works: *See*—
Krusell, George R.
Kuhlman Electric Co., Bay City, Mich. 637,965, pub. 9–18–56. Cl. 21.
Kwikset Locks, Inc., Anaheim, Calif. 638,019, pub. 7–19–55. Cl. 25.
La Gisee Cosmetic Products: *See*—
Pernball, Gisela.
Lamm Brothers, Inc., Baltimore, Md. 339,806, ren. 10–20–56. Cl. 39.
La Touraine Coffee Co., Boston, Mass. 341,609, ren. 12–15–56. Cl. 46.
La Touraine Coffee Co., Boston, Mass. 341,963, ren. 12–29–56. Cl. 46.
Lauritsen and Co., Inc., Chicago, Ill. 638,153, pub. 9–18–56. Cl. 46.
Lawrence Maid Footwear, Inc., Lawrence, Mass. 638,096, pub. 9–18–56. Cl. 39.
Lazow, Morris, Brooklyn, N. Y. 356,953, canc. Cl. 46.
Lectrolines Co.: *See*—
Boyd, Dean M.
Lee, Billings, Billings, Mont. 637,985, pub. 9–18–56. Cl. 18.
Lehigh Trouser Co., Wilkes-Barre, Pa., and New York, N. Y. 530,298, canc. Cl. 39.
Lehman-Baer Co., Baltimore, Md. 530 337, canc. Cl. 39.
Levinson, Max, d. b. a. Newburgh Tissue Co., Newburgh, N. Y. 638 062, pub. 9–18–56. Cl. 37.
Lilly, Eli, and Co., Indianapolis, Ind. 637,961, pub. 9–18–56. Cl. 18.
Linton, Clair S., d. b. a. The Masterhoe Co., Kennett, Mo. 638,016, pub. 9–18–56. Cl. 23.
Lite House Storm Window Co.: *See*—
Krantz, Walter M.



Lockwood Corp., Oakland, Calif. 638,053, pub. 9–18–56. Cl. 32.
Lodge & Shipley Co., Cincinnati, Ohio. 638,045, pub. 9–18–56. Cl. 23.
Lodge Manufacturing Co., South Pittsburg, Tenn. 638,046, pub. 9–18–56. Cl. 23.
Loeb, Leonard, Co., Inc., Chicago, Ill. 638,042, pub. 9–18–56. Cl. 23.
Lorillard, P., Co., New York, N. Y. 638,135, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,136, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,138, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,139, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,140, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,141, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,142, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,143, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,144, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,145, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,147, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,148, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,150, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,151, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,152, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,153, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,154, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,155, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,156, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,157, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,159, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,160, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,161, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,162, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,163, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,164, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,165, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,166, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,167, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,168, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,169, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,170, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,171, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,173, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,175, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,177, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,178, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,179, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,181, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,182, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,183, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,185, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,186, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,187, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,189, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,190, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,194, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,196, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,198, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,201, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,203, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,204, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,205, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,207, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,208, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,210, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,211, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,212, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,213, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,214, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,215, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,218, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,219, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,222, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,223, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,224, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,226, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,227, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,228, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,229, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,230, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,231, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,233, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,234, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,235, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,236, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,237, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,238, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,239, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,240, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,241, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,242, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,243, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,244, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,245, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,246, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,247, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,248, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,249, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,250, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,251, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,252, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,253, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,254, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,255, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,256, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,257, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,258, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,259, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,260, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,261, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,262, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,263, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,264, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,265, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,266, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,267, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,268, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,269, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,270, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,271, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,272, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,273, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,274, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,275, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,276, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,277, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,278, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York, N. Y. 638,279, pub. 9–18–56. Cl. 45.
Lorillard, P., Co., New York,

Little Red Hen Equipment Co., The: *See*—
Silent Glow Oil Burner Corp., The.
Louis Watch Co., Inc., New York, N. Y. 344,139, ren. 3–16–57. Cl. 27.
Louisville Bedding Co., Inc., Louisville, Ky. 638,083, pub. 9–18–56. Cl. 32.
Luber-Finer Inc., Los Angeles, Calif. 638,042, pub. 9–18–56. Cl. 31.
Lucille of Hollywood: *See*—
Lucille of Hollywood, Inc.
Lucille of Hollywood, Inc., d. b. a. Lucille of Hollywood, Hollywood, Calif. 638,085, pub. 9–18–56. Cl. 39.
Luten, Inc., Leominster, Mass. 637 909. pub. 9–18–56. Cl. 6.
Luddy Packing Co., Clinton, N. C. 638,226. Cl. 46.
Lutz, Max, Nampa, Idaho. 530,123, canc. Cl. 46.
Lyra-Bleistift-Fabrik, Johann Froeschels, Nuremberg, Germany. 638,061, pub. 9–18–56. Cl. 37.
MacDonald, John E.: *See*—
Dodds, Robert W.
MacDonald's Vitaminized Feed Co.: *See*—
Dodds, Robert W.
Magic Webb Hosiery Co.: *See*—
Finkman, Ervin H.
Magnavox Co., The: *See*—
Electro-Acoustic Products Co.
Magnuson Engineers: *See*—
Magnuson, Roy M.
Magnuson, Roy M., d. b. a. Magnuson Engineers, San Jose, Calif. 638,029, pub. 9–18–56. Cl. 26.
Makespeace, A. D. Co., Wareham, Mass. 341,640, 12(c) pub. 12–4–56. Cl. 46.
Mallinckrodt Chemical Works, St. Louis, Mo. 344,036, ren. 3–9–57. Cl. 18.
Malmstrom Chemical Corp., Newark, N. J. 637,906–7, pub. 9–18–56. Cl. 6.
Malt Products Corp. of New Jersey, Maywood, N. J. 637,914, pub. 9–18–56. Cl. 6.
Manhattan Rubber Mfg. Co., The, New York, N. Y. Raybestos-Manhattan, Inc., Passaic, N. J. 114,795, ren. 1–2–56. Cl. 35.
Manifold Supplies Co., New York, N. Y. 637,921, pub. 9–18–56. Cl. 11.
Margolin, H. & Co., Inc.: *See*—
Michel, Maksik & Feldman, Inc.
Marlin Firearms Co., The, New Haven, Conn. 637,917, pub. 9–18–56. Cl. 9.
Marlin Pool Equipment Co., Sherman Oaks, Calif. 637,998, pub. 9–18–56. Cl. 23.
Mars Inc., Chicago, Ill. 343,146, ren. 2–9–57. Cl. 46.
Marston Excelsior Ltd., London, England. 637,970, pub. 9–18–56. Cl. 19.
Masterbee Co., The: *See*—
Linton, Clair S.
Mastro Plastics Corp., New York, N. Y. 637,896, pub. 9–18–56. Cl. 5.
Matthiessen & Hegeler Zinc Co., La Salle, Ill. 530,307, canc. Cl. 14.
Maser, A.: *See*—
Maser, Abraham.
Maser, Abraham, d. b. a. A. Maser and Seven Eleven Fros-N-Fresh Meat Co., Philadelphia, Pa. 638,130, pub. 9–18–56. Cl. 46.
McCormick & Co., Inc.: *See*—
Jones, T. P., & Co.
McCutcheon, James, & Co., New York, N. Y. 113,268, ren. 10–10–56. Cl. 42.
McDonough Co., d. b. a. O. Ames Co., Parkersburg, W. Va. 637,966, pub. 9–18–56. Cl. 19.
McNeil Laboratories, Inc., Philadelphia, Pa. 637,957, pub. 9–18–56. Cl. 18.
Molatex Products Co. Inc., New York, N. Y. 638,110, pub. 9–18–56. Cl. 42.
Meredith, George G., Kingsville, Md. 637,951, pub. 9–18–56. Cl. 18.
Meyer, Sidney, d. b. a. F. Wolkow & Sons, Louisville, Ky. 638,096, pub. 9–18–56. Cl. 40.
Michel, Maksik & Feldman, Inc., New York, N. Y., to H. Margolin & Co., Inc., Fitchburg, Mass. 344,180, ren. 3–16–57. Cl. 3.
Mid-West Mineral Co., Quincy, Ill. 637,911, pub. 9–18–56. Cl. 6.
Miani, Louis, Foods, Inc., Los Angeles, Calif. 638,129, pub. 9–18–56. Cl. 46.
Miller, B. S., Laboratories, Inc., Los Angeles, Calif. 637,944, pub. 9–18–56. Cl. 18.
Mining and Chemical Products Ltd., London, England. 637,958, pub. 9–18–56. Cl. 18.
Minneapolis-Moline Co., Hopkins, Minn. 638,008, pub. 9–18–56. Cl. 23.
Mississippi River Chemical Co.: *See*—
Mississippi River Fuel Corp.
Mississippi River Fuel Corp., d. b. a. Mississippi River Chemical Co., St. Louis, Mo. 637,920, pub. 9–18–56. Cl. 10.
Modern Globe, Inc.: *See*—
Vesta Underwear Co.
Mohler, Lucille and James, Mexico, Mo. 638,134, pub. 9–18–56. Cl. 46.
Monro, Geo., Ltd., London and Waltham Cross, England. 530,126, canc. Cl. 23.
Monsanto Chemical Co., St. Louis, Mo. 638,070, pub. 9–18–56. Cl. 18.
Mount Vernon Mills, Inc., Baltimore, Md. 638,119, pub. 9–18–56. Cl. 42.
Mud Control Laboratories, Inc., Oklahoma City, Okla. 637,880–1, pub. 9–18–56. Cl. 1.
National Multiple Sclerosis Society, New York, N. Y. 638,185, pub. 9–18–56. Cl. 100.
National Spinning Co., Inc., New York, N. Y. 638,118, pub. 9–18–56. Cl. 43.
Newburgh Tissue Co.: *See*—
Levinson, Max.
New England Carbide Tool Co.: *See*—
Plastic Wallplug & Co. Ltd.
Niehaus Bros., Cincinnati, Ohio. 638,139, pub. 9–18–56. Cl. 46.
Nobilium Processing Co. of Chicago, Chicago, Ill. 638,122, pub. 9–18–56. Cl. 44.
Nordic Headwear Co.: *See*—
Stein, Harold.
Normandy Coffee & Tea Corp., Staten Island, N. Y. 530,104, canc. Cl. 46.
North American Aviation, Inc., Los Angeles, Calif. 638,026–7, pub. 9–18–56. Cl. 26.
North American Philips Co., Inc., Dobbs Ferry, N. Y. 530,062, canc. Cl. 44.
Northern Rubber Products, Inc., Minneapolis, Minn. 530,204, canc. Cl. 12.
Nuclear Instrument and Chemical Corp., Chicago, Ill. 638,186, pub. 9–18–56. Cl. 100.
Nu-Komfort Mfg. Co.: *See*—
Ginsberg, Nathan.
Nusbaum, Lee, d. b. a. Sherbrooke Co., to Pennco Engineering Co., Philadelphia, Pa. 638,165–6, pub. 9–18–56. Cl. 51.
Nutritional Science Corp., Lynwood, Calif. 637,956, pub. 9–18–56. Cl. 18.
Oberlin, Eugene M., d. b. a. E. M. O. Co., Chicago, Ill. 638,178, pub. 9–18–56. Cl. 52.
O'Brien Textiles Corp., Detroit, Mich. 638,102, pub. 9–18–56. Cl. 42.
Office Publications Co., New York, N. Y. 638,067, pub. 9–18–56. Cl. 38.
Ohio Grease Co., The, Loudonville, Ohio. 344,160, ren. 3–16–57. Cl. 15.
Olin Industries, Inc., East Alton, Ill., now by merger and change of name Olin Mathieson Chemical Corp. 637,877, pub. 9–18–56. Cl. 1.
Olin Mathieson Chemical Corp.: *See*—
Olin Industries, Inc.
Oliver-Finnie Co., Memphis, Tenn. 530,313, canc. Cl. 46.
Olson, Richard L., Chicago, Ill. 638,159, pub. 9–18–56. Cl. 50.
Olympia Werke A. G. Wilhelmshaven, Wilhelmshaven, Germany. 638,015, pub. 9–18–56. Cl. 23.
Olympia Werke A. G. Wilhelmshaven, Wilhelmshaven, Germany. 638,032, pub. 9–18–56. Cl. 26.
Onondaga Pottery Co., Syracuse, N. Y. 638,039, pub. 9–18–56. Cl. 30.
Oregon Pulp and Paper Co., Portland, Oreg. 638,063, pub. 9–18–56. Cl. 37.
Ormont Drug & Chemical Co., Inc., Long Island City, N. Y. 637,953–4, pub. 9–18–56. Cl. 18.
O-So Grape Co., Peoria, Ill. 638,222. Cl. 45.
P-G Sales & Exports, Inc., San Francisco, Calif. 637,987, pub. 9–18–56. Cl. 22.
Pacific Olive Co., Visalia, Calif. 638,151, pub. 9–18–56. Cl. 46.
Palmer & Mackay Ltd., Trowbridge, England. 638,107, pub. 9–18–56. Cl. 42.
Palnut Co., The, Mountainside, N. J. 340,210, ren. 11–3–56. Cl. 13.
Panteen, A. G., Basel, Switzerland. 638,163, pub. 9–18–56. Cl. 51.
Paramount Bakers, Jersey City, N. J. 638,138, pub. 9–18–56. Cl. 46.
Pardee, C. G., Co., Inc., Long Island City, N. Y. 637,900–1, pub. 9–18–56. Cl. 6.
Parke, Davis & Co., Detroit, Mich. 637,960, pub. 9–18–56. Cl. 18.
Parkview Drugs, Inc., Kansas City, Mo. 638,204, pub. 9–18–56. Cl. 107.
Patch Rubber Co., Akron, Ohio. 638,059, pub. 9–18–56. Cl. 35.
Peavey, F. H., & Co., d. b. a. King Midas Feed Mills, Minneapolis, Minn. 638,143, pub. 9–18–56. Cl. 46.
Penetred Corp., Marshfield, Wis. 638,194, pub. 9–18–56. Cl. 103.
Pennco Engineering Co.: *See*—
Nusbaum, Lee.
Pennsylvania Salt Mfg. Co., The, Philadelphia, Pa. 637,899, pub. 9–18–56. Cl. 6.
Pepsinic Seltzer Corp., Worcester, Mass. 530,195, canc. Cl. 18.
Perfect Service Corp., Pasadena, Calif. 530,404, canc. Cl. 103.
Pernhall, Gisela, also known as Gisella Pernhall, d. b. a. La Gisee Cosmetic Products, Philadelphia, Pa. 530,187, canc. Cl. 51.
Pernhall, Gisella: *See*—
Pernhall, Gisela.
Pharmaceutical Corp. of America, Cambridge, Mass. 637,931, pub. 6–29–54. Cl. 18.
Phenoplast Corp., New York, N. Y. 530,334, canc. Cl. 16.
Pillsbury Flour Mills Co., to Pillsbury Mills, Inc., Minneapolis, Minn. 339,207, ren. 10–6–56. Cl. 46.
Pillsbury Mills, Inc.: *See*—
Pillsbury Flour Mills Co.
Planey, Reidon G., d. b. a. Renel Mfg. Co., Gardena, Calif. 637,882, pub. 9–18–56. Cl. 2.
Plastic Wallplug & Bolt Co. Ltd., Perivale, England, to New England Carbide Tool Co., Medford, Mass. 339,171, ren. 9–29–56. Cl. 12.
Play Craft Products Co., Portland, Oreg. 530,065, canc. Cl. 23.
Plaza Royale, Kansas City, Mo. 638,156, pub. 9–18–56. Cl. 49.
Polk Miller Products Corp., Richmond, Va. 530,422, canc. Cl. 6.



Pollack, Max, & Co., Inc., New York, N. Y. 638,117, pub. 9–18–56. Cl. 43.
Polymark Ltd., London, England. 637,892, pub. 6–23–53. Cl. 5.
Porcelain Enamel Institute, Inc., Washington, D. C. 638,233. Cl. A.
Porcelain Enamel Institute, Inc., Washington, D. C. 638,234. Cl. A.
Power Plant Contractors, Ltd., Toronto, Ontario, Canada. 637,904, pub. 9–18–56. Cl. 23.
Premium Associates, Inc., Jersey City, N. J. 638,190, pub. 9–18–56. Cl. 101.
Press-Seal Gasket Corp., Fort Wayne, Ind. 638,058, pub. 9–18–56. Cl. 35.
Pres-To-Line Corp. of America, Los Angeles, Calif. 637,969, pub. 9–18–56. Cl. 19.
Presto Sales Corp., New York, N. Y. 638,054, pub. 9–18–56. Cl. 32.
Prince Matchabelli, Inc., New York, N. Y. 638,170, pub. 9–18–56. Cl. 51.
Prince Mfg. Co., The, Bowmanstown, Pa. 54,414, 12(c) pub. 12–4–56. Cl. 16.
Prince Toiletries: *See*—
Boston Drug & Chemical Co.
Priv. Fabbrica Maraschino "Excelsior" Girolamo Luxardo S. p. A. Torreglia, Padova, Italy. 638,230. Cl. 40.
Private Tele-Communications, Inc., Chicago, Ill. 637,981, pub. 8–14–56. Cl. 21.
Punch Products Corp., Niagara Falls, N. Y. 637,999, pub. 9–18–56. Cl. 23.
Pure Oil Co., The, Chicago, Ill. 174,332, 12(c) pub. 12–4–56. Cl. 15.
Quaker Rubber Corp., Philadelphia, Pa. 530,394, canc. Cl. 35.
Quick Charge, Inc., Oklahoma City, Okla. 637,962, pub. 9–18–56. Cl. 21.
Radio Active Products Corp., d. b. a. Rapco Products, Philadelphia, Pa. 637,895, pub. 9–18–56. Cl. 5.
Rancho Sespe: *See*—
Spalding, Keith, trustee under the will of Eudora Hull Spalding.
Rapco Products: *See*—
Radio Active Products Corp.
Rask, Herluf, Copenhagen, Denmark. 530,109, canc. Cl. 12.
Rath Packing Co., The, Waterloo, Iowa. 637,919, pub. 9–18–56. Cl. 10.
Raybestos-Manhattan, Inc.: *See*—
Manhattan Rubber Mfg. Co., The.
Rayflex Fabrics, Inc., New York, N. Y. 638,112, pub. 9–18–56. Cl. 42.
Red Wing Co., Inc., The, Fredonia, N. Y. 638,148, pub. 9–18–56. Cl. 46.
Reed Roller Bit Co., Houston, Tex. 530,120, canc. Cl. 23.
Reeves Brothers, Inc., New York, N. Y. 638,114, pub. 9–18–56. Cl. 42.
Reim Mfg. Corp., New York, N. Y. 638,057, pub. 9–18–56. Cl. 35.
Remington-Douglas Corp., New York, N. Y. 637,910, pub. 9–18–56. Cl. 6.
Renel Mfg. Co.: *See*—
Pinney, Reidon G.
Resort Airlines, Inc., Pinehurst, N. C. 530,395, canc. Cl. 105.
Rex Cutlery Corp., New York, N. Y. 638,123, pub. 9–18–56. Cl. 44.
Rice-Stix Dry Goods Co., to Rice-Stix, Inc., St. Louis, Mo. 343 752, ren. 3–2–57. Cl. 42.
Rice-Stix, Inc.: *See*—
Rice-Stix Dry Goods Co.
Riddell, W. A., Corp., Bucyrus, Ohio. 530,312, canc. Cl. 23.
Riker Laboratories, Inc., Los Angeles, Calif. 637,949–50, pub. 9–18–56. Cl. 18.
Rosedale Knitting Co., Reading, Pa. 638,087, pub. 9–18–56. Cl. 39.
Rosewood Fabrics, Inc., New York, N. Y. 638,219. Cl. 42.
Rouyer, Guillet & Cie., Saintes (Charente-Maritime), France. 355 281, canc. Cl. 49.
Rueping, Fred, Leather Co., Fond du Lac, Wis. 530,314, canc. Cl. 1.
Ruggiero, Ferdinand, Inc., Boston, Mass. 530,066, canc. Cl. 51.
Salisbury Cutlery Handle Co., Inc., The, Salisbury, Conn. 637,887, pub. 9–18–56. Cl. 2.
Samuel, Barnett, & Sons, Ltd., London, England, to Decca Records, Inc., New York, N. Y. 115,901, ren. 3–20–57. Cl. 36.
Sandee Mfg. Co., Chicago, Ill. 530,210, canc. Cl. 22.
Sandos Chemical Works, Inc., Hanover, N. J. 637,952, pub. 9–18–56. Cl. 18.
San Francisco Bank, The, San Francisco, Calif. 530,409, canc. Cl. 102.
San Juan Islands Cannery, Mount Vernon, Wash. 329,717, canc. Cl. 46.
San Juan Islands Cannery, Mount Vernon, Wash. 354,072, canc. Cl. 46.
San Juan Islands Cannery, Mount Vernon, Wash. 357,791, canc. Cl. 46.
San-O-Let Service, Inc., Albuquerque, N. Mex. 638,137, pub. 9–18–56. Cl. 100.
Saporite Packing & Trading Corp., Brooklyn, N. Y. 530,110, canc. Cl. 46.
Saunders Distributors, Inc., d. b. a. Gold Stamp Premium Co., Charlotte, N. C. 638 169, pub. 9–18–56. Cl. 101.
Schloss Bros. & Co. Inc., Baltimore, Md. 530,091, canc. Cl. 39.
Schmidt Lithograph Co., San Francisco, Calif. 637,886, pub. 9–18–56. Cl. 2.
Schnadig Corp., Chicago, Ill. 638,045–6, pub. 9–18–56. Cl. 32.
Schneidewind, Howard B., Inc., New York, N. Y. 638,218. Cl. 39.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 341,808, ren. 12–22–56. Cl. 44.
Schuckl & Co., Inc., Sunnyvale, Calif. 638,152, pub. 9–18–56. Cl. 46.
Searle, G. D., & Co., Skokie, Ill. 637,948, pub. 9–18–56. Cl. 18.
Sears, Roebuck and Co., Chicago, Ill. 530,059, canc. Cl. 18.
Sears, Roebuck and Co., Chicago, Ill. 638,036, pub. 9–18–56. Cl. 27.
Seigman, Arthur, Inc., New York, N. Y. 530 284, canc. Cl. 39.
Selected Products, Inc., Chicago, Ill. 530,099, canc. Cl. 46.
Seven Eleven Frez-N-Fresh Meat Co.: *See*—
Maser, Abraham.
Sharp & Dohme, Inc., Philadelphia, Pa. 530,874, canc. Cl. 18.
Sheehan, Peggy S., Alexandria, Va. 621,344, canc. Cl. 38.
Sherbrooke Co.: *See*—
Nusbaum, Lee.
Sherwin-Williams Co., The, Cleveland, Ohio. 637,930, pub. 9–18–56. Cl. 16.
Shulton, Inc., Clifton, N. J. 344,285. ren. 3–16–57. Cl. 52.
Silent Glow Oil Burner Corp., The, d. b. a. The Little Red Hen Equipment Co., Hartford, Conn. 638,157, pub. 9–18–56. Cl. 50.
Silver King Corp., Chicago, Ill. 530,079, canc. Cl. 23.
Skyline Products, Inc., Deer Park, N. Y. 637,962, pub. 9–18–56. Cl. 19.
Slatter, Lucy A., Charleston, W. Va. 530,188, canc. Cl. 18.
Smith, Jorgen A., Copenhagen, Denmark. 530,126, canc. Cl. 44.
Smith, Kline & French Laboratories, Philadelphia, Pa. 530,363, canc. Cl. 18.
Smith, Kline & French Laboratories, Philadelphia, Pa. 637,941, pub. 9–18–56. Cl. 18.
Smith Oil & Refining Co., Rockford, Ill. 344,185, ren. 3–16–57. Cl. 15.
Smith, Paul A., Jamaica, N. Y. 530 269, canc. Cl. 22.
Societe Belge de Ceramique, Societe Anonyme, Brussels, Belgium. 530 202, canc. Cl. 12.
Societe Commerciale des Produits du Petrole, Paris, France. 340.120, ren. 11–3–56. Cl. 15.
Societe Commerciale des Produits du Petrole, Paris, France. 340.121, ren. 11–3–56. Cl. 15.
Societe Commerciale des Produits du Petrole, Paris, France. 340.122, ren. 11–3–56. Cl. 15.
Societe Commerciale des Produits du Petrole, Paris, France. 340,324, ren. 11–3–56. Cl. 15.
Socony Mobil Oil Co., Inc., New York, N. Y. 637,913, pub. 9–18–56. Cl. 6.
Sopher, Herman, Baltimore, Md. 530,419, canc. Cl. 38.
Southern Friction Materials Co., Charlotte, N. C. 530,155, canc. Cl. 50.
Southern Hosiery Mill, Inc., Hickory, N. C. 638,095, pub. 9–18–56. Cl. 39.
Spalding, Eudora H.: *See*—
Spalding Keith.
Spalding Keith, trustee under the will of E. H. Spalding, deceased, d. b. a. Rancho Sespe, Fillmore, Calif. 530,287, canc. Cl. 46.
Spartan Tool Co., Chicago, Ill. 638,013, pub. 9–18–56. Cl. 23.
Spengler-Loomis Mfg. Co., d. b. a. Automatic Pencil Sharpener Co., Rockford, Ill. 530,362, canc. Cl. 23.
Sperry Rand Corp., New York, N. Y. 638,031, pub. 9–18–56. Cl. 26.
Spin-High Sportswear, Inc., New York, N. Y. 638,076, pub. 9–18–56. Cl. 39.
Sporting Goods Publishing Co., The, St. Louis, Mo. 638,211–15. Cl. 38.
Standard Milling Co., Kansas City, Mo. 638,136, pub. 9–18–56. Cl. 46.
Standard Packaging Corp., Chicago, Ill. 638,066, pub. 9–18–56. Cl. 37.
Standard Packaging Corp., Chicago, Ill. 638,231. Cl. 50.
Star Co., to The Hearst Corp., New York, N. Y. 112,947, ren. 10–3–56. Cl. 38.
Stearns Mfg. Co., St. Cloud, Minn. 530,320, canc. Cl. 9.
Stein, Harold, d. b. a. Nordic Headwear Co., New York, N. Y. 638 081, pub. 9–18–56. Cl. 39.
Steinhof, Karl, d. b. a. Karl Steinhof, Apparatefabrik, Berlin, Germany. 638,001, pub. 9–18–56. Cl. 23.
Steinhof, Karl, Apparatefabrik: *See*—
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Sterling Aluminum Products, Inc., St. Louis, Mo. 638,005, pub. 9–18–56. Cl. 23.
Sterling Novelty Products: *See*—
Glovemakers, Inc.
Stetson, John B., Co., Philadelphia, Pa. 638,080, pub. 9–18–56. Cl. 39.
Strickland, J., & Co., Memphis, Tenn. 638,167, pub. 9–18–56. Cl. 51.
Stryker Mfg. Co., Inc., Stryker, Ohio. 638,043, pub. 9–18–56. Cl. 31.
Sunset Line & Twine Co., Petaluma, Calif. 637,989, pub. 9–18–56. Cl. 22.
Swanson Mfg. Co., Owosso, Mich. 638,210. Cl. 34.
Swiveller Co., Inc., New York, N. Y. 637,976–7, pub. 9–18–56. Cl. 21.
Taylor Drug Co.: *See*—
Taylor, James W.
Taylor, Harry F., Glendale, Calif. 441,622, 12(c) pub. 12–4–56. Cl. 51.
Taylor, J. W.: *See*—
Bitterman, M. L., and J. W. Taylor.
Taylor, James W., d. b. a. Taylor Drug Co., Milwaukee, Wis 637,933, pub. 9–18–56. Cl. 18.
Teleprompter Corp., New York, N. Y. 637,974, pub. 9–18–56. Cl. 21.

Templeton, John M., d. b. a. Glycol Co., New York, N. Y., to Glycolizer Corp. 530,236, canc. Cl. 6.
"The" Film Center of Washington, D. C.: *See*—
CMC Corp.
Thompson, Howard, Minneapolis, Minn. 530,423, canc. Cl. 2.
Timely Clothes, Inc., Rochester, N. Y. 530,072, canc. Cl. 39.
Timely Sportswear Co.: *See*—
Aramony, Fred R.
Tobin Packing Co., Inc., Rochester, N. Y., and Fort Dodge, Iowa. 530,200, canc. Cl. 46.
Todd-Werner Co., Kenmore, N. Y. 269,195, canc. Cl. 18.
Tompkins' Label Service, Philadelphia, Pa. 638,009, pub. 9–18–56. Cl. 38.
Toro Mfg. Corp. of Minnesota, Minneapolis, Minn. 637,997, pub. 9–18–56. Cl. 22.
Traum, David Co., Inc., New York, N. Y. 638,183, pub. 9–18–56. Cl. 52.
Trenton Milling Co., Trenton, Ill. 113,178, ren. 10–10–56. Cl. 46.
Turco Products, Inc., Los Angeles, Calif. 638,177, pub. 9–18–56. Cl. 52.
Turner & Seymour Mfg. Co., The, Torrington, Conn. 638,018, pub. 9–18–56. Cl. 23.
Underwood Corp., New York, N. Y. 638,011, pub. 9–18–56. Cl. 23.
Union Oil Co. of California, Los Angeles, Calif. 637,926, pub. 9–18–56. Cl. 15.
United Aircraft Corp., East Hartford, Conn. 637,964, pub. 9–18–56. Cl. 19.
United Paper Co., Inc., Richmond, Va. 344,386, ren. 3–23–57. Cl. 37.
U. S. Mfg. Corp., Decatur, Ill. 530,103, canc. Cl. 50.
United States Rubber Co., New York, N. Y. 638,106, pub. 9–18–56. Cl. 42.
U. S. Vitamin Corp., New York, N. Y. 637,955, pub. 9–18–56. Cl. 18.
Universal Atomics Corp., New York, N. Y. 637,979–80, pub. 9–18–56. Cl. 21.
Universal Plywood Trim Ltd., Toronto, Ontario, Canada. 530,345, canc. Cl. 12.
Univis Lens Co., The, Dayton, Ohio. 638,020, pub. 9–18–56. Cl. 24.
Upjohn Co., The, Kalamazoo, Mich. 530,142, canc. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 637,945, pub. 9–18–56. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 638,142, pub. 9–18–56. Cl. 46.
Utica Cutlery Co., Utica, N. Y. 638,017, pub. 9–18–56. Cl. 23.
Van Felt & Brown, Inc., Richmond, Va. 530,382, canc. Cl. 18.
Velveray Corp., New York, N. Y. 638,201, pub. 9–18–56. Cl. 106.
Venetian Blind Mfg. Co.: *See*—
Chamberlain, Hiram S.
Verbarg, Clyde J., Alexandria, Va. 530,416, canc. Cl. 103.
Vesta Underwear Co., Pawtucket, R. I., to Modern Globe, Inc., New York, N. Y. 638,075, pub. 9–18–56. Cl. 39.
Victorine, A. V., & Co., to Burgio Bros., Inc., New York, N. Y. 115,763, ren. 2–27–57. Cl. 39.
Vine, Lewis, Los Angeles, Calif. 530,186, canc. Cl. 39.
Viscio, Frank A., d. b. a. Anthony Products Co., New Rochelle, N. Y. 530,322, canc. Cl. 51.
Vogue Dolls, Inc., Medford, Mass. 637,990, pub. 9–18–56. Cl. 22.
Voorhees Rubber Mfg. Co., Jersey City, N. J., to Voorhees Rubber Mfg. Co., Inc., New York, N. Y. 112,961, ren. 10–3–56. Cl. 26.
Voorhees Rubber Mfg. Co., Inc.: *See*—
Voorhees Rubber Mfg. Co.
Walker-Gordon Laboratory Co., Inc., Plainsboro, N. J. 637,918, pub. 9–18–56. Cl. 10.
Walther-Buromaschinen G. m. b. H.: *See*—
Walther Buromaschinen Gesellschaft.
Walther Buromaschinen Gesellschaft, Niederurbtenigen-Wurttemberg, to Walther-Buromaschinen G. m. b. H., Gerstetten/Wurttemberg, Germany. 638,021, pub. 9–18–56. Cl. 26.
Wanamaker, John, Philadelphia, Philadelphia, Pa. 336,966, ren. 7–21–56. Cl. 39.
Warner-Lambert Pharmaceutical Co., Inc.: *See*—
Gray Pharmaceutical Co.
Warner, William R., & Co., Inc., New York, N. Y. 530,234, canc. Cl. 18.
Warren, Northam, Corp., Stamford, Conn. 343,144, ren. 2–9–57. Cl. 18.
Wayne Knitting Mills, Fort Wayne, Ind. 341,893, ren. 12–20–56. Cl. 39.
Welding Processes, Inc., Wilmington, Del. 637,966, pub. 9–18–56. Cl. 21.
West Coast Grocery Co., Tacoma, Wash. 638,135, pub. 9–18–56. Cl. 46.
Western Division, Inc., Los Angeles, Calif. 530,227, canc. Cl. 35.
Western Union Telegraph Co., The, New York, N. Y. 638,196, pub. 9–18–56. Cl. 104.
Wheelabrator Corp.: *See*—
American Foundry Equipment Co., The.
White Laboratories, Inc., Kenilworth, N. J. 637,959, pub. 9–18–56. Cl. 18.
Whitmoyer Laboratories, Inc., Myerstown, Pa. 637,946, pub. 9–18–56. Cl. 18.
Wilfong Fireworks & Specialties Co., Fort Worth, Tex. 530,166, canc. Cl. 9.
Wine Growers Guild, Lodi, Calif. 638,153, pub. 9–18–56. Cl. 47.
Winston and Newell Co., d. b. a. Winston and Newell Co., Wilmington, Del., and Minneapolis, Minn. 530,160, canc. Cl. 46.
Wolf, Jacques, & Co., Clifton, N. J. 637,912, pub. 9–18–56. Cl. 6.
Wolf Appliance Corp., Long Island City, N. Y. 638,055, pub. 9–18–56. Cl. 32.
Wolkow, F., & Sons: *See*—
Meyer, Sidney.
Woodlake Packing House, Woodlake, Calif. 530,441, canc. Cl. 46.
World Automobile Association, Inc., Charleston, S. C. 638,198, pub. 9–1–53. Cl. 105.
World's Finest Chocolate, Inc., Chicago, Ill. 638,128, pub. 3–1–55. Cl. 46.
Wyoming Sulphaid Co., Bozeman, Mont. 530,218, canc. Cl. 10.
Yeagus Rubber Corp., New York, N. Y. 638,136, pub. 9–18–56. Cl. 44.
Zellweger Ltd., Uster, Switzerland. 638,024, pub. 9–18–56. Cl. 26.
Zest Packing Co., Philadelphia, Pa. 638,140, pub. 9–18–56. Cl. 46.

U. S. GOVERNMENT PRINTING OFFICE: 0—1956

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December 11, 1956 Volume 713 Number 2

# PATENTS

## NOTICES

### Adjudicated Patents

(D. C. Pa.) Chott Patent No. 2,286,599 (241—175), for mortar and pestle. Claims 1 to 3 *Held* valid but not infringed. *Crescent Dental Manufacturing Company* v. *The S. S. White Dental Manufacturing Company*, 144 F. Supp. 1; 111 USPQ 88.

(D. C. Mich.) Belden Patent No. 2,458,134 (160—223), for an adjustable ventilator, *Held* invalid. *Belden et al., doing business as Louver Manufacturing & Supply Company* v. *Air Control Products, Inc.*, 144 F. Supp. 248; 111 USPQ 9.

(D. C. Calif.) Slopa Patent No. 2,521,756 (16—131), for an overlapping hinge, *Held* invalid. *Butcher Boy Refrigerator Door Co.* v. *Phillips Refrigeration Products Co.*, 144 F. Supp. 331; — USPQ —.

(D. C. Calif.) Slopa Patent No. 2,535,324 (16—131), for a compensating hinge. Claims 1, 2, 3, 4, 5, and 7 *Held* invalid. *Id.*

(D. C. Calif.) Slopa Patent No. 2,586,573 (16—131), for an infitting type hinge, *Held* invalid. *Id.*

(D. C. Md.) Collins Patent No. 2,667,218 (160—84), for a folding closure. Claim 10 *Held* valid and infringed. *Collins* v. *Kraft*, 144 F. Supp. 162; — USPQ —.

(D. C. N. Y.) Guide Patent No. 2,674,963 (112—2), for a spiral seam producing mechanism for sewing machines. Claims 1 to 3, 6, 7, 12, and 14 *Held* invalid. *Guide* v. *Desperak et al., doing business as Advance Sewing Machine Company; Same* v. *Advance Spiral Machine Company, Inc.*, 144 F. Supp. 182; 111 USPQ 32.

(D. C. Calif.) Slopa Design Patent No. 157,294 (D10—9), for a hinge, *Held* invalid. *Butcher Boy Refrigerator Door Co.* v. *Phillips Refrigeration Products Co.*, 144 F. Supp. 331; — USPQ —.

### Classification Order No. 206

Classification Order No. 206, dated November 23, 1956, incorporates changes in the following classes:

Classes 12, 95, 96, 317

The above changes will be incorporated in the Manual of Classification replacement sheets dated January 1957.

M. C. ROSA,
Nov. 21, 1956. *Director, Patent Examining Operation.*

### Disclaimers

2,649,564.—*Frederick William Meredith*, London, England. AUTOMATIC CONTROL SYSTEMS. Patent dated Aug. 18, 1953. Disclaimer filed Nov. 2, 1956, by the assignee, *Minneapolis-Honeywell Regulator Company.*

Hereby enters this disclaimer to claims 1, 3, 5, 6, 11, and 12 of said patent.

2,708,415.—*Ernest Contelo White*, Bronxville, N. Y. NEEDLE STOP APPARATUS FOR POWER-DRIVEN SEWING MACHINES. Patent dated May 17, 1955. Disclaimer filed Oct. 26, 1956, by the assignee, *The Singer Manufacturing Company.*

Hereby enters this disclaimer to claim 11 of said patent.

### Patents Available for Licensing or Sale

2,737,738. Article Protector for Ironing Boards and the Like (Mounted on Floor To Protect Articles From Soiling). Marylie W. Montgomery and Jesse N. Williams, Jr., 422 West Fifth St., Greenville, N. C.

2,770,023. Press Fastener (for Penetrating and Securing Together Papers and the Like). Peter Michalsky, 197 Cambridge Ave., Garfield, N. J.

General Electric Company is prepared to grant nonexclusive licenses on reasonable terms under the following 33 patents to domestic manufacturers.

Applications for license may be addressed to: Patent Counsel, Switchgear & Control Division, General Electric Company, 6901 Elmwood Ave., Philadelphia 42, Pa.

2,212,399. Protection of Alternating Current Electric Systems.
2,222,719. Air Blast Circuit Breaker.
2,233,362. System of Electric Distribution.
2,243,575. Multiple Switching Apparatus and Method.
2,269,233. Electrical Conductor.
2,277,522. Phase Sequence Apparatus.
2,282,065. Electromagnetic Device.
2,284,840. Fluid Blast Circuit Breaker.
2,285,191. Automatic Reclosing Circuit Breaker Equipment.
2,296,099. Protection of Alternating Current Electric Power Systems.
2,306,240. Gas Blast Circuit Breaker.
2,315,468. Protective System.
Re.22,498. Mounting Electrical Apparatus.
2,347,493. Protection of Alternating Current Electric Power Systems.
2,348,026. Electric Power Transmission System.
2,360,110. Electric Circuit.
2,360,172. Supervisory System.
2,366,493. Electric Circuit.
2,374,994. Electric Protective Arrangement.
2,378,268. Protective Apparatus.
2,378,752. Electric Power Transmission System.
2,380,805. Protective System.
2,381,375. Protective Apparatus.
2,381,527. Protective Apparatus.
2,383,329. Protective System.

### New Applications Received During October 1956

| | |
|---|---|
| Patents | 6,722 |
| Designs | 473 |
| Plants | 9 |
| Reissues | 21 |
| Total | 7,225 |

### Issue

| | | | |
|---|---|---|---|
| Patents | 815 | No. 2,773,258 to No. | 2,774,072, incl. |
| Designs | 38 | No. 179,366 to No. | 179,403, incl. |
| Plant Pats | 3 | No. 1,534 to No. | 1,538, incl. |
| Reissues | 4 | No. 24,253 to No. | 24,256, incl. |
| | 862 | | |

| | | | |
|---|---|---|---|
| 2,396,635. | Protective System. | 2,416,951. | Switching Means. |
| 2,399,942. | Circuit Breaker Operating System. | 2,445,588. | Electrical Switchgear. |
| 2,398,648. | Protection of Electric Systems. | 2,454,973. | Polarised Electromagnetic Control Device. |
| 2,405,696. | Relay Protective Arrangement. | 2,756,306. | Circuit Breaker Operating Mechanism. |

# CONDITION OF PATENT APPLICATIONS AS OF OCTOBER 31, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217,058 |
| Total number of pending Design applications | 6,321 |
| Total number of applications awaiting action (excluding Designs) | 117,257 |
| Total number of Design applications awaiting action | 2,972 |
| Date of oldest new application | June 27, 1955 |
| Date of oldest amended application | June 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, I. G., CHEMICAL AND RELATED ARTS | 6, 31, 38, 45, 46, 50, 52, 59, 60, 63, 64. |
| II. STRACHAN, C. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 16, 22, 25, 27, 42, 44, 49, 52, 54, 60, 76. |
| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 39, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 5, 20, 30, 33, 36, 40, 41, 55, 66. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 8, 9, 10, 18, 32, 38, 45, 47. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 25, 30, 32, 48, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders | 11- 9-55 | 1- 3-55 |
| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 2- 6-56 | 8- 2-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 3-19-56 | 1-14-55 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 2- 1-56 | 2-10-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates | 2- 6-56 | 7- 5-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-20-55 | 5-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-23-55 | 2-21-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 9-20-55 | 1- 5-55 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 2- 1-56 | 2-14-55 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 10-26-55 | 1-20-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Classifying; Card, Picture and Sign Exhibiting; Cutlery; Cleaning and Liquid Treatment of Solids | 1- 3-56 | 2-10-55 |
| 12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls | 10-11-55 | 9-16-54 |
| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 1-10-56 | 11-23-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 11-14-55 | 11-16-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 2- 1-56 | 12- 6-54 |
| 16. (II) LOVEWELL, N. N., Televistas; Telephony; Recorders | 10-19-55 | 8-30-54 |
| 17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 12-15-55 | 1-17-55 |
| 18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices | 12-19-55 | 12- 8-54 |
| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 1- 5-56 | 4-20-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 2-20-56 | 2-10-55 |
| 21. (III) MADER, R. C., Textiles | 1-20-56 | 1-20-55 |
| 22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Dispragms and Bellows; Boring and Drilling | 12-27-55 | 12- 6-54 |
| 23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education | 8-29-55 | 7-16-54 |
| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 2- 9-56 | 2- 2-56 |
| 25. (VII) NEVIUS, R. D., Casting—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus | 1- 3-56 | 6- 8-55 |
| 26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 2- 5-56 | 9- 2-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 2- 1-56 | 2-28-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyors; Fluid Current Conveyors; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-26-55 | 2-21-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 12- 2-55 | 11-23-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 6- 2-56 | 7- 5-55 |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application | |
|---|---|---|
| | New | Amended |
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 12-29-55 | 11-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 2-15-56 | 8- 1-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 2- 1-56 | 12- 3-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 12-19-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Fluent Material Handling, Filling; Toilet, Kitchen and Table Articles | 12- 9-55 | 2-14-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 11- 2-55 | 10-19-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 11-30-55 | 5-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 3- 1-56 | 10-11-55 |
| 39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-31-56 | 11-10-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 3- 1-56 | 10- 3-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds | 10- 3-55 | 9-16-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 6-27-55 | 11- 3-54 |
| 43. (I) ARNOLD, D., Medicines; Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilising and Disinfecting (except Wood Treatment Apparatus) | 11- 2-55 | 4- 1-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes | 7-29-55 | 6-18-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 11- 4-55 | 2-18-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 12- 7-55 | 1-13-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 2- 6-56 | 9-13-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 7-29-55 | 9-23-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 11-21-55 | 4- 4-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 1- 6-56 | 11- 3-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 3- 1-56 | 9-13-54 |
| 52. (V) NEFF, P. R., Supports Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 12- 8-55 | 12-24-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 1-20-56 | 5-24-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 12-12-55 | 12- 1-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminuters | 8-29-55 | 12- 1-54 |
| 56. (I) SPECK, J. R., Abrading Compositions; Batteries; Casting or Plastic Compositions; Electrical and Wave Energy Chemistry | 1-26-56 | 11-18-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 4-10-56 | 8- 8-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Feed Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons | 12-14-55 | 4-21-55 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 12-19-55 | 3-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 12-28-55 | 1-24-55 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 3- 6-56 | 3-16-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 3- 6-56 | 8-17-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives; Fats and Metal Containing Carboxylic or Acyclic Carbon Compounds | 3- 1-56 | 1-13-55 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 2-13-56 | 1- 3-55 |
| 66. (V) LISANN, L., Geometric Instruments; Automatic Weighing Scales; Acoustics | 12-23-55 | 9- 7-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-26-55 | 2-18-55 |
| 69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators | 1- 3-56 | 8-11-54 |
| 70. (II) BREWRINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 3- 2-56 | 1- 9-56 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 3- 6-56 | 8- 1-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-18-56 | 8- 3-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 1-26-56 | 8-24-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 3- 2-56 | 3- 1-56 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 4- 4-56 | 3- 3-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 3-19-56 | 4-17-56 |

The following divisions have been abolished: 65 and 68

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,181,858 to 2,185,169, inclusive
Plant Patent ..... Numbers 349 to 351, inclusive



# PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,170,858, E. F. Andrews, Power scarer, filed Nov. 7, 1956, Ct. Cls., Doc. 480/56, *Edward Penn Andrews* v. *The United States*.

2,266,825, E. G. Streckfuss, Strip dispensing machine; 2,272,440, 2,231,635, same, Form issuing machine, filed Apr. 11, 1949, D. C. Del. (Wilmington), Doc. 1204, *Ralph W. Brown* v. *Imautograph, Inc.* Stipulation and order holding patents valid; claims held not infringed; complaint and counterclaim dismissed Jan. 26, 1951.

2,272,440. (See 2,266,825.)

2,231,635. (See 2,266,825.)

2,486,217, R. J. McCall, Wagon unloader and motor drive unit therefor, filed Nov. 2, 1956, D. C., S. D. Ohio (Columbus), Doc. 4825, *The Five Mfg. Co., Inc.* v. *The Claffey Machine & Mfg. Co.*

2,637,251, F. J. Spiess, Glued flap box folding machine, filed Oct. 29, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35950, *H & C Engineering Corp.* v. *Kieckhefer Container Co.*

2,667,906. (See Re. 24,166.)

2,673,976, C. M. Williams et al., Display sign; Des. 176,653, C. M. Williams, Rotatable display sign, filed Oct. 31, 1956, D. C., E. D. Ill. (Danville), Doc. 1494–D, *American Sign and Indicator Corp.* v. *Time-O-Matic Co. et al.*

2,674,963, A. Guide, Spiral seam producing mechanism for sewing machines, appeal filed Nov. 5, 1956, C. C. A., 2nd Cir., Doc. 24378, *Anthony Guide* v. *Sam Desperak et al.* Same, Doc. 24379, *Anthony Guide* v. *Advance Spiral Machine Co., Inc.*

2,680,945, J. N. Reed, Combined mower and trimmer, filed Nov. 6, 1956, D. C., S. D. Fla. (Miami), Doc. 7260–M, *J. N. Reed* v. *Lawn Mowing & Equipment Mfg. Co.* Same, Doc. 7261–M, *J. N. Reed* v. *Power Equipment Mfg. Co.*

Re. 24,166 (of 2,667,906), B. Stiller, Self-closing container, filed Oct. 31, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33204, *Squeez-A-Purse Corp.* v. *Quikey Sales Co.*

Des. 176,628. (See Des. 171,463.)

Des. 171,463, Des. 176,628, E. Rodrigues, Expansible link chain for a bracelet, filed Nov. 7, 1956, D. C., S. D. N. Y., Doc. 114/277, *Jacoby-Bender, Inc.* v. *J. B. Importing Co.*

Des. 176,806, A. Armato, Self-service unit to test and store electronic tubes, filed Nov. 7, 1956, D. C., E. D. Mich. (Detroit), Doc. 16170, *U-Test-M Mfg. Co., Inc.* v. *Vu Aid, Inc.* Same, Doc. 16171, *U-Test-M Mfg. Co., Inc.* v. *BesTest Tube Testing Co. et al.*

Des. 176,653. (See 2,673,976.)

Des. 176,767, H. Benson, Child's stool, filed Nov. 8, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1876, *The Benson Co., Inc.* v. *John Plain & Co.*

# REISSUES

## DECEMBER 11, 1956

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,253
**METHOD OF PRODUCING A COMPOSITE LIQUID BITUMINOUS BINDER**
John F. Beaver, Piqua, Ohio
No Drawing. Original No. 2,602,774, dated July 8, 1952, Serial No. 26,475, May 11, 1948. Application for reissue July 12, 1955, Serial No. 521,655
3 Claims. (Cl. 204—52)

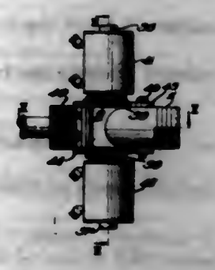
1. In a method of electrolytically depositing copper from a copper sulfate-sulphuric acid bath containing acetyl thiourea in an amount of from about 0.005 to 0.05 gm./l. and chloride anion in an amount of from about 0.001 to 0.015 gm./l., the step of maintaining the chloride anion concentration at a constant value within the range of about 0.001 to 0.015 gm./l. by addition of a chloride [,] *and wherein the bath is maintained at a current density of from 40 to 200 amperes per square foot.*

24,254
**DEEPWATER SUBMERSIBLE BARGE**
Robert A. J. Dawson, West University Place, Tex.
Original No. 2,653,452, dated September 29, 1953, Serial No. 85,931, April 6, 1949, which is a continuation of application Serial No. 584,330, March 23, 1945. Application for reissue August 12, 1954, Serial No. 449,535
7 Claims. (Cl. 61—46.5)



*5. A submergible barge for submarine operations comprising a principal apparatus including an elongated hollow totally closed water-tight submersible base pontoon means, said base pontoon means having a pair of spaced portions defining a lengthwise disposed opening extending from one end of said base pontoon means defining a space through which drilling operations can be conducted, means to introduce ballast into said base pontoon means and to withdraw ballast from said base pontoon means, said base pontoon means having sufficient buoyancy when without ballast to float the entire barge, an openwork rigid supporting structure secured to said base pontoon means and rising thereabove, and a floor carried by said structure above said base pontoon means and spaced therefrom a substantial distance whereby when said base pontoon means is sunk to the marine bottom in water having a lesser depth than the height of said base pontoon means plus said distance said floor will be above water; a derrick connected to said apparatus and disposed over said opening, a supplemental pontoon, rigid means connected to said apparatus, said supplemental pontoon including means co-acting with said rigid means, said rigid means constraining movement of said supplemental pontoon means to a predetermined path relative to said apparatus, said path including a position in which the center of displacement of the supplemental pontoon is above that of said base pontoon means and a position in which the center of displacement of said supplemental pontoon is close to that of said base pontoon means and successive positions intermediate therebetween as regards the vertical component of the distance between the centers of displacement of said pontoon and said pontoon means, said path being displaced from the midship section of said base pontoon means toward the end thereof opposite from said end from which extends said opening, means to introduce ballast into and to withdraw ballast from said supplemental pontoon, said supplemental pontoon when without ballast being buoyant but having less buoyancy than said base pontoon means when without ballast, and means for holding said supplemental pontoon at a desired position along said path against upward movement relative to said base pontoon means, said means for holding being adjustable as to the position along said path at which said supplemental pontoon is held, said distance of said floor above said base pontoon means being independent of the position at which said supplemental pontoon is held.*

24,255
**FLUID MIXING VALVE**
James K. Land, Oak Park, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Original No. 2,712,324, dated July 5, 1955, Serial No. 229,983, June 5, 1951. Application for reissue June 1, 1956, Serial No. 588,938
12 Claims. (Cl. 137—606)



1. A valve body comprising a hollow body part having two aligned spaced recessed outwardly facing annular wall portions, a central passageway through said wall portions opening to opposite sides of said valve body, the hollow part of said valve body defining a mixing chamber extending therealong parallel to said wall portions and intersecting said central passageway, an outlet from said valve body from one end of said mixing chamber, two spaced inlets leading into said valve body into the opposite end thereof from said outlet and extending along said body on opposite sides of said mixing chamber and parallel thereto, and separated therefrom by the walls of said passageway, and fluid passageways extending generally parallel to said central passageway for the flow of fluid from said inlets into said mixing chamber in opposed directions, including a fluid passageway from one of said inlets through one of said wall portions and another fluid passageway from the other of said inlets through the other of said wall portions.





24,256
**CROP DUSTING MACHINE**
Clarence E. Smith, Sharpsville, Ind.
Original No. 2,712,198, dated July 5, 1955, Serial No. 324,660, December 8, 1952. Application for reissue February 8, 1956, Serial No. 564,347
7 Claims. (Cl. 43—148)

*4. In a dusting machine, a wheeled chassis frame, a dust spraying boom to extend laterally to said chassis frame for use, a support on said chassis frame for providing vertical and horizontal swinging movement of said boom, means for raising and lowering said boom to provide said swinging movement, and a source of airborne dust coupled to one end of said boom, said boom comprising an elongated duct member having slots spaced from end to end of said boom in its bottom side, nozzles*



*communicating with said slots, and an adjustable gate operatively associated with at least one of said slots for controlling flow of dust from all of said nozzles.*

# PLANT PATENTS

## GRANTED DECEMBER 11, 1956

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,534
**HONEY LOCUST TREE**
David B. Cole, Mentor Township, Lake County, Ohio, assignor to The Cole Nursery Company, Painesville, Ohio, a corporation of Ohio
Application December 6, 1955, Serial No. 551,463
1 Claim. (Cl. 47—59)

A new and distinct variety of thornless substantially seedless honey locust tree, *Gleditsia triacanthos* L., var. *inermis*, having a generally straight trunk, uniformly distributed well-spaced branches and fairly dense green foliage, particularly characterized in that such foliage remains green and in good condition for at least 10 days longer than the common thornless honey locust.

1,535
**ROSE PLANT**
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application January 13, 1956, Serial No. 559,084
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its floriferousness, its hardiness, the long-lasting quality of its flowers as cut flowers, and the distinctive Maize Yellow color of its buds which open slowly and gradually to mature flowers of a distinctive Maize Yellow lightly overcast with Buff Yellow general color tonality.

1,536
**HYBRID BUDDLEIA PLANT**
Albert Victor Pike, Chiddingstone, Kent, England, assignor to John J. Greulemans, Cleveland, Ohio
Application July 13, 1955, Serial No. 521,942
1 Claim. (Cl. 47—60)

The new and distinct hybrid species of Buddleia plant herein shown and described.

1,537
**ROSE PLANT**
Thomas Edison Meteee, Fairport, N. Y.
Application January 27, 1956, Serial No. 561,955
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant substantially as hereinabove disclosed and described, characterized as to novelty by its similarity to its parent "Vierlanden" in respect to the size, shape, texture and growth habit of its canes and foliage, but greatly distinguished therefrom by the clear light pink color of its blooms as described, by the unusually small quantity of thorns (averaging one or less to a flowering branch), by its abundant production of blooms in outdoor gardens, by its great resistance to mildew and black-spot infections and by its sweet fragrance which is a combination of those of *Rosa centifolia* and *Rosa damascena*, but without the scent of tea.

1,538
**PEACH TREE**
Grant Merrill, Red Bluff, Calif.
Application December 6, 1955, Serial No. 551,464
1 Claim. (Cl. 47—62)

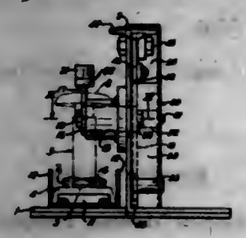
A new and distinct variety of peach tree substantially as herein illustrated and described, characterized as to novelty by ripening during the period between July Elberta and J. H. Hale, the fruit resembling J. H. Hale in its large size and firm flesh, but being an improvement thereover by ripening usually about ten days earlier, and having more red color, being self-fertile, and by not having as many split pits.

# PATENTS

## GRANTED DECEMBER 11, 1956

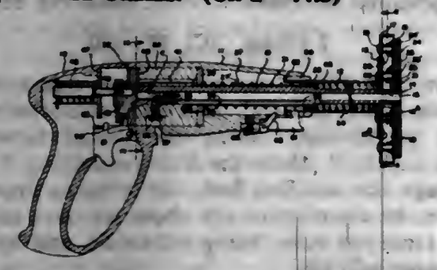
## GENERAL AND MECHANICAL

**2,773,258**
**MECHANICAL ACTUATOR FOR MANUAL STAPLER**
Frank Magidson, Pittsburgh, Pa., assignor to Pittsburgh Tag Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 6, 1954, Serial No. 460,591
9 Claims. (Cl. 1—3)



1. A mechanical actuator for operating a conventional manual stapler having a base and a depressible staple driving plunger, said actuator comprising a base member for receiving and holding the base of the stapler, an upright member secured to the base member, a striking head pivotally mounted on the upright member above and in striking relation to the plunger, spring means operatively connected with the striking head and one of the members for urging the striking head into striking engagement with the plunger, and releasable latch means pivotally mounted on one of the members and operatively connected with the striking head for normally holding the striking head in a cocked position out of engagement with the plunger.

**2,773,259**
**SAFETY SHIELD FOR EXPLOSIVELY DRIVEN TOOLS**
Sidney H. Broughton and Virginius Robert Erickson, Portland, Oreg., assignors, by mesne assignments, to Joseph B. Coz, doing business as Powder Power Tool Co., Portland, Oreg.
Application May 17, 1954, Serial No. 430,288
11 Claims. (Cl. 1—44.5)



1. In a device of the character described for driving projectile fastening elements into a solid work surface, a gun barrel, a housing assembly mounted for limited slidable movement with respect to said gun barrel, spring means holding said housing assembly in normal extended position with respect to said gun barrel but permitting said housing assembly to be moved with respect to said gun barrel against the force of said spring means, a protecting pad on the forward end of said housing for engagement with said work surface, said pad extending about said gun barrel and normally positioned in a plane substantially perpendicular to the bore axis of said gun barrel, a flange on said housing end, a pad-carrying shield mounted on said flange, and resilient means supporting said pad in said shield, whereby said protecting pad will be held over the portion of said work surface surrounding said muzzle when said muzzle tip engages the work and said device is fired.

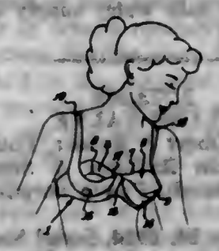
**2,773,260**
**GOGGLES**
Jack B. Hirschmann, Fairhaven, Mass.
Application September 25, 1953, Serial No. 382,327
5 Claims. (Cl. 2—14)



5. A goggle comprising a one-piece frame of flexible material including a front rim defining a single viewing aperture having portions for both eyes of the wearer connected by a portion of reduced vertical extent above the nose of the wearer, a one-piece lens of flexible material adapted to be received within said rim and of substantially complementary shape thereto including a recess in the lower edge thereof for overlying the nose of the wearer, a single continuous front flange on said rim proportioned to overhang and form a substantially continuous seat for the outer marginal strip on the front of said lens, said flange and said rim each including a saddle-like portion for entry in said nose recess in said lens, releasable fastener means mounted on the inside of said front flange and including a releasable fastener member carried by said saddle-like portion of said flange, complementary fastener means mounted in said marginal strip of said lens in position for engagement with said fastener means on said flange, said complementary fastener means including a fastener member located for engagement with said fastener member on said flange to secure said saddle-like portion of said rim within the complementary portion of said lens while providing for release of said lens from said frame by disconnection of said fastener means and deformation of said frame, said frame including a plurality of integral shoulder portions spaced with relation to each other around the inner periphery of said rim and spaced rearwardly with respect to said front flange for cooperation therewith to support said lens from the rear thereof, and releasable means connected with the ends of said frame for mounting said goggle on the head of the wearer.

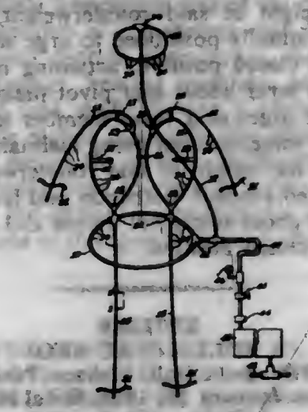
**2,773,261**
**BRASSIERE**
Theo B. Schaumer, Los Angeles, Calif., assignor to Hollywood-Maxwell Co., Los Angeles, Calif., a corporation of California
Application November 14, 1955, Serial No. 546,432
3 Claims. (Cl. 2—42)

1. A brassiere comprising a body encircling member, a pair of breast cups in said member each having a depending essentially arcuate periphery portion, a pair of substantially crescent shaped breast supporters having essentially arcuate convex and concave edges, one supporter associated with each of said cups exteriorly thereof, said supporters being fixedly secured to the brassiere only along said depending peripheries of the cups by the convex edges of the supporters, with the concave edges thereof facing generally upwardly and being unattached to the cups, each supporter thereby overlying a portion of each cup with one end adjacent an inner portion of the respective cup and the other end adjacent an outer portion



of the respective cup, and a pair of shoulder straps each connected directly at one end to the outward portion only of a respective supporter and being otherwise unattached to said cups, said straps substantially forming continuations of both said edges of the supporters, said shoulder straps being joined at their other ends to the body encircling member.

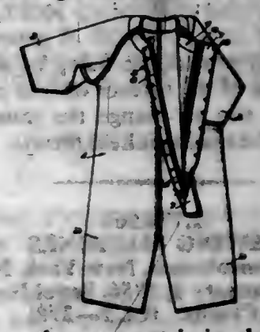
**2,773,262**
**AIR VENTILATION HARNESS**
Lucien A. Brosius, Kennett Square, Pa., Paul E. Smith, Jr., Arden, Del., and John A. Zapp, Jr., Kennett Square, Pa., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application October 14, 1954, Serial No. 462,256
1 Claim. (Cl. 2—81)



An air ventilation harness adapted to be worn adjacent the body comprising an intercommunicating flexible tubing circuit consisting of a waist-encircling section, a pair of arm-receiving loops, a pair of arm feeder lengths and a pair of leg feeder lengths, all adapted for detachable individual attachment to the respective body members hereinabove identified, said tubing being provided with openings disposed in air-sweeping relationship at an angle in the range of about 10–15° to the surfaces of said respective body members, and said tubing circuit being provided with means for connection with a source of cool ventilating air maintained at superatmospheric pressure.

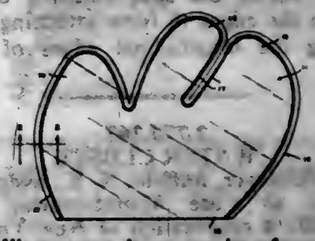
**2,773,263**
**CLOSURE FOR PROTECTIVE SUIT**
Dominic Pompa and Louis Cugini, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application February 21, 1955, Serial No. 489,812
1 Claim. (Cl. 2—96)
(Granted under Title 35, U. S. Code (1952), sec. 266)

In a supplemental closure for the front opening in a garment having zipper means for closing said opening, a flexible strip having one longitudinal edge secured to the garment at one side of the opening and another flexible strip having one longitudinal edge secured to the garment at the opposite side of the opening and both of said strips being substantially coextensive with the length of the opening, one of said strips being of sufficient width to have its free edge folded over the free edge of the



other strip when the garment is in closed position, complementary fasteners on the free edges of the strips to secure them in closed condition, and complementary fasteners on the body of the garment and on the exterior of the folded edge for detachably securing the supplemental closure against the body of the garment, said last-named fasteners being staggered with respect to the first-named fasteners.

**2,773,264**
**PROTECTIVE COVERING FOR THE HANDS**
Lewis E. Nover, Phoenix, Ariz.
Application June 9, 1953, Serial No. 360,416
2 Claims. (Cl. 2—159)



1. A glove-like protective covering for the hand of a wearer which will permit the free handling of comestibles for consumption, said covering being of greater width than length and comprising front and back identical portions produced from substantially thin fluid-proof, transparent and highly flexible sheet material, each of said portions having a relatively straight bottom edge, convex outer side edges and an upper edge formed with two spaced re-entrant portions of substantial depth so as to define a thumb receiving portion, an intermediate index finger receiving portion and an outer portion for receiving the remaining fingers of the hand, the thumb and outer portions being substantially of the same width and each being of greater width than the width of the intermediate portion, the peripheral edges of said front and back portions being substantially aligned and provided with a fluid-proof seal, said seal being inwardly spaced from said edges and following the peripheral contour of said front and back portions to provide a stiffening reinforcement of the same, said seal terminating at said straight bottom edge to provide an opening which extends substantially the full width of the glove-like covering to facilitate the placing of the covering on the hand.

**2,773,265**
**NON-SLIP BONING MATERIAL**
Franklin Dick, New York, N. Y., assignor to Richard A. Fisch, Long Island City, N. Y.
Application August 5, 1953, Serial No. 372,561
2 Claims. (Cl. 2—256)

1. In combination a synthetic boning material comprising a longitudinal strip comprising two incompatible ther-

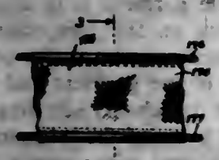
moplastic materials, said strip containing a multiplicity of roughening projections extending upwardly from substantially the entire flat surface regions thereof and a tape-like fabric jacketing the said strip, the depth and



spacing of the said projections being of a size sufficient to catch the surface of the threads of said jacketing fabric but of insufficient size to change the smoothness of the jacket itself when the boning is held therein.

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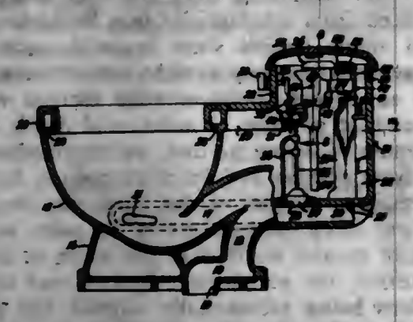
2,773,266
SEWING MACHINES
Max Blumenkrantz, New York, N. Y.
Application January 9, 1956, Serial No. 558,149
2 Claims. (Cl. 2—278)



1. As an article of manufacture, a double welted cushion boxing comprising a longitudinal strip of fabric material, the opposite edge portions of said longitudinal strip being folded about a pair of spaced apart substantially parallel cords and stitched to said longitudinal strip adjacent said cords, the said stitching being disposed inwardly from the edges to form attaching margins, said cords forming the longitudinal edges of said cushion boxing.

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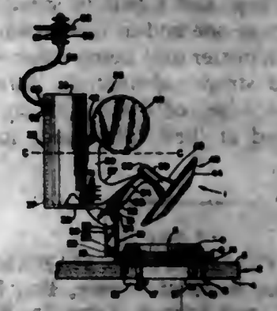
2,773,267
WATER CLOSET
George W. Kohlmeyer, Buffalo, N. Y., assignor, by mesne assignments, to Case Manufacturing Corporation, Robinson, Ill., a corporation of New York
Original application October 19, 1950, Serial No. 191,033. Divided and this application August 22, 1952, Serial No. 305,771
1 Claim. (Cl. 4—13)



In a water closet bowl having a flushing rim, a tank having a flush valve opening arranged below the upper level of said rim and communicating with the interior of said bowl and a flush valve normally closing said opening, the combination therewith of means for supplying water to said rim and also to said tank to form a body of flushing water therein, said means comprising a diverter valve having dual outlets, one of which supplies water to said rim and the other of which supplies water to said tank, the actuation of said flush and diverter valves being related, an imperforate dam wall arranged inwardly of the side wall of said tank to provide jointly therewith a vertically elongated channel which rises above the normal level of said water body and also above said rim, said channel being unfilled with water, a water supply pipe extending through said channel in spaced relation to the surrounding wall thereof and connected to the safe water supply system, a ball cock and an atmospheric vent valve arranged above said level and connecting the upper end of said pipe with the inlet of said diverter valve, whereby the water on the upstream side of said atmospheric vent valve is isolated from contact with water on the downstream side thereof and the likelihood of contamination of the safe water supply system is minimized.

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2,773,268
FLUSH VALVE
Bohdan Hurko and Elbert P. Rohere, Louisville, Ky., assignors to American Radiator & Standard Sanitary Corporation, Pittsburgh, Pa., a corporation of Delaware
Application June 24, 1954, Serial No. 439,039
9 Claims. (Cl. 4—57)



2. In a flushing apparatus, a tank having an upward facing outlet, a valve member seatable on said outlet, a lever secured to said valve member, pivot means for said lever, a counterweight secured to said lever, means to decrease the weight of said counterweight, said counterweight being initially positioned to urge said valve member toward a closed position, actuating means operable to rotate said lever about said pivot means so that said counterweight urges said valve member toward an open position, said valve member being maintained in an open position until the weight of said counterweight decreases a predetermined amount thereupon said lever being operable to rotate about said pivot means and seat said valve member in a closed position.

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2,773,269
ROLL-A-WAY BED
William A. Holt, Mebane, N. C.
Application January 26, 1954, Serial No. 406,109
1 Claim. (Cl. 5—152)



A folding bed comprising a pair of upper frame members, a pair of upper horizontal stationary bars disposed between the inner ends of said members, means pivotally securing said frame members to the ends of said upper bars, a pair of vertical bars fixed one to each of said upper horizontal bars, a lower horizontal bar fixed to the lower end of each vertical bar, casters secured to the



outer ends of each lower bar, a pair of oppositely extending links pivotally connected at their inner ends to the outer ends of each lower bar, a pair of vertical outer end bars, a connecting bar fixed between each pair of said end bars, means pivotally securing the outer ends of said links to the lower ends of said outer end bars, a caster at the lower end of each outer end bar, means pivotally securing the upper ends of said outer end bars to said frame members, a pair of wheels rotatably carried by one pair of links, a common flexible sheet for said frame members, a wire fixed in the marginal edges of said sheet, a plurality of suspension springs secured between said frame members and said sheet, a substantially U-shaped latch bar fixed to the outer end of one frame member and formed with a keeper opening, and a latching pin carried by the outer end of the other frame member engageable with said keeper for holding said frame members in folded position.

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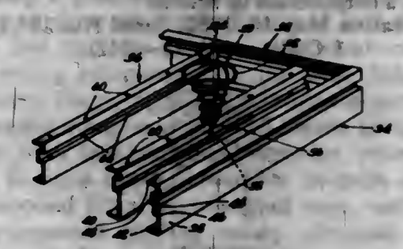
2,773,270
ADJUSTABLE INNERSPRING UNIT
Rexford A. Roselle, Chicago, Ill., assignor to Nachman Corporation, Chicago, Ill., a corporation of Illinois
Application September 13, 1952, Serial No. 309,438
19 Claims. (Cl. 5—253)



4. An adjustable innerspring unit of the class described comprising a plurality of coil springs each having convolutions of different degrees of resilience, shafts extending through said springs, bearing members supporting said shafts, each of said shafts having a plurality of offset portions, flexible means connecting the offset portions of the shafts, and means for moving said flexible means and shifting said shafts from inactive to active position, the offsets of said last-named shafts engaging and rendering rigid convolutions of coil springs through which said shafts extend.

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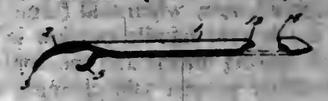
2,773,271
FURNITURE STRUCTURE
Justin J. Wetzler, Evanston, Ill., assignor to The Englander Company, Inc., Chicago, Ill., a corporation of Delaware
Application November 8, 1954, Serial No. 467,263
10 Claims. (Cl. 5—264)



6. In a furniture structure, the combination comprising a frame including a pair of side frame members and a plurality of metal transverse frame members extending between and secured to said side frame members, each of said transverse frame members having a plurality of spaced superposed and integrally interconnected portions and a plurality of spaced sets of generally aligned aperture means in said frame portions, and a plurality of coil springs each disposed on one of said transverse frame members, each of said springs including a generally axially projecting wire section extending into one of said sets of aperture means, said transverse frame members including integral means defining portions of said aperture means and engaging said wire sections to restrain withdrawal of the wire sections from the aperture means.

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2,773,272
COMBINATION CAN AND BOTTLE OPENER
George R. Harrah, Essex, Conn.
Application April 5, 1950, Serial No. 154,161
3 Claims. (Cl. 7—14.25)



1. A can opener comprising a unitary sheet metal blank shaped to form a cutting tip, a handle, and a hook for engaging under a bead of a can to act as a fulcrum for forcing the cutting tip into the top of the can, the handle and tip being arched in cross section reversely to each other, the tip being concave and the handle convex on the hook side of the opener.

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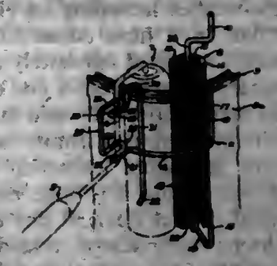
2,773,273
BOAT HULL CONSTRUCTION
Theodore R. Drake, Long Beach, Calif.
Application January 16, 1953, Serial No. 331,525
1 Claim. (Cl. 9—6)



In a method for making a pattern for pieces of material for use in the construction of a boat hull portion having compound curved surfaces, comprising: placing a relatively thin and generally flat sheet of material on a boat hull form; conforming the sheet to the desired compound curved surface of said form; adjusting a rigid straight edge tool along the exposed surface of the sheet until contact is made all along said surface by the straight edge; scribing a line on said surface along said straight edge; pivoting said straight edge about a point on said line until contact is again made all along said hull by said straight edge and scribing a second line along said straight edge thereby making a V-shaped mark; similarly scribing a set of lines, each parallel to and spaced from the lines forming the V; and cutting the thin sheet of material along said lines in generally V-shaped parts.

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2,773,274
CLEANING APPARATUS FOR PAINT APPLICATOR ROLLERS AND THE LIKE
James F. Beech, Battle Creek, Mich.
Application November 29, 1954, Serial No. 471,590
10 Claims. (Cl. 15—3)



1. In a cleaning device for a paint applicator of the type comprising an applicator roller, and a handle for

said roller having a lateral portion behind and spaced a short distance from the latter; a frame to engage the side wall of a can containing a solvent, a cleaning roller for vertical disposition in the can, said cleaning roller having an operating member at its upper end by means of which it may be rotated, bearing means mounting said cleaning roller on said frame, and additional bearing means on said frame positioned for disposition at the exterior of the can side wall to receive the lateral portion of the applicator handle when this lateral handle portion is positioned vertically; whereby when said frame is mounted on the can and the lateral handle portion is engaged with said additional bearing means and the applicator roller is positioned vertically against said cleaning roller, the applicator handle may be pivotally moved to press the applicator roller against said cleaning roller and the latter may be rotated, thereby rotating and cleaning the applicator roller.

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**2,773,275**
**BRUSH ASSEMBLY**
**Ruben O. Peterson, University Heights, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio**
**Application November 10, 1950, Serial No. 195,011**
**3 Claims. (Cl. 15—77)**



3. A rotary brush comprising an arbor, a plurality of axially spaced annular discs of different diameters mounted thereon for rotation therewith, axially spaced sheet metal channel members secured to said discs and forming a series of circumferentially arranged alignments extending generally longitudinally of the brush assembly, said channel members opening radially outwardly and being axially spaced from one another in each such alignment, lengths of brush strip inserted in said channel members of such respective alignments, said brush strip comprising an elongated back portion with brush material of uniform length of trim retained therein and extending therefrom, and pins extending transversely through the side walls of said channel members and penetrating said brush material, said pins overlying the side edges of said back portions of said lengths of brush strip adapted to prevent escape of the latter from said channel members in use, the diameters of said respective discs being selected to afford the desired longitudinal contour of the brush.

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**2,773,276**
**LOUVER WINDOW-WASHER**
**Adolph G. Pape, Topeka, Kans.**
**Application June 9, 1954, Serial No. 435,499**
**1 Claim. (Cl. 15—130)**

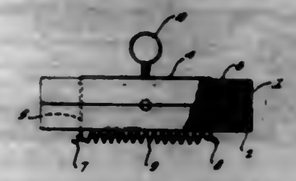
A louver window-washer including an elongated fluid-supplying tubular handle, a hose connection at one end of said tubular handle, a pair of oppositely disposed tubular extension loops carried by the other end of said handle, each loop being in connection with said tubular handle, said loops being in parallel conformity and in spaced relation and having scrubbing elements thereon, each scrubbing element comprising a sponge member having an interiorly-extended pocket open at one end only, said tubular extension loops being seated in said pockets, said sponge members being of rectangular configuration and having opposed contacting flat surfaces to provide maximum opposed confronting cleaning surfaces adapted simultaneously to clean opposite surfaces of a louver, and fluid exit openings in each tubular extension loop contact-



ing a surface of said sponge member to provide a maximum fluid distribution therethrough.

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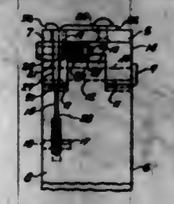
**2,773,277**
**OIL DIP STICK WIPER**
**Raymond A. Souter, Bellflower, Calif.**
**Application January 16, 1956, Serial No. 559,158**
**1 Claim. (Cl. 15—210)**



An oil dip stick wiper comprising a pair of pads, said pads being formed of a nonmetallic, flexible and oil absorbent material, one of the surfaces of said pads bearing against a like surface of the adjacent pad, a metallic clip securing said pads in juxtaposition, said clip being formed with a finger at each end thereof, said fingers extending transversely through said pads and one end of the fingers projecting beyond a pad, a loop formed on said clip between said fingers, and a coil spring attached at each end to the projecting ends of the fingers, said coil spring bearing against one of said pads throughout the length of said spring.

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**2,773,278**
**AUTOMOBILE DOOR HINGE EMBODYING HOLD-OPEN MEANS**
**Seth B. Atwood and Agnar Johnson, Rockford, Ill., assignors to Atwood Vacuum Machine Company, Rockford, Ill., a corporation of Illinois**
**Application May 10, 1952, Serial No. 287,168**
**1 Claim. (Cl. 16—141)**



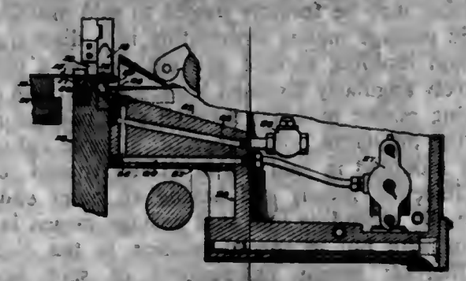
A hinge for a vehicle door comprising first and second elongated hinge members connected together at one end for relative pivotal movement through a predetermined angle, one of said hinge members being adapted to be mounted on a body pillar of the vehicle and the other adapted to be mounted on and for movement with the door pillar, said hinge members being disposed in side-by-side relation in the closed position of the door, an elongated longitudinally slotted link pivotally connected at one end to said first hinge member in radially spaced relation to the hinge axis, said second hinge member



being provided with a slot in radially spaced relation to the hinge axis, said link passing through said slot, a projection on said second hinge member extending parallel with said link and adjacent one side thereof at the slot through which said link passes, a bolt extending through an aperture in said projection and passing through the slot in said link, a friction drag plate on said bolt abuttting said link at the side away from said projection, spring means on said bolt having one end thereof bearing against said projection and the opposite end reacting against a nut on said bolt and urging said bolt axially in the direction to cause said drag plate to frictionally resist sliding movement of said link between said drag plate and projection, a flat portion on said nut slidably engaging said second hinge member to prevent the nut from turning with the bolt, the end portion of said link opposite the pivotally connected end being relatively thick to effect a comparatively high degree of friction drag on said link when the movable one of said hinge members has been moved away from the other hinge member to a position corresponding to the open position of the door thereby retaining said movable hinge member and door in the open position, the remaining longitudinal portion of said link being relatively thinner thereby to effect a comparatively much lower degree of friction drag thereon exerted by said drag plate and projection for movement of said movable hinge member and door between the closed and open position.

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**2,773,279**
**APPARATUS AND METHOD FOR APPLYING SIDE SEAM SEALING COMPOUND TO CAN BODY BLANKS**
**Edwin L. Albright, Glenview, Ill., assignor to Continental Can Company, New York, N. Y., a corporation of New York**
**Application July 15, 1955, Serial No. 522,281**
**20 Claims. (Cl. 18—1)**

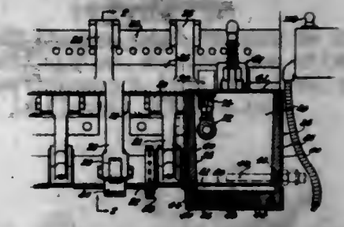


1. An apparatus for applying side seam sealing compound to a can body blank of a type having a hook flange joined by a bight to the contiguous portion of the blank; said apparatus comprising means for feeding the blank along a predetermined path with the hook flange of the blank disposed longitudinally of said path, means adjacent said path for directing an overabundant quantity of sealing compound into the zone defined jointly by the hook flange, bight and contiguous portion of the blank, sealing compound plowing means advanced along said path from said compound directing means and constructed to plow out a substantial quantity of the surplus compound from the aforesaid zone, and additional sealing compound plowing means advanced along said path from the first mentioned plowing means and constructed to plow out the remainder of the surplus sealing compound.

18. A method of applying side seam sealing compound to can body blanks each having a hook flange joined by a bight to the contiguous portion of the blank; said method comprising the steps of feeding the blanks along a predetermined path with their hook flanges disposed longitudinally of said path, at one point on said path injecting an overabundant quantity of sealing compound into the zone defined by the hook flange, bight and contiguous portion of each blank, at a more advanced point on said path plowing out substantially half of the surplus compound from the aforesaid zone, and at a still further advanced point on said path plowing out the remainder of the surplus compound from said zone and troweling the compound left on said hook flange, bight and contiguous portion of the blank.

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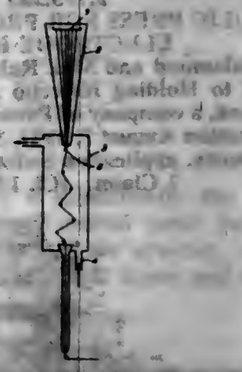
**2,773,280**
**CONTAINER SIDE SEAM SEALING COMPOUND APPLYING APPARATUS AND METHOD**
**Edwin L. Albright, Glenview, and Philip F. Catalano, Chicago, Ill., assignors to Continental Can Company, Inc., New York, N. Y., a corporation of New York**
**Application July 13, 1954, Serial No. 443,022**
**21 Claims. (Cl. 18—1)**



1. In apparatus of the character described, a sealing compound distributing plow, means for placing a can body blank with a longitudinal seam hook thereon having a sealing compound applied therein in accurate cooperative relation to said plow for having the plow engage the sealing compound within the hook, and means for bringing about relative movement along a straight line between said plow and said hook with the plow extending into and engaging in the hook while said accurate cooperative relation is maintained for causing the plow to distribute the sealing compound evenly throughout the whole length of the hook.

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**2,773,281**
**METHOD AND APPARATUS FOR SPINNING HIGH STRENGTH SILK FROM CUPRAMMONIUM CELLULOSE SOLUTIONS**
**Viktor Ehrenner, Leverkusen, Germany, assignor to J. P. Bemberg Aktiengesellschaft, Wuppertal-Oberbarmen, Germany, a joint-stock company of Germany**
**Application April 7, 1953, Serial No. 347,208**
**2 Claims. (Cl. 18—8)**

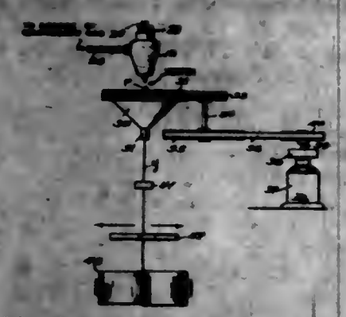


1. The method of producing filaments of high tensile strength from cuprammonium cellulose solutions which comprises passing the filaments into a funnel shaped bath, allowing the filaments to partially coagulate in said bath so that at the end of the bath the filaments have an optimum viscosity of 50,000 to 60,000 poises, passing the filaments into a second bath, subjecting the filaments to the action of braking means for the filaments so as to increase the length of travel and uniformly apply stretching tension, and drawing off the filaments at the end of the second bath at more than twice the speed of the filaments at optimum viscosity whereby the filaments have been stretched to less than half their section at the point of optimum viscosity, the length of filament path in said second bath and the drawing off velocity being such

that the time of filament passage from the point of optimum viscosity through the second bath is at least 0.6 second.

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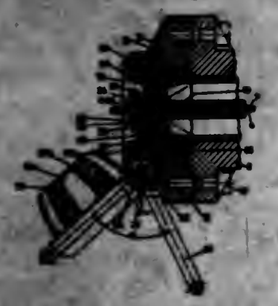
2,773,282
**METHOD OF AND APPARATUS FOR SPINNING YARNS**
Stanley Backer, Cambridge, Mass.
Application January 17, 1950, Serial No. 139,110
5 Claims. (Cl. 18—9)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In combination, a nozzle having a connection with a supply of compressed gas and having a fluent material inlet and a discharge end and constructed and arranged to deliver a whirling blast of the gas flowing at supersonic velocity to a point outside of said discharge end so that the fluent material is disrupted at said point; a rotatable filament-collecting and yarn-forming member located just below said point and having a surface adapted to receive all the filaments formed by the action of the nozzle, said member having means mounted on its filament-receiving surface and engaging all the filaments so received and twisting them into a yarn, and an exit tube fixed to and extending out from the center of said member and receiving and discharging said yarn, said member being in the form of a funnel with flutes fixed to and upstanding from the upper frusto-conical face of the funnel, said flutes being spaced at their inner ends from the entrance to the exit tube and being arranged substantially radially relative to the axis of the exit tube.

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2,773,283
**HYDRAULIC PRESS FOR PRODUCING COATED ELECTRODE RODS**
Georges Maisonneuf and Max Rubli, Zurich, Switzerland, assignors to Holding Intercito S. A., Zurich-Oerlikon, Switzerland, a company of Panama
Application August 7, 1951, Serial No. 240,740
Claims priority, application Switzerland August 9, 1950
1 Claim. (Cl. 18—13)



A hydraulic press for the manufacture of coated electrode rods, said press comprising, in combination, a pressure cylinder, an extruding cylinder extending coaxially with said pressure cylinder and having a rear end connected with said pressure cylinder and an open front end, a common piston rod for both cylinders, said piston rod having an axial bore formed therein for the core wire, a flange ring upon the front end of said extruding cylinder and having formed thereon sections of spherical threads and grooves between said sections, a cover cap having sections of spherical threads adapted to mesh with the spherical thread sections of the flange ring and being at most as large as said grooves, whereby a rotation of said cover cap will engage said cap with said flange ring and will interrupt this engagement, a pin rotatably mounted in said flange ring transversely to the direction of said cylinders, a ring rotatably supporting said cover cap and said ring and having a slot formed therein, a worm gear segment connected with said cover cap and freely movable to a limited extent in said slot, a worm keyed upon said pin and meshing with said worm gear segment, and a hand lever swingable with said pin, whereby an initial swinging of said hand lever will turn said cover cap to unlock the same, whereupon said cover cap is swingable along with said lever.

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2,773,284
**DIE CONSTRUCTION FOR PRESSURE INJECTION MOLDING MACHINES**
George W. Kelly, Columbus, Ohio, assignor to Columbus Plastic Products, Inc., Columbus, Ohio, a corporation of Ohio
Application March 13, 1953, Serial No. 342,169
2 Claims. (Cl. 18—30)

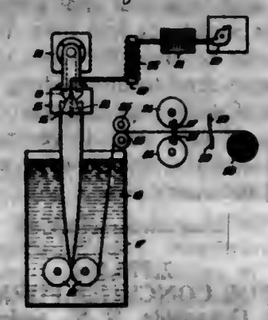


1. In an injection molding machine; a die having a molding surface and passage means through which plastic materials may be forcibly passed to said molding surface; said passage means terminating in a discharge orifice at said molding surface and embodying a plurality of relatively angularly disposed branches; injection means for forcing plastic material through said passage means toward the discharge orifice thereof; a sprue cut-off pin movably mounted in said die in axially spaced relation to said injection means and having an outer end, said pin normally extending into said passage means in axial alignment with but in spaced relation to the discharge orifice thereof; means independent of said injection means for moving said pin in the general direction of flow of plastic material toward said discharge orifice and to a position at which said pin closes the orifice of said passage means and is disposed in substantially flush relation to said molding surface; said pin-moving means embodying a lever pivotally mounted on said die and connected at one end with said sprue cut-off pin for moving the same between positions of orifice opening and closure; a cylinder mounted on and disposed exteriorly of said die; a fluid-actuated piston slidably mounted in said cylinder, said piston carrying a rigid rod that extends exteriorly of the cylinder; and means articulately joining the rod at its outer end with said lever.

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2,773,285
**METHOD OF MAKING STERILE CONTAINERS**
Thomas E. Pierce and Thomas E. Baxter, Mount Vernon, Ohio, assignors, by mesne assignments, to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application November 6, 1947, Serial No. 784,430
2 Claims. (Cl. 18—47.5)

1. A continuous process of forming sterile containers comprising extruding a thermoplastic material in the form of a hollow tubular body, supplying a fluid medium within the tubular body which is heated to a temperature sufficient for sterilization, maintaining the interior of the tubular body in sterile condition, flattening the tubular body and thereby removing the fluid medium from the tubular body, and transversely sealing the tubular body



at spaced intervals while maintaining the interior thereof in sterile condition to provide a plurality of integrally connected containers which are adapted to remain free from internal contamination until they are individually severed.

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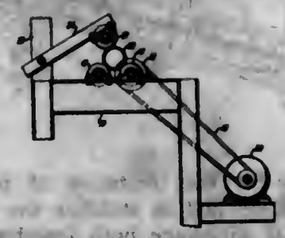


2,773,286
**PROCESS OF FORMING NON-WOVEN POROUS FIBROUS SYNTHETIC LEATHER SHEET**
John Augustus Piccard, Swarthmore, Pa., and Boynton Graham, Claymont, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application July 29, 1952, Serial No. 301,603
5 Claims. (Cl. 18—48)

1. The process of forming non-woven porous fibrous sheet which comprises forming a non-woven fibrous sheet comprising essentially structural fibers from the group consisting of staple fibers of synthetic linear polyamide, polyethylene terephthalate, polymers of acrylonitrile, polyvinyl acetals, regenerated cellulose, cotton and wool, from 40% to 70% by volume based on the total volume of the sheet, of pore-forming fibers selected from the group consisting of polyvinyl alcohol, cellulose acetate, sodium alginate and carboxymethyl cellulose, and a soft elastomeric binder material having a flow temperature below the deformation temperature of said fibers, the weight ratio of structural fibers to binder material being within the range of from 1:2 to 2:1, hot pressing said sheet at a temperature above the flow temperature of the binder and below the deformation temperature of said fibers, and thereafter extracting said pore-forming fibers from the sheet with a liquid which is a solvent for said pore-forming fibers and a non-solvent for said structural fibers and binder material whereby said structural fibers are substantially uniformly distributed throughout said porous sheet.

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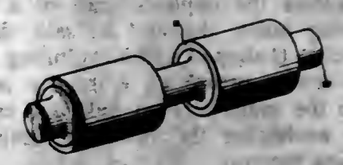
2,773,287
**METHOD OF MANUFACTURING PLASTIC PIPE**
William H. Stout, Portland, Oreg.
Application July 14, 1952, Serial No. 298,690
4 Claims. (Cl. 18—58.3)



1. A method of forming high strength plastic pipe which comprises disposing a mat of glass fiber against and around the inner surface of a tubular member, rotating said member about its longitudinal axis, successively depositing within said rotating member a quantity of thermosetting resin and a quantity of relatively dense granular sand-like materials of specific gravity higher than that of said resin whereby to exert pressure on said fibers during rotation while said resin infiltrates between and around said fibers and coats said granular material, and thereafter subjecting said resin to heat to effect the thermosetting thereof while continuously rotating said member, whereby a high strength plastic pipe is obtained characterized in structure by an outer portion enriched in said glass fibers substantially dispersed as a plurality of layers through said resin, and an inner portion enriched in said granular sand-like material.

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2,773,288
**TEXTILE COT**
Joseph Rockoff, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
Application February 9, 1952, Serial No. 270,805
6 Claims. (Cl. 19—143)



1. A textile fiber drafting cot having a working surface made of an oil-resistant synthetic rubber-like material as the essential constituent and having intimately incorporated therewith discrete particles of polyvinyl alcohol to effect modification of the drafting properties thereof, the particles which are exposed at the surface of the cot being minutely swollen by the absorption of moisture to provide a fiber-working surface having such swollen particles embedded in the oil-resistant rubber-like material.

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2,773,289
**HIGH FREQUENCY WINDOW STRUCTURE**
Stuart T. Martin, Dedham, and Marshall C. Pease, Needham, Mass., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application May 6, 1949, Serial No. 91,728
5 Claims. (Cl. 20—40)



1. A window having a substantially flat rectangular metal frame, an apertured central metal panel, a glass closure sealed to the edges of the aperture, and an oval yielding connection between said frame and said panel.

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2,773,290
**FOUNDRY FLASK CONSTRUCTION**
William G. Reichert, Newark, N. J.
Application August 13, 1954, Serial No. 449,653
15 Claims. (Cl. 22—101)



6. In combination, a flask section having an end wall formed with a notch in an edge thereof, a pattern plate secured to said flask section, and a cover plate secured to one end of the pattern plate and aligned with said end wall notch and received in and closing the latter to prevent sand flowing therethrough.

2,773,291
BALE TIE
Frank A. Teeple, Jr., Atlanta, Ga., assignor to Atlantic Steel Company, Atlanta, Ga., a corporation of Delaware
Application June 10, 1954, Serial No. 435,797
2 Claims. (Cl. 24—26)



1. A fastening device of the character described for bale bands having fastening holes at their ends, comprising a one-piece rigid rod-like member having a neck, a shank integral at one end with and extending sidewise from one end of said neck, and an end portion extending at a slant from the opposite end of said neck, said neck and slanting end constituting a hook adapted to hook together the opposite ends of a bale band at their fastening holes, the end of said shank opposite said neck being U-shaped and constituting a handle and having a sidewise projecting extremity adapted to be pressed into the material of a bale and constituting an anchor for anchoring the fastening device to a bale against turning thereon.

2,773,292
PIN STEM FINDING
Alfred E. Sauer, Warwick, R. I., assignor to B. A. Ballou & Co., Incorporated, a corporation of Rhode Island
Application January 7, 1954, Serial No. 402,782
3 Claims. (Cl. 24—157)



1. A pin stem finding comprising ears secured together at their lower extremity and spaced to provide a slot between them, said ears having an anchor portion adjacent their lower extremity for mounting in a molded article and a barrier extending across said slot at a location above the point of connection of said ears together to block the molded material of said article flowing upwardly in said slot.

2,773,293
EAR CLIP
John R. Watson, Bristol, R. I., assignor to B. A. Ballou & Co., Incorporated, a corporation of Rhode Island
Application June 18, 1954, Serial No. 437,628
8 Claims. (Cl. 24—252)



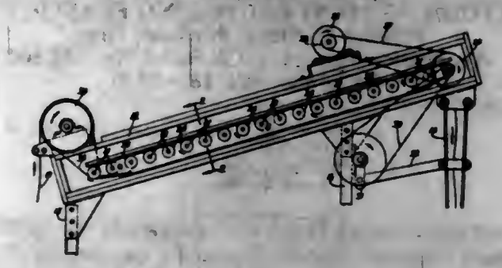
1. An ear clip comprising a U-shaped member one leg of which forms a relatively stationary ear lobe engaging jaw and the other leg of which has spaced openings at the terminal end thereof and a cam surface adjacent each of said openings inwardly thereof converging toward the bridge portion between said legs, an ear lobe clamping jaw having a pair of resilient arms with the terminal ends thereof extending in the space between said openings into engagement with said cam surfaces and each having an outwardly projecting trunnion pivotally received in one of said openings to mount said clamping jaw to swing in the space between said legs, said cam surfaces being spaced from each other a distance less than the normal spacing between said arms to press the same toward each other whereby said arms tend to move along said cam surface in the direction of widest spacing thereof in consequence of the tendency of said arms to recover to the normal spacing thereof and thereby to swing said clamping jaw toward the said stationary jaw.

2,773,294
CLAMPS FOR CONCRETE FORM TIE RODS
Alan H. Pilling, Oceanside, N. Y., assignor to Richmond Screw Anchor Company, Inc., New York, N. Y., a corporation of New York
Application December 6, 1954, Serial No. 473,119
7 Claims. (Cl. 25—131)



6. A clamp for fitment on a ribbed concrete reinforcing bar comprising, a pair of similarly-shaped arcuate, semi-cylindrical segments co-operating to form a cylinder when placed together, a concrete reinforcing bar placed between the segments and grippingly engaged thereby and held against longitudinal movement through the cylinder formed by the segments, the bar being provided with a plurality of separate, spaced-apart annular ribs, the interior surface of each segment having separate, spaced-apart grooves for closely fitting over the ribs and holding the bar against longitudinal movement, the arrangement of ribs and co-operating grooves being such as to prevent entry of the bar between the segments or its removal from between the segments except when the segments are in separated relationship, the outer surfaces of the segments being provided with screw threads, and an adjusting member in the form of spaced rods provided with a rigid helix secured between them and having said rigid helix disposed in threadable engagement with said threads.

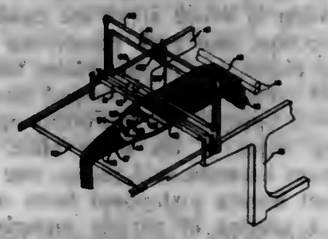
2,773,295
APPARATUS AND METHOD FOR TREATMENT OF TEXTILE FABRICS
Donald C. Glassford, Philadelphia, and Frank R. Redman, Yardley, Pa.; said Glassford assignor to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application March 25, 1953, Serial No. 344,582
12 Claims. (Cl. 26—18.5)



1. Apparatus for the treatment of textile fabric to minimize shrinkage and to stabilize the fabric with respect to residual shrinkage both lengthwise and widthwise, comprising a treatment chamber having an inlet to receive the fabric and an outlet spaced from the inlet to discharge the fabric after treatment, a plurality of successive fabric-supporting rotatable members arranged in a row the full distance between said inlet and said outlet, said members extending transversely within said chamber and being closely spaced relative to one another lengthwise of the chamber, said members being identical with one another in shape and size and being of uniform cross-section throughout their length to support the fabric at a plurality of longitudinally-spaced narrow areas extending continuously the full width of the fabric, the fabric being completely free in the spaces between said areas, means for rotating said members in the same direction and at the same angular speed to effect movement of the fabric from said inlet to said outlet at a substantially constant rate, and to effect substantially uniform wave-like flexing motion of the fabric throughout the entire distance between said inlet and said outlet, whereby to effect working of the yarns and fibers of the fabric in relaxed condition, and means for applying steam to the fabric while it is being worked.

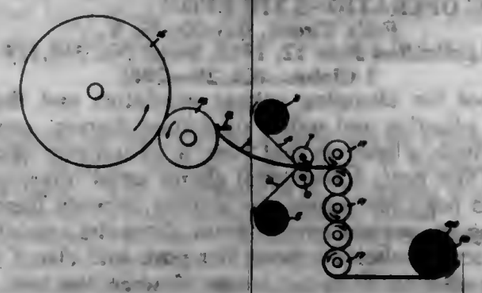


2,773,296
FABRIC CONTROL APPARATUS
Samuel Cohn and Eugene Cohn, New York, and Jules G. Walter, Manhasset, N. Y., assignors to Samcoe Holding Corporation, Woodside, N. Y., a corporation of New York
Application June 5, 1953, Serial No. 359,875
19 Claims. (Cl. 26—55)



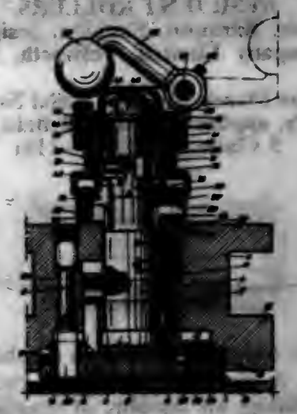
1. In combination with a device for spreading a tubular textile fabric to flattened form as it is advanced thereover, a rotatable member supported by said device for rotation in a plane substantially normal to the plane of the flattened fabric and adapted to lie within the tubular fabric passed over said spreader to engage one layer thereof, the fabric engageable surface of said rotatable member lying a substantial distance from the plane in which said one layer of fabric is normally disposed by said spreading device whereby the tubular fabric is distended substantially in two directions in passage over said spreading device and said rotatable member, and means to adjust said rotatable member to change the angle of its plane of rotation relative to the direction of advance of said tubular fabric.

2,773,297
PROCESS AND APPARATUS FOR MAKING YARN AND FABRIC
Louis M. Cotchett, Whitman, Mass.
Application August 30, 1951, Serial No. 244,409
8 Claims. (Cl. 28—1)



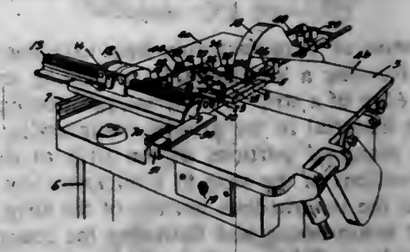
1. Apparatus for making sheet material containing vegetable fibers comprising in combination a carding machine producing a thin fleece of such fibers, means supplying thermoplastic material in sheet form, rolls feeding the fleece between two sheets of thermoplastic material, and means for melting the thermoplastic and combining the fleece and sheets into a single composite sheet thus embedding all the fibers in the thermoplastic material in their original relation as received from the carding machine.

2,773,298
VERTICALLY ADJUSTABLE TURRETS FOR MACHINE TOOLS
Henri René Bruet, Paris, France, assignor to Societe Anonyme dite: "Etablissements Carnoeuve," La Plaine Saint-Denis, France, a French company
Application March 1, 1955, Serial No. 491,411
Claims priority, application France March 20, 1954
7 Claims. (Cl. 29—35.5)



1. A rotary turret for machine tools, comprising a stationary base, an upright fixedly connected to said base, a socket slidingly mounted on said upright and having the lower end thereof provided with a frusto-conical surface, an angularly adjustable body coaxial with said socket and having the lower end thereof provided with a frusto-conical surface the angle of which is equal to that of the first-mentioned frusto-conical surface and facing the opposite direction with reference to the axis of said upright, radially sliding members having their opposite ends bevelled for engaging the frusto-conical ends of said socket and of said angularly adjustable body respectively, means for adjusting the axial longitudinal location of said angularly adjustable body with reference to said socket and means engaging said upright for locking said socket and said angularly adjustable body.

2,773,299
SHELL HIGH TRIMMING ATTACHMENT
Robert J. Mack, Plainview, Minn.
Application July 21, 1952, Serial No. 300,048
5 Claims. (Cl. 29—67)



1. In a printer's material-trimming saw comprising a worktable, a driven saw blade, a workholding clamp and a gauge frame including a measuring bar and a finger; an attachment for holding a slug of type, whereby said slug may be accurately trimmed in height by said saw blade; said attachment comprising a base provided with a plurality of adjustable screw members extending outwardly from said base on a plane parallel thereto, a top clamp member mounted over said base for vise-like co-

operation therewith, and means for advancing and retracting said top clamp member toward and away from said base whereby portions of said base and clamp member will provide opposed gripping jaws; said base and top clamp member being mounted on said worktable with one of said adjustable screw members in abuttment against said measuring bar, a second of said adjustable screw members in abuttment against said finger, and said gripping jaws extending at right angles to the axis of rotation of said driven saw blade, said attachment being provided with a member for holding said attachment against said finger, said attachment being maintained in position on said worktable by said workholding clamp.

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**2,773,300**
**RESILIENT ROLLERS**
**Henry Clements, Surbiton, England, assignor to Andre Rubber Company Limited, Tolworth, Surbiton, England**
**Application March 30, 1953, Serial No. 345,315**
**Claims priority, application Great Britain July 24, 1952**
**5 Claims. (Cl. 29—116)**



1. A resilient roller comprising in combination a cylindrical spindle, a plurality of smooth-bored cylindrical units each including an annulus of elastomeric material assembled in juxtaposition on said spindle, said units when so assembled forming annular open end receptacles for lubricant with said open end facing the periphery of said spindle, and means for axially compressing said units together detachably mounted on and connected to said spindle, each said unit having two faces lying in planes normal to the axis of the unit and having formed in one of said faces at least one circumferential groove and in the other of said faces at least one complementary circumferential rib engaging with the respective circumferential groove of an adjacent unit.

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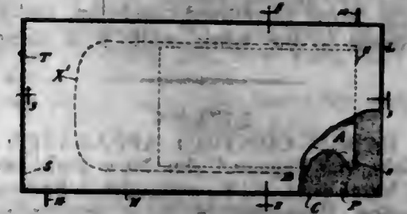
**2,773,301**
**METHOD OF MAKING HEAT EXCHANGE UNIT**
**John Karnazin, Grosse Ile, Mich.**
**Application November 21, 1950, Serial No. 196,889**
**1 Claim. (Cl. 29—157.3)**




The method of manufacturing heat exchangers which comprises forming a longitudinally extending groove adjacent one edge of a strip of material, positioning a length of bonding material in the groove, compressing and flattening the marginal portions of the strip to reduce the marginal portions of the strip to a thickness less than the thickness of the intermediate portion of the strip, utilizing the step of compressing and flattening the marginal portions to simultaneously securely embed and condense all of the bonding material entirely within the confines of the groove, forming the strip into tube formation with the reduced marginal portions in overlapping contacting relationship so as to form a longitudinally extending seam, cutting the tube thus formed into relatively short sections, passing the short sections of tubing through aligned openings provided in a series of spaced fins, applying heat to the assembly only for a sufficient time to fuse and expand the bonding material to cause enough flow thereof into the seams of the tubes and onto the outer surfaces of the tubes so as to properly braze the seams and bond the fins to the tubes, and thereafter cooling the assembly so as to prevent further flow of bonding material.

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**2,773,302**
**PACK FOR MAKING ROLLED ALUMINUM CLAD PLATE**
**Thomas T. Watson, Coatesville, Pa., assignor to Lukens Steel Company, Coatesville, Pa., a corporation of Pennsylvania**
**Application June 21, 1951, Serial No. 232,818**
**3 Claims. (Cl. 29—196.2)**



1. A pack for making rolled aluminum clad plate, said pack being rectangular in shape and having a leading edge and a trailing edge considered with relation to a rolling operation in which all of the passes are made in the same direction, said pack comprising a pair of rectangular steel plates, one of said plates being larger than the other and symmetrically arranged thereover with its edges extending beyond and uniformly spaced from the corresponding edges of the other plate, a rectangular aluminum sheet between said plates, one of said plates and said sheet having juxtaposed faces in contact with each other, a coating of parting material between the other face of said sheet and the adjacent face of the other plate to prevent bonding of said sheet to the other plate, said plates forming the outside layers of said pack and said sheet having an area substantially less than the area of either of said plates and having its edges spaced inwardly from the edges of said plates, said sheet being nearer the leading edge of said pack than the trailing edge to form a relatively large space between said sheet and the trailing edge of said pack to receive a substantial portion of said sheet as it is extended thereinto under the pressure of a rolling operation, the corners of said sheet adjacent the leading edge of said pack being tack welded to the larger plate to prevent bodily shifting of said sheet with respect to said plates, the portions of said plates adjacent the sides of leading edge of said pack being inclined toward and into contact with each other, and a continuous weld hermetically sealing the edges of said plates.

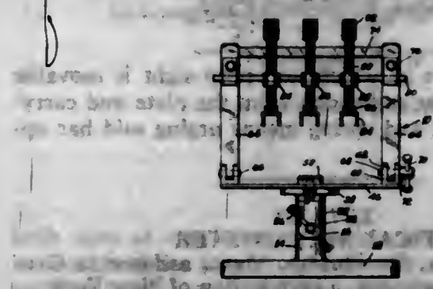
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**2,773,303**
**TOOL FOR CLAMPING VOLTAGE REGULATORS AND THE LIKE DURING ADJUSTING AND SETTING OPERATIONS THEREON**
**Felix Throne, Bayside, N. Y.**
**Application June 12, 1953, Serial No. 361,129**
**1 Claim. (Cl. 29—286)**

A tool for clamping voltage regulators and the like during adjusting and setting operations thereon, comprising: a base, a post on said base, a second post disposed on the first post, a horizontal clamp screw interconnecting said posts and serving as a pivot between them and enabling the second post to pivot about the axis of said clamp screw relative to said first post, said clamp screw serving also as clamping means between the two posts to clamp the second post in selected fixed positions relative to the first post, a bracket rotatably mounted on the second post for rotary movement about the longitudinal axis of said second post, a set screw interengaging said bracket with said second post to lock said bracket in



selected fixed positions relative to said second post about its longitudinal axis, a platform mounted on said bracket, a pair of bearings on said platform, an upright frame mounted on said bearings for pivotal movement about an axis which is situated adjacent the platform and parallel thereto, a clamp screw comprising one of said bearings and adapted to clamp said upright frame in selected fixed positions about said last mentioned axis, a pair of spaced parallel guide tracks supported on said upright frame in perpendicular relation thereto, a pair of carriages slidably mounted on said guide tracks, a pair of guide rods mounted on said carriages in spaced parallel relation to each other, laterally of said guide tracks, a plurality of slides mounted on said guide rods for movement along said guide rods toward and away from each other, adjusting screws in said slides which are adjustable relative to said slides toward and away from the platform, and inverted U-shaped yokes swivelly mounted on said adjusting screws for engagement with a voltage regulator mounted on said platform.



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**2,773,304**
**METHOD FOR THE PRODUCTION OF VEHICLES**
**Louis J. Fageol, Kent, Ohio, assignor to Twin Coach Company, Kent, Ohio, a corporation of Ohio**
**Application May 5, 1953, Serial No. 353,059**
**1 Claim. (Cl. 29—469)**



In a method of constructing a self-propelled vehicle from a standard mass-produced chassis unit having a frame supporting front and rear wheels and a power plant and a standard mass-produced trailer unit having a floor including laterally extending frame members; the steps of cutting said chassis members between said power plant and said rear wheels to form separate front and rear chassis sections, cutting certain of said members of the floor of said trailer unit to form open areas in said trailer floor of a size corresponding to said front and rear chassis sections, installing said front and rear chassis sections respectively in said front and rear areas, and drivingly connecting said power plant and said rear wheels.

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**2,773,305**
**METHOD OF PRODUCING PIN STEM FINDINGS**
**John R. Watson, Bristol, and Rogers T. Stafford, East Providence, R. I., assignors to B. A. Dallou & Co., Incorporated, a corporation of Rhode Island**
**Application November 18, 1953, Serial No. 392,898**
**6 Claims. (Cl. 29—558)**

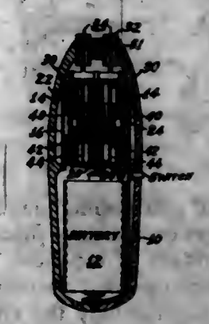
1. The method of producing a pin stem finding which comprises the steps of turning rod stock to form a finding body having a bulbous portion symmetrically disposed about the axis of the rod, drilling a hole in the bulbous portion at right angles to said axis partially through the bulbous portion and beyond said axis of a size so as to leave a substantial circular margin of the bulbous shape about the opening, slotting the bulbous portion along



said axis at right angles to the axis of said bore and across said opening.

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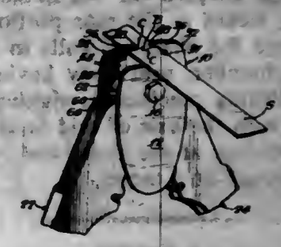
**2,773,306**
**ELECTRICAL RAZOR**
**Harry Leo Ranson, New York, N. Y.**
**Application December 6, 1951, Serial No. 260,147**
**5 Claims. (Cl. 30—43)**



4. An electric shaver comprising a pair of parallelly arranged coextensive shaving heads arranged side-by-side each of which has adjacent thereto a movable shaving cutter capable of reciprocating motion in a plane, a motor including an armature having a substantially circular core whose diameter is greater than the length of its longitudinal axis, commutators symmetrically mounted on opposite sides of said core, a spindle for said armature extending through the centers of and beyond said commutators, eccentrics mounted on said spindle and disposed on opposite sides of and equally distant from said armature, said eccentrics being mounted 180 degrees out-of-phase with respect to each other, and straight levers between said eccentrics and said cutters for translating the motion of said eccentrics to reciprocating motion of the cutters in a plane for causing said cutters to travel simultaneously in opposite directions and always at an 180 degree out-of-phase relation.

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**2,773,307**
**STRAP CUTTER**
**Hollinshead T. Martin, Evanston, Ill., assignor to Signode Steel Strapping Company, Chicago, Ill., a corporation of Delaware**
**Application February 28, 1955, Serial No. 490,733**
**9 Claims. (Cl. 30—194)**



1. A strap cutter including in combination, oppositely rockable plate-like cutting elements having spaced inner faces and cutting edges, a third plate-like cutting element arranged in the space between said first named cutting elements and slidable rectilinearly across and in contact with said spaced inner faces, said third cutting element having cutting edges cooperable with and movable past

said cutting edges on said first named elements, and operable means connected to all said cutting elements for actuating the same, whereby movement of all said cutting edges in strap cutting direction will shear the strap in parallel and overlapping cuts offset a distance equal to the thickness of said third cutting element.

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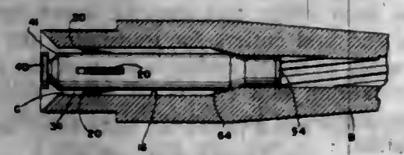
**2,773,308**
**METHOD AND APPARATUS FOR ADAPTING DENTURES**
Carl P. Van Court, North Hollywood, Harold E. Kinsman, Beverly Hills, and Clawson N. Skinner, Whittier, Calif.
Application March 2, 1953, Serial No. 339,706
11 Claims. (Cl. 32—19)



1. The method of establishing mandibular relationships for adapting dentures comprising: placing impression trays over the alveolar ridges of a patient, inserting quick-setting material between opposed portions of said trays, uniformly subjecting substantially the entire area of the remaining opposing portions of said trays to a pressure substantially equal to the physiologic pressure corresponding to the diastolic cardio-vascular pressure characteristic of the patient, and maintaining said pressure until the quick-setting material has hardened.

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**2,773,309**
**BORE SIGHTING DEVICE FOR FIREARMS**
Raymond St. C. Elliott, Seattle, Wash.
Application June 27, 1955, Serial No. 518,003
9 Claims. (Cl. 33—46)



1. A bore sighting device for use in the chamber of hand firearms, comprising: an elongated and hollow cartridge-shaped body having a cylindrical end or neck portion, and a conical shoulder portion adjoining said neck portion adapted to coact with the firearm shoulder cone to center the forward portion of the body in the rifle bore; said body having corresponding diameters less than the cartridge adapted for use in said chamber; resilient centering means at the rear portion of said body adapted to engage the chamber walls to center the rear portion in the chamber; said body having forward and rear center indicating mechanical sighting means in its interior aligned with the axis of said body and said body having axial openings at the front and rear thereof for sighting therethrough at a target.

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**2,773,310**
**TELESCOPE SIGHT MOUNT**
Ernest Bircher, Palouse, Wash.
Application May 26, 1952, Serial No. 290,043
1 Claim. (Cl. 33—50)

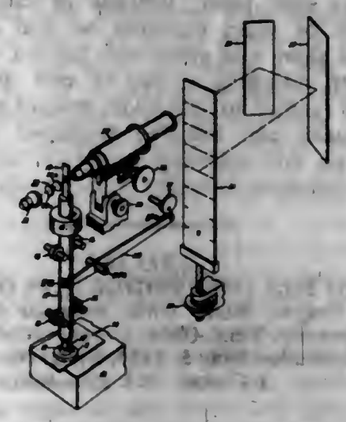
In a telescope sight mount for rifles, a base bar, a saddle fixed to each end of the bar, each saddle comprising an end portion extending transversely with respect to the bar, the portion having a recess in its lower face laterally offset from the bar to seat upon the rifle and being apertured to receive screws for fastening it to the rifle, a plate mounted on the bar, a peep sight, the plate



having an aperture in which said peep sight is movable up and down, a bar suspended from the plate and carrying the peep sight, and spring means urging said bar upwardly.

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**2,773,311**
**OPTICAL MICROMETER**
Clarence J. Kettler, Stockbridge, Mass., assignor to General Electric Company, a corporation of New York
Application November 12, 1953, Serial No. 391,428
3 Claims. (Cl. 33—147)



1. A measuring device comprising, in combination, a stationary base having a supporting surface; a movable member having an engaging surface facing said supporting surface of said stationary base and being mounted for movement toward and away from said supporting surface, said movable member being continuously biased toward said supporting surface for engaging an object to be measured on said supporting surface; a reticule having spaced markings and being attached to said movable member for movement therewith; a stationary optical system arranged with its optical axis passing through said reticule and being operative to magnify the spacing of the markings thereon; and moving means connected to said movable member for cyclically moving the same away from said supporting surface of said stationary base and permitting its biased return movement toward said supporting surface, said moving means including a lost motion connection permitting uniform pressure to be applied by said movable member to objects of different thickness.

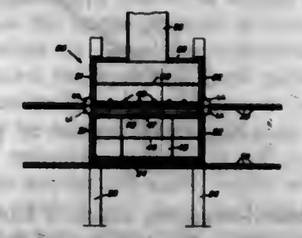
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**2,773,312**
**APPARATUS FOR DRYING FABRICS**
Henry E. Peck, Fairport, N. Y.
Application April 1, 1953, Serial No. 346,192
14 Claims. (Cl. 34—46)

1. Apparatus for treating a fabric comprising a heating chamber having an entry port at one end and an exit port at its opposite end, a tenter frame for holding the fabric along its opposite lateral edges to maintain a fixed width and for conveying the fabric through said chamber from the entry port to the exit port, means for supplying super-heated steam to said chamber under greater than



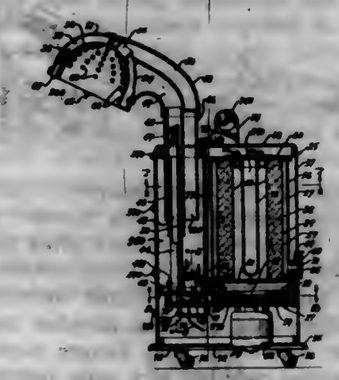
atmospheric pressure at one side of said fabric and for sucking the steam from said chamber from the opposite side of said fabric as the fabric travels through said chamber, whereby to cause the steam to pass through the interstices of the fabric as the fabric travels through the chamber, and flexible sealing means positioned along both edges of both the entry and the exit ports to engage



both sides of the fabric in direct contact therewith and both sides of the tenter frame directly as the tenter frame and the fabric travel through said ports, to exclude air from said chamber, said sealing means being yieldable to conform to the shape of the fabric and of the tenter frame thereby to provide tight seals around both the fabric and the tenter frame.

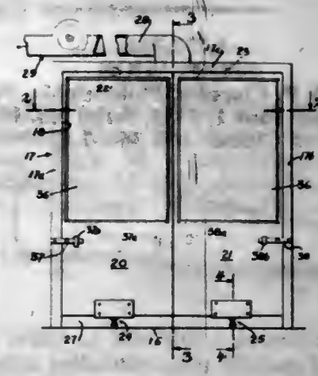
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**2,773,313**
**HAIR DRYING APPARATUS**
Joseph H. O'Connor, Detroit, Mich., assignor, by direct and mesne assignments, to Harold J. Silver and Evelyn B. Silver, Dallas, Tex.
Application June 19, 1950, Serial No. 168,909
10 Claims. (Cl. 34—48)



8. A hair dryer comprising a helmet, means forming a chamber having desiccant therein, an air blower, conduit means connecting said helmet, said chamber, and said blower in series relationship in the order stated so as to form a closed recirculating air path, whereby air is sucked by said blower from said helmet through said chamber to said blower and is blown by said blower back to said helmet, said desiccant in said chamber acting to remove moisture from air passing through same and tending to heat said air because of latent heat of adsorption, means forming an ambient air bleed opening from the outside atmosphere into said recirculating air path at a point near the outlet side of said chamber and the intake side of said blower, to bleed ambient air into said recirculating air path at a point where said ambient air is blown to said helmet without first passing through said desiccant, thereby preventing said ambient air from being heated by said desiccant prior to reaching said helmet, a door movable with respect to said opening for regulating the effective size thereof, and means for maintaining said door in an open position during the progress of drying operations to admit ambient air to compensate for the effect of said latent heat of adsorption in heating the recirculated air.

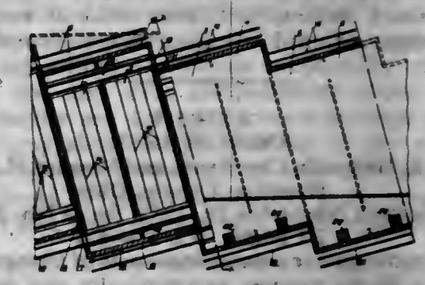
**2,773,314**
**GARMENT DRYERS**
George K. Gauff, Great Neck, N. Y., assignor to New York Silicate Book Slate Co., Inc., New York, N. Y., a corporation of New York
Application May 5, 1955, Serial No. 506,281
9 Claims. (Cl. 34—91)



1. A garment dryer for use in schoolrooms and the like comprising an enclosure having a rectangular frontal opening whose lower edge is substantially at floor level, a panel normally positioned in the plane of said opening with its upper and at least one lateral margin in close relation with the upper and at least one lateral edge of the opening, said panel being pivoted at top and bottom so that it is adapted to rotate about its central vertical axis through at least 180° and, after having been rotated so that its own faces are reversed, to resume a position in which its upper and at least one lateral margin are in close relation with the upper and at least one lateral edge of the opening, securing means to hold the panel in each of said positions, a garment rack secured to one face of said panel, an opening for passage of air into said enclosure, at least one of the marginal edges of said opening being defined by said panel and the opening being positioned below the level of the garment rack for entry of air into the enclosure beneath the same, an air duct for removing air from the enclosure, said duct having its intake orifice positioned within the enclosure and at a level above the level of said garment rack, and means for propelling air in said duct in a direction away from said enclosure.

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**2,773,315**
**METHOD AND DRYING KILN FOR DRYING LUMBER**
Carl Johan Liljeström, Stockholm, Sweden, assignor to AB Svenska Flaktfabriken, Stockholm, Sweden
Application July 21, 1953, Serial No. 369,336
Claims priority, application Finland July 26, 1952
4 Claims. (Cl. 34—209)



1. In a drying plant a series of generally rectangular drying chambers for drying elongated articles, means for circulating a drying medium through each chamber, an intake door in one side wall of each chamber adjacent the end wall thereof for longitudinally advancing the articles into said chamber to dispose them transversely thereof, means to laterally advance said articles through the length of said chamber, and a discharge door in the

opposite side wall of said chamber adjacent the other end wall thereof to longitudinally withdraw said articles from the chamber, adjacent chambers in said series having no communication with one another and being offset longitudinally to expose the intake door at the one end of one chamber and the discharge door at the other end of the adjacent member.

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2,773,316
SPORT SHOE
Frank P. Clappier, Philadelphia, Pa.
Application June 1, 1953, Serial No. 358,877
1 Claim. (Cl. 36—2.5)



A sport shoe having a sole and an upper in combination with a rigid metallic plate extending along the length of the sole from the heel and terminating at a position about ¾ inch forward of the center of the ball of the foot, the sole forward of said position being flexible.

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2,773,317
ARTICLES OF FOOTWEAR
Jens Boesen Helle, Vedbaek, near Copenhagen, Denmark
Application July 13, 1954, Serial No. 443,081
5 Claims. (Cl. 36—11.5)

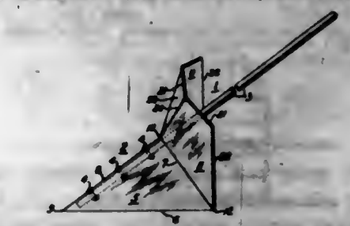


1. An article of footwear comprising: a unitary outsole and foot retaining means thereon; said unitary outsole comprising a bottom surface, a top surface and side faces; said bottom surface being provided with ribs integral with said outsole and spaces between these ribs; said outsole being further provided with a number of recesses extending between said top surface and said bottom surface, and opening at said side faces; said foot retaining means including strap means for connecting with said outsole, each of said strap means having a terminal portion inserted in one of said recesses and fastened to said cutsole by means of a rivet; said rivet having an upper head and a lower head and penetrating said outsole from said top surface to said bottom surface thereof through the recess and through the terminal portion inserted therein, said lower head of each of said rivets being positioned in a space between two of said ribs.

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2,773,318
SNOW PUSHER
Eugene E. Hemsath, Cincinnati, and Howard H. Hemsath, Hamilton County, Ohio
Application November 18, 1952, Serial No. 321,158
2 Claims. (Cl. 37—53)

1. A snow pusher comprising a pair of triangular snow-engaging blades meeting symmetrically and perpendicularly in a common inclined dividing edge, there being a lead point on said dividing edge at the ground-engaging end thereof, each blade having a ground-engaging edge extending laterally and rearwardly from the lead point, each blade having a third edge inclined upwardly from the trailing end of the ground-engaging edge and extending to the end of the dividing edge remote from the lead point, a pair of wing flanges substantially perpendicular to the plane of the ground-engaging edges of the blades, each of said wing flanges extending upwardly from the trailing edge of one of said blades, a central flange plate disposed between the adjacent edges of said wing flanges and secured thereto, whereby a continuous upwardly projecting flange is formed extending between the rear



ends of the ground-engaging edges, a handle, a portion of said handle adjacent one end thereof being disposed in the inverted trough formed by said blades, beneath and extending parallel to the dividing edge, and securing means urging said handle toward said dividing edge, the blades and plates being adapted to vibrate when the lower edges of the blades are advanced over the surface to dislodge snow therefrom.

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2,773,319
CONVEYOR LOADER HITCH
Raymond Q. Armington, Shaker Heights, Ohio, assignor, by mesne assignments, to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application October 4, 1947, Serial No. 777,887. Divided and this application June 17, 1953, Serial No. 362,284
4 Claims. (Cl. 37—110)



1. In apparatus of the class described, the combination of a drawbar member, rolling support means for supporting by a horizontally disposed pivot the forward end of said drawbar member, a frame member, rolling support means supporting said frame member, hanger members straddling said drawbar member and extending downwardly therefrom, said hanger members connecting said drawbar member at a point intermediate its fore and aft length to a forward portion of said frame member and being connected by a transversely extending horizontal pivot to one of said members, a cutting blade carried by said frame member at the forward end thereof ahead of the connection with said hanger members, and power means connected between said frame member and the rear end of said drawbar member a substantial distance aft of said hanger members for raising and lowering said drawbar member by substantial mechanical advantage by oscillating said frame member about its pivotal support on its rolling support means, the parts of said apparatus being oriented so that the operator has a clear view of the cutting action at said blade.

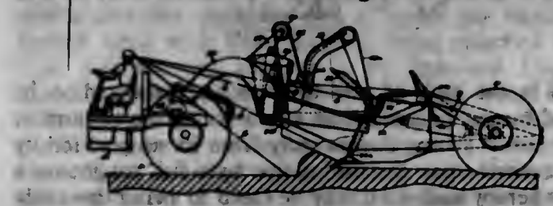
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2,773,320
DIGGING AND CARRYING SCRAPER
Edward R. Fryer, Willoughby, Ohio, and William J. Adams, Santa Cruz, Calif., assignors, by mesne assignments, to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 14, 1952, Serial No. 287,772
7 Claims. (Cl. 37—126)

1. In a digging and carrying scraper, a bowl having an open front and having an ejector for dumping the



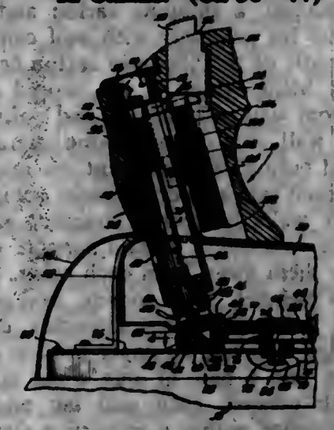
contents of said bowl, an apron for closing said open front, means for raising said bowl between lowered and elevated positions, means for raising said apron between positions closing and opening said open front, means for raising said ejector between a lowered retracted position and an elevated dumping position, each of said means including an interchangeable single acting hydraulic hoist power unit in operative connection therewith for performing the raising movement while the weight of the respective parts returns the apron or bowl or ejector to its lowered position when its respective hydraulic hoist power unit is de-activated, the hydraulic hoist power units being operable independently so that the apron or the bowl or the ejector may be moved without moving the other two last-mentioned movable scraper parts, each hydraulic hoist power unit having the same length working stroke, said means for raising said bowl including two of said hydraulic hoist power units with each operatively connected to a motion transmitting means movable in re-



sponse thereto with the last-mentioned means connected to said bowl for raising it at full load a short distance with great force, said means for raising said apron including a motion transmitting means movable in response to its associated hydraulic hoist power unit and operatively connected to said apron for raising said apron at full load about twice the distance at about twice the speed of said bowl raising movement and exerting about one quarter the lifting force required to lift said bowl, said means for raising said ejector including a motion transmitting means movable in response to its associated hydraulic hoist power unit and operatively connected to said ejector for raising it at full load at a speed varying approximately inversely with the load and with a force varying approximately directly with the load being moved during ejection and for accelerating its movement as it moves over approximately the entire distance from the retracted position to the dumping position when its associated hydraulic hoist power unit moves at a constant rate.

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2,773,321
WATER FEED FOR STEAM IRON
John R. Gemersall, Elgin, Ill., assignor to McGraw Electric Company, Elgin, Ill., a corporation of Delaware
Application May 25, 1953, Serial No. 357,601
12 Claims. (Cl. 38—77)



1. A steam iron including a sole plate having a steam generating chamber, a water inlet fitting in the top of said steam generating chamber, a water tank above said sole plate and spaced from said inlet fitting, a bracket engaging said tank only near the top thereof and supported on said sole plate for supporting said tank and minimizing the conduction of heat thereto, said tank having a water outlet fitting in the bottom thereof horizontally displaced from said inlet fitting and spaced from said sole plate, whereby to minimize the conduction of heat from said sole plate to said tank, and a water conduit connecting said two fittings.

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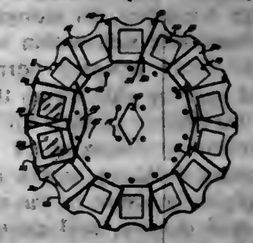
2,773,322
WATER VALVE ACTUATOR FOR STEAM IRON
John R. Gemersall, Elgin, Ill., assignor to McGraw Electric Company, Elgin, Ill., a corporation of Delaware
Application May 25, 1953, Serial No. 357,135
7 Claims. (Cl. 38—77)



1. In a water-valve control mechanism for a steam iron including a sole plate, a steam-generating chamber, water supply means, means interconnecting said water supply means and said steam-generating chamber including a valve for controlling the flow of water from said supply means to said steam generating chamber, said valve including a reciprocable valve stem and a seat therefor, in combination, an actuator for said valve stem, means for supporting and guiding said actuator for movement longitudinal of said stem, a connection between said actuator and said valve stem including a spring for urging said stem against said seat and for permitting motion of said actuator when said stem is seated and including also an abutment by which said actuator pulls said valve stem off said seat, and a second spring operatively connected to said actuator for moving said actuator in the direction that carries said valve stem off said seat.

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2,773,323
DISC FOR FILM SLIDES
Sam Gerwitz, Oshkosh, Wis.
Application May 12, 1951, Serial No. 226,080
1 Claim. (Cl. 40—70)



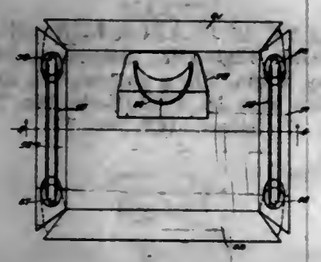
A composite circular disc for film slides comprising a pair of plates fastened together and having opposed rectangular depressions to provide a plurality of edge-accessible flat film slide compartments about its periphery whereby any one compartment overlaps into the next adjoining slide compartment up to the edges of registering apertures formed in said plates, the said plates being apertured in registry to conform to the transparent portions of film slides to be held in said compartments.

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2,773,324
FRAME TYPE DISPLAY DEVICE
Fred Druseck, Jr., Chicago, Ill., assignor to Chicago Cardboard Company, a corporation of Illinois
Application September 27, 1952, Serial No. 311,906
9 Claims. (Cl. 40—155)

1. A collapsible display device provided with an integral frame comprising: a display portion having straight

margins; a frame piece hinged to each margin of said display portion for movement between assembled positions in which they are angularly disposed with respect to the plane of the display portion and collapsed positions substantially in said plane; a primary assembly strip hinged on each alternate frame piece and lying therebehind; secondary assembly strips hinged on the intervening frame pieces between said primary assembly strips and having their end portions overlapping those of the



primary assembly strips; and by elastic means secured to the ends of said primary assembly strips and tensioned between opposite primary assembly strips, to draw said strips toward one another, so that movement of the primary assembly strips toward one another moves the secondary assembly strips toward one another and the frame pieces to their assembled angularly disposed positions, said elastic means being unsecured to said secondary strips and having portions underlying said secondary assembly strips.

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2,773,325
MAGAZINE AND CARTRIDGE CONTAINER ASSEMBLY
John L. Hill, Houston, Tex.
Application June 26, 1953, Serial No. 364,301
7 Claims. (Cl. 42—50)

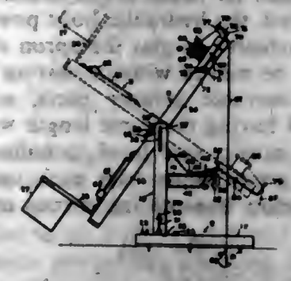


2. In a cartridge container, an elongate tube, at least one row of cartridges disposed within said tube, the individual cartridges being oriented normal to the tube axis and arranged side by side along the length of the tube, a pressure disruptable closure for one end of said tube normally preventing discharge of cartridges therefrom, a spring-loaded follower within said tube at the other end for applying pressure to the row of cartridges and thus against said closure, said closure being of sufficient strength to resist the normal pressure imposed thereon by said cartridge row under the influence of said follower, and means whereby a temporary pressure in excess of said spring pressure can be applied to said cartridge row to rupture said closure and permit the discharge of cartridges from said tube.

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2,773,326
FOLDABLE TILT-UP
Warren D. Calvert, Clark, S. Dak.
Application September 9, 1953, Serial No. 379,220
3 Claims. (Cl. 43—16)

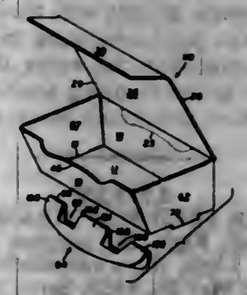
3. In a fishing device, a base, a standard rising from said base, a tilt arm having pivotable supporting means intermediate its ends on the upper end of said standard, said tilt arm having one end upwardly inclined and the other end downwardly inclined and said supporting means being displaceable toward said other end so that the tilt arm is overbalanced in an inclined position, a reel on the one end of the tilt arm having a fishing line wound thereon and terminating in a fishhook, a bracket on said standard mounted below the upper end of the standard and beneath the one end of the tilt arm, an upwardly spring pressed yoke pivoted on said bracket adapted to swing upwardly toward the standard when released from another tensioned position, pivoted trigger means on said bracket adapted to engage said yoke to hold the yoke in a tensioned position, said trigger means including a retaining trigger hook



located in the path of said tilt arm and arranged to be engaged by and released from said yoke by the tilt arm as the tilt arm is swung downwardly from its set position by a pull exerted upon the fishing line by a fish caught on a hook, whereby said yoke may be freed to swing upwardly and impart a sufficient upward movement of the tilt arm to tighten the fishing line and set the hook in the fish, and a longitudinally slidable counterbalancing weight on said tilt arm adjacent to the other end of the arm for predetermining the overbalance of the tilt arm.

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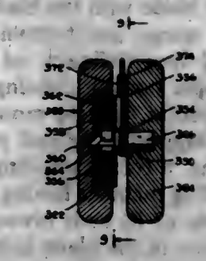
2,773,327
CRADLE-TYPE CARTON FOR DOLLS
Frank McCormick, Nyack, N. Y., assignor to Federal Carton Corporation, North Bergen, N. J., a corporation of New York
Application November 26, 1954, Serial No. 471,214
11 Claims. (Cl. 46—15)



1. In combination, a shipping carton and a pair of support elements for assembly with said carton to convert it into a cradle or the like, said carton being formed from a unitary blank which is cut, scored and folded to define a bottom wall and side and end walls connected to said bottom wall, said carton having laterally extending slots in said bottom wall adjacent the respective end edges thereof, each said support element comprising registering support walls hingedly connected at their top edges, the hinge connection of said support walls being such as to urge them away from each other, the bottom of said support element being convex, said support element having a pair of cut-outs extending downwardly from its top edge to divide its upper portion into a central tab portion and a pair of side wings spaced from said central tab portion, each said tab portion being frictionally positioned within a respective slot with said support element extending laterally, the lower edges of said cut-outs abutting the bottom edge of said end wall, the proximate side edges of said wings respectively frictionally abutting the side edges of said end wall.



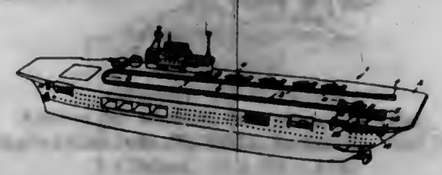
2,773,328
GRAVITY OPERATED REVERSING WHIRLING TOY
Alexander Fraenkel and Auguste Rietsch, New York, N. Y.
Application February 20, 1953, Serial No. 338,108
5 Claims. (Cl. 46—61)



1. In a gravity operated whirling toy, the combination of: a rotatable body element including a pair of spaced disk-like members and a center pin rigidly connecting same with each other, a string attached to said body element and adapted to be unwound from and wound on said center pin whereby said body element will unwind downwardly on said string by gravitation and climb thereon by rewinding through its own rotational momentum, a helical spring wound around said center pin, and means at one end of said helical spring for engagement with said string, the other end of said helical spring being in connection with said center pin whereby said helical spring is tensioned during the unwinding of said body element so as to create a force acting on said body element upon the unwinding thereof for assisting in the creation of a rotational momentum for the subsequent climbing of the body element on said string.

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2,773,329
TOY AEROPLANE LAUNCHING DEVICES
Joseph Sherri, Toronto, Ontario, Canada
Application November 9, 1953, Serial No. 391,035
1 Claim. (Cl. 46—81)



In apparatus for launching a toy aeroplane from a flanged track, said track being inclined upwardly to one end thereof from a point near said one end, a projectile simulating a toy aeroplane having a flanged runner slidable on said track, said flanged runner loosely embracing the flanges of said track, said runner having a vertical rear face and an upwardly inclined lower face, a fixed pin positioned on a lower plane than, and to one side of, said track and extending parallel to said track, an impeller having a body part movable lengthwise of and rotatable on said pin, a pair of arms connected to said body and extending upwardly at the side of said body adjacent to said track, fingers carried by said arms spaced from each other lengthwise of said impeller and extending laterally into the path of said runner and receiving said runner therebetween when the projectile is moved manually along said track, a coil spring encircling said pin rearwardly of said impeller body, stop means restraining movement of said spring in a direction rearwardly of said impeller body, a detent, and a handle projecting laterally from said impeller body at the side thereof removed from said arms, said handle being engageable with said detent to compress said coil spring between said handle and said stop means and on release from said detent freeing said coil spring whereby same will propel said impeller forwardly and cause said rearmost finger to forcefully impinge the vertical face of said runner and cause said projectile to be expelled from said track.

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2,773,330
SOIL CONDITIONER
Richard C. Erwin, Mountain View, Calif., assignor to Stauffer Chemical Company, a corporation of Delaware
No Drawing. Application October 27, 1954, Serial No. 465,149
7 Claims. (Cl. 47—58)

3. The method of treating soil comprising applying to the soil a soil treating agent containing from about 10 to 50 parts of ferric sulfate and from 50 to 90 parts of calcium carbonate, all parts being by weight.

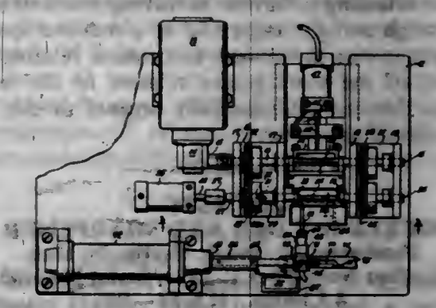
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2,773,331
HERBICIDAL COMPOSITION AND METHOD
William J. Hughes, Modesto, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application April 1, 1954, Serial No. 420,465
14 Claims. (Cl. 47—58)

11. A method of ridding soil of viable seeds which comprises applying to soil containing such viable seeds an effective amount of a composition comprising allyl alcohol and 1-chloro-3-bromo-1-propene having a weight ratio of allyl alcohol to 1-chloro-3-bromo-1-propene of from about 1:5 to about 2:1.

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2,773,332
MACHINE AND METHOD FOR CUTTING HELICAL FILM RESISTORS
A. Sander Buchman and Howard B. Erlick, Philadelphia, Pa., assignors to Shallcross Manufacturing Company, Collingdale, Pa.
Application October 30, 1953, Serial No. 389,414
3 Claims. (Cl. 51—15)



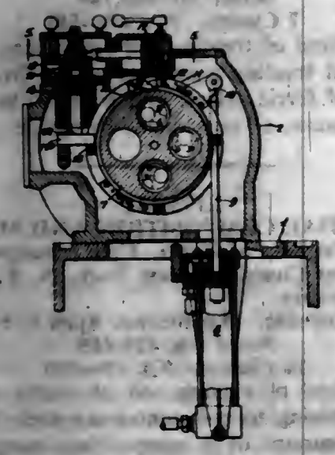
1. Apparatus for processing a film deposited ceramic-base resistor comprising means for rotating said resistor around its longitudinal axis, means for projecting a stream of abrasive particles against the surface of said resistor while the latter rotates, said projecting means being positioned in sufficiently close proximity to the surface of the resistor whereby the abrasive particles are projected in a restricted narrow stream against a limited area only on the surface of said resistor to produce a sharp cut through said film to the base of the resistor, said proximity being controlled as to limit the width of the stream of abrasives to a dimension substantially equivalent to the desired width of the path to be cut through the film, means for moving said projecting means in the direction of said axis at a controlled rate of speed whereby a helical path in said film is completely removed from said resistor down to the ceramic base thereof, means for continually measuring the resistance of said resistor as the helical path is being cut in said film, and means actuated by said measuring means for stopping the flow of said abrasive particles when a predetermined resistance is achieved.

2,773,333

## MACHINE TOOL, ESPECIALLY GRINDING MACHINES FOR MACHINING ROTATING WORK PIECES

Lennart Johansson, Goteborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Goteborg, Sweden, a corporation of Sweden

Application September 25, 1953, Serial No. 382,413
Claims priority, application Sweden September 29, 1952
4 Claims. (Cl. 51—53)



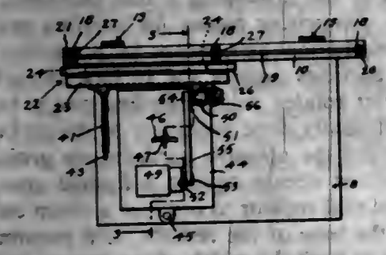
1. A machine tool, especially a grinding machine for working on rotating work pieces, a carriage for work spindles comprising a rotatable drum, a plurality of work spindles mounted in said drum, a tool carriage comprising a slide reciprocable in a direction parallel to the rotational axis of the drum towards and from the work spindle carriage, a plurality of tool holders mounted on the slide in positions fixed relative to each other for simultaneously working on a plurality of work pieces carried on the respective work spindles, means for revolving the drum stepwise to bring the work pieces in turn into working position relative to each of the tools, and means for effecting a further revolving movement of the drum through a slight angle and at a reduced speed after each said stepwise movement to cause a relative feeding movement of the work pieces relative to the respective tools in a direction substantially normal to the reciprocatory paths of the latter.

2,773,334

## SICKLE HOLDER AND SHARPENER

Ferdinand W. Busch, Berlin, N. Dak.

Application November 1, 1954, Serial No. 465,789
4 Claims. (Cl. 51—96)



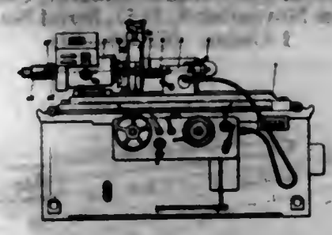
1. A sickle blade sharpener of the character described comprising a substantially flat horizontally disposed base member, an elongated support member resting on said base member adjacent an edge thereof, hinge means connecting said support member to the base member for swinging movement of the support member outwardly and downwardly with respect to the base member, an elongated rod, means supporting said rod above said support member and longitudinally thereof, an elongated blade holder, means secured to said blade holder and slidably engaging said rod for mounting said blade holder for movement in a direction longitudinally thereof and lengthwise of the support member, said blade holder being normally disposed in substantially a vertical plane in an operative position therof and having a bottom portion provided with downwardly opening clamping means adapted to detachably engage the back edge portion of a sickle blade to support the blade with the blade teeth depending from said clamping means and bottom portion and with said blade disposed longitudinally of the holder, said holder having an upper portion defining a handle extending longitudinally thereof, a plate mounted on said base member, a bearing supported by said plate, a shaft journalled in said bearing, a rotary grinding member fixed to said shaft, said grinding member having a periphery tapering from intermediate of its ends toward each end thereof, said bottom portion of the blade holder being disposed between the rod and grinding member for supporting the blade between the holder and the grinding member, and a motor supported by said plate and connected to said shaft for revolving the shaft and the grinding member, said blade holder being manually swingable relative to the supporting member for swinging the blade teeth upwardly and into engagement with the grinding member to be sharpened thereby and being slidably movable relative to the supporting member for positioning the different blade teeth in positions to be engaged by the grinding wheel.

2,773,335

## CENTERING ARRANGEMENT FOR MACHINE TOOLS

Helmut Crämer, Stuttgart-Degerloch, and Robert Meyer, Stuttgart-Rohr, Germany, assignors to Firma Fortuna-Werke Spezialmaschinenfabrik A.-G., Stuttgart-Bad Cannstatt, Germany

Application January 26, 1954, Serial No. 406,235
Claims priority, application Germany January 28, 1953
17 Claims. (Cl. 51—165)



1. In a centering arrangement for rotary machine tools, in combination, supporting means; center means having an extreme projecting point adapted to engage a center hole in a workpiece, said center means being mounted in said supporting means and being movable in axial direction; means urging said center means in one axial direction into an extreme projecting position adapted to project toward a workpiece; abutment means mounted on said supporting means located spaced in the opposite axial direction from said extreme projecting point of said center means in an axial direction opposite said one axial direction and adapted to engage in a predetermined position a workpiece engaging said center means whereby said center means is located in a control position moved from said extreme projecting position in the opposite axial direction; manually operable stop means movable between an inoperative position and a blocking position for blocking further movement of said center means in said opposite axial direction; and shifting means engaging said center means and said stop means for shifting said center means relative to said supporting means and said abutment means in said one axial direction for a predetermined distance so that said workpiece is spaced from said abutment means; and operating means for actuating said holding means and said shifting means.

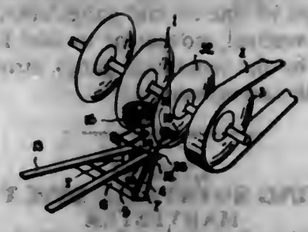


2,773,336

## DISC GRINDERS

Adolphe H. A. Lesher, Winnipeg, Manitoba, Canada

Application January 25, 1954, Serial No. 405,960
1 Claim. (Cl. 51—173)



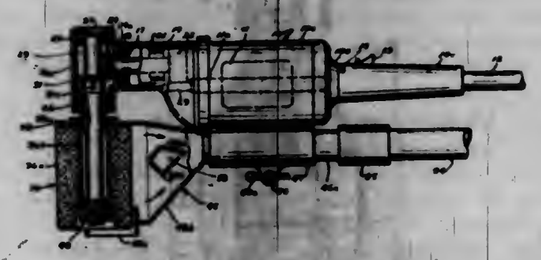
A friction driven sharpening device for cultivating discs, comprising a substantially triangular base, an upstanding T-shaped frame provided on said base and including a cross member having each end portion thereof provided with a set of three apertures, a pair of angle brackets having main arm portions overlying in spaced relation the apex portion of said base and angulated arm portions abutting said cross member, at least two fastening elements provided at spaced points on the angulated arm portion of each bracket and receivable selectively in each set of said apertures, a handle secured to said frame, an abrasive wheel rotatably mounted on the main arm portion of one of said brackets, a lever pivoted intermediate the ends thereof to the main arm portion of the other bracket and movable toward and away from said handle, and a disc-engaging castor wheel rotatably mounted on said lever adjacent said abrasive wheel, said apertures in each set being disposed in the pattern of a right-angled isosceles triangle and the spacing of said fastening elements on each bracket corresponding to the length of each of two equal sides the triangular pattern, whereby said brackets may be fastened interchangeably to the opposite end portions of said cross member with the axis of said abrasive wheel disposed selectively in horizontal and vertical planes.

2,773,337

## GRINDING DEVICE

Arturo De Marchi, Minneapolis, Minn.

Application July 26, 1954, Serial No. 445,781
3 Claims. (Cl. 51—176)



1. A portable grinding device for polishing a terrazzo surface having in combination, a housing, an elongated cylindrical grinding member carried at one end of said housing and extending in a direction at right angles to the axis thereof, a conduit in which suction is created having a portion clamped to said housing, a hood connected to said conduit adjacent said housing and substantially V-shaped in vertical longitudinal section and having sides diverging to a width substantially the width of said grinding member and then having portions extending in the direction of said grinding member at right angles to the axis thereof, said hood extending above and below said grinding member for some distance thereacross, a baffle member substantially diamond-shaped in form positioned centrally transversely in said hood and extending the full height thereof, said baffle member being adjacent said grinding member in operating position and having its sides remote from said grinding member parallel to the diverging sides of said hood and forming channels therewith, whereby said hood withdraws dust the full width of said grinding member and said channels direct indrawn currents of air to be particularly intensified at the end portions of said grinding member.

2,773,338

## ABRADING ARTICLE

Willard K. Carter, Columbus, Ohio

Application April 5, 1954, Serial No. 420,897
5 Claims. (Cl. 51—204)



1. An abrading article formed from a fragile multicellular ceramic structure coated with a compound comprising a stabilized dispersion of a copolymer of styrene and butadiene.

2,773,339

## PROCESS FOR THE SURFACE TREATMENT OF LIGHT ALLOY COMPONENTS, MORE PARTICULARLY FOR THE ABRASIVE BLAST TREATMENT OF LIGHT ALLOY CASTINGS

Fritz Nikolaus Bischoff, Schaffhausen, and Hans Paul Häberlin, Neuhausen am Rheinfall, Switzerland, assignors to Georg Fischer Aktiengesellschaft, Schaffhausen, Switzerland, a Swiss company

No Drawing. Application July 23, 1952, Serial No. 300,528
Claims priority, application Switzerland July 24, 1951
3 Claims. (Cl. 51—282)

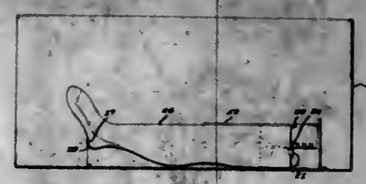
1. In the process of blast-treating shapes, castings and the like; the step of directing against the surface of the casting made of light weight metal with an atomic weight ranging from 24 to 27 shots, grits, slugs and like particles obtained from an alloy of light weight metal consisting predominantly of aluminum in an amount not less than approximately 80% of the total weight of said alloy.

2,773,340

## HOSIERY PACKAGING

Charles E. McCarthy, Palisades Park, N. J., assignor to Chadbourn Hosiery Mills, Incorporated, a corporation of North Carolina

Application December 8, 1953, Serial No. 396,836
2 Claims. (Cl. 53—21)

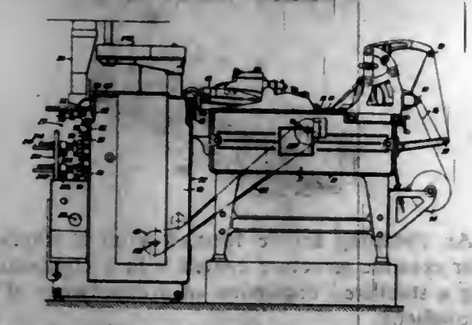


1. A method of packaging hosiery comprising the steps of providing a fixed reference point and a locating means spaced therefrom at a maximum hosiery length, positioning a packaging card to extend from said locating means toward said reference point in a length sufficient to include standard length variations below said maximum length, placing the foot portion of a pair of hose at said reference point and extending said hose therefrom to dispose the top portion thereof in overlying relation at one face of said card, attaching the extended top portion of said hose to said card at the

overlying position thereof, folding the extending lower portion of said hose at the opposite face of said card and enclosing the folded hose and card in a package with indicia arranged in relation to the length of said card for indicating the length of said hose from the attached overlying position thereof.

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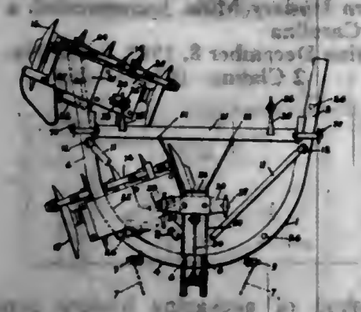
2,773,341
CONVEYING APPARATUS
Rene J. Gambert, Oakland, Calif., assignor, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 10, 1951, Serial No. 214,830
21 Claims. (Cl. 53—187)



1. Bag conveying means of the character described comprising a horizontal supporting table along which the bags are adapted to be intermittently moved, bag engaging elements adapted to engage the bags to move the same, vertically disposed racks serving to mount said elements to provide horizontally spaced groups of the same, means for imparting substantially rectangular motion to said racks and said bag engaging elements whereby said elements are caused to be projected alongside of the bags, translated longitudinally of said supporting table to move the bags therealong, retracted from the bags, and then returned to their initial positions, and means for causing a limited relative movement between adjacent racks to cause the elements of the same to engage both the trailing and advancing edges of bags while the bags are being moved over the supporting table.

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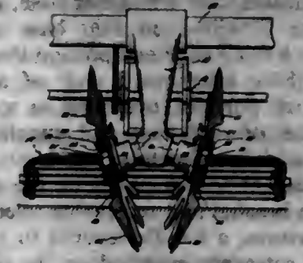
2,773,342
MULTIPLE GANG DISK HARROW
Cyril M. Gladis, Aliquippa, Pa., assignor to Pittsburgh Forgings Company, Coraopolis, Pa., a corporation of Delaware
Application September 20, 1954, Serial No. 457,124
17 Claims. (Cl. 55—83)



1. In a disk harrow having front and rear pairs of laterally spaced gangs of disks, a frame arranged in a horizontal plane and having portions overlying each of said gangs, a universal mounting connecting each of said gangs to an overlying frame portion in a position with the longitudinal axis of each gang extending transversely of said frame, a linkage system controlling the angular movements of said gangs about their respective said universal mountings and including a front crossbar having connections with adjacent portions of said front pair of gangs, a rear crossbar having connections with adjacent portions of said rear pair of gangs, and means for moving said crossbars forwardly and rearwardly with respect to said frame for adjusting the angular positions of said gangs transversely with respect to said frame, and means interconnecting and mounting said linkage system for movement vertically with respect to said frame whereby tilting movement of one of said gangs about a horizontal axis imparts a vertical movement to said linkage system and is resisted by the remaining gangs through their said connections with said crossbars.

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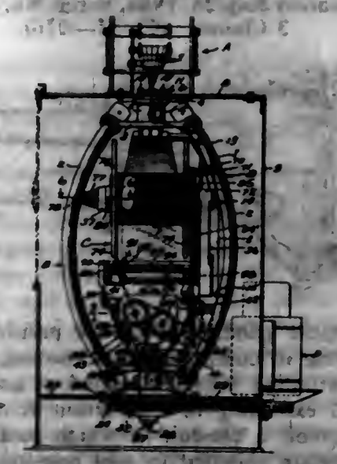
2,773,343
COOPERATING ROTATABLE DISK TYPE BEET HARVESTER
Heinz Carl Oppel, Boise, Idaho
Application October 16, 1952, Serial No. 314,145
3 Claims. (Cl. 55—100)



1. In a harvester for beets and like crops having a frame, a standard carried thereby, a pair of generally laterally, outwardly and downwardly extending axles fixed in generally opposed relation to the lower end of the standard, a wheel hub rotatably mounted on each axle, a one piece wheel casting secured to each hub, the wheel castings each comprising a central mounting portion, and a multiplicity of teeth extending radially outward from said portion, the teeth being trapezoidally shaped in cross section with wide flat faces facing toward the opposing wheel and narrowing in width to their outer faces.

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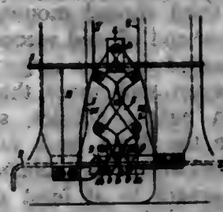
2,773,344
VERTICAL TWISTING MACHINE
Charles F. van Heek, Fairhaven, N. J.
Application April 12, 1951, Serial No. 220,560
9 Claims. (Cl. 57—58.52)



1. In a vertical twisting machine of the kind described, the combination comprising a flyer mounted for rotation about a vertical axis, a cradle within said flyer, means for maintaining the cradle stationary during rotation of the flyer, a capstan box assembly including a box-like housing pivoted to the cradle, a shaft extending vertically thereof and rotatably mounted therein, a gear on the lower end of the shaft, capstans rotatably mounted in the housing, and gears connecting said shaft and said capstans.



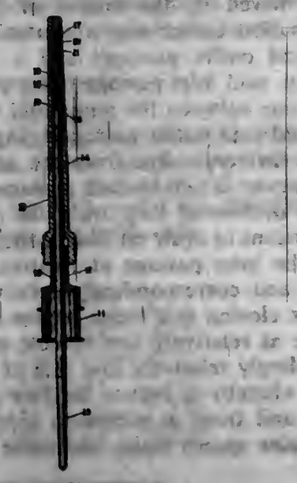
2,773,345
SPINNING MACHINES, INCLUDING RING RAILS AND ANNULAR BALLOON LIMITERS
Walter W. Lenkert, Geneva, Switzerland, assignor to Rousselez, Tangier, a society of Tangier
Application June 29, 1955, Serial No. 518,985
Claims priority, application Luxembourg July 5, 1954
4 Claims. (Cl. 57—106)



3. A spinning machine which comprises, in combination, a fixed frame, a plurality of spindles rotatable in said frame, a ring rail, said ring rail and the whole of said spindles being movable with respect to each other in a direction parallel to the axes of said spindles, said ring rail having with respect to said spindles a normal winding movement and a supplementary underwinding movement beyond the end of said normal winding movement, an annular balloon limiter coaxial with each of said spindles, a lazy-tongs device interposed between said ring rail and said balloon limiter for normally holding said balloon limiter at a substantial distance from said ring rail during the normal winding movement thereof, and abutment means carried by said frame and said lazy-tongs device for folding said lazy-tongs device toward said ring rail in response to said ring rail having a supplementary underwinding displacement.

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2,773,346
TEXTILE SPINDLE
Richard L. Childs and Edward Crankshaw, Hopedale, Mass., assignors to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application May 18, 1953, Serial No. 355,464
3 Claims. (Cl. 57—130)



2. A top drive type textile spindle for supporting and driving a bobbin, said spindle having a blade, a whorl and means at the blade tip for imparting torque to a bobbin supported on the spindle which comprises an elongated blade end of reduced diameter, a shoulder defining the juncture between said blade and blade end, a cylindrical sleeve of a hard, resilient, moldable synthetic resin capable of longitudinal compression and corresponding lateral expansion when subjected to relatively great pressure directed against its ends, and thread means forming a part of said blade end for retaining said sleeve on said reduced end and further, being effective in conjunction with said shoulder, for developing that longitudinal compression in said sleeve such that the lateral expansion therein will cause it to grip the bore of a bobbin effectively to drive the same.

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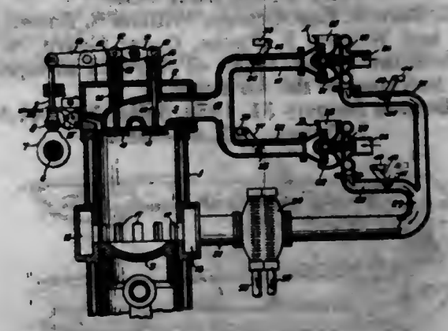
2,773,347
WINDING CROWN FOR TIMEPIECE MOVEMENT
Jean-Michel Froidevaux, Geneva, Switzerland, assignor to Manufacture des Montres Universal, Perret & Berthoud S. A., Geneva, Switzerland
Application August 13, 1954, Serial No. 449,591
Claims priority, application Switzerland September 1, 1953
6 Claims. (Cl. 58—90)



1. A tight watch-case crown construction comprising, in combination, a tubeless case having a stem opening in the side of the same, a crown having a tubular screw post of less diameter than said opening and extending freely therethrough, said crown having an inner annular recess about the post, a helical spring located in the recess and surrounding the post, an annular packing sleeve of compressible elastic material in close fitting engagement about the post, the inner surface of the packing sleeve being curved in axial section, a rigid washer arranged between the spring and the packing sleeve and axially movable within the recess of the crown, said sleeve being subjected to the action of the spring which urges it against the center of the watch-case about said stem opening therein and sealing the space between the case and the screw post extending therethrough, and a stop member arranged within the recess of the crown near the edge thereof in order to limit the displacements of the said washer.

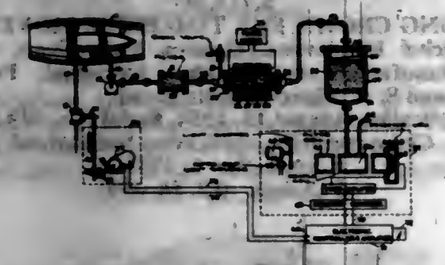
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2,773,348
TURBO-CHARGER SYSTEM, INVOLVING PLURAL TURBINE DRIVEN SUPERCHARGERS
Emil Grieshaber and Paul S. Shirley, Milwaukee, Wis., assignors to Nordberg Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application March 27, 1952, Serial No. 278,845
11 Claims. (Cl. 60—13)



1. The combination with a two cycle supercharged engine of a plurality of exhaust driven turbo-chargers, there being exhaust passages from the engine to the turbine of each turbo-charger and scavenging passages from the blower of each turbo-charger to the engine, valve means in each of the exhaust passages adapted to prevent flow of exhaust gas to at least one of the turbines and valve means in the scavenging passages between each blower and the engine to prevent counter flow of starting air from the engine to the blower during starting.

2,773,349
**INFRA-RED FUEL FLOW CONTROLLER**
Francis G. Bolle and Lucretia M. Whitney, Berkeley, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application April 28, 1953, Serial No. 351,572
1 Claim. (Cl. 60—35.6)



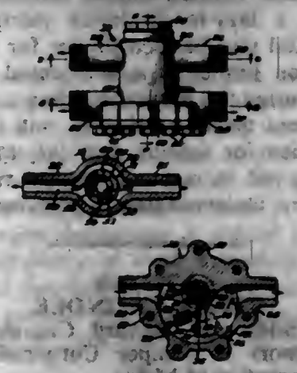
An apparatus for automatically regulating the fuel flow to an engine independent of the amount of air supplied thereto for controlling and maintaining the air-fuel ratio in said engine at a constant selected value, said apparatus comprising a jet engine, a fuel line to said engine, a fuel flow control valve in said line, conduit means for obtaining a portion of the exhaust gases from said engine, filter means in communication with said conduit means for removing solids from said exhaust gases, high temperature furnace means having a minimum operative temperature of 500° C. in communication with said filter for burning the unburned components of said gases, valved inlet means in communication with said furnace means for admitting oxygen thereinto to oxidize completely said exhaust gases to carbon dioxide, a drying chamber in communication with said furnace means for removing moisture from said gases, an infra-red gas analyzer adapted to analyze continuously the carbon dioxide content of the completely oxidized exhaust gases and to transmit an electrical signal proportional thereto, conduit means between said drying chamber and said analyzer for continuously circulating the dried gases through said analyzer, an electronic controller electrically connected to said analyzer, selector means on said controller adapted to be set at the air-fuel ratio at which the engine is to operate, valve-positioning means electrically connected to said controller and mechanically connected to said fuel flow control valve for varying the setting of said valve in response to variations in the signal from said controller.

2,773,350
**COMBUSTION CHAMBER ASSEMBLY FOR RAM JET FUEL BURNER**
Hilliard E. Barrett, East Orange, William S. Bower, Ridgewood, and William F. Payne, Cedar Grove, N. J., assignors to the United States of America as represented by the Secretary of the Air Force
Application January 31, 1950, Serial No. 141,562
7 Claims. (Cl. 60—35.6)



1. In a fuel burner adapted for ram jet operation a combustion chamber comprising a substantially cylindrical open end casing, a pilot burner mounted axially at one end of said casing, a first shroud surrounding said pilot burner, a plurality of gutters symmetrically mounted on the inner surface of said first shroud downstream from said burner said first shroud having also a plurality of openings between said gutters, louvers in said shroud adjacent to said openings disposed to give the flame of said burner a counterclockwise swirl, a pair of fuel annuli surrounding said first shroud, a plurality of main burner nozzles mounted exteriorly to but adjacent to said first shroud slightly downstream from the gutters therein, a second shroud concentric with said first shroud and extending downstream therefrom, said second shroud being attached to said first shroud by angled fins adapted to give the flame from said main burner nozzles a clockwise swirl, a third shroud mounted concentrically upon the downstream end of said second shroud and attached thereto by angled vanes, a larger number of main burner nozzles between said vanes than the first mentioned set of main burner nozzles, said vanes being angled to impart to the flame from said second set of main burners a clockwise swirl, connections from all of the aforesaid burners to at least one of said fuel annuli, and a plurality of structural members attached by one of their ends to a shroud for concentrically mounting said shroud assembly within said casing.

2,773,351
**POWER ACTUATED VEHICLE STEERING SYSTEMS**
Edwin Gustave Staude, Los Angeles, Calif.
Application December 30, 1955, Serial No. 556,606
12 Claims. (Cl. 60—52)

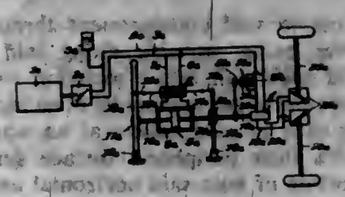


1. In a fluid volume control valve for a motor vehicle power steering system having a power unit operated by a pump driven by the engine of the motor vehicle, the combination comprising a control valve housing having inlet and outlet passages and a by-pass passage therebetween, said inlet passage being provided for connection in the line between the pump and the intake to the power unit, said outlet passage being provided for connection in the return line from the power unit to the pump, valve means in said by-pass passage, and means responsive to rate of flow of fluid from the pump for opening said valve means to draw off fluid through said by-pass passage from the inlet passage at relatively high vehicle engine speeds and correspondingly relatively high rate of flow and for closing said valve means to cut off said by-pass passage at relatively low vehicle engine speeds and correspondingly relatively low rate of flow of fluid from the pump, whereby to reduce the flow of fluid supplied to the power unit from a maximum supplied at said relatively low engine speeds when said valve means is closed.

2,773,352
**ROTARY PUMP AND MOTOR FLUID DRIVE**
Isao Fujii, Setagaya-ku, Tokyo-to, Japan
Application April 22, 1952, Serial No. 283,712
Claims priority, application Japan May 3, 1951
9 Claims. (Cl. 60—53)

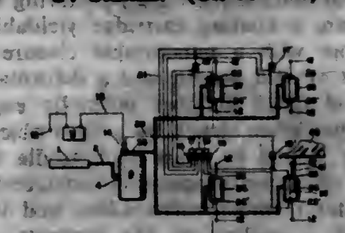
1. A pump and motor hydraulic system for use in transmitting power hydraulically from a prime mover to a driven means comprising, in combination, a fluid pump unit adapted to be driven by the prime mover, main fluid conduit lines for circulation of fluid from said pump to the driven means, and branch fluid conduit lines communicating with said main lines, said pump, said main conduit lines and said branch conduit lines providing a fluid circuit, and a control assembly acting upon the fluid in said circuit for varying the volume and direction of flow of the fluid supplied to the driven means, said control assembly including a direction control unit, a servo-motor mechanically connected to said direction control unit and supplied by fluid from said branch lines, a following valve connected in said branch lines for supplying fluid to said servo-motor for driving said motor in selected directions, and means for setting said following valve to control the movements of the servo-motor, said following valve comprising an outer cylindrical portion provided with first outlet and inlet connections communicating with said branch lines and second outlet and inlet connections communicating with said servo-motor, said inlet and outlet connections





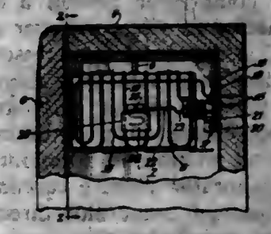
communicating with the interior of said outer cylinder and a side opening axially spaced in said outer cylinder from said inlet and outlet connections and communicating with one of said second inlet and outlet connections, a valve cylinder member slidably positioned for axial movement inside said outer cylindrical portion, said valve cylinder having annular slots on its outer surface communicating with the interior of the valve cylinder, and a piston member slidably mounted inside said valve cylinder for axial movement therein, said valve cylinder being connected to a lever and said lever being connected to the piston of the servo-motor for simultaneous movement of said valve cylinder with said piston, and said piston valve member being connected to said setting means, whereby the fluid flow in said second outlet and inlet connections is reversed or cut off by moving said piston valve member and said valve cylinder to certain positions.

2,773,353
**WINDOW OPERATING OR ACCESSORY SYSTEM**
John R. Oishei, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application May 18, 1953, Serial No. 355,473
14 Claims. (Cl. 60—60)



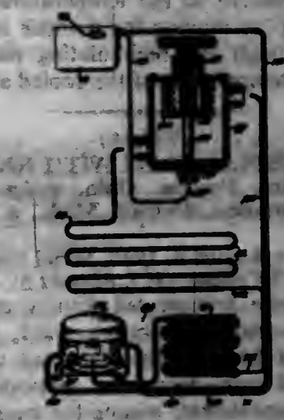
1. An accessory system for automotive vehicles, comprising in combination with a source of fluctuating suction, a fluid motor having a normally closed operational control valve, a suction line connecting the source to the motor, a reservoir having a normally closed inlet valve and a self-closing outlet valve interposed in the suction line between the source and the motor, the suction line beyond the reservoir being sealed off by said inlet valve to prevent the leakage of air into the reservoir, and a selector for simultaneously opening both normally closed valves.

2,773,354
**REFRIGERATOR DEFROST TERMINATION CONTROL SYSTEM**
Harry L. Tillman, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Application May 4, 1953, Serial No. 352,918
3 Claims. (Cl. 62—2)



1. In a refrigeration system having an evaporator and a means for defrosting said evaporator, a defrost termination control comprising a container mounted to one wall of said evaporator in thermal contact therewith, a quantity of ice disposed within said container when said evaporator is operating on a refrigeration cycle, said container formed in the shape of an open trough so that any water frozen therein can expand without breaking said container and so that any water and ice lost therefrom by evaporation is replaced by defrost water flowing over the surfaces of said evaporator and into said trough-shaped container, a length of tubing being closed at one end thereof, a bellows, the other end of said length of tubing being connected to one end of said bellows, a certain amount of a gas disposed within said length of tubing and said bellows, said gas of an amount sufficient to cause the operation of said bellows on an expansion thereof responsive to a rise in temperature of the entire length of said length of tubing some temperature above the freezing temperature of water, said closed end of said length of tubing being disposed within said container whereby said closed end of said length of tubing is maintained at a temperature below the freezing temperature of water when said means for defrosting said evaporator is operating until said ice disposed within said container is melted, and means connected to the other end of said bellows and operating responsive to the operation of said bellows for terminating said means for defrosting said evaporator.

2,773,355
**TWO-TEMPERATURE REFRIGERATING SYSTEM**
Ralph W. Doeg, Detroit, Mich., assignor to Nash-Kelvinator Corporation, Detroit, Mich., a corporation of Maryland
Application June 23, 1953, Serial No. 363,460
3 Claims. (Cl. 62—3)



1. Refrigerating apparatus comprising, a refrigerant evaporator to function at a low temperature, a refrig-





2,773,361

erant compressor having a cylinder operatively connected to said evaporator having a relatively high capacity corresponding to the low temperature to be maintained by said evaporator, a refrigerant condenser operatively connected to the outlet of said compressor cylinder, a second refrigerant evaporator operatively connected to said condenser to receive liquid refrigerant therefrom, said compressor having a second cylinder operatively connected to said condenser and to said second evaporator, said second compressor cylinder having a capacity less than said first compressor cylinder and being in parallel circuit relationship therewith, and a pressure responsive valve connecting said evaporators in series circuit relationship to maintain the pressure in said second evaporator above a certain value and also connecting said second evaporator directly to said low capacity compressor cylinder.

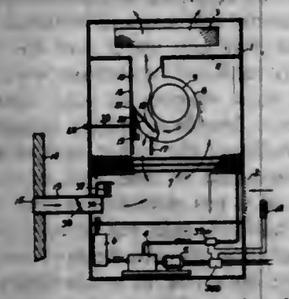
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2,773,356

## AIR COOLING SYSTEM WITH RECIRCULATING PASSAGEWAY

Robert C. Coblentz, Erie, Pa.

Application May 25, 1954, Serial No. 432,274
6 Claims. (Cl. 62—6)



1. In an air cooling system, a casing having an intake for air to be cooled and an outlet for cooled air, a subfreezing cooling heat exchanger within the casing in the path of the air flow between and spaced from the intake and outlet, a fan within the casing for producing a forced circulation of air from the intake over the heat exchanger to the outlet, the flow of air from the inlet side to the outlet side of the heat exchanger being unrestricted, a recirculating passageway within the casing spaced from and between the intake and the outlet from the casing and leading from the outlet side of the heat exchanger back to the intake side of the heat exchanger, a damper within the casing associated with the recirculating passageway and arranged on the outlet side of the heat exchanger at a point at which the cooled air has a positive pressure for deflecting part of the cooled air back from the outlet side of the heat exchanger through said passageway to the intake side of the heat exchanger for further cooling, and a thermostatic device within the casing and responsive to the temperature of the cooled air in the casing for moving the damper to cut down the flow of air through the recirculating passageway at a preselected low temperature of the cooled air in the casing.

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2,773,357

## OPEN TOP DISPLAY CASE WITH NIGHT COVER

James A. Canter, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 4, 1955, Serial No. 526,502
7 Claims. (Cl. 62—89.5)

1. A self-service refrigerated display case comprising in combination, insulated bottom, back, front and end walls forming a horizontally elongated open top compartment in said case, means for supporting food products in said compartment, means for cooling air in said case, means for circulating the cooled air around said food supporting means and over food products thereon, substantially parallel members having integral horizontal and vertical walls mounted on top of the insulated end walls of said compartment, said members being disposed in opposite relationship relative to one another and forming tracks along said compartment end walls, a rigid night cover for said compartment extending continuously across the length thereof and overlapping a portion of said insulated end walls, said cover including a single roller at each of its corners adapted to support same on said tracks, said cover having a part thereof normally lying over said compartment back wall and



affording access to said compartment through its open top, said cover being movable along said tracks forwardly of said back wall into association with the front wall of said compartment to close its open top, and means for mounting each of said rollers at an acute angle on said cover with their peripheral surface simultaneously engaging a portion of both said horizontal and said vertical walls of said members whereby to prevent angular shifting of said cover on said tracks and binding of the cover during movement thereof along the tracks.

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2,773,358

## SELF-COOLING CONTAINER

Paul C. Palmer, Phoenix, and Alfred O. Berry, Scottsdale, Ariz.

Application December 19, 1955, Serial No. 553,962
2 Claims. (Cl. 62—92)



1. A self-cooling container comprising, an inner receptacle, an outer member surrounding said receptacle, an insulative jacket surrounding said outer member, a bottom for said outer member, a puncturing needle fixed on said bottom, a cooling cartridge yieldably mounted on said bottom with a puncturable closure plug adjacent the point of said needle, and a deformable striking button on said outer member normally engaging said cartridge so that when struck by a hard object said cartridge will be moved to cause said needle to puncture said plug to cause an evaporative refrigeration gas to enter said outer member surrounding said inner receptacle to effect a cooling of the contents of said receptacle.

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2,773,359

## ABSORPTION REFRIGERATION APPARATUS

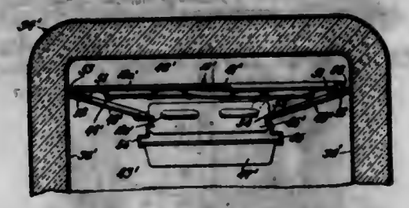
Wilhelm Georg Kogel, Karl Gunnar Boren, and Axel Harald Ostergren, Stockholm, Sweden, assignors to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden

Application July 1, 1952, Serial No. 296,672
Claims priority, application Sweden July 3, 1951
11 Claims. (Cl. 62—103)

1. A refrigerator comprising a cabinet having a thermally insulated interior defined by top, bottom, rear and



lateral side walls, an absorption refrigeration system comprising a gas circuit including a cooling unit having at least two sections disposed in the cabinet interior and comprising piping having active portions in which liquid refrigerant evaporates in the presence of an inert gas at a low average or mean temperature in one section and at a higher average or mean temperature in another section, means for flowing liquid refrigerant by gravity through said low and higher temperature cooling unit sections, respectively, means forming a part of said higher temperature cooling unit section which provides a relatively extensive heat transfer surface depending downwardly below said low temperature cooling unit section, said higher temperature cooling unit section taking up at least twenty-five percent less space between said lateral side walls than the overall width of said cooling unit



which extends a major portion of the distance between said lateral side walls, structure providing drip collecting and drainage surface means beneath said low temperature cooling unit section, said structure providing the drainage surface means having all parts thereof within a vertical range whose lower limit is at a level at least as high as the extreme lower portion of said higher temperature cooling unit section, said drainage surface means substantially in its entirety being offset laterally between said side walls with respect to said higher temperature cooling unit section and disposed alongside of the latter, said low and higher temperature cooling unit sections and drip collecting and drainage surface means forming a partition in the cabinet interior, and said higher temperature cooling unit section and drip collecting and drainage surface means, respectively, forming ceiling areas of that part of the cabinet interior which extends downwardly from said partition.

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2,773,360

## VEHICLE REFRIGERATING APPARATUS

Marshall W. Baker, Hal C. Johnston, and Charles F. Heaney, Dayton, Ohio, assignors to General Motors Corporation, Dayton, Ohio, a corporation of Delaware

Application January 16, 1952, Serial No. 266,718
1 Claim. (Cl. 62—117)



In combination, a compressor, a variable speed power source for said compressor, a condenser, an evaporator, a receiver, refrigerant flow connections between said compressor, condenser, receiver and evaporator, said connections including a check valve between said condenser and said receiver, and a by-pass connecting the inlet of said compressor to said fluid flow means at a point between said condenser and said check valve whereby refrigerant may be circulated between said compressor and said condenser without passing through said receiver and said evaporator.

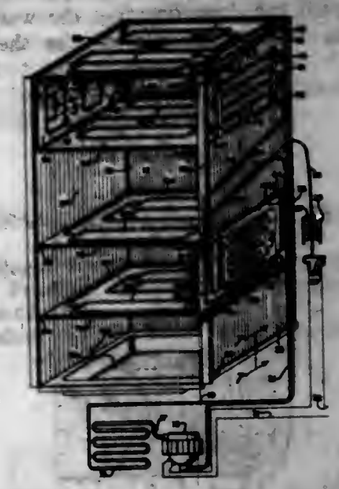


2,773,361

## REFRIGERATOR CABINET AND EVAPORATOR STRUCTURE

James W. Jacobs and Clifford H. Wertz, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 8, 1953, Serial No. 366,692
3 Claims. (Cl. 62—117.3)



2. In a refrigerator, a cabinet having an outer housing, an open ended substantially U-shaped metallic liner spaced from said housing forming the back and opposed side walls only of a chamber within said cabinet, a unitary substantially U-shaped sheet metal evaporator wholly disposed within said liner, the bight portion of said U-shaped evaporator intermediate arms thereof lying along and being secured to one of the opposed side walls of said chamber, one of said arms of the evaporator being substantially flush with the upper edge of said liner and secured thereto for closing the upper open end thereof to provide a top wall of said chamber, a pan member separate from and secured to said liner at its lower edge for closing the lower open end thereof to provide a bottom wall of said chamber, said one arm of said evaporator and said pan member tying the legs of said U-shaped liner to one another against relative movement therebetween, insulating material in the space between said housing and said liner, the other of said arms of the evaporator extending horizontally across said chamber and dividing same into an upper compartment and a lower compartment, said evaporator having refrigerant conveying passages formed in and traversing said arms and said bight portion thereof for cooling three walls of said upper compartment, means for supplying refrigerant to said passages and for withdrawing refrigerant therefrom, and said means including a conduit portion extending along said liner in contact therewith at a fourth wall of said upper compartment intermediate the ends of the arms of said evaporator whereby to cool four walls thereof.

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2,773,362

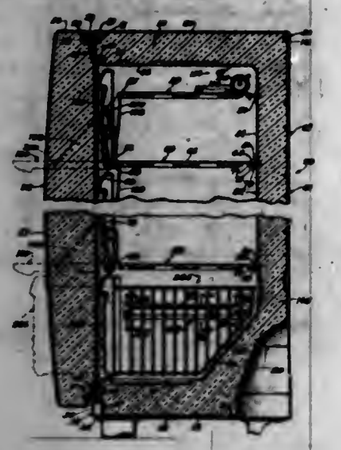
## REFRIGERATORS FOR FREEZING FOOD AND STORAGE OF FROZEN FOOD

Thomas G. Scheidler, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware

Application May 18, 1953, Serial No. 355,615
8 Claims. (Cl. 62—117.3)

1. In a refrigeration system for frozen food storage, the combination of an insulated cabinet having an outer shell and an inner liner separated by insulation, and having a door opening and an insulated door; a motor compressor located at the rear bottom corner of said cabinet and partially housed in a recess in said shell, and including a motor with a motor housing, a compressor

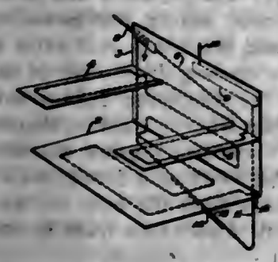
carried below the motor and driven thereby, and located in an oil sump below the motor housing, a plurality of evaporator shelves carried by the walls of the liner, and having freezing coils connected in series with each other, a main condenser including said outer shell, and sinuous tubing carried by the sides, back, top, and bottom of the shell on its inside, the said tubing extending forwardly on both sides of the shell and having U-bends located adjacent the door opening, the warm condenser tubing raising the temperature of the shell about the



door opening and breaker strips to a point above the dew point to prevent condensation about the door opening, and a pre-cooler condenser carried by the motor compressor behind said cabinet, said compressor having its outlet directly connected to said pre-cooler, said pre-cooler discharging into the top of the motor housing, said motor housing having an upper conduit leading to said main condenser, a capillary tube restrictor extending from said main condenser to said evaporator shelves, and a suction conduit extending from the evaporator shelves to the suction inlet of the compressor.

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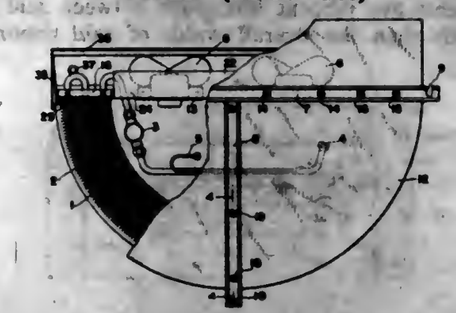
**2,773,363**
**REFRIGERATOR EVAPORATOR WITH DEFROSTING MEANS**
**Si J. Williams, Jr., Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware**
**Application December 29, 1952, Serial No. 328,449**
**9 Claims. (Cl. 62—126)**



1. An evaporator adapted for use and disposition wholly within a compartment formed in a refrigerator cabinet comprising a horizontally disposed base and a vertically disposed rear wall attached thereto, a first length of serpentine tubing formed in said base and in said rear wall, a second length of tubing connected in parallel to said first length of serpentine tubing, a portion of said second length of tubing being convoluted and depending from said rear wall below said base, a section of said portion of said second length of tubing extending in a diagonally downward direction, whereby liquid refrigerant collects in said section of said portion of said second length of said tubing when said evaporator is connected in a refrigerator, heating means mounted in thermal contact with said section of said portion of said second length of tubing for heating said section to cause said liquid refrigerant to assume a hot gaseous state, said first length of serpentine tubing being convoluted so that the hot gases are projected throughout said first length of said serpentine tubing when said liquid refrigerant is heated to said hot gaseous state.

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**2,773,364**
**COOLER UNIT**
**David B. Zipser, Baltimore, Md., assignor to Tenney Engineering, Inc., Newark, N. J., a corporation of New Jersey**
**Application December 21, 1953, Serial No. 399,290**
**2 Claims. (Cl. 62—140)**



1. In a ceiling-mounted cooler unit of generally semi-circular shape incorporating a coil located around the curved periphery of the unit, the combination of a ceiling plate; coil suspension means depending therefrom and supporting the coil at each of its ends; coil hanger means depending from the ceiling plate intermediate the ends of the coil; a fixed drain pan depending from the coil suspension means and extending across the diameter of the unit beneath the coil ends; a drip-closure plate extending beneath the coil and the space enclosed by it, with its rearward edge above and overlapping the forward edge of the drain pan; means associated with the coil suspension means for slidably supporting the rear of the drip-closure plate; and means for removably securing the forward edge of the said drip-closure plate to the coil hanger means.

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**2,773,365**
**VIBRATION-DAMPING HUB AND SHAFT ASSEMBLIES**
**George A. Delf and Glenn A. Delf, St. Louis, Mo.**
**Application November 23, 1953, Serial No. 393,838**
**6 Claims. (Cl. 64—11)**



1. In a shaft-driven rotary assembly subject to communication of vibrations between a rotary member and a shaft, a drive shaft, a hub secured to the shaft, a rotary member including a center disc, said center disc being provided with a plurality of apertures, a bushing structure of a non-metallic resilient material, the center disc being provided with a central hub aperture the margins of which are spaced from the hub, the resilient material being disposed between the hub and the center disc in the region of the central hub aperture, and overlying the opposite faces of the center disc under compression such that portions of the resilient material extend into said apertures of said center disc, a shoulder formation on said hub, said shoulder formation being provided with



a plurality of projections, a plate element provided with a plurality of recesses adapted to receive and be interfitted by said projections, the resilient material disposed adjacent said plate element under compression so that a portion extends into the recesses of said plate element, a second plate element mounted on said hub, and provided with a plurality of recesses, said resilient material having portions on the other side of said center disc that extend into the recesses of said second plate element, and means including portions of the hub for axially and angularly fixing the center disc, plate elements, and resilient material to the hub.

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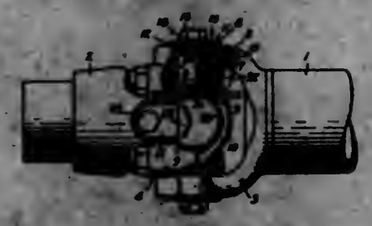
**2,773,366**
**SEALED UNIVERSAL COUPLING TRUNNION BEARINGS**
**William W. Slaght, Rocky River, Ohio, assignor to Cleveland Steel Products Corporation, Cleveland, Ohio, a corporation of Ohio**
**Application December 31, 1952, Serial No. 328,974**
**12 Claims. (Cl. 64—17)**



1. In a universal coupling having a yoke provided with an arm spaced laterally from the axis of rotation of the coupling and a cross having a trunnion journaled in said arm, the combination therewith of a sealed bearing for said trunnion comprising a cup bearing attached to said yoke and receiving said trunnion, means on said cross forming an annular channel concentric with said trunnion and receiving the inner end of said cup bearing, and an elastic and flexible sealing ring fitting in said channel and confined between the inner end of said cup bearing and the bottom of said channel, said sealing ring having inner and outer spaced annular bearing portions in sliding contact with said cup bearing and an annular channel between said bearing portions for retaining a body of lubricant so positioned that the lubricant will be pressed by centrifugal force against said cup bearing between said bearing portions during rotation of the coupling.

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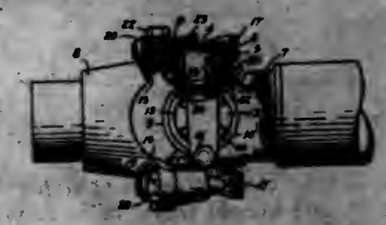
**2,773,367**
**SEALED TRUNNION BEARINGS IN UNIVERSAL COUPLINGS OF THE CROSS AND YOKE TYPE**
**William W. Slaght, Rocky River, Ohio, assignor to Cleveland Steel Products Corporation, Cleveland, Ohio, a corporation of Ohio**
**Application July 26, 1952, Serial No. 301,036**
**8 Claims. (Cl. 64—17)**



1. In a universal coupling having a yoke provided with an arm spaced laterally from the axis of rotation of the coupling and a cross provided with an arm extending outwardly from said axis of rotation and terminating in a trunnion, the improvement which comprises: a sealed bearing for said trunnion comprising a bearing cup on said trunnion and attached to said arm, said cup having a peripheral wall surrounding said trunnion and terminating adjacent the inner end thereof, and a flexible and elastic sealing collar surrounding said trunnion arm and having a circumferentially continuous portion engaging the inner end of said cup wall throughout the circumference thereof, said collar being formed to provide a lubricant reservoir extending throughout its circumference between the inner end of said cup wall and the coupling axis and opening to the inner end of said wall radially inwardly of said continuous portion, whereby during rotation of the coupling lubricant is retained in said reservoir by said continuous portion and is subjected to centrifugal force tending to cause outward flow between the outer end of said collar and said bearing cup.

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**2,773,368**
**UNIVERSAL COUPLINGS WITH SEALED BEARINGS**
**William W. Slaght, Rocky River, Ohio, assignor to Cleveland Steel Products Corporation, Cleveland, Ohio, a corporation of Ohio**
**Application May 22, 1952, Serial No. 289,367**
**1 Claim. (Cl. 64—17)**



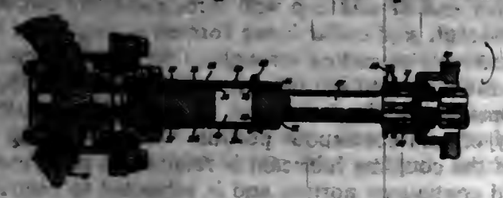
A universal joint comprising a cross with arms each terminating in a trunnion and having two pairs of axially alined trunnions, each of said arms having a yielding resilient sealing ring extending around the same inwardly of said trunnion, means for securing said rings to said arms and holding the same against bodily movements axially of the trunnions, a bearing on each trunnion that has an internally cylindrical sleeve and rollers within the sleeve that have rolling engagement with the trunnion and sleeve, said sleeve having an inner end face slidably engaging said sealing ring and being provided with an external groove extending around the same near its inner end, a combined sealing and bearing retaining collar of elastic rubber having an outer end portion embracing said sleeve and engaging in said groove, an inner end portion embracing said arm inwardly of said sealing ring and an outwardly bulged thin flexible tubular wall connecting said end portions, yokes having arms to which said bearing sleeves are attached, one of said yokes having arms provided with open sleeve receiving seats alined transversely of the yoke axis, stop plates attached to said arms for engagement with the outer ends of the sleeves engaging the seats, said plates having inclined outwardly flaring outer end portions for engagement with the outer ends of axially alined sleeves to move the said sleeves inwardly on said trunnions and press the same against said yielding resilient sealing rings, and means for clamping the bearing sleeves to said open seats.

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**2,773,369**
**TORQUE LIMITING DEVICE FOR TRACTOR**
**Herman G. Klemm, Birmingham, Mich., assignor, by mesne assignments, to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland**
**Application March 9, 1954, Serial No. 414,923**
**5 Claims. (Cl. 64—28)**

1. In a tractor having a low speed transmission the combination comprising a drive shaft, a driven shaft in alinement therewith, a metallic sleeve telescoped over said shafts and having a splined connection with each of them, said sleeve having a circumferential groove formed therein between said splined connections, disengageable means

for preventing telescoping movement between said sleeve and either of said shafts, one of said shafts extending into said sleeve beyond said groove so that upon shearing of



said sleeve at said groove both halves of said sleeve are maintained in their normal axial relation in place on said shafts.

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2,773,370
TORQUE LIMIT CLUTCH
Julius Istranik and Martin O. Kalb, New York, N. Y.
Application April 24, 1953, Serial No. 351,065
7 Claims. (Cl. 64—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)

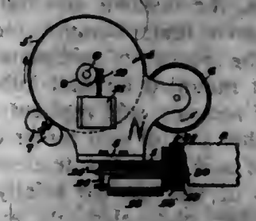


1. A torque limit clutch comprising a driver shaft and a driven shaft, one of said shafts being formed with an axial cylindrical recess at one end, one end of the other of said shafts nesting within the recess in said one of said shafts, the one end of said one shaft having the recess further formed with a plurality of radial passages, all of the passages being in a single transverse plane and communicating with the axial cylindrical recess, a circular series of depressions, each of predetermined configuration, formed adjacent the one end of said other shaft at such distance from the end thereof that the plane of the radial passages in said one shaft and the plane of depressions in said other shaft coincide when said other shaft is properly nested in the recess in said one shaft, a bearing sleeve between the contiguous ends of said two shafts, a plurality of torque transmitting members engaging said driver and said driven shafts, said torque transmitting members positioned in the radial passages in said one shaft and adapted to seat in the depressions in said other shaft, biasing means for said torque transmitting members, said biasing means including a plurality of flat springs equal in number to the radial passages in said one shaft and fastened at one of their ends to extend longitudinally of said one shaft so that their free ends overlay the radial passages, said flat springs being bowed when the free ends thereof abut said torque transmitting members in the corresponding radial passages for firmly seating them in the depressions in said other shaft, an adjusting means for said biasing means, said adjusting means comprising a nut adapted to vary the degree of bow in the flat springs to thereby vary the force exerted upon the torque transmitting members for seating them in the depressions in said other shaft, a locking means for said adjusting means, and a second locking means for preventing relative axial movement of said shafts.

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2,773,371
APPARATUS FOR AND METHODS OF MAKING AN APPLIQUE KNITTED FABRIC
David Pelton Moore, Glen Oaks, N. Y.
Application January 10, 1952, Serial No. 265,782
11 Claims. (Cl. 66—9)

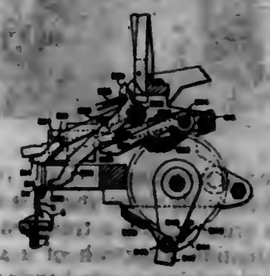
1. A method of making an applique knitted fabric, which consists in feeding basic yarn into the needles of a knitting machine during the knitting operation to make a jersey type fabric, and while so knitting jacquard-control feeding of short loose fibers to selected needles during



the knitting operation to knit in with the basic yarn scattered plush designs.

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2,773,372
KNITTING MACHINE
Stanley R. Shelmire, Laconia, N. H., assignor to Scott & Williams, Incorporated, Laconia, N. H., a corporation of Massachusetts
Original application April 2, 1952, Serial No. 280,050. Divided and this application October 5, 1954, Serial No. 460,328
6 Claims. (Cl. 66—140)



1. A circular knitting machine comprising a needle cylinder, needles carried by said cylinder, yarn feeding means, means for producing relative reciprocatory movements between said cylinder and said yarn feeding means, said yarn feeding means comprising a group of yarn fingers associated at a common feed, means for selectively moving said yarn fingers into and out of action, and yarn clamping means located within the needle circle and associated with said group of yarn fingers, said clamping means comprising a pair of clamping elements, resilient means providing clamping pressure between said elements, and additional means for augmenting said clamping pressure.

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2,773,373
COMBINATION WASHER AND WASH TUBS
James W. Corson, Aztec, N. Mex.
Application September 28, 1954, Serial No. 458,736
3 Claims. (Cl. 68—13)



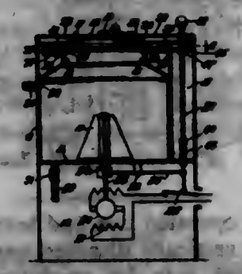
1. A combination washer and wash tub assembly comprising a washer, a wringer, means swingably mounting said wringer on said washer and enabling said wringer to be moved into overlying position with respect to said washer, a pair of tubs, one of said tubs being smaller than the other of said tubs said tubs being hingedly attached to said washer by means of hinges with the axes of said hinges being substantially horizontal and with



the tubs being swingable into overlying relationship with respect to said washer with a first of said tubs encasing said wringer and the other of said tubs encasing said first tub, said tubs having recesses in the bases thereof, a plurality of legs, and means attaching said legs to said tubs enabling said legs to seat in said recesses flush with said tubs when folded and enabling said legs to support said tubs when extended.

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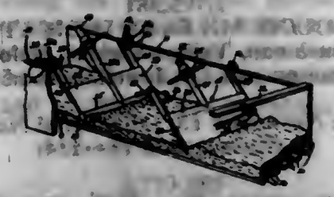
2,773,374
LAUNDRY MACHINE HAVING DETACHABLE COVER
Tord Erik Daniel Blide, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden
Application January 22, 1952, Serial No. 267,655
Claims priority, application Sweden January 23, 1951
9 Claims. (Cl. 68—133)



1. In combination with a laundry machine having a receptacle formed with an access opening and a cover therefor, the access opening being defined by a rim having an inner face, means for holding the cover in a closed position at the access opening with the peripheral edge thereof located against the inner face of the rim, mechanism for effecting at least one step in the washing of laundry in the receptacle, and control means for starting and stopping said mechanism, said control means including structure operable to stop said mechanism responsive to movement of the cover from its closed position at the access opening.

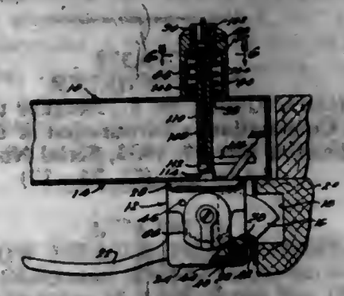
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2,773,375
FIBER WET-TREATING APPARATUS
Charles W. Cox, Decatur, Ala., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application May 25, 1953, Serial No. 357,164
14 Claims. (Cl. 68—205)



1. An apparatus for treating a running blanket of fibrous material, said apparatus including a conveyor having a permeable surface on which said fibrous material is adapted to be disposed, means for discharging a narrow stream of liquid angularly toward said permeable surface, said liquid stream being of sufficient velocity to substantially penetrate and convert said fibrous blanket on said permeable surface into a liquid suspension of fibrous material, baffle means connected in juxtaposed relationship with said liquid discharge means, said baffle means being adapted to prevent backwashing of said liquid suspension of fibrous material, and means for supporting said baffle and liquid discharge means for movement as a unit relative to said conveyor.

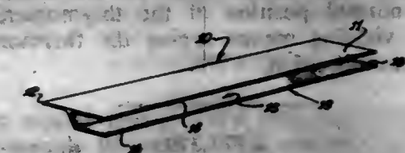
2,773,376
DOOR LATCH AND LOCK
George Wartian, Detroit, Mich., assignor to Wartian Lock Company, St. Clair Shores, Mich., a corporation of Michigan
Application June 10, 1954, Serial No. 435,813
11 Claims. (Cl. 70—150)



1. A door latch comprising a casing adapted to be mounted on one side of a door, a latch bolt pivoted in said casing and adapted to swing into and out of said casing between unlatched and latched positions thereof, an actuating member engageable with said latch bolt for swinging said latch bolt to its unlatched position, spring means reacting between said casing and latch bolt and urging the latter to latched position, a locking member movably mounted in said casing and adapted to be moved ipto the path of movement of said latch bolt to lock said latch bolt in its latched position against movement by said actuating member, a slidable and rotatable plunger adapted to be mounted on the other side of the door, said plunger being manually depressible and operable upon depression thereof for moving said latch bolt to its unlatched position, said plunger upon rotation thereof being engageable with said locking member for moving the same to and from its locking position, and key-operated lock means associated with said plunger for locking the latter against rotation.

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2,773,377
FEATHEREDGE
Robert K. Squire, Los Angeles, Calif., assignor to Superior Scaffold Company, Culver City, Calif., a corporation of California
Application July 10, 1953, Serial No. 367,145
2 Claims. (Cl. 72—136)

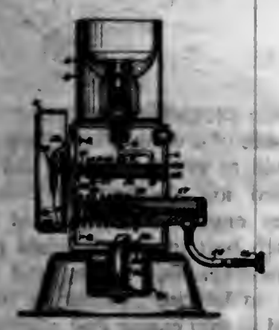


1. A featheredge comprising an elongated substantially flat plate member having a pair of substantially parallel and substantially straight line opposite longitudinal edges, a second substantially flat plate member disposed in a plane substantially parallel with and spaced from said first mentioned plate member and having a pair of substantially parallel and substantially straight line opposite edges, said members being oriented with all said edges substantially in parallel relationship with one another, a first of said second member edges being oriented over said first member and intermediate said two edges of said first member, and a third plate member having a pair of substantially parallel and substantially straight line opposite edges, a first of said edges of said third member being integral with said first member along a line intermediate said two edges of said first member and uniformly spaced from a first of said edges of said first member, and the second of said edges of said third member being integral with said second member along said first edge of said second member, said second edge of said third member being rearward of said first edge of said

third member relative to said first edge of said first member, to provide an inclined portion along said third plate member adapted to be contacted by fingers of a user when the second edge of the second member is grasped by the thumb, whereby said second and third plate members form a hand grip for grasping the featheredge in use.

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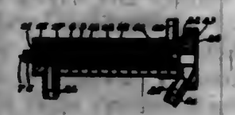
2,773,378
FREEZEMETER
E. Elliott Hood, Elmira, N. Y., assignor to Bendix Aviation Corporation, a corporation of Delaware
Application July 27, 1953, Serial No. 370,366
2 Claims. (Cl. 73—17)



1. In a freeze-test meter for arctic coolants for internal combustion engines, a thermometer having a movable indicating element and a cylindrical stem containing its heat-sensitive element, a frost tube of slightly larger internal diameter than the external diameter of the thermometer stem, surrounding the portion of said stem containing the heat-sensitive element, means including packing means for closing the space between the thermometer stem and the frost tube and maintaining the tube and stem in coaxial relation to provide a sample holder while permitting relative rotation thereof, means for introducing a sample of the liquid to be tested into the space surrounding the thermometer stem within the frost tube, means for cooling said tube below the freezing point of the sample, and means for accelerating the transfer of heat through the sample and for promoting solidification of the sample by oscillating the thermometer stem in the frost tube; including further a frame, means for rotatably mounting the thermometer in the frame, means for defining the normal position of the thermometer in the frame and yielding means urging the thermometer toward its normal position.

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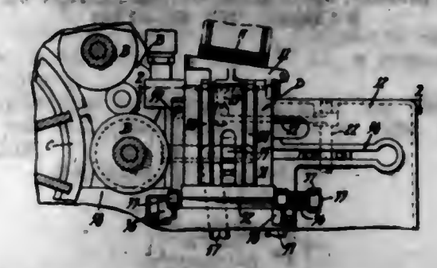
2,773,379
FREEZEMETER
E. Elliott Hood, Elmira, N. Y., assignor to Bendix Aviation Corporation, a corporation of Delaware
Application July 27, 1953, Serial No. 370,381
2 Claims. (Cl. 73—17)



1. In a device for determining the freezing point of liquid coolants for internal combustion engines, a thermometer having a smooth cylindrical stem, a frost tube of substantially larger diameter than said stem coaxially mounted thereon, means adjacent the ends of the tube for sealing the space between the thermometer stem and the interior of the tube, means for introducing a sample of liquid to be tested in said space, means for cooling the tube below the freezing point of the sample, heat conductive movable means in said space in contact with the thermometer stem and the interior wall of the frost tube, for agitating the sample of liquid and promoting transfer of heat through said space, and manually operable means for actuating said movable means; in which the movable means comprises a coiled spring having spaced convolutions loosely fitting in the space around the thermometer stem within said frost tube.

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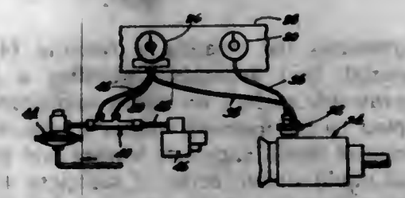
2,773,380
FEEDING DEVICE FOR CAN END TESTING MACHINE
Benjamin L. Hoyne, Jersey City, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application October 1, 1952, Serial No. 312,545
11 Claims. (Cl. 73—45.2)



1. In a power operated can end testing machine having a plurality of vertically disposed tester heads movable in a predetermined path for receiving can ends to be tested, the combination of a magazine for holding can ends in stacked formation, a substantially horizontal can end support under said magazine, means for separating the lowermost can end from said magazine and laying it on said support, means for propelling said separated can end along and from said support, a pair of spaced tracks leading from said support to a transfer station, a pair of vertically disposed curved guide rails aligned with and in spaced relation to said tracks for guiding the leading edge of said can end and thus cooperating with said tracks in receiving said separated can end in a substantially horizontal position from said propelling means and for guiding and turning said can end about an axis in transverse relation to its downward path as it drops from said support to a substantially vertical position at said transfer station, means disposed at said transfer station for locating the can end in alignment with a said tester head, and means for advancing the can from said station in said tester head for testing.

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2,773,381
GASOLINE MILEAGE INDICATOR
William S. Touchstone, Yellow Springs, Ohio, assignor to Pere C. Sorensen and Lee Jewell, both of Wauwatosa, Wis.
Application November 15, 1952, Serial No. 320,760
12 Claims. (Cl. 73—114)

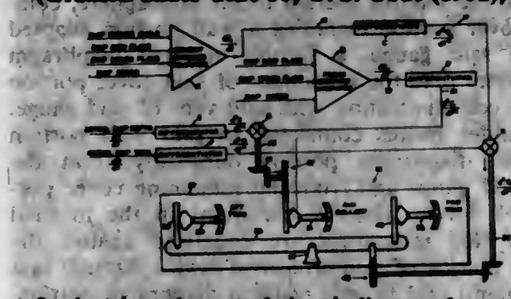


1. In an engine efficiency meter, the combination comprising a rotor member, at least three weight members equally circumferentially spaced about and mounted on said rotor member and normally extending at an acute angle to the axis of rotation of said rotor member, axle means for pivotally mounting each of said weight members on said rotor member, a plurality of levers respectively rigidly connected with said weight members and extending generally radially inwardly, a member freely supported by inner ends of said levers, pivot members respectively connecting the inner ends of said levers with said freely supported member, each of said pivot members being disposed radially with respect to the rotor member axis, each of said axle means having portions thereof freely disposed within recess means in one of said members, said recess means having dimensions greater than said portions of said axle means and partially defined by an elongated substantially flat bearing surface means extending radially of said rotor member to provide reduced frictional contact between said portions of said axle means and surfaces of said recess means and to permit said axial portions to shift along said flat bearing surface means upon pivotal movement of the weight members and levers under the influence of centrifugal force, means for driving said rotor member in response to engine performance, said weight members being movable by centrifugal force upon driving said rotor member to create a force on said freely supported member, means responsive to fuel flow through an engine fuel line for creating a force substantially proportional to the square of the fuel flow, and means for combining the forces created by the functioning of said fuel flow responsive means and the functioning of said weight members to indicate engine efficiency.



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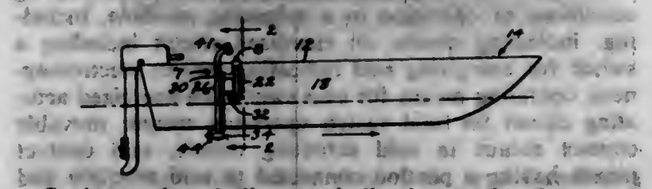
2,773,382
SUBMARINE TRIM INDICATOR
Woodford M. Read, Hicksville, N. Y.
Application July 3, 1952, Serial No. 297,192
2 Claims. (Cl. 73—178)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. A trim characteristics indicator for a submarine comprising a differential, rotatable means connected to said differential to indicate forward and aft trim, a multiple indicator unit comprising a plurality of spaced indicators and means connecting said first rotatable means with first and second of said indicators whereby the trim differences are detected automatically, said connecting means comprising an off-centered pivoted lever arm, means connecting one end of the arm to said first indicator, and means connecting the other end of the arm to said second indicator to display the difference between the forward and aft trim of the submarine.

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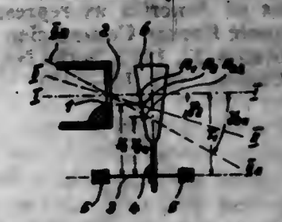
2,773,383
SPEEDOMETER AND ODOMETER FOR BOATS
Herbert H. Kersten, Fort Dodge, Iowa
Application February 11, 1955, Serial No. 487,583
8 Claims. (Cl. 73—187)



7. A speed and distance indicating device for small boats comprising an elongated supporting member having a lower end and an upper end, impeller means supported by the lower end of said supporting member, a speedometer-odometer mounted on the upper end of said supporting member, means forming a driving connection between said impeller means and the speedometer-odometer, a mounting clamp adapted to be secured to a part of a boat, a sleeve swivelly supported by said clamp in an outboard position, a supporting arm fixed to and extending laterally from said sleeve and connected to said supporting member for mounting the supporting member in substantially a vertical position and with the lower end thereof in a submerged position, said sleeve swivelling about a vertical axis whereby said supporting member will assume a trailing position relative to the sleeve with respect to the direction of travel of the boat.

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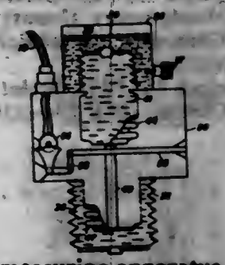
2,773,384
GAS FLOW MEASURING EQUIPMENT
Hans Gehre, Oberkassel (Rhine), Siegkreis, Germany
Application October 30, 1950, Serial No. 192,995
In Germany August 15, 1949
Public Law 619, August 23, 1954
Patent expires August 15, 1969
9 Claims. (Cl. 73—230)



1. In an axial flow measuring wheel meter for measuring volumes of fluids by flow velocity measurement, a measuring wheel mounted for rotation about an axis extending in the direction of flow, an orifice plate positioned substantially normal to the flow axis of the meter having a plurality of apertures arranged circularly about said axis, and collectively defining a throttle opening for directing fluid passing therethrough to impinge on said measuring wheel, said apertures being divided into a first section, a second section, and a third section, each of said sections consisting of at least one aperture, the aperture of said first section having two opposing profiles with contrasting flow characteristics, the aperture of said second section having two opposed profiles with flow characteristics similar to each other, the aperture of said third section having two opposing profiles with flow characteristics similar to each other, but contrasting to the flow characteristics of said second section.

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2,773,385
SHORE WAVE RECORDER (SHALLOW WATER)
Joe W. Johnson, Berkeley, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application June 28, 1954, Serial No. 439,945
3 Claims. (Cl. 73—301)

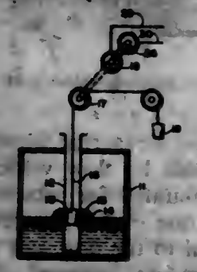


2. In pressure measuring apparatus for measuring pressure changes due to the overhead passage of large waves and low swells from points below the surface of the water, underwater means responsive to the average sea water pressure around said means, underwater means responsive to an instantaneous sea water pressure, differential pressure responsive means connected to both said means and directly movable in response to the differen-

tial pressure between both said means, and combined sharp-based and underwater measuring means having an underwater portion connected to said differential pressure responsive means and a sharp-based portion connected to said underwater portion for measuring said differential pressure, said underwater means responsive to the average sea pressure comprising a housing, a bellows mounted in said housing, a non-corrosive bellows mounted over said first named bellows and in communication therewith, a quantity of fresh water filling the combined volume enclosed by said bellows, a closed container having a filter covered opening therein to admit sea water of average pressure, said non-corrosive bellows being disposed in said container and exposed to sea water of average pressure therein, said sea water being of an average sea water pressure around said non-corrosive bellows and including the pressure due to tides.

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2,773,965
**LIQUID LEVEL INDICATOR**
Earl O. Swichard, Jr., Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application February 21, 1955, Serial No. 489,816
3 Claims. (Cl. 73—313)



1. An apparatus for indicating the level of a liquid in a closed container comprising a high-mu ferromagnetic toroidal element supported inside a float, a non-ferromagnetic tube having a closed bottom end and a length greater than the depth of the container and being sealed to and supported vertically by the top of the container so that it depends in said container, said float surrounding and freely slidable along said tube and floating on the surface of said liquid, a differential transformer having a length approximately equal to the height of the float and being slidably supported within said tube, said transformer adapted to produce an unbalance voltage when asymmetric in relation to said toroidal element, remote means responsive to an unbalanced voltage for moving said transformer to a symmetric balanced voltage position, said symmetric position having a known relation to the level of the liquid.

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2,773,967
**LIQUID LEVEL GAGE**
Frank W. Miller, Montgomery County, Pa., assignor to Yarnall-Waring Company, Philadelphia, Pa., a corporation of Pennsylvania
Application August 18, 1953, Serial No. 374,962
15 Claims. (Cl. 73—330)



1. In a liquid level gage, a gage body having an interior vertical passage with side openings, connections to the passage at the top and bottom, opposed gage glasses on opposite sides of the body closing the side openings and adapted to transmit light through the side openings, covers provided with openings generally corresponding to the openings in the body, located on the outsides of the gage glasses and means for applying pressure to the covers to anchor the gage glasses in place against the body, in combination with metallic shields, each having a thickness of between 0.004 and 0.040", each having an opening generally corresponding with the openings in the body, interposed between the gage glasses and the body and having a flange extending generally at right angles to the shield and in spaced relation to the gage body inwardly into the vertical passage continuously over the top and sides of the opening.

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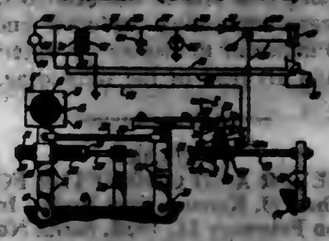
2,773,968
**PROTECTIVE HOUSING FOR INSTRUMENTS**
Thomas W. Preuss, Riverside, Calif.
Application August 18, 1952, Serial No. 304,896
10 Claims. (Cl. 73—431)



8. A protective device adapted to seal and prevent the entrance of dirt, moisture and other foreign matter into the interior of a vacuum gauge including a casing having a vent from the interior thereof to the atmosphere, comprising a cover portion including a wall portion adapted to envelop said gauge, a flexible resilient diaphragm portion thinner than the remainder of said cover portion which is in communication with said vent of said gauge, and a shoulder means connected to said wall portion spacing said diaphragm portion outwardly from the casing of said gauge and from the remaining cover portion of said device whereby variations in the internal pressure of said instrument are equalized against the atmosphere outside of said protective device through said vent and against said flexible resilient diaphragm portion.

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2,773,969
**BALANCING MACHINE INDICATOR**
William F. King, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 15, 1951, Serial No. 215,715
9 Claims. (Cl. 73—462)

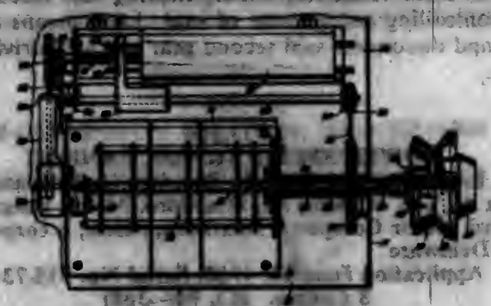


1. Apparatus of the character described for indicating conditions of operation in a balancing machine, including: indicating means; an energized circuit including a switch for energizing said indicating means; electromagnetic operating means for said switch; an energized actuating circuit for said switch operating means; movable contact means in said actuating circuit, said contact means having a portion connected to said machine and movable in accordance with the amount of unbalance in the operation thereof to close said actuating circuit periodically for time durations increasing with the amount of unbalance; and a condenser connected across said switch operating means to control the operation of said switch operating means as a function of time duration during which said actuating circuit is closed.



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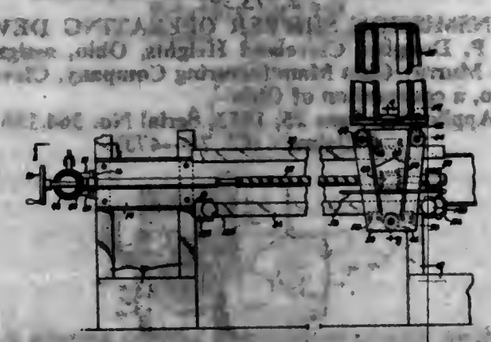
2,773,390
**PLURAL TUNER DRIVE**
Richard C. Osler, Elmhurst, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application July 14, 1953, Serial No. 367,952
10 Claims. (Cl. 74—10.49)



1. A tuner assembly for a television receiver or the like including in combination, a first tuning unit having front and back ends, a drive shaft for said first unit extending from the front end thereof, a first indicator knob affixed to the end of said shaft remote from said first tuning unit and having a viewing aperture therein, a second tuning unit having front and back ends, said second tuning unit being mounted adjacent said first tuning unit, a main drive shaft for said second unit extending from the back end thereof, an auxiliary drive shaft for said second unit rotatably mounted within said drive shaft of said first unit and having a portion extending through the back end of said first unit, means for coupling said portion of said auxiliary drive shaft to said main drive shaft of said second unit to establish a driving connection to said second unit, an indicator drive shaft rotatably mounted on said drive shaft of said first unit in coaxial relation therewith, a second indicator knob mounted on said indicator drive shaft and nested within said first indicator knob to be viewable through the aforesaid aperture in said first indicator knob, and means for coupling said main drive shaft of said second tuning unit to said indicator drive shaft to establish a driving connection from said second unit to said second indicator knob.

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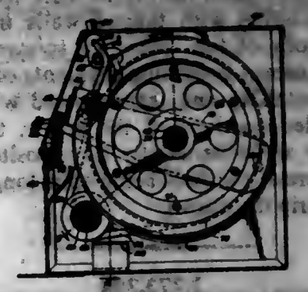
2,773,391
**REELING DISTRIBUTOR**
Carl O. Brunelle, Metuchen, N. J., assignor to Syncro Machine Company, Perth Amboy, N. J., a corporation of New Jersey
Application August 24, 1955, Serial No. 530,247
8 Claims. (Cl. 74—89)



1. In a traversing mechanism of the type described a rotatably supported lead-screw shaft, means forming a guideway, a carriage movable on said guideway means and a driving connection between said shaft and carriage in combination with means for rotating said shaft in either direction comprising a power driven wobble plate, a pair of oppositely acting clutches having a driving connection with said shaft and means for selectively connecting said clutches to said wobble plate.

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2,773,392
**POWER TRANSMISSION**
George J. Clark, Chester, Iowa
Application June 29, 1953, Serial No. 364,669
6 Claims. (Cl. 74—269)



1. In a transmission, a frame, an input shaft supported by said frame, an output shaft supported by said frame, said shafts being movable toward and away from each other over a range of spacings, there being a first spacing at which a first driving means interconnects said shafts in a first driving relation, there being a second spacing of said shafts, smaller than said first spacing, at which a second driving means interconnects said shafts in a second driving relation, there being a third spacing of said shafts, intermediate said first and second spacings, where there is no driving interconnection between said shafts, one of said driving means being operative to cause said shafts to rotate in the same directions and the other said driving means being operative to cause said shafts to rotate in opposite directions, means including a toggle linkage for maintaining said shafts at said first spaced relation, means including a single spring so positioned and arranged and gravity operating opposite to said spring for maintaining said shafts at said third spacing, and means including a control member for overcoming the bias of said spring to adjust the spacing of said shafts to said second spacing.

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2,773,393
**VARIABLE PITCH SHEAVES**
David Firth, South Bend, Ind., assignor to Dodge Manufacturing Corporation, Mishawaka, Ind., a corporation of Indiana
Application June 8, 1954, Serial No. 435,182
6 Claims. (Cl. 74—230.17)



1. A variable pitch sheave comprising a pair of confronting annular discs having conical faces for engaging an interposed V-belt, an exteriorly cylindrical hub on which said discs are slidably fitted, an adjusting screw

parallel with the hub and so arranged that an imaginary cylindrical surface coincident with the exterior surface of the hub intersects the screw, said screw having axially spaced threaded portions of opposite hands and an intermediate portion of smaller diameter than that of said threaded portions, said hub having axially spaced recesses accommodating said threaded portions of the screw and having a longitudinal groove connecting said recesses and accommodating said intermediate portion of the screw, said hub having means for holding the screw from axial displacement, said discs having in their inner peripheries longitudinal grooves with tapped walls into which said threaded portions of the screw are screwed, said tapped walls of said grooves providing segments of screw threads respectively matching and interengaged with the threads of said threaded portions of the screw, the discs being simultaneously shiftable axially in opposite directions by rotating the screw, the hub being split longitudinally and expansible to grip the discs.

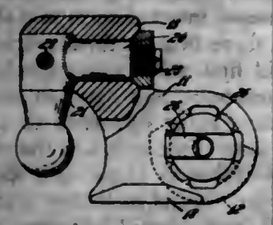
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2,773,394

## TOOL CARRYING CHAINS FOR USE ON COAL CUTTERS AND THE LIKE

Sidney Ernest Procter, Aylesbury, England, assignor to Austin Hoy and Company Limited, Aylesbury, England, a British company

Application December 28, 1954, Serial No. 478,002
Claims priority, application Great Britain June 10, 1954
6 Claims. (Cl. 74—246)



1. A tool carrying chain having links which compriaes body-portions, sockets at one end of said body-portions adapted to receive balls of neighboring links, tool-carrying bosses disposed on said links and balls below said bosses adapted to fit into said sockets, said balls being formed on stems having shanks extending at an angle to said stems, the tool-carrying bosses being bored parallel to the length of the chain to receive said shanks, and means being provided to hold the shanks in the bosses, said bosses being shaped to fit the stem-portions of said balls whereby said shanks are prevented from turning in the bores of said bosses.

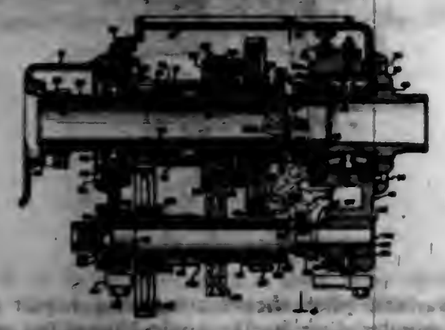
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2,773,395

## POWER TRANSMISSION MECHANISMS

Eric A. Rellig, Milwaukee, Wis., assignor to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application November 7, 1952, Serial No. 319,243
14 Claims. (Cl. 74—333)



1. In a machine tool having a rotatable spindle, a driving element rotatably mounted on said spindle and fixed against axial movement thereon, a first gear on said spindle mounted for rotation with said driving element, a second gear non-rotatably mounted on said spindle for axial movement thereon, cooperating clutch means on said element and said second gear for establishing a driving connection therebetween, a gear train adapted to drivingly connect said first and second gears, and manual means associated with said second gear and said gear train for selectively controlling the operative connection between said gear train, said driving element and said second gear, and for selectively axially moving said second gear for controlling engagement of said clutch means to connect and disconnect said second gear and said driving element.

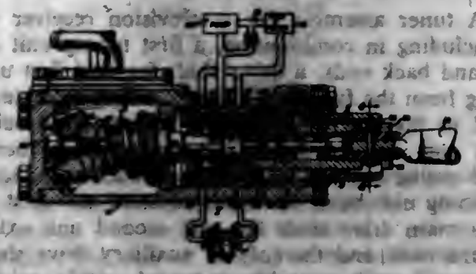
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2,773,396

## POWER STEERING MECHANISM

Alex L. Haynes and Cecil E. Rawdon, Detroit, and Warren A. Van Wicklin, Jr., Dearborn, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application June 15, 1955, Serial No. 515,734
8 Claims. (Cl. 74—388)



1. In a steering gear mechanism, a steering gear housing, a steering gear member rotatably mounted in said housing and having a bore formed therein, a torsion bar extending freely through the bore in said steering gear member and nonrotatably anchored at one end to said member, a manually operable member operably connected to said torsion bar at a point spaced from the anchored end thereof, a threaded part on said torsion bar, said part being axially spaced from the anchored end of said torsion bar, a second threaded part threadedly engaging said first threaded part and mounted for axially slidable and nonrotatable movement relative to said steering gear member so that torsional distortion of said torsion bar under load produces relative rotation between said parts and effects axial movement of said second part, a valve spool associated with said second threaded part, a hydraulic servo unit, a hydraulic power source, and means interconnecting said power source, valve spool and servo unit to enable said servo unit to be controlled by said axially movable valve spool.

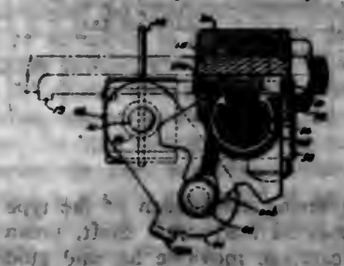
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2,773,397

## TRANSMISSION SHIPPER OPERATING DEVICE

Alvin P. Douglas, Cleveland Heights, Ohio, assignor to The Murray-Ohio Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application June 25, 1953, Serial No. 364,156
4 Claims. (Cl. 74—473)



1. A shipper mechanism for a multi-speed bicycle transmission adapted to be keyed to and carried by the rear non-rotating axle of a bicycle, a non-rotating bicycle rear axle having an axially extending keyway, a bracket carried by the axle, a key member extending between the bracket and the axle to non-rotatably fix the bracket on the axle, said bracket having a depending bearing sleeve, a shaft supported by the sleeve, a rockable lever secured to the shaft adjacent the lower end of the sleeve, a detent segment fixed on the lower end of the bearing sleeve of the bracket, a yieldable detent lever pivotally mounted on the rocker lever operable with the fixed detent segment and the upper end of said shaft being adapted to operate a shipper member when rocked by said rockable lever.



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2,773,398

## TRANSMISSION CONTROL AND GUARD

Norman R. Swain, San Leandro, Calif.

Application April 27, 1953, Serial No. 351,135
10 Claims. (Cl. 74—473)



1. In a bicycle or the like, a frame, an axle extending through and between the sides of a fork portion of the frame and having a tubular end portion, a drive wheel having its hub mounted on the axle between the fork portions of the frame and provided with change-speed mechanism controlled by a flexible line extending through and from the bore of the tubular end portion of the axle, a nut mounted on the extending tubular portion of the axle and fixing the axle to the frame thereat and extending outwardly beyond the axle extremity to provide an extension of the axle bore receiving the flexible line longitudinally through its bore and radially from its extremity in direct sliding contact with its annular outer end face to provide a bend in the pull member thereat, and a guard member mounted on the extending nut portion and cooperative therewith to laterally enclose the pull line bend at the outer nut extremity.

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2,773,399

## STEERING COLUMN TRANSMISSION CONTROL MECHANISM

Harry R. Stocks, Greenways, Whipsnade, Dunstable, and Thomas C. F. Stott and Frank Westcott, Harpenden, England, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 2, 1955, Serial No. 485,646
Claims priority, application Great Britain
February 24, 1954
24 Claims. (Cl. 74—484)



1. A steering column transmission control mechanism for a motor vehicle comprising a steering shaft, a fixed support for said steering shaft, a transmission control rod reciprocably and rotatably mounted on an axis alongside said steering shaft and having an upper and a lower end, a ring secured to said upper end of said transmission control rod and surrounding said steering shaft, a hand lever, a universal mounting intermediate the ends of said lever on said fixed support about a pivot point on said axis of said rod, and a pivotal connection between one end of said lever and said ring, the pivotal axis of said connection being in a plane perpendicular to said axis of said rod and tangential to a circle about said pivot point.

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2,773,400

## BEARING STRUCTURE

Jakob Saiger, Geppingen, Germany, assignor to L. Schuler A. G., Geppingen, Germany

Application May 8, 1953, Serial No. 353,784
Claims priority, application Germany May 9, 1952
2 Claims. (Cl. 74—595)



1. Bearing structure for the drive shaft of machine tools subject to working pressure in a direction transverse to the shaft, comprising a drive shaft, a connecting rod journalled on the shaft, a pair of stationary bearings in which said shaft is supported at spaced locations, at least one movable auxiliary roller bearing connected to said shaft, and energy storing means connected to and acting on said auxiliary roller bearing in the same direction as the working pressure to urge said shaft into journal contact in said stationary bearings even when the working pressure is not present.

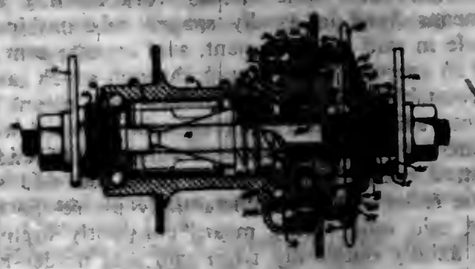
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2,773,401

## TWO SPEED BICYCLE TRANSMISSION

Alvin P. Douglas, Cleveland, Ohio, assignor to The Murray Ohio Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application December 10, 1954, Serial No. 474,411
4 Claims. (Cl. 74—781)



1. In a two speed planetary gear transmission for a sprocket driven rear wheel in a bicycle, a bicycle rear axle, an axle mounted rear hub structure, a cupped spoke anchor member attached to the hub inwardly of the sprocket end of the hub thereby to provide an external bearing support on the hub end, a planet carrier disposed within the cupped formation of the hub having a circumferential rim thereof overhanging the external bearing support on the hub end to be supported thereby, said planet carrier having a free wheeling connection with the hub, a driving sprocket, a sprocket carrying sleeve constituting a ring gear within said cup shaped anchor member and extending inwardly to overhang the circumference of the planet carrier thereby to afford a bearing on the planet carrier for the inner end of the sleeve adjacent the external bearing between the planet carrier and the hub end, a sun gear bearing on the sprocket sleeve, an adjustable bearing member for the sun gear mounted on the axle, planet gears on the carrier meshing wtih the sun gear and an axially shiftable plate operable within the sprocket carrying sleeve and having locking pins for locking the sun gear bearing plate and the carrier together at an in-

ward position of the plate and means on the plate engageable with the adjustable bearing member for causing the plate to lock the sun gear to said adjustable bearing member upon an outward shifting of the plate.

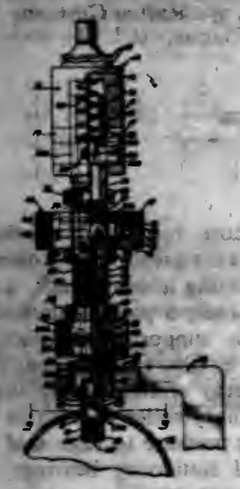
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2,773,462

## MEANS FOR FORM CUTTING STRUCTURE AT THE PERIPHERIES OF ROUND HOLES IN CURVED ELEMENTS

Ralph A. Edens, Grosse Pointe Woods, Mich., assignor to Falcon Tool Company, a corporation of Michigan

Application November 12, 1954, Serial No. 468,336
2 Claims. (Cl. 77—58)



1. Means for form cutting structure at the peripheries of round holes in curved work elements comprising, in combination, a tool holder, a spindle reciprocably mounted in said tool holder and turnable thereby, a radially disposed cutting tool diametrically slidable in said spindle at the lower end thereof, cam means movable axially within said spindle engaging said cutting tool to advance and retract said cutting tool radially against the periphery of a hole in said work element, arcuate cam means fixed in axially spaced relationship above said hole in said work element, said arcuate cam means having an aperture therethrough through which said spindle is rotatably disposed, said arcuate cam means having the same radius as said work element disposed with the curvature thereof parallel to the curvature of said work element, a roller cam follower keyed on said spindle with the roller disposed substantially above the cutting edge of said tool, spring means constantly urging said spindle axially outwardly from said tool holder causing said roller cam follower to follow said arcuate cam, and means for advancing said first mentioned cam against said cutting tool to move said cutting tool into cutting engagement with the structure at the periphery of said round hole in said work element as the spindle reciprocates responsive to rotation of the tool holder and the action of the roller cam follower against said arcuate cam.

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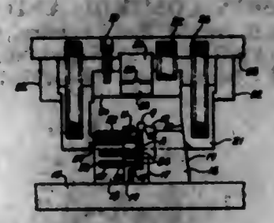
2,773,463

## PRESS WITH AUTOMATIC KICK-OUT MECHANISM

Roy E. McCleary, Rockford, Ill., assignor to Atwood Vacuum Machine Company, Rockford, Ill., a corporation of Illinois

Application June 17, 1953, Serial No. 362,253
12 Claims. (Cl. 78—17)

12. In a press comprising a bolster and a ram reciprocable toward and away from the bolster, the combination with lower die sections carried on the bolster, and a punch to cooperate therewith carried on the ram, of a kick-out shoe movable between the lower die sections when they are separated and arranged to strike and eject a blank disposed between said die sections, a drift pin guided for reciprocation laterally relative to one of said lower die sections and engageable with the blank to move it and the companion lower die section laterally toward a retracted open die position wherein the blank is in the path of movement of the kick-out shoe for ejection thereby, spring-pressed pins also guided for reciprocation laterally relative to the same lower die section as the drift pin and engaging the blank to help move it and the companion lower die section laterally toward the retracted open die position, said spring-pressed pins being extensible farther than the drift pin to open the dies fully and position the blank for ejection, a manually operable hand lever swingable relative to said bolster and engageable with one of the lower



die sections to move it partway toward closed position after a blank to be operated upon is inserted between the die sections, a control device controlling operation of the ram operable by said lever when it has moved the die section a predetermined distance, another means movable with the ram arranged to operate said drift pin in the upstroke of the ram to open said lower die sections, an air cylinder having a piston reciprocable therein and movable forwardly under air pressure, spring means returning said piston, means connecting said piston to said shoe for reciprocation of the latter, an air valve controlling the delivery of air to said cylinder from a source of compressed air, and means for opening said valve momentarily in timed relation to the opening of said die sections.

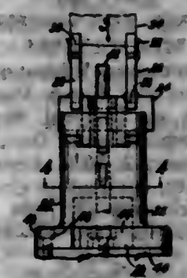
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2,773,464

## METAL WORKING APPARATUS

Charles A. Nichols, Anderson, George L. Weiser, Middletown, and Robert W. Ewald, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 20, 1952, Serial No. 305,474
5 Claims. (Cl. 80—26)



1. A workholder for use in connection with gap rolls comprising in combination, a standard, a workholder rotatably supported upon said standard, and including a split flange having clearance between the two portions of said flange, one of said portions being immovably secured to the standard and the other of said flanges being immovably secured to the workholder and being capable of limited rotation with respect to the standard, locking means in connection with the second mentioned flange for locking the flange in any given position to the standard and adjustment means in connection with the first flange for adjusting the second flange with respect thereto, and means for yieldably gripping a workpiece on said workholder.

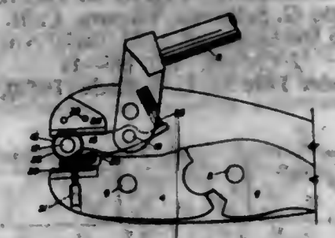


2,773,465

## TOOL AND METHOD FOR COMPRESSION SPLICING OF WIRES AND CABLES

Thomas A. Sanders and Frank Kaim, Philadelphia, Pa.

Application April 30, 1953, Serial No. 352,106
6 Claims. (Cl. 81—15)



1. A tool for splicing electrical conductors or the like disposed in parallel lapped relation within an enclosing ductile metal sleeve of generally oblong transverse shape by impressing a transverse indentation in said sleeve and conductors comprising a reciprocable roller, a lever connected with the roller for reciprocating it, a body supporting the lever, a jaw associated with the body for movement toward and away from the path of the roller, an anvil on the jaw proximate said path, and a second lever carried by the body and cooperative with the jaw to move the latter toward and away from said path, the transverse space on both sides of said anvil being unobstructed.

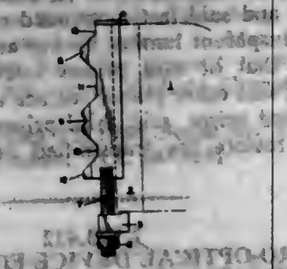
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2,773,466

## AUXILIARY JAWS FOR VISES

Wilhelm Dechsner, Deutsch-Wagram, Austria

Application November 23, 1953, Serial No. 393,861
1 Claim. (Cl. 81—39)



An auxiliary jaw for a conventional vise jaw, said auxiliary jaw comprising a body having a plate integrally secured to an end thereof for engaging a corresponding end of such a vise jaw, a threaded stud extending into and secured at the other end of said auxiliary jaw body, a clamp member movably guided on said threaded stud for engaging an opposite side of such a vise jaw, and a nut on said threaded stud for exerting pressure on said clamp member whereby said auxiliary jaw body may be rigidly fastened to a conventional vise jaw.

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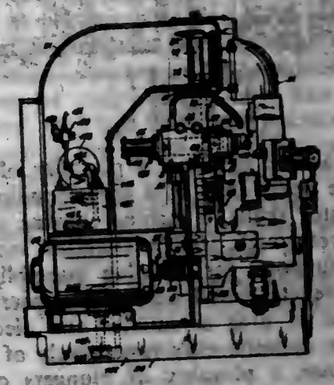
2,773,467

## TURNING MACHINE

Otis E. Staples, Euclid, Ohio, assignor to The Cleveland Hobbing Machine Company, Euclid, Ohio, a corporation of Ohio

Application June 30, 1951, Serial No. 234,608
2 Claims. (Cl. 82—14)

1. In a machine tool of the character described, the combination of a vertically extending stationary frame member, a second frame member mounted for vertical sliding movement on the first-mentioned frame member, a work spindle rotatably mounted on said second frame member, a work holding means carried by said spindle, a tool support movably mounted upon said stationary frame members for sliding movement transversely of said spindle and adapted to support a non-rotatable turning tool, means for urging said tool support towards said spindle to bring the turning tool into machining relationship with a workpiece carried by said work holding means, linearly movable cam means having a configuration determinative of the final shape of the workpiece, means supporting said cam means on said second frame member and cooperating with said tool support to regulate the position of the support relative to the spindle, means for effecting vertical movement of said second frame member, means to rotate said spindle so that a tool on said tool support sequentially turns a workpiece



supported on said spindle to the shape determined by the configuration of said cam means, a second tool support carried by said second frame member, means to move said second tool support transversely relative to said spindle so that a tool on said second tool support effects a machining operation upon the workpiece, and means responsive to movement of said second frame member to a predetermined upper position thereof to effect movement of the first-mentioned tool support away from the workpiece and the second tool support towards said workpiece whereby a tool on the second tool support is operative to effect a machining operation only after the tool on the first-mentioned tool support has completed its machining operation.

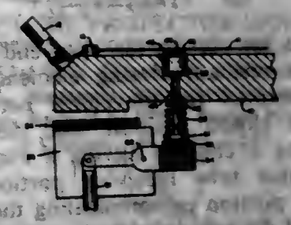
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2,773,468

## DAMPER FOR MUSICAL INSTRUMENTS

Joseph F. Dvorak, Deer Park, Ohio, assignor of one-third to Ferdinand Machalek and one-third to Joseph Litschaleb, Cincinnati, Ohio

Application March 7, 1955, Serial No. 492,624
9 Claims. (Cl. 84—217)



1. A device for silencing the string of a musical instrument comprising a depressible key, a string mounted on said key and extending longitudinally thereof, means for exciting said string into vibration when said key is depressed, and means for silencing said string when the key is released including a damper mounted on said key beneath said string for movement into and out of contact with said string, means normally biasing said damper out of contact with said string, and means for moving said damper into contact with said string when the key returns to its undepressed position.



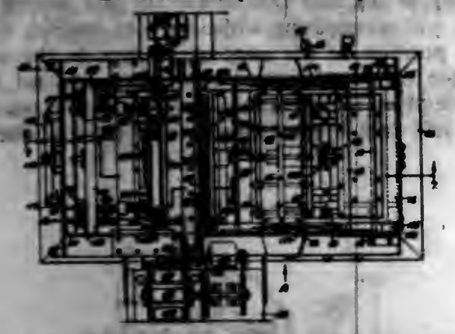


2,773,415

## APPARATUS FOR QUANTITATIVE

light reflected from the material and issuing out of the

2,773,409
**MULTIPLE ASSEMBLING MACHINE FOR ELECTRIC BLASTING INITIATORS**
Daniel D. Hayett, Wilmington, Del., assignor to Atlas Powder Company, Wilmington, Del., a corporation of Delaware
Application October 2, 1951, Serial No. 249,298
27 Claims. (Cl. 86—10)



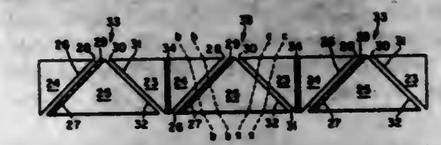
4. In a machine to insert a plurality of plug assemblies into the open ends of a corresponding number of electric initiator shells, a member having a plurality of openings therethrough, feed mechanisms including a pair of movable supports for the plug assemblies and shells operable in predetermined sequence to insert corresponding pluralities of plug assemblies and electric initiator shells into the opposite ends respectively of the openings in said member, a plurality of plungers corresponding in number to the plug assemblies normally offset with respect to the axes of the plug assemblies and member openings, a support for said plungers, cam means engageable with said plunger support operable to position said plungers simultaneously with their axes coincident with the axes of said plug assemblies, and a member movable with the cam means to initiate actuation of the plungers as a group in an axial direction to engage the plug assemblies and force the same axially into the open ends of said shells.

2,773,410
**MACHINE AND METHOD FOR THE PRODUCTION OF BLASTING DETONATORS AND IMPROVED BLASTING DETONATORS**
Phillip C. Bishop, Saltcoats, Scotland, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain
Application May 22, 1951, Serial No. 227,574
Claims priority, application Great Britain June 2, 1950
3 Claims. (Cl. 86—39)



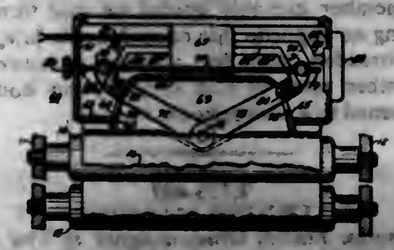
1. Apparatus for closing the open end of a detonator tube around a resilient closing element comprising a divided die mounted for movement between an open position and a closed position, said die in its closed position defining a channel having a longitudinally extending detonator tube receiving portion and an inwardly tapered portion communicating therewith, means for moving said die into its closed position, means movable through an operative path for effecting a relative longitudinal movement between said die and a detonator tube positioned adjacent thereto, means operatively associated with said relative movement effecting means and said die closing means for actuating the latter to close said die in response to the initial movement of said relative movement effecting means through said operative path, said relative movement effecting means being operable upon further movement through said operative path to effect an interengaging relative longitudinal movement between the inwardly tapered portion of said die channel and the open end of the detonator tube so as to deform the latter inwardly into engagement with a resilient closing element disposed therein.

2,773,411
**ANGULAR DISCRIMINATING OPTICAL DEVICE**
Otto G. Schwede, Ventura, Calif.
Application December 30, 1955, Serial No. 556,756
2 Claims. (Cl. 88—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An optical unit which comprises first and second transparent prisms each having an entrance face in a common plane and a planar surface disposed at an acute angle to each of said entrance faces such that a portion of the light rays entering the entrance face is totally reflected and a portion of said rays is transmitted by said planar surface depending on their angle of incidence, each of said first and second prisms having a third surface connecting corresponding ends of said entrance faces and said planar surfaces thereof, a third transparent prism having two entrance faces each positioned parallel to a separate one of said planar surfaces and having an emergent face parallel to and spaced from the entrance faces of said first and second prisms, an optical double layer disposed between one of said planar surfaces and the adjacent entrance face of said third prism, said double layer comprising a light filter in contact with said last mentioned entrance face and a transparent lamina having an index of refraction less than that of said prisms adjacent to and in continuous contact with said filter and said last mentioned planar surface, and a second transparent lamina having an index of refraction less than that of said prisms interposed between and contacting said other planar surface and the adjacent face of said third prism, said third prism functioning to substantially restore the transmitted rays to their original direction.

2,773,412
**ELECTRO-OPTICAL DEVICE FOR MEASURING THICKNESSES OF COATINGS ON MATERIALS**
William F. Huck, Forest Hills, N. Y., assignor to Hack Company, New York, N. Y., a partnership of New York
Application April 16, 1953, Serial No. 349,151
2 Claims. (Cl. 88—14)

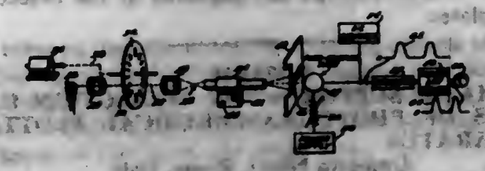


1. In a device for measuring the thickness of a transparent coating upon the surface of a material, said device including a casing arranged in operative proximity to the coating on the said material, a member arranged in the casing, said member being translationally movable and turnably mounted in the casing, a pair of links swingably associated with and movable by the member, said links having end portions protruded exteriorly of the casing, a source of light secured to one of the links and projecting light through the coating and onto the material, a photoelectric cell secured to the other of the links and receiving



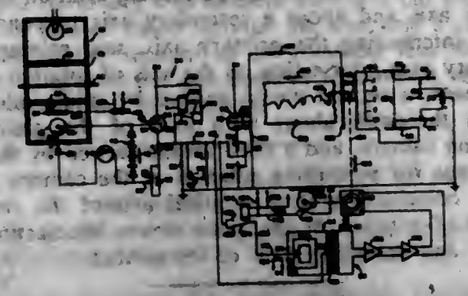
light reflected from the material and issuing out of the coating, and indicating means mounted on the casing and electrically connected to the photo-electric cell; whereby the thickness of a transparent coating on a material may be indicated by said indicating means.

2,773,413
**APPARATUS FOR AND METHOD OF MEASURING THE QUALITY OF OPTICAL DEVICES**
Otto H. Schade, Sr., West Caldwell, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 1, 1955, Serial No. 498,682
9 Claims. (Cl. 88—14)



1. Apparatus for measuring the optical equivalent passband $N_e$ of an optical device comprising means for cooperating with said device to form a plurality of successive line-images, means to convert said line-images into a first series of uniformly spaced electrical impulses, means to derive from said first series of electrical impulses a second series of electrical impulses having intensities equal to the square of said first series, and means to measure said second series of electrical impulses.

2,773,414
**DIRECT READING INTENSITY PHOTOGRAPHIC PHOTOMETER**
Milton Green, Little Silver, N. J., assignor of twelve and one-half percent to David M. Greenberg, Berkeley, Calif., twelve and one-half percent to Max M. Greenberg, New Orleans, La., five percent to Mrs. Jessie Spoken, and five percent to William Greenberg, both of Pueblo, Colo.
Application February 18, 1954, Serial No. 411,175
14 Claims. (Cl. 88—14)



1. A photographic photometer comprising means responsive to the light transmittance of a medium of predetermined density to provide a signal proportional to the logarithm of said light transmittance, a thermionic tube circuit having parameters to provide a current output curve which corresponds to the density versus logarithm of intensity of exposure photographic curve, said tube having a variable voltage source connected to its input circuit to provide signal output therefrom, means operable in response to the difference between said first mentioned signal and said signal output to vary the voltage applied to said input circuit to equalize the signal output from said tube with said first mentioned signal, whereby the magnitude of said applied voltage is proportional to the logarithm of the intensity of the light which produced the density of said medium.

2,773,415
**METHOD AND APPARATUS FOR QUANTITATIVE SPECTRAL ANALYSIS**
John John Wolfe, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 26, 1955, Serial No. 484,263
16 Claims. (Cl. 88—14)



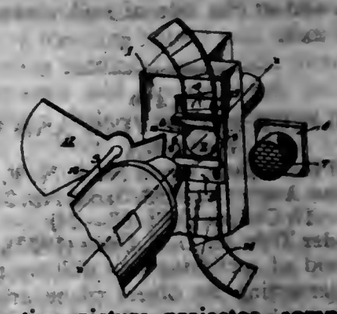
3. A computing device for use in spectrograph analysis comprising a first scale derived by projection on the log intensity axes of a curve obtained by relating a measurable function of photographic image intensity of an intensity graduated spectrum line recorded on a photographic plate of an element to the logarithm of the line intensity, a second scale derived in a like manner for another element, said first and second scales being movable with respect to one another, a third scale calibrated in linear increments, an index marker associated with and being relatively movable with respect to said third scale, said third scale being associated with said first scale whereby a relative movement of said first and second scales causes a proportional movement of said third scale with respect to said index marker.

2,773,416
**UNIVERSAL MAGNETIC SOUND ADAPTER FOR MOTION PICTURE PROJECTORS**
Ben Kleinerman, Flushing, N. Y., assignor, by mesne assignments, to Coastal Commercial Corporation, New York, N. Y., a corporation of New York
Application April 23, 1953, Serial No. 350,667
17 Claims. (Cl. 88—16.2)



1. The combination with a motion picture projector including a spindle normally adapted to support a film reel, of an adapter including a support, attachment means on said support for operative connection to said projector at said spindle, an auxiliary spindle on said support spaced from said attachment means for mounting said film reel, and transducing means on said support which the film traverses during operation of said projector.

2,773,417
**MOTION PICTURE PROJECTOR HOUSING AND LIGHT CONDENSING MEANS**
Heinz Ulfers, Kiel-Wik, Germany, assignor to Zeiss Ikon, A. G., Stuttgart, Stuttgart, Germany
Application August 6, 1953, Serial No. 372,785
3 Claims. (Cl. 88—24)



1. In a motion picture projector, comprising a lamp casing and projecting head having a projection aperture





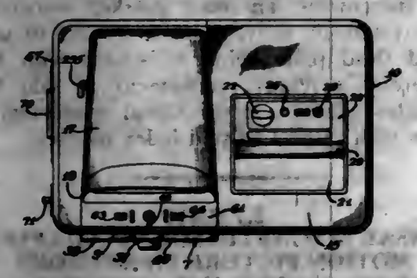
able mark with the rays from the plate, the rays emerging

2,773,424

therein, said lamp casing and projecting head being arranged independently one from the other in operative optical alinement, and a removable and insertable honeycomb condenser collimating unit supported by the projection head between the projection head and aperture for uniformly illuminating the projection aperture, means on said projection head for supporting said honeycomb condenser collimating unit and arranged in front of the lamp casing, said condenser unit being supported by the projecting head and arranged in front of the projection aperture looking into the direction of the light rays from the lamp casing.

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2,773,418
**PHOTOGRAPHIC COPYING AND VIEWING APPARATUS**
Thomas R. Perezutka, Niles, and Stuart C. Plattner, Evanston, Ill., assignors to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Application January 26, 1955, Serial No. 484,291
6 Claims. (Cl. 88—24)

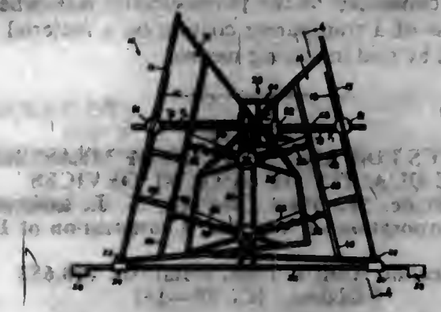


1. In a combined copying and viewing apparatus, the combination of photographic copying means for progressively photographing records on a sensitized strip, viewing means for progressively viewing records on a record bearing strip, and said copying and viewing means being provided respectively with an exposure station and a projection station arranged in spaced opposite relation with and directed toward an axis and comprising two reflectors individual thereto and spaced longitudinally of said axis in the same direction from and directed toward said stations and displaced from each other perpendicularly to a plane of said axis normal to said stations, a reflector common to said copying and viewing means and arranged between said stations and inclined to said axis and directed toward said individual reflectors and adapted to alternately cooperate with said individual reflectors and stations in opposite positions thereof angularly about said axis, a mounting mounted for pivotal movement on said axis and carrying said common reflector for the selective positioning thereof in either of said positions, said common reflector being decentered from said axis perpendicularly to the plane of the angle of inclination of said common reflector to said axis for alternate cooperation of said common reflector with said individual reflectors in said different positions of said common reflector, and a light shield carried by said mounting and extending from said common reflector toward said individual reflectors in a plane parallel to said plane of said angle of inclination and at the side of said common reflector nearest to said axis.

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2,773,419
**LOW OBLIQUE RECTIFYING AND RATIO CAMERA**
Sol Domenick, Great Neck, N. Y.
Application August 6, 1953, Serial No. 372,822
16 Claims. (Cl. 88—24)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of rectifying low oblique photographs comprising, intersecting an object plane and an image plane at a remote line, intersecting the principal plane of a projection lens at the same remote line providing angular and translatory movement between object and image planes relative to each other, and referencing all



such movement through the isopoints of the object and image plates.

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2,773,420
**KINEMATIC SUPPORTS FOR PROJECTION CAMERAS OF PHOTOGRAMMETRICAL PLOTTING APPARATUS**
Umberto Nistri, Rome, Italy
Application January 18, 1954, Serial No. 404,683
Claims priority, application Italy January 26, 1953
3 Claims. (Cl. 88—24)



1. In a projector for photogrammetric apparatus having a support permitting linear displacement about three orthogonal axes, the combination of a first means carried by said support for permitting rotation about a fixed axis parallel to one of the orthogonal axes, a gimbal carried by the first means for permitting rotation about a primary axis and about a secondary axis perpendicular to and intersecting the primary axis, said primary and secondary axes intersecting on the axis of rotation of the first means, a second means carried by said gimbal for rotation therewith about both axes of the gimbal, a projection camera, and a third means carried by the second means for permitting rotation of the camera about an axis coincident with the optical axis of the camera, the axis of rotation of the third means intersecting the primary and secondary axes of the gimbal.

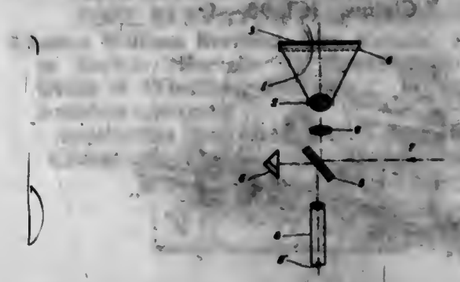
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2,773,421
**PHOTOGRAMMETRIC PROJECTION PLOTTING DEVICES**
Umberto Nistri, Rome, Italy
Application January 18, 1954, Serial No. 404,681
Claims priority, application Italy August 19, 1953
5 Claims. (Cl. 88—24)

1. An optical system for use in a photogrammetric plotting system based on Porro's principle in which the objective of a plotting camera differs from the objective of a shooting camera, said system including a mount for a photogram plate, means for shifting the mount parallel to the optical axis of the objective of the plotting camera, the distance from the plate to the objective of the plotting camera thereby differing from the focal length of the objective of the plotting camera, a movable mark, a collimator for bringing the mark rays into parallelism, a movable mirror and prism for fusing the rays from the mov-



able mark with the rays from the plate, the rays emerging from the objective of the plotting camera being non-parallel due to the difference between the focal length and the distance from the plate to the objective of the plotting camera, whereby fusion is prevented and a lens unit lo-



cated between the objective of the plotting camera and the movable mirror and prism and so shaped and disposed as to bring into exact parallelism the inclined rays issuing from the objective of the plotting camera thereby to obtain fusion of the mark and plate rays.

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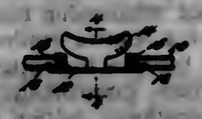
2,773,422
**POLARIZING UNIVERSAL SUN GLASSES**
William D. Flynn, Sr., Washington, D. C., and William D. Flynn, Jr., Morrow, Ga.
Application November 25, 1953, Serial No. 394,272
5 Claims. (Cl. 88—41)



1. A sun glass comprising a frame, lens combinations supported by said frame, each lens combination embodying a stationary polarizing lens element and a superposed polarizing lens element rotatable on the stationary lens element regulating the passage of light through that part of the stationary lens element covered by one of said lens elements being colored, the other element being clear, said stationary lens element having a cut out portion in the line of vision through the lens, and a colored polarizing shutter secured to the rotatable lens element movable over said cut out portion, to cover a selected portion of said cut out portion.

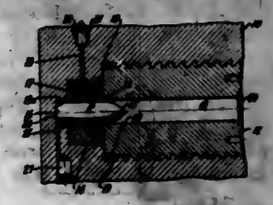
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2,773,423
**BRIDGE STRUCTURE**
Frank W. Lindblom, Warwick, R. I., assignor to Welsh Manufacturing Company, a corporation of Rhode Island
Application October 21, 1952, Serial No. 316,004
2 Claims. (Cl. 88—43)



1. In an ophthalmic mounting, a pair of eye wires each having a peripheral outwardly offset portion along its nasal edge, a bridge extending between said eyewires in front of the rims at said offset portions and of a width wider than said offset portion and covering said offset portions, arms attached to the outer ends of the bridge and of a width narrower than the bridge and the offset portions and extending rearwardly from the bridge and through said offset portion and embracing the same to secure the bridge and eyewires together.

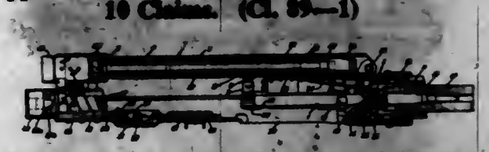
2,773,424
**GUN PERFORATOR**
Thomas A. Andrew, Pasadena, Calif., assignor of one-fourth to Mordica O. Johnston, one-eighth to Mordica O. Johnston, Jr., and one-eighth to Warren C. Johnston, all of Glendale, Calif.
Application June 1, 1951, Serial No. 229,506
13 Claims. (Cl. 89—1)



12. In a casing perforator: a gun having a bore to receive a projectile, said bore having a portion of enlarged diameter adjacent its rear end, said enlargement constituting a propellent chamber, a projectile in said bore, said projectile bridging said propellent chamber when in its firing position, means forming a restricted passage from said propellent chamber to the gun bore in front of said projectile only when said projectile is in its firing position, means forming a restricted passageway communicating between said propellent chamber and the gun bore behind said projectile when said projectile is in its firing position, the ratio of the total volume of the last mentioned restricted passage and the space behind the projectile to the cross-sectional area of said restricted passage being greater than the ratio of the total volume of the forwardly directed restricted passageway and the space in front of the projectile to the cross-sectional area of the forwardly directed restricted passage whereby the pressure will initially build up faster in front of the projectile than in the rear thereof to restrain said projectile against movement until the pressure in front thereof exceeds the hydrostatic well pressure and clears the well fluids from the bore and whereby the pressure behind the projectile subsequently exceeds the pressure in front thereof and forces the projectile outwardly through the cleared bore, said projectile completely filling said bore after moving from its firing position to prevent further bypass of gases forwardly thereof.

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2,773,425
**GUN RELOADER**
Walter R. Weeks, Hamden, Conn., assignor to General Electric Company, a corporation of New York
Application July 19, 1945, Serial No. 605,971
10 Claims. (Cl. 89—1)



10. A reloader for an automatic gun provided with a reciprocating loading member, said reloader comprising a tubular reciprocating operating member arranged to be connected to the reciprocating loading member, a screw shaft extending through said reciprocating operating member, a traveling nut on said screw shaft engaging said operating member, an electric motor, a driving connection between said electric motor and said screw shaft comprising a shaft member connected to said motor and a tubular member surrounding said shaft member connected to said screw shaft, a helical spring having a portion encircling said shaft member and a portion inside said tubular member so that forward or reverse rotation of said motor tends to wind or unwind said spring to provide a predetermined limiting torque for said motor, and switching means for controlling said motor for forward or reverse rotation for operation of the reciprocating loading member.



2,773,426

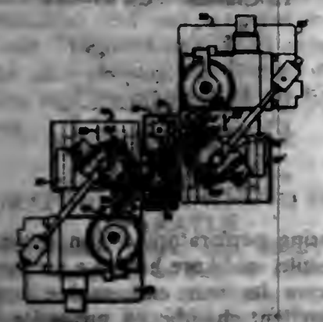
2,773,428



and then moving the cutter relative to the work in the

said support, the axial center of said disc-shaped hub

2,773,426
GEAR CUTTING MACHINE
Norman W. Fowler and Leonard C. Michelson, Brighton, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application September 25, 1951, Serial No. 248,158
23 Claims. (Cl. 90—1)



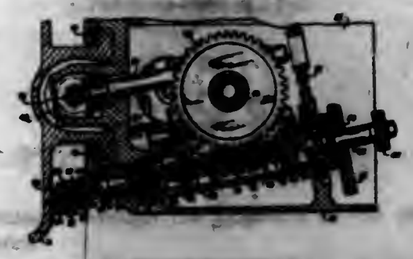
1. In a gear cutting machine, first and second units each comprising a work spindle, means for cutting gear teeth on a work piece that is mounted on the spindle, and a carrier operable during each loading cycle to carry a work piece from the spindle to an unloading station and then to carry another work piece from a loading station to the work spindle; a transfer device for conveying work pieces from the unloading station of the first unit to the loading station of the second unit; sequence control means for each unit to cause the cutting means and the spindle of the unit to operate through a cutting cycle upon the completion of each loading cycle and the carrier of the unit to operate through a loading cycle upon the completion of each cutting cycle; and means controlled conjointly by both sequence control means for operating the transfer device while both carriers are away from their respective stations at the device.

2,773,427
HOBBING MACHINE
Thomas Barish, Washington, D. C., assignor to The Cleveland Hobbing Machine Company, Cleveland, Ohio, a corporation of Ohio
Application April 9, 1949, Serial No. 86,482
2 Claims. (Cl. 90—4)



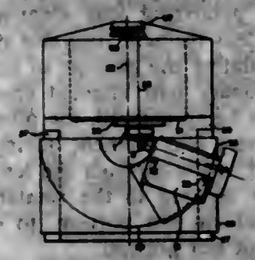
1. In a hob head for a hobbing machine, a hob arbor, means journalling said hob arbor for rotary and axial movements, driving means operatively connected with said hob arbor to rotate the same, a member rotatably supported concentrically with said hob arbor and having a threaded engagement with said hob arbor for rotation therewith and relative thereto, means preventing axial movement of said member, a first gear supported coaxially of said hob arbor and connected thereto for rotation therewith, a second gear of substantially the same diameter as said first gear supported coaxially of said hob arbor and connected to said member for rotation therewith, and a pair of gears having substantially the same diameter connected to rotate together about a common axis with the gears of said pair meshing respectively with said first and second gears, the diametral pitches of said pairs of connected gears being unequal while the meshing gears having the same diametral pitch.

2,773,428
HOBBING MACHINE
Edward J. Batorski, Chagrin Falls, Ohio, assignor to The Cleveland Hobbing Machine Company, Euclid, Ohio, a corporation of Ohio
Application July 10, 1953, Serial No. 367,183
7 Claims. (Cl. 90—4)



1. In a hobbing machine, a frame, a workhead movable with respect to said frame comprising a rotatable work spindle and a gear train for rotating said spindle, said gear train including a worm wheel and a worm gear in mesh therewith, an axially movable shaft for supporting said worm gear for axial movement while in mesh with said worm wheel, said shaft being rotatably supported in said workhead and extending outwardly therefrom, means for rotating said shaft, a cam mounted on said frame, a cam follower fixed to the outward end of said shaft and cooperating with said cam to impart axial movement to said shaft, and means yieldably urging said shaft axially toward said cam.

2,773,429
MACHINE AND METHOD FOR GENERATING TAPERED GEARS
Ernest Wildhaber, Brighton, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York
Application July 12, 1952, Serial No. 298,544
19 Claims. (Cl. 90—5)

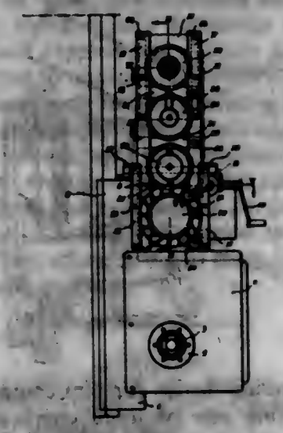


1. A machine for generating tapered gears comprising a spindle for a rotary cutter, a work spindle, a cradle on which one spindle is mounted, means for rotating the cutter spindle, drive means for rotating the cradle and in time therewith rotating the work spindle to cause the rotating cutter to effect tooth profile generation, and means for oscillating one spindle relative to the other, in a direction depthwise of the teeth being cut, the last-mentioned means being connected to the drive means to operate in such timed relationship therewith that during gear tooth generation a relative depthwise motion in one direction is effected between the cutter and the work as the generation proceeds approximately to its mid-point and that a relative depthwise motion in the opposite direction is effected as the generation proceeds beyond said point.

12. The method of generating a tapered gear with a rotating cutter, by relative motions of work and the cutter respectively about the axis of the work and about the axis of an imaginary gear represented by the cutter, comprising moving the cutter relative to the work in one direction depthwise of the teeth being cut as the tooth surface generation effected by said relative motions about said axes proceeds toward approximately its mid-point and then moving the cutter relative to the work in the opposite direction as the generation continues beyond said point.

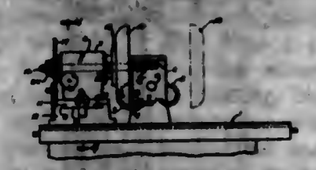


2,773,430
TOOL ELEVATOR FOR MACHINE TOOL
Charles William Berthier, Bizy Vernon, France, assignor to Societe Nouvelle de Construction de Machines-Outils et d'Outillage Precedes C. W. B., Paris, France, a societe anonyme
Application December 3, 1951, Serial No. 260,075
Claims priority, application France January 4, 1951
3 Claims. (Cl. 90—11)



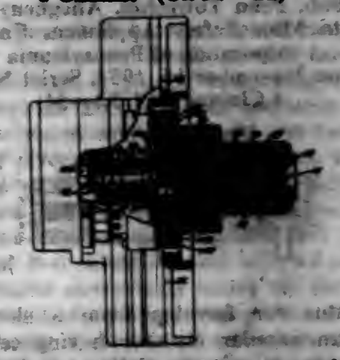
1. A device for transporting an object to be mounted on a supporting member from an inoperative position to an operative position with reference to an axis fixed with respect to said supporting member, said device comprising an element adapted to be mounted on said supporting member, a member carrying a linear trackway, means mounting said trackway member on said element so that said trackway extends transversely of said fixed axis and said trackway member has limited movement in the direction along said fixed axis, a carriage mounted on said trackway member for movement of said carriage along said trackway, means carried by said carriage for supporting said object on said carriage, and means operatively connected to said trackway member and to said carriage and operable for moving said carriage along said trackway between positions in which said object respectively is in said inoperative and said operative positions.

2,773,431
MILLING MACHINE
Earl A. Thompson, Ferndale, Mich.
Application July 23, 1951, Serial No. 238,050
6 Claims. (Cl. 90—18)



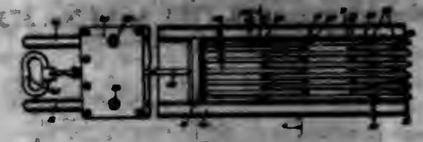
1. In a milling machine, a support, a disc-shaped hub arranged on said support with a portion of said hub overlapping said support and with the remaining portion of said hub projecting outwardly beyond the periphery of said support, means fixedly connecting said overlapping portion of said hub with the adjacent portion of said support, a milling cutter in the form of an annulus journalled on said disc-shaped hub, the portion of said disc-shaped hub projecting outwardly beyond the periphery of said support having a thickness no greater than the width of said milling cutter whereby said milling cutter is capable of milling to a depth equal to the distance between the outermost portion of said cutter and the periphery of said support, the axial center of said disc-shaped hub being disposed on that portion of the sub which projects outwardly beyond the periphery of said support.

2,773,432
MACHINE FOR FORMING PREDETERMINED IRREGULAR SURFACES
Charles B. De Vleg, Farmington, Howard R. De Vleg, Grosse Pointe Woods, and Charles R. De Vleg, Birmingham, Mich., assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Original application May 16, 1947, Serial No. 748,282, now Patent No. 2,660,930, dated December 1, 1953. Divided and this application October 9, 1953, Serial No. 385,099
8 Claims. (Cl. 90—22)



1. In a metal working machine, a work head comprising a housing, a spindle mounted for rotational and axial movement and having an annular gear at one end, a lead screw for controlling the axial movement of said spindle, a shaft having a gear thereon and arranged to drive said lead screw, an anti-backlash nut disposed between said spindle and said lead screw for preventing relative axial movement between the spindle and the lead screw, and opposed pairs of gear trains disposed between said annular gear on the spindle and said gear on the shaft for effecting rotational motion of said spindle in a predetermined timed relation with the axial movement of the spindle.

2,773,433
SUCTION BOX HAVING ROLLER FACE
Ernest A. R. Mathias, Newport, England, assignor of one-half to Alfred Robertson, London, England
Application December 11, 1952, Serial No. 325,496
Claims priority, application Great Britain December 13, 1951
3 Claims. (Cl. 92—51)



1. A suction box for applying a reduced pressure to a web of material comprising a box-like frame, a series of rollers disposed across the upper part of the box-like frame in parallel lines transverse to the direction of movement of the web, each line of rollers extending substantially completely across the frame, adjacent ends of rollers in each line being bridged by a roller in the next line, said rollers having end spindles thereon of less diameter than the rollers, said spindles being separate from those of other rollers so that each roller can rotate independently of the other rollers, said frame being adapted to be maintained under reduced pressure, at least five of said rollers being provided in each transverse line, said rollers having a diameter of between three eighths of an inch up two inches, the uppermost parts of the rollers being in the same plane as the sides of the box-like



frame, a plurality of bearings for the roller spindles be-

body of the bag to leave an upstanding fin running trans-

frame, a plurality of bearings for the roller spindles between the ends of each line, said bearings carrying said spindles in a freely rotatable manner, said bearings being supported only by means located below the rollers, slidably adjustable bearings for alternate rollers at the ends of the lines, upper and lower sealing strips carried by said adjustable bearings and extending across the frame, means for closing said end portions of the frame in the region of said last mentioned bearings but having the central portion of the frame open, and means for lubricating said bearings.

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2,773,434

## APPARATUS FOR FORMING FIBROUS ANNULAR MEMBERS

Robert A. Bub, Penn Township, Allegheny County, Pa., assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application November 16, 1954, Serial No. 469,253
4 Claims. (Cl. 92—54)



1. Apparatus for forming from a slurry of fibers and water an annular member having several smooth sides, comprising a pair of axially spaced rings provided with opposed annular recesses each having radially spaced inner and outer side walls, a pair of screens between the rings and extending across said recesses and walls, and means for holding the rings together, said screens being clamped between the walls at only one side of the recesses, the walls at the opposite side of the recesses being spaced much farther apart than the clamping walls, the screens in the recesses and between said spaced walls being spaced apart to form a radial chamber having only one side open, and said rings being provided with outlet openings adapted to be connected to a source of suction to draw slurry into said chamber through the open side, whereby water will be drawn through the screens and out of the rings and fibers will be trapped in the chamber to fill it and thereby form said annular member.

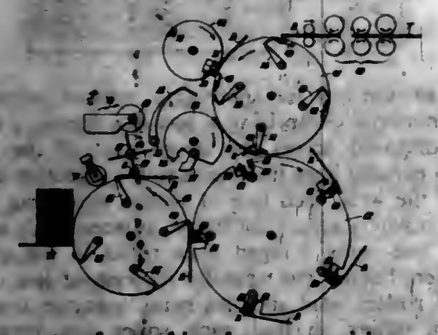
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2,773,435

## CONTINUOUSLY OPERATING APPARATUS FOR MAKING BAGS

Arthur W. Richens, Chester County, Pa., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application August 10, 1953, Serial No. 373,283
6 Claims. (Cl. 93—22)



1. Apparatus for making bags comprising: means for gripping a bag length of flattened gussetted tube, said means also being operative to open one end of said tube to form an open rectangular box having its bottom in the flattened body of the tube; positively acting means being operative to collapse said box like structure against the body of the bag to leave an upstanding fin running transverse the length of the tube; heated jaws receiving said upstanding fin and subjecting the same to heat and pressure; means operative thereafter for applying adhesive within the area of the fin and means operative thereafter for folding the fin against the body of the bag.

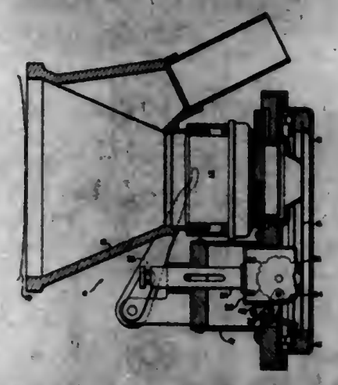
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2,773,436

## PHOTOGRAPHIC FILM IDENTIFICATION

Edward G. Martin, Cambridge, Mass.

Application February 24, 1954, Serial No. 412,261
3 Claims. (Cl. 95—1.1)



1. An identification device for film comprising a marking member having one or more characters formed in radioactive material, an enclosure for the marking member to serve as a shield against radiation, the enclosure having an opening through which the marking member may be exposed, a cover shield member for said opening, a support for the enclosure, means for effecting relative movement of the enclosure with respect to the support to bring the marking member into immediate proximity with a film to be marked by direct radiation from the radioactive material on to the film, and means operated by said movement for moving the cover shield away from said opening.

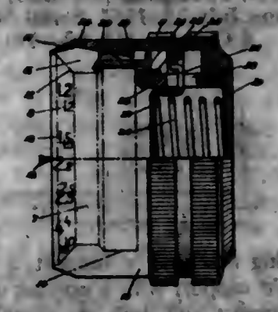
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2,773,437

## SUPPLEMENTARY OPERATING KNOB FOR PHOTOGRAPHIC CAMERAS

Wilhelm Kaase, Braunschweig, Germany, assignor to Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany, a German firm

Application June 18, 1952, Serial No. 294,135
Claims priority, application Germany June 20, 1951
3 Claims. (Cl. 95—11)



1. A supplementary knob for an operating knob projecting from a wall of a photographic camera, comprising a hollow ring-like first portion for encircling the camera knob and having a rear end faced toward said camera wall and a front end away from said wall, said first portion having near its rear end an internal tapered part expanding toward said rear end and contracting toward said front end, a second portion constituting an end closure for the front end of said first portion and movable axially in said first portion, and a plurality of clamping members



extending approximately axially within said first portion in circumferentially spaced relation to each other, for clamping on a camera knob encircled by said first portion, said clamping members each having a front end operatively connected to said second portion to move axially therewith and having a hooklike rear end movable approximately radially inwardly and outwardly to clamping and unclamping positions with relation to the camera knob encircled by said first portion and also having near its rear end a contact surface for engaging said internal tapered part of said first portion, to move the hooklike rear ends of said clamping members radially inwardly to clamping position when said clamping members and said second portion move axially forwardly relative to said first portion, said supplementary knob in clamped position being adapted to transmit clockwise and counterclockwise turning movements to said operating knob, said front end of each of said clamping members including a projection extending toward said first portion, said projections being adapted to engage with said first portion when said clamping members and said second portion move axially rearwardly relative to said first portion to cause said rear ends of said clamping members to move radially outward to an unclamping position.

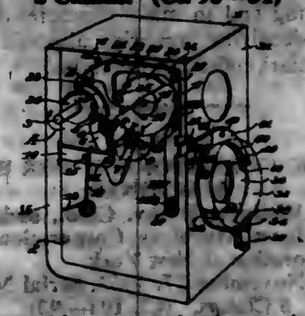
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2,773,438

## PHOTOGRAPHIC CAMERA WITH INTERCONNECTED SHUTTER MECHANISM AND FILM WINDING MECHANISM

Hermann Brethauer and Gustav Bethmann, Braunschweig, Germany, assignors to Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany, a firm

Application January 30, 1953, Serial No. 334,304
Claims priority, application Germany January 31, 1952
2 Claims. (Cl. 95—31)



1. A photographic camera having a shutter and comprising an oscillatable member shiftable in a first direction to tension the shutter ready for operation and shiftable in a reverse direction to trip the tensioned shutter to make an exposure, film winding and metering means including a ratchet and a shiftable pawl movable from a disengaged position to a position engaging said ratchet to stop further winding of film after a predetermined length of film has been fed, spring means tending to move said pawl to its engaged position, blocking means engaging said oscillatable member and shiftable from a first position blocking said oscillatable member against movement in its said first direction to a second position in non-blocking relation to said oscillatable member, a shiftable link operatively connecting said pawl and said blocking means to each other to move said blocking means from its first position to its second position when said pawl moves from its disengaged position to its engaged position and to move said pawl from its engaged position to its disengaged position against the force of said spring means when said blocking means is moved from its second position to its first position, and a cam on said oscillatable member for engaging said blocking means to move said blocking means from its second position to its first position when said oscillatable member is shifted in its said reverse direction.

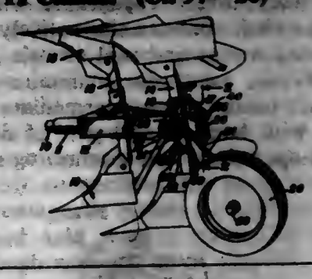
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2,773,439

## PLOW TAIL WHEEL

Roy L. Chandler, Bell, Calif.

Application November 24, 1953, Serial No. 393,062
11 Claims. (Cl. 97—26)



8. In a two-way plow having a plow carrying frame supported for rotation from side to side on a substantially horizontal axis, a ground contacting wheel structure comprising: an arm; a wheel rotatably carried by said arm; pivot means connecting said arm to one side of said frame for pivotal swinging movements about a first axis transverse to said horizontal axis; adjustable vertically spaced first members carried by said one side of said frame; a second member movable with said arm; means supporting said first members and said second member for limited relative movements under the force of gravity to positions out of a path of engagement during movement of the frame from one of said sides to the other, and into a path of engagement of said second member and the lowermost of said first members as the frame approaches the end of its rotational movement in either direction.

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2,773,440

## SURGE RELIEF MEANS

Robert A. Arthur, Culver City, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application February 24, 1949, Serial No. 78,195
11 Claims. (Cl. 98—1.5)



11. In mechanism for controlling the pressure in an enclosure, including: a balanced valve for controlling the flow of air; a pressure sensitive control element subjected on one side to enclosure pressure, said pressure sensitive element being operatively connected with said valve; walls defining a pressure chamber, the other side of said control element being subjected to pressure in said chamber; a fixed calibrated restricted connection between said chamber and the enclosure providing the sole communicating means with the interior of said control chamber; yielding means urging the pressure sensitive element in a valve closing direction; and means for positively opening said balanced valve.

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2,773,441

## CONTROL FOR POWER-OPERATED TOASTER

Murray Ireland, Elgin, Ill., assignor to McGraw Electric Company, Elgin, Ill., a corporation of Delaware

Application April 10, 1953, Serial No. 347,936
8 Claims. (Cl. 99—329)

2. A power operated toaster comprising a toasting oven, electric means for toasting bread in said oven, bread carrying means including a sensing element movable by a bread slice, means for moving said carrying means between toasting and non-toasting positions, said moving

means including electric power means and spring return means, latch means for holding said carrying means in toasting position, electric input means for said toaster, a pair of spaced apart switch contacts, movable switch contact means alternatively engageable with said pair of spaced apart switch contacts alternatively to connect said electric toasting means and said electric power means to said input means, means for maintaining said movable switch contact means in an intermediate position out of engagement with both of said pair of fixed switch contacts, means operatively interconnecting said sensing ele-



ment and said movable switch contact means for moving said movable switch contact means upon placement of a bread slice on said bread carrying means from said intermediate position into engagement with one of said pair of switch contacts to effect energization of said electric power means for moving said carrying means to toasting position, and means operatively interconnecting said latch means and said movable switch contact means for moving said movable switch contact means from said one pair of switch contracts to the other to deenergize said power means and to energize said electric toasting means.

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2,773,442
**TACO COOKING MACHINE**
Waldo L. Contreras, Scottsdale, Ariz.
Application March 15, 1954, Serial No. 416,022
2 Claims. (Cl. 99—404)



1. A taco cooking machine a work holding wheel having a horizontally journaled shaft, a pair of axially spaced thin work holding discs fixed at right angles to said shaft, work supporting fingers formed on said discs by cutaway radially disposed V-shaped notches having outwardly divergent work engaging edges on said fingers lying in planes parallel to the axis of rotation of said wheel, said edges providing the sole means for wedgingly engaging and supporting the tacos on said wheel, a semicircular guide member adjacent the periphery of the lower half of said wheel, and upwardly and outwardly sloping unloading devices between the axis of rotation of said wheel and said guide member to automatically remove tacos from said work holding wheel during the rotation thereof.

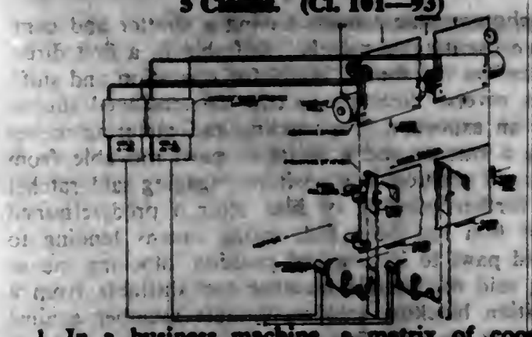
2,773,443
**APPARATUS FOR DEFINING CHARACTERS ON IMPRESSION-RECEIVING MATERIAL**
Donald Rudolf Lambert, Carshalton, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company
Application February 16, 1954, Serial No. 410,656
Claims priority, application Great Britain March 18, 1953
9 Claims. (Cl. 101—93)



1. For defining characters on impression-receiving material, e. g. paper, apparatus comprising a platen, at least one stylus supported for movement lengthwise towards and away from the platen, a first stylus reciprocating element supported for reciprocation in a path determining one maximum dimension of a character, a second stylus reciprocating element co-acting with the marking end of the stylus and movable with said first element and relative thereto in a path normal to the path of said first element to determine the other maximum dimension of a character, a first operating means operatively coupled to said first element to effect reciprocation thereof, a second operating means operatively coupled with said second element and actuated in timed relation with said first operating means to effect a predetermined number of reciprocations of the second element for each reciprocation of the first element, and actuating means operable during movement of said first element in one direction of movement thereof to apply discrete impulses to the stylus to effect lengthwise movements thereof to cause its marking end to make character-defining marks on impression-receiving material disposed between the platen and the marking end of the stylus.

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2,773,444
**MAGNETIC CORE STORAGE FOR BUSINESS MACHINES**
Gordon Earle Whitney, Derby, Colo., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 27, 1953, Serial No. 394,570
5 Claims. (Cl. 101—93)



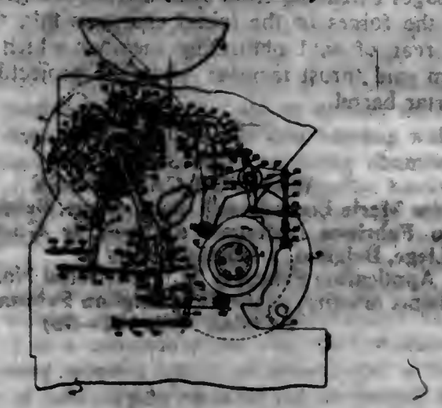
1. In a business machine, a matrix of coordinately arranged bistable magnetic memory elements for registering in duplicate configuration coded information from a business record, a business record, means for sensing said business record and transmitting sensed information to said matrix in successive lines along one coordinate direction thereof to change the magnetic state of each magnetic element in said line corresponding to sensed bits in a correspondingly sensed line of said record, means for successively energizing groups of said elements in lines along another coordinate direction thereof to change the magnetic state of each said element changed during said operation of sensing said business record, the elements in each said last lines being equal in number to the number



of places in a code and means controlled by said elements responsive to a change in state for transmitting correspondingly coded electrical pulses suitable for the operation of a code responsive recording means.

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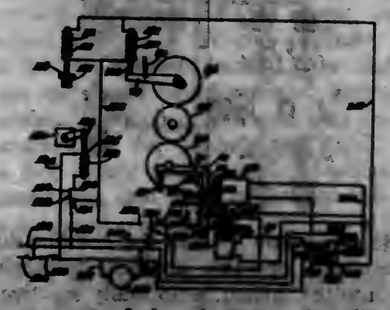
2,773,445
**THROWOFF MECHANISM FOR PRINTING PRESSES**
James R. Wood, De Bary, Fla., assignor to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware
Application March 19, 1953, Serial No. 343,297
18 Claims. (Cl. 101—218)



1. In a printing press, first, second and third cylinders, said second cylinder being adapted to occupy a position in printing relation to each of said first and third cylinders and having a shaft the axis of which is disposed to one side of the plane through the axes of said first and third cylinders, throwoff mechanism consisting of two oscillatable units, the first unit comprising a pair of inner eccentrics in which said shaft is mounted, and the second unit comprising said inner eccentrics and a pair of outer eccentrics in which the inner eccentrics are mounted, means for turning one of said units to throw said second cylinder out of contact with said first cylinder, means set in motion by the turning of said one unit for arranging the other unit to subsequently throw said second cylinder out of contact with said third cylinder, interconnecting means between said pairs of inner and outer eccentrics effective to tie them together during the turning movement of said second unit, and means effective upon said interconnecting means for moving the same independently to turn said first unit.

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2,773,446
**ENDORSING APPARATUS OR THE LIKE**
Henry J. Keeber, Jr., Norridge, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Application May 27, 1953, Serial No. 357,777
8 Claims. (Cl. 101—233)



1. In apparatus of the character described, the combination of printing and impression rollers, sheet feeding means for sequentially feeding sheets to said rollers, means for positioning said rollers in and out of impression relation comprising electromagnetic means effecting said impression relation when deenergized, a switch connected in controlling relation with said electromagnetic means and under the control of a sheet fed by said feeding means for deenergizing said electromagnetic means during passage of said sheet between said rollers and while under said control, latch means for retaining said rollers out of impression relation and adapted to be rendered inoperative, electromagnetic means connected with said latch means for rendering said latch means inoperative when said second mentioned electromagnetic means is energized, a switch connected in controlling relation with said second mentioned electromagnetic means, and circuit connections for energizing said first mentioned electromagnetic means through said first mentioned switch and said second mentioned electromagnetic means through said second mentioned switch.

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2,773,447
**VENTLESS DELAY ELECTRIC INITIATORS**
Cecil R. L. Hall, Saltcoats, and Idwal O. Lewis, Ardrossan, Scotland, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain
Application February 18, 1953, Serial No. 337,622
Claims priority, application Great Britain April 21, 1952
3 Claims. (Cl. 102—28)



1. A ventless short delay electric detonator comprising an electrically actuated igniting charge, an initiating charge and an interposed short delay element comprising a core of red lead and silicon and a lead sheath of a thickness less than the diameter of the core enclosed in a ventless container consisting essentially of copper, wherein the lead sheath of said short delay element is of such thinness as to be melted at substantially the same rate as that at which the flame front advances along the delay element on reaction of its core of delay composition and wherein the said sheath has a gas-permeable textile covering of a thickness to occupy the space between the said sheath and ventless container.

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2,773,448
**ROCKET PROJECTILE**
Joseph Raymond Jasse, Paris, France, assignor to Societe Nouvelle des Etablissements Brandt, Paris, France, a French body corporate
Application January 7, 1955, Serial No. 480,565
Claims priority, application France January 21, 1954
6 Claims. (Cl. 102—49)

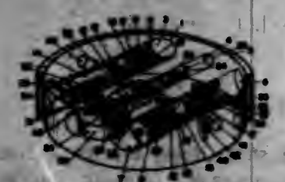


1. Self-propelled projectile comprising in combination: a hollow strong outer body the cavity of which communicates with the exterior at the front end through an axial tapped hole, this cavity extending up to the rear end of said body where it terminates in a tapped portion; a conventional fuse fitted in this axial hole in such manner as to extend partially into said cavity; an annular base fixed to the rear in said tapped portion of the cavity; an axial nozzle fixed in said base for connecting said cavity with the exterior; an offensive charge in said

mate contact with the entire surface of said cavity and with the portion of the fuse which extends into said cavity, this fuse being adapted to ignite said charge at the required moment and said charge comprising a blind axial longitudinal hole open at the rear in front of the entrance of said nozzle; an airtight thin container which is incombustible, provided with a front end and open at the rear, disposed in said longitudinal hole, the shape of which it matches exactly, and in intimate contact over its entire outer surface with said offensive charge; a propelling charge disposed in said container, an empty annular space being provided between said container and the propelling charge; an elastic device between the front end of said container and said charge for applying the rear end of the latter against the front annular face of said nozzle around the passageway in the latter; a firing device for igniting said propelling charge; and a sealing joint interposed between the rear ends of said container and said charge and, moreover, against the concentric front faces of said base and said nozzle.

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2,773,449
**SAFETY DEVICE FOR A PROJECTILE**
Lars Anders Birger Karsberg, Karlskoga, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a corporation of Sweden
Application February 10, 1953, Serial No. 336,156
Claims priority, application Sweden February 26, 1952
8 Claims. (Cl. 102—76)



1. A safety device for a projectile comprising a generally disc shaped base having two transverse bores and a third bore extending between said two bores, an arming member fitted in each of said transverse bores axially slidable between a safety position and an armed position and spring biased into its armed position, each of said arming members being formed with a circumferential groove situated in alignment with said third bore when the arming members are in the safety position, two lock bars disposed axially slidable in said third bore, the distal ends of said bars coacting with said grooves for locking the arming members in the safety position and the combined length of the bars being such that in the groove coacting position thereof the juxtaposed ends of the bars are spaced apart, a safety control member mounted for movement between a position filling said space between the respective bar ends for retaining the bars in the locking position and a position withdrawn from said space to release the bars from coaction with the grooves for movement of the arming members into the armed position by spring action, and release means for movement of the safety control member into its withdrawn position.

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2,773,450
**MORTAR PROJECTILE**
Hans Otto Donner, Tampere, Finland, assignor to Soltam Ltd., Haifa, Israel
Application May 28, 1953, Serial No. 357,944
Claims priority, application Finland April 18, 1953
3 Claims. (Cl. 102—93)

1. In a mortar projectile for discharge from a mortar and having fins on its rear end, a frusto conically shaped thrust member extending rearwardly from the rear end of the projectile and having an internal cavity housing an initial charge, an obturating member removably mounted on said thrust member and having an outer diameter slightly greater than said fins and a reduced rearward extension surrounding said thrust member, said thrust member and said rearward extension having radially aligned



passages extending from said internal cavity for discharging the forces of the initial charge within the barrel to the rear of said obturating member which is removed from said thrust member when the projectile leaves the mortar barrel.

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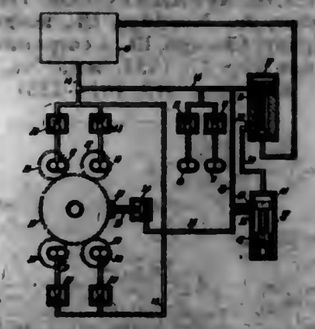
2,773,451
**WAD FOR CARTRIDGE**
Andre Marie Louis Rene Laloux, Liege, Belgium, assignor to Fabrique Nationale d'Armes de Guerre, Herstal-Liege, Belgium, a Belgian society
Application February 21, 1952, Serial No. 272,807
Claims priority, application Belgium February 21, 1951
1 Claim. (Cl. 102—95)



A one-piece wad for effectively separating the powder from the shot in a shotgun cartridge case comprising a cylindrical tubular body having a thin pliable wall and a transverse partition integral with the thin wall located between the ends of the tubular body and dividing the body into two back-to-back cups, one cup serving as the guiding means for the wad in the cartridge case and the other cup serving as the sealing means in the cartridge case; the height of the guiding cup being of a size to prevent the sealing cup from swinging or axial misalignment within the cartridge case.

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2,773,452
**PUMP CONTROL SYSTEM**
Kenneth L. Berninger and William A. Weis, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 15, 1952, Serial No. 320,797
10 Claims. (Cl. 103—11)



1. In a fluid pressure system, the combination including, a continuously operable pressure developing source discharging into the system, a normally inactive auxiliary pressure developing source connected to said system, activating mechanism operatively associated with said auxiliary pressure developing source and including a servo actuated brake for activating said auxiliary pressure developing source, and pressure responsive means connected with said system for actuating said brake.



2,773,453
**ROTARY PUMPS**
William Gemeinhardt, Philadelphia, Pa.
Application September 12, 1952, Serial No. 309,233
4 Claims. (Cl. 103—83)



1. A rotary liquid pump comprising a closed housing having a pumping chamber therein and a flexible end closure wall, inlet and outlet connections in communication with said pumping chamber, a rotary driving member exteriorly disposed with respect to said housing wall, a vane type liquid impeller in said pumping chamber movable in a circular orbital path, said impeller having oppositely disposed vanes, and driving means for said impeller interposed between said impeller and said driving member and extending through said wall in fluid tight relation, said driving means including a shaft connected to said driving member with the longitudinal axis thereof disposed in a common plane with the rotational axis of said driving member and at an acute angle to the rotational axis of said driving member for movement of said driving means in a conical path with an apex point of the conical path intermediate the driving member and the impeller, said driving means including a spring for supporting said impeller, and said vanes being radially disposed with respect to said longitudinal axis.

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2,773,454
**PUMP FOR LIQUID FOODS, DRUGS, AND LIQUID CHEMICALS**
Philipp Berdelle-Hilge, Philipp Schreiner, Wilhelm Blessing, and Richard Stifler, Mainz, Germany, assignors to Philipp Hilge, Mainz (Rhine), Germany, a firm
Application September 18, 1951, Serial No. 247,062
4 Claims. (Cl. 103—97)



1. A pump for use especially with liquid foods and beverages, and pharmaceutical and chemical liquids, comprising a plurality of adjoining annular sections forming an externally cylindrical housing, at least two identical pump members disposed within said housing and each comprising an impeller and two guide members therefor, an electric driving motor, and a shaft common to said pumping members and said motor, said housing having formed therein at its end opposite to that at which said driving motor is located, inlet and discharge openings for the liquid being pumped, and suction and pressure passages associated with said inlet and discharge openings respectively for guiding said liquid within the housing, a first rotary slide, means associated with the slide for connecting said units in parallel and series, said slide being arranged transversely with respect to the shaft and between said pump units, said slide being also capable of changing the cross-sections of the inlet passage for admission of liquid to be pumped and of the outlet passage for withdrawal thereof, and a second rotary member arranged coaxially with said shaft and being capable of alternately connecting as known per se the openings of the housing with the suction channel and the pressure channel.

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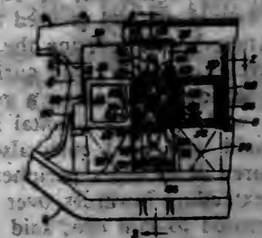
2,773,455
**ACCUMULATOR SYSTEM FOR PRESSURE SURGE RELIEF**
John Mercier, New York, N. Y.
Application June 25, 1953, Serial No. 364,117
18 Claims. (Cl. 103—223)



1. A system of the character described comprising a pump of the pulsating output type for delivering a liquid under pressure, a pressure accumulator having a liquid port connected to the outlet of said pump, a gas port and a movable partition intervening between said ports, a feed line connected to the outlet of said pump and a second pressure accumulator having a movable partition, a liquid port on one side of said partition connected to the outlet of said pump, a gas port on the other side of said partition connected to the gas port of said first accumulator and means to reduce the surge pressure from the pump on the liquid forced into the second pressure accumulator and to reduce the surge pressure on the gas forced into the second pressure accumulator from the first pressure accumulator.

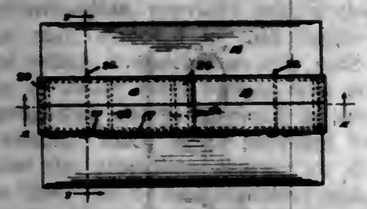
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2,773,456
**SNUBBED TRUCK**
George W. Crabtree, Granite City, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application July 30, 1952, Serial No. 301,663
16 Claims. (Cl. 105—197)



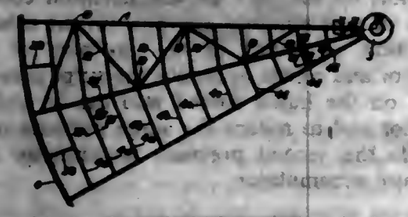
8. In a railway car truck, a pair of relatively movable truss type side frames, each side frame having a bolster opening defined by tension and compression members and spaced columns, an auxiliary column centrally disposed within said bolster opening and extending vertically between said members, a bolster spring-supported on said side frame and having a bifurcated end providing spaced legs having opposed friction faces disposed at opposite sides of said auxiliary column, said auxiliary column having a diagonal web disposed between said legs, and wedge-shape friction shoes in wedge engagement with opposite faces of said diagonal web and frictionally engaging their related friction faces on said bolster legs.

2,773,457
**STORAGE STRUCTURE HAVING ROOF OPENING AND CLOSURES THEREFOR**
Edward H. Prendergast, Ponde, Iowa
Application May 22, 1953, Serial No. 356,685
1 Claim. (Cl. 108—1)



In a storage structure, a housing having an opening in its top, sills projecting upwardly from the edges of said opening and coterminous therewith, a plurality of cover members for said opening, flanges depending from said cover members to interfit with said sills, said flanges and sills having registering openings therein, bolts extending through said openings to hold said cover members in position, and each of said cover members having at one end thereof a projection overlapping and interfitting with the end of the adjacent cover member.

2,773,458
**ROOFS FOR STORAGE TANKS OR SIMILAR STRUCTURES**
Robert Henry Foster, London, England, and James McLean, Motherwell, Scotland
Application February 19, 1953, Serial No. 337,844
4 Claims. (Cl. 108—32)



1. In a tank having a vertical cylindrical wall and a conical roof, said roof comprising a peripheral curb, a plurality of upwardly convex, radially disposed and diametrically opposite ribs having their outer ends abut against the curb, a centrally disposed crown member to which all the ribs are secured at their inner ends, each pair of diametrically opposite ribs having rigid continuity through the crown member and constituting a two-pin arch, roof sheets secured together to constitute a continuous spherical membrane and secured at its periphery to the curb, said membrane covering the arches formed by the ribs and crown member; said curb comprising a continuous angle section ring having a vertical limb secured to the side wall and a horizontal limb projecting outwardly from said wall, said curb also including an annular plate secured at its outer periphery to the angle section ring and extending inwardly over the outer ends of the ribs and secured to said ribs; said crown member comprising a cylinder and a pair of superimposed horizontal plates secured respectively to the upper and lower ends of the cylinder, and a plurality of circumferentially disposed purlins extending between each pair of adjacent ribs and supporting the roof sheets.

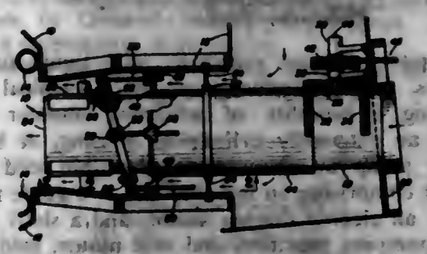
2,773,459
**PROTECTIVE WALL FOR USE AGAINST RADIATION AND EXPLOSIVE FORCES**
Paul S. Seehy, New York, N. Y.
Application September 23, 1950, Serial No. 186,332
2 Claims. (Cl. 109—82)

1. A radiation and explosive force proof wall comprising an inner layer of concrete, a layer of resilient material at the inner side of the concrete layer, a plurality of stacked frames each having a top plate, a bottom plate, and side plates interconnecting the ends of said top and bottom plates, said top and bottom plates extending at right angles to said layers, and said side plate extending at right angles to said layers and top and bottom plates, and said frames further comprising a plurality of corrugated sheets with the crests of each sheet contacting the troughs of adjacent sheets, and said sheets



extending generally at right angles to said top, bottom and side plates, the inner edges of said top, bottom and side plates being embedded in said resilient layer, the bottom plate of one frame contacting the top plate of the next adjacent frame therebelow, a layer of heat resisting material at the outer sides of said frames with the outer edges of said top, bottom and side plates being embedded in said heat resisting layer, and an outer sheet metal layer contacting the outer side of said heat resisting layer.

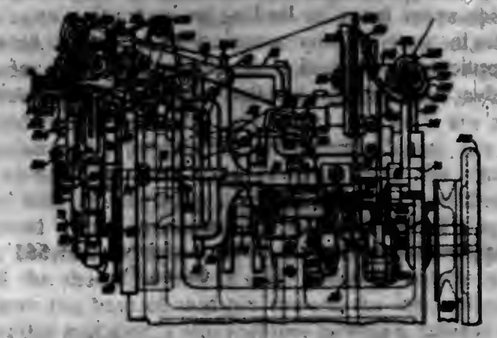
2,773,460
**TILTING BURNER MECHANISM**
Konrad S. Svendsen, Bellerose, N. Y., assignor to Combustion Engineering, Inc., a corporation of Delaware
Application March 11, 1953, Serial No. 341,693
6 Claims. (Cl. 110—28)



1. A tiltable burner comprising a straight conduit having a terminus disposed in a plane inclined at a predetermined angle to the axis of the conduit, tip means comprising a relatively short straight conduit member having an end disposed in a plane inclined at a similar angle to its axis, means joining said terminus of the first mentioned conduit and said end of the relatively short conduit so that said terminus and said end are juxtaposed to one another and said short conduit forms an extension of the first named conduit, said joining means substantially preventing relative axial movement between said terminus and said end while permitting relative rotary movement therebetween, and means including common drive mechanism operative to simultaneously rotate said conduits in opposite directions and equal angular increments.

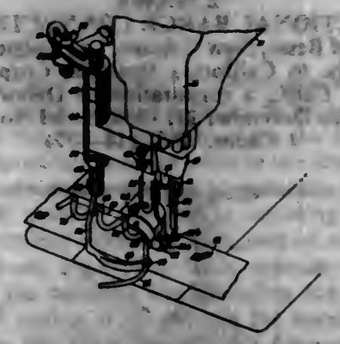


2,773,461
**SHOE SEWING MACHINES**
Alfred S. Clark, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application January 9, 1952, Serial No. 265,660
11 Claims. (Cl. 112—47)



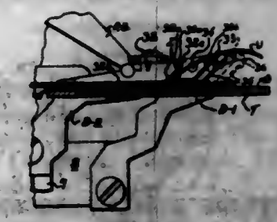
1. A shoe machine adapted for sewing an upper to a sock lining attached to the inner surface of a platform sole, the inner edge of which beneath the sock lining is rabbeted, having stitch forming devices including a curved needle and a work support disposed with its work engaging surface at an angle to that part of the needle path along which the needle engages the work to cause the needle to enter the upper and sock lining and to emerge adjacent to the edge of the sole through the rabbet, in combination with means for securing and feeding the work comprising a non-feeding clamp and a feeding clamp, each of which includes a presser foot and a gage member having its extremity disposed between the corresponding presser foot and the work support to fit within the rabbet of the platform sole beneath the upper and sock lining, the work feeding clamp being actuated relatively to the non-feeding clamp to transfer the point of operation along the margins of the upper and sock lining.

2,773,462
**LOOPED CORD TRIMMING ATTACHMENT FOR SEWING MACHINES**
Edward L. Seaman, Garden City, N. Y., assignor to S. & W. Sewing Machine Attachment Co., New York, N. Y., a partnership
Application March 6, 1953, Serial No. 340,743
6 Claims. (Cl. 112—100)



1. An attachment for a sewing machine of the type having a standard, a work support, an arm, a head, a rotating main shaft having a drive pulley at one end, a vertically reciprocating needle driven thereby, and a presser foot, said attachment forming loops of cord-like material on a base fabric and comprising: a first bracket attachable to said head to extend rearwardly thereof and having a vertical bore, a feed shaft rotatably supported in said bore, an actuating arm secured to said shaft; a second bracket attachable to said standard, a cam shaft carried thereby, driving means adapted to connect the cam shaft to the drive pulley end of the main shaft of the machine, a cam on the cam shaft, and means actuated by said cam having a driving connection with said actuating arm; a forwardly extending arm carried by said feed shaft and having a cord-guiding forward end adapted to swing across a vertical plane parallel to the direction of feed in which the needle reciprocates and closely in front of said needle, and loop forming means adapted to be fixed to said presser foot and disposed close to said work support laterally of said plane around which said material is wrapped by the swinging of said arm to form loops.

2,773,463
**SHIRRING DEVICE**
Joseph T. Jolle, Minneapolis, Minn., assignor, by mesne assignments, to The Singer Manufacturing Company, Elizabeth, N. J.
Application March 11, 1954, Serial No. 415,515
1 Claim. (Cl. 112—132)



A sewing machine presser-foot comprising an elongated rear section having a substantially flat under surface, a forwardly and upwardly inclined toe portion, and a laterally offset attachment arm at one side thereof; a forward presser and guiding section spaced forwardly of said rear section and including an attachment arm; said two attachment arms being splined together whereby the said forward section may be slidingly shifted lengthwise of said rear section; said forward section having an inclined plate extending laterally from the forward attachment arm to be disposed in parallelism with and forwardly of the toe portion of said rear section; a thin L-shaped plate having one limb thereof secured flat against the forward inclined face of said plate with the other limb thereof extending beneath said plate and terminating in a transverse edge spaced a short distance forwardly of the toe portion of said rear section to provide a transverse slot; and a screw releasably locking said two attachment arms together in various selected positions of relative adjustment thereby to vary the width of said slot.

2,773,464
**SEWING MACHINE HOOK AND BOBBIN RACE ASSEMBLY**
Hector Rabezzana, Fenton, Mich.
Application September 28, 1953, Serial No. 382,656
3 Claims. (Cl. 112—228)

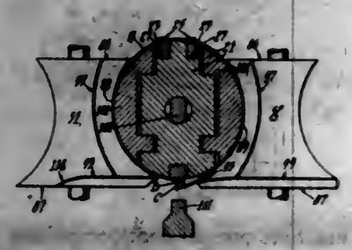


1. A rotary type hook assembly for a sewing machine, said hook assembly comprising a bobbin case having an annular flange, a hub member adapted to be secured to a rotary driving shaft, a hook member mounted on said hub member, said hub member and said hook member having co-operating surfaces engaging said flange to support said bobbin case and defining a race for said flange, circumferentially spaced radially extending projections on one of said members, co-operating circumferentially spaced locking surfaces on the other of said members,

said members being rotatable relative to each other between a locked position in which said projections engage said co-operating locking surfaces to prevent relative axial movement of said members and an unlocked position in which said projections are disengaged from said locking surfaces and in which said members may be moved axially apart, and key means mounted on and interconnecting said members to hold said members in said locked position.

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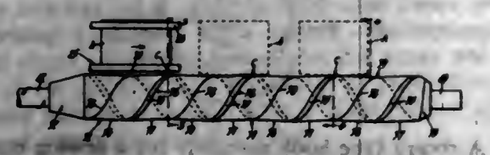
**2,773,465**
**CAN BODY MAKING MACHINE WITH ROTATABLE SEAM ASSEMBLING MECHANISM**
Erik Godde, Park Ridge, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application October 1, 1953, Serial No. 383,548
10 Claims. (Cl. 113—8)



2. In a can body making machine and the like, the combination of a can body mandrel for supporting a partially formed can body having an outwardly extending side seam hook and an inwardly extending side seam hook initially separated from one another, means for advancing said can body along said mandrel, eccentrically mounted rotatable means disposed adjacent opposite sides of said mandrel, said rotatable means having body engaging surfaces movable opposite to the direction of travel of the advancing can bodies for directly engaging the sides of said can body and forcing these sides inwardly towards and into contact with said mandrel, cam means on said rotatable means for sequentially directly contacting said can body sides adjacent their side seam hooks for pressing said hooks against said mandrel and into overlapping relation, means for actuating said rotatable means in time with said body advancing means, and means on said rotatable means to release the pressure against said can body sides whereby said sides bulge outwardly to interengage said overlapping side seam hooks.

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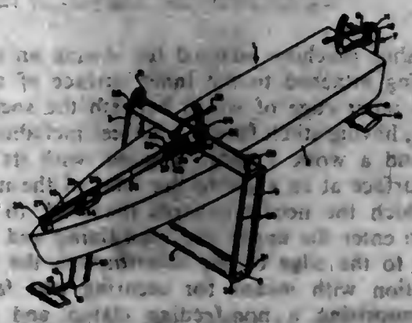
**2,773,466**
**METHOD OF SOLDERING CAN BODY SIDE SEAMS**
Erik Godde, Park Ridge, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application July 22, 1952, Serial No. 300,256
3 Claims. (Cl. 113—120)



1. The method of soldering the side seams of can bodies with a rotating spiral solder applicator having a long lead, greater than the length of the individual can bodies, said side seams being subject to bowing by the heat applied thereto incidental to soldering, which method comprises the steps of advancing can bodies in processional order with their side seams in substantially longitudinal alignment while maintaining the axes of said can bodies parallel to the axis of said spiral solder applicator, applying solder to each side seam with only a single spot of the rotating spiral applicator in solder applying contact with the seam at any time, said spot of solder application being moved along the seam in a direction opposite to said advancement of the can bodies, whereby successive spot applications of solder traverse each side seam from its leading to its trailing edge at a said single spot thereby assuring full contact between said applicator and said seam throughout each of said successive applications whether the seam is bowed or not.

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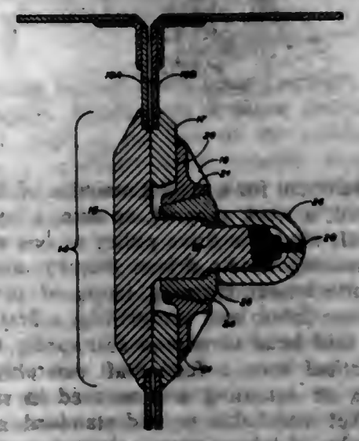
**2,773,467**
**HYDROFOIL CRAFT**
David Z. Bailey, Charlestown, R. I.
Application January 9, 1952, Serial No. 265,551
7 Claims. (Cl. 114—66.5)



7. In a water craft having a main hydrofoil pivotally supported below the level of the underside of the craft; the improvement which comprises a control hydrofoil; means supporting said control hydrofoil below the level of the underside of the craft, said control foil being movable about a horizontally extending pivot axis forward of said control foil whereby said control hydrofoil assumes an approximately streamline path through the water beneath the surface thereof when said craft has forward velocity with respect to the water; and linkage connecting said control hydrofoil and said main hydrofoil, whereby changes induced in the angular position of said control hydrofoil are reflected by corresponding changes in the angular position of said main hydrofoil.

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**2,773,468**
**SECTIONAL BARGE CONNECTION**
Celestino Paul Bosso, New Orleans, La., assignor, by mesne assignments, to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application December 21, 1954, Serial No. 476,626
1 Claim. (Cl. 114—77)

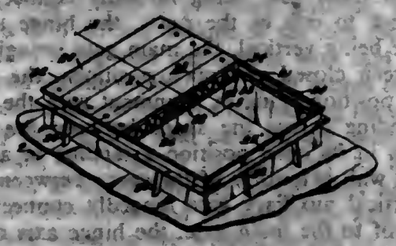


In apparatus for assembling a work structure from a plurality of barge hull sections while said sections are afloat wherein a plurality of pin members project outboard from the side of one of said hulls, and pin-receiving openings are formed in corresponding wall portions of an opposed hull, the combination comprising a pin member having a shank portion, a threaded end portion and an enlarged head portion adapted to be secured to the side wall of one of said hulls, a backing ring surrounding the pin-receiving opening in the opposing hull side wall, said backing ring having an opening substantially larger in diameter than the shank of said pin to permit free passage of said pin therethrough and to permit rough registration of said opposed hulls while said hulls are afloat, a tapered collar member of appreciably larger size than said threaded portion to pass freely over the threaded end of said pin to bring its flange portion into flush engagement with the inboard face of said backing ring, said collar member having a tapered surface adapted to surround the shank portion of said pin and radially diverging from the base of said pin toward the inboard side of said collar member, a slip member having a tapered outer surface of lesser size than the tapered collar member and an inner surface of generally the same size as said shank to closely engage said shank of said pin and adapted to have its tapered surface substantially fully received within the tapered surface of said collar member, and cap means for threadably engaging the outer end of said pin to force said slip member into seating engagement within said collar member and to center said pin within said backing ring and thereby seal said opposed barge hulls together as an enlarged working structure.



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**2,773,469**
**HATCH COVER**
Edward G. Carruthers, Arlington, and Robert Lowry, Falls Church, Va.
Application August 5, 1953, Serial No. 372,468
2 Claims. (Cl. 114—201)



2. In a hatchway, a cover, a coaming having a lower ledge and an upper ledge, the upper ledge being located further from the hatch opening than the lower ledge, and a plurality of hatch cover units in the hatch opening, each cover unit being a unitary structure which is of angular cross section and has a covering leg and a beam leg extending vertically with respect to the covering leg, the beam leg resting at its opposite ends on the lower ledge, the covering leg extending out beyond the beam leg and resting at its ends on the upper ledge, and a ledge along the beam leg of each covering unit supporting the side of the cover leg of an adjacent hatch cover unit.

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**2,773,470**
**SURVEYOR'S STAKES**
John Alger, Lakewood, Colo.
Application September 29, 1954, Serial No. 459,159
6 Claims. (Cl. 116—114)

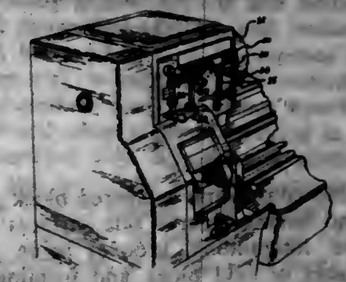
1. A surveyor's stake comprising a length of structural angle iron, an inclined lower extremity on said length forming a point at the intersection of the two legs of the angle iron, the upper extremity of said length being cut at right angles to form a flat driving extremity, and a metallic strip extending longitudinally of said length adjacent said driving extremity and being secured



at its sides to the two legs of the angle iron to form a triangular socket at the upper extremity of said stake.

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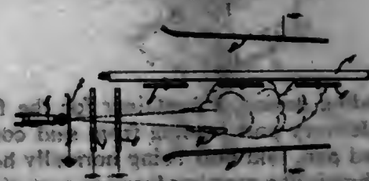
**2,773,471**
**SPEED INDICATING PLATE FOR MACHINE TOOLS**
Harold J. Siekmann, George J. Kasselmann, and William Okvit, Cincinnati, Ohio, assignors to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio, a corporation of Delaware
Application November 7, 1955, Serial No. 545,352
3 Claims. (Cl. 116—115.5)



1. A speed indicating plate for a machine tool transmission having a pair of shifter levers comprising, a series of vertically extending horizontally spaced boxes located directly above the shiftable positions of one of said levers, a series of horizontally spaced pointer indicating marks on the bottom edge of said plate to one side of said vertically extending boxes and positioned directly above the shiftable positions of said other lever, and horizontally extending vertically spaced indicating boxes merging with said pointer indicating marks extending upwardly from the lower edge of said plate, said horizontally extending box being arranged transversely across said vertically extending boxes.

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**2,773,472**
**APPARATUS FOR ELECTROSTATIC SPRAY COATING**
Lewis J. Lamm, Washington, D. C., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 14, 1951, Serial No. 241,858
4 Claims. (Cl. 118—51)



1. Apparatus for electrostatic spray coating of articles to be coated including, in combination, means structurally supporting and conveying said articles in a given direction through a coating area; a spray gun projecting particles of coating material in a direction parallel to the direction of

movement of said articles through said area; means charging said particles including a plurality of discharge electrodes disposed in a plane normal to the direction of the spray from the gun and in the path of the spray, a collector electrode spaced from said plane of discharge electrodes and located between the discharge electrodes and the gun, and a high potential power source connected to said discharge electrodes and said collector electrode and establishing a highly ionized current conducting atmosphere therebetween through which said particles are projected; a broad, flat deflecting electrode of large surface area relative to said discharge electrode disposed subtantially parallel to and along the path of said spray particles passing through said charging means within said coating area and means for electrically charging said deflecting electrode relative to said articles to a polarity similar to that of said particles, said flat deflecting electrode being substantially free of discharge points and providing an electrostatic repulsion zone of substantially uniform intensity to deflect the particles from the direction in which they are projected from said spray gun and in a direction toward said articles.

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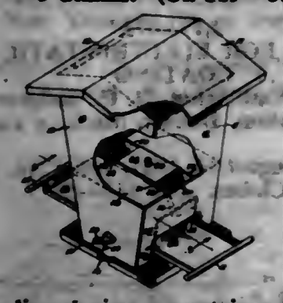
2,773,473
**BIRD NIBBLES**
Jonathan Martin, Preston, England
Application February 28, 1955, Serial No. 491,140
1 Claim. (Cl. 119—18)



A bird nibble comprising a tapered block of palatable ingredients and having tapered side surfaces and a front and rear face, longitudinal grooves being provided in the side surfaces of said block and forming a dovetail thereon, and a tapered holder complementary to said block, said holder comprising a flat plate having upstanding and turned-in marginal portions extending its entire length and adapted to engage into the grooves in said block, the grooves in said block extending from one end of the block to the other end and disposed substantially nearer the rear face than the front face thereof.

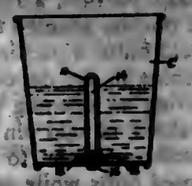
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2,773,474
**BIRD FEEDER**
Nugent Dodds, Washington, D. C., assignor to George Hume, Washington, D. C.
Application November 10, 1954, Serial No. 467,923
8 Claims. (Cl. 119—55)



1. In a feeding device, a container for the feed to be dispensed, a delivery port leading from said container to a rockable feed pan, said port being normally held closed by a resilient brush-like member forming part of said port, and feed release means for said feed comprising a reciprocable member disposed in said port to force a portion of said feed past said resilient member, said feed release means being operatively connected to said rockable feed pan and movable therewith.

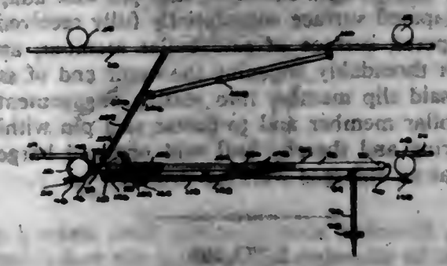
2,773,475
**DEVICE FOR WEANING YOUNG ANIMALS**
Robert A. Zottoli, Brunswick, Maine
Application October 14, 1954, Serial No. 462,177
3 Claims. (Cl. 119—71)



1. A device for weaning an animal comprising a container having a bottom, a false nipple extending substantially normally from a midportion of said bottom a distance less than the height of said container.

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2,773,476
**CATTLE GATE AND CHUTE**
Jess W. Thomas, Decker, Mont.
Application August 14, 1953, Serial No. 374,169
3 Claims. (Cl. 119—99)



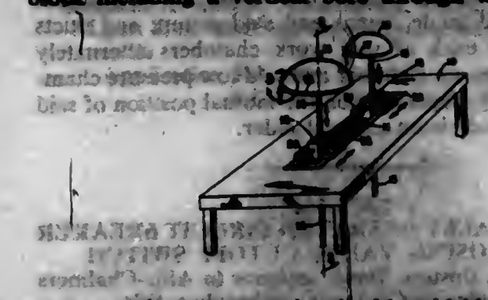
1. The combination, with a chute including laterally spaced, parallel, vertical, back and front walls, the front wall including vertical gate posts spaced longitudinally of the front wall, of: a main gate of a width approximately equal to the horizontal distance between the gate posts, said main gate being hingedly connected at one side thereof to one of the posts, the hinge axis of the main gate being vertical, the main gate swinging on said axis between closed and open positions, the gate when in closed position being in alignment with the front wall and extending across the space between the posts, the gate when in its open position extending at an angle to said front wall exteriorly of the space between the walls; and a vertical auxiliary gate hingedly connected at one side thereof to the main gate, the hinge axis of the auxiliary gate extending in closely spaced parallel relation to the hinge axis of the main gate, the auxiliary gate being of a width at least substantially equal to the distance between said walls, said auxiliary gate being swingable on the main gate, in each of said positions of the main gate, between closed and open positions, the auxiliary gate in its closed position extending across the chute from one to the other wall and in its open position being disposed against the main gate.

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2,773,477
**VETERINARY TABLE**
Robert B. Michael, Culver City, Calif.
Application December 2, 1955, Serial No. 550,596
4 Claims. (Cl. 119—103)

4. An elongated veterinary table for holding animals, comprising, in combination: a pair of horizontal tracks longitudinally secured to said table substantially midway between and parallel to the longitudinal edges of said table; animal support means including at least one vertical rod extending upwardly from said tracks and terminating at its upper end in an engaging means for supporting the underside of an animal; and a block member having lateral flanges adapted to ride on the upper surfaces of said tracks and having downwardly depending flanges extending between said tracks, said block including a vertical bore through which said rod passes; and means associated with said block adapted to bear against said rod to retain said animal engaging means at a desired level above said table.





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2,773,478
**CARTRIDGE PROJECTING AND RETRACTING MECHANISM FOR BALL POINT PENS**
William Bernard Poloucek, Culver City, Calif.
Application March 6, 1953, Serial No. 340,754
4 Claims. (Cl. 120—42.03)



1. A writing implement comprising a tubular body, writing means axially slidable in the body between projected and retracted positions, spring means in the body urging the writing means into retracted position with respect to the body, advancing means reciprocable in the body for engaging and forcing the writing means from its retracted position to its projected position against the action of said spring means, locking means engageable with the writing means and means on the advancing means for holding the writing means in projected position, spring means urging the locking means laterally with respect to the body and into a position wherein it may lock the writing means in projected position, said body presenting a cam surface oblique to the axis thereof, said locking means being also engageable with said cam surface, and said means on the advancing means engageable with the locking means to force the locking means axially of the body and against said cam surface, when the advancing means is retracted in the body to cause the locking means to move laterally in the body against the action of the last-mentioned spring means and clear the writing means allowing the writing means to retract.

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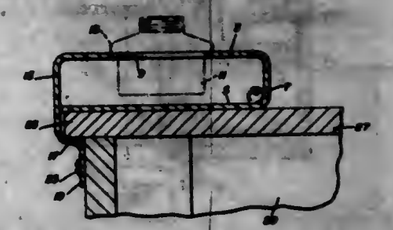
2,773,479
**FOUNTAIN PEN**
Nolan Kent Rhoades, Milton, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application March 1, 1952, Serial No. 274,371
11 Claims. (Cl. 120—50)



4. In a fountain pen, a barrel having a bore opening through its forward end, the bore including a rear relatively large portion and a forward reduced portion, and a self-contained writing unit removably mounted in the bore including a rigid cartridge casing having a reduced tubular portion extending into the reduced portion of the bore, a writing nib supported by said tubular portion, a capillary reservoir element in said casing having a portion in ink feeding relation with said nib, said casing having radially extending channel shape projections rearwardly of said tubular portion engaging in complementally shaped grooves in the barrel operative for preventing rotation of the writing unit in the barrel, said casing having openings into said projections forming passages communicating with said reservoir element, and the bore of the barrel being so shaped as to form a passage from the exterior communicating with the first passages in bypassing relation to said tubular portion of the casing.

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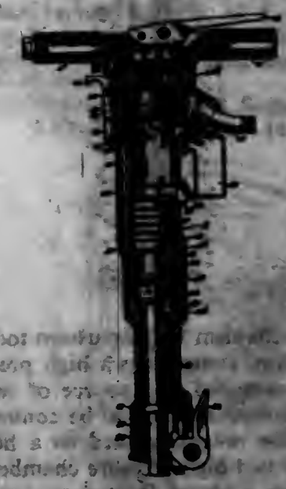
2,773,480
**HOLDERS FOR BOTTLES AND OTHER CONTAINERS**
Andrew R. Kosher, Wilkes-Barre, Pa.
Application July 19, 1954, Serial No. 444,169
5 Claims. (Cl. 120—73)



1. A holder for attachment on a desk top at one edge to support a container in upright position comprising an oblong rectangular frame of resilient strip material including vertically spaced flat top and bottom walls and a front wall connecting said top and bottom walls, said bottom wall being adapted to be imposed on said desk top, said top wall terminating in a vertical rear flange depending therefrom past and being seperate from said bottom wall and adapted for positioning in front of said edge and provided with a horizontal portion, said vertical flange and horizontal portion being vertically movable relative to said bottom wall whereby said horizontal portion is adapted to underlie said edge and coact with said bottom wall to clamp said frame to said edge, said top wall having a central opening therein for receiving the container therein.

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2,773,481
**PERCUSSION TOOLS**
Archie Blake, Buffalo, N. Y., assignor to Mechanical Research Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application January 14, 1954, Serial No. 404,115
6 Claims. (Cl. 121—12)

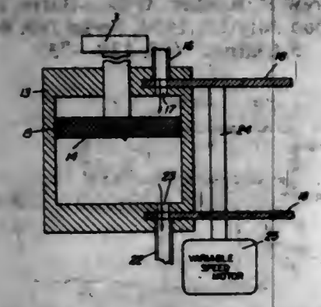


1. In combination with a pressure fluid percussion tool having a cylinder and a hammer actuated by the pressure fluid and mounted for reciprocation in the cylinder for actuating a work member, at least one expansion tank communicating through a manually operable valve

with said cylinder adjacent the upper end thereof, whereby the stroke length of said hammer is increased when the valve is open and said tank is in open communication with said cylinder.

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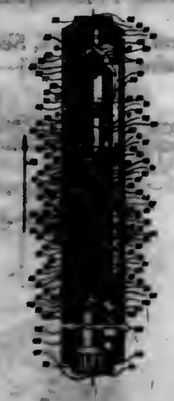
2,773,482
**FLUID-OPERATED VIBRATION TEST EXCITER**
John A. Dickie, Hamden, Conn., assignor, by mesne assignments, to Textron Inc., a corporation of Rhode Island
Application July 21, 1954, Serial No. 444,242
16 Claims. (Cl. 121—38)



1. A fluid-operated vibration test exciter comprising a cylinder, piston means and stationary head means jointly forming with the piston means two chambers of variable capacity in the cylinder, rod means rigidly attached to the piston means and lying longitudinally in the cylinder, there being inlet and discharge ports in the cylinder in each of the chambers and rotary disk means in direct contact with the cylinder having holes therein adapted to act as valve ports for said inlet and discharge ports in continuous succession; whereby displacement of the piston in sinusoidal motion is obtained.

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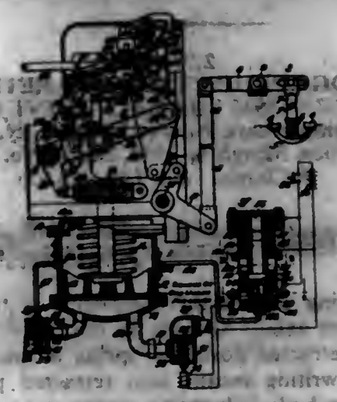
2,773,483
**DRIVE MECHANISMS FOR PERCUSSION TOOLS OPERATED BY A PRESSURE MEDIUM**
Endre Gál and Károly Gerber, Budapest, Hungary, assignors to "Licencia" Találmányokat Értékesítő Vállalat, Budapest, Hungary
Application November 3, 1952, Serial No. 339,496
Claims priority, application Hungary November 3, 1951
13 Claims. (Cl. 121—30)



1. A drive mechanism for percussion tools operated by a pressure medium, comprising a high pressure chamber adapted to be connected to a source of such medium; a low pressure chamber adapted to be connected to the atmosphere; a guide means formed as a hollow rod and situated between said high pressure chamber and said low pressure chamber; a piston formed as a tool carrier and slidably arranged between two extreme positions along and around said guide means; a slider formed as a control means and slidably arranged between two extreme positions along said piston; a pair of work chambers arranged between said guide means and said piston on opposite ends of said guide means, the volumes of said work chambers varying alternately depending on the mutual position of said guide means and said piston; and ducts for connecting each of said work chambers alternately to said high pressure chamber and said low pressure chamber, respectively, depending on the mutual position of said guide means, said piston and said slider.

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2,773,484
**PNEUMATICALLY OPERATED CIRCUIT BREAKER WITH CLOSING VALVE CUTOFF SWITCH**
Henry L. Peek, Boston, Mass., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application December 27, 1952, Serial No. 328,215
13 Claims. (Cl. 121—38)



6. In an operating mechanism for circuit breakers, a motor operable by gas under pressure and comprising a cylinder and a piston movably arranged therein, a source of gas under pressure, electrically operated valve means for admitting gas under pressure from said source to said cylinder to close the breaker, and a gas blast cutoff switch for controlling the deenergization of said valve means comprising a pair of arcing contacts actuated by gas under pressure from said cylinder passing through said switch.

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2,773,485
**SELF-LOCKING ACTUATOR**
Howard M. Geyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 9, 1954, Serial No. 454,916
11 Claims. (Cl. 121—40)



1. A fluid pressure operated rotary actuator, including in combination, a cylinder, a reciprocable piston disposed in said cylinder capable of fluid pressure actuation in either direction, an output member rotatably supported in said cylinder, means interconnecting said piston and said output member for imparting rotation to said output member upon reciprocation of said piston, and releasable locking means operatively connected with said piston for preventing movement thereof and hence locking said output member against movement, said locking means being independent of said rotary output member.



2,773,486
**VALVE MEANS FOR A FLUID PRESSURE SYSTEM**
Kenneth A. Albers, Minneapolis, Minn., assignor to Char-Lynn Co., Minneapolis, Minn., a corporation of Minnesota
Application February 16, 1955, Serial No. 488,552
2 Claims. (Cl. 121—158)

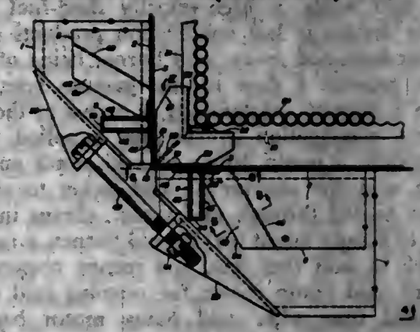


1. Automatic reversing valve means for a fluid pressure system comprising housing structure defining a pair of spaced longitudinally extending cylindrical cavities each having five longitudinally spaced radially enlarged portions intermediate the ends of said cavities which define valve chambers, the opposite ends of said cavities defining pressure chambers, the pressure and valve chambers of each cavity being separated one from another by reduced bore portions of the cavity; said housing structure defining: a passage from the central valve chamber of one cavity to the central valve chamber of the other cavity, a pair of passages each from a different one of the two valve chambers on each side of the central valve chamber of said one cavity to and communicating with a different one of the pressure chambers of said other cavity, a pair of passages each from a different one of said two valve chambers to a different one of two outlet ports adapted to be connected to the opposite ends of the cylinder of a fluid motor, a pair of passages each from a different one of the two valve chambers on either side of the central valve chamber of said other cavity to and communicating with a different one of the pressure chambers of said one cavity, passages interconnecting the four end valve chambers of said cavities, a fluid pressure inlet port, a fluid pressure outlet port, a passage connecting one of said fluid pressure ports to the interconnected end valve chambers, and a passage connecting the other fluid pressure port to the connected central valve chambers; two longitudinally extending cylindrical valve plungers each mounted for reciprocating movement in a different one of said cavities between two positions, each plunger having longitudinally extending end portions thereof in engagement with the structure defining the reduced portions of its associated cavity which are between the end valve chambers and pressure chambers thereof for preventing communication between the pressure chambers and end valve chambers of said cavities during the movement of said plungers, said plungers having alternating normal and reduced diameter portions, the normal portions of said plungers engaging portions of said structure defining reduced bore portions of said cavities for preventing communication between adjacent valve chambers and said reduced diameter portions of said plungers permitting communication between two adjacent valve chambers, the normal and reduced portions of said plungers being so disposed with respect to said cavities that each intermediate valve chamber is in communication with the valve chamber on one side thereof and not in communication with the valve chamber on the other side thereof at one position of each plunger and so that at the other position of each plunger communication between adjacent valve chambers is reversed and each intermediate valve chamber is not in communication with said valve chamber on the one side thereof and is in communication with said valve chamber on the other side thereof; and means for releasably latching the plunger mounted for movement in said other cavity at each of the two positions between which said plunger is movable.



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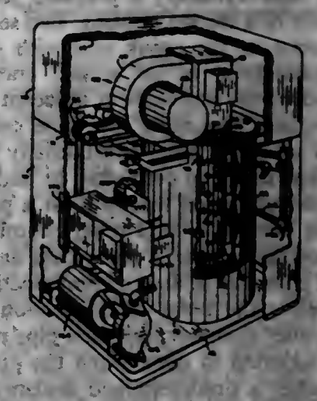
2,773,487
**FURNACE HAVING WALLS ORGANIZED FOR CUBICAL EXPANSION**
Paul R. Walter, East Orange, N. J., and Ernest C. Witzke, Bayside, N. Y., assignors to Combustion Engineering, Inc., a corporation of Delaware
Application August 27, 1952, Serial No. 306,604
16 Claims. (Cl. 122—6)



3. In a furnace of the type described, wall structure having an inner facing exposed to hot combustion gases generated within said furnace and an outer casing spaced from and supported by said inner facing with thermal insulation interposed between said inner facing and said outer casing, said outer casing including a plurality of generally parallel buckstays secured to said inner facing in a manner to move therewith in a direction transverse to the longitudinal axis of said buckstays and parallel with said inner facing, panel members interposed between adjacent buckstays, said panel members having edges juxtaposed to said buckstays and rigidly interconnected therewith throughout substantially the entire length of said edges so that said panel members are integral with the buckstays and said edges move therewith and are joined therewith in a fluid tight manner, a flexible flange formed at one of the edges of said panel members in overlying relation with the adjacent buckstay, and flexible means fluidly sealing the ends of said flange with said adjacent buckstays in a manner permitting relative movement therebetween in said transverse direction.

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2,773,488
**BOILER-BURNER UNIT**
Calvin D. MacCracken, Tenafly, N. J., George N. Miles, Orangeburg, N. Y., and Tesfai N. Ashfaie, Bergenfield, N. J., assignors to Jet-Heet, Inc., Englewood, N. J., a corporation of New York
Application February 21, 1952, Serial No. 272,783
9 Claims. (Cl. 122—161)



3. In a boiler-burner unit, a multilayer heat-exchanging water jacket, said jacket layers comprising pairs of thin sheet metal walls sealed together at their edges and





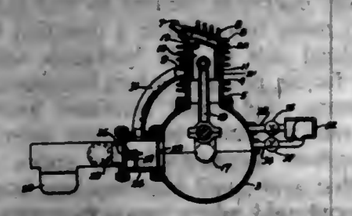
ated cylinder into two compartments, one of said pair

2,773,494

at a plurality of spaced points intermediate said edges and separated except where sealed together to provide multiple fluid paths within said jacket, said jacket layers being coupled together to provide a continuous fluid path from the innermost to the outermost of said layers, the innermost of said layers encompassing a substantially cylindrical space, said jacket being shaped to define between said layers a continuous path extending from said space encompassed by the innermost of said layers to the outermost of said layers, the maximum spacing between the walls of adjacent ones of said layers being no greater than about three times the maximum inside separation of said walls, a high-velocity fluid-fuel burner mounted to discharge hot combustion products directly into said encompassed space, said burner being of a type adapted to provide a flow of hot gaseous combustion products at a velocity substantially in excess of the velocity of flame propagation of the fuel supplied to said burner, a motor, a pump driven by said motor and communicating with the interior of said jacket to circulate water to be heated through said jacket, means including a fuel line to supply liquid fuel to said burner, a normally closed valve in said fuel line, and means responsive to operation of said pump motor for opening said valve a predetermined time after said pump motor begins to operate.

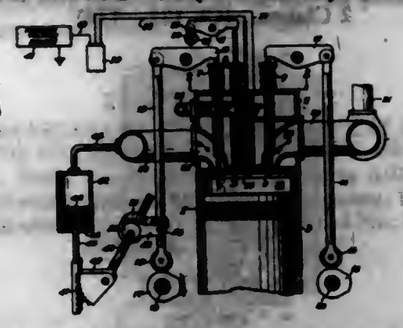
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**2,773,489**
**INTERNAL COMBUSTION ENGINE**
**William C. Estes, Redding, Calif.**
**Application May 2, 1955, Serial No. 505,432**
**3 Claims. (Cl. 123—59)**



1. An internal combustion engine comprising a cylinder; a crank case; a crankshaft; a piston slidably mounted in the cylinder and working off the crankshaft; intake and exhaust ports located in the cylinder to permit communication from the interior of the cylinder to the exterior thereof only when the piston is substantially at its lowest stroke position; one wall of the crank case transverse to the longitudinal axis of the crankshaft formed with an aperture, a flexible pressure responsive diaphragm sealing said aperture; a chamber formed interiorly of a housing secured on the exterior wall of said crank case; said diaphragm forming a portion of one wall of said chamber; valve means operable to admit carbureted air to said chamber; a conduit communicating the chamber with the intake port of said cylinder; a pressure relief chamber formed interiorly of a second housing; said second housing positioned exterior of the crank case with said chamber above the normal level of oil in said crank case; said chamber vented to the atmosphere adjacent the top portion of said second housing; a first pipe communicating with said crank case at a point substantially above the oil level in said crank case and connected to said relief chamber in fluid communication therewith at a point substantially above the bottom of said relief chamber; a second pipe communicating with said crank case and connecting with said relief chamber in fluid communication at a point substantially below the point of connection of said first pipe with said relief chamber; said first pipe provided with a check valve adjusted to open when the pressure in the crank case reaches a predetermined maximum; and said second pipe provided with a check valve adjusted to open when the pressure in the crank case falls below a predetermined minimum.

**2,773,490**
**HIGH EXPANSION, SPARK IGNITED, GAS BURNING, INTERNAL COMBUSTION ENGINES**
**Ralph Miller, Milwaukee, Wis.**
**Application September 23, 1952, Serial No. 311,032**
**16 Claims. (Cl. 123—75)**



1. In a gas-fueled, spark-fired internal combustion engine adapted to operate under varying loads, a valve-and-port mechanism for the cylinders of the engine for the admission of fresh air and the expulsion of burnt gases, means for supplying fresh air to the cylinders through at least a part of the valve-and-port mechanism, a gas valve for the cylinders for separately supplying gaseous fuel to mix with the air, means for varying the quantity of fuel supplied in relation to the load on the engine, and a valve actuating mechanism for opening and closing at least a part of the valve-and-port mechanism, including means to entrap a volume of air at full load which is substantially less than the full volumetric capacity of the cylinders, and means for maintaining an approximately constant air-fuel ratio mixture in the cylinders during all loads, said means including a device for timing only the closing of the valve-and-port mechanism so that as the load varies, the quantity of air entrapped, when mixed with the fuel supplied, will result in an approximately constant air-fuel ratio mixture.

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**2,773,491**
**PRESSURE CONTROL VALVE**
**Virgil C. Reddy, Farmington, Mich., assignor to General Motors Corporation, a corporation of Delaware**
**Application February 14, 1952, Serial No. 271,519**
**5 Claims. (Cl. 123—120)**

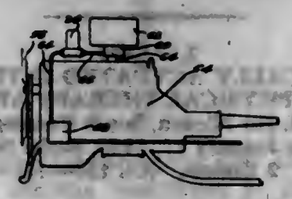


1. In a gas fuel flow regulating means for an engine having an air intake system including an engine driven blower and a lubricating system including an engine driven oil pump, said means including a valve housing having a gas inlet and a gas outlet, cylinders respectively associated with said inlet and outlet, a valve passage connecting said inlet with its associated cylinder, a duct in said housing having one end connected with said inlet associated cylinder, a valve passage connecting the other end of said duct with said outlet associated cylinder, said outlet being in communication with its associated cylinder, a valve seat and a passage closable valve in each said valve passage, elastic members supported by said housing and urging the valves against their seats to effect closure of said passages, stems carried by the respective valves and slidably supported by the housing, a pair of opposed flexible diaphragms dividing said inlet associated cylinder into two compartments, one of said pair of diaphragms having a smaller effective area than the other diaphragm of said pair and being connected to the stem of said inlet associated valve, the compartment adjacent said other diaphragm being adapted for connection to the delivery side of the engine blower, a thrust transmitting spacer between said pair of diaphragms, an elastic member supported by said inlet associated cylinder to cooperate with the blower delivery pressure to transmit thrust to said other diaphragm to open said inlet associated valve in opposition to said gas supply pressure and said first named elastic member, and a flexible diaphragm in said outlet associated cylinder having one of its sides in abutment with the stem of said outlet associated valve, said outlet associated cylinder being adapted on the opposite side of its diaphragm for connection to the delivery side of the engine oil pump.



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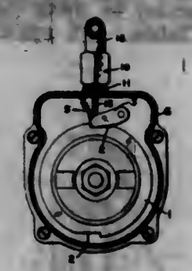
**2,773,492**
**FUEL FEED**
**Emil Richard Klemm, Jr., Lincolnwood, Ill.**
**Application November 5, 1954, Serial No. 467,052**
**6 Claims. (Cl. 123—136)**



1. Fuel feed means for an internal combustion engine having a carburetor located at an elevation not materially less than the top of said engine, comprising, in combination: a fuel intake conduit located at a level near the bottom of said engine; a fuel pump at substantially the same level as said intake conduit; a riser for conveying fuel from said pump up to said carburetor; and a chamber for segregating vapor associated with said riser and located at the highest point in said riser.

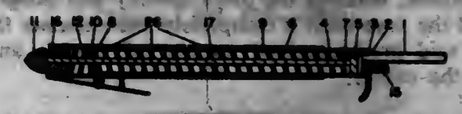
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**2,773,493**
**AIR OPERATED ENGAGEMENT MEANS FOR IMPULSE COUPLED MAGNETOS**
**George Steven, Kenmore, N. Y., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware**
**Application December 5, 1952, Serial No. 324,302**
**5 Claims. (Cl. 123—179)**



1. In combination with an internal combustion engine including a starting air system, a magneto and an impulse coupling for said magneto, of pressure actuated means for engaging said impulse coupling in operative condition upon application of pressure thereto and disengaging said impulse coupling upon release of pressure from said pressure actuated means, and a three-way valve in said air starting system for controlling the delivery of engine starting air to said pressure actuated means.

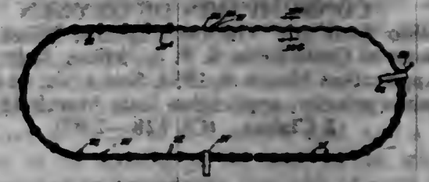
**2,773,494**
**FISHING LINE CASTING GUNS**
**Theodore Lester Thompson and Bernadine G. Thompson, Anaconda, Mont.**
**Application July 6, 1953, Serial No. 366,253**
**2 Claims. (Cl. 124—15)**



1. A fishing line casting gun comprising an air chamber, a sleeve fitted over said air chamber and being rotatable and longitudinally movable thereon, a piston in said air chamber, a shaft engaging said piston, a spring carried by said shaft and engaging said piston, a trigger lock carried by one end of said shaft and having sliding movement longitudinally of said sleeve, a spring abutment carried in said air chamber and engaged by one end of said spring, said sleeve having a longitudinal slot, said sleeve also having spaced lateral slots communicating with said longitudinal slot, a pin carried by said air chamber and adapted to travel in said longitudinal slot and adapted to selectively fit into said lateral slots as said sleeve is moved longitudinally of and rotated upon said air chamber to hold said sleeve in a selected adjusted position on said air chamber, a barrel communicating with said air chamber and projecting therefrom, said barrel having a tapered portion at its inner end, a projectile frictionally fitting in said inner end, a fishing line connected to said projectile and extending longitudinally of the barrel, the barrel having an outer end through which the line extends, and means carried by the air chamber adjacent the barrel for supporting a fishing rod to which said line is attached, said sleeve adapted to compress said spring and retract said piston within said air chamber when said sleeve is moved longitudinally of said air chamber, a spring-pressed trigger on said sleeve releasably engaging said trigger lock to hold the trigger lock in a set position until said trigger is released, and said spring being adapted to expand when said sleeve is released for free sliding movement upon said air chamber to drive said piston toward said barrel and to thereby eject said projectile from said barrel.

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**2,773,495**
**METHOD OF FABRICATING A CABLE VARIETY STONE CUTTING SAW**
**Hubert M. Lefevre, Bonnevil-en-Valois, France**
**Application December 9, 1953, Serial No. 397,126**
**5 Claims. (Cl. 125—21)**

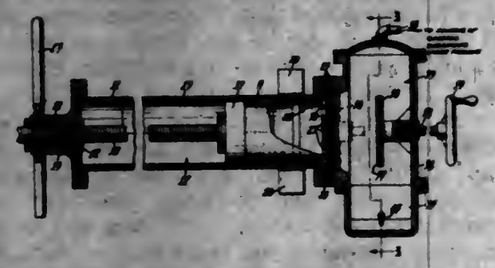


3. That improvement in the fabrication of an endless flexible cable of predetermined length and in the form of a normally straight core and a predetermined number of side by side spiral wire strands around the core, which comprises the following steps: first, cutting the core of the cable from normally straight core stock so that the length thereof is slightly less than the predetermined length of the cable to be formed; second, manipulating the cut core so that it is in the form of a loop and has the ends thereof disposed in opposed but spaced apart relation; third, cutting from conventional wire cable stock having the same number of spiral wire strands as the cable to be formed a section of cable the length of which is substantially equal to the desired total length of the cable multiplied by the number of spiral strands that the complete cable is to have; fourth, unwinding

one of the strands of the cut section of conventional wire cable stock in order to provide a single pre-set spiral wire piece; fifth, straightening the extremity of one end of the piece; sixth, positioning the straightened extremity of the piece in the space between the ends of the core; and seventh, winding the piece spirally and progressively around the core until it completely encompasses the core, forms said predetermined number of strands and completes the cable.

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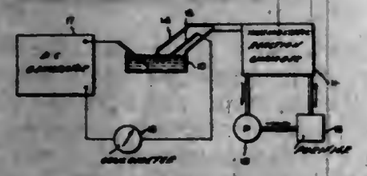
2,773,496
**MACHINE FOR MELTING AND FEEDING SOLIDIFIED MATERIALS**
John D. Czarnecki, Oak Park, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application December 21, 1951, Serial No. 262,861
5 Claims. (Cl. 126—343.5)



1. A machine for feeding and melting a solid block of thermoplastic material comprising in combination a hollow cylinder for holding the material, a grid element disposed adjacent an open end of said cylinder in communication therewith, said end being constricted to engage tightly around the periphery of said block of material disposed in said end to form a seal between said grid element and the portion of said cylinder remote from said grid element, said grid element having a plurality of discrete passages therethrough, means in said cylinder for advancing said material against said grid element, means for heating said grid element to melt said material to a flowable condition so that it will flow through said passages for subsequent use, and cooling means surrounding and in contact with said cylinder adjacent said constricted end to keep portions of said material remote from said grid element in a solid state.

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2,773,497
**METHOD AND APPARATUS FOR MEASURING CONSUMPTION OF OXYGEN**
Costantino Amdi and Vittorio Caprare, Milan, Italy, assignors to Carlo Erba, S. P. A., Milan, Italy, a firm
Application March 8, 1954, Serial No. 414,816
Claims priority, application Italy March 10, 1953
2 Claims. (Cl. 128—2.07)



1. Apparatus for the determination of oxygen consumed by an oxidation variable process in biological substrates comprising an electrolytic dissociation cell, a collection chamber around the oxygen-producing electrode of said cell immersed in the cell electrolyte to seal said collection chamber, a constant temperature chamber in which said oxidation process occurs, a conduit connecting said collection chamber with said constant temperature chamber, and means for measuring the quantity of electricity consumed by said cell.

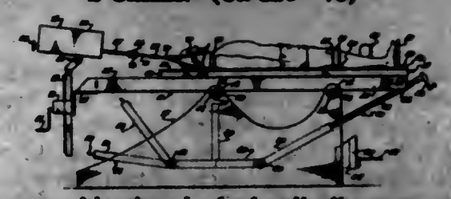
2,773,498
**KINESITHERAPY DEVICE**
Louis F. Hunsaker, Teaneck, N. J.
Application July 31, 1953, Serial No. 371,590
5 Claims. (Cl. 128—33)



4. A kinesitherapy device including, in combination, a motor, a main drive shaft driven by said motor, a plurality of worms on said shaft, a plurality of intermediate drive shafts each having a worm gear engaging one of said worms, a multiplicity of body contacting applicators located on each side of said main shaft and in spaced relation one to the other along the length of said main shaft, an eccentric means driven by each of said intermediate shafts and driving one of said applicators in a predetermined path, individual clutch means for phasing each of said applicators relative to said main shaft, and dial means for indicating the phase condition of each applicator.

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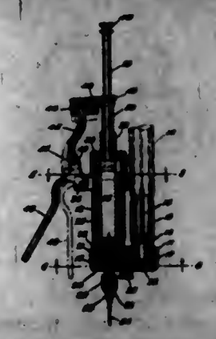
2,773,499
**HYDRAULICALLY ACTUATED INTERMITTENT DRIVE IN PHYSICAL THERAPY APPARATUS**
Harald H. zur Nieden, South Pasadena, Calif.
Application January 27, 1956, Serial No. 484,476
2 Claims. (Cl. 128—75)



1. In a combination in hydraulically actuated intermittent drive in physical therapy apparatus reciprocating means adapted to be connected to a patient for producing pulling and releasing movements, said reciprocating means including pressure fluid responsive means, a valve for shifting fluid flow, solenoid means for shifting said valve; and pressure switches sensitive to the pressures in said reciprocating means for energizing said solenoid means and therewith shifting said valve.

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2,773,500
**INTRAOSSEOUS FLUID INJECTION INSTRUMENT**
Harold S. Young, Washington, D. C.
Application January 26, 1955, Serial No. 484,136
9 Claims. (Cl. 128—218)



1. A dental instrument for effecting intraosseous fluid injections, comprising a body member having a chamber adapted to house a receptacle containing the fluid to be injected; a shaft rotatably and non-slidably journaled in said body member below said chamber and provided with a longitudinal passage communicating with the chamber; a drill element carried by said shaft and having a longitudinal duct communicating with said shaft passage; means for rotating the shaft, whereby said drill element may penetrate a bone to the medullary section thereof; and means in said chamber engageable with a portion of a fluid-containing receptacle disposed therein and operable by the hand holding the instrument immediately upon said penetration of the drill element to said bone section to expel fluid from said receptacle and force it through said shaft passage and drill duct into said bone section.



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2,773,501
**DRILL ELEMENT FOR EFFECTING INTRAOSSEOUS FLUID INJECTIONS AND THE LIKE**
Harold S. Young, Washington, D. C.
Original application January 26, 1955, Serial No. 484,136. Divided and this application March 10, 1955, Serial No. 493,393
1 Claim. (Cl. 128—221)



An anti-clogging tubular dental drill element for use in sequentially effecting penetration of the hard outer layer of a bone and the passage of a fluid to or from the medullary section thereof, said drill element comprising a body member arranged for ready attachment to a power driven rotating means, said body member having a stem extending axially therefrom, the terminal portion of which stem is tapered to a point and is provided with a beveled flat face extending at an acute angle to the axis of the stem and the lateral boundaries of which face provide rotationally operative bone-cutting edges extending from said point, said stem also having an axial fluid duct provided with a sharply angular terminal portion adjacent said point which opens through said flat face between said cutting edges, such terminal duct portion extending substantially perpendicularly to said face whereby to exclude drill cuttings from the duct.

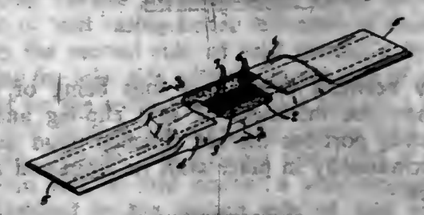
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2,773,502
**DEVICE FOR TREATING ALIMENTARY TRACT**
Arthur L. Kaslow and James J. Saporito, Los Angeles, Calif.
Application December 21, 1953, Serial No. 399,304
6 Claims. (Cl. 128—260)



1. In a device for positioning medicine at a predetermined zone in the alimentary tract; a weighted carrier; a medicinal pellet having a hole therethrough, whereby said pellet may be strung on said carrier; and means associated with said carrier having coaction with a strung pellet to determine its location on the carrier depending upon the diameter of said hole.

2,773,503
**ABSORBENT PRODUCT**
Robert Nelson Brownlee, Trenton, N. J., and Hector Wallace Griswold, Longmeadow, Mass., assignors to Personal Products Corporation, a corporation of New Jersey
Application September 3, 1954, Serial No. 454,152
6 Claims. (Cl. 128—290)



1. A sanitary napkin comprising an absorbent pad, a gauze web in the form of a narrow reinforcing strip adjacent the pad and having ends extending beyond the ends of the pad, a separate woven fabric covering said pad and said web and having ends substantially coextensive with the ends of the gauze web, the threads of the web being secured at a multiplicity of points where they intersect each other whereby the gauze web has imparted to it the characteristic of resisting those forces encountered during conditions of normal use which cause a gauze web to distort.

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2,773,504
**LOOSE-LEAF BINDERS**
Daniel Donald McGervey, Pittsburgh, Pa.
Application December 30, 1952, Serial No. 328,648
2 Claims. (Cl. 129—41)



1. A loose-leaf binder comprising two folds each formed by turning material back on itself to produce a bend along one edge of each fold, one fold being at least twice the width of the other fold, a cover sheet for each fold, fastener means passing through each fold and its cover sheet to secure it with its opposite edge along one edge of its cover sheet, a back section hinged to said cover sheets along said one edge thereof and extending therebetween, a plurality of leaf holding flexible binding straps each materially longer than the cross dimension of said back section, said straps secured in spaced relation along the bend of the narrow fold, and a keeper in the form of an opening at the bend of the wide fold and in alignment to receive the free end of each flexible binding strap attached to the narrow fold to permit the free end of said straps to slide through said keepers when the binder is opened and closed.

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2,773,505
**HAIR CLIP**
Jacob Goodman, Brooklyn, N. Y., assignor to Delaware Company, Inc., a corporation of Delaware
Application October 4, 1954, Serial No. 460,065
1 Claim. (Cl. 132—46)

A hair clip comprising a spring clip having a pair of legs connected at one end by a loop, and a face member, said member having an anchor block at its front end having a recess therein into which the front end of one clip-leg fits tightly, a stop at the other end of the face

member against which the loop of the clip rests to prevent sliding movement of said member on the clip-leg, said face member having at its sides, adjacent the stop, a pair of lugs spaced apart a distance to receive said clip-



leg tightly between them, said lugs being of a height greater than the thickness of said clip-leg and having the projecting portions thereof clinched upon said leg to hold it permanently in place with its front end anchored in the block.

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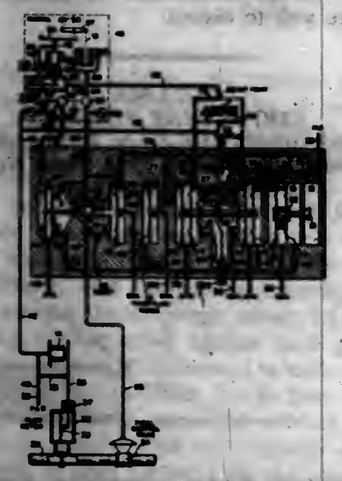
2,773,506

**ELASTIC-FLUID-PRESSURE-ACTUATED MEANS FOR ADJUSTING THE PROPORTIONAL BAND OF A CONTROLLER**

William E. Bauer, Palmyra, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application December 28, 1950, Serial No. 283,151

4 Claims. (Cl. 137—86)



1. Fluid-operated means for adjusting the proportional band of a controller, including, a fluid-operated motor, mechanism exercising the control action of said controller under the control of said motor in response to the variations in the measured variable, a pressure-reducing fluid-conducting network, a source of fluid pressure connected to said network to furnish a pressure variable in proportion to the variations in the measured variable and under the control of said motor and said mechanism, a manually adjustable restriction connected in said network and located between said source and said motor and comprising a stationary cylindrical conduit of the order of 0.0625 inch in internal diameter and a frusto-conical needle having its minimum diameter smaller and its maximum diameter larger than the internal diameter of said conduit and movable axially of said conduit, the angle of taper of said needle being of the order of 2 degrees and 22 minutes, the resistance of this restriction to fluid flow being substantially independent of the flow through it, a reference source of fluid pressure connected to said network, and a second restriction connected in said network and located between said reference source of pressure and said motor and comprising a fixed capillary tube of the order of 0.0085 inch inside diameter and ⅝ inch in length, the pressure drop across said second restriction varying as a non-linear function of the flow through said second restriction because of the tendency of the restriction to change the flow from laminar to turbulent.

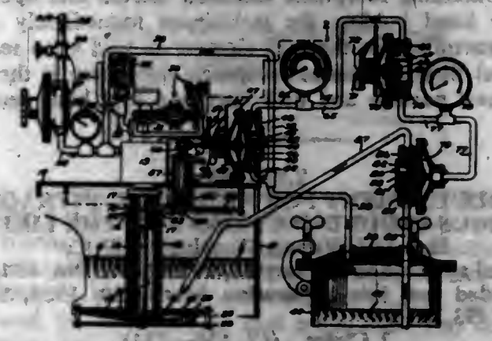
2,773,507

**VISCOSITY CONTROL SYSTEM**

Edward O. Norris, Westport, Conn.

Application October 4, 1954, Serial No. 460,159

5 Claims. (Cl. 137—92)



2. A device responsive to changes in viscosity of a liquid, comprising a member mounted to move in said liquid, an independently movable member disposed in said liquid within the range of viscous influence of said first member and movable in response to viscous drag produced by movement of said first member, means constraining said second member to produce a force proportional to said viscous drag, means including a pressure regulating valve responsive to variations in said force for producing a fluid pressure which varies as a function of said force, a source of viscosity control liquid to be added to said first liquid, means including a valve to control the flow of said viscosity control liquid into said first liquid, and means responsive to a predetermined change in said fluid pressure to open said last valve whereby viscosity control liquid is added to said first liquid to correct the viscosity change thereof.

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2,773,508

**OSCILLATOR VALVE**

Donald E. Bechett and William N. Bechett, Wilmington, and Wayne T. Cranmell, Dayton, Ohio, assignors to Bechett-Harcum Co., Wilmington, Ohio, a corporation of Ohio

Application April 28, 1953, Serial No. 351,556

10 Claims. (Cl. 137—106)



1. An oscillator valve comprising the combination of three duplicate spool valves each including a housing having a longitudinal bore therethrough, five annular ports in laterally spaced relationship disposed along and in open communication with said bore, a valve stem reciprocably mounted in said bore, said stem including a pair of valving pistons for opening and closing the second and fourth of said annular ports, and a second pair of pistons one on either side of said first pair of pistons and beyond the first and fifth annular ports, with means for mounting said valves in laterally spaced end-to-end relationship and providing an individual chamber for each valve with individual ports at opposite ends of the bore of each valve and in open communication with the respective outer faces of the second pair of pistons of each of said valves, means inter-connecting the third annular ports of each valve to a common manifold, means interconnecting the first and fifth annular ports of each valve to a second common manifold, the second and fourth annular ports of the first of said three valves terminating in individual cylinder ports provided in their respective valve housing, means interconnecting the second annular port of the first valve with the port at the end of the third valve adjacent the first valve, means inter-connecting the fourth annular port of the first valve with the end port of the third valve



remote from the first valve, means inter-connecting the port at the end of second valve adjacent the first valve with the fourth annular port of the third valve, means inter-connecting the port at the end of the first valve remote from the second valve to the fourth annular port of the second valve, means inter-connecting the port at the opposite end of the first valve with the second annular port of the second valve, means inter-connecting the port at the end of the second valve adjacent the third valve in communication with the second annular port of the third valve, and means engaging opposite ends of the stem of the third valve for normally and yieldably urging said stem to a central position with its valving pistons closing the second and fourth annular ports thereof.

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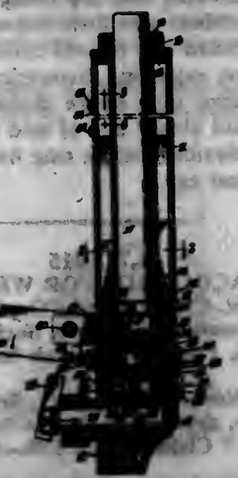
2,773,509

**HYDRAULIC JACK RESERVOIR**

Frank J. Jakoubek, Elmwood Park, Ill., assignor to Star Jack Company, Inc., River Grove, Ill., a corporation of Illinois

Application November 19, 1953, Serial No. 393,144

11 Claims. (Cl. 137—587)



1. Means for preventing the discharge of hydraulic fluid through the air vent opening leading to external atmosphere from one end of the annular hydraulic jack reservoir space formed between spaced inner and outer tubular members as a result of hydraulic fluid charging into said annular space under pressure through an opening located at the end opposite said air vent, said means comprising a plurality of convolutions of different sizes positioned in the space between the outer wall of the inner tubular member and the inner wall of the outer tubular member, and between the air vent and the hydraulic fluid opening.

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2,773,510

**MANUALLY OPERATED PILOT CONTROLLED REGULATING VALVE**

Thomas R. Black, Port Isabel, Tex.

Application December 11, 1953, Serial No. 397,567

2 Claims. (Cl. 137—614.14)



1. A fluid flow regulating valve comprising: an elongated valve casing having an inlet side and outlet side; a closure member disposed between said inlet and outlet sides; a piston reciprocably mounted in said casing to the outlet side of said closure; a fluid conduit formed through said closure to permit fluid communication between the inlet and outlet sides of said casing and between the inlet side of said casing and a first side of said piston; valve means carried by said piston for opening communication through said conduit when said piston is reciprocably moved in a direction from outlet toward inlet side of said casing under influence of fluid pressure acting on the second side of said piston; a by-pass line connecting the inlet side with the outlet side of said casing at a point on the second side of said piston; a ball check valve in said by-pass line normally closing fluid flow communication through said by-pass line from said inlet to said second side of said piston; a vent opening in said casing disposed to the second side of said piston; and manually actuatable means for simultaneously closing said vent opening and opening said check valve; said manually actuatable means comprising rotatable means extending exteriorly of said casing, a ball unseating member mounted reciprocably in said casing for reciprocable movement in a first direction to cause unseating and opening of said ball check valve end in a second direction to permit seating and closing of said ball check valve, and means connecting said manually rotatable means with said ball unseating member for converting rotary movement of the former to reciprocable movement of the latter.

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2,773,511

**PRESSURE ACCUMULATOR**

Jean Mercier, New York, N. Y.

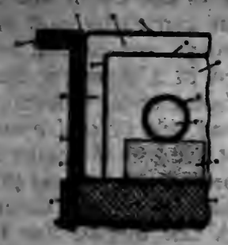
Application December 23, 1952, Serial No. 327,602

3 Claims. (Cl. 138—30)



1. A pressure accumulator comprising a pair of substantially cup-shaped shells, each having a laterally extending rim at the mouth thereof and a port through the wall thereof, a deformable partition of resilient material in the shape of a bladder having its periphery positioned between said rims and normally extending in one of said shells, said rims extending laterally beyond the periphery of said partition, said extending portions having a plurality of openings therethrough, a bolt extending through pairs of aligned openings in said rims, a nut screwed on the ends of each of said bolts, whereby when said nuts are tightened the rims will be drawn together to clamp the periphery of said partition therebetween, an annular supporting member of flexible material affixed to said partition, said member having a portion thereof extending laterally beyond the clamped periphery of said partition and a portion extending along the wall of said partition near the clamped portion thereof to limit the bending of the portion of said partition adjacent said periphery when the partition is expanded and contracted during use of the accumulator, the portion of said annular supporting member extending laterally beyond the clamped periphery of said partition having a plurality of openings therethrough, through which said bolts extend to prevent inward displacement of said periphery.

2,773,512
METHOD OF INSTALLING UNDERGROUND HEATING PIPE SYSTEMS
Morris S. Bank, Miami Beach, Fla.
Application June 14, 1955, Serial No. 515,549
7 Claims. (Cl. 138—40)



1. In the process of laying and heat-insulating one or more pipes for conducting heated fluid in a ground trench including laying a concrete base at the bottom of the trench, mounting one or more heat-insulated pipes longitudinally in said trench on said base and erecting form-members along and extended above said concrete base, the novel combination of steps of attaching a liner of asphaltic impregnated composition material to the form-members, applying a membrane of several plies of tarred felt to the concrete base and liner, pouring a heat-insulating concrete in the form provided by said base and form-members around and enclosing the pipes, allowing said insulating concrete to set and applying a waterproof cover on the top of the insulating concrete.

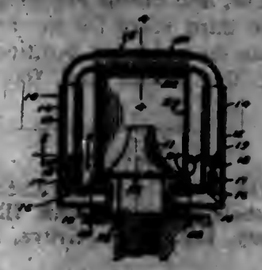
2,773,513
SUBTERRANEAN INSULATED CONDUIT UNIT HAVING SPACER CHANNEL BETWEEN PIPES
Alexander H. Isenberg, Woodside, Calif.
Application December 22, 1953, Serial No. 399,781
4 Claims. (Cl. 138—65)



1. A thermal and moisture insulated conduit unit including a main conveyor pipe, an enclosing body of thermal insulation circumferentially and longitudinally thereof, said insulation having a gap in its circumference providing a channel longitudinally of the pipe and open radially to the conveyor pipe, a tracer pipe of smaller diameter than the conveyor pipe and spaced parallel to the conveyor pipe, an enclosing body of thermal insulation circumferentially and longitudinally of the tracer pipe and having an open space in its circumference communicating with said gap in the other insulation body, a spacer channel member in said gap bearing on the tracer pipe and extending to the conveyor pipe, an outer casing spaced from and enclosing the said thermally insulated pipes, and a moisture-impervious layer between the thermal insulation and the outer casing.

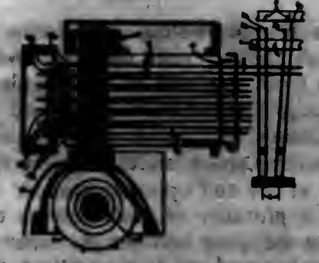
2,773,514
ACCESSORY FOR A GREASE GUN FITTING
Elmer J. Campopiano, Saratoga Springs, N. Y.
Application July 6, 1954, Serial No. 441,299
4 Claims. (Cl. 138—89)

2. A moisture, dirt and dust proof cap for a grease gun fitting comprising a pair of elongated tubular members each having an end portion thereof bent laterally at substantially right angles to the longitudinal axis of said members, said end portions of said tubular members being adapted for pivotal connection with opposite sides of said fitting, an inverted substantially U-shaped member having the arms thereof telescoped within the other ends of said tubular members, a helicoidal spring disposed within each of said tubular members and connected with each of said tubular members and the adjacent ends of said tubular arms whereby said U-shaped member is constantly biased for relative movement toward said one end of said tubular members, an elongated collar mounted



for rotation on the base of said U-shaped member, an elongated substantially cylindrical cap having opposed open and closed ends, said cap being positioned between said tubular members and their respective adjacent tubular arms, said closed end of said cylindrical cap having a depressed portion extending diametrically thereacross and adapted to receive said sleeve therein, means securing said sleeve to said closed end of said cylindrical cap, and a substantially flexible sealing ring fixed to the open end of said cylindrical cap.

2,773,515
VERDOL JACQUARDS FOR WEAVING LOOM
Olivier Dalle, St.-Cyr-en-Mont-d'Or, France, assignor to Societe a responsabilite limitee, Societe des Mecaniques Verdol, Lyon, France, a French limited liability company
Application November 12, 1953, Serial No. 391,601
Claims priority, application France November 28, 1952
7 Claims. (Cl. 139—99)



1. The herein-described method for the actuation of the movable bars of a Verdol jacquard, which consists in imparting to said bars first, a downward vertical movement while they are at their rearmost position to ensure selection of the feeler needles and of the pusher rods associated thereto; second, a horizontal forward movement to ensure actuation of the pusher rods and of the driver needles associated to the hooks of the jacquard; third, a vertical upward movement to raise the feeler needles from the pattern paper band of the jacquard; and fourth, a horizontal backward movement to release the driver needles.

2,773,516
LOOM HARNESS
Frank H. Kaufmann, Huntingdon Valley, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 1, 1951, Serial No. 254,230
6 Claims. (Cl. 139—91)

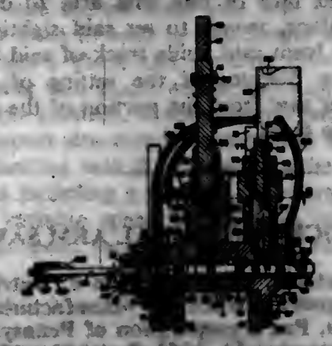
1. In a loom harness frame the means for securing connector devices to a rail of the harness frame which comprises the provision on each of said devices of a shank having a threaded portion positioned within the rail, a portion located adjacent the edge of the rail of transversely flattened cross-section thereby to provide a portion of less thickness than the other portions



of the connector device, and a plate member of a width no greater than the thickness of the rail mounted on the edge of the rail and having one end portion provided with an open end slot engaging the flattened portion of the connector device.



2,773,517
LIQUID PICKING MECHANISM
Leslie J. Hooper, Holden, and Clarence R. Kronoff, Worcester, Mass., assignors to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application August 3, 1953, Serial No. 371,772
27 Claims. (Cl. 139—142)



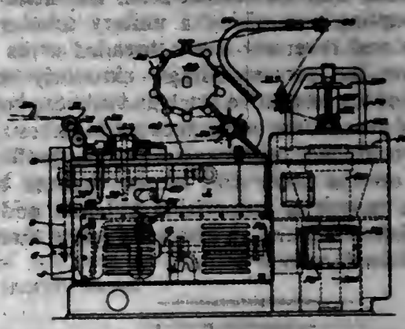
3. In liquid operated picking mechanism for a loom having a shuttle to be picked, hollow means defining a chamber containing liquid, a picking actuator for the shuttle comprising a plunger slidable on said hollow means having a part thereof in the chamber, a seat on said hollow means for said part of the plunger, control mechanism to move the plunger to cause said part thereof to move against said seat, compressing means effective subsequent to seating of said part of the plunger on said seat to compress the liquid in said chamber and cause the liquid due to the pressure thereof on the plunger to hold said part of the plunger against said seat, and release means operative while said liquid is compressed to move said part of the plunger away from said seat, whereupon the liquid due to the compression thereof acts on said part to move said actuator to effect picking of the shuttle.

2,773,518
QUILL ASSEMBLY
Wallday B. Ewing, Grand Rapids, Mich., assignor to Ewing Development Company, Grand Rapids, Mich., a corporation of Michigan
Application September 9, 1952, Serial No. 308,663
2 Claims. (Cl. 140—30)



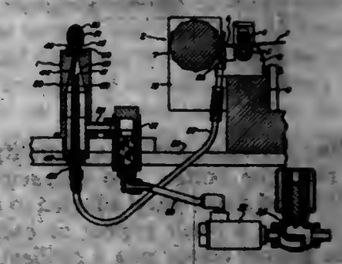
1. A quill assembly for a warp weaving machine having a plurality of wire strands passing through said quill assembly for feeding to said machine comprising: a plurality of guide and discharge rollers mounted in said quill at the discharge end thereof; a plurality of groups of freely rotatable rollers mounted in said quill rearward of said guide and discharge rollers, one group for each of said wire strands; each of said groups including several rotatable elements arranged longitudinally of said quill whereby each of said wire strands are successively looped around each of said rotatable elements of one of said groups; the diameters of said rotatable elements being such as to continuously work the wire as it is drawn through said quill to straighten the wire and create back tension.

2,773,519
BARB WIRE MANUFACTURE
Neil J. Ramsey, Euclid, Ohio, assignor to Wean Equipment Corporation, Euclid, Ohio, a corporation of Ohio
Application August 31, 1951, Serial No. 244,606
8 Claims. (Cl. 140—60)



1. Twisting and coiling mechanism comprising a yoke rotatable about a vertical axis, means for continuously delivering material to be twisted and coiled to a point in line with the axis of the yoke, a coiling member rotatable within the coaxial with the yoke receiving and holding a spool for coiled material, means on the yoke receiving the wire from the delivery means and directing it to the coiling member, and drive means and connections between the drive means and the yoke and coiling member whereby the yoke and coiling member are rotated to twist the material and coil it upon the spool held by the coiling member.

2,773,520
METHOD AND APPARATUS FOR LOADING FLASH LAMPS
Paul A. Doll, Highland Heights, and James J. Lazzo, Cleveland Heights, Ohio, assignors to General Electric Company, a corporation of New York
Application June 7, 1954, Serial No. 434,918
17 Claims. (Cl. 141—5)



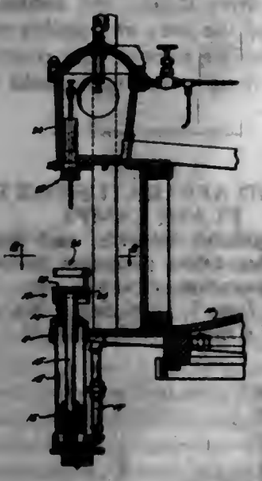
1. The method of feeding fine strands of material into and distributing them within a container having an opening therein which comprises entraining the material in a gaseous fluid, guiding the entrained material toward the opening in the container, bleeding off the fluid at a point near the opening in the container and in a direction sharply away from the interior of the container to cause the entrained material by its inertia to enter the container through the opening, and directing a low velocity air jet into the container concurrently with the injection of the said strands thereinto to thereby fluff out the strands upon entry into the container.

2,773,521
COUPLING FOR SQUEEZE BOTTLES
Nels Leonard Persson, Tujunga, Calif.
Application March 2, 1954, Serial No. 413,567
6 Claims. (Cl. 141—5)



1. A coupling for stock containers and squeeze bottles whereby the latter may be refilled from the stock container, said coupling comprising a unitary tubular element interiorly and reversely screw-threaded at its ends to accommodate the correspondingly exteriorly screw-threaded necks of the respective stock and squeeze bottles, the outer end of the squeeze bottle neck having a restricted opening, said restricted opening comprising perforated disc mounted on the outer end of the squeeze bottle neck, said disc mounting comprising a liquid and air-tight sealing relationship and an exteriorly screw threaded closure element for the stock bottle.

2,773,522
RESILIENT BOTTLE GRIPPER FOR FILLING MACHINE
George L. N. Meyer, Milwaukee, Wis., assignor to Geo. J. Meyer Manufacturing Company, Cudahy, Wis., a corporation of Wisconsin
Application March 15, 1954, Serial No. 416,190
7 Claims. (Cl. 141—165)



1. A bottle filling machine, having a plurality of stirrups adapted to raise the bottles into engagement with filler valves for filling and a star wheel adapted to move the bottles on to the stirrups, a bottle gripper on each of said stirrups, said bottle gripper comprising a resilient member adapted to engage a bottle in gripping engagement and center the same below a filler valve.

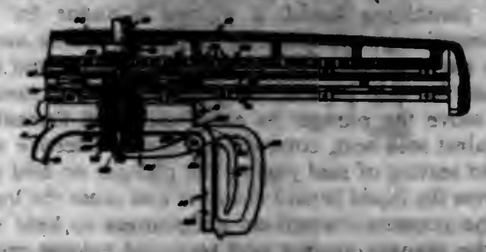
2,773,523
GUIDE DEVICE FOR PORTABLE POWER SAWS
Lloyd Melvin Hopin, Keyport, N. J.
Application April 29, 1952, Serial No. 284,857
5 Claims. (Cl. 143—6)

1. The combination of a saw guide and a sighting gauge in which the saw guide that is moveable with relation to the work to be cut includes a first and second arm, said first and second arms pivotally connected at the adjacent ends of said arms, a third diagonal arm pivotally connected to the first arm and adjustably attachable through a slot in said arm to the second arm, said first arm provided with an upturned face and said second arm provided with a downturned face, said upturned face providing a guide track for a power saw, a clamp on the second arm that is provided with means to be secured to the material to be cut, said sighting gauge being a pivotally moving normally retracted sighting



gauge that is supported by said first arm, said sighting gauge provided with a sighting blade that may be moved to any position perpendicular to and horizontally along said gauge to indicate a predetermined spaced position from the upturned face of said first arm to determine the saw cutting plane, means to set said sighting blade the same distance from said guide track of said first arm to agree with the distance of the setting of the saw blade of the power saw from the portion of the saw that rides on said guide track.

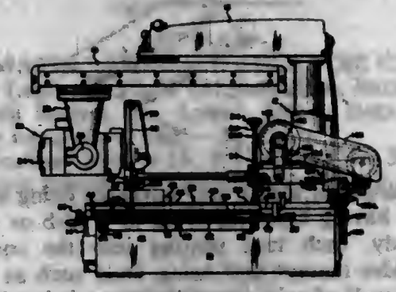
2,773,524
SAFETY LOCK FOR RADIAL ARM SAWS AND THE LIKE
Ewald Schatz, Leetonia, Ohio, and Paul E. Butzin, Pittsburgh, Pa., assignors to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 21, 1953, Serial No. 381,269
3 Claims. (Cl. 143—47)



1. In a power tool, a track arm; a carriage mounted on said track arm for longitudinal movement therealong; a yoke secured to said carriage for rotary movement about an axis perpendicular to said track arm and adapted to operatively support a cutter head; grip means on said yoke for manually moving said yoke and carriage as a unit along said track arm; an elongated bar longitudinally fixed to said track arm having a plurality of circular apertures therein with their centers along a line intersecting and substantially normal to said perpendicular axis; a locking plunger slidably mounted on said yoke and carriage for movement along a line coincident with said perpendicular axis irrespective of the angular position of said yoke, said plunger including a circular portion rigid therewith adapted in one position of the plunger to selectively enter one of said apertures and immobilize said carriage; means normally biasing said locking plunger to said one position; and means operatively associated with said handle and locking plunger and selectively operable to move the locking plunger out of said one position.

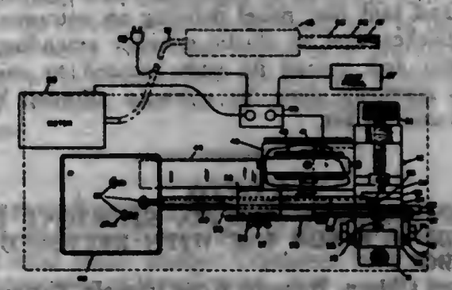


2,773,525
RADIAL ARM SAW AND POWER FEED THEREFOR
Ewald Schatz, Leetonia, Ohio, assignor to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 27, 1952, Serial No. 306,561
13 Claims. (Cl. 143—55)



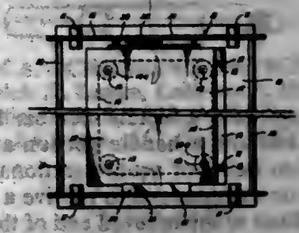
2. For use in combination with a wood working machine characterized by the association of a power driven unit with a planar work support table, a power feed unit comprising a rigid support structure pivotally mounted at and on an axis substantially parallel to the rear edge of the work support table and having at each end a hollow arm projecting over the work support table, a shaft journalled in each of said hollow arms and projecting outwardly of said hollow arms over said table, a workpiece feed roller fixed to each of said shafts outwardly of said hollow arms, a chain and sprocket drive mechanism interconnecting said shafts within said support structure for concomitant rotation, a drive motor mounted exteriorly of said support structure on one of said arms, and a drive train connecting said drive motor to the adjacent one of said shafts including a variable speed transmission of the infinitely variable speed V-belt drive type to provide a continuous speed variation within the range of speed adjustment.

2,773,526
SCREW DISPENSING AND AFFIXING MECHANISM
Arthur U. Ealick, Lenawee, Mich., assignor, by direct and mesne assignments, to Ealick Associates, Inc., Detroit, Mich., a corporation of Michigan
Application May 26, 1955, Serial No. 511,357
9 Claims. (Cl. 144—32)



3. A screw dispenser for conveying and affixing a screw to a power driven screw driver of the type comprising a tubular shaft, a bit assembly yieldingly mounted therein and projecting therefrom, said bit assembly comprising a pair of resilient bits relatively longitudinally movable with respect to each other and in contact for at least a part of their length and sprung apart at their free ends, means yieldingly maintaining one of said bits in such position that its free end projects slightly beyond that of the other, said dispenser having a fixture for supporting said screw with the head thereof facing upwardly, and means operable to force both said bits into the kerf of the screw when said rotating power driven screw driver is forced down onto said screw.

2,773,527
WORK PIECE MOUNTING APPARATUS
Egmont S. Smith, Houston, Tex., assignor to B. & B. Engineering & Supply Company, Inc., Houston, Tex., a corporation of Texas
Application January 5, 1954, Serial No. 402,271
13 Claims. (Cl. 144—145)



1. An assembly for use with apparatus for shaping a surface of a rigid work piece, said assembly comprising in combination, a support carrying a platform for supporting a work piece having a surface to be shaped, a frame including template means having edges contoured to a constant radius curvature, means for removably receiving said frame upon said support with said contoured edges in selected orientation relative to said platform, said latter-mentioned means including bearing portions carried by said support providing at least three bearing points for said frame which determine the position of said contoured edge relative to said platform, and means on said template means for fixedly clamping said work piece therebetween.

2,773,528
KEYHOLE SAW WITH ROTARY ADJUSTMENT FOR THE BLADE
Donald Gringer, New York, N. Y., assignor to Louis Gringer, New York, N. Y.
Application October 31, 1955, Serial No. 543,751
3 Claims. (Cl. 145—31)



1. A keyhole saw, including a handle having a hollow open end, a pair of mutually mating clamping members fitting in the open end in clamping position for clamping a saw blade between them with the blade extending from the handle, one clamping member having a transverse groove in its inner surface and the other clamping member having a corresponding rounded end on its inner surface rockably fitting into the groove to form a fulcrum for said other clamping member to hinge upon the one clamping member to open and close both clamping members for releasing and clamping the saw blade therebetween, means for withdrawing said clamping members into the end of said handle to retain said saw blade in position which includes having the handle hollow rearwardly of the hollow open end thereof and formed with side slots, an elongated shank connected to the one clamping member and extending into the rearward hollow portion of said handle with a thread upon at least a portion of said shank, a knurled nut mounted upon the threaded portion of said shank and extends to the exterior of said handle through said side slots, a partition wall transversely disposed within the handle and having a hole through which the shank from the one clamping member extends in effective position to dispose the knurled nut rearwardly of said partition wall, the inner end of the open end of the handle having a polygonal cross section, and the mentioned one clamping member at the junction of the shank therewith having a corresponding polygonal head fitting said inner end of said open end of the handle in a plurality of angularly different positions.

2,773,529
**HAND TOOL WITH ANGULARLY ADJUSTABLE BIT**
Victor A. Valenti, Winfield Park, N. J.
Application December 29, 1954, Serial No. 478,235
3 Claims. (Cl. 145—50)



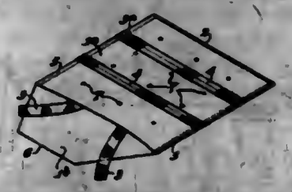
1. A tool comprising a handle member having a shank portion at one end and a handle portion at its other end, the shank portion being of square sectional configuration and relieved at its extreme end to receive a tool bit, a tool bit removably fitted to the relieved end of the square shank portion, said bit having a corresponding square shank at its inner end and relieved complementary to the relieved end of the holder shank so that the two parts when they are assembled together in alignment form the full sectional configuration of the shank of the holder, interfitting means between said relieved end portions of the removable tool bit and the shank adapted to constrain the parts against separation longitudinally but normally permitting separation thereof laterally, a chuck assembly slidably mounted on the shank of the holder and completely surrounding same, said assembly comprising an inner part having an axial bore of the corresponding shape and size slidingly to receive the squared shank of the holder and to telescope said interfitting means and the joint made thereby with an assembled tool bit, and an outer part threadably connected to the inner part, the said inner part being split a portion of its length to form clamp elements operative on relative rotation of the outer part in a clamping direction to clamp tightly upon the flattened faces of the square shank of the holder and effective to transmit torsional forces applied to the handle directly to the squared shank of the tool bit independently of the relieved portions at the juncture of the tool bit with the holder shank portion.

2,773,530
**COMBINATION MASHER AND FORK**
Cornelius D. Sullivan, West Long Branch, N. J.
Application March 24, 1953, Serial No. 344,325
1 Claim. (Cl. 146—204)



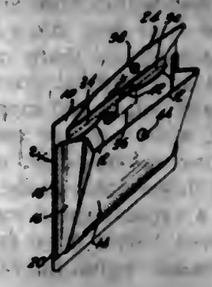
A child's eating implement, for mashing, picking up and carrying food, comprising an elongate handle, a shank integral with the handle and extending lengthwise thereof, a furcated functional part integral with the shank and extending lengthwise thereof and consisting of spaced, tapered, elongate branches extending lengthwise of the handle and shank, spaced cross pieces connecting the branches intermediate the ends of the latter, and a guard across the outer ends of the branches, the functional part being concave lengthwise only, on its front or upper face, and convex lengthwise only, on its back, the mentioned branches having smooth front, back and side surfaces.

2,773,531
**ENVELOPE-LIKE CONTAINERS**
Clarence La Verne Johnson, London, England
Application February 28, 1955, Serial No. 491,074
Claims priority, application Great Britain February 26, 1954
1 Claim. (Cl. 150—2.1)



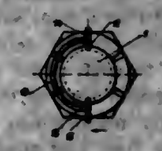
An envelope for a pad, said envelope being made from fabric and having tapes for tying to a limb or other part of the body, each tape passing into the container at opposite sides thereof and being fixed such as by stitching to one wall of said container where it is within same.

2,773,532
**PURSE**
Daniel J. Nash, Jersey City, N. J., assignor to Nash Inc., Jersey City, N. J., a corporation of New Jersey
Application February 8, 1954, Serial No. 408,791
4 Claims. (Cl. 150—37)



3. A purse of the character described comprising a rear panel, a front panel secured to said rear panel along its side and lower edges to define a pocket therewith, a closure flap having a rear edge, laterally spaced portions of said closure flap rear edge being secured to said rear panel along the upper part of said pocket, an elongated portion of said flap rear edge between said laterally spaced portions being detached from said rear panel, the space between said flap rear edge detached portion and said rear panel defining an entrance throat to said pocket, and an elastic member extending along said throat and having its ends secured to said rear panel to normally close the entrance afforded by said throat to said pocket.

2,773,533
**SUBSTANTIALLY U-SHAPED, RESILIENT LOCKING DEVICE FOR USE WITH RECESSED NUT AND BOLT**
Helmut Ohlsen, Welsede, Kreis Hameln, Pyrmont, Germany
Application July 23, 1953, Serial No. 369,836
Claims priority, application Germany July 29, 1952
3 Claims. (Cl. 151—6)



1. In combination with a bolt having longitudinal recesses, a nut threaded thereon and having radial grooves in the upper and lower end portions thereof, and a safety device for said bolt and nut comprising a substantially U-shaped central spring portion, the ends of said portions having upper and lower inwardly directed projections, said upper projections being located in upper grooves of the nut and extending into the recess of the bolt, and the lower projections extending at least into lower grooves of the nut, whereby said nut will be locked against rotation on said bolt and said safety device will be retained in position.



2,773,534
**PNEUMATIC VEHICLE WHEEL TIRE CASINGS**
Giuseppe Lugli and Carlo Mazza, Milan, Italy, assignors to Pirelli Societa per Azioni, Milan, Italy, a limited liability company of Italy
Application October 21, 1952, Serial No. 316,356
Claims priority, application Italy May 3, 1952
3 Claims. (Cl. 152—356)



1. A pneumatic rubber tire casing comprising a carcass interiorly reinforced with an all-metal reinforcement consisting of at least two layers of metal wire formations embedded in the rubber of the casing, said metal wire formations being disposed in juxtaposition and also parallel relation to one another in the respective layers and in the case of each layer being disposed in planes which are substantially radial to the tire; a tread mounted on the carcass in integral connection therewith; and a substantially cylindrical breaker structure interposed between the tread and the carcass, said breaker structure consisting of at least two layers of metal wire formations also embedded in the rubber of the casing and also disposed in juxtaposition and parallel relation to one another in the respective layers, said metal wire formations of the layers forming the breaker structure being disposed in the case of each layer in planes which are substantially parallel to the equatorial plane of the tire, the breaker structure having a width dimension cross-sectionally of the casing which is not greater than that of the tread, the over-all width dimension of the casing cross-sectionally thereof being greater than the over-all height dimension, and the metal wire formations of all of the layers thereof, both of the carcass reinforcement and also of the breaker structure, being composed solely of a plurality of elementary wires wound about one another to the form of a unitary structure and having a diameter not less than 0.2 mm.

2,773,535
**REINFORCEMENT FOR MOLDED FLAPS**
Eric O. Teleman, Grosse Pointe Woods, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application August 24, 1953, Serial No. 375,950
1 Claim. (Cl. 152—365)



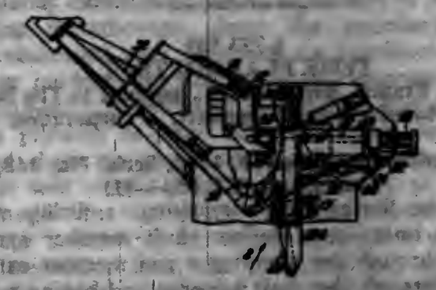
A continuous tire flap having a valve stem opening therethrough, a single metal reinforcing plate embedded in said flap, said plate having a central portion provided with an opening aligned with the valve stem opening, two opposed sides of said central portion being bent at substantially right angles to the central portion to form short reinforcing flanges which render said central portion rigid, and unreinforced comparatively flexible wing portions which extend transversely of the flap from each of two other opposed sides of said central portion.

2,773,536
**CAN CRUSHING DEVICE**
Erich A. Lange, Lakewood, Ohio
Application July 6, 1953, Serial No. 366,129
2 Claims. (Cl. 153—10.5)



1. In a can crushing device a box-like housing with parallel front and rear walls, pairs of aligned grill rods in said housing subdividing same into superposed compartments, each of said pairs of grill rods having the outer ends of its grill rods attached to the front and rear walls of the housing and the inner ends of the grill rods spaced from each other to form the grill-like means provided by said pairs of grill rods with an open break permitting gravity discharge of crushed cans from the upper compartment of the housing into the lower compartment thereof, symmetrically arranged pairs of left and right-handed threaded spindles arranged in spaced parallel relation within said housing and journaled in the front and rear walls thereof, chain drive means for said spindles arranged within said housing near its front wall adapted to effect simultaneous rotation of the spindles, and can crushing plate means threadedly mounted on opposite end portions of the spindles to be shifted in parallel relation and in opposite directions with respect to each other when the spindles are rotated by the drive means, said open break in said grill-like means located midway between the plate means to effect in can crushing operations alignment of crushed cans with the open break in the grill-like means.

2,773,537
**METAL-BENDING MACHINES**
Albert Maurice Redman, Worcester, England, assignor to Redman Tools & Products Limited, Worcester, England, a British company
Application March 30, 1953, Serial No. 345,437
7 Claims. (Cl. 153—46)

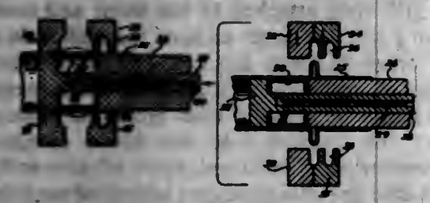


1. A metal-bending machine comprising a frame, a curved former of said frame, means to hold a workpiece in place against the former for shaping, a shoe capable of rolling upon the workpiece against the former, pressure-applying means to press the shoe, workpiece and

former together, means to effect rolling of the shoe against the former, while the pressure is maintained, to shift the place of application of pressure to the workpiece progressively along its surface, the means to hold the workpiece in place serving to clamp against the former one end of the part to be bent and the shoe moving during the bending operation in a direction to shift the place of application of pressure to the workpiece away from the clamped end, a supplementary work-holding member, situated on the side of the nip between shoe and former towards which bending proceeds, to support the workpiece against becoming mis-aligned with respect to the former while being bent, said supplementary work-holding member being mounted on the shoe to slide along it, and actuating means operatively connected to the supplementary work-holding member to move it while the workpiece is being bent along the shoe and workpiece ahead of the place of application of pressure to the workpiece as said place is shifted, thereby keeping said member clear of the nip between shoe and former.

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2,773,538
**CONVOLUTION FORMING MACHINE**
Francis F. De Mars, Escondido, Calif., assignor to Solar Aircraft Company, San Diego, Calif., a corporation of California
Application November 10, 1950, Serial No. 195,033
13 Claims. (Cl. 153—73)



1. A machine for forming wall convolutions in a tubular workpiece comprising in combination; a plurality of female die means adapted to be positioned externally of said workpiece, hollow flexible forming means adapted to be positioned internally of said workpiece, means for applying fluid pressure to the interior of said forming means to displace said forming means radially outward thereby forcing said workpiece into said female die means to form a convolution, means for relieving said fluid pressure to withdraw said forming means from said convolution, means for moving each of said die means carrying said workpiece with respect to said forming means while holding the latter stationary to position an unformed portion of said workpiece around said forming means, means for returning said die means to a position opposite said forming means independently of said workpiece, and means for controlling said pressure applying and relieving means in timed relation with the die moving and returning means whereby said pressure is relieved during the operation of said die moving and returning means.

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2,773,539
**TUBE FLARING TOOL**
George E. Franck, Riverside, Ill., assignor to The Imperial Brass Manufacturing Company, a corporation of Illinois
Application September 26, 1951, Serial No. 248,428
2 Claims. (Cl. 153—81)

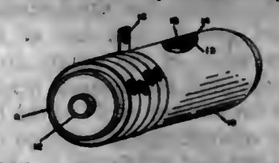
1. A tube flaring tool comprising: a fitting member having an opening; a hollow shaft member extending rotatably through the opening; a rod member extending rotatably through the shaft member and having a flaring element at one end; interengaging threads on two of said members arranged, when relative rotation is effected therebetween, to effect axial movement of the rod member relative to the fitting member; operating means including a handle portion axially movable, non-rotatively secured to the other end of the rod for rotating the same, and separable, co-acting elements associated with the handle portion and the shaft member and so arranged that the shaft member rotates when the handle portion is rotated while in one axial position on the rod and remains fixed when the handle portion is rotated while in another axial position on the rod, thereby effecting alternatively combined rotative and axial movement of the rod and unlimited rotative movement of the rod without conjoint axial movement thereof, said elements having a lost motion connection permitting limited rotation of the



rod without relative rotation of the members having said interengaging threads when said handle portion is axially positioned to permit co-action between said elements; means for limiting axial movement of the handle portion relative to the rod including an element on said rod having a portion projecting laterally from the rod and arranged to abut a stop shoulder on the handle portion when the handle portion is axially positioned to separate said elements; and means for yieldingly retaining the handle portion in a desired axial position on the rod including spring detent means on said rod and cooperating means connected to the handle portion.

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2,773,540
**METHOD FOR MANUFACTURING ENDLESS V-TYPE BELTS**
Dale L. Waugh, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
Application December 23, 1952, Serial No. 327,572
10 Claims. (Cl. 154—4)



1. A method for manufacturing endless rubber V-type belts comprising tension, neutral axis and compression sections which comprises winding about a suitable mandrel a tension layer comprising at least one layer of rubberized fabric, applying thereto a neutral axis layer comprising at least one layer of helically wound strength cord, winding thereon a compression layer comprising rubber, vulcanizing the cylindrical belt sleeve thus formed, cutting circumferentially of the vulcanized sleeve to form individual V-type annular belts in inverted position and turning these belts inside out.

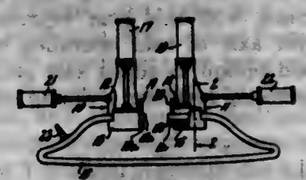
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2,773,541
**METHOD OF SPLICING RUBBER ARTICLES**
Francis A. Mulberger and Alfred B. Clayton, Indianapolis, Ind., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application May 26, 1954, Serial No. 431,092
10 Claims. (Cl. 154—14)

1. The method of splicing rubber articles comprising, separately gripping end portions of the articles with extreme end portions thereof extending from the faces of the gripping means, severing the extending portions substantially flush with the faces of the gripping means, moving said faces of said gripping means into abutting



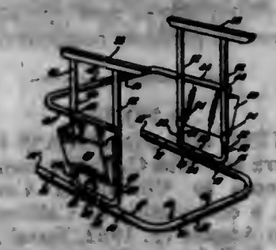
engagement with the severed ends of the articles in alignment to thereby completely confine said ends, thereafter while the faces of said gripping means are in engagement increasing the gripping pressure on the ends of said



articles to cause said aligned severed ends to be forced into tight abutting relationship to form a splice by extrusion pressure created therein by the increase in said gripping pressure, and thereafter releasing the gripping means.

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2,773,542
**SUPPORT DEVICE FOR PHYSICALLY HANDICAPPED**
Joseph Chasin, New York, N. Y.
Application March 18, 1953, Serial No. 343,071
7 Claims. (Cl. 155—1)



1. A support device for the physically handicapped consisting of an open-ended and continuous U-shaped base member having a front cross leg and rearwardly directed side legs, non-skid elements affixed to and extending along the undersurfaces of said side legs, the bottom surface of said non-skid elements lying along a common, substantially horizontal plane, a pair of laterally spaced upright legs mounted on the rear portions of said side legs, a horizontal cross member secured to and extending between said upright legs at points between the ends thereof and being vertically adjustable relative to said base member, and forwardly directed arm rest members mounted on said upright legs above said cross member.

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2,773,543
**COUPLING CONNECTION FOR WIRE SPRING STRUCTURES**
William C. Sandor, Solon, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio
Application February 15, 1954, Serial No. 410,102
7 Claims. (Cl. 155—179)



1. In a wire spring structure two elongated wire members removably, non-rotatably coupled with each other, a sharply curved open loop in one of said wire members, and an S-shaped loop in the other one of said wire members, said S-shaped loop including three substantially parallelly arranged cross-bars the other ones of which are spaced from each other a distance less than the outside diameter of the sharply curved open loop in said one wire member, said S-shaped loop having the cross-bar between said two outer cross-bars extended through said sharply curved open loop in said one wire member and yieldingly hugging with said two outer cross-bars the outside wall of said open loop.

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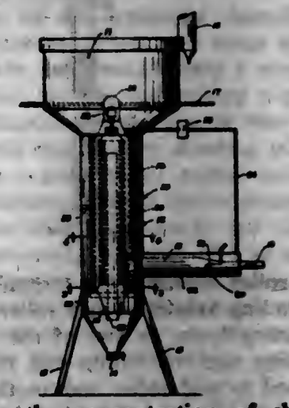
2,773,544
**FLEXIBLE CHAIRS**
George A. Dunenbury, Salada, N. C.
Application May 13, 1953, Serial No. 354,844
3 Claims. (Cl. 155—187)



1. In a flexible chair a support frame, said frame comprising a first resilient U-shaped member having a ground engaging web and upstanding portions forming front legs, a second resilient U-shaped member having a ground engaging web and upstanding portions forming rear legs, and means connecting the webs of said first and second U-shaped members; two substantially L-shaped members each being separate from one another, means pivotally connecting each said member to an upper portion of a front leg and an upper portion of the corresponding rear leg; and flexible material slung between said L-shaped rods, said L-shaped members being coupled to each other only through said support frame and said flexible material.

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2,773,545
**SUBMERGED COMBUSTION EVAPORATION**
Lowell W. Peterson, Homewood, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Application October 24, 1952, Serial No. 316,640
5 Claims. (Cl. 159—16)



1. Apparatus for the concentration of charrable organic liquids, adapted to be disposed within the liquid-containing portion of an evaporator body, comprising: a completely closed shell having a plurality of open tubes extending therethrough about the periphery thereof means associated with said shell for introducing a heat exchange medium thereinto; a second completely closed shell disposed concentrically within said first mentioned shell; a plurality of open tubes extending through and disposed about the periphery of said second shell, said tubes of said second shell communicating at each end thereof with the interior of said first mentioned shell; means for introducing hot combustion gases within said second mentioned shell; and conduit means located concentrically within said second mentioned shell, said conduit means being open at both ends thereof, one of said ends extending through said first and second mentioned shells and the other of said ends communicating with the interior of said second mentioned shell.

2,773,546
**CURTAIN FIXTURES**
Alma Ethel Doty, San Jose, Calif.
Application October 18, 1952, Serial No. 315,599
1 Claim. (Cl. 160—349)



A curtain tie-back and offsetting device comprising a single generally flat plate having forwardly flaring straight upper and lower side edges each inwardly curled over the front surface of the plate throughout the full length of the edge between a relatively short rear end and a relatively long front end and a hook integral with the plate and accessible from the front surface of the plate and located midway between said side edges adjacent said relatively short rear end, the back surface of the plate adjacent the rear end being adapted to be fixedly engaged with the side surface of a window frame member so that the forward portion of the plate will project beyond the front surface of the frame member, whereby the terminal ring of a tie-back may be engaged with said hook with the adjacent portion of the tie-back retained beneath the curled edges of the plate and the remote portions of the tie-back being looped around a curtain and held spaced outwardly from the window frame member by the relatively long front end of the plate.

2,773,547
**ROLLER MOUNTING FOR TARPAULINS**
Hans Conrad Voss, Los Angeles, Calif.
Application September 11, 1953, Serial No. 379,520
3 Claims. (Cl. 160—301)



1. In a roller mounting for tarpaulins, a tubular roller, a rod extending axially of said roller having an end portion projecting from an end of the roller, a coil spring encompassing said rod within said roller having one end thereof fixed to said roller and another end fixed to said rod, said spring being adapted to be tensioned to effect rotation of the roller relative to the rod and means for temporarily interconnecting the rod and roller to hold the latter against rotation under the urge of said spring embodying an arm affixed to the projecting end portion of said rod, and a screw carried by said arm detachably engageable with said roller.

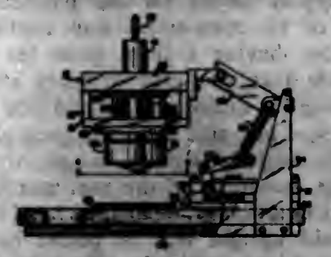
2,773,548
**TIMING DEVICE OF THE RESETTABLE AND VARIABLE TYPE**
Norman F. Thompson 3rd, Colebrook, and George Marree, Winsted, Conn., assignors to The William L. Gilbert Clock Corporation, Winsted, Conn., a corporation of Connecticut
Application April 22, 1954, Serial No. 424,964
7 Claims. (Cl. 161—1)

1. A variable timer, comprising a pivoted operating member for controlling the operation of a device being timed by the timer, said operating member being turnable into and from a terminal position to terminate and start, respectively, operating cycles of selectively timed duration; a gear segment pivoted on said operating member at a point remote from the pivot axis of the latter; a pinion in mesh with said gear segment and turnable about the pivot axis of said operating member; means for turning said pinion to adjust said gear segment relative to said operating member; a timing element normally



urged in one direction into a starting position, and movable in the opposite direction, from its starting position through a distance varying with the adjustment of said gear segment, to coact with the latter and turn said operating member into its terminal position; a power drive for moving said timing element in said opposite direction at a predetermined rate; a clutch incorporated in said power drive; and means disengaging and reengaging said clutch in response to movement of said operating member into and from its terminal position, respectively.

2,773,549
**CUTTING DIE FOR GLASS FIBERS**
Philip H. Legarra and Mac C. Cutler, Santa Clara County, Calif., assignors to Vibrasonic Corporation, Santa Clara, Calif., a corporation of California
Application August 13, 1952, Serial No. 304,115
6 Claims. (Cl. 164—13)



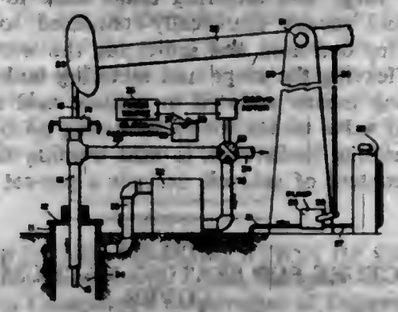
1. A die for cutting a hollow tubular shaped article from a compressible fibrous body without subjecting the article cut therefrom to a compression load above a predetermined maximum, said die comprising a die holder, a generally tubular cutting member on said holder, said member having a first generally tubular cutting member conforming to the outer peripheral configuration of the article to be cut and a second generally tubular cutting member conforming to the inner peripheral configuration of the article to be cut, the second cutting member being positioned within the first cutting member and spaced therefrom to provide a chamber therebetween to receive uncompressed said shaped article cut from the fibrous body, said second cutting member defining in the interior thereof a second chamber for receiving waste fibrous body, a pressure member arranged in said second chamber yieldably urged downwardly for compressing the waste fibrous body during cutting of said shaped article, a pilot pin carried by said pressure member, and means for yieldably urging said pin to cause the same to protrude below the bottom of said pressure member, and to protrude below the cutting edges of the cutting members for engaging and penetrating the waste fibrous body prior to the contact of the cutting members with the work to prevent lateral shifting of the working during the cutting thereof, each of said cutting members having a cutting edge on the end periphery thereof with the angle face of the edge facing outwardly relative to the cut surface of the article cut thereby.



2,773,550
**WELL CASING PROTECTOR METHOD**
Dayne L. Wilson, Pasadena, Calif., assignor to Oil Base, Inc., Compton, Calif., a corporation of California
No Drawing. Application February 9, 1953, Serial No. 336,807
1 Claim. (Cl. 166—1)

A process for protecting well casings from sub-surface shock and corrosion, comprising the steps of forming an annulus between the well casing and the surrounding earthen formation, and applying to said annulus, to fill the same, a thixotropic composition prepared by dispersing in a base oil about 3 to about 6 pounds per barrel of a fatty acid having 12 to 18 carbon atoms per molecule, from about 1 to 2 pounds per barrel of an alkali metal hydroxide, a weight material, and water, said composition having a grease-cone penetration after standing for 24 hours at 120±1° F. in the range of from 150 to 400 millimeters/10.

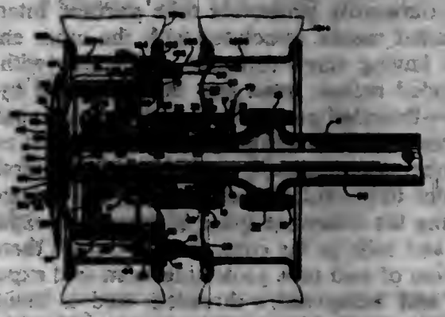
2,773,551
**AUTOMATIC INHIBITOR INJECTION SYSTEM FOR PUMPING WELLS**
Robert Lankford Warden and Kenneth Wayne Robertson, Odessa, Tex., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
Application August 23, 1954, Serial No. 451,646
4 Claims. (Cl. 166—75)



1. A well system having a well casing, a production flowline, and an apparatus for automatically and periodically injecting relatively large batches of a chemical reagent into the well casing, said apparatus comprising a chemical metering pump, a chemical storage tank connected to the input of said metering pump, a flushing chamber connected to the output of said metering pump, prime mover means for actuating said chemical metering pump, to force increments of a chemical reagent from said storage tank to said flushing chamber, first conduit means in communication between said flushing chamber and said well casing, a power-operated three-way valve in said well flowline, by-pass conduit means in communication between said three-way valve and said flushing chamber, and circuit means for periodically actuating said three-way valve to direct the flow of fluid from said well flowline through said by-pass conduit means and into said flushing chamber to be discharged therefrom into the well casing together with the chemical reagent supplied to the flushing chamber by the metering pump.

2,773,552
**DRIVE WHEEL AND BRAKE ASSEMBLY**
Hans O. Schjolin, Birmingham, and Donald K. Ickell, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 19, 1953, Serial No. 362,874
9 Claims. (Cl. 188—75)

1. In a wheel structure for an automotive vehicle, the combination of; an axle housing; a wheel comprising a hub journaled on said housing, a segmented rim portion, and a supporting spoke structure connecting said hub and the segments of said rim portion; a brake assembly splined on said housing between said hub and the outer end of said housing; a brake drum encircling said brake assembly and having a wall closing the outer side thereof; the inner side of said drum being open and having flange segments projecting radially of the drum at the peripheral edge of the open side thereof and a continuously extending peripheral surface forming therewith angular seat



means; each of said rim portion segments having cooperating angular seat means thereon engaged by the aforesaid angular seat means to thereby coaxially align said drum with the wheel axis; and an axle extending through said housing and drivingly engaging said drum wall to drive said wheel therethrough.

2,773,553
**MUFFLER**
Josef Heurich and Alexander Leopold Gerve, Augsburg, Germany, assignors to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of Germany
Application February 13, 1953, Serial No. 336,792
26 Claims. (Cl. 181—42)



1. A muffler device of the character described for application to a machine to reduce the noise of a gas current developed therein, said noise having a component of a predetermined wave length, comprising a plurality of silencing channels disposed in the line of flow of said gas current through said machine for dividing said noise producing current into a plurality of partial currents, a common duct communicating with all said silencing channels and with said machine, and means for attaching said duct to a noise producing element of said machine for directing said gas current through said common duct and said partial currents through said silencing channels, the internal width of each of said silencing channels being approximately ¼ to ½ said predetermined noise component wave length.

2,773,554
**FLOOR DRAIN SEAL**
Eugene A. Lindorf, South Bend, Ind.
Application September 6, 1952, Serial No. 308,226
1 Claim. (Cl. 182—24)



A seal adapted to be mounted in a floor drain having a restricted outlet portion, comprising an open ended tube having an outwardly projecting abutment portion, an ex-

pansible member having a passage therethrough receiving said tube with clearance, said member having a normal transverse outer dimension less than said restricted outlet, end plates engaging the opposite ends of said expansible member and apertured to fit around said tube, one plate having continuous circumferential engagement with said outwardly projecting tube portion, internally screw-threaded means associated with the other end plate, said tube having screw-threaded connection with said screw-threaded means, hand grip means carried by one of said screw-threaded parts to accommodate manual relative adjustment of said means, plates and tube to compress said member longitudinally and expand it laterally to a size greater than said restricted outlet, said means and plates sealing the clearance space between said expansible member and tube in the compressed position thereof, one end portion of said tube projecting from said expansible member and being screw-threaded, and a threaded closure member carried by said last named threaded tube portion, said tube has an enlarged projecting end portion defining a shoulder bearing against said first named plate, said tube having an external thread at its small end and an internal thread in its enlarged end, said screw-threaded means being fixedly carried by the other end plate and said hand grip projecting from said enlarged tube portion.

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2,773,555

## DEAERATORS

Harry E. Pape, Norwood, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application December 21, 1954, Serial No. 476,886
12 Claims. (Cl. 183—2.5)



1. A deaerator for liquids which comprises a vacuum chamber, a liquid conduit extending upwardly into said vacuum chamber, a liquid interrupting screen carried adjacent the top of said conduit, a conical disc carried by said conduit below said screen and in spaced relation thereto, said conical disc being in position to receive substantially all the liquid passing through said screen, and a discharge conduit extending from the bottom of the chamber.

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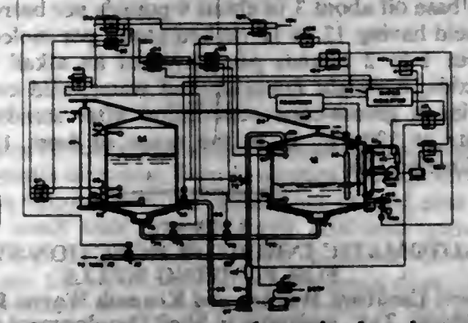
2,773,556

## APPARATUS FOR AUTOMATICALLY TREATING AND METERING OIL FIELD PRODUCTION

Douglas C. Meyers, Midland, and William B. Banks, Odessa, Tex., and Lucian E. Slagle, New Orleans, La., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application January 18, 1955, Serial No. 482,642
4 Claims. (Cl. 183—2.7)

1. A system for automatically treating and metering oil well production fluid prior to its delivery to a pipe line comprising a gas-oil separator adapted to receive well fluid from a plurality of wells and to separate the gas component therefrom, a treating tank, a surge tank, a metering tank, conduit means in communication between said separator and said treating tank, between said treating tank and said surge tank and between said surge tank and said metering tank, fluid transfer pump means in said conduit means between said surge and said metering tanks, said surge and said metering tanks being provided with drain ports for periodically removing the substantially stagnant fluid from the bottoms thereof, return conduit means in communication from said drain ports of said tanks through said transfer pump means to said treating tank for recirculating the stagnant fluids for treatment in said treating tank, discharge fluid port means in said metering tank provided with power-actuated valve means in communication with said pipe line, power-actuated valve means in each of said conduit means leading to and from said fluid transfer pump, electrical circuit means for actuating said valve means on a predetermined cycle to automatically fill and empty said metering tank and to recirculate the substantially stagnant liquid from the bottoms of said surge and metering tanks back to said treating tank, and means electrically-connected to said circuit means for detecting and indicating the water content of the oil leaving the surge and metering tanks, said water-indicating means adapted to actuate said circuit means and said valve means for recirculating oil from the surge and metering tanks back to said treating tank when the water content of said oil exceeds a pre-set value.



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2,773,557

## STRUCTURE FOR SEATING VACUUM CLEANER COVER

Axel Olof Engberg, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden

Application December 10, 1953, Serial No. 397,385
Claims priority, application Sweden December 20, 1952
8 Claims. (Cl. 183—51)



1. In a vacuum cleaner, a casing having an opening into the interior thereof and a cover for the opening, a dust collecting member through which air is adapted to pass, said dust collecting member normally being positioned in the interior of said casing within said cover, positioning means providing a seat for retaining said dust collecting member in its normal position, said cover being movable into the interior of said casing past said positioning means when said dust collecting member is withdrawn from said casing, and means including said dust collecting member, when the latter is seated on said positioning means, to provide a seat for holding said cover in position at the opening of said casing.

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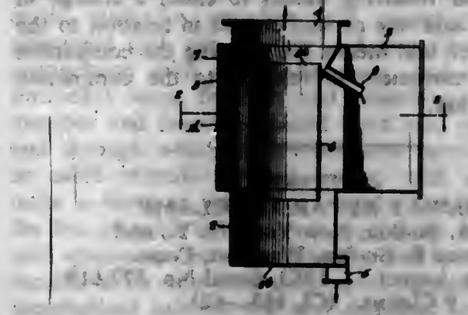
2,773,558

## SEPARATOR FOR LIQUID DROPS OR FOAM

Ake Arborgh, Jonkoping, Sweden, assignor to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden

Application June 22, 1954, Serial No. 438,552
Claims priority, application Sweden June 30, 1953
1 Claim. (Cl. 183—83)

A device for separating liquid drops and foam from a gaseous medium comprising a cyclonic separator including a spiral casing having a tangential inlet thereto, a cylindrical bottom casing underlying the spiral casing coaxially thereof and having an outlet for separated liquid drops and foam, means defining an outlet for the gaseous medium at the top of the spiral casing disposed coaxially of said spiral casing and the bottom casing, a central tube disposed interiorly of the separator and extending coaxially therein from the upper portion of the bottom casing through the spiral casing and terminating in spaced relation below the outlet at the top of the latter, an upwardly divergent wall circumscribing the upper portion of the central tube and extending from the latter to said outlet at the top of the spiral casing with the upper end of said central tube projecting within the divergent wall and forming therewith an annular groove for receiving liquid drops and foam separated from the gaseous medium, and an outlet pipe connected to the groove for discharging the liquid drops and foam collected in said groove.



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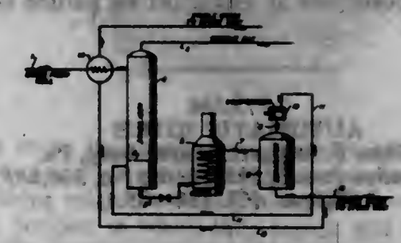


2,773,559

## HIGH PRESSURE STABILIZATION OF OILS

John E. Cottle, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 4, 1953, Serial No. 396,235
12 Claims. (Cl. 183—114.5)



1. The degasification of a liquid which comprises passing said liquid containing gases into a degasifying zone under an elevated pressure and therein heating said liquid to a moderately elevated temperature such that said liquid is not chemically altered, removing some gases from said liquid in said zone, removing liquid still containing a substantial portion of gases from said zone and in a separate heating zone heating said liquid while maintaining intimately together all of said gases and all of said liquid at a pressure lower than that prevailing in said degasifying zone to a higher temperature than in said degasifying zone but still below a temperature at which said liquid is chemically altered, then in a still further and separate zone separating gases from said liquid at a substantially reduced pressure so as to obtain a degassed liquid and gases still at an elevated temperature, increasing the pressure of said gases and returning said gases to said zone, the said gases which are intimately maintained together with said liquid permitting heating said liquid without undesirable decomposition to temperatures substantially exceeding those to which said liquid can be heated in the absence of said gases.

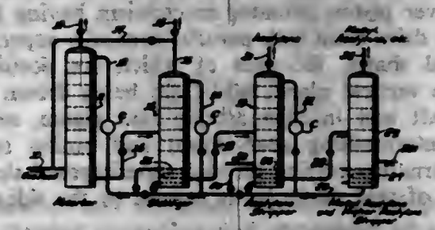
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2,773,560

## SEPARATION OF ACETYLENE COMPOUNDS

Arthur L. Kohl, Burbank, and Fred C. Riesenfeld, Hollywood, Calif., assignors to The Fluor Corporation, Ltd., Los Angeles, Calif., a corporation of California

Application May 18, 1953, Serial No. 355,639
9 Claims. (Cl. 183—115)



1. The process of separately recovering acetylene-containing and methyl acetylene-containing gases from a gaseous mixture thereof containing other gaseous constituents, that comprises contacting said mixture in an absorption zone with an alkyl ether of diethylene glycol absorbent in which the alkyl radical is of the class consisting of alkyl groups within the 1 to 4 carbon atom range and absorbing acetylene and methyl acetylene therein, said absorbent having a boiling temperature in excess of 175° C., passing the absorbent into a first stripping zone and therein separating the bulk of the acetylene from the absorbent, and passing the residual absorbent into a second zone and therein separating the bulk of the methyl acetylene from the absorbent.

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2,773,561

## SILVER-PALLADIUM FILM FOR SEPARATION AND PURIFICATION OF HYDROGEN

James B. Hunter, Havertown, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application May 2, 1955,
Serial No. 505,563
4 Claims. (Cl. 183—115)

1. A process for the recovery of free hydrogen from a gaseous mixture comprising hydrogen and other gases comprising the steps of bringing said gaseous mixture into contact with one side of a thin non-porous film consisting essentially of a silver-palladium composition containing from 10% to 50% silver, causing the hydrogen of said gaseous mixture to permeate through said film and removing the permeated hydrogen from the opposite side of said film.

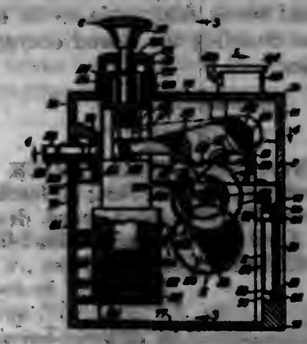
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2,773,562

## LUBRICATING PUMP

Thomas R. Thomas, New York, N. Y., assignor to Auto Research Corporation, a corporation of Delaware

Application May 5, 1951, Serial No. 224,989
5 Claims. (Cl. 184—37)

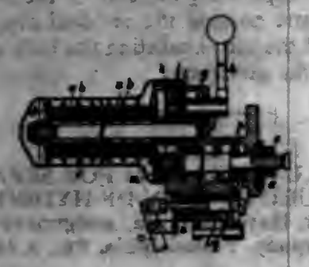


1. A central reciprocating plunger lubricant pump for a centralized branched lubricating installation having an upright cup-shaped lubricant reservoir casing devoid of mechanism, an inverted cup-shaped cover for said casing, a drive shaft for said pump mounted in the sides of said

cover cup and extending horizontally through and below the top of said cover and a cylinder extending through and depending downwardly from said cover and at its lower end being at the bottom of the lubricant reservoir casing so that it will be immersed in the lubricant body, a spring returned reciprocating piston in the lower end of said cylinder, said pump being characterized by a cam-lever piston actuator mechanism having a reduction gear drive train with parallel vertically superimposed horizontal shafts, the axes of which are positioned in the same vertical plane, said train being driven by said drive shaft and in turn driving said piston, said train having intermeshing gear wheel and pinion reduction units alternately carried on said superimposed shafts and the ends of said shafts being carried by the sides of said cup.

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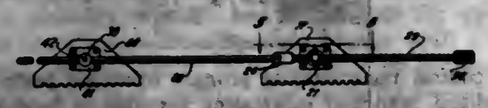
2,773,563
**ENGINE STARTING APPARATUS**
William Albert Bovis, Pinner, Leslie Gordon Chapman, Ealing, London, and Wilfrid Edward Walter Nicolls, Pinner, England, assignors to C. A. V. Limited, London, England
Application October 25, 1954, Serial No. 464,548
Claims priority, application Great Britain October 27, 1953
3 Claims. (Cl. 185—39)



1. An engine starting apparatus comprising in combination a cylindrical elastic member, manually operable means connected to one end of said elastic member for torsionally straining the latter to cause energy to be stored therein, transmission means connected to the other end of said elastic member for imparting the energy stored therein to the engine, and a catch engageable with said transmission means for controlling the action thereof, said transmission means including an internally screw threaded axially and rotationally movable pinion for engagement with the engine, and a complementary screw threaded member on which said pinion is mounted, and which is rotatable by said manually operable means through the medium of said elastic member, when said catch is in an initial inoperative position, to cause axial movement of said pinion into its engine-engaging position, said catch being subsequently movable into an operative position for holding said complementary screw threaded member stationary whilst energy is being stored in said elastic member, and being returnable to its initial inoperative position for enabling the stored energy to be imparted to the engine.

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2,773,564
**ADJUSTABLE WHEEL CHOCK**
Frank L. M. Garard, Sr., Dallas, Tex.; Helen Ida Garard, executrix of said Frank L. M. Garard, deceased
Application April 2, 1953, Serial No. 346,479
5 Claims. (Cl. 188—32)



1. A vehicle stabilizing means comprising a pair of chocks, a connecting means for holding said chocks in spaced apart relationship, said connecting means comprising a bar in relatively pivoted and longitudinally alignable sections, one of which sections is threaded longitudinally, rotatable means carried by each of said chocks for slidably receiving the sections of said bar, means included in the pivotal connection of the threaded section to the adjacent section permitting rotation of the threaded section of said bar, means carried by the rotatable bar receiving means of one of said chocks and engaging the threaded section of said bar to hold the latter against other than rotative longitudinal movement through said bar receiving means to effect a change in the position of said one of said chocks in relation to the companion chock and means for securing the companion chock against movement in relation to the companion section of said bar.

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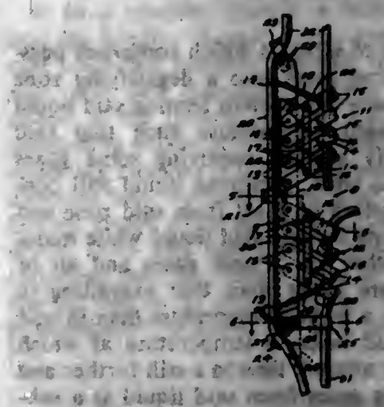
2,773,565
**RAILWAY RETARDER CLAMP**
John A. Bodkin, New York, N. Y., and Richard E. Bodkin, Westport, Conn.
Application August 31, 1953, Serial No. 377,619
9 Claims. (Cl. 188—62)



1. A clamp for connecting a track rail and a retarder rail extending along and aside of said track rail at a variable distance therefrom, said clamp comprising a rigid U-shaped member having a yoke end and having two elongated legs extending, one over the other, horizontally from said yoke end, said legs having ends far from said yoke end, the upper leg having a shoulder positioned near said yoke end and forming a surface facing toward said far end of this leg, said upper leg having a portion extending from said shoulder to said far end, said clamp further comprising a bracket secured to and connecting said far leg ends and having a surface facing said shoulder surface, and a spring positioned on said upper leg portion between said surfaces.

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2,773,566
**AUTOMATIC HITCH**
William F. Steggem, Waynesburg, Pa.
Application June 8, 1953, Serial No. 360,247
2 Claims. (Cl. 188—65.1)

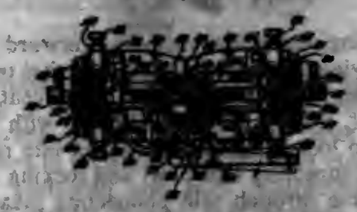


1. A device of the character described comprising a single length of cable or line and an automatic hitch, said hitch comprising an elongated base member, a pair of anchoring units pivotally connected to said base member in longitudinally spaced apart relationship to one another for swinging movement longitudinally of the base member toward and away from one another, each of said anchoring units including a plurality of rigid strap members each pivoted to the base member and each having a line or cable clamping eye at the end thereof disposed remote from said base member, said clamping eyes of each anchoring unit being disposed in alignment when the strap members thereof are disposed perpendicular to the longitudinal axis of the base member for receiving the ends of the line or cable, said clamping eyes of the two anchoring units being swingable away from one another by frictional engagement with the cable ends when said cable ends are pulled away from one another and away from the ends of the automatic hitch for swinging said clamping eyes out of alignment with one another and into frictional gripping engagement with said cable ends, and a plurality of stationary loops fixed to and projecting from the base member and laterally spaced from said anchoring units and through which an intermediate portion of the line or cable extends for cooperation with said anchoring units to form an adjustable loop in each end portion of the line or cable beyond each end of the automatic hitch, said stationary loops including a pair of end loops extending from said base member at oblique angles to the longitudinal axis thereof and disposed beyond the ends of the base member for frictionally gripping the line or cable to prevent said intermediate portion thereof from sliding relatively to the automatic hitch while the looped end portions are under tension and to permit the line or cable to be readily adjusted relative to the stationary loops when the looped end portions of the line or cable are not under tension.



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2,773,567
**DISC BRAKE ACTUATING MECHANISM**
Gerald E. Fairchild, Altadena, Calif., assignor to Aircraft Brake Company, Carson City, Nev., a corporation of Nevada
Application June 8, 1953, Serial No. 360,266
5 Claims. (Cl. 188—72)

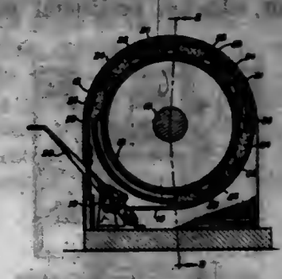


1. A brake comprising two elements and a relatively rotatable member received axially therebetween, said elements being relatively axially movable toward and away from a position in which they engage said member and frictionally retain it against said relative rotation, a first pair of levers positioned at a first axial side of said elements and acting to displace one of said elements toward the other, an actuating unit operable to actuate both of said levers, a second pair of levers at a second side of said elements and operable to displace said elements relatively together, two axially extending links interconnecting said first and second levers, and emergency brake operating means operable to actuate said second pair of levers, said emergency brake operating means comprising an additional lever unit acting against a pair of proximately positioned ends of the levers of said second pair.

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2,773,568
**NON-SELF-ENERGIZING BAND TYPE BRAKE**
Douglas Reglend, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application February 19, 1954, Serial No. 411,409
5 Claims. (Cl. 188—77)

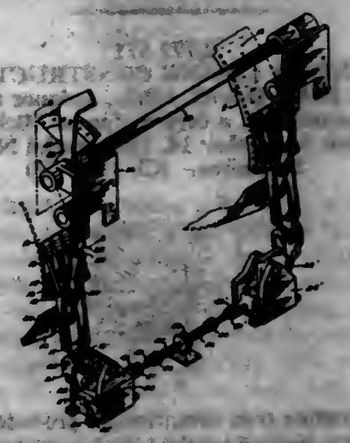
1. In combination with a band type brake mechanism including a brake rim and a brake band, a stationary member having a plurality of openings therein mounted so as to dispose said plurality of openings outside the periphery of said brake rim and inside the periphery of said brake band, and friction material loosely confined



within each of said stationary member openings to provide for limited circumferential movement of said friction material.

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2,773,569
**MECHANICAL BRAKING SYSTEM**
Ernest D. Garrett, Shreveport, La., assignor of one-half to David G. Crow, Shreveport, La.
Application August 11, 1950, Serial No. 178,904
7 Claims. (Cl. 188—77)



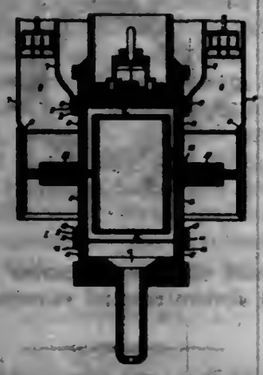
1. Apparatus of the class described comprising, a plurality of brake drums, brake bands extending respectively around said brake drums, lugs fixed respectively to the ends of said brake bands, yokes connected respectively to a lug on one end of each of said brake bands, a plurality of stationary base members, pivot plates pivotally mounted respectively in each of said base members and connected to said yokes, a stabilizing bar connected between said pivot plates, a stationary stop member provided with a bore slideably receiving said bar, sleeves adjustably fixed to said bar on opposite sides of said stop member, compression springs held respectively between each of said sleeves and said stop member, a rotatably mounted brake actuating rod, tension transmitting means extending substantially tangential to said brake bands respectively through said yokes and connecting the lugs on the other end of said brake bands to said brake actuating rod, and means for rotating said brake actuating rod.

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2,773,570
**COMBINED VACUUM SEAL AND ELECTRODE TERMINAL**
Theodore G. Milton and Theodore C. Swartz, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application November 29, 1952, Serial No. 323,306
2 Claims. (Cl. 189—36.5)

1. In an electron discharge device a first cylindrical insulator, a disk-shaped electrode, and a second cylindrical insulator co-axially stacked in that order, said second insulator being indented adjacent said electrode to provide an annular shoulder spaced axially from said

electrode, an integral trough forming member supported on said shoulder and having an annular part in contact with said shoulder and a cylindrical part surrounding and spaced from adjacent peripheral portions of said



insulators and said electrode to provide a solder trough therewith and a body of solder in said trough bonding said insulators, said electrode, and said member together to provide a combined vacuum seal and electrode terminal for said device.

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2,773,571
**WINDOW CASING CONSTRUCTION**
Clyde W. Kelly, Detroit, Mich., assignor to Fenestra Incorporated, a corporation of Michigan
Application September 14, 1953, Serial No. 379,793
21 Claims. (Cl. 189—75)

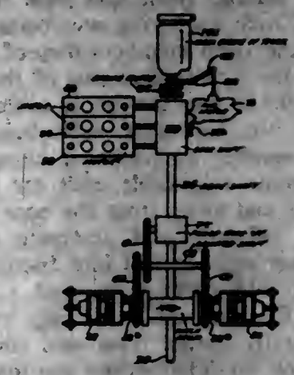


1. Combination trim comprising a pre-assembled frame consisting of a pair of vertical jamb members and a pair of horizontal members joined together at their ends to form a rectangular open weather side frame for insertion as a unit into the opening of a previously constructed window framing from the weather side thereof, a second preassembled frame consisting of a pair of vertical jamb members and a pair of horizontal members joined together at their ends to form a rectangular open room side frame for insertion as a unit into the opening of said previously constructed window framing from the room side thereof, securing means for joining said weather side frame to said room side frame after said frames have both been inserted in said opening, and a resilient insulating means separating said frames along their juncture, said securing means comprising a clip attached to one of said frames and a screw attached to the other of said frames.

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2,773,572
**FLUID ACTUATED CONTROL SYSTEM**
John H. Province, Oklahoma City, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Original application July 24, 1948, Serial No. 40,587, now Patent No. 2,643,693, dated June 23, 1953. Divided and this application December 31, 1952, Serial No. 329,077
8 Claims. (Cl. 192—3.5)

1. A combination as disclosed comprising a rotatably mounted fixture, a manual rotatably mounted on said fixture, a pair of control devices, means operated by rotation of said fixture by said manual for effecting selective operation of said control devices, a third control device, and means actuable by rotation of said manual on said fixture for actuating said third device, said second means including a reciprocable plunger, and a cylindrical contact



member disposed between said manual and said plunger in floating relation thereto.

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2,773,573
**INTERLOCK MECHANISM**
Nicholas M. Erisbil, Milwaukee, Wis., assignor to Caterpillar Tractor Co., Peoria, Ill., a corporation of California
Application January 7, 1955, Serial No. 480,349
3 Claims. (Cl. 192—4)



1. In shifting mechanism including forward and reverse gears for driving a rotatable drum, a ratchet on the drum, a pawl engageable with the ratchet to prevent reverse rotation thereof, locking means associated with the shifting mechanism to lock it against movement into reverse position, means connecting said pawl and locking means, and means operable through said connecting means to withdraw the pawl and release the locking means simultaneously.

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2,773,574
**RATCHET ADAPTERS FOR SOCKET WRENCHES**
Edward T. Able, Denver, Colo., assignor to B. K. Sweeney Mfg. Co., Denver, Colo., a corporation of Colorado
Application March 8, 1954, Serial No. 414,564
6 Claims. (Cl. 192—43.1)



1. A socket wrench adapter comprising: a cup-shaped housing having a closed and an open extremity; a wrench-receiving stud concentrically projecting from the closed extremity of said housing; an annular series of internal, double-acting ratchet teeth formed in said housing; a tubular socket-receiving sleeve concentrically mounted in said housing and having a protruding extremity extending through the open extremity of said housing; an enlarged annular rim surrounding said sleeve within said



housing within said annular series of ratchet teeth; a plurality of swinging pawls mounted in said rim and adapted to engage said ratchet teeth, each of said pawls projecting in a tangential direction opposite to its two adjacent pawls so that they will be alternately right and left handed; resilient means urging said pawls into engagement with said ratchet teeth; a tubular shifting collar surrounding said socket sleeve and forming a supporting bearing for the protruding extremity thereof, said collar extending from the open extremity of said housing about said sleeve; a circular hub portion formed on said collar and bearing against the inner wall of said housing to maintain said collar concentric therein; means retaining said hub portion in said housing; and means on said hub portion adapted when the latter is rotated to pass between certain of said pawls and said housing so as to prevent the latter pawls from engaging said teeth.

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2,773,575
**MULTIPLE CLUTCH ARRANGEMENT**
Richard Ignatz Binder and Adolf Gustav Ludwig, Schweinfurt (Main), Germany, assignors to Firma Fichtel & Sachs A. G., Schweinfurt (Main), Germany
Application June 2, 1953, Serial No. 359,058
Claims priority, application Germany February 4, 1953
8 Claims. (Cl. 192—48)



1. In a double clutch of the class described, in combination with a main clutch member adapted to be rotated by driving means; two pressure plate means coaxially disposed in proximity to said main clutch member for rotation therewith and each independently axially movable with respect thereto, said pressure plate means being disposed to move axially in opposite directions toward said main clutch member; and two driven clutch members coaxially disposed with respect to said main clutch member, each driven clutch member comprising a portion extending intermediate said main clutch member and one of said pressure plate means and each independently adapted for individual connection to separate and independent power driven utilization means, the provision of: common resilient means acting simultaneously on both of said pressure plate means and urging both of said pressure plate means in opposite axial directions each toward said main clutch member to press both of said driven clutch members simultaneously and individually into driving engagement with said main clutch member; at least one generally radially extending clutch control lever; pivot means carried by said main clutch member and pivotally supporting said control lever intermediate its ends; a first clutch actuating means connected to one of said pressure plate means and connected to said control lever at one side of said pivot means and actuable by pivotal movement of said control lever through a first predetermined angle to cause axial movement of one of said pressure plate means against the action of said common resilient means away from said main clutch member to disengage one of said driven clutch members; a second clutch actuating means connected to the other of said pressure plate means and connected to said control lever at the other side of said pivot means and actuable by pivotal movement of said control lever through a second predetermined angle appreciably different from said first angle to cause axial movement of said other pressure plate means away from said main clutch member, whereby angular displacement of said control lever through the greater of said two angles will disengage both of said clutch members and displacement of said control lever through the lesser of said two angles will disengage only one of said clutch members.

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2,773,576
**FRICTION CLUTCH**
Maximilien Stenger, Paris, France, assignor to Societe Anonyme Francaise du Ferodo, Paris, France
Application August 12, 1952, Serial No. 303,930
Claims priority, application France December 6, 1951
1 Claim. (Cl. 192—68)



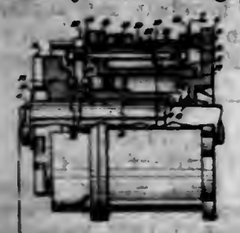
A friction clutch comprising a flywheel, a cover plate fastened thereto, a pressure plate located between said flywheel and said cover plate, a driven shaft, at least one friction plate located between said flywheel and said pressure plate and mounted for axial sliding motion on, and rotary motion with, said driven shaft, clutch springs of the coil compression type bearing with one end on the inner face of said cover plate and with the other end on said pressure plate to urge same against said flywheel and press said friction plate or plates between said pressure plate and said flywheel, clutch release levers each mounted for rocking motion on a relevant intermediate oscillating member bearing on said cover plate, having an end portion pivoted on said presser plate to control the longitudinal movements thereof and another bearing end portion, a control member mounted for axial sliding motion on said driven shaft and adapted to move in the direction of said bearing end portions of said release levers for disengaging the clutch, a flat ring disposed between said bearing end portions of said clutch release levers and said control member, and rectilinear resilient blades extending in a plane close and parallel to said flat ring, and having one end pivotally mounted on said flat ring and the other end secured to said cover plate so as to extend also tangentially to the flat ring contour in the direction of movement of the assembly, said resilient blades being adapted resiliently to urge said flat ring for engagement with said bearing end portions of said clutch release levers and drivingly connecting said flat ring with said cover plate for rotation therewith.

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2,773,577
**AIR VALVE WITH RING-TYPE PISTON**
Vladimir Kapeshko, Los Angeles, Calif.
Application May 12, 1953, Serial No. 354,678
2 Claims. (Cl. 192—85)

1. A device of the class described which comprises: a shaft, a plurality of splines on said shaft, a splined sliding member positioned on said shaft surrounding said splines, said member having an end adapted to serve as a clutch plate and an end adapted to serve as a brake surface, a ring-shaped cylinder positioned generally around said

sliding member so as to be coaxial with said shaft, means defining fluid passages adjacent to the ends of said cylinder, a ring-shaped double-acting piston positioned within said cylinder between said fluid passages, means defining a plurality of spaced apertures within one end of said cylinder, piston rods connected to said piston and projecting from said cylinder through said apertures, a



generally ring-shaped disc surrounding said sliding member and secured to said piston rods, bearing means connecting said disc to said sliding member so that as said disc is moved said sliding member is moved on said shaft, means attached to said cylinder adjacent to said brake surface adapted to serve as a brake surface, and means attached to said cylinder for securing said cylinder to a supporting surface.

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2,773,578

## ACTUATING MECHANISM FOR CLUTCHES

Stanley Frederick Burnett, Coventry, England, assignor to Self-Changing Gears Limited, Coventry, England

Application July 27, 1953, Serial No. 370,510
Claims priority, application Great Britain August 1, 1952
6 Claims. (Cl. 192—98)



1. Actuating mechanism for clutches comprising, in combination, an axially displaceable pressure ring for applying engagement pressure to the clutch surfaces, an intermediate ring member mounted upon said pressure ring with an interposed thrust bearing, a tiltable ring member connected to and supported by the intermediate ring member by diametrically opposed and radially inwardly directed pivotal connections, said tiltable ring member having a substantially uninterrupted outer periphery, abutment means engaging an end surface of the tiltable ring member within the outer periphery thereof at a point lying in a plane other than the plane of tilting of the tiltable ring member, a pivotally mounted bell crank member including an arm movable into and out of abutting relation with the said end face of the tiltable ring member within the outer periphery thereof and at a point diametrically opposite the engagement point of the aforesaid abutment means whereby clutch engagement pressure can be applied to said tiltable ring member by movement of said arm, and a fluid pressure operable piston operatively connected to said bell crank lever for applying such clutch engagement pressure.

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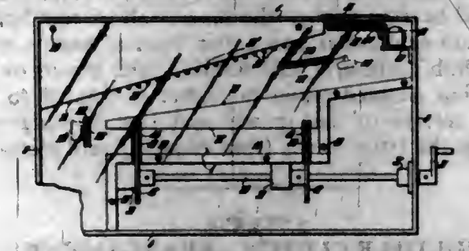
2,773,579

## ELECTRICAL INDICATING MECHANISM

Donald Lutes, Pittsfield, Mass.

Application October 9, 1953, Serial No. 385,141
2 Claims. (Cl. 194—8)

1. Apparatus of the class described comprising, a supporting structure including a rear plate and a front transparent panel secured together in vertical horizontally spaced planes for receiving therebetween discs in vertical planes and provided with a disc receiving entrance at the upper side and adjacent one end thereof, a slide member between said plate and panel having an upper elongated edge for rollably supporting and releasing a disc, operating means for moving said slide member up and down to position the upper edge thereof in various disc supporting positions and in lower disc releasing position, a row of relatively spaced contacts carried by said plate along and



above the upper edge of the slide member, said row of contacts and the upper edge of said slide member arranged in a generally declining and converging relation and generally horizontally from said disc entrance whereby a disc of a certain diameter on the upper edge of the slide member in one supporting position thereof will engage a contact different from that engaged by said disc in a different supporting position and successive movements of the slide member to disc releasing position will cause said disc to engage successive contacts.

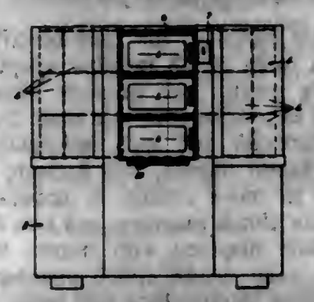
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2,773,580

## VENDING MACHINES

Harald Swede, Malmo, Sweden, assignor to Bergbom & Co. A.-B., Malmo, Sweden, a corporation of Sweden

Application January 28, 1954, Serial No. 414,519
Claims priority, application Sweden January 30, 1953
6 Claims. (Cl. 194—54)



1. In a vending machine a roundabout adapted to hold merchandise in vertical rows and horizontal tiers, a vertical drive shaft for driving said roundabout and adapted to move continuously, means for stopping said roundabout, bearing balls supporting said roundabout on said vertical drive shaft, a coin mechanism, rod means in said stop means corresponding in number to the vertical rows of merchandise mounted for swinging movement in vertical direction and lengthwise movement tangentially to said roundabout, ear means arranged in pairs at different distances from the axis of said roundabout, one of said ear means in each of said pair of ear means being mounted on one of said rod means, the other one of said ear means in each of said pair of ear means being mounted on said roundabout and in register with one of the vertical rows of merchandise, manually operable levers acting on said rod means in vertical direction, a key on an outer end of each of said manually operable levers, and biased levers between said rod means and said coin mechanism transferring the lengthwise movement exerted on said rod means by said roundabout before a standstill for changing said coin mechanism.

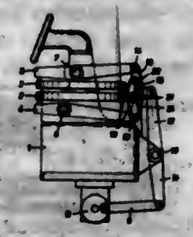


2,773,581

## IMPRESSING MACHINES FOR ADDRESS-PRINTING AND LIKE PRINTING PLATES

Erich Ostwaldt, Berlin-Hermsdorf, and Heinrich Ditzel, Berlin-Niederschoenhausen, Germany, assignors to Adrema Maschinenbau G. m. b. H., Berlin, Germany

Application April 29, 1952, Serial No. 284,957
5 Claims. (Cl. 197—6.7)



1. In an embossing machine for address-printing and similar plates, having two adjustable typewheels arranged co-axially, one of said wheels having the pressing stamps and the other of said wheels having the corresponding matrices, the combination of a frame; two substantially straight double-armed levers pivoted on said frame and adapted to co-act with said wheels, respectively, to emboss a plate; a toggle-joint connecting one end of each of said levers; a double-armed driving lever pivoted on said frame; means for rocking said driving lever; a link connecting said toggle-joint with said driving lever and adapted to exert pressing action on said toggle-joint to rock said double-armed levers, when said driving lever is rocked; and an auxiliary device actuated by said driving lever and adapted to act on that one of said two double-armed levers which co-acts with said wheel having the matrices, to hold the matrix-wheel-co-acting lever, in its working position, to fix it with respect to said frame, shortly before said toggle-joint effects pressing action.

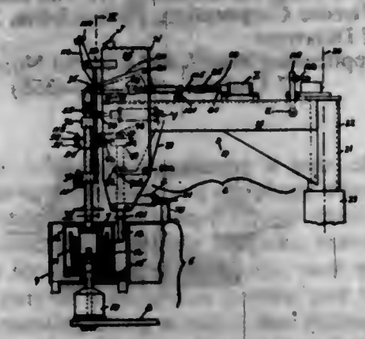
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2,773,582

## ARTICLE EXTRACTING DEVICE

Ivanhoe P. Demyanen, Merion Station, and Frank Radberg, Philadelphia, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application December 24, 1954, Serial No. 477,548
12 Claims. (Cl. 198—20)



1. In a system for handling articles comprising a conveyor member which continuously traverses a fixed path and has means uniformly spaced along the member for supporting separate articles; the conveyor member having a plurality of detents, each detent having fixed identical relation to one of said means and the path; an article-supporting member in spaced later relation with the conveyor; an apparatus operating in successive cycles to transfer articles from one member to the other, comprising means for gripping one of said articles, a primary supporting means, reciprocable means carried by the primary supporting means having an ambit of reciprocation relative to the primary means extending in a direction toward and away from the members, a movable secondary supporting means for said primary means, stationary means for supporting said secondary means and limiting the movement of the secondary means to ambit parallel to said path, means for pivotably connecting portions of the primary means remote from the path of the secondary means along an axis substantially parallel to the path, an element supported by the secondary means for movement relative thereto into and out of a position for engagement with successive detents, and a jack having one end connected with said primary means and its other end connected with said element for the simultaneous application of force in opposing directions for swinging the free end of the primary means away from the secondary means and moving the element out of said position for engagement with a detent.

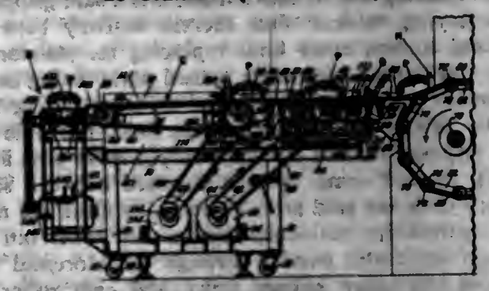
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2,773,583

## UNLOADING DEVICE

Kenneth R. Rand, Branford, and Ernest Brandenberger, New Haven, Conn., assignors to American Machine & Foundry Company, a corporation of New Jersey

Application May 14, 1954, Serial No. 429,722
13 Claims. (Cl. 198—21)



1. The combination of an unloading conveyor adapted to be positioned at the delivery end of a moving hearth plate conveyor, a stationary support and a track means thereon, a carriage mounted for reciprocation on said track, a walking beam conveyor mounted on said carriage, said walking beam conveyor being formed of a plurality of longitudinal members, at least one of said plurality of longitudinal members being adapted and constructed to move as a walking beam, yieldable means urging said carriage toward one end of said track, a cam surface on said carriage positioned to engage moving members on said moving hearth oven to move said carriage on said track against said yielding member whereby the leading edge of said walking beam conveyor may follow for a short period a trajectory of the delivery edge of the hearth plate of said traveling hearth oven.

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2,773,584

## PIVOT FLIGHT CONVEYOR

Neal W. Densmore, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application January 24, 1955, Serial No. 483,653
4 Claims. (Cl. 198—176)



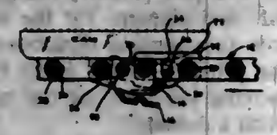
1. In a conveyor, in combination, an elongated deck plate having an endless channel formed therein, a circulating chain beneath said plate and lying in a generally horizontal plane, a plurality of flights lying adjacent the upper surface of said deck plate, a plurality of lugs secured to said chain and extending upwardly through said channel, said flights being pivotally secured one to each of said lugs for pivotal movement in a generally horizontal plane, and means to limit the pivotal movement of said flights in one direction throughout a portion of their orbital movement with the torsional load on said flights through said portions of their movement being transmitted through said lugs to said deck plate.



2,773,585

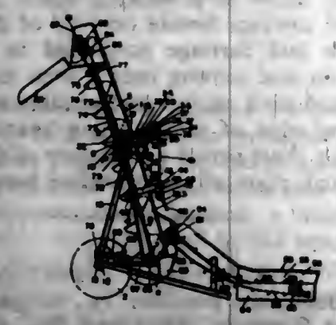
2,773,587

2,773,585
SINGLE CHAIN GRIPPER
Joseph R. Canfield, West Norwood, N. J., assignor to Champlain Company, Inc., Bloomfield, N. J., a corporation of New York
Application July 27, 1953, Serial No. 370,541
12 Claims. (Cl. 198—189)



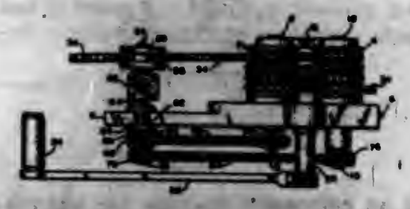
2. In combination, a single roller chain having conventional outer and inner links connected by conventional pins and rollers spaced apart by a desired pitch, a sprocket wheel mating with said chain but having teeth spaced at only half the pitch of the chain, and a gripper assembly built into and forming a part of said roller chain at desired intervals, said gripper assembly comprising inner links replacing the standard inner links, said gripper inner links having vertical slots therein halfway between the adjacent rollers, outer links replacing the standard outer links and having outwardly turned parts acting as spaced stationary gripper jaws, pivoted arms extending longitudinally of the chain alongside the links, movable gripper jaws disposed outside the stationary gripper jaws and connected to said arms, springs disposed between said stationary jaws and said arms to normally close the movable jaws against the stationary jaws, a cam roller pin carried by said arms and passing through the aforesaid vertical slots in the inner gripper links, and cam roller means rotatably carried on said cam roller pin.

2,773,586
ELEVATOR CONVEYOR
Edward H. Schmidtke, Marble Rock, Iowa
Application August 3, 1953, Serial No. 371,984
1 Claim. (Cl. 198—233)



A foldable elevator comprising an upper body section and a lower body section pivotally connected together, means to hold said upper and said lower sections in alignment, said lower section being supported on an axle, said axle having a king bolt pivotally disposed therein at each end thereof, a hub integrally attached to the lower end of each said king bolt, said axle resting on said hubs, a wheel on each said hub, a lever fixedly attached to the upper end of each said king bolt and extending laterally therefrom above said axle and disposed generally perpendicular to said hubs, and a link pivotally attached to said axle on the upper side thereof holding said wheels in an unswung position, the end of said lever remote from said king bolts being attached to the distal end of said link, said remote end of said lever being adapted to be attached to the point of connection of said lever to said axle whereby said hubs with said wheels thereon are rotated in a horizontal plane from a position parallel to said axle to a position at approximately a right angle to said axle.

2,773,587
WINCH WITH AFTER DRAG ROLLERS
Lyman Middleditch, Jr., Albuquerque, N. Mex., assignor to the United States of America as represented by the Secretary of the Army
Application March 16, 1954, Serial No. 416,727
1 Claim. (Cl. 242—200)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A line winch comprising a frame, first and second shafts extending transversely through said frame, a drum carried on each of said shafts, each of said drums having a plurality of opposing similar grooves in register on the respective outer peripheries of each of said drums whereby said line is continuously wound about the grooves of the drums, means operatively associated with said shafts for effecting mutual rotation thereof, first and second sprockets mounted respectively on each of said first and second shafts on one side of said frame, tensioning means for said line comprising third and fourth shafts extending transversely through said frame, each having first and second ends, a pair of aligned substantially coplanar friction wheels, each of said wheels being positioned on the first ends respectively of said third and fourth shafts on the other side of said frame relative to said sprockets, third and fourth sprockets mounted respectively on the second ends of said third and fourth shafts, said third and fourth sprockets being respectively in register with said first and second sprockets, and discrete chain drives linking said sprockets in register for effecting mutual rotation of said drums and wheels.

2,773,588
TOW ROLL
George Downing, Parkersburg, W. Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application May 7, 1954, Serial No. 428,272
7 Claims. (Cl. 242—355)



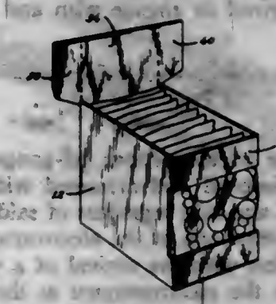
1. A corrugated roll for processing yarn filaments such as tow and the like comprising a cylindrical member, journal means for said member, a lead coating on the periphery of said member, and a plurality of elongated glass elements anchored in said coating to form axially extending corrugations around said periphery.

2,773,589
DISPLAY CARTON
Russell J. Hennessey, St. Paul, Minn., assignor to Waldorf Paper Products Company, St. Paul, Minn., a corporation of Minnesota
Application June 28, 1952, Serial No. 296,222
1 Claim. (Cl. 206—44.11)

A display carton in combination with a series of articles to be displayed, the carton including a series of



rectangularly arranged wall panels, one of which forms a front wall display panel and the two adjoining wall panels forming side walls, a pair of spaced cut lines extending across said display panel and into said side walls, a fold line connecting the adjacent ends of said cut lines, said articles to be displayed being of a size to fit between said side walls and substantially the full height of the display panel and substantially the full width thereof, several such like articles being arranged one behind the other between said display panel and the opposite



wall panel, the strip defined by said cut lines and fold lines being folded inwardly into parallel relation to the display panel and spaced therefrom, the space between the strip and display panel being slightly greater than the thickness of one article, one article of the series being held upright closely adjacent to said display panel by said strip and visible through the opening in the display panel caused by folding the strip inwardly, said strip defined by said cut lines being of sufficient height to support said one article in upstanding position.

2,773,590
DISPLAY CONTAINER
Benjamin L. Levinson, Groton, Conn., assignor to Royal Electric Company, Inc., Westerly, R. I., a corporation of Rhode Island
Application January 8, 1954, Serial No. 402,879
16 Claims. (Cl. 206—45.34)



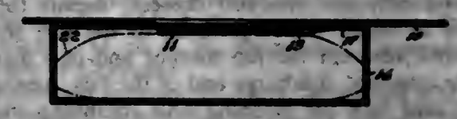
6. A display container comprising a pair of similar sections each having a star-shaped periphery when viewed in plan and comprising a comparatively small central portion with concave receptacle portions radiating out therefrom, one for each point of the star, each star point constituting a part of a receptacle portion and being defined by walls meeting along a radial line inclined downwardly from the tip of said point, said walls being inclined upwardly and outwardly from said line and extending radially inwardly short of said central portion from the tip of said point, the upper edges of said walls defining the periphery of said part, the remainder of each receptacle portion being defined by walls meeting along a radial line intersecting said first mentioned radial line and inclined upwardly therefrom toward said central portion, said walls being inclined upwardly and outwardly from said line and intersecting the adjacent walls of adjacent receptacle portions, said sections being secured together with their corresponding receptacle portions registering and opening toward one another so as to define individual compartments, one of said sections being transparent over its receptacle portions, whereby articles placed within said compartments will be retained and visible therein.

2,773,591
VESSEL WITH STERILE CLOSURE FOR SEPARATE STORAGE OF AT LEAST TWO SUBSTANCES
Erik Jensen, Copenhagen-Vanlose, Denmark, assignor to Novo Terapeutisk Laboratorium A/S, Copenhagen, Denmark, a limited liability company of Denmark
Application October 15, 1953, Serial No. 386,318
Claims priority, application Denmark October 22, 1952
4 Claims. (Cl. 206—47)



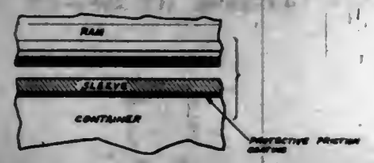
1. A sterile closed vessel for separate storage of at least two substances which are adapted to be intermixed before use which comprises, means defining a housing having at least one open end, a transverse partition in said housing dividing it into adjacent compartments for the respective reception of said substances, a resilient diaphragm closing an open end of said housing, and a member extending between said diaphragm and said partition for displacing said partition inwardly of said housing upon inward movement of said diaphragm, said partition comprising a disc-shaped body and an elastic ring having a substantially circular cross-section frictionally disposed between the periphery of said body and the inner surface of the housing, said partition normally sealing the adjacent compartments from one another but inwardly-directed pressure applied to said diaphragm and transmitted through said member to said body causing said body to be displaced inwardly while said elastic ring rolls over the housing wall to provide free communication between said compartments.

2,773,592
DISPLAY CARD
Ernest H. Duval, Winthrop, Mass., assignor to The Gillette Company, Boston, Mass., a corporation of Delaware
Application November 21, 1952, Serial No. 321,863
1 Claim. (Cl. 206—79)



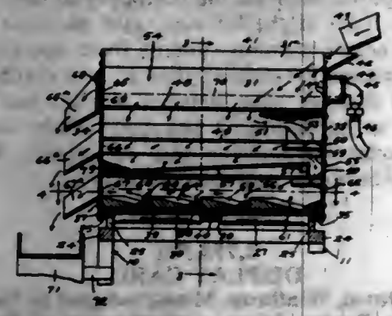
A merchandise display card of resiliently foldable material in combination with a flat-walled merchandise carton, said carton having a transverse securement slit in one of its flat-walled portions, said card having a longitudinally-extending tongue, struck therefrom, inserted into the carton slit, the base portion of the tongue being partially separated from the card by two short tongue slits extending part way towards each other from the respective sides of said tongue and aligned with the carton slit, and a pair of relatively short locking ears, struck from the integral with said tongue, disposed at opposite ends of the base portion of said tongue, said ears being bounded in part by the aforesaid tongue slits and having fold lines parallelling the longitudinal direction of the tongue about which said ears are folded inwardly, the card and carton assembly positioned with one edge of the carton slit in engagement with the facing edges on the card side of the tongue slits, and the edges of the ears bounded by the tongue slits in obstructive engagement with the opposite facing edge of the carton slit, thereby positively to prevent relative longitudinal movement between the carton and the card in either direction.

2,773,593
METHODS OF EXTRUDING HIGH COPPER ALLOYS
William F. Schmollinger, North Woodbury, Conn., assignor to Chase Brass & Copper Co. Incorporated, Waterbury, Conn., a corporation of Connecticut
Application February 27, 1953, Serial No. 339,331
8 Claims. (Cl. 207—10)




1. The method of extruding high-copper alloy rod or tube at relatively high temperatures which comprises providing a high-copper alloy billet with a coating of high-temperature refractory material adapted to increase friction between the surface of the billet and the wall of the extrusion press container, and extruding the core of the coated billet at suitably elevated temperature from such container through a die while leaving substantially a full sleeve on the container wall.

2,773,594
GRAVEL AND SAND WASHER AND CONCENTRATOR
Clarence C. Tyer, Vallejo, Calif.
Application August 6, 1954, Serial No. 448,369
8 Claims. (Cl. 209—13)



1. In a machine of the character described, an elongated washing and concentrating box, means for supplying raw materials to be processed to the upper portion of said box adjacent one end thereof, means for supplying jets of water under pressure to the box through said end and adjacent the top thereof and in a direction toward the opposite, discharge end of the box, means contained in said box for washing and scrubbing the raw material while submerged in water and for separating therefrom and entrapping the heavier valuable parts separated from the raw materials, said outlet end of the box having at least one discharge port through which the waste material is carried off, supporting means on which said box is supported for reciprocating movement transversely of the longitudinal axis of the box, and driven agitating means connected to said box for imparting a violent reciprocating and oscillating motion to the box in a direction transversely thereof.

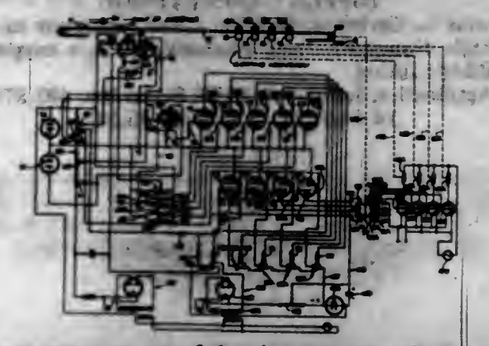
2,773,595
CLASSIFYING APPARATUS
Henry C. Westin, Turtle Creek, Pa., assignor to United Engineering and Foundry Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 20, 1951, Serial No. 257,277
4 Claims. (Cl. 209—74)

1. Apparatus for classifying and sorting according to thickness workpieces such as tin plate and the like comprising a conveyor defining a normal path of travel for said workpieces, a gauging means, a piler adjacent to and for receiving from said conveyor on-gauge workpieces having thicknesses within predetermined limits, a second piler adjacent to and for receiving from said conveyor workpieces having thicknesses less than those within said limits, a third piler adjacent to and for receiving from said conveyor workpieces having thicknesses greater than those contained within said limits, adjacent to each of said second and third pilers and serving as conveyor rolls for said conveyor an annular rotary electromagnet having a plurality of separately energizable segmental members spaced around the periphery thereof adapted to be selectively energized to engage with and to direct an



off-gauge workpiece to the proper off-gauge piler, control elements so disposed and arranged with respect to said gauging means and said segments of said electromagnets to energize at least one of the electromagnetic members in timed relation with the arrival of a workpiece at a point adjacent to the electromagnet at the proper off-gauge piler thereby to cause said members to engage with and deflect the workpiece out of its normal path of travel and to de-energize said member at a point beyond said point of energization and stripping means adjacent to each of said rotary electromagnets for assisting in releasing a workpiece from said magnets.

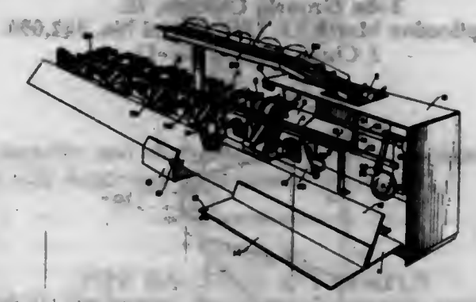
2,773,596
COMESTIBLE SORTING APPARATUS
Harold W. Bartlett, Berkeley, Calif., assignor to California Packing Corporation, San Francisco, Calif., a corporation of New York
Application June 23, 1951, Serial No. 233,232
12 Claims. (Cl. 209—111)



9. In an arrangement of the character described, article conveying means, means at a point of selection for deriving a voltage which varies in accordance with physical characteristics of articles on said conveying means, a magnetizable member synchronously operated with said conveying means, a plurality of magnetizing means magnetically associated with said magnetizable member to magnetize different regions in the same, a first plurality of gaseous discharge tubes each having its anode serially connected with a corresponding one of said magnetizing means, a single condenser serially connected with each of said magnetizing means and corresponding anodes and corresponding tube cathodes to provide a discharge path for said condenser, a continuous voltage source, a resistance serially connected with said source, a charging circuit for said condenser comprising said resistance and said source, a second plurality of discharge tubes each effective to energize a corresponding one of said first plurality of tubes in accordance with the magnitude of said voltage, each of said second plurality of tubes being energized through said resistance, a control tube operated in accordance with said voltage for deenergizing each of said first plurality of tubes, a plurality of pickup means magnetically associated with said magnetizable member and each corresponding to a corresponding one of said magnetizing means, and control means coupled to said pickup means for effecting control operations on said articles remote from said point of selection.

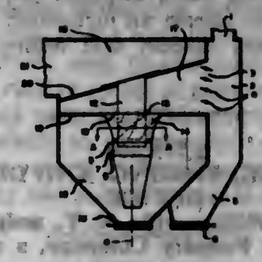


2,773,597
EGG GRADER
Elmer J. Green, Chicago, Ill.
Application August 9, 1952, Serial No. 303,550
15 Claims. (Cl. 209—121)



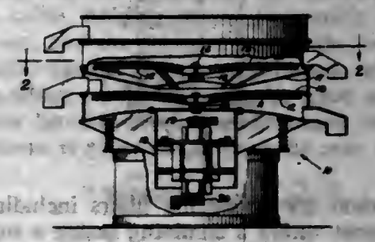
6. In an egg grader, an inclined runway comprising a weighing segment tiltable longitudinally of the runway, a dumping segment normally alined with said weighing segment and tiltable laterally for discharging eggs from the runway, a balance beam controlling the movement of said weighing segment, latch means controlled by said balance beam for locking said dumping segment against tilting, a receiving magazine for eggs located above said runway and comprising a chute shaped and disposed to deliver eggs by gravity in single file succession, a bucket movable vertically by the weight of an egg from an elevated position for receiving the egg from said chute to a depressed position for delivering such egg to said runway, a balanced supporting means for said bucket normally urging same upward to its egg receiving position, and timing means controlling the descent of said bucket.

2,773,598
APPARATUS FOR THE SELECTIVE AND/OR TOTAL SEPARATION AND COLLECTION OF PARTICLES FROM SUSPENSION IN FLUID MEDIA
Pio Federico Falcopa Castelfranci, Milan, Italy, assignor to Termokimik Corporation, Milan, Italy, a corporation of Italy
Application April 1, 1953, Serial No. 346,175
23 Claims. (Cl. 209—144)



20. In apparatus for separating particles from suspension in fluids, an element comprising a generally frusto-conical hollow member, the large end of which forms a fluid inlet section having a substantially greater cross-sectional area than the cross-sectional area of the smaller end, at least one substantially helical internal vane beginning adjacent the inlet end of the frusto-conical member and extending to the opposite end thereof with gradually decreasing cross section, said vane forming a cylindrical axial passage adapted to receive a hollow cylindrical discharge element whereby a helical passage of decreasing cross section is formed between said discharge element, the vane and the frusto-conical member imparting a controlled, rapid increase in the velocity of the fluid passing therethrough.

2,773,599
SCREEN CLEANING DEVICE
John Litus, Carteret, N. J., and Charles D. Smith, Lawrence, Kans., assignors to Food Machinery and Chemical Corporation, New York, N. Y., a corporation of Delaware
Application October 19, 1953, Serial No. 386,710
4 Claims. (Cl. 209—386)



1. A screen cleaning device adapted for use between the screen and tray of a circular vibratory separator having a horizontal rotary component of movement and a vertical vibratory component of movement, comprising: oppositely, radially extending upwardly bowed resilient arms loosely pivoted, at the center of and below the screen and above the tray, about a center post, and extending between the screen and tray, said arms being spaced from the tray at all points, a cleaning medium positioned upon the upper surface of at least one of said arms adapted to engage the underside of said screen substantially throughout the length of said arm; and spacing means on said center post and bearing on the top of said screen adapted to regulate the spacing between said cleaning medium and the underside of said screen; whereby the circular vibratory motion of the screen is imparted to the supporting arm and the cleaning medium, resulting in a wave-like motion and intermittent tapping and brushing of the underside of said screen during the revolutions of the arms about the center post, subtantially as described.

2,773,600
PLANT FOR THE CLARIFICATION OF SLURRIES
Erich Riedel, Duesseldorf, Germany, assignor to Bruecken-bau Flender G. m. b. H., Duesseldorf, Germany, a corporation of Germany
Application January 21, 1953, Serial No. 332,198
Claims priority, application Germany January 29, 1952
1 Claim. (Cl. 210—51)



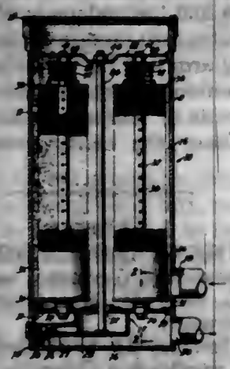
A device for the clarification of slurries and particularly of water comprising a circular settling tank, a circumferential trough at the upper edge of said settling tank for charging the slurries into said tank, a plurality of circular rows of overflow discharge tubes concentrically located in said tank at substantially the same level as said charging trough, overflow funnels attached to the open top of said tubes and connected therewith for the discharge of the clarified slurries, a turnstile located at the top portion of said tank the outlets from said turnstile extending into the circumferential charging trough and circular guide plates for the liquid to be discharged, said plates being attached to the bottom portion of said tubes and inwardly inclined towards the center of said tank.

2,773,601
**METHOD FOR CONSTRUCTING WATER FILTERS AND PRODUCT THEREOF**
Philip B. Keller, San Jose, and Walter M. Kofford, Santa Clara, Calif., assignors to R. T. Collier Corporation, Los Angeles, Calif., a corporation of California
Application September 21, 1953, Serial No. 381,416
12 Claims. (Cl. 210—120)



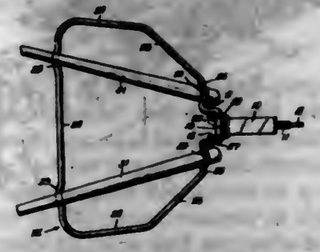
1. A method for producing filters including: placing upon a support within a confining casing a support layer of loose granular material commingled with unset binder substance; depositing upon the support layer a bed of loose filter material; placing upon the top of said bed a second layer of loose granular material commingled with unset binder substance; and treating the resultant assembly in said casing to harden said binder substance in the two layers in situ on said support and within said casing.

2,773,602
**FILTER APPARATUS**
Walter G. Sylvester, West Caldwell, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application February 2, 1953, Serial No. 334,511
3 Claims. (Cl. 210—166)



1. In filter apparatus of the class described, a casing; a partition in said casing dividing said casing into upper and lower chambers, said upper chamber having an unrestricted inlet and said lower chamber having an unrestricted outlet and said partition having an aperture therein and a by-pass passageway for establishing flow communication between said upper and lower chambers, a stack of apertured, edge-type filter discs in said upper chamber; a tube extending through the apertures of said filter discs, said tube having a closed upper end, perforations adjacent said discs for receiving filtered liquid passing therethrough and an open lower end extending into said partition aperture for delivering the filtered liquid to said lower chamber; a downwardly facing valve seat in said tube adjacently spaced from its open lower end and located below the perforations thereof; a valve member for said seat; yieldable means for urging said valve member on its seat to normally resist delivery of filtered liquid from the open lower end of said tube to said lower chamber and thereby create a back pressure in said filter stack which serves to improve the rate of flow of liquid through said filter discs when the same have become contaminated with dirt particles and tend to resist the flow of liquid therebetween; and a normally closed check valve in said passageway adapted to be opened by the pressure of the liquid in said upper chamber in response to a pressure greater than that required to unseat said valve member.

2,773,603
**COMBINED FISH BAG HOLDER AND FISHING POLE REST**
John Gronek, Chicago, Ill.
Application March 13, 1953, Serial No. 342,090
1 Claim. (Cl. 211—1)



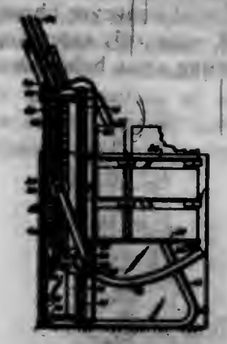
A fish bag holder and a fishing pole rest comprising a fish bag supporting frame, said frame including a straight side having a pair of widely spaced apart, upwardly opening notches therein each adapted to receive a fishing pole and support it from below, end members extending from said straight side in a substantially perpendicular relation therewith, side members extending from the ends of said end members, each of said side members being in a substantially parallel relation with said straight side and having a downwardly opening notch therein adapted to receive a fishing pole and engage it from above, the space between said downwardly opening notches being substantially less than the space between said upwardly opening notches so that a fishing pole supported by one of said upwardly opening notches and the downwardly opening notch adjacent thereto will be in a diverging relationship with respect to a fishing pole supported by the other two of said notches, a pair of parallelly disposed arms extending from the ends of said side members, said arms being in a substantially perpendicular relation with said side members and said straight side, a pivot extending laterally from the end of each arm, and bracket means for connecting said frame to the side of a boat and supporting said frame in position over the water adjacent the side of the boat, said bracket means having an opening therein for receiving said pivots and having a pair of bearing portions upon which said arms may rest, said bearing portions being disposed above said pivot-receiving opening to impart an inclination to said frame so that said notches support said fishing poles at the proper inclination.

2,773,604
**SELF-LEVELING, STORING, AND DISPENSING DEVICE**
George A. Gruss, Williamsville, N. Y., assignor to American Machine & Foundry Company, a corporation of New Jersey
Application December 29, 1952, Serial No. 328,495
4 Claims. (Cl. 211—49)

1. A self-leveling, storing, and dispensing apparatus comprising a substantially vertical framework, vertical guides connected to said framework; a material supporting platform having rollers engaging with said guides to limit said platform to relative movement with respect to said guides, counterbalancing means coacting with said platform to maintain the top of the material supported thereon at a constant level with respect to said framework by exerting a force which is proportional to the distance moved by said platform, a vertical shaft connected to said framework, a sliding member coacting with said shaft



to allow said platform to move in only one direction relative to said shaft, and means for moving and maintaining



said member and shaft out of operative engagement to allow said dispensing apparatus to be loaded.

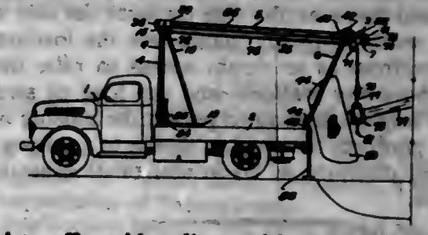
2,773,605
**PIPE RACKING APPARATUS**
Frank D. De Jarnett, Barcelona, Venezuela, assignor of one-half to Paul A. Modearis
Application November 12, 1953, Serial No. 391,682
33 Claims. (Cl. 214—2.5)



1. Apparatus of the character described for racking and unracking stands of pipe adjacent a well bore, said apparatus having in combination: a plurality of lower support units to support a corresponding plurality of rows of stands of pipe, each of said units having one end adapted to receive the lower ends of stands of pipe, each of said units being adapted to shift the lower ends of the stands of pipe successively to or from its receiving end; a corresponding plurality of upper rack units to engage upper portions of the rows of stands of pipe on said lower support units, each of said rack units having one end adapted to receive stands of pipe from the well bore, each of said rack units being adapted to shift the stands of pipe successively to or from its receiving end; and power means to actuate said support units and said rack units for racking and unracking stands of pipe.

2,773,606
**TREE MOVING APPARATUS**
Marvin A. Shepherd, Mission, Kans., assignor to Williams & Harvey Nurseries Company, Prairie Village, Kans., a corporation of Missouri
Application September 8, 1953, Serial No. 378,731
3 Claims. (Cl. 214—3)

1. A tree moving apparatus adapted for mounting on the bed of a truck including, a forward support adapted for fixed connection with the forward end of the bed, a boom, means on the fixed support for pivotally and slidably mounting one end of the boom for movement in the longitudinal direction of said bed, brackets adapted for fixed attachment at opposite sides of the rear end of the bed, a rear support comprising a yoke member having legs pivotally connected with said brackets for swinging movement on a fixed axis, means on the rear end of the boom and engaging the yoke for forming a fixed pivotal connection therewith for projecting and retracting the boom with respect to the rear of said bed, said boom providing a rigid track along the length thereof, a trolley movable along the track formed by the boom, a pulley carried by the trolley, a pulley carried by the fixed support, a lifting cable operating over the pulleys and having one end adapted for connection with the trunk of the tree near the ball thereof, a windlass for winding the other end of the cable, holding means removably engageable with the boom and the forward end of the trolley to secure the trolley against retractive movement on the boom, a similar holding means between the fixed support and the boom for limiting retractive movement of the boom when the boom is projected beyond the rear end of said



bed and to affix said trolley and boom so that winding of the cable on the windlass effects lifting of the tree to a position above the bed of the truck, means for connecting the trunk of the tree with the trolley independently of the lifting cable when the tree is in said position to carry the ball end of the tree by the trolley, a pulley on the rearward end of the boom and adapted to reeve the lifting cable when the cable is attached to an upper portion of the trunk of the tree and while the ball end is supported from the trolley to effect movement of the trolley rearwardly along the boom when said holding means is disengaged from the trolley to move the tree carried thereby toward the forward end of the truck bed upon further operation of the windlass and to shift the boom forwardly upon continued operation of the windlass when the boom holding means has been removed.

2,773,607
**MATERIALS PILING DEVICES**
Burton H. Locke, Framingham, Mass.
Application September 27, 1954, Serial No. 458,340
16 Claims. (Cl. 214—6)



1. A device to facilitate the piling of articles of merchandise onto a carrying platform in successive layers comprising a stationary frame structure and a swingable structure pivotally mounted near one end thereof to the frame structure and disposed to swing upwardly, a portion of said swingable structure near the other end thereof being suitable to receive and support a said platform, means to convey articles of merchandise to a predetermined level above the structures at the platform supporting end thereof, the swingable structure being such as to receive and swing an empty said platform upwardly in

position to facilitate the sliding of a layer of said articles thereon substantially at the said predetermined level and thereafter to swing downwardly therefrom intermittently to suitable positions to bring the top of each successive layer of articles that may be placed on the platform substantially at the said predetermined level to facilitate the sliding of each layer of articles onto the preceding layer respectively, and so on, until said platform is completely loaded with articles, and finally to permit the removal therefrom of any platform that may be loaded thereon, power means to accomplish the movement of the swingable structure, a substantial upright fence on the swingable structure intermediate the pivot point thereof and the platform supporting portion thereof for locating the packages thereagainst, adjustable means to position said platform in horizontal relationship to said fence, an upright movable package locating fence on one of the members disposed adjacent to and substantially perpendicular to the first said fence on the side opposite the side where an operator would normally manipulate the loading of a platform therefrom as set forth, means to raise the last said fence above any platform and any load of packages that may be formed thereon to permit the passing of any such loaded platform thereunder, means to facilitate positioning a said platform in horizontal relationship to the last said fence.

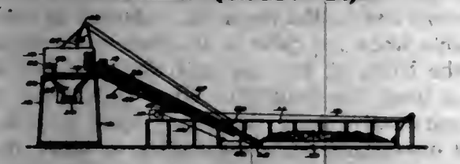
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2,773,608

## MATERIAL HANDLING APPARATUS OF THE CONVEYOR TYPE

Robert E. Hunt and James Nagy, Butler, Pa.

Application November 25, 1955, Serial No. 549,006
8 Claims. (Cl. 214—14)



1. Apparatus for unloading barges, comprising a cable for holding a floating barge in sidewise relation to a dock, a motor-driven winch for shifting the barge longitudinally, an operator's cab, a boom-like main conveyor frame pivoted at its inner end to the cab, for swinging movement of its outer end in a vertical plane, means for swinging the cab and the conveyor frame on a vertical axis, an auxiliary conveyor frame slidably projecting from the lower end of the main frame, pulleys on the inner end of the main frame and on the outer end of the auxiliary frame, respectively, and a looped conveyor belt passing around said pulleys and arranged to receive material at the lower outer end of the auxiliary frame and discharge it at the upper end of the main frame.

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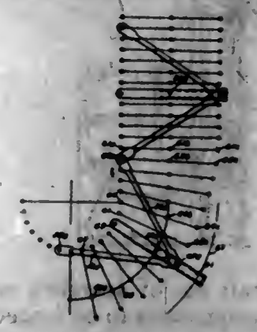
2,773,609

## AUTOMOBILE PARKING MACHINE

John E. Holappa, Detroit, Mich., assignor to H. E. Beyster & Associates, Inc., Detroit, Mich., a corporation of Michigan

Application October 24, 1952, Serial No. 316,716
7 Claims. (Cl. 214—16.1)

1. An automobile parking machine comprising structural framework extending to multiple automobile height, opposed, endless, vertical chain conveyors each passing over axially spaced upper and lower sprockets, said sprockets being rotatably supported by said framework, a plurality of individual automobile cradles pivotally suspended between said conveyors, cradle suspension linkage connecting said cradles to said conveyors at points providing substantially minimum clearance spacing between adjacent loaded cradles in vertical travel, said linkage comprising cradle suspension arms pivotally connected to and extending outwardly from said chain conveyors, each arm having a cradle suspension point substantially spaced from the respective ends thereof and outside of the path of travel of said conveyor chain, a pair of supporting arms for each outwardly extending cradle suspension arm, said supporting arms being pivotally connected



to said chain conveyor at points oppositely spaced from the chain connection of said outwardly extending arm, the outer ends of said supporting arms being pivotally connected to each other and slidably connected to said outwardly extending arm outside of its cradle suspension point.

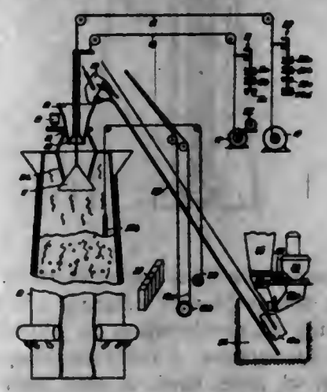
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2,773,610

## PROGRAM CONTROL AND INDICATING SYSTEM

Albert Mohr, Jr., and John P. Grill, Chicago, Ill., assignors to John Mohr and Sons, Chicago, Ill., a corporation of Illinois

Application December 11, 1953, Serial No. 397,584
21 Claims. (Cl. 214—19)



1. In a charging program control and indicating system for a blast furnace wherein the coke, ore and stone are adapted to be conveyed by skip hoist means to a hopper provided with a cooperating bell, the combination of a series of manually presettable ore and stone designating switches adapted to be preset in accordance with a predetermined skip load charging program, rotary switch means adapted to be actuated by said skip hoist means, and indicating means responsive to the manually preset positions of said designating switches and to the operation of said rotary switch means for indicating the material to be loaded into the skip hoist means in the successive trips of the charging program.

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2,773,611

## METHOD OF AND APPARATUS FOR FEEDING VITRIFIABLE MATERIALS INTO GLASS FURNACES

Georges Leon Henry and Edgard Brichard, Jumet, Belgium, assignors to Union des Verreries Mecaniques Belges S. A., Charleroi, Belgium, a Belgian company

Application August 4, 1949, Serial No. 108,555
Claims priority, application Belgium August 23, 1948
6 Claims. (Cl. 214—35)

1. Apparatus for proportionally feeding different granular vitrifiable materials into a glass furnace, comprising a forebay of said furnace having spaced side walls and



adapted to contain molten glass, a central hopper having a discharge opening extending transversely of the forebay and its ends spaced from the sides of the forebay, an impeller under said central hopper and operable to impel material issuing from the hopper toward the furnace so as to cover with said one material a central portion of the glass surface as wide as the discharge opening of the central hopper and extending therefrom toward the furnace, said impeller being effective to create



a surface current in the glass wider than said central portion and flowing toward the furnace, and an auxiliary hopper having a discharge opening extending over a side portion of the glass surface extending parallel to said central portion, said side portion being subject to said surface current so that material issuing from said auxiliary hopper is fed toward the furnace at a rate proportional to the rate of feeding of material from the central hopper.

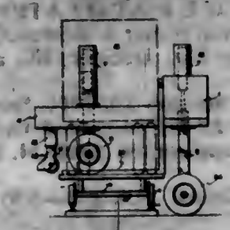
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2,773,612

## APPARATUS FOR LOADING AND UNLOADING TRAILERS AND THE LIKE ONTO AND FROM PLATFORMS AND THE LIKE

Russell A. West and Lewis W. Edwards, Coatesville, Pa., assignors to Lukens Steel Company, Coatesville, Pa., a corporation of Pennsylvania

Application June 30, 1953, Serial No. 365,061
8 Claims. (Cl. 214—38)



1. Apparatus for lifting semi-trailers or the like and moving the trailers bodily sidewise onto a railway flatcar or the like comprising a body of substantial U-shape having a base portion and two arm portions whereby a trailer may be maintained within the confines of said body, a pair of lifting cylinder units on each arm for raising and lowering said body with respect to ground, said body having lifting forks for elevating and lowering the trailer, a jack-wheel unit on each arm forward of said cylinder units with respect to said base portion, said units having wheels, means to elevate and lower each of said units, means to drive the wheels of at least a pair of said lifting units and means to steer the wheels of the lifting units.

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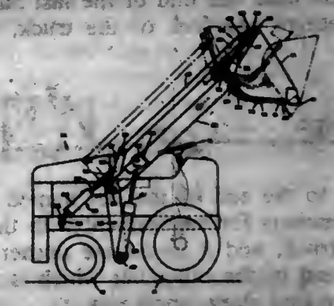
2,773,613

## TRACTOR SHOVEL

Robert E. Burrus, Buchanan, Mich., assignor to Clark Equipment Company, a corporation of Michigan

Application March 26, 1953, Serial No. 344,695
8 Claims. (Cl. 214—140)

1. For use with an industrial truck, the combination of a shovel having a lower leading edge, a shovel carriage on which the said shovel is pivotally mounted adjacent the said lower leading edge of the shovel, means for pivoting said shovel relative to said shovel carriage, arm means pivoted at one end to the truck and at the other end to said shovel carriage, first power actuated means carried by the truck and having connection with said arm means for effecting pivotal movement of the latter whereby said shovel carriage and shovel may be raised and lowered, second power actuated means carried by the truck, and linkage



means between said second power actuated means and said shovel carriage whereby upon actuation of said second power actuated means said shovel carriage and shovel may be tilted forwardly and rearwardly.

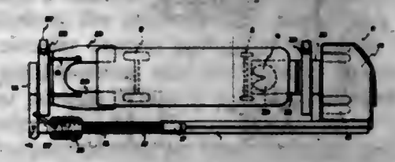
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2,773,614

## APPARATUS FOR LOADING AND UNLOADING HEAVY EQUIPMENT

Lewis W. Edwards and Russell A. West, Coatesville, Pa., assignors to Lukens Steel Company, Coatesville, Pa., a corporation of Pennsylvania

Application January 18, 1954, Serial No. 404,404
10 Claims. (Cl. 214—390)



1. Apparatus for lifting semi-trailers or the like from the ground onto a platform such as the deck of a railway flatcar, comprising a frame mounted on wheels and adapted to be power driven over the ground, said frame having a front portion and a portion extending rearwardly therefrom in the form of a substantial L, said rearwardly extending portion consisting of first and second members connected in telescoping fashion, first housing portions foldably and pivotally mounted on said second member, second housing portions connected to the frame front portion, telescoping sections within one of said first and second housing portions, a ramp-like member pivoted to one of the sections in one of said first housing portions and a fifth-wheel unit adapted to be connected to the king pin of the trailer mounted integrally on one of the sections in one of said second housing portions, means including lifting means associated with the first and second housing portions for elevating the ramp member and fifth-wheel unit as well as the trailer when the unit is connected to the king pin and the trailer rear wheels are on the ramp member, means for actuating the lifting means, and means for causing telescoping action of the members of the rearwardly extending portion and the telescoping sections whereby, when the latter occurs, the ramp member and fifth-wheel unit are moved laterally of the frame.

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2,773,615

## CARGO LOADING ATTACHMENT FOR FORK TRUCKS

John E. Conway, Mechanicsburg, Pa.

Application January 18, 1955, Serial No. 482,681
1 Claim. (Cl. 214—620)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A cargo loading attachment for a fork-lift truck comprising a pair of elongated bars having telescopic engagement, said bars having a series of longitudinally spaced transverse openings adapted to register, a pin for engagement with a selected registering pair of said open-

ings for releasably locking said bars in the selected longitudinally adjusted position, a pair of rectangular sleeve elements secured to one side of one of said bars in spaced aligned relation near one end of the last named bar and adapted to receive one fork of the truck, an abutment

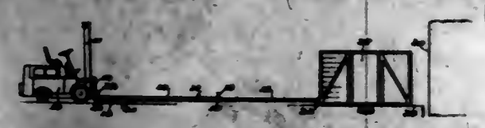


plate secured to the end of the last named bar adjacent said sleeve members for engagement with the lifting carriage of the truck, and a transverse pusher member secured to the end of the other bar which is remote from the bar having said sleeve members.

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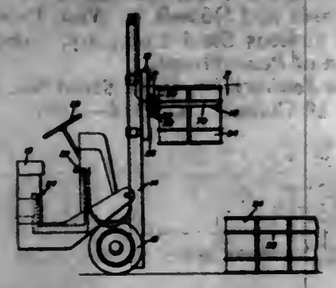
2,773,616

## DRUM CARRIER ATTACHMENT FOR LIFT TRUCKS

James J. Finnaren, Port Arthur, Tex., assignor of forty percent to Preston W. Ratley, Port Arthur, Tex.

Application May 12, 1954, Serial No. 429,254

3 Claims. (Cl. 214—655)



1. A drum carrier for attachment to an industrial truck having a vertically hydraulically movable carriage provided with a horizontal crossbar, comprising a horizontally disposed plate secured to the crossbar, one forwardly projecting, elongated finger movably secured to said plate, another forwardly projecting, elongated finger movably secured to said plate for movement towards and away from the other finger, and means for actuation of said movable fingers for selectively clamping a drum between the fingers, said plate being provided with a first pair of forwardly projecting fingers, said fingers being slidably secured adjacent the side edges of the plate in horizontal alignment, a second pair of forwardly projecting fingers disposed intermediate the side edges of the plate, means for limiting the inward movement of the inner pairs of fingers, hydraulically controlled means for urging the outer fingers inwardly, said plate being provided with a horizontally disposed guideway having inturned side edges, each of said fingers having a mounting plate slidably received in said guideway, and arcuate contact plates at the inner ends of said fingers for engaging the peripheral wall of a plurality of drums, a double acting hydraulic cylinder and piston interconnecting the plate and the outer fingers, said intermediate fingers being normally spaced apart wherein a drum may be positioned between the inner fingers and between each inner finger and adjacent outer finger.

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2,773,617

## HIGH-SPEED LABELING DEVICE

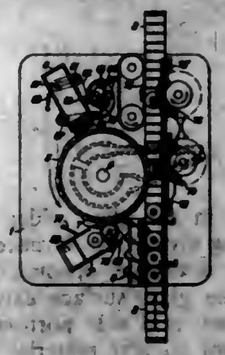
Johann Weiss, Berlin-Prohlsee, Germany

Application July 29, 1955, Serial No. 525,366

Claims priority, application Germany February 23, 1955

15 Claims. (Cl. 216—13)

1. A high-speed labeling device comprising a labeling drum having a plurality of suction areas, a vertical shaft for mounting said drum for continuous rotation, a source of vacuum for generating suction at said suction areas, and flexible tube connections associated with the source of vacuum for that purpose, a feed box for labels to be delivered to the suction areas of said drum in timed relationship with the rotation thereof, means for feeding workpieces to be labeled past said drum, and means for temporarily disconnecting said suction areas of said drum from the source of vacuum, said device further comprising a stationary duct concentrically arranged with the shaft of the labeling drum, means for connecting said



duct with said source of vacuum, an upper horizontal cover with a plane outer surface for said duct having openings distributed in rows along a circular ring, a second ring above said first ring and rigidly connected to said labeling drum, said second ring having a plane horizontal lower face forming a seal on said first ring while the rings rotate together, said second ring having perforations which are connected each with one suction area of said drum and past over successive openings in said cover.

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2,773,618

## SERVICE INSTALLATION

Frank H. Mueller and Walter J. Bowan, Decatur, Ill., assignors to Mueller Co., Decatur, Ill., a corporation of Illinois

Original application January 10, 1950, Serial No. 137,768, now Patent No. 2,691,384, dated October 12, 1954. Divided and this application April 24, 1953, Serial No. 350,946

2 Claims. (Cl. 220—3.8)



2. In a stop cock box installation of the character described, a ferrous tubular liner having an exteriorly threaded upper end, a ferrous cover cap removably secured on said end and having a hub portion lined with a sleeve of non-ferrous metal, said sleeve having interior threads throughout a length greater than the length of the threaded portion of said liner and engaged with said threaded portion to secure said cap to said liner, said sleeve also having a skirt below its threaded portion extending below the threads on said liner and snugly engaging the latter below its threads to protect the latter, and a plug having at least its entire surface of non-ferrous metal threaded into the upper end of said sleeve and against the upper end of said liner.



2,773,619

## SEWER PLUG STOPPER

Axel Mueller, Racine, Wis., assignor to Mueller Manufacturing Co., Inc., Racine, Wis., a corporation

Application July 21, 1954, Serial No. 444,818

1 Claim. (Cl. 220—24.5)



An expansion stopper for sealing sewer drain bowls comprising a compressible resilient body having an annular side wall and a bottom wall provided with an axially disposed aperture, upper and lower compression plates fitted against the upper and lower surfaces of the body, an axially disposed threaded stem rigidly secured to the lower plate and extending toward the upper plate through the aperture in the bottom wall of the body, said upper plate having an axially disposed opening, an elongated nut threaded on the stem engaging the upper plate having an axially disposed depending sleeve extension extending through the opening in the upper plate for centering the nut and upper plate relative to one another and to prevent the stripping of the threads on the stem by the upper plate, a washer fitted on the stem against the upper surface of the bottom wall of the body and secured rigidly to the stem, whereby inadvertent displacement of the stem and lower plate from the body is prevented, and an annular tapered flange extending outwardly from the side wall of the body.

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2,773,620

## CONTAINER AND CLOSURE THEREFOR

Andrew M. Toft, Chicago, Ill., assignor to National Can Corporation, Chicago, Ill., a corporation of Delaware

Application October 30, 1952, Serial No. 317,742

1 Claim. (Cl. 220—24.5)



A container comprising a body wall, an end secured to the body and comprising an annular member sealed at the periphery to the body and having an inwardly extending annular ring terminating in a seamless open neck extending inwardly of the body, a sealing closure for the neck comprising a first plate covering the neck opening and resting on the annular ring, a second plate, a gasket ring of compressible material between said plates and bearing against the inside of the neck and having a portion underlapping the same, said first and second plates having peripheral rims, said rims respectively extending upwardly from the top plate and downwardly from the bottom plate, the rim that projects from the top plate projecting an amount approximately the depth of the neck of said end and being opposite said neck and together with the neck forming a channel for receiving the gasket ring and confining the gasket ring against expansion radially, a portion of said first plate extending from the top of the peripheral rim thereof up to the neck where the neck merges with the rest of said end and constituting a closure for said channel and confining the gasket against axial movement, means on the outside of the plates for drawing the plates toward one another to compress the gasket means axially thereby forcing the portion of the gasket that is confined in the channel to expand radially in its confining channel into pressure engagement with the neck and with the depending rim of the first plate, said gasket extending below the neck whereby upon axial compression it expands also radially outwardly into sealing overlap at the bottom of the neck, said last means comprising a stud secured to the second plate at the center thereof and extending toward and through the first plate and a rotatable member operable on the stud to draw it axially to force the plates toward one another, and means for locking the rotatable member to prevent release of the sealing means.

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2,773,621

## RESILIENT DISC CLOSURE

Charles Warren Harley, Gaithersburg, Md., assignor to the United States of America as represented by the Secretary of the Army

Application December 10, 1954, Serial No. 474,630

3 Claims. (Cl. 220—39)



1. In a screw threaded closure including a threaded closure body, a resilient sealing disc and actuating means for said closure; the improvement comprising said body having a circular central portion surrounded by an annular marginal portion, said disc having an annular resilient sealing portion disposed radially outwardly of said closure body, said actuating means being a rigid annulus, said annulus having an inner annular portion overlying said annular marginal portion of said body, an annular series of spot welds fixedly securing said inner annular portion of said annulus to said disc radially inwardly of said sealing portion, weld means fixedly securing said disc to said central portion of said body, and said annulus having an annular edge portion radially outwardly of said inner annular portion and in axially outwardly offset relation thereto and to said annular resilient sealing portion of said disc to permit axially outward flexing of the latter.

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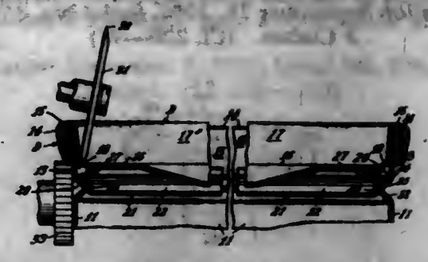
2,773,622

## RECLOSURE CONTAINER

Alf Trygve Angenens, San Mateo, Calif., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application October 1, 1953, Serial No. 383,547

3 Claims. (Cl. 220—48)



3. A sealed cylindrical sheet metal container, comprising a tubular body having countersunk end members double seamed thereto in permanently secured end seams, said body having an integrally formed inwardly extending annular bead adjacent and spaced longitudinally from one of said closure members to constitute a cylindrical friction seat spaced radially inwardly from the plane of the body wall, and a cylindrical plug reclosure member having a surrounding upright laterally offset friction wall disposed in frictional engagement with

said annular bead seat to confine and protect the subjacent container contents, said reclosure member friction wall terminating at its outer end in a curled peripheral edge disposed in substantial contact with said seamed countersunk end closure member to hold the plug reclosure member in firm engagement with said bead seat, whereby after initial opening of the container by circumferentially cutting away the countersunk portion of said seamed end closure member adjacent to and radially outwardly of said plug closure member, the aforesaid curled wall edge of the latter may be manually grasped to facilitate its removal from and replacement on said annular body bead seat.

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2,773,623

## CORROSION RESISTANT COATED STEEL MEMBERS AND METHOD OF MAKING

Ludwig Karl Schuster, Philadelphia, and Alfonso L. Baldi, Jr., Drexel Hill, Pa., assignors to Heintz Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

Application June 1, 1954, Serial No. 433,698
12 Claims. (Cl. 220—64)



12. Plain carbon steel having its surface covered with an in situ formed adherent protective iron oxide surface film, the film being coated with an in situ formed combination of hydrated chromium oxides containing about 20 to 60% chromium by weight, about 40 to 95% of the chromium by weight being trivalent, the remainder being hexavalent, and the coating weighing about 10 to 200 milligrams per square foot of surface that it covers.

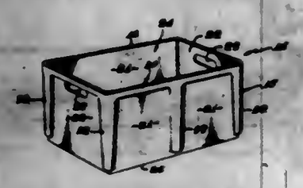
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2,773,624

## PLASTIC CASE FOR TRANSPORTING PACKAGED FRESH MILK

Arlington W. Knierim, Pasadena, and Louis C. Foht, Los Angeles, Calif., assignors to Cahuzac Industries, Inc., Los Angeles, Calif., a corporation of California

Application September 20, 1954, Serial No. 457,008
3 Claims. (Cl. 220—97)



1. In an integrally molded plastic case, the combination of: a thin shell comprising a bottom, side walls and end walls, said side and end walls converging slightly from top to bottom to permit withdrawal of said case upwardly from the mold in which it is formed and to permit a lower end portion of said shell of one of said cases to fit within an upper end portion of the shell of another of said cases therebelow; a perimetric top reinforcing frame formed by outwardly thickening upper edge portions of said side and end walls; a perimetric bottom reinforcing frame formed by extending lower edge portions of said side and end walls several times the thickness of said bottom below said bottom and inwardly thickening said lower edge portions of said side and end walls several times the thickness of said side and end walls, said bottom reinforcing frame constituting a downward thickening of perimetric portions of said shell bottom several times the thickness of said bottom; and a series of downwardly tapering upright wall reinforcing elements formed by outwardly thickening said shell walls, said upright elements also constituting the downwardly tapering, downward thickening of said top reinforcing frame at spaced points about said case with the lower ends of said upright elements terminating short distances above the lower edges of said shell walls by at least partially overlapping with said perimetric bottom reinforcing frame, whereby said upright elements of one case rest on the top perimetric reinforcing frame of a case disposed therebelow in nesting relation therewith, said tapering upright reinforcing elements being located at the vertical corner edges of said shell whereby said elements reinforce said side and end walls at their lines of juncture and unite with said top and bottom perimetric reinforcing frames to form an integral skeleton of six rectangular frames, five of which are reinforced in the planes of said rectangular frames by said ends, sides and bottom of said shell.

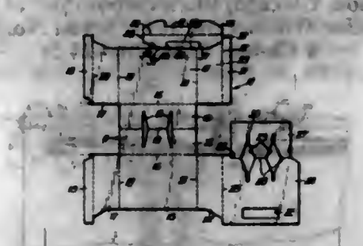
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2,773,625

## ARTICLE CARRIER

Edwin L. Arneson, Morris, Ill., assignor, by mesne assignments, to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York

Application June 18, 1953, Serial No. 362,622
2 Claims. (Cl. 220—113)



1. A paperboard article carrier comprising upstanding side and end walls and a bottom extending between bottom margins of the side walls, a central longitudinal partition hinged to the end walls and paralleling the side walls, said longitudinal partition extending substantially the full length of the carrier and comprising an upstanding partition panel and a flap section of substantial area integrally hinged by a horizontal crease to a lower margin thereof, said partition panel and flap section being provided with longitudinally spaced vertical slots opening downwardly through said hinging crease and said bottom having longitudinally spaced transverse slots extending at a right angle to the longitudinal partition and in vertical alignment with the slots of the latter, and a U-shaped transverse divider having its parallel arms received in the slots in said bottom and longitudinal partition in upstanding straddling relation to said longitudinal partition, said arms having upwardly opening slots for interlocking with the slotted partition panel and flap and extending upwardly past the ends of the slots in said partition panel and flap section, said divider arms engaging opposite side faces of said partition panel and flap section, and said divider being fabricated of thicker material than said partition panel and flap section so as to approximate the combined width of the latter.

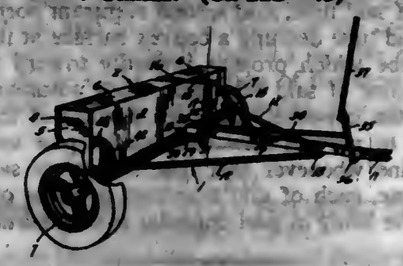


2,773,626

## SPREADER FOR FERTILIZER, SEEDS AND THE LIKE AND FEED RATE CONTROL THEREFOR

Everhard S. Gemstad, Owatonna, Minn.

Application March 2, 1953, Serial No. 491,641
7 Claims. (Cl. 222—43)



1. In a device for spreading granular material, an elongated wheel-mounted mobile hopper having a plurality of longitudinally spaced discharge openings in its bottom portion, a valve-acting gate plate underlying said hopper bottom portion and having discharge openings registrable with the discharge openings of the hopper bottom to a variable extent under longitudinal sliding movements of the gate plate with respect to the hopper, means mounting and guiding said gate plate for longitudinal sliding movements with respect to the hopper bottom to variably open and close said discharge openings, said gate plate having a stop element at one end which is disposed in closely spaced relation to the adjacent end of the hopper when said gate plate is moved longitudinally to a position to close the hopper bottom discharge openings, a control arm pivotally mounted adjacent its inner end to the hopper at a point between the vertical plane of the end of said hopper and the vertical plane of the adjacent end of said stop element, means limiting pivotal movements of said control arm between a generally vertical position wherein it is disposed close to and substantially parallel to the adjacent end of the hopper and another extreme position where it is directed inwardly of the end of the hopper and angularly disposed with respect to said generally vertical position, means for locking the control arm in different angularly disposed positions, a graduated arcuate scale associated with the upper end portion of the control arm and having one end disposed adjacent the said end of the hopper and extending inwardly and downwardly therefrom, and a laterally inwardly offset abutment element carried by the control arm adjacent the pivot thereof and having an operating face portion facing and disposed in the field of longitudinal movement of said stop element and defining a curve generally eccentric to the axis of pivotal movement of the control arm, whereby to adjustably limit the outward sliding movements of the gate plate and the resultant discharge rate through the cooperating discharge openings of the hopper and gate plate under different positions of the control arm.

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2,773,627

## CLAMPING DEVICE FOR CLOSING A FLUID OR PASTE CONTAINER

Lennart Viktor Samuel Lundahl, Motala, Sweden

Application October 31, 1955, Serial No. 543,786
14 Claims. (Cl. 222—107)



1. A manually-operable self-closing clamping device for closing a collapsible mouth of a flexible-walled container, comprising a substantially rigid frame having a through passage for receiving said container at the region of its mouth with the latter open, said frame having a clamping surface adapted to engage one side of the container mouth; a double-branched resilient clamping member having elongate branches connected by a yoke portion, said branches extending alongside each other; means engaging an end of one branch of said clamping member, mounting the latter on the frame, the two branches of said member extending substantially parallel to the through passage of the frame, the other branch of the clamping member extending beyond the extremity of the one branch, curving toward and extending to the clamping surface of the frame, said branches of the clamping member being biased toward each other whereby the curved portion of the said other branch is biased toward said frame clamping surface to collapse the mouth of the container thereagainst and seal the same; and opening cam means cooperable with said other branch of the clamping member to force the curved portion thereof away from the frame clamping surface in response to lateral movement of the yoke portion of the clamping member.

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2,773,628

## CONDIMENT DISPENSERS

Robert J. Gabler, New York, N. Y.

Application August 16, 1952, Serial No. 304,782
6 Claims. (Cl. 222—142.1)



1. A condiment dispenser comprising a container partitioned to provide separate condiment receiving chambers, closures threadably mounted on the opposite ends of said container and provided with centrally disposed outlet passages, disks seated on the ends of said container and secured thereon by said closures and formed with centrally disposed apertures aligned with the apertures in said closures, inwardly extending discharge tubes carried by said disks, and inverted cone-shaped caps supported by the inner ends of said discharge tubes and in concentric relation thereto.

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2,773,629

## FUEL FEEDER

Earle C. Miller, Worcester, Mass., assignor to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts

Application November 3, 1953, Serial No. 390,030
3 Claims. (Cl. 222—226)

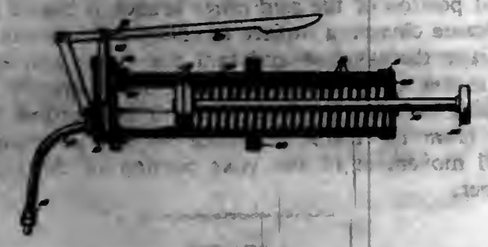


1. A fuel feeder for supplying moist, bulky refuse to a furnace comprising a hopper having at least one inclined

side, an endless belt providing an inclined downwardly-moving surface in opposition to the said inclined side, the moving surface and the said wall diverging in a downward direction, a screw type conveyor underlying the hopper and a downwardly directed chute having its upper end underlying the discharge end of the screw type conveyor.

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2,773,630
GREASE GUN
Floyd J. Mascher, Dieterich, Donald Kissinger, Effingham, and Arthur Clegg, Dieterich, Ill.
Application October 16, 1953, Serial No. 386,471
1 Claim. (Cl. 222—256)



A portable grease gun comprising: a one-piece cylindrical barrel of transparent plastic material which renders its contents visible, and having open ends, heads of metal removably connected by screw-threads to the inner and outer ends of the barrel, respectively, one of said heads having means for the discharge of grease from the barrel, a piston slidable in the barrel, a spring in the barrel for urging the piston to discharge the grease, and a single solid annular band integral with and of the same plastic material, adjacent the longitudinal center of the barrel, and of sufficient thickness to longitudinally and transversely reinforce the barrel at its longitudinal center against deformation, the band having substantially right angled sides fitting between contiguous fingers of the hand of a user for grasping the gun against slippage in said hand while it is being manually manipulated.

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2,773,631
MEASURING AND DISPENSING DEVICES FOR CONTAINERS
Paul M. Bryant, Akron, Ohio
Application January 16, 1952, Serial No. 266,671
18 Claims. (Cl. 222—450)



5. A measuring and dispensing device for containers that can be associated with a container to selectively permit or prevent the flow of material from said container and that comprises a tube of flexible material, an opening at one end of said tube, a closure at the other end of said tube, a normally closed aperture in said tube, a bending line intermediate the ends of said tube, a second bending line intermediate the ends of said tube, said bending lines being spaced apart longitudinally of said tube, said tube being bendable about the first said bending line to entrap a predetermined quantity of material between said closure and the first said bending line, said tube being bendable about said second bending line to entrap a larger predetermined quantity of material between said closure and said second bending line, said aperture being openable to release said entrapped material, the first said bending line being defined by a reentrant portion of the wall of said tube, said reentrant portion of the wall of said tube defining a convex surface at the interior of said tube which projects inwardly toward the longitudinal center of said tube and which automatically approaches the oppositely disposed portion of the wall of said tube to prevent flow of material past the first said bending line whenever said tube is bent at the first said bending line, said second bending line being defined by a second reentrant portion of the wall of said tube, said second reentrant portion of the wall of said tube defining a convex surface at the interior of said tube which projects inwardly toward the longitudinal center of said tube and which automatically approaches the oppositely disposed portion of the wall of said tube to prevent flow of material past said second bending line whenever said tube is bent at said second bending line, each of said reentrant portions of the wall of said tube being in part conoidal in configuration.

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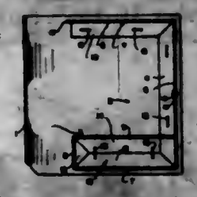
2,773,632
NOZZLE CONTAINER WITH FLEXIBLE TELESCOPING POURING SPOUT
Walter J. Dobbins III, Little Falls, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application June 5, 1953, Serial No. 359,754
4 Claims. (Cl. 222—525)



3. A container having a nozzle provided with a circular dispensing mouth surrounded by a sealing seat for a gasketless closure cap, said seat terminating in an annular depending skirt defining said mouth, and a telescoping tubular pouring spout of resilient compressible plastic material slidable within said mouth, said spout having an annular resilient flange overlapping said sealing seat to constitute a gasket for said closure cap for sealing said mouth when said spout is in a retracted position within said nozzle with said closure cap applied to said nozzle, the inner end portion of said spout having an enlarged integral cylindrical head of slightly greater diameter than the diameter of said nozzle mouth, said head tapering inwardly toward the inner spout end having a diameter slightly less than that of said mouth to facilitate yieldable insertion of said spout end portion through said mouth to assemble the spout on the nozzle, said enlarged cylindrical head terminating at its outer end in a stop shoulder engageable with said nozzle spout to prevent inadvertent withdrawal of the inserted spout from said nozzle.

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2,773,633
CONTAINERS
Elmer Haskell, Forest Hills, N. Y.
Application October 20, 1953, Serial No. 387,289
7 Claims. (Cl. 229—8)

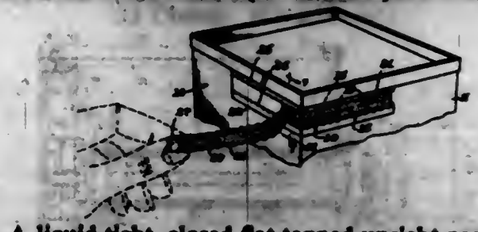


1. A container resembling and opening like a book, comprising a sheet of corrugated cardboard folded upon spaced transverse lines about midway of its length, into a U-shape to represent the covers and bound edge wall of a book, a strip of corrugated cardboard extending along but spaced slightly from the marginal edge of the inside face of that part of the sheet representing the back cover, between the ends of the bound edge wall portions, said strip having bent over flanges along its side edge which abuts said inside face, lying along said inside face and attached thereto, the width of said strip, as it upstands from said inside face being approximately equal to the distance from arm to arm of the U of the covers, and a fastening device releaseably coupling the free edge, at the outer end of the U, of the portion of the sheet representing the front cover to the upstanding wall of said strip.



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2,773,634
PAPERBOARD CARTON POURING SPOUT CONSTRUCTION
Kalil Nogues, Rockford, Ill., assignor to Dairy Containers, Inc., Rockford, Ill., a corporation of Illinois
Application March 12, 1953, Serial No. 341,860
9 Claims. (Cl. 229—51)



1. A liquid-tight, closed flat-topped upright paperboard carton the body of which is made of paperboard material coated inside and out with thermoplastic material, said carton having flat side walls defining corner portions and having in the side of one upper corner portion thereof a substantially continuous horizontal slit that extends both ways from the corner, the corner portion below said slit adapted to define a V-shaped pouring spout when the corner portion above said slit is bent upwardly folding the flat top along a line diagonally of the corner and thereby opening said slit, and adhesive strips coated with thermoplastic material adapted to bond with the coating on the carton under heat and pressure, said strips being applied under heat and pressure to the inner and outer sides of said carton covering said slit and sealing the same while at the same time preventing upward bending of said corner portion, the outer strip having longitudinally extending weakening lines above and below the slit defining therebetween a tear portion overlying the slit, removal of which preliminary to opening the slit uncovers the slit and weakens the structure facilitating the opening up of the slit, the inner strip adapted to tear lengthwise when the corner portion above said slit is forcibly bent upwardly to open the slit.

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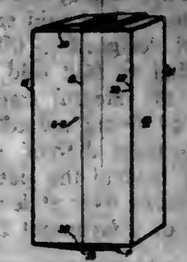
2,773,635
PACKAGE CARRIERS AND METHOD FOR MAKING THE SAME
William Scalmer, Summit, N. J.
Application October 30, 1952, Serial No. 317,728
7 Claims. (Cl. 229—52)



1. A package carrier comprising a tape having a coating of adhesive on one side thereof, the other side having no coating of adhesive, a longitudinal central slit provided in the middle portion of said tape, openings in said tape at the terminations of said slit, and a ribbon-like member linearly coextensive with said tape and positioned centrally relative to the lateral edges of said tape, said ribbon-like member at its end portions being positioned on the adhesive coated side of said tape and passing through said openings so that the intermediate portion of said ribbon-like member for the length of said slit is positioned on the side of said tape that is not coated with adhesive, said end portions in contact with said adhesive side of said tape being bonded thereto, said tape having transverse fold lines at said openings and at equal distances from said openings, the adjacent equal portions being folded on transverse lines and bonded together where coated sides are against each other to form a pair of straps of two layer thickness spaced apart longitudinally of the tape, with said openings at the ends of said straps and said ribbon-like member extending from one end of said carrier on said coated side through the first of said straps between the two layers thereof, emerging therefrom to form a loop serving as a handle reaching to the tip of the second of said straps, extending through the latter between the two layers thereof and to the other end of said device on the adhesive coated side of said tape said straps being movable relatively to the remainder of the tape, whereby the tension of said loop is transmitted through said straps to the remainder of the carrier.

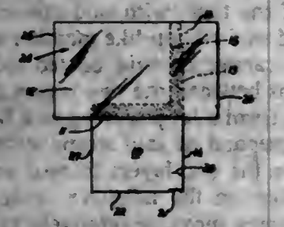
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2,773,636
PAPER OR LIKE CONTAINERS AND THEIR MANUFACTURE
Russell J. Williams, Richmond Heights, and Charles V. Brady, St. Louis, Mo., assignors to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri
Application August 11, 1952, Serial No. 303,772
5 Claims. (Cl. 229—55)



1. A flat gusseted bag adapted when opened to assume a carton-like form, said bag being formed from a generally rectangular blank having a relatively stiff intermediate band comprising a sheet of relatively stiff material such as cardboard and relatively flexible outer bands of material such as paper, said bands extending continuously from one side edge of the blank to the other, at least one of said outer bands being provided by a sheet of material such as paper which covers the outside of the intermediate band and which has a portion extending outward from one margin of the intermediate band and a portion doubled back upon said outwardly extending portion on the inside thereof, said doubled-back portion having its inner margin lapping and adhered to said one margin of the intermediate band, the blank being folded to have its said side edges overlapping, and said side edges being adhered together all along the overlap, including the overlapping portions of the side edges in the relatively stiff intermediate band and the overlapping portions of the side edges in the relatively flexible outer bands, thereby providing a tube having a relatively stiff intermediate section and relatively flexible end sections, the tube having scores extending continuously from one of its ends to the other establishing gusset sides and front and back walls, the tube being flat when the gusset sides are infolded, one end section being folded and pasted to provide a bottom closure adapted to lie flat with the flat tube and being sufficiently flexible to assume the form of a substantially flat bottom closure in a plane normal to the front and back walls when the gusset sides are angled out into substantially flat planes normal to the front and back walls, the other end section providing a flexible top for the tube which lies flat with the flat tube and which is sufficiently flexible to be closed and to assume the form of a substantially flat top closure when the sides are angled out into said flat planes and the container has been filled.

2,773,637
BACON TRAY
Reynolds Guyer, St. Paul, Minn., assignor to Waldorf Paper Products Company, St. Paul, Minn., a corporation of Minnesota
Application October 15, 1951, Serial No. 251,284
2 Claims. (Cl. 229—87)



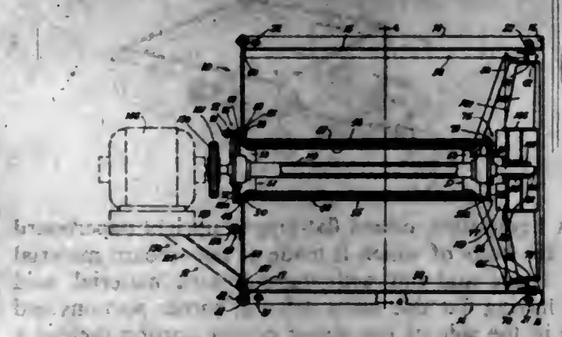
1. A package including a generally rectangular panel, a second panel integral with and foldably connected to the first panel along a fold line coextensive with an edge, said second panel being substantially within the confines of said first panel when folded thereon and including a panel portion extending along the said fold line and an integral narrow right angularly extending portion at one end of the first named panel portion and extending in substantial alignment with an edge of said first panel at right angles to said fold line, said two panel portions leaving the major portion of said first panel exposed when folded thereupon, and an integral flap foldably connected to the end of said second panel portion of said second panel designed to fold over the edge of the first panel parallel to said fold line and to underlie said first panel, an integral transparent liner sheet of rectangular form overlying and adhered to said second panel along both portions thereof, said liner sheet extending substantially beyond the side edges of said second panel, and extending over at least a portion of said flap, but being free of attachment therewith.

2,773,638
MAILING ARTICLE
Henry R. Krohn, Cleveland, Ohio
Application November 28, 1947, Serial No. 788,428
3 Claims. (Cl. 229—92)



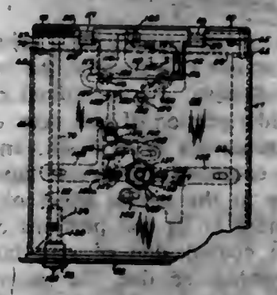
1. A two way mailing article comprising a single sheet of foldable stationery material including an inner section, a first outer section extending from one edge of the inner section and a second outer section extending from the opposite edge of the inner section, the first outer section bearing, on one side of said sheet, main address indicia of a sender of the mailing article and being foldable onto the inner section, the second outer section bearing, on the same side of said sheet as that mentioned above, main recipient's address indicia and being foldable toward the inner section to lie over the first outer section for exposing the recipient's main address indicia and concealing the sender's main address indicia, means to retain the parts folded as above described with the recipient's address exposed and the sender's address concealed for mailing the mailing article to a recipient, said second outer section having end cut-out sealing areas, and sealing means comprising an adhesive applied to the first outer section at its ends and adapted to have direct sealing connection with the inner section through said cut-out areas when the second outer section is folded onto the inner section and the first outer section is folded to lie over the second outer section for exposing the sender's main address indicia and concealing the recipient's main address indicia for mailing the mailing article to the sender, and sealing means comprising an adhesive extending along the free edge of the first outer section contiguous with the adhesive applied at the ends of said first outer section and adapted to have sealing connection with the second outer section adjacent the fold edge of the latter when the parts are folded as last mentioned to expose the sender's main address indicia.

2,773,639
DRAFT INDUCERS
Harry S. Wheller, Elizabeth, N. J., assignor to L. J. Wing Mfg. Co., Linden, N. J., a corporation of New Jersey
Application September 1, 1953, Serial No. 377,857
28 Claims. (Cl. 230—117)



1. A draft inducer comprising a casing, said casing comprising top, bottom and side panels, at least one of said panels having a flue gas inlet opening therein, means to detachably attach the adjacent corners of the panels to form a casing of rectangular cross section, a front wall, means to detachably attach said front wall to the front end of the casing, and insulating tube axially attached to the front wall and projecting therefrom into the casing, diagonal struts attached to the rear end of the insulating tube, parallel corner members attached at their rear ends to the struts and at their front ends to the front plate and constituting runners contacting the corners of the casing formed by said panels, a fan shroud fixed to the forward ends of said parallel members, spiders at the front and rear ends of said insulating tube, bearings supported by said spiders, a shaft passing through said insulating tube and bearings, and a fan at one end of said shaft and located within the fan shroud to remove flue gases through the rear end of the casing.

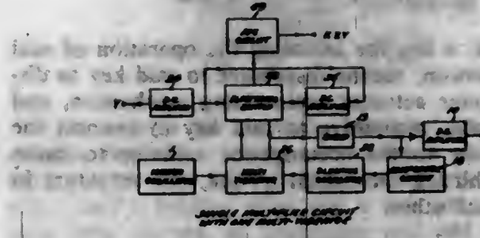
2,773,640
FARE BOX
Albert S. Wheelberger, Dayton, and Edward C. Warrick, West Liberty, Ohio, assignors to Rockwell Register Corporation, Bellefontaine, Ohio, a corporation of New York
Application April 18, 1952, Serial No. 283,084
18 Claims. (Cl. 232—16)



1. In combination, a walled safe having a first opening in one wall for the insertion of a drawer, and a second opening in a second wall; a totally enclosed drawer insertable into said safe through said first opening, and having a hinged top wall; a lock operable to hold said hinged top wall closed, and said hinged top wall having an opening in alignment with said second opening in the second wall of said safe when said drawer is fully inserted into said safe; a hinged trap door operable to close said opening in said drawer top wall; a latch in said drawer top wall operable to hold said trap door closed; said lock being operable to first release said trap door latch and then release said drawer top wall.

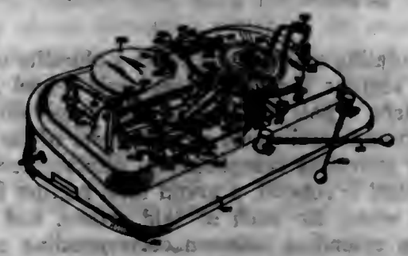


2,773,641
ELECTRONIC MULTIPLIER
Richard V. Beum, Akron, Ohio, assignor to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware
Application January 26, 1951, Serial No. 207,986
12 Claims. (Cl. 235—61)



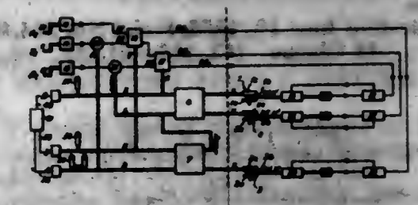
12. In an electronic multiplier for producing an output signal proportional to the product of two variable input signals, means for reversing the polarity of one of the input signals, averaging circuit means, switching means for alternately passing said one input signal and the output of the reversing means to the averaging circuit means, and timing means operatively connected with the switching means for reversing said switching means at intervals of time which are a function of the other of the input signals.

2,773,642
INTEGRATOR
John B. McGay and Harold E. Spore, Tulsa, Okla., assignors to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 17, 1953, Serial No. 349,488
34 Claims. (Cl. 235—61)



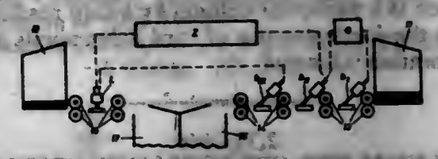
4. In a calculating machine for integrating a curve on a chart; supporting means for a chart to be integrated; means for driving said supporting means, means forming a plurality of sets of pen arm centers; a plurality of sets of pen arms constructed to be selectively mounted upon said sets of pen arm centers for tracing static pressure and differential pressure record traces on a chart on said supporting means; a plurality of differential pressure cams shaped in accordance with differential pressure ranges; a first adjustable cam follower selectively positionable to engage any one of the differential pressure cams of said set; a plurality of static pressure cams shaped in accordance with static pressure ranges; a second adjustable cam follower selectively positionable to engage any one of said static pressure cams; means operable to actuate said cam followers in accordance with the positions of any of said sets of pen arms and flexible tape drive means connecting all of said pen arm centers to position them concomitantly in accordance with the positions of said cam followers on said cams, and including resilient means operable to maintain tension in said tape.

2,773,643
DEVICES FOR FOLLOWING A MOVABLE OBJECT
Torbern Telling, Lidingo, Sweden, assignor to Arenco Aktiebolag, Stockholm, Sweden, a Swedish joint-stock company
Application September 29, 1951, Serial No. 248,130
Claims priority, application Sweden September 29, 1950
5 Claims. (Cl. 235—61.5)



1. In a device for tracking a movable target, in combination, a plurality of sighting means adapted to continually follow the target and indicate the polar coordinates of said target, automatically operative speed integrators, error correcting members for producing correcting quantities, primary and secondary coordinate transformers, and automatically adjustable devices, said speed integrators being operable by said error correcting members and adapted to integrate components of speed in a stationary right angled system of coordinates and connected to said secondary coordinate transformers for converting the integrated components into polar coordinate quantities which control said sighting means, manually controllable tracking means individual to each of said primary coordinate transformers and adjustable to positions which are calculated from said correcting quantities values that are proportional to the projections of said correcting quantities in said right angled system of coordinates and means for transferring said values to said automatically adjustable devices for producing said components of speed and supplying them to said speed integrators.

2,773,644
RECORD CARD CONTROLLED MACHINES HAVING GROUP CONTROL MECHANISM
Michael Mani, Schwabach, near Nurnberg, Germany
Application September 1, 1953, Serial No. 377,822
Claims priority, application Germany September 5, 1952
7 Claims. (Cl. 235—61.7)



5. In a record card controlled machine, means for feeding record cards along a feeding path, analyzing means on said feeding path for analyzing amount data fields of said record cards, accumulating means under the control of said amount data analyzing means, a group control mechanism including analyzing means in said feeding path and responsive upon a group change in the designation data of subsequent cards, recording means automatically set under the control of said accumulating means by said group control mechanism upon a group change for recording the setting of said accumulating means, further designation data analyzing means arranged in said feeding path behind said amount data and designation data analyzing means to control said

recording means, feed control means controlled by said group control mechanism for interrupting upon group change the card feed past said amount data and group control analyzing means and to feed the last card of the group to said further designation data analyzing means, and means for controlling the recording means by said further designation data analyzing means concurrently with the control of said recording means by said accumulating means.

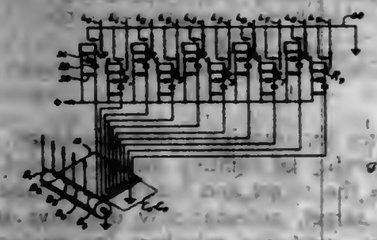
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2,773,645

## CARD CONTROLLED COMMUTATOR

Herman A. Spoh, East Williston, N. Y., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application June 10, 1955, Serial No. 514,460
13 Claims. (Cl. 235—61.11)



10. In a business machine adapted to utilize record cards, the combination of card reading brushes positioned to cooperate with columns of index points on record cards for sensing perforations in the record cards, card feeding means associated with said card reading brushes, a plurality of commutator brushes disposed in a sequential arrangement in the direction of card travel beyond said card reading brushes, the distance of each commutator brush from said card reading means being equal to the distance of respective rows of card index points from the forward edge of each individual record card, an electrical potential source against which said commutator brushes bear in the absence of a record card, said commutator brushes and said electrical potential source being adapted to have record cards fed between them so that said commutator brushes are insulated from said electrical potential source causing the potential on each of said commutator brushes to be changed, and a plurality of pulse generators each connected to and controlled by a respective commutator brush for generating a pulse in response to the change of potential caused on the respective commutator brush by the passage of the forward edge of each record card, whereby the particular pulse generator which generates a pulse simultaneously with the sensing of a perforation in a particular column by a card reading brush manifests the particular row of card index points in which said perforation is located.

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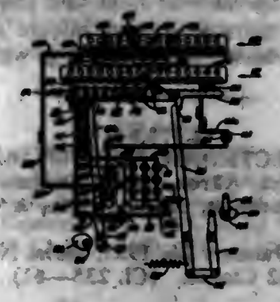
2,773,646

## MECHANISM FOR CONTROLLING ACCUMULATIONS AROUND A FIXED DECIMAL AND FOR ADJUSTING A COUNTER ACTUATOR IN SELECTED ORDINAL RELATION TO AN ACCUMULATOR ACTUATOR

Walter E. Medfil, Oakland, Calif., assignor to Marchant Calculators, Inc., a corporation of California

Application March 7, 1952, Serial No. 275,251
6 Claims. (Cl. 235—43)

3. In a calculating machine having, an accumulator register composed of a line of ordinal numeral wheels, a plural order actuator therefor mounted for ordinal shifting movement relative to said register, a counter register composed of a line of ordinal numeral wheels parallel to the line of accumulator numeral wheels, and a single order actuator mounted for ordinal shifting movement relative to the counter register; the combination of manually adjustable means for locating the counter actuator in any one of a plurality of ordinal positions in which it is operable to actuate a corresponding numeral wheel, and means to maintain the counter actuator in said located position, with shifting mechanism for causing ordinal step-by-step shifting movement of said plural



order actuator, a key for initiating the operation of said shifting mechanism, means responsive to said key to disable said counter actuator maintaining mechanism, and other means also responsive to said key to connect the counter actuator to the accumulator actuator to cause step-by-step shifting movement of the two actuators in unison with each other.

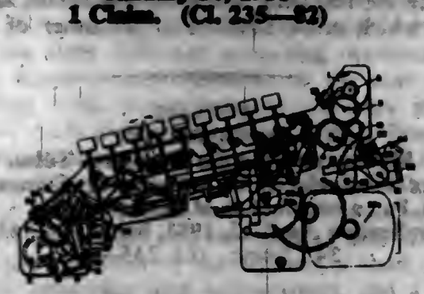
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2,773,647

## GRAND TOTAL ACCUMULATING MECHANISM

Christopher Frederick Webb, London, England, assignor to Bell Punch Company Limited, London, England, a British company

Application December 22, 1951, Serial No. 262,953
Claims priority, application Great Britain January 30, 1951
1 Claim. (Cl. 235—62)



In a calculating machine including a plurality of orders, a primary register including a numeral wheel for each of said orders, a pair of rotatable cams operatively connected to the numeral wheel of each order of the primary register for providing complemental displacements as the numeral wheel is rotated, a grand total register including a numeral wheel for each of said orders, and transfer mechanisms extending between corresponding orders of said primary and grand total registers, said transfer mechanisms each including a cam follower, means for selectively positioning said cam follower adjacent to one or the other of the cams of its order, said cam follower being normally out of engagement with its adjacent cam, means for bringing said cam follower into engagement with its adjacent cam thereby selectively displacing said follower directly for addition or complementally for subtraction relative to the position of the primary register numeral wheel depending upon which of the cams is engaged by the follower, and means responsive to the position of said follower for transferring to the grand total register numeral wheel a numeral relative to the numeral displayed by the primary register numeral wheel, the cam follower of the lowest order being provided with a stepped cam engaging surface to provide an extra digit during the process of subtraction.

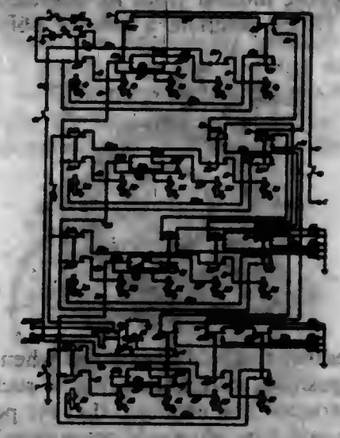


2,773,648

## BINARY-DECIMAL COUNTER

John B. Cannon, Jr., State College, Pa., assignor, by mesne assignments, to Research Corporation, New York, N. Y., a corporation of New York

Application April 5, 1952, Serial No. 280,795
23 Claims. (Cl. 235—92)



1. A counter for counting electrical impulses in an impulse receiving circuit, comprising a plurality of interconnected electrical relays including a pair of impulse relays and a holding relay and a pair of control relays, each relay having an energizing coil and at least one switch that occupies a released position when the coil is deenergized and an energized position when the coil is energized, a control circuit, the coil of the holding relay being initially connected in the control circuit through a switch of the first impulse relay in its released position and through a switch in series therewith of the second impulse relay in its energized position and thereafter remaining connected in the control circuit in holding circuit relation through its own switch in its energized position and through a switch in series therewith of the first impulse relay in its released position, the coil of the first control relay being connected in the control circuit through a switch of the second impulse relay in its released position and through a switch in series therewith of the holding relay in its energized position, the coil of the second control relay being connected in the control circuit through series connected switches of the first impulse relay and the first control relay in their released positions, the coil of the first impulse relay being connected in the impulse receiving circuit through a switch of the second control relay in its released position, and the coil of the second impulse relay being connected in the impulse receiving circuit through a switch of the first impulse relay in its released position, whereby the impulse relays will be energized alternately in cyclic sequence completing one cycle upon the occurrence of every alternate electrical impulse in the impulse receiving circuit.

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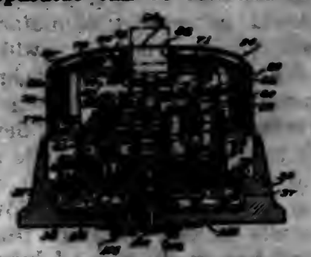
2,773,649

## CIRCUIT-CONTROLLING DEVICE

Adolph J. Hilgert, Milwaukee, Wis., assignor to Milwaukee Gas Specialty Company, Milwaukee, Wis., a corporation of Wisconsin

Application February 19, 1954, Serial No. 411,396
21 Claims. (Cl. 236—21)

2. In a condition controlling apparatus having electromagnetic control means and electrical circuit means therefor: A cycling condition responsive circuit-controlling device in said circuit means for controlling said electromagnetic control means and hence said apparatus in response to fluctuations in the condition; a resettable condition responsive circuit-controlling device in said circuit means for overcalling said cycling circuit-controlling device and taking over the control of said apparatus in response to a predetermined condition, said resettable circuit-controlling device requiring resetting before control of said apparatus can be returned to said cycling



circuit-controlling device; and common condition sensing means for both of said circuit-controlling devices.

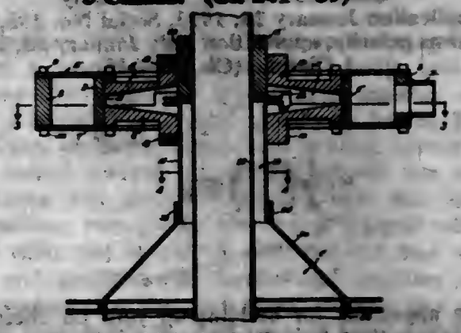
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2,773,650

## METHOD AND APPARATUS FOR PROCESSING AND COLLECTING FINELY DIVIDED MATERIAL

William T. Doyle, Boston, Mass., assignor to Sturtevant Mill Company, Dorchester, Mass., a corporation of Massachusetts

Application June 3, 1953, Serial No. 359,363
5 Claims. (Cl. 241—39)



1. A grinding machine including enclosure means for receiving a confined stream of fluid material, means for feeding particles into the enclosure means, a device for selectively separating and discharging particles from the chamber, said device including a tubular member axially disposed in the enclosure means, and a conduit element arranged concentrically with respect to the tubular member to define an annular duct, said device further including two radially disposed flanges supported around the said tubular member and adjustable toward and away from one another to control the size of particles passing through said annular duct.

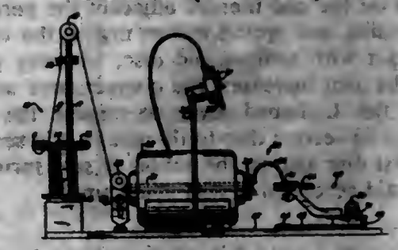
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2,773,651

## COIL WINDING APPARATUS

Richard R. Whipple, Haverhill, Mass., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 13, 1952, Serial No. 320,191
1 Claim. (Cl. 242—4)



An apparatus for winding turns of a strand on an arcuate segment of a toroidal core comprising means mounted for movement about an axis, an arm secured to said means and extending above said means and substantially toward the axis, clamping means on said arm for receiving and removably gripping one end of an arcuate segment of a toroidal core and for holding the arcuate core segment with its center of curvature in alignment with

the axis while successive cross-sectional portions of the segment are moved into a winding position to receive turns of the strand, an energizable motor having a hollow shaft, means to support the motor with the axis of its hollow shaft disposed in a plane at right angles to the axis of said movable means and in alignment with the center of each cross-sectional portion of the segment when in the winding position, means to guide a strand to an entrance end of the hollow motor shaft, a semi-circular flyer secured to the exit end of the hollow motor shaft, positioned laterally in one direction from the hollow motor shaft, and having an external groove therein for receiving the strand from the hollow motor shaft and discharging it in the plane of each cross-sectional portion of the core segment when in the winding position, and an adjustable weight carried by the exit end of the hollow motor shaft and positioned substantially diametrically opposite the flyer to counterbalance it.

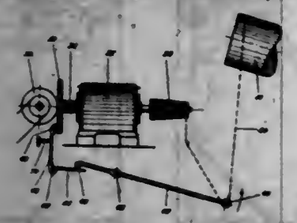
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2,773,652

## APPARATUS FOR THE PRODUCTION OF YARN CHEESES

Goffredo Severini, Milan, Italy

Application January 26, 1953, Serial No. 333,166
Claims priority, application Italy January 25, 1952
1 Claim. (Cl. 242—45)



In an apparatus for building-up yarn on cheeses carried by a spindle driven from a source of power, the yarn being delivered at a constant speed and the spindle being driven at a speed greater than the speed of delivery of the yarn, the combination of a drive connecting the source of power and the cheese spindle, said drive comprising a first disc rotated by the source of power adjacent the end of the spindle opposite the cheese, a second disc slidably mounted on said end of the spindle perpendicular to said first disc, spring means urging the surface of said second disc into engagement with the periphery of the first disc to form a friction drive connection between the discs, compensator means between the delivery of the yarn and the cheese, said means comprising an arm pivoted to the apparatus, a roller on the end thereof over which the yarn passes to the cheese, and means contacted by the compensator means to disconnect the drive and brake the spindle, said means comprising an L-shaped lever pivoted at the elbow thereof to the apparatus, one arm of which is in contact with the free end of said compensator arm, the other arm of which has slippage means on the end thereof adjacent the periphery of said second disc, and spring means urging the other arm out of contact with said second disc, whereby when the tension in the arm increases, the compensator arm pivots and pivots the L-shaped lever to engage the slippage means with said second disc to disengage said second disc from said first disc against the action of said spring means and brake said second disc and said spindle.

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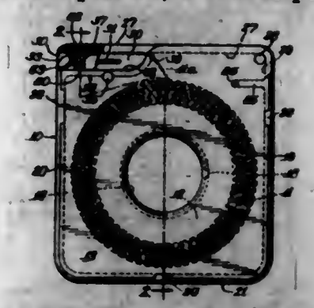
2,773,653

## TAPE DISPENSER

George W. Emmert, Winnetka, Ill., assignor, by mesne assignments, to Federal Tool Corporation, Chicago, Ill., a corporation of Illinois

Application May 5, 1953, Serial No. 353,170
12 Claims. (Cl. 242—55.5)

1. A tape dispenser comprising, a casing for enclosing a roll of tape, means within said casing for rotatably supporting said roll, said casing having a slot thereon and an opening through which said tape may be withdrawn in a path over said slot, a cover member on said casing movable between open and closed positions and having a predetermined intermediate position adjacent said closed position, means requiring said cover member to be moved in quick snapping motion from its intermediate position into its said closed position, a row of pointed teeth on



said cover member received by said slot when said cover is in its closed position, said teeth being of such length and being so constructed and arranged that the points thereon will perforate said tape when said cover member is moved in said snapping motion from its intermediate position into said closed position, and means including diagonally disposed cutting surfaces on the lateral edges of said teeth for severing said tape between the perforations therein during said snapping motion.

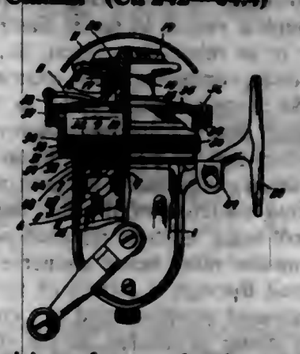
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2,773,654

## SPINNING TYPE FISHING REEL

Franz Karl Hübner, Malmo, Sweden, assignor to Victory Produkter Aktiebolag, Malmo, Sweden, a corporation of Sweden

Application September 20, 1955, Serial No. 535,325
Claims priority, application Sweden September 21, 1954
8 Claims. (Cl. 242—84.4)



1. A reel comprising a frame, a head rotatably mounted on said frame, line pick-up means supported by said head and rockable through substantially 180° between closed and open positions, an axially reciprocating spool coaxial with said head, ring means surrounding said head and rotatable in relation thereto, gearing means connecting said ring means with said pick-up means, manual means for rotating said ring in a direction to shift said pick-up means from closed to open position through said gearing means, means for holding said pick-up means in the open position against a resetting force, said holding means being releasable by the rotation of the head, and means for imparting rotation to said head and reciprocating movement to said spool simultaneously.

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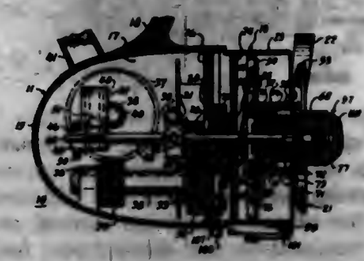
2,773,655

## FISHING REEL

Henry I. Mandolf, San Diego, Calif., assignor to Langley Corporation, San Diego, Calif., a corporation of California

Application October 31, 1952, Serial No. 317,981
2 Claims. (Cl. 242—84.4)

1. A fishing reel comprising a housing, a shaft reciprocally supported by said housing, a spool mounted on said shaft, a drive shaft journalled on said housing, a cowl carried by said drive shaft, a crank having an operative connection with both said reciprocating shaft and with said drive shaft for simultaneously reciprocating said spool and rotating said cowl, a line guide having a substantially semi-circular body portion, said body portion having a pivotal connection at each of its ends to said cowl whereby said line guide is movable relative to said cowl between a line-casting position and a position wherein it guides a fishing line for winding upon said spool on rotative movement of said cowl in a first direction, means for stopping said cowl at a predetermined location relative to said housing when said cowl



is rotated in reverse direction preparatory to a line-casting operation, and simultaneously limiting the extent of reverse rotation of said crank, said last mentioned means comprising a fixed stop on said cowl and a movable pawl on said housing, spring means normally maintaining said pawl in position for engagement with said fixed member to stop said cowl only on movement of said cowl in said reverse direction, a second fixed stop on said cowl, and manually actuatable means positioned on said housing adapted to be operated when said cowl has been stopped in said predetermined position to engage said second fixed stop to lock said cowl in such position to prevent rotative movement thereof in line-winding direction.

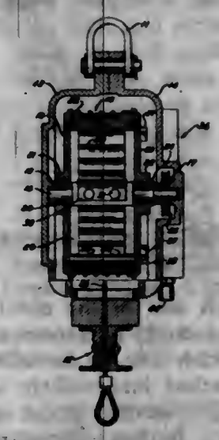
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2,773,656

## SAFETY AND ADJUSTING DEVICE FOR CORD REEL

Rodger F. Becker, Kalamazoo, Mich.

Application June 17, 1955, Serial No. 516,268
4 Claims. (Cl. 242—107)



1. In a cord winding device, the combination comprising: a housing; a winding reel in said housing, said reel having spaced, circumferentially arranged reel rotation preventing means formed thereon; a shaft supporting said reel, said reel being capable of rotation relative to said shaft; spring means acting on said reel and urging said reel to rotate in a direction which will cause winding of the cord thereabout, one end of said spring means being fixedly mounted on said shaft, the other end of said spring being mounted for rotation relative to said shaft with said reel; a first gear means mounted on said shaft; a rotatably mounted rod; means urging said rod to move in one direction; a second gear means mounted on said rod and meshing with said first gear means; detent means projecting from said rod and adapted to engage said reel rotation preventing means when said spring is broken to prevent said reel from rotating; and means mounted on said rod capable of being rotated whereby rotation of said rod causes rotation of said second gear means which in turn causes rotation of said first gear means and said shaft to change the force exerted by said spring on said reel.

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2,773,657

## PLASTIC JACKETED SPOOL

Louis H. Morin, Bronx, N. Y., assignor to Coats & Clark Inc., a corporation of Delaware

Application February 28, 1951, Serial No. 213,122
9 Claims. (Cl. 242—119)



2. A hollow, light weight thread spool comprising a body and a plastic shell around said body, said body comprising two transverse halves held together in the form of a spool by said shell, said body having flanged end portions, each said flanged end portion having a flat annular lateral surface, an annular plastic rim around each flanged end portion including said flat annular lateral surface, said plastic rim being integral with the adjacent shell and extending onto the end face of the flanged end portion, said flanged end portions having alined openings in the end faces thereof, the plastic shell and rims being die cast on said body and flanged end portions, said plastic rim being nickable to provide a thread-holding nick at a portion thereof covering said flat annular lateral surface, said nick being resistant to being broken away, and each said end face being adapted to receive and support a circular ticket label of a smaller diameter than the end face so as to expose a peripheral portion of the plastic rim.

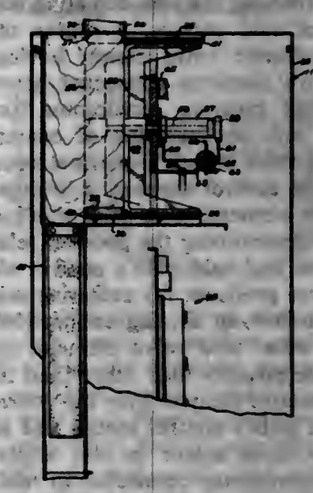
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2,773,658

## TRANSFER DEVICE FOR CONVEYOR SYSTEM

Wilbur M. Van Otteren and William J. Hafner, Detroit, Mich., assignors to The Grover Company, Detroit, Mich., a corporation of Michigan

Application August 26, 1954, Serial No. 452,242
27 Claims. (Cl. 243—1)

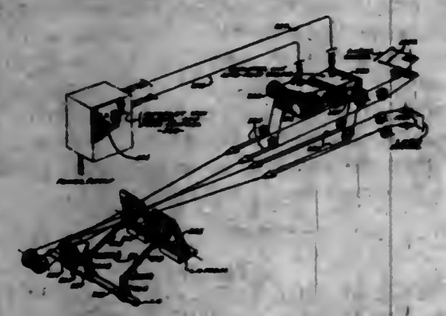


1. In a pneumatic conveyor system, a plurality of conveyor tubes, a transfer device having inlet tubes into

which said conveyor tubes connect, a common outlet tube, mechanical means in the transfer device operable to transfer carriers entering the same from said plurality of tubes into said common outlet tube, an electrical circuit associated with each inlet tube, an actuating switch in each inlet tube operable by a carrier therein to energize its circuit, a solenoid in each circuit operable when energized to cause actuation of the mechanical means to transfer a carrier from one inlet tube to the common outlet tube, a first relay coil in each circuit operable to open a first control switch in each of the other circuits so that when one circuit is energized the other circuits are opened, a second control switch in series with each first control switch, a second relay coil in each circuit operable responsively to the closing of its respective actuating switch to open a second control switch in another circuit, a shunt across said second control switch in each circuit, a switch in each shunt operable to close when its respective circuit is energized, whereby an energized circuit remains closed when said second control switch therein is opened, and another switch in each circuit operable to open its respective circuit after actuation of the mechanical means, whereby to de-energize said first relay therein for closing said first control switches and thereby prepare a circuit to be energized by its actuating switch.

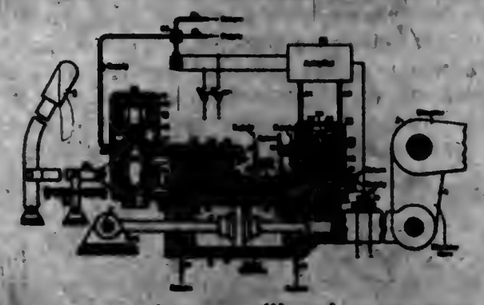
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**2,773,659**
**FULL POWERED HUMAN PILOT-AUTOPILOT AIRPLANE CONTROL SYSTEM**
Thomas A. Feeney, Sherman Oaks, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application April 19, 1952, Serial No. 283,208
7 Claims. (Cl. 244—76)



1. In an aircraft having a movable attitude control surface, a fluid pressure servomotor of relatively high power connected to move said surface, said fluid pressure servomotor forming the sole actuating mechanism for the movement of said surface, a source of fluid pressure, balanced hydraulic valve means having two relatively movable valve elements connected between said source and said fluid pressure servomotor for actuating said servomotor with no feedback of control surface loads through said valve means in normal operation, a human pilot's attitude control element, a linkage connecting one of said valve elements with said pilot's control element, said linkage determining the position relation of said one valve element and said pilot's control element and containing a force producer for centering said pilot's control element, a follow-up driving connection from said surface to the other said valve element, said valve means being the sole possible load other than linkage forces on said pilot's control element over the entire range of movement of said pilot's control means and said linked valve means, an attitude sensor in said airplane, a relatively low power servomotor connected to said sensor and actuated in accordance with the output of said sensor, said low power servomotor being attached to said linkage for operation thereof.

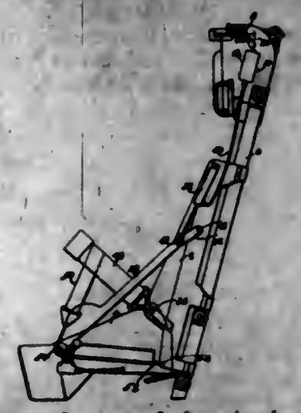
**2,773,660**
**FAIL SAFE POWER BOOST SYSTEM**
Arne P. Rasmussen, Glen Burnie, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 20, 1953, Serial No. 375,546
21 Claims. (Cl. 244—85)



13. In a system for controlling the maneuver control means of an aircraft, the combination of, motor means having a moving part connected with said maneuver control means for effecting operation thereof, movable control means mounted on said moving part for controlling the flow of a power medium to said motor means, auxiliary motor means on said moving part and connected with said movable control means to effect operation thereof, an automatic pilot connected with said auxiliary motor means for controlling the flow of a power medium thereto, a link resiliently connected to said moving part of said motor means, a flight controller, and a decoupling linkage selectively connecting said movable control means and said link to said flight controller.

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**2,773,661**
**AIRCRAFT EJECTION SEAT**
George G. Hudson, Torrington, Conn., assignor, by mesne assignments, to Reconstruction Finance Corporation, Washington, D. C.
Application August 1, 1955, Serial No. 525,467
8 Claims. (Cl. 244—122)

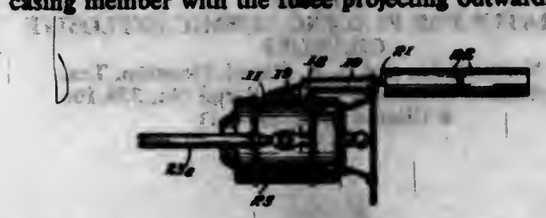


6. In an aircraft seat of the ejection type, the combination of a seat back; a pivoted seat bottom; a lap strap secured at each side of the seat to the seat back; a thigh strap attached intermediate its ends to the lap strap; an idler pulley secured to the seat bottom at each side thereof; and a flexible connector attached to each end of the thigh strap, said connectors passing about said idlers and being secured to the seat back, whereby upward pivoting of the seat bottom will tighten the thigh strap about the thighs of the seat occupant.

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**2,773,662**
**FUSEE OR FLARE HOLDER**
Archie D. Ross, Laramie, Wyo.
Application January 15, 1953, Serial No. 331,339
4 Claims. (Cl. 246—488)

1. A lantern and fusee holder comprising a portable lantern having a housing and a carrying handle to facilitate transporting and manipulation of said lantern and a fusee for signalling while supported thereon, a base secured to said housing and having an open-ended casing member directed outwardly away from said housing and from said handle to receive the end of a fusee placed within said casing member, releasable gripping means carried by said casing member and engageable with the end of the fusee to retain same within said casing member with the fusee projecting outwardly away



from and beyond said housing and also away from said handle so that the lantern and fusee during burning for signalling purposes may be manipulated by grasping the handle without the operator being burned by the fusee flame, and actuating means operatively connected with said releasable gripping means to enable rapid release of said gripping means from engagement with the fusee and thereby free the fusee after use without necessitating direct manual contact with the spent fusee.

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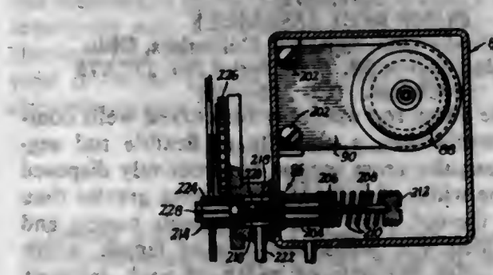
**2,773,663**
**COMBINED HOLDER AND CARRYING CASE FOR AN ELECTRICAL APPLIANCE**
George L. Beers, Haddonfield, N. J.
Application May 6, 1953, Serial No. 353,378
10 Claims. (Cl. 248—314)



1. A combined holder and carrying case for an electric appliance comprising a receptacle having a hollow interior, means associated with said receptacle operative to actuate a control switch on said appliance to the "off" position from its "on" position when said appliance is inserted in said case, and means to actuate said control switch to the "on" position when said device is removed from said case.

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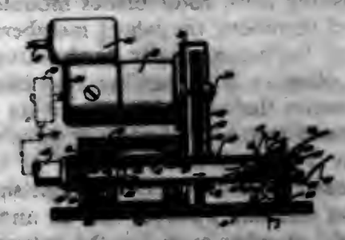
**2,773,664**
**RESTRICTOR VALVE**
Heel L. Bowditch, Foxboro, Mass., assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts
Application February 18, 1954, Serial No. 411,168
1 Claim. (Cl. 251—276)



A valve for adjustably restricting the flow of an elastic fluid comprising, in combination, a valve body having a relatively long uniformly tapered passage formed therein, a uniformly tapered valve pin having substantially the same angle of taper as said passage and extending through said passage, a valve-pin-guide cap spaced from said valve body and having a central recess therein in which the larger end of said pin is positioned, a coil spring co-axially surrounding said pin and interconnecting said cap and said valve body adjacent to said passage, said spring being in tension to urge said pin in a direction to cause the pin to completely close said passage, and an adjusting member threaded into said valve body and positioned to engage said valve pin to move it against the tension of said spring to open said valve, said adjusting member having an axial bore formed therein within which the smaller end of said valve pin is positioned said adjustable member, said cap and said spring cooperating to maintain said valve pin co-axial with said passage and spaced from the wall of said passage except when said valve is fully closed.

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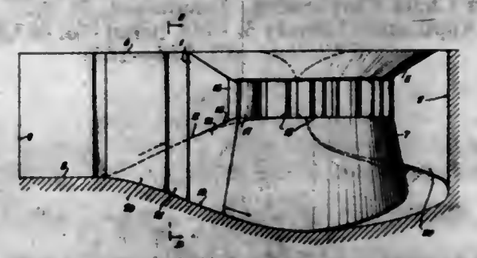
**2,773,665**
**HIGH SPEED OSCILLATING DEVICE**
Nelardus N. Berger and James P. Norton, Los Angeles, Calif., assignors to Hughes Aircraft Company, a corporation of Delaware
Application February 18, 1955, Serial No. 489,402
5 Claims. (Cl. 253—1)



1. In a device for producing oscillatory movement: a member mounted for oscillation about an axis; means positioned adjacent said member for limiting oscillatory movement of said member; a rotatable structure; a nozzle carried by said structure, said nozzle being positioned adjacent to and directed toward said member at a position spaced from the axis of oscillation thereof; passage means forming a portion of said rotatable structure for directing fluid under pressure from a source through said nozzle; and means for rotating said rotatable structure.

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**2,773,666**
**SEMI-SPIRAL SCROLL CASE**
Gilbert Martin, Saint-Pierre d'Allevard, France, assignor to Etablissements Neyrpic, Grenoble, France, a corporation of France
Application June 10, 1953, Serial No. 360,691
Claims priority, application France August 28, 1952
9 Claims. (Cl. 253—26)

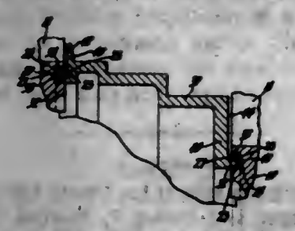


1. An improved semi-spiral scroll case comprising a frontal fluid conduit having a bottom surface that increases in width and slopes upwardly downstream along its longitudinal axis, said frontal conduit carrying about one third of the total fluid flow through said scroll case, and a separate spiral fluid conduit carrying the remaining fluid flow through said scroll case and having an upstream portion adjacent said frontal conduit and a downstream portion extending therebeyond, said upstream portion having a bottom surface that slopes down-

wardly downstream along its longitudinal axis, said downstream portion having a bottom surface that slopes upwardly downstream along its longitudinal axis.

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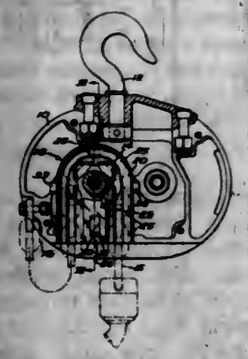
2,773,667
**TURBINE ROTOR SEALING RING**
John R. Wheatley, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 8, 1950, Serial No. 143,623
2 Claims. (Cl. 253—39)



1. A turbine rotor or the like subject to substantial thermal expansion in operation comprising, in combination, two adjacent coaxial rotatably mounted rotor wheel members having rims, rotor blades mounted on the rims of the wheel members, the wheel members including the rims thereof having mutually confronting faces spaced from each other, a rotor sealing ring member disposed entirely between the said wheel members at the rims of the wheel members, and oppositely directed connections between the ring member and each of the said wheel members, each said connection comprising an annular extension on one said member and an annular groove in the other said member receiving the extension, the extension entering the groove in the direction axially of the wheels; the edges of the ring member and the faces of the wheel members defining radially extending shoulders at the said connections, said radially extending shoulders being axially spaced with sufficient clearance to accommodate axial expansion of the wheel and ring members in operation; and the axially extending walls of the grooves being spaced apart by a radial distance greater than the radial thickness of the extensions to accommodate differential radial expansion of the wheel members and ring members in operation, said radial distance being such that the extensions seat against one axially extending wall of the grooves in operation and against the other axially extending wall when the rotor is cold.

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2,773,668
**HOIST CHAIN GUIDE AND STRIPPER**
Erford E. Robins, North Tonawanda, and Humphrey F. Parker, Buffalo, N. Y., assignors to Columbus McKinnon Chain Corporation, Tonawanda, N. Y.
Application January 5, 1954, Serial No. 402,387
6 Claims. (Cl. 254—167)



6. In a chain hoist, a two piece split assembly frame comprising two frame parts each having bosses extending therefrom, a load lift wheel, and a chain guide device comprising a pair of matched members assembled in opposed united relation between said frame parts, the bottom central face portions of said members being apertured to accommodate said bosses and said assembled members engaging upon said frame bosses for positionally locking said guide devices in said hoist.

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2,773,669
**APPARATUS FOR PLACING SEISMIC EXPLOSIVE CHARGES**
Joe Norman, Jr., and A. B. Hamill, Houston, Tex.
Application October 29, 1953, Serial No. 389,106
6 Claims. (Cl. 255—1)



1. Apparatus for placing an explosive charge beneath the earth's surface comprising a drill pipe, a drill bit, said drill bit having an explosive charge connected thereto, a quantity of ignition cable disposed adjacent the lower end of the drill bit, means connecting one end of the cable to the lower end of the drill pipe, means connecting the other end of the cable to the explosive charge, housing means enclosing said cable and said explosive charge, and releasable means connecting said drill pipe to said drill bit.

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2,773,670
**DRILLING FLUID COMPOSITION AND METHOD**
George Miller, Arcadia, Calif., assignor to Oil Base, Inc., Compton, Calif., a corporation of California
No Drawing. Application June 9, 1952, Serial No. 292,579
10 Claims. (Cl. 255—1.8)

1. A drilling fluid composition comprising an oil base drilling fluid having added thereto discrete particles of asphalt having a penetration at 25° C. of from 0 to about 3 and a melting point of from about 250° F. to about 320° F., said asphalt particles being slowly soluble in hydrocarbons and adapted to be bonded together to form a mudsheath when exposed to the temperature and pressure conditions existing in a well hole.

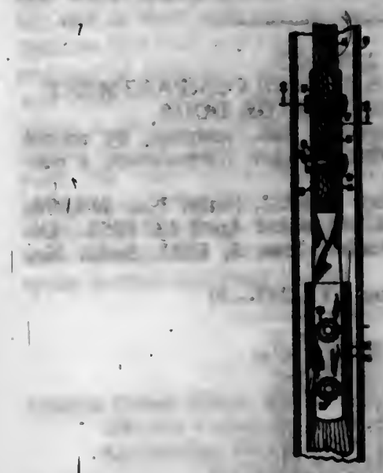
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2,773,671
**PUMP ROD ASSEMBLY**
Charles Isaac Leibensperger, Columbus, Ohio
Application March 20, 1952, Serial No. 277,675
4 Claims. (Cl. 255—28)

1. A flexible pump rod assembly for curved wells comprising, in combination, a plurality of flexible rod segments of rectangular cross section consecutively disposed end to end, the width of each segment being greater than the thickness thereof, each of said segments having end portions provided with holes, and axes of length, width and thickness with the axis of width of each segment being disposed at substantially ninety degrees to the axis of width of the next adjoining segment, and a coupling comprising a pair of metal straps each of which has a twisted center portion connecting plane end portions



which are disposed substantially ninety degrees to each other, with one plane end portion of each strap being lap joined to the end of a segment along the face of such segment corresponding to the axis of width and with the other plane end portion of said strap being lap joined to the end of the next succeeding segment along the face



of such segment corresponding to the axis of width, with holes in each of said plane end portions located to register with said holes in the adjoining segment end, and fastening means passing through the holes in said straps and said segment ends for securing same in lap joined relation.

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2,773,672
**DRILLING BIT**
Ellis C. Holmes, Levy, and William D. Greene, Little Rock, Ark.
Application September 17, 1952, Serial No. 310,036
4 Claims. (Cl. 255—61)



1. A drill bit comprising a rotary supporting shaft provided with a vertical slot opening on its lower surface and also at one side surface, a cutter blade secured in said slot and laterally projecting from the slot and also projecting below the extreme lower end of said shaft and there having a cutting edge, said shaft having a shallow slot extending transversely therethrough from the opposite side of the shaft with respect to that upon which the vertical slot opens, said slots at the central portion of said shaft being in intersecting communication, and a shallow guide disc mounted in the second mentioned slot having an interconnection with said blade at the location where said slots intersect, said disc having a portion thereof projecting beyond the outer surface of said shaft which is elongated circumferentially of said shaft.

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2,773,673
**PILOT BIT**
Gerald Alger Monroe Peterson, Santa Clara, Calif.
Application March 4, 1954, Serial No. 414,007
11 Claims. (Cl. 255—61)

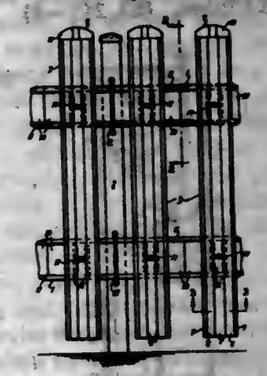
9. A pilot bit adapted for connection to a drill shaft for turning movement in a predetermined direction about an axis, comprising a cone-shaped body having a base of a mean diameter comparable to the diameter of said drill shaft for aligned connection therewith, a fish tail leader on the apex end of said cone-shaped body including a pair of chisel-like fins each having a cutting edge within the orbit of said mean diameter and disposed perpendicular to the axis of said cone-shaped body and beyond the apex end thereof, each said cutting edge being disposed at right



angles to a line bisecting said fish tail leader and in advance of an imaginary line traversing said line bisecting said fish tail leader at the axis of rotation of said pilot bit whereby the inner corners of said chisel-like fins engage earth in advance of the remainder of the same and exert a strain crosswise said fin.

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2,773,674
**PICKET FENCE**
Allen Fischer and Karl A. Bamrill, Jr., St. Louis County, Mo.
Application November 29, 1954, Serial No. 471,827
8 Claims. (Cl. 256—22)



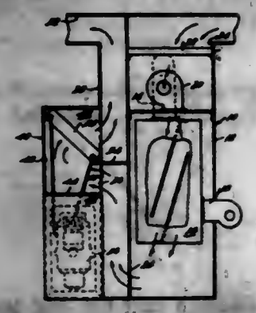
1. A picket fence, comprising a strip of sheet metal formed to provide a picket having a central bead extending therealong and inturned side edge portions, a horizontally extending shoe secured to said picket at said bead with its upper and lower edge portions engaging the side edge portions of said picket, and a supporting rail having in-turned flanges, said picket being attachable to said rail by inserting said flanges between said edge portions of said picket and said shoe whereby said flanges are gripped by spring pressure of said edge portions.

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2,773,675
**AIR CONDITIONER**
Paul W. Wyckoff, Dayton, Ohio, assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application August 22, 1952, Serial No. 305,859
12 Claims. (Cl. 257—9)

1. An air conditioning unit comprising a furnace having a vertically extending casing and a discharge duct mounted adjacent said furnace casing in parallel vertical relation thereto, said furnace casing and said discharge duct being provided with a fluid flow connection adjacent their respective base portions to define a generally U-shaped air path extending downwardly through said furnace casing and upwardly through said discharge duct, air propelling means within the upper portion of said casing adapted to cause air to travel said air path, apparatus for heating air within the lower portion of said

casing, said discharge duct being provided with a first opening in a side wall thereof, and a cooling device including a compressor, a condenser, a housing defining an evaporator compartment having a second opening in a side thereof and an evaporator located in said compartment, said cooling unit being mounted with said first and



second openings in fluid flow communication, and a baffle in said duct between the upper and lower extremities of said openings adapted to cooperate with said openings to direct air travelling upwardly in said duct into said evaporator compartment over said evaporator and back to said duct downstream of said baffle.

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2,773,676
SELF-CONTAINED HEATING, COOLING, AND VENTILATING SYSTEM
John R. Boyle and John R. Boyle, Jr., Chicago, Ill.
Application January 26, 1955, Serial No. 484,172
3 Claims. (Cl. 257—9)



1. In a self-contained unit for heating or cooling the air of an enclosure, the combination of a relatively tall narrow housing, a return air compartment in the lower portion of said housing receiving return air from said enclosure, a front air passageway extending upwardly in the front of said housing from said return air compartment, an oil heater in said front air passageway having a combustion chamber, an access opening in the front wall of said housing for affording access to said oil heater, a refrigerant evaporator in said front air passageway at a point above said oil heater, air impelling means receiving air from said front air passageway at a point above said refrigerant evaporator and discharging it from said unit into the enclosure, a rear air passageway in said housing in rear of said front air passageway, a fresh air duct supplying fresh air to said rear air passageway, a motor driven refrigerant compressor in said rear air passageway, a condenser in said rear air passageway receiving the refrigerant from said compressor for condensing it prior to its passage to said evaporator, an exhaust duct exhausting said rear air passageway to atmosphere, a combustion air supply duct drawing air from said rear air passageway at a point below said condenser for supplying combustion air to the combustion chamber of said oil heater, and a products of combustion duct leading from said combustion chamber to said rear air passageway at a point above said condenser, whereby the combustion air supply and the products of combustion are drawn from and returned to said rear air passageway in a shunt path around said condenser.

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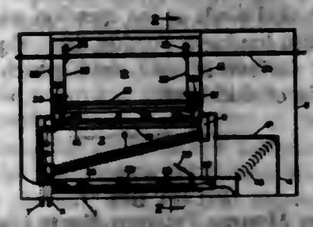
2,773,677
INNER LINER WITH BUTTER COMPARTMENT FOR REFRIGERATOR DOOR
Lester H. Hinkel, Evansville, Ind., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, a corporation of Delaware
Original application May 3, 1952, Serial No. 285,878, now Patent No. 2,706,140, dated April 12, 1955. Divided and this application June 5, 1953, Serial No. 359,845
3 Claims. (Cl. 257—9)



1. In a refrigerator door structure, an inner liner formed of a thermally non-conductive material and having a butter compartment integrally formed therein, said compartment having a groove integrally formed in the rear and side walls thereof, a thermally conductive plate slidably received within said groove and adapted to support a quantity of butter thereon, a heating element secured in heat exchange relation to said plate and disposed within said compartment, manual means for controlling the operation of said heating element, said plate being provided with a front portion which extends below the bottom wall of said compartment, hinge butts provided on said front portion, a compartment door formed of a thermally non-conductive material and pivotally secured to said hinge butts, said front portion being provided with a cut-out portion adjacent the lower edge thereof, said manual means being secured to said plate and positioned between the bottom wall of said compartment and said plate adjacent said cut-out portion, and detachable means for securing the front portion of said plate to said inner liner.

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2,773,678
AIR CONDITIONING APPARATUS
Lance L. Shannon, Detroit, Mich., assignor to American Blower Corporation, Dearborn, Mich., a corporation of Delaware
Application December 26, 1951, Serial No. 263,258
3 Claims. (Cl. 257—137)

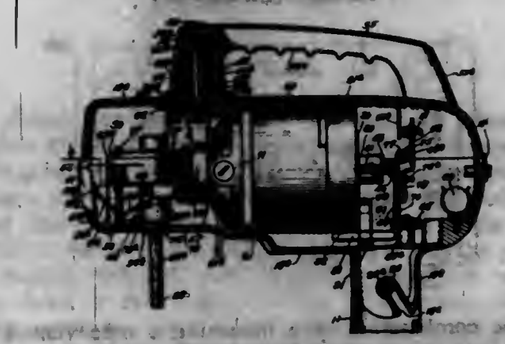


1. In an air conditioning apparatus for exchanging heat with a space, an outer casing, conduits for conducting a heat exchange fluid therethrough, an inner casing enclosing said conduits, a conduit for conducting air from an external source to said inner casing, one or more apertures in said outer casing operable to permit some of the air from said space to enter said outer casing, said inner casing having a discharge opening positioned beyond said heat exchange conduits and operable to discharge said conducted air after passing over said heat exchange conduits, one or more apertures in said outer casing operable to discharge said conducted air, one or more openings in the wall of said inner casing opening into said outer casing, a damper for each of said last-named openings and operable to close said openings, said dampers being urged toward a normally open position, a member responsive to the velocity of said conducted air and operatively connected to said dampers to close the same when said air is flowing, and said responsive member being operable to permit said dampers to open in the event of cessation of air flow through said inner casing thus permitting some of the air from said space to enter said inner casing.



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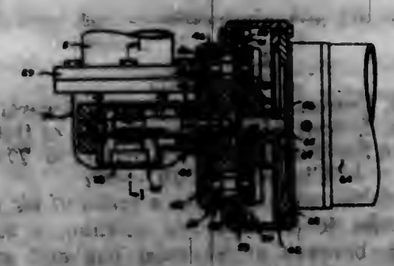
2,773,679
MIXER
Marion Frank Miller, Villa Park, Ill., assignor to Birtman Electric Company, a corporation of Illinois
Application May 3, 1954, Serial No. 427,240
4 Claims. (Cl. 259—1)



1. In an electric mixer including a removable rotatable beater and an outer casing including a front opening, a beater ejector, comprising: a support member on the mixer within the casing; an ejector plate rockably mounted within the casing having one end adapted to engage a portion of the beater and move the beater away from the mixer on rocking movement of the plate and the other end extending toward said opening; an operating member oscillatably mounted in the opening for movement toward the interior of the casing and bearing against said other end of the ejector plate for thusly rocking said plate upon said movement of the operating member; and spring means urging said plate and operating member into their normally retracted positions.

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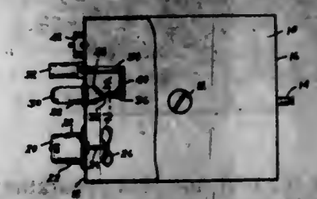
2,773,680
AGITATORS
Igor V. Zozulin, Vancouver, British Columbia, Canada, assignor to Torsaq Transmissions Limited, Vancouver, British Columbia, Canada
Application March 28, 1955, Serial No. 497,080
3 Claims. (Cl. 259—108)



1. In a fluid agitating device including a vertical shaft operatively connected to an impeller and adapted for upward extension through the base of a tank, said shaft being operatively connected through a horizontal shaft to a magnetic coupling having a pair of opposed rotors separated by a diaphragm from a driven shaft fitted to one of said rotors, said horizontal shaft and part of the driven shaft being in a housing sealed at one end by the diaphragm and sealed adjacent the vertical shaft by an air lock subject to pressure developed by static fluid in the tank and an annular thrust ring carried by the driven shaft and applied to a face of the diaphragm for supporting the diaphragm against the pressure developed within the housing, a spring surrounding the driven shaft, said spring bearing against a housing part and urging the annular thrust ring against the diaphragm and exerting a thrust on one of said rotors towards said diaphragm.

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2,773,681
PORTABLE SODA FOUNTAIN
Harold R. Robbins, Des Moines, Iowa
Application April 29, 1954, Serial No. 426,404
5 Claims. (Cl. 261—93)



1. Apparatus for carbonating water, comprising, a container for water having an inlet and valve controlled outlet for the water, an agitator means mounted on said container so as to extend into the interior thereof, an electric circuit designed for connection to a source of electric power, an electric motor connected to said electric circuit for driving said agitator means, a cartridge containing carbon dioxide gas, said cartridge being of the type requiring puncturing at one end to release the gas therefrom, said container provided with an opening into which said cartridge can be manually partially inserted so that the puncturable end thereof extends into said container, an electrically operated punch means mounted on said container for puncturing said cartridge and connected to said electric circuit in series with said electric motor, and a manually operated switch means in said electric circuit whereby operation of said punch means and said electric motor can be placed into or out of operation simultaneously.

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2,773,682
BURNER SUPPORT FOR OPEN HEARTH FURNACES
Charles J. Barkley, Orem, Utah, assignor to United States Steel Corporation, a corporation of New Jersey
Application January 19, 1953, Serial No. 332,006
6 Claims. (Cl. 263—15)

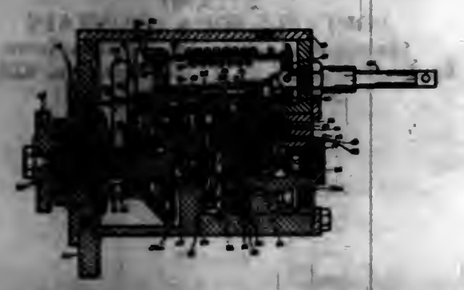


1. In an open hearth furnace having a plurality of buckstays at one end, a chill structure spaced inwardly from the end of said furnace, an uptake from the regenerative chamber between the end of the furnace and the chill structure, and a burner supporting structure divid-

ing said uptake into two passageways; the improvement comprising a box-like metallic liner burner supporting structure having one end connected to said buckstays and the other end connected to said chill structure, a refractory arch suspended from the bottom of said box-like metallic supporting structure, a vertical refractory wall fastened to each side of said box-like metallic supporting structure, and a refractory wall connecting the tops of said vertical refractory walls.

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2,773,683
GOVERNOR FOR FUEL INJECTION
Thomas D. Hess, Agawam, Mass., assignor to American Bosch Arma Corporation, a corporation of New York
Application June 19, 1952, Serial No. 294,516
4 Claims. (Cl. 264—3)



1. A governor for fuel injection apparatus comprising, a shaft, centrifugal means operatively connected to said shaft and rotated thereby, a slidable member carried by said shaft and movable on said shaft by the force of said centrifugal means, a lever operatively connected intermediate its ends to said slidable member, a stationary pivot member adjacent one end of said lever and forming a slidable pivot connection for said lever, said lever being pivotally connected adjacent one end to said slidable pivot connection, stop means adapted to engage the end of said lever opposite said slidable pivot, resilient means operatively connected to said lever and slidable member and to the throttle for urging said lever toward said stop and said slidable member against the force of said centrifugal means, said resilient means pivoting said lever about said stop upon further movement of said slidable member upon reduction of speed of said shaft after engagement of said lever with said stop.

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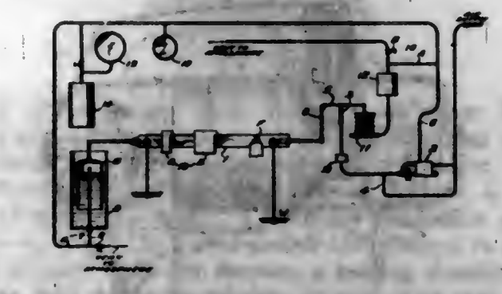
2,773,684
SPEED GOVERNORS FOR LIQUID FUEL INJECTION PUMPS FOR INTERNAL COMBUSTION ENGINES
Berrie Temple Black, Richmond, England, assignor to C. A. V. Limited, London, England
Application April 9, 1954, Serial No. 422,225
Claims priority, application Great Britain April 15, 1953
1 Claim. (Cl. 264—3)



In a speed governor for a liquid fuel pump having a slidable control bar movable between two limit positions for regulating the pump output, the combination of a centrifugal mechanism, a spindle for driving said mechanism, a lever for imparting movement to the control bar under the action of said mechanism, a member arranged coaxially with and rotatable by said spindle, said member having an axial bore therein, a cylindrical bush slidable in said bore and rotatable with said member, a spring-loaded stem axially slidable in said bush, a pair of collars provided respectively on one end of said stem and the adjacent end of said bush, a part on said lever being situated between said collars so that joint axial movement of said stem and bush is accompanied by movement of said lever, a pair of abutments provided respectively on the other ends of said bush and stem, a laterally movable transverse member operable by said centrifugal mechanism and situated between said abutments so that lateral movements of said transverse member are accompanied by joint movements of said bush and stem, and a manually adjustable lever on which the first mentioned lever is mounted so that adjustment of said manually adjustable lever serves to vary the position of the fulcrum of the first mentioned lever irrespective of the axial position of the control bar, and without affecting the position of the centrifugal mechanism.

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2,773,685
WEIGHT RECORDER
Fridtjof Aagaard, Rahway, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application June 19, 1951, Serial No. 232,441
4 Claims. (Cl. 265—5)



4. The combination of a manostat; a pipe vented at one end to the atmosphere through a Bunsen burner valve, said pipe having sealed into the other end a small capillary tube the end of which is so orientated that it is directed away from said Bunsen valve; a conduit communicating with said manostat at a point between said Bunsen valve and said capillary tube; a pivoted balance beam; the movable element of said manostat being connected to the one end of said balance beam; the other end of said balance beam being connected to one end of a flapper valve; and the other end of said flapper valve being connected to a bellows; a nozzle positioned adjacent to said flapper valve; and communicating means between said nozzle and said bellows, whereby any change in pressure within said nozzle will be translated to said bellows and thereby move said flapper valve so as to avoid any change in the position of said balance beam; communicating means between said nozzle and a pressure relay; and automatic recording pressure gauge which measures the output pressure of said pressure relay, said pressure relay being actuated by pressure variation within said nozzle resulting from movement of said flapper valve with respect to said nozzle; and communicating means between the output of said pressure relay and said capillary tube.

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2,773,686
AIR SPRING
Carl B. Nash, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 17, 1947, Serial No. 774,646
10 Claims. (Cl. 267—65)

1. In a variable rate air spring, a series of air bags arranged in series load supporting relation, a relatively small passage between an endmost bag and an intermediately positioned bag restrictive of the rate of air flow therebetween, a larger but restricted passage connecting an intermediately positioned air bag and the other endmost air bag and controlling the rate of air flow therethrough, and an air pressure reservoir in relatively

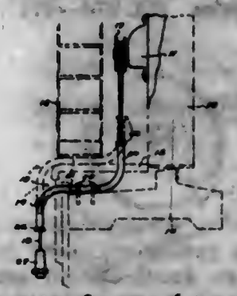




free open communication with the last mentioned air bag.

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2,773,687
CLOSURE OPERATOR
Vernon W. Koehler, Fort Lauderdale, Fla.
Application September 28, 1953, Serial No. 382,711
1 Claim. (Cl. 268—21)



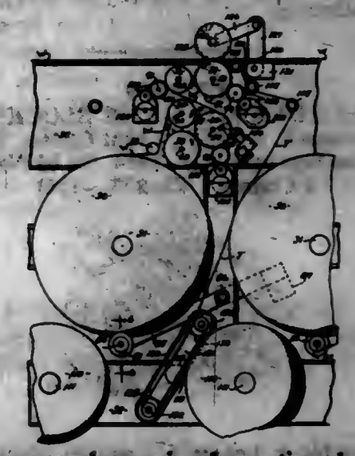
A closure operator for panel type windows wherein a plurality of panels are simultaneously shifted to open or closed position under the influence of a geared operator having a shaft, a grooved pulley fixed upon the shaft, the pulley being vertically arranged and at an angle with respect to the window, a cable wrapped about the pulley and having extended ends depending therefrom at opposite sides of the pulley, a cable guide device that is rigidly supported adjacent the window and the geared operator, the guide device comprising a pair of spaced apart and parallel tubes rigidly connected together by an attaching web, the tubes embodying horizontal sections that are in the same horizontal plane and that are bent upwardly at one end to form a pair of risers open at their ends, the risers being offset with respect to each other whereby their open ends underlie the axial center of the depending cables from the pulley, the opposite ends of the horizontal sections being bent downwardly at a right angle to provide tubular legs that are in the same vertical plane, the extended cable ends slidably passing through the tubes to project to a point below the ends of the legs and with the free end of each cable end provided with a pull knob, the guide conducting the cable ends to a point of operation remote from the geared operator whereby the geared operator may be rotated by the pulley under the influence of a manual actuation of the cable.

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2,773,688
WEB MANIFOLDING METHOD AND APPARATUS
James B. Falk, Los Gatos, Calif., assignor, by direct and mesne assignments, of one-half to Fred A. Ross, Green Bay, Wis.
Application June 5, 1951, Serial No. 230,008
5 Claims. (Cl. 270—18)

1. The method of making manifold forms, comprising providing a plurality of supply rolls of webs of stretchable material, individually withdrawing the webs from the respective supply rolls, passing each withdrawn web to and through a respective pair of rotary drums having a plurality of equi-spaced male and female punches to provide each web with a longitudinally extending row of identically spaced registration openings at least along one edge thereof, passing each web from its punch carrying drums, to a drum having a peripheral row of spaced pins to engage the registration openings, collating the webs by passing them from their respective pin drums across other webs while such other webs are engaged by their respective pin drums, imprinting at least one of the webs in the region of the web extending from the point of the withdrawing operation to the point of departure of such web from its pin drum, rotating the punch and pin drums at the same rate of peripheral speed, individually varying the rate of speed of passage of each web to its respective punches, whereby the webs of varying degress of stretchability may be simultaneously imprinted, and then collating the webs in a relaxed condition with their imprints in registration.

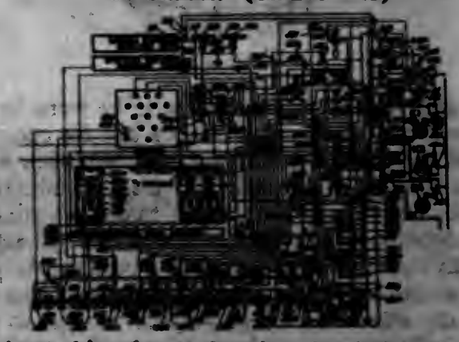
5. An apparatus for printing a web of material in accurate registration with a row of punched holes extending along one edge thereof comprising a frame constituting a support for a roll of material, a withdrawing drum rotatably supported on the frame and having the web



wrapped therearound, a pair of coacting drums carried by the frame and arranged to engage the web after it leaves the withdrawing drum and having means thereon to punch a row of holes at regular intervals on the web, another drum carried by the frame and having pins in the periphery thereof spaced for engagement with the row of perforations in the web, said web being wrapped around the last-named drum, there being a predetermined fixed distance between the punching drums and the pin drum, means for rotating the punching drums and the pin drum at the same peripheral speed, means for adjusting the speed of rotation of the withdrawal drum so as to vary the rate at which the web is fed into the punching drums, whereby a substantially uniform length of web is maintained on that portion of the strip between the point of punching and the point of engagement with the pin drum.

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2,773,689
AUTOMATIC PIN SPOTTER CONTROL MECHANISM
Morehead Patterson, New York, and William C. Brooklayson, Brooklyn, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey
Application June 2, 1950, Serial No. 165,794
10 Claims. (Cl. 273—43)



1. A machine for performing the duties of a pin boy on a bowling alley comprising means for placing a new

set of pins on a bowling alley, apparatus for removing fallen pins from the bowling alley, a detector having a control circuit comprising ten normally open switches connected in series and each adapted to be actuated by a separate standing pin, and a second control circuit adapted to bypass the switches actuated by pins 7 and 10 on 1st ball only, an electrical sequence control circuit for moving said means, apparatus and detector through one sequence of operations after a first ball is thrown and through another sequence of operations after a second ball is thrown, a device for interrupting that portion of the circuit which operates said apparatus, and connections between the control circuits of said detector and said electrical sequence control circuit for automatically actuating said device each time the switches in said first and second control circuits permit current to flow therethrough.

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2,773,690
**HOLDER FOR GAME BLOCKS**
Thomas P. Hensley, Coral Gables, Fla.
Application September 21, 1954, Serial No. 457,365
2 Claims. (Cl. 273—130)



2. A game block holder for square blocks of a predetermined size comprising a pair of spaced parallel plate members, said plate members having on the exterior faces thereof a plurality of spaced parallel portions for frictional gripping engagement of blocks therebetween, said portions being disposed to provide a plurality of block receiving spaces on each of said faces, connecting members between said plate members, and additional spaced parallel portions on certain of said connecting members for frictional gripping engagement of blocks therebetween, the spaces between said additional portions providing additional block receiving spaces, said block receiving spaces being disposed in a plurality of horizontal and in a plurality of vertical planes.

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2,773,691
**ARM GUIDING MEANS FOR GOLF STROKE**
Frank E. Redfield, Dumont, N. J.
Application May 22, 1953, Serial No. 356,688
3 Claims. (Cl. 273—189)



2. In a golf stroke guiding harness to be worn by golf players, the combination comprising: a belt for encircling the body of the player when in use, said belt when so encircling the body defining a reference plane; a substantially rigid guide rail secured to such belt, said guide rail commencing substantially in the plane of said belt and extending upwardly therefrom and outwardly from the side of the belt when so in use; means for restricting the swing path of one of the elbows of the player with respect to such guide rail, including an arm band member for encircling such arm and a trolley hook connected to such band member, such trolley hook being connected to, slidable along and restricted to follow said guide rail in a selected path, the latter having a limit-stop at its upper extremity but being free of such limit-stop at its lower extremity, said trolley hook thus being free to move off said guide rail when such hook is moved to the lower extremity thereof, said arm band and trolley hook being interconnected by cord means of a selected relatively short length whereby such elbow is guided during the down swing in a selected zone substantially co-extensive with the zone of said guide rail, the free movement off said guide rail by said trolley hook allowing free follow-through of the swing of the golf player.

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2,773,692
**BRUSH CARRYING DEVICE**
Ralph B. Dunsavage, Minneapolis, Minn.
Application May 15, 1950, Serial No. 161,855
1 Claim. (Cl. 274—47)



In connection with a record player having an elongated substantially channel-shaped playing arm adapted to carry a plurality of needles and playable in a plurality of operating positions having in combination, a U-shaped bracket extending substantially longitudinally about and horizontally embracing the outer end portion of said arm, said bracket having its rear bottom edges reversely bent upwardly to embrace the bottom edge portions of the side flanges of said playing arm and a spring extending across the top of said arm connecting the sides of said bracket and urging said bracket into engagement with said arm, a member pivotally secured at its inner end about a horizontal axis to the front end portion of said member and extending forwardly and inclined inwardly thereof, and a brush depending from the outer end portion of said member whereby said member and said brush are movable freely upwardly and downwardly in relation to the playing arm and are adaptable for use with said arm in any of said plurality of operating positions of said arm.

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2,773,693
**POSITIVE SHANK-LOCKING MEANS FOR COLLET-HELD CUTTING TOOLS**
Windsor N. Chittenden, Bedford Heights, Ohio
Application May 20, 1954, Serial No. 431,267
7 Claims. (Cl. 279—46)



1. In a device for holding shank-type cutting tools the combination of a chuck body and a cylindrical bored portion and an outwardly tapered socket extended therefrom, a spring-type collet having exterior surfaces complementary to said bore and taper, a cylindrical tool shank adapted to be gripped by the collet and means for engaging and moving the collet in the taper to effect such gripping and axial aligning action of chuck body and collet and shank, a locking and driving element fitting into the cylindrical bore portion a projection right with the chuck body removably engaging and coacting with said element for effecting a driving action while preventing longitudinal movement thereof, a transversely slidable interlocking shoulder on said element and on said shank whereby the shank and element may be assembled outside of the chuck and inserted therein.



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2,773,694
**DEVICE FOR AUTOMATIC LATHES TO FEED AND HOLD WORK**
Paul Freiherr von Poellnitz, Koln, Germany, assignor to Alfred H. Schutte, Koln-Deutz, Germany, a German company
Application October 2, 1953, Serial No. 383,832
Claims priority, application Germany November 13, 1952
4 Claims. (Cl. 279—61)



1. Device for automatic lathes to feed and hold rods or similarly shaped work, comprising a feed chuck and a collet chuck, the former chuck extending axially and partly through the latter chuck, the collet chuck having jaws, said jaws being upwardly provided with interior recesses, the feed chuck being provided with extensions to matingly engage the said recesses, the work-gripping surface along a portion of the length of the work being worked on being thus formed both by the feed chuck and the collet chuck.

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2,773,695
**REVERSIBLE BICYCLE FRAME**
Robert L. Hollowell, Snyder, N. Y., assignor to American Machine & Foundry Co., a corporation of New Jersey
Application August 12, 1953, Serial No. 373,773
2 Claims. (Cl. 280—7.11)



1. A convertible bicycle which is convertible into either a boy's or a girl's bicycle comprising a frame having a head post adapted to have a front fork mounted therein, and a saddle post having identical means at the opposite ends thereof for receiving and fixedly holding a post, a rear fork having one end connected to and extending from one end of said saddle post, a cross bar interconnecting the opposite end of said saddle post to said head post, said saddle post, cross bar and rear fork being of a geometric configuration when viewed from the left side as used for a boy's bicycle which will permit the frame to be turned up-side-down to convert the bicycle into a boy's or girl's bicycle, a seat having a supporting post mounted in that one of said identical means at the upper end of said saddle post, and a pedal crank hanger having a post of substantially the same configuration as said seat post for supporting the crank hanger in that one of said identical means at the lower end of said saddle post.

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2,773,696
**SMALL TRAILERS FOR CARRYING THE FRONT END OF A TRACTOR**
Vaniman George, Birmingham, Ala.
Application September 21, 1953, Serial No. 381,273
1 Claim. (Cl. 280—47.12)



A small trailer of the class described comprising a pair of wheels, a wide U-shaped axle mounted between and attached to said wheels, a platform attached upon the low portion of said axle, a ramp pivotally attached to the rear edge of said platform; a wide A-shaped bracket assembly attached by its lower ends by bolts and nuts to the upper portions of said axle adjacent the wheels, a cradle-type bar attached by its center to a pivot bolt in the center of the top portion of said wide A-type bracket assembly; chain and hook means adapted for holding said ramp in its perpendicular position and said A-type bracket assembly in a locating position.

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2,773,697
**STEERING IDLER SUPPORT**
Arnold J. Pitchford, Camargo, Okla.
Application December 21, 1953, Serial No. 399,473
4 Claims. (Cl. 280—95)



3. A support adapted to interconnect a steering idler arm and an idler arm bracket pivotally supporting one end of the arm with a pivot shaft forming the pivotal axis therebetween, said support comprising a substantially right angular member having a vertical and a horizontal leg, means at the upper end of the vertical leg for rigid clamping engagement with the idler arm in spaced relation to the pivotal connection between the idler arm and the bracket, and means on the horizontal leg for engagement with the undersurface of the bracket directly under the pivot shaft thereby preventing tilting movement of the idler arm in relation to the idler arm bracket, said means on the horizontal leg including an enlarged socket with an internally threaded bore extending through the bottom of said socket, a ball member having a threaded stud integral therewith and disposed in said bore, a saddle member being positioned in said socket and engaging the undersurface of the bracket, said saddle member having a semi-spherical recess receiving said ball member, and means on the end of said stud for engagement by a tool for adjusting the height of said saddle member thereby adjusting the force of contact between the saddle member and bracket.

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2,773,698
**RESILIENT MOUNTING IN THE FORM OF A BUSHING AND AXLE ASSEMBLY FOR VEHICLE SUSPENSION SYSTEMS AND THE LIKE**
Charles O. Shumaker and Robert Bernard [illegible], Akron, Ohio, assignors to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application August 22, 1952, Serial No. 305,726
11 Claims. (Cl. 280—124.5)

1. A vehicle suspension system of the type comprising a pair of spaced generally parallel axles for mounting

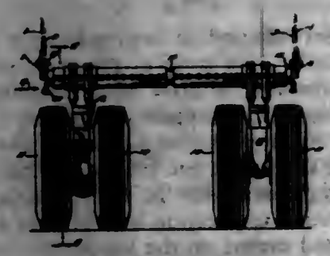
wheels, one axle being located ahead of the other, a pair of spaced beam members extending between and connecting the axles in the provision of a running gear frame, and resilient means interposed between the running gear frame and the body of the vehicle, said system being characterized by deformable bushing assemblies in the connection of each axle to each beam member, said bushing assemblies each comprising a resilient deformable cushion confined between the axle and the beam and extending



circumferentially with respect to the axle so that pressure on the cushion due to vertical or horizontal distortion of the running gear frame forces the cushion to flow axially along the axle, and retainer means mounted on the axle and engageable with an end portion of the resilient cushion, said retainer means being located at the sides of the axle to restrain axial flow of the cushion induced by horizontal distortion more than that induced by vertical distortion of the running gear frame.

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2,773,699
**TRAILER REAR WHEEL TORSION SPRING SUSPENSION**
Leroy Grumman, Plandome Manor, N. Y., assignor to Grumman Aircraft Engineering Corporation, Bethpage, N. Y., a corporation of New York
Application January 17, 1949, Serial No. 71,359
2 Claims. (Cl. 280—124)

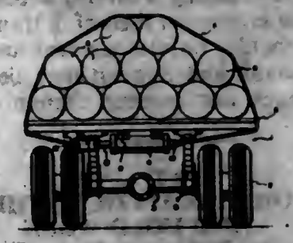


1. In a trailer wheel suspension and in combination, a torque spring comprising an inner member attached at each end to the trailer and extending horizontally and transversely thereof, an outer member for each side of the trailer surrounded and supported by the inner member and rubber or the like elastic material between the two outer members and inner member bonded to and joining the same together, an arm for each side of the trailer, means attaching a said arm at one end to each said outer member for pivoting movement therewith about the inner member, and wheel mountings attached to the other end of each said arm and on each side thereof for carrying a pair of wheels, the inner member comprising two tubular elements, one within each of the said outer members and held in alignment by a sleeve within their adjacent ends.

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2,773,700
**AUTOMATIC TENSION MAINTAINING LOAD BINDER FOR VEHICLES**
Harry A. Lanswell, Little Rock, Ark.
Application January 14, 1954, Serial No. 404,044
13 Claims. (Cl. 280—179)

1. A load binder for a vehicle comprising means to tie a load to the vehicle, means to automatically maintain a selected tension on said tying means, and sensing means responsive to a decrease in tension on the tying means



below a preset level to render said automatic means operative.

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2,773,701
**SAFETY DEVICE FOR TRACTOR-TRAILER FIFTH WHEEL**
William T. Sefko, Short Hills, N. J.
Application March 28, 1955, Serial No. 496,820
4 Claims. (Cl. 280—432)



1. In a tractor-trailer combination, a tractor having a fifth wheel member including a flat body portion having a guide slot extending inwardly from its rear end and a trailer having a coupler base with a depending kingpin to engage in said slot; said base having a pair of openings therein spaced equal distances one on each side of said kingpin laterally of said base, a pawl hingedly connected inwardly from its ends above said coupler base with its lower end extending through each of said openings and resting upon said fifth wheel plate, means yieldably urging said pawls into engagement with said fifth wheel plate, and selective means for manually retracting said pawls, one of said pawls adapted to project into and engage a wall of said slot when the movement of the fifth wheel with respect to the coupler base brings the pawl opening in alignment with said slot.

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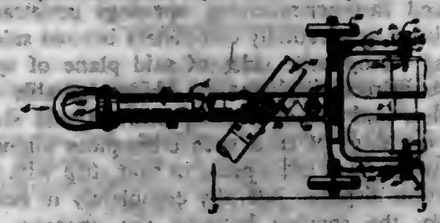
2,773,702
**JACK-KNIFING PREVENTING DEVICE FOR TRACTOR-TRAILERS**
William T. Sefko, Short Hills, N. J.
Application May 16, 1955, Serial No. 508,476
6 Claims. (Cl. 280—432)



1. In a tractor trailer combination, a tractor having a fifth wheel member including a flat body portion having a guide slot and a trailer having a coupler base resting upon said fifth wheel member; a frame having a slot therein secured to said coupler base with its slot overlying and disposed transversely of said guide slot, a head mounted in said frame and slidable therein parallel with said frame slot, equalizing springs maintaining said head midway the ends of said slot, a locking pin mounted in said head for movement at right angles to the plane of said flat body portion, means for projecting said pin into said guide slot and into the path of the side edges of the latter, and a stop on said coupler base to limit the movement of said head therein.



2,773,703
**QUICKLY DETACHABLE WHEELED TOW BAR**
Lachlan Grant Ferguson, Pacific Palisades, and Carmine G. Montanaro, Jr., Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application February 5, 1954, Serial No. 408,332
4 Claims. (Cl. 280—476)



1. A two part airplane tow bar assembly having a draft bar part and a yoke member connected together by shear pins characterized by the fact that said yoke portion is provided with wheel axle retaining means which comprise: mounting portions incorporated in the yoke arms and having axially aligned through bores, and aligned holes in the wall of said mounting portions on an axis intersecting said through bores; an axle retaining member positioned in and axially movable in each of said bores and provided with a longitudinally extending slot therethrough; and a locking pin extending both through the slot in each of said axle retaining members and the aligned bores in said mounting portions, said locking pin and axle retaining means being formed so as to enable the axle retaining members to be moved into operative position and then locked therein.

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2,773,704
**RESILIENT DRAFT MEANS WITH PLURAL ARTICULATION AXES**
Cecil C. Saxon, Terre Haute, Ind.
Application July 30, 1954, Serial No. 446,799
5 Claims. (Cl. 280—489)

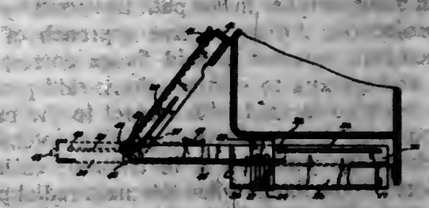


1. A hitch comprising an upstanding housing, a tongue for attachment to a trailer arranged longitudinally of said housing and connected to said housing adjacent one end of said housing for swinging movement about a vertical axis, an upstanding connector member arranged adjacent said one end of said housing and connected to said housing for rocking movement about a horizontal axis, a leaf spring positioned within said housing and having one end fixed to said housing adjacent the other end of said housing and having the portion adjacent said one end of said housing extending in an upright direction toward said connector member, means carried by said connector member and bearing against the upright portion of said leaf spring for holding the latter in its upright position, a second tongue including a female coupling tube for attachment to a towing vehicle arranged on the side of said connector member remote from said housing, a male coupling tube fixedly carried by said connector member and insertable into and withdrawable from said female coupling tube, and detachable interlocking means on said male and female coupling tubes for securing said coupling tubes together.

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2,773,705
**WRITING PAD SUPPORT OR DESK FOR VEHICLES**
Joseph Hirak, Toronto, Ontario, Canada
Application February 24, 1954, Serial No. 412,275
4 Claims. (Cl. 281—44)

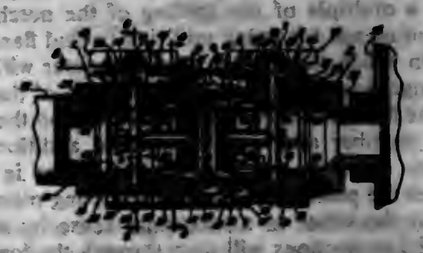
1. A writing desk for vehicles comprising a support having spaced longitudinal guide members, means for securing said support beneath a dashboard, a slide sliding on said guide members, said slide and guide members having a slot and pin interlock therebetween, a desk member having longitudinally slotted sides, pin means on said slide engaging in the slots of said desk member sides to support said desk member for horizontally slidable and pivotal movement relative to said slide, the slots



of said desk member sides having lateral extensions to receive said slide pin means with said slide and desk members in predetermined relatively inclined positions to maintain said slide and desk members against relative sliding movement, and spring means secured to said desk member at one side of the pivot axis and to the rearward end of said slide member, said spring means acting to maintain said slide pin means in said slot extensions.

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2,773,706
**VALVED COUPLING**
Ira A. Leavell, Alhambra, Calif., assignor to E. B. Wiggins Oil Tool Co., Inc., Los Angeles, Calif., a corporation of California
Application October 10, 1952, Serial No. 314,193
13 Claims. (Cl. 284—19)



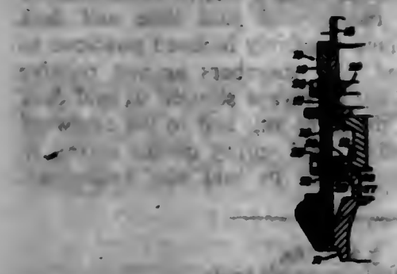
1. In a valved coupling: a pair of axially separable coupling members having through bores cooperable when said members are coupled to form a passage through said members; locking means on one of said members engaged with the other of said members for holding said members in coupled relation; sleeve means on each of said members; releasing means on one of said sleeve means for releasing said locking means; valve means in each of said members; valve operating means in each of said valve means for opening and closing said passage; restraining means carried by each of said valve operating means and each of said sleeve means respectively, for preventing sliding of the sleeve means in a direction for releasing said locking means when either of said valve means is open; and means releasing said sleeve means for sliding in a direction for the release of said locking means when both of said valve means are closed.

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2,773,707
**SELECTIVE INTERLOCKING LUG COUPLING**
John Fraser, Tolworth, Surbiton, England, assignor to Avery-Hardoll Limited, Tolworth, Surbiton, England
Application December 10, 1953, Serial No. 397,369
Claims priority, application Great Britain December 11, 1952
2 Claims. (Cl. 285—27)

1. A bayonet-type coupling comprising first and second coupling members, main radial projections on said first coupling member, means defining axially facing surfaces on said second coupling member for engagement by said radial projections to hold the coupling members in coupled relation, longitudinal notches guiding said radial projec-

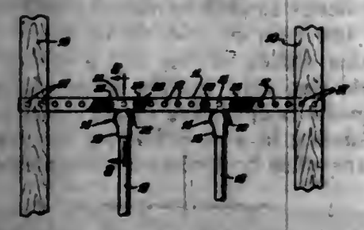
tions into position for engaging said axially facing surfaces, a plurality of additional radial projections selectively positionable about the axis of one coupling member, means defining a plurality of positions for said additional radial projections about the axis of said one coupling member the number of positions being a multiple of the number of additional radial projections, a flange on the other coupling member in the path traversed by said additional projections during relative approach of said coupling members, notches in said flange corresponding in number and spacing to said positions, said positions and notches being so located with respect to the main radial projections and the longitudinal guiding notches therefor that each of the positions is in circumferential register with a notch in the flange when the main radial projections are in any position in which they are in circumferential



register with the longitudinal guiding notches, and both sets of projections lie in their associated notches at one stage in the axial approach of one coupling member to the other, a ring formed with a number of notches less than the number of notches in the flange and having a spacing which is a multiple of the spacing of the notches in the flange, and means for fixing said ring to said flange in any position in which the notches therein register with notches in the flange, whereby selective positioning of the notched ring on the flange and selective positioning on the said one coupling member of a number of said additional radial projections equal to the number of notches in the ring determines the positions of the said coupling members one relative to the other in a rotational sense by which the main radial projections will pass through the longitudinal guiding notches.

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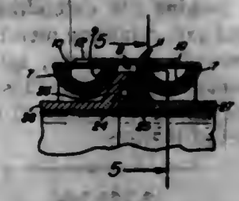
2,773,708
PLUMBING ASSEMBLY
Peter J. Beyerle, San Diego, Calif.
Continuation of abandoned application Serial No. 322,903, November 28, 1952. This application February 1, 1955, Serial No. 485,563
1 Claim. (Cl. 285—64)



In a plumbing assembly: a suporting strip having a longitudinal row of equidistant holes, one or more of said holes at the end portions of said strip being adapted to receive fastening elements to secure said strip to the structural members of a building; at least one tubular fitting secured to said strip, each such fitting comprising a tubular body having a plane of symmetry and having a first wall portion defining a tubular passage having an open end lying entirely to one side of said strip to receive a companion pipe and a second wall portion disposed at a substantial angle less than a straight angle to said first portion to receive a companion pipe, said first wall portion having a tangent perpendicular to said plane and having a longitudinal axis, each such fitting having a single cross-piece integral with said first wall portion but disposed radially outwardly solely on one side thereof and having a surface lying in a plane substantially normal to said axis and common to said open end, said wall portion and cross-piece of each such fitting having substantially equal thicknesses throughout, each of such cross-pieces containing spaced fastener-receiving openings penetrating said surface in an area radially completely beyond said tangent and lying on opposite sides of said plane of symmetry, said fastener-receiving openings being alignable with said strip holes; and means passing through said strip holes and the openings of each such cross-piece aligned therewith to secure said cross-piece to said strip with said first wall portion disposed laterally completely to one side of said strip, the spacing between the openings of each cross-piece being a whole number multiple of the spacing between adjacent strip holes.

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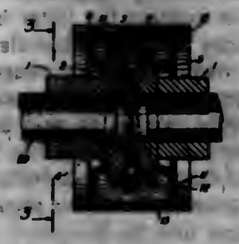
2,773,709
BIMETALLIC COUPLING FOR FLANGED PIPE ELEMENTS
Douglas Smith, South Norwalk, Conn.
Application January 11, 1956, Serial No. 558,505
4 Claims. (Cl. 285—187)



1. An exterior coupling for flanged pipe elements, the coupling comprising a band adapted to surround the two flanges and bimetallic retainers on the band having lugs near the edges of the band curled toward the middle of the band and over the inner face thereof with free legs facing toward each other adapted to press against the flanges with a component of force coaxial with the coupling, there being in each retainer inside the lug a curled piece of metal of a higher coefficient of expansion than the lug; there being an indentation on the inner face of the band in which the free leg of the two opposite retainers rests, the curled pieces of metal of higher coefficient being thereby held against movement circumferentially of the band and the retainer also being limited in retraction.

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2,773,710
BIMETALLIC COUPLING FOR FLANGED PIPE FITTINGS
Douglas Smith, South Norwalk, Conn.
Application December 9, 1954, Serial No. 474,672
7 Claims. (Cl. 285—187)



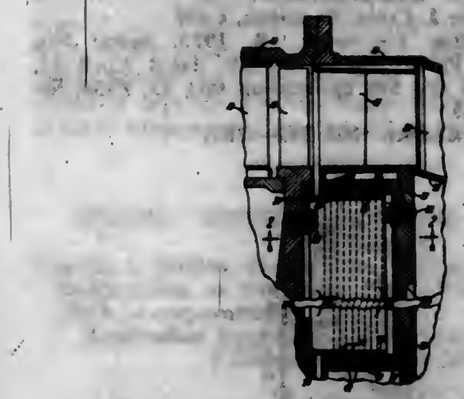
1. An exterior coupling for joining two pipe fittings each having a flange on the end, comprising the combination of a clamping ring with means thereon adapted to tighten the ring around the pipe flanges and axially-spaced means depending from the same side of the ring adapted to bracket the two opposed flanges; at least one of said axially-spaced means including curled internal and external layered bimetallic elements adapted to be located



on one side of at least one of the flanges and each having one leg attached to the ring and a free leg adapted to contact the flange with the same external metal as the leg attached to the ring, the internal layer having a higher coefficient of expansion than the external layer so that upon increase in temperature the elements tend to straighten out, thereby being adapted to press tighter against the flange.

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2,773,711
COIL SPRING FLUID PRESSURE SEAL
William S. Castle, Speedway, and Chester E. Heckert, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 20, 1953, Serial No. 338,028
4 Claims. (Cl. 286—10)



1. A high pressure, high temperature gas seal for turbomachines and the like, said seal being entirely fashioned from heat resistant metallic material and comprising a first member having a surface of revolution provided with a thread-like groove having parallel side walls forming a plurality of axially spaced turns, a second member rotatable relatively to said first member and having a surface of revolution in concentric spaced relationship with said surface of said first member, a coil spring having a plurality of axially spaced turns slidably received in said groove for radial and rotational movement and including a rim portion protruding from said surface of said first member and resiliently bearing against the surface of said second member to form a sliding contact labyrinth seal therewith, said groove having sufficient depth to provide a space between the bottom of said groove and that peripheral surface of said coil that is located in said groove, one end of said coil being secured to said first member to prevent said coil from rotating as an entirety with said second member, said second member being relatively rotatable in a direction such that increases in frictional drag between said coil turns and the surface of said second member tend to twist said coil turns from contact therewith.

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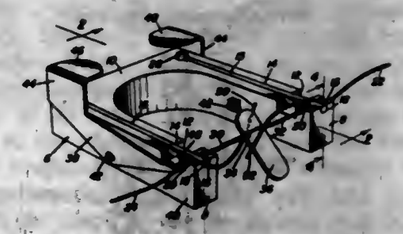
2,773,712
WINDSHIELD WIPER ARM DRIVING MEANS
Herbert I. Chambers, Toledo, Ohio
Application December 31, 1952, Serial No. 328,997
1 Claim. (Cl. 287—53)



In a device of the class described, an arm assembly for a windshield wiper blade comprising, a cup-shaped driving member interlocked in a driving relation to an oscillatable shaft, said member having a smooth conical tapering surface of approximately nine degrees concentric with the shaft, a cup-shaped driven member also having a smooth conical tapering surface of substantially the same taper adapted to nest with the driving member so that when they are tightly clamped together they form a driving connection between them solely by the frictional engagement between the smooth nesting surfaces, a laterally-extending arm on the driven member, an outer shroud member covering the elements and attached to the arm of the driven member by a pivot pin positioned at a point displaced from the axis of the shaft, a pressure nut threaded to the shaft including a depending tubular portion terminating in an externally extending flange to rotatably secure it to the driven member and the shroud member, a tubular member between the shroud member and the driven member positioned around the depending tubular portion of the nut for transferring the force for clamping the parts having the tapered surfaces together to form the driving connection between them and to hold the driving member in its interlocking relation with the shaft, and inturned spaced lugs on the shroud member to underlie the driving member to prevent complete disengagement of the driving and driven members whereby the parts are maintained as an assembly when disengaged from the shaft.

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2,773,713
ANGLERS KNOT TYING VISE
Francis A. Smalley, Blackwell, Okla.
Application November 28, 1955, Serial No. 549,268
3 Claims. (Cl. 289—17)



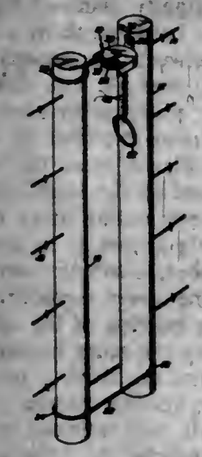
1. For use in holding portions of flexible elements, for example a fishing line and leader, and uniting the same by twisting and connecting the same by way of a barrel knot, a portable vise comprising a substantially horseshoe shaped body constituting a base and embodying spaced parallel coplanar arms and a connecting bight portion, the top surfaces of the outer ends of the arms having cooperating grooves therein, spring hold-down fingers mounted atop said arms and having free end portions cooperating with the grooves, said arms also having clearance notches inwardly of the grooves, and levers pivoted on the respective vertical sides of the arms and having finger pieces at their rearward ends and lifting lugs at their forward ends seated in said notches and cooperable with said fingers.

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2,773,714
WIRE GATE FASTENER
Oliver D. McKinney, Loeley, Okla.
Application December 22, 1954, Serial No. 476,918
3 Claims. (Cl. 292—246)

1. The combination of a gate post adjacent a fence post with a locking device, said device comprising a pulley, a housing surrounding a major portion of the pulley, a bracket on said housing for securing the housing and pulley to the fence post in a horizontal plane, a pair of projections on said housing, said projections extending substantially tangential to said pulley thereby forming with portions of the periphery of said pulley notches adjacent opposite edges of said housing, a flexible chain on said pulley, a ring on each of the ends of said chain, one of said rings adapted to be selectively positioned over the upper end of the gate post and the other of said rings adapted to be pulled for pulling the gate post towards the

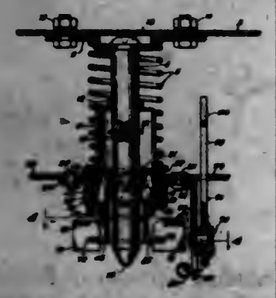
fence post said other of said rings assuming a depending relation to the housing and automatically positioning the



chain in one of said notches thereby locking the chain in adjusted position.

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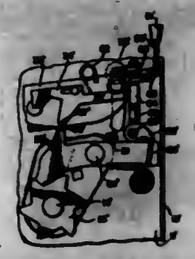
**2,773,715**
**HOOD LATCH**
**Adam C. Lindner, Chicago, Ill., assignor to Chicago Forging and Manufacturing Company, Chicago, Ill., a corporation of Delaware**
**Application October 22, 1954, Serial No. 463,872**
**4 Claims. (Cl. 292—252)**



1. In a latch assembly for automobiles and the like, a latch plate, an aperture in said latch plate, a skirt surrounding said aperture and extending from said latch plate in one direction, said skirt having an internal diameter substantially equal to the diameter of said aperture, a hollow cylindrical sleeve movably mounted in said aperture, the outside diameter of said sleeve being substantially equal to the inside diameter of said aperture and said skirt, said sleeve being mounted for movement paralleling its longitudinal axis, a generally frusto-conical ring having its base positioned against the opposite face of said plate from the face from which said skirt extends, means for holding said ring base against said plate surface, said ring being positioned in axial alignment with said aperture, said skirt and said sleeve, said ring having its wall converging in a direction away from said last named plate surface and supporting a portion of said sleeve, said sleeve having a plurality of apertures in said last named sleeve portion, a ball member mounted in each of said apertures in said sleeve portion, the diameter of said sleeve apertures being less than the diameter of said ball members but being sufficient to permit a portion of said ball members to extend therethrough to contact said keeper when said keeper is within said sleeve, the radius of the area of said ring at its base being greater than the combined radius of said keeper and the diameter of one of said ball members, the radius of the area within said ring at its opposite end being less than the combined radius of said keeper and diameter of one of said ball members whereby withdrawal of said keeper from said sleeve frictionally moves said ball members along said ring toward said opposite ring end to urge said balls inwardly against said keeper to prevent further withdrawal thereof, the combined radius of said sleeve and said skirt being less than the combined radius of said sleeve and the diameter of one of said ball members whereby said ball members are effective to prevent movement of said sleeve outwardly through said plate aperture and said skirt and release means for said latch assembly including a lever pivotally mounted on said latch plate and having a lost motion connection with said sleeve and means for moving said lever to urge said sleeve in a direction outwardly through said plate aperture and said skirt to move said ball members toward said plate and toward ring base.

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**2,773,716**
**DOOR LATCH**
**Burnie J. Craig, Pasadena, Calif.**
**Original application December 18, 1950, Serial No. 201,284, now Patent No. 2,706,129, dated April 12, 1955. Divided and this application July 13, 1954, Serial No. 443,013**
**2 Claims. (Cl. 292—280)**



1. In a door lock, a base, a bolt pivoted on the base, a ratchet fixed rigidly on the bolt, pivotally mounted holding means engaging the ratchet and normally preventing release of the bolt, a movable operating member, an actuating member operable by said operating member, means to mount the actuating member for movement either to a locked position or to an unlocked position and for movement to and from a bolt releasing position, means to releasably maintain the actuating member in locked or in unlocked position, said operating member being movable at all times to move the actuating member, a substantially L-shaped dog pivoted on the base, said dog including one end portion engageable with the holding means for rocking the holding means to bolt releasing position, said dog including another end portion engageable with the actuating member when the actuating member is moved while it is in unlocked position, said other dog end portion being out of engagement with the actuating member when the actuating member is moved while it is in locked position, inside means to move said actuating member to and from locked position, and restoring means including a shoulder on said holding means and a coacting shoulder on said actuating member, said shoulders being engageable and operable by movement of the bolt ratchet upon a closing movement of the door, when the actuating member is in locked position, and the actuating member is also in non-releasing position to move said actuating member to unlocked position.

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**2,773,717**
**VEHICLE DOORLOCK STRIKE**
**Burnie J. Craig, Los Angeles, Calif.**
**Original application December 18, 1950, Serial No. 201,281, now Patent No. 2,705,882, dated April 12, 1955. Divided and this application March 7, 1955, Serial No. 492,610**
**2 Claims. (Cl. 292—340)**

1. In a door lock strike, a body adapted to be secured upon a vehicle, said body having upper and lower edges and including spaced bolt engaging teeth projecting from one edge thereof, said body having two planar surfaces



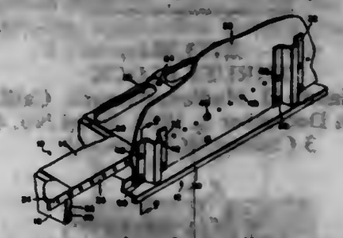
extending perpendicular to each other and disposed adjacent to the other edge thereof and in spaced opposed vertical relation to the teeth, a dovetail wedge having two planar portions extending perpendicular to each and engaging said planar body surfaces and slidable therealong, means on the body to constrain the dovetail wedge to



move linearly along the said planar surfaces, means to prevent lateral movement of the dovetail wedge on the body, said dovetail wedge having a recess, a spring in said recess and engaging the adjacent wall of the strike to normally urge the dovetail wedge forwardly, and means to limit movement of the dovetail wedge by the spring.

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**2,773,718**
**FLOOR CONSTRUCTION WITH INTEGRAL CROSS-SILLS**
**Charles L. Bohlen, Doylestown, Pa., assignor, by mesne assignments, to Fruehauf Trailer Company, Detroit, Mich., a corporation of Michigan**
**Application August 20, 1953, Serial No. 375,449**
**4 Claims. (Cl. 296—28)**



1. A floor construction for trailers comprising a plurality of transverse sections, each section being generally L-shaped and including a depending cross-sill integral with a horizontally extending plate, said horizontal plate having a transverse depressed area at its juncture with the cross-sill at least equal in depth to the thickness of the horizontal plate, means joining the free end of one horizontal plate to an adjacent horizontal plate at the depressed area to provide a substantially flat floor surface, and means connecting the ends of the sections to the sides of the trailer, said last-named means including flanges depending from the ends of the horizontal plates and flanges upstanding from the ends of the cross-sills and means securing said flanges to the sides of the trailer.

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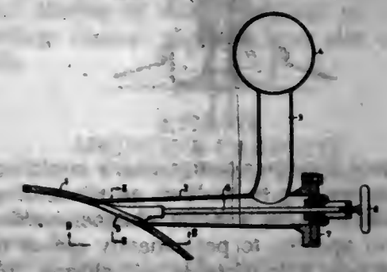
**2,773,719**
**REAR FENDER COMPARTMENT FOR SPARE TIRE**
**Brooks Walker, Piedmont, Calif.**
**Application October 11, 1952, Serial No. 314,265**
**7 Claims. (Cl. 296—37.2)**



2. A vehicle having a body, rear wheels, a portion of said body covering one said rear wheel and forming a compartment in back of said rear wheel, said compartment adapted to carry a spare wheel substantially vertically and substantially in line with said one rear wheel, access to said compartment being from under said compartment, manually operated means to raise said spare wheel into said compartment from below, manually adjustable means for holding said spare wheel in a raised position within said compartment.

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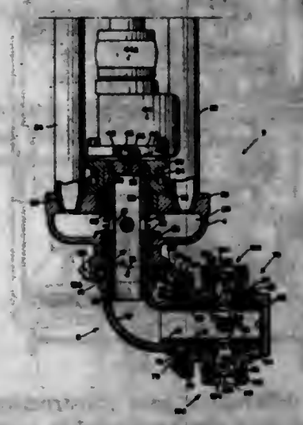
**2,773,720**
**STEAM VALVE WITH CLEANING FEATURE**
**Carl Kristian Filip Palm and Erik Herbert Nyléf, Norrsundet, Sweden, assignors to Kopparfors Aktiebolag, Ockelbo, Sweden, a corporation of Sweden**
**Application June 23, 1953, Serial No. 363,520**
**Claims priority, application Sweden July 1, 1952**
**2 Claims. (Cl. 299—59)**



1. For use with an evaporator for waste cellulose lye having a cylindrical wall, a steam valve for supplying superheated steam to the interior of said evaporator, said valve comprising an elongated substantially cylindrical body portion adapted to merge with the wall of the evaporator at an oblique angle to communicate with an opening in the evaporator wall corresponding in cross-section to the cross-section of said body portion, a rotatable spindle extending axially through said body portion, and a valve member carried at the end of said spindle, said valve member having the form of an elliptical disk secured at its center to the spindle at an oblique angle equal to the oblique angle between the body portion and the evaporator wall, said disk normally lying in a position substantially coinciding with and smoothly merging with the plane of the evaporator wall but being dimensioned to leave a small clearance with respect to the wall of the body portion for peripheral admission of the steam and being movable into a position in which the steam sweeps the sides of the disk.

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**2,773,721**
**TANK WASHING APPARATUS**
**Irenee P. Pedrick, Wynnewood, Pa.**
**Application February 8, 1955, Serial No. 486,825**
**6 Claims. (Cl. 299—62)**



1. Tank washing apparatus comprising a support, a conduit carried by said support and mounted for rotation, means to rotate said conduit, a spray head mounted for rotation on said conduit on an axis substantially at right angles to the axis of rotation of the conduit, a nozzle on said spray head lying in a plane substantially perpendicular to the axis of rotation of the spray head, said spray head having a resilient collar, key means mounted on said

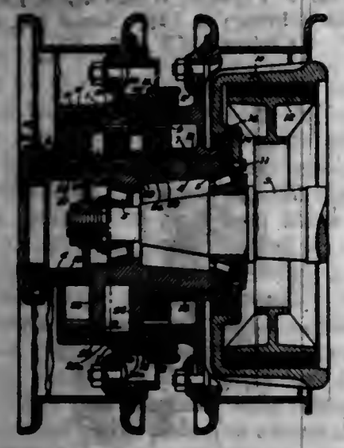
support and adapted to intermittently engage said collar to index said spray head on its axis a predetermined amount for each 360° of rotation of said conduit.

2,773,722
AEROSOL DISPENSER
Robert H. Abplanalp, Bronx, N. Y., assignor, by direct and mesne assignments, of one-half to John J. Baessler, Yonkers, N. Y.
Application March 2, 1955, Serial No. 491,566
3 Claims. (Cl. 299—95)



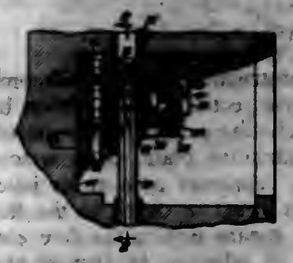
1. An aerosol dispenser comprising: a container closure cup having an opening in its base, an upstanding tubular outlet provided with an annular channel embracing the margin of said opening to permanently mount the outlet rigidly on the cup, a disruptable seal closing the passage through the tubular outlet intermediate the ends of the latter, an external bead on the tubular outlet near the free end thereof, and a push button permanently mounted on said outlet and having a skirt closely embracing the outlet below the bead and undercut to house the bead and permit axial movement of the push button relative to the tubular outlet, said push button being provided with a plunger extending into the passage of the outlet and adapted to disrupt the seal therein when the push button is pressed to permit the passage of liquid from an associated container through a discharge duct formed in the push button.

2,773,723
BRAKING ARRANGEMENT FOR DUAL WHEELS WITH NON-TORQUE-EQUALIZING DIFFERENTIAL MEANS
Ralph R. Randall, Freeport, Ill., assignor, by mesne assignments, to Dunlop Engineering Co., Rockford, Ill., a corporation of Illinois
Continuation of abandoned application Serial No. 48,217, September 8, 1948. This application July 31, 1953, Serial No. 371,582
1 Claim. (Cl. 301—6)



A dual wheel differential gear construction comprising an axle, a tubular gear carrier rotatably mounted on said axle, brake means carried by said gear carrier for controlling the rotation of said gear carrier, an annular bearing bushing mounted on the outer surface of said gear carrier at each end thereof, said gear carrier having a pair of annular spaced flanges centrally located on the outside surface thereof, a pair of wheel elements each having a flanged hub and a cylindrical housing, said annular bearing bushings supporting said flanged hubs, one of said cylindrical housings encircling one of said spaced flanges and the other of said cylindrical housings encircling the other of said spaced flanges, bearing sleeve means mounted on the periphery of said flanges and supporting said cylindrical housings, one of said cylindrical housings projecting beyond its respective encircled flange and encircling the other of said spaced flanges and projecting over and encircling the end of the other of said cylindrical housings, a bearing sleeve mounted on the end of the other of said cylindrical housings and supporting the projection of the said one of said cylindrical housings, a non-torque equalizing transmission acting between said gear carrier and said wheel elements and carried by said annular spaced flanges, said transmission comprising a pair of internal spur gear elements rotatable with said wheel elements, a second pair of spur gear elements meshing with said first pair of gear elements, an externally screw-threaded shaft rotatable with one of said second pair of spur gear elements, an internally-threaded spur gear element having a threading movement on said shaft, a spur gear element meshing with said internally-threaded spur gear element and rotatable with the other one of said second pair of spur gear elements, and means including said flanges for limiting the threading movement of said internally-threaded gear element on said threaded shaft whereby to bind said threaded gear element and said threaded shaft to said gear carrier comprising a bearing element between the threaded gear element and the flanges engaged by said threaded gear element in its threaded movement in either direction.

2,773,724
THRUST BLOCK
Benjamin H. Hadley, Pomona, Calif.
Application December 2, 1954, Serial No. 472,719
3 Claims. (Cl. 308—1)



1. In a thrust block for a rotatable and reciprocable spindle, the combination of: a body member having a cylindrical chamber extending partially therethrough from one side thereof and adapted to receive an end of the spindle, said body member also having a lateral opening extending partially therethrough and intersecting said chamber, said body member also having a bore axially aligned with and connecting with said chamber; a first thrust washer in said chamber; a second thrust washer in said opening; first external means for partially closing the open end of said chamber at said one side and retaining said first thrust washer in said chamber; and second external means for retaining said second thrust washer in said opening.

2,773,725
WORK TABLES FOR BORING MILLS AND THE LIKE
Roland R. Roberts, Irondequoit, N. Y., assignor, by mesne assignments, to Farrel-Birmingham Company, Incorporated, Ansonia, Conn., a corporation of Connecticut
Application October 14, 1953, Serial No. 386,047
8 Claims. (Cl. 308—77)

2. In a machine tool, a bed, a work table rotatably mounted on said bed, and a plain bearing disposed between said table and said bed and secured to one of these two parts to engage the other part to take axial thrust, said plain bearing comprising a plurality of sector plates concentric to the axis of said table, each of said plates being spaced angularly slightly from the adjacent plates to permit expansion, means for securing each plate to said one part against movement radially of said axis, said plates being mounted to be free to have limited movement for expansion angularly about said axis, each of said plates being provided with undulatory grooves on its





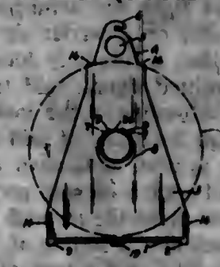
opposite side faces, the grooves on one side of each plate having their undulations reversed with reference to the grooves on the opposite side of each plate, means for supplying high pressure lubricant to the set of grooves in the face which engages said other part, and means for supplying a low pressure coolant in high volume to the grooves in the other face, each of said plates being made of a metal alloy containing a metal having lubricating qualities.

2,773,726
BORDERED TABLE TOPS, PARTICULARLY FOR CAMPING TABLES
Ebbe Anders Isrnel Johansson and Sture Allan Mattias Johansson, Halmstad, Sweden
Application April 11, 1955, Serial No. 500,493
Claims priority, application Sweden May 4, 1955
2 Claims. (Cl. 311—107)



1. A table top with a border frame comprising a rectangular shaped panel, means providing at least two series of projections on said panel with each series extending substantially parallel to, but spaced from one of oppositely situated edges of said panel, a pair of frame members each having a channel-shaped cross-sectional configuration and a constricted longitudinal opening along the length thereof with the marginal portion of said panel slidably extending therethrough, said frame members each having a configuration corresponding to a portion of the perimeter of said panel with said frame members encasing the marginal portions of said panel and said projections for being retained from lateral movement from said panel by said projections.

2,773,727
RECORD HOLDER
William T. Bradley, Philadelphia, Pa.
Application April 27, 1953, Serial No. 351,329
5 Claims. (Cl. 312—10)



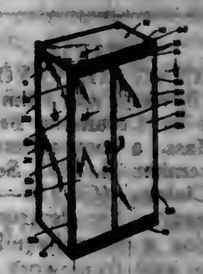
1. A disk-recordings support, carrying, and storing device comprising a horizontally extending rectangular base member, a vertically extending support member fixedly attached to said base member along the long axis of said base member, horizontally extending tubular disk-recordings support members fixedly attached to said vertically extending support member and extending to each side thereof and being adapted to support a multiplicity of vertically positioned disk-recordings, an upwardly extending rib on the upper outer end of said tubular disk-recordings support member and a bevel on the lower outer end of said tubular disk-recording support members, said bevel being adapted to permit vertical movement of said disk recordings in space relationship to said tubular disk recordings support members for ready removal and placing of disk recordings on said tubular disk-recordings support members over said vertically extending rib.

2,773,728
MEDICINE CABINETS
Dwight La Barre, Pontiac, Mich., assignor, by mesne assignments, to Orans & La Barre, Centerline, Mich., a partnership, composed of Dwight La Barre and William L. Dayner, Sr.
Application December 17, 1949, Serial No. 133,585
6 Claims. (Cl. 312—227)



5. A medicine cabinet mounted in a wall substantially at eye level and comprising a cabinet structure and a door structure therefor, said door structure having a pair of angularly disposed front panel structures, angularly disposed mirrored panel sections respectively secured to each of said front panel structures and constructed to abut end to end along a horizontal line substantially medially of the top and bottom edges of said door structure, the apex of said angularly disposed mirrored panel sections extending in a horizontal plane located below the eye level of an average adult and above the eye level of an average child when said medicine cabinet door structure is closed.

2,773,729
KNOCKDOWN SHEET METAL WARDROBES
Sam Dorman, South Orange, N. J.
Application February 5, 1954, Serial No. 408,376
7 Claims. (Cl. 312—257)



1. A knockdown sheet metal wardrobe of the character described, comprising a door frame section, a back and side wall section and top and bottom wall sections, the back wall having hollow posts extending longitudinally and forwardly of opposed side edges thereof, means

on said posts and adjacent edge portions of the side walls for hingedly coupling the side walls with said posts to collapse upon said back wall, the door frame section having, longitudinally of side edges thereof, hollow side posts joined by top and bottom rails, said posts having longitudinal slots on inner walls thereof inwardly of outer side walls of said posts, forward edge portions of the side walls being slidable longitudinally of the slots in assembling the door frame section therewith, said forward edge portions of the side walls having flanges engaging the posts of the door frame section in firm support of the side walls in said door frame posts, said top and bottom wall sections having recessed walls bordered by back and side hollow rails, said rails including means to frictionally engage upper and lower edge portions of said back and side walls, and means at the forward edge portion of the recessed wall of said top and bottom sections operatively engaging the top and bottom rails of the door frame section in retaining the top and bottom sections in positions on said back and side walls.

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2,773,730

## PREPARATION OF LIGHT SENSITIVE SURFACES

Gerhard Lewin, West Orange, N. J., assignor to Tung-Sol Electric Inc., Newark, N. J., a corporation of Delaware

Application December 17, 1953, Serial No. 398,695
9 Claims. (Cl. 316—8)



1. The method of forming on an element a surface layer of cesium antimonide which comprises depositing on the element a layer of antimony to be combined with cesium, mounting the element in an enclosure having a reservoir communicating therewith, degasifying the element by vacuum baking, then introducing cesium vapor into the enclosure for formation of the antimonide, heating the reservoir to one temperature and the element to a higher temperature to maintain the pressure of the cesium vapor less than the equilibrium pressures of cesium vapor and liquid at such temperatures but above the dissociation pressure of cesium antimonide at the higher temperature whereby excess cesium is collected in the reservoir, cooling the element and the reservoir and finally isolating the enclosure from the reservoir.

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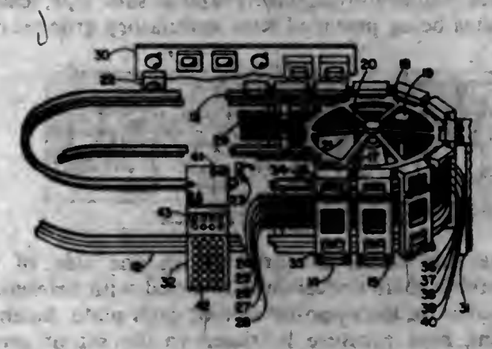
2,773,731

## AGING CONVEYOR

Russell W. Chick, Beverly, and John C. Silva, Peabody, Mass., assignors to Columbia Broadcasting System, Inc., Danvers, Mass., a corporation of New York

Application November 12, 1952, Serial No. 320,004
3 Claims. (Cl. 316—27)

1. An aging conveyor for electron tubes comprising, a framework defining a generally elliptical closed path, a track mounted on said framework, a plurality of carrier members movable along said track, said carrier members being flexibly interlinked to form an endless chain, means for indexing said carrier members a predetermined distance about said path periodically, a plurality of detachable chassis, each having a number of tube sockets, one of said chassis being mounted on each of said carriers, a plurality of segmented bus strips arranged about the periphery of said framework, a plurality of power supplies, each being connected to a segment of said bus strips, a plurality of contactors mounted on each



of said chassis, said contactors being resiliently urged against said bus strips, and means connecting each of said contactors to similar elements of tubes in said sockets.

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2,773,732

## FIRING ERROR RECORDER

Richard B. Roberts, Washington, D. C., and Robert P. Petersen and Clyde T. Holliday, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Navy

Application September 13, 1946, Serial No. 696,926
1 Claim. (Cl. 346—38)



Apparatus for recording the position of a projectile with respect to a target at substantially the time of closest approach to each other and simultaneously recording the range of said target measured from the source of the projectile, comprising, a motion-picture camera located near said source of said projectile and mounted to photograph said target and its immediate surroundings including said projectile, a radio transmitter positioned in said target, said transmitter having electrically associated therewith an acoustically-sensitive device, means for actuating said device by a shock wave created by said projectile while in aerial flight and arranged to generate an audio signal impressible on a carrier signal and transmitted by said transmitter, a remotely located receiver for receiving said transmitted signal, said transmitted signal being indicative of substantially the instant of transit of said projectile through the plane of said target, means for providing a visible symbol indicative of the range of said target from said source of said projectile at the instant of transit of said projectile through the plane of said target, and means including a source of light controllable by said signal received by said receiver to illuminate said symbol, means whereby said camera will produce a photographic record showing simultaneously the range of said target from said source of said projectile as shown by said symbol at said instant of transit of said projectile through the plane of said target, and the position of said projectile at the time of closest approach to each other of said target and projectile.

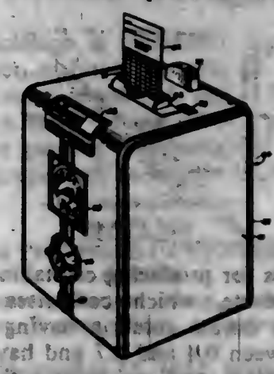


2,773,733

## WORKMEN'S IN-AND-OUT RECORDER

Richard L. Lorenz, Chicago, Ill., assignor to General Time Corporation, New York, N. Y., a corporation of Delaware

Application April 17, 1953, Serial No. 349,419
59 Claims. (Cl. 346—84)



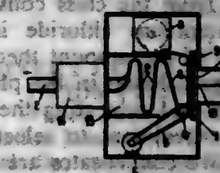
1. In a recorder for use with a direct voltage supply producing periodic impulses of short duration and limited in magnitude by the current-carrying capacity of the supply, the combination comprising a magnetic solenoid connected to said supply, a timing shaft having a driving connection with said solenoid for step-by-step rotation of the shaft, a program unit and type unit coupled to said timing shaft for rotation in unison therewith, means including shift and lift mechanisms of stepping type for positioning an inserted card horizontally and vertically relative to said type unit, means including a storage spring for storing a portion of the energy released by said solenoid, said spring being coupled to the shift and lift mechanism, means including latches arranged for triggering by said program unit at predetermined times for causing stepping of said shift and lift mechanisms by energy stored in said spring, and magnetic means arranged for connection to an A. C. supply line for applying a printing impulse to the card as an incident to bottoming of the same in the recorder.

2,773,734

## TIME RECORDING APPARATUS

Turulf Normann, Gjovik, Norway, assignor to Omega Louis Brandt & Frere S. A., Bienne, Switzerland

Application March 22, 1954, Serial No. 417,796
Claims priority, application Switzerland April 16, 1953
5 Claims. (Cl. 346—107)



1. A precision photographic time recording device accurate to one-tenth of a second comprising a camera adapted to receive a strip of film, film advancing means for the camera, start and stop means for the film advancing means, shadow producing means adapted to produce a shadow line formed of collinear straight line segments separated by projections for providing indications of timed intervals on film in the camera, including an electromagnet, an armature for the electromagnet, a stretched wire having one end attached to the armature, slotted means interposed between the wire and the film, chronograph time indicating means, a flyback hand and a sweep second hand for the chronograph, electrically operated start and stop means for the chronograph, electrically operated stop means for the flyback hand, a geared wheel for the chronograph, at least one pin on the geared wheel, first intermittent electric contact making means actuable by the pin on the wheel of the chronograph for controlling the electromagnet of the shadow producing means, second intermittent electric contact means actuable by the pin on the wheel of the chronograph for controlling the starting position of the first intermittent contact making means, the electrically operated starting means operable to start the chronograph at the beginning of the timed interval and the film advancing means manually started thereafter, double contact switch means including first and second contacts, the first contact of the double contact switch energizing the shadow producing electromagnet circuit, the second contact of the double contact switch energizing the flyback stop means, whereby the elapsed time is given by the combined reading of the chronograph and the projections of the shadow line on the film, the double contact switch stopping the flyback hand and simultaneously starting the shadow producing means for the indication on the film.

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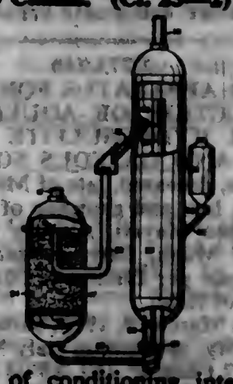
# CHEMICAL

2,773,735

## EXHAUST GAS CONDITIONING METHOD

Joseph P. Ruth, Denver, Colo.

Application July 27, 1953, Serial No. 370,455
5 Claims. (Cl. 23—2)



1. The method of conditioning internal combustion engine exhaust gases to non-hazardous and unobnoxious form free from entrained solids and acidic constituents which consists of flowing the gases under the influence of their discharge pressures through an intersticed diffusing medium inert with respect to the gases and gas-water mixtures thereof, feeding an alkalized water solution to the gas flow with resultant generation and entrainment of a gas-liquid mixture, and directing solution and gas-liquid mixtures entrained with the gas flow to and with sustained wetting effect upon said diffusing medium as an incident of and in direct reaction to such flow, whereby to maintain alkalized solution dispersed for intimate contact with the gases in the path of gas flow through said medium.

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2,773,736

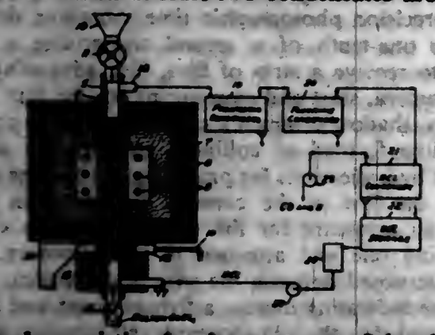
## TREATMENT OF PHOSPHATE ROCK TO RECOVER PHOSPHORUS, FLUORINE, CALCIUM, AND URANIUM

Clinton A. Hollingsworth, Lakeland, Fla., assignor to Smith-Douglass Company, Incorporated, Norfolk, Va., a corporation of Virginia

Application August 8, 1952, Serial No. 303,270
5 Claims. (Cl. 23—14.5)

1. The method of recovering values from a natural phosphatic material containing recoverable amounts of

phosphorus, fluorine and calcium which comprises preparing an intimate mixture consisting essentially of said material and at least 10% by weight of a carbonaceous material, subjecting said mixture to heat-treatment for a period not exceeding 90 minutes at a temperature within the range of 2000 to about 2400° F. in a chlorine-containing atmosphere selected from the class consisting of hydrogen chloride and ammonium chloride in which chlorine is present in excess of the amount theoretically required to convert all of the calcium in the phosphatic material to calcium chloride, and subjecting the gaseous reaction product of the heat-treatment to selective condensation in which at least two condensates are obtained



respectively consisting for the most part of the phosphorus and fluorine contents of said gaseous reaction product, the non-volatile residue of said heat-treatment containing most of the calcium originally present in the phosphatic material in the form of molten calcium chloride.

2. The method of claim 1 in which the molten calcium chloride is separated from the unfused solid matter of the non-volatile residue of the heat-treatment.

3. The method of claim 2 in which the natural phosphatic material additionally contains a recoverable amount of uranium, and recovering such uranium with the calcium chloride separated from the non-volatile residue of the heat-treatment.

### ERRATUM

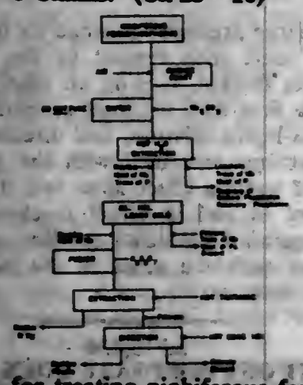
For Class 23—59 see:
Patent No. 2,774,070

### 2,773,737

### CHEMICAL PROCESS FOR RECOVERING NIOBIUM VALUES FROM NIOBIFEROUS FERROPHOSPHORUS

Morris L. Nielsen, Centerville, and Larry K. Duncan, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application November 24, 1953, Serial No. 394,134
3 Claims. (Cl. 23—16)



1. A process for treating niobiferous ferrophosphorus and recovery of niobium values therefrom, which comprises roasting said ferrophosphorus in air, mixing the roasted product with soda ash, heating the mixture to a temperature only sufficient to sinter the mixture, leaching the sinter with hot water, further leaching the residue with hydrochloric acid to remove iron therefrom, fusing the residue with sodium pyrosulfate, extracting the fused product with hot tartaric acid, treating the resulting niobium-tartrate complex with hot concentrated hydrochloric acid and recovering niobium values therefrom.

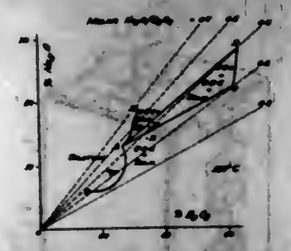
### 2,773,738

### NEW CRYSTALLINE SODIUM BORATE AND METHOD FOR PRODUCING THE SAME

Geoffrey R. Ball, Belvedere, and Peter H. Kemp, London, England, assignors, by mesne assignments, to United States Borax & Chemical Corporation

Application August 24, 1953, Serial No. 376,198
Claims priority, application Great Britain August 27, 1952
6 Claims. (Cl. 23—69)

1. Crystalline sodium tetraborate monohydrate, $Na_2B_4O_7 \cdot H_2O$.



2. The process for producing crystalline sodium tetraborate monohydrate, which comprises producing an aqueous sodium borate solution having a molar ratio $Na_2O/B_2O_3$ between 0.4 and 0.7 and having a predetermined water content, and maintaining the solution at a temperature above about 115° C. to deposit from the solution crystals of sodium tetraborate monohydrate, the said water content of the solution being insufficient to maintain all the borate in solution at the said temperature, and the said molar ratio having a value that is within the said range and is sufficiently high to prevent precipitation of $2Na_2O \cdot 5B_2O_3 \cdot 5O_2$ at the said temperature and water content.

### 2,773,739

### METHOD OF OBTAINING SODIUM BICARBONATE

Ward J. Burkholder, Houston, Tex., assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application January 30, 1953, Serial No. 334,359
13 Claims. (Cl. 23—66)

1. The method of obtaining sodium bicarbonate crystals of a size and quality comparable to those normally obtained in operation of the ammonia-soda process, which includes the step of carbonating sodium chloride brine in the presence of an amine having a boiling point at atmospheric pressure of between 100° and 360° C. and having the formula $NR_1R_2R_3$, wherein $R_1R_2$ and $R_3$ are substituents selected from the group consisting of hydrogen, alkyl containing from 2 to 6 carbon atoms, alkanols containing from 2 to 4 carbon atoms, and primary aminoalkyl containing from 2 to 4 carbon atoms, and where no more than two of $R_1$, $R_2$ and $R_3$ are hydrogen, at an elevated temperature and under pressure.

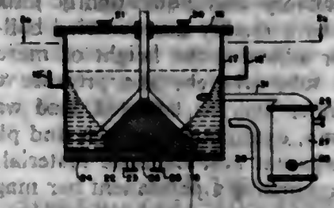
### 2,773,740

### PROCESS AND APPARATUS FOR THE CONTINUOUS PRODUCTION OF AQUEOUS SOLUTIONS OF SODIUM HYDROSULFITE FROM SODIUM AMALGAM AND GASEOUS $SO_2$

Arnoldo Battarra, deceased, late of Milan, Italy, by Marie Elisa Battarra, heir and guardian of heirs, Alberto Battarra, heir, Dino Maveri, Alfonso Mellone, and Luigi Frigeri, all of Milan, Italy, assignors to Montecatini, Societa Generale per l'Industria Mineraria e Chimica, a corporation of Italy

Application March 19, 1953, Serial No. 343,334
Claims priority, application Italy March 21, 1952
7 Claims. (Cl. 23—116)

5. The process of producing an aqueous solution of sodium hydrosulfite which comprises reacting an aqueous buffer solution of sodium sulfite and bisulfite with sodium amalgam and gaseous $SO_2$ on distinct and separate contact surfaces in rapid relative movement, the contact surface between said solution and said sodium amalgam being that of a circular peripheral ring and the contact surface between said solution and said gaseous $SO_2$ being that of a frustum of a rotation paraboloid,



whereby said solution is intensively circulated between said two contact surfaces, the pH of the medium is maintained between about 5.4 and 5.8 and the temperature between about 10 and 25° C., preferably above 15° C., and the gaseous $SO_2$ being fed in substantially stoichiometric proportion in respect to sodium.

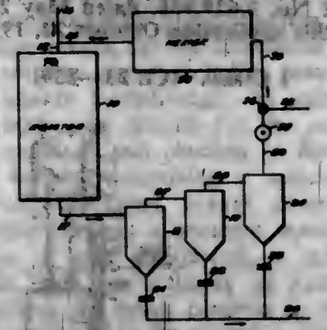


### 2,773,741

### PROCESS FOR THE PRODUCTION OF ALUMINUM OXIDE

Randolph Antonsen, Boston, Mass., assignor to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application November 25, 1952, Serial No. 322,526
1 Claim. (Cl. 23—142)



A process for producing aluminum oxide and gaseous oxides of sulfur from aluminum sulfate which comprises suspending solid particulate aluminum sulfate in the absence of free moisture in a stream of recycle reaction product gases heated to above the decomposition temperature of the aluminum sulfate, conducting the suspension through an externally heated zone, decomposing the aluminum sulfate therein to gaseous oxides of sulfur and solid particulate aluminum oxide suspended therein, the decomposing step being carried out in a zone free of contamination of combustion products, conducting the gases and suspended aluminum oxide, while maintaining said suspension at a temperature above aluminum sulfate recombination temperature, to a cyclonic separation zone, separating the aluminum oxide from the gases therein, withdrawing a portion of the gases from the system, heating the remaining portion of the gases to above the aluminum sulfate decomposition temperature and recycling said heated gases to said externally heated zone as a carrier and decomposition medium for fresh aluminum sulfate.

### 2,773,742

### PREPARATION OF COMPLEX HYDROXIDES OF PLATINUM AND PALLADIUM

James E. Connor, Jr., Drexel Hill, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application June 2, 1954, Serial No. 434,961
11 Claims. (Cl. 23—183)

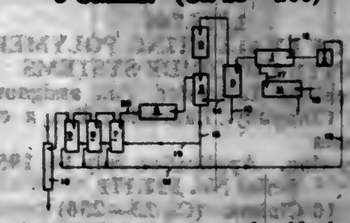
1. A method of producing complex metal hydroxides selected from the group consisting of complex platinum hydroxides and complex palladium hydroxides in which the metal is in the cation in aqueous solution which comprises passing an aqueous solution of the corresponding complex metal salt selected from the group consisting of complex platinum salts and complex palladium salts over an anion exchange resin, the resin being in the hydroxyl cycle.

### 2,773,743

### RECOVERY OF SULFURIC ACID AND IRON OXIDE FROM IRON SULFATE

Walter Fackert, Neurlield, Germany

Application September 17, 1953, Serial No. 380,818
Claims priority, application Germany September 17, 1952
6 Claims. (Cl. 23—200)



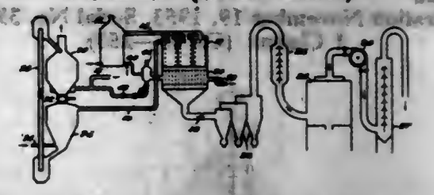
1. A process for the recovery of sulfuric acid and iron oxide from ferrous sulfate, which comprises passing steam through the ferrous sulfate at a temperature above 600° C. but not substantially in excess of about 800° C. in the absence of air and in the presence of an oxidizing agent selected from the group consisting of nitric acid, barium peroxide and potassium chlorate.

### 2,773,744

### CONTINUOUS THERMAL PROCESS OF MAKING CARBON BLACK

Randolph Antonsen, Boston, Mass., assignor to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application March 28, 1952, Serial No. 279,046
5 Claims. (Cl. 23—209.4)



1. A process for producing carbon black and gases composed substantially of hydrogen which comprises the steps of continuously flowing into an unobstructed heat-insulated reaction zone a stream of hydrocarbon gas, heating outside the reaction zone and without dilution an essentially hydrogen gas previously produced in the process to above dissociation temperature of the hydrocarbon gas, flowing the hot hydrogen gas into the reaction zone, thermally dissociating the hydrocarbon gas to carbon black and hydrogen by heat transfer from the hot hydrogen gas, separating the carbon black from said gases produced into the dissociation reaction, externally heating a portion of said thus obtained gases to hydrocarbon dissociation temperature, and recycling said gases to the reaction zone for reaction with additional hydrocarbon gas.

### 2,773,745

### PROCESS FOR THE PRODUCTION OF PURE SILICON IN A COARSE CRYSTALLINE FORM

Keith Hazelle Butler, Marblehead, Mass., and Carl Marcus Olson, Newark, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 20, 1954, Serial No. 444,655
10 Claims. (Cl. 23—223.5)

1. A process for the production of pure 99.98+% silicon in a coarse crystalline and loosely coherent form

which comprises mixing a separately heated, vaporous stream of a reducing metal selected from the group consisting of zinc and cadmium at substantial reaction temperature with a vaporous separately heated stream of a tetrahalide of silicon selected from the group consisting of a chloride and bromide, also at a reaction temperature within a silica reaction chamber, the walls of which are maintained at a temperature above the dew point of the reducing metal and of the dihalide salt by-product of said reducing metal formed in the process but not in excess of a temperature of 1100° C., and recovering the pure crystalline silicon product which results.

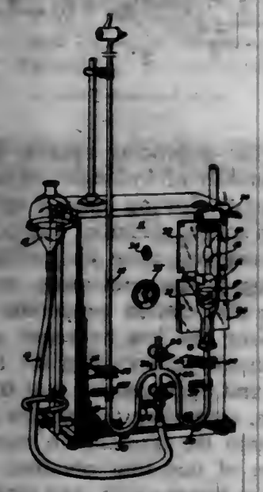
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**2,773,746**
**METHOD OF EVALUATING POLYMERIZED VINYL CHLORIDE SYSTEMS**
Harold A. Roebling, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
No Drawing. Application July 14, 1955, Serial No. 522,171
10 Claims. (Cl. 23—230)

1. The method of testing the stability against heat and light degradation of a resinous system containing as an ingredient thereof a polymerized vinyl chloride, which method comprises incorporating ultramarine blue in said system, exposing the resulting mixture to degradation conditions, and estimating the degree of stability of the system by the color change of the exposed mixture.

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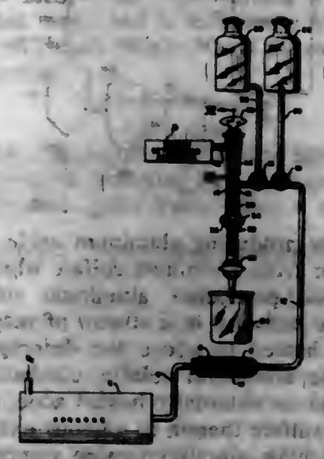
**2,773,747**
**MANOMETRIC APPARATUS FOR DETERMINING THE GAS CONTENT OF LIQUIDS**
Duncan B. King, Wayne, and Joseph A. McNelly, Plymouth Meeting, Pa., assignors to Arthur H. Thomas Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 19, 1953, Serial No. 393,181
1 Claim. (Cl. 23—253)



A manometric apparatus for ascertaining the gas content of a liquid of the Van Slyke type including in combination a casing, an extraction chamber, a gas measuring pipette extending upwardly from said extraction chamber, stop cock means at the upper extremity of said gas measuring pipette, means defining a jacket around said extraction chamber and gas measuring pipette for maintaining the same at a substantially constant temperature, a spring clip mounted to said casing, said spring clip resiliently operatively grasping said jacket means whereby said extraction chamber is retained in vertical disposition, a graduated tube for a column of mercury vertically mounted in respect to said casing, a connecting tube beneath said extraction chamber and graduated tube, spring clip means secured to said casing and resiliently operatively grasping said connecting tube and maintaining it in operative alignment and in liquid communication in respect to said extraction chamber and said graduated tube, said connecting tube being operatively and liquid-tightly joined to said extraction chamber by a readily disassembled ball-and-socket joint and operatively and liquid-tightly joined to said graduated tube by a readily disassembled ball-and-socket joint, means for adjusting the height of mercury within said graduated tube whereby the pressure within said extraction chamber may be adjusted, said water jacket, graduated column, extracting chamber, and pipette being formed of transparent non-magnetic material, a magnetized element comprising a permanent bar magnet having an inert coating, said magnetized element being disposed within the extraction chamber, a motor mounted within said casing with its rotary shaft extending into proximity to said extraction chamber, and a permanent magnet mounted on said shaft operable upon rotation of said shaft to create a rotating magnetic field to act upon said magnetized element and effect rotation of the latter within the extraction chamber whereby liquid within the extraction chamber may be agitated.

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**2,773,748**
**APPARATUS FOR DETERMINING SULPHUR**
Charles B. Francis, Pittsburgh, Pa.
Original application February 9, 1950, Serial No. 143,654, now Patent No. 2,639,968, dated May 26, 1953. Divided and this application October 22, 1952, Serial No. 316,223
1 Claim. (Cl. 23—259)



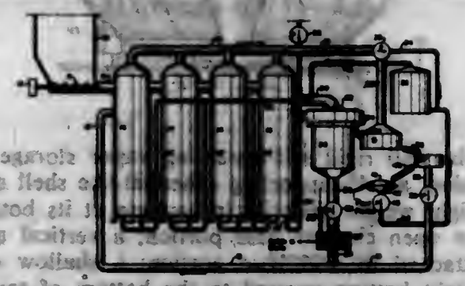
Apparatus for absorbing in a liquid a gas from a mixture of gases comprising an elongated vessel, the top section of said vessel having two outlets, a three-way stop cock in said top section for controlling flow of gas to said outlets, said three-way stop cock being movable to one position to prevent escape of gas from said vessel and to another position to permit flow of unabsorbed gases therefrom, the bottom section of said vessel having an opening therein, a stop cock in said bottom section, said last named stop cock being movable to one position to close said opening and to another position to permit flow of liquid therefrom, a gas dispersing tube in said vessel, said tube having a bulbous portion intermediate its ends with openings therein, the bottom of said tube being open and extending to a point above the last named stop cock, and the top of said tube extending through the wall of said vessel below the top thereof, said tube adapted to be connected to said mixture of gases, a second three-way stock cock, a third three-way stop cock, said second and third three-way stop cocks being positioned in the portion of said tube outside said vessel, a reservoir adapted to contain gas absorbing liquid, a reservoir adapted to contain a rinsing liquid, a connection between



the second three-way stop cock and the first named reservoir, and a connection between the third three-way stop cock and the last named reservoir, said second three-way stop cock being movable to one position to permit flow of absorbing liquid to said vessel and to another position to stop flow of absorbing liquid and permit flow of the mixture of gases to said vessel, said third three-way stop cock being movable to one position to permit flow of rinsing liquid to said vessel and to another position to stop flow of rinsing liquid and permit flow of the mixture of gases to said vessel.

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**2,773,749**
**TOWER AGITATION SYSTEM**
John C. Firtle, Pueblo, Colo.
Application April 16, 1953, Serial No. 349,273
7 Claims. (Cl. 23—271)



1. In an ore-processing system having a closed gas circuit including means for the circulation of gas therethrough and solution circuit including means for the circulation of liquids therethrough, an agitation battery common to both said circuits for the conditioning of ore through exposure and reaction to flow in said gas circuit, said battery comprising a succession of like, closed, vertically-elongated towers communicating at their upper ends through a comomn manifold with the outflow phase of said gas circuit, a tubular column wholly within and longitudinally of each said tower effective to agitate the tower contents in reaction to input of fluid pressure at its lower end, a conduit spacedly paralleling each said column interiorly of the associated tower and extending laterally through the wall thereof to deliver within the next succeeding tower for transfer of tower contents in reaction to input of fluid pressure at its lower end, the said conduit of the tower terminating the battery delivering to processing elements of the solution circuit, a gas return phase line, nozzles through the bases of said towers served by said gas return line and disposed for delivery within lower ends of said columns and conduits, means for selectively regulating the gas input through said nozzles, a solution circuit return phase line serving the tower first in the battery succession, and ore-feeding means serving said latter tower.

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**2,773,750**
**FURNACE**
Leland Consaul, Lachine, Ohio, assignor, by mesne assignments, to The Cleveland Trust Company, Cleveland, Ohio, an Ohio banking corporation
Application June 14, 1951, Serial No. 231,473
6 Claims. (Cl. 23—277)

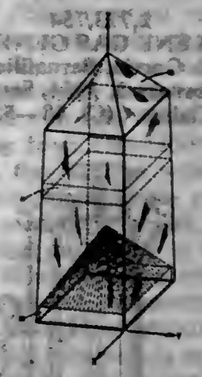
1. In a furnace, the combination of a closed chamber structure comprising a crucible with bottom and side walls formed of refractory material of good thermal conductivity, a cover closing the top of the crucible, and a solid core structure of considerable mass formed of refractory material of good thermal conductivity and supported directly on the bottom wall of the crucible with the major part of its bottom surface in good heat-conducting engagement with the major part of the upper surface of the bottom wall of the crucible, the core structure extending upward from the crucible bottom wall to form for the furnace an annular charge-treating space between the core structure and the side wall of the crucible and the chamber structure having in the upper part thereof a charging opening for delivery of solid material into the annular charge-treating space and a



separate discharge opening for vapors and having in the bottom thereof a discharge passage for molten material; and means wholly outside the charge-treating space for heating the side and bottom walls of the crucible and causing effective heating of the core by the conduction of heat thereto from the bottom wall of the crucible.

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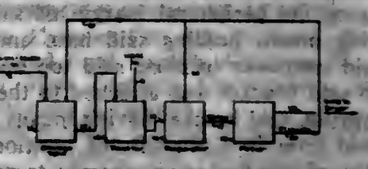
**2,773,751**
**CRYSTAL GROWING METHOD**
Allan E. Carlson, Euclid, Ohio, assignor to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application October 12, 1953, Serial No. 385,315
8 Claims. (Cl. 23—302)



1. A method of inhibiting the side growth of P-type dihydrogen phosphate crystals during the growth thereof in a growing solution of such crystals, which comprises the step of providing in the growing solution, in an amount sufficient to have significant crystal side growth inhibiting effect, polyphosphate falling within the groups consisting of those containing the ions $P_3O_9^{---}$ and $P_3O_{10}^{---}$.

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**2,773,752**
**CRYSTALLIZATION OF SODIUM CYANIDE**
Vincent W. Kreuser and Charles H. Lembo, Niagara Falls, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application July 20, 1953, Serial No. 369,034
4 Claims. (Cl. 23—302)



1. The method of producing white crystalline sodium cyanide which comprises continuously feeding a con-

centrated solution of sodium cyanide into an evaporator held at a temperature of 50°–70° C. and a pressure of 40–80 mm. of mercury, forming a slurry in said evaporator comprising saturated mother liquor and crystals of sodium cyanide, maintaining a concentration of sodium hydroxide of between 0.2 and 3% in said mother liquor and continuously separating a portion of said crystals from said mother liquor and recycling a portion of said liquor.

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2,773,753

**PROCESS FOR PRODUCING AMMONIUM NITRATE OF ANY DESIRED SIZE PARTICLE**

Leonard A. Stengel, Terre Haute, Ind., assignor to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland

No Drawing. Application January 6, 1953, Serial No. 329,923

1 Claim. (Cl. 23—313)

A continuous process of producing solid granular ammonium nitrate of predetermined particle size which comprises continuously depositing a stream of molten ammonium nitrate on the top of a flat, moving, endless cooling surface, controlling the rate of flow of the molten ammonium nitrate and the speed of the cooling surface so that the molten mass solidifies in the form of a sheet having a thickness ranging from about 1/16 to 3/16 of an inch and corresponding substantially to the particle size desired in the granular product, cooling the said sheet to a temperature below 200° F. and then crushing and granulating the sheet to an average particle size ranging from about 1/16 to 3/16 of an inch and corresponding substantially to the thickness of said sheet.

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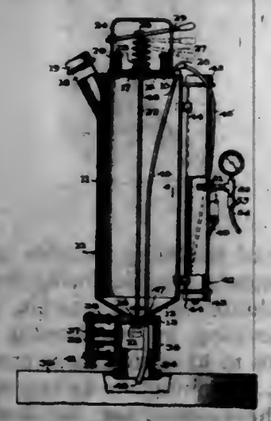
2,773,754

**ACETYLENE GAS GENERATOR**

Leopold E. Garcia, Bernalillo, N. Mex.

Application February 3, 1954, Serial No. 407,838

2 Claims. (Cl. 48—53.3)



1. A carbide gas generator comprising a water holding tank, a closed carbide container disposed above and in communication at its lower end with said tank, a valve controlling the supply of carbide to said tank, said container having an opening at the top thereof, a pressure responsive diaphragm connected to said valve and overlying said top opening, a first spring bearing at one end against said diaphragm and opposing internal pressure in said generator, a bracket having an annular base overlying and engaging the peripheral margin of said diaphragm, other spring means holding said base and said margin against said container to close said top opening, a lever pivoted to said bracket and attached to the other end of said first spring, said bracket having means for selectively holding said lever in a plurality of positions to vary the compression of said first spring thereby to move said valve to closed position at selected pressures, said other spring means yielding to a predetermined pressure in said container to permit said diaphragm to be moved away from said top opening thereby to release gas under pressure from said container, and a back pressure chamber containing water and having an inlet in communication with said tank and also having an outlet.

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2,773,755

**VAPOR STORAGE VESSEL**

Lyle V. Larson, Chicago, Ill., assignor to Chicago Bridge & Iron Company, a corporation of Illinois

Application June 2, 1953, Serial No. 359,147

1 Claim. (Cl. 48—174)



A thin wall rigid self-sustaining vapor storage vessel comprising: a self-supporting spherical-like shell of relatively light weight material incomplete at its bottom to form an open circular base portion; a vertical annular skirt attached to said base portion; a shallow conical vapor tight bottom secured to the bottom of said skirt and forming a vapor tight vessel with said skirt and shell; a flexible floating diaphragm within and secured to said shell and dividing the vessel into two compartments; an annular inclined perforated plate diagonally positioned between the lower end of said shell and the bottom, forming a vapor distributing chamber around the bottom of the vessel between said perforate plate and said vertical skirt; inlet and outlet means communicating with said distributing chamber; a foundation ring resting on ground surface and supporting said shell by indirectly engaging said skirt; fill material within said ring and between said ground surface and said conical bottom and forming a support for the latter, said foundation ring having sufficient weight to resist overturning movement of wind pressure; and means for securing said skirt to said foundation ring, whereby said vessel may be supported directly upon a foundation ring resting directly upon ground surface unprepared except as to leveling.

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2,773,756

**PROCESSES FOR THE PRODUCTION OF CARBON MONOXIDE AND HYDROGEN FROM METHANE OR THE LIKE**

Heinrich Merkel, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application December 31, 1952, Serial No. 329,142

7 Claims. (Cl. 48—196)

1. A catalytic process for the production of synthesis gas containing carbon monoxide and hydrogen of high purity and of a relatively low nitrogen content without substantially impairing the activity of an iron conversion catalyst employed in the process, which comprises subjecting to partial combustion a mixture of a normally gaseous hydrocarbon and a gas selected from the group consisting of oxygen and oxygen-enriched air, the oxygen being present in an amount insufficient to react completely with said hydrocarbon, to thereby form a gaseous product of partial combustion comprising carbon monoxide, carbon dioxide, steam, and unreacted normaly gaseous hydrocarbon, admixing said gaseous product with an amount of synthesis gas containing carbon monoxide and hydrogen sufficient to produce a gaseous mixture in which the partial pressure of the steam and the partial pressure of the carbon dioxide are reduced to substantially the value which would be obtained if the gaseous product of partial combustion was produced as the result of subjecting a partial combustion a mixture of said normally gaseous hydrocarbon and air of normal oxygen content, and thereafter passing the thus-produced gaseous mixture into contact with the iron catalyst to thereby convert said gaseous product of partial combustion to synthesis gas consisting primarily of carbon monoxide and hydrogen.



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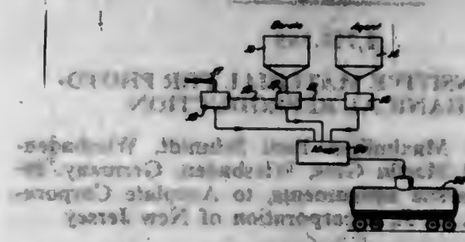
2,773,757

**PROCESS AND COMPOSITION FOR APPLICATION OF SODIUM BORATE FOR VEGETATION CONTROL**

George A. Connell, Los Angeles, and Elden L. Paddock, Orange, Calif., assignors, by mesne assignments, to United States Borax & Chemical Corporation

Application May 14, 1953, Serial No. 355,132

11 Claims. (Cl. 71—2.2)



7. A composition of matter for hydraulic application to vegetation for controlling the growth thereof, said composition comprising an aqueous suspension containing between about 3 and about 12 pounds of borax per gallon of water, the borax being predominantly coarser than about 40 mesh, the suspension containing also a relatively finely divided granular substantially insoluble substance that is chemically inert with respect to the borax, said substance having thixotropic properties and being present in a concentration that is greater than about 1/6 that of the borax and is sufficient to render the suspension thixotropic and stable during prolonged storage, said suspension being thereafter liquifiable by mild agitation to permit hydraulic application of the suspension.

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2,773,758

**HERBICIDAL COMPOSITIONS**

Arthur H. Schlesinger, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 3, 1953, Serial No. 346,781

8 Claims. (Cl. 71—2.3)

1. A herbicidal composition comprising an oil-in-water emulsion of a phytotoxic quantity of a chloro-substituted 3-acetylbiphenyl.

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2,773,759

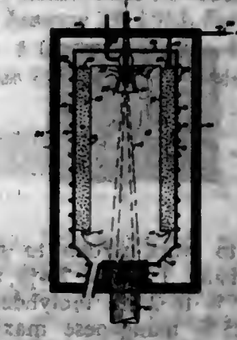
**PRODUCTION OF REFRACTORY METALS**

Ralph S. Hood, Marblehead, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application February 19, 1952, Serial No. 272,378

5 Claims. (Cl. 75—84.5)

1. A process for producing a Group IV*a* metal selected from the group consisting of zirconium and titanium which comprises contacting the tetrachloride of said Group IV*a* metal with a gaseous reducing metal selected from the group consisting of sodium and magnesium in a reaction zone at a temperature higher than the boiling point of the chlorides of said reducing metal but below the boiling point of said Group IV*a* metal whereby condensed Group IV*a* metal and vaporous chlorides of said reducing metal are formed, passing liquid reducing metal and said vaporous chlorides into a heat exchange zone in heat exchange relationship with each other whereby said



liquid reducing metal is vaporized and said vaporous chlorides are condensed, and passing said vaporized reducing metal into the aforesaid reaction zone.

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2,773,760

**PRODUCTION OF TITANIUM METAL**

Charles H. Winter, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 25, 1950, Serial No. 192,158

6 Claims. (Cl. 75—84.5)

1. A method for refractory metal production comprising reducing a halide of said metal the halogen component of which has an atomic number greater than 9 by charging a reducing metal selected from the group consisting of alkali and alkaline earth metals having an electrode potential in aqueous solution greater than 2.0 into a plurality of closed reaction vessels maintained in direct communication with each other and under an atmospheric of an inert rare gas, isolating one of said vessels from the remainder and reacting the reducing metal charge therein with said metal halide at a reaction temperature ranging from 750–1100° C., upon substantial completion of the reaction withdrawing therefrom while in molten state metal halide reaction by-products formed during the reduction reaction, heating the sponge metal reaction product remaining in said vessel under a vacuum to distill off and remove refractory metal subhalides and reducing metal impurities present in said sponge, during the distillation operation again maintaining the plurality of reaction vessels in direct communication with each other and passing vapors evolved in such distillation into a vessel containing unreacted reducing metal charge while subjecting the latter vessel to external cooling to condense therein the vapors being passed thereto, upon completion of the purification and distillation operation again isolating the vessel containing said sponge metal product from the vessel into which said evolved vapors have been passed, recovering the purified refractory metal from said isolated vessel, and reacting within said temperature range the unreacted reducing metal charge in said vessel into which said evolved vapors have been passed with said refractory metal halide reactant and in the presence of the condensed products from said distillation operation.

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2,773,761

**FERROUS CHROME ALLOY**

John H. Fregon, Calumet City, Ill., Walter F. Jicha, Hammond, Ind., and Emil Vesilik, Chicago, Ill., assignors to Calumet Steel Castings Corporation, Hammond, Ind., a corporation of Indiana

Application January 6, 1954, Serial No. 402,888

3 Claims. (Cl. 75—126)

2. A ferrous chrome alloy for casting purposes characterized, as cast, by a matrix of unresolved pearlite

having a Rockwell C hardness of substantially 45 and containing complex carbides of iron, chromium and molybdenum, the alloy being austenized by air quenching from substantially 2020° F. after which the same demon-



strates an ability to work-harden to substantially 65 Rockwell C, comprising, 1.8% to 2.4% carbon, 15% to 17% chromium, 1.5% to 2.0% molybdenum, 1.0% silicon maximum, 1.25% manganese maximum, and the balance iron.

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2,773,762

## MANUFACTURE OF UNOXIDISABLE TIMEPIECE SPRINGS

Ernest Dubois, La Chaux de Fonds, and Bruno Siegrist and Charles Wahler, Geneva, Switzerland

No Drawing. Application March 27, 1951, Serial No. 217,872.
Claims priority, application Switzerland May 12, 1949
2 Claims. (Cl. 75—134)

1. An unoxidisable timepiece mainspring with high resistance to fatigue consisting of a thin ribbon formed of an alloy containing:

10–25% of iron
1–5% of titanium
1–5% of columbium
Up to 10% of tungsten
Up to 10% of molybdenum
Up to 20% of chromium
Up to 5% of tantalum
Rest of cobalt and nickel,

the nickel content being in the limits of 25–35%, the cobalt content being in the limits of 20–45% of the total weight and the content of columbium and titanium together being at least equal to 3% and not exceeding 7%, said alloy being hardened and the components of the alloy being in a state of structural equilibrium.

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2,773,763

## MINERAL FIBER PRODUCT CONTAINING HYDRATED VIRGIN KRAFT PULP AND METHOD OF PRODUCING THE SAME

Wylmer L. Scott, Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application April 22, 1954, Serial No. 425,046
18 Claims. (Cl. 92—3)

1. A self-sustaining mineral fiber product comprising a major portion by weight of artificially formed mineral fibers and a binder therefor comprising virgin kraft pulp having a maximum average permanganate number of 24 and hydrated to a maximum average Canadian 3-gram freeness of 10.

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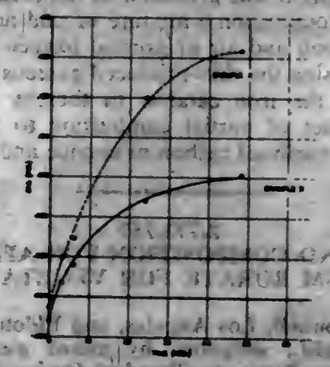
2,773,764

## MINERAL FIBER PRODUCT

Arthur D. Park, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application April 22, 1954, Serial No. 425,047
5 Claims. (Cl. 92—3)

1. A self-sustaining acoustical board comprising nodulated, artificially formed mineral fibers, an amylaceous binder for the fibers, mineral filler, and as an agent for reducing the tendency of the material to sag under condi-



tions of high humidity 0.4% to 4.0% based on the total weight of the material of hydrated virgin kraft pulp.

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2,773,765

## LIGHT SENSITIVE MATERIAL FOR PHOTOMECHANICAL REPRODUCTION

Oskar Süs and Maximilian Paul Schmidt, Wiesbaden-Biebrich, and Martin Glos, Wiesbaden, Germany, assignors, by mesne assignments, to Azoplate Corporation, Summit, N. J., a corporation of New Jersey

No Drawing. Application August 11, 1953, Serial No. 373,681
Claims priority, application Germany August 16, 1952
19 Claims. (Cl. 96—33)

1. An article for use in the manufacture of plates for photomechanical reproduction comprising a sheet metal base and a thin uniform light-sensitive layer coated on said base adapted to being converted into imaged and non-imaged areas, said layer including a water insoluble material of the group consisting of peri and ana nitronaphthalene-sulfonic acids of the group consisting of those sulfonic acids in which the sulfo group is esterified by an aromatic hydroxy compound, those in which the sulfo group is esterified by a heterocyclic hydroxy compound, those sulfonic acids which are amidated and in which the N-atom of the amide group is substituted by a member of the group consisting of aryl, alkyl and heterocyclic compounds.

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2,773,766

## LIGHT-SENSITIVE MATERIAL FOR PHOTOMECHANICAL REPRODUCTION AND PROCESS FOR THE PRODUCTION OF IMAGES

Oskar Sus and Karl Möller, Wiesbaden-Biebrich, Germany, assignors, by mesne assignments, to Azoplate Corporation, Summit, N. J., a corporation of New Jersey

No Drawing. Application December 7, 1953, Serial No. 396,788
Claims priority, application Germany December 10, 1952
19 Claims. (Cl. 96—33)

1. A presensitized lithographic printing plate comprising a flexible sheet-like base of a material selected from the group consisting of aluminum, zinc and papers coated with a coating composition comprising mineral filler and adhesive, said base having a hydrophilic surface, a thin uniform layer coated on said surface of a light sensitive material including an ortho-nitro-formyl compound selected from the group consisting of ortho-nitro-aldehydes of the benzene and naphthalene series.



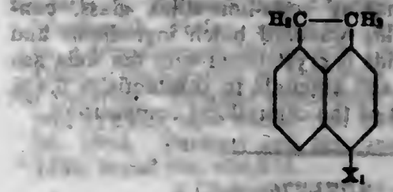
2,773,767

## LIGHT SENSITIVE MATERIAL

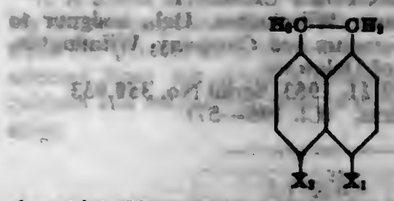
Martin Tessmann and Wilhelm Neugebauer, Wiesbaden-Biebrich, Germany, assignors, by mesne assignments, to Azoplate Corporation, Summit, N. J., a corporation of New Jersey

No Drawing. Application April 14, 1952, Serial No. 282,266
Claims priority, application Germany April 17, 1951
15 Claims. (Cl. 96—33)

1. A presensitized lithographic printing plate for use in the graphic arts, comprising a sheet metal base support material coated with a thin uniform and continuous layer adhering to said support, said layer comprising a compound selected from the group consisting of those having one of the following general formulae:



and



in which $X_1$ and $X_2$ stand for a member of the group consisting of halogen, nitro, alkoxy, acylated amino, and acyl residues of the general formula —CO—R in which R stands for a member of the group consisting of aromatic radical, an alkyl radical, an alkylene radical, an aromatically substituted alkyl radical, and an aromatically substituted alkylene radical.

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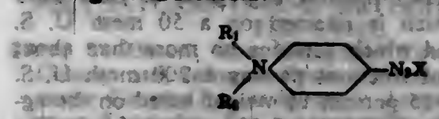
2,773,768

## LIGHT-SENSITIVE DIAZOTYPE MATERIAL

Theodorus Petrus Wilhelmus Sanders, Venlo, and Johannes Henricus Andreas Wilders, Blerick, Netherlands, assignors, by mesne assignments, to Chemische Fabriek L. van der Grinten N. V., Venlo, Netherlands, a corporation of the Netherlands

No Drawing. Application March 11, 1952, Serial No. 276,062
Claims priority, application Netherlands March 20, 1951
19 Claims. (Cl. 96—75)

1. Light-sensitive diazotype material comprising a support bearing a one-component diazo film layer which is suitable for development with a thin layer of an aqueous developer, wherein the diazo film layer is a continuous substantially dry and non-sticky layer of measurable thickness that covers said support, contains an organic colloidal solid film-forming material, is hydrophilic and contains substantially entirely within said layer a diazo compound of the general formula:



in which X is an anion and $R_1$ and $R_2$ are alkyl radicals together having a total of from 10 to 12 carbon atoms, each alkyl radical containing at least 4 and at most 7 carbon atoms, and not more than one of the two having a side chain attached to the alpha carbon atom.

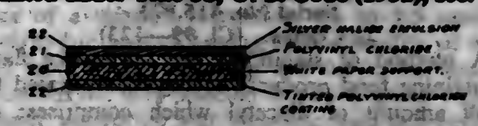


2,773,769

## INSTANT DRYING PHOTOSTAT

Max H. Goldschein, Washington, D. C.

Application January 29, 1953, Serial No. 334,107
1 Claim. (Cl. 96—84)
(Granted under Title 35, U. S. Code (1952), sec. 266)




A rapid-drying, light-protected, non-projectible, composite printing sheet comprising an opaque, water-impervious, flexible white sheet of polyvinyl chloride impregnated with zinc oxide, a light-sensitive silver halide coating on one surface of the sheet adapted to reproduce a latent image on exposure to light, the sheet carrying red tinting spaced from the light-sensitive coating resisting the passage of actinic rays through the sheet when rolled in storage, whereby further exposure of the latent image prior to development of the print is prevented, and the unrolled developed print immediately when drawn from developing, fixing and washing baths is substantially in dry condition.

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2,773,770

## FEEDS CONTAINING ANIMAL PROTEIN FACTORS, VITAMIN $B_{12}$ AND OTHER GROWTH-PROMOTING FACTORS

Bunro Maki, Tokyo, and Ikuo Ushikoshi, Chiba-ken, Japan; said Ushikoshi assignor to said Maki

No Drawing. Application December 7, 1951, Serial No. 260,544
1 Claim. (Cl. 99—9)

A method for the preparation of an all vegetable feed for livestock comprising essentially aerobically fermenting a solid vegetable medium, spread over a hurdle, said medium wetted with not more than about 10% by weight thereof of corn juice and inoculated with *Neurospora crossa* to form a growth promoting substance, said *Neurospora crossa* growing for about one to four days at a temperature of from about 20° C. to about 44° C., whereafter the medium is inoculated with *Rhizopus nigricans* and growth permitted for an additional period of time of at least about one day at a temperature of from about 20° C. to about 44° C., after which the medium is dried and pulverized.

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2,773,771

## SYNERGISTIC COMPOSITIONS OF MATTER COMPRISING THE ALCOHOL-SOLUBLE MOIETY OF VEGETAL LECITHIN

Percy L. Julian, Oak Park, Herbert T. Iverson, Elmhurst, and Sol B. Radlove, Chicago, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application June 5, 1952, Serial No. 291,974
11 Claims. (Cl. 99—15)

1. As a composition of matter, a synergistic emulsifier mixture composed by weight of 10–35% of the alcohol-soluble moiety of vegetable lecithin, balance substantially all at least one substance having hydrophylic and lipophylic groups and selected from the group consisting of mixtures of mono- and di-glycerides, vegetable oils which have been hydroxylated in the presence of a lower hydroxy carboxylic acid until the iodine value has been reduced at least 20 units, and long chain fatty acid partial esters of anhydrides of hexahydric alcohols, said mixture giving a volume of gelatinized starch of not more than 40 milliliters in the Bradley amylose test, and being substantially free of the alcohol-insoluble moiety of vegetable lecithin.

2,773,772

**METHOD OF IMPARTING A BUTTER-LIKE FLAVORING TO FAT-CONTAINING FOOD PRODUCTS AND THE RESULTING PRODUCT**

Dwight E. Mather, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application March 12, 1954, Serial No. 415,973

21 Claims. (Cl. 99—123)

1. A method of stabilizing the butter-like flavor of fat-containing food products having incorporated therein a small amount of diacetyl which comprises: adding thereto a small amount of butyl alcohol.

2,773,773

**SEALING PROCESS**

Clarence L. Hunter and Henry H. Wright, Fredericksburg, Va., assignors to American Viscose Corporation, Wilmington, Del., a corporation of Delaware

Original application May 19, 1949, Serial No. 94,164, now Patent No. 2,653,432, dated September 29, 1953. Divided and this application July 27, 1953, Serial No. 370,504

2 Claims. (Cl. 99—176)



1. The method of producing a stuffed product which comprises continuously passing a continuous hydrophilic sheet material through a path, overlapping opposite lateral edges of the sheet at a point in the path to form a tubular casing, continuously passing an elongated thermoplastic member through another path merging with the first path between the overlapped edges of the sheet, preheating the member to render it adhesive as it proceeds to the point of merging, pressing the member and the overlapped edges to bond them together and thereby seal the casing, continuously passing a plastic foodstuff through a third path extending into the tubular casing, confining the plastic foodstuff out of contact with the casing as it passes through the point of sealing, and thereafter discharging the plastic foodstuff into direct contact with the interior of the casing at a point beyond the point of sealing.

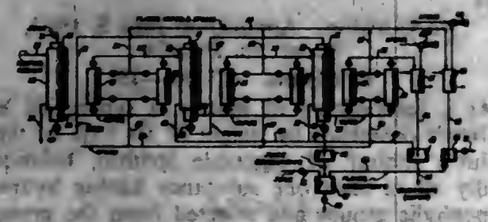
2,773,774

**CONCENTRATION OF FRUIT JUICES**

Albert G. McCarthy, Tampa, Fla., and Carlos A. Irazoqui, New York, N. Y., assignors to National Engineering & Development Corporation, New York, N. Y.

Application September 22, 1953, Serial No. 381,628

12 Claims. (Cl. 99—205)



1. In a process for producing a fruit juice concentrate which includes the step of evaporating water and volatile flavoring materials from fruit juice, the improvement which comprises, adsorbing on a solid adsorbent flavoring materials vaporized with said water, recovering said flavoring materials from said adsorbent as a liquid flavor concentrate and adding at least a portion of said flavor concentrate to said juice concentrate.

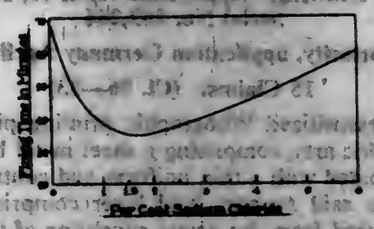
2,773,775

**GLASS COMPOSITION AND BATCH THEREFOR**

William C. Lovegood, Toledo, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

Application December 21, 1953, Serial No. 399,426

10 Claims. (Cl. 106—52)



1. A batch for making soda-lime-silica glass, consisting essentially of the standard batch ingredients and wherein sodium chloride is crystallized with the soda ash content of the batch and amounts to substantially 0.6% to 4.0% of the weight of the crystallized composition.

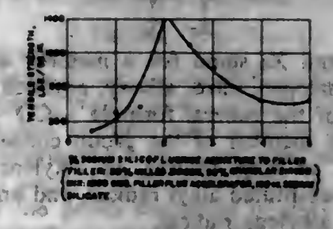
2,773,776

**REFRACTORY CEMENT**

Verne Wesley Weldmann, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application April 21, 1953, Serial No. 350,033

3 Claims. (Cl. 106—57)



1. A corrosion-resistant refractory cement composition consisting essentially of a workable mixture made up of a filler of granular zircon having a particle size distribution such that approximately one-third lies in the range from 80 to 160 mesh, one-third from 160 to 180 mesh and one-third finer than 180 mesh and milled zircon having a particle size distribution such that aproximately 95% by weight is finer than 325 mesh, said granular zircon being in the proportion of about 50 to 75% by weight of the total zircon, about 1½ to 2% by weight sodium silicofluoride setting accelerator, and a binder of aqueous sodium silicate.

2,773,777

**BITUMINOUS COMPOSITIONS**

Peter Alexander, Surbiton, and David Rupert Leach, Warrington, England, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application December 30, 1953, Serial No. 401,382

13 Claims. (Cl. 106—96)

1. A bituminous composition comprising as the sole aggregate a siliceous mineral aggregate, at least 50% by weight of which is retained on a 50 mesh U. S. standard sieve and which contains no more than about 25% by weight of fractions passing a 200 mesh U. S. standard sieve, 5–15 percent by weight based on the aggregate of Portland cement, 5–20 percent by weight based on the aggregate of an asphalt emulsified in water with sodium caseinate to form an emulsion containing 40–60% asphalt having an ASTM penetration between about 40 and about 500 at 25° C. and 0.2–2 percent by weight based on the aggregate of calcium chloride.



2,773,778

**ORGANIC FILM-FORMING PLASTIC CONTAINING 2,2',4,4'-TETRAHYDROXYBENZOPHENONE AS ULTRAVIOLET ABSORBENT**

Paul K. Hoch and Robert W. Wynn, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 7, 1951, Serial No. 245,642

4 Claims. (Cl. 106—187)

1. An ultraviolet absorbing composition of matter comprising a light-transmitting organic film-forming plastic carrier having uniformly dispersed therein 2,2',4,4'-tetrahydroxybenzophenone.

2,773,779

**TREATING SOLUTION FOR PHOTOLITHOGRAPHIC PRINTING PLATES**

Frederic E. Brinstick and Charles H. Van Dusen, Jr., Westbrook, Maine, assignors, by mesne assignments, to Addressograph-Multigraph Corporation, Cleveland, Ohio, a corporation of Delaware

No Drawing. Original application April 23, 1951, Serial No. 222,523, now Patent No. 2,692,872, dated October 26, 1954. Divided and this application January 25, 1954, Serial No. 406,075.

2 Claims. (Cl. 106—243)

1. A liquid desensitizer solution for planographic printing plates composed of oleic acid having dissolved therein from 0.1 percent to 5 percent of a water-insoluble soap selected from the group consisting of aluminum, zinc, calcium and magnesium salts of oleic, stearic and plamitic acids.

2,773,780

**EXTERIOR SURFACE COATINGS**

Donald F. Kocmecks, Elizabeth, and Joseph F. Nelson, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 16, 1953, Serial No. 362,148

13 Claims. (Cl. 106—243)

13. A surface coating comprising an oily polymer of butadiene-1,3 and at least 1% of a solid water insoluble salt of a metal of the group consisting of aluminum, zinc, calcium and magnesium and an acid from the group consisting of lauric, palmitic and stearic.

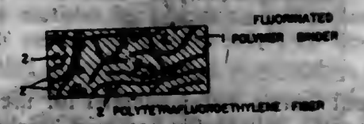
2,773,781

**COATED ARTICLE AND METHOD OF MAKING**

Ernest A. Rodman, Newburgh, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application September 24, 1954, Serial No. 458,288

8 Claims. (Cl. 117—138.8)




1. A fibrous structure of polytetrafluoroethylene filaments impregnated with a copolymer of tetrafluoroethylene and hexafluoropropylene fused into a matrix.

2,773,782

**FELT SATURANTS AND METHOD OF MAKING THE SAME**

Lloyd V. Hassel, East Hempfield Township, Lancaster County, and John A. Parker, Manor Township, Lancaster County, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application August 11, 1953, Serial No. 373,688

5 Claims. (Cl. 117—140)

4. A waterproof felt adapted for use as a floor covering backing comprising felt saturated with the product obtained by heating siccative oil acids in the presence of about 5% to about 10% excess of at least one polyol having a functionality greater than 2 solely from hydroxyl groups to esterify said acids, heating the resulting material in the presence of 0.4 to 0.8 mole of an alpha, beta, olefinically unsaturated dicarboxylic acid per mole of ester, and heating said acid reaction product in the presence of a mixture containing 0.6 to 1.5 equivalent of a polyhydric alcohol having a functionality of at least 3 solely from hydroxyl groups and 0.2 to 0.6 equivalent of a dicarboxylic acid selected from the group consisting of phthalic anhydride and dilinoleic acid per equivalent of said acid reaction product.

2,773,783

**PRODUCTION OF WELL DRILLING STARCHES**

Klaus Laustroth, Houston, Tex., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 1, 1952, Serial No. 279,967

3 Claims. (Cl. 127—32)

1. The process of preparing a starchy filter loss reducing additive for drilling muds comprising, adding urea to a slurry the major constituents of which are water and a substance chosen from the class of starch and starchy flours in an amount equal to from 0.2 to 2.0 percent of urea by weight of said starchy substance, heating the slurry to a temperature at least as high as the gelatinization temperature of the starch contained therein, and drying the heated slurry for at least part of the time in contact with a heated metal surface.

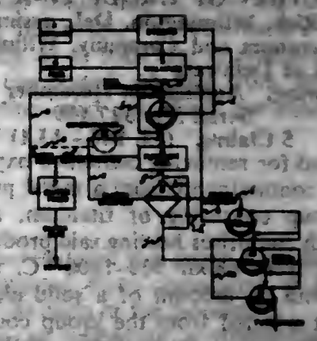
2,773,784

**STARCH MANUFACTURING PROCESS INVOLVING FLOTATION AND CENTRIFUGAL SEPARATION**

Edgar H. Williams, Glen Ellyn, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

Application April 4, 1952, Serial No. 280,548

2 Claims. (Cl. 127—68)



1. In the process of obtaining starch from grain wherein the grain is steeped, comminuted and subjected in water to germ and fibre separating operations yielding mill starch liquor containing starch, gluten and solubles; treating mill starch to yield a gluten rich fraction and a starch rich fraction; the improvement which comprises adjusting the gravity of the mill starch liquor to about 12° Bé. to about 19° Bé. at 60° F. subjecting the liquor to froth flotation to obtain a gluten rich fraction and a starch rich fraction; and thereafter adjusting the gravity of the starch fraction to about 10° Bé. to about 12° Bé. at 60° F. and subjecting the starch fraction to continuous centrifugal separation to separately remove gluten in an overflow and starch in underflow, supplying to the centrifuge for flushing operations water having the same solubles content as the starch fraction entering the centrifuge, and using process waters derived from the overflow and underflow for steeping and subsequent milling operations.

2,773,785

## APPETITE SATIENT COMPOSITION

Edgar A. Ferguson, Jr., Brooklyn, N. Y.

No Drawing. Application August 15, 1952, Serial No. 304,635
5 Claims. (Cl. 131—17)

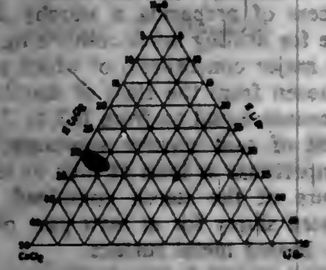
1. As a new article of manufacture a combustible substance adapted to be used in smoking having intimately admixed therewith and distributed therethrough tartaric acid in an amount of between 0.01–0.04 gram tartaric acid per each gram of said combustible substance which upon combustion of said combustible substance volatilizes to act in the mouth of the person smoking to reduce the appetite.

2,773,786

## ELECTROLYTE FOR PRIMARY GALVANIC CELLS

George T. Jobe, Cleveland, Ohio, assignor to Union Carbide and Carbon Corporation, a corporation of New York

Application June 12, 1953, Serial No. 361,192
2 Claims. (Cl. 136—155)



1. In a low temperature primary galvanic cell of the zinc-carbon-manganese dioxide system having an aqueous electrolyte containing up to 20% zinc chloride and up to 3% ammonium chloride, the improvement which comprises the incorporation in such electrolyte of 23% to 32% calcium chloride and 0.5% to 7% lithium bromide by weight of electrolyte.

2,773,787

## PRODUCTION OF GROUP IV-A METALS

Christian E. Rick, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 20, 1952, Serial No. 327,159
5 Claims. (Cl. 148—13.1)

4. A method for removing combined oxygen and nitrogen impurity contaminants from a metal product selected from the group consisting of titanium, zirconium and hafnium which comprises heating said product to temperatures ranging from about 500–1800° C. under an inert atmosphere with an amount of a solid elemental metal-treating agent selected from the group consisting of germanium, gallium and indium substantially the chemical equivalent of said contaminants and until the latter volatilizes as compounds of said treating agent, effecting said heating in a closed reaction zone and at a temperature at least equal to the volatilization temperature of said compound but below the boiling point of said treating agent, and separating and recovering the resulting purified, treated metal product from said volatilized contaminant compounds.

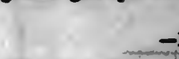
2,773,788

## LAMINATE AND RESINOUS COMPOSITION

John K. Magrane and William S. Sloatman, Jr., Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 13, 1955, Serial No. 481,702
10 Claims. (Cl. 154—43)

9. A laminate comprising the heat and pressure consolidated structure of a core stock impregnated with 25%–35% by weight of a thermosetting resinous composition, a 6–12 mil print sheet impregnated with from about 35% to about 45% by weight of a melamine-formaldehyde resinous composition and a 2–5 mil overlay sheet impregnated with from about 60% to about 75% by weight of a melamine-formaldehyde resinous composition; wherein the melamine-formaldehyde resinous compositions contain from about 1% to about 35% by weight of a mixture of (1) a α-alkyl-D-glucoside, wherein the alkyl group thereof contains from about 1 to 4 carbon atoms and (2) the methylol derivative of a compound containing the group



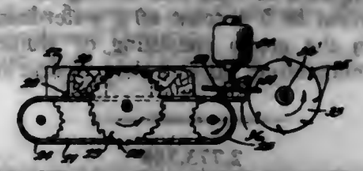
wherein X is a member selected from the group consisting of $SO_2$ and CO and wherein the weight ratio of said glucoside to said methylol derivative compound is from about 1:3 to about 3:1 respectively.

2,773,789

## CROSSCUT FIBER AND METHOD FOR ITS PREPARATION

James D'A. Clark, Longview, Wash., assignor to Longwood Corporation, Chicago, Ill., a corporation of Illinois

Application March 23, 1953, Serial No. 344,089
12 Claims. (Cl. 154—45.9)



1. A crosscut woody wafer adapted for use in a consolidated structure, said wafer having a thickness within the range of 0.002 to 0.015 inch in which the fibers are substantially parallel to and extend longitudinally of the wafer and having a length at least ten times the thickness of the wafer but less than 5 inches with the ends of the wafer at an acute angle with the broad faces.

2,773,790

## HARD MOLDED BOARD

James D'A. Clark, Longview, Wash., assignor to Longwood Corporation, Chicago, Ill., a corporation of Illinois

Application September 2, 1955, Serial No. 532,146
9 Claims. (Cl. 154—45.9)



1. A crosscut woody wafer adapted for use in a consolidated structure, said wafer having a thickness within the range of 0.015–0.065 inch in which the fibers are substantially parallel to and extend longitudinally of the wafer and having a length at least ten times the thickness of the wafer but less than 5 inches with the ends of the wafers at an acute angle with the broad faces.

2,773,791

## ARMORED GARMENT

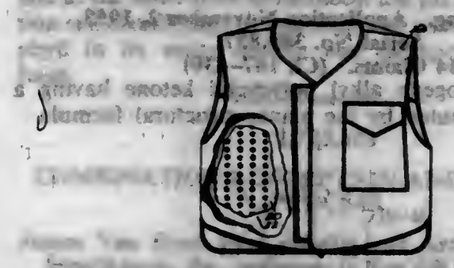
Charles P. MacIver, Stowe, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application January 19, 1954, Serial No. 405,059
16 Claims. (Cl. 154—52.5)

1. Armored garment comprising outer, a plurality of intermediate, and inner layers of woven high tenacity



elongatable plastic textile material, said layers being resin spot-laminated, the spot-laminations of said outer, intermediate and inner layers being located between alternate plies and transversely aligned in columns, and said spot-laminations being discontinuous and arranged



in spaced rows extending over substantial portions of the area of said garment, said spaced rows being staggered in depth; whereby said garment is rendered highly flexible.

2,773,792

## METHOD OF MAKING A LAMINATED STRUCTURE

Robert J. Nebesar, Bristol, Tenn., assignor to Universal Moulded Products Corporation, Bristol, Va., a corporation of Delaware

Application June 19, 1953, Serial No. 362,740
1 Claim. (Cl. 154—110)



The method of forming a laminated structure which comprises forming a resin-impregnated fabric spar, molding said spar together with cellular plastic in a mold to conform the cellular plastic to the spar and to the mold, subsequently surrounding said spar and cellular plastic with a pair of resin-impregnated fabric sheets and molding the sheets, the spar and the cellular plastic into a unitary structure within the same mold.

2,773,793

## MODIFIED MELAMINE RESINS

George L. Fraser, Williamsburg, and Curtis Elmer, Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 19, 1953, Serial No. 343,493
6 Claims. (Cl. 154—128)

1. In the method for preparing a laminate in which a plurality of resin-impregnated layers of fibrous material are assembled in superimposed relationship, placed under pressure and heated until the resin has cured, the improvement which comprises impregnating said fibrous material with a mixture of 95.0–99.9% by weight of a low molecular weight melamine-formaldehyde condensate and, correspondingly, 5.0–0.1% by weight of an aromatic biguanide which dissociates in water to yield a pH of from 10 to 12, said aromatic biguanide having the formula:



wherein Ar is taken from the group consisting of phenyl and naphthyl radicals and the ring-substituted alkyl and chlorine derivatives thereof, and R, R' and R" are taken from the group consisting of hydrogen and alkyl radicals having from 1 to 6 carbon atoms.

5. The method of claim 1 in which the fibrous material employed is glass.

2,773,794

## MELAMINE CONDENSATION PRODUCTS

George L. Fraser, Williamsburg, and Curtis Elmer, Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 19, 1953, Serial No. 343,491
5 Claims. (Cl. 154—138)

1. In the method for preparing a laminate in which a plurality of resin-impregnated layers of fibrous material are assembled in superimposed relationship, placed under pressure and heated until the resin has cured, the improvement which comprises impregnating said fibrous material with a co-condensation product of melamine, a phenyl melamine, and formaldehyde, the molar ratio of melamine to phenyl melamine varying between 1:0.1–1:0.3 and the molar ratio of combined melamine and phenyl melamine to formaldehyde varying between 1:2 and 1:3, said co-condensation product having been prepared at a pH of 8–12, said phenyl melamine being a member of the group consisting of phenyl melamine, monochlorophenyl melamines, dichlorophenyl melamines, nitrophenyl melamines, and alkylphenyl melamines in which the alkyl group is saturated and contains up to 9 carbon atoms.

2,773,795

## RUBBER-FABRIC LAMINATES AND METHOD OF MAKING SAME

William B. Reynolds, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

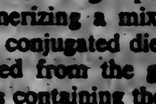
No Drawing. Application January 5, 1953, Serial No. 329,722
15 Claims. (Cl. 154—139)

1. A non-metallic fabric-rubber laminate comprising at least one fabric element and a layer of rubber attached thereto, the elements of said laminate having been bonded by means of a bonding agent comprising an aqueous acid solution containing at least 0.5 weight percent of a copolymer prepared by polymerizing a mixture consisting essentially of at least one conjugated diene and a polymerizable compound selected from the group consisting of pyridines and quinolines containing the group



where R is selected from the group consisting of H and $CH_3$, said conjugated diene comprising at least 10 parts by weight per 100 parts of the monomers.

6. A process of preparing a rubber-fabric laminate comprising treating the fabric with an aqueous acid solution containing at least 0.5 weight percent of a copolymer prepared by polymerizing a mixture consisting essentially of at least one conjugated diene and a polymerizable compound selected from the group consisting of pyridines and quinolines containing the group



where R is selected from the group consisting of H and $CH_3$, said conjugated diene component comprising at least 10 parts by weight per 100 parts of monomers, passing the thus treated fabric through an alkaline bath to precipitate the polymer in the fabric, applying a layer of rubber thereto, and heating the resulting laminate to vulcanize said rubber and to form a strong rubber-to-fabric bond.



2,773,796

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF ACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,844
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of acrylic acid which comprises reacting acrylic acid with a tertiary alkyl ether of ethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of acrylic acid.

2,773,797

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF METHACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,845
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of methacrylic acid which comprises reacting methacrylic acid with a tertiary alkyl ether of ethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of methacrylic acid.

2,773,798

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF ACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,846
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of acrylic acid which comprises reacting acrylic acid with a tertiary alkyl ether of diethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of acrylic acid.

2,773,799

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF METHACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,847
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of methacrylic acid which comprises reacting methacrylic acid with a tertiary alkyl ether of diethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of methacrylic acid.



2,773,800

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF ACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,848
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of acrylic acid which comprises reacting acrylic acid with a tertiary alkyl ether of triethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of acrylic acid.

2,773,801

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF METHACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,849
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of methacrylic acid which comprises reacting methacrylic acid with a tertiary alkyl ether of triethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of methacrylic acid.

2,773,802

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF ACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,850
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of acrylic acid which comprises reacting acrylic acid with a tertiary alkyl ether of tetraethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of acrylic acid.

2,773,803

## PROCESS FOR THE PREPARATION OF ALKYL ESTERS OF METHACRYLIC ACID

Hans Bluestein, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1952, Serial No. 328,851
4 Claims. (Cl. 260—486)

1. A process for the preparation of alkyl esters of methacrylic acid which comprises reacting methacrylic acid with a tertiary alkyl ether of tetraethylene glycol in the presence of a catalyst selected from the group consisting of sulfuric acid, phosphoric acid, and p-toluenesulfonic acid, at a temperature between about 50° C. and about 150° C., and recovering the resulting alkyl ester of methacrylic acid.

2,773,796

**METHOD OF PROTECTING PLANTS FROM FUNGI BY APPLYING HYDRAZINE SALTS OF INORGANIC PHOSPHOROUS ACIDS**

Johannes Thiesse Hochmann and Gerardus Franciscus Elias Maria Diedrich, Amsterdam, Netherlands, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application September 16, 1953, Serial No. 380,607
Claims priority, application Germany September 26, 1952
5 Claims. (Cl. 167—14)

1. A method for protecting plants from destruction by fungi which comprises applying to the plants the hydrazine salt of an inorganic phosphorus acid selected from the group consisting of phosphoric acid, phosphorous acid, hypophosphoric acid, and pyrophosphoric acid in an amount toxic to said fungi, said hydrazine salt having a mole ratio of acid to hydrazine from 0.5:1 to 2:1 and being essentially free of metal constituents.

2,773,797

**METHOD OF INCREASING THE COLLOIDAL SULFUR CONTENT OF BENTONITE-SULFUR MIXTURE**

Edward F. Orwell, Medina, N. Y., assignor to Food Machinery and Chemical Corporation, San Jose, Calif.

No Drawing. Application October 10, 1951, Serial No. 250,795
2 Claims. (Cl. 167—20)

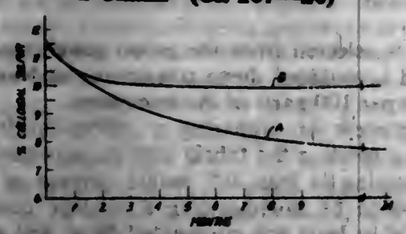
2. The steps in the method of preparing bentonite clay containing colloidal sulfur which comprise adding to a mixture of bentonite clay and noncolloidal elemental sulfur, in the range one part bentonite clay to one part noncolloidal elemental sulfur to four parts bentonite clay to one part noncolloidal elemental sulfur by weight, an amount of water sufficient to produce a moisture content in the mixture of 20% to 75% based upon the dry weight of the mixture in order to produce a doughy paste therewith, kneading the doughy paste until some of the noncolloidal sulfur is changed to colloidal sulfur and the amount of the collaidal sulfur in the mixture has been increased, and thereafter drying the paste at a temperature below the fusing point of sulfur.

2,773,798

**METHOD OF PRODUCING FUSED BENTONITE-SULFUR HAVING A STABLE COLLOIDAL SULFUR CONTENT**

John F. Lee Venzie, Middleport, N. Y., assignor to Food Machinery and Chemical Corporation, San Jose, Calif.

Application August 23, 1951, Serial No. 243,305
1 Claim. (Cl. 167—20)



The method of producing fused bentonite sulfur having a relatively stable colloidal sulfur content upon aging, which comprises heating bentonite clay and sulfur in the proportions by weight of 4 parts bentonite clay to one part sulfur to one part bentonite clay to one part sulfur, at a temperature in the range 125° C. to 160° C. until fused bentonite sulfur is produced and then before the initial content of colloidal sulfur in the product so produced has decreased substantially, adding liquid water to the fused bentonite sulfur until there is produced therein a water content between about 5% and 18% based upon the dry weight of the fused bentonite sulfur, whereby the initial colloidal sulfur content of the fused bentonite sulfur is maintained at substantially its initial concentration.

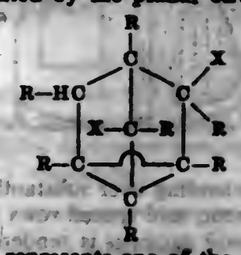
2,773,799

**COMPOUNDS, PREPARATION AND FUNGICIDAL COMPOSITIONS OF POLYHALOGENO ALKYL POLYCYCLYL KETONES**

Hsing Yun Fan, Denver, Colo., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 2, 1953, Serial No. 389,857
44 Claims. (Cl. 167—30)

3. A polyhalogeno alkyl polycyclyl ketone having a structure represented by the planar structural formula



in which each X represents one of the class consisting of the group —CO—$CR_3$, hydrogen, and middle halogen, with the proviso that one, and only one, X represents the group —CO—$CR_3$, and each R is selected from the class consisting of hydrogen, middle halogen and lower alkyl, with the proviso that not less than two of the substituents represented by X and R together be halogen.

27. The method of controlling the growth of micro-organisms which comprises applying in the environment of the micro-organisms a product prepared by brominating a product of reaction of bicyclo(2.2.1)-2,5-pentadiene and acetyl chloride in the presence of a Friedel-Crafts catalyst.

2,773,800

**RABIES VACCINE PRODUCTION**

Horace M. Powell, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application April 28, 1953, Serial No. 351,729
2 Claims. (Cl. 167—78)

1. The method of preparing a rabies vaccine which comprises infecting duck embryos with fixed rabies virus, incubating the eggs for a period of time, separating the embryo cell tissue from the eggs, and attenuating the rabies virus in said embryo tissue.

2,773,801

**DENTIFRICE COMPOSITIONS COMPRISING A NORMALLY-SOLID WATER SOLUBLE CONDENSATION PRODUCT OF ETHYLENE GLYCOL AND POLYPROPYLENE GLYCOL**

Arthur L. Fox, Short Hills, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware

No Drawing. Application July 3, 1952, Serial No. 297,171
4 Claims. (Cl. 167—93)

1. A dentifrice composition comprising a polishing material and about 0.1 to 10% by weight of a normally-solid water-soluble condensation product of ethylene oxide and polypropylene glycol, said product having a molecular weight of about 5,000 to about 10,000 and an ethylene oxide content of about 75–90% by weight.

2,773,802

**ACID NEUTRALIZING ABRASIVE CHLOROPHYLL DENTIFRICE**

Benjamin Gruskin, deceased, late of Atlantic City, N. J., by Irma Kelly Gruskin, executrix, Atlantic City, N. J., assignor to Rytex Company, Mount Vernon, N. Y., a limited partnership

No Drawing. Application March 8, 1951, Serial No. 214,625
10 Claims. (Cl. 167—93)

1. An acid-stabilized dentifrice composition, substantially free of water-insoluble precipitated chlorophyll both



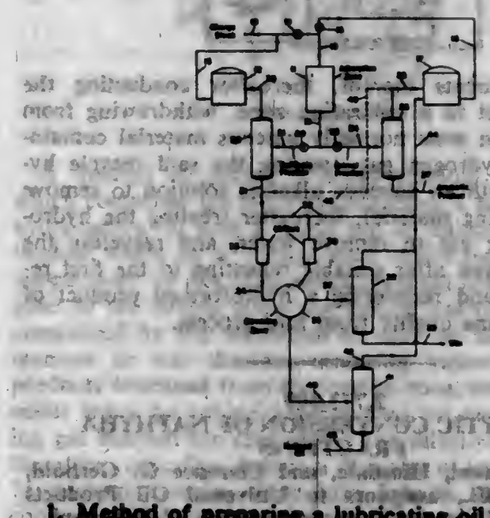
in storage and in use, therapeutically effective in the treatment of gingival conditions containing as essential ingredients an inorganic acid neutralizing salt of relatively low solubility in water and 0.02 to 3% by weight of a water soluble chlorophyll, said salt being in an amount sufficient to impart an abrasive action to said composition and at the same time to maintain the pH of said composition sufficiently high to maintain said water soluble chlorophyll in its water soluble and therapeutically effective form.

2,773,803

**COMBINATION ADSORPTION AND DEWAXING PROCESS**

James Van Dyck Fear, Media, and Arthur D. Moscrip, Swarthmore, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application October 22, 1954, Serial No. 464,064
12 Claims. (Cl. 196—18)



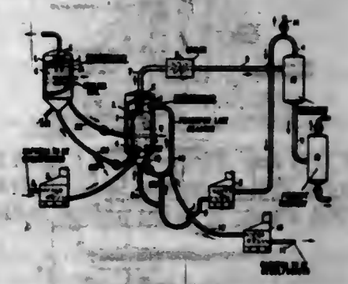
1. Method of preparing a lubricating oil having a low pour point and improved V. I. from a waxy lubricating oil stock which comprises diluting the stock with a saturate hydrocarbon diluent of the $C_3$–$C_6$ range, treating the diluted stock with silica gel to selectively adsorb aromatic constituents, displacing hydrocarbons from the silica gel by means of a liquid desorbing agent containing ethylene dichloride and obtained as hereinafter specified, obtaining from the silica gel treatment (1) a first raffinate fraction containing saturate components of said stock including wax in admixture with desorbing agent and saturate hydrocarbon diluent, and (2) an extract fraction containing aromatic components of said stock in admixture mainly with desorbing agent, distilling the first raffinate fraction to remove overhead a major portion of the diluent contained therein while recovering as bottoms a second raffinate fraction comprising saturate components of the charge together with substantially all the desorbing agent present in the first raffinate fraction, adding additional desorbing agent to the second raffinate fraction, regulating the distillation and the addition of desorbing agent so as to produce an admixture of a dewaxing solvent and charge saturates in which the ratio of the total solvent to charge stock components therein is within the range by volume of 1:1 to 6:1 and the total solvent composition conforms to the area ABCD of Fig. 2, cooling the admixture to a wax crystallizing temperature, separating wax from the cooled mixture, recovering solvent from the dewaxed oil and wax products, recovering desorbing agent from said extract fraction, and utilizing such recovered solvent in admixture with recovered desorbing agent as the said liquid desorbing agent.

2,773,804

**HYDROFORMING AND HYDRODESULFURIZING**

Roger W. Tate and Charles E. Hemminger, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 24, 1953, Serial No. 400,233
6 Claims. (Cl. 196—28)



1. The method of hydroforming naphthas and at the same time desulfurizing a sulfur-containing naphtha, the last named naphtha also having a high degree of unsaturation, which comprises subjecting a naphtha to hydroforming conditions in the presence of a dense, fluidized bed having an upper dense phase level of a hydroforming catalyst and added hydrogen, in a hydroforming zone, under hydroforming conditions of temperature, pressure and contact time, withdrawing a portion of the hydroforming catalyst from said hydroforming zone and conducting it to a transfer line in communication with a lower point of said bed to receive catalyst therefrom and the upper end of said transfer line being in communication with an upper point in said hydroforming zone which line comprises a hydrodesulfurization zone, charging a naphtha having a high degree of unsaturation and also containing sulfur to the said hydrodesulfurization zone, contacting the last named naphtha with the catalyst and added hydrogen while in the form of a rapidly moving stream of the last-named naphtha and catalyst flowing concurrently upward formed by charging the last-named naphtha in vapor form to the said hydroforming zone at a lower point thereof, at a feed rate of from 10–30 pounds of naphtha per hour per pound of said withdrawn catalyst, maintaining hydrodesulfurization conditions in said line, withdrawing product from said line, charging it to the hydroforming zone and recovering from said hydroforming zone a combined product stream of improved quality.

2,773,805

**DESULFURIZATION OF CRACKED NAPHTHAS WITH FORMALDEHYDE AND SODIUM**

Byron M. Vanderbilt, Westfield, and John P. Thorn, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application February 1, 1954, Serial No. 407,592
4 Claims. (Cl. 196—28)

3. The process of refining a light petroleum distillate boiling in the motor fuel boiling range which comprises contacting said distillate with formaldehyde and then contacting the distillate in vapor phase with an alkali metal on a solid support.

2,773,806

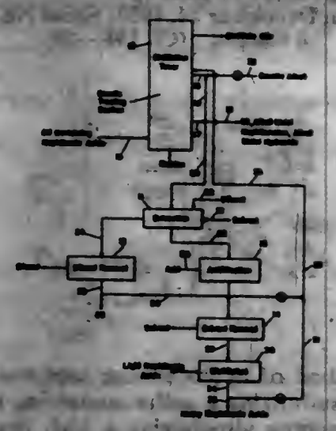
**REFINING HYDROCARBON OIL VAPORS WITH ALKALI AND HIGH BOILING NAPHTHENIC ACIDS**

Charles C. Kline, Wallingford, and Hugh L. Myers, Springfield, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application December 8, 1954, Serial No. 473,957
3 Claims. (Cl. 196—36)

1. Method for refining petroleum which comprises: contacting petroleum vapors with a liquid treating agent

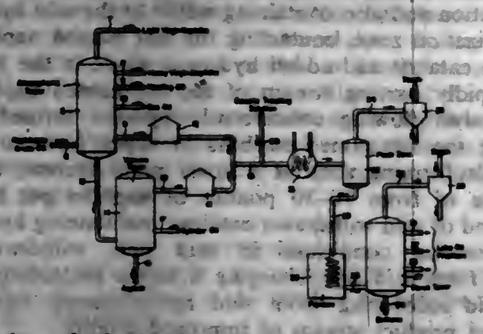
comprising alkali metal hydroxide in a refining zone, thereby to react naphthenic acids contained in said vapors with said hydroxide; periodically introducing free naphthenic acids in liquid phase into said refining zone, which



acids have average molecular weight higher than that of the first-named naphthenic acids, thereby to effect a cleaning of said refining zone by means of the latter naphthenic acids.

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2,773,907
**REFINING NAPHTHENIC LUBE-OIL DISTILLATES WITH A EUTECTIC MIXTURE OF SODIUM HYDROXIDE AND POTASSIUM HYDROXIDE**
Leo J. Klotz, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 24, 1953, Serial No. 400,312
3 Claims. (Cl. 196—41)

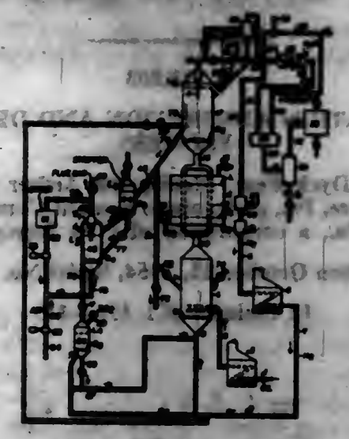


1. A method of refining a lubricating oil distillate derived from the fractionation of a naphtenic crude oil, said distillate having a viscosity of at least 1100 SUS at 100° F., which comprises the steps of treating the distillate with a eutectic mixture of sodium hydroxide and potassium hydroxide in an amount at least about 0.06 percent by weight in excess of the amount of hydroxide required to neutralize the acidity of the distillate, and then redistilling the distillate in the presence of the added hydroxides.

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2,773,908
**TWO STAGE FLUIDIZED HYDROFORMING**
Charles E. Hemminger, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application May 29, 1953, Serial No. 358,513
4 Claims. (Cl. 196—50)

1. In the hydroforming of naphthas, the improvement which comprises providing a first reaction zone containing a bed of fluidized platinum-containing catalyst having an average particle size suitable for fluidization, maintaining hydroforming conditions of temperature and pressure in said reaction zone, withdrawing the catalyst and gasiform material from the said first reaction zone, passing them through a reheating zone whereby they are heated to a temperature above that prevailing in the first reaction zone, thereafter passing the reheated materials to a second reaction zone maintained at a temperature higher than that in the first reaction zone, causing the catalyst in the said second reaction zone to form a well-fluidized bed, permitting the reactants to remain resident in the said second reaction zone for a sufficient period of time to effect the desired hydroforming reaction, withdrawing reaction vapors overhead from said second reaction zone, cooling the said reaction vapors to condense normally



liquid constituents thereof, thereafter conducting the cooled product to a separation zone, withdrawing from said separation zone normally gaseous material containing recycle hydrogen gas, treating the said recycle hydrogen gas with an aqueous alkaline solution to remove sulfur-containing material, thereafter treating the hydrogen-containing gas to remove water, and recycling the treated hydrogen after suitable reheating to the first reaction zone, and recovering a hydroformed product of improved octane quality from said process.

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2,773,909
**CATALYTIC CONVERSION OF NAPHTHA FRACTIONS**
Vladimir Haensel, Hinsdale, and Clarence G. Gerhold, Riverside, Ill., assignors to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware
No Drawing. Application November 16, 1953, Serial No. 392,409
9 Claims. (Cl. 196—50)

1. A process which comprises separating a hydrocarbon reforming charge stock into a higher boiling fraction and a lower boiling fraction, reforming the lower boiling fraction in the presence of added hydrogen and a platinum-containing catalyst, separately reforming the higher boiling fraction in the presence of a platinum-containing catalyst of substantially the same composition as said first mentioned catalyst, but at a higher hydrogen partial pressure than utilized in the reforming of the lower boiling fraction, and subjecting the lower boiling fraction to an intensity of reforming conditions which is at least 10 times as great as the intensity of the reforming conditions to which the higher boiling fraction is subjected.

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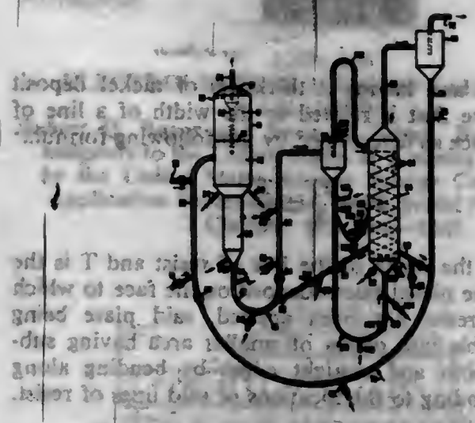
2,773,910
**HYDROFORMING CATALYST AND PROCESS**
Charles N. Kimberlin, Jr., and Elroy M. Gladrow, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application October 31, 1952, Serial No. 318,067
8 Claims. (Cl. 196—50)

1. An improved hydroforming catalyst prepared by reacting aluminum with an anhydrous alcohol diluted with a hydrocarbon diluent to obtain an anhydrous aluminum alcoholate, admixing said alcoholate with an anhydrous peptizing agent and an aqueous solution of a heat decomposable zinc salt to obtain a slurry comprising a hydrous zinc-aluminum oxide complex, incorporating a hydroforming catalyst component with said complex, and drying the resulting composition.



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2,773,911
**CONVERSION OF HYDROCARBONS**
Edward W. S. Nicholson, Baton Rouge, La., and Francis R. Russell, Mountainside, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application September 16, 1953, Serial No. 380,407
1 Claim. (Cl. 196—55)

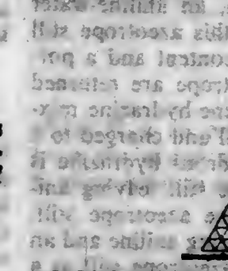


A method of coking a heavy residual hydrocarbon which comprises the steps of contacting a heavy residual hydrocarbon oil with a dense bed of fluidized coke particulate solids in a coking zone maintained at coking temperature by hot coke solids recycled from a burning zone to the coking zone, the coking reaction being accompanied by the deposition of coke on the solids and increase in size thereon; removing vaporous reaction products overhead from the coking zone; removing coke solids from the coking zone; passing an oxygen-containing gas through the coke solids and selectively removing therefrom coke fines having a diameter of less than about 75 microns; burning these coke fines in the form of a confined stream in the oxygen-containing gas; passing the residual coke particles having a particle diameter larger than about 75 microns and from which the fines have been removed to the lower portion of a packed burning zone; passing an oxygen-containing gas into said lower portion and through the burning zone to selectively burn substantially only particles having a diameter larger than about 400 microns and entrain particles having a diameter of about 50 to 400 microns; removing the thus heated 50 to 400 micron diameter particles entrained in gaseous products of combustion overhead from said burning zone; co-mingling the products of combustion from the coke fines burning step therewith; separating combustion gases from the combined stream and returning the remaining heated coking particles to said coking zone.

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2,773,912
**WAX COMPOSITION**
John D. Tench, Prospect Park, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application May 18, 1954, Serial No. 430,547
3 Claims. (Cl. 196—149)

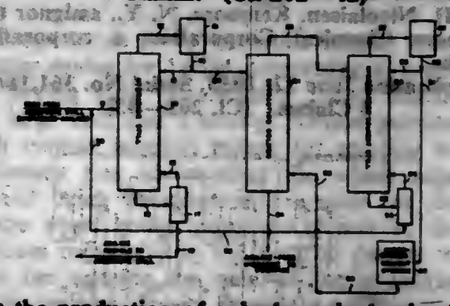
1. A new composition of matter comprising: (A) from 60 to 70 parts of a paraffin wax having a melting point of from about 125° F. to 142° F., a viscosity of about 35 to 42 SUS at 210° F., a refractive index at 212° F. of from 1.419 to 1.423 and an average molecular weight of from about 355 to about 400; (B) from 25 to 35 parts of a microcrystalline wax boiling above about 525° F. at 2 mm. mercury pressure, and having a melting point



of from about 185° F. to about 200° F., a viscosity at 210° F. of from about 81 to 89 SUS, a refractive index at 212° F. of from 1.435 to 1.438; and (C) from 2 to 10 parts of a lubricating oil having an API gravity of above 18 and an initial boiling point of above 600° F.

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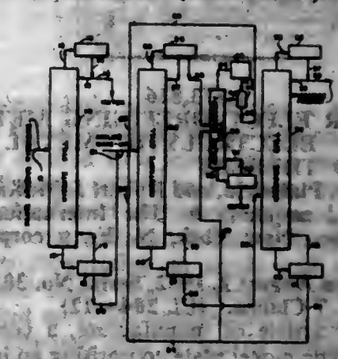
2,773,913
**EXTRACTION OF ANILINE FROM HYDRAZINE IN THE DEHYDRATION OF HYDRAZINE BY AZEOTROPIC DISTILLATION**
Bernard H. Nicolaisen, Kenmore, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application June 12, 1953, Serial No. 361,184
4 Claims. (Cl. 202—42)



1. In the production of anhydrous hydrazine by azeotropic distillation of aqueous hydrazine solutions employing analine as entraining agent for water comprising removing the water as a component of an aniline-water azeotrope to leave an anhydrous hydrazine-aniline mixture and separating an aniline-contamisated anhydrous hydrazine from this mixture, the improvement which comprises contacting the aniline-contaminated anhydrous hydrazine with a selective hydrocarbon solvent for anilipe, separating a hydrazine phase and a hydrocarbon solvent phase, and stripping residual hydrocarbon solvent from the hydrazine phase.

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2,773,914
**DEHYDRATION OF HYDRAZINE BY AZEOTROPIC DISTILLATION WITH ANILINE**
Bernard H. Nicolaisen, Kenmore, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application June 12, 1953, Serial No. 361,185
2 Claims. (Cl. 202—42)



1. In the production of anhydrous hydrazine by the azeotropic distillation of aqueous hydrazine solutions em-

ploying aniline as an entraining agent for water in which aniline and an aqueous solution of hydrazine are charged to an azeotrope still as feed material, an aniline-water azeotrope is removed overhead from this azeotrope still and the major portion of the aniline content and a portion of the water content of the azeotrope are returned to the azeotrope still as reflux, an aniline-hydrazine mixture is removed from the azeotrope still and charged to a hydrazine still, and substantially anhydrous hydrazine is removed overhead from this hydrazine still leaving aniline bottoms which are recycled to the azeotrope still; the improvement which comprises charging aniline and an aqueous solution of hydrazine to the azeotrope still as a feed material having a hydrazine-water mole ratio in the range of about 0.5:1 to about 2:1 and an aniline-hydrazine mole ratio in the range of about 3:1 to about 12:1, operating the azeotrope still at a reflux ratio in the range of 1.1:1 to 15:1, and recovering a substantially anhydrous hydrazine-aniline mixture from the azeotrope still as a bottoms product.

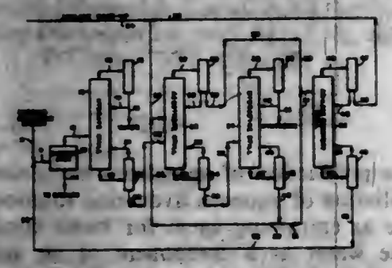
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**2,773,815**

**RECOVERY OF ANILINE ENTRAINER IN DEHYDRATION OF HYDRAZINE BY AZEOTROPIC DISTILLATION**

**Bernard H. Nicolaisen, Kenmore, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia**

**Application June 12, 1953, Serial No. 361,186**
**3 Claims. (Cl. 202—42)**



1. In the production of anhydrous hydrazine by the azetropic distillation of aqueous hydrazine solutions employing aniline as an entraining agent for water in which aniline and an aqueous solution of hydrazine are charged to a first still, an aniline-water azeotrope is removed overhead from this first still, the bottoms from the first still in the form of an aniline-hydrazine mixture are charged to a second still and substantially anhydrous hydrazine is removed overhead from this second still leaving aniline bottoms which are recycled to the first still; the improvement which comprises charging to a third still a minor portion of the aniline bottoms from the second still, distilling said minor portion in admixture with water, removing an aniline-water azeotrope overhead from this third still, passing this aniline-water azeotrope to the first still, and removing from the third still bottoms comprising water containing any non-volatile impurities charged to this third still.

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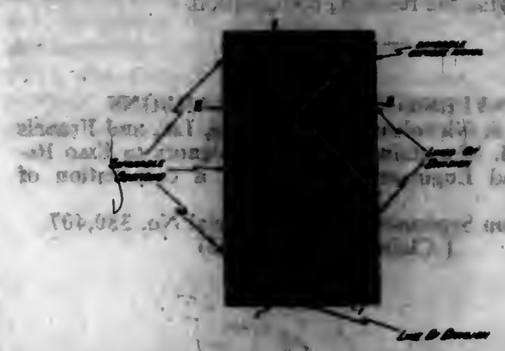
**2,773,816**

**METHOD FOR ELECTROREFINING METAL AND IMPROVED ELECTROLYTIC METAL PLATES PRODUCED THEREBY**

**Andrew Wesley, Plainfield, and Robert J. McKay, Basking Ridge, N. J., assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware**

**Application August 2, 1952, Serial No. 302,304**
**7 Claims. (Cl. 204—12)**

1. As a new article of manufacture, a composite dividable electrolytic nickel plate comprising an imperforate nickel starting sheet having a plurality of continuous lines of resist applied at corresponding locations on opposite faces thereof and extending across said faces, and an electrolytic nickel deposit upon said faces covering said



lines of resist and having a thickness of nickel deposit upon each face that is related to the width of a line of resist on the face as determined by the following formula:

$$W=\frac{2T}{3}\pm\frac{T}{10}$$

wherein W is the width of the line of resist and T is the thickness of the nickel electrodeposit on the face to which said line of resist has been applied, said plate being readily dividable into pieces of smaller area having substantially smooth and straight edges by bending along lines corresponding to the locations of said lines of resist.

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**2,773,817**

**COMPOSITE METAL AND ARTICLES THEREOF**

**John James Russell, Des Plaines, William A. Beck, Ithaca, and Jack Kollman, Chicago, Ill., assignors to Elco Products Company, Chicago, Ill., a corporation of Illinois**

**No Drawing. Application December 18, 1952, Serial No. 326,768**
**11 Claims. (Cl. 204—37)**

1. A method of making a composite article comprising a composition of tin layer bonded to a metallic supporting base having surfaces outwardly disposed thereof, comprising the steps of subjecting the supporting base with metallic tin coating to anodic electrolytic oxidation in an electrolyte to form a tin oxide coating, removing the anodized article from the electrolyte, coating said oxide of tin coating with a stable high temperature organic releasing film, and then subjecting the coated article to an elevated temperature of about 150° C. to 400° C. in order to convert the oxide of tin to the green oxide of tin while curing the organic film.

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**2,773,818**

**ALKALINE NICKEL PLATING SOLUTION**

**Paul W. Moy, Gates Mills, and Arthur H. Du Rose, Euclid, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio**

**No Drawing. Application May 20, 1954, Serial No. 431,274**
**5 Claims. (Cl. 204—49)**

1. An aqueous, alkaline nickel plating solution comprising a nickel compound of the class consisting of nickel chloride, nickel sulfate and mixtures thereof molecularly equivalent to 75 to 250 grams per liter of nickel sulfate hexahydrate, a complexing agent in concentration from 25 to 175 grams per liter, said complexing agent being a polyalkanoic acid derivative of a polyalkylene amine soluble in the solution, and a polyalkanol amine stabilizer present in concentration from 25 to 200 grams per liter, the pH of said solution being in the range from 6.5 to 12.



**2,773,819**

**ELECTRODEPOSITION OF LEAD**

**Louis Gianelos, Cleveland, Ohio, assignor to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio**

**No Drawing. Application January 13, 1954, Serial No. 403,913**
**5 Claims. (Cl. 204—53)**

1. A lead fluoborate plating solution containing lead fluoborate, fluoboric acid and cooperating addition agents in amount sufficient to increase the covering power and suppress the formation of trees, one of said addition agents being aloin and the other thereof being dibenzene sulfonamide.

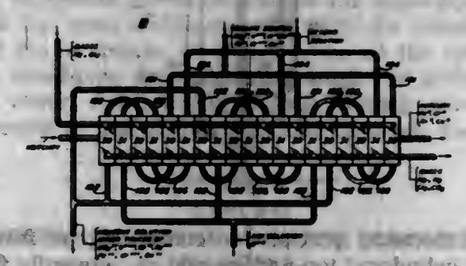
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**2,773,820**

**ELECTROLYTIC PROCESS OF SALVAGING URANIUM**

**Robert Q. Boyer and Scott B. Kilner, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission**

**Application September 14, 1944, Serial No. 554,044**
**7 Claims. (Cl. 204—124)**



1. The process of concentrating uranium in solution by treatment in an electrolytic cell including anode and cathode compartments comprising passing at a relatively high rate of flow a first solution containing uranium and oxalate ions through the anode compartment of the electrolytic cell, passing at a relatively low rate of flow an acidic second solution through the cathode compartment of the electrolytic cell in ion transfer and non-intermixing relation with said first solution, and simultaneously subjecting the two solutions to electrolysis in the electrolytic cell to transfer said uranium ions from said first solution to said second solution and concentrate said uranium ions therein.

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**2,773,821**

**COMPOSITION FOR USE IN ELECTROPOLISHING**

**George H. Smith, Buffalo, N. Y., assignor to Electro-Glaze, Inc., Buffalo, N. Y.**

**No Drawing. Application June 12, 1956, Serial No. 590,829**
**1 Claim. (Cl. 204—140.5)**

A solution for use in electropolishing metals of a group consisting of iron, aluminum, nickel and alloys thereof, said solution containing from 30 to 40 percent of orthophosphoric acid, 25 to 35 percent of sulphuric acid and 10 to 20 percent of hydroxyacetic acid, 5 to 25 percent of benzene sulphonic acid, 2 to 12 percent of toluene sulphonic acid and from 5 to 15 percent of water.

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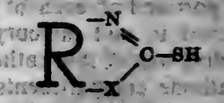
**2,773,822**

**PHOTOPOLYMERIZATION INITIATORS**

**Roland J. Kern, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware**

**No Drawing. Application September 24, 1953, Serial No. 382,209**
**17 Claims. (Cl. 204—158)**

1. In the photopolymerization of an ethylenically unsaturated monomer, the improvement which comprises employing a small amount of a compound having the general formula



where R is an ortho arylene radical and X is selected from the group consisting of S, O, and NH, effective to photosensitize said polymerization.

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**2,773,823**

**SAFETY DEVICE FOR A NEUTRONIC REACTOR**

**John J. Geott, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission**

**Application May 22, 1945, Serial No. 595,189**
**1 Claim. (Cl. 204—193)**



A safety device for a neutronic reactor comprising a projecting device for bodies comprising a conical rotary wheel having eight substantially radial blades, a head at the large end, and a storage portion provided with a smooth conical interior; means for rotating the wheel; a stationary ring surrounding the wheel adjacent the head and being provided with a gate for discharging from the wheel bodies propelled therein by the blades; and means responsive to the neutron density within the reactor for opening the gate of the projecting device when the neutron density exceeds a predetermined level.

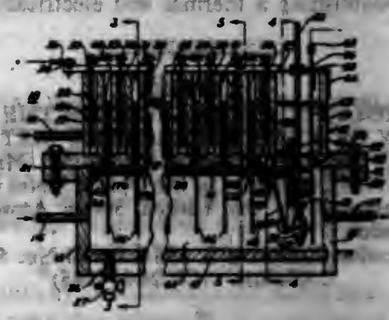
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**2,773,824**

**ELECTROLYTIC CELLS**

**Robert Q. Boyer, Berkeley, Calif., and Scott B. Kilner, Knoxville, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission**

**Original application September 14, 1944, Serial No. 554,044. Divided and this application June 7, 1945, Serial No. 598,012**
**6 Claims. (Cl. 204—212)**



1. An electrolytic cell comprising a casing having a removable upper section provided with an apertured floor detachably secured to a lower casing section, a pool of mercury disposed within said casing, porous partitions defining a plurality of alternately disposed, separate anode and cathode compartments within said casing, a plurality of elements constituting an anode and respectively disposed in said anode compartments, a plurality of rotatably-mounted members constituting a cathode, said cathode being disposed with its greater surface beneath said floor and with its lesser surface extending through the floor into the upper casing section, portions of said members being immersed in said mercury pool and other por-

tions of said members being respectively disposed in said cathode compartments, means for rotating said members, whereby different portions of each of said members are successively immersed in said mercury pool and moved into the corresponding one of said cathode compartments, said anode and cathode compartments being adapted to contain an electrolyte in contact with said elements and said members and electrically communicating through said porous partition structure, first terminal structure commonly connecting together said elements, second terminal structure commonly connecting together said members, and conduit means for conducting gas into each of said anode compartments below the surface of said electrolyte therein, whereby said gas is dispersed through said electrolyte in said anode compartments.

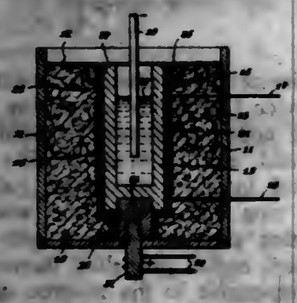
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2,773,825

## ELECTROLYSIS APPARATUS

Frank A. Newcombe, Nutley, N. J., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application April 28, 1944, Serial No. 533,110
2 Claims. (Cl. 204—243)



1. In apparatus for the recovery of uranium metal by electrodeposition thereof on a cathode insertable therein, the combination comprising a container, heat insulating material lining said container, a ring supported by said container, a rigid sleeve positioned in said insulating material and supported on said ring, an electrical heating coil surrounding said sleeve, a graphite crucible for receiving an electrolyte containing a uranium salt, said crucible being positioned in and spaced from said sleeve, graphite sealing means intermediate the sleeve and the crucible, a rod of conducting material projecting downwardly from said crucible to provide an anode connection for said crucible, and a cooling coil surrounding said rod and establishing a thermal and electrical connection therewith.

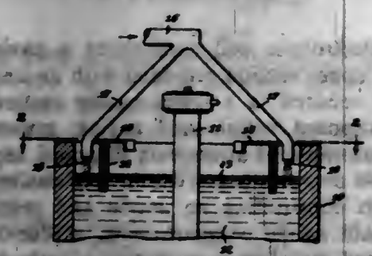
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2,773,826

## ELECTROLYTIC APPARATUS FOR THE RECOVERY OF RARE REFRACTORY METALS

Norman C. Beese, Verona, and John W. Marden, East Orange, N. J., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application February 7, 1944, Serial No. 521,410
2 Claims. (Cl. 204—245)



1. In apparatus for recovering a rare refractory metal by electrolysis, the combination comprising a crucible for containing a fused electrolyte, said crucible forming the anode of an electrolysis cell, a cathode electrode supported from above and extending into said crucible centrally thereof, and an electrically conducting shield positioned between the inner wall of said crucible and said electrode, said shield being electrically connected to said crucible to provide a space of substantially no electrical field between said shield and said crucible wall.

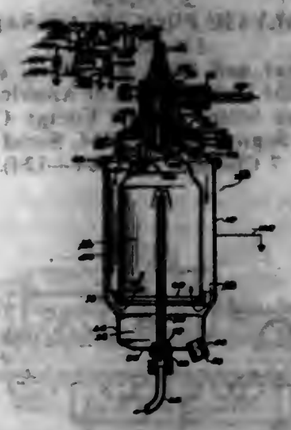
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2,773,827

## ELECTRICAL PRECIPITATORS

John H. Roper, Philadelphia, Pa., assignor to Roper Associates, Inc., Philadelphia, Pa., a corporation of Delaware

Application August 8, 1952, Serial No. 303,307
5 Claims. (Cl. 204—305)



1. An electrical precipitator comprising an insulator having a cylindrical top portion and an outwardly flaring bottom portion; a metal cylinder having a top portion of smaller diameter than the main body portion of said cylinder with sloping sides connecting the two; means for fastening said top portion to the bottom of said insulator with the cylindrical portions of said insulator and said metal cylinder having a common axis; a metal shell surrounding said metal cylinder and having a cylindrical surface spaced from the cylindrical surface of said metal cylinder and arranged concentric therewith and projecting above the main body portion of said metal cylinder; said shell having walls tapering inwardly from the top of said cylindrical surface to the top portion of said insulator and conforming in shape substantially to the outwardly flaring portion of said insulator; a ring gasket disposed between the said outwardly flaring portion of said insulator and the inwardly tapering portion of said shell and having a diameter substantially the same as that of the cylindrical portion of said insulator; said shell having a cup-shaped bottom having inwardly projecting shoulders; an annular insulator resting on said shoulders and having means for engaging the bottom of said metal cylinder; said shell having top and bottom portions united by a crimp seam crimped to place said gasket under compression; inlet and outlet means for introducing and withdrawing a fluid into and from said shell and passageways therebetween for directing fluid to flow between said concentric surfaces in its passage from said inlet means to said outlet means; and an electrical conductor passing upwardly from said metal cylinder along the axis of first-named insulator to the top thereof.

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2,773,828

## BUBBLE ENERGIZED FILTER FOR AQUARIUM

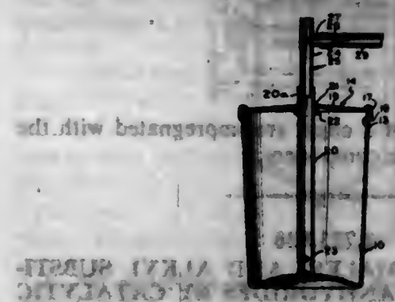
Dominic P. Schiavo, San Jose, Calif.

Application April 12, 1954, Serial No. 422,523
2 Claims. (Cl. 210—16)

1. In a filter for an aquarium wherein a flow of water is induced through a bed of filtering material by a stream of bubbles passing inwardly through the upright portion of a T-shaped tube fitting; a cup-shaped receptacle for



holding a supply of filtering material and for mounting in upright submerged condition in an aquarium, a cover having a plurality of perforations therein removably attached over the open upper end of the receptacle, an upright stand-pipe fitted into an opening in the cover for insertion through filtering material to the bottom of the receptacle, the upper end of the stand-pipe projecting above the cover for connection of the upright portion of a T-fitting thereto, and a projection on the stand-pipe



for engagement by the cover at a height to press the lower end of the stand-pipe into engagement with the bottom of the receptacle, the lower end of the stand-pipe being formed for open communication with the interior portion of the receptacle, whereby suction on the upper end of the stand-pipe draws water through the perforations in the cover, downwardly through filtering material in the receptacle and thence upwardly through the stand-pipe.

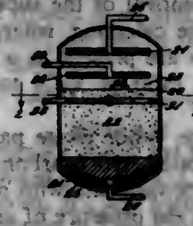
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2,773,829

## PROCESS AND APPARATUS FOR SUBSURFACE WASHING

Ronald W. Hunting, Prospect Park, Pa.

Application January 11, 1954, Serial No. 403,168
5 Claims. (Cl. 210—24)



5. The process of washing a liquid treatment bed of particles of liquid treating medium following a service phase of the cycle in which liquid to be treated is passed downwardly through the bed, which comprises introducing liquid whirling in one direction on a generally vertical axis at a level beneath and adjacent to the surface of said bed, concurrently introducing a relatively smaller volume of liquid forcefully from a plurality of distributed stationary jets directed generally tangentially in the opposite direction, said introduced liquid being withdrawn upwardly through said bed without disturbing the bottom, thereby locally backwashing the upper portion of the bed.

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2,773,830

## SUBSURFACE WASHING OF BED

Harold Charlton Farmer, Wynnewood, and Vincent E. Burgess, Morton, Pa.

Application January 11, 1954, Serial No. 403,414
1 Claim. (Cl. 210—24)

The process of ion exchange in water containing finely divided material in suspension, using a bed of particles of ion exchange medium, which comprises passing downwardly, through the ion exchange bed during a service phase of the cycle, said water having constituents characterized by a tendency to agglomerate said particles, and subsequently introducing wash water forcefully in streams from a plurality of jets at a level beneath and adjacent the surface of the bed entirely horizontally and thereby causing agglomerates to settle into the path of the jets and by the impact of the streams breaking



up the agglomerates, and simultaneously carrying off the wash water and fine suspended material upwardly through the top of the bed.

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2,773,831

## INHIBITING CORROSION BY OIL WELL FLUIDS

Samuel E. Jolly, Ridley Park, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application December 30, 1954, Serial No. 478,909
4 Claims. (Cl. 252—8.55)

1. Method for inhibiting corrosion of ferrous metal by oil well fluids which comprises: introducing into normally corrosive oil well fluids, which come into contact with ferrous metal, a material selected from the group consisting of petroleum naphthenyl amines, and salts thereof.

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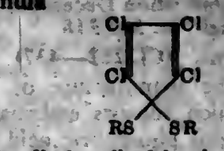
2,773,832

## REACTION PRODUCT OF HEXACHLOROCYCLOPENTADIENE WITH THIOL COMPOUNDS AND LUBRICANTS CONTAINING SAME

Ellis K. Fields, Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application November 28, 1952, Serial No. 323,141
2 Claims. (Cl. 252—48.8)

1. A mineral lubricating oil and between about 0.2 and about 20% by weight, based on said oil, of a compound having the formula



wherein R is an alkyl radical having from 1 to 18 carbon atoms, inclusive.

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2,773,833

## NON-CAKING ALKYL ARYL SULFONATE DETERGENT COMPOSITIONS

Allen H. Lewis and Richard D. Stayner, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application September 14, 1951, Serial No. 246,705
8 Claims. (Cl. 252—138)

1. A substantially non-caking, solid, particulate detergent composition consisting essentially of a mixture of (*a*) a detergent material containing in each 100 parts thereof from 10 to 95 parts by weight of a sodium salt of a monoalkyl benzene sulfonic acid having from 9 to 18 carbon atoms in the alkyl chain, the remainder of said detergent being essentially an inorganic sodium salt builder, and (*b*) from about 0.5% to about 10% by weight based on the entire composition of a sulfonate material selected from the group consisting of sodium benzene monosulfonate and sodium toluene monosulfonate; said composition being in the form of substantially non-caking, dry particles of substantially uniform composition obtained by drying an aqueous dispersion containing said components (*a*) and (*b*) of said composition.

2,773,834

## SHAMPOO COMPOSITIONS CONTAINING MONOMETHYLOL DIMETHYL HYDANTOIN

Hyman Hoskin, Bayside, N. Y., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application September 21, 1953, Serial No. 381,509
5 Claims. (Cl. 252—152)

1. A shampoo composition comprising at least about 5% by weight of an organic detergent selected from the group consisting of sulfated and sulfonated detersive salts in an aqueous medium which is normally subject to bacterial and mold growth and a minor proportion up to about 1% of 1-methylol 5,5-dimethyl hydantoin sufficient to inhibit said growth.

2,773,835

## LIQUID SHAMPOO COMPOSITION

Albin Fritjof Anderson, Allendale, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application November 16, 1951, Serial No. 256,845
7 Claims. (Cl. 252—153)

1. A liquid shampoo composition characterized by having improved resistance to phase separation on long standing which comprises about 5 to 45% by weight of a water-soluble salt of a sulfated monoglyceride of higher fatty acids as a detergent, from about 0.5 to about 25% of urea, and the balance being water, said shampoo having a pH within the range of 5.5 to 7.0.

2,773,836

## OXIDE-PROMOTED TITANIUM-PHOSPHORUS CATALYST

Harold Shalit, Drexel Hill, Pa., and Arthur P. Lien, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 1, 1952, Serial No. 323,518
15 Claims. (Cl. 252—437)

1. A process for the manufacture of a solid, self-supporting catalyst which consists essentially of mixing a substantially anhydrous phosphoric acid selected from the group consisting of orthophosphoric and pyrophosphoric acids, a titanium halide selected from the group consisting of the chlorides and bromides of titanium in an atomic ratio of halogen to active hydrogen in said acid between about 0.4:1 and 1:1, and a promoter in a concentration between about 0.5 and 20 percent by weight based on said acid, said promoter being selected from the class consisting of groups V and VI metallic oxides having hydrogenation-dehydrogenation properties, and heating the resulting mixture at a temperature above about 175° C. until evolution of hydrogen halide therefrom substantially ceases and approximates the theoretical quantity of hydrogen halide.

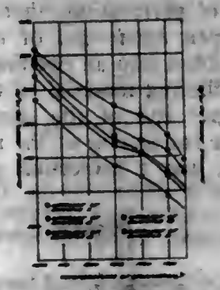
2,773,837

## ALUMINA-CHROMIA-PHOSPHORUS PENTOXIDE CATALYST AND METHOD FOR PREPARING THE SAME

Carlos L. Gutzeit, Woodbury, and William H. Lang, Wenonah, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application September 30, 1953, Serial No. 383,163
6 Claims. (Cl. 252—437)

1. A catalytic composite consisting essentially of 20 to 40 percent by weight of chromia, 50 to 80 percent by weight alumina, and 0.2 to 10 percent by weight of phosphorous pentoxide, wherein the chromia and alumina com-



ponents in the form of a cogel are impregnated with the phosphorous pentoxide component.

2,773,838

## PRODUCTION OF MALEIC AND ALKYL SUBSTITUTED MALEIC ANHYDRIDES BY CATALYTIC OXIDATION

John C. Reid, Wynnewood, and Norman C. Sidebotham, Drexel Hill, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

Application May 1, 1951, Serial No. 224,004
2 Claims. (Cl. 252—437)

1. A method of producing dicarboxylic acid anhydrides selected from the group consisting of maleic anhydride or alkyl substituted maleic anhydrides which comprises reacting the vapor of a non-aromatic, unsaturated hydrocarbon containing at least 4 carbon atoms with a free oxygen-containing gas at a temperature ranging between 800° F. to 1000° F. in the presence of a catalyst prepared by reacting ammonium meta-vanadate with phosphoric acid in an aqueous solution in the presence of an inert carrier followed by removal of the supernatant liquid by evaporation, drying the calcining, wherein oxygen, vanadium, and phosphorus are present in a proportion corresponding to a weight ratio of $V_2O_5$ to $P_2O_5$ within the range of 3:2 and 1:2.

2. A catalyst for the vapor phase partial oxidation of non-aromatic, unsaturated hydrocarbons prepared by reacting ammonium meta-vanadate with phosphoric acid in an aqueous solution in the presence of an inert carrier followed by removal of the supernatant liquid by evaporation, drying, and calcining, wherein oxygen, vanadium, and phosphorus are present in a proportion corresponding to a weight ratio of $V_2O_5$ to $P_2O_5$ within the range of 3:2 and 1:2.

2,773,839

## METHOD OF HYDROGEL PREPARATION

William A. Stover and Robert C. Wilson, Jr., Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application December 14, 1950, Serial No. 201,537
14 Claims. (Cl. 252—448)

1. A process for producing an all-embracing hydrogel having as its major solid components the oxides of aluminum and chromium present in an amount of at least about 10 percent by weight, which comprises intimately mixing in concentration sufficient to insure said amount an aqueous solution of an alkali metal aluminate having an alkali metal to aluminum ratio designated as R of not less than about 1 and not more than about 1.5 and an aqueous solution of a chromium salt, the anion of which forms a complex with chromium, having a ratio of said anion to chromium of at least about 1 and not more than about 4R–2.4 to yield a hydrosol characterized by an inherent capacity to set to a hydrogel upon lapse of a suitable period of time.

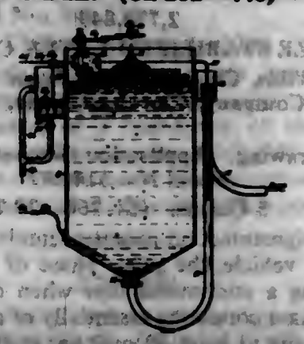


2,773,840

## OPERATION OF HYDROGEL BEAD-FORMING TOWER

Robert D. Drew, Wenonah, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application September 19, 1952, Serial No. 310,432
9 Claims. (Cl. 252—448)



1. An apparatus for forming generally spheroidal hydrogel pellets comprising a vertical liquid chamber, distributing means for introducing hydrosol in the form of small globules into the liquid in said chamber, an inlet to admit liquid into said chamber, an outlet to withdraw liquid and formed hydrogel pellets from the bottom of said chamber and means for injecting a gas into said outlet below the surface of the mixture of liquid and hydrogel pellets contained therein.

5. A process for the manufacture of spheroidal pellets of inorganic oxide hydrogel, which comprises forming a gelable hydrosol of inorganic oxide, permitting said sol to fall in the form of globules through a body of water-immiscible liquid and set to a firm hydrogel therein, the gelation time of said sol and the depth of said body of liquid being so correlated that gelation will occur therein, removing a stream of said water-immiscible liquid and formed hydrogel pellets from said body and injecting an inert gas into said stream in an amount sufficient to lower the density of said stream and to result in continued flow thereof from said body.

2,773,841

## METHOD OF PREPARING SILICA ALUMINA OR MAGNESIA BASE CATALYSTS

Charles N. Kimberlin, Jr., and Elroy M. Gladrow, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 24, 1952, Serial No. 327,904
15 Claims. (Cl. 252—449)

15. A process for preparing hydrocarbon conversion catalysts which comprises preparing magnesia hydrosol, subjecting the said hydrosol to pressures from about 15 to 1000 lbs. per sq. inch gauge and temperatures from about 212 to about 550° F. for periods of from a few minutes up to about 24 hours to lower the surface area and increase the pore volume of gels obtainable therefrom, cooling the pressure treated hydrosol, depressuring the cooled hydrosol, converting the pressure treated hydrosol to hydrogel, impregnating the resultant magnesia hydrogel with an active catalytic component and heating or calcining the resultant composite to activate the same.

2,773,842

## HYDROFORMING CATALYSTS AND METHOD

Charles N. Kimberlin, Jr., and Elroy M. Gladrow, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 22, 1952, Serial No. 327,489
6 Claims. (Cl. 252—455)

1. A catalyst manufacturing process which comprises subjecting hydrous aluminum oxide in the absence of extraneous water in a reaction zone to an elevated pressure in the range of 15 to 1000 p. s. i. g. and a temperature in the range of 212° to 550° F., and drying said aluminum oxide by releasing steam from said reaction zone while maintaining said elevated pressure whereby a catalyst of substantially increased pore volume and diameter is obtained.

2,773,843

## TREATING SILICA MAGNESIA MATERIALS

Charles N. Kimberlin, Jr., and Elroy M. Gladrow, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 21, 1954, Serial No. 424,762
7 Claims. (Cl. 252—457)

3. A process for increasing the surface area and the pore volume of hydrous silica magnesia catalyst particles containing a major proportion of silica which comprises subjecting hydrous silica magnesia catalyst particles to a pressure between about 200 and 800 p. s. i. g. and a temperature between about 350° and 600° F. for a period about 0.25 and 4 hours in a confined zone, then drying the silica magnesia catalyst particles by heating said confined zone to maintain the selected temperature and pressure and permitting continuous slow escape of water vapor from said confined zone to maintain the desired pressure for a period between about 1 and 6 hours until the silica magnesia catalyst particles are substantially dry and then cooling and removing the treated and dry silica-magnesia catalyst particles from said confined zone.

2,773,844

## METHOD FOR MAKING SUPPORTED SILVER CATALYSTS

George J. Carlson and Clarence R. Gunn, Berkeley, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application June 12, 1953, Serial No. 361,416
4 Claims. (Cl. 252—463)

1. In the process for the production of a silver catalyst composition wherein aqueous silver nitrate is combined with an inert porous solid support in a total amount which upon reduction provides a concentration of from about 2 to about 15% by weight of metallic silver in said catalyst composition, and said silver nitrate is reduced to metallic silver on said support, the steps which comprise combining with said support only a fraction of said total amount of said aqueous silver nitrate, reducing said silver nitrate combined with said support to metallic silver by heating at a temperature of from about 150 to about 400° C. in a reducing atmosphere, combining the resulting silver metal-containing composition with the remainder of said total amount of said aqueous silver nitrate, and reducing said silver nitrate additionally combined with said silver metal-containing support to metallic silver by again heating at a temperature of from about 150 to about 400° C. in a reducing atmosphere, thereby obtaining a silver catalyst containing from 2 to 15% metallic silver having a greater activity for the ethylene oxidation reaction than a similar catalyst containing the same amount of silver prepared by reducing silver nitrate upon the support but in the absence of a reduction of a part of the silver nitrate to elemental silver before a subsequent impregnation with a further amount of silver nitrate.

2,773,845

## TREATMENT OF CHROMIA-ALUMINA HYDROGEL

William A. Stover, Putnam, and Robert C. Wilson, Jr., Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application July 30, 1952, Serial No. 301,672
8 Claims. (Cl. 252—465)

1. In the production of a chromia-alumina co-gel prepared by mixing aqueous solutions of sodium aluminate

and chromium acetate to yield a hydrosol having a chromia-alumina content of at least about 10 percent by weight and controlling the sodium to aluminum ion ratio and the acetate to chromium ion ratio in said solutions to effect rapid gelation of said hydrosol to a hydrogel and water-washing and drying the resulting hydrogel, the improvement which comprises aging said hydrogel, before said washing, for at least 2 hours in an alkaline medium having a pH between 8.0 and 9.5.

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2,773,846

## ALUMINA-CHROMIA-MOLYBDENA CATALYST

William A. Stover, Pitman, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application June 13, 1952, Serial No. 293,412

2 Claims. (Cl. 252—465)

1. A catalytic composite consisting essentially of 10 to 30 percent by weight of chromia, 50 to 89 percent by weight alumina, and 1 to 20 percent by weight of molybdena, having chromia and alumina components intimately combined in the form of a dried hydrogel, which hydrogel is impregnated with the molybdena component.

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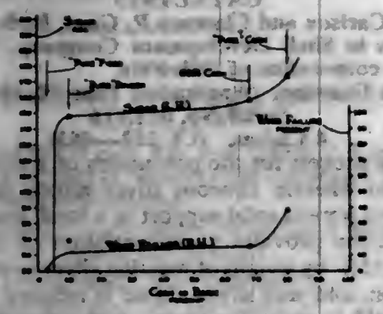
2,773,847

## BARK COMPONENTS AS RESIN INGREDIENTS

Robert D. Pusey, Tacoma, Wash., assignor to Weyerhaeuser Timber Company, Tacoma, Wash., a corporation of Washington

Application May 4, 1954, Serial No. 427,580

10 Claims. (Cl. 260—17.2)



5. A process for making a resin comprising dissolving a basic reacting compound in water, adding a bark component separated from the bark of a coniferous tree and containing at least about 68% of cork, stirring the mixture until the heat of reaction is dissipated and the bark component is dispersed and dissolved, adding to the reaction mixture a phenolic compound selected from the group consisting of phenol, cresol and xylenol, adding an aldehyde selected from the group consisting of formaldehyde and paraformaldehyde, and reacting the resulting mixture to produce a resin.

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2,773,848

## RESINOUS COMPOSITIONS

Richard Lindenfelser, Darien, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 21, 1953, Serial No. 399,600

19 Claims. (Cl. 260—17.3)

1. A composition of matter comprising a thermosetting product of reaction of ingredients comprising (*a*) an aldehyde and (*b*) a monomeric amidogen compound containing not less than two amidogen groupings each having at least one hydrogen atom attached to the amidogen nitrogen atom, said reaction product being modified with alpha alkyl-D-glucoside wherein the alkyl group contains from 1 to 4 carbon atoms and said glucoside being present in an amount varying between about 10% to about 30% by weight based on the total weight of said reaction product.

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2,773,849

## FREEZE STABILIZED LATEX COATINGS

Victor M. Willis, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application October 10, 1952, Serial No. 314,207

5 Claims. (Cl. 260—29.7)

1. In a pigmented oil-in-water emulsion type coating composition vehicle, the solids phase of which is capable of depositing a continuous film when dry, containing a dispersed phase consisting essentially of an emulsion polymer containing at least 40 mol per cent of a monovinyl aromatic compound of the benzene series having a single center of unsaturation and between 33 and 60 mol per cent of an aliphatic conjugated diolefine of the class consisting of butadiene and isoprene in chemical combination and a continuous aqueous phase, the improvement which comprises including in the aqueous phase thereof at least 6 parts and not more than 10 parts per hundred parts of latex solids by weight of said emulsion polymer and from 1% to not more than about 5% by weight of the total aqueous phase of a water soluble alkaline salt of an asymmetrical, polysubstituted phenate, wherein said polysubstituents are limited to chlorine and phenyl groups.

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2,773,850

## FORTIFIED EMULSION PAINTS CONTAINING A ZIRCONYL COMPOUND

Victor M. Willis, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 20, 1952, Serial No. 327,156

6 Claims. (Cl. 260—29.7)

1. In an oil-in-water emulsion coating composition characterized by a dispersed oil phase capable of depositing stet films, a continuous water phase and a minor proportion of at least one surface active agent of the anionic class and a pH greater than 7, the improvement which includes the addition of a quantity of a water soluble ionizable, non-pigmentary, non-refractory inorganic ammonium salt of zirconium equivalent to not more than about ten pounds of $ZrO_2$ per 100 gallons of the emulsion paint product.

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2,773,851

## VINYL PLASTIC TILE AND METHOD OF MAKING THE SAME

Leo L. Tolman, Manor Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application December 22, 1952, Serial No. 327,417

4 Claims. (Cl. 260—30.6)

1. A plastic tile composition comprising about 60% to about 80% filler and about 20% to about 40% by weight of a binder including a vinyl chloride resin having an intrinsic viscosity in cyclohexanone at 20° C. of between about 0.53 and about 0.79, a resin selected from the group consisting of coumarone resins and hydrocarbon resins, said resin having a ring and ball softening point between about 95° C. and about 105° C., a resinous dihydric alcohol-dicarboxylic acid condensation product, and a plasticizer.



2,773,852

## PRODUCTION OF ANTI-STATIC PLASTICS

Richard G. Rowe, Redding Ridge, and Gailes Flower, Jr., Darien, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York

No Drawing. Original application December 9, 1950, Serial No. 200,094. Divided and this application March 5, 1953, Serial No. 340,672

9 Claims. (Cl. 260—32.6)

1. An anti-static plastic adapted to be used in the production of phonograph records, said plastic being essentially composed of a copolymer of vinyl chloride and vinyl acetate and containing from 2% to 10% by weight of a mono-alkanol amide of a straight-chain monocarboxylic hydroxy acid as an anti-static agent.

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2,773,853

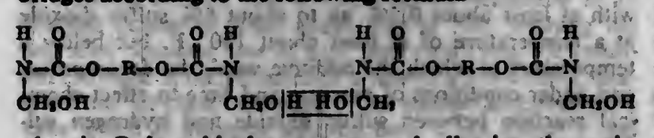
## METHOD OF PRODUCING STOVING LACQUERS FROM DIMETHYLOL DERIVATIVE OF A DIURETHANE

Adolf Weihe, Kronberg, Taunus, Germany, assignor to Herbig-Haarhaus Aktiengesellschaft Lackfabrik Koln-Bickendorf, Koln-Bickendorf, Germany, a firm

No Drawing. Application May 27, 1952, Serial No. 290,311

9 Claims. (Cl. 260—33.2)

1. Process for producing a resin to be utilized as a stoving lacquer, comprising preparing an aqueous solution of a dimethylol derivative of a diurethane, mixing said solution with at least a single organic solvent as an azeotropic agent, adjusting the mixture to an acidic pH value, subjecting the mixture to azeotropic distillation to dehydrate the mixure and form methylene ether bridges according to the following formula



wherein R is a bivalent group, and allowing the resin formed to dissolve in said solvent.

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2,773,854

## PLASTICIZED RUBBER COMPOSITIONS

Arthur B. Hersberger, Drexel Hill, and John C. Reid, Wynnewood, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Original application April 4, 1949, Serial No. 85,475, now Patent No. 2,698,288, dated December 28, 1954. Divided and this application July 1, 1953, Serial No. 365,560

1 Claim. (Cl. 260—33.6)

A composition comprising a butadiene-styrene rubber and from 2 percent to 25 percent of a plasticizing and softening agent produced by contacting gas oil with a silica-alumina catalyst at a temperature ranging between 850° F. and 950° F. to crack the gas oil, separating from the cracked hydrocarbons, catalyst and heavy residual oil having an A. P. I. gravity between 10° and 18°, a distillation range of 100° F. to 650° F. at 3 mm. pressure, and a Saybolt Universal viscosity at 210° F. of 30 to 60 seconds, distilling said heavy residual oil at subatmospheric pressures to produce the desired residue having a specific gravity at 60° F. between 1.10 and 1.30, a softening point between 180° F. and 210° F., a penetration at 77° F. of about 2, a penetration at 115° F. of about 4, a flash point of at least 600° F., a Furol viscosity at 325° F. between 30 and 60 seconds and aniline point below 70° F.

2,773,855

## COMPOSITIONS FOR DECORATIVE PURPOSES

Jerome Hochberg, Newburgh, and Silvio A. Pellerano, Brooklyn, N. Y., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application October 7, 1952, Serial No. 313,614

6 Claims. (Cl. 260—33.8)

1. A liquid composition containing an active component adapted to be dispersed in aerosol form and a propellant agent; said active component constituting from about 5% to about 25% by weight of said composition and comprising a normal butyl-isobutyl methacrylate copolymer in amount at least 2% by weight of said composition, and a paratertiary butyl phenol-formaldehyde oil soluble thermosetting resin about 50% soluble at about room temperature in a liquid mixture containing by weight 76% $CH_3CCl_2F_2$—16% $CCl_2F_2$—8% $CCl_3F$, said resin being present in amount at least 3% by weight of said composition; said active component being incorporated in said propellant agent, which is a normally gaseous chlorofluorocarbon containing not more than two carbon atoms, held under sufficient pressure to maintain the same in the liquid phase.

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2,773,856

## TREATMENT OF SYNTHETIC POLYMERIC MATERIALS TO IMPART DYE AFFINITY THERETO

Robert Meyer, Tassin-la-Demi-Lune, and Pierre Alphonse Garnier, Lyon, France, assignors to Societe des Usines Chimiques Rhone-Poulenc

No Drawing. Application March 3, 1952, Serial No. 274,672

Claims priority, application Great Britain March 12, 1951

5 Claims. (Cl. 260—79.3)

1. A method of treating an acrylonitrile polymer, which material may be formed into filaments and the like and which has substantially no affinity for acid dyestuffs, to confer upon the product an affinity for acid dyestuffs when in the solid state, which method comprises heating said polymer in solution with a hydrocarbon sulphonic acid and a hydrocarbon amine selected from the class consisting of those primary and secondary aliphatic and alicyclic amines containing not more than 10 carbon atoms in the molecule, the combined quantity of amine and sulphonic acid being not less than 23% and not greater than 75% of the weight of the polymer, and removing the solvent of the said solution to form a solid composition of the said polymer, amine and sulphonic acid.

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2,773,857

## 1,4-DISUBSTITUTED-2-CYANO-1,3-BUTADIENES

Burt Carlton Pratt, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 23, 1953, Serial No. 369,971

13 Claims. (Cl. 260—88.5)

1. A 2-cyano-1,3-butadiene carrying on the 4-carbon a single monovalent, lower aliphatic hydrocarbon radical and on the 1-carbon a single monovalent organic radical of no more than 7 carbons.

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2,773,858

## METHOD OF PREPARING EXPANDED UREA

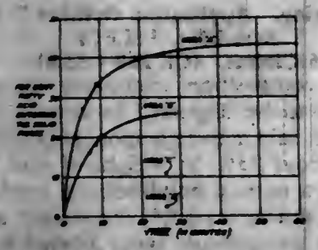
Manuel H. Gorin and Ludwig Rozenstein, San Francisco, Calif.

Application March 27, 1950, Serial No. 152,178

1 Claim. (Cl. 260—96.5)

A process for making expanded urea in the form of a light and fluffy powder having a bulk density of less than substantially 0.5 gram per cubic centimeter, which comprises first preparing a urea adduct by reacting urea at room temperature with an organic compound from the group consisting of linear hydrocarbons and fatty acids

containing a linear paraffinic chain of at least seven carbon atoms, removing the solid phase by filtration, washing the solid phase with warm hexane, suspending the resulting adduct in a solvent for the organic compound



but a non-solvent for urea, decomposing the adduct by heating the suspension to a temperature below about 115° C. and above about 40° C. for a time between 5 minutes and 90 minutes, and then separating the resulting expanded urea.

2,773,859

## ROSIN POLYMERIZATION PROCESS

Alfred L. Rummelsburg, Chadds Ford, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 29, 1951, Serial No. 264,243
10 Claims. (Cl. 260—99.5)

1. The process of polymerizing rosin materials of the group consisting of rosin, rosin esters, and esters of rosin alcohols which comprises polymerizing the rosin material in the presence of sulfuric acid catalyst at a temperature of about 12° to about 18° C. until the product has a drop softening point of at least 90° C., adding to the reaction mixture a modifying agent of the group consisting of saturated acyclic aldehydes containing not more than three carbon atoms in the aldehyde chain; unsaturated acyclic aldehydes containing not more than four carbon atoms in the aldehyde chain; aldehyde polymers; monoesters, monethers, and ether-esters of gem-diols; and gem-diethers and gem-diesters, wherein the oxygen atoms are attached to acyclic carbon atoms, said aldehyde polymers, monoethers, monoesters, ether-esters, gem-diethers and gem-diesters being derived from an aldehyde selected from the group consisting of said saturated acyclic aldehydes and said unsaturated acyclic aldehydes, and continuing the reaction.

2,773,860

## PROCESS OF STABILIZING PHOSPHORUS SULFIDE-OXYGEN-CONTAINING ORGANIC COMPOUND REACTION PRODUCTS AGAINST LIBERATION OF HYDROGEN SULFIDE

John M. Musselman, Brecksville, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 30, 1955, Serial No. 556,459
6 Claims. (Cl. 260—125)

1. A process of stabilizing phosphorus sulfide-oxygen-containing organic compound additives against generation of hydrogen sulfide which comprises treating the additive separately with at least 0.1% up to about 1% potassium hydroxide and with at least about 0.5% up to about 5% sulfur dioxide at a temperature of at least about 150° F. but below a temperature at which the additive would be decomposed, and under conditions of pressure and time to effect chemical reaction between the potassium hydroxide and the sulfur dioxide and hydrogen sulfide-producing components of the additive and produce an additive which has a sulfur content less than about 1.5% higher than that of the starting additive and which meets the requirements of the hydrogen sulfide stability test.

2,773,861

## PROCESS OF STABILIZING PHOSPHORUS SULFIDE-OXYGEN CONTAINING ORGANIC COMPOUND REACTION PRODUCTS AGAINST HYDROGEN SULFIDE EVOLUTION

John M. Musselman, Brecksville, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 30, 1955, Serial No. 556,458
4 Claims. (Cl. 260—125)

1. A process of stabilizing phosphorus sulfide-oxygen-containing organic compound additives against generation of hydrogen sulfide which comprises treating the additive with a sulfite in an amount to supply at least about 0.5% up to about 5% sulfur dioxide at a temperature of at least about 150° F. but below a temperature at which the additive would be decomposed, and under conditions of pressure and time to effect chemical reaction between the sulfite and hydrogen sulfide-producing components of the additive and produce an additive which has a sulfur content less than about 1.5% higher than that of the starting additive and which meets the requirements of the hydrogen sulfide stability test.

2,773,862

## PROCESS OF STABILIZING PHOSPHORUS SULFIDE-OXYGEN-CONTAINING ORGANIC COMPOUND REACTION PRODUCTS

John M. Musselman, Brecksville, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 30, 1955, Serial No. 556,460
4 Claims. (Cl. 260—125)

1. A process of stabilizing phosphorus sulfide-oxygen-containing organic compound additives against generation of hydrogen sulfide which comprises treating the additive with at least about 0.5% up to about 5% sulfur dioxide at a temperature of at least about 150° F. but below a temperature at which the additive would be decomposed, and under conditions of pressure and time to effect chemical reaction between sulfur dioxide and hydrogen sulfide-producing components of the additive and produce an additive which has a sulfur content less than about 1.5% higher than that of the starting additive and which meets the requirements of the hydrogen sulfide stability test.

2,773,863

## MONOAZO-DYESTUFFS

Hans Bolliger, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application January 25, 1954, Serial No. 406,087
Claims priority, application Switzerland January 28, 1953
7 Claims. (Cl. 260—162)

1. A monoazo dyestuff free from sulfonic and carboxylic acid groups which corresponds to the formula

$$R_1\text{—}N{=}N\text{—}R_2\text{—}SO_2\text{—}NH\text{—}acyl$$
$$|$$
$$SO_2\text{—}(NH)_{n-1}\text{—}R\text{—}X$$

wherein $R_1$ represents a benzene radical, $R_2$ represents the radical of a 5-pyrazolone bound to the azo linkage in 4-position, $n$ represents a whole number up to and including two, R represents an alkyl radical of two carbon atoms which bears the substituent X in $\beta$-position, and X represents a hydroxyl group esterified by a benzene sulfonic acid.

2,773,864

## COUPLING ASSISTANTS FOR POLYAZO DYES

William W. Williams and Ludwig Richter, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application April 19, 1952, Serial No. 283,243
9 Claims. (Cl. 260—181)

1. In the process of producing polyazo dyes in substance, the step which comprises coupling an aryl diazo azo compound with a coupling component in solution in aqueous alkaline-to-neutral medium, in the presence of 2-methyl-5-ethyl pyridine amounting to 1% to 25% of the coupling component solution.



2,773,865

## VAPOR DRYING OF CELLULOSE

Earl Ralph Purchase, Waynesboro, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 14, 1951, Serial No. 261,757
16 Claims. (Cl. 260—229)

13. A process for the removal of moisture due to water from raw cellulose concurrently with the supply of acetic acid thereto which comprises contacting the cellulose with a stream of air which has been dried to a low humidity by passage through a column of concentrated sulfuric acid and mixed with vapors of acetic acid by passage of the said air through a column of acetic acid.

2,773,866

## PRETREATMENT AND ESTERIFICATION OF CELLULOSE

Lejaron Arthur Hiller, Jr., and Fenton Hendy Swezey, Waynesboro, Va., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 31, 1952, Serial No. 269,344
19 Claims. (Cl. 260—229)

10. A process for the production of a cellulose ester which is saponifiable to an acetone-soluble form which comprises comingling cellulose with an aqueous solution of a strong mineral acid to effect depolymerization to an average degree of from about 200 to 700, washing the degraded cellulose free of acid, and esterifying the resultant cellulose in the presence of a non-depolymerizing catalyst from the class consisting of the sodium and potassium salts which in aqueous solution have a pH above 7 and an activating organic medium therefor.

2,773,867

## PROCESS FOR DEHALOGENATING STEROIDS

Percy L. Julian, Oak Park, and Jerome G. Klein, Niles, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application May 17, 1954, Serial No. 430,441
14 Claims. (Cl. 260—239.47)

1. The process which comprises treating a solution of a steroid selected from the class consisting of 5α,6β-dichloro steroids of the allopregnane series, 5,6-dibromo steroids of the allopregnane series, 5,6-dibromo steroids of the pregnane series and 16-bromo-17α-hydroxy-$\Delta^5$ pregnenes with hydrogen in the presence of a catalyst selected from the class consisting of Raney nickel and palladium on an alkaline earth metal carbonate until the 5, 6 and 16 halogen substituents are removed.

2,773,868

## STEROID KETAL

Eugene J. Agnello and Gerald D. Laubach, Jackson Heights, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application May 10, 1954, Serial No. 428,824
1 Claim. (Cl. 260—239.55)

The 20-ethylene ketal of allo-7-pregnene-3β-ol-20-one acetate.

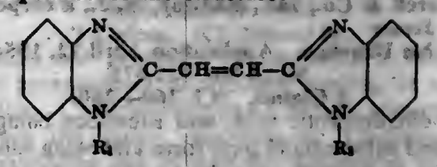
2,773,869

## ALKENYL BISIMIDAZOLE OPTICAL BLEACHING AGENTS

Julian Jacob Leavitt, Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 21, 1954, Serial No. 438,351
3 Claims. (Cl. 260—240)

1. Compounds of the structure:



in which $R_1$ is allyl and $R_2$ is chosen from the group consisting of hydrogen and allyl.

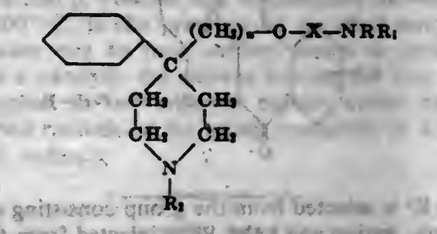
2,773,870

## 1-(LOWER ALKYL)-4-PHENYL-4-(TERTIARY-AMINOALKOXYMETHYL- AND TERTIARY-AMINOALKOXY) PIPERIDINES AND THEIR PREPARATION

Bill Elpern, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application June 4, 1953, Serial No. 359,637
17 Claims. (Cl. 260—247.7)

1. A member of the group consisting of a compound having the formula



where $n$ is selected from the group consisting of zero and one, X is a lower alkylene radical having from 2 to 4 carbon atoms whose two free valence bonds are on different carbon atoms, $NRR_1$ is a member of the group consisting of lower dialkylamino, 1-piperidyl, (lower alkylated)-1-piperidyl, 1-pyrrolidyl, (lower alkylated)-1-pyrrolidyl and 4-morpholinyl, and $R_2$ is a lower alkyl radical and its acid addition and di-quaternary ammonium salts.

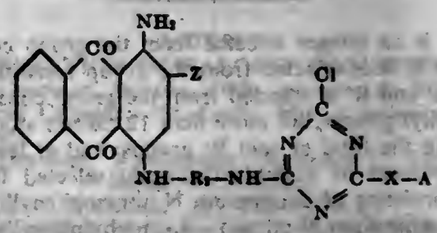
2,773,871

## DYESTUFFS OF THE ANTHRAQUINONE SERIES

Jakob Brassel, Basel, Alfred Fasciati, Bottmingen, and Arthur Buchler, Rheinfelden, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application August 13, 1954, Serial No. 449,782
Claims priority, application Switzerland August 20, 1953
9 Claims. (Cl. 260—249)

1. An anthraquinone dyestuff of the formula



in which $R_2$ represents a benzene radical, Z represents a member of the group consisting of a sulfonic acid group and a hydrogen atom, A represents a member of the group consisting of benzene cyclohexyl and alkyl radicals of at most 12 carbon atoms and X represents a member of the group consisting of, an oxygen atom and an

—NH— group, one of the radicals $R_2$ and A containing as sole water-solubilizing substituent a sulfonic acid group when Z represents a hydrogen atom.

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2,773,872

## DIHYDROOROTIC ACID

Charles S. Miller, Lansdale, Edward L. Engelhardt, Ambler, and Janice T. Gordon, Ardmore, Pa., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application April 12, 1954, Serial No. 422,671
2 Claims. (Cl. 260—260)

1. D-dihydroorotic acid, said substance being in crystalline and substantially pure form and being substantially free from its optical antipode.

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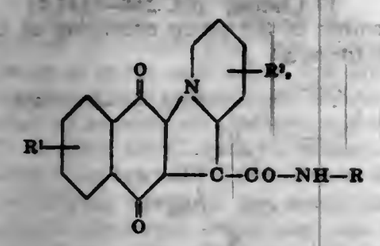
2,773,873

## HETEROCYCLIC VAT DYESTUFFS

David I. Randall, Easton, Pa., and Wilhelm Schmidt-Nickels, Little York, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 28, 1954, Serial No. 478,174
10 Claims. (Cl. 260—272)

1. A compound having the formula



wherein $R^1$ is selected from the group consisting of hydrogen, nitro-, amino and halo; $R^2$ is selected from the group consisting of lower alkyl and halo; R is an anthraquinonyl radical; and y has a value of 0 to 3.

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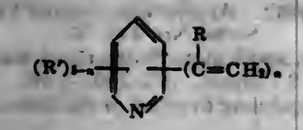
2,773,874

## STABILIZATION OF POLYMERIZABLE HETEROCYCLIC NITROGEN COMPOUNDS

Paul S. Hudson, Mack F. Potts, and Warren L. Smith, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application November 7, 1952, Serial No. 319,414
16 Claims. (Cl. 260—290)

4. A composition comprising a vinyl substituted pyridine selected from the class having the structural formula



where *n* is an integer selected from the group consisting of 1 and 2, R is selected from the group consisting of H and $CH_3$, and R′ is selected from the group consisting of H and alkyl groups, not more than 12 carbon atoms being present in the total of said R′ groups; and at least 0.001 weight percent of a stabilizing agent selected from the group consisting of ammonium N-nitrosophenylhydroxylamine, ammonium N-nitroso - 4 - methylphenylhydroxylamine, ammonium N-nitroso-2,6-dinitrophenylhydroxylamine, ammonium N-nitroso-2-hydroxy-4-chlorophenylhydroxylamine, ammonium N-nitroso-2,6-dinitro-4-chlorophenylhydroxylamine, ammonium N-nitroso-2-methoxy-4-aminophenylhydroxylamine, and ammonium N-nitroso-3-ethoxyphenylhydroxylamine.

2,773,875

## INDOLE DERIVATIVES AND METHOD FOR PRODUCING SAME

Jacob Finkelstein, East Paterson, and John Lee, Essex Fells, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application March 28, 1952, Serial No. 279,255
10 Claims. (Cl. 260—293)

1. A process which comprises reacting the sodium salt of ethyl β-(2-pyridyl)ethylacetoacetate with diazotized aniline so as to produce ethyl α-keto-γ-(2-pyridyl)butyrate phenylhydrazone, heating the latter in the form of its hydrochloride in the presence of sulfuric acid to produce ethyl 3-(2-pyridylmethyl)-2-indolecarboxylate, saponifying the hydrochloride of the last mentioned compound to produce 3 - (2 - pyridylmethyl) - 2 - indolecarboxylic acid, decarboxylating the latter in the presence of copper to produce 3-(2-pyridylmethyl)indole, reacting the last mentioned compound with a methylating quaternizing agent to produce the corresponding 2-(3-indolylmethyl) 1-methylpyridinium salt, and catalytically reducing the latter to produce 3-(1-methyl-2-piperidylmethyl)-indole.

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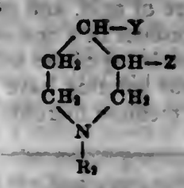
2,773,876

## TERTIARY - AMINOALKOXYMETHYL - 1-(LOWER ALKYL) PIPERIDINES AND PREPARATION THEREOF

Bill Elpern, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application June 4, 1953, Serial No. 359,638
17 Claims. (Cl. 260—294.7)

1. A member of the group consisting of a compound having the formula



where $R_2$ is a lower alkyl radical and one of Y and Z is hydrogen and the other is tertiary-aminoalkoxymethyl radical having the formula $-CH_2-O-X-NRR_1$ where X is a lower alkylene radical having from 2 to 4 carbon atoms whose two free valence bonds are on different carbon atoms and $NRR_1$ is a member of the group consisting of di-(lower alkyl) amino, 1-piperidyl, (lower alkylated)-1-piperidyl, 1-pyrrolidyl, (lower alkylated)-1-pyrrolidyl and 4-morpholinyl, and its acid addition and di-quaternary ammonium salts.

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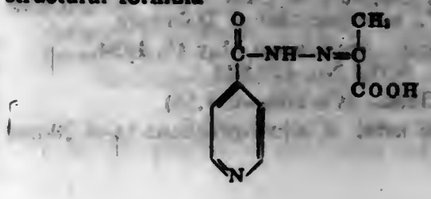
2,773,877

## ISONICOTINYL HYDRAZONE OF PYRUVIC ACID

Wilhelm Wenner, Upper Montclair, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application March 14, 1952, Serial No. 276,705
1 Claim. (Cl. 260—295)

The isonicotinyl hydrazone of pyruvic acid having the structural formula



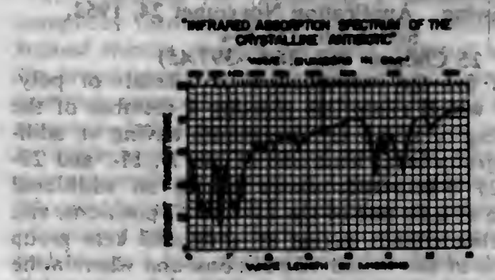


2,773,878

## CYCLOSERINE AND PRODUCTION THEREOF

Gilbert M. Shull, Roslyn Heights, N. Y., John B. Routien, Teaneck, N. J., and Alexander C. Finlay, Flushing, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

Application March 5, 1952, Serial No. 274,924
5 Claims. (Cl. 260—307)




5. Cycloserine, an amphoteric substance effective in inhibiting the growth of mycobacteria, which is highly soluble in water and slightly soluble in methanol and which contains the elements carbon, hydrogen, nitrogen, and oxygen in the following proportions:

| | Percent |
|---|---|
| Carbon | 35.3 |
| Hydrogen | 5.9 |
| Nitrogen | 27.4 |
| Oxygen (by difference) | 31.4 |

which has a positive optical rotation in methanol and a suspension of which in mineral oil exhibits characteristic absorption in the infrared region of the spectrum at the following frequencies expressed in reciprocal centimeters: 1626, 1602, 1580, 1557, 1534, 1408, 1402, 1266, 1227, 1168, 1141, 1117, 1064, 938, 916, 892, 880, and 830.

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2,773,879

## GLYOXALIDINE SALTS OF LONG CHAIN DICARBOXYLIC ACIDS

Aaron Sterlin, Chicago, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application April 2, 1952, Serial No. 280,197
7 Claims. (Cl. 260—309.6)

1. Salts of an organic aliphatic dicarboxylic acid containing at least 10 carbon atoms in a hydrocarbon structure and a glyoxalidine wherein the carbon atom in the 2-position is linked to a higher aliphatic hydrocarbon group containing at least 8 carbon atoms, the carbon atom in the 4-position is linked to a member from the group consisting of hydrogen and lower aliphatic hydrocarbon groups containing not more than 6 carbon atoms, the carbon atom in the 5-position is linked to a member from the group consisting of hydrogen and lower aliphatic hydrocarbon groups containing not more than 6 carbon atoms, there being at least one hydrogen atom on each of the carbon atoms in the 4- and 5-positions, and the nitrogen atom in the 1-position is linked to a member from the group consisting of hydrogen and lower aliphatic groups containing not more than 6 carbon atoms, said last named lower aliphatic groups being composed of atoms from the group consisting of hydrogen, carbon, nitrogen and oxygen.

2,773,880

## PROCESS FOR PRODUCING 4-SUBSTITUTED 1,2-DIARYL-3,5-DIOXO PYRAZOLIDINES

Josef Ctvrtnik, Olomouc, Oldrich Nemecek, Prague, and Jiri Mayer, Brno, Czechoslovakia, assignors to Synfarma, narodni podnik, Hostivar, Czechoslovakia, a company of Czechoslovakia

No Drawing. Application September 23, 1955, Serial No. 536,276
Claims priority, application Czechoslovakia September 29, 1954
7 Claims. (Cl. 260—310)

1. Process for producing 4-substituted 1,2-diphenyl-3,5-dioxo pyrazolidines, comprising heating, in an alkaline medium, 1,3-dichlorobutene-2 with a compound selected from the group consisting of 1,2-diphenyl-3,5-dioxo pyrazolidine and its malonic component, and treating the obtained diphenyl dioxo pyrazolidine, substituted in the 4-position by at least a single gamma-chlorocrotyl group, with reducing agents.

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2,773,881

## GLYCOL CARBONATES

Jesse T. Dunn, Charleston, W. Va., assignor to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application February 9, 1953, Serial No. 335,987
11 Claims. (Cl. 260—340.2)

1. Process for making glycol carbonates which comprises reacting an oxirane with carbon dioxide at a pressure above 500 p. s. i. and at a temperature between 100° C. and 400° C. in the presence of an alkyl amine containing from one to four carbon atoms in each alkyl radical as a catalyst; the oxirane having the ring oxygen atom attached to two adjacent carbon atoms to which are attached radicals of the group consisting of hydrogen and alkyl radicals.

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2,773,882

## PROCESS FOR PREPARING 3-HALOFURAN

William W. Levis, Jr., Wyandotte, Mich., assignor, by mesne assignments, to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application May 7, 1952, Serial No. 286,621
17 Claims. (Cl. 260—346.1)

1. A process for preparing 3-halofuran of the group consisting of 3-chlorofuran and 3-bromofuran which comprises mixing at least one base of the group consisting of alkali metal and alkaline earth bases with at least one salt of the group consisting of alkali metal and alkaline earth salts of exo - cis - 4,5 - dihalo-3,6-endoxohexahydrophthalic acids, the halogen atoms of said salts being selected from the group consisting of chlorine and bromine, and maintaining said reactants in mutual contact at a temperature above about 100° C. until 3-halofuran has been produced.

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2,773,883

## PREPARATION OF HALOBENZOQUINONES

Van R. Gaertner, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 27, 1953, Serial No. 394,285
8 Claims. (Cl. 260—396)

7. The method of preparing 2-chloro-5,8-dihydro-6-methyl-1,4-naphthoquinone, which method comprises dehydrochlorinating, by reaction with γ-collidine, 2,4a-dichloro - 6 - methyl - 4a,5,8,8a - tetrahydro - 1,4 - naphthoquinone having an angular hydrogen atom in the 8a-position in cis-relationship to the chlorine atom in the 4a-position.

2,773,884

## PROCESS FOR THE MANUFACTURE OF COMPOUNDS OF THE STEROID SERIES

Leopold Ruzicka, Hans Heusser, and Oskar Jeger, Zurich, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application December 29, 1952, Serial No. 328,505
Claims priority, application Switzerland April 4, 1952
2 Claims. (Cl. 260—397.2)

1. A process for the manufacture of $\Delta^{8:9:22,23}$-3$\beta$-lower alkylcarbonyloxy-7-keto ergostadiene, which comprises the step of treating mono keto $\Delta^{22:23}$-3$\beta$-lower alkylcarbonyloxy-8:9-oxido-ergostene, the keto group of which is in the 7-position, with zinc and an acid.

2,773,885

## STEROIDS OF THE ERGOSTA SERIES

Gerald D. Laubach, Jackson Heights, and Eric C. Schreiber, Hicksville, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application July 15, 1953, Serial No. 368,199
14 Claims. (Cl. 260—397.2)

12. Compounds selected from the class consisting of ergosta-6,8,22-triene-11-one-3$\beta$,14-diol, its 3-acetate, 3-propionate and 3-butyrate esters, and its 3-methyl, 3-ethyl and 3-benzyl ethers.

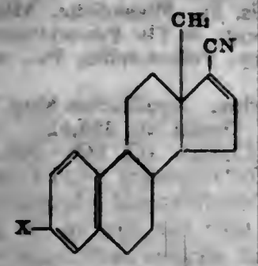
2,773,886

## DERIVATIVES OF 3-HYDROXY-17-CYANO-$\Delta$1,3,5(10),16-ESTRATETRAENE

Leon Velluz and Georges Muller, Paris, France, assignors to Les Laboratoires Francais de Chimiotherapie, Paris, France, a body corporate of France

No Drawing. Application August 24, 1954, Serial No. 451,952
Claims priority, application France January 2, 1948
3 Claims. (Cl. 260—397.5)

1. As a new product, a derivative of 3-hydroxy-17-cyano-$\Delta^{1,3,5,16}$-estratetraene of the following formula



wherein X is an acyloxy group, the acyl residue of said acyloxy group being selected from the group consisting of the unsubstituted lower aliphatic carboxylic acid radical, the cyclopentane carboxylic acid radical, the cyclohexane carboxylic acid radical, and the benzoic acid radical.

2,773,887

## PREGNANE-11$\alpha$.17$\alpha$-DIOL-3,20-DIONES, ESTERS THEREOF AND PROCESS

George Rosenkranz, Mexico City, Mexico, and Carl Djerassi, Birmingham, Mich., assignors, by mesne assignments, to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application February 17, 1953, Serial No. 337,431
Claims priority, application Mexico February 19, 1952
6 Claims. (Cl. 260—397.45)

1. A process for the production of a compound selected from the group consisting of a pregnan-11$\alpha$,17$\alpha$-diol-3,20-dione lower fatty acid esters thereof and benzoic acid esters thereof which comprises treating a corresponding $\Delta^{16}$-pregnen-3,11$\alpha$-diol-20-one compound with hydrogen peroxide in alkaline medium to produce the corresponding 16$\alpha$,17$\alpha$-oxido derivative and thereafter converting the 16$\alpha$,17$\alpha$-oxido group to a 17$\alpha$-hydroxy group and the 3-hydroxy group to a 3-keto group.

2,773,888

## PROCESS FOR THE MANUFACTURE OF 3-KETALS OF POLYKETO STEROIDS AND PRODUCTS OBTAINED THEREBY

Eugene P. Oliveto, Bloomfield, and Emanuel B. Hershberg, West Orange, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application November 24, 1952, Serial No. 322,354
25 Claims. (Cl. 260—397.45)

1. Process for the manufacture of 3-ketals of polyketosteroids, which comprises reacting a member of the class consisting of (1) 3-keto-pregnanes having an additional keto group in at least one of the 7-, 11-, and 20-positions, (2) 3-keto-androstanes having an additional keto group in at least one of the 11- and 17-positions, and (3) 3-keto etiocholanes having an additional keto group in at least one of the 7- and 12-positions, and wherein the 3-keto group is in each case non-conjugated to a double bond, with a saturated lower aliphatic alcohol in the presence of selenium dioxide.

2,773,889

## PROCESS FOR THE EXTRACTION OF FATTY OILS AND PROTEINS FROM OLEAGINOUS MATERIALS

Wilson S. Kao, Singapore, Straits Settlement

No Drawing. Application November 29, 1951, Serial No. 259,004
4 Claims. (Cl. 260—412)

1. The process of treating an oleaginous material selected from the group consisting of coconut, groundnut, candlenut, soybean, cottonseed and rubber seed, which comprises extracting a flaked form of the selected material with a 0.5 to 1.5% aqueous soap solution at an elevated temperature of at least 70° C. but not exceeding the coagulation temperature of the proteins of the material, maintaining said elevated temperature for at least half an hour to thereby form a temporary oil-in-water emulsion containing proteins and carbohydrates with fibrous and insoluble material, separating the fibrous and insoluble material from the emulsion and then separating the oil from the proteins and carbohydrates.

2,773,890

## CATALYTIC CARBON MONOXIDE HYDROGENATION WITH AN INCREASED YIELD OF HIGHER BOILING ESTERS

Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, and Luigi Gesellschaft fuer Waermetechnik m. b. H., Frankfurt am Main Heddernheim, Germany

No Drawing. Application April 2, 1952, Serial No. 280,171
Claims priority, application Germany April 11, 1951
9 Claims. (Cl. 260—449.6)

1. In a process for the catalytic hydrogenation of carbon monoxide, the improvement which comprises contacting a carbon monoxide hydrogen-containing synthesis gas with a precipitated iron hydrogenation catalyst containing at least 30% copper, based on the total iron present in said catalyst, and a free alkali content of about 4 to 15% calculated as $K_2O$, based on the total iron present in said catalyst, at a pressure of at least 5 atmospheres and temperatures of 170 to 280° C., and recovering oxygen-containing products having a high content of esters.



2,773,891

## PREPARATION OF ISOPHTHALONITRILES AND TEREPHTHALONITRILES

William G. Toland, Jr., San Rafael, and Joseph A. Fuller, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application June 1, 1953, Serial No. 358,848
5 Claims. (Cl. 260—465)

1. A process for producing a phthalonitrile, which comprises forming an ammonia gas stream having entrained therein at least one solid material selected from the group consisting of isophthalic acid, terephthalic acid and their ammonium salts, monoamides and diamides, the ammonia being present in an amount of at least three equivalents per equivalent of said solid material, passing said ammonia gas stream at a space velocity below about 10 and above about 0.5 calculated as grams of feed/cc. of catalyst per hour through a catalytic conversion zone containing a bed of finely divided fluidizable solid particles of a dehydration catalyst to maintain the bed in fluid, turbulent condition, maintaining a temperature within about the range of 700° F.–900° F. in said conversion zone to convert the entrained material in the ammonia gas stream into volatile products, including the phthalonitrile, withdrawing said volatile products along with ammonia gas from the conversion zone, and recovering the phthalonitrile.

2,773,892

## 1-AMINO-1-HALO-2,2-DICYANOETHYLENES AND PREPARATION OF SAME

Ernest L. Little, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 31, 1955, Serial No. 512,273
6 Claims. (Cl. 260—465.5)

1. A compound of the class consisting of 1-amino-1-halo-2,2-dicyanoethylenes.

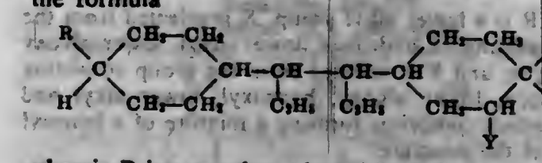
2,773,893

## CARBOXYLIC ACIDS OF THE DICYCLOHEXYL ETHANE SERIES, AND A PROCESS OF MAKING SAME

Erich M. H. Radde, New York, N. Y.

No Drawing. Application November 20, 1953, Serial No. 393,503
Claims priority, application Germany December 2, 1949
7 Claims. (Cl. 260—488)

1. An $\alpha$,$\beta$-substituted diethyl ethane compound of the formula



wherein R is a member selected from the group consisting of the hydroxyl group and an acyloxy group, while Z is a member selected from the group consisting of hydrogen and a hydroxyl group, and Y is a member selected from the group consisting of hydrogen and, together with Z, a double bond between the two carbon atoms to which said Y and Z are attached.

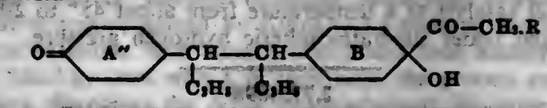
2,773,894

## DI-CYCLOHEXYL ETHANE COMPOUNDS, AND A PROCESS OF MAKING SAME

Erich M. H. Radde, New York, N. Y.

No Drawing. Application November 20, 1953, Serial No. 393,504
Claims priority, application Germany December 2, 1949
5 Claims. (Cl. 260—488)

1. An $\alpha$,$\beta$-substituted diethyl ethane compound of the formula



wherein R is a member selected from the group consisting of a hydroxyl group and an acyloxy group and wherein ring A" is a ring selected from the group consisting of the cyclohexane ring and the cyclohexene ring while ring B is the cyclohexane ring.

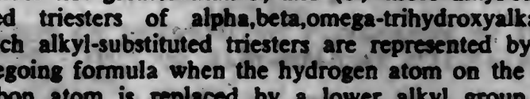
2,773,895

## PREPARATION OF ALPHA, OMEGA-GLYCOL ESTERS

Seaver A. Ballard and Richard R. Whetstone, Orinda, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application October 1, 1953, Serial No. 383,685
10 Claims. (Cl. 260—491)

10. A process for the preparation of a monocarboxylic acid diester of a non-vinylic alpha,omega-alkenediol, which comprises pyrolyzing a triester selected from the group consisting of (*a*) triesters of trihydroxyalkanes having the formula



in which each R represents a hydrocarbon group containing up to 18 carbon atoms and *n* represents an integral number not greater than 5, and (*b*) those alkyl-substituted triesters of alpha,beta,omega-trihydroxyalkanes, which alkyl-substituted triesters are represented by the foregoing formula when the hydrogen atom on the beta carbon atom is replaced by a lower alkyl group and from none to one, inclusive, hydrogen atom on a different non-terminal carbon atom of the linear carbon chain of the residue of the unsubstituted alpha-beta-omega-trihydroxyalkane is replaced by a lower alkyl group as the only additional substituent and R and *n* are defined as hereinbefore.

2,773,896

## MANUFACTURE OF ALKYL ARYL SULFONATES

James W. Putt, Los Angeles, Calif.

Application April 24, 1952, Serial No. 284,041
21 Claims. (Cl. 260—505)

1. A process of producing anionic surface-active compounds which comprises simultaneously alkylating and sulfonating a mixture of aromatic hydrocarbons having a boiling range within the limits from substantially 390° F. to substantially 600° F., with an olefin in the presence of sulfuric acid in a single reaction zone; agitating the reaction mixture in said single reaction zone until alkylation and sulfonation are substantially completely effected, adding water to the reacted mixture in amounts and under conditions controlled to effect layer separation of free sulfuric acid, unsulfonated oil and alkyl aryl sulfonic acid, separating the layers, recovering the alkyl aryl sulfonic acid and neutralizing the sulfonic acid with basic material to form the corresponding alkyl aryl sulfonates.

2,773,897

## PREPARATION OF METHYLSUCCINIC ACID AND METAL SALTS THEREOF

Abraham Bavley, Brooklyn, and Charles J. Kauth, Forest Hills, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application June 7, 1952, Serial No. 292,304

4 Claims. (Cl. 260—537)

1. A process which comprises catalytically hydrogenating an alkali metal itaconate in the presence of a Raney nickel catalyst at a temperature from about 45° to 200° C. and under superatmospheric hydrogen pressure.

2,773,898

## PROCESS FOR DRYING PHOSGENE

Georg Brinkmann and Heinz H. Wolfhagen, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application January 22, 1954, Serial No. 405,659

Claims priority, application Germany January 24, 1953

8 Claims. (Cl. 260—544)

1. Process for drying phosgene, which comprises passing a stream of phosgene into, through, and out of a drying zone, while contacting the phosgene with charcoal in said drying zone, the stream of phosgene entering said drying zone containing water vapor which reacts with an equivalent amount of phosgene in said zone in the presence of said charcoal, whereby the stream of phosgene passing out of said zone is dried.

2,773,899

## ALKENOIC AMIDES OF ARYLETHERS OF ALKANOLAMINES

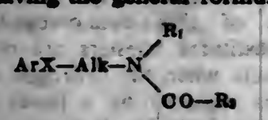
Henry Martin, Zurich, and Hans Zutter, Schaffhouse, Switzerland, assignors to Cilag Limited, Schaffhouse, Switzerland, a corporation of Switzerland

No Drawing. Application November 23, 1954, Serial No. 470,804

Claims priority, application Germany November 24, 1953

7 Claims. (Cl. 260—562)

1. An amide having the general formula:



wherein Ar is selected from the group consisting of phenyl, lower alkyl-phenyl, chloro-phenyl and lower alkoxy-phenyl radicals, X is selected from the group consisting of oxygen and sulphur, Alk is a lower alkylene radical containing up to three carbon atoms, $R_1$ is selected from the group consisting of hydrogen, lower alkyl, lower alkenyl and lower aralkyl radicals, and $R_2$ is a lower $\alpha,\beta$-unsaturated aliphatic radical.

2,773,900

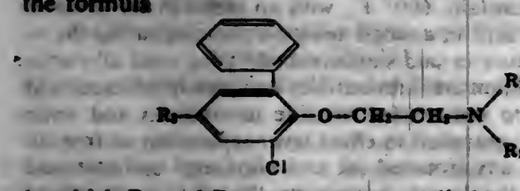
## SUBSTITUTED ARYL AMINO ALKYL ETHERS

Jack Mills, Glenns Valley, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application November 8, 1954, Serial No. 467,635

4 Claims. (Cl. 260—570.7)

1. A pharmacologically active compound of the class consisting of a base and its nontoxic pharmaceutically useful acid addition salts, said base being represented by the formula



in which $R_1$ and $R_2$ represent lower alkyl groups and $R_3$ is chosen from the class consisting of a hydrogen atom and a chlorine atom.

2,773,901

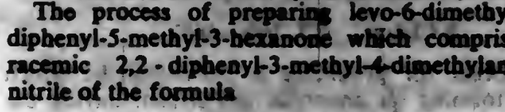
## THE RESOLUTION AND OPTICAL ISOMERS OF 6-DIMETHYLAMINO-4,4-DIPHENYL-5-METHYL-3-HEXANONE

Aubrey A. Larsen and Benjamin F. Tullar, Rensselaer County, N. Y., assignors to Sterling Drug Inc., Wilmington, Del., a corporation of Delaware

No Drawing. Application March 16, 1948, Serial No. 15,267

1 Claim. (Cl. 260—570.8)

The process of preparing levo-6-dimethylamino-4,4-diphenyl-5-methyl-3-hexanone which comprises reacting racemic 2,2-diphenyl-3-methyl-4-dimethylaminobutanenitrile of the formula



with at least one equivalent of dextro-tartaric acid to form a mixture of diasteroisomeric salts, separating the dextro-2,2-diphenyl-3-methyl-4-dimethylaminobutanenitrile dextro-bitartrate from said diastereoisomeric salt mixture by fractional crystallization, liberating the free dextro-nitrile by reacting said dextro-2,2-diphenyl-3-methyl-4-dimethylaminobutanenitrile dextro-tartrate with an excess of a strong base, reacting said dextro-nitrile with ethyl magnesium bromide, and hydrolyzing the resulting Grignard complex by heating it with mineral acid.

2,773,902

## HYDROGENATION OF PHTHALONITRILES

Charles D. Heaton, El Cerrito, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application May 10, 1954, Serial No. 428,831

8 Claims. (Cl. 260—578)

1. Process of preparing an xylylene diamine which comprises hydrogenating a phthalonitrile dinitrile under hydrogenation conditions of temperature and pressure in the presence of a cobalt hydrogenation catalyst and about 1 to 5 parts for each part of phthalonitrile, by weight, of a liquid ammonia-water reaction medium, the ammonia and water being present during reaction in a weight ratio of 50 to 95 ammonia to 50 to 5 water.

2,773,903

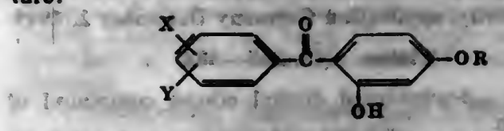
## PROCESS FOR BENZOPHENONES (DIMETHYLFORMAMIDE)

William B. Hardy, Bound Brook, and Warren S. Forster, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

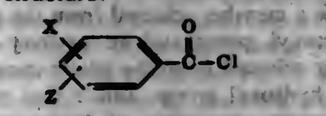
No Drawing. Application July 18, 1955, Serial No. 522,833

11 Claims. (Cl. 260—591)

1. A process of preparing a benzophenone of the structure:



in which R is a lower alkyl group, X is selected from the group consisting of hydrogen, lower alkyl, lower alkoxy and halogen, and Y is selected from the group consisting of hydrogen, lower alkoxy, hydroxyl, lower alkyl and halogen which comprises forming a mixture of a benzoyl chloride of the structure:



wherein X is the same as above, and Z is selected from the group consisting of hydrogen, lower alkyl, lower alkoxy and halogen with at least a substantially stoichiometric



quantity of a 1,3-dialkoxy benzene and with at least a substantially stoichiometric quantity of aluminum chloride in an organic solvent, heating the mixture above 100° C. and adding thereto at least 1% by weight of dimethyl formamide of the weight of organic solvent present when the mixture begins to thicken.

2,773,904

## PREPARATION OF ARALKYL KETONES

Robert M. Silverstein, Menlo Park, Calif., assignor to Parex Corporation, Ltd., South Gate, Calif., a corporation of California

No Drawing. Application September 29, 1952, Serial No. 312,163

8 Claims. (Cl. 260—592)

1. The method of producing aralkyl ketones, that includes condensing a fatty glyceride directly with an aromatic hydrocarbon compound in the presence of a Friedel and Crafts type catalyst to form the aralkyl ketone, and separating the ketone as a material consisting essentially of the ketone from the reaction product mixture, said aromatic compound being of the group consisting of benzene, toluene, xylene, and naphthalene.

2,773,905

## SEPARATING PRIMARY MERCAPTANS FROM MIXTURES OF MERCAPTANS

Russell H. Brown, Hammond, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application February 7, 1955, Serial No. 486,701

7 Claims. (Cl. 260—609)

1. A mercaptan separation process which comprises contacting a mixture containing a primary mercaptan and at least one mercaptan from the class consisting of secondary and tertiary with an aqueous solution consisting essentially of water, triethanolamine and soluble lead, in the substantial absence of free oxygen, and separating lead primary mercaptide from unreacted mercaptans of the class consisting of secondary and tertiary.

2,773,906

## α,α-DIALKYL-Ar-PHENYLBENZYL HYDROPEROXIDES

William S. Emerson, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 6, 1953, Serial No. 353,425

3 Claims. (Cl. 260—610)

1. The method of preparing an α,α-dimethyl-ar-phenylbenzyl hydroperoxide which comprises passing oxygen into a mixture consisting of an isopropylbiphenyl, a peroxide compound, and sodium bicarbonate at a temperature of from 140° C. to 190° C.

2,773,907

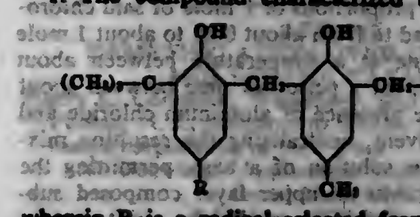
## TRIS-PHENOLS

Frank A. V. Sullivan, Darien, and Arnold R. Davis, Riverside, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 5, 1954, Serial No. 408,579

4 Claims. (Cl. 260—619)

1. The compound characterized by the formula:



wherein R is a radical selected from the group consisting of methyl, ethyl and n-propyl and in which R is the same in each occurrence.



2,773,908

## SEPARATION AND PURIFICATION OF PHLOROGLUCINOL

William R. Cake, Glen Rock, N. J., assignor to Hayden Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 7, 1952, Serial No. 303,193

9 Claims. (Cl. 260—628)

7. The process of separating phloroglucinol from water-soluble crude phloroglucinol dihydrate containing other hydroxy phenols including resorcinol extracted from a mass obtained by fusing 1,3,5-benzene trialkali metal sulfonate with caustic alkali and then acidifying the fused product with a mineral acid, the process comprising dissolving the crude phloroglucinol dihydrate in a solvent selected from the group consisting of toluene, xylene, monochlorobenzene, ethyl benzene, cumene, mesitylene, dichlorobenzene, diethylbenzene, and p-cymene, maintaining the resulting solution at a temperature of from about 110° C. to 140° C. to convert the phloroglucinol dihydrate to insoluble anhydrous phloroglucinol whereby anhydrous phloroglucinol crystals are formed, and then separating the crystals from the hot solution containing resorcinol dissolved in the solvent.

2,773,909

## ADDITION OF HYDROGEN PEROXIDE TO OLEFINIC COMPOUNDS

Curtis W. Smith, Berkeley, Calif., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application June 23, 1952, Serial No. 295,112

4 Claims. (Cl. 260—635)

1. A process of producing glycerine which comprises reacting allyl alcohol with aqueous hydrogen peroxide at a temperature of about 70° C. to 90° C. under the catalytic influence of a member of the group consisting of the tungstoheteropoly acids of phosphorus, beryllium and manganese.

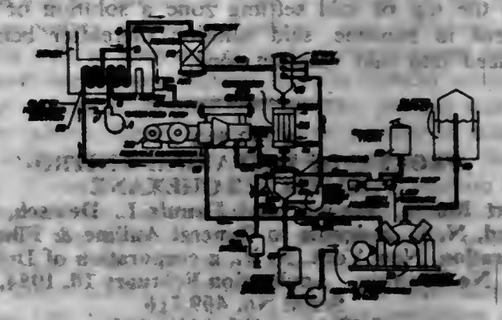
2,773,910

## PROCESS OF PREVENTING CORROSION IN THE PRODUCTION OF ALCOHOLS BY HYDRATION OF OLEFINS

Robert J. Schrader, Longview, Tex., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application July 31, 1952, Serial No. 301,926

3 Claims. (Cl. 260—641)



1. In a cyclic process for the manufacture of an alcohol by the reaction, at elevated pressure and temperatures of the order of 250°–300° C., of an olefin and steam in contact with a supported phosphoric acid catalyst in a reactor, a method of preventing condensation of concentrated phosphoric acid on the walls of the product stream cooler, while avoiding dilution of the product, which comprises the steps of introducing the product gas stream substantially at the reaction temperature and pressure into

the product stream cooler and simultaneously spraying under pressure, into direct contact with the product gas stream in the product stream cooler, a spray of the crude product alcohol solution which has been cooled and substantially neutralized, the amount of cooled, substantially neutralized, crude product alcohol solution recycled to the product stream cooler in any given period being at least 50% of the amount of crude product alcohol solution obtained within that period, and being sufficient, without other cooling means, to reduce the temperature of the product gas stream at least to the temperature at which it is saturated with water at the pressure prevailing in the product stream cooler.

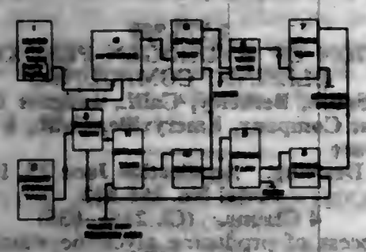
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2,773,911

## CONTINUOUS MANUFACTURE OF NITROBENZENE

Laurent O. Dubois and Robert N. Gerlaide, Woodbury, Winford R. Johnson, Wenonah, and Edgar W. Schneider, Woodbury, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application December 11, 1953, Serial No. 397,528
5 Claims. (Cl. 260—645)



1. A process for the manufacture of nitrobenzene which comprises (1) continuously introducing separately into the bottom of a reaction zone a solution of nitrobenzene in benzene and a mixture of nitric acid and sulfuric acid; (2) continuously removing reaction mixture from the top of said reaction zone and transferring said reaction mixture to a settling zone; (3) continuously removing nitrobenzene from the top of said settling zone and waste mixed acid from the bottom thereof, said waste mixed acid being transferred to a denitrating zone; (4) continuously introducing benzene to said denitrating zone and agitating with said waste mixed acid; (5) continuously transferring mixture from said denitration zone to a settling zone; and (6) continuously withdrawing from the top of said settling zone a solution of nitrobenzene in benzene, said solution thereafter being introduced into said reaction zone.

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2,773,912

## PROCESS OF PREPARING 4-NITROPHENYLCYCLOHEXANE

Albert Bloom, Summit, and Dennis L. Deutsch, Cranford, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application February 10, 1954, Serial No. 409,516
5 Claims. (Cl. 260—645)

1. A process for preparing 4-nitrophenylcyclohexane which comprises nitrating phenylcyclohexane with a sulfuric acid-nitric acid mixture having a D. V. S. value between 3.2 and 4.7 at a temperature of 0–5° C., separating the crude nitrated mixture, washing the oily layer with water to remove the mineral acidity, and thereafter purifying the mixture by treatment with a lower alkyl alcohol at a temperature of 0–5° C. for a period of time sufficient to yield the 4-nitrophenylcyclohexane which is isolated and washed with a lower alkyl alcohol and dried.

2,773,913

## FLUORINATING ORGANIC COMPOUNDS WITH HYDROGEN FLUORIDE CONTAINING HYDROXONIUM IONS

Dieter Geerts, Leimer, and Heinz Jonas, Leverkusen-Wiesdorf, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application October 6, 1953, Serial No. 384,906
Claims priority, application Germany October 8, 1952
3 Claims. (Cl. 260—653)

1. In the process for the production of fluorochloroethane by the addition of hydrogen fluoride to trichloroethylene the step which comprises autoclaving at a temperature of 130–135° C. and a pressure of about 40 atmospheres for a period of 22 hours a reaction mixture consisting of 18 kg. of trichloroethylene, 60 g. of $HgCl_2$, 3 kg. of hydrogen fluoride and 45 grams of boron oxide, and recovering $C_2H_3FCl_2$.

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2,773,914

## MAKING DIARYLETHANES

Erhard J. Prill, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 19, 1953, Serial No. 343,519
20 Claims. (Cl. 260—668)

12. A process for condensing aromatic hydrocarbons with acetylene to form 1,1-diarylethanes which comprises subjecting an aromatic hydrocarbon to contact with acetylene at superatmospheric pressure in the presence of catalytic amounts of a material, which material is the sole catalyst present, selected from the group consisting of: A, zinc chloride plus water; B, phosphoric acid ranging from 85 percent $H_3PO_4$ up through increasing extent of dehydration to tetraphosphoric acid; and C, phosphoric acid ranging from 85 percent $H_3PO_4$ up through increasing extent of dehydration to tetraphosphoric acid and containing an effective amount of ions of a metal selected from the group consisting of mercury, cadmium, zinc, copper and silver.

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2,773,915

## POUR POINT DEPRESSANT

Edwin R. Baker and Marion L. Sharrah, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application June 1, 1954, Serial No. 433,848
1 Claim. (Cl. 260—668)

The process of preparing a composition suitable as a lubricating oil pour point depressant which comprises reacting chloromethylated synthetic still bottoms prepared by chloromethylating a synthetic still bottoms product which has a boiling range of 260 to 400° C., $n_D^{25}$ 1.574, average molecular weight 210, A. P. I. gravity 15.1, aniline number 73.4° F., percent hydrogen 10.69–1075, percent carbon 88.88–89.37, percent nonaromatics 27.8, percent aromatics 72.2, average molecular weight nonaromatics 245, and average molecular weight aromatics 204 to a chlorine content of 8.34 percent with diwaxbenzene in the proportions of 1 mole of said chloromethylated compound to from about 0.25 to about 1 mole of said diwaxbenzene at a temperature between about 20 and about 30° C. for a period of time between about 5 to 12 hours, in the presence of aluminum chloride and an inert organic solvent, neutralizing the resulting mixture with an aqueous solution of a base, permitting the mixture to separate into an upper layer composed substantially of said inert solvent, said pour point depressant, and a small amount of unreacted chloromethylated still bottoms and a lower layer composed of substantially water, said aluminum chloride, salt, and unreacted base, separating said upper layer and recovering the pour point depressant therefrom.



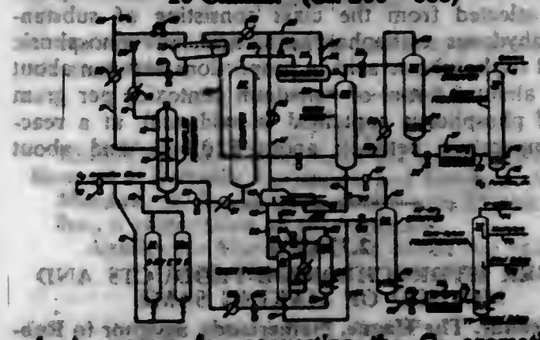
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2,773,916

## PRODUCTION OF 1,3,5-ETHYL XYLENE, META-XYLENE AND BENZENE FROM C9 AROMATICS WITH HF-$BF_3$

Henry C. Thorne, Jr., Hammond, Ind., and David A. McCauley, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application September 26, 1952, Serial No. 311,621
10 Claims. (Cl. 260—668)



1. A process for converting the $C_9$ aromatic components of a hydrocarbon charging stock consisting chiefly of mixed xylenes and ethyl benzene substantially entirely into benzene, meta-xylene and 1-, 3-dimethyl, 5-ethyl benzene which process comprises complexing the aromatic components of said charging stock in substantially dry state with at least about 6 mols of HF and 1 mol of $BF_3$ per mol of total aromatic hydrocarbon in the charge in a complexing zone, increasing the pressure and temperature on the complexes thus formed and holding complexes at a temperature in the range of about 50° C. to about 70° C. under a pressure of at least 200 p. s. i. g. and high enough to insure liquid phase conditions long enough to convert said $C_9$ aromatic hydrocarbons substantially entirely to benzene, meta-xylene and 1-, 3-dimethyl, 5-ethyl benzene, removing sufficient HF and $BF_3$ liberated from complexes in the reaction step to leave about 6 mols of HF and about 1 mol of $BF_3$ per mol of $C_9$ and heavier aromatic hydrocarbons contained in the product stream, thereafter removing uncomplexed hydrocarbons from the complexes by washing said complexes countercurrently with a saturated hydrocarbon, evaporating HF and $BF_3$ from the remaining complexes at approximately atmospheric pressure in an evaporating zone, withdrawing liquid from the evaporating zone to a decomposing zone, decomposing remaining complexes in said last named zone at reduced pressure, compressing HF and $BF_3$ from the evaporating zone and the decomposing zone and combining the compressed vapors with HF–$BF_3$ initially released from complexes leaving the reaction step, cooling the combined stream, pumping the liquid component of the cooled stream through a further cooler to the complexing zone, compressing a gaseous component of the cooled stream and passing the compressed material through a further cooler to the complexing zone, removing any residual HF and $BF_3$ from the liquid stream from the decomposing zone and fractionating said stream to obtain substantially pure 1-, 3-dimethyl, 5-ethyl benzene.

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2,773,917

## DEMETHYLATION OVER CHROMIA OR MOLYBDENA CATALYSTS

Henry L. Cecomski, Woodbury, and Wilbur K. Lozman, Paulsboro, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application September 16, 1952, Serial No. 309,329
8 Claims. (Cl. 260—672)

1. A process for demethylating methyl-substituted benzenes into other benzenoid hydrocarbons, which comprises contacting the methyl-substituted benzene with a catalyst selected from the group consisting of (1) chromia supported on alumina and containing between about 4 weight percent and about 12 weight percent chromia, (2) chromia cogelled with alumina and containing between about 18 mole percent and about 80 mole percent chromia, and (3) molybdenum oxide-alumina containing between about 5 weight percent and about 20 weight percent molybdenum oxide, at a temperature of between about 1000° F. and about 1150° F., for a contact time of between about 40 seconds and about 1000 seconds, and in the presence of hydrogen gas under pressures of between about 50 pounds per square inch gauge and about 2000 pounds per square inch gauge.

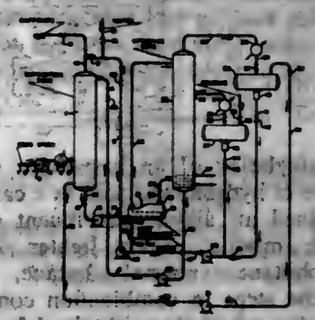
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2,773,918

## SOLVENT EXTRACTION PROCESS

John H. Stephens, Brookfield, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

Application January 7, 1952, Serial No. 265,242
3 Claims. (Cl. 260—674)



1. In a solvent extraction process for the separation of an aromatic hydrocarbon from a mixture thereof with a non-aromatic hydrocarbon wherein said mixture is contacted in a solvent extraction zone with a selective solvent comprising a solution of primary and secondary solvent constituents to form a fat solvent stream and a raffinate stream, said primary solvent being soluble with and less volatile than said aromatic hydrocarbon and said secondary solvent boiling at a temperature below said primary solvent, the improvement in said process which comprises vaporizing dissolved aromatic hydrocarbon and secondary solvent from said fat solvent stream in a solvent stripping zone, thereby forming a lean solvent stream, recovering secondary solvent from the resulting vapors, passing at least a portion of the recovered secondary solvent in indirect heat exchange relationship with at least one of said aforementioned fat solvent and lean solvent streams to form thereby secondary solvent vapors of greater heat content, passing said secondary solvent vapors into the lower portion of said solvent stripping zone as a stripping medium for the removal of residual dissolved aromatic hydrocarbon from the lean primary solvent in the stripping zone, recovering from the stripping step a predominantly aromatic fraction and a fraction containing aromatic and non-aromatic hydrocarbons, and introducing the last-mentioned fraction into the lower portion of said extraction zone.

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2,773,919

## METHOD OF PRODUCING ODORLESS NAPHTHAS

Allen F. Millikan, Evanston, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

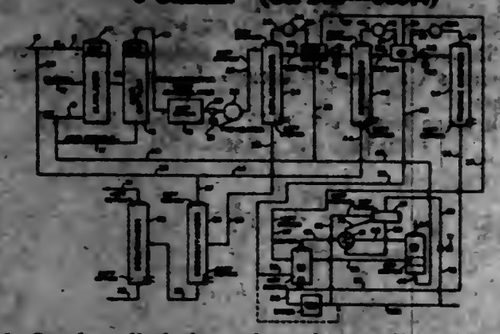
No Drawing. Application December 28, 1953, Serial No. 400,831
8 Claims. (Cl. 260—683.4)

1. A method of removing the characteristic naphtha odor associated with organic peroxide forming and con-

mining components from synthetic alkylate hydrocarbons having a boiling range within about 350° to 600° F. by solvent extraction with a solvent selected from the group consisting of dihydric and trihydric alcohols having 2 to 6 carbon atoms per molecule wherein the hydroxyl groups are attached to adjacent carbon atoms and mixtures thereof, followed by separation of the hydrocarbon phase and water washing.

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2,773,920
RECOVERY OF HYDROGEN FLUORIDE FROM ALKYLATION PRODUCT EFFLUENT
Lucien H. Vautrain and Edward Strunk, Sweeny, Tex.; said Vautrain assignor to Phillips Petroleum Company, a corporation of Delaware
Application April 24, 1953, Serial No. 351,818
6 Claims. (Cl. 260—683.4)



1. In the alkylation of an isoparaffin with an olefin in the presence of hydrofluoric acid as a catalyst in which there is obtained an alkylation effluent containing desired alkalate product, gases lighter than propane, propane, isobutane, normal butane, and hydrofluoric acid, the steps in combination comprising: fractionating a hydrocarbon phase obtained from said alkylation to obtain therefrom a fraction containing gases lighter than propane, some propane, and an equilibrium proportion of hydrogen fluoride; placing said fraction under conditions to obtain liquid propane therefrom, which is removed as a product of the process, and a first gaseous phase containing propane, hydrogen fluoride, and gases lighter than propane; cooling said first gaseous phase to obtain therefrom a condensate of hydrocarbon and hydrogen fluoride and to form a second gaseous phase containing substantially only gases lighter than propane, venting said second gaseous phase from the process; separating said condensate into a hydrocarbon phase and a hydrogen fluoride phase and recovering said hydrogen fluoride.

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2,773,921
PHOSPHORIC ACID-VANADIUM PENTOXIDE CATALYST AND HYDROCARBON CONVERSIONS THEREWITH
Paul N. Eyanson, Jr., Chicago, Ill., and Willard J. Zimmerschied, Cicero, [illegible], assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application November 30, 1953, Serial No. 395,509
17 Claims. (Cl. 260—683.15)

1. A solid catalyst, suitable for catalyzing conversions of olefinic hydrocarbons, said catalyst being produced by reaction of vanadium pentoxide and an acid of phosphorus selected from the class consisting of substantially anhydrous orthophosphoric acid, pyrophosphoric acid and triphosphoric acid in proportions between about 0.1 and about 0.4 mol of vanadium pentoxide per gram atom of phosphorus contained in said acid, at a reaction temperature between about 220° C. and about 600° C.

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2,773,922
RUBBER HYDROCHLORIDE PRODUCTS AND METHOD OF MAKING SAME
Gerrit Schuur, The Hague, Netherlands, assignor to Rubber-Stichting, Delft, Netherlands, a corporation of the Netherlands
No Drawing. Application October 16, 1951, Serial No. 250,750
Claims priority, application Netherlands November 20, 1950
7 Claims. (Cl. 260—735)

1. The method which comprises dispersing, at a temperature from 10° to 40° C., finely divided rubber hydrochloride prepared by hydrochlorination of an aqueous dispersion of natural rubber and which possesses high molecular weight, low solubility, and high chlorine content, to form an organosol in an organic liquid selected from the group consisting of aromatic hydrocarbons, monochlorinated aromatic hydrocarbons, and dioxane, said organic liquid possessing only a slight swelling effect upon the rubber hydrochloride at the dispersion temperature but exerting a stronger swelling effect leading to gelatinization of the rubber hydrochloride when the temperature is increased, the amount of rubber hydrochloride being from 5% to 40% by weight based on the total weight of the organosol, and then heating the organosol to a temperature from about 80° to about 170° C. for a period of from 2 to 10 minutes to gelatinize the dispersed rubber hydrochloride.

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# ELECTRICAL

2,773,923
ZONE-REFINING APPARATUS
Charles G. Smith, Weston, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application January 26, 1953, Serial No. 333,219
6 Claims. (Cl. 13—26)



1. A zone-refining apparatus comprising an elongated body of electrically-conductive material having a recess therein adapted to receive the substance to be zone refined, means supplying heat only into a restricted narrow zone in said body, means for successively applying said first means to successive narrow zones in said body whereby narrow zones in said substance may be melted, each of said zones being transverse to the longitudinal axis of said body and substantially less in length than said recess, and means inhibiting the flow of heat along said longitudinal axis of said body to a substantially greater degree than through said transverse axis thereof.

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2,773,924
METHOD OF MAKING ELECTRODES FOR ELECTRIC BATTERIES
Otto H. Brill, New York, N. Y., and Kenneth N. Brown, Teaneck, N. J., assignors to Yardney International Corp., New York, N. Y., a corporation of New York
Application January 12, 1953, Serial No. 331,206
3 Claims. (Cl. 136—6)

1. A rigid, porous electrode plate for an electric battery, said plate being formed by agglomerating a powder composed in major part of silver particles by heating, comminuting the agglomerates thereby formed, molding



the resulting comminution product under pressure to a porous plate-like configuration of predetermined dimensions, and sintering the molded plate to produce the solid electrode plate.

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2,773,925
ELECTRICAL TRANSLATOR AND METHODS
Bernard J. Rothkin, Levittown, and Frieda A. Stahl, East Meadow, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application March 10, 1951, Serial No. 214,969
17 Claims. (Cl. 136—89)



10. The method of producing a localized inhomogeneity in germanium including the steps of exposing the surface of a body of germanium to the action of a granule of zinc at a temperature in the range 600 to 800° centigrade, gradually cooling the germanium body and etching the germanium to remove reaction products of the zinc and the germanium.

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2,773,926
DRY CELL
Roland L. Glover, Islington, Toronto, Ontario, Canada, assignor to Union Carbide Canada Limited, a corporation of Canada
Application March 12, 1953, Serial No. 341,918
2 Claims. (Cl. 136—107)



2. In combination with a primary galvanic cell comprising a cupped consumable metal electrode; an immobilized electrolyte adjacent to the inner surfaces of said cupped electrode; a carbon electrode centrally disposed in said cupped electrode and extending outwardly of the open end thereof; a depolarizer mix in contact with said carbon electrode and said immobilized electrolyte; and a flanged metal terminal cap mounted on the end of said carbon electrode, said terminal carrying an electrically insulating washer on the flanged portion thereof; a substantially leakproof container comprising a multi-ply, composite, electrically non-conductive jacket composed of a plurality of plies sealed together to form a unitary wall for said cupped electrode and metallic top and bottom closures for said jacket, the end portions of said jacket and the marginal edge portions of said closures being tightly curled together in liquid-tight engagement; said top closure having an aperture centrally disposed therein adapted to permit said carbon electrode to pass therethrough, the edge of the aperture engaging said washer and thereby being insulated from said metal terminal cap, at least one projection between said bottom closure and the bottom of said cupped electrode providing electrical contact therebetween, and in conjunction therewith providing a reservoir space for the reception of exudate from said cell; the innermost ply of said multi-ply jacket in contact with said cupped electrode being of bibulous material whereby to absorb exudate from said cell; an intermediate barrier ply of said jacket being a continuous, electrolyte-impermeable film of organic resinous material effective to bar transmission of such exudate through the walls of said jacket, and the outermost ply of said jacket being of electrically non-conductive material and serving to support said barrier ply and to strengthen said jacket when said innermost ply is wet with such exudate; and a layer of micro-crystalline wax forming an inner seal between said top closure and depolarizer mix, and extending completely across the cross-section of said cell between said electrodes underlying said metal terminal cap and metal cap closure, and in contact therewith insulating said cap and closure from said electrolyte; said top and bottom closures sealing said cell.

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2,773,927
STORAGE BATTERY CELL UNIT ACID CONTAINER
Theodore Yeoman, Iowa City, Iowa
Application July 14, 1955, Serial No. 522,036
3 Claims. (Cl. 136—166)



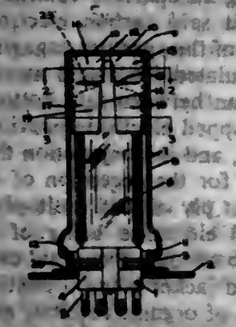
1. Within a storage battery cell unit having vertical plates and horizontal plate connecting straps integral with each of two group posts, a separate, insertable, enclosed vessel consisting of an acid container constructed of a material of the group consisting of glass, hard rubber, plastic, ceramics and wax impregnated paper and having box-like structure with a neck and a stopper therein at the top and recessed ends permitting assembly within conventional batteries with the non-recessed portions of the ends of the vessel extending past the group posts to the ends of the cell and the bottom of the acid container resting on the plate connector straps and held in place by the abutment of the cell cover with the top of said acid container.

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2,773,928
TUBE SHIELD DEVICE
Scipione M. Del Casso, Maywood, Ill.
Application September 15, 1950, Serial No. 184,921
2 Claims. (Cl. 174—35)

1. A shield assembly for a vacuum tube including a tubular shield member having an opening at one end for receiving said tube, and a tube embracing spring disposed in said shield member, said spring being in the form of a sleeve having an axial slot for its entire length, said sleeve having opposed lateral slots intersecting said axial slot and extending therefrom into the body of said sleeve to form upper and lower ring-like portions joined on a side of said shield opposite said axial slot said

upper ring-like portion being in frictional engagement with the inner wall of said shield member to hold said



spring in assembly therewith, and said lower ring-like portion having a tube-receiving opening in alinement with the bore of said shield member.

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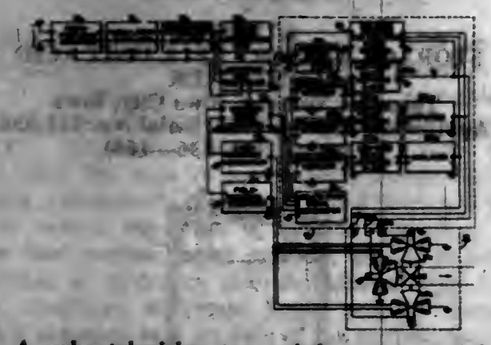
2,773,929

**CONSTANT LUMINANCE COLOR-TELEVISION SYSTEM**

Bernard D. Loughlin, Lynbrook, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application May 1, 1950, Serial No. 159,212

19 Claims. (Cl. 178—5.2)



11. A color-television transmitting and receiving system comprising: means for developing a plurality of color signals representative of different color components of an image, said color components being colors to which the eye has luminance sensitivities which may differ; means for developing a signal representative of the luminance of an image and representing said colors in proportion to said luminance sensitivities; means for developing a wave signal modulated at different phases by modulation components representative of said color signals; means for transmitting said developed luminance and wave signals; means for receiving said developed luminance and wave signals; an image-signal-translating channel for said received luminance and wave signals including image-reproducing means having a plurality of color-producing elements for producing different colors to which the eye has luminance sensitivities which may differ, means for translating said luminance signal between said receiving means and said color-producing elements to reproduce the monochrome component of said image, and including a signal-detection system coupled between said receiving means and said color-producing elements and having means for deriving signals representative of selected modulation components of said wave signal for application to said color-producing elements to reproduce said image in color, said channel having means providing signal-translation factors for said selected modulation components and said signals derived therefrom of such magnitudes and phases that said derived signals upon application to said color-producing elements have substantial mutually canceling luminance effects when reproduced in color by said color-producing elements whereby the resultant luminance effect of said wave signal on the eye is minimized and all whereby said color-producing elements may reproduce an image in which the luminance is substantially independent of said wave signal and noise signals applied to said detection system.

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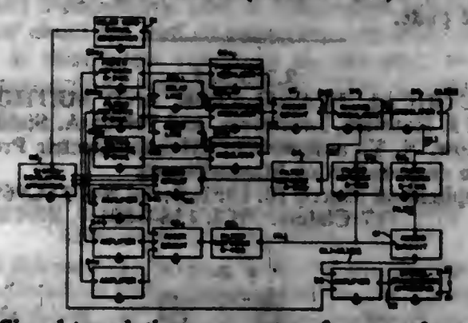
2,773,930

**COLOR-TELEVISION SYSTEM**

Donald Richman, Fresh Meadows, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Continuation of application Serial No. 262,306, December 18, 1951. This application May 3, 1954, Serial No. 426,968

27 Claims. (Cl. 178—5.4)



1. Signal-translating apparatus for a color-television receiver which utilizes a color image-reproducing device for reproducing an image from a predetermined group of primary colors comprising: a circuit for supplying a composite television signal representative of a color image and including a first portion having a band width of greater than 0–2 megacycles representative of the visual brightness thereof and a second portion having a subcarrier wave signal having a specific band width and modulated by at least a signal representative of the chromaticity of the image, said chromaticity signal undesirably tending to affect the luminance in an image reproduced by the device; signal-deriving means coupled to the supply circuit and including a network for translating said modulated subcarrier wave signal for deriving from a specific phase thereof a control signal representative of the undesired luminance effects of said chromaticity signal; a signal-combining device coupled to said supply circuit and said deriving means and responsive jointly to at least said first portion and said control signal to develop a resultant signal which is representative of at least the visual brightness of said image and which includes a component inversely related to said undesired luminance effects; and means for utilizing said resultant signal and said subcarrier wave signal in the image-reproducing device to reproduce said image, whereby said first portion is effective primarily to determine the visual brightness of said image and said second portion is effective primarily to determine the chromaticity of said image with any brightness changes due to said undesired luminance effects being effectively eliminated.

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2,773,931

**PRINTING TELEGRAPH APPARATUS**

Edward E. Kleinschmidt, Miami Beach, Fla., and Edward F. Kleinschmidt, Wilmette, and Carl P. Anderson, Highland Park, Ill., assignors, by direct and mesne assignments, of five-sixths to Kleinschmidt Laboratories, Inc., Deerfield, Ill., a corporation of Delaware, and one-sixth to said Edward E. Kleinschmidt

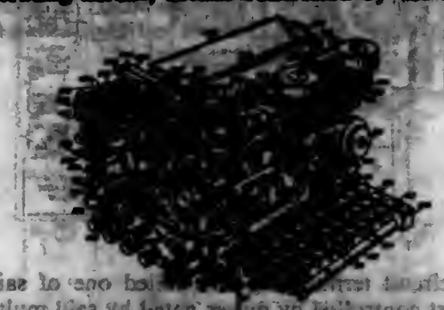
Application August 15, 1951, Serial No. 241,916

44 Claims. (Cl. 178—23)

1. A printing telegraph transmitting-receiving machine comprising a keyboard transmitter including key levers and adapted to transmit permutated groups of electrical impulses corresponding to the key levers actuated, a selector mechanism to receive and convert permutated groups of electrical impulses into mechanical movement



electrically connected to receive impulses from said keyboard transmitter, recording means including a movable typebar carriage having a relatively stationary slotted segment and a group of typebars pivotally mounted thereon for printing characters at a point fixed relative to said carriage and common to all said typebars, means carried by said movable carriage and controlled by the mechanical movement of said selector mechanism to select a particular one of said typebars corresponding to a received group of electrical impulses, a plurality of function operating means, means controlled by the mechani-



cal movement of said selector mechanism to select a particular function operating means corresponding to a received group of electrical impulses, means to actuate said selected typebar and said selected function operating means, whereby groups of electrical impulses sent out by said keyboard transmitter may be received by the selector mechanism of the sending machine and of other more distant machines to effect the printing of a character or operation of a function of the machines, and a mechanical drive train operative from a common power source for enabling the several mechanical components of said transmitting-receiving machine.

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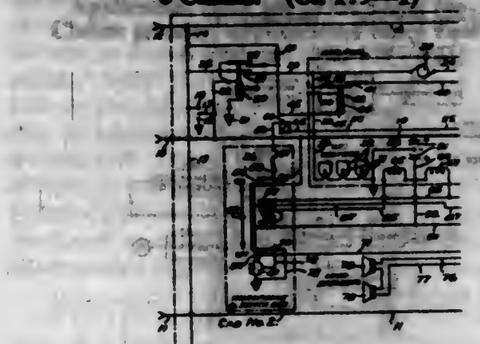
2,773,932

**PUBLIC ADDRESS SYSTEM FOR SUBWAY TRAINS**

Frederick B. Woodworth, Garden City, and Ellsworth H. Hale, Baldwin, N. Y., assignors to Smith-Meeker Engineering Company, New York, N. Y., a corporation of New York

Application September 20, 1955, Serial No. 535,489

6 Claims. (Cl. 179—1)



1. In a public address system for trains composed of a plurality of cars having a pair of train lines coupled to extend through all of said cars, loud speaker means in each car, an audio amplifier in each of said cars having an output circuit connected to said loud speaker means and having a second output circuit connected across said train lines, a microphone in at least one of said cars, a microphone switch to be actuated between "on" and "off" positions, said amplifier having an input circuit connected to said microphone and a second input circuit connected across said train lines, and contact means actuated by said microphone switch to disconnect said second input circuit from said train line when said switch is in the "on" position and to disconnect said second output circuit from said train line when said switch is in the "off" position.

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2,773,933

**THIRD ORDER PRESSURE GRADIENT RESPONSIVE MICROPHONE**

Moses E. Hawley, Collingswood, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application February 1, 1954, Serial No. 407,529

9 Claims. (Cl. 179—1)



1. A third order, pressure gradient responsive microphone comprising a pressure sensitive element, a pressure plate disposed on one side of said pressure sensitive element, said pressure plate having an annular groove to form an acoustic chamber, said pressure plate also having a plurality of spaced apart indentations connecting said annular groove with the ambient, a second pressure plate disposed on the opposite side of said pressure sensitive element, said second pressure plate having a second annular groove to form a second acoustic chamber, and a plurality of spaced apart indentations connecting said second annular groove to the ambient.

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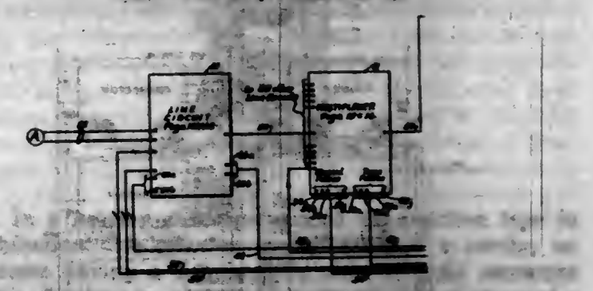
2,773,934

**ELECTRONIC TELEPHONE SYSTEM**

Robert B. Tremaine and Frank A. Morris, Rochester, N. Y., assignors, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application December 24, 1949, Serial No. 134,974

66 Claims. (Cl. 179—15)



11. In an automatic telephone system, a plurality of lines having individually assigned thereto different time positions in repetitive time position frames, common equipment including pulse generating means for repetitively producing signal sampling pulses in said time positions and relatively wide signal sampling pulse gating pulses straddling said signal sampling pulses, multiplexer means controlled by said pulses successively to sample signals appearing on said lines in the time positions assigned thereto, distributor means controlled by said pulses successively to distribute signal samples in the time positions assigned to said lines, and means including a plurality of directively controllable links each in part controlled by said pulses for receiving signal samples from said multiplexer and transmitting signal samples to said distributor to set up telephonic connections between said line.

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2,773,935

**ELECTRONIC TELEPHONE SYSTEM**

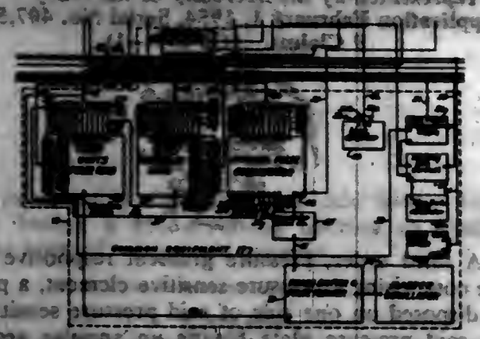
Robert B. Tremaine, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application February 13, 1951, Serial No. 205,641

31 Claims. (Cl. 179—15)

1. In a telephone system, a plurality of lines having

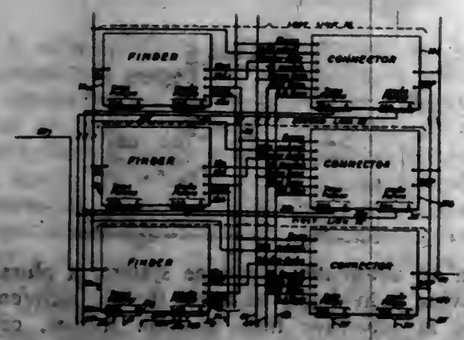
individually assigned thereto different time positions in repetitive time position frames, a multiplexer including gate circuits individually corresponding to said lines, said multiplexer having a signal sample output channel common to all of said gate circuits, means for sequentially supplying high speed signal sample gating pulses to first groups of said gate circuits, means for sequentially supplying relatively low speed group gating pulses to



second groups of said gate circuits, said low speed gating pulses being sub-multiples of said high speed gating pulses, means for energizing said gate circuits to gate signal samples to said output channel during coincidence of the high speed and low speed gating pulses supplied thereto, and means at least in part controlled by the signal samples gated to said output channel for transmitting signals between different pairs of calling and called lines of the system.

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2,773,936
AUTOMATIC TELEPHONE SYSTEM
Frank A. Morris, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application August 10, 1951, Serial No. 241,351
31 Claims. (Cl. 179—15)

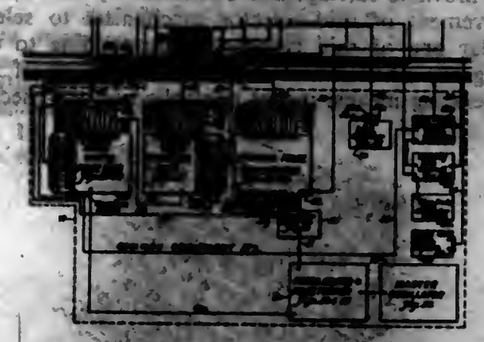



2. In an automatic telephone system, a plurality of lines, a plurality of links common to said lines, an all-links-busy circuit operative to transmit an all-links-busy signal over any calling one of said lines in response to initiation of a call thereon during periods when at least one of said links is idle, and means responsive to operative association of one of said links with the calling line for preventing said circuit from transmitting said signal over the calling line.

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2,773,937
ELECTRONIC SIGNALING AND SWITCHING SYSTEM
Frank A. Morris, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Original application Dec. 24, 1949, Serial No. 134,974. Divided and this application February 4, 1950, Serial No. 142,391
51 Claims. (Cl. 179—16)

10. In a telephone system, a plurality of lines having individually assigned thereto different time positions which recur in repetitive time position frames, multiplexer means including means for gating pulses in the time positions respectively assigned to said lines as said lines are taken into use, line circuits individually terminating said lines in a central office, and means included in



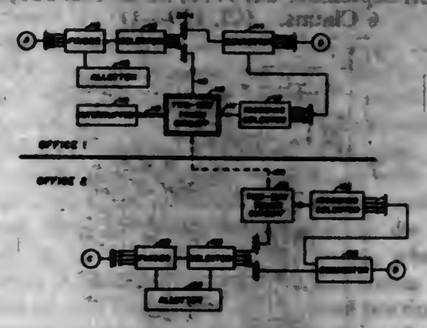
the line circuit terminating any called one of said lines and in part controlled by pulses gated by said multiplexer in the time position assigned to said called line for controlling the transmission of a ringing signal from said office over said called line.

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ERRATUM
For Class 179—18 see:
Patent No. 2,774,071

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2,773,938
TRUNK CIRCUIT
William W. Pharis, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application April 1, 1955, Serial No. 498,137
3 Claims. (Cl. 179—18)

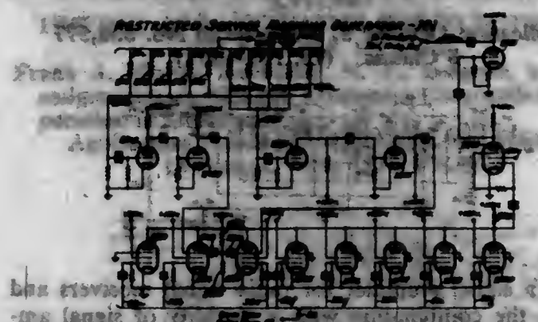



1. A telephone system including a calling line in a first office, a called line in a second office, a trunk line extending between said offices, a trunk circuit terminating said trunk line, switching means, means including a set of talking conductors for extending a call over said switch train from said calling line through said trunk circuit to said called line, two relays in said trunk circuit, means for connecting one of said relays for furnishing talking battery over said talking conductors to said calling line, the other of said relays comprising a differential relay, means for connecting said other relay to be operated over said talking conductors responsive to reverse battery supervision controlled from said called end, at least one set of contacts interposed in said talking conductors between said connections for operating said two relays for completing the electrical continuity of said talking conductors, means in said trunk circuit for measuring the elapse of a predetermined time period, means responsive to the expiration of said time period for operating said contacts to break said talking conductors and terminate conversation, said means comprising said two relays but thereafter holding at least a portion of said switching means operated until both of said subscribers hang up.

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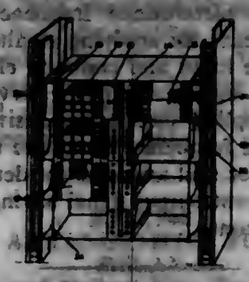
2,773,939
TELEPHONE SYSTEM
Robert R. Truesdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application May 29, 1953, Serial No. 358,249
29 Claims. (Cl. 179—18)



1. In an automatic telephone system, a plurality of lines having individually assigned thereto different time positions in repetitive time position frames, means including a plurality of impulse responsive links for setting up two-way communication connections between calling and called ones of said lines, and time position responsive restricted service means for restricting the service available to certain calling ones of said lines in accordance with the time position assigned thereto.

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2,773,940
TELECOMMUNICATION STATION EQUIPMENT
Myron Lakritzky, Neuilly-sur-Seine, France, assignor to Societe Anonyme de Telecommunications, Paris, France, a body corporate of France
Application June 16, 1952, Serial No. 293,759
Claims priority, application France June 21, 1951
6 Claims. (Cl. 179—91)



1. A rack for telecommunication station and exchange equipment comprising a plurality of adjacent vertical cellular structures each of which corresponds to a number of telephone circuits and consists of two spaced vertically extending columns of substantially rectangular cross-section, one aperture in the outer wall of each of said columns intermediate the top and bottom thereof, strips of sockets and strips of terminals on the front face of said columns, cable runs in said columns for connecting together sockets and terminal of said strips situated at different levels, a first set of chassis cells having adjacent each of its sidewalls a vertically extending runway and inserted between the two columns, a second set of chassis cells having adjacent each of its sidewalls a vertically extending runway and inserted between the two columns, the said first and second sets of chassis cells being detachably fixed to said two columns in spaced relation to each other to bound with the apertures in the columns an horizontal runway into which merge the said vertically extending runways, one flat hollow box in the vertical median plane of each of said first and second sets of chassis cells, the said hollow boxes being provided in their front faces with pairs of contact sockets, each of said socket pairs corresponding to one of said circuits, strips of terminals on the front faces of the sidewalls of the said first and second sets of chassis cells, a series of blocks containing the apparatus belonging to each of said circuits respectively, the blocks belonging to the same circuit being mounted in cells of distinct cellular structures of the rack, contact sockets on said blocks along the side edges thereof in front of the contact sockets of the cable heads, strips of terminals on said blocks along the side edges thereof in front of the vertical runways of the chassis cells, U-shaped connecting members between the sockets on the blocks and the sockets on the cable heads, connectors between the strips of terminals on said blocks and the strips of terminals on the front faces of the sidewalls of the said sets of chassis cells and jumpers disposed in the horizontal runway and having it ends engaged in vertical runways of said distinct cellular structures whereby the circuits are connected to the corresponding apparatus and the apparatus of a same series of blocks are connected to each other.

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2,773,941
HEARING AID APPARATUS
Henry E. Christensen, Copenhagen, Denmark, assignor to American Danish Oticon Corporation, a corporation of Denmark
Application July 15, 1952, Serial No. 298,989
Claims priority, application Denmark July 18, 1951
10 Claims. (Cl. 179—107)



1. In a hearing aid apparatus of the reaction type in combination: an exterior casing defining a cavity, an armature having a substantially circular rigid armature portion firmly secured in the interior of said casing and a plurality of arms extending from said central armature portion, either of said arms having a resilient arcuate extension spaced from said central armature portion and substantially following the periphery thereof, an electromagnetic structure supported exclusively on said armature structure on spaced points adjacent the ends of either of said arcuate extensions in spaced relationship to said central armature portion and means for energizing said electromagnetic system by sound currents.

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2,773,942
ELECTROMECHANICAL TRANSDUCING ARRANGEMENT
Raymond T. Christensen, Oak Park, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application May 15, 1952, Serial No. 287,939
5 Claims. (Cl. 179—110)



1. An electromechanical transducing arrangement comprising: a support member; a piezo-electric transducer, responsive to an induced bending stress to develop an

electrical output signal indicative of variations in the magnitude of said bending stress, pivotally supported about a reference axis by said support member; a plurality of independent diaphragms individually mechanically coupled to said transducer at loading points spaced from said reference axis and from each other for imparting a bending moment to said transducer in response to balanced concurrent actuation of said diaphragms and for pivoting said transducer about said reference axis in response to unbalanced concurrent actuation of said devices; and means for deriving a potential from said transducer indicative of its condition of stress.

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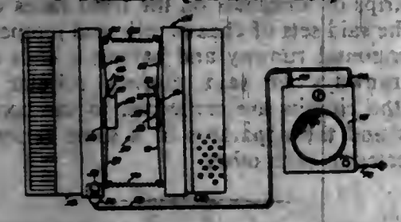
2,773,943

**PICKUP AND AMPLIFIER APPARATUS**

Nick Feierabend, Marx, N. Dak.

Application December 10, 1951, Serial No. 260,879

3 Claims. (Cl. 179—110)



1. A microphone pickup unit for a musical instrument comprising a supporting housing, a cartridge mounted in said housing, an elongated crystal element, means supporting said crystal element adjacent one end of the element, said crystal element being mounted by said supporting means within the cartridge, a supporting member turnably mounted in said cartridge and connected to and supporting the end of the crystal element disposed remote from said supporting means, said supporting means and supporting member providing the only support for the crystal element, an arm having ends laterally offset relative to one another and an intermediate portion, one of said ends extending loosely through a wall of the cartridge and being connected to said supporting member and disposed with its axis substantially perpendicular to the axis of the crystal element and supporting member, said intermediate portion being disposed with its axis transverse to the axis of the crystal element and supporting member, and a diaphragm responsive to sounds and tones forming one wall of the housing, the other end of said arm being laterally offset from the longitudinal axes of the supporting member and crystal element in a direction crosswise thereof and engaging against an inner side of the diaphragm for imparting a mechanical torque to the supporting member and crystal element when the diaphragm is vibrated.

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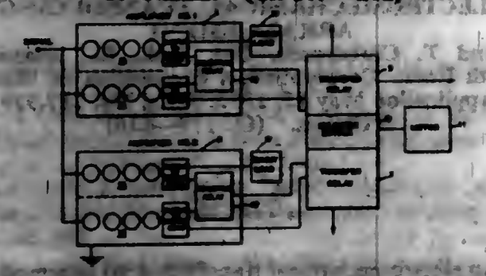
2,773,944

**AMPLIFYING SYSTEM WITH STAND-BY CHANNEL**

John C. Karlson, Brooklyn, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application August 8, 1950, Serial No. 178,319

13 Claims. (Cl. 179—171)



1. In an electrical system, a stand-by amplifier having at least one channel, an operating amplifier having a pair of channels, controlled means connected to only one channel of said operating amplifier, and means connected to both channels of said operating amplifier and sensitive to variations in the relative outputs of said channels, said means connecting said controlled means to said stand-by amplifier when the outputs of the channels of said operating amplifier vary relative to one another a predetermined amount.

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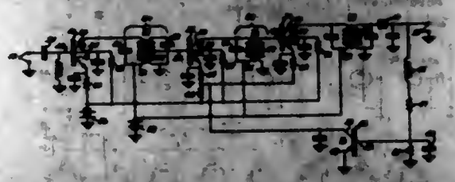
2,773,945

**TRANSISTOR SIGNAL AMPLIFYING CIRCUITS**

Gerald E. Theriault, Haddon Heights, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 5, 1953, Serial No. 536,577

8 Claims. (Cl. 179—171)



2. In a signal amplifier for radio signal receivers and the like, the combination with a plurality of signal amplifying stages connected in cascade and including a first transistor signal amplifying device having at least an input, an output, and a common electrode and a second transistor signal amplifying device having at least an input, an output, and a common electrode, of means providing a source of automatic gain control signal for said circuit, means coupling said automatic gain control source to one of said input and common electrodes of said first transistor signal amplifying device to control the gain therethrough in response to variations in the amplitude of an applied alternating current signal, means coupling said automatic gain control source to one of said input and common electrodes of said second transistor signal amplifying device to control the gain therethrough in response to said variations in the amplitude of an applied alternating current signal, first signal coupling means for applying an alternating current signal between the input and common electrodes of said first transistor signal amplifying device including a single tuned coupling circuit responsive to signals in a predetermined frequency band, second signal coupling means for applying an alternating current signal between the input and common electrodes of said second transistor signal amplifying device including a double tuned coupling circuit responsive to signals in said predetermined frequency band, and means providing an output circuit for said amplifier for deriving therefrom an alternating current output signal having a substantially flat frequency response.

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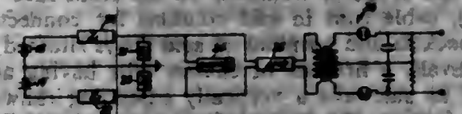
2,773,946

**DEVICE FOR DETECTING THE SENSE AND MAGNITUDE OF A D. C. SOURCE**

Sol Greenberg, Bronx, N. Y., and Paul W. Salmon, Phoenix, Ariz., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland

Application September 27, 1951, Serial No. 248,624

3 Claims. (Cl. 179—171)



1. A system for detecting the sense and magnitude of a source of direct current voltage, comprising a plurality of impedances connected in series with said source, cyclic means coupled in shunt across at least one of said impedances to shunt said one impedance during a small predetermined portion less than 50% of each of the cycles of said cyclic means to convert said direct current voltage into an alternating current wave having an amplitude difference for opposite polarities thereof, a balanced detector circuit, means to apply said alternating current wave to said detector circuit for detection of the positive and negative portions of said alternating current wave and means to oppose the two detected portions of the alternating current wave to produce an output voltage having both sense and magnitude proportional to that of said voltage source.



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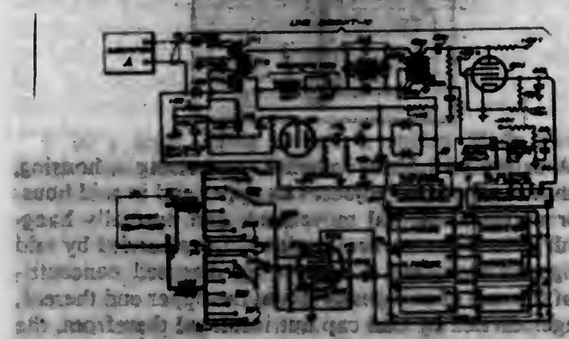
2,773,947

**TESTING ARRANGEMENT FOR ELECTRONIC TELEPHONE SYSTEM**

Frank A. Morris, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application March 16, 1955, Serial No. 494,623

15 Claims. (Cl. 179—175.2)



1. In an automatic telephone system, a plurality of lines having individually assigned thereto different time positions in repetitive time position frames, a line circuit associated with each of said lines, a hybrid coil and balancing network arrangement included in each line circuit, multiplexer means for producing pulses on a common output conductor in the time positions individually assigned to said lines as said lines are taken into use, distributor means for distributing signals to said line circuits in accordance with the time positions assigned to said lines, means including a plurality of impulse responsive links connected between said multiplexing means and said distributing means for setting up two-way communication connections between calling and called ones of said lines, and balance testing means for connecting said multiplexer pulses to said distributor means independently of said links.

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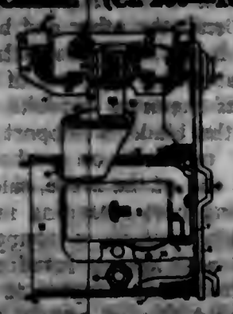
2,773,948

**CONTACT ARRANGEMENT FOR CONTROL RELAY**

Robert A. Pelz and Delbert Ellis, Beaver, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 29, 1953, Serial No. 370,994

11 Claims. (Cl. 200—16)



1. In an electric circuit controlling device, a contact supporting means, stationary contact members fixed to said contact supporting means, movable contact means for bridging said stationary contact members, a contact actuating arm, a saddle member formed to be U-shaped at both ends and having openings in both sides, a saddle guide adapted to slidably cradle in one U-shaped end of said saddle member, said movable contact means having portions adapted to extend into the openings in the sides of said saddle member to guide the motion of the movable contact means relative to the saddle member, a resilient biasing means, said resilient biasing means being positioned between the movable contact means and the saddle guide to bias said movable contact means and said saddle guide into position and make a unitary structure with said saddle member, said saddle guide being connected to the contact supporting means for normally closed contact operation and the end of said saddle member adjacent said saddle guide being connected to said contact actuating arm for normally open contact operation.

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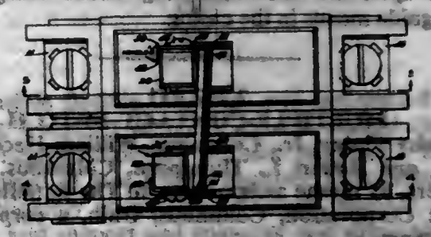
2,773,949

**CIRCUIT BREAKER TIE BAR**

William Harold Edmonds, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.

Application October 24, 1952, Serial No. 316,719

4 Claims. (Cl. 200—18)



1. A bracket assembly for inter-connecting the handles of a pair of adjacent circuit breakers; each of said handles being movable manually to a closed position and an open position; each of said handles being movable automatically to a position intermediate the closed and open positions; each of said handles being thereafter movable manually to a re-set position identical with the open position; said handles each being rotatably movable in a single plane; said circuit breakers being arranged side by side so that the planes of movement of the handles are parallel; a bracket connected to each of said handles; each of said brackets extending beyond its respective said handle and having a slot therein; a rigid handle connecting bar having opposite ears engaged in the slots of said handle brackets; a clearance between the ears and the slots permitting one of said handles to move to the automatic trip position while the other of said handles remains at said closed position; the movement of said tripped handle to said re-set position causing the other said handle to move from said closed to said open position, the manual movement of either of said handles from said closed to said open position and from said open to said closed position causing the other handle to move correspondingly.

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2,773,950

**ELECTRIC SWITCH**

Franz Bauer, Vienna, Austria

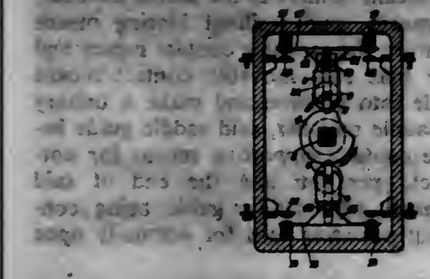
Application July 20, 1954, Serial No. 444,613

Claims priority, application Austria August 5, 1953

4 Claims. (Cl. 200—31)

1. In an electric switch comprising a casing, a rotatable switching control cam mounted therein, at least one contact bridge movably mounted in the casing in spaced relation to the control cam, movement of each bridge under the control of the cam causing a switching operation: a positive mechanical means operatively inter-

connecting the control cam and each contact bridge, said means including a roller in contact with the cam; a transverse shaft for mounting the roller, the shaft being guided in parallel guide means in the casing, the guide means being arranged to guide the shaft and roller in a straight path between the cam and the contact bridge and preventing any transverse movement thereof; a link having one end pivotally mounted on the shaft; and a



transverse pin arranged to control the movement of the bridge, the other end of said link being pivotally mounted on the pin and the pin being guided in parallel guide means in the casing, the latter guide means being arranged to guide the pin in a straight path between the cam and the contact bridge, and lateral actuating forces exerted upon the interconnecting means being absorbed by the guide means in the casing.

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2,773,951

## MULTIPLE-CONTACT SWITCH

Alexander Finlay, Jr., Columbus, William Hocox, Groveport, and Robert L. Thompson, Columbus, Ohio, assignors, by mesne assignments, to The Battelle Development Corporation, Columbus, Ohio, a corporation of Delaware

Application January 2, 1955, Serial No. 479,385
12 Claims. (Cl. 200—23)



1. A switch comprising: a plurality of spaced contacts arranged in a circle; thin metal diaphragm means closely spaced inwardly from said contacts in the absence of flexure and capable of flexing outwardly into electrical contact with said contacts; and means for applying rotary motion to a liquid and for directing said liquid in a rotating jet by virtue of centrifugal force to impinge against successive portions of said diaphragm means adjacent said contacts to provide outward flexure thereof toward said contacts and to provide contact between said diaphragm means and each of said contacts successively.

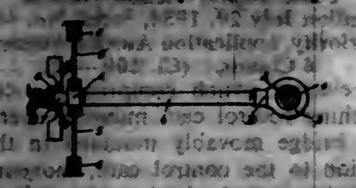
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2,773,952

## MECHANICALLY DRIVEN ELECTRIC CONTACT RECTIFIER

Paul Duelling, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application April 28, 1953, Serial No. 350,617
Claims priority, application Germany, April 29, 1952
14 Claims. (Cl. 200—36)



1. A contact converter, comprising a contact device having a reciprocable contact, a reciprocable tappet structure engageable with said contact, a revolvable drive shaft having an eccentric cam, a drive bearing cooperatively secured on said cam, said tappet structure having one end firmly connected with said bearing, elastic support means deflectable in the axis of tappet motion and connected with said tappet structure near the other end of said structure, said tappet structure being elastically deflective transverse to said axis.

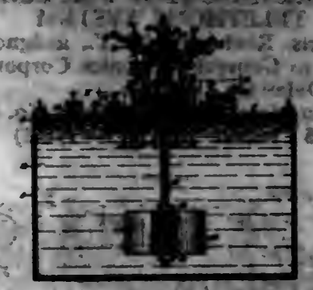
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2,773,953

## VEHICLE SAFETY SWITCH

Julius J. Lawick, Kansas City, Kans.

Application November 4, 1954, Serial No. 466,791
6 Claims. (Cl. 200—61.51)



1. A safety switch for vehicles comprising a housing, a pendulum supported adjacent its upper end in said housing for universal pivotal movement, and normally hanging with its axis in a vertical position, a cap carried by said housing and including a circular lip disposed concentrically of the axis of said pendulum at the upper end thereof, a plunger carried by said cap but insulated therefrom, the lower end thereof being disposed concentrically of said lip but at a greater distance from the pivot of said pendulum than said lip, a contact member carried by said pendulum at the upper end thereof for axial movement relative thereto, and resilient means carried by said pendulum and urging said contact member resiliently against said plunger, whereby as said housing is tilted, said lip will engage and cam said contact member out of engagement with said plunger, said plunger and contact member serving as the contact members of a switch.

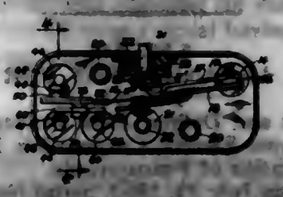
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2,773,954

## SNAP ACTION SWITCH

Arthur W. Hayden, Cheshire, Conn., assignor to Hayden Switch, Incorporated, Waterbury, Conn., a corporation of Connecticut

Application June 18, 1953, Serial No. 362,585
2 Claims. (Cl. 200—67)



1. A snap action switch comprising a spring blade supported at one end, the other end being free to move when the switch is actuated, a switch contact mounted opposite one side of the free end of the blade, a pair of switch contacts mounted opposite the other side of the free end of the blade, a support member of a dielectric material mounted on and substantially surrounding the free end of the blade, said support member having a depending post extending in the direction of said pair of switch contacts, a connecting bar loosely mounted on said post against rotation relative thereto, said connecting bar being adapted to engage and electrically connect said pair of switch contacts when the switch is actuated and the free end of the blade is moved toward said pair of switch contacts, pivot means associated with said support adjacent said post to provide for pivotal movement of the connecting bar about a lateral axis when it is moved into contact with said pair of switch contacts, and a contact mounted on the free end of the blade in electrical contact therewith and on the opposite side thereof from said post, said last-mentioned contact being adapted to engage the switch contact mounted opposite said one side of the free end of the blade when the switch is actuated and the free end of the blade is moved toward said switch contact.



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2,773,955

## SNAP ACTION SWITCH

Arthur W. Hayden, Cheshire, Conn., and Herbert H. Walley, Newton, Mass., assignors, by mesne assignments, to Hayden Switch, Incorporated, Waterbury, Conn., a corporation of Connecticut

Application June 22, 1953, Serial No. 363,107
15 Claims. (Cl. 200—67)



1. In a snap action switch, a spring blade having a compression member which when the blade is unstressed extends out of the plane of the blade and a tension member lying substantially in the plane of the blade, said members being interconnected to each other at their opposite ends, a support member engaging said compression member on one side of said blade, a second support member engaging said tension member on the opposite side of the blade, and means securing said support members together and said spring blade therebetween under predetermined stress with a portion of the compression member being inverted.

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2,773,956

## FRONT OPERATED DISCONNECT SWITCH

David W. Johnson, Newington, Conn., assignor to The Arrow-Hart & Hegeman Electric Company, Hartford, Conn., a corporation of Connecticut

Application October 21, 1953, Serial No. 387,407
13 Claims. (Cl. 200—73)



1. In an electric switch, fixed and movable contacts, a movable contact carrier, manual operating means, means moving with the manual operating means to positively move said carrier causing slow separation of the movable from the fixed contacts, snap-action means operable by said manual operating means and becoming effective automatically on continued movement of said manual operating means after said slow separation thereto to continue movement of said carrier in the same direction with a snap motion, and means causing said carrier to move with a snap action uninterruptedly on reverse operation of said manual operating means.

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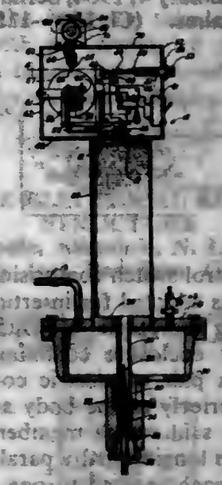
2,773,957

## ALTITUDE SWITCH

Goodwin R. Boyle, San Antonio, Tex.

Application March 26, 1956, Serial No. 573,097
2 Claims. (Cl. 200—81)

1. In a fluid pressure-responsive switch, a first chamber adapted to be connected to a fluid conduit subject to changes in pressure, a second chamber, conduit means extending through the first chamber and connecting said chambers, a restriction in said conduit means to provide a time delay between a change in fluid pressure in the first chamber and a corresponding change in pressure in the second chamber, an expansible flexible chamber connected to and communicating with said second chamber, a pair of contacts, and means engaging said expansible chamber and being formed and arranged to open and close said contacts in response to changes in volume of



said expansible flexible chamber, said last-named means comprising a support mounted on said second chamber, a rotary member mounted on said support, a mercury switch secured to said rotary member, adjustable detent means frictionally engaging said rotary member, a lever pivoted to said support and engaging said expansible flexible chamber, link means connecting said lever to said rotary member, and adjustable spring means biasing said lever toward engagement with said flexible chamber, whereby the force required to rotate said rotary member may be adjusted.

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2,773,958

## SWITCH

Harold J. Crosswell, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 8, 1953, Serial No. 384,834
2 Claims. (Cl. 200—83)

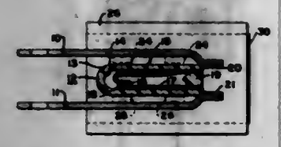


1. A vacuum switch comprising, in combination, a pair of contacts, a bridging member, a chamber closed by a diaphragm, a spring within said chamber normally causing said diaphragm to be moved to one position, means connecting the diaphragm to the bridging member whereby the bridging member is held in closed circuit position when said diaphragm is in said one position, a normally closed check valve communicating with said closed chamber means adapted to connect the closed chamber with a vacuum source through said check valve whereby the check valve is opened only under predetermined conditions of vacuum and the diaphragm is moved to another position for causing said bridging member to be moved to open circuit position when said predetermined vacuum is applied, and detent means associated with said bridging member for and an independent bleed valve connecting said closed chamber to the atmosphere for

permitting the spring to re-establish the bridging member in closed circuit position after the vacuum has been destroyed and only after a predetermined time delay as determined by the bleed valve.

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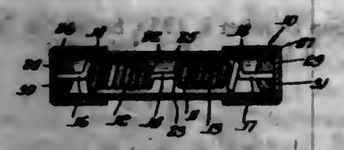
2,773,959
PLUG-IN CONTROL SWITCH
David F. Meyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 4, 1954, Serial No. 401,899
6 Claims. (Cl. 200—115.5)



1. A plug-in control switch comprising, a pair of parallel extending prongs adapted for insertion into a standard female electric plug receptacle, a switch member having an insulating body enclosure confining a switch structure therein with a pair of electric connection terminal tabs projecting exteriorly of the body at one end thereof in parallel relation, said switch member being positioned between said prongs longitudinally parallel therewith with said terminal tabs each secured to one of said prongs at correspondingly adjacent ends thereof, and an insulating sheath around said prongs with the unattached opposite ends thereof projecting from the sheath for insertion into a female receptacle, each of said prongs including attachment tabs engaging said sheath to secure thereby said prongs in said sheath and retain thereby said switch member between said prongs within said sheath.

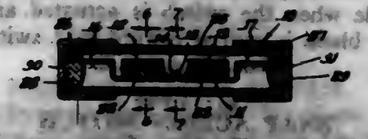
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2,773,960
TIME DELAY FUSE
Edward V. Sundt, Wilmette, and Hugh A. Triplett, Des Plaines, Ill., assignors to Sundt Engineering Company, Des Plaines, Ill., a corporation of Illinois
Application April 28, 1954, Serial No. 426,097
14 Claims. (Cl. 200—123)



1. A time delay fuse comprising an electrically conductive single piece fuse element formed from a fusible metallic wire having a predetermined relatively high melting point and having between its ends a substantially tubular coiled wire receptacle portion and a wire resistance heating portion at each end of and adjacent to the receptacle portion, a body of fusible metal having a predetermined relatively low melting point and secured in the receptacle portion of the fuse element in intimate contact therewith so as to provide high thermal conductivity therebetween, and electrical terminals connected to the ends of the fuse element for incorporating the same in an electric circuit to be protected, a sustained overload in the electric circuit causing the resistance heating portions of the fuse element to heat the fuse element and the body of fusible metal substantially as a unit, and the heating of the resistance heating portions of the fuse element to the relatively high point thereof being delayed by the specific heat and the latent heat of fusion of the body of relatively low melting point fusible metal.

2,773,961
TIME DELAY FUSE
Edward V. Sundt, Wilmette, Ill., assignor to Sundt Engineering Company, Des Plaines, Ill., a corporation of Illinois
Application April 28, 1954, Serial No. 426,977
14 Claims. (Cl. 200—123)



1. A time delay fuse comprising an electrically conductive single piece fuse element formed from a fusible metal having a predetermined relatively high melting point and having between its ends a receptacle portion and a resistance heating portion of limited cross sectional area at each end of and adjacent to the receptacle portion, a body of fusible metal having a predetermined relatively low melting point and secured in the receptacle portion of the fuse element in intimate contact therewith so as to provide a high thermal conductivity therebetween, and electrical terminals connected to the ends of the fuse element for incorporating the same in an electric circuit to be protected, a sustained overload in the electric circuit causing the resistance heating portions of the fuse element to heat the fuse element and the body of fusible metal substantially as a unit, and the heating of the resistance heating portions of the fuse element to the relatively high melting point thereof for breaking the electric circuit being delayed by the specific heat and the latent heat of fusion of the body of the relatively low melting point fusible metal.

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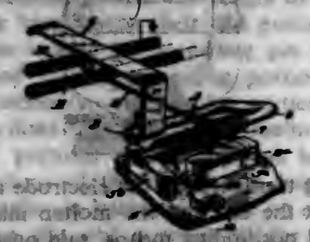
2,773,962
THERMOSTATIC SWITCH
Dudley C. Perst, Chatham, N. J., assignor to Chatham Controls Corporation, Chatham, N. J., a corporation of New Jersey
Application October 10, 1955, Serial No. 539,535
4 Claims. (Cl. 200—138)



1. A thermostatic switch comprising: an elongated, substantially straight terminally closed tubular, metallic frame; a substantially straight bimetallic element in strip form arranged substantially parallel to the axis of said frame inside the same with its base end rigidly supported at one end of the frame and its opposite end free; and a coacting pair of electrical contacts of which one is stationarily supported by said frame in radially direct electrical connection therewith adjacent to the free end of the bimetallic element and the other is movable laterally with respect to said frame by temperature-responsive movement of the bimetallic element and is maintained in lateral registration with the first-mentioned stationary contact, said frame and at least one metallic component of the bimetallic element being possessed of different coefficients of expansion whereby heat penetration from the frame to the bimetallic element is retarded so that axial wiping will occur between the meeting faces of both contacts due to initial linear expansion of said frame under the influence of changes in ambient temperature while said contacts are in closed condition.



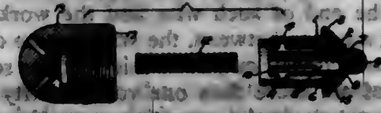
2,773,963
SWITCH MECHANISM
Joseph A. Mathews, Barrington, Ill., assignor to Central Commercial Company, Cook County, Ill., a corporation of Illinois
Application January 30, 1956, Serial No. 562,312
14 Claims. (Cl. 200—153)



1. An electrical switch mechanism of single pole single throw, or single pole double throw spring return type consisting of an organization of coactively related elements comprising a torsion spring wound in coil form; a rigid actuator having two parallel extensions of round cross section; a contactor of elongated form which is free to move within limits in a plane normal to the axis of the torsion spring but which is confined sufficiently in other directions to insure proper coaction with all other elements, fixed contact members suitably disposed about said contactor, and a flat metallic, depressible, angular finger having a portion coactive with one of said parallel extensions to form therewith a friction clutch enabling pivotal motion of the finger about the axis of said extension and a change in angular motion of the finger from a non-permanent angle to a permanent angle in response to downward pressure applied a first time thereto.

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2,773,964
POINT CONTACT DEVICE FOR HIGH VOLTAGE RADIO FREQUENCY APPARATUS
Charles F. Malfranek, Newark, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application October 20, 1954, Serial No. 463,481
2 Claims. (Cl. 200—166)



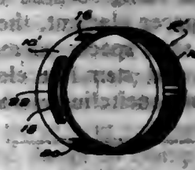
1. A resilient point contact device for high voltage radio frequency apparatus comprising a cylindrical housing having an end wall which has an opening disposed axially of the housing, a hollow cylindrical member disposed for axial movement in said housing, said member having a shoulder flange slidably engaging the inner surface of said housing and adapted to abut against said end wall and an end extension adapted to protrude through said opening, means in said housing to resiliently urge said member so that said end extension functions as a resilient contact, and said hollow cylindrical member being slotted at the end thereof opposite said extension to provide a plurality of resilient fingers and said fingers being provided with laterally disposed portions spaced rearwardly of said shoulder flange for resilient sliding engagement with the inside surface of said housing.

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2,773,965
ELECTRICAL RHEOSTAT ASSEMBLY
Edwin W. Drewitz and Victor Stein, Flushing, N. Y., assignors to De Jur-Amsco Corporation, Long Island City, N. Y., a corporation of New York
Application July 28, 1954, Serial No. 444,462
2 Claims. (Cl. 201—48)

1. A sub-assembly resistance element for drop-fitting into a casing to produce a rheostat assembly and dielectric bushing, and a roller freely journalled on each

ing a prefabricated resistance element designed for being electrically tested and stocked prior to making the rheostat assembly, comprising an accurately pre-dimensioned insulator tube and a resistance wiring unit united to the



interior wall of the insulator tube, said insulator tube being provided with an opening of predetermined area to be filled with a conducting material for "shorting out" selected turns of the resistance winding.

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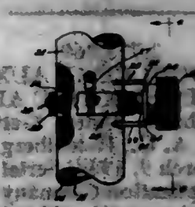
2,773,966
VARIABLE ELECTRICAL RESISTANCE STRUCTURE
Alfred J. Mastropole, Allendale, N. J., assignor to G. M. Giannini & Co. Inc., Pasadena, Calif., a corporation of New York
Application August 10, 1953, Serial No. 373,331
19 Claims. (Cl. 201—59)



1. A variable electrical resistance structure, comprising a cylindrical shell, a resistance winding carried in insulated relation on the convex surface of the shell, a mounting plate at the forward end of the shell and normal to the axis thereof, a control shaft journaled on the axis of the shell and operable from forward of the mounting plate, brush means mounted on the shaft and extending therefrom at the rear of the shell including a substantially linear contact formation extending forwardly substantially parallel to the convex surface of the shell and closely spaced radially outwardly thereof, a portion only of the winding being supported by the contact formation in spaced relation with the shell, said shaft having a thread within said shell, a nut engaging said thread, said nut being slidingly keyed with respect to said shell, and a stop formation arranged to engage said nut to limit the rotation of said shaft to a predetermined limited range that includes more than one rotation.

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2,773,967
ELECTRICAL RESISTOR AND THE LIKE
Joseph J. Corny, Chicago, Ill.
Application September 8, 1954, Serial No. 454,744
7 Claims. (Cl. 201—62)



1. An electrical resistor and the like having an insulating coat having an opening through which a portion of the resistance wire of said resistor is exposed, terminal means including a selectively movable encircling element about said resistor, portions of said encircling



element being under different degrees of force when

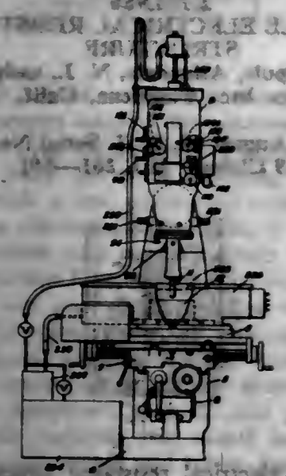


such bushing, and a roller freely journalled on each the interior of said cup-shaped body portion opening

element being under different degrees of force when said terminal means is in contacting position; a contact element on one portion of said encircling element; a stem-like element extending outwardly from said encircling element, and being secured thereto at its inner end; an apertured spacer element, the stem-like element extending through said spacer element and grippable means mounted on said stem-like element whereby the tension applied to said encircling element may be varied.

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2,773,968
ELECTRO DISCHARGE MACHINE
Mario Martellotti and James W. Evans, Cincinnati, Ohio, assignors to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application January 10, 1956, Serial No. 558,252
19 Claims. (Cl. 219—69)



1. In an electrical discharge machine of the character described having a work table and a tool head mounted on the machine in spaced relation with the axis of said head substantially perpendicular to the work surface of said table, the combination of a telescoping sleeve assembly including a plurality of non-concentric sleeves journaled in said head for rotation about the axis of said head, an axially movable spindle mounted in the central sleeve of said assembly for supporting an electrode for axial feeding, a source of electrical energy connected to said electrode and work support to produce a series of electrical discharges therebetween, means to relatively adjust said elements to effect lateral shifting of the axis of said spindle and electrode relative to the axis of said head to position the electrode axis as an element of a cylindrical surface whereby rotation of said assembly causes said electrode to generate a cylindrical surface, an electrical power operable means having motion transmitting connections to effect axial feeding of said spindle and electrode and to effect rotation of said sleeve assembly, and an electric circuit means responsive to the electrical characteristics of said electrical discharges for controlling the rate and direction of said power operable means.

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2,773,969
DEVICE FOR PRODUCING AUXILIARY MAGNETIC FIELDS IN ELECTRIC ARC WELDING
Hans Glauber, Mosbach, Baden, Germany, assignor to Kraftanlagen A. G., Heidelberg, Germany
Application March 9, 1954, Serial No. 415,694
Claims priority, application Germany March 14, 1953
27 Claims. (Cl. 219—130)

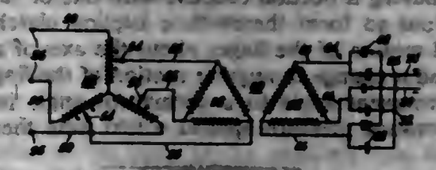
1. In a device for arc-welding where a coated welding electrode is arranged substantially parallel to the welding joint and in contact therewith, at least one pressure block of non-magnetizable material, said pressure block being adapted to be positioned transversely across the electrode and spaced from the work on both sides of the electrode, whereby an open gap is formed on each side of the electrode between the work and the pressure block, at least one means for generating a magnetic field, said magnetic



field extending transverse to the electrode and in a direction to deflect the arc and the molten material towards the work, and positioning means, said positioning means forcing said pressure block towards the electrode, whereby the electrode is positioned with respect to the work.

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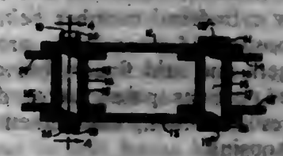
2,773,970
METAL ARC WELDING APPARATUS
John F. Galbraith, Plainfield, Wilbur H. Helmbrecht, Union, and Reuben R. Lobosco, Fanwood, N. J., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application October 14, 1953, Serial No. 386,048
4 Claims. (Cl. 219—131)



1. Metal arc welding apparatus comprising the combination of an A. C.–D. C. rectifier source of welding current provided with means for adjusting the output potential thereof, at a selected open-circuit potential of between 15 and 45 volts, and a metal arc welding device provided with means for feeding a welding wire electrode at an adjustable substantially constant preselected speed toward work to be welded, and means including welding leads for conducting current supplied by said source through the end of such wire and the work to energize a welding arc therebetween, the volt-ampere characteristic of the direct current output of said rectifier source having a droop of not more than one volt per fifty amperes increase in current, in the operating range thereof, whereby the welding operation is stabilized.

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2,773,971
CHAINS AND THE LIKE
James Tootell, Chicago, Ill., assignor to Chains, Inc., Delton, Ill., a corporation of Illinois
Application August 4, 1954, Serial No. 447,720
6 Claims. (Cl. 219—150)



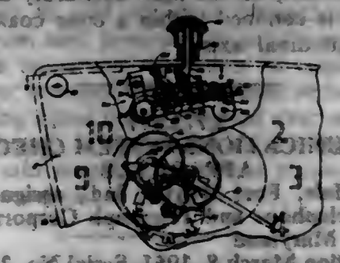
1. A method of producing a length of roller chain which chain comprises a series of rigid rectangular sections each composed of a pair of parallel oppositely disposed inside side bars spaced apart a distance to accommodate the toothed peripheral portion of a sprocket wheel, and a hollow bushing at each end of such rectangular section and extended through openings of said inside side bars to the outside surfaces of such inside side bars each bushing having a journal opening of substantially uniform diameter throughout the length of



such bushing, and a roller freely journalled on each bushing between the inside side bars of such section, together with a pin extended through and journalled in each bushing and projecting beyond the outside surfaces of the inside side bars of the corresponding rectangular section and having bearing contact with the bushing throughout substantially the entire length of the bushing, and outside side bars having their end portions provided with openings to receive the projecting pin portions and rigidly connected to said projecting portions of proximate pins of successive rectangular sections and connecting said sections together, which method comprises setting the end portions of the bushings into openings in the end portions of the inside side bars with press fits and with a roller in journal position on each bushing, thereafter setting the end portions of the outside side bars onto the projecting pin portions with press fits, and thereafter engaging the opposite ends of each pin by electrodes of a source of current supply and subjecting said electrodes to pressure against the pin ends, to thereby heat the pin ends by contact resistance to current flow to soften said pin ends and compress them towards each other and towards the outside surfaces of the proximate outside side bars for enlargement of said pin ends laterally into enlarged heads at locations outside of the outside side bars.

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2,773,972
ILLUMINATION CONTROL FOR ELECTRIC CLOCK
Richard Krause, Thomaston, Conn., assignor to General Time Corporation, New York, N. Y., a corporation of Delaware
Application March 18, 1955, Serial No. 495,283
7 Claims. (Cl. 240—2)

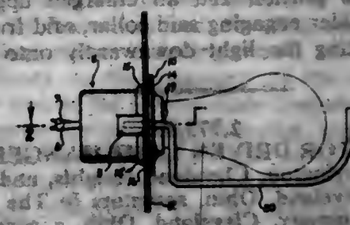


1. In an electric clock the combination comprising a dial, means including a clock mechanism having a constantly running motor and gear train for providing time indication on said dial, a lamp bulb for illuminating the dial and arranged adjacent thereto, a source of current connected to said lamp bulb for energizing the same, a rheostat connected between the current source and the lamp bulb, clutching means engageable with said gear train for changing the setting of said rheostat, and a conveniently accessible manual operator on said clock for operating said clutching means.

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2,773,973
COMBINED LAMP GUARD AND SOCKET MOUNTING DEVICE
Halbert W. Hoard, Scottsdale, Ariz., and Dennis A. Olson and Thomas A. Vollan, Milwaukee, Wis., assignors to Uniloctric, Inc., a corporation of Wisconsin
Application June 19, 1953, Serial No. 362,742
1 Claim. (Cl. 240—4)

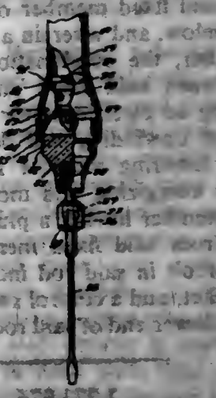
In combination with a panel having a hole therein which is widened at opposite edge portions, and having a pair of apertures therein adjacent to the edge of said hole at diametrically opposite locations which are spaced from said widened portions of the hole, means for mounting a lamp bulb on the panel, comprising: a lamp socket having a cup-shaped body portion rotatably received in and projecting rearwardly through the hole in the panel, the interior of said cup-shaped body portion opening to the front of the panel and being adapted to receive the base of a lamp bulb to mounted the bulb on the panel in a position projecting forwardly therefrom; an integral annular flange on the socket surrounding the front of the body portion and providing a flat rearwardly facing annular shoulder engaging the front face of the panel around the edge of the hole therein; a pair of diametrically opposite lugs on opposite sides of the socket body engaging rear portions of the panel over said apertures therein and cooperating with said flange to clamp the panel therebetween and thus hold the socket against axial displacement from the hole in the panel except upon rotation of the socket to a detaching position at which said lugs register with the widened portions of the panel hole, and at which detaching position the body portion of the socket



may be drawn axially forwardly through the hole in the panel, said lugs and the flange having aligning holes therein in which register with said apertures in the panel; and a lamp guard for protecting a lamp bulb in the socket and for locking the socket against rotation in the panel hole toward said detaching position of the socket, said lamp guard comprising a substantially U-shaped wire member having a portion remote from the panel to protectively cover the end of a lamp bulb in said socket, and having a pair of spaced apart parallel prongs on its inner end projected rearwardly into and snugly but detachably fitting said holes in the flange and lugs, said prongs passing through said apertures in the panel to thus preclude rotation of the socket in the panel hole except upon forward withdrawal of the lamp guard prongs from said holes in the flange and lugs.

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2,773,974
FLASHLIGHT SCREW DRIVER
George Markett, Bronx, N. Y.
Application December 5, 1955, Serial No. 551,097
3 Claims. (Cl. 240—6.46)



1. A combination flashlight and screw driver comprising a hollow handle, dry cells positioned within said handle, said handle being closed at one end, the open end of said handle being formed with a hollow enlarged portion terminating in an externally threaded portion, switch means within said handle, reflector means positioned within said enlarged portion, and a transparent

head member adapted to abut said reflector means, an internally threaded collar secured to said head member adapted to be removably screwed onto said externally threaded portion of said handle, chuck means carried by said head member, and a screw driver bit removably mounted within said chuck means, said reflector means comprising a reflector having a central upwardly extending externally threaded hollow portion, an internally threaded insulator member screwed onto said externally threaded portion, a lamp positioned within said internally threaded member, said reflector having oppositely disposed slots, and lugs carried by said transparent head member extending upwardly through said slots, said externally threaded portions of said handle having oppositely disposed slots receiving said lugs upwardly therewithin, and said head portion comprising a frusto-conical portion having a concave exterior surface, an intermediate cylindrical portion and an enlarged upper portion having a shoulder engaging said collar, said frusto-conical portion directing the light downwardly onto the screw.

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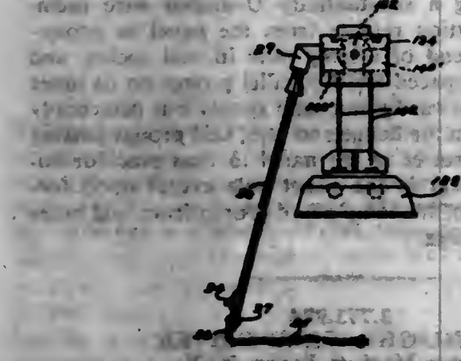
2,773,975

## MOTOR DRIVEN LAMP HANGER

Thayer B. Farrington, Cleveland Heights, and Harold L. Dalzell, Cleveland, Ohio, assignors to The Thompson Electric Company, Cleveland, Ohio, a corporation of Ohio

Original application March 19, 1948, Serial No. 15,794. Divided and this application October 5, 1951, Serial No. 249,982

11 Claims. (Cl. 240—66)



1. In lighting apparatus comprising a fixed member in an elevated position above a floor and a lowering member adapted to occupy a raised operative position in juxtaposition with said fixed member or to occupy a position lowered therebelow, and wherein a lamp is carried by said lowering member, the combination of flexible supports connected between said fixed and lowering members, means including an electric motor on said fixed member for winding and unwinding said flexible supports respectively as said lowering member is raised and lowered, and means for energizing said motor including a circuit on said fixed member having a plug-in socket, and a stiff rod reaching from said fixed member to the floor and an electrical circuit in said rod including contacts insertable in said socket, and a control switch in said last named circuit near the lower end of said rod.

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2,773,976

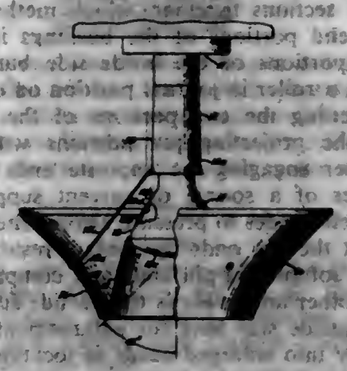
## LIGHTING FIXTURE

George E. Gleitsz, University Heights, and Arthur W. Mattson, Lakewood, Ohio, assignors to The Art Metal Company, Cleveland, Ohio, a corporation of Ohio

Application March 16, 1953, Serial No. 342,352

1 Claim. (Cl. 240—78)

A lighting fixture, comprising a support, a reflector type processed bulb having a base detachably mounted in said support and a portion projecting from said base, said bulb portion having a surface with an inner reflecting face increasing in lateral dimensions to a maximum as it extends away from said base and having a convex light transmitting surface bridging across said maximum dimension, and a light directing specular reflector secured to said support and associated with said bulb, said reflector having an annular inner reflecting specular surface coaxial with the longitudinal bulb axis, said reflector having a light entrance end adjacent to and



generally surrounding and equally spaced from said maximum dimension and having a light exit and remote therefrom with the annular surface therebetween gradually increasing in lateral dimension along a curve constructed so that the reflector inner reflecting specular surface is an extension of said bulb portion reflecting inner face to form therewith a generally continuous reflecting curve surface, said reflector acting as a light directing shield so that substantially all the light outwardly directed from said exit end is confined within a cone coaxial with the reflector longitudinal axis.

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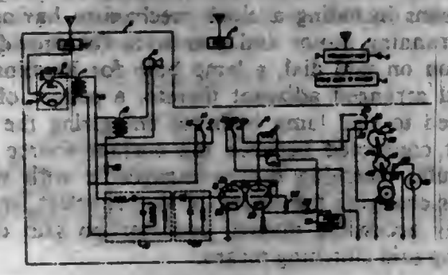
2,773,977

## COMMUNICATIONS SYSTEM CHECKING APPARATUS

Robert W. Hale, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application March 8, 1951, Serial No. 214,451

6 Claims. (Cl. 250—6)



1. A receiver for receiving communication signals and periodic checking pulses of a predetermined time spacing received during intervals when communication signals are not being received, comprising means for separating said pulses, a relay momentarily operative in response to said pulses, a motor, contacts closed in response to operation of said relay for initiating movement of said motor, a shaft rotatable by said motor, a cam on said shaft, contact means operated by said cam for closing an operating circuit for said motor and for opening said cam operated contacts upon a predetermined interval of rotation of said motor to stop said motor, an indicating device circuit, means mounted on said shaft for intermittently closing said indicating device circuit a plurality of times during said interval of rotation and an indicating device in said indicating device circuit.



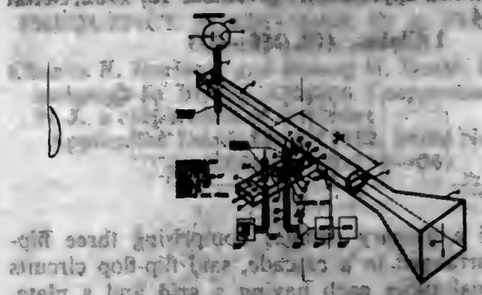
2,773,978

## TRANSMITTING AND RECEIVING CIRCUITS FOR WAVE TRANSMISSION SYSTEMS

Harold T. Friis, Rumson, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application January 30, 1943, Serial No. 474,164

3 Claims. (Cl. 250—13)



1. In combination in a duplex signaling system, a signal wave pulse generator, a signal receiver, a common antenna for radiating the signal pulses produced by said generator and for picking up incoming wave pulses, a main hollow pipe wave guide connecting said generator to said antenna, a branch hollow pipe wave guide feeding said signal receiver, a chamber in said branch guide resonant to the frequency of the outgoing wave pulses produced by said generator and to the frequency of the incoming wave pulses picked up by said antenna, the input of said resonant chamber being electrically coupled directly to said first wave guide through an iris in the side wall of the latter, a spark gap connected across said resonant chamber, adapted to arc to effectively short circuit said chamber, and thus to effectively reduce the voltage input to said receiver, in response to the resonant voltage applied to said chamber by each signal pulse transmitted from said generator to said antenna, and to remain in the non-arcing condition in response to the relatively lower resonant voltage applied to said chamber by the incoming signal pulses received over said first line from said antenna, so as to provide a minimum of attenuation to said incoming pulses in transmission over said branch wave guide to the receiver.

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2,773,979

## FREQUENCY CONVERTER

Edward Chatterton, Jr., and Joseph T. Beardwood III, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application February 2, 1953, Serial No. 334,436

3 Claims. (Cl. 250—20)



1. A low noise figure heterodyne frequency converter comprising a first transformer having at least a primary winding and a secondary winding, said primary winding being arranged to receive a signal to be heterodyned, a load resistor, a blocking capacitor and a mixer crystal, said three last-mentioned elements being connected in series circuit in the order recited, said load resistor having a resistance small compared to the average impedance of said mixer crystal at the frequency of the local oscillator signal supplied to said frequency converter, said secondary winding being connected at the two ends thereof to the two end terminals of said series circuit to form a closed series loop, a source of bias potential for said mixer crystal, means connecting said source of bias potential between the junction of said mixer crystal and said blocking capacitor in said series circuit and the junction of said load resistor and said secondary winding of said first transformer, a second transformer having at least a primary winding and a secondary winding, said primary winding of said second transformer being arranged to receive a substantially sinusoidal local oscillator signal, one terminal of said secondary winding of said second transformer being connected to the junction of said secondary winding of said first transformer and said load resistor, a clipper crystal, a second blocking capacitor and signal blocking means, said three last-mentioned elements being connected in a second series circuit, said clipper crystal occupying an end position in said second series circuit, the end terminal of said second series circuit adjacent said clipper crystal being connected to a second terminal of said secondary winding of said second transformer and the other end terminal of said second series circuit being connected to the junction of said load resistor and said first-mentioned blocking capacitor, said signal blocking means including means offering a high series impedance at the frequency of the signal to be heterodyned and at the intermediate frequency, a source of bias potential for said clipper crystal, means connecting said last-mentioned source between the terminal of said clipper crystal remote from said secondary winding of said second transformer and the junction of said load resistor and said secondary winding of said first transformer, the amplitude and polarity of the bias supplied by said last-mentioned source being such as to cause a selected portion of the negative half cycle of the local oscillator signal supplied to said load resistor to be clipped, said selected portion being less than the entire negative half cycle, and signal coupling means associated with said load resistor for coupling an intermediate frequency signal from said converter.

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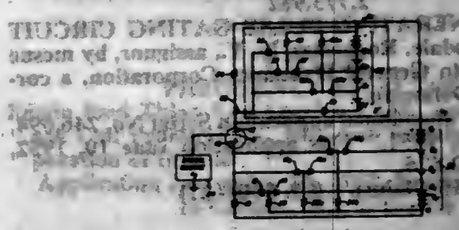
2,773,980

## AMPLITUDE SENSITIVE MULTISTATE DEVICE

Bernard M. Oliver, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 30, 1950, Serial No. 203,652

17 Claims. (Cl. 250—27)



1. In combination, a thermionic tube having at least a plate and a cathode and a control grid, an output circuit connected between said plate and said cathode, a load impedance and a multipotential source of direct current and a cathode impedance serially included in said output circuit, means connected from said cathode to different intermediate potential points on said multipotential source, said means comprising a plurality of separate paths connected from said cathode to said points, each of said paths including a pair of asymmetrically conducting devices having like electrodes connected together, one of said devices in each path being nearer to said cathode in each path than the other of said devices and the other of said devices being serially connected with said one device in said path, a direct current circuit for each of said paths including an impedance connected from a point between each of said pairs of devices to a point in said output circuit, the potential of said last-named point relative to said intermediate potential points causing major direct current to flow through said other device of each pair when

said one device of each pair is non-conducting, and a signal voltage input circuit connected from said grid to said cathode and including said cathode impedance.

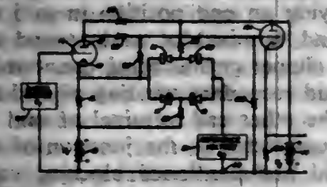
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2,773,981

## AMPLITUDE-SENSITIVE MULTISTATE DEVICE

William M. Goodall, Oakhurst, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 30, 1950, Serial No. 203,662
8 Claims. (Cl. 250—27)



5. In combination, an amplification device having an input circuit and an output circuit, said input circuit having a portion thereof in common with said output circuit, a first impedance in said common circuit, a load impedance in said output circuit, and circuit control means for abruptly changing the state of conduction of said amplification device; said circuit control means including a shunt impedance, a reference potential point, two asymmetrically conducting devices connected in a series circuit from a point in said common circuit between said first impedance and said amplification device to said reference potential point, the portion of said series circuit connecting said reference potential point to said asymmetrically conducting devices being isolated from said input circuit and said output circuit, said asymmetrically conducting devices having like terminals connected together and to one terminal of said shunt impedance, and circuit means for continuously supplying current of one polarity through said shunt impedance to said like terminals and through at least one of said asymmetrically conducting devices to bias at least one of said asymmetrically conducting devices in the low resistance state.

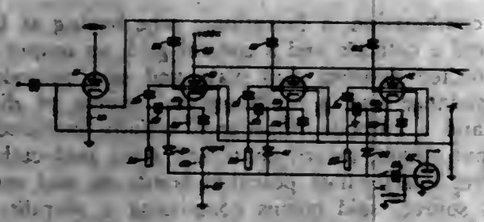
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2,773,982

## QUASI-REGENERATIVE PULSE GATING CIRCUIT

Robert B. Trousdale, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Continuation of abandoned application Serial No. 246,094, September 11, 1951. This application June 10, 1952, Serial No. 292,676
15 Claims. (Cl. 250—27)



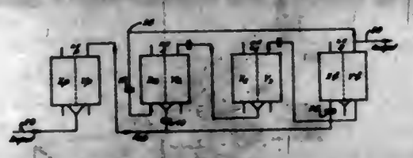
15. A pulse gating circuit, comprising a control valve, a gating rectifier included in the current path of said control valve, means for applying pulses to one electrode of said rectifier in the correct polarity normally to cause said rectifier to conduct, means including a condenser connected to said one electrode of said rectifier for biasing said rectifier against conduction, means for rendering said control valve conductive to produce a predetermined minimum value of current flow through said rectifier, and means for deriving said pulses from the other electrode of said gating rectifier during periods when said control valve is conductive.

2,773,983

## ELECTRONIC COUNTING DEVICE

Richard H. Baker, Los Angeles, and Donald E. Eckdahl, Manhattan Beach, Calif., assignors to Northrop Aircraft Inc., Hawthorne, Calif., a corporation of California

Original application October 29, 1949, Serial No. 124,334, now Patent No. 2,630,448, dated December 2, 1952. Divided and this application November 13, 1952, Serial No. 324,534
1 Claim. (Cl. 250—27)



A stage of a quinary counter comprising three flip-flop circuits arranged in a cascade, said flip-flop circuits comprising dual tubes each having a grid and a plate, and being of the type capable of operation from one stable state to the other by a pulse applied at a common input point to its tubes or by a pulse applied at the grid of one of its tubes, an incoming circuit connected to the common input point of the first flip-flop and to the grid of the non-carry tube of the last flip-flop of said cascade, a carry pulse circuit from the plate of the carry tube of said first flip-flop to the common input point of said second flip-flop, a carry pulse circuit from the plate of the carry tube of said second flip-flop to the grid of the carry tube of said last flip-flop, a carry pulse feedback circuit from the plate of the carry tube of said last flip-flop, solely to the grid of the non-carry tube of said first flip-flop, said feedback circuit including a capacitor, whereby an output taken from the plate of the carry tube of either said second flip-flop or said last flip-flop yields one output pulse for every five input pulses on said incoming circuit.

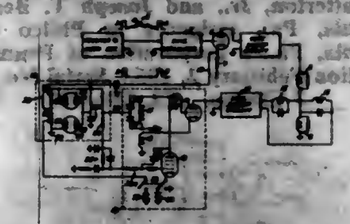
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2,773,984

## AUTOMATIC PHASE OR FREQUENCY CONTROL SYSTEM

John Forrest Bigelow, Adams Township, Allen County, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application December 18, 1950, Serial No. 201,350
3 Claims. (Cl. 250—36)



1. A line frequency sweep oscillator control system for television receivers, comprising a source of synchronizing pulses, a sine wave oscillator having feedback coupling coils coupled between the output and input of said oscillator, and variable reactance tube having an anode, a control grid and a cathode coupled across said coils for controlling the tuning of said oscillator, means for biasing said grid to a negative potential with respect to said cathode, a capacitive divider comprising two series condensers connected across one of said coils, a phase discriminator comprising a pair of rectifiers and a resistor between corresponding electrodes of said rectifiers, a connection between a point intermediate said condensers and one end of said resistor for applying energy from said oscillator to said discriminator, a coupling for applying pulses from said source to said discriminator across said rectifiers, whereby a voltage of magnitude and polarity dependent upon the degree and direction of departure



from synchronism between energy from said oscillator and said synchronizing pulses is derived in the output of said discriminator, and means for applying energy from the output of said discriminator to said control grid to synchronize said oscillator.

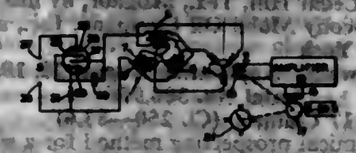
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2,773,985

## FREQUENCY SUBDIVIDER IN A FLUX VALVE COMPASS SYSTEM

Charles E. Hanthorn and Robert H. Dunhil, Bergen, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application December 17, 1952, Serial No. 326,550
2 Claims. (Cl. 250—36)



2. In a compass system utilizing a flux valve reference including an excitation winding, a frequency subdivider providing an output signal having a frequency which is a submultiple of the frequency of the signal applied to the input of said subdivider, said subdivider including an electron tube having at least a grid, a cathode and an anode, and a single capacitor having the dual function of tuning said excitation winding to the submultiple frequency desired and coupling a portion of the voltage of the submultiple frequency to said grid to provide bias to cut off said electron tube on alternate half cycles of signals applied to the anode.

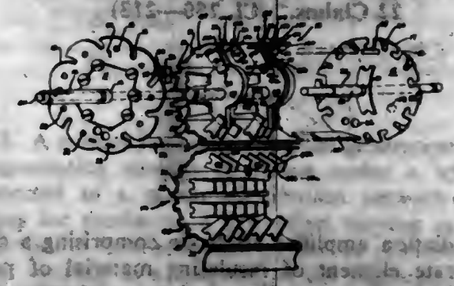
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2,773,986

## FREQUENCY SELECTOR

Edwin Paul Thiss and Erich Feigl, Los Angeles, Calif., assignors to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois

Application December 12, 1952, Serial No. 325,514
4 Claims. (Cl. 250—40)



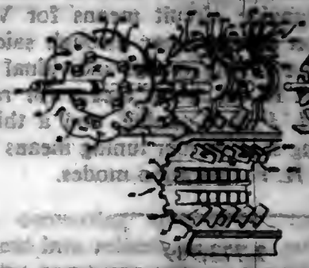
1. A frequency selector adapted to receive individual frequencies in a plurality of U. H. F. bands comprising a stationary electric circuit and a band selecting turret, contact elements connected to said stationary electric circuit, said turret comprising a plurality of panels, tuning elements mounted in said turret and comprising variable capacitors, the stator plates of said capacitors being fixedly mounted on said panels, the contour and spacing of said stator plates of said variable capacitors varying for the different panels forming said turret, contact means mounted on said panels and connected to said tuning elements for selectively engaging the said contact elements of said stationary circuit for selecting a band at rotation of said turret, a shaft mounted in said turret, dielectric plates secured to said shaft and movable between pairs of said stator plates at rotation of said shaft for varying the capacitance across said stator plates and tuning in the same range of frequencies through the same angular displacement of said shaft regardless of the position of the said one band in the U. H. F. spectrum.

2,773,987

## FREQUENCY SELECTOR

Erich Feigl, Los Angeles, Calif., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois

Application December 12, 1952, Serial No. 325,515
3 Claims. (Cl. 250—40)



1. A frequency selector adapted to receive individual frequencies in a plurality of U. H. F. bands comprising a stationary electric circuit and a rotatable turret, a plurality of contact elements connected to said electrical circuit, said stationary electric circuit comprising an input filter, said turret comprising a plurality of panels, tuning elements mounted on said panels, said tuning elements comprising variable capacitors, the plates of said capacitors being mounted on said panels; one of said plates being common to two of the said capacitors for the said filter, said capacitors being coupled to each other through said plate, the configuration of said plate determining the amount of coupling over the tuning range of said capacitors and thereby of said filter, a concentric shaft, dielectric plates mounted on said shaft and rotatable with said shaft, said dielectric plates being always positioned between said plates of said variable capacitors during rotation of said shaft, contact means connected to said tuning elements and mounted on each of said panels for selectively engaging said plurality of contact elements and predisposing said tuner to receive one of said bands at rotation of said turret, said dielectric plates through rotation of said shaft simultaneously varying said panel mounted variable capacitors and tuning said frequency selector for reception of one of said frequencies in the said one of said bands.

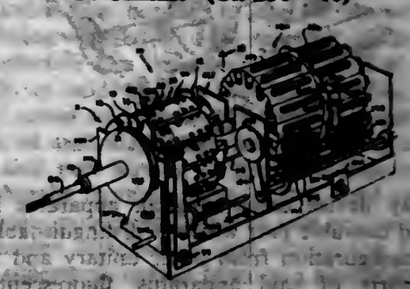
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2,773,988

## FREQUENCY SELECTOR

Edwin Paul Thiss, Los Angeles, Calif., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois

Application November 26, 1952, Serial No. 322,675
14 Claims. (Cl. 250—40)



1. A television tuner for receiving individual channels in the U. H. F. and V. H. F. signal bands comprising U. H. F. circuit means tunable to channels in the U. H. F. signal band, V. H. F. circuit means tunable to channels in the V. H. F. signal band, said U. H. F. and V. H. F. tunable circuit means being arranged along the same axis in tandem relation, an individual rotatable shaft member secured to each of said circuit means for respective selective tuning thereof, said shaft members being in concentric relationship, switch means in circuit with said U. H. F. and V. H. F. tunable circuit means, said

switch means being actuated through rotational displacement of one of said shaft members and arranged to circuitally connect the output of said U. H. F. tunable circuit means to the input of said V. H. F. tunable circuit means for U. H. F. band signal reception by the tuner through both of said circuit means, and to disconnect the output of said U. H. F. tunable circuit means from said second tunable circuit means for V. H. F. band signal reception by the tuner through said second circuit means, vernier tuning means individual to both said U. H. F. and V. H. F. circuit means for respective U. H. F. and V. H. F. fine tuning, and a third shaft member for operating said vernier tuning means for both the U. H. F. and V. H. F. operation modes.

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2,773,989

## SHIELDING MEANS FOR ELECTRICAL TUNING DEVICES

Clifford D. Needeside, Packanack Lake, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application October 15, 1952, Serial No. 314,854
4 Claims. (Cl. 250—40)



1. A tuning device comprising a circuit disk rotatable about an axis and having a contact pin thereon, means to rotate said disk, a shielding housing substantially enclosing said disk, an electric circuit unit positioned outside of and affixed to said housing, an opening through said housing, and an electric contact member extending from said circuit unit and through said opening and terminating at a point to selectively engage said contact pin at a predetermined position of said disk.

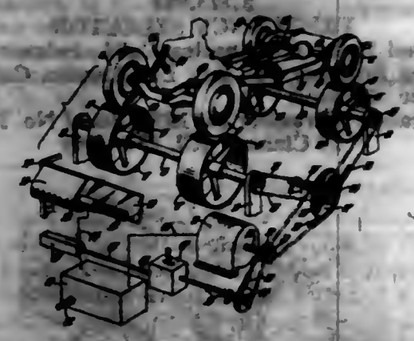
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2,773,990

## STROBOSCOPIC DISPLAY DEVICES

Von D. Pelkunas, Plymouth, and Ledford M. Forbush, Ferndale, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 25, 1949, Serial No. 123,488
1 Claim. (Cl. 250—71)



A display device comprising an apparatus having a unitary and movable part which is distinguishable in outline and configuration from other unitary and relatively movable parts of said apparatus, fluorescent coating means on said part and covering the outline of said part when viewed from a remote point of observation, means for moving said part throughout an area greater than said outline and at a rate great enough to obscure observation of said outline from said point, ultraviolet light projecting means adapted to be located at said point of observation and to project ultraviolet light on said outline when said part is moving in said greater area, means for intermittently projecting said ultraviolet light from said means and upon said part as said part moves within said area and at a rate equal to a multiple of the rate of motion of said part within said area for indicating the outline of said part from said point of observation, and means for changing the rate of projection of said ultraviolet light to a different rate, said different rate being near enough to said equal multiple rate to indicate the outline of said part in motion at an apparent rate differing from the rate of motion of said part and rate of projection of said light and within a range in which the motion of said outline at said apparent rate will be discernible to an observer as a slow and continuous movement of said part within said greater area.

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2,773,991

## METHOD OF GEOCHEMICAL PROSPECTING

Ellis E. Bray, Cedar Hill, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application August 28, 1952, Serial No. 306,956
17 Claims. (Cl. 250—83.6)

7. A geochemical prospecting method for a subterranean petroleum reservoir comprising collecting earth samples from a prospect area, extracting each of said earth samples with a solvent capable of desorbing and dissolving any extractable organic matter contained in said earth samples to obtain an extract from each of said earth samples, determining the weight of each of said extracts, and analyzing at least a representative sample of the extracts contained in the earth samples having anomalous weights of said extract and at least a representative sample of the extracts contained in the earth samples not having anomalous weights of said extract for the proportion of carbon therein having an atomic weight of 14 to carbon having an atomic weight of 12.

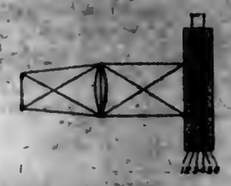
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2,773,992

## DISPLAY AMPLIFIER AND METHOD OF MAKING SAME

Lee R. Ullery, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application June 17, 1953, Serial No. 362,284
22 Claims. (Cl. 250—213)



3. A radiation amplifier electrode comprising a sheet-like perforate element of insulating material of predetermined thickness, and a film of photo-conductive material on the peripheral surfaces of the perforations of said element, said film extending from side to side of said element.

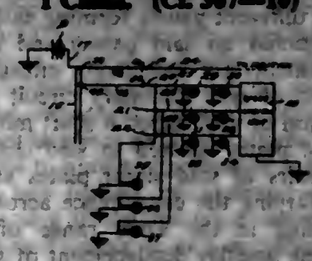
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2,773,993

## SAFETY CONTROL FOR VEHICLES

Thomas Lincoln Rush, Ione, Mich.

Application January 15, 1953, Serial No. 331,373
1 Claim. (Cl. 307—10)



In combination, an electrically operated vehicle speed control unit, including a plurality of circuits, each limiting the vehicle to a selected maximum speed, a circuit closing means for connection with said unit, said means comprising a housing formed of opposite side walls, opposite end walls and a bottom wall, a U-shaped contact carried by the inner face of one end wall and extending lengthwise thereof, a terminal fixed to said contact and projecting through said one end wall, a plurality of spaced apart U-shaped contacts fixed to the inner face of the other end wall, a terminal fixed to each of said latter contacts and connected with said unit, a plurality of circuit making and breaking members selectively insertable in said housing, each member being formed of a relatively thin dielectric plate, a pair of contacts on one longitudinal edge of said plate engageable with said first named contact, a second pair of contacts on the opposite longitudinal edge of said plate spaced to engage one only of a selected pair of said plurality of contacts closing a particular one of the speed controlling circuits only, a pair of bridging conductors embedded in said plate and extending from one longitudinal edge thereof to the other longitudinal edge thereof connecting the contacts on one edge of said plate with the contacts on the opposite edge of said plate, and license indicating matter carried by one side of said plate.



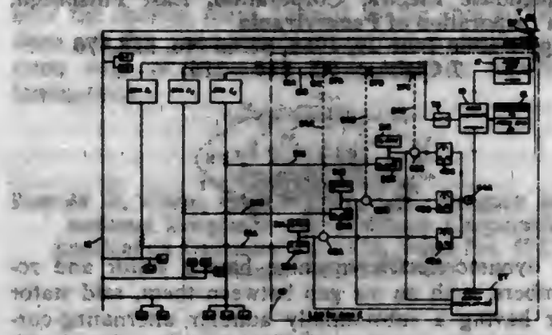
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2,773,994

## CONTROL OF ELECTRICAL GENERATION

Nathan Cohn, Highland Park, Ill., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application March 26, 1953, Serial No. 344,838
34 Claims. (Cl. 307—57)



23. A system for controlling the generation of a group of generating sources operating under a schedule and connected to a power distribution network comprising means for producing a first effect varying as a function of deviation from schedule, means for producing a second effect varying as a function of the algebraic sum of the total generation of said sources and the summation of the base points of said sources, means for producing third effects each corresponding with the difference between the base point and the generation of the respective sources of the group, control means for varying the generation of said sources, means for predetermining the participation of said sources in the correction of said deviation and for predetermining the allocation of group regulation among said sources comprising first devices for distributing predetermined parts of said first and second effects among said control means and means for additionally applying to the respective control means the corresponding third effect, second devices for providing base-point settings of said sources, group generation responsive means for shifting the settings of said second devices and for concurrently preselecting a pair of settings for each of said first devices at discrete values of group generation, and means responsive to said second effect for selecting one or the other of each preselected pair of settings of said first devices depending upon whether the group generation is above or below the summation of the base points.

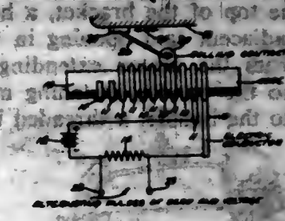
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2,773,995

## SYSTEM FOR CONVERTING MECHANICAL MOVEMENT INTO A RELATED NUMBER OF ELECTRICAL PULSES

Lee M. Griswold, Pasadena, Calif.

Application June 22, 1953, Serial No. 363,175
10 Claims. (Cl. 307—96)



5. A converting system for converting mechanical movement into related electrical pulses, each of substantially the same intensity comprising a voltage source having a first terminal and a second terminal, an impedance, a pair of spirally-wound wires, one of said wires being bare and the other being insulated, a movable contact member arranged to contact, in its movement, said one wire and then said other wire in succession, said first terminal being connected through said impedance to said one wire, said second terminal being connected to said movable contact, said contact when in position to engage said one wire being effective to produce a current flow through said source, said impedance, a portion of said one wire, and said contact, and said contact when in position to engage said other wire serving to interrupt said current flow, and a pair of output terminals connected to corresponding opposite terminals of said impedance.

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2,773,996

## TRANSDUCER FOR PRODUCING SOUND AT MICROWAVE FREQUENCIES

John Clarke Slater, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application September 13, 1946, Serial No. 696,929
5 Claims. (Cl. 310—8.1)



1. In combination, a resonant cavity, means for energizing said resonant cavity with electromagnetic energy, a piezoelectric crystal, said crystal having as an electrode a conductive film bonded to one of its surfaces, said crystal being secured to said resonant cavity such that said conductive film constitutes a portion of one of the end walls of said resonant cavity, a flexible diaphragm disposed across said cavity, a conductive post secured to one side of said diaphragm and projecting toward said crystal, said post serving as the other electrode of said crystal thereby increasing the electric field acting across said crystal upon energization of said resonant cavity, an output means attached to said conductive film for extracting supersonic energy from said piezoelectric crystal.

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2,773,997

## HANDLE MOUNTING FOR MOTOR DRIVEN POWER UNIT

Arthur W. Seyfried, Racine, Wis., assignor to Scovill Manufacturing Company, Waterbury, Conn., a specially chartered corporation of Connecticut

Application January 16, 1956, Serial No. 559,236
10 Claims. (Cl. 310—50)

10. A motor driven food mixer comprising a gear housing, a motor housing, a forward end cover on the

motor housing, a handle hollow at its forward end, a handle attachment bracket extending integrally forwardly from the motor end cover into the gear housing, said bracket having an internally hollow body communicating with the motor housing through a recess in the end cover, and communicating with the hollow handle through an opening in the top of the bracket, a handle supporting flat surface adjacent said opening in the top of the bracket, leads from the motor extending through said bracket body into the handle, fastening means connecting the bracket to the handle, a threaded bore extending



into the forward portion of the bracket beneath said handle supporting surface, the upper wall of the gear housing being cut away to fit around the forward end of the handle, a bolt extending through the face of the gear housing into said threaded bore in the bracket and thereby connecting the gear housing to the motor end cover, an upwardly and rearwardly open recess formed in the rear end of the motor housing, a pin projecting from the motor housing into the recess, and an aperture in the rear end of the handle adapted to receive the pin and thereby concealedly fasten the handle to the motor housing.

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2,773,996

**ARMATURES FOR INDUCED CURRENT TORQUE TRANSMITTING APPARATUS**

Henry S. Jacobs, Shorewood, and Jeremiah M. Curtin, Milwaukee, Wis., assignors to Harnischfeger Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application March 1, 1954, Serial No. 413,996

7 Claims. (Cl. 310—105)



1. In an armature for an induced current torque transmitter the combination of a drum of magnetic material having a circumferential face forming an air gap surface concentric with an axis of rotation, a plurality of circumferentially spaced inductor bars of low resistivity supported by said drum having axially extending ends projecting from said drum, a plurality of electrically conductive laminated cooling fins of a resistance substantially greater than that of one of said inductor bars each having a current conducting lamina of copper and a second current conducting lamina of strength imparting ferrous material adjacent and supporting said copper lamina, and connections joining said cooling fins between the ends of said inductor bars with each fin forming an extension of an associated bar to provide current paths for the flow of inductor bar currents which are limited in value by said cooling fins.

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2,773,999

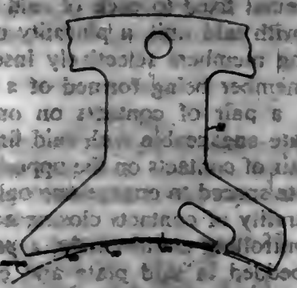
**SHADED POLE MOTOR**

Wayne J. Morrill, Garrett, Ind.

Application January 16, 1952, Serial No. 266,755

6 Claims. (Cl. 310—172)

1. A permeable stator lamination for a shaded pole induction motor comprising, an annular ring, an even number of pole pieces extending inwardly from said ring, a neck and a pole face portion on each pole piece, each pole face portion having first and second sides and defining substantially an arc of a circle, all of said substantial arcs defining a substantially circular opening to closely receive an induction motor rotor, a surface defining a slot in each of said first sides to accommodate a shading coil, said second sides having first and second



portions with all said first portions being circular arcs having substantially the same center, said second portions being a straight edge substantially tangent to said arc whereby the air gap between the pole face portion and a rotor is non-uniform and increases substantially tangentially toward the extremities of said second sides, and each of said straight edges defining approximately fifty electrical degrees of said stator lamination.

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2,774,009

**ORIENTED-STEEL STATOR-CORES**

Malcolm D. Rose, Churchill Borough, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 29, 1955, Serial No. 518,870

7 Claims. (Cl. 310—216)



1. A dynamo-electric machine having stator and rotor members, with an air gap between them, said stator member having a substantially annular alternating-current armature-core having winding-receiving slots in its bore, said core including a plurality of solidly adhering stacked punching-layers and then interposed bonding-layers of a substantially non-conducting solid bonding-material holding said stacked punching-layers solidly together, said punching-layers being made up of material in the form of separate pieces including segmental core-punchings and radial tooth-punchings of oriented magnetic sheet-material, said tooth-punchings being circumferentially spaced from each other by the several winding-receiving slots of the core, at least some of the segmental core-punchings of at least some of the stacked punching-layers having an arcuate span embracing a plurality of winding-receiving slots and having grain-orientation approximately in the circumferential direction, the tooth-punchings having grain-orientation approximately in the radial direction, at least some of the tooth-punchings of at least some of the punching-layers including portions extending back into overlapping relation with respect to portions of the segmental core-punchings in an adjacent punching-layer for providing bonded side-surface joints which contribute substantially to the bonding-strength of the core-assembly, portions of at least some of the segmental core-portions of at least some of the punching-layers being in overlapping relation with respect to portions of the segmental core-punchings in an adjacent punching-layer for providing bonded side-surface joints which further contribute substantially to the bonding-strength of the core-assembly.



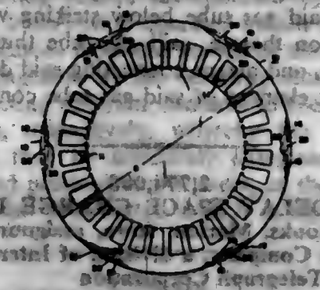
2,774,021

**MOTOR STATOR LAMINATIONS AND METHOD OF MANUFACTURING WELDED STATORS**

Walter W. Riedel, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 2, 1954, Serial No. 415,831

5 Claims. (Cl. 310—217)



1. A dynamo-electric machine core member formed of generally circular laminations having winding slots in one edge and spaced chordal edge portions in the opposite edge thereof, a narrow tooth projecting from the chordal edge portions of each lamination of not greater height than a perpendicular on the cord on the radius of the lamination to the arc of the segment formed by the cord and a slot adjacent the tooth extending into the laminations from the chordal edge portions and forming with other teeth and slots of adjacent laminations in the core assembly a tooth ridge with a slot thereadjacent extending longitudinally parallel with the axis of the core over the chordal plane formed by the chordal edge portions of the core laminations, and a weld along the outer edge of the tooth ridge securing together said laminations.

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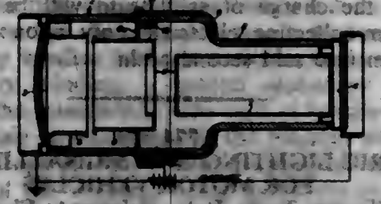
2,774,082

**IMAGE TUBE**

Donald E. Carle, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation

Application December 21, 1953, Serial No. 479,773

2 Claims. (Cl. 313—65)



1. An electron image tube comprising a glass envelope of tubular shape, a photoelectric cathode in one end of said envelope capable of emitting an electron image in response to a radiant energy image, an anode screen in the other end of said envelope which emits light in response to electron impingement, at least one tubular electrode element in said envelope between said cathode and anode and being disposed coaxially with respect to the electron beam which extends from said cathode to said anode, said element having a metallic support which is secured to said envelope, said element being axially spaced from said anode thereby providing a space for said beam which is not surrounded by a tube electrode element, and a conductive shield on the outer circumferential surface of said envelope in radial registry with the space between said element and said anode, said shield being conductively connected to said element and thereby providing a conductive tubular enclosure for said space for compensating for any wall charge on the tube envelope which may laterally deflect said beam.

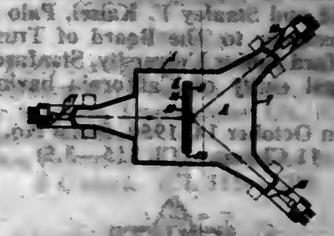
2,774,083

**COLOR TELEVISION KINESCOPES**

Hanbold W. Leverenz, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 20, 1952, Serial No. 327,102

9 Claims. (Cl. 313—92)



1. In combination, an electron-sensitive screen comprising a surface area constituted essentially of a single phosphor material of a type capable of alternately and repeatedly emitting light of one color under one excitation density and light of a different color under a different excitation density, and means for bombarding said single phosphor material selectively with energy of said different excitation densities.

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2,774,084

**FLEXIBLE ELECTROLUMINESCENT LAMINATED PANEL**

Mary S. Jaffe, Cleveland Heights, Ohio, assignor to General Electric Company, a corporation of New York

Application April 8, 1953, Serial No. 347,575

2 Claims. (Cl. 313—108)



1. A flexible electroluminescent panel comprising a flexible fibrous glass sheet made of glass fibers individually enveloped in a light-transmitting electrically conductive coating formed thereon, a layer thereover of an electroluminescent phosphor dispersed in a dielectric material adherent to said sheet, and a layer thereover of a conductive material adherent to said dielectric material.

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2,774,085

**SLOW-WAVE STRUCTURES FOR TRAVELLING WAVE TUBES**

Benjamin Kazan, Long Branch, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application October 3, 1951, Serial No. 249,611

5 Claims. (Cl. 315—3.5)

(Granted under Title 35, U. S. Code (1952), sec. 266)

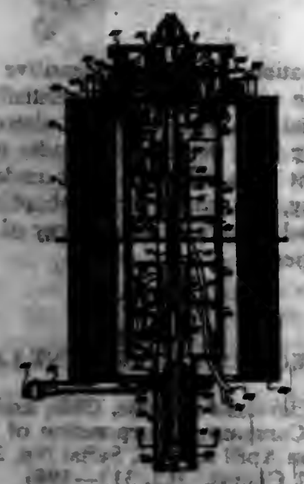


1. In a travelling wave tube having an electron source at one end thereof and a collector anode at the other end, an electromagnetic wave slowing structure comprising a wire mesh cylinder intermediate said electron source and said collector anode, means associated with said electron source for propagating an electron stream through the longitudinal axis of said wire mesh cylinder, and means for propagating an electromagnetic wave along the sur-

face of said wire mesh cylinder whereby amplification of said propagating wave is achieved by the interaction of said wave and said electron stream.

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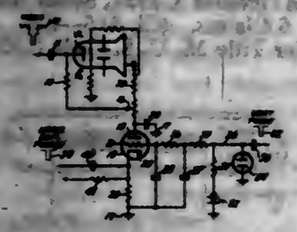
2,774,006
**TRAVELLING WAVE TUBE APPARATUS**
Lester M. Field and Stanley F. Kaisel, Palo Alto, Calif.; said Field assignor to The Board of Trustees of The Leland Stanford Junior University, Stanford University, Calif., a legal entity of California having corporate powers
Application October 14, 1950, Serial No. 190,229
11 Claims. (Cl. 315—3.5)



10. A travelling wave tube including a cathode, a collector, and means for propagating a slow electromagnetic wave along a path between said cathode and said collector, said wave propagating means having an input coupling means at one end thereof and an output coupling means at the other end, an evacuated envelope enclosing said cathode and wave propagating means, said envelope having a first substantially cylindrical metallic portion, supporting means fixed to said cylindrical portion and arranged to support said wave propagating means, said envelope having a further cylindrical metallic portion connected to and supported by said first metallic portion and forming said collector, and two electromagnetic wave transmission means entering said first cylindrical metallic portion at regions near the collector and being respectively connected to said input and output coupling means.

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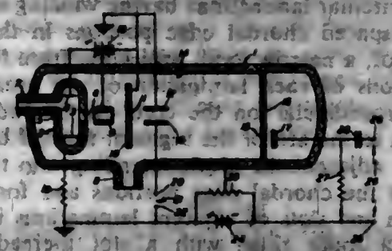
2,774,007
**BEAM CUT-OFF CIRCUIT**
John F. Bigelow, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application June 27, 1952, Serial No. 296,037
9 Claims. (Cl. 315—20)



1. In a protective circuit for a cathode ray tube having a beam source, beam deflection means, and a deflection pulse source whereby the absence of said pulses results in extinguishment of the beam, an electron discharge device operative between a state of conduction and a state of non-conduction connected for the control of said beam in response to the presence or absence of deflection pulses, and means to initiate and terminate conduction through said discharge device in response to the presence or absence of applied deflection pulses including a two element gas tube series connected between the grid and cathode of said control tube, a resistor shunting said gas tube, means maintaining the elements of said gas tube biased below striking voltage of said gas tube and at a level such that applied pulses of predetermined minimum height and a given polarity render said tube conducting while pulses of like height and opposite polarity lower the normal bias of said gas tube below striking voltage to prevent conduction therein, said gas tube thus serving as a diode rectifier, and means connecting said deflection pulse source to that element of said gas tube connected to said grid.

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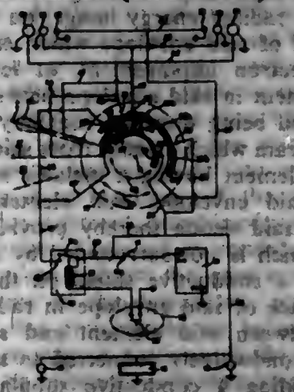
2,774,008
**TIME DELAY SPACE CHARGE DEVICE**
Howard B. Rooks, Marion, Iowa, assignor to Capehart-Farnsworth Company, a division of International Telephone and Telegraph Corporation
Application August 26, 1953, Serial No. 376,665
8 Claims. (Cl. 315—21)



1. A time delay space charge device comprising a source of commonly charged ions, electrode means associated with said source for forming a beam comprised of said ions and for directing said beam along a predetermined path, beam-deflecting means associated with said electrode means and operative to deflect said beam from said predetermined path into a second path, an anode electrode spaced from said beam-deflecting means and having a beam-intercepting surface disposed in said predetermined path and an aperture in said surface in registry with said second path, and a beam-collecting electrode mounted opposite said aperture so as to collect the charge of said beam after it passes through said aperture whereby the charge of said beam will be collected by said beam-collecting electrode only upon deflection of said beam into said second path.

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2,774,009
**ELECTRIC LIGHTING AND SIGNALLING PLANT FOR MOTOR VEHICLES**
Dante Giacosa, Turin, Italy, assignor to Fiat Societh per Azioni, Turin, Italy
Application May 14, 1954, Serial No. 429,875
Claims priority, application Italy December 23, 1953
2 Claims. (Cl. 315—83)

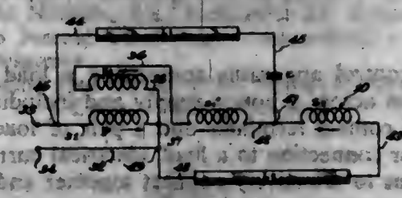


1. Electric lighting plant for motor vehicles comprising a source of current, at least one set of outer lights including a city light, a crossing light and a country light, a first energizing circuit between the lights and the source comprising lead-in conductors, a three-position change-over switch, and change-over sectors incorporated by the switch for selectively energizing from the source the city light, crossing light and country light in a first, second and third position, respectively, of the switch; and a second energizing circuit in parallel with the said first circuit including selecting sectors incorporated by the change-over switch, a push-button operated switch for energizing the selecting sectors from the source of current, contacts selectively engageable by the selecting sectors, and conductors connecting different contacts to the crossing and country lights, respectively, whereby the crossing and country lights may be selectively energized in the said first and second position, respectively, of the change-over switch when the push-button switch is operated.



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2,774,010
**APPARATUS FOR STARTING AND OPERATING GASEOUS DISCHARGE DEVICES**
Albert E. Feinberg, Chicago, Ill., assignor to Advance Transformer Co., Chicago, Ill., a corporation of Illinois
Application October 13, 1951, Serial No. 251,197
21 Claims. (Cl. 315—138)



1. Apparatus of the character described and including a plurality of gaseous discharge devices, a low voltage source of alternating current, means for igniting and thereafter operating said gaseous discharge devices from said source which comprise, a transformer core and a choke core forming two separate magnetic circuits one in each respective core, a primary winding mounted on the transformer core, a composite starting winding having two parts, one part comprising a first secondary winding mounted on the transformer core in close coupled voltage-inducting relationship with the primary winding and the second part comprising a highly inductive winding mounted on the choke core in non-inductive relation to the primary winding and connected in series with said first secondary winding, a second secondary winding mounted on the transformer core and in loosely coupled voltage-inducing relationship with the primary winding to have high leakage reactance during operation of the apparatus, all of the windings being connected end to end in the order hereinabove named, a condenser, the primary winding being connected across the source, one of said gaseous discharge devices being connected in a loop across windings of said apparatus including said condenser in series and at least the starting winding but excluding the second secondary winding, and a second gaseous discharge device being connected in a second loop across windings of said apparatus including at least said starting winding and said second secondary winding, the open circuit voltage relationship between the secondary windings in the second loop being bucking, the turn relationship between the primary winding and the windings of the first loop being such as to provide sufficient induced voltage therein to first ignite the first gaseous discharge device when the primary winding is energized from the source, the second part of the composite starting winding having no contributing voltage to aid in the starting of the first gaseous discharge device, and there being a voltage produced in the said second part of the composite starting winding after the ignition of the first device which causes flow of current through the said first loop, the relationship between said last mentioned voltage and the open circuit voltage of the second secondary winding being additive whereby after ignition of the first device the resultant voltage of the windings of the second loop will be sufficient to ignite the second gaseous discharge device.

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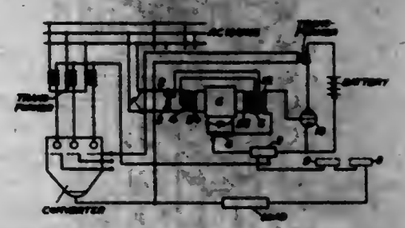
2,774,011
**BALLAST FOR GASEOUS DISCHARGE DEVICES**
Albert E. Feinberg and Frank S. Rado, Chicago, Ill., assignors to Advance Transformer Co., Chicago, Ill., a corporation of Illinois
Application February 23, 1952, Serial No. 273,111
6 Claims. (Cl. 315—138)



4. In combination, a pair of gaseous discharge devices of different starting and operating characteristics, a source of A. C. power of sufficient volatge to ignite one device but insufficient to ignite the second device and a ballast for supplying current to the devices from said source comprising an elongate outer shell and a central winding leg, a primary winding, a secondary winding and a choke winding all mounted on the winding leg, the choke winding being connected in series with the one device and together therewith connected across the primary, the primary and secondary windings being connected in autotransformer relationship with the second device, said shell having a pair of extensions integral with opposite long sides thereof and terminating against the central winding leg to form a magnetic short circuit therebetween, the choke and primary windings being positioned on opposite sides of the extensions and their voltage senses being additive during operation of the gaseous discharge devices to produce flux travelling through the central winding leg in the same direction, but through the extensions in opposite directions such that the flux density in the short circuit will be considerably less than the sum of flux densities due to the respective windings considered separately, said primary winding having leads connecting same to said source, the central winding leg having one end engaging the shell in closed magnetic circuit relation at the end adjacent the secondary winding and having the opposite end spaced from the shell to form an air gap adjacent the choke winding.

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2,774,012
**CONTROL MEANS FOR STATIC CURRENT CONVERTERS**
Uno Lamm and Erich Uhlmann, Ludvika, Sweden, assignors to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application May 28, 1953, Serial No. 358,074
Claims priority, application Sweden June 4, 1952
16 Claims. (Cl. 315—146)

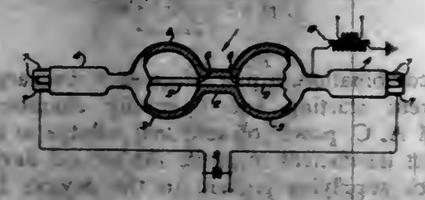


1. Control system for a polyphase static power converter, comprising a first means with input terminals for

delivering an igniting impulse to said converter at an instant being determined by a voltage applied to said input terminals, a second means influenced by the load current of said converter, and producting a voltage substantially proportional to said load current, and a third means influenced by the voltage between a relieved phase and a relieving phase of said converter and producing a voltage substantially proportional to the peak value of the voltage between said phases, the output voltages of said second and said third means being series connected to said input terminals of said first means.

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2,774,613
ELECTRIC DISCHARGE LAMP
Anthony H. Willoughby, Bishopsworth, England, assignor to General Electric Company, a corporation of New York
Application March 23, 1950, Serial No. 151,440
Claims priority, application Great Britain April 7, 1949
2 Claims. (Cl. 315—241)



1. A gaseous electric discharge lamp for producing intense flashes of light of very short duration and comprising a quartz envelope substantially of dumb-bell shape and containing a filling of ionizable gas at a pressure not less than about 500 millimeters, the axial length of the bar portion of said dumb-bell shaped envelope being less than 2 cms., the mean internal diameter of said bar portion being less than 1 cm. and less than the length thereof, the bulbous ends of said envelope having a mean internal diameter not less than 2 cms. and a volume considerably greater than the volume of said bar portion, and an electrode in each said bulbous end of the envelope having its discharge termination surface adjacent to the corresponding end of the said bar portion of the envelope to define a discharge path therebetween not more than 2 cms. long, and means including a source of electrical energy for impressing between the electrodes a brief voltage pulse of magnitude sufficient to produce an intense flash of light through the gas in said bar portion with concomitant creation of a high pressure shock wave, said bulbous ends providing expansion chambers for reducing shock to the envelope due to heating and expansion of the gas filling.

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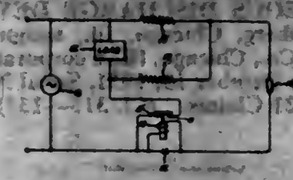
2,774,614
MODULAR ELECTRONIC ASSEMBLY
Robert L. Henry, Jr., Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application October 31, 1952, Serial No. 318,148
14 Claims. (Cl. 317—101)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A modular electrical circuit assembly comprising a plurality of wafers, each of said wafers being of substantially the same size and outer configuration and having a plurality of peripherally located notches therein, said wafers being disposed in separate parallel planes and being in alignment, the corresponding notches in each wafer also being in alignment, a plurality of conductors, each conductor located in aligned notches in said wafers and secured to said wafers, said conductors retaining said wafers spaced from each other to thereby provide air spaces between each wafer, at least some of said wafers having a circuit component thereon and connected to said conductors, and said conductors together with the circuits on said wafers forming the electrical circuit of said assembly.

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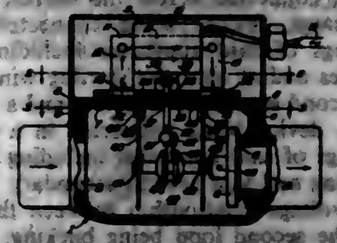
2,774,615
PHOTOELECTRIC CONTROL APPARATUS
William C. White, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application April 25, 1953, Serial No. 350,709
8 Claims. (Cl. 317—129)



1. A control apparatus comprising a load circuit for connection across a power supply and including in series a pair of contact terminals and a pair of load input terminals for connection to a load, electrical current responsive means to selectively connect together and to disconnect said contact terminals, a first current limiting resistance, an impedanced evice having an impedance variable in accordance with an external stimulus, said means, said device, and said first resistance being connected in a series circuit in the order named across said load circuit, and a second resistance connected at one end to said load circuit between said terminals and said contacts and at the other end to said series circuit between said device and said first resistance to provide for positive action of said apparatus to control the energization of said load relative to a predetermined magnitude of said stimulus.

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2,774,616
ELECTROMAGNETIC CONTROL DEVICE
Russell B. Matthews, Wauwatosa, and John H. Thornbury, Whitefish Bay, Wis., assignors to Milwaukee Gas Specialty Company, Milwaukee, Wis., a corporation of Wisconsin
Application August 26, 1952, Serial No. 306,444
8 Claims. (Cl. 317—167)



4. An electromagnetic operator comprising a magnetically permeable base plate, a magnetically permeable frame of inverted generally U-shaped configuration mounted on one side of said base plate and having legs, the ends of which afford magnetically permeable pole faces presented toward and spaced from said base plate to provide a pair of coplanar air gaps therebetween and at least one transverse portion magnetically connecting said legs, a winding on said frame which when energized is adapted to produce magnetic flux in said frame and



across said air gaps and through said base plate, an electrical conducting armature in the form of a flat member connected to impart turning movement to a shaft about an axis disposed generally parallel to the direction of spacing of said pole faces of said frame from said base plate, said shaft projecting through and mounted for turning movement in said base plate, and an actuated device mounted on the opposite side of said base plate and operatively connected to said shaft for actuation by turning movement of said shaft, said armature having a pair of armature portions, one operating in each of said air gaps with each of said armature portions exposed to the adjacent pole faces of said frame on one side and to said base plate on the opposite side, each said armature portion having electric current induced therein by magnetic flux across said air gaps and the electric current induced in each of said armature portions producing a flux reacting directly with the flux across said air gaps to impart by the combined effect of said fluxes turning movement by reaction of said armature about the axis of said shaft.

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2,774,617
TRIMMER
Milton J. Shapp, Merion Station, and Henry J. Arbeiter, Conshohocken, Pa., assignors, by mesne assignments, to Jerrold Electronics Corporation, a corporation of Delaware
Application January 12, 1954, Serial No. 404,633
4 Claims. (Cl. 317—249)



1. A trimmer capacitor comprising a first conductive plate element comprising an elongated metallic body having an internally threaded bore, a dielectric mounted on said first conductive element, a second conductive plate element mounted on the dielectric, and a metallic plug threaded for a portion of its length and smooth and cylindrical for a portion of its length, and mounted inside the bore for controlled movement toward and away from the second plate element whereby the capacitance of the device may be varied, the plug being maintained in firm electric contact with the first plate element by spring contact at a point closer to the second plate element than the threaded contact, the spring contact being maintained between conductive contacts integral with the first plate element and the smooth portion of the plug.

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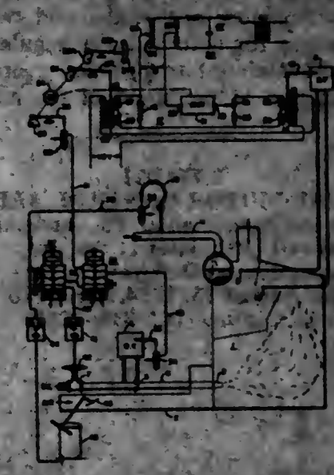
2,774,618
CONDENSER
Felix Weiss, Brookline, Mass., assignor to Cornell-Dubilier Electric Corporation, a corporation of Delaware
Application September 29, 1953, Serial No. 382,075
3 Claims. (Cl. 317—249)



1. An aluminum condenser comprising a wound composite roll of interleaved insulating and conductive strips with the ends of the insulating strips extending beyond the ends of the conductive strips to form a peripheral binding portion, and deposits of conductive material along the ends of said insulating strips penetrating said ends and adsorbed by the material thereof so as to form masses of impregnating adhesive cementing the strip ends to each other and to the preceding underlying layer and fastening the condenser roll in wound condition.

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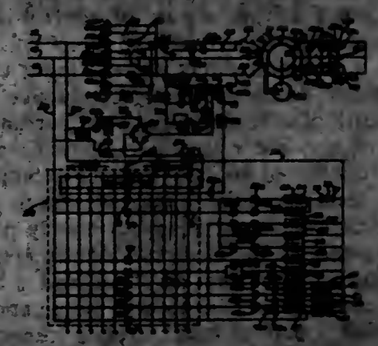
2,774,619
ELECTRIC SERVO SYSTEM FOR MEASURING AND CONTROL
Anthony J. Hornfeck, South Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application January 26, 1951, Serial No. 233,187
24 Claims. (Cl. 318—28)



11. A balanceable network including one set of secondaries for each of two movable core transformers having primaries, a second set of secondaries for one of said transformers, a common source of electrical potential for the primaries of said transformers, said second set of secondaries supplying a constant voltage output, means for selecting a portion of said constant voltage output, means for injecting said selected voltage output into said balanceable network to unbalance it, and motor means including amplifier and motor control means for rebalancing the network, whereby the balance position of the core of one of the movable core transformers is biased in relation to the position of the core of the other movable core transformer in accordance with the amount of said selected voltage.

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2,774,620
OVERDRIVE CONTROL AND BRAKING SYSTEM
Milton W. Gobbie and George R. Merchant, Madison, Ohio, assignors to The Eaton Electric & Manufacturing Company, Madison, Ohio, a corporation of Ohio
Application August 6, 1954, Serial No. 447,909
11 Claims. (Cl. 318—265)



1. Alternating current hoist apparatus comprising, in combination, a three-phase, wound rotor induction mo-

tor having rotor windings and three rotor terminals therefor and stator windings and three stator terminals therefor, three three-phase alternating current power leads, means for connecting two of the power leads directly to two of the stator terminals to apply alternating current voltages to those terminals, a line rectifier, and means for connecting the said line rectifier from the third power lead to the third stator terminal of the motor to apply rectified alternating current voltages to the stator windings, a shunt circuit, and means for connecting the said shunt circuit to one of the said two stator terminals and to the third stator terminal for producing circulating currents in the stator windings, the said shunt circuit including a series rectifier connected in opposition to the first-named rectifier for maintaining high impedance paths between the power leads, and passing rectified alternating currents through the stator winding connected to the remaining one of the said two stator terminals, and means for automatically regulating the currents in the shunt circuit to produce a braking torque which is a function of the speed of the motor.

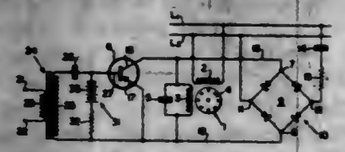
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2,774,821

## ELECTRICAL MOTOR CONTROL APPARATUS

Robert J. Ehret, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application August 16, 1954, Serial No. 449,947
11 Claims. (Cl. 318—287)



1. In combination, a single stage common emitter transistor amplifier, having an input and an output, biasing means connected to the input of said amplifier for rendering it conductive in the absence of an input signal, a two phase reversible induction motor having a power winding and a control winding, said power winding being adapted to be connected to a source of alternating current, circuit means connecting said control winding in shunt with the output of said amplifier, and a power supply, said power supply having an impedance of such magnitude with respect to the magnitude of said transistor and said motor control winding that changes in the impedance of said transistor will not produce appreciable changes in the current flowing from said power supply.

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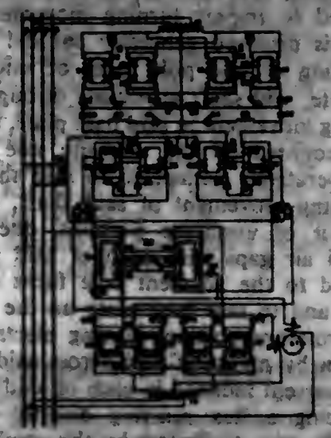
2,774,822

## MOTOR CONTROL SYSTEM

Franklin S. Mallet, Milwaukee, Wis., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 15, 1953, Serial No. 361,653
5 Claims. (Cl. 318—227)

1. A two phase motor control system comprising, a two phase motor having a pair of control windings, a pair of amplifiers having respective direct current output circuits and a common direct current input circuit, said pair of amplifiers being selectively conductive in dependence of polarity of said common direct current input circuit, a pair of non-linear amplifiers having respective input circuits connected to said respective output circuits and having respective direct current output circuits in which the electrical output is approximately proportional to the square root of the electrical input thereto, reversible phase alternating current amplifier means having output circuit means connected to one motor control winding and having a pair of input circuits respectively connected to said respective direct current output circuits of said non-linear amplifiers, and a non-reversing phase, alternating current amplifier having an output circuit connected to the remaining motor control winding and having a pair of input circuits respectively connected to said respective direct current output circuits of said non-linear amplifiers.



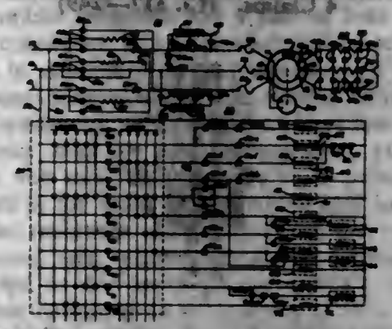
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2,774,823

## OVERDRIVE CONTROL AND BRAKING SYSTEM

Milton Wesley Griffin, Madison, Ohio, assignor to The Euclid Electric & Manufacturing Company, Madison, Ohio, a corporation of Ohio

Application May 18, 1954, Serial No. 430,516
26 Claims. (Cl. 318—332)



1. Alternating current hoist apparatus comprising, in combination, a three-phase, wound rotor induction motor having rotor windings and three rotor terminals therefor, and stator windings and three stator terminals therefor, three three-phase alternating current power leads, means connecting two of the power leads directly to two of the stator terminals to apply alternating current voltages to those terminals, a rectifier, and means connecting the said rectifier from the third power lead to the third stator terminal for applying rectified alternating current voltages to that terminal to produce rectified alternating currents through the said terminal and stator windings, and means connecting a shunt circuit from one of the first two stator terminals to the said third stator terminal for circulating alternating currents from the said first-named terminal to the said third terminal, the said shunt circuit including a series rectifier connected in opposition to the first-named rectifier and the said third power lead for maintaining high impedance paths between the power leads and passing rectified alternating currents through the stator winding connected to the remaining one of the said two stator terminals.

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2,774,824

## MULTISPEED INDUCTION MOTOR

Allen A. Braunworth, Cortland, Ill., assignor to General Electric Company, a corporation of New York

Application October 11, 1955, Serial No. 539,711
6 Claims. (Cl. 318—224)

1. A multispeed alternating current induction-type motor having a stator core, at least two main windings arranged on said core, the first of said windings being arranged to form a predetermined number of poles, the second of said windings being formed of at least two sections, one of said sections being connectable to the other of said sections in two different relationships, said sections being arranged to form a second predetermined number of poles in the first of said relationships and to form the same predetermined number of poles as said first winding in the second of said relationships, said poles of said second winding being respectively physically displaced from the poles of said first winding when said sections are connected in the second of said relationship, means for connecting said windings in parallel and said sections in said second relationship up to a predetermined speed of rotation of said motor, and means for selecting one of said windings for energization above said predetermined speed, said sections being connected in said first relationship when said second winding is selected.





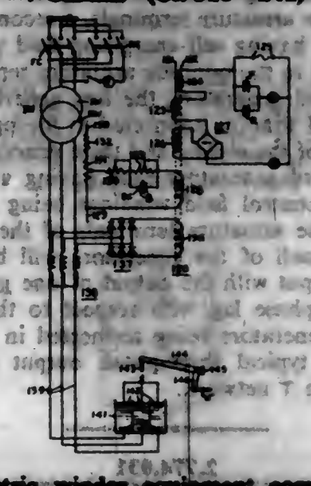
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2,774,825

## ELECTRICALLY OPERATED HOISTS, WINDERS, AND THE LIKE

Leo Abram, Sale, and Richard Hathaway, Swinton, England, assignors to Metropolitan-Vickers Electrical Company Limited, London, England, a British company

Application June 16, 1954, Serial No. 437,784
7 Claims. (Cl. 318—241)



1. An electric winder equipment comprising a slip-ring induction motor, a resistance controlling said motor, a fluid pressure servomotor coupled mechanically with said resistance for adjusting the value of said resistance, a control valve and a control member connected thereto for governing the fluid pressure applied to said servomotor, valve means movable between a normal condition applying normal fluid pressure to said servomotor and effecting maximum rate of movement of said servomotor to reduce said resistance and a second condition applying reduced fluid pressure to said servomotor and effecting a reduced rate of movement of said servomotor to reduce said resistance, electro-magnetic operating means coupled with said valve means and responsive to motor current to actuate said valve means from said normal condition to said second condition in response to the motor current reaching a predetermined value, and opposing means for said valve means coupled with said servomotor and actuating said valve means from said normal condition to said second condition when the servomotor is actuated to a position near the minimum resistance position to thereby apply said reduced rate of movement of the resistance independently of the motor current during movement of the resistance from said position to the minimum resistance position.

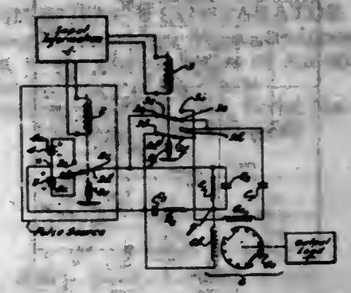
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2,774,826

## DIGITAL SERVOMOTOR

George H. Towner, San Diego, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application July 31, 1953, Serial No. 371,625
5 Claims. (Cl. 318—283)



1. A digital servomotor, comprising: a two phase servomotor responsive to a pulse input thereto by a discrete and finite amount of output shaft rotation for each input pulse, one of the phase windings having a capacitance connected in series therewith to provide a transient pulse of input voltage applied thereto; a first and a second D. C. power source, said D. C. power sources connected serially in additive polarity; a single pole, two position relay operable by external input information signals, said serially connected first and second power sources connected across the two position terminals of said single pole, two position relay, the pole of said single pole relay being actuated by said input information signals momentarily from a normal position terminal to the other position terminal and back to produce a pulse output of sufficient magnitude and width to drive said servomotor; a parallel resistance-capacitance combination connected in series with the other phase winding of said two phase servomotor, one end of said latter series combination connected to the pole of said single pole relay, the other end being connected to the common junction of said serially connected first and second power sources, said parallel resistance-capacitance combination limiting the rotor locking current through said other phase winding when the pole of said single pole, two position relay is on said normal position terminal; and a double pole, two position relay operable by external input information signals, one pole being connected to the pole of said single pole relay and the other pole of said double pole relay being connected to the common junction of said serially connected first and second power sources, said phase winding having a capacitance connected in series therewith being connected to a normal position terminal of one pole and to the other position terminal of the other pole of said double pole relay, said series capacitance being connected to the remaining two position terminals of said double pole relay, whereby operation of said double pole, two position relay reverses the direction of output shaft rotation by reversing current flow through said phase winding having a series capacitance.

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2,774,827

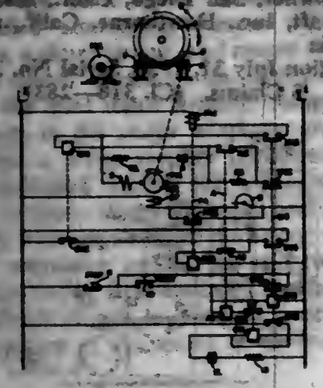
## BRAKING CONTROL SYSTEM FOR ELECTRIC MOTORS

Robert N. Eck, Whitefish Bay, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application March 22, 1954, Serial No. 417,584
5 Claims. (Cl. 318—379)

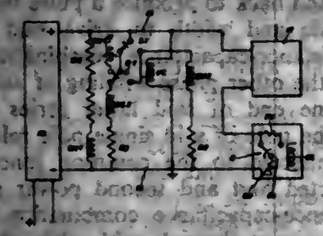
1. In combination, a source of D. C. voltage, a D. C. motor having a shunt field, means for selectively con-

necting the armature of said motor across said source for running in the forward direction and disconnecting the same for stopping, a circuit including a unidirectional conducting device connected in parallel with the armature of said motor, said device being so poled as to provide flow of braking current only when said motor rotates in the reverse direction, means providing maximum energization of said shunt field for starting and another given lower level of energization a predetermined interval following starting, and means in circuit with the last mentioned means and responsive to armature counter-voltage to prevent establishment of maximum energization connections for said field by said last mentioned means until said motor counter-voltage decreases below a given level.



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2,774,928
TIMER
John C. Hutchinson, Toronto, Ontario, Canada
Application September 30, 1955, Serial No. 537,835
4 Claims. (Cl. 320—23)

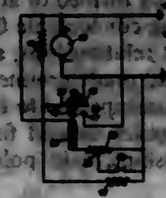


1. A battery charger control system energizable by a direct current source or by a battery having a predetermined charge providing a charge rate circuit and a finish rate circuit for such battery, direct current supply means for charging said battery, said system being biased toward said charge rate circuit when de-energized, means for switching from said charge rate circuit to said finish rate circuit, responsive to a predetermined battery charge or a predetermined charge time, means to disconnect said direct current supply in response to a predetermined finish rate time, said means being operable to reestablish said direct current supply only on de-energization of said system.

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2,774,929
VOLTAGE REGULATORS FOR DYNAMO-ELECTRIC MACHINES
Hermann Mälzer, Stuttgart-Botnang, Germany, assignor to Robert Bosch G. m. b. H., Stuttgart, Germany
Application April 18, 1951, Serial No. 221,924
Claims priority, application Germany April 18, 1950
7 Claims. (Cl. 322—28)

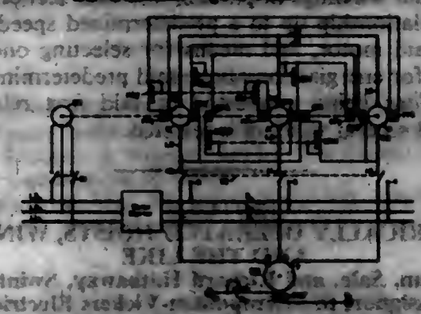
1. A voltage output regulator for dynamo-electric machines driven at variable speeds, including in combination a current regulator, a voltage regulator, a regulating resistance in the exciter circuit of the dynamo-electric machine said controlled by the voltage regulator, a heat-sensitive member heated by said resistance, and means



to control the voltage regulator from said heat-sensitive member.

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2,774,930
THREE-PHASE LOW FREQUENCY GENERATOR
Donald E. Abell, Buffalo, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 10, 1955, Serial No. 507,193
11 Claims. (Cl. 322—61)



1. In an electric system of control, in combination, a first generator having a self-energizing field winding connected across its armature terminals, a second and a third generator each having self-energizing field windings connected in series to the opposite armature terminals of the second and third generators, the first generator having a differential field winding connected to the opposite armature terminals of the second and third generators, and the second and third generators each having a control field winding, said control field windings being connected in series across the armature terminals of the first generator, whereby each of the generators will have alternating current output with the output of one generator having a definite phase lag with respect to the other generators, said generators being connected in a T network to produce a typical three-phase output at the outer terminals of the T network.

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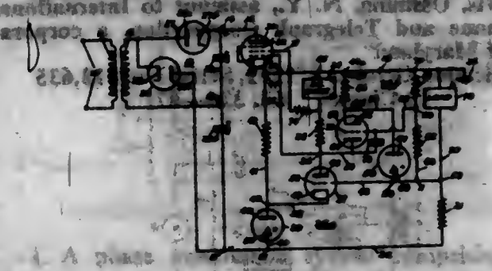
2,774,931
MEANS FOR VOLTAGE REGULATION BY AID OF AN EXCITER
Uno Lamm, Ludvika, Sweden, assignor to Allmänna Svenska Elektriska Aktiebolaget, Vesterås, Sweden, a corporation of Sweden
Application June 21, 1954, Serial No. 438,178
Claims priority, application Sweden June 22, 1953
6 Claims. (Cl. 322—79)



1. Means for controlling the magnetization of a main machine, comprising an exciter provided with two excitation windings one of which is connected as a shunt winding to the brushes of said exciter, uni-directional valve means series connected with said shunt winding, and a regulator for controlling the excitation of said exciter, said regulator and the second excitation winding being connected in series with said valve means.



2,774,932
ELECTRICAL REGULATING CIRCUITS
Ben Hale Bartlett, Lexington, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application June 23, 1953, Serial No. 363,515
6 Claims. (Cl. 323—22)



1. An electrical system comprising a source of energy, a grid-controlled regulating tube, a load device, and means responsive to the load energy for applying to the grid of the regulating tube a control potential; said means comprising two load-shunting circuits, each having a control tube whose plate current determines said grid potential, said plate current of the control tube of one of said circuits varying in response to changes in load impedance current; the control tube of said one circuit being conductive in a selected operating range and tending to maintain a constant current in the load; the plate current of the control tube of the other of said circuits varying in response to changes in load impedance voltage drop, the control tube of said other circuit being conductive only when the load impedance voltage drop rises above a predetermined level and, when conductive, tending to maintain a constant voltage across the load.

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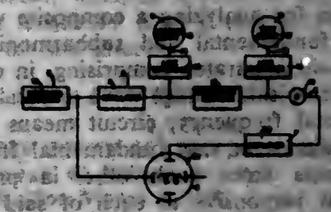
2,774,933
FIRING POINT INDICATOR FOR INTERNAL COMBUSTION ENGINES
Harold O. Penn, Golden, Colo.
Application November 21, 1952, Serial No. 321,798
2 Claims. (Cl. 324—16)



1. A firing point indicator coactable with the interrupter case of an internal combustion engine high tension ignition system in substitution for the distributor cap of such system, comprising a cap member formed with a closed base adapted to register with and close over the interrupter case, means detachably intercoupling said cap member and interrupter case in a fixed condition of predetermined angular relation, an integral boss formed with an axial bore upstanding centrally from the closed base of said cap member, a rotatable stem axially through said bore, an ear on and projecting radially from the stem end within the cap member for engagement within a notch conventionally characterizing the driven shaft of the ignition system, an opaque disc concentrically and perpendicularly fixed to the stem portion exterior of the cap member, a single opening intersecting said disc eccentrically of the stem, a separate, opaque housing shrouding said disc and closing against said cap member with the housing base adjacently covering the disc, means separably intercoupling said housing and cap member in a fixed condition of predetermined angular relation, a series of angularly-spaced like openings intersecting the housing base for successive registration with the disc opening in a disposition about said stem sensitive of distributor cap contacts, an electric bulb carried by said cap member within said housing and beneath said disc, and a circuit serving said bulb on shunt relation with the interrupter contact circuit, whereby to illuminate the housing interior between said cap member and disc in automatic reaction to separation of the interrupter contacts when the ignition system beyond the latter is incomplete.

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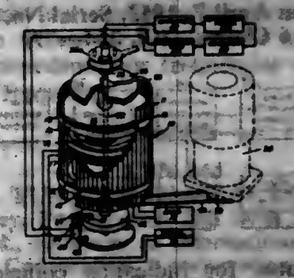
2,774,934
FREQUENCY COMPARATOR
Louis B. Young, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 11, 1945, Serial No. 634,293
8 Claims. (Cl. 324—58)



1. A frequency comparator for calibrating an unknown cavity resonator comprising, means for generating a sawtooth voltage, an oscillator which is frequency modulated by said sawtooth voltage, a reference cavity resonator, a decoupling network, a first and a second phasing network, said first phasing network connecting said reference cavity to the output of said oscillator, a detector connected through said decoupling network to the output of said oscillator, means for connecting said unknown cavity resonator through said second phasing network to the junction of said detector and said decoupling network, and a cathode ray indicator, means applying said sawtooth voltage as the sweep deflection voltage for said cathode ray beam, and means applying said detector output to said indicator as transverse or signal deflection.

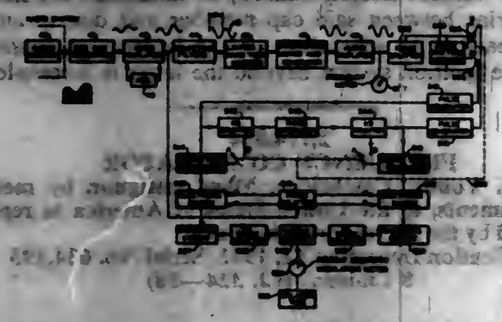
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2,774,935
MAGNETOSTRICTIVE FREQUENCY ANALYSERS
Martin E. Richmond, Nahant, N. H., and Daniel Blitz, Boston, Mass., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application January 7, 1954, Serial No. 402,676
18 Claims. (Cl. 324—77)



1. In a magnetostrictive frequency analyser, a plurality of rods of magnetostrictive material, each resonant at a discrete narrow band of frequencies, means to excite said rods with the signal to be frequency analysed, means to mount said rods with one end of each in a common plane, means to sense the amplitude of the axial magnetostrictive displacement in each rod successively and indicator means under control of the output of said sensing means.

2,774,836
COMPLEX WAVE ANALYZER
Frank C. Dunlington, New Brunswick, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 6, 1946, Serial No. 667,383
9 Claims. (Cl. 324—77)



1. Apparatus for analyzing a composite voltage wave containing a fundamental and subharmonic frequency components, said apparatus comprising, in combination, means for filtering said voltage wave to obtain a signal at said fundamental frequency, circuit means arranged to produce two signals at said fundamental frequency but shifted in phase from each other a predetermined amount, means responsive to each of said two signals for generating a pair of square wave voltage signals having half-periods equal to the period of said fundamental frequency and displaced in time from each other the aforesaid predetermined amount, a pair of electronic switches, means for applying said composite voltage wave to said electronic switches in opposite phase, means applying said square wave voltage signals to corresponding ones of said electronic switches whereby equal portions of said oppositely phased composite voltage waves are sequentially passed by said switches, means for averaging the outputs of each of said electronic switches to produce a pair of voltage indicative of the relative amplitude of said harmonic frequency component, and an indicator arranged to provide an indication of the larger of the last-mentioned pair of voltages, said indicator being proportional to the relative amplitude of the subharmonic frequency component in said composite voltage wave independently of phase variation between said fundamental and said subharmonic frequency components.

2,774,837
FREQUENCY COINCIDENCE INDICATOR
Paul G. Bilinski, Greenvale, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application April 7, 1953, Serial No. 347,245
6 Claims. (Cl. 324—79)



1. An apparatus for indicating coincidence in frequency between first and second signals, comprising: means for generating a modulating signal; a carrier-suppressing modulator; means for applying said first signal and said modulating signal to said modulator, whereby the output thereof contains the sum and difference frequencies of said first signal and modulating signal; means for heterodyning said second signal and the output of said modulator to derive a beat frequency signal having a frequency twice that of said modulating signal and having a minimum amplitude when said first and second signals coincide in frequency; and frequency selective means coupled to said heterodyning means, said frequency selective means being tuned to said beat frequency.

2,774,838
PHASE DISCRIMINATOR
Gus Stavis, Onondaga, N. Y., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application October 8, 1952, Serial No. 313,635
12 Claims. (Cl. 324—87)



1. A network for measuring the phase difference between two signal voltages, comprising two loop circuits each including at least a directional element and a load resistor, means for producing two relatively high level voltages having magnitudes proportional to and greater than said signal voltages, means for producing in the first of said loops a resultant voltage equal to the difference between said high level signals plus one of said signal voltages, and means for producing in the second of said loops a resultant voltage between said high level voltages minus one of said signal voltages whereby the D.-C. voltage measured across said load resistors is proportional to the difference in phase between said signal voltages.

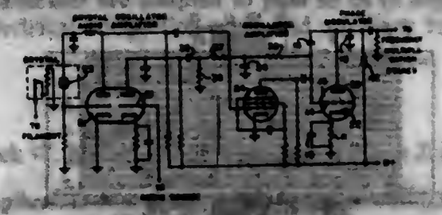
2,774,839
METHOD OF VARYING THE OUTPUT FREQUENCY OF MAGNETRON OSCILLATORS
Philip H. Peters, Jr., Schenectady, and Donald A. Wilbur, Albany, N. Y., assignors to General Electric Company, a corporation of New York
Application June 22, 1950, Serial No. 169,712
3 Claims. (Cl. 332—5)



1. The method of voltage tuning a traveling wave magnetron including a cathode electrode providing an electron space charge, an axially extending segmented anode electrode structure, an output circuit coupled to said anode structure to establish a high frequency field between said segments when excited with high frequency energy, and means providing an axially extending magnetic field between the anode and cathode electrodes, which method comprises applying direct current potential between said anode and cathode, limiting the cathode electron emission and heavily loading the output circuit so that over a given range of anode-cathode potential the rate of change of the restraining force due to the high frequency electric field between said segments with respect to a change of anode-cathode potential is substantially less than the rate of change of impelling forces moving the space charge through said high frequency electric field with respect to the anode-cathode potential, and varying said anode-cathode potential within said range to vary the operating frequency of said magnetron.

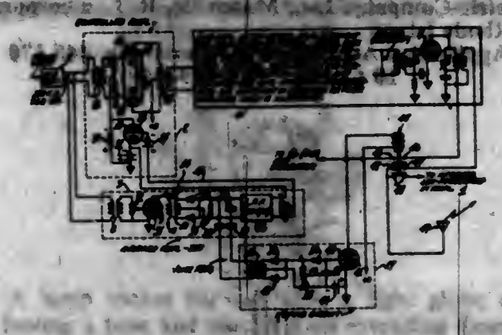


2,774,840
PHASE MODULATION SYSTEMS
Allen A. Macdonald, New Brunswick, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application August 20, 1953, Serial No. 377,269
4 Claims. (Cl. 332—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A phase modulation system comprising a carrier frequency wave source of constant frequency and constant current, a source of modulating signal, an electron discharge device having a cathode, anode and control electrode, the transconductance of said electron discharge device being a function of the potential difference existing between said control electrode and cathode, means applying said carrier frequency wave and said modulating signal between said control electrode and cathode, a capacitance having a given reactance at said carrier frequency coupling said control electrode to said anode, said given reactance being appreciably smaller than the plate resistance of said electron discharge device, and a load having a total impedance substantially equal to said given reactance connected between said anode and cathode, whereby a phase modulated output is obtained across said load.

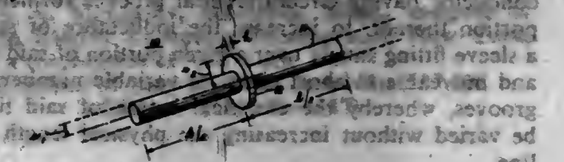
2,774,841
CONTROLLED SINGLE-SIDEBAND TRANSMITTER
James L. Finch, East Rockaway, and Leonard R. Kahn, New York, N. Y., assignors to Radio Corporation of America, a corporation of Delaware
Application August 31, 1953, Serial No. 377,364
17 Claims. (Cl. 332—37)



4. In a single sideband transmitter, a single sideband generator to which a band of modulation frequencies is supplied, a single sideband amplifier, a coupling between the input of said amplifier and the output of said generator, a controllable-gain amplifier in said coupling, and means responsive to modulation frequencies of a predetermined range on the single sideband output of said generator for controlling the gain of said controllable-gain amplifier.

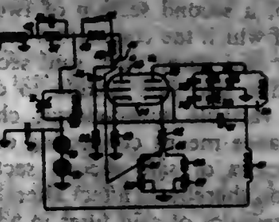
2,774,842
ELECTROMECHANICAL WAVE FILTER
Warren P. Mason, West Orange, and Herbert J. McSkimin, Basking Ridge, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 29, 1953, Serial No. 351,842
7 Claims. (Cl. 333—71)

1. A mechanical wave filter for transmitting a band of frequencies, said filter having a lower cut-off frequency $f_L$, and an upper cut-off frequency $f_U$, comprising a small-diameter cylindrical rod of acoustic material of radius $r_1$ having a length $l$ that is approximately a half wavelength long in the torsional mode of vibration at a frequency within said band, and an annular disk of acoustic material of distributed mass having an inner radius $r_1$, an outer radius $r_2$, and a thickness $h$ that is



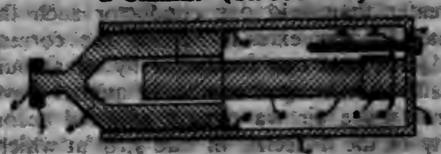
less than one-half wavelength in the torsional mode of vibration at a frequency within said band connected to said rod and dimensioned to resonate in a single torsional mode at a frequency $f_r$ when said rod is torsionally excited by mechanical vibrations applied to an end thereof, whereby a peak of attenuation is provided at a frequency $f_r$ at a desired point outside the pass band of said filter.

2,774,843
FREQUENCY SELECTIVE APPARATUS
Oswald G. Villard, Jr., Palo Alto, Calif.
Application March 3, 1953, Serial No. 339,985
3 Claims. (Cl. 333—80)



3. A frequency selective apparatus for application to electrical networks having a conductor lead to which radio frequency voltages are applied comprising a first vacuum tube having plate, cathode and control grid elements, a tuned regenerative amplifier including a tube having plate, cathode and control grid elements and a tuned circuit regeneratively connected thereto, means for connecting said tuned regenerative amplifier to said first tube to provide negative feedback to the same, a conductive path connected between said conductor and a point of neutral potential, selective means for selectively connecting said first tube or said regenerative amplifier in said conductive path, whereby when said regenerative amplifier is connected in said path positive feedback is applied to said conductor to give an exalted radio frequency voltage and when said first tube is connected in said path there is a negligible impedance at the selected frequency to which the amplifier is tuned and a relatively high impedance for frequencies above and below the selected frequency.

2,774,844
TUNABLE COAXIAL LINE
John O. Sliwez, Fort Wayne, and Orrin C. Beeber, Huntington, Ind., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application August 9, 1952, Serial No. 303,496
2 Claims. (Cl. 333—82)



1. A tunable coaxial line comprising, an outer conductor, an inner conductor concentric therewith and

spaced therefrom, means for short-circuiting said line at one end thereof, a movable conductive cap positioned at the opposite end of said line over a portion of said inner conductor and contacting said outer conductor, whereby the capacity between said conductors may be varied by moving said cap over said inner conductor, said inner conductor having circumferential grooves formed over a portion thereof, to increase the inductance of said line, a sleeve fitting snugly over a given portion of said grooves and moveable to short circuit a variable number of said grooves, whereby the electrical length of said line may be varied without increasing the physical length of said line.

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**2,774,045**
**ULTRA-HIGH-FREQUENCY TUNER**
James F. Wilcox, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application October 17, 1951, Serial No. 251,675
5 Claims. (Cl. 333—82)



1. An ultra-high-frequency filter circuit comprising a first section of two-conductor transmission line having a parallel conductor part and a flared conductor part connected thereto, a second section of two-conductor transmission line of which the conductors are conformably disposed relative said flared part, said second section being movable relative said first section to define therewith a filter having variable tuned-circuit characteristics, and variable reactance means connecting corresponding ends of the conductors of said second section remote from said first section thereby to affect alterations in the tuned-circuit characteristics of said filter in accordance with the value of the reactance of said variable reactance means.

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**2,774,046**
**MICROWAVE TRANSMISSION LINE**
Maurice Arditi, Clifton, N. J., and Philip Parzen, Forest Hills, N. Y., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application May 5, 1952, Serial No. 286,764
14 Claims. (Cl. 333—84)



6. A transmission line for propagation of radio frequency wave energy in a mode simulating substantially the TEM mode, comprising a pair of conductors, a strip of dielectric material separating said conductors in closely spaced substantially parallel relation, the mutually opposed surfaces of said conductors having a lateral extent corresponding substantially to the width of at least one of said conductors and said dielectric strip being of a width greater than said one conductor such that each of its lateral edges extends beyond the corresponding lateral edge of said one conductor by an amount equal substantially to an integral number of quarter wavelengths of the free space air wavelength adjusted according to the quality of the dielectric of said strip at which excitation of wave modes through or over the surface of the dielectric is substantially, plus an integral number, including zero, of such adjusted wavelengths divided by two.

**2,774,047**
**COIL CLAMPING DEVICE FOR A TRANSFORMER**
Harding B. Hansel, Elm Grove, Clair E. Gunderson, Milwaukee, and William C. Dailey, Wauwatosa, and Karl P. Wiedenbeck, Elm Grove, Wis., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application October 4, 1954, Serial No. 459,594
5 Claims. (Cl. 336—207)



5. An externally operable device for clamping a plurality of disk coils and insulation within an enclosing tank of a transformer in which the magnetic core forms an integral part of said tank, said device comprising a rigid plate disposed parallel to the plane of said coils intermediate said assembly and a wall portion of said tank, a plurality of guide sleeves fixedly attached to said plate in predetermined spaced relationship, each of said sleeves disposed with its axis normal to the face of said plate, means associated with said wall portion for receiving said sleeves to position said plate with respect to said assembly, and individual jack bolts associated with different ones of said sleeves, each of said bolts extending in threaded engagement through a wall portion of said tank with the ends of said bolts disposed in their associated sleeves whereby said plate is moved against said assembly by a turning action of said bolts.

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**2,774,048**
**PORTABLE ELECTRIC HAND LAMP HAVING RECEPTACLE TO RECEIVE ATTACHMENT PLUGS**
Leonard N. Bannister, Pawtucket, R. I., assignor to Royal Electric Company, Inc., Manville, R. I., a corporation of Rhode Island
Application August 6, 1954, Serial No. 448,170
10 Claims. (Cl. 339—99)



1. In combination, a socket for an electric light, a handle for said socket, said handle being formed of insulating material and having a first recess open at the top thereof in which said socket is substantially snugly received, said socket having first terminals forming a part thereof and located in said first recess, a passage through said handle from a point adjacent the bottom thereof through which a wire is adapted to pass up to and be electrically connected to said first terminals, female auxiliary terminals of self-sustaining material projecting an arm physically affixed to a corresponding first terminal and depending therefrom and a pair of overlying leaves secured to said arm, extending below said socket, and resiliently urged toward one another so as to define between themselves a space adapted to snugly receive a male



connector, said handle having a second recess below and communicating with said first recess to receive said auxiliary terminals are at least partially snugly received, said second recess including a bottom wall on which said auxiliary terminals rest, thereby fixing the position of said socket and said auxiliary terminals within said handle, said handle having apertures therethrough through which male connectors are adapted to pass so as to engage and make electrical connection with said auxiliary terminals.

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**2,774,049**
**BULB PROTECTOR**
Frederick W. Kibler, Beechhurst, and William J. McNiff, Wantagh, N. Y.
Application March 25, 1952, Serial No. 278,371
2 Claims. (Cl. 339—78)



1. The combination with a conical bulb mounted in a substantially conical socket, the base of the socket being contiguous to the base of the bulb, of a protective device to prevent separation of the bulb from the socket, said device comprising a loop surrounding the bulb at an area intermediate its apex and base portion, at least one arm extending from the loop along the bulb and down to the socket, strap means extending from the arm adapted to surround the socket, and means locking the strap means to the conical socket intermediate its apex and base portions to prevent separation of the bulb from the socket.

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**2,774,050**
**SOCKET FOR STUDIO LAMP OR THE LIKE**
Ralph L. Logan, Los Angeles, Calif., assignor to J. G. McAllister, Inc., Hollywood, Calif., a corporation of California
Application December 20, 1954, Serial No. 476,436
10 Claims. (Cl. 339—75)



1. A lamp socket for use with a light globe of the type having a base and spaced posts extending therefrom, comprising, a hollow body portion, a mass of insulating material within said body portion and including a plurality of parallel bores having a spacing substantially equal to the spacing between the light globe posts, a split socket element within each of said bores for receiving the light globe posts, the transverse dimensions of said socket elements being somewhat less than those of the bores whereby to permit limited lateral movement of the socket elements in the bores; and means for forcing the split portions of the socket elements together whereby to clamp said posts therebetween, comprising an actuating rod movably mounted in the housing, a clamp bar including extensions movable in bores in the housing, spacer elements movable in bores formed in said insulating material in alignment with the second mentioned bores and opening into said first mentioned bores, said spacer elements being engageable with said extensions and with said socket elements, a spring operatively connecting said rod and bar whereby movement of the rod in one direction will cause said spacer elements to be resiliently urged against the socket elements to force the split portions of the latter together, and manually operable means for moving the rod.

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**2,774,051**
**ELECTRICAL UNIT**
Lawrence A. MacCurdy, Haverhill, Mass., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application February 16, 1953, Serial No. 337,031
2 Claims. (Cl. 339—147)



1. An electrical unit comprising a dielectric base having pairs of spaced apertures therein, pairs of like terminals extending through the apertures of the base and fixed to the base intermediate their ends, a hollow electric device having leads exposed disposed on selected ones of the terminals of each pair, and resilient clamping elements adapted to be mounted readily on like ends of the terminals to secure the electric devices and like leads thereof to the selected terminals simultaneously and to secure the other leads to the remaining respective terminals.

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**2,774,052**
**MECHANICAL ASSEMBLY OF ELECTRONIC CIRCUIT COMPONENTS**
William Fleur, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application April 6, 1951, Serial No. 219,652
6 Claims. (Cl. 339—176)



6. A mechanical assembly of electronic apparatus comprising, in combination, a plurality of complementary support bodies fashioned for separable engagement along at least one general plane, said bodies being shaped to define when placed together a first series of parallel bores spaced apart in two directions parallel to said plane and having axes generally perpendicular to said plane and a second series of outwardly open bores generally parallel to said plane, each of said bores of said second series connecting with one of said bores of said first series in generally perpendicular relation to the latter, a plurality of terminal leads disposed in said respective bores of said second series, a plurality of electrical elements removably disposed in said respective bores of said first series and having electrical contacts on opposite ends thereof, said elements in said bores of said first series connecting with bores of said second series making contact with said terminal leads in the latter, means on said bodies forming a pair of two-dimension patterns of circuitry located respectively in two planes disposed at opposite ends of said bores of said first series in generally perpendicular relation to said axes thereof, and means for applying forces to said circuitry patterns in directions parallel to

said sets of said bores of said first series to hold said respective circuitry patterns firmly in engagement with adjacent contacts of said electrical elements.

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2,774,943
FLEXIBLE TERMINAL STRIP
Boyd R. Boger, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application January 14, 1954, Serial No. 404,151
1 Claim. (Cl. 339—256)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A terminal strip adapted to adhere to devices having an irregular contour and which are subject to strong centrifugal forces comprising a substantially rectangular flexible nonconductive support member, a plurality of elongated conductive terminal members positioned transversely of the longitudinal axis of the support member, and arranged in parallel longitudinally spaced relation, said support member comprising a single continuous base surface and an upper portion, said base surface adapted to completely coincide with, and frictionally grip, a work surface of irregular contour on a rotating device, said upper portion having an elongated recessed upper surface centrally positioned between the sides of the support, said recessed upper surface extending parallel to the longitudinal axis of the support member and adapted to receive a clamping strap, said support member having bevelled outwardly extending side surfaces intersecting the base surface to provide increased frictional area for holding the support in position against the strong centrifugal forces.

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2,774,954
BATTERY TERMINAL CONNECTOR
William G. Tunney, Chicago, Ill.
Application May 8, 1953, Serial No. 356,146
2 Claims. (Cl. 339—233)



1. A battery terminal connector comprising: a U-bolt having parallel arms adapted to embrace a battery terminal post; a clamping member including a clamp bar having apertures adjacent its ends to receive the end portions of the U-bolt arms and an integral neck which extends outwardly from a transversely extending margin of said bar parallel to said arms, said neck being narrower than the space between the arms; and having laterally flared ears at its outer end provided with holes, said ears being wider than the space between said arms; fastening means for a battery cable including a laterally extending pressure plate which has ears substantially coextensive with those on the neck, and means for clamping the uninsulated end portion of a battery cable in a longitudinally extending position between the pressure plate and said neck with the ears on the pressure plate opposite the ends of the U-bolt arms; and nuts fastening said clamping member to the U-bolt, the length of said arms from a perpendicular plane tangent to the battery terminal post plus the thickness of said nuts being greater than the thickness of said clamp bar plus the length of said neck to said ears.

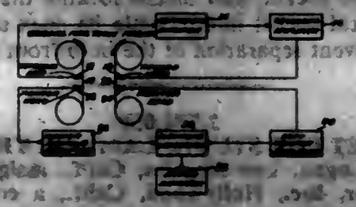
2,774,955
ELECTRIC CONNECTOR MEMBER WITH MARGINAL SLITS
Hugh W. Batcheller, Newton, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts
Application March 31, 1953, Serial No. 345,991
4 Claims. (Cl. 339—258)



1. An electric connector member comprising a piece of sheet metal stock bent to form a shallow channel having a floor, side walls extending up from the side edges of the floor and plane inturned flanges along the top edges of the walls, said member having a slit therethrough at the junction of each said side wall with said floor, each said slit terminating short of the ends of the corresponding side wall, said floor having a transverse ridge above the level of the ends of the floor, from which the forward portion of the floor slopes gradually downward to the forward end.

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2,774,956
COMPARATOR DEVICE
Jerome W. Stafford, Hollywood, and Kenneth M. Frierson, Los Angeles, Calif., assignors to Loew's Incorporated, Culver City, Calif., a corporation of Delaware
Application April 12, 1954, Serial No. 422,472
4 Claims. (Cl. 340—149)



1. In combination, a first medium on which signals have been recorded, a second recording medium, means to record signals on said second medium from said first medium, means to read signals on said first medium which have been recorded on said second medium, means to read signals on said second medium which correspond to the signals being read on said first medium, a pair of rectifiers each of which is coupled to a different one of said means to read signals, a pair of integrating networks each having an input and an output, the input of each of said integrating networks being coupled to a different one of said rectifiers, means coupling the outputs of said integrating networks to oppose each other, a pair of tubes each having an anode control grid and cathode electrode, means coupling the output from each integrating network to a different one of said control grids, a pair of anode load resistors each of which is connected to a different one of said anodes, and a relay having its coil connected between the anodes of said tubes.

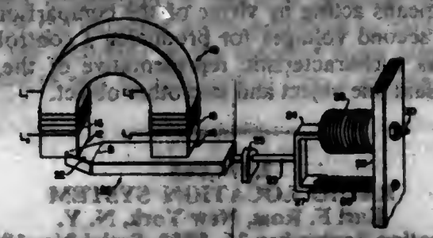
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2,774,957
MAGNETIC MODULATOR
William A. Jones, Newtonville, Mass., assignor, by mesne assignments, to Detroit Controls Corporation, Detroit, Mich., a corporation of Michigan
Application October 29, 1952, Serial No. 317,699
5 Claims. (Cl. 340—196)

1. A magnetic modulator comprising a magnetic circuit, means for impressing a signal on said circuit, means for varying the reluctance of said circuit, said last-mentioned means including a stationary core member having a plurality of pole faces and a movable core member to a fixed distance from said stationary core member, said



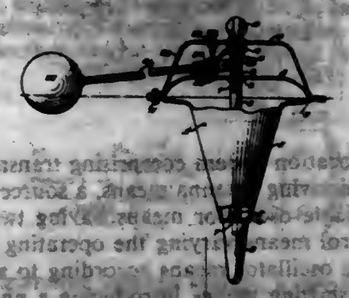
movable core member having at least a portion thereof profiled in accordance with a predetermined non-linear mathematical function, means for displacing said movable core member in a path at said fixed distance from said stationary core member to vary the projected area of said profiled portion of said movable core member on one of



said plurality of pole faces, an external source for actuating said displacing means, and means for deriving from said magnetic circuit an output signal corresponding to said input signal but modulated in accordance with the position of said movable core member relative to said stationary core member and with said predetermined mathematical function.

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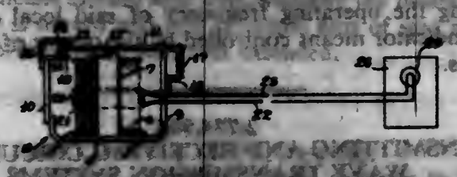
2,774,958
WARNING DEVICE FOR SWIMMING POOLS
Theodore T. Reichel, Los Angeles, Calif.
Application April 22, 1954, Serial No. 424,876
7 Claims. (Cl. 340—213)



1. A warning device for swimming pools, comprising: a buoy structure having an unsubmerged upper end and a depending weighted end, said buoy structure tending to float relatively undisturbed on a body of water; a buoyant float relatively susceptible to surface disturbances on said body of water; an arm pivotally connecting the unsubmerged end of said buoy and float; contact means operable on relative movement of said float and buoy; and an alarm means operatively associated with said contact means.

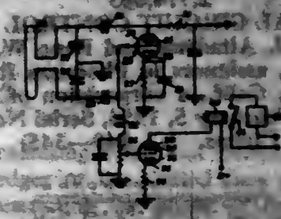
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2,774,959
PILOT LIGHT FOR ELECTRICAL DEVICE
John E. Watkins, Maywood, Ill.
Application September 2, 1954, Serial No. 454,747
1 Claim. (Cl. 340—252)



A shortening system for an electrical device having an alternating current operated coil comprising, in combination, a low voltage electric lamp located at a point remote from the device, an insulated conductor having a plurality of turns wound around the middle of the coil, and conductive leads connecting the ends of said conductor with the terminals of said lamp.

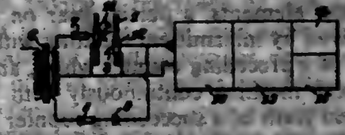
2,774,960
DETECTING MEANS FOR STOLEN GOODS
Thomas F. Thompson, Eugene, Oreg., assignor of three-eighths to Richard B. Thompson, Eugene, and one-fifth to Dale Rolland and one-fifth to Oliver D. Olson, Portland, Oreg.
Application June 15, 1953, Serial No. 361,575
9 Claims. (Cl. 340—258)



3. Apparatus for actuating an electric circuit for detecting stolen merchandise, said apparatus comprising an oscillator reactive to a single tuned resonant circuit to change the potential of said oscillator, means forming a resonant circuit tuned to the frequency of the oscillator, the resonant circuit being removably mounted on the merchandise, the oscillator being positioned so that the merchandise must pass through the oscillator field, and means connecting the oscillator to the electric circuit for actuating the latter when the merchandise carrying the resonant circuit is placed within the field of the oscillator, whereby to indicate the presence of the resonant circuit on the merchandise being stolen.

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2,774,961
TEXTILE THREAD BREAKAGE OR SLUBBING DETECTOR SYSTEM
Ernst Brunsing, Cardingen, Krein Leutkirch, Germany
Application July 6, 1953, Serial No. 361,952
10 Claims. (Cl. 340—259)



1. Apparatus for the supervision of production processes for material of low electrical conductivities such as textiles which comprises an ungrounded measuring electrode, an ungrounded voltage carrying electrode positioned in spaced relationship to said measuring electrode, said electrodes being positioned to be bridged for contact with material of low electric conductivity passing a predetermined area in a production process, means for supplying sufficient voltage to said voltage carrying electrode to allow current to pass through material of low conductivity such as textiles from the voltage carrying electrode to the measuring electrode when both electrodes are contacted by a piece of such material.

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2,774,962
ACCELEROMETER
Tung H. Liu, Detroit, Mich.
Application February 6, 1953, Serial No. 335,182
4 Claims. (Cl. 340—261)

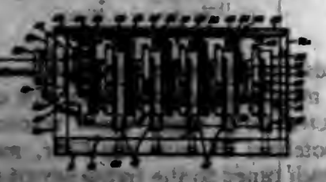


1. An accelerometer comprising a movable magnetic mass, an electromagnetic circuit including a stationary

electromagnet imposing an electromagnetic force on the mass for holding the mass subject to an inertia force greater than the electromagnetic force, and an indicating circuit including a part of the magnetic circuit adapted to be opened and closed by the movable mass.

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2,774,063
SEQUENTIAL CIRCUIT CONTROL DEVICE
Carl E. Grimstead, Altadena, and Rene W. Prichard, La Canada, Calif., assignors to Photocon Research Products, Pasadena, Calif., a corporation of California
Application February 5, 1954, Serial No. 408,436
8 Claims. (Cl. 340—345)



1. A sequential circuit control device comprising a base plate, a plurality of individual counter elements, a support for each counter element affixed to the base plate, a counter wheel in each counter element having peripheral counter wheel gear teeth and adapted to be rotated by external actuation, each counter wheel having a counting radix, a full revolution of the counter wheel resulting from a number of unit actuations equal to the counting radix, each unit actuation causing a rotation of the counter wheel through an angle of 360° divided by the counting radix, an indexing gear concentric with and rotated by the counter wheel, indexing gear teeth on only a portion of the indexing gear, preceding and succeeding counter elements being mechanically interconnected through their counter wheels by gearing means each of which gearing means comprises a counter drive shaft between adjacent counter elements, a partial gear on the counter drive shaft driven by intermittent meshing with the indexing gear teeth of a preceding counter wheel, and a counter wheel drive gear meshing continuously with the counter wheel drive gear teeth of a succeeding counter wheel, each of said gearing means connecting only one pair of counter elements, and being mounted independently of any other similar gearing means, whereby a preceding counter wheel, on substantially completing one full revolution causes the indexing gear teeth to mesh with the partial gear to turn the counter drive shaft to actuate the counter wheel of a succeeding counter element by one unit of the succeeding counter wheel's counting radix when the preceding counter wheel has completed one full revolution, a wiper arm and a contact unit for each counter wheel, the contact unit being fixed with respect to each counter element, and the wiper arm being rotated by the counter wheel and making a sliding contact with the contact unit, whereby an electrical circuit may be completed from each wiper arm to the contact unit.

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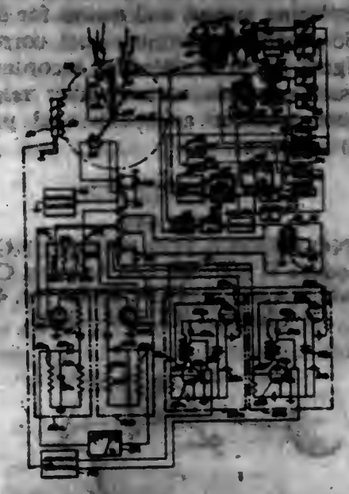
2,774,064
OVERTAKE WARNING AND WAVE-OFF
William T. O'Neil, La Crescenta, Calif., assignor to Gilfillan Bros., Inc., Los Angeles, Calif., a corporation of California
Application December 24, 1951, Serial No. 263,079
13 Claims. (Cl. 343—7)



10. In a system of the character described: means for producing and scanning an antenna beam through space and deriving resulting echo video signals, one from each of a corresponding plurality of objects in said space, range tracking means sensitive to said video signals for developing a plurality of voltages each representative of the range of corresponding ones of said objects, and means for comparing a first voltage due to one of said objects with a second voltage due to another one of said objects, means acting by virtue of the comparison of said first and second voltages for producing a control voltage which has a characteristic representative of the spacing between said one object and said other object.

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2,774,065
RADIO LOCATION SYSTEM
Karl F. Ross, New York, N. Y.
Application September 26, 1950, Serial No. 186,694
13 Claims. (Cl. 343—9)



1. A radio location system comprising transmitting antenna means, receiving antenna means, a source of carrier frequency, variable oscillator means having two outputs, frequency control means varying the operating frequency of said variable oscillator means according to a sawtooth pattern, phase shifting means introducing a phase difference between the sawtooth patterns of said two outputs, first modulator means combining carrier energy from said source with one of the outputs of said variable oscillator means and applying at least one resulting sideband to said transmitting antenna means, a local oscillator, second modulator means combining carrier energy from said source with the other of the outputs of said variable oscillator means and producing a sideband corresponding, as to its location with respect to the associated carrier, to the sideband applied to said transmitting antenna means by said first modulator means, said second modulator means modulating oscillations from said local oscillator with said corresponding sideband, third modulator means combining the output of said receiving antenna means with that of said second modulator means, narrow-band pass filter means connected to the output of said third modulator means, the pass band of said filter means including the operating frequency of said local oscillator, and indicator means controlled by the output of said filter means.

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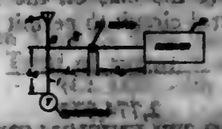
2,774,066
TRANSMITTING AND RECEIVING CIRCUITS FOR WAVE TRANSMISSION SYSTEMS
Arthur L. Samuel, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 30, 1948, Serial No. 4,174,123
16 Claims. (Cl. 343—12)

1. A terminal circuit for a two-way signal transmission medium in a two-way signal transmission system, comprising an alternating signal wave generator, a signal re-



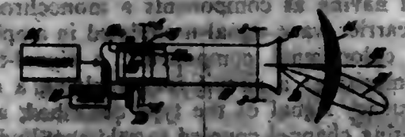


ceiver, common transmission means for transmitting the waves produced by said generator to said medium and for receiving incoming alternating signal waves from said medium, a coaxial line connecting said generator to said common transmission means, a branch coaxial line connecting said receiver to the first coaxial line by a series branching connection, a chamber resonant to the frequency of the outgoing waves produced by said generator and of the incoming waves received from said medium, connected in said branch coaxial line, a gas discharge device connected across said resonant chamber, adapted to discharge in response to the resonant voltage applied to the chamber by the outgoing signal waves from said generator to effectively short-circuit said chamber and thus the input to said receiver during signal transmitting periods, and to remain in the undischarged condition in response to the relatively lower resonance voltage applied to the chamber by the incoming signal waves from said medium, to allow transmission of said incoming waves to said receiver with minimum attenuation during signal receiving periods.



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2,774,067
MICROWAVE SCANNING ANTENNA SYSTEM
Walden P. Bollinger, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application August 17, 1949, Serial No. 110,782
7 Claims. (Cl. 343—762)

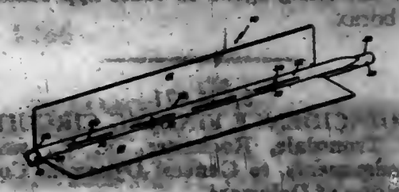


1. In a scanning antenna system, a circular hollow pipe waveguide having a throat portion and having an open mouth portion for radiation or reception of electromagnetic energy, said portions having a longitudinal axis and having transverse dimensions to propagate at an operating frequency a first mode having components of odd symmetry with respect to a plane passing through and containing said axis and to propagate energy at said frequency in a second mode having components of even symmetry with respect to said plane, means comprising a section of said waveguide between said throat and said mouth portions to couple such energy in each of said modes in said mouth portion to such energy in one only and not the other mode in said throat portion with said coupled energy in said two modes in the mouth portion being co-phasal at the mouth thereby to direct the principal axis of the directive energy pattern of said mouth portion to one side of said plane, and means to move said coupling means around said axis, whereby the position of said plane is moved and said principal axis of said radiation is moved around said axis extended.

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2,774,068
DIATHERMY APPLICATORS
Dana B. Hauptman, Wayland, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application February 16, 1953, Serial No. 336,981
5 Claims. (Cl. 343—770)

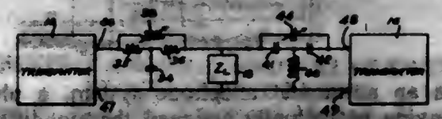
1. A microwave antenna comprising a coaxial line having a circular inner conductor and a rectangular outer conductor, one face of said outer conductor containing a single array of slots resonant at the operating frequency and spaced longitudinally along said line, means for supporting said inner conductor in fixed spatial relationship with respect to said outer conductor means included within said means for supporting for coupling energy from said



line to said radiating slots, and reflector means attached to opposite edges of the slotted face of said outer conductor for restricting the angle of radiation from said antenna.

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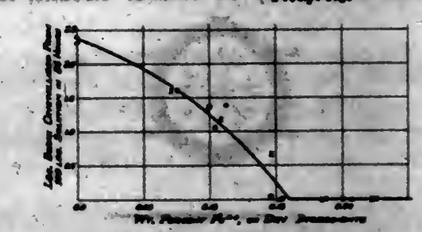
2,774,069
TRANSMITTER MULTIPLEXING SYSTEM
Sam E. Parker, San Diego, Calif.
Application April 30, 1952, Serial No. 285,297
5 Claims. (Cl. 343—203)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. In a transmission system, a plurality of radio frequency circuits operating at different frequencies, a common load termination for said circuits, filter means for transmitting between said load and each circuit the frequencies of the associated circuit and for suppressing the frequencies of at least one other circuit, said filter means comprising a bridged-T network including a pair of series arms having like reactance of predetermined sign, and a shunt arm having a reactance of sign opposite to the reactance of said series arms, said network including adjustable means for controlling the optimum suppression frequencies of said filter means regardless of the terminating impedances thereof, said adjustable means comprising an impedance arm bridging said series arms and having a reactance of said predetermined sign.

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2,774,070
STABILIZATION OF BORAX SUPERSATURATION IN SOLUTIONS
Donald S. Taylor, Long Beach, and George A. Connell, Los Angeles, Calif., assignors, by mesne assignments, to United States Borax & Chemical Corporation
Application April 10, 1953, Serial No. 347,892
5 Claims. (Cl. 23—89)

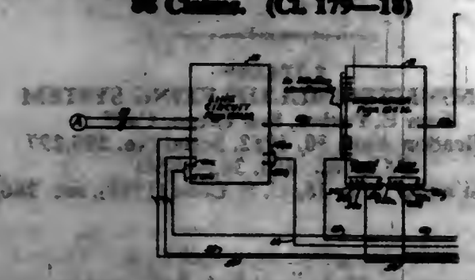


1. The method of stabilizing a state of supersaturation with respect to borax in aqueous solution during a holding period of appreciable duration; said method comprising producing an aqueous solution that is substantially saturated with respect to borax, providing in the solution a stabilizing agent selected from the group consisting of ferric, cupric and chromic salts, the concentration of said stabilizing agent being greater than about one tenth percent on the dry weight of the other solutes present, and then holding the solution continuously dur-

ing the said holding period under conditions for which the equilibrium solvebility with respect to borax is less than the existing borax concentration of the solution by an amount that is insufficient, by virtue of the presence of the said stabilizing agent, to cause appreciable crystallization of borax.

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2,774,971
**COINCIDENCE FINDING CIRCUIT**
Robert B. Truesdale, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware.
Original application December 24, 1949, Serial No. 134,974. Divided and this application September 21, 1950, Serial No. 186,046.
86 Claims. (Cl. 179—18)



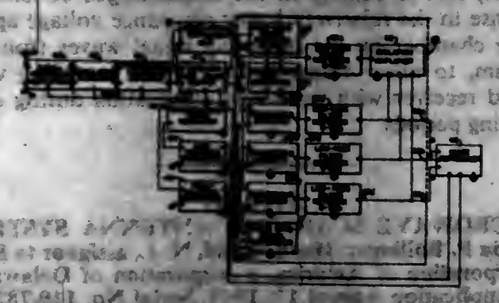
1. In an automatic telephone system, a plurality of lines having individually assigned thereto different time positions in repetitive time position frames, a finder-selector link including a finder and a selector, a pulse path common to said lines and extending to both said finder and said selector, multiplexer means responsive to the initiation of a call on one of said lines for transmitting pulses over said pulse path in the time position assigned to the calling line, and means in said finder responsive to said pulses for supplying a substantially unidirectional operating potential to said selector, thereby to condition said selector for operation.

59. In an automatic telephone system, a plurality of lines having individually assigned thereto different time positions in repetitive time position frames, a line finder, a plurality of coincidence tubes, pulse generating means for successively exciting said tubes with pulses in each of said time positions, means for impressing exciting pulses on said tubes in parallel in the time position assigned to a calling one of said lines, one of said tubes being rendered conductive in response to coincidental excitation by a pulse gated by said last named means and a pulse developed by said pulse generating means, and means controlled by conduction of said one tube for operatively associating said finder with the calling line.

83. In a line finder for seizing any calling one of a plurality of lines having individually assigned thereto different time positions which recur in repetitive time position frames, a plurality of control circuits, means for successively applying first pulses to said control circuits which occur in said time positions, means for applying second pulses to said control circuits in parallel in the time position assigned to a calling one of said lines, one of said control circuits responding to coincidental application of said first and second pulses thereto, pulse gating rectifiers individually associated with said control circuits and operative to gate different ones of said first pulses, means normally biasing said rectifiers against pulse gating therethrough, and means controlled by said one control circuit for changing the bias on the rectifier associated with said one control circuit to permit pulse gating therethrough.

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2,774,972
**COLOR-TELEVISION SYSTEM**
Bernard D. Loughlin, Lynbrook, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application May 25, 1953, Serial No. 356,114
22 Claims. (Cl. 178—5.2)



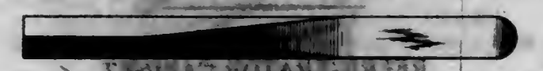
1. In a color-television receiver for translating a composite video-frequency signal representative of a color image and having as components a monochrome signal and a subcarrier-wave signal modulated in amplitude and phase by color-signal components, a signal-translating system comprising: a circuit for supplying a composite video-frequency signal of the type described; a first signal-translating channel coupled to said supply circuit and including a network having a predetermined pass band for translating at least the low-frequency component of said monochrome signal; a second signal-translating channel coupled to said supply circuit and including means for translating said subcarrier wave signal and for deriving therefrom at least one signal representative of a color characteristic of said image and for translating said derived signal, said second channel discriminating against signals representative of said low-frequency component of said monochrome signal, said translated derived signal occupying a band overlapping said predetermined pass band; and output circuit means coupled to said first and second channels for supplying said translated monochrome-signal component and said derived signal.



179,366
**ILLUMINABLE CHRISTMAS PLAQUE**
Abraham Abramson, New York, N. Y., assignor to Raylite Electric Corp., Bronx, N. Y., a corporation of New York
Application April 23, 1956, Serial No. 41,163
Term of patent 7 years
(Cl. D29—23)




179,367
**WATER SKI OR SIMILAR ARTICLE**
R. S. Allen and Archie Filley, Dallas, Tex.
Application November 8, 1954, Serial No. 33,019
Term of patent 14 years
(Cl. D71—1)



179,368
**PLATE OR SIMILAR ARTICLE**
A. Baker Barnhart, New York, N. Y., assignor to The Rosenthal-Block China Corporation, New York, N. Y.
Application May 21, 1956, Serial No. 41,549
Term of patent 14 years
(Cl. D44—15)



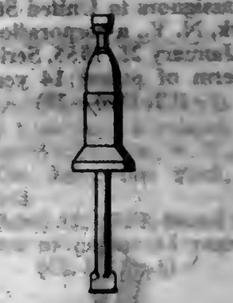
179,369
**BOWL OR SIMILAR ARTICLE**
A. Baker Barnhart, New York, N. Y., assignor to Lacent Corporation, New York, N. Y.
Application May 21, 1956, Serial No. 41,551
Term of patent 14 years
(Cl. D44—15)



179,370
**CREAMER OR SIMILAR ARTICLE**
A. Baker Barnhart, New York, N. Y., assignor to Lacent Corporation, New York, N. Y.
Application May 21, 1956, Serial No. 41,552
Term of patent 14 years
(Cl. D44—21)



179,371
**COMBINED CANNULA AND VALVE UNIT FOR BLOOD TRANSFUSION**
Courtland H. Barr, Sr., Courtland H. Barr, Jr., and John W. Barr, Los Angeles, Calif.
Application December 27, 1955, Serial No. 39,500
Term of patent 14 years
(Cl. D65—1)



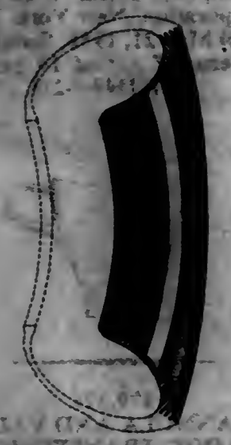
179,372
**WATCH OR SIMILAR ARTICLE**
Arthur Bauer, New York, N. Y.
Application January 17, 1955, Serial No. 34,001
Term of patent 3½ years
(Cl. D42—8)



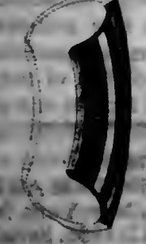
179,373
**SMOKER'S PIPE OR SIMILAR ARTICLE**
Phil Bernazzo, Elizabeth, N. J.
Application April 19, 1956, Serial No. 41,136
Term of patent 14 years
(Cl. D65—8)



179,374
**TIRE**
Henry D. Bishop, Detroit, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application January 25, 1955, Serial No. 34,241
Term of patent 14 years
(Cl. D90—20)



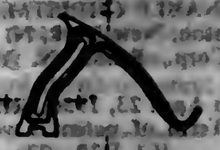
179,375
**TIRE**
Henry D. Bishop, Detroit, and Edward H. Wallace, Grosse Pointe, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application January 25, 1955, Serial No. 34,191
Term of patent 14 years
(Cl. D90—20)



179,376
**SWIVEL CHAIR**
Theodore R. Breed, Wichita, Kans.
Application January 3, 1956, Serial No. 39,575
Term of patent 14 years
(Cl. D15—1)



179,377
**FILE HANDLE**
Louis H. Cole, Bridgeport, Conn., assignor to Sako Aluminum Foundry, Inc., Kings Hwy., Fairfield, Conn.
Application November 9, 1954, Serial No. 33,634
Term of patent 7 years
(Cl. D37—1)



179,378
**FILE HANDLE**
Louis H. Cole, Bridgeport, Conn., assignor to Sako Aluminum Foundry, Inc., Kings Hwy., Fairfield, Conn.
Application November 9, 1954, Serial No. 33,635
Term of patent 7 years
(Cl. D37—1)



179,379
**REFRIGERATOR CABINET**
Donald E. Dudley, Center Township, Vanderburgh County, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware
Application December 18, 1954, Serial No. 33,574
Term of patent 14 years
(Cl. D67—3)



179,380
**SET OF ORNAMENTAL INITIALS FOR JEWELRY**
Alfred Dane, Boston, Mass.
Application August 5, 1955, Serial No. 37,339
Term of patent 14 years
(Cl. D64—12)



179,381
**SET OF ORNAMENTAL INITIALS FOR JEWELRY**
Alfred Dane, Boston, Mass.
Application August 5, 1955, Serial No. 37,340
Term of patent 14 years
(Cl. D64—12)

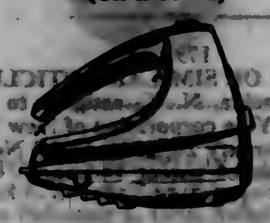




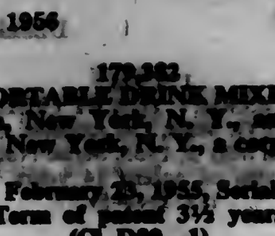
179,382
**PORTABLE DRINK MIXER**
Louis F. Dunin, New York, N. Y., assignor to Kathi Urbach, Inc., New York, N. Y., a corporation of New York
Application February 23, 1955, Serial No. 34,632
Term of patent 3½ years
(Cl. D69—1)



179,383
**ELECTRIC HAND MIXER**
Angelo C. DeAngelis, Fair Haven, N. J., and Eugene J. Casey, New York, N. Y., assignors to The Winsted Hardware Manufacturing Company, Winsted, Conn., a corporation of Connecticut
Application November 4, 1955, Serial No. 38,727
Term of patent 14 years
(Cl. D44—1)



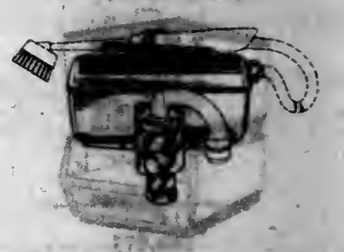
179,384
**MOTORTRICYCLE**
Marcello Ducati, Milan, Italy, assignor to Soc. p. Az. Fabbrica Automobili e Velocipedi "Edoardo Bianchi," Milan, Italy, a corporation of Italy
Application May 23, 1955, Serial No. 36,181
Claims priority, application Italy January 22, 1955
Term of patent 7 years
(Cl. D99—8)



179,385
**SALAD TOSSING FORK**
Elmer H. Geissler, Atlanta, Ga.
Application June 25, 1956, Serial No. 42,038
Term of patent 3½ years
(Cl. D44—29)



179,386
**DISHWASHER UNIT FOR SINKS**
George Grill, Toledo, Ohio, assignor to Corby-Michigan Corporation, Adrian, Mich., a corporation of Michigan
Application July 25, 1955, Serial No. 37,169
Term of patent 14 years
(Cl. D91—3)



179,387
**TEXTILE FABRIC**
William Edward Holt, Jr., Philadelphia, Pa., assignor to E. W. Twitchell, Inc., Philadelphia, Pa., a corporation of Delaware
Application March 27, 1956, Serial No. 40,897
Term of patent 3½ years
(Cl. D92—1)



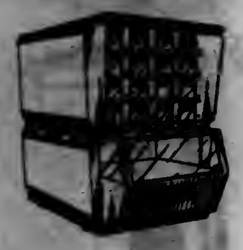
179,388
**VAPORIZER STAND**
Max Katzman and Lawrence Katzman, New York, and Meyer Block, Port Washington, N. Y., assignors to Kaz Manufacturing Co., Inc., New York, N. Y., a corporation of New York
Application April 12, 1955, Serial No. 35,679
Term of patent 14 years
(Cl. D85—1)



179,389
**COMBINED LETTER OPENER, ERASER, AND BRUSH**
Alfred T. Le Bont, Oakland, Conn.
Application October 7, 1955, Serial No. 38,289
Term of patent 14 years
(Cl. D74—1)



179,290
COMBINATION HEAT VENDING AND DISPLAY MACHINE
Anthony John Maiorana, Rensselaer, N. Y.
Application March 5, 1956, Serial No. 40,518
Term of patent 14 years
(Cl. D37—3)



179,291
ORGAN CONSOLE
William Millington, Grand Rapids, Mich., and Wilbur M. Day, Kenwood, Ohio, assignors to The Baldwin Piano Company, Cincinnati, Ohio, a corporation of Ohio
Application June 6, 1956, Serial No. 41,780
Term of patent 14 years
(Cl. D56—3)



179,292
ORGAN CONSOLE
William Millington, Grand Rapids, Mich., and Wilbur M. Day, Kenwood, Ohio, assignors to The Baldwin Piano Company, Cincinnati, Ohio, a corporation of Ohio
Application June 6, 1956, Serial No. 41,781
Term of patent 14 years
(Cl. D56—3)



179,293
ORGAN CONSOLE
William Millington, Grand Rapids, Mich., and Wilbur M. Day, Kenwood, Ohio, assignors to The Baldwin Piano Company, Cincinnati, Ohio, a corporation of Ohio
Application June 29, 1956, Serial No. 42,092
Term of patent 14 years
(Cl. D56—2)



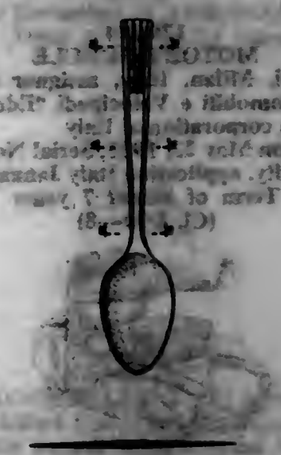
179,294
ACCESSORY TOILET CHAIR
Florence G. Mills, Los Angeles, Calif.
Application May 2, 1956, Serial No. 38,762
Term of patent 14 years
(Cl. D4—6)



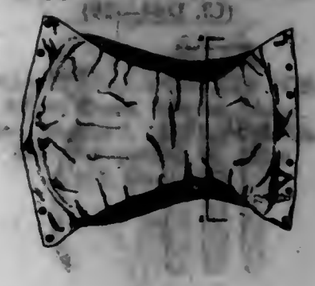
179,295
FLUSH TANK TOP
Clifton I. Pancoast, Washington, D. C.
Application April 6, 1956, Serial No. 38,361
Term of patent 14 years
(Cl. D4—6)



179,296
SPOON OR SIMILAR ARTICLE
Frank R. Perry, Oneida, N. Y., assignor to Oneida Ltd., Oneida, N. Y., a corporation of New York
Application February 28, 1956, Serial No. 40,223
Term of patent 14 years
(Cl. D44—12)



179,297
DIAPER
Paulyne M. Seydler, Stanfield, Ariz.
Application October 17, 1955, Serial No. 38,355
Term of patent 14 years
(Cl. D3—17)





179,298
SOUND RECORDER
Henry A. Sherwood, Woodbridge, Conn.
Application June 22, 1955, Serial No. 36,638
Term of patent 14 years
(Cl. D26—14)



179,299
COOKIE JAR
Walter D. Starnes, Los Angeles, Calif., assignor to Walter Starnes, Inc., Los Angeles, Calif., a corporation of California
Application January 9, 1956, Serial No. 39,674
Term of patent 3½ years
(Cl. D58—25)



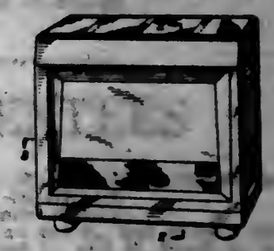
179,300
TOY LOCOMOTIVE CAB
Robert E. Svendl, East Paterson, N. J.
Application February 2, 1956, Serial No. 40,007
Term of patent 7 years
(Cl. D34—15)



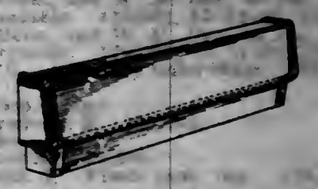
179,301
THREAD GUARD
Helen Talbot, Wellsboro, Pa.
Application September 15, 1955, Serial No. 37,953
Term of patent 14 years
(Cl. D3—19)

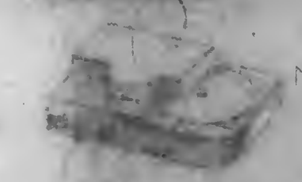


179,302
CABINET FOR A HEATER OR THE LIKE
Lawrence H. Wilson, Detroit, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan
Application October 27, 1955, Serial No. 38,509
Term of patent 14 years
(Cl. D61—19)



179,303
BACK SPLASH PANEL UNIT FOR A COOKING RANGE
Lawrence H. Wilson, Detroit, Mich.
Application April 9, 1956, Serial No. 40,967
Term of patent 14 years
(Cl. D61—25)









# LIST OF REISSUE PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 11TH DAY OF DECEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Beaver, John F. Method of producing a composite liquid bituminous binder. Re. 24,253, 12–11–56, Cl. 204—82.

Dawson, Robert A. J. Deepwater submersible barge. Re. 24,254, 12–11–56, Cl. 61—46.5.

Dole Valve Co., The: *See*—
Lund, James K. Re. 24,255.

Lund, James K., to The Dole Valve Co. Fluid mixing valve. Re. 24,255, 12–11–56, Cl. 137—606.

Smith, Clarence E. Crop dusting machine. Re. 24,256, 12–11–56, Cl. 43—148.

# LIST OF PLANT PATENTEES

Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,535, 12–11–56, Cl. 47—61.

Cole, David B., to The Cole Nursery Co. Honey locust tree. 1,534, 12–11–56, Cl. 47—59.

Cole Nursery Co., The: *See*—
Cole, David B. 1,534.

Grullemans, John J.: *See*—
Pike, Albert V. 1,536.

Jackson & Perkins Co.: *See*—
Boerner, Eugene S. 1,535.

Merrill, Grant. Peach tree. 1,538, 12–11–56, Cl. 47—62.

Motose, Thomas H. Rose plant. 1,537, 12–11–56, Cl. 47—61.

Pike, Albert V., to J. J. Grullemans. Hybrid buddleia plant. 1,536, 12–11–56, Cl. 47—60.

# LIST OF DESIGN PATENTEES

Abramson, Abraham, to Raylite Electric Corp. Illuminable Christmas plaque. 179,266, 12–11–56, D29—23.

Allen, R. S. and A. Filley. Water ski or similar article. 179,267, 12–11–56, D71—4.

Baldwin Piano Co., The: *See*—
Millington, William, and Day. 179,391.
Millington, William, and Day. 179,392.
Millington, William, and Day. 179,393.

Barnhart, A. Baker, to The Rosenthal-Block China Corp. Plate or similar article. 179,263, 12–11–56, D44—15.

Barnhart, A. Baker, to Lucent Corp. Bowl or similar article. 179,269, 12–11–56, D44—15.

Barnhart, A. Baker, to Lucent Corp. Creamer or similar article. 179,270, 12–11–56, D44—31.

Barr, Courtland H., Jr.: *See*—
Barr, Courtland H., Sr., C. H. Barr, Jr., and J. W. Barr. 179,371.

Barr, Courtland H., Sr., C. H. Barr, Jr., and J. W. Barr. Combined cannula and valve unit for blood transfusion. 179,371, 12–11–56, D83—1.

Barr, John W.: *See*—
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TO WHOM

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Bolliger, Hans, to Ciba Ltd. Monoazo-dyestuffs. 2,773,863, 12–11–56, Cl. 260—162.
Bollinger, Walden P., to Radio Corp. of America. Microwave scanning antenna system. 2,774,067, 12–11–56, Cl. 343—762.
Bollo, Francis G., and L. M. Whitney, to Shell Development Co. Infra-red fuel flow controller. 2,773,649, 12–11–56, Cl. 60—35.6.
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Keller, Frank H. Bower, and Bowman. 2,773,618.
Boyer, Robert Q., and E. R. Kline, to the United States of America as represented by the United States Atomic Energy Commission. Electrolytic process of separating uranium. 2,773,520. 12-11-56. Cl. 204—154.
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Boyle, John R., and J. E. Boyle, Jr. Self-contained heating, cooling, and ventilating system. 2,773,676. 12-11-56. Cl. 257—3.
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Bray, Milo E., to Socony Mobil Oil Co., Inc. Method of producing lubricating oil. 2,773,991. 12—11—56. Cl. 260—83.6.
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Brewer, Jason, Parent, and Bender. 2,773,871.
Brickell, Ben H., to Babcock Mfg Co. Electrical regulating device. 2,774,032. 12-11-56. Cl. 323—22.
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Burkholder, Ward J., to Diamond Alkali Co. Method of obtaining sodium bicarbonate. 2,773,739. 12-11-56. Cl. 23—66.
Burnett, Stanley F., to Sol-Chasing Gears Ltd. Actuating mechanism for clutches. 2,773,573. 12-11-56. Cl. 192—56.
Burns, Herman A. : See—
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Bussell, Frederick W. Bucket holder and shrinker. 2,773,334. 12-11-56. Cl. 51—94.
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Callahan, Richard L., and E. Crenshaw, to Draper Corp. Textile machine. 2,773,317. 12-11-56. Cl. 139—59.
Campbell, Alexander M. Electrodes for electric batteries. 2,773,924. 12-11-56. Cl. 136—6.
Carlson, Oscar, and H. R. Wollthan, to Fairbanks-Morse & Co. Method and apparatus for drying phosphorus. 2,773,358. 12-11-56. Cl. 200—644.
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Carnahan, Jesse, and H. R. Wollthan, to Fairbanks-Morse & Co. Method and apparatus for drying phosphorus. 2,773,358. 12-11-56. Cl. 200—644.
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Caterpillar Tractor Co. : See—
Caterpillar Tractor Co., and J. A. Zapp, Jr., to I—44.5
Brosha, Lucian A. P. E. Smith, Jr., and J. A. Zapp, Jr., to Caterpillar Tractor Co. Air ventilation harness. 2,773,362. 12-11-56. Cl. 2—81.
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Chatterton, Percy A. Method of and apparatus for making fibrous products. 2,773,787. 12-11-56. Cl. 18—5

Dobrowolny, Walter J., III, to American Can Co. Means for testing containers with flexible closure portions. 2,773,602.

Dodge, Norman G., to The United States of America as represented by the Secretary of the Navy. Complex wave analyzer. 2,774,058. 12-11-56. Cl. 324—77.

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Doyle, Ralph W., to Nash-Kelvinator Corp. Two-temperature refrigerating system. 2,773,363.

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Dutler, Keith H., and Olson. 2,773,145.

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Ebsen, Ralph W., to Nash-Kelvinator Corp. Two-temperature refrigerating system. 2,774,058. 12-11-56. Cl. 324—77.

Edwards, Lewis W., and R. A. Watt, to Lakeside Steel Co. Apparatus for loading and unloading heavy equipment. 2,773,614. 12-11-56. Cl. 214—830.

Eisler, Robert J., to Minneapolis-Honeywell Regulator Co. Electrical motor control apparatus. 2,774,021. 12-11-56. Cl. 318—207.

Elastic Stop Nut Corp. of America, The. 2,773,536.

Electric Storage Battery Co., The. 2,773,817.

Elliott, Raymond St. C. Bore sighting device for firearms. 2,773,309. 12-11-56. Cl. 33—16.

Ellis, Harry E., Stock and Worstell. 2,773,360.

Ely, Lee, to Hoffman-La Roche Inc. Indole derivatives and method for producing same. 2,773,878. 12-11-56. Cl. 260—295.

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Fleischer Co., The. Gyroscopic apparatus. 2,773,393.

Fleischmann, Richard C., to Standard Chemical Co. Boll conditioner. 2,773,330. 12-11-56. Cl. 47—66.

Fleischmann Co., The. Centrifugal machine. 2,773,813.

Fleming, Robert C., and A. D. Moseley, to Sun Oil Co. Combination hydrocarbon treating process. 2,773,107. 12-11-56. Cl. 196—18.

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Flexible Tubing Corp. : *See*—

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Flower, Edward R., and W. J. Adams, to General Motors Corp. Indexing and carrying scraper. 2,773,430. 12-11-56. Cl. 37—126.

Fluid Jack Rotary pump and motor fluid drive. 2,773,352. 12-11-56. Cl. 60—53.

Fluid Power Pump Co. Web handling method and apparatus. 2,773,688. 12-11-56. Cl. 270—18.

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Ford Instrument Co., The. Condenser dispenser. 2,773,623.

Forster, Robert J. 2,773,929.

Foster, Robert H., and J. McLean. Boots for storage tanks or similar structures. 2,773,468. 12-11-56. Cl. 105—32.

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French, George E., to The Imperial Brass Mfg. Co. Tube facing tool. 2,773,539. 12-11-56. Cl. 133—81.

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Gabriel Co., The. Shock absorber. 2,773,688.

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Gamble, Howard F. 2,773,368.

Gardner, Milton W., and Adams. 2,773,320.

Garrett, Ernest D. ½ to D. G. Crow. Mechanical braking system. 2,773,549. 12-11-56. Cl. 188—77.

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Kimberlin, Charles N., Jr., and Gladrow. 2,773,842.
Kimberlin, Charles N., Jr., and Gladrow. 2,773,843.
Glassford, Donald C., and F. R. Redman; said Glassford assr. to Proctor & Schwartz, Inc. Apparatus and method for treatment of textile fabrics. 2,773,295, 12–11–56, Cl. 26—18.5.
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Gomersall, John R., to McGraw Electric Co. Water valve actuator for steam iron. 2,773,322, 12–11–56, Cl. 38—77.
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Griffes, Milton W., and G. R. Merchant, to The Euclid Electric & Mfg. Co. Overdrive control and braking system. 2,774,020, 12–11–56, Cl. 318—293.
Griffes, Milton W., to The Euclid Electric & Mfg. Co. Overdrive control and braking system. 2,774,023, 12–11–56, Cl. 318—212.
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Gutzeit, Carlos L., and W. H. Lang, to Socony Mobil Oil Co., Inc. Alumina-chromia-phosphorus pentoxide catalyst and method for preparing the same. 2,773,837, 12–11–56, Cl. 252—437.
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Harrah, George E. Combination can and bottle opener. 2,773,272, 12–11–56, Cl. 7—14.23.
Harris-Seybold Co.: *See*—
Wood, James R. 2,773,445.
Harshaw Chemical Co., The: *See*—
Giancola, Louis. 2,773,819.
Moy, Paul W., and Du Rose. 2,773,816.
Haslett, Elmer. Containers. 2,773,633, 12–11–56, Cl. 229—8.
Hassel, Lloyd V., and J. A. Parker, to Armstrong Cork Co. Felt saturants and method of making the same. 2,773,782, 12–11–56, Cl. 117—140.
Hathaway, Richard: *See*—
Abram, Leo, and Hathaway. 2,774,023.
Hawley, Moses E., to the United States of America as represented by the Secretary of the Navy. Third order pressure gradient responsive microphone. 2,773,923, 12–11–56, Cl. 179—1.
Haydon, Arthur W., to Haydon Switch, Inc. Snap action switch. 2,773,954, 12–11–56, Cl. 200—67.
Haydon, Arthur W., and H. H. Walley, to Haydon Switch, Inc. Snap action switch. 2,773,955, 12–11–56, Cl. 200—67.
Haydon Switch, Inc.: *See*—
Haydon, Arthur W. 2,773,954.
Haydon, Arthur W., and Walley. 2,773,955.
Haynes, Alex L., C. B. Rawdon, and W. A. Van Wicklin, to Ford Motor Co. Power steering mechanism. 2,773,396, 12–11–56, Cl. 74—388.
Haseltine Research, Inc.: *See*—
Loughlin, Bernard D. 2,773,929.
Loughlin, Bernard D. 2,774,072.
Richman, Donald. 2,773,930.
Heaton, Charles D., to California Research Corp. Hydrogenation of phthalonitriles. 2,773,902, 12–11–56, Cl. 260—578.
Hecox, William: *See*—
Finlay, Alexander, Jr., Hecox, and Thompson. 2,773,951.





Heintz Mfg. Co.: *See*—
Schuster, Ludwig K., and Baldt. 2,773,622.
Helle, Jens B. Articles of footwear. 2,773,317, 12–11–56, Cl. 36—11.5.
Helmbrecht, Wilbur H.: *See*—
Galbraith, John F., Helmbrecht, and Lobosco. 2,773,970.
Hemminger, Charles E.: *See*—
Tate, Roger W., and Hemminger. 2,773,804.
Hemminger, Charles E., to Hmo Research and Engineering Co. Two stage fluidized hydroforming. 2,773,808, 12–11–56, Cl. 196—50.
Hemsath, Eugene E. and H. H. Snow pusher. 2,773,318, 12–11–56, Cl. 37—53.
Hemsath, Howard H.: *See*—
Hemsath, Eugene E. and H. H. 2,773,318.
Henkin, Hyman, to Colgate-Palmolive Co. Shampoo compositions containing monomethylol dimethyl hydantoin. 2,773,834, 12–11–56, Cl. 252—152.
Hennessey, Russell J., to Waldorf Paper Products Co. Display carton. 2,773,589, 12–11–56, Cl. 206—44.11.
Heuney, Charles F.: *See*—
Baker, Marshall W., Johnston, and Heuney. 2,773,360.
Henry, Georges L., and E. Baichard, to Union des Verreries Mecaniques Belges S. A. Method of and apparatus for feeding vitrifiable materials into glass furnaces. 2,773,611, 12–11–56, Cl. 214—35.
Henry, Robert L., Jr., to the United States of America as represented by the Secretary of the Navy. Modular electronic assembly. 2,774,014, 12–11–56, Cl. 317—101.
Herbig-Haarhaus Aktiengesellschaft Lackfabrik Köln-Bickendorf: *See*—
Weibe, Adolf. 2,773,853.
Hercules Powder Co.: *See*—
Rummelsburg, Alfred L. 2,773,859.
Hersberg Emanuel B.: *See*—
Olivetto, Eugene P., and Hersberg. 2,773,868.
Hersberger, Arthur B., and J. C. Reid, to The Atlantic Refining Co. Plasticized rubber compositions. 2,773,854, 12–11–56, Cl. 260—33.6.
Hess, Thomas D., to American Bosch Arma Corp. Governor for fuel injection. 2,773,633, 12–11–56, Cl. 264—3.
Heurich, Josef, and A. L. Garve, to Maschinenfabrik Augsberg-Nurnberg A. G. Muffler. 2,773,553, 12–11–56, Cl. 181—42.
Heusser, Hans: *See*—
Runicka, Leopold, Heusser, and Jeger. 2,773,884.
Heyden Chemical Corp.: *See*—
Cahn, William E. 2,773,908.
Hilge, Philipp: *See*—
Berdelle-Hilge, Philipp, Schreiner, Blessing, and Stöhr. 2,773,454.
Hilgert, Adolph J., to Milwaukee Gas Specialty Co. Circuit-controlling device. 2,773,649, 12–11–56, Cl. 236—21.
Hill, John L. Magazine and cartridge container assembly. 2,773,325, 12–11–56, Cl. 42—50.
Hiller, Lejaren A., Jr., and F. H. Sweney, to E. I. du Pont de Nemours & Co. Pretreatment and esterification of cellulose. 2,773,996, 12–11–56, Cl. 260—229.
Himmelman, Louis F. Kinesitherapy device. 2,773,498, 12–11–56, Cl. 128—33.
Hinkel, Lester H., to Whirlpool-Seeger Corp. Inner liner with butter compartment for refrigerator door. 2,773,677, 12–11–56, Cl. 257—9.
Hirak, Joseph. Writing pad support or desk for vehicles. 2,773,705, 12–11–56, Cl. 281—44.
Hirschmann, Jack B. Goggles. 2,773,260, 12–11–56, Cl. 2—14.
Hoard, Halbert W., D. A. Olson, and T. A. Vallee, to Unilectric, Inc. Combined lamp guard and socket mounting device. 2,773,973, 12–11–56, Cl. 240—4.
Hoch, Paul H., and R. W. Wynn, to General Aniline & Film Corp. Organic film-forming plastic containing 2,2',4,4-tetrahydroxybenzophenone as ultraviolet absorbent. 2,773,778, 12–11–56, Cl. 106—187.
Hochberg, Jerome, and S. A. Pellerano, to Allied Chemical & Dye Corp. Compositions for decorative purposes. 2,773,856, 12–11–56, Cl. 260—33.8.
Hockert, Chester H.: *See*—
Castle, William S., and Hockert. 2,773,711.
Hoffmann-La Roche Inc.: *See*—
Finkelstein, Jacob, and Lee. 2,773,875.
Wenner, Wilhelm. 2,773,877.
Holappa, John E., to H. B. Heyster & Associates, Inc. Automobile parking machine. 2,773,600, 12–11–56, Cl. 214—16.1.
Holding Intercite S. A.: *See*—
Mahmoud, Georges, and Rubli. 2,773,263.
Holliday, Clyde T.: *See*—
Roberts, Richard B., Petersen, and Holliday. 2,773,732.
Hollingsworth, Clinton A., to Smith-Douglass Co., Inc. Treatment of phosphate rock to recover phosphorus, fluorine, calcium, and uranium. 2,773,730, 12–11–56, Cl. 23—14.5.
Holloway, Robert L., to American Machine & Foundry Co. Reversible bicycle frame. 2,773,695, 12–11–56, Cl. 280—7.11.
Hollywood-Maxwell Co.: *See*—
Schaumer, Theo B. 2,773,961.
Holmes, Ellis C., and W. D. Greene. Drilling bit. 2,773,672, 12–11–56, Cl. 255—61.
Holt, William A. Roll-a-way bed. 2,773,269, 12–11–56, Cl. 5—152.
Hood, E. Elliott, to Bendix Aviation Corp. Freezemeter. 2,773,376, 12–11–56, Cl. 73—17.
Hood, E. Elliott, to Bendix Aviation Corp. Freezemeter. 2,773,379, 12–11–56, Cl. 73—17.
Hood, Ralph E., to Monsanto Chemical Co. Production of refractory metals. 2,773,759, 12–11–56, Cl. 75—84.5.
Hooper, Leslie J., and C. R. Kronoff, to Crompton & Knowles Loom Works. Liquid picking mechanism. 2,773,517, 12–11–56, Cl. 139—142.
Hopla, Lloyd M. Guide device for portable power saws. 2,773,523, 12–11–56, Cl. 143—6.
Hornfeck, Anthony J., to Bailey Meter Co. Electric servo system for measuring and control. 2,774,019, 12–11–56, Cl. 318—29.
Housley, Thomas P. Holder for game blocks. 2,773,690, 12–11–56, Cl. 272—130.
Hoyne, Benjamin L., to American Can Co. Feeding device for can end testing machine. 2,773,380, 12–11–56, Cl. 73—45.2.
Hübner, Franz K., to Victory Produkter Aktiebolag. Spinning type fishing reel. 2,773,654, 12–11–56, Cl. 242—84.4.
Huck Co.: *See*—
Huck, William F. 2,773,412.
Huck, William F., to Huck Co. Electro-optical device for measuring thicknesses of coatings on materials. 2,773,412, 12–11–56, Cl. 88—14.
Hudson, George G., to Reconstruction Finance Corp. Aircraft ejection seat. 2,773,661, 12–11–56, Cl. 244—122.
Hudson, Paul S., M. F. Potts, and W. L. Smith, to Phillips Petroleum Co. Stabilization of polymerizable heterocyclic nitrogen compounds. 2,773,874, 12–11–56, Cl. 260—290.
Hughes Aircraft Co.: *See*—
Berger, Netardus N., and Norton. 2,773,665.
Hughes, William J., to Shell Development Co. Herbicidal composition and method. 2,773,331, 12–11–56, Cl. 47—58.
Hults, Ellsworth H.: *See*—
Woodworth, Frederick B., and Hults. 2,773,932.
Huma, George: *See*—
Dodds, Nugent. 2,773,474.
Hunt, Robert H., and J. Nagy. Material handling apparatus of the conveyor type. 2,773,608, 12–11–56, Cl. 214—14.
Hunter, James B., to The Atlantic Refining Co. Silver-palladium film for separation and purification of hydrogen. 2,773,561, 12–11–56, Cl. 183—115.
Hunting, Ronald W. Process and apparatus for subsurface washing. 2,773,829, 12–11–56, Cl. 210—24.
Hurko, Bohdan, and E. P. Robare, to American Radiator & Standard Sanitary Corp. Flush valve. 2,773,268, 12–11–56, Cl. 4—57.
Hurlburt, Charles E., and R. H. Deahl, to Bendix Aviation Corp. Frequency subdivider in a flux valve compass system. 2,773,985, 12–11–56, Cl. 250—36.
Harley, Charles W., to the United States of America as represented by the Secretary of the Army. Resilient disc closure. 2,773,621, 12–11–56, Cl. 220—39.
Huyett, Daniel D., to Atlas Powder Co. Multiple assembling machine for electric blasting initiators. 2,773,408, 12–11–56, Cl. 86—10.
I-T-E Circuit Breaker Co.: *See*—
Edmunds, William H. 2,773,949.
Imperial Brass Mfg. Co., The: *See*—
Franck, George E. 2,773,539.
Imperial Chemical Industries Ltd.: *See*—
Bishop, Phillip C. 2,773,410.
Hall, Cecil R. L., and Lewis. 2,773,447.
International Business Machines Corp.: *See*—
Whitney, Gordon M. 2,773,444.
International Nickel Co., Inc., The: *See*—
Wesley, Andrew, and McKay. 2,773,816.
International Telephone and Telegraph Corp.: *See*—
Arditi, Maurice, and Parsen. 2,774,045.
Bigelow, John F. 2,773,964.
Bigelow, John F. 2,774,007.
Carlo, Donald R. 2,774,002.
Greenberg, Sol, and Sokoloff. 2,773,946.
Hale, Robert W. 2,773,977.
Majkrzak, Charles P. 2,773,964.
Silvey, John O., and Booher. 2,774,044.
Stavis, Gus. 2,774,038.
Ullery, Lee R. 2,773,992.
Intraub, Julius, and M. O. Kalb. Torque limit clutch. 2,773,270, 12–11–56, Cl. 64—29.
Iraoqui, Carlos A.: *See*—
McCarthy, Albert G., and Iraoqui. 2,773,774.
Iredell, Robert, III: *See*—
Slemmons, Charles O., and Iredelle. 2,773,896.
Ireland, Murray, to McGraw Electric Co. Control for power-operated toaster. 2,773,441, 12–11–56, Cl. 99—329.
Isbell, Donald K.: *See*—
Schjolin, Hans O., and Isbell. 2,773,552.
Isenberg, Alexander H. Subterranean insulated conduit unit having spacer channel between pipes. 2,773,513, 12–11–56, Cl. 138—65.
Iveson, Herbert T.: *See*—
Julian, Percy L., Iveson, and Radlove. 2,773,771.
Jacobs, Henry S., and J. M. Curtin, to Harnischfeger Corp. Armatures for induced current torque transmitting apparatus. 2,773,996. 12–11–56. Cl. 310—105.
Jacobs, James W., and C. H. Wurtz, to General Motors Corp. Refrigerator cabinet and evaporator structure. 2,773,361, 12–11–56. Cl. 62—117.3.
Jaffe, Mary S., to General Electric Co. Flexible electroluminescent laminated panel. 2,774,004, 12–11–56, Cl. 313—108.
Jakoubek, Frank J., to Star Jack Co., Inc. Hydraulic jack reservoir. 2,773,509, 12–11–56, Cl. 187—587.
Janse, Joseph R., to Societe Nouvelle des Etablissements Brandt. Rocket projectile. 2,773,443, 12–11–56, Cl. 102—49.
Jeger, Oskar: *See*—
Runicka, Leopold, Heusser, and Jeger. 2,773,884.
Jensen, Erik, to Novo Terapeutisk Laboratorium A/S. Vessel with sterile closure for separate storage of at least two substances. 2,773,591, 12–11–56, Cl. 206—47.

Jerrold Electronics Corp.: *See*—
Sharp, Milton J., and Arbeiter. 2,774,017.

Jet-Heet, Inc.: *See*—
MacCracken, Calvin D., Miles, and Ashidate. 2,773,488.

Jewell, Lee: *See*—
Touchman, William S. 2,773,381.

Jicha, Walter P.: *See*—
Puqua, John H., Jicha, and Veselik. 2,773,761.

Jobe, George T., to Union Carbide and Carbon Corp. Electrolyte for primary galvanic cells. 2,773,786, 12–11–56, Cl. 136—155.

Johannson, Ebbe A. I. and S. A. M. Bordered table tops, particularly for camping tables. 2,773,726, 12–11–56, Cl. 311—107.

Johansson, Leonard, to Aktiebolaget Svenska Kullagerfabriken. Machine tool, especially grinding machines for machining rotating work pieces. 2,773,353, 12–11–56, Cl. 51—99.

Johansson, Sture A. M.: *See*—
Johansson, Ebbe A. I. and S. A. M. 2,773,726.

Johnson, Agnar: *See*—
Atwood, Garth B. and Johnson. 2,773,278.

Johnson, Clarence L. Envelope-like containers. 2,773,531, 12–11–56, Cl. 150—2.1.

Johnson, David W., to The Arrow-Hart & Hegeman Electric Co. Front separated disconnect switch. 2,773,966, 12–11–56, Cl. 200—73.

Johnson, Joe W., to the United States of America as represented by the Secretary of the Navy. Shore wave recorder (shallow water). 2,773,285, 12–11–56, Cl. 73—301.

Johnson, Winford B.: *See*—
Dubois, Laurent O., Gartside, Johnson, and Schneider. 2,773,911.

Johnston, Hal C.: *See*—
Baber, Marshall W., Johnston, and Henney. 2,773,360.

Johnston, Mordica O.: *See*—
Andrew, Thomas A. 2,773,424.

Johnston, Mordica O., Jr.: *See*—
Andrew, Thomas A. 2,773,424.

Johnston, Warren C.: *See*—
Andrew, Thomas A. 2,773,424.

Jolly, Samuel E., to Sun Oil Co. Inhibiting corrosion by oil well fluids. 2,773,832, 12–11–56, Cl. 252—8.55.

Jonas, Heinz: *See*—
Goerrig, Dieter, and Jonas. 2,773,913.

Jones, William A., to Detroit Controls Corp. Magnetic modulator. 2,774,057, 12–11–56, Cl. 340—195.

Joy Mfg. Co.: *See*—
Dannemore, Neal W. 2,773,584.

Julian, Percy L., H. T. Ivenson, and S. B. Radlove, to The Glidden Co. Synergistic compositions of matter comprising the alcohol-soluble moiety of vegetal lecithin. 2,773,771, 12–11–56, Cl. 99—13.

Julian, Percy L., and J. G. Klein, to The Glidden Co. Process for dehalogenating steroids. 2,773,867, 12–11–56, Cl. 260—239.47.

Jullie, Joseph T., to The Singer Mfg. Co. Shirring device. 2,773,463, 12–11–56, Cl. 112—132.

Kahn, Frank: *See*—
Sanders, Thomas A., and Kahn. 2,773,406.

Kahn, Leonard R.: *See*—
Finch, James L., and Kahn. 2,774,041.

Kaisel, Stanley F.: *See*—
Field, Lester M., and Kaisel. 2,774,006.

Kalb, Martin O.: *See*—
Istrauh, Julius, and Kalb. 2,773,370.

Kao, Wilson S. Process for the extraction of fatty oils and proteins from oleaginous materials. 2,773,889, 12–11–56, Cl. 260—412.

Kapeshin, Vladimir. Air valve with ring-type piston. 2,773,577, 12–11–56, Cl. 192—85.

Karlson, John C., to Bendix Aviation Corp. Amplifying system with stand-by channel. 2,773,944, 12–11–56, Cl. 179—171.

Karmazin, John. Method of making heat exchange unit. 2,773,301, 12–11–56, Cl. 29—157.3.

Karsberg, Lars A. B., to Aktiebolaget Bofors. Safety device for a projectile. 2,773,449, 12–11–56, Cl. 102—76.

Kaslow, Arthur L., and J. J. Saputo. Device for treating alimentary tract. 2,773,502, 12–11–56, Cl. 128—260.

Kasselmann, George J.: *See*—
Siekmann, Harold J., Kasselmann, and Okvit. 2,773,471.

Kaufmann, Frank H., to Steel Heddle Mfg. Co. Loom harness. 2,773,516, 12–11–56, Cl. 139—91.

Kazan, Benjamin, to the United States of America as represented by the Secretary of the Army. Slow-wave structures for travelling wave tubes. 2,774,006, 12–11–56, Cl. 315—3.5.

Keller, Philip B., and W. M. Kofford, to R. T. Collier Corp. Method for constructing water filters and product thereof. 2,773,001, 12–11–56, Cl. 210—120.

Kelly, Clyde W., to Fenestra Inc. Window casing construction. 2,773,571, 12–11–56, Cl. 189—75.

Kelly, George W., to Columbus Plastic Products, Inc. Die construction for pressure injection molding machines. 2,773,284, 12–11–56, Cl. 18—30.

Kemp, Peter H.: *See*—
Ball, Geoffrey R., and Kemp. 2,773,738.

Kent Mfg. Corp.: *See*—
Batchelder, Hugh W. 2,774,055.

Kern, Roland J., to Monsanto Chemical Co. Photopolymerization initiators. 2,773,822, 12–11–56, Cl. 204—158.

Kersten, Herbert H. Speedometer and odometer for boats. 2,773,383, 12–11–56, Cl. 73—187.

Kettler, Clarence J., to General Electric Co. Optical micrometer. 2,773,311, 12–11–56, Cl. 33—147.

Kibler, Frederick W., and W. J. McNiff. Bulb protector. 2,774,049, 12–11–56, Cl. 339—75.

Kilner, Scott B.: *See*—
Boyer, Robert Q., and Kilner. 2,773,820.
Boyer, Robert Q., and Kilner. 2,773,824.

Kimberlin, Charles N., Jr., and E. M. Gladrow, to Esso Research and Engineering Co. Hydroforming catalyst and process. 2,773,810, 12–11–56, Cl. 196—50.

Kimberlin, Charles N., Jr., and E. M. Gladrow, to Esso Research and Engineering Co. Method of preparing silica alumina or magnesia base catalysts. 2,773,841, 12–11–56, Cl. 252—440.

Kimberlin, Charles N., Jr., and E. M. Gladrow, to Esso Research and Engineering Co. Hydroforming catalysts and method. 2,773,842, 12–11–56, Cl. 252—455.

Kimberlin, Charles N., Jr., and E. M. Gladrow, to Esso Research and Engineering Co. Treating silica magnesia materials. 2,773,843, 12–11–56, Cl. 252—457.

King, Duncan R., and J. A. McNeilly, to Arthur H. Thomas Co. Manometric apparatus for determining the gas content of liquids. 2,773,747, 12–11–56, Cl. 23—253.

King, William F., to General Motors Corp. Balancing machine indicator. 2,773,388, 12–11–56, Cl. 73—462.

Kinsman, Harold E.: *See*—
Van Court, Carl P., Kinsman, and Skinner. 2,773,366.

Kissinger, Donald: *See*—
Mascher, Floyd J., Kissinger, and Clagg. 2,773,630.

Klein, Jerome G.: *See*—
Julian, Percy L., and Klein. 2,773,867.

Kleinerman, Ben, to Coastal Commercial Corp. Universal magnetic sound adapter for motion picture projectors. 2,773,416, 12–11–56, Cl. 88—16.2.

Kleinschmidt, Edward E. and E. F., and C. P. Anderson, ½ to Kleinschmidt Laboratories, Inc., and ½ to said E. E. Kleinschmidt. Printing telegraph apparatus. 2,773,931, 12–11–56, Cl. 178—22.

Kleinschmidt, Edward F.: *See*—
Kleinschmidt, Edward E. and E. F., and Anderson. 2,773,931.

Kleinschmidt Laboratories, Inc.: *See*—
Kleinschmidt, Edward E. and E. F., and Anderson. 2,773,931.

Klemm, Emil E., Jr. Fuel feed. 2,773,492, 12–11–56, Cl. 123—136.

Klemm, Herman G., to Massey-Harris-Ferguson Inc. Torque limiting device for tractor. 2,773,369, 12–11–56, Cl. 64—28.

Kline, Charles C., and H. L. Myers, to Sun Oil Co. Refining hydrocarbon oil vapors with alkali and high boiling naphthenic acids. 2,773,806, 12–11–56, Cl. 196—36.

Knauf, Wilhelm, to Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate. Supplementary operating knob for photographic cameras. 2,773,437, 12–11–56, Cl. 95—11.

Knierim, Arlington W., and L. C. Feist, to Calrecin Industries, Inc. Plastic case for transporting packaged fresh milk. 2,773,624, 12–11–56, Cl. 220—97.

Knuth, Charles J.: *See*—
Bayley, Abraham, and Knuth. 2,773,897.

Koeber, Henry J., Jr., to Bell & Howell Co. Hardening apparatus or the like. 2,773,446, 12–11–56, Cl. 101—233.

Koehler, Vernon W. Closure operator. 2,773,667, 12–11–56, Cl. 268—21.

Koenecke, Donald F., and J. F. Nelson, to Esso Research and Engineering Co. Exterior surface coatings. 2,773,780, 12–11–56, Cl. 106—243.

Kofford, Walter M.: *See*—
Keller, Philip B., and Kofford. 2,773,001.

Kogel, Wilhelm G. K. G. Boren, and A. H. Ostergren, to Aktiebolaget Elektrolux. Absorption refrigeration apparatus. 2,773,359, 12–11–56, Cl. 62—103.

Kohl, Arthur L., and F. C. Riesenfeld, to The Fluor Corp., Ltd. Separation of acetylene compounds. 2,773,560, 12–11–56, Cl. 183—115.

Kohlmeyer, George W., to Case Mfg. Corp. Water closet. 2,773,267, 12–11–56, Cl. 4—13.

Kollman, Jack: *See*—
Russell, John J., Beck, and Kollman. 2,773,817.

Kopparfors Aktiebolag: *See*—
Palm, Carl K. F., and Nyléf. 2,773,720.

Koppers Co., Inc.: *See*—
Merkel, Heinrich. 2,773,756.

Kosher, Andrew R. Holders for bottles and other containers. 2,773,460, 12–11–56, Cl. 120—73.

Kraftanlagen A. G.: *See*—
Günther, Hans. 2,773,944.

Kramer, Richard, to General Time Corp. Illumination control for electric clock. 2,773,972, 12–11–56, Cl. 240—2.

Kremer, Vincent W., and C. H. Lemke, to E. I. du Pont de Nemours & Co. Crystallization of sodium cyanide. 2,773,752, 12–11–56, Cl. 23—302.

Krohn, Henry R. Mailing article. 2,773,638, 12–11–56, Cl. 229—92.

Kronoff, Clarence R.: *See*—
Hooper, Leslie J., and Kronoff. 2,773,517.

La Barre, Dwight, to Organ & La Barre. Medicine cabinets. 2,773,720, 12–11–56, Cl. 312—227.

Laloux, André M. L. R., to Fabrique Nationale d'Armes de Guerre. Wad for cartridge. 2,773,451, 12–11–56, Cl. 102—95.

Lamb, David R.: *See*—
Alexander, Peter, and Lamb. 2,773,777.

Lambert, Donald R., to Powers-Samas Accounting Machines Ltd. Apparatus for defining characters on impression-receiving material. 2,773,443, 12–11–56, Cl. 101—93.

Lamm, Lewis J., to General Motors Corp. Apparatus for electrostatic spray coating. 2,773,472, 12–11–56, Cl. 118—51.

Lamm, Uno, and E. Uhlmann, to Allmanna Svenska Elektriska Aktiebolaget. Control means for static current converters. 2,774,012, 12–11–56, Cl. 315—146.





Lamm, Uno, to Allmanna Svenska Elektriska Aktiebolaget. Means for voltage regulation by aid of an exciter. 2,774,031, 12–11–56, Cl. 322—19.

Lang, William H.: *See*—
Gutzeit, Carles L., and Lang. 2,773,837.

Lange, Erich A. Can crushing device. 2,773,536, 12–11–56, Cl. 153—10.5.

Langley Corp.: *See*—
Mandolf, Henry I. 2,773,655.

Larsen, Aubrey A., and B. F. Tullar, to Sterling Drug Inc. The resolution and optical isomers of 6-dimethylamino-4,4-diphenyl-3-methyl-3-hexanone. 2,773,901, 12–11–56, Cl. 260—570.8.

Larsen, Lyle V., to Chicago Bridge & Iron Co. Vapor storage vessel. 2,773,755, 12–11–56, Cl. 48—174.

Laster, Adolphe H. A. Disc grinders. 2,773,336, 12–11–56, Cl. 51—173.

Laswell, Harry A. Automatic tension maintaining load binder for vehicles. 2,773,700, 12–11–56, Cl. 280—179.

Laubach, Gerald D.: *See*—
Agnello, Eugene J., and Laubach. 2,773,868.

Laubach, Gerald D., and R. C. Schreiber, to Chas. Pfizer & Co., Inc. Steroids of the ergosta series. 2,773,885, 12–11–56, Cl. 260—397.2.

Lawick, Julius J. Vehicle safety switch. 2,773,953, 12–11–56, Cl. 200—61.51.

Lazna, James J.: *See*—
Dell, Paul A., and Lazna. 2,773,820.

Leaman, Wilbur K.: *See*—
Coonradt, Harry L., and Leaman. 2,773,917.

Leavell, Ira A., to E. B. Wiggins Oil Tool Co., Inc. Valved coupling. 2,773,706, 12–11–56, Cl. 284—19.

Leavitt, Julian J., to American Cyanamid Co. Alkenyl bis-midazole optical bleaching agents. 2,773,869, 12–11–56, Cl. 260—240.

Lebedinsky, Myron, to Societe Anonyme de Telecommunications. Telecommunication station equipment. 2,773,940, 12–11–56, Cl. 179—91.

Le Blond, R. K., Machine Tool Co., The: *See*—
Siekmann, Harold J., Kasselmann, and Okvit. 2,773,471.

Lee, John: *See*—
Finkelstein, Jacob, and Lee. 2,773,875.

Leeds and Northrup Co.: *See*—
Cohn, Nathan. 2,773,994.

Lefevre, Hubert M. Method of fabricating a cable variety stone cutting saw. 2,773,495, 12–11–56, Cl. 125—21.

Legarra, Philip H., and M. C. Cutler, to Vitradamp Corp. Cutting die for glass fibers. 2,773,549, 12–11–56, Cl. 164—13.

Leibensperger, Charles I. Pump rod assembly. 2,773,671, 12–11–56, Cl. 255—28.

Leland Stanford Junior University, The Board of Trustee of the: *See*—
Field, Lester M., and Kaisel. 2,774,006.

Lemke, Charles H.: *See*—
Kremer, Vincent W., and Lemke. 2,773,752.

Les Laboratoires Francais de Chimiotherapie.: *See*—
Vellux, Leon, and Muller. 2,773,886.

Les Veaux, John F., to Food Machinery and Chemical Corp. Method of producing fused bentonite-sulfur having a stable colloidal sulfur content. 2,773,798, 12–11–56, Cl. 167—20.

Leutert, Walter W., to Brematex. Spinning machines, including ring rails and annular balloon limiters. 2,773,345, 12–11–56, Cl. 57—106.

Levengood, William C., to Libbey-Owens-Ford Glass Co. Glass composition and batch therefor. 2,773,775, 12–11–56, Cl. 106—52.

Leverenz, Humboldt W., to Radio Corp. of America. Color television kinescopes. 2,774,003, 12–11–56, Cl. 313—92.

Levinson, Benjamin L., to Royal Electric Co., Inc. Display container. 2,773,590, 12–11–56, Cl. 206—45.34.

Lewis, William W., Jr., to The Pennsylvania Salt Mfg. Co. Process for preparing 3-halofuran. 2,773,882, 12–11–56, Cl. 260—346.1.

Lewis, Gerhard, to Tung-Sol Electric Inc. Preparation of light sensitive surfaces. 2,773,730, 12–11–56, Cl. 316—8.

Lewis, Allen H., and R. D. Stayner, to California Research Corp. Non-caking alkyl aryl sulfonate detergent compositions. 2,773,833, 12–11–56, Cl. 252—136.

Lewis, Idwal O.: *See*—
Hall, Cecil R. L., and Lewis. 2,773,447.

Libbey-Owens-Ford Glass Co.: *See*—
Levengood, William C. 2,773,775.

"Licencia" Talalmanyokat Ertekesito Vallalat: *See*—
Gál, Endre, and Gerber. 2,773,483.

Lien, Arthur P.: *See*—
Shalit, Harold, and Lien. 2,773,836.

Liljenström, Carl J., to AB Svenska Flaktfabriken. Method and drying kiln for drying lumber. 2,773,315, 12–11–56, Cl. 34—209.

Lilly, Eli, and Co.: *See*—
Mills, Jack. 2,773,900.
Powell, Horace M. 2,773,800.

Lin, Tung H. Accelerometer. 2,774,062, 12–11–56, Cl. 340—249.

Lindblom, Frank W., to Welsh Mfg. Co. Bridge structure. 2,773,423, 12–11–56, Cl. 52—43.

Lindenfelser, Richard, to American Cyanamid Co. Resinous compositions. 2,773,848, 12–11–56, Cl. 260—17.3.

Lindner, Adam C., to Chicago Forging and Mfg. Co. Hood latch. 2,773,716, 12–11–56, Cl. 292—282.

Lindorf, Eugene A. Floor drain seal. 2,773,554, 12–11–56, Cl. 182—24.

Litochleb, Joseph: *See*—
Dvorak, Joseph F. 2,773,408.

Little, Ernest L., Jr., to E. I. du Pont de Nemours and Co. 1-amino-1-halo-2,2-dicyanoethylenes and preparation of same. 2,773,892, 12–11–56, Cl. 260—465.5.

Litus, John, and C. D. Smith, to Food Machinery and Chemical Corp. Screen cleaning device. 2,773,590, 12–11–56, Cl. 209—256.

Lobosco, Ecorse R.: *See*—
Galbraith, John F., Helmbrecht, and Lobosco. 2,773,970.

Locke, Burton H. Materials piling devices. 2,773,607, 12–11–56, Cl. 214—6.

Loew's Inc.: *See*—
Stanford, Jerome W., and Frierson. 2,774,054.

Logan, Ralph L., to J. G. McAlister Inc. Socket for studio lamp or the like. 2,774,050, 12–11–56, Cl. 339—75.

Lorens, Richard L., to General Time Corp. Workman's in-and-out recorder. 2,773,733, 12–11–56, Cl. 346—84.

Loughlin, Bernard D., to Haseltine Research, Inc. Constant luminance color-television. 2,773,929, 12–11–56, Cl. 178—5.2.

Loughlin, Bernard D., to Haseltine Research, Inc. Color-television system. 2,774,072, 12–11–56, Cl. 178—5.2.

Lowry, Robert: *See*—
Carruthers, Edward G., and Lowry. 2,773,469.

Ludwig, Adolf G.: *See*—
Binder, Richard L., and Ludwig. 2,773,575.

Lugli, Giuseppe, and C. Massa, to Pirelli Societa per Azioni. Pneumatic vehicle wheel tire castings. 2,773,534, 12–11–56, Cl. 152—356.

Lukens Steel Co.: *See*—
Edwards, Lewis W., and West. 2,773,614.
Watson, Thomas T. 2,773,302.
West, Russell A., and Edwards. 2,773,612.

Lundahl, Lennart V. S. Clamping device for closing a fluid or paste container. 2,773,627, 12–11–56, Cl. 222—107.

Lunstroth, Klaus, to National Lead Co. Production of well drilling starches. 2,773,783, 12–11–56, Cl. 127—32.

Lurgi Gesellschaft fuer Waermetechnik m. b. H.: *See*—
Bottig, Walter. 2,773,690.

Lutes, Donald. Electrical indicating mechanism. 2,773,579, 12–11–56, Cl. 194—8.

MacCracken, Calvin D., G. N. Miles, and T. N. Ashidate, to Jet-Heet, Inc. Boiler-burner unit. 2,773,488, 12–11–56, Cl. 122—161.

Machalek, Ferdinand: *See*—
Dvorak, Joseph F. 2,773,408.

MacIver, Charles P., to the United States of America as represented by the Secretary of the Army. Armored garment. 2,773,791, 12–11–56, Cl. 154—82.5.

Mack, Robert J. Shell high trimming attachment. 2,773,299, 12–11–56, Cl. 29—67.

Magidson, Frank, to Pittsburgh Tag Co. Mechanical actuator for manual stapler. 2,773,258, 12–11–56, Cl. 1—3.

Magrane, John K., and W. S. Sloatman, Jr., to American Cyanamid Co. Laminate and resinous composition. 2,773,788, 12–11–56, Cl. 154—43.

Majkrzak, Charles P., to International Telephone and Telegraph Corp. Point contact device for high voltage radio frequency apparatus. 2,773,964, 12–11–56, Cl. 200—166.

Maki, Bunro, and I. Ushikoshi; said Ushikoshi assor. to said Maki. Feeds containing animal protein factors, vitamin $B_{12}$ and other growth-promoting factors. 2,773,770, 12–11–56, Cl. 99—9.

Malamoud, Georges, and M. Rubli, to Holding Intercito S. A. Hydraulic press for producing coated electrode rods. 2,773,283, 12–11–56, Cl. 18—13.

Mallick, Franklin S., to Westinghouse Electric Corp. Motor control system. 2,774,022, 12–11–56, Cl. 318—207.

Mandolf, Henry I., to Langley Corp. Fishing reel. 2,773,655, 12–11–56, Cl. 242—84.4.

Manufacture des Montres Universal, Perret & Berthoud, S. A.: *See*—
Froideraux, Jean-Michel. 2,773,347.

Marchant Calculators, Inc.: *See*—
Mathi, Walter E. 2,773,646.

Marden, John W.: *See*—
Beese, Norman C., and Marden. 2,773,826.

Markett, George. Flashlight screw driver. 2,773,974, 12–11–56, Cl. 240—8.46.

Marres, George: *See*—
Thompson, Norman F., 3rd, and Marres. 2,773,548.

Martellotti, Mario, and J. W. Evans, to The Cincinnati Milling Machine Co. Electro discharge machine. 2,773,968, 12–11–56, Cl. 219—69.

Martin, Edward G. Photographic film identification. 2,773,436, 12–11–56, Cl. 95—1.1.

Martin, Gilbert, to Etablissements Neyrpic. Semi-spiral scroll case. 2,773,666, 12–11–56, Cl. 253—26.

Martin, Henry, and H. Zutter, to Clag Ltd. Alkenoic amides of arylethers of alkanolamines. 2,773,880, 12–11–56, Cl. 260—562.

Martin, Hollinshead T., to Signode Steel Strapping Co. Strap cutter. 2,773,307, 12–11–56, Cl. 30—194.

Martin, Jonathan. Bird nibbler. 2,773,472, 12–11–56, Cl. 119—18.

Martin, Stuart T., and M. C. Pease, to Sylvania Electric Products Inc. High frequency window structure. 2,773,230, 12–11–56, Cl. 20—40.

Mascher, Floyd J., D. Kissinger, and A. Clagg. Grease gun. 2,773,630, 12–11–56, Cl. 222—256.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Heurich, Josef, and Garve. 2,773,553.

Mason, Warren P., and H. J. McSkimin, to Bell Telephone Laboratories, Inc. Electromechanical wave filter. 2,774,042, 12–11–56, Cl. 333—71.

Massey-Harris-Ferguson Inc.: *See*—
Klemm, Herman G. 2,773,369.

Mastropole, Alfred J., to G. M. Giannini & Co. Inc. Variable electrical resistance structure. 2,773,966, 12–11–56, Cl. 201—63.

Mathews, Joseph A. to Central Commercial Co. Switch mechanism. 2,773,963, 12–11–56, Cl. 200—153.







Olin Mathieson Chemical Corp.: *See*—

Mathi, Walter B., to Marchant Calculators, Inc., Mechanism for controlling accumulations around a fixed decimal and for adjusting a counter actuator in selected ordinal relation to an accumulator actuator. 2,773,646, 12–11–56, Cl. 235—62.

Mathias, Ernest A. R., ½ to A. Robertson. Suction box having roller face. 2,773,433, 12–11–56, Cl. 92—51.

Matteson, Arthur W.: *See*—
Glatthar, George E., and Matteson. 2,773,976.

Matthews, Russell B., and J. H. Thornbery, to Milwaukee Gas Specialty Co. Electromagnetic control device. 2,774,016, 12–11–56, Cl. 317—167.

Maul, Michael. Record card controlled machines having group control mechanism. 2,773,644, 12–11–56, Cl. 235—61.7.

Maveri, Dino: *See*—
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Mayer, Jiri: *See*—
Ctvrtnik, Josef, Nemecek, and Mayer. 2,773,880.

Massa, Carlo: *See*—
Laghi, Giuseppe, and Massa. 2,773,534.

McAlister, J. G., Inc.: *See*—
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McCarthy, Albert G., and C. A. Irazoqui, to National Engineering & Development Corp. Concentration of fruit juices. 2,773,774, 12–11–56, Cl. 99—205.

McCarthy, Charles E., to Chadbourn Hosiery Mills, Inc. Hosiery packaging. 2,773,340, 12–11–56, Cl. 53—21.

McCarthy, Lawrence A., to Western Electric Co., Inc. Electrical unit. 2,774,051, 12–11–56, Cl. 339—147.

McCaulay, David A.: *See*—
Thorne, Henry C., Jr., and McCaulay. 2,773,916.

McCleary, Roy E., to Atwood Vacuum Machine Co. Press with automatic kick-out mechanism. 2,773,403, 12–11–56, Cl. 78—17.

McCormick, Frank, to Federal Carton Corp. Cradle-type carton for dolls. 2,773,327, 12–11–56, Cl. 46—15.

McCoy, John B., and H. E. Spore, to Rockwell Mfg. Co. Integrator. 2,773,642, 12–11–56, Cl. 235—61.

McGervey, Daniel D. Loose-leaf binders. 2,773,504, 12–11–56, Cl. 129—41.

McGraw Electric Co.: *See*—
Gomersall, John R. 2,773,321.
Gomersall, John R. 2,773,322.
Ireland, Murray. 2,773,441.

McKay, Robert J.: *See*—
Wesley, Andrew, and McKay. 2,773,816.

McKinney, Oliver D. Wire gate fastener. 2,773,714, 12–11–56, Cl. 292—246.

McLean, James: *See*—
Foster, Robert H., and McLean. 2,773,458.

McNeilly, Joseph A.: *See*—
King, Duncan E., and McNeilly. 2,773,747.

McNiff, William J.: *See*—
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Mason, Warren P., and McSkimin. 2,774,042.

Mechanical Research Corp.: *See*—
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Medearis, Paul A.: *See*—
De Jarnett, Frank D. 2,773,605.

Melloni, Alfonso: *See*—
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Merchant, George R.: *See*—
Griffee, Milton W., and Merchant. 2,774,020.

Mercier, Jean. Accumulator system for pressure surge relief. 2,773,455, 12–11–56, Cl. 103—223.

Mercier, Jean. Pressure accumulator. 2,773,511, 12–11–56, Cl. 138—30.

Merck & Co., Inc.: *See*—
Miller, Charles S., Engelhardt, and Gordon. 2,773,872.

Merkel, Heinrich, to Koppers Co., Inc. Processes for the production of carbon monoxide and hydrogen from methane or the like. 2,773,756, 12–11–56, Cl. 48—196.

Merker, Dwight R., to Swift & Co. Method of imparting a butter-like flavoring to fat-containing food products and the resulting product. 2,773,772, 12–11–56, Cl. 99—123.

Metropolitan-Vickers Electrical Co. Ltd.: *See*—
Abram, Leo, and Hathaway. 2,774,025.

Meyer, Geo. J., Mfg. Co.: *See*—
Meyer, George L. N. 2,773,522.

Meyer, George L. N., to Geo. J. Meyer Mfg. Co. Resilient bottle gripper for filling machine. 2,773,522, 12–11–56, Cl. 141—165.

Meyer, Robert: *See*—
Crämer, Helmut, and Meyer. 2,773,335.

Meyer, Robert, and P. A. Garnier, to Societe des Usines Chimiques Rhone-Poulenc. Treatment of synthetic polymeric materials to impart dye affinity thereto. 2,773,856, 12–11–56, Cl. 260—79.3.

Meyerhoff, Alan A., to the United States of America as represented by the Secretary of the Army. Phase modulation systems. 2,774,040, 12–11–56, Cl. 332—16.

Meyers, Douglas C., W. B. Banks, and L. E. Slagle, to Shell Development Co. Apparatus for automatically treating and metering oil field production. 2,773,556, 12–11–56, Cl. 183—2.7.

Michael Robert B. Veterinary table. 2,773,477, 12–11–56, Cl. 119—103.

Michelson, Leonard C.: *See*—
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Middleditch, Lyman, Jr., to the United States of America as represented by the Secretary of the Army. Winch with after drag rollers. 2,773,587, 12–11–56, Cl. 242—200.

Mihran, Theodore G., and T. C. Swarts, to General Electric Co. Combined vacuum seal and electrode terminal. 2,773,570, 12–11–56, Cl. 189—36.5.

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Miller, Charles S., E. L. Engelhardt, and J. T. Gordon, to Merck & Co., Inc. Dihydroorotic acid. 2,773,872, 12–11–56, Cl. 260—260.

Miller, Earle C., to Riley Stoker Corp. Fuel feeder. 2,773,630, 12–11–56, Cl. 222—226.

Miller, Frank W., to Yarnall-Waring Co. Liquid level gage. 2,773,387, 12–11–56, Cl. 73—330.

Miller, George, to Oil Base, Inc. Drilling fluid composition and method. 2,773,670, 12–11–56, Cl. 255—1.8.

Miller, Marion F., to Birtman Electric Co., Mixer. 2,773,679, 12–11–56, Cl. 259—1.

Miller, Ralph. High expansion, spark ignited, gas burning, internal combustion engines. 2,773,490, 12–11–56, Cl. 123—75.

Milliken, Allen F., to The Pure Oil Co. Method of producing odorless naphthas. 2,773,919, 12–11–56, Cl. 260—683.4.

Mills, Jack, to Eli Lilly and Co. Substituted aryl amine alkyl ethers. 2,773,900, 12–11–56, Cl. 260—570.7.

Milwaukee Gas Specialty Co.: *See*—
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Matthews, Russell B., and Thornbery. 2,774,016.

Mine Safety Appliances Co.: *See*—
Bub, Robert A. 2,773,434.

Minneapolis-Honeywell Regulator Co.: *See*—
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Ehret, Robert J. 2,774,021.

Mittag, Hermann, to Robert Bosch G. m. b. H. Voltage regulators for dynamo-electric machines. 2,774,020, 12–11–56, Cl. 322—28.

Moeller, Axel, to Moeller Mfg. Co., Inc. Sewer plug stopper. 2,773,619, 12–11–56, Cl. 220—24.5.

Moeller Mfg. Co., Inc.: *See*—
Moeller, Axel. 2,773,619.

Mohr, Albert, Jr., and J. P. Grilli, to John Mohr and Sons. Program control and indicating system. 2,773,610, 12–11–56, Cl. 214—19.

Mohr, John, and Sons: *See*—
Mohr, Albert, Jr., and Grilli. 2,773,610.

Möller, Karl: *See*—
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Monsanto Chemical Co.: *See*—
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Fraser, George L., and Elmer. 2,773,793.
Fraser, George L., and Elmer. 2,773,794.
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Hood, Ralph S. 2,773,750.
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Montecatini, Societe Generale per l'Industria Mineraria e Chimica: *See*—
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Moore, David P. Apparatus for and methods of making an applique knitted fabric. 2,773,371, 12–11–56, Cl. 66—9.

Morin, Louis H., to Coats & Clark Inc. Plastic jacketed spool. 2,773,657, 12–11–56, Cl. 242—119.

Morrill, Wayne J., Shaded pole motor. 2,773,999, 12–11–56, Cl. 310—172.

Morris, Frank A.: *See*—
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Morris, Frank A., to General Dynamics Corp. Automatic telephone system. 2,773,936, 12–11–56, Cl. 179—15.

Morris, Frank A., to General Dynamics Corp. Electronic signaling and switching system. 2,773,937, 12–11–56, Cl. 179—15.

Morris, Frank A., to General Dynamics Corp. Testing arrangement for electronic telephone system. 2,773,947, 12–11–56, Cl. 179—175.2.

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Fear, James Van D., and Moscrip. 2,773,803.

Motorola, Inc.: *See*—
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Moy, Paul W., and A. H. Du Rose, to The Harshaw Chemical Co. Alkaline nickel plating solution. 2,773,818, 12–11–56, Cl. 204—49.

Moyer, David F., to General Motors Corp. Plug-in control switch. 2,773,959, 12–11–56, Cl. 200—115.5.

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Mueller, Frank H., and W. J. Bowan, to Mueller Co. Service installation. 2,773,618, 12–11–56, Cl. 220—3.8.

Mulbarger, Francis A., and A. B. Clayton, to United States Rubber Co. Method of splicing rubber articles. 2,773,841, 12–11–56, Cl. 154—14.

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Murray-Ohio Mfg. Co., The: *See*—
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Douglas, Alvin P. 2,773,401.

Musselman, John M., to The Standard Oil Co. Process of stabilizing phosphorus sulfide-oxygen-containing organic compound reaction products against liberation of hydrogen sulfide. 2,773,860, 12–11–56, Cl. 260—125.

Musselman, John M., to The Standard Oil Co. Process of stabilizing phosphorus sulfide-oxygen containing organic compound reaction products against hydrogen sulfide evolution. 2,773,861, 12–11–56, Cl. 260—125.

Musselman, John M., to The Standard Oil Co. Process of stabilizing phosphorus sulfide-oxygen-containing organic compound reaction products. 2,773,862, 12–11–56, Cl. 260—125.

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Nagy, James: *See*—
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Nash, Carl B., to General Motors Corp. Air spring. 2,773,686, 12–11–56, Cl. 267—65.

Nash, Daniel J., to Nash Inc. Purse. 2,773,532, 12–11–56, Cl. 150—37.

Nash Inc.: *See*—
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Nash-Kelvinator Corp.: *See*—
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National Aluminate Corp.: *See*—
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National Can Corp.: *See*—
Toft, Andrew M. 2,773,620.

National Engineering & Development Corp.: *See*—
McCarthy, Albert G., and Irazoqui. 2,773,774.

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Hawley, Moses E. 2,773,933.
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Roberts, Richard B., Petersen, and Holliday. 2,773,732.
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Nebesar, Robert J., to Universal Moulded Products Corp. Method of making a laminated structure. 2,773,792, 12–11–56, Cl. 154—110.

Negoro, Kaiji, to Dairy Containers, Inc. Paperboard carton pouring spout construction. 2,773,634, 12–11–56, Cl. 229—51.

Nelson, Joseph F.: *See*—
Koenecke, Donald F., and Nelson. 2,773,780.

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Nestlerode, Clifford D., to Allen B. Du Mont Laboratories, Inc. Shielding means for electrical tuning devices. 2,773,989, 12–11–56, Cl. 250—40.

Neugebauer, Wilhelm: *See*—
Tomanek, Martha, and Neugebauer. 2,773,767.

Newcombe, Frank A., to the United States of America as represented by the United States Atomic Energy Commission. Electrolysis apparatus. 2,773,825, 12–11–56, Cl. 204—243.

New York Silicate Book Slate Co., Inc.: *See*—
Gauff, George K. 2,773,314.

Nichols, Charles A., G. L. Weiser, and R. W. Ewald, to General Motors Corp. Metal working apparatus. 2,773,404, 12–11–56, Cl. 80—26.

Nicholson, Edward W. S., and F. R. Russell, to Esso Research and Engineering Co. Conversion of hydrocarbons. 2 773 811, 12–11–56, Cl. 196—55.

Nicolaisen, Bernard H., to Olin Mathieson Chemical Corp. Extraction of aniline from hydrazine in the dehydration of hydrazine by azeotropic distillation. 2,773,813, 12–11–56, Cl. 202—42.

Nicolaisen, Bernard H., to Olin Mathieson Chemical Corp. Dehydration of hydrazine by azeotropic distillation with aniline. 2,773,814, 12–11–56, Cl. 202—42.

Nicholaisen, Bernard H., to Olin Mathieson Chemical Corp. Recovery of aniline entrainer in dehydration of hydrazine by azeotropic distillation. 2,773,815, 12–11–56, Cl. 202—42.

Nicolls, Wilfrid E. W.: *See*—
Rerin, William A., Chapman, and Nicolls. 2,773,563.

Nielsen, Morris L., and L. K. Duncan, to Monsanto Chemical Co. Chemical process for recovering niobium values from niobiferous ferrophosphorus. 2,773,737, 12–11–56, Cl. 23—16.

Nistri, Umberto. Kinematic supports for projection cameras of photogrammetrical plotting apparatus. 2,773,420, 12–11–56, Cl. 88—24.

Nistri, Umberto. Photogrammetric projection plotting devices. 2,773 421 12–11–56, Cl. 88—24.

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Norman, Joe, Jr., and A. B. Hamil. Apparatus for placing seismic explosive charges. 2,773,669, 12–11–56, Cl. 255—1.

Normann, Turolf, to Omega Louis Brandt & Frere S. A. Time recording apparatus. 2,773,734, 12–11–56, Cl. 346—107.

Norris, Edward O. Viscosity control system. 2,773,507, 12–11–56, Cl. 137—92.

Northrop Aircraft Inc.: *See*—
Baker, Richard H., and Eckdahl. 2,773,983.
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Ferguson, Lachlan G., and Montanaro. 2,773,703.
Towner, George H. 2,774,026.

Norton, James P.: *See*—
Berger, Netardus N., and Norton. 2,773,665.

Noyer, Lewis E. Protective covering for the hands. 2,773,264, 12–11–56, Cl. 2—159.

Novo Terapeutisk Laboratorium A/S: *See*—
Jensen, Erik. 2,773,591.

Nylöf, Erik H.: *See*—
Palm, Carl K. F., and Nylöf. 2,773,720.

O'Connor, Joseph H., to H. J. and E. B. Silver. Hair drying apparatus. 2,773,313, 12–11–56, Cl. 34—48.

Oeler, Richard C., to Motorola, Inc. Plural tuner drive. 2,773,390, 12–11–56, Cl. 74—10.45.

Ohlsen, Helmut. Substantially U-shaped, resilient locking device for use with recessed nut and bolt. 2,773,533, 12–11–56, Cl. 151—6.

Oil Base, Inc.: *See*—
Miller, George. 2,773,670.
Wilson, Doyne L. 2,773,550.

Oishei, John R., to Trico Products Corp. Window operating or accessory system. 2,773,353, 12–11–56, Cl. 60—60.

Okvit, William: *See*—
Siekmann, Harold J., Kasselmann, and Okvit. 2,773,471.

Olin Mathieson Chemical Corp.: *See*—
Nicolaisen, Bernard H. 2,773,813.
Nicolaisen, Bernard H. 2,773,814.
Nicolaisen, Bernard H. 2,773,815.

Oliver, Bernard M., to Bell Telephone Laboratories, Inc. Amplitude sensitive multistate device. 2,773,980, 12–11–56, Cl. 250—27.

Oliveto, Eugene P., and B. B. Hershberg, to Schering Corp. Process for the manufacture of 3-ketals of polyheto steroids and products obtained thereby. 2,773,885, 12–11–56, Cl. 260—397.45.

Olson, Carl M.: *See*—
Butler, Keith H., and Olson. 2,773,745.

Olson, Duane A.: *See*—
Heard, Halbert W., Olson, and Vallee. 2,773,973.

Olson, Oliver D.: *See*—
Thompson, Thomas F. 2,774,060.

Omega Louis Brandt & Frere S. A.: *See*—
Normann, Turolf. 2,773,734.

O'Neil, William T., to Gilfillan Bros., Inc. Overtake warning and wave-off. 2,774,064, 12–11–56, Cl. 343—7.

Oppel, Heins C. Cooperating rotatable disk type beet harvester. 2,773,243, 12–11–56, Cl. 56—108.

Ornas & La Barre: *See*—
La Barre, Dwight. 2,773,726.

Orwoll, Edward F., to Food Machinery and Chemical Corp. Method of increasing the colloidal sulfur content of bentonite-sulfur mixture. 2,773,797, 12–11–56, Cl. 167—20.

Osborn Mfg. Co., The: *See*—
Peterson, Ruben O. 2,773,275.

Ostergren, Axel H.: *See*—
Kogel, Wilhelm G., Bores, and Ostergren. 2,773,359.

Ostwaldt, Erich, and H. Ditsel, to Adrema Maschinenbau G. m. b. H. Impressing machines for address-printing and like printing plates. 2,773,581, 12–11–56, Cl. 197—6.7.

Paddock, Eldon L.: *See*—
Connell, George A., and Paddock. 2,773,757.

Palm, Carl K. F., and E. H. Nylöf, to Kopparfors Aktiebolag. Steam valve with cleaning feature. 2,773,720, 12–11–56, Cl. 299—59.

Palmer, Paul C., and A. O. Berry. Self-cooling container. 2,773,858, 12–11–56, Cl. 62—92.

Pape, Adolph G. Louver window-washer. 2,773,276, 12–11–56, Cl. 15—130.

Pape, Harry E., to American Viscose Corp. Deaerators. 2,773,555, 12–11–56, Cl. 183—2.5.

Park, Arthur D., to Armstrong Cork Co. Mineral fiber product. 2,773,764, 12–11–56, Cl. 92—3.

Parker, Humphrey F.: *See*—
Robins, Erford E., and Parker. 2,773,668.

Parker, John A.: *See*—
Hassel, Lloyd V., and Parker. 2,773,782.

Parker Pen Co., The: *See*—
Rhoades, Nolan K. 2,773,479.

Parker, Sam E. Transmitter multiplexing system. 2,774,069, 12–11–56, Cl. 343—858.

Parsen, Philip: *See*—
Arditi, Maurice, and Parsen. 2,774,046.

Patterson, Morehead, and W. C. Broekhuysen, to American Machine & Foundry Co. Automatic pin spotter control mechanism. 2,773,689, 12–11–56, Cl. 273—43.

Pauley, Robert D., to Weyerhaeuser Timber Co. Bark components as resin ingredients. 2,773,847, 12–11–56, Cl. 260—17.2.

Payne, William F.: *See*—
Barrett, Hilliard E., Bower, and Payne. 2,773,350.

Pease, Marshall C.: *See*—
Martin, Stuart T., and Pease. 2,773,289.

Peck, Henry E. Apparatus for drying fabrics. 2,773,312, 12–11–56, Cl. 34—46.

Pedrick, Irene P. Tank washing apparatus. 2,773,721, 12–11–56, Cl. 299—62.

Peek, Henry L., to Allis-Chalmers Mfg. Co. Pneumatically operated circuit breaker with closing valve cutoff switch. 2,773,484, 12–11–56, Cl. 121—38.

Pellerano, Silvio A.: *See*—
Hochberg, Jerome, and Pellerano. 2,773,855.

Pels, Robert A., and D. Ellis, to Westinghouse Electric Corp. Contact arrangement for control relay. 2,773,948, 12–11–56, Cl. 200—16.

Penn, Harold O. Firing point indicator for internal combustion engines. 2,774,033, 12–11–56, Cl. 324—16.

Pennsylvania Salt Mfg. Co., The: *See*—
Lewis, William W., Jr. 2,773,882.

Personal Products Corp.: *See*—
Brownlee, Robert N., and Griswold. 2,773,503.

Persson, Nels L. Coupling for squeeze bottles. 2,773,521, 12–11–56, Cl. 141—5.

Perst, Dudley C., to Chatham Controls Corp. Thermostatic switch. 2,773,962, 12–11–56, Cl. 200—138.

Persentka, Thomas R., and S. C. Plettner, to Bell & Howell Co. Photographic copying and viewing apparatus. 2,773,418, 12–11–56, Cl. 88—24.

Peters, Philip H., Jr., and D. A. Wilbur, to General Electric Co. Method of varying the output frequency of magnetron oscillators. 2,774,039, 12–11–56, Cl. 332—5.

Petersen, Gerald A. M. Pilot bit. 2,773,673, 12–11–56, Cl. 255—61.

Petersen, Lowell W., to Swift & Co. Submerged combustion evaporation. 2,773,545, 12–11–56, Cl. 159—16.

Petersen, Robert P.: *See*—
Roberts, Richard B., Petersen, and Holliday. 2,773,732.

Peterson, Ruben O., to The Osborn Mfg. Co. Brush assembly. 2,773,275, 12–11–56, Cl. 15—77.

Pfizer, Chas., & Co., Inc.: *See*—
Agnello, Eugene J., and Laubach. 2,773,868.
Bayley, Abraham, and Knuth. 2,773,897.
Laubach, Gerald D., and Schreiber. 2,773,885.
Shull, Gilbert M., Routien, and Finlay. 2,773,878.

Pharis, William W., to General Dynamics Corp. Tank circuit. 2,773,938, 12–11–56, Cl. 179—18.

Philco Corp.: *See*—
Chatterton, Edward, Jr., and Beardwood. 2,773,979.

Phillips Petroleum Co.: *See*—
Cottle, John E. 2,773,559.
Hudson, Paul S., Potts, and Smith. 2,773,874.
Provilace, John H. 2,773,572.
Reynolds, William B. 2,773,795.
Vantrain, Lucien H., and Strunk. 2,773,920.

Photocon Research Products: *See*—
Grimstead, Carl E., and Prichard. 2,774,063.

Piasse, Thomas E., and T. R. Baxter, to Continental Can Co., Inc. Method of making sterile containers. 2,773,285, 12–11–56, Cl. 18—47.5.

Piccard, John A., and B. Graham, to E. I. du Pont de Nemours and Co. Process of forming non-woven porous fibrous synthetic leather sheet. 2,773,286, 12–11–56, Cl. 18—48.

Pilling, Alan H., to Richmond Screw Anchor Co., Inc. Clamps for concrete form tie rods. 2,773,294, 12–11–56, Cl. 25—131.

Pirelli Societa per Azioni: *See*—
Lugli, Giuseppe, and Mazza. 2,773,534.

Pirtle, John C. Tower agitation system. 2,773,749, 12–11–56, Cl. 23—271.

Pittsburgh Forgings Co.: *See*—
Gladis, Cyril M. 2,773,342.

Pittsburgh Tag Co.: *See*—
Magidson, Frank. 2,773,258.

Plettner, Stuart C.: *See*—
Ferrentka, Thomas R., and Plettner. 2,773,418.

Poinsot, William B. Cartridge projecting and retracting mechanism for ball point pens. 2,773,478, 12–11–56, Cl. 120—42.63.

Poleschook, Nick. Pickup and amplifier apparatus. 2,773,943, 12–11–56, Cl. 179—110.

Polhemus, Von D., and L. M. Forbush, to General Motors Corp. Stroboscopic display devices. 2,773,990, 12–11–56, Cl. 250—71.

Pompa, Dominic, and L. Cugini, to the United States of America as represented by the Secretary of the Army. Closure for protective suit. 2,773,263, 12–11–56, Cl. 2—96.

Potts, Mack F.: *See*—
Hudson, Paul S., Potts, and Smith. 2,773,874.

Powder Power Tool Co.: *See*—
Broughton, Sidney E., and Erickson. 2,773,239.

Powell, Horace M., to Eli Lilly and Co. Rabies vaccine production. 2,773,800, 12–11–56, Cl. 167—78.

Powers-Samas Accounting Machines Ltd.: *See*—
Lambert, Donald R. 2,773,443.

Pratt, Burt C., to E. I. du Pont de Nemours and Co. 1,4-disubstituted-2-cyano-1,3-butadienes. 2,773,857, 12–11–56, Cl. 260—88.5.

Prendergast, Edward H. Storage structure having roof opening and closures therefor. 2,773,457, 12–11–56, Cl. 108—1.

Prichard, Reno W.: *See*—
Grimstead, Carl E., and Prichard. 2,774,063.

Prill, Erhard J., to Monsanto Chemical Co. Making diarylethanes. 2,773,914, 12–11–56, Cl. 260—668.

Pritchard, Arnold J. Steering idler support. 2,773,697, 12–11–56, Cl. 280—95.

Proctor & Schwartz, Inc.: *See*—
Glassford, Donald C., and Redman. 2,773,295.

Proctor, Sidney E., to Austin Hoy and Co. Ltd. Tool carrying chains for use on coal cutters and the like. 2,773,394, 12–11–56, Cl. 74—246.

Prosser, Thomas W. Protective housing for instruments. 2,773,388, 12–11–56, Cl. 73—431.

Province, John H., to Phillips Petroleum Co. Fluid actuated control system. 2,773,572, 12–11–56, Cl. 192—3.5.

Purchase, Earl R., to E. I. du Pont de Nemours and Co. Vapor drying of cellulose. 2,773,865, 12–11–56, Cl. 260—229.

Pure Oil Co., The: *See*—
Millikan, Allen F. 2,773,919.

Purex Corp. Ltd.: *See*—
Silverstein, Robert M. 2,773,904.

Putt, James W. Manufacture of alkyl aryl sulfonates. 2,773,896, 12–11–56, Cl. 260—505.

Rabezzana, Hector. Sewing machine hook and bobbin race assembly. 2,773,464, 12–11–56, Cl. 112—228.

Radde, Erich M. H. Carboxylic acids of the dicyclohexyl ethane series, and a process of making same. 2,773,893, 12–11–56, Cl. 260—488.

Radde, Erich M. H. Di-cyclohexyl ethane compounds, and a process of making same. 2,773,894, 12–11–56, Cl. 260—488.

Radio Corp. of America.: *See*—
Bollinger, Waldon P. 2,774,067.
Finch, James L., and Kahn. 2,774,041.
Loverens, Humboldt W. 2,774,003.
Schade, Otto H., Sr. 2,773,413.
Theriault, Gerald E. 2,773,945.

Radiove, Sol B.: *See*—
Julian, Percy L., Ivenon, and Radiove. 2,773,771.

Ragland, Douglas, to Esso Research and Engineering Co. Non-self-energizing band type brake. 2,773,568, 12–11–56, Cl. 188—77.

Raichel, Theodore T. Warning device for swimming pools. 2,774,058, 12–11–56, Cl. 340—213.

Rand, Kenneth R., and E. Brandenberger, to American Machine & Foundry Co. Unloading device. 2,773,583, 12–11–56, Cl. 198—21.

Rand, Woodford M. Submarine trim indicator. 2,773,382, 12–11–56, Cl. 73—178.

Randall, David I., and W. Schmidt-Nickels, to General Aniline & Film Corp. Heterocyclic vat dyestuffs. 2,773,873, 12–11–56, Cl. 260—272.

Randall, Ralph R., to Dusloc Engineering Co. Braking arrangement for dual wheels with non-torque-equalizing differential means. 2,773,723, 12–11–56, Cl. 301—6.

Ranney, Neil J., to Wean Equipment Corp. Barb wire manufacture. 2,773,519, 12–11–56, Cl. 140—60.

Ranson, Harry L. Electrical razor. 2,773,306, 12–11–56, Cl. 30—43.

Rasmussen, Arne P., to Westinghouse Electric Corp. Fail safe power boost system. 2,773,660, 12–11–56, Cl. 244—85.

Ratley, Preston W.: *See*—
Flanagan, James J. 2,773,616.

Rawden, Cecil E.: *See*—
Haynes, Alex L., Rawden, and Van Wicklin. 2,773,396.

Raytheon Mfg. Co.: *See*—
Burdge, Ben H. 2,774,032.
Haagensen, Duane B. 2,774,088.
Richmond, Martin R., and Blitz. 2,774,035.
Smith, Charles G. 2,773,923.

Reconstruction Finance Corp.: *See*—
Hudson, George G. 2,773,661.

Reddy, Virgin C., to General Motors Corp. Pressure control valve. 2,773,491, 12–11–56, Cl. 123—120.

Redfield, Frank E. Arm guiding means for golf stroke. 2,773,691, 12–11–56, Cl. 273—189.

Redman, Albert M., to Redman Tools & Products Ltd. Metal-bending machines. 2,773,537, 12–11–56, Cl. 153—46.

Redman, Frank R.: *See*—
Glassford, Donald C. and Redman. 2,773,295.

Redman Tools & Products Ltd.: *See*—
Redman, Albert M. 2,773,537.

Reebling, Harold A., to Armstrong Cork Co. Method of eraminating polymerised vinyl chloride systems. 2,773,746, 12–11–56, Cl. 23—230.

Reibig, Eric A., to Rockwell Mfg. Co. Power transmission mechanisms. 2,773,395, 12–11–56, Cl. 74—333.

Reichert, William G. Foundry flask construction. 2,773,290, 12–11–56, Cl. 22—101.

Reid, John C.: *See*—
Hersberger, Arthur B., and Reid. 2,773,854.

Reid, John C., and N. C. Sidebotham, to The Atlantic Refining Co. Production of maleic and alkyl substituted maleic anhydrides by catalytic oxidation. 2,773,838, 12–11–56, Cl. 252—437.

Research Corp.: *See*—
Cannon, John B., Jr. 2,773,648.

Reynolds, William B., to Phillips Petroleum Co. Rubber-fabric laminates and method of making same. 2,773,795, 12–11–56, Cl. 154—139.

Rhoades, Nolan K., to The Parker Pen Co. Fountain pen. 2,773,479, 12–11–56, Cl. 120—50.

Richens, Arthur W., to Continental Can Co., Inc. Continuously operating apparatus for making bags. 2,773,435, 12–11–56, Cl. 93—22.

Richman, Donald, to Haseltine Research, Inc. Color-television system. 2,773,930, 12–11–56, Cl. 178—5.4.

Richmond, Martin R., and D. Blitz, to Raytheon Mfg. Co. Magnetostrictive frequency analysers. 2,774,035, 12–11–56, Cl. 324—77.

Richmond Screw Anchor Co., Inc.: *See*—
Pilling, Alan H. 2,773,294.

Richter, Ludwig: *See*—
Williams, William W., and Richter. 2,773,864.

Rick, Christian E., to E. I. du Pont de Nemours and Co. Production of group IV-A metals. 2,773,787, 12–11–56, Cl. 148—13.1.

Riedel, Erich, to Brueckenbau Flender G. m. b. H. Plant for the clarification of slurries. 2,773,600, 12–11–56, Cl. 210—51.

Riedel, Walter W., to General Motors Corp. Motor stator laminations and method of manufacturing welded stators. 2,774,001, 12–11–56, Cl. 310—217.

Riesenfeld, Fred C.: *See*—
Kohl, Arthur L., and Riesenfeld. 2,773,560.

Rietsch, Auguste: *See*—
Fraenkel, Alexander, and Rietsch. 2,773,328.

Riley Stoker Corp.: *See*—
Miller, Earle C. 2,773,629.

Robare, Elbert P.: *See*—
Hurko, Bohdan, and Robare. 2,773,268.

Roberts, Richard E., R. P. Petersen, and C. T. Holliday, to the United States of America as represented by the Secretary of the Navy. Firing error recorder. 2,773,732, 12–11–56, Cl. 346—38.

Roberts, Roland R., to Farrel-Birmingham Co., Inc. Work tables for boring mills and the like. 2,773,725, 12–11–56, Cl. 308—77.

Robertson, Alfred: *See*—
Mathias, Ernest A. R. 2,773,433.

Robertson, Kenneth W.: *See*—
Warden, Robert L., and Robertson. 2,773,551.

Robbins, Harold R. Portable soda fountain. 2,773,681, 12–11–56, Cl. 261—93.

Robins, Erford E., and H. F. Parker, to Columbus McKinnon Chain Corp. Hoist chain guide and stripper. 2,773,668, 12–11–56, Cl. 254—167.

Rockoff, Joseph, to The Dayton Rubber Co. Textile cot. 2,773,288, 12–11–56, Cl. 19—143.

Rockwell Mfg. Co.: *See*—
McKay, John B., and Spore. 2,773,642.
Reibig, Eric A. 2,773,395.
Schutz, Ewald. 2,773,525.
Schutz, Ewald, and Butsin. 2,773,524.

Rockwell Register Corp.: *See*—
Wheelbarger, Albert S., and Warrick. 2,773,640.

Rodman, Ernest A., to E. I. du Pont de Nemours and Co. Coated article and method of making. 2,773,781, 12–11–56, Cl. 117—138.8.

Rooks, Howard B., to Capehart-Farnsworth Co., a division of International Telephone and Telegraph Corp. Time delay space charge device. 2,774,008, 12–11–56, Cl. 315—21.





Roper Associates, Inc.: *See*—
Roper, John H. 2,773,827.

Roper, John H., to Roper Associates, Inc. Electrical precipitators. 2,773,527, 12–11–56, Cl. 204—305.

Rose, Archie D. Fusee or flare holder. 2,773,662, 12–11–56, Cl. 246—488.

Rosenkrans, George, and C. Djerassi, to Syntex S. A. Pregnane-11β, 17α-diol-3,20-diones, esters thereof and process. 2,773,887, 12–11–56, Cl. 260—397.45.

Rosenstein, Ludwig: *See*—
Gorin, Manuel H., and Rosenstein. 2,773,858.

Ross, Fred A.: *See*—
Fulk, James B. 2,773,688.

Ross, Karl F. Radio location system. 2,774,065, 12–11–56, Cl. 343—9.

Ross, Malcolm D., to Westinghouse Electric Corp. Oriented-steel stator-cores. 2,774,000, 12–11–56, Cl. 310—216.

Rothlein, Bernard J., and F. A. Stahl, to Sylvania Electric Products Inc. Electrical translator and methods. 2,773,925, 12–11–56, Cl. 136—89.

Rottig, Walter, to Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft fuer Waermetechnik m. b. H. Catalytic carbon monoxide hydrogenation with an increased yield of higher boiling esters. 2,773,890, 12–11–56, Cl. 260—449.6.

Routien, John B.: *See*—
Shull, Gilbert M., Routien, and Finlay. 2,773,673.

Rowe, Richard G., and G. Flower, Jr., to Dictaphone Corp. Production of anti-static plastics. 2,773,852, 12–11–56, Cl. 260—32.6.

Royal Electric Co., Inc.: *See*—
Baesinger, Leonard N. 2,774,049.
Levinson, Benjamin L. 2,773,590.

Roselle, Rexford A., to Nachman Corp. Adjustable inner-spring unit. 2,773,270, 12–11–56, Cl. 5—253.

Rubber-Stichting: *See*—
Schuur, Gerrit. 2,773,922.

Rubli, Max: *See*—
Malamoud, Georges, and Rubli. 2,773,283.

Rudberg, Frank: *See*—
Denysson, Ivanhoe P. and Rudberg. 2,773,582.

Ruhrchemie Aktiengesellschaft: *See*—
Rottig, Walter. 2,773,890.

Rummelsburg, Alfred L., to Hercules Powder Co. Rosin polymerization process. 2,773,859, 12–11–56, Cl. 260—99.5.

Rush, Thomas L. Safety control for vehicles. 2,773,993, 12–11–56, Cl. 307—10.

Russell, Francis R.: *See*—
Nicholson, Edward W. S., and Russell. 2,773,811.

Russell, John J., W. A. Beck, and J. Kollman, to Elco Products Co. Composite metal and articles thereof. 2,773,817, 12–11–56, Cl. 204—37.

Ruth, Joseph P. Exhaust gas conditioning method. 2,773,735, 12–11–56, Cl. 23—2.

Rusicka, Leopold, H. Heusser, and O. Jeger, to Ciba Pharmaceutical Products, Inc. Process for the manufacture of compounds of the steroid series. 2,773,884, 12–11–56, Cl. 260—397.2.

Rylander, Paul N., Jr., and W. J. Zimmerschied, to Standard Oil Co. Phosphoric acid-vanadium pentoxide catalyst and hydrocarbon conversions therewith. 2,773,921, 12–11–56, Cl. 260—683.15.

Rystan Co.: *See*—
Graskin, Benjamin. 2,773,802.

S. & W. Sewing Machine Attachment Co.: *See*—
Seaman, Edward L. 2,773,462.

Safke, William T. Safety device for tractor-trailer fifth wheel. 2,773,701, 12–11–56, Cl. 280—432.

Safke, William T. Jack-knifing preventing device for tractor-trailers. 2,773,702, 12–11–56, Cl. 280—432.

Samcoe Holding Corp.: *See*—
Cohn, Samuel and E., and Walter. 2,773,296.

Samuel, Arthur L., to Bell Telephone Laboratories, Inc. Transmitting and receiving circuits for wave transmission systems. 2,774,066, 12–11–56, Cl. 343—13.

Sanders, Theodorus P. W., and J. H. A. Wildeis, to Chemische Fabriek L. van der Grinten N. V. Light-sensitive diazotype material. 2,773,768, 12–11–56, Cl. 96—75.

Sanders, Thomas A. and F. Kahn. Tool and method for compression splicing of wires and cables. 2,773,405, 12–11–56, Cl. 81—15.5.

Sandor, William C., to The Universal Wire Spring Co. Coupling connection for wire spring structures. 2,773,543, 12–11–56, Cl. 155—179.

Saputo, James J.: *See*—
Kaslow, Arthur L., and Saputo. 2,773,502.

Sauer, Alfred E., to B. A. Ballou & Co., Inc. Pin stem finding. 2,773,292, 12–11–56, Cl. 24—167.

Saxon, Cecil C. Resilient draft means with plural articulation axes. 2,773,704, 12–11–56, Cl. 280—480.

Schade, Otto H., Sr., to Radio Corp. of America. Apparatus for and method of measuring the quality of optical devices. 2,773,413, 12–11–56, Cl. 88—14.

Schaumer, Theo B., to Hollywood-Maxwell Co. Brassiere. 2,773,261, 12–11–56, Cl. 2—42.

Scheitlin, Thomas G., to Whirlpool-Seeger Corp. Refrigerators for freezing food and storage of frozen food. 2,773,362, 12–11–56, Cl. 62—117.3.

Schering Corp.: *See*—
Oliveto, Eugene P., and Hershberg. 2,773,883.

Schiavo, Dominic P. Bubble energized filter for aquarium. 2,773,839, 12–11–56, Cl. 210—16.

Schjolin, Hans O., and D. K. Isbell, to General Motors Corp. Drive wheel and brake assembly. 2,773,553, 12–11–56, Cl. 180—75.

Schlesinger, Arthur H., to Monsanto Chemical Co. Herbicidal compositions. 2,773,758, 12–11–56, Cl. 71—2.3.

Schmidt, Maxilian P.: *See*—
Sas, Oskar, Schmidt, and Glos. 2,773,765.

Schmidt-Nickels, Wilhelm: *See*—
Randall, David I., and Schmidt-Nickels. 2,773,873.

Schmidtke, Edward H. Elevator conveyor. 2,773,586, 12–11–56, Cl. 198—233.

Schmollinger, William F., to Chase Brass & Copper Co., Inc. Methods of extruding high copper alloys. 2,773,593, 12–11–56, Cl. 207—10.

Schneider, Edgar W.: *See*—
Dubois, Laurent Q., Gartside, Johnson, and Schneider. 2,773,911.

Schrader, Robert J., to Eastman Kodak Co. Process of preventing corrosion in the production of alcohols by hydration of olefins. 2,773,910, 12–11–56, Cl. 260—641.

Schreiber, Eric C.: *See*—
Laubach, Gerald D., and Schreiber. 2,773,885.

Schreiner, Philipp: *See*—
Berdelle-Hilge, Philipp, Schreiner, Bleming, and Stöhr. 2,773,454.

Schuler, L., A. G.: *See*—
Sulger, Jakob. 2,773,400.

Schueter, Ludwig K., and A. L. Baldi, Jr., to Heintz Mfg. Co. Corrosion resistant coated steel members and method of making. 2,773,623, 12–11–56, Cl. 220—64.

Schutte, Alfred H.: *See*—
Von Pechmann, Paul F. 2,773,694.

Schutz, Ewald, and P. E. Butzin, to Rockwell Mfg. Co. Safety lock for radial arm saws and the like. 2,773,524, 12–11–56, Cl. 143—47.

Schutz, Ewald, to Rockwell Mfg. Co. Radial arm saw and power feed therefor. 2,773,525, 12–11–56, Cl. 143—55.

Schuur, Gerrit, to Rubber-Stichting. Rubber hydrochloride products and method of making same. 2,773,922, 12–11–56, Cl. 260—735.

Schwede, Otto G. Angular discriminating optical device. 2,773,411, 12–11–56, Cl. 88—1.

Scott & Williams, Inc.: *See*—
Shelmire, Stanley R. 2,773,372.

Scott, Wylmer L., to Armstrong Cork Co. Mineral fiber product containing hydrated virgin kraft pulp and method of producing the same. 2,773,763, 12–11–56, Cl. 92—3.

Scovill Mfg. Co.: *See*—
Seyfried, Arthur W. 2,773,997.

Sealey, William C.: *See*—
Hansen, Harding B., Stenersen, Sealey, and Wiederkehr. 2,774,047.

Seaman, Edward L., to S. & W. Sewing Machine Attachment Co. Looped cord trimming attachment for sewing machines. 2,773,462, 12–11–56, Cl. 112—100.

Sechy, Paul S. Protective wall for use against radiation and explosive forces. 2,773,459, 12–11–56, Cl. 109—82.

Seger, Ross E., to the United States of America as represented by the Secretary of the Air Force. Flexible terminal strip. 2,774,053, 12–11–56, Cl. 339—198.

Self-Changing Gears Ltd.: *See*—
Burnett, Stanley F. 2,773,578.

Severini, Goffredo. Apparatus for the production of yarn cheeses. 2,773,652, 12–11–56, Cl. 242—45.

Seyfried, Arthur W., to Scovill Mfg. Co. Handle mounting for motor driven power unit. 2,773,997, 12–11–56, Cl. 310—50.

Shalit, Harold, and A. P. Lien, to Standard Oil Co. Oxide-promoted titanium-phosphorus catalyst. 2,773,836, 12–11–56, Cl. 252—437.

Shallcross Mfg. Co.: *See*—
Buchman, A. Sander, and Erlick. 2,773,332.

Shapp, Milton J., and H. J. Arbeiter, to Jerrold Electronics Corp. Trimmer. 2,774,017, 12–11–56, Cl. 317—249.

Sharrah, Marion L.: *See*—
Baker, Edwin R., and Sharrah. 2,773,915.

Shell Development Co.: *See*—
Alexander, Peter, and Lamb. 2,773,777.
Ballard, Seaver A., and Whetstone. 2,773,895.
Bollo, Francis G., and Whitney. 2,773,349.
Carlson, George J., and Gum. 2,773,844.
Fan, Hsing Y. 2,773,799.
Hackmann, Johannes T., and Dierick. 2,773,786.
Hughes, William J. 2,773,331.
Meyers, Douglas C., Banks, and Slagle. 2,773,556.
Smith, Curtis W. 2,773,909.
Warden, Robert L., and Robertson. 2,773,551.

Shelmire, Stanley R., to Scott & Williams, Inc. Knitting machine. 2,773,372, 12–11–56, Cl. 66—140.

Shepherd, Marvin A., to Williams & Harvey Nurseries Co. Tree moving apparatus. 2,773,606, 12–11–56, Cl. 214—3.

Sherri, Joseph. Toy aeroplane launching devices. 2,773,329, 12–11–56, Cl. 46—81.

Sherwin-Williams Co., The: *See*—
Willis, Victor M. 2,773,849.
Willis, Victor M. 2,773,850.

Shirley, Paul S.: *See*—
Grieshaber, Emil, and Shirley. 2,773,348.

Shull, Gilbert M., J. B. Routien, and A. C. Finlay, to Chas. Pfizer & Co., Inc. Cycloserine and production thereof. 2,773,878, 12–11–56, Cl. 260—307.

Sidebotham, Norman C.: *See*—
Reid, John C. and Sidebotham. 2,773,838.

Siegrist, Bruno: *See*—
Dubois, Ernest, Siegrist, and Wakker. 2,773,762.

Siekmann, Harold J., G. J. Kasselmann, and W. Okvit, to The R. K. Le Blond Machine Tool Co. Speed indicating plate for machine tools. 2,773,471, 12–11–56, Cl. 116—115.5.

Siemens-Schuckertwerke Aktiengesellschaft: *See*—
Duffing, Paul. 2,773,952.

Signode Steel Strapping Co.: *See*—
Martin, Hollinshead T. 2,773,307.

Silva, John C.: *See*—
Chick, Russell W., and Silva. 2,773,731.

Silver, Evelyn B.: *See*—
O'Connor, Joseph H. 2,773,313.

Silver, Harold J.: *See*—
O'Connor, Joseph H. 2,773,313.

Silverstein, Robert M., to Purex Corp., Ltd. Preparation of aralkyl ketones. 2,773,904, 12–11–56, Cl. 260—592.

Silvey, John O., and O. C. Boother, to International Telephone and Telegraph Corp. Tunable coaxial line. 2,774,044, 12–11–56, Cl. 333—82.

Simmons, Lance L., to American Blower Corp. Air conditioning apparatus. 2,773,678, 12–11–56, Cl. 257—137.

Singer Mfg. Co., The : *See*—
Jullie, Joseph T. 2,773,463.

Skinner, Clawson N. : *See*—
Van Court, Carl P., Kinsman, and Skinner. 2,773,308.

Slaght, William W., to Cleveland Steel Products Corp. Sealed universal coupling trunnion bearings. 2,773,306, 12–11–56, Cl. 64—17.

Slaght, William W., to Cleveland Steel Products Corp. Sealed trunnion bearings in universal couplings of the cross and yoke type. 2,773,307, 12–11–56, Cl. 64—17.

Slaght, William W., to Cleveland Steel Products Corp. Universal couplings with sealed bearings. 2,773,308, 12–11–56, Cl. 64—17.

Slagle, Lucian E. : *See*—
Meyers, Douglas C., Banks, and Slagle. 2,773,556.

Slater, John C., to the United States of America as represented by the Secretary of the Navy. Transducer for producing sound at microwave frequencies. 2,773,996, 12–11–56, Cl. 310—9.1.

Slemmons, Charles O., and R. Iredell, III, to The General Tire & Rubber Co. Resilient mounting in the form of a bushing and axle assemble for vehicle suspension systems and the like. 2,773,696, 12–11–56, Cl. 280—104.5.

Sloatman, William S., Jr. : *See*—
Magrane, John K., and Sloatman. 2,773,788.

Smalley, Francis A. Anglers knot tying vise. 2,773,713, 12–11–56, Cl. 289—17.

Smith, Charles D. : *See*—
Litus, John, and Smith. 2,773,599.

Smith, Charles G., to Raytheon Mfg. Co. Zone-refining apparatus. 2,773,923, 12–11–56, Cl. 13—26.

Smith, Curtis W., to Shell Development Co. Addition of hydrogen peroxide to olefinic compounds. 2,773,909, 12–11–56, Cl. 260—635.

Smith, Douglas. Bimetallic coupling for flanged pipe elements. 2,773,709, 12–11–56, Cl. 285—187.

Smith, Douglas. Bimetallic coupling for flanged pipe fittings. 2,773,710, 12–11–56, Cl. 285—187.

Smith-Douglass Co., Inc. : *See*—
Hollingsworth, Clinton A. 2,773,736.

Smith, Ermest S., to B. & B. Engineering & Supply Co., Inc. Work piece mounting apparatus. 2,773,527, 12–11–56, Cl. 144—145.

Smith, George H., to Electro-Gleam, Inc. Composition for use in electropolishing. 2,773,821, 12–11–56, Cl. 204—140.5.

Smith-Meeker Engineering Co. : *See*—
Woodworth, Frederick B., and Hults. 2,773,932.

Smith, Paul E., Jr. : *See*—
Brouha, Lucien A., Smith, and Zepp. 2,773,262.

Smith, Warren L. : *See*—
Hudson, Paul S., Potts, and Smith. 2,773,874.

Societe a responsabilite limitee, Societe des Mecaniques Verdol : *See*—
Dalle, Olivier. 2,773,515.

Societe Anonyme de Telecommunications : *See*—
Lebedinsky, Myron. 2,773,940.

Societe Anonyme dite : "Etablissements Caseneuve" : *See*—
Bruet, Henri R. 2,773,298.

Societe Anonyme Francaise du Ferodo : *See*—
Stenger, Maximilien. 2,773,576.

Societe des Usines Chimques Rhone-Poulenc : *See*—
Meyer, Robert, and Garnier. 2,773,856.

Societe Nouvelle de Construction de Machines-Outils et d'Outillage Procedes C. W. B. : *See*—
Berthiez, Charles W. 2,773,430.

Societe Nouvelle des Etablissements Brandt : *See*—
Jasse, Joseph R. 2,773,448.

Socony Mobil Oil Co., Inc. : *See*—
Bray, Ellis E. 2,773,991.
Coonradt, Harry L., and Leaman. 2,773,917.
Drew, Robert D. 2,773,840.
Gutsell, Carlos L., and Lang. 2,773,837.
Stover, William A. 2,773,846.
Stover, William A., and Wilson. 2,773,839.
Stover, William A., and Wilson. 2,773,845.

Sokoloff, Paul W. : *See*—
Greenberg, Sol, and Sokoloff. 2,773,946.

Solar Aircraft Co. : *See*—
De Mers, Francis F. 2,773,538.

Soltam Ltd. : *See*—
Donner, Hans O. 2,773,450.

Sorenson, Perc C. : *See*—
Touchman, William S. 2,773,381.

Souter, Raymond A., Oil dip stick wiper. 2,773,277, 12–11–56, Cl. 15—210.

Specialties Development Corp. : *See*—
Sylvester, Walter G. 2,773,602.

Speh, Herman A., to Burroughs Corp. Card controlled commutator. 2,773,645, 12–11–56, Cl. 235—61.11.

Speher, Mrs. Jennie : *See*—
Green, Milton. 2,773,414.

Spore, Harold E. : *See*—
McGay, John B., and Spore. 2,773,642.

Squire, Robert K., to Superior Scaffold Co. Featheredge. 2,773,377, 12–11–56, Cl. 72—126.

Stafford, Jerome W., and K. M. Frierson, to Loew's Inc. Comparator device. 2,774,056, 12–11–56, Cl. 340—149.

Stafford, Rogers T. : *See*—
Watson, John R., and Stafford. 2,773,305.

Staggers, William F. Automatic hitch. 2,773,566, 12–11–56, Cl. 188—65.1.

Stahl, Frieda A. : *See*—
Rothlein, Bernard J., and Stahl. 2,773,925.

Standard Coil Products Co., Inc. : *See*—
Feigl, Erich. 2,773,987.
Thias, Edwin P. 2,773,985.
Thias, Edwin P., and Feigl. 2,773,986.

Standard Oil Co. (Illinois) : *See*—
Brown, Russell H. 2,773,905.
Fields, Ellis K. 2,773,832.
Rylander, Paul N., Jr., and Simmerathied. 2,773,921.
Shalit, Harold, and Lien. 2,773,836.
Thorne, Henry C., Jr., and McCaulay. 2,773,916.

Standard Oil Co. (Ohio), The : *See*—
Musselman, John M. 2,773,860.
Musselman, John M. 2,773,861.
Musselman, John M. 2,773,862.

Staples, Otis E., to The Cleveland Hobbing Machine Co. Turning machine. 2,773,407, 12–11–56, Cl. 82—14.

Star Jack Co., Inc. : *See*—
Jakousbek, Frank J. 2,773,509.

Staude, Edwin G. Power actuated vehicle steering systems. 2,773,351, 12–11–56, Cl. 60—52.

Stauffer Chemical Co. : *See*—
Erwin, Richard C. 2,773,230.

Stavis, Gus, to International Telephone and Telegraph Corp. Phase discriminator. 2,774,035, 12–11–56, Cl. 324—87.

Stayner, Richard D. : *See*—
Lewis, Allen H., and Stayner. 2,773,833.

Steel Heddle Mfg. Co. : *See*—
Kaufmann, Frank H. 2,773,516.

Stein, Victor : *See*—
Drewitz, Edwin W., and Stein. 2,773,965.

Stelzer, William. Package carriers and method for making the same. 2,773,625, 12–11–56, Cl. 229—52.

Stenersen, Sten S. : *See*—
Hansen, Harding B., Stenersen, Sealey, and Wiederkehr. 2,774,047.

Stengel, Leonard A., to Commercial Solvents Corp. Process for producing ammonium nitrate of any desired size particle. 2,773,753, 12–11–56, Cl. 23—312.

Stenger, Maximilien, to Societe Anonyme Francaise du Ferodo. Friction clutch. 2,773,576, 12–11–56, Cl. 192—98.

Stephens, John H., to Universal Oil Products Co. Solvent extraction process. 2,773,918, 12–11–56, Cl. 260—674.

Sterlin, Aaron, to National Aluminate Corp. Glyceraldine salts of long chain dicarboxylic acids. 2,773,879, 12–11–56, Cl. 260—309.6.

Sterling Drug Inc. : *See*—
Eipern, Bill. 2,773,870.
Eipern, Bill. 2,773,876.
Larsen, Aubrey A., and Tullar. 2,773,901.

Steven, George, to Worthington Corp. Air operated engagement means for impulse coupled magnetos. 2,773,493, 12–11–56, Cl. 123—179.

Stewart-Warner Corp. : *See*—
Flour, William. 2,774,052.

Stocks, Harry R., T. C. F. Stott, and F. Westcott, to General Motors Corp. Steering column transmission control mechanism. 2,773,399, 12–11–56, Cl. 74—484.

Stohr, Richard : *See*—
Berdelle-Hilge, Philipp, Schreiner, Blessing, and Stöhr. 2,773,454.

Stott, Thomas C. F. : *See*—
Stocks, Harry R., Stott, and Westcott. 2,773,399.

Stout, William H. Method of manufacturing plastic pipe. 2,773,287, 12–11–56, Cl. 18—58.3.

Stover, William A. and E. C. Wilson, Jr., to Socony Mobil Oil Co., Inc. Method of hydrogel preparation. 2,773,839, 12–11–56, Cl. 252—448.

Stover, William, A., and E. C. Wilson, Jr., to Socony Mobil Oil Co., Inc. Treatment of chromia-alumina hydrogel. 2,773,845, 12–11–56, Cl. 252—468.

Stover, William A., to Socony Mobil Oil Co., Inc. Alumina-chromia-molybdena catalyst. 2,773,846, 12–11–56, Cl. 252—465.

Strunk, Edwa..: *See*—
Vautrain, Lucien H., and Strunk. 2,773,920.

Sturtevant Mill Co. : *See*—
Boyle, William T. 2,773,650.

Sulger, Jakob, to L. Schuler A. G. Bearing structure. 2,773,400. 12–11–56, Cl. 74—596.

Sullivan, Cornelius D. Combination masher and fork. 2,773,530, 12–11–56, Cl. 146—204.

Sullivan, Frank A. V., and A. E. Davis, to American Cyanamid Co. Tris-phenols. 2,773,907, 12–11–56, Cl. 260—619.

Sun Oil Co. : *See*—
Fear, James V. D., and Messrip. 2,773,803.
Jolly, Samuel E. 2,773,831.
Kline, Charles C., and Myers. 2,773,806.
Tesch, John D. 2,773,812.

Sundt, Edward V., and H. A. Triplett, to Sundt Engineering Co. Time delay fuse. 2,773,960. 12–11–56, Cl. 200—123.

Sundt, Edward V., to Sundt Engineering Co. Time delay fuse. 2,773 961, 12–11–56, Cl. 200—123.

Sundt Engineering Co. : *See*—
Sundt, Edward V. 2,773,961.
Sundt, Edward V., and Triplett. 2,773,960.

Superior Scaffold Co. : *See*—
Squire, Robert K. 2,773,377.

Süs, Oskar, M. P. Schmidt, and M. Glos, to Azoplate Corp. Light sensitive material for photomechanical reproduction. 2,773,765, 12–11–56, Cl. 96—33.

Süs, Oskar, and K. Möller, to Azoplate Corp. Light-sensitive material for photomechanical reproduction and process for the production of images. 2,773,768, 12–11–56, Cl. 96—33.

Svendsen, Konrad S., to Combustion Engineering, Inc. Tilting burner mechanism. 2,773,460, 12–11–56, Cl. 110—28.

Swain, Norman R. Transmission control and guard. 2,773,398, 12–11–56, Cl. 74—473.

Swartz, Theodore C. : *See*—
Mihran, Theodore G., and Swartz. 2,773,570.





Swede, Harald, to Bergbom & Co. A.-B. Vending machines. 2,773,580, 12–11–56, Cl. 194—54.

Sweeney, B. K., Mfg. Co. : *See*—
Able, Edward T. 2,773,574.

Swesey, Fenton H. : *See*—
Hiller, Lejaren A., Jr., and Swesey. 2,773,866.

Swickard, Earl O., Jr., to the United States of America as represented by the United States Atomic Energy Commission. Liquid level indicator. 2,773,886, 12–11–56, Cl. 73—313.

Swift & Co. : *See*—
Merker, Dwight R. 2,773,772.
Petersen, Lowell W. 2,773,545.

Sylvania Electric Products Inc. : *See*—
Martin, Stuart T., and Pease. 2,773,289.
Rothlein, Bernard J., and Stahl. 2,773,925.

Sylvester, Walter G., to Specialties Development Corp. Filter apparatus. 2,773,602, 12–11–56, Cl. 210—166.

Syncro Machine Co. : *See*—
Bruestle, Carl O. 2,773,391.

Synfarma, Narodni Podnik : *See*—
Ctvrtnik, Josef, Nemecek, and Mayer. 2,773,880.

Syntex S. A. : *See*—
Rosenkranz, George, and Djerassi. 2,773,887.

Tate, Roger W., and C. E. Hemminger, to Esso Research and Engineering Co. Hydroforming and hydrodesulfurizing. 2,773,804, 12–11–56, Cl. 196—26.

Taylor, Donald S., and G. A. Connell, to United States Borax & Chemical Corp. Stabilization of borax supersaturation in solutions. 2,774,070, 12–11–56, Cl. 23—59.

Teeple, Frank A., Jr., to Atlantic Steel Co. Bale tie. 2,773,291, 12–11–56, Cl. 24—26.

Teerlink, James, to Chains, Inc. Chains and the like. 2,773,971, 12–11–56, Cl. 219—150.

Telling, Torbern, to Arenco Aktiebolag. Devices for following a movable object. 2,773,643, 12–11–56, Cl. 235—61.5.

Tench, John D. to Sun Oil Co. Wax composition. 2,773,812, 12–11–56, Cl. 106—149.

Tenney Engineering, Inc. : *See*—
Zipser, David B. 2,773,364.

Tenney, William G. Battery terminal connector. 2,774,054, 12–11–56, Cl. 339—233.

Termokimik Corp. : *See*—
Castellani, Pio F. F. 2,773,598.

Textron Inc. : *See*—
Dickie, John A. 2,773,482.

Theriault, Gerald E., to Radio Corp. of America. Transistor signal amplifying circuits. 2,773,945, 12–11–56, Cl. 179—171.

Thias, Edwin P., and E. Feigl, to Standard Coil Products Co., Inc. Frequency selector. 2,773,986, 12–11–56, Cl. 250—40.

Thias, Edwin P., to Standard Coil Products Co., Inc. Frequency selector. 2,773,988, 12–11–56, Cl. 250—40.

Thomas, Arthur H., Co. : *See*—
King, Duncan E., and McNeilly. 2,773,747.

Thomas, Jess W. Cattle gate and chute. 2,773,476, 12–11–56, Cl. 119—99.

Thomas, Thomas R., to Auto Research Corp. Lubricating pump. 2,773,562, 12–11–56, Cl. 184—27.

Thompson, Bernadine G. : *See*—
Thompson, Theodore L. and B. G. 2,773 494.

Thompson, Earl A. Milling machine. 2,773,481, 12–11–56, Cl. 90—18.

Thompson Electric Co., The : *See*—
Farrington, Thayer B., and Dalsell. 2,773,975.

Thompson, Norman F., 3rd, and G. Marres, to The William L. Gilbert Clock Corp. Timing device of the resettable and variable type. 2,773,548, 12–11–56, Cl. 161—1.

Thompson Products, Inc. : *See*—
De Vileg, Charles B., H. R., and C. R. 2,773,432.

Thompson, Richard B. : *See*—
Thompson, Thomas F. 2,774,060.

Thompson, Robert L. : *See*—
Finlay, Alexander, Jr., Hecox, and Thompson. 2,773,951.

Thompson, Theodore L. and B. G. Fishing line casting guns. 2,773,494. 12–11–56. Cl. 124—15.

Thompson, Thomas F., ⅓ to R. B. Thompson, ⅓ to D. Belford, and ⅓ to O. D. Olson. Detecting means for stolen goods. 2,774,060. 12–11–56, Cl. 340—258.

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Vanderbilt, Byron M., and Thorn. 2,773,805.

Thornbery, John H. : *See*—
Matthews, Russell B., and Thornbery. 2,774,016.

Thorne, Henry C., Jr., and D. A. McCaulay, to Standard Oil Co. Production of 1,3,5-ethyl xylene, meta-xylene and benzene from C₈ aromatics with HF—BF₃. 2,773,916, 12–11–56. Cl. 260—668.

Tillman, Harry L., to Whirlpool-Seeger Corp. Refrigerator defrost termination control system. 2,773,354, 12–11–56, Cl. 62—2.

Tirone, Felix. Tool for clamping voltage regulators and the like during adjusting and setting operations thereon. 2,773,303, 12–11–56, Cl. 29—286.

Toft, Andrew M., to National Can Corp. Container and closure therefor. 2,773,620, 12–11–56. Cl. 220—24.5.

Toland, William G., Jr., and J. A. Fuller, to California Research Corp. Preparation of isophthalonitriles and terephthalonitriles. 2,773,891, 12 11–56, Cl. 260—465.

Tolman, Leo L, to Armstrong Cork Co. Vinyl plastic tile and method of making the same. 2,773,851, 12–11–56, Cl. 260—30.6.

Tolonen, Eric O., to United States Rubber Co. Reinforcement for molded flaps. 2,773,535, 12–11–56, Cl. 152—365.

Tomanek, Martha, and W. Neugebauer, to Azoplate Corp. Light sensitive material. 2,773,767, 12–11–56, Cl. 96—33.

Tormag Transmissions Ltd. : *See*—
Zosulin, Igor V. 2,773,690.

Touchman, William S., to P. C. Sorenson and L. Jewell. Gasoline mileage indicator. 2,773,381. 12–11–56, Cl. 73—114.

Towner, George H., to Northrop Aircraft, Inc. Digital servomotor. 2,774,026, 12–11–56, Cl. 318—283.

Trico Products Corp. : *See*—
Oishei, John R. 2,773,353.

Triplett, Hugh A. : *See*—
Sundt, Edward V., and Triplett. 2,773,960.

Troendale, Robert B., and F. A. Morris, to General Dynamics Corp. Electronic telephone system. 2,773,934, 12–11–56, Cl. 179—15.

Troendale, Robert B., to General Dynamics Corp. Electronic telephone system. 2,773,935, 12–11–56, Cl. 179—15.

Troendale, Robert B., to General Dynamics Corp. Telephone system. 2,773,939, 12–11–56, Cl. 179—15.

Troendale, Robert B., to General Dynamics Corp. Quasi-regenerative pulse gating circuit. 2,773,982, 12–11–56, Cl. 250—27.

Troendale, Robert B., to General Dynamics Corp. Coincidence finding circuit. 2,774,071, 12–11–56, Cl. 179—18.

Tullar, Benjamin F. : *See*—
Larsen, Aubrey A., and Tullar. 2,773,901.

Tung-Sol Electric Inc. : *See*—
Lewin, Gerhard. 2,773,730.

Twin Coach Co. : *See*—
Fagoel, Louis J. 2,773,304.

Tyer, Clarence C. Gravel and sand washer and concentrator. 2,773,594, 12–11–56, Cl. 209—13.

Uhlmann, Erich : *See*—
Lamm, Uno, and Uhlmann. 2,774,012.

Ulfers, Heins, to Zeiss Ikon, A. G. Motion picture projector housing and light condensing means. 2,773,417, 12–11–56, Cl. 88—24.

Ullery, Lee R., to International Telephone and Telegraph Corp. Display amplifier and method of making same. 2,773,992, 12–11–56, Cl. 250—213.

Uniectric, Inc. : *See*—
Heard, Halbert W., Olson, and Vallee. 2,773,973.

Union Carbide Canada Ltd. : *See*—
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Union Carbide and Carbon Corp. : *See*—
Dunn, Jesse T. 2,773,881.
Galbraith, John F., Helmbrecht, and Lobosco. 2,773,970.
Jobe, George T. 2,773,786.

Union des Verreries Mecaniques Belges S. A. : *See*—
Henry, Georges L., and Brichard. 2,773,611.

United Engineering and Foundry Co. : *See*—
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United States Atomic Energy Commission, United States of America as represented by the : *See*—
Beese, Norman C., and Marden. 2,773,826.
Boyer, Robert Q., and Kilner. 2,773,820.
Boyer, Robert Q., and Kilner. 2,773,824.
Goett, John J. 2,773,823.
Newcombe, Frank A. 2,773,825.
Swickard, Earl O., Jr. 2,773,886.

United States Borax & Chemical Corp. : *See*—
Ball, Geoffrey R., and Kemp. 2,773,788.
Connell, George A., and Paddock. 2,773,757.
Taylor, Donald S., and Connell. 2,774,070.

United States Rubber Co. : *See*—
Mulbarger, Francis A., and Clayton. 2,773,541.
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United States Steel Corp. *See*—
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Universal Moulded Products Corp. : *See*—
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Universal Oil Products Co. : *See*—
Haensel, Vladimir, and Gerbold. 2,773,809.
Stephens, John H. 2,773,918.

Universal Wire Spring Co., The : *See*—
Sandor, William C. 2,773,543.

Ushikoshi, Ikuo : *See*—
Maki, Bunro, and Ushikoshi. 2,773,770.

Valenti, Victor A. Hand tool with angularly adjustable bit. 2,773,529, 12–11–56, Cl. 145—50.

Vallee, Thomas A. : *See*—
Hoard, Halbert W., Olson, and Vallee. 2,773,973.

Van Court, Carl P., H. E. Kinsman, and C. N. Skinner. Method and apparatus for adapting dentures. 2,773,308, 12–11–56, Cl. 32—19.

Vanderbilt, Byron M., and J. P. Thorn, to Esso Research and Engineering Co. Desulfurization of cracked naphthas with formaldehyde and sodium. 2,773,805, 12–11–56, Cl. 196—28.

Van Dusen, Charles H., Jr. : *See*—
Brinnick, Frederic E., and Van Dusen. 2,773,779.

Van Hook, Charles F. Vertical twisting machine. 2,773,344, 12–11–56. Cl. 57—58.52.

Van Otteren, Wilbur M., and W. J. Hafner, to The Grover Co. Transfer device for conveyor system. 2,773,658, 12–11–56. Cl. 243—1.

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

December 11, 1956 Volume 713 Number 2

# TRADEMARKS

## NOTICES

### Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

**TM 295,146.** (See TM 621,428.)

**TM 295,596** ("JB" and design), **TM 559,048** (Jewelers' Best), Jacoby-Bender, Inc., Men's and ladies' bracelets and watch bracelets, sold separately from the watches, filed Nov. 7, 1956, D. C., S. D. N. Y., Doc. 114/277, *Jacoby-Bender, Inc.* v. *J. B. Importing Co.*

**TM 507,668.** (See TM 621,428.)

**TM 530,643.** (See TM 295,596.)

**TM 562,226** (TRIBIOTIC), Wyeth Incorporated, Penicillin-dehydrostreptomycin-bacitracin ointment, filed Apr. 15, 1955, D. C., S. D. Calif. (Fresno), Doc. 1454–ND, *American Home Products Corp.* v. *Anchor Serum et al.*

**TM 561,439.** (See TM 597,076.)

**TM 597,076** (Lacey Ledge), Wolff Appliance Corp., Hanging shelves; combination hanging shelf and towel bar, etc.; **TM 561,439**, same, Tissue dispensing boxes; hampers, baskets, etc., filed Oct. 31, 1956, D. C., M. D. Pa. (Philadelphia), Doc. 21573, *Wolff Appliance Corp.* v. *Hy-Plane Mfg. Co. et al.*

**TM 609,716.** (See TM 621,425.)

**TM 621,428, TM 507,668** (Fresh), Pharma-Craft Corp., Deodorant and nonperspirant; **TM 609,716**, same, Deodorant bath soap; **TM 295,146** (KEEPS YOU Fresh AS A DAISY), same, Cream preparation to stop perspiration, filed Mar. 7, 1956, D. C., S. D. N. Y., Doc. 107/353, *Pharma-Craft Corp.* v. *Model Brassiere Corp. et al.* Consent decree and judgment for injunction Oct. 31, 1956.

**TM 622,691** (FIOCCO), Bart Schwartz International Textiles Ltd., Textile fabrics in the piece of cotton, rayon, synthetic fibers, and mixtures thereof, filed Nov. 7, 1956, D. C., S. D. N. Y., Doc. 114/264, *Bart Schwartz International Textiles Ltd.* v. *Carousel Fabrics Inc. et al.*

### CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 2, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] ..... 7,310
Date of oldest new application ..... Apr. 19, 1956
Date of oldest amended application ..... Jan. 19, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

| TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION | Oldest Application: New | Oldest Application: Amended |
|---|---|---|
| I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A | 8-2-56 | 8-10-56 |
| II. SHRYOCK, R. F., Classes 6, 18, 45, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B | 4-19-56 | 4-25-56 |
| III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 28, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52 | 6-1-56 | 1-19-56 |
| Renewals (All Classes) | 10-9-56 | |
| Sec. 12 (c) Publications (All Classes) | 10-5-56 | |

Applications Filed During the Month of October 1956—1,925

Registrations Issued ..... 370—No. 638,235 to No. 638,604
Renewals Issued ..... 57

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

# MARKS PUBLISHED FOR OPPOSITION

**The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.**

**As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.**

## CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

SN 680,771. Thiem Products, Inc., West Allis, Wis. Filed June 17, 1955.




Applicant disclaims the words "Pulverizing," "We Grind the Earth," and "Coal" apart from the mark as shown.

For Ground and Pulverized Coal Used as an Additive in Foundry Sand.

First use Mar. 10, 1955.

SN 1,151. The Diamond Match Company, New York, N. Y. Filed Jan. 20, 1956.

**"NEET-HEET"**

For Charcoal Briquettes.

First use Aug. 29, 1955.

SN 2,130. Greer Industries, Inc., Jamaica, N. Y. Filed Feb. 6, 1956.

**disoflex**

For Sheets of Synthetic Elastic Material.

First use Dec. 7, 1955.

SN 4,190. Foams, Inc., Port Washington, Wis. Filed Mar. 9, 1956.

**KLEEN-O**

For Polyurethane Resin Sponges.

First use Feb. 23, 1956.

SN 6,327. Feuer Hide & Skin Corp., New York, N. Y. Filed Apr. 13, 1956.

**GOLD COAST BUCK**

Exclusive use of the word "Buck" is disclaimed apart from the mark as shown.

For Leather.

First use Mar. 1, 1956.

SN 6,661. Garfield Williamson, Inc., d. b. a. Plant Food Products Co., Jersey City, N. J. Filed Apr. 18, 1956.

**FOUR SEASON**

For Grass Seed.

First use January 1956.

SN 7,027. Oregon Purebred Nutria Associates, Portland, Oreg. Filed May 2, 1956.

**OPNA**

For Nutria Pelts and Live Nutria.

First use October 1955 for live nutria.

## CLASS 2

### RECEPTACLES

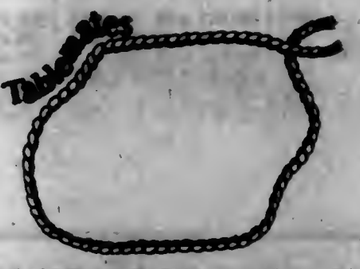
SN 4,534. The Fuller Label & Box Company, Pittsburgh, Pa. Filed Mar. 14, 1956.

**Ful-Seal**

For Cartons, Boxes, and Rigid and Semi-Rigid Box and Crate Inner Liners, Which Articles Are Manufactured With a Heatseal Coating Adhesive.

First use Feb. 23, 1956.

SN 9,128. Enco Inc., New York, N. Y. Filed May 28, 1956.




For Salt and Pepper Shakers.

First use Feb. 1, 1956.

SN 9,175. Richard Manufacturing Co., Van Nuys, Calif. Filed May 28, 1956.

**POLY-CONS**

For Polyethylene Containers for Processed Film, Commercial, Household, and Other Uses.

First use Mar. 14, 1956.

## CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 13,935. Jack R. Shevin, d. b. a. Dard Products, Chicago, Ill. Filed Aug. 14, 1956.

**TAG-MASTER**

For Key Cases and Key Tags.

First use February 1951.





SN 14,439. E. Roy Dallas, Detroit, Mich. Filed Aug. 23, 1956.

**U-R-VALET**

For Luggage.

First use Aug. 20, 1956.

SN 14,883. J. Jones and Company, San Francisco, Calif. Filed Aug. 29, 1956. Sec. 2(f).

**CARO**

For Suit Bags, Brief Cases, Dispatch Cases, Wallets, Pocket Books, Key Cases, Utility Cases, Covered Jewel Cases, and the Like.

First use on or about May 18, 1934.

## CLASS 4

### ABRASIVES AND POLISHING MATERIALS

SN 8,991. Simonis Company, Chicago, Ill. Filed May 24, 1956.

**DUET**

Owner of Reg. No. 438,985.

For Floor Wax and Cleaner.

First use Nov. 9, 1954.

## CLASS 5

### ADHESIVES

SN 4,016. The Flintkote Company, New York, N. Y. Filed Mar. 7, 1956.

**BONDCOTE**

For Emulsion Type Adhesive.

First use on or about Oct. 15, 1934.

SN 8,889. Stocker Manufacturing Company, Netcong, N. J. Filed May 23, 1956.

**GLASITE**

Owner of Reg. Nos. 529,938, 572,108, and others.

For Gummed Tape.

First use Oct. 18, 1955.

## CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

SN 676,477. Connecticut Chemical Research Corporation, Bridgeport, Conn. Filed Nov. 12, 1954.

**PINE KING**

For Aerosol Insecticide, Aerosol Deodorant.

First use June 1948.

SN 686,186. Douglas Holt (Est. 1919) Ltd., London, England. Filed Apr. 25, 1955. Sec. 2(f).

**Piston Seal**

For Compound for Coating the Cylinder Walls of Internal Combustion Engines To Compensate for Wear.

First use Mar. 8, 1945; in commerce July 2, 1945.

SN 686,451. Douglas Holt (Est. 1919) Ltd., London, England. Filed Apr. 28, 1955. Sec. 2(f).




The drawing is lined for red and blue. Applicant disclaims the term "Worn Cylinder Compensator" apart from the mark as shown.

For Compound for Coating the Cylinder Walls of Internal Combustion Engines To Compensate for Wear.

First use Mar. 8, 1945; in commerce July 2, 1945.

SN 695,279. Chek Chemical Products Company, Inc., Newark, N. J. Filed Sept. 26, 1955. Sec. 2(f).



**MOTH CHEK**

For Mothproofing Chemical Compound.

First use Nov. 29, 1946.

SN 696,508. Crown Zellerbach Corporation, San Francisco, Calif. Filed Oct. 17, 1955.



Owner of Reg. Nos. 247,311, 601,509, and others.

For Solids of Waste Sulfite Liquor, for Use as a Wetting Agent, Dispersing Agent, Emulsifier, Yeast Nutrient, and Intermediate for the Production of Organic Chemicals.

First use September 1954.

SN 697,013. Paradise Chemical Company, Inc., New York, N. Y. Filed Oct. 24, 1955. Sec. 2(f).

**PARADIZE**

For Insecticides and Mothicides—Namely, Crystals for Killing and Preventing Moths and Compositions for Killing Larvae and Eggs Consisting of Paradichlorobenzene.

First use January 1949.

SN 697,800. L & M Tile Products, Ltd., Dallas, Tex. Filed Nov. 7, 1955.

**POLYCRETE**

For Additive for Strengthening Masonry and Portland Cement.

First use July 22, 1955.

SN 700,344. South African Coal, Oil and Gas Corporation Limited, Sasolburg, Orange Free State, Union of South Africa. Filed Dec. 20, 1955.

## SASOL

Owner of South African Reg. No. 2563/54, dated Nov. 2, 1954.
For Chemical Substances Used in Manufactures, Photography and Anti-Corrosives Such as Hydrocarbons, Hydrocarbons Which Are Semi-Solid or Solid at Normal Temperature, Synthetic Waxes Produced by a Fischer-Tropsch Synthesis, Products of the Oxidation and Other Chemical Conversion of the Aforesaid Products, Also Alcohols, Ketones, Carboxylic Acids, Esters, Aldehydes, Sulfonic Acids, Sulfonates, Sulfonamides, Polyethylene and Other Polyolefins, Phenols and Urea.

SN 700,792. Imperial Chemical Industries Limited, London, England. Filed Dec. 29, 1955.

## LUBROL

Owner of British Reg. No. 730,677, dated May 27, 1954.
For Emulsifying Agents Being Chemical Products Used in Industry.

SN 561. C. H. Boehringer Sohn, Ingelheim am Rhine, Germany. Filed Jan. 12, 1956.

## ALOTEC

Owner of German Reg. No. 855,976, dated Nov. 6, 1954.
For Preparations for Destroying Animals and Plants.

SN 1,723. Ren Plastics, Inc., Lansing, Mich. Filed Jan. 30, 1956.

Ren

For Synthetic Resinous Plastic Materials in the Form of Liquids, Compositions and Hardeners and Curing Agents Therefor.
First use Sept. 19, 1955.

SN 2,800. Mycalex Corporation of America, Clifton, N. J. Filed Feb. 16, 1956.

## SUPRAMICA

Owner of Reg. Nos. 612,109, 625,390, and others.
For Ceramoplastics, i. e. Synthetic Mica Bonded With Glass in Powdered Form.
First use Feb. 8, 1956.

SN 4,689. Alexander Chemical Corp., Chicago, Ill. Filed Mar. 16, 1956.

## D-SOLV

For Water Conditioner in Dry Form Having an Anti-Corrosive Action That Prevents Scale Formation.
First use May 2, 1955.

SN 5,853. La France Manufacturing Co., St. Louis, Mo. Filed Apr. 5, 1956.

## FRANPIC

For Chemical Composition for Use in the Treatment of Ferrous Metals.
First use September 1955.

SN 7,908. Columbian Carbon Company, New York, N. Y. Filed May 8, 1956.



Owner of Reg. Nos. 363,617 and 366,916.
For Carbon Black Having General Utility in the Industrial Arts.
First use Dec. 15, 1955; design of lady holding torch on or about June 8, 1938; design of smoking lamp on or about June 8, 1938.

SN 8,144. National Lead Company, New York, N. Y. Filed May 11, 1956.

## BAROFOS

For Sodium Polyphosphates, Especially Sodium Tetraphosphate.
First use in November 1950.

SN 8,258. Old Colony Paint & Chemical Co., Los Angeles, Calif. Filed May 14, 1956.



Owner of Reg. No. 624,342.
For White Lead, Linseed Oil, Turpentine and Concrete Etching Compound.
First use in 1938.

SN 8,392. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed May 14, 1956.

## LECTON

Owner of Reg. Nos. 603,230 and 605,070.
For Synthetic Resins.
First use on or about Apr. 13, 1956.

SN 8,556. Hyland Laboratories, Los Angeles, Calif. Filed May 18, 1956.

## PRE-MED

For Disposable Petri Dish Containing Blood Agar Culture Medium.
First use Apr. 6, 1956.

SN 8,850. The Hubinger Company, Keokuk, Iowa. Filed May 23, 1956.

## CERIOCA

For Corn Starch for Industrial Purposes.
First use July 6, 1955.



SN 8,851. The Hubinger Company, Keokuk, Iowa. Filed May 23, 1956.

## CERAVA

For Corn Starch for Industrial Purposes.
First use July 6, 1955.

SN 9,028. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed May 25, 1956.

## SYNTEX

Owner of Reg. No. 297,612.
For Synthetic Resins.
First use 1936.

SN 9,029. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed May 25, 1956.

## EPI-TEX

Owner of Reg. No. 532,684.
For Synthetic Resins.
First use Dec. 27, 1947.

SN 9,030. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed May 25, 1956.

## EPI-REZ

Owner of Reg. No. 534,577.
For Synthetic Resins.
First use Apr. 5, 1948.

SN 9,031. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed May 25, 1956.

## STYRETEX

Owner of Reg. No. 536,457.
For Synthetic Resins.
First use Nov. 11, 1949.

SN 9,164. National Lead Company, New York, N. Y. Filed May 28, 1956.

## TRIMULSO

For Emulsifying Agent, Especially for Drilling Muds.
First use Apr. 19, 1956.

SN 9,184. The Sherwin-Williams Company, Cleveland, Ohio. Filed May 28, 1956.

## PERMACHROM

For Pigments.
First use June 1, 1951.

SN 9,378. Lila M. Meade, d. b. a. Meade Products Company, Boston, Mass. Filed May 31, 1956.

## CORRO-SHIELD

For Rust Inhibitive Chemical Coating.
First use on or about Apr. 24, 1956.

SN 9,721. Heliogen Products, Inc., Long Island City, N. Y. Filed June 6, 1956.

## HELIOGEN

Owner of Reg. No. 334,740.
For Disinfectant.
First use Mar. 29, 1956.

SN 10,076. Bradford Chemical Company, Inc., Bradford, Pa. Filed June 12, 1956.

## PERMA-PLUG

For Organic Chemical Compounds for Sealing Off Well Formations.
First use Oct. 23, 1953.

SN 10,344. Retzloff Chemical Company, Almeda, Tex. Filed June 15, 1956.

## SPONTO

For Surface Active Agents for Use as Emulsifying Agents, Detergents, and Demulsifiers.
First use May 1, 1954.

SN 10,391. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen on Rhine, Germany. Filed June 18, 1956.

## LUGATOL

For Dyestuffs.
First use May 11, 1956.

SN 10,443. Olin Mathieson Chemical Corporation, New York, N. Y. Filed June 18, 1956.

## SCAV-OX

For Hydrazine Solution for the Treatment of Boiler Water.
First use Apr. 12, 1956.

SN 10,450. The Miami Products & Chemical Co., Dayton, Ohio. Filed June 18, 1956.

## HYAGEN

For Combined Wetting and Sanitising Agent.
First use May 1, 1946.

SN 10,466. Pacific Coast Borax Company, Los Angeles, Calif. Filed June 18, 1956.

## FIREBRAKE

For Chemical Composition Used as Fire Retardant Material.
First use May 14, 1956.

### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

SN 12,261. The Diamond Match Company, New York, N. Y. Filed July 17, 1956.




For Matches.
First use May 15, 1956.



SN 12,908. Southwestern Industrial Electronics Company, Houston, Tex. Filed Aug. 13, 1956.

SN 700,307. The Flintkote Company, New York, N. Y. Filed Dec. 20, 1955.

## FLINTKOTE

For Synthetic Resinous Plastic Materials in the Form of Liquids, Compositions and Hardeners and Curing Agents Therefor.
First use Sept. 19, 1955.

SN 700,344. South African Coal, Oil and Gas Corporation Limited, Sasolburg, Orange Free State, Union of South Africa. Filed Dec. 20, 1955.

## SASOL

Owner of South African Reg. No. 2563/54, dated Nov. 2, 1954.
For Chemical Substances Used in Manufactures, Photography and Anti-Corrosives Such as Hydrocarbons, Hydrocarbons Which Are Semi-Solid or Solid at Normal Temperature, Synthetic Waxes Produced by a Fischer-Tropsch Synthesis, Products of the Oxidation and Other Chemical Conversion of the Aforesaid Products, Also Alcohols, Ketones, Carboxylic Acids, Esters, Aldehydes, Sulfonic Acids, Sulfonates, Sulfonamides, Polyethylene and Other Polyolefins, Phenols and Urea.

SN 700,792. Imperial Chemical Industries Limited, London, England. Filed Dec. 29, 1955.

## LUBROL

Owner of British Reg. No. 730,677, dated May 27, 1954.
For Emulsifying Agents Being Chemical Products Used in Industry.

SN 561. C. H. Boehringer Sohn, Ingelheim am Rhine, Germany. Filed Jan. 12, 1956.

## ALOTEC

Owner of German Reg. No. 855,976, dated Nov. 6, 1954.
For Preparations for Destroying Animals and Plants.

SN 1,723. Ren Plastics, Inc., Lansing, Mich. Filed Jan. 30, 1956.

Ren

For Synthetic Resinous Plastic Materials in the Form of Liquids, Compositions and Hardeners and Curing Agents Therefor.
First use Sept. 19, 1955.

SN 2,800. Mycalex Corporation of America, Clifton, N. J. Filed Feb. 16, 1956.

## SUPRAMICA

Owner of Reg. Nos. 612,109, 625,390, and others.
For Ceramoplastics, i. e. Synthetic Mica Bonded With Glass in Powdered Form.
First use Feb. 8, 1956.

SN 4,689. Alexander Chemical Corp., Chicago, Ill. Filed Mar. 16, 1956.

## D-SOLV

For Water Conditioner in Dry Form Having an Anti-Corrosive Action That Prevents Scale Formation.
First use May 2, 1955.

SN 5,853. La France Manufacturing Co., St. Louis, Mo. Filed Apr. 5, 1956.

## FRANPIC

For Chemical Composition for Use in the Treatment of Ferrous Metals.
First use September 1955.



SN 5,158. Bethlehem Steel Company, Bethlehem, Pa. Filed Mar. 26, 1956.

SN 8,256. Neall Pressed Products Company, San Leandro, Calif. Filed May 14, 1956.

SN 12,906. Southwestern Industrial Electronics Company, Houston, Tex. Filed July 26, 1956.

SIE

For Dynamite Storage Magazines and for Blasters.
First use on or before Feb. 15, 1945, on dynamite storage magazines.

CLASS 10

FERTILIZERS

SN 12,619. W. R. Grace & Co., New York, N. Y. Filed July 23, 1956.

NACONITE

For Fertilizers.
First use June 1, 1956.

SN 13,065. Plantation Fertilizers Corp., Houma, La. Filed July 30, 1956.

Nitra-Mix

For Liquid Fertilizer Solutions of Soil Nutrients and Conditioners Including Nitrogen, Phosphates, and Potash.
First use Aug. 1, 1953.

CLASS 11

INKS AND INKING MATERIALS

SN 12,297. Rochester Ribbon & Carbon Co., Inc., Rochester, N. Y. Filed July 17, 1956.

ORCHID

Owner of Reg. No. 516,152.
For Carbon Paper, Typewriter Ribbons, and Adding Machine Ribbons.
First use July 6, 1947.

CLASS 12

CONSTRUCTION MATERIALS

SN 698,953. Buxton Manufacturing Company, Inc., South Kearny, N. J. Filed Nov. 28, 1955.

MASTERKRAFT

The drawing is lined for brown but no claim is made to color.
For Siding for Walls Made of Compressed Fibers, Metal, Compressed Mineral Granules and Similar Material.
First use Nov. 13, 1953.

SN 700,307. The Flintkote Company, New York, N. Y. Filed Dec. 20, 1955.

Flintcal JFR

Owner of Reg. No. 433,254.
For Compound for Sealing of Expansion or Contraction Joints in Concrete Airport Pavements.
First use on or about Apr. 5, 1950.

SN 700,717. The Dicks-Pontius Company, Dayton, Ohio. Filed Dec. 28, 1955.

DP

Owner of Reg. Nos. 405,683 and 406,929.
For Putty and Glazing Compounds, Caulking Compounds, Rope Caulk, Mastics for Use in Caulking, and Pre-Formed Glazing Strips of Elastomeric Material.
First use on or about Mar. 20, 1934; on or about Feb. 19, 1935, as to "D-P."

SN 2,515. The Eckel Corporation, Cambridge, Mass. Filed Feb. 13, 1956.

ECKOUSTIC

For Panels Formed With Glass Wool or Other Material Between Them for the Absorption and Reduction of Sound.
First use on or about Dec. 15, 1955.

SN 3,224. Pro-Tect-U Awning-Shutter Corporation, Miami, Fla. Filed Feb. 23, 1956.

PRO-TECT-U

For Wood, Metal, and Composition Awning Shutters.
First use Sept. 30, 1926.

SN 3,507. Air Master Corporation, Philadelphia, Pa. Filed Feb. 28, 1956.

PIVOT-MASTER

For Combination Storm and Screen Windows.
First use Jan. 9, 1956.

SN 5,099. Insul-Mastic Laboratories, Inc., Summit, Ill. Filed Mar. 23, 1956.

INSUL-WHITE

For Roof and Sidewall Mastic Coating Essentially Comprising a Plasticised High Styrene-Butadiene Binder, Titanium Pigment, and Mica.
First use Feb. 6, 1956.



SN 5,158. Bethlehem Steel Company, Bethlehem, Pa. Filed Mar. 26, 1956.

BETHLEHEM SLAB FORM

The words "Slab Form" are disclaimed apart from the mark.
Owner of Reg. No. 171,606.
For Corrugated Steel Sheets.
First use Feb. 29, 1956.

SN 5,248. Steel Door Corporation, Birmingham, Mich. Filed Mar. 26, 1956.

FLOATAWAY

For Steel Folding Doors for Closets and the Like.
First use Feb. 10, 1956.

SN 5,315. Midwest Jobbers, Inc., Chicago, Ill. Filed Mar. 27, 1956.

REDI-TRIM

For Wood Trim—Namely, Wood Mouldings and Wood Window and Door Trim.
First use Mar. 19, 1956.

SN 5,445. National Gypsum Company, Buffalo, N. Y. Filed Mar. 29, 1956.

CHROMA-TONE

For Asbestos-Cement Siding Shingles.
First use May 24, 1955.

SN 5,810. ARB Window Sales Company, Detroit, Mich. Filed Apr. 5, 1956.

ARB

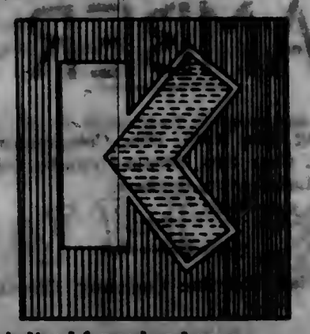
For Horizontal and Vertical Metal Windows.
First use Aug. 16, 1950.

SN 5,837. Harbison-Walker Refractories Company, Pittsburgh, Pa. Filed Apr. 5, 1956.

H-W KALA

Owner of Reg. Nos. 221,923 and 564,919.
For Fire Brick.
First use Apr. 4, 1937.

SN 6,258. Kessler Products Co., Inc., Youngstown, Ohio. Filed Apr. 12, 1956.



The drawing is lined for red and gray.
For Construction Materials, Chiefly of Plastics, Such as Glass-Fiber Reinforced Plastic Panels, Plastic Weatherstripping, Plastic Screen Spline, Window Tracks, Etc.
First use 1950.

SN 8,256. Neall Pressed Products Company, San Leandro, Calif. Filed May 14, 1956.

Cedarcraft

For Pressed Board Panels Made of Wood Chips Bonded Together by Resin.
First use Jan. 26, 1956.

SN 8,569. Donald R. Munro, Jr., d. b. a. D. R. Munro & Son Company, Portland, Oreg. Filed May 18, 1956.

GRIPAC

For Panel Forming Members.
First use Feb. 28, 1956.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 694,373. Hedeman Products, Incorporated, Great Neck, N. Y. Filed Sept. 8, 1955.

POLYFLOW

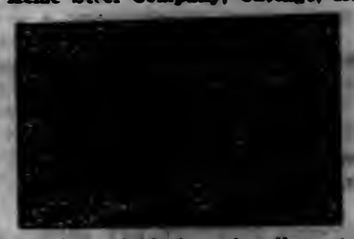
For Flexible Tubing for Transmission of Fluids.
First use Aug. 18, 1955.
Subj. to Intf. with SN 11,084.

SN 11,084. The Imperial Brass Manufacturing Company, Chicago, Ill. Filed June 27, 1956.

POLY-FLO

For Fittings for Use With Plastic Tubing.
First use October 1953.
Subj. to Intf. with SN 694,373.

SN 11,214. Acme Steel Company, Chicago, Ill. Filed June 29, 1956.



The mark consists of black and yellow stripes with the letters "UL" on black stripes and the words "Acme Steel" on a black background.
For Metal Strap Fastening Seals.
First use Jan. 5, 1953.

SN 11,321. Acme Steel Company, Chicago, Ill. Filed July 2, 1956.



The mark consists of black and yellow stripes with the letters "ULX" on black stripes and the words "Acme Steel" on a black background.
For Metal Strap Fastening Seals.
First use Feb. 11, 1956.



SN 11,426. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,427. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,428. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,429. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,430. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,431. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,432. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,433. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,434. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,435. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,436. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,437. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,438. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,439. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,440. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,441. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,442. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,443. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,444. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,445. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,446. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,447. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,448. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,449. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,450. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,451. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,452. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,453. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,454. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,455. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,456. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,457. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,458. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,459. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,460. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,470. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,471. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,472. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,473. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,474. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,475. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,476. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,477. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,480. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,512. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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SN 11,513. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

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First use Apr. 1, 1956.

SN 11,514. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,515. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,516. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,517. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,518. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,519. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,520. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,521. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,522. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,523. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,524. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,525. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,526. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,527. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,528. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,529. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,530. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,531. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,532. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,533. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,534. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,535. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,536. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,537. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

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First use Apr. 1, 1956.

SN 11,538. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

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First use Apr. 1, 1956.

SN 11,539. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,540. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,541. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,542. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,543. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,544. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,545. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

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First use Apr. 1, 1956.

SN 11,546. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,547. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

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First use Apr. 1, 1956.

SN 11,548. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

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First use Apr. 1, 1956.

SN 11,549. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

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First use Apr. 1, 1956.

SN 11,550. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,551. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,552. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,553. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,554. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,555. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,556. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,557. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,558. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,559. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,560. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,561. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,562. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

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First use Apr. 1, 1956.

SN 11,563. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,564. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,565. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,566. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,567. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,568. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,569. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,570. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,571. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,572. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,573. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,574. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,575. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,576. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,577. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,578. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,579. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,580. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,581. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,582. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,583. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,584. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,585. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,586. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,587. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,588. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,589. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,590. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed June 29, 1956.

STOCKHAM

For Valves and Fittings.
First use Apr. 1, 1956.

SN 11,591. Stockham Valves & Fittings, In

SN 11,428. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed July 2, 1956. Sec. 2(f).

**STOCKHAM**

For Valves and Pipe Fittings.
First use Jan. 1, 1923, on pipe fittings.

SN 11,561. Elkhart Brass Manufacturing Company, Inc., Elkhart, Ind. Filed July 5, 1956.

**TRI-LOC**

For Holders for Hose Nozzles and More Particularly for Holders for Fire Hose Nozzles.
First use Sept. 30, 1946.

SN 11,608. The Premier Autoware Company, Cleveland, Ohio. Filed July 5, 1956.

**HI-TRONIC**

For Threaded Fasteners—Namely, Cap Screws.
First use May 24, 1956.

SN 11,627. Speakman Company, Wilmington, Del. Filed July 5, 1956.

**UNI-MIX**

For Sink Faucets Equipped With Mixing Valves, Some of Which Faucets Are Also Equipped With Hoses, Sprays, and/or Soap Dishes.
First use Feb. 28, 1956.

SN 11,792. Precision Machine Products, Alameda, Calif. Filed July 9, 1956.

**FASTITE**

For Self-Drilling Expansion Shells.
First use Aug. 8, 1955.

SN 11,881. Stratoflex, Inc., Fort Worth, Tex. Filed July 10, 1956.

**STRATOGRIP**

For Metal Hose Fittings.
First use Mar. 22, 1956.

SN 12,041. Robert R. McKenzie, d. b. a. R. R. McKenzie Company, Sun Valley, Calif. Filed July 12, 1956. Sec. 2(f).

**SPIKE-AID**

Owner of Reg. No. 527,395.
For Golf Shoe Spike Plates, and Wrenches Therefor.
First use Jan. 1, 1946.

SN 12,219. Remington Arms Company, Inc., Bridgeport, Conn. Filed July 16, 1956. Sec. 2(f).

**Remington**

Owner of Reg. Nos. 187,871 and 585,910.
For Fastening Devices—Namely, Studs, Pins, and Bolts Adapted To Be Driven by the Combustion of a Propellent Charge.
First use on or about Mar. 28, 1951, on studs.

## CLASS 14

## METALS AND METAL CASTINGS AND FORGINGS

SN 9,322. H. Kramer and Company, Chicago, Ill. Filed May 9, 1956. Sec. 2(f).



For Metal Ingots, Castings, and Other Basic Metallic Shapes and Forms.
First use on or about July 1, 1881.

SN 14,609. H. Kramer and Company, Chicago, Ill. Filed May 9, 1956.

**AJAX**

For Metal Ingots, Castings, and Other Basic Metallic Shapes and Forms.
First use July 1, 1880.

## CLASS 15

## OILS AND GREASES

SN 698,568. Amber Lubricants Co., Long Beach, Calif. Filed Nov. 21, 1955.



**AMBER**

For Lubricating Oils, Motor Oils, Compressor Oils, Soluble and Cutting Oils, Gear Oils, Steam Cylinder Oils, Valve Oils, Diesel Fuel, and Lubricating Greases.
First use in the year 1930.

SN 15,149. Sinclair Refining Company, Chicago, Ill. Filed Sept. 5, 1956.

**LIKUT**

For Cutting Oil.
First use Aug. 6, 1956.



## CLASS 16

## PROTECTIVE AND DECORATIVE COATINGS

SN 698,859. General Paint Corporation, San Francisco, Calif. Filed Nov. 23, 1955.



The drawing is lined for yellow. Owner of Reg. Nos. 281,160 and 408,462.
For Ready-Mixed Paints, Paint Enamels, Lacquers, Varnishes, Primers, Sealers, Tinting Colors, Stains, and Thinners.
First use January 1954.

SN 5,669. The Proko Company, Dallas, Tex. Filed Apr. 2, 1956.

**TRIKO PRODUCTS**

The word "Products" is disclaimed apart from the mark as shown.
For Paint.
First use Dec. 21, 1955.

SN 7,693. Pittsburgh Plate Glass Company, Pittsburgh, Pa. Filed May 4, 1956.

**DURETHANE**

For Polyurethane Coatings and Finishes.
First use Mar. 31, 1956.

SN 9,066. Willen Chemical Co., Odenton, Md. Filed May 25, 1956.

**PERMATRED**

For Floor Paint.
First use May 17, 1956.

SN 10,061. R. M. Hollingshead Corporation, Camden, N. J. Filed May 15, 1956.

**WHIZ**

Owner of Reg. Nos. 221,399, 565,465, and others.
For Japan Iron-Enamel, Touch-Up Enamel for Automobiles, Ready-Mixed Liquid Tire Cover Paint, Varnish, and Ready-Mixed Shellac.
First use Sept. 1, 1905.

TM 713 O. G.—6

## CLASS 18

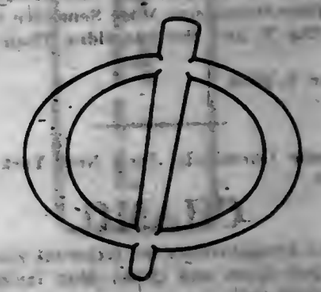
## MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 682,697. Amber Laboratories, Inc., Milwaukee, Wis. Filed Mar. 3, 1955.

**QUAFF-AID**

For Tablets Containing Vitamin B and Thiamin for Discomfort Due to Over-Consumption of Alcohol.
First use Feb. 14, 1955.

SN 693,246. Charles E. Frosst & Co., Montreal, Quebec, Canada. Filed Aug. 17, 1955.



The mark is a representation of the Greek letter "Phi."
Owner of Reg. No. 345,021.
For Pharmaceutical Preparations in the Form of Medicinal Tablets Containing Vitamins, Hormones, Analgesics, Sedatives, Antacids, Anticoagulants, Antibiotics, Cardiac Stimulants, and Anti-Thyroid or Anti-Bacterial Substances.
First use Sept. 26, 1940; in commerce Mar. 10, 1952.

SN 693,482. Ortho Pharmaceutical Corporation, Raritan, N. J. Filed Aug. 22, 1955.

**MASSÉ**

Owner of Reg. No. 570,905.
For Pharmaceutical Cream With Bacteriostatic and Anti-Fungal Qualities.
First use Jan. 31, 1950.

SN 7,403. Ward & Stalnaker, Riverside, Calif. Filed Apr. 30, 1956.

**W & S**

For Balanced Protein Food Supplement in Tablet and Capsule Form for Human Use.
First use Jan. 15, 1956.



SN 11,428. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed July 2, 1956. Sec. 2(f).

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First use Jan. 1, 1923, on pipe fittings.

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First use Mar. 22, 1956.

SN 12,041. Robert R. McKenzie, d. b. a. R. R. McKenzie Company, Sun Valley, Calif. Filed July 12, 1956. Sec. 2(f).

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First use Jan. 1, 1946.

SN 12,219. Remington Arms Company, Inc., Bridgeport, Conn. Filed July 16, 1956. Sec. 2(f).

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First use in the year 1930.

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**LIKUT**

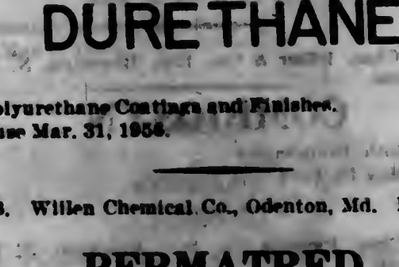
For Cutting Oil.
First use Aug. 6, 1956.



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First use Sept. 1, 1905.

TM 713 O. G.—6

## CLASS 18

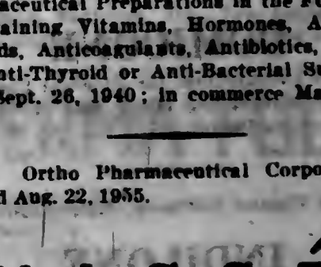
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SN 693,246. Charles E. Frosst & Co., Montreal, Quebec, Canada. Filed Aug. 17, 1955.



The mark is a representation of the Greek letter "Phi."
Owner of Reg. No. 345,021.
For Pharmaceutical Preparations in the Form of Medicinal Tablets Containing Vitamins, Hormones, Analgesics, Sedatives, Antacids, Anticoagulants, Antibiotics, Cardiac Stimulants, and Anti-Thyroid or Anti-Bacterial Substances.
First use Sept. 26, 1940; in commerce Mar. 10, 1952.

SN 693,482. Ortho Pharmaceutical Corporation, Raritan, N. J. Filed Aug. 22, 1955.

**MASSÉ**

Owner of Reg. No. 570,905.
For Pharmaceutical Cream With Bacteriostatic and Anti-Fungal Qualities.
First use Jan. 31, 1950.

SN 7,403. Ward & Stalnaker, Riverside, Calif. Filed Apr. 30, 1956.

**W & S**

For Balanced Protein Food Supplement in Tablet and Capsule Form for Human Use.
First use Jan. 15, 1956.

SN 7,404. Ward & Stalnaker, Riverside, Calif. Filed Apr. 30, 1956.




Applicant disclaims the term "Protein 90" apart from the mark as shown.

For Balanced Protein Food Supplement in Tablet and Capsule Form for Human Use.
First use Jan. 15, 1956.

SN 7,517. Eli Lilly and Company, Indianapolis, Ind. Filed May 2, 1956.

## V-CILLIN-SULFA

No claim is made to the word "Sulfa" apart from the mark. Owner of Reg. Nos. 523,793, 524,119, and 633,060.

For Medicinal Preparation of Penicillin V With Triple Sulfonamides, for the Prophylaxis and Treatment of Infections Due to Micro-Organisms More Sensitive to the Combination of Penicillin V and Sulfonamides Than to Either One Alone.
First use Mar. 5, 1956.

SN 8,751. Dome Chemicals, Inc., New York, N. Y. Filed May 22, 1956.

## CHAMO

For Medicinal Preparations for External Use in the Treatment of Skin Infections and Other Skin Irritations.
First use in April 1954.

SN 8,755. Dome Chemicals, Inc., New York, N. Y. Filed May 22, 1956.

## DOMICONE

For Medicinal Preparations for External Use in the Treatment of Skin Infections and Other Skin Irritations.
First use November 1954.

SN 8,999. The Upjohn Company, Kalamazoo, Mich. Filed May 24, 1956.

## INDILONE

For Preparation for the Treatment of Cardiovascular Disease.
First use Dec. 9, 1955.

SN 9,000. The Upjohn Company, Kalamazoo, Mich. Filed May 24, 1956.

## ALBIOTIC

For Antibiotic Preparation.
First use Jan. 18, 1956.

SN 9,003. The Upjohn Company, Kalamazoo, Mich. Filed May 24, 1956.

## ALBADROPS

For Antibiotic Preparation.
First use Jan. 18, 1956.

SN 9,004. The Upjohn Company, Kalamazoo, Mich. Filed May 24, 1956.

## ALBAGUENT

For Antibiotic Preparation.
First use Jan. 18, 1956.

SN 9,311. Wallace & Tiernan Incorporated, Belleville, N. J. Filed May 29, 1956.

## BIFRAN

For Preparation Used in Treatment for Obesity.
First use Apr. 16, 1954.

SN 9,312. Wallace & Tiernan Incorporated, Belleville, N. J. Filed May 29, 1956.

## MALCODEX

For Antibiotic Nasal Decongestant.
First use Sept. 16, 1948.

SN 9,336. Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. Filed May 31, 1956.

## CODALONE

For Analgesic Drug.
First use May 8, 1956.

SN 9,353. Flint, Eaton and Company, Decatur, Ill. Filed May 31, 1956.

## URONAMIDE

For Urinary Antiseptic for Combating Infection in the Genito-Urinary Tract.
First use Jan. 15, 1956.

SN 9,386. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 31, 1956.

## BONOMYCIN

For Antibiotic Preparation.
First use May 18, 1956.

SN 9,387. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 31, 1956.

## COMBIOSYN

For Antibiotic Preparation.
First use May 18, 1956.

SN 9,388. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 31, 1956.

## HETEROMYCIN

For Antibiotic Preparation.
First use May 18, 1956.

SN 9,389. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 31, 1956.

## SIGNAMYCIN

For Antibiotic Preparation.
First use May 18, 1956.

SN 9,536. Thos. Leeming & Co., Inc., New York, N. Y. Filed June 4, 1956.

## Piperazate

For Anthelmintic Preparation.
First use Feb. 27, 1956.



SN 9,584. The Paul Plessner Company, Detroit, Mich. Filed June 4, 1956.

## Azodettes

For Urinary Tract Antibacterial Analgesic.
First use May 4, 1956.

SN 9,651. Larx Pharmatetic Corp., New York, N. Y. Filed June 5, 1956.

## ANDERIN

For Tablets for the Relief of Pain Due to Headache, Neuralgia, Muscular Irritation, Etc.
First use Jan. 13, 1956.

SN 9,652. Lovens Kemiske Fabrik ved A. Kongsted, Copenhagen, Denmark. Filed June 5, 1956.

## GONADOPLEX

Owner of Danish Reg. No. 23—1940, dated Jan. 13, 1940.

For Hormone Preparations.

SN 9,725. Interstate Chemical Co., West Trenton, N. J. Filed June 6, 1956.

## INJECTO-BIOTIC

For Medicinal Preparation for Veterinary Use in the Treatment of Mastitis.
First use Dec. 1, 1955.

SN 10,253. Parlam Corporation, New York, N. Y. Filed June 14, 1956.

## TAMINALS

For Preparation To Enhance Metabolic Conditions and More Specifically a Vitamin and Mineral Preparation.
First use in the first half of November 1953.

SN 10,377. Abbott Laboratories, North Chicago, Ill. Filed June 18, 1956.

## SPONTIN

For Antibiotic Preparation.
First use May 7, 1956.

### CLASS 19
### VEHICLES

SN 648,763. Cletus A. Klein, d. b. a. Caro Manufacturing Co., Caro, Mich. Filed June 15, 1953.

MINUTE BOY TOW-PILOT

No exclusive claim is made to the word "Tow" and the representation of the tow-bar apart from the mark shown.

For Tow Bars.
First use June 9, 1953.

SN 700,640. Neptuna Corporation, Los Angeles, Calif. Filed Dec. 27, 1955.

## Boatmobile

For Floating Trailer, Floating on Water and Riding While on Land as an Ordinary Land House Trailer.
First use Dec. 1, 1955.

SN 7,770. Copco Trailer Division, a division of Copco Steel and Engineering Company, Centerline, Mich. Filed May 7, 1956.

## COPCO

For Tractor-Hauled Trailers, of Either Van, Open, or Flat Platform Types.
First use Apr. 30, 1956.

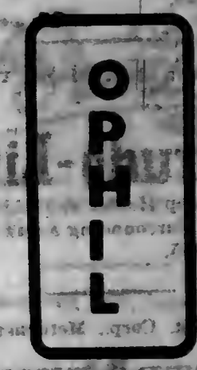
SN 10,302. Crane Carrier Corporation, Tulsa, Okla. Filed June 15, 1956.

## "MIXER-MASTER"

For Trucks Used To Haul Ready-Mixed Concrete Mixers.
First use Oct. 1, 1955.

### CLASS 21
### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 660,222. O. Philipp & Company, Inc., New York, N. Y. Filed Jan. 27, 1954.




For Power Plant Comprising Electrical and Mechanical Components, for Generating Power for Industrial Application.
First use July 29, 1953.

SN 668,476. States Batteries, Inc., Los Angeles, Calif., to Atlas Supply Company, Newark, N. J. Filed June 18, 1954.

## PERMA-FUL

Owner of Reg. No. 389,485.

For Storage Batteries.
First use May 6, 1947.

SN 681,862. Magnatran Incorporated, Kearny, N. J. Filed Feb. 17, 1955. Sec. 2(f).




For Electrical Equipment—Namely, Transformers and Reactors.
First use June 24, 1954.

SN 689,503. Julian A. McDermott Corp., Corona, N. Y. Filed June 14, 1955.

MULTI-PULSE

For Electrically Operated Warning Lights.
First use Jan. 2, 1955.

SN 332. William E. Harrison, New York, N. Y. Filed Jan. 9, 1956.

HYDR⊙TOR

For Antennas, Antenna Control Mechanisms and Systems or Parts Thereof.
First use Oct. 1, 1955.

SN 2,321. Trade Distributors, Inc., New York, N. Y. Filed Feb. 8, 1956.

EMPIRE

For Radio Receiving Sets.
First use Jan. 4, 1956.

SN 2,999. Magni-Flood, Inc., Mount Vernon, N. Y. Filed Feb. 20, 1956.

Extrude-Lite

For Island Area Lamp Holder and Light Used for Lighting the Pump Islands and Surrounding Areas at Gasoline Stations.
First use Oct. 10, 1955.

SN 5,771. Guiton Mfg. Corp., Metuchen, N. J. Filed Apr. 4, 1956.

ELECTRO-SENTRY

For Visible and Audible Alarm Systems for Homes, Stores, Factories, Warehouses, Other Buildings and Their Surrounding Areas Which Are Actuated by the Motion of Persons, Vehicles, Animals, Etc.
First use Mar. 3, 1956.
Subj. to Intf. with S. N. 10,448.

SN 7,956. Transitron Electronic Corporation, Melrose, Mass. Filed May 8, 1956.

SILIMAT

For Semi-Conductor Materials, Diodes, Transistors, and Rectifiers.
First use Apr. 24, 1956.

SN 8,729. Ungar Electric Tools, Inc., Los Angeles, Calif. Filed May 21, 1956. Sec. 2(f).

Ungar

Owner of Reg. No. 327,053.
For Electric Burning Pencils, Electric Soldering Iron, Electric Soldering Iron Tips and Electric Heating Units for Electric Burning Pencils.
First use Nov. 2, 1948, on electric heating units.

SN 9,421. Airtron, Inc., Linden, N. J. Filed June 1, 1956. Owner of Reg. Nos. 439,244 and 528,389.

COAXAGUIDE

For Flexible and Rigid Coaxial Waveguide Used in Microwave Plumbing Systems To Channel Electrical Energy From One Point to Another.
First use Apr. 15, 1956.

SN 10,448. Louis J. McManamee, d. b. a. Columbia Electric Mfg. Co., East St. Louis, Ill. Filed June 18, 1956.




For Burglar Alarm for Automobiles.
First use on or before May 1, 1949.
Subj. to Intf. with SN 5,771.

SN 10,471. Peterson Manufacturing Company, Inc., Kansas City, Mo., to Ratliff Construction Co., Kansas City, Mo. Filed June 18, 1956.

BIG PETE

For Vehicle Lamps.
First use Apr. 1, 1949.

SN 10,798. Piggly Wiggly Corporation, Jacksonville, Fla. Filed June 22, 1956.

PLYMOUTH

For Light Bulbs.
First use Feb. 1, 1955.

SN 10,873. General Electric Company, Auburn, N. Y. Filed June 25, 1956.

THRU-CON

For Printed Circuit Boards for Use in Electronic Equipment.
First use Oct. 22, 1954.

SN 11,163. The Filtron Company Inc., Flushing, N. Y. Filed June 28, 1956.

FIL-CAP

For Radio Interference Suppression Filter Capacitors.
First use Mar. 1, 1956.

SN 11,271. P. R. Mallory & Co., Inc., Indianapolis, Ind. Filed June 29, 1956.

SOLIDION

For Dry Batteries.
First use Dec. 28, 1954.



SN 11,372. Hughes Aircraft Company, Culver City, Calif. Filed July 2, 1956.

MEMOTRON

Owner of Reg. No. 601,594.
For Cathode Ray Tubes.
First use on or about Nov. 18, 1953.

SN 11,569. The A. C. Gilbert Company, New Haven, Conn. Filed July 5, 1956. Sec. 2(f).

GILBERT

Owner of Reg. Nos. 137,237, 301,576, and 881,145.
For Household Electric Appliances for Preparing Food—Namely, Food Mixers and Food Cookers.
First use July 1, 1913, on food mixers.

SN 11,730. Adalet Manufacturing Company, Cleveland, Ohio. Filed July 9, 1956.

PEGI

For Insulating Bushings.
First use July 5, 1955.

SN 11,731. Adalet Manufacturing Company, Cleveland, Ohio. Filed July 9, 1956.

SKY-TIE

For Cable Clamps.
First use March 1952.

SN 11,732. Adalet Manufacturing Company, Cleveland, Ohio. Filed July 9, 1956.

SALI

For Insulating Bushings.
First use June 1944.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

SN 693,716. Louis Johnson Company, Highland Park, Ill. Filed Aug. 24, 1955. Sec. 2(f).

JOHNSON'S SILVER MINNOW

Owner of Reg. No. 328,437.
For Artificial Fish Lures.
First use 1923.

SN 10,071. Norbert Aubin, d. b. a. Aubin Enterprises, Inglewood, Calif. Filed June 12, 1956.

Chee-Ki

For Toys, in the Shapes of Various Animals.
First use Apr. 15, 1956.

SN 10,906. Eddie Pope, d. b. a. Eddie Pope & Co., Altadena, Calif. Filed June 25, 1956.

HOT SHOT

For Artificial Fish Lures.
First use Feb. 14, 1948.

SN 11,039. The Seamless Rubber Company, New Haven, Conn. Filed June 26, 1956.

HERCULES

For Rubber Covered Basketballs.
First use Jan. 10, 1950.

SN 11,323. Aktiebolaget Urfabriken, Svangsta, Sweden. Filed July 2, 1956.

Ambassadeur

For Fishing Reels.
First use in August 1952.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 690,354. West End Iron Works, Albany, N. Y. Filed June 27, 1955.

Formit

For Scroll Forming Dies and Pre-Shaped Iron Bars and Wire for Forming Decorative and Ornamental Iron Work.
First use Apr. 11, 1955.

SN 1,281. Binn Conveyors, Inc., Lapeer, Mich. Filed Jan. 23, 1956.

Calveyor

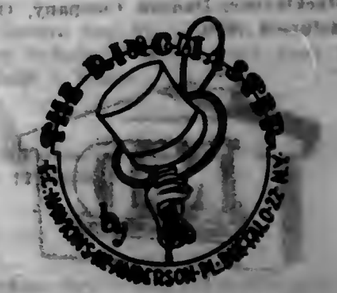
For Endless Belt Conveyors and Parts Therefor.
First use Apr. 13, 1955.

SN 1,438. Hammond Machinery Builders, Inc., Kalamazoo, Mich. Filed Jan. 25, 1956. Sec. 2(f).

DUSKOLECTOR

For Dust Collectors.
First use in the year 1942.

SN 3,185. Earl C. Hawkins, Buffalo, N. Y. Filed Feb. 23, 1956.




For Hand Tool for Making Packing Rings for Stuffing Boxes.
First use June 6, 1952.

SN 6,767. Tech-Art Plastics Company, Morristown, N. J. Filed Apr. 19, 1956.

BB

For Steel Molds Used in Producing Molded Plastic Items.
First use in 1912.

SN 7,451. National Engineering Company, Chicago, Ill. Filed May 1, 1956.

SCREEN MASTER

For Vibrating Screen and Magnetic Separator for Screening Dry Materials.
First use Apr. 11, 1956.

SN 7,452. National Engineering Company, Chicago, Ill. Filed May 1, 1956.

MOLDER'S HELPER

The drawing is lined for green.
For Elevating Aerator for Sand.
First use Apr. 11, 1956.

SN 9,746. Scott-Atwater Manufacturing Company, Minneapolis, Minn. Filed June 6, 1956.

Bail-a-matic

For Outboard Motors and Boat Bailing Attachments Therefor.
First use Dec. 31, 1953.

SN 9,858. Globe Hoist Company, Des Moines, Iowa. Filed June 8, 1956.

TRANS-O-MATIC

For Dock Leveling Ramps.
First use on or about Apr. 13, 1956.

SN 9,878. Macklanburg-Duncan Company, Oklahoma City, Okla. Filed June 8, 1956.

M-D

Owner of Reg. No. 284,457.
For Caulking Guns.
First use April 1956.

SN 9,894. Ribbon Copies Sales Corp. of America, Cleveland, Ohio. Filed June 8, 1956.

RIBCO-TYPER

For Typewriter Attachment.
First use May 25, 1956.

SN 10,097. National Automotive Parts Association, Detroit, Mich. Filed June 11, 1956. COLLECTIVE MARK.

FLEET

For Mechanical and Hydraulic Jacks.
First use Oct. 25, 1954.

SN 10,079. Allen A. Burleson, Dallas, Tex. Filed June 12, 1956.

NIF-T-VEN

For Coin-Actuated Vending Machines for Vending Notebook Paper, Magazines, and Similarly Packaged Paper Sheets.
First use Jan. 1, 1956.

SN 10,101. Peters & Russell, Inc., Springfield, Ohio. Filed June 12, 1956.

Little Sucker

For Liquid Pumps.
First use Oct. 7, 1955.

SN 10,449. W. F. Meyers Company, Inc., Bedford, Ind. Filed June 18, 1956.

MAINLINE

For Circular Saws.
First use May 7, 1956.

SN 10,553. Red Jacket Manufacturing Co., Davenport, Iowa. Filed June 19, 1956.

EXTRACTA

For Pumping Systems and Apparatus for Pumping Motor Fuel Such as Gasoline, Including Remote Control Motor Driven Pump Unit, Control Box, Discharge Manifold, Riser Pipe and Flange Assembly, Manhole Covers and the Like All Adapted for Assembly in a Unit To Pump Fuel From a Remote Storage Tank to a Dispensing Pedestal.
First use on about Apr. 18, 1956.

SN 10,605. Knit-King Corporation, New York, N. Y. Filed June 20, 1956.

RIBMASTER

For Hand Knitting Machines.
First use Nov. 30, 1955.

SN 11,528. Auto Specialties Manufacturing Co., St. Joseph, Mich. Filed July 5, 1956.

AUSCO

Owner of Reg. Nos. 357,670, 373,135, and 411,188.
For Clutches.
First use on or about Mar. 9, 1956.



SN 11,623. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

PULVI-MIXER

Owner of Reg. No. 401,466.
For Road Mixing and Stabilizing Machines and Parts Thereof—Namely, Tractors, Mixing Chambers, Rotors, Tines, Hydraulic Systems, Power Steering Systems, and Underbody Scarifiers.
First use in or about July 1939.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

SN 691,489. Marshfield Manufacturing Corporation, Long Island City, N. Y. Filed July 18, 1955.

Liqua-matic

For Dispensers With Automatic Timing Devices for Attachment to Clothes Washing and Dry Cleaning Machines for Automatically Dispensing Measured Quantities of Liquid Chemicals and Detergents Used in Laundering and Dry Cleaning Operations.
First use Apr. 27, 1955.

SN 693,949. Sullivan Valve and Engineering Company, Butte, Mont. Filed Aug. 30, 1955.

Adjusta-trol

For Temperature Responsive Controls for Regulating the Fluid Heating Medium of Home Heating Systems in Accordance With Variations in Temperature of the Outside Air.
First use Feb. 1, 1955.

SN 2,073. B-I-F Industries, Inc., Providence, R. I. Filed Feb. 6, 1956.

SENS-A-GRAM

For Mechanical Controller for Producing Corrective Action in Feeding Mechanisms.
First use Dec. 12, 1955.

SN 7,415. Barbour-Stockwell Company, Cambridge, Mass. Filed May 1, 1956. Sec. 2(f).

MILEMASTER

For Odometers.
First use February 1949.

SN 7,467. Allen Electric and Equipment Company, Kalamazoo, Mich. Filed May 2, 1956.

DISTRIBUTRON

For Apparatus for Testing Ignition System of an Internal Combustion Engine.
First use Apr. 11, 1956.

SN 7,468. Allen Electric and Equipment Company, Kalamazoo, Mich. Filed May 2, 1956.

SAFTI-SEAL

For Compression Tester.
First use Apr. 5, 1956.

## CLASS 32

## FURNITURE AND UPHOLSTERY

SN 3,778. Super-Foam Company, Brooklyn, N. Y. Filed Mar. 2, 1956. Sec. 2(f).

Super-Foam

Owner of Reg. No. 532,595.
For Upholstery Cushioning, Mattresses and Bedding, Pillows, Seat Pads, Headrests, Footrests, Arm Rests.
First use Feb. 3, 1948.

SN 13,656. Eriksen & Hutchins, Wilmington, Del. Filed Aug. 9, 1956.

TOT BOX

For Chair for Infants.
First use Aug. 19, 1955.

SN 13,753. Futorian Manufacturing Co., d. b. a. Stratosleeper, Chicago, Ill. Filed Aug. 10, 1956.

STRATOSLEEPER

For Sofa Which Is Convertible Into a Bed.
First use Feb. 27, 1956.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 685,373. Dr. Bruno Gueggi, d. b. a. Etablissement Alustra, Vaduz, Liechtenstein. Filed Apr. 12, 1955.

STRAMAX

Owner of Liechtenstein Reg. No. 404, dated May 13, 1954.
For Central Heating Systems, Radiation Heaters and Registers.

SN 698,657. Steels Engineering Installations Limited, Sunderland, England. Filed Nov. 21, 1955.

ALACOIL

Owner of British Reg. No. 742,844, dated May 31, 1955.
For Coiled Tubular Non-Electrical Heat Exchangers for Heating Liquids in Tanks.

SN 6,557. Richmond Engineering Co., Inc., Richmond, Va. Filed Apr. 17, 1956.

RECO

Owner of Reg. Nos. 179,664, 581,557, and 607,262.
For Storage Heaters, Converters, Instantaneous Heaters, Heat Reclaimers, and Process Heat Exchangers.
First use Dec. 31, 1936.

SN 11,681. Holyoke Heater Corp. of Conn., Inc., Hartford, Conn. Filed July 6, 1956.



The drawing is lined for red.
For Hot Water Heaters.
First use at least as early as 1916.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 9,757. The S. K. Wellman Co., Bedford, Ohio. Filed June 6, 1956.

FERAMIC

For Friction Material for Clutch and Brake and Transmission Linings and Facings.
First use Apr. 16, 1956, on clutch plate facings.

SN 10,566. United States Rubber Company, New York, N. Y. Filed June 19, 1956.

U. S. ROYAL MASTER

Owner of Reg. Nos. 270,155, 606,730, and 606,732.
For Rubber Tires and Inner Tubes for Vehicles.
First use on or about Mar. 1, 1936.

SN 10,763. Dunlop Tire and Rubber Corporation, Buffalo, N. Y. Filed June 22, 1956.

MONOCORD

For Tires.
First use May 18, 1956.

SN 10,764. Dunlop Tire and Rubber Corporation, Buffalo, N. Y. Filed June 22, 1956.

MONOCABLE

For Tires.
First use May 18, 1956.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 7,645. Henry Teller & Son, Chicago, Ill. Filed May 3, 1956.

TELLENO

For Musical Instruments Including Trumpets, Cornets, Trombones, Clarinets, Saxophones, Flutes, Piccolos, French Horns, Sousophones, and Bell Front Alto Horns and Accessories Including Ring Over Band Covers, Spiral Bound Covers, Sheet Music Covers and Octavo Covers.
First use Jan. 1, 1954.

CLASS 37

PAPER AND STATIONERY

SN 697,138. Azon Corporation, Binghamton, N. Y. Filed Oct. 26, 1955.

AZON

For Tracing Paper.
First use March 1950.

SN 698,160. George D. German, Stillwater, Minn. Filed Nov. 14, 1955.

WONHAN



For One Handed Pen or Pencil Clip.
First use June 1, 1947.

SN 5,663. Orientex, Ltd., New York, N. Y. Filed Apr. 2, 1956.
For Wall Paper.

KKK

First use Sept. 6, 1950.

SN 9,982. A. C. Hummel Company, Cincinnati, Ohio. Filed June 11, 1956.

HANDIBOY

For All Purpose Moistener for Labels, Envelope Flaps, Stamps, and the Like.
First use Apr. 27, 1956.

SN 10,054. The Wrenn Paper Company, Middletown, Ohio, to The Sorg Paper Company, Middletown, Ohio. Filed June 11, 1956.

RECORD

Owner of Reg. No. 236,127.
For Blotting Paper.
First use in or about 1908.

SN 10,055. The Wrenn Paper Company, Middletown, Ohio, to The Sorg Paper Company, Middletown, Ohio. Filed June 11, 1956.

ROYAL COLORS

Owner of Reg. No. 237,556.
For Blotting Paper.
First use on or about 1908.



CLASS 38

PRINTS AND PUBLICATIONS

SN 700,372. Creative Specialties, Inc., New York, N. Y. Filed Dec. 21, 1955.

DIAL-A-DIET

For Rotary Charts for Use in the Tabulation of Calorie Values of Foods.
First use Oct. 21, 1955.

SN 6,510. The Evening Star Newspaper Company of Washington, Washington, D. C. Filed Apr. 17, 1956.

The Sunday Star TV GUIDE

Owner of Reg. No. 66,508.
For Weekly (Sunday) Television Magazine.
First use Mar. 25, 1956.

CLASS 39

CLOTHING

SN 10,573. The Associated Merchandising Corporation, New York, N. Y. Filed June 20, 1956. Sec. 2(f).

Toe-rite

For Children's Shoes Made Wholly or in Part of Leather.
First use Aug. 15, 1949.

SN 11,515. Zelig Strauss Company, Inc., New York, N. Y. Filed July 3, 1956.

Mistra

For Misses' and Ladies' Slips and Petticoats.
First use June 4, 1956.

SN 11,778. Knitmakers, New York, N. Y. Filed July 9, 1956.

KNITMAKERS

For Blouses, Skirts, Jackets, Dresses, Suits, T-Shirts, and Polo Shirts.
First use May 4, 1956.

SNSN 11,879. Smart Novelty Blouse Co., Inc., New York, N. Y. Filed July 10, 1956.

TERACINO

For Women's, Misses', and Children's Blouses.
First use June 7, 1956.

SN 13,767. Maling Brothers, Inc., Chicago, Ill. Filed Aug. 10, 1956.

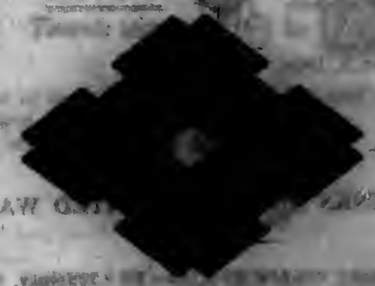
Yankee Doodle

For Children's Shoes.
First use July 30, 1956.

CLASS 41

CANES, PARASOLS, AND UMBRELLAS

SN 10,037. Sumitomo Shoji Kabushiki Kaisha, Higashi-ku, Osaka, Japan. Filed June 11, 1956.



Owner of Japanese Reg. No. 428,324, dated July 21, 1953.
For Canes, Parasols, and Umbrellas.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 753. Chicopee Mills, Inc., New York, N. Y. Filed Jan. 16, 1956.

LUXEL

For Woven Paper Fabric.
First use Nov. 5, 1955.

SN 9,081. California Hand Prints, Inc., Hermosa Beach, Calif. Filed May 28, 1956.

CHALILAN

For Piece Goods Made of Acrylic Fiber and Wool.
First use May 10, 1956.

CLASS 43

THREAD AND YARN

SN 14,009. Luther D. Sanders, d. b. a. Traverse Bay Woolen Company, Traverse City, Mich. Filed Aug. 15, 1956.

TRAVERSE BAY

For Yarns.
First use June 1, 1947.

SN 14,446. Howard G. Godfrey & Co., Inc., New York, N. Y. Filed Aug. 23, 1956.

GODFREYARN

For Yarn.
First use July 17, 1936.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 8,967. The Maico Company, Incorporated, Minneapolis, Minn. Filed May 24, 1956.

**AURASEAL**

For Ear Protectors in the Nature of Plugs Insertable Into the Ear Canal for Dampening of Noise.
First use Sept. 1, 1955.

SN 9,054. Rothstein Dental Laboratories, Inc., Washington, D. C. Filed May 25, 1956.

**ORAL TONE**

For Dentures.
First use Mar. 5, 1956.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

SN 4,082. George Wolf, d. b. a. The Zil Company, San Francisco, Calif. Filed Mar. 7, 1956.

**ZIL**

For Soft Drink.
First use July 6, 1946.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

SN 911. Lavern Pratt, d. b. a. OFC Laboratories, Williamston, Mich. Filed Jan. 17, 1956.

**NU-LAK**

For Additive for Improving the Flavor of Milk Consisting Primarily of Non-Toxic Organic Acids.
First use May 12, 1955.

SN 6,677. Abbotts Dairies Incorporated, Philadelphia, Pa. Filed Apr. 19, 1956.

*Ice Creamwich*

For Food Product Consisting of a Layer of Ice Cream Between Two Sugar Wafers.
First use on or about Nov. 1, 1941.

SN 7,733. The Aula Company, Inc., New York, N. Y. Filed May 7, 1956.

**KUREX**

For Pumping Pickle Compound Used in the Curing of Meats.
First use June 11, 1954.

SN 9,385. P. F. Petersen Baking Company, Omaha, Nebr. Filed May 31, 1956.

**BUTTERFIELD FARMS**

For Bakery Products—Namely, Cakes.
First use Apr. 2, 1956.

SN 9,437. California Walnut Growers Association, Los Angeles, Calif. Filed June 1, 1956.



For Shelled and Unshelled Walnuts.
First use Mar. 23, 1956.

SN 9,611. United Baking Co., Inc., Schenectady, N. Y. Filed June 4, 1956.

**LADY BETTY**

For Bread.
First use Aug. 19, 1924.

SN 9,636. Hawaiian Fruit Growers Exchange, Ltd., Honolulu, Territory of Hawaii. Filed June 5, 1956.

**"PUNCHBOWL"**

For Canned Frosted Fruit Juices.
First use Feb. 27, 1956.

SN 9,677. Shull's Bakery, Inc., Marysville, Pa. Filed June 5, 1956.

**Cin-O-curls**

For Cakes and Rolls.
First use Apr. 2, 1956.

SN 10,011. Northwest Packing Company, Portland, Oreg. Filed June 11, 1956.

**BLUE BELL**

For Canned Green Beans and Canned Fruits.
First use May 1, 1923, on canned green beans.

SN 10,027. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 11, 1956.

**HAWAIIAN Bouquet**

For Canned Pineapple.
First use May 31, 1956.



SN 10,028. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 11, 1956.

**HAWAIIAN Beauty**

For Canned Pineapple.
First use May 31, 1956.

SN 10,029. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 11, 1956.

**HAWAIIAN Belle**

For Canned Pineapple.
First use May 31, 1956.

SN 10,109. Silver Spring Gardens, Inc., Eau Claire, Wis. Filed June 12, 1956.

**SILVER SPRING**

For Horseradish, Cocktail Sauce, Hotdog Relish.
First use June 1, 1937.

SN 10,236. Interstate Bakeries Corporation, Kansas City, Mo. Filed June 14, 1956.




Exclusive right to register the term "Bread" is not claimed apart from the mark as shown. Owner of Reg. No. 270,774.
For Bakery Products—Namely, Bread.
First use on or about Apr. 16, 1954.

SN 10,264. The Swiss Colony, Inc., d. b. a. The Swiss Colony, Monroe, Wis. Filed June 14, 1956.

**SWISS COLONY**

For Cheeses, Jellies and Preserves, Cakes, Sauce, Wild Rice, Broth, Duck, Guinea Hen, and Pheasant.
First use June 1930.

## CLASS 47

## WINES

SN 14,882. Hungarian Grape Products Inc., New York, N. Y. Filed Aug. 30, 1956. Sec. 2(f).

**HERSH'S**

For Wines.
First use Dec. 30, 1940.

SN 15,766. California Champagne Company, d. b. a. Schramsberg Vineyard Co., Calistoga, Calif. Filed Sept. 17, 1956.

*Cotillion*

For Champagne.
First use Aug. 3, 1956.

## CLASS 48

## MALT BEVERAGES AND LIQUORS

SN 689,880. Sicks' Seattle Brewing & Malting Co., Seattle, Wash. Filed June 20, 1955. Sec. 2(f).

There's more Life to

Owner of Reg. Nos. 101,651, 560,498, and others.
For Beer.
First use Jan. 3, 1955.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

SN 877. Emil Ebneter & Co. A. G., Appenzell, Switzerland. Filed Jan. 17, 1956. Sec. 2(f).



Without waiving its common law rights and for the purpose of this registration only applicant makes no claim herewith to the word "Bitters" apart from the mark as shown.
For Beverage Bitters.
First use Feb. 16, 1948; in commerce Feb. 16, 1948.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 683,567. Donald F. Weekes, Westwood, N. J. Filed Mar. 15, 1955.

**EVERLAST**

For Garden Stakes.
First use Feb. 14, 1955.

SN 696,033. The Hankins Container Company, Cleveland, Ohio. Filed Oct. 7, 1955. Sec. 2(f).

**HANKINS**

Owner of Reg. No. 626,033.
For Plaques and Holders for Advertising and Displaying Merchandise.
First use on or about Aug. 1, 1933.



SN 10,277. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Blossom**

For Canned Pineapple.
First use May 31, 1956.

SN 10,278. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Bride**

For Canned Pineapple.
First use May 31, 1956.

SN 10,279. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Delight**

For Canned Pineapple.
First use May 31, 1956.

SN 10,280. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Gem**

For Canned Pineapple.
First use May 31, 1956.

SN 10,281. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Jewel**

For Canned Pineapple.
First use May 31, 1956.

SN 10,282. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Maid**

For Canned Pineapple.
First use May 31, 1956.

SN 10,283. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Pearl**

For Canned Pineapple.
First use May 31, 1956.

SN 10,284. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Pride**

For Canned Pineapple.
First use May 31, 1956.

SN 10,285. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Queen**

For Canned Pineapple.
First use May 31, 1956.

SN 10,286. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Rose**

For Canned Pineapple.
First use May 31, 1956.

SN 10,287. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Sweetheart**

For Canned Pineapple.
First use May 31, 1956.

SN 10,288. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Treasure**

For Canned Pineapple.
First use May 31, 1956.



SN 10,289. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Wedding**

For Canned Pineapple.
First use May 31, 1956.

SN 10,290. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Wonder**

For Canned Pineapple.
First use May 31, 1956.

SN 10,291. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Yacht**

For Canned Pineapple.
First use May 31, 1956.

SN 10,292. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Yeoman**

For Canned Pineapple.
First use May 31, 1956.

SN 10,293. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Yum Yum**

For Canned Pineapple.
First use May 31, 1956.

SN 10,294. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Yum Yum Jr.**

For Canned Pineapple.
First use May 31, 1956.

SN 10,295. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Yum Yum Sr.**

For Canned Pineapple.
First use May 31, 1956.

SN 10,296. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Yum Yum Tot**

For Canned Pineapple.
First use May 31, 1956.

SN 10,297. Hans H. Schumacher, d. b. a. The John Schumacher Company, Alhambra, Calif. Filed June 14, 1956.

**HAWAIIAN Yum Yum Twins**

For Canned Pineapple.
First use May 31, 1956.

SN 13,886. United Merchants and Manufacturers, Inc., New York, N. Y. Filed Aug. 13, 1936.

## CON-TACT

Owner of Reg. Nos. 627,275, 630,399, and others.
For Pressure Sensitive Adhesive Vinyl Plastic Black Boards Adapted To Be Adhesively Applied to Walls, Tables, Furniture, and Other Surfaces.
First use on or about May 1, 1936.

### CLASS 51

### COSMETICS AND TOILET PREPARATIONS

SN 672,414. Godefroy Manufacturing Company, St. Louis, Mo. Filed Aug. 30, 1954. Sec. 2(f).

Godefroy's

For Preparations for Coloring and for Conditioning the Hair—Namely, Hair Coloring, Hair and Scalp Pomade, and Hair Dressing.
First use 1882 on hair coloring.

SN 682,651. Mareva Company, d. b. a. Mareva, New York, N. Y. Filed Mar. 2, 1955.

## APPEAU

The word "Appeau" is French and designates a whistle for imitating bird calls.
For Perfume.
First use Dec. 21, 1954.

SN 693,061. The Erno Laszlo Institute Inc., New York, N. Y. Filed Aug. 15, 1955.

## SPORTS

For Face Powder.
First use 1925.

SN 696,520. Elmo, Inc., Philadelphia, Pa. Filed Oct. 17, 1955.

## PRETTY PLEASE

For Cologne, Dusting Powder, Talcum Powder, Bath Oil, and Perfume.
First use Sept. 15, 1953.

SN 504. Maison Tachans Comptoir de la Parfumerie S. A., Geneva, Switzerland. Filed Jan. 11, 1956.

## TRESPORT

Owner of Swiss Reg. No. 109,542, dated Feb. 8, 1945.
For Toilet Soap, Toilet Water, Cosmetic Skin Lotion, Lipstick, Cosmetic Skin Cream, and Perfume.

# SERVICE MARKS

### CLASS 100

### MISCELLANEOUS

SN 678,680. The Standard Overall Dry Cleaning Company, Inc., Manchester, N. H. Filed Dec. 20, 1954.

IT PAYS TO LOOK CLEAN

For Rental of Cleaned Work Clothes and Uniforms.
First use June 1, 1952.

SN 688,006. Gustave Edwin Anderson, La Crosse, Wis. Filed May 23, 1955.

THE WAILING ROOM PULPIT

For Disseminating Information in the Interests of Protestant Churches, the Literature Being Dispensed From Stands in Railroad Stations, Bus Depots, and Airports.
First use Oct. 30, 1931.

### CLASS 101

### ADVERTISING AND BUSINESS

SN 6,822. Olean Wholesale Grocery Coop., Inc., Olean, N. Y. Filed Apr. 20, 1956.

## TOOFURS

For Promoting the Sale of Goods of Others by Means of Premium Coupons, Redeemable in Merchandise or Cash.
First use June 25, 1954.



### CLASS 102

### INSURANCE AND FINANCIAL

SN 692,336. Liberty Mutual Insurance Company, Boston, Mass. Filed Aug. 2, 1955.

LIBERTY MUTUAL

For Underwriting of Accident, Liability and Property Insurance and Reinsurance, Including the Following Kinds of Insurance: Fire and Other Property Insurance, General Liability, Workmen's Compensation, Automobile and Aircraft Damage and Liability, Disability, Fidelity, Surety, Burglary, Forgery, and Water Damage.
First use Feb. 19, 1919.

### CLASS 107

### EDUCATION AND ENTERTAINMENT

SN 690,817. Eberhard S. Hawerlander and Louise W. Hawerlander, Phoenix, Ariz. Filed July 6, 1955.

STORY-TOONS

For Title of an Educational and Entertainment Program Offered Through the Medium of Television and Consisting of a Children's Program.
First use Feb. 25, 1955.

# COLLECTIVE MEMBERSHIP MARKS

### CLASS 200

SN 696,905. The Pi Kappa Alpha Fraternity, Memphis, Tenn. Filed Oct. 21, 1955.




Owner of Reg. No. 222,002.
For Indicating Membership in a National Collegiate Fraternal Society Organized To Further the Cultural, Social, and Educational Ideals of Members.
First use during the month of May 1868.

SN 9,347. Delta Upsilon Fraternity, New York, N. Y. Filed May 31, 1956.



The lining on the drawing constitutes lining forming a part of the mark, and does not represent color. The Greek words when translated read "Justice, Our Foundation."
For Indicating Membership in a National Collegiate Fraternal Society Organized To Further the Cultural, Social, and Educational Ideals of Members.
First use 1911.

# CERTIFICATION MARKS

### CLASS A

### GOODS

SN 2,190. RLM Standards Institute, Cleveland, Ohio. Filed July 26, 1956.

RLM

The mark certifies compliance with standards set by applicant for design and construction, composition, finish, performance and service of lighting equipment, lighting fixtures, and pertinent accessories thereto.
For Lighting Equipment, Lighting Fixtures, and Pertinent Accessories Thereto.
First use 1920.

SN 2,191. RLM Standards Institute, Cleveland, Ohio. Filed July 26, 1956.



The mark certifies compliance with standards set by applicant for design and construction, composition, finish, performance and service of lighting equipment, lighting fixtures, and pertinent accessories thereto.
For Lighting Equipment, Lighting Fixtures, and Pertinent Accessories Thereto.
First use 1920.

# TRADEMARK REGISTRATIONS ISSUED

## PRINCIPAL REGISTER

### CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

638,235. JEWELLED PINE. The Moore Inn, Inc. SN 677,392. Pub. 9–25–56. Filed 11–29–54.

638,236. AQUAFOAM. Stearns Manufacturing Co. SN 695,854. Pub. 9–25–56. Filed 10–4–55.

638,237. GOLDEN FLEECE. Eagle-Ottawa Leather Company. SN 698,961. Pub. 9–25–56. Filed 11–28–55.

638,238. NEFOLAC AND DESIGN. J. W. Neff Laboratories, Inc. SN 698,906. Pub. 9–25–56. Filed 11–28–55.

638,239. FR-S. The Firestone Tire & Rubber Company. SN 3,087. Pub. 9–25–56. Filed 2–21–56.

### CLASS 2

### RECEPTACLES

638,240. UNATAINER AND DESIGN. Wesley B. Craig. SN 687,356. Pub. 9–25–56. Filed 5–12–55.

638,241. ATLASPAK ETC. AND DESIGN. Atlas Plywood Corporation. SN 699,280. Pub. 9–25–56. Filed 12–2–55.

638,242. FIRESTONE. The Firestone Tire & Rubber Company. SN 4,529. Pub. 9–25–56. Filed 3–14–56.

638,243. MICE-DINER. Oldsters' Enterprise, Inc. SN 5,126. Pub. 9–25–56. Filed 3–23–56.

638,244. RATS-DINER. Oldsters' Enterprise, Inc. SN 5,127. Pub. 9–25–56. Filed 3–23–56.

638,245. PUREFLAVOR. Continental Can Company, Inc. SN 6,793. Pub. 9–25–56. Filed 4–20–56.

638,246. HOLD-IN-ONE. Central States Paper & Bag Co. SN 6,901. Pub. 9–25–56. Filed 4–23–56.

### CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

638,247. DOG-ON-IT. Bradford C. Riley, d. b. a. Wireway Looms Co. SN 1,866. Pub. 9–25–56. Filed 1–31–56.

638,248. DROP-IN. I. Smallman & Sons Co. SN 6,648. Pub. 9–25–56. Filed 4–18–56.

638,249. WESTPORT. I. Smallman & Sons Co. SN 6,650. Pub. 9–25–56. Filed 4–18–56.

638,250. MONTE CARLO. Fran-Stef Manufacturing Company. SN 4,918. Pub. 9–25–56. Filed 5–8–56.

638,251. PASSPORTER. MacArthur Products Inc. SN 8,002. Pub. 9–25–56. Filed 5–9–56.

638,252. WAYLESS. Reliable Luggage, Inc. SN 8,156. Pub. 9–25–56. Filed 5–11–56.

638,253. VAKUMLITE. Reliable Luggage, Inc. SN 8,157. Pub. 9–25–56. Filed 5–11–56.

638,254. STOWAWAY. Platt Luggage, Inc. SN 9,050. Pub. 9–25–56. Filed 5–25–56.

638,255. TWIFAILLE. Harry Rosenfeld Inc. SN 9,296. Pub. 9–25–56. Filed 5–29–56.

638,256. CAFFETTA. Companion Bags, Inc. SN 9,444. Pub. 9–25–56. Filed 6–1–56.

### CLASS 4

### ABRASIVES AND POLISHING MATERIALS

638,257. SANI-BOOT N SADDLE. Hollywood Shoe Polish, Inc. SN 1,367. Pub. 9–25–56. Filed 1–24–56.

638,258. METAL SHOW. R. M. Hollingshead Corporation. SN 5,721. Pub. 9–25–56. Filed 4–2–56.

### CLASS 5

### ADHESIVES

638,259. HERMA. Firma Heinrich Hermann. SN 688,321. Pub. 9–25–56. Filed 5–26–55.

638,260. GF–S. The Flintkote Company. SN 4,014. Pub. 9–25–56. Filed 3–7–56.

638,261. GP. The Flintkote Company. SN 4,017. Pub. 9–25–56. Filed 3–7–56.

638,262. TILE-WELD. Larsen Products Corporation. SN 5,731. Pub. 9–25–56. Filed 4–3–56.

638,263. SAF-T-BAK. Testworth Products Corporation. SN 5,952. Pub. 9–25–56. Filed 4–6–56.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

638,264. BLUE SEAL. Joseph Morreale. SN 689,403. Pub. 9–25–56. Filed 6–13–55.

638,265. BYKETOL. Byk-Gulden Lomberg, Chemische Fabrik, G. m. b. H. SN 695,525. Pub. 9–25–56. Filed 9–29–55.

638,266. SELECTROFOAM. Pittsburgh Plate Glass Company. SN 698,369. Pub. 9–25–56. Filed 11–16–55.

638,267. JEL-OIL. Magnet Cove Barium Corporation. SN 698,532. Pub. 9–25–56. Filed 11–18–55.

638,268. STORA 55 AND DESIGN. Stora Kopparbergs Bergslags Aktiebolag. SN 698,562. Pub. 9–25–56. Filed 11–18–55.

638,269. RIDACTO. Cleon R. Johnson, d. b. a. Spencer Products Co. SN 1,246. Pub. 9–25–56. Filed 1–23–56.

638,270. HANSEL. Lide Laboratories, Inc. SN 2,793. Pub. 9–25–56. Filed 2–16–56.

638,271. CLINTOSE. Clinton Foods Inc., to Standard Brands Incorporated. SN 3,517., Pub. 9–25–56. Filed 2–28–56.

638,272. DUCS-KIN. E. F. Drew & Co., Inc. SN 3,596. Pub. 9–25–56. Filed 2–29–56.

638,273. NAFIL. Chase Chemical Corporation. SN 3,651. Pub. 9–25–56. Filed 3–1–56.

### CLASS 7

### CORDAGE

638,274. LTCO. AND DESIGN. The Linen Thread Co., Inc. CONSOLIDATED CERTIFICATE. SN 4,037, pub. 8–14–56, filed 3–7–56, Cl. 7; SN 4,036, pub. 9–11–56, filed 3–7–56, Cl. 22; SN 4,035, pub. 9–11–56, filed 3–7–56, Cl. 42; SN 4,034, pub. 9–18–56, filed 3–7–56, Cl. 43.





638,275. NO-MAG. American Chain & Cable Company, Inc. SN 5,013. Pub. 9–18–56. Filed 3–22–56.

### CLASS 9

### EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

638,276. HERTER'S ETC. AND DESIGN. Herter's, Inc. SN 684,048. Pub. 9–25–56. Filed 3–23–55.

### CLASS 10

### FERTILIZERS

638,277. CARAC. The Carac Corporation. SN 6,095. Pub. 9–25–56. Filed 4–16–56.

638,278. FERTIDINE. I B C Research Laboratories, Inc. SN 6,116. Pub. 9–25–56. Filed 4–16–56.

638,279. FERTIDYNE. I B C Research Laboratories, Inc. SN 6,117. Pub. 9–25–56. Filed 4–16–56.

638,280. COMAR AND DESIGN. Comar Industries, Inc. SN 6,236. Pub. 9–25–56. Filed 4–12–56.

638,281. SMIBOW. Smith-Douglass Company, Incorporated, d. b. a. Smith-Bowland Company. SN 6,295. Pub. 9–25–56. Filed 4–12–56.

638,282. FS AND DESIGN. Illinois Farm Supply Company. SN 6,726. Pub. 9–25–56. Filed 4–19–56.

### CLASS 11

### INKS AND INKING MATERIALS

638,283. PLASTISOL. Columbia Ribbon & Carbon Manufacturing Company, Inc. SN 5,978. Pub. 9–25–56. Filed 4–9–56.

638,284. FLEXOTUF. Interchemical Corporation. SN 6,255. Pub. 9–25–56. Filed 4–12–56.

### CLASS 12

### CONSTRUCTION MATERIALS

638,285. PECORA AND DESIGN. Pecora Paint Co., also d. b. a. Pecora Paint Company, Inc. SN 678,123. Pub. 9–25–56. Filed 9–13–54.

638,286. DESIGN OF GREEN STRIPE. Wheeling Corrugating Company. SN 677,617. Pub. 9–25–56. Filed 12–1–54.

638,287. SECURITY. Security Sash & Screen Company. SN 690,102. Pub. 9–25–56. Filed 6–23–55.

638,288. FULTON. Variety Manufacturing & Engineering Co. Inc. SN 691,801. Pub. 9–25–56. Filed 7–22–55.

638,289. TOPPER. Overall Paint and Lead Co., Inc., d. b. a. Overall Paint and Lead, Inc. SN 692,420. Pub. 9–25–56. Filed 8–3–55.

638,290. LOF GLASS FIBERS AND DESIGN. L. O. F Glass Fibers Company. SN 692,614. Pub. 9–25–56. Filed 8–8–55.

638,291. TREMTAPE. The Tremco Manufacturing Company. SN 696,473. Pub. 9–25–56. Filed 10–14–55.

638,292. FASHION FAB. Todrick Brothers Manufacturing Co., Inc. SN 696,600. Pub. 9–25–56. Filed 10–17–55.

638,293. MELLOWOOD. National Veneer and Lumber Company. SN 700,384. Pub. 9–25–56. Filed 12–21–55.

638,294. M-D MACKLANBURG-DUNCAN CO. AND DESIGN. Macklanburg-Duncan Company. SN 154. Pub. 9–25–56. Filed 1–4–56.

638,295. COLUMBIA WALL-CLAD. North Western Supply Company Limited. SN 360. Pub. 9–25–56. Filed 1–9–56.

638,296. CERAMI-BLOBB. Thomas Edwin Greenstreet, d. b. a. Ceramichrome Laboratories. SN 4,898. Pub. 9–25–56. Filed 3–20–56.

638,297. COADOR. Irvin E. Blales, d. b. a. Continental Nu-Steel Metal Products Co. SN 5,274. Pub. 9–25–56. Filed 3–27–56.

638,298. PERFOLITE. National Gypsum Company. SN 5,447. Pub. 9–25–56. Filed 3–29–56.

638,299. EXCELO-GRAIN. Globe Roofing Products Co., Inc. SN 5,718. Pub. 9–25–56. Filed 4–3–56.

### CLASS 14

### METALS AND METAL CASTINGS AND FORGINGS

638,300. VOLOMIT. Wallram Hartmetallwerk und Hartmetallwerkzeugfabrik Meutsch, Voigtlander & Co. SN 5,566. Pub. 9–25–56. Filed 3–30–56.

638,301. KWIK. The M. W. Dunton Company. SN 6,812. Pub. 9–25–56. Filed 4–2–56.

638,302. CRACKLE-TONE. Craft-Bilt Manufacturing Co. SN 5,766. Pub. 9–25–56. Filed 4–4–56.

638,303. LECTRO-CLAD. Bart Manufacturing Corporation. SN 5,899. Pub. 9–25–56. Filed 4–6–56.

638,304. QUALI-SINT. Bargon-Norton Mfg. Co. SN 6,217. Pub. 9–25–56. Filed 4–12–56.

638,305. MASTERCRAFT. Jones & Laughlin Steel Corporation. SN 6,337. Pub. 9–25–56. Filed 4–13–56.

638,306. MYSTIC. Eastern Gas and Fuel Associates. SN 7,338. Pub. 9–25–56. Filed 4–30–56.

638,307. INDUCTOVAC. Universal-Cyclops Steel Corporation. SN 7,400. Pub. 9–25–56. Filed 4–30–56.

### CLASS 15

### OILS AND GREASES

638,308. FILL-UP WITH SAVINGS. Savings Oil Company. SN 6,559. Pub. 9–25–56. Filed 4–17–56.

638,309. SAVINGS AND DESIGN. Savings Oil Company. SN 6,560. Pub. 9–25–56. Filed 4–17–56.

### CLASS 16

### PROTECTIVE AND DECORATIVE COATINGS

638,310. ALUMICOLOR. Socony Paint Products Company. SN 699,339. Pub. 5–1–56. Filed 12–2–55.

638,311. PENA GYM SEALER. Allied Home Products Corporation. SN 3,912. Pub. 9–25–56. Filed 3–6–56.

### CLASS 18

### MEDICINES AND PHARMACEUTICAL PREPARATIONS

638,312. ADRIANOL. C. H. Boehringer Sohn. SN 640,884. Pub. 6–30–53. Filed 2–24–51.

638,313. FER-C-BEX. Seton Pharmaceutical Company, Incorporated. SN 693,775. Pub. 9–25–56. Filed 8–26–55.

638,314. GELUSIL-LAC. Warner-Lambert Pharmaceutical Company. SN 699,030. Pub. 9–25–56. Filed 11–28–55.

638,315. ENDICIN. The Upjohn Company. SN 700,403. Pub. 9–25–56. Filed 12–21–55.





### CLASS 22

638,403. AUTO-PRINTER. The Industrial Marking Equip-

638,316. FUNGIN. The Upjohn Company. SN 700,405. Pub. 9–25–56. Filed 12–21–55.

638,317. HYASORB. Key Corporation, Pharmaceuticals. SN 146. Pub. 9–25–56. Filed 1–4–56.

638,318. SOMATOVICAL. The Purdue Frederick Company. SN 164. Pub. 9–25–56. Filed 1–4–56.

638,319. SOMATOVITE-R. The Purdue Frederick Company. SN 218. Pub. 9–25–56. Filed 1–5–56.

638,320. SPARINE. American Home Products Corporation, d. b. a. Wyeth Laboratories, Division of American Home Products Corporation. SN 1,315. Pub. 10–2–56. Filed 1–24–56.

638,321. SOMATOVITE. The Purdue Frederick Company. SN 4,567. Pub. 9–25–56. Filed 3–14–56.

638,322. LISADRIL. Irwin, Neisler & Company. SN 4,901. Pub. 9–25–56. Filed 3–20–56.

638,323. HALO-CORTIRONE. The Upjohn Company. SN 4,919. Pub. 9–25–56. Filed 3–20–56.

638,324. FERRONORD. Nordmark Pharmaceutical Laboratories, Inc. SN 4,978. Pub. 9–25–56. Filed 3–21–56.

638,325. PINCETS. Walker Laboratories, Inc. SN 5,068. Pub. 9–25–56. Filed 3–22–56.

638,326. LEVADONE. Burroughs Wellcome & Co. (U. S. A.) Inc. SN 5,209. Pub. 9–25–56. Filed 3–29–56.

638,327. MAREDOX. Burroughs Wellcome & Co. (U. S. A.) Inc. SN 5,201. Pub. 9–25–56. Filed 3–29–56.

638,328. AUTRINIC. American Cyanamid Company. SN 5,372. Pub. 9–25–56. Filed 4–2–56.

638,329. FALVIN. American Cyanamid Company. SN 5,573. Pub. 9–25–56. Filed 4–2–56.

638,330. PRE-VI-SOL. Mead Johnson & Company. SN 5,776. Pub. 9–25–56. Filed 4–6–56.

638,331. CALPAN FREE-FLO. Abbott Laboratories. SN 5,956. Pub. 9–25–56. Filed 4–9–56.

638,332. DORANA. American Home Products Corporation, d. b. a. Ives-Cameron Company, Division of American Home Products Corporation. SN 6,066. Pub. 9–25–56. Filed 4–10–56.

638,333. FEOTRIN. Smith Kline & French Laboratories. SN 6,136. Pub. 9–25–56. Filed 4–10–56.

## CLASS 19

## VEHICLES

638,334. ISETTA. Iso S. p. A. Autoveicoli. SN 699,642. Pub. 9–25–56. Filed 12–8–55.

638,335. BOSTROM AND DESIGN. Bostrom Manufacturing Company. SN 2,279. Pub. 9–18–56. Filed 2–8–56.

638,336. EDRASTOP. Société Anonyme Dite: Edras. SN 2,557. Pub. 9–18–56. Filed 2–25–56.

638,337. DEL-TEX AND DESIGN. Delta Products, Division of Air Accessories, Inc. SN 6,906. Pub. 9–25–56. Filed 4–23–56.

638,338. AEROL AND DESIGN. Aerol Co., Inc. SN 7,302. Pub. 9–25–56. Filed 4–30–56.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

638,339. PERMA-FUL. Batteries Manufacturing Company, to Atlas Supply Company. SN 661,254. Pub. 5–17–55. Filed 2–18–54.

638,340. KILOTROL. Cook Electric Company. SN 667,509. Pub. 9–25–56. Filed 6–2–54.

638,341. FLEXI-TONES. William Ranieri, d. b. a. Wm. Penn Fluorescent Light Mfgr. SN 684,343. Pub. 9–25–56. Filed 3–28–55.

638,342. WRATHER BELL AND DESIGN. Schulmerich Carillons, Incorporated. SN 687,418. Pub. 9–25–56. Filed 5–12–55.

638,343. KAY-LAB. Macchi and Company. SN 690,385. Pub. 9–25–56. Filed 6–22–55.

638,344. ENCAPSOR. Alcor Electronics Corporation. SN 691,244. Pub. 9–25–56. Filed 7–15–55.

638,345. STEINEN S AND DESIGN. Wm. Steinen Mfg. Co. SN 694,268. Pub. 9–25–56. Filed 9–6–55.

638,346. TODD-AO. The Todd-AO Corporation. SN 694,610. Pub. 9–25–56. Filed 9–12–55.

638,347. GALVOMAG. The Dow Chemical Company. SN 694,862. Pub. 9–25–56. Filed 9–19–55.

638,348. POWER TWIN. System Analyzer Corp. SN 695,780. Pub. 9–25–56. Filed 10–3–55.

638,349. "LODE-MASTER." Montgomery Elevator Company. SN 696,715. Pub. 9–25–56. Filed 10–19–55.

638,350. A-MP AND DESIGN. Aircraft-Marine Products, Inc. SN 697,074. Pub. 9–25–56. Filed 10–25–55.

638,351. WIZARD. Western Auto Supply Company. SN 697,132. Pub. 9–25–56. Filed 10–25–55.

638,352. BUDGET-BILD. W. N. de Sherbinin Products Incorporated. SN 697,161. Pub. 9–25–56. Filed 10–26–55.

638,353. ROWENTA. Rowenta Metallwarenfabrik G. m. b. H. SN 698,374. Pub. 9–25–56. Filed 11–16–55.

638,354. WE CO AND DESIGN. Weinschel Engineering Co., Inc. SN 698,667. Pub. 9–25–56. Filed 11–21–55.

638,355. AMERAC AND DESIGN. Amerac Incorporated. SN 698,787. Pub. 6–5–56. Filed 11–23–55.

638,356. PSI AND DESIGN. Pacific Semiconductors, Inc. SN 699,655. Pub. 9–25–56. Filed 12–8–55.

638,357. AUTO ELECTRICAL ACCESSORIES AND DESIGN. William F. Hagenloch. SN 700,606. Pub. 9–25–56. Filed 12–27–55.

638,358. H AND DESIGN. The Hammarlund Manufacturing Company, Inc. SN 700,720. Pub. 9–25–56. Filed 12–28–55.

638,359. AUMS AW AND DESIGN. The Acme Wire Company. SN 700,771. Pub. 7–31–56. Filed 12–29–55.

638,360. ISOPHASE. Pickering Associates, Inc. SN 443. Pub. 9–25–56. Filed 1–10–56.

638,361. FARADAY KODEMASTER. Sperti Faraday, Inc. SN 836. Pub. 9–25–56. Filed 1–16–56.

638,362. MINIRELAY. Ebert Electronics Corporation. SN 1,512. Pub. 9–25–56. Filed 1–26–56.

638,363. SUPER TROUPER. The Strong Electric Corporation. SN 2,047. Pub. 9–25–56. Filed 2–20–56.

638,364. PAR-BEAM-LITE. Swiveller Company, Incorporated. SN 4,492. Pub. 10–2–56. Filed 3–12–56.

638,365. MONOLYTHIC. Sprague Electric Company. SN 3,122. Pub. 9–25–56. Filed 2–21–56.

638,366. AMP-TRAP. The Chase-Shawmut Company. SN 3,155. Pub. 9–25–56. Filed 2–23–56.

638,367. AQUASAN. Circle Wire and Cable Corporation. SN 3,560. Pub. 9–25–56. Filed 2–29–56.

638,368. E-Z-RID. Winpower Manufacturing Co. SN 4,411. Pub. 9–25–56. Filed 3–12–56.

638,369. BARCOL DOORMAN. Barber-Colman Company. SN 4,765. Pub. 9–25–56. Filed 3–19–56.

638,370. MONOMATIC. The Pentron Corporation. SN 5,048. Pub. 9–25–56. Filed 3–22–56.

638,371. RANCH KOOLER. McGraw Electric Company. SN 5,635. Pub. 9–25–56. Filed 4–2–56.

638,372. RAYO LUZ AND DESIGN. Ray-O-Vac Company. SN 6,046. Pub. 9–25–56. Filed 4–9–56.

638,373. OXFORD. Oxford International Corporation. SN 6,185. Pub. 9–25–56. Filed 4–11–56.

638,374. RAY-DOR. Cleveland-Detroit Corporation. SN 6,224. Pub. 9–25–56. Filed 4–12–56.

638,375. FLASH-O-RAMA. Rex M. Bruner, d. b. a. Flash-O-Rama Advertising Signals. SN 6,819. Pub. 9–25–56. Filed 4–13–56.



## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

638,374. CONSOLIDATED CERTIFICATE. See Class 7.

638,376. CHAMPION. Cheerio Toys, Inc. SN 698,501. Pub. 9–25–56. Filed 11–18–55.

638,377. POGO MOBILE. Walt Kelly. SN 2,431. Pub. 9–25–56. Filed 2–10–56.

638,378. SHOO-SHOO. Ruth G. Glaser. SN 7,252. Pub. 9–25–56. Filed 4–27–56.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

638,379. J & C AND DESIGN. Jackson & Church Company. SN 641,932. Pub. 9–25–56. Filed 2–9–53.

638,380. OSBI "GROUNDHOG" ETC. AND DESIGN. Ole K. Olsen, d. b. a. Olsen Seismograph Supplies Ind. SN 673,677. Pub. 9–25–56. Filed 9–23–54.

638,381. EVACUTRON. Consolidated Vacuum Corporation, to Consolidated Electrodynamics Corporation. SN 686,616. Pub. 5–22–56. Filed 5–9–55.

638,382. DASHASTRIPPER. Dashew Business Machines, Inc. SN 690,237. Pub. 9–25–56. Filed 6–27–55.

638,383. DATABOSSER. Dashew Business Machines, Inc. SN 690,241. Pub. 9–25–56. Filed 6–27–55.

638,384. GENERAL. The General Detroit Corporation. SN 692,135. Pub. 9–25–56. Filed 8–16–55.

638,385. VERSAMATIC. Supreme Products, Inc. SN 694,526. Pub. 8–28–56. Filed 9–12–55.

638,386. HANDY ANDY AND DESIGN. Handy Andy Products, Inc. SN 698,605. Pub. 9–25–56. Filed 11–21–55.

638,387. DESIGN OF TRIDENT. Ed. Wüsthof Dreisackwerk. SN 698,960. Pub. 9–25–56. Filed 11–28–55.

638,388. ALKON AND DESIGN. Alkon Products Corporation. SN 470. Pub. 9–25–56. Filed 1–11–56.

638,389. BEL-MAR. Buffalo-Eclipse Corporation, d. b. a. The Eclipse Lawn Mower Co. SN 3,834. Pub. 9–25–56. Filed 3–5–56.

638,390. SYNCRO CONTINUREEL. Syncro Machine Company. SN 4,670. Pub. 9–25–56. Filed 3–15–56.

638,391. MAGICUT. Gifford-Wood Co. SN 4,896. Pub. 9–25–56. Filed 3–20–56.

638,392. PREMIER AND DESIGN. Hi-Test Twist Drill Works, Inc. SN 5,100. Pub. 9–25–56. Filed 3–23–56.

638,393. CROSS. James H. Cross, d. b. a. Cross Manufacturing Company. SN 5,170. Pub. 9–25–56. Filed 3–26–56.

638,394. CROSS AND DESIGN. James H. Cross, d. b. a. Cross Manufacturing Company. SN 5,171. Pub. 9–25–56. Filed 3–26–56.

638,395. DEXTER AND OVAL DESIGN. Dexter Folder Company, to Miehle Printing Press & Manufacturing Company. SN 5,352. Pub. 9–25–56. Filed 3–28–56.

638,396. DEXTER. Dexter Folder Company, to Miehle Printing Press & Manufacturing Company. SN 5,828. Pub. 9–25–56. Filed 4–5–56.

638,397. CARBO-MILLS. Severance Tool Industries Inc. SN 6,754. Pub. 9–18–56. Filed 4–19–56.

638,398. ECONO-SINKS. Severance Tool Industries Inc. SN 6,756. Pub. 9–18–56. Filed 4–19–56.

638,399. CARDITIONER. Cummins-Chicago Corp. SN 6,799. Pub. 9–25–56. Filed 4–20–56.

638,400. SHUR-WORM. Beebe Bros. SN 6,891. Pub. 9–25–56. Filed 4–23–56.

638,401. PRESIDENT. Modern Sewing Machine Co. SN 6,945. Pub. 9–25–56. Filed 4–23–56.

638,402. DYNEX AND DESIGN. Blackhawk Mfg. Co., to Dynex, Inc. SN 6,981. Pub. 9–25–56. Filed 4–24–56.

638,403. AUTO-PRINTER. The Industrial Marking Equipment Company, Inc. SN 7,015. Pub. 9–25–56. Filed 4–24–56.

638,404. BURKS AND DESIGN. Decatur Pump Co. SN 7,077. Pub. 9–25–56. Filed 4–25–56.

638,405. HYFLO. California Pellet Mill Co. SN 7,316. Pub. 9–25–56. Filed 4–30–56.

638,406. COBUSCO CES AND DESIGN. The Colorado Builders' Supply Company. SN 7,324. Pub. 9–25–56. Filed 4–30–56.

638,407. SHURE-SET. Portable Industries, Inc. SN 7,454. Pub. 9–25–56. Filed 5–1–56.

638,408. SCREW-FAST. Maxwell Ingram, d. b. a. Durabilt Metal Products Co. SN 7,505. Pub. 9–25–56. Filed 5–2–56.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

638,409. DITTO. Ditto Camera Corp. SN 646,656. Pub. 3–23–54. Filed 5–8–53.

638,410. PROMINAR. Walter Futter. SN 690,135. Pub. 9–25–56. Filed 6–24–55.

638,411. SOUTHWEST AND DESIGN. Southwest Pump Company. SN 694,263. Pub. 9–25–56. Filed 9–6–55.

638,412. TELEFLIGHT. Taber Instrument Corporation. SN 699,173. Pub. 9–25–56. Filed 11–30–55.

638,413. ELECTRO-GRAPHIC. W. F. & John Barnes Company. SN 699,695. Pub. 9–25–56. Filed 12–9–55.

638,414. DURA-TROL. Leonard Valve Company. SN 4,724. Pub. 9–25–56. Filed 3–16–56.

638,415. FLO-SET. The Haloid Company. SN 4,797. Pub. 9–25–56. Filed 3–19–56.

638,416. JMF ETC. AND DESIGN. J. Melvin Freed, Inc. SN 5,516. Pub. 9–25–56. Filed 3–30–56.

638,417. NU-TRONIC. Nuclear Electronics Corporation. SN 5,860. Pub. 9–25–56. Filed 4–5–56.

638,418. FRIEDRICH MUNCHEN AND DESIGN. E. Böttger, d. b. a. Christof Friedrich K. G. SN 5,905. Pub. 9–25–56. Filed 4–6–56.

638,419. MOTO-TACH. Allen Electric and Equipment Company. SN 5,963. Pub. 9–25–56. Filed 4–9–56.

638,420. RESISTRIM. Bourns Laboratories, Inc. SN 6,154. Pub. 9–25–56. Filed 4–11–56.

638,421. PHOTACT. Kenkel & Esser Company. SN 6,618. Pub. 9–25–56. Filed 4–18–56.

638,422. ALL-WAY. William B. Fell, d. b. a. William B. Fell Company. SN 6,915. Pub. 9–25–56. Filed 4–23–56.

638,423. TELOR. Societe Industrielle de Lunetterie. SN 7,221. Pub. 9–25–56. Filed 4–26–56.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

638,424. HELVECO. Arthur Imhof, d. b. a. Arthur Imhof, Manufacture de Pendulettes et Reveils, to Manufacture de Pendulettes et Reveils Arthur Imhof S. A. SN 692,941. Pub. 9–25–56. Filed 8–12–55.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

638,425. GOLDEN AUTUMN. Speidel Corporation. SN 11,303. Pub. 9–25–56. Filed 6–29–56.

638,426. SWEET SPRING. Speidel Corporation. SN 11,304. Pub. 9–25–56. Filed 6–29–56.



638,427. INDIAN SUMMER. Speidel Corporation. SN



638,466. DIPLOMAT. Pioneer Suspender Company. SN

638,497. O'LLEGRO. Princeton Knitting Mills, Inc. SN

638,427. INDIAN SUMMER. Speidel Corporation. SN 11,305. Pub. 9–25–56. Filed 6–20–56.

## CLASS 31

## FILTERS AND REFRIGERATORS

638,428. JET-SOFT. Harry F. Potter, d. b. a. Potter Engineering Company. SN 7,455. Pub. 9–25–56. Filed 5–1–56.

## CLASS 32

## FURNITURE AND UPHOLSTERY

638,429. PACIFICA. Pacifica Designs, from Harry Jackson, d. b. a. Pacifica Interior Designs. SN 631,292. Pub. 9–25–56. Filed 6–17–52.

638,430. KNOLL INTERNATIONAL K AND DESIGN. Knoll Associates Inc. SN 694,808. Pub. 9–25–56. Filed 9–16–55.

638,431. PERMA-DRAPE. The Perma-Drape Co., Inc. SN 695,342. Pub. 9–25–56. Filed 9–26–55.

638,432. COVR-A-TOP. Grandview Products Company. SN 700,789. Pub. 9–25–56. Filed 12–29–55.

638,433. ROLOROCK. Olin Mathieson Chemical Corporation. SN 4,047. Pub. 9–25–56. Filed 3–7–56.

638,434. BOCA. Douglas Furniture Corporation. SN 4,106. Pub. 9–25–56. Filed 3–8–56.

638,435. BOCA RATON. Douglas Furniture Corporation. SN 4,107. Pub. 9–25–56. Filed 3–8–56.

638,436. PRESSURIZED. Chicago Spring Products Co. SN 5,026. Pub. 9–25–56. Filed 3–22–56.

638,437. JOHN STUART INC. ETC. AND DESIGN. John Stuart Inc. SN 6,380. Pub. 9–25–56. Filed 4–13–56.

638,438. RAYLENE. Reiss Manufacturing Corporation. SN 6,639. Pub. 9–25–56. Filed 4–18–56.

638,439. TRANS AMERICAN. Craddock Furniture Corporation. SN 8,206. Pub. 9–25–56. Filed 5–14–56.

638,440. STYLE-SETTER. Louisville Chair Co., Inc. SN 8,237. Pub. 9–25–56. Filed 5–14–56.

638,441. BABY SERVER. King Craft Corp. SN 8,560. Pub. 9–25–56. Filed 5–18–56.

## CLASS 33

## GLASSWARE

638,442. TODAY. The Cambridge Glass Company. SN 5,764. Pub. 9–25–56. Filed 4–4–56.

638,443. WEDDING RINGS. The Cambridge Glass Company. SN 5,765. Pub. 9–25–56. Filed 4–4–56.

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

638,444. SILENTRIDE. Zatko Metal Products Co. SN 696,200. Pub. 9–25–56. Filed 10–10–55.

638,445. POWERLINER. United Co-Operatives, Inc. SN 6,569. Pub. 9–25–56. Filed 4–17–56.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

638,446. JEFFERSON. Harvey A. West, d. b. a. Harvey West Music Company. SN 692,631. Pub. 9–25–56. Filed 7–27–55.

## CLASS 37

## PAPER AND STATIONERY

638,447. GOLDMARK. Hastings & Co., Inc. SN 663,022. Pub. 10–26–54. Filed 3–22–54.

638,448. BALLERINA. The Framar Mfg. Co. SN 689,362. Pub. 9–25–56. Filed 6–15–55.

638,449. MEDICAL ARTS PRESS M.A.P AND DESIGN. Mark Wexler, d. b. a. Medical Arts Press. SN 700,699. Pub. 9–25–56. Filed 12–27–55.

## CLASS 38

## PRINTS AND PUBLICATIONS

638,450. WHAT TO DO IN WESTCHESTER. Maybury W. Fleming, Inc. SN 692,386. Pub. 9–25–56. Filed 8–3–55.

638,451. THE FARMER AND DESIGN. The Webb Publishing Company. SN 693,287. Pub. 9–25–56. Filed 8–17–55.

638,452. TREASURE TONE. Drewry Photocolor Corporation. SN 696,023. Pub. 9–25–56. Filed 10–7–55.

638,453. PEN 'N POST. Continental Lithographers, Inc. SN 1,509. Pub. 9–25–56. Filed 1–26–56.

638,454. HEALING. Healing Waters, Inc. SN 1,688. Pub. 9–25–56. Filed 1–30–56.

638,455. MADE TO MEASURE. Myer Halper. SN 2,034. Pub. 9–25–56. Filed 2–3–56.

638,456. THEMIS. Zeta Tau Alpha Sorority. SN 2,213. Pub. 9–25–56. Filed 2–6–56.

638,457. SHAMROCK AND DESIGN. O. O. Seagrave. SN 2,254. Pub. 9–25–56. Filed 2–7–56.

638,458. MODERN PHOTOGRAPHY. The N P D Corp. SN 4,085. Pub. 9–25–56. Filed 2–13–56.

638,459. BANNER. Banner Trading Stamps, Inc. SN 4,093. Pub. 9–25–56. Filed 3–8–56.

638,460. PLASTI-PAK. American Greetings Corporation. SN 4,880. Pub. 9–25–56. Filed 3–20–56.

638,461. FULLER PRODUCTS CO. AND DESIGN. Fuller Products Co. SN 4,948. Pub. 9–25–56. Filed 3–21–56.

638,462. PIX. Pix Incorporated. SN 7,717. Pub. 9–25–56. Filed 5–4–56.

## CLASS 39

## CLOTHING

638,463. THISTLE DOWN. David D. Doniger & Co. Inc., now by change of name to McGregor-Doniger, Inc. SN 674,055. Pub. 9–25–56. Filed 9–30–54.

638,464. PERFECTION FIT BY ROXANNE. Milady Brassiere & Corset Co. Inc. SN 688,090. Pub. 9–25–56. Filed 5–23–55.

638,465. D'MANO. Kerry of California, Inc. SN 689,633. Pub. 9–25–56. Filed 6–16–55.

638,466. JWR. J. W. Robinson Co., to Robinson Building Company. SN 692,548. Pub. 9–25–56. Filed 8–5–55.

638,467. COWPUNCHER. Acme Boot Manufacturing Company, Inc. SN 693,109. Pub. 9–25–56. Filed 8–16–55.



638,468. DIPLOMAT. Pioneer Suspender Company. SN 695,436. Pub. 9–25–56. Filed 9–27–55.

638,469. ALLEGRO. Maiden Form Brassiere Company, Inc. SN 696,557. Pub. 9–27–56. Filed 10–17–55.

638,470. GALA TITIGALA AND DESIGN. Trasformazioni Tessili S. R. L. SN 176. Pub. 9–25–56. Filed 1–4–56.

638,471. LINGETTES. Samuel V. Lang, Sr. SN 887. Pub. 9–25–56. Filed 1–17–56.

638,472. HEAR-EZE. Midwest Cap Manufacturing Company, d. b. a. Midwest Cap Co. SN 2,367. Pub. 9–25–56. Filed 2–9–56.

638,473. HALL AMERICAN. Robert Hall Clothes, Inc. SN 2,382. Pub. 9–25–56. Filed 2–9–56.

638,474. SMCO. Snelbaker Manufacturing Co. SN 2,454. Pub. 9–25–56. Filed 2–10–56.

638,475. RIVETWIST. Joseph H. Cohen & Sons, Inc. SN 2,506. Pub. 9–25–56. Filed 2–13–56.

638,476. JO JUNIORS DALLAS. Jo-Juniors, Inc. SN 2,638. Pub. 9–25–56. Filed 2–14–56.

638,477. MERRIMAC. Alps Sportswear Mfg. Co., Inc. SN 3,067. Pub. 9–25–56. Filed 2–21–56.

638,478. CAVORTER. Hat Corporation of America. SN 3,093. Pub. 9–25–56. Filed 2–21–56.

638,479. DECOLLETE BY BREATHINBRA. Pliantform Foundations, Inc. SN 3,222. Pub. 9–25–56. Filed 2–23–56.

638,480. RHODETTES. The Outlet Company. SN 5,861. Pub. 9–25–56. Filed 4–5–56.

638,481. DAYNE TAYLOR. The Associated Merchandising Corporation. SN 6,502. Pub. 9–25–56. Filed 4–17–56.

638,482. PLYM-RAY. Plymouth Undergarment Co. SN 8,020. Pub. 9–25–56. Filed 5–9–56.

638,483. EMPRESSIA. Philip Shlansky & Sons, Inc. SN 8,027. Pub. 9–25–56. Filed 5–9–56.

638,484. ENCHANTMATE. Seamprufe Incorporated. SN 8,096. Pub. 9–25–56. Filed 5–10–56.

638,485. TINY DEB. International Latex Corporation. SN 8,134. Pub. 9–25–56. Filed 5–11–56.

638,486. SLIM-EFECT. Cerestry, Inc. SN 8,204. Pub. 9–25–56. Filed 5–14–56.

638,487. INNER SECRET. Jack Baker Sportwear Co., Inc. SN 8,308. Pub. 9–25–56. Filed 5–15–56.

638,488. ETUDE MINOR. Maiden Form Brassiere Company, Inc. SN 8,420. Pub. 9–25–56. Filed 5–16–56.

638,489. GRIPLOC. William Ogg. SN 8,432. Pub. 9–25–56. Filed 5–16–56.

638,490. MOJAVE'S. E. E. Taylor Corporation. SN 8,725. Pub. 9–25–56. Filed 5–21–56.

638,491. ABBEY. Co-Operative Wholesale Society, Limited. SN 8,827. Pub. 9–25–56. Filed 5–23–56.

638,492. VEL-SOFT. The Roxborough Company. SN 8,987. Pub. 9–25–56. Filed 5–24–56.

638,493. SPARETTE. Chadbourn Gotham, Inc. SN 9,083. Pub. 9–25–56. Filed 5–28–56.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

638,494. ADJUSTO-MATIC. Helene Curtis Industries, Inc. SN 3,158. Pub. 9–25–56. Filed 2–22–56.

638,495. DIAMOND BRAID AND DESIGN. Diamond Braiding Mills, Inc. SN 4,184. Pub. 9–25–56. Filed 3–9–56.

638,496. SILVECO. Silveco Rubber Products, Inc. SN 6,839. Pub. 9–25–56. Filed 4–20–56.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

638,274. CONSOLIDATED CERTIFICATE. See Class 7.

638,497. O'LLEGRO. Princeton Knitting Mills, Inc. SN 691,506. Pub. 9–25–56. Filed 7–18–55.

638,498. COLLEGIATE CHINO. Wellington Sears Company. SN 693,788. Pub. 9–25–56. Filed 8–26–55.

638,499. ALLEGRO. D. B. Fuller & Co., Inc. SN 699,222. Pub. 4–17–56. Filed 12–1–55.

638,500. SUTTA. Wamsutta Mills. SN 3,751. Pub. 9–25–56. Filed 4–3–56.

638,501. MALABAR. Dan River Mills, Incorporated. SN 6,105. Pub. 9–25–56. Filed 4–10–56.

638,502. WINDUNA. Forstmann Woolen Co. SN 7,012. Pub. 9–25–56. Filed 4–24–56.

638,503. KR–3 JET-POWER. M. Lowenstein & Sons, Inc. SN 7,200. Pub. 9–25–56. Filed 4–26–56.

638,504. BEAU BEAU. Beaunit Mills, Inc. SN 7,232. Pub. 9–25–56. Filed 4–27–56.

638,505. CURTAIN CADDY. The Glen Company. SN 7,591. Pub. 9–25–56. Filed 5–3–56.

638,506. ORACLE. Mohasco Industries, Inc. SN 7,617. Pub. 9–25–56. Filed 5–3–56.

## CLASS 43

## THREAD AND YARN

638,274. CONSOLIDATED CERTIFICATE. See Class 7.

638,507. ARILOFT. Eastman Kodak Company. SN 689,368. Pub. 11–29–55. Filed 6–13–55.

638,508. VERSAFIL. American Viscose Corporation. SN 11,457. Pub. 9–25–56. Filed 7–3–56.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

638,509. HIG AND DESIGN. Hugo Gloeckler. SN 692,597. Pub. 9–25–56. Filed 8–8–55.

638,510. ORTHO-SLEEPER. Burton L. Zinnamon. SN 696,484. Pub. 9–25–56. Filed 10–14–55.

638,511. TRU-CHROME. Rocky Mountain Metal Products Co. SN 2,575. Pub. 9–25–56. Filed 2–13–56.

638,512. TRANS SPEED ETC. AND DESIGN. Martin Staunt, d. b. a. Midwest Dental Manufacturing Co., to Midwest Dental Mfg. Co. SN 4,391. Pub. 9–25–56. Filed 3–12–56.

638,513. HOSPI-CLINIC. Taylor Instrument Companies. SN 5,466. Pub. 9–25–56. Filed 3–29–56.

638,514. KOFORM. Kimberly-Clark Corporation. SN 5,645. Pub. 9–25–56. Filed 4–2–56.

638,515. KOTAMS. Kimberly-Clark Corporation. SN 5,646. Pub. 9–25–56. Filed 4–2–56.

638,516. KOTEX. Kimberly-Clark Corporation. SN 5,647. Pub. 9–25–56. Filed 4–2–56.

638,517. GENERAL. Johnson & Johnson. SN 5,777. Pub. 9–25–56. Filed 4–4–56.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

638,518. BIG TOP AND DESIGN. Russell C. Moody and Company, to Penrith-Akers Manufacturing Company. SN 688,062. Pub. 9–25–56. Filed 5–23–55.



638,519. BIG TOP AND DESIGN. Russell C. Moody and Company, to Penrith-Akers Manufacturing Company. SN 688,063. Pub. 9–25–56. Filed 5–23–55.

638,520. BIG TOP AND DESIGN. Russell C. Moody and Company, to Penrith-Akers Manufacturing Company. SN 688,064. Pub. 9–25–56. Filed 5–23–55.

638,521. BIG TOP AND DESIGN. Russell C. Moody and Company, to Penrith-Akers Manufacturing Company. SN 688,065. Pub. 9–25–56. Filed 5–23–55.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

638,519. BESTEX. Food Products Corporation. SN 659,613. Pub. 2-22-55. Filed 1-18-54.

638,520. FISHERMAN BRAND AND DESIGN. Stavanger Hermetiske Fabrik A. S. SN 670,249. Pub. 9-25-56. Filed 7-19-54.

638,521. HI-YIELD. Bay State Milling Co. SN 673,720. Pub. 9-25-56. Filed 9-24-54.

638,522. GOLDEN QUALITY NUTS AND DESIGN. Idaho Food Products, Inc. SN 678,329. Pub. 9-25-56. Filed 12-14-54.

638,523. BIG W AND DESIGN. Wedgworth Produce, Inc. SN 679,694. Pub. 9-25-56. Filed 1-10-55.

638,524. URNEY. Urney Chocolates Limited. SN 681,226. Pub. 9-25-56. Filed 2-7-55.

638,525. WINNER W AND DESIGN. Cosby-Hodges Milling Co., Inc. SN 682,832. Pub. 9-25-56. Filed 2-25-55.

638,526. MOO'GAY AND DESIGN. Universal Beverages, Inc. SN 687,835. Pub. 9-25-56. Filed 5-18-55.

638,527. WESTERN STYLE AND DESIGN. Morehouse Industries, d. b. a. Morehouse Mustard Mills. SN 690,180. Pub. 9-25-56. Filed 6-24-55.

638,528. SPRUANCE. Russell Spruance, d. b. a. Russell Spruance Company. SN 690,413. Pub. 9-25-56. Filed 6-28-55.

638,529. MARSHBURN FARMS AND DESIGN. Marshburn, Inc., d. b. a. Marshburn Farms. SN 691,490. Pub. 9-25-56. Filed 7-18-55.

638,530. GOLD SEAL AND DESIGN. American Stores Company. SN 692,448. Pub. 9-25-56. Filed 8-1-55.

638,531. NIEHAUS. Niehaus Bros. SN 692,859. Pub. 9-25-56. Filed 8-11-55.

638,532. Mc. McCormick & Company, Incorporated. SN 694,145. Pub. 9-25-56. Filed 9-2-55.

638,533. EVERYBODY'S. Penick & Ford, Ltd., Incorporated. SN 694,329. Pub. 9-25-56. Filed 9-7-55.

638,534. KIMO ETC. AND DESIGN. Providence Sugar Co., Inc., d. b. a. Kimo Sales Co. SN 695,400. Pub. 9-25-56. Filed 9-28-55.

638,535. HI HAT AND DESIGN. Hi Hat Food Products Co. SN 695,624. Pub. 9-25-56. Filed 9-30-55.

638,536. DSK. Reklar Gording. SN 695,724. Pub. 9-25-56. Filed 10-3-55.

638,537. AUNT YVONNE'S AND DESIGN. Clyde M. Halverson, d. b. a. Halbec Co. SN 695,816. Pub. 9-25-56. Filed 10-4-55.

638,538. CHOO CHOO. Universal Paper & Packaging Service, Inc., d. b. a. Gee Gee Co-Operative Packers. SN 697,203. Pub. 9-25-56. Filed 10-26-55.

638,539. LANDFORD. The Geo. H. Nowland Company, d. b. a. The Geo. H. Nowland Co. and The George H. Nowland Co. SN 698,453. Pub. 9-25-56. Filed 11-17-55.

638,540. CRAZY CURLS. Theodore F. Twardzik, d. b. a. Ateeco. SN 698,466. Pub. 9-25-56. Filed 11-17-55.

638,541. PAN TATO. Douglas Food Corporation. SN 698,693. Pub. 9-25-56. Filed 11-22-55.

638,542. SWEET LUE. Dupuis Produce Company. SN 699,064. Pub. 9-25-56. Filed 11-29-55.

638,543. SCONA. Consolidated Fruit Company Limited. SN 699,135. Pub. 9-25-56. Filed 11-30-55.

638,544. PREMIER KRAV. Hespenheide and Thompson, Inc. SN 699,561. Pub. 9-25-56. Filed 12-7-55.

638,545. PILGRIM. Pilgrim Mills, Inc. SN 699,738. Pub. 9-25-56. Filed 12-9-55.

638,546. ROLL'EM N AND DESIGN. Brooks Bros. SN 699,769. Pub. 9-25-56. Filed 12-12-55.

638,547. ROLLING HILLS ORCHARDS ETC. AND DESIGN. Rolling Hills Orchards, Inc., d. b. a. Rolling Hills Orchards. SN 700,123. Pub. 9-25-56. Filed 12-16-55.

638,548. HEMET. Hemet Packing Company. SN 700,229. Pub. 9-25-56. Filed 12-19-55.

638,549. TURKEY OF THE SEA. Van Camp Sea Food Company, Inc. SN 700,283. Pub. 9-25-56. Filed 12-19-55.

638,550. RED WING AND DESIGN. The Red Wing Company, Inc. SN 700,527. Pub. 9-25-56. Filed 12-23-55.

638,551. PANTRY QUEEN. Shortening Corporation of America, Inc. SN 700,819. Pub. 9-25-56. Filed 12-29-55.

638,552. X-PLOSION AND DESIGN. Burrus Mills, Incorporated, d. b. a. Texas Star Flour Mills. SN 1,204. Pub. 9-25-56. Filed 1-23-56.

638,553. FINAST. First National Stores Inc. SN 1,229. Pub. 9-25-56. Filed 1-23-56.

638,554. HI-SPEED. The Park and Pollard Company, Inc. SN 1,717. Pub. 9-25-56. Filed 1-30-56.

638,555. LO-SO. L. H. Parke Company. SN 1,899. Pub. 9-25-56. Filed 2-1-56.

638,556. MAC-A-DOODLE. Chicago Almond Products Company. SN 2,753. Pub. 9-25-56. Filed 2-16-56.

638,557. GARDENSIDE. Safeway Stores, Incorporated. SN 2,819. Pub. 9-25-56. Filed 2-16-56.

638,558. GRAVY TRAIN. Jack L. Brostoff Co., d. b. a. Coachella-Imperial Distributors. SN 2,854. Pub. 9-25-56. Filed 2-17-56.

638,559. TEABERRY. Clark Brothers Chewing Gum Co. SN 2,950. Pub. 9-25-56. Filed 2-20-56.

638,560. MARKET MASTER. Pillsbury Mills, Inc. SN 3,021. Pub. 9-25-56. Filed 2-20-56.

638,561. GREAT DIVIDE. The Kansas Milling Company, d. b. a. Marion Milling Company. SN 3,098. Pub. 9-25-56. Filed 2-21-56.

638,562. G AND DESIGN. Farmers' Rice Growers Cooperative. SN 3,169. Pub. 9-25-56. Filed 2-23-56.

## CLASS 49

## DISTILLED ALCOHOLIC LIQUORS

638,563. VALLEY VIEW. Joseph S. Finch and Company. SN 7,431. Pub. 9-25-56. Filed 8-1-56.

## CLASS 50

## MERCHANDISE NOT OTHERWISE CLASSIFIED

638,564. EYE-CUE VISUALAIDER AND DESIGN. Techni-Craft. SN 3,966. Pub. 9-25-56. Filed 3-6-56.

638,565. SILVABESTOS. Raybestos-Manhattan, Inc. SN 5,941. Pub. 9-25-56. Filed 4-6-56.

638,566. FIZZ WHIZ. Kirkhill, Inc. SN 7,020. Pub. 9-25-56. Filed 4-24-56.

638,567. IF. International Federation of American Homing Pigeon Fanciers, Inc. SN 7,091. Pub. 9-25-56. Filed 4-25-56.

## CLASS 51

## COSMETICS AND TOILET PREPARATIONS

638,568. CREME EMBRYONNAIRE AND DESIGN. Société Anonyme Laboratoires du Dr. N. G. Payot. SN 687,819. Pub. 9-25-56. Filed 5-18-55.

638,569. THYLOX. Shulton, Inc. SN 688,469. Pub. 9-25-56. Filed 5-27-55.

638,570. REPRESENTATION OF SEAL WITH DRAGON DESIGN. Kokuryu-do Company Limited. SN 691,948. Pub. 9-25-56. Filed 7-26-55.

638,571. MADAME MARIE AWARDE. Bernard A. Margolis, d. b. a. Margolis Enterprises. SN 691,951. Pub. 9-25-56. Filed 7-26-55.



638,572. ARCHIE'S FORMULA NO. 1. Alceo Ditullio, d. b. a. Archie Ditullio. SN 693,238. Pub. 9-25-56. Filed 8-17-55.

638,573. ULTRA-DERM. Andrea du Val Laboratories, Inc., d. b. a. Andrea du Val. SN 695,132. Pub. 9-25-56. Filed 9-22-55.

638,574. JANE SEYMOUR AND DESIGN. Jane Seymour Limited. SN 696,073. Pub. 9-25-56. Filed 10-7-55.

638,575. TIARA. Alexandra de Markoff Sales Corporation. SN 696,875. Pub. 9-25-56. Filed 10-21-55.

638,576. PERMAVIDA. Revlon Products Corporation, d. b. a. Revlon. SN 700. Pub. 9-25-56. Filed 1-13-56.

## CLASS 52

## DETERGENTS AND SOAPS

638,577. "TECHNILUBE." James R. London. SN 658,294. Pub. 9-25-56. Filed 12-21-53.

638,578. REPRESENTATION OF A BLUEBIRD. Purex Corporation, Ltd. SN 671,119. Pub. 9-25-56. Filed 9-4-54.

638,579. SNO-WITE. Windsor Lloyd Products, Inc. SN 693,580. Pub. 9-25-56. Filed 8-23-55.

638,580. BARCOLENE AND DESIGN. The Barcolene Company. SN 694,765. Pub. 9-25-56. Filed 9-16-55.

638,581. EVER-QUIET. Chemical Electronic Engineering, Inc. SN 696,954. Pub. 9-25-56. Filed 11-28-55.

638,582. IDOXCIN. Guy Rampel, d. b. a. R. K. Laboratories. SN 699,742. Pub. 9-25-56. Filed 12-9-55.

638,583. ELLA. Myrurgia, S. A. SN 5,444. Pub. 9-25-56. Filed 3-29-56.

638,584. N-RICH. Comfort Manufacturing Company. SN 7,074. Pub. 9-25-56. Filed 4-25-56.

638,585. DIG. Patrick R. Gibbons Company. SN 12,478. Pub. 9-25-56. Filed 7-9-56.

# Service Marks

## CLASS 100

## MISCELLANEOUS

638,586. ARAB AND DESIGN. Federal Chemical Company, Incorporated. SN 672,006. Pub. 9-25-56. Filed 8-23-54.

## CLASS 102

## INSURANCE AND FINANCIAL

638,587. CERTIFIED CREDIT. Certified Credit Corporation of Ohio. SN 661,406. Pub. 9-25-56. Filed 2-23-54.

638,588. DIME-A-TIME. First National Bank of Minneapolis. SN 689,030. Pub. 9-25-56. Filed 6-7-55.

638,589. "THE HOME FOR YOUR DOLLARS—THE DOLLARS FOR YOUR HOME." The Arlington Co-Operative Bank. SN 689,260. Pub. 9-25-56. Filed 6-10-55.

638,590. STAR OF THE NORTH AND DESIGN. The Minnesota Mutual Life Insurance Company. SN 699,735. Pub. 9-25-56. Filed 12-9-55.

638,591. BE WISE FIRST NATIONALIZE AND DESIGN. First National Bank. SN 2,027. Pub. 9-25-56. Filed 2-3-56.

## CLASS 103

## CONSTRUCTION AND REPAIR

638,592. RICH-ENIZING. Rich's, Inc. SN 681,710. Pub. 9-25-56. Filed 2-15-55.

638,593. NALCOTE. National Aluminate Corporation. SN 692,732. Pub. 9-25-56. Filed 8-9-55.

## CLASS 105

## TRANSPORTATION AND STORAGE

638,594. EMERY AND DESIGN. Emery Air Freight Corporation. SN 3,666. Pub. 9-25-56. Filed 3-1-56.

## CLASS 106

## MATERIAL TREATMENT

638,595. DUPLICAN. Canadian Radium & Uranium Corporation. SN 684,922. Pub. 9-25-56. Filed 4-5-55.

## CLASS 107

## EDUCATION AND ENTERTAINMENT

638,596. MISS DEMOCRAT. The National Capital Young Democratic Club. SN 686,072. Pub. 9-25-56. Filed 4-22-55.

638,597. DISNEYLAND. Walt Disney Productions. SN 3,159. Pub. 9-25-56. Filed 2-23-56.

# Collective Membership Mark

## CLASS 200

638,598. THETA KAPPA PHI AND SHIELD DESIGN. Theta Kappa Phi Fraternity. SN 646,817. Pub. 9-25-56. Filed 5-11-53.

# SUPPLEMENTAL REGISTER

**These registrations are not subject to opposition.**

## CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

638,599. Continental Copper & Steel Industries, Inc., Hillside, N. J. SN 664,408. Filed P. R. 4–13–54. Am. S. R. 6–11–56.

**HATVINOL**

For Rubber-, Plastic- and Braid-Covered Wire, Metallic and Non-Metallic Armored Cables, Insulated Wire and Cable, and Wire Cord-and-Plug Sets.
First use Jan. 1, 1953.

## CLASS 38

### PRINTS AND PUBLICATIONS

638,600. Combo Inc., Seattle, Wash. SN 695,212. Filed P. R. 9–23–55. Am. S. R. 10–15–56.

SUPER-SLIMS

For Greeting Cards.
First use on or about May 1, 1955.

## CLASS 39

### CLOTHING

638,601. Fern Shoe Company, Los Angeles, Calif. SN 678,717. Filed P. R. 12–21–54. Am. S. R. 10–15–56.

*Pinelli*

For Ladies' Shoes.
First use December 1949.

## CLASS 42

### KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

638,602. Howard B. Schneidewind, Inc., New York, N. Y. SN 1,476. Filed P. R. 1–25–56. Am. S. R. 9–24–56.

**MADE FOR EACH OTHER**

For Textile Fabrics in the Piece of Wool, Worsted, Synthetic Fibres and Mixtures Thereof.
First use Aug. 1, 1955.

## CLASS 46

### FOODS AND INGREDIENTS OF FOODS

638,603. Connecticut Pie Baking Co., Inc., Hartford, Conn. SN 692,506. Filed 8–5–55.

DON'T MAKE 'EM— JUST BAKE 'EM!

For Frozen Pies—Namely, Fruit Pies.
First use June 1, 1953.

## CLASS 51

### COSMETICS AND TOILET PREPARATIONS

638,604. Theretha Hudson, d. b. a. Hudson's, Chicago, Ill. SN 4,025. Filed 3–7–56.

**HUDSON'S**

For Hair and Scalp Conditioning Oil.
First use February 1954.

# TRADEMARK REGISTRATIONS RENEWED

111,440. JOHAN JACOB DOBELIUS. Cl. 45. 7–18–16.
111,749. M8C. Cl. 39. 8–1–16.
112,934. IOCAMFEN. Cl. 18. 10–3–16.
113,312. MASTER. Cl. 14. 10–10–16.
113,313. BEAVER. Cl. 14. 10–10–16.
113,329. RUBY AND DESIGN. Cl. 37. 10–10–16.
114,260. MARTINI SOLA ETC. AND DESIGN. Cl. 49. 12–5–16.
114,342. SNOW KING AND DESIGN. Cl. 46. 12–13–16.
114,621. DESIGN OF BLUE RIBBON. Cl. 20. 12–26–16.
114,622. BLUE RIBBON. Cl. 20. 12–26–16.
114,623. DESIGN OF BLUE RIBBON. Cl. 42. 12–26–16.
114,624. BLUE RIBBON. Cl. 42. 12–26–16.
114,646. MOLESHEEN. Cl. 39. 12–26–16.
115,365. LACTOGEN. Cl. 46. 2–6–17.
115,626. REFLEXALITE. Cl. 16. 2–27–17.
115,649. NORMAL AND DESIGN. Cl. 18. 2–27–17.
333,638. ADMIRATION COOPER, WELLS & CO. AND DESIGN. Cl. 39. 3–31–36.
336,666. LOVELL & COVEL CHOCOLATE AND DESIGN. Cl. 46. 7–14–36.
337,969. CRESTA. Cl. 14. 8–25–36.
338,546. COLLECTOR'S GROUP. Cl. 32. 9–8–36.
338,792. JOE PALOOKA. Cl. 38. 9–15–36.
339,446. MOGUL. Cl. 39. 10–6–36.
339,485. RYTHM. Cl. 51. 10–13–36.
339,528. FOOT YOUTH. Cl. 18. 10–13–36.
339,779. MYCALEX. Cl. 21. 10–20–36.







339,823. LEADLEAF AND DESIGN. Cl. 16. 10–20–36.
339,912. DAVID COPPERFIELD. Cl. 39. 10–27–36.
340,093. SILVER SEAL. Cl. 39. 11–3–36.
340,401. EVEREADY. Cl. 52. 11–10–36.
340,453. LANDS' END PLANTATION SEEDS. Cl. 1. 11–10–36.
341,055. RANCO. Cl. 26. 12–1–36.
341,161. GROCO. Cl. 34. 12–1–36.
341,205. NADIN. Cl. 18. 12–1–36.
341,457. PALMOLIVE. Cl. 29. 12–8–36.
341,709. TEE-UP. Cl. 45. 12–22–36.
341,735. OIL-O-SORB. Cl. 52. 12–22–36.
341,971. PALMOLIVE AND DESIGN. Cl. 51. 12–29–36.
342,030. FASHION STRIDE. Cl. 39. 12–29–36.
342,060. ZERO-LASH. Cl. 23. 12–29–36.
342,123. THE OFFICE. Cl. 38. 1–5–37.
342,146. TERMACO. Cl. 28. 1–5–37.
342,161. MOTOSTEEL. Cl. 13. 1–5–37.
342,186. DESIGN OF PINE CONES. Cl. 42. 1–5–37.
342,189. MIRROFINISH. Cl. 23. 1–5–37.
342,190. MIRROHONE. Cl. 23. 1–5–37.
342,520. HIGHLAND MIST. Cl. 39. 1–19–37.
343,477. FUZZY-WUZZY. Cl. 43. 2–23–37.
343,496. VITOF AND DESIGN. Cl. 51. 2–23–37.
343,528. KEY AND DESIGN. Cl. 1. 2–23–37.
343,577. SNACKS. Cl. 37. 2–23–37.
343,647. SUPREME. Cl. 35. 3–2–37.
343,706. ROYAL RIVIERA. Cl. 46. 3–2–37.
343,819. CAROLYN. Cl. 39. 3–9–37.
343,858. SUNCLYME. Cl. 51. 3–9–37.
344,419. STATE FAIR. Cl. 46. 3–23–37.
344,479. BOND STREET. Cl. 17. 3–23–37.
344,569. EMIR. Cl. 51. 3–30–37.

# TRADEMARK REGISTRATIONS CANCELED

**Section 8**

123,615. FRAGROMA. Cl. 46. 11–19–18.
380,770. FOOTLITE. Cl. 39. 9–3–40.
385,334. McCORIZED. Cl. 46. 2–25–41.
442,141. S. T. R. AND DESIGN. Cls. 1, 6, 14. 3–1–49.
443,977. UKE-A-TUNE. Cl. 22. 5–9–50.

*The following registrations issued Sept. 12, 1950*

530,448. ELWELL PARKER. Cl. 23.
530,453. ROYAL AIR GUARD. Cl. 35.
530,455. SWEDEROPE. Cl. 37.
530,458. FARANAC. Cl. 39.
530,460. ARMSTRONG AND DESIGN. Cl. 37.
530,462. WALL ART. Cl. 16.
530,472. RED RIVER SPECIAL. Cl. 23.
530,480. RIZA. Cl. 23.
530,486. W. O. W. Cl. 16.
530,494. EXECUTIVE. Cl. 37.
530,499. CREAM-BATH BY PATRICIA. Cl. 39.
530,508. SUEDE-TEX. Cl. 37.
530,510. DAVIS. Cl. 4.
530,515. FIT-RITE. Cl. 21.
530,522. OZARK. Cl. 15.
530,523. CAL-ENE. Cl. 44.
530,524. CAL-IUM. Cl. 44.
530,525. CAL-LOY. Cl. 44.
530,528. REDI-FURRED. Cl. 23.
530,529. PRECI-DENT. Cl. 44.
530,533. PROTONIZED. Cl. 39.
530,537. CARACOL VOANDO. Cl. 23.
530,538. CARR. Cl. 46.
530,539. T IN TRIANGLE. Cl. 35.
530,543. WINGED DESIGN. Cl. 23.
530,546. LOVEY-COOS. Cl. 22.
530,547. MULTI-TOOL UTILITY SHAFT. Cl. 23.
530,557. BEAU. Cl. 23.
530,560. FLOCOLD. Cl. 15.
530,562. KATE GREENAWAY. Cl. 37.
530,563. CAL-PENN. Cl. 15.
530,571. SILVER'S PRIDE. Cl. 46.
530,576. STYLED BY CARTA RETTE MAID. Cl. 39.
530,580. SHOPPING GIRL. Cl. 37.
530,582. LERON. Cl. 39.
530,583. BETTY BUBBLES. Cl. 22.
530,585. BLUE BIRD AND DESIGN. Cl. 13.
530,593. GLOBAL WITH DESIGN. Cl. 35.
530,595. BLUE BIRD. Cl. 13.
530,596. SUB CEE. Cl. 22.
530,599. TABULABEL. Cl. 37.
530,602. RING BOOK AND DESIGN. Cl. 37.
530,612. P P AND DESIGN. Cl. 23.
530,618. DAREX. Cl. 23.
530,620. SILVER BAY. Cl. 46.
530,621. PERMA-TRAC. Cl. 35.
530,623. LASTA. Cl. 6.
530,627. DOUBLE-POWER AND DESIGN. Cl. 6.
530,633. ANTAPHOR. Cl. 6.
530,636. LITTLE KIM. Cl. 46.
530,639. DROUT. Cl. 15.
530,648. BUFEN-I. Cl. 6.
530,649. HEI-BRO. Cl. 39.
530,651. POCKET-EX. Cl. 37.
530,652. MAXITRAC. Cl. 35.
530,660. LEBASY AND DESIGN. Cl. 46.
530,663. STUDIO CRAFT. Cl. 37.
530,670. WILRUSS. Cl. 46.
530,671. BORDERETTE. Cl. 39.
530,676. SOFTEX IN DESIGN. Cl. 37.
530,683. MOSAIQUE. Cl. 39.
530,688. VACWAX. Cl. 15.
530,690. WHITE FROSTING. Cl. 39.
530,691. DENCIL. Cl. 6.
530,694. R. D. S.–1410. Cl. 6.
530,702. RENE RUTH. Cl. 39.
530,711. DWSS. Cl. 16.
530,712. ENPRO. Cl. 23.
530,716. TRAVELOT. Cl. 19.
530,717. CHUNKY-CHUM AND DESIGN. Cl. 22.
530,718. NYLOTONE. Cl. 22.
530,722. ZONETEX. Cl. 16.
530,724. KATE GREENAWAY'S "PINNYS." Cl. 39.
530,728. ROSE VALLEY. Cl. 10.
530,730. BARNESDRIL AND DESIGN. Cl. 23.
530,736. STA-TITE AND DESIGN. Cl. 40.
530,737. HOUSE OF PLENTY. Cl. 12.
530,738. KARAK. Cl. 19.
530,739. MAILLARD'S. Cl. 46.
530,741. LANDIS. Cl. 46.
530,746. SLIDE-AWAY. Cl. 19.
530,749. HOLLAND HOUSE. Cl. 4.
530,751. 5 IN 1. Cl. 38.
530,756. THE WINKLER 700 AND DESIGN. Cl. 39.
530,758. TEWKSBURY. Cl. 38.
530,759. ITS FUN TO WATCH 'EM GROW! Cl. 1.

# TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

112,982. THERVAC. Cl. 2. 10–10–16. American Thermos Bottle Company. The American Thermos Products Company, Cincinnati, Ohio. Corrected: In line 6 of the renewal certificate, after "Company," *by change of name, The American Thermos Products Company*, should be inserted.

526,258. ELECTROMASTER AND DESIGN. Cl. 21. 8–1–50. Electromaster, Inc., assignor to Philco Corporation, Philadelphia, Pa. Amended to appear:

**ELECTROMASTER**

632,616. JOHNNY TREMAINE. Cl. 22. 8-14-56. Louis Marx & Company, Inc., New York, N. Y. Amended: In column 2, lines 3 and 4, "a combination of a toy gun, powder horn, canteen, and hat" is deleted and *a combination of the same* is inserted in lieu thereof.

633,206. POLY-PRESS. Cl. 50. 8-21-56. Upressit Metal Cap Corporation, Danbury, Conn. Amended to appear:

POLLY-PRESS

## REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

184,300. May 20, 1924. The Vitro Manufacturing Company, Pittsburgh, Pa. Pub. by Vitro Corporation of America, New York, N. Y.

VITRO

For Oxides of Cobalt, Chromium, Selenium, Zirconium, Titanium, Cerium, and Tin, and for Sulphide of Cadmium.

338,977. Sept. 22, 1936. Dewey and Almy Chemical Company, Cambridge, Mass. Pub. by W. R. Grace & Co., Cambridge, Mass.

DAXAD

For Chemicals Used as Dispersing Agents in the Preparation of Dispersions of Pigments, Colors, Calcareous and Aluminous Substances.

375,413. Feb. 20, 1940. Campos y Quebrachales Puerto Sastre, S. A., Buenos Aires, Argentina. Pub. by registrant.

CAMPOS Y QUEBRACHALES PUERTO SASTRE TANICA EXTRACTO

MARCA REGISTRADA

For Tanning Extracts and Substances.

### CLASS 15

### OILS AND GREASES

114,384. Dec. 12, 1916. Wm. C. Robinson & Son Co., Baltimore, Md. Pub. by William C. Robinson & Son, Company, Baltimore, Md.

CUTALL

For Oil To Be Mixed With Water Used as a Lubricant for Metal-Cutting Tools.

195,392. Feb. 24, 1925. Protane Corporation, Erie, Pa. Pub. by The Protane Corporation, Cleveland, Ohio.

PROTANE

For Liquid Hydrocarbon Fuel.

317,074. Sept. 11, 1934. Apieson Products, Limited, London, England. Pub. by registrant.

APIEZON

For Oils and Greases, Wholly or Partly of Petroleum Origin.

### CLASS 23

### CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

336,703. July 14, 1936. N. S. Meyer, Inc., New York, N. Y. Pub. by registrant.

CONQUEROR

For Sabres, Swords, and Sabre Chains.

337,363. Aug. 4, 1936. N. S. Meyer, Inc., New York, N. Y. Pub. by registrant.

DEFENDER

For Sabres, Swords, and Sabre Chains.



340,027. Oct. 27, 1936. The C. M. Kemp Manufacturing Company, Baltimore, Md. Pub. by registrant.

ATMOS-GAS

For Machine for Treating Gas for Use in Annealing and Other Metal Treating Processes.

### CLASS 43

### THREAD AND YARN

338,208. Sept. 1, 1936. The Clark Thread Company, Newark, N. J. Pub. by Coats & Clark Inc., New York, N. Y.

TRIDENT

For Thread and Yarn.

TM 713 O. G.—7

### CLASS 44

### DENTAL, MEDICAL, AND SURGICAL APPLIANCES

117,118. June 19, 1917. Davol Rubber Company, Providence, R. I. Pub. by registrant.

"HOUSEHOLD"

For Breast Pumps and Syringes.

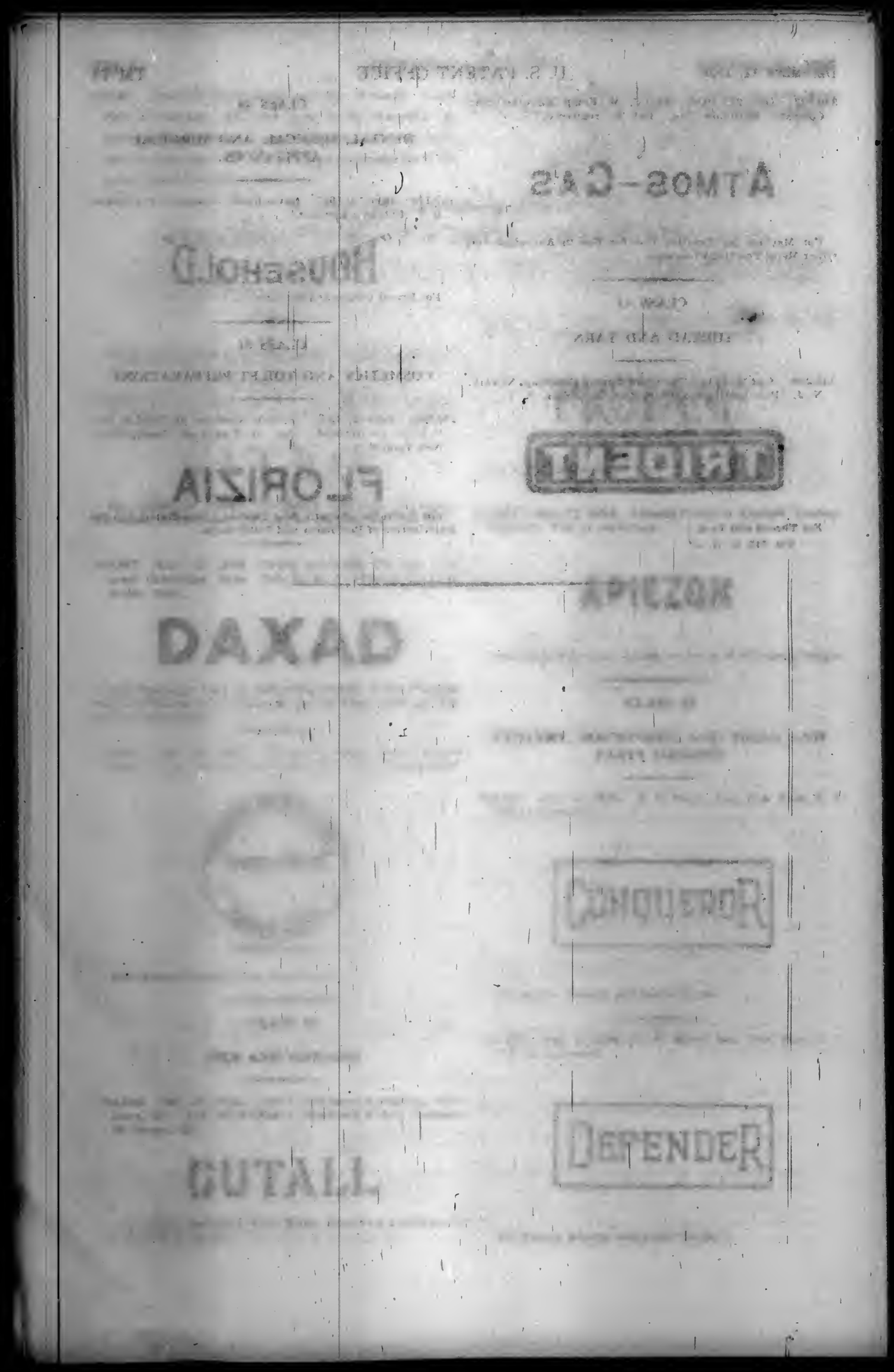
### CLASS 51

### COSMETICS AND TOILET PREPARATIONS

283,685. June 2, 1931. Societe Anonyme M. Naef & Cie., Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

FLORIZIA

For Synthetic Aromatic Base Used as a Raw Material in the Manufacture of Perfumery and Toilet Soaps.




# LIST OF REGISTRANTS OF TRADEMARKS

## REGISTERED DECEMBER 11, 1956

Abbott Laboratories, North Chicago, Ill. 638,331, pub. 9–25–56. Cl. 18.
Acme Boot Mfg. Co., Inc., Clarksville, Tenn. 638,467, pub. 9–25–56. Cl. 39.
Acme Wire Co., The, Hamden, Conn. 638,359, pub. 7–31–56. Cl. 21.
Aerol Co., Inc., Los Angeles, Calif. 638,338, pub. 9–25–56. Cl. 19.
Aircraft-Marine Products, Inc., Harrisburg, Pa. 638,350, pub. 9–25–56. Cl. 21.
Aktiebolaget Dentatus, Stockholm, Sweden. 530,529, canc. Cl. 44.
Aktiebolaget Ramlösa Hälsobrunn, Ramlosabrunn, Sweden. 111,440, ren. 7–18–56. Cl. 45.
Alcor Electronics Corp., New York, N. Y. 638,344, pub. 9–25–56. Cl. 21.
Alexander, Robert H., Scott, Ark. 340,453, ren. 11–10–56. Cl. 1.
Alkon Products Corp., Hawthorne, N. J. 638,388, pub. 9–25–56. Cl. 23.
Allen Electric and Equipment Co., Kalamazoo, Mich. 638,419, pub. 9–25–56. Cl. 26.
Allied Home Products Corp., Beloit, Wis. 638,311, pub. 9–25–56. Cl. 16.
Alps Sportswear Mfg. Co., Inc., Boston, Mass. 638,477, pub. 9–25–56. Cl. 39.
Alrose Chemical Co., Cranston, R. I. 530,533, canc. Cl. 39.
Amerac Inc., Wenham, Mass. 638,355, pub. 6–5–56. Cl. 21.
American Chain & Cable Co., Inc., Bridgeport, Conn. 638,275, pub. 9–18–56. Cl. 7.
American Cyanamid Co., New York, N. Y. 638,328–9, pub. 9–25–56. Cl. 18.
American Greetings Corp., Cleveland, Ohio. 638,460, pub. 9–25–56. Cl. 38.
American Home Products Corp., d. b. a. Wyeth Laboratories, Div. of American Home Products Corp., New York, N. Y. 638,320, pub. 10–2–56. Cl. 18.
American Home Products Corp., d. b. a. Ives-Cameron Co., Division of American Home Products Corp., Radnor, Pa. 638,332, pub. 9–25–56. Cl. 18.
American Marex Corp., to Metal & Thermit Corp., New York, N. Y. 337,969, ren. 2–25–56. Cl. 14.
American Plastic Products, Los Angeles, Calif. 443,977, canc. Cl. 22.
American Stores Co., Philadelphia, Pa. 638,530, pub. 9–25–56. Cl. 46.
American Thermos Bottle Co. The American Thermos Products Co., Cincinnati, Ohio. 112,982, cor. Cl. 2.
American Thermos Products Co., The: *See*—
American Thermos Bottle Co.
American Viscose Corp., Philadelphia, Pa. 638,506, pub. 9–25–56. Cl. 43.
Apleson Products, Ltd., London, England. 317,074, 12(c) pub. 12–11–56. Cl. 15.
Arlington Co-Operative Bank, The, Arlington, Mass. 638,589, pub. 9–25–56. Cl. 102.
Armstrong Cork Co., Lancaster, Pa. 530,460, canc. Cl. 37.
Associated Merchandising Corp., The, New York, N. Y. 635,461, pub. 9–25–56. Cl. 39.
Ateeco: *See*—
Twardzik, Theodore F.
Atlas Plywood Corp., Boston, Mass. 638,241, pub. 9–25–56. Cl. 2.
Automatic Reclosing Circuit Breaker Co., The, to Ranco Inc., Columbus, Ohio. 341,055, ren. 12–1–56. Cl. 26.
B. G. Garment Co., Chicago, Ill. 530,702, canc. Cl. 39.
Baker, Jack, Sportwear Co., Inc., New York, N. Y. 638,487, pub. 9–25–56. Cl. 39.
Banner Trading Stamps, Inc., Fort Smith, Ark. 638,459, pub. 9–25–56. Cl. 38.
Barber-Colman Co., Rockford, Ill. 638,369, pub. 9–25–56. Cl. 21.
Barcolene Co., The, Boston, Mass. 638,580, pub. 9–25–56. Cl. 52.
Barnes Drill Co., Rockford, Ill. 530,730, canc. Cl. 23.
Barnes, W. F. & John, Co., Rockford, Ill. 638,413, pub. 9–25–56. Cl. 26.
Bart Mfg. Corp., Belleville, N. J. 638,303, pub. 9–25–56. Cl. 14.
Batteries Mfg. Co., Detroit, Mich., to Atlas Supply Co., Newark, N. J. 636,339, pub. 5–17–56. Cl. 21.
Bay State Milling Co., Winona, Minn. 638,521, pub. 9–25–56. Cl. 46.
Beau Brummell Ties, Inc.: *See*—
Weisbaum Bros.-Brower Co., The.
Beaunit Mills, Inc., New York, N. Y. 638,504, pub. 9–25–56. Cl. 42.
Beebe Bros., Seattle, Wash. 638,400, pub. 9–25–56. Cl. 23.
Bercut-Richards Packing Co., Sacramento, Calif. 344,419, ren. 3–23–57. Cl. 46.
Berendsen, Ormond M., Green Bay, Wis. 530,751, canc. Cl. 38.
Bergen, Philip E., Hartford, Conn. 530,621, canc. Cl. 35.
Best Made Co.: *See*—
Schneider, Sam.
Biales, Irvin B., d. b. a. Continental Nu-Steel Metal Products Co., Chicago, Ill. 638,297, pub. 9–25–56. Cl. 12.
Bianchini, Ferier, Inc., New York, N. Y. 342,186, ren. 1–5–57. Cl. 42.
Blackhawk Mfg. Co., to Dynex, Inc., Milwaukee, Wis. 638,402, pub. 9–25–56. Cl. 23.
Boehringer, C. H., Sohn, Ingelheim am Rhein, Germany. 638,312, pub. 6–30–53. Cl. 18.
Böettger, E., d. b. a. Christof Friedrich K. G., Munich, Germany. 638,418, pub. 9–25–56. Cl. 26.
Bonat & Bonat, Inc., Paterson, N. J. 343,496, ren. 2–23–57. Cl. 51.
Bostrom Mfg. Co., Milwaukee, Wis. 638,335, pub. 9–18–56. Cl. 19.
Bourns Laboratories, Inc., Riverside, Calif. 638,420, pub. 9–25–56. Cl. 26.
Brooks Bros., Salinas, Calif. 638,546, pub. 9–25–56. Cl. 46.
Brostoff, Jack L., Co., d. b. a. Coachella-Imperial Distributors, Los Angeles, Calif. 638,536, pub. 9–25–56. Cl. 46.
Bruner, Rea M., d. b. a. Flash-O-Rama Advertising Signals, Colorado Springs, Colo. 638,375, pub. 9–25–56. Cl. 21.
Buckley-Newhall Co., The, New York, N. Y., to John Mullins & Sons, Inc., Brooklyn, N. Y. 114,621, ren. 12–26–56. Cl. 20.
Buckley-Newhall Co., The, New York, N. Y., to John Mullins & Sons, Inc., Brooklyn, N. Y. 114,622, ren. 12–26–56. Cl. 20.
Buckley-Newhall Co., The, New York, N. Y., to John Mullins & Sons, Inc., Brooklyn, N. Y. 114,623, ren. 12–26–56. Cl. 42.
Buckley-Newhall Co., The, New York, N. Y., to John Mullins & Sons, Inc., Brooklyn, N. Y. 114,624, ren. 12–26–56. Cl. 42.
Buckman Laboratories, Inc., Memphis, Tenn. 530,648, canc. Cl. 6.
Buffalo-Eclipse Corp., d. b. a. The Eclipse Lawn Mower Co., Prophetstown, Ill. 638,389, pub. 9–25–56. Cl. 23.
Burgess-Norton Mfg. Co., Geneva, Ill. 638,304, pub. 9–25–56. Cl. 14.
Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. 638,326–7, pub. 9–25–56. Cl. 18.
Burrus Mills, Inc., d. b. a. Texas Star Flour Mills, Galveston, Tex. 638 552 pub. 9–25–56. Cl. 46.
Byk-Gulden Lomberg, Chemische Fabrik, G. m. b. H., Konstanz, Germany. 638,265. pub. 9–25–56. Cl. 6.
California Pellet Mill Co., San Francisco, Calif. 638,405, pub. 9–25–56. Cl. 23.
Calumet Refining Co., Chicago, Ill. 530 563, canc. Cl. 15.
Cambridge Glass Co., The, Cambridge, Ohio. 638,442, pub. 9–25–56. Cl. 33.
Cambridge Glass Co., The, Cambridge, Ohio. 638,443, pub. 9–25–56. Cl. 33.
Campos y Quebrachales Puerto Sastre, S. A., Buenos Aires, Argentina. 375 413. 12(c) pub. 12–11–56. Cl. 6.
Canada Dry Ginger Ale, Inc., to Canada Dry Ginger Ale, Inc., New York, N. Y. 341 700, ren. 12–22–56. Cl. 45.
Canadian Radium & Uranium Corp., New York, N. Y. 638,595, pub. 9–25–56. Cl. 106.
Cánepa, Enrique, d. b. a. Tewksbury Wall Paintings, New York, N. Y. 530,758, canc. Cl. 38.
Carac Corp., The, Freeport, N. Y. 638,277, pub. 9–25–56. Cl. 10.
Cardwell, O. C.: *See*—
Strickler Frank D.
Carolyn Fashions, Inc.: *See*—
National Modes, Inc.
Carr-Consolidated Biscuit Co., Wilkes-Barre, Pa. 530,538, canc. Cl. 46.
Casite Corp., The, Hastings, Mich. 530 639, canc. Cl. 15.
Central States Paper & Bag Co., St. Louis, Mo. 638,246, pub. 9–25–56. Cl. 2.
Ceramichrome Laboratories: *See*—
Greenstreet Thomas E.
Certified Credit Corp. of Ohio, Columbus, Ohio. 638,587, pub. 9–25–56. Cl. 102.
Chadbourn Gotham, Inc., Charlotte, N. C. 638,493, pub. 9–25–56. Cl. 39.
Charak Furniture Co., Boston, Mass. 338,546, ren. 9–8–56. Cl. 32.
Chase Chemical Corp., Pittsburgh, Pa. 638,273, pub. 9–25–56. Cl. 6.
Chase-Shawmut Co., The, Newburyport, Mass. 638,366, pub. 9–25–56. Cl. 21.
Cheerio Toys, Inc., Chicago, Ill. 638,376, pub. 9–25–56. Cl. 22.
Chemical Electronic Engineering, Inc., Matawan, N. J. 638 581, pub. 9–25–56. Cl. 52.
Chicago Almond Products Co., Chicago, Ill. 638,556, pub. 9–25–56. Cl. 46.
Chicago Spring Products Co., Chicago, Ill. 638,436, pub. 9–25–56. Cl. 32.
Ciba Ltd., Basel, Switzerland. 530,633. canc. Cl. 6.
Circle Wire and Cable Corp., Maspeth, N. Y. 638,367, pub. 9–25–56. Cl 21.
Clark Brothers Chewing Gum Co., Pittsburgh, Pa. 638,559, pub. 9–25–56. Cl. 46.
Clark-Coleman Coal & Coke Co., Peoria, Ill., to Key Coal Co., Kansas City, Mo. 343,528, ren. 2–23–57. Cl. 1.
Clark Thread Co., The, Newark, N. J., by Coats & Clark Inc., New York, N. Y. 338,208, 12(c) pub. 12–11–56. Cl. 43.
Classic Hosiery Mill, Inc., Elizabethtown, Pa. 530,683, canc. Cl. 39.

Cleveland-Detroit Corp., Cleveland, Ohio. 638,374, pub. 9–25–56. Cl. 21.
Clinton Foods Inc., Clinton, Iowa, to Standard Brands Inc., New York, N. Y., 638,271, pub. 9–25–56. Cl. 6.
Coachella-Imperial Distributors: *See*—
Brostoff, Jack L., Co.
Coats & Clark Inc.: *See*—
Clark Thread Co., The.
Coe Laboratories, Inc., Chicago, Ill. 530 523, canc. Cl. 44.
Coe Laboratories, Inc., Chicago, Ill. 530,524, canc. Cl. 44.
Coe Laboratories, Inc., Chicago, Ill. 530,525, canc. Cl. 44.
Cohen, Joseph H., & Sons, Inc., New York, N. Y. 638,475, pub. 9–25–56. Cl. 39.
Colgate-Palmolive Co.: *See*—
Colgate-Palmolive-Peet Co.
Quinlan, Kathleen Mary, Inc.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 341,457, ren. 12–8–56. Cl. 29.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 341,971, ren. 12–29–56. Cl. 51.
Colorado Builders' Supply Co., The, Denver, Colo. 638,406, pub. 9–25–56. Cl. 23.
Columbia Ribbon & Carbon Mfg. Co., Inc., Glen Cove, N. Y. 638,283, pub. 9–25–56. Cl. 11.
Comar Industries, Inc., New York, N. Y. 638,280, pub. 9–25–56. Cl. 10.
Combo Inc., Seattle, Wash. 638,600. Cl. 38.
Comfort Mfg. Co., Chicago, Ill. 638,584, pub. 9–25–56. Cl. 52.
Companion Bags, Inc., New York, N. Y. 638,256, pub. 9–25–56. Cl. 3.
Connecticut Pie Baking Co., Inc., Hartford, Conn. 638,603. Cl. 46.
Consolidated Electrodynamics Corp.: *See*—
Consolidated Vacuum Corp.
Consolidated Fruit Co. Ltd., Calgary, Alberta, Canada. 638,543, pub. 9–25–56. Cl. 46.
Consolidated Vacuum Corp., Rochester, N. Y., to Consolidated Electrodynamics Corp., Pasadena, Calif. 638,381, pub. 5–22–56. Cl. 23.
Continental Can Co., Inc., New York, N. Y. 638,245, pub. 9–25–56. Cl. 2.
Continental Copper & Steel Industries, Inc., Hillside, N. J. 638,599. Cl. 21.
Continental Lithographers, Inc., St. Louis, Mo. 638,453, pub. 9–25–56. Cl. 38.
Continental Motors Corp., Detroit and Muskegon, Mich. 530 547, canc. Cl. 23.
Continental Nu-Steel Metal Products Co.: *See*—
Blake, Irvin E.
Cook Electric Co., Chicago, Ill. 638,340, pub. 9–25–56. Cl. 21.
Cooper, Harry L., Hosiery Mills, Southampton, Pa. 530,671, canc. Cl. 39.
Cooper, Wells & Co., St. Joseph, Mich., to The Miller-Wohl Co., Inc., New York, N. Y. 333,638, ren. 3–31–56. Cl. 39.
Co-Operative Wholesale Society, Ltd., Manchester, England. 638,491, pub 9–25–56. Cl. 39.
Corsetry, Inc., Derby, Conn. 638,486, pub. 9–25–56. Cl. 39.
Cosby-Hodges Milling Co., Inc., Birmingham, Ala. 638,525, pub. 9–25–56. Cl. 46.
Craddock Furniture Corp., Evansville, Ind. 638,439, pub. 9–25–56. Cl. 32.
Craft-Bilt Mfg. Co., Philadelphia, Pa. 638,302, pub. 9–25–56. Cl. 14.
Craig, Wesley B., Fair Haven, N. J. 638,240, pub. 9–25–56. Cl. 2.
Crescent Drug Products Co.: *See*—
Seebasco Laboratories, Inc.
Cross, James H., d. b. a. Cross Mfg. Co., Lewis, Kans. 638 393–4, pub. 9–25–56. Cl. 23.
Cross Mfg. Co.: *See*—
Cross, James H.
Crown Zellerbach Corp., also d. b. a. National Paper Products Co., San Francisco, Calif. 530,508, canc. Cl. 37.
Cummins-Chicago Corp., Chicago, Ill. 638,399, pub. 9–25–56. Cl. 23.
Curtis Helene Industries, Inc., Chicago, Ill. 638,494, pub. 9–25–56. Cl. 40.
DWSS Co., Inc., St. Petersburg, Fla. 530,711, canc. Cl. 16.
Daniels Mfg. Co., Rhinelander, Wis. 343,577, ren. 2–23–57. Cl. 37.
Dan River Mills, Inc., Danville, Va. 638,501, pub. 9–25–56. Cl. 42.
Dashew Business Machines, Inc., Culver City, Calif. 638,382–3, pub. 9–25–56. Cl. 23.
Davol Rubber Co., Providence, R. I. 117,118, 12(c) pub. 12–11–56. Cl. 44.
Decatur Pump Co., Decatur, Ill. 638,404, pub. 9–25–56. Cl. 23.
Delta Products, Division of Air Accessories, Inc., Fort Worth, Tex. 638,337, pub. 9–25–56. Cl. 19.
De Markoff, Alexandra, Sales Corp., New York, N. Y. 638,575, pub. 9–25–56. Cl. 51.
De Sherbinin, W. N., Products Inc., Hawleyville, Conn. 638,352, pub. 9–25–56. Cl. 21.
Deslongchamps, Eugène, to Pocket-Ez Co. Ltd., Montreal, Quebec, Canada. 530,651, canc. Cl. 37.
Detroit Sulphite Pulp & Paper Co., Detroit, Mich. 530,455, canc. Cl. 37.
Dewey and Almy Chemical Co., by W. R. Grace & Co., Cambridge, Mass. 338,977, 12(c) pub. 12–11–56. Cl. 6.
Dewey and Almy Chemical Co., Cambridge, Mass. 530,618, canc. Cl. 22.
Dexter Folder Co., Pearl River, N. Y., to Miehle Printing Press & Mfg. Co., Chicago, Ill. 638,395–6, pub. 9–25–56. Cl. 23.
Diamond Braiding Mills, Inc., Tarpon Springs, Fla. 638,495, pub. 9–25–56. Cl. 40.
Diamond Match Co., The, New York, N. Y. 530,676, canc. Cl. 37.
Disney, Walt, Productions, Burbank, Calif. 638,597, pub. 9–25–56. Cl. 107.
Ditto Camera Corp., New York, N. Y. 638,409, pub. 3–23–54. Cl. 26.
Ditullio, Alceo, d. b. a. Archie Ditullio, Bayside, N. Y. 638,572, pub. 9–25–56. Cl. 51.
Ditullio, Archie: *See*—
Ditullio, Alceo.
Doniger, David D., & Co. Inc., New York, N. Y., now by change of name to McGregor-Doniger, Inc. 638,463, pub. 9–25–56. Cl. 39.
Douglas Food Corp., Chicago, Ill. 638,541, pub. 9–25–56. Cl. 46.
Douglas Furniture Corp., Chicago, Ill. 638,434–5, pub. 9–25–56. Cl. 32.
Dow Chemical Co., The, Midland, Mich. 638,347, pub. 9–25–56. Cl. 21.
Drew, E. F., & Co., Inc., New York, N. Y. 638,272, pub. 9–25–56. Cl. 6.
Drewry Photocolor Corp., Glendale, Calif. 638,452, pub. 9–25–56. Cl. 38.
Duble-Power Chemical Co., Portland, Oreg. 530,627, canc. Cl. 6.
Dunton, M. W., Co., The, Providence, R. I. 638,301, pub. 9–25–56. Cl. 14.
Lupuis Produce Co., Cecilia, La. 638,542, pub. 9–25–56. Cl. 46.
Durabilt Metal Products Co.: *See*—
Ingram, Maxwell.
Du Val, Audrea: *See*—
Du Val, Audrea, Laboratories, Inc.
Du Val, Audrea, Laboratories, Inc., d. b. a. Audrea du Val, Mount Prospect, Ill. 638,573, pub. 9–25–56. Cl. 51.
Dynex, Inc.: *See*—
Blackhawk Mfg. Co.
Eagle-Ottawa Leather Co., Grand Haven, Mich. 638,237, pub. 9–25–56. Cl. 1.
Eastern Gas and Fuel Associates, Boston, Mass. 638,306, pub. 9–25–56. Cl. 14.
Eastman Kodak Co., Rochester, N. Y. 638,507, pub. 11–29–55. Cl. 43.
Eaton Mfg. Co.: *See*—
Wilcox-Rich Corp.
Ebert Electronics Corp., Queens Village, N. Y. 638,362, pub. 9–25–56. Cl. 21.
Eclipse Lawn Mower Co., The: *See*—
Buffalo-Eclipse Corp.
Ekco Products Co., Chicago, Ill. 530,585, canc. Cl. 13.
Ekco Products Co., Chicago, Ill. 530,595, canc. Cl. 13.
Electro-Protective Corp., Newark, N. J. 530,557, canc. Cl. 23.
Electromaster, Inc., to Philco Corp., Philadelphia, Pa. 328,258. Am. 7(d). Cl. 21.
Elwell-Parker Electric Co., The, Cleveland, Ohio. 530,448, canc. Cl. 23.
Emery Air Freight Corp., New York, N. Y. 638,594, pub. 9–25–56. Cl. 105.
Engineered Products, Inc., Denver, Colo. 530,712, canc. Cl. 23.
Estate of Hammond E. Fisher, deceased, New York, N. Y. 338,792, ren. 9–15–56. Cl. 38.
Everett Packing Co., Everett, to Fishermen's Packing Corp., Anacortes, Wash. 114,342, ren. 12–13–56. Cl. 46.
Everitt & Co.: *See*—
Everitt, Wm.
Everitt, Wm., d. b. a. Everitt & Co., Seattle, Wash. 530,620, canc. Cl. 46.
Farley, C. J., & Co., Grand Rapids, Mich. 530,458, canc. Cl. 39.
Farmers' Rice Growers Cooperative, San Francisco, Calif. 638,562, pub. 9–25–56. Cl. 46.
Federal Chemical Co., Inc., Indianapolis, Ind. 638,586, pub. 9–25–56. Cl. 100.
Fell, William B., d. b. a. William B. Fell Co., Rockford, Ill. 638,422, pub. 9–25–56. Cl. 26.
Fell, William B., Co.: *See*—
Fell, William B.
Fern Shoe Co., Los Angeles, Calif. 638,601. Cl. 39.
Ferry-Morse Seed Co., Detroit, Mich. 530,759, canc. Cl. 1.
Finch, Joseph S., and Co., New York, N. Y. 638,563, pub. 9–25–56. Cl. 49.
Firestone Tire & Rubber Co., The, Akron, Ohio. 343,647, ren. 3–2–57. Cl. 35.
Firestone Tire & Rubber Co., The, Akron, Ohio. 638,239, pub. 9–25–56. Cl. 1.
Firestone Tire & Rubber Co., The, Akron, Ohio. 638,242, pub. 9–25–56. Cl. 2.
Firma Heinrich Hermann, Stuttgart-Wangen, Germany. 638,259, pub. 9–25–56. Cl. 5.
Firmenich, Inc.: *See*—
Societe Anonyme M. Naef & Cie.
First National Bank, New Richmond, Wis. 638,591, pub. 9–25–56. Cl. 102.
First National Bank of Minneapolis, Minneapolis, Minn. 638,588, pub. 9–25–56. Cl. 102.
First National Stores Inc., Somerville, Mass. 638,553, pub. 9–25–56. Cl. 46.
Fishermen's Packing Corp.: *See*—
Everett Packing Co.
Flash-O-Rama Advertising Signals: *See*—
Bruner, Rea M.
Fleming, Maybury W., Inc., White Plains, N. Y. 638,450, pub. 9–25–56. Cl. 38.
Flintkote Co., The, New York, N. Y. 638,260–1, pub. 9–25–56. Cl. 5.



Food Products Corp., Kansas City, Mo. 638,519, pub. 2–22–55. Cl. 46.
Forcolar Inc., New York, N. Y. 530,718, canc. Cl. 22.
Form Flex Foundations Inc., New York and Long Island City, N. Y. 530,690, canc. Cl. 39.
Forstmann Woolen Co., Passaic, N. J. 638,502, pub. 9–25–56. Cl. 42.
Framar Mfg. Co., The, Brooklyn, N. Y. 638,448, pub. 9–25–56. Cl. 37.
Fran-Stef Mfg. Co., New York, N. Y. 638,250, pub. 9–25–56. Cl. 3.
Freed, J. Melvin, Inc., Perkasie, Pa. 638,416, pub. 9–25–56. Cl. 26.
Friedrich, Christof, K. G.: *See*—
Boettger, E.
Fuller, D. B., & Co., Inc., New York, N. Y. 638,499, pub. 4–17–56. Cl. 42.
Fuller Products Co., Chicago, Ill. 638,461, pub. 9–25–56. Cl. 38.
Futter, Walter, New York, N. Y. 638,410, pub. 9–25–56. Cl. 26.
Gee Gee Co-Operative Packers: *See*—
Universal Paper & Packaging Service, Inc.
General Detroit Corp., The, Detroit, Mich. 638,384, pub. 9–25–56. Cl. 23.
George, F. C., Machine Co., Orlando, Fla. 530,528, canc. Cl. 23.
Gibbons, Patrick R., Co., St. Louis, Mo. 638,585, pub. 9–25–56. Cl. 32.
Gifford-Wood Co., Hudson, N. Y. 638,391, pub. 9–25–56. Cl. 23.
Glazer, Ruth G., New York, N. Y. 638,378, pub. 9–25–56. Cl. 22.
Glen Co., The, Glencoe, Ill. 638,505, pub. 9–25–56. Cl. 42.
Global Packing Co.: *See*—
Indig, Victor A.
Globe Knitting Works, Grand Rapids, Mich. 380,770, canc. Cl. 39.
Globe Roofing Products Co., Inc., Whiting, Ind. 638,299, pub. 9–25–56. Cl. 12.
Gloeckler, Hugo, New York, N. Y. 638,509, pub. 9–25–56. Cl. 44.
Gording, Reidar, Oslo, Norway. 638,536, pub. 9–25–56. Cl. 46.
Gordon Chemical Co., Inc., Philadelphia, Pa. 530,623, canc. Cl. 6.
Grace, W. R., & Co.: *See*—
Dewey and Almy Chemical Co.
Graham, William R., d. b. a. Karak Co., Los Angeles, Calif. 530 738, canc. Cl. 19.
Grandview Products Co., Kansas City, Mo. 638,432, pub. 9–25–56. Cl. 32.
Great Lakes Varnish Works, Inc., Chicago, Ill. 530,722, canc. Cl. 16.
Greenstreet, Thomas E., d. b. a. Ceramichrome Laboratories, Los Angeles Calif. 638,296. pub. 9–25–56. Cl. 12.
Grocery Store Products Co., New York, N. Y. 530 728, canc. Cl. 10.
Gross, A., Candle Co., Inc., Linden, N. J. 341,161, ren. 12–1–56. Cl. 34.
Hagenloch, William F., Wellesley Hills, Mass. 638,357, pub. 9–25–56. Cl. 21.
Halbec Co.: *See*—
Halverson, Clyde M.
Hall, Robert, Clothes, Inc., New York, N. Y. 638,473, pub. 9–25–56. Cl. 39.
Haloid Co., The, Rochester, N. Y. 638,415, pub. 9–25–56. Cl. 26.
Halper, Myer, Chicago, Ill. 638,455, pub. 9–25–56. Cl. 38.
Halverson, Clyde M., d. b. a. Halbec Co., Fort Dodge, Iowa. 638,537, pub. 9–25–56. Cl. 46.
Hammarlund Mfg. Co., Inc., The, New York, N. Y. 638,358, pub. 9–25–56. Cl. 21.
Handy Andy Products, Inc., New York, N. Y. 638,386, pub. 9–25–56. Cl. 23.
Harry and David: *See*—
Rosenberg Brothers.
Hastings & Co., Inc., Philadelphia, Pa. 638,447, pub. 10–26–54. Cl. 37.
Hat Corp. of America, Norwalk, Conn. 638,478, pub. 9–25–56. Cl. 39.
Healing Waters, Inc., Tulsa, Okla. 638,454, pub. 9–25–56. Cl. 38.
Heineman Brothers, New York, N. Y. 530,649, canc. Cl. 39.
Hemet Packing Co., Hemet, Calif. 638,548, pub. 9–25–56. Cl. 46.
Herter's, Inc., Waseca, Minn. 638,276, pub. 9–25–56. Cl. 9.
Hespenheide and Thompson, Inc., York, Pa. 638,544, pub. 9–25–56. Cl. 46.
Hicks Rubber Co. Distributors, Waco, Tex. 530,652, canc. Cl. 35.
Hi Hat Food Products Co., Providence, R. I. 638,535, pub. 9–25–56. Cl. 46.
Hi-Test Twist Drill Works, Inc., New York, N. Y. 638,392, pub. 9–25–56. Cl. 23.
Holland House Obelite Chemical Industries, Inc., Venice, Calif. 530 749, canc. Cl. 4.
Hollingshead, R. M., Corp., Camden, N. J. 638,258, pub. 9–25–56. Cl. 4.
Hollywood Shoe Polish, Inc., Richmond Hill, N. Y. 638,257, pub. 9–25–56. Cl. 4.
Hudson, Theretha, d. b. a. Hudson's, Chicago, Ill. 638,604. Cl. 51.
Hudson's: *See*—
Hudson, Theretha.
I H C Research Laboratories, Inc., New York, N. Y. 638,278–9, pub. 9–25–56. Cl. 10.
Idaho Food Products, Inc., Boise, Idaho. 638,522, pub. 9–25–56. Cl. 46.
Ideal Novelty & Toy Co., Hollis, N. Y. 530 546, canc. Cl. 22.
Illinois Farm Supply Co., Chicago, Ill. 638,282, pub. 9–25–56. Cl. 10.
Imhof, Arthur, d. b. a. Arthur Imhof, Manufacture de Pendulettes et Revells, to Manufacture de Pendulettes et Revells Arthur Imhof S. A., La Chaux-de-Fonds, Switzerland. 638,424, pub. 9–25–56. Cl. 27.
Imhof, Arthur, Manufacture de Pendulettes et Revells: *See*—
Imhof, Arthur.
Imperial Crown Toy Corp., Brooklyn, N. Y. 530,583, canc. Cl. 22.
Indig, Victor A., d. b. a. Global Packing Co., San Francisco, Calif. 530 593, canc. Cl. 35.
Industrial Marking Equipment Co., Inc., The, Brooklyn, N. Y. 638,403, pub. 9–25–56. Cl. 23.
Ingram, Maxwell, d. b. a. Durabilt Metal Products Co., Union City, N. J. 638,408, pub. 9–25–56. Cl. 23.
Interchemical Corp., New York, N. Y. 638,284, pub. 9–25–56. Cl. 11.
International Federation of American Homing Pigeon Fanciers, Inc., Clark, N. J. 638,567, pub. 9–25–56. Cl. 50.
International Latex Corp., Dover, Del. 638,485, pub. 9–25–56. Cl. 39.
Irwin, Neisler & Co., Decatur, Ill. 638,322, pub. 9–25–56. Cl. 18.
Iso S. p. A. Autoveicoli, Bresso, Milan, Italy. 638,334, pub. 9–25–56. Cl. 19.
Jackson & Church Co., Saginaw, Mich. 638,379, pub. 9–25–56. Cl. 23.
Jackson, Harry: *See*—
Pacifica Designs.
Johnson, Cleon R., d. b. a. Spencer Products Co., Ridgewood, N. J. 638 269, pub. 9–25–56. Cl. 6.
Johnson & Johnson, New Brunswick, N. J. 638,517, pub. 9–25–56. Cl. 44.
Jo-Juniors, Inc., Dallas, Tex. 638 476, pub. 9–25–56. Cl. 39.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. 638,305, pub. 9–25–56. Cl. 14.
Kalamazoo Pant Co.: *See*—
Rosenbaum, Sam & Sons Co.
Kansas Milling Co., The, d. b. a. Marion Milling Co., Wichita, Kans. 638,561, pub. 9–25–56. Cl. 46.
Karak Co.: *See*—
Graham, William R.
Kearney, James R., Corp., St. Louis, Mo. 530,515, canc. Cl. 21.
Kelly, Walt, New York, N. Y. 638,377, pub. 9–25–56. Cl. 22.
Kemp, C. M., Mfg. Co., The, Baltimore, Md. 340,027, 12(c) pub. 12–11–56. Cl. 23.
Keuffel & Esser Co., Hoboken, N. J. 638,421, pub. 9–25–56. Cl. 26.
Key Coal Co.: *See*—
Clark-Coleman Coal & Coke Co.
Key Corp., Pharmaceuticals, New York, N. Y. 638,317, pub. 9–25–56. Cl. 18.
Keystone Paint and Varnish Corp.: *See*—
Keystone Varnish Co.
Keystone Varnish Co. to Keystone Paint and Varnish Corp., Brooklyn N. Y. 115,626, ren. 2–27–57. Cl. 16.
Kimberly-Clark Corp., Neenah, Wis. 638,514–15, pub. 9–25–56. Cl. 44.
Kimo Sales Co.: *See*—
Providence Sugar Co., Inc.
King Craft Corp., Lynn, Mass. 638 441, pub. 9–25–56. Cl. 32.
Kirkhill, Inc., Downey, Calif. 638,566, pub. 9–25–56. Cl. 50.
Knoll Associates Inc., New York, N. Y. 638,430, pub. 9–25–56. Cl. 32.
Kokuryu-do Co. Ltd., Chuo-ku, Tokyo, Japan. 638 570, pub. 9–25–56. Cl. 51.
Korry of California, Inc., Los Angeles, Calif. 638,465, pub. 9–25–56. Cl. 39.
L. O. F. Glass Fibers Co., Toledo, Ohio. 638,290, pub. 9–25–56. Cl. 12.
Lang, Samuel V., Sr., Boise, Idaho. 638,471, pub. 9–25–56. Cl. 39.
Lapin Products, Inc., Newark, N. J. 530 736, canc. Cl. 40.
Larsen Products Corp., Bethesda, Md. 638 262, pub. 9–25–56. Cl. 5.
Last, Marianne, New York, N. Y. 530,499, canc. Cl. 39.
Leonard Valve Co., Cranston, R. I. 638,414, pub. 9–25–56. Cl. 26.
Léron Inc., New York, N. Y. 530,582, canc. Cl. 39.
Les Parfums de Dana, Inc., New York, N. Y. 344,569, ren. 3–30–57. Cl. 51.
Lide Laboratories, Inc., St. Louis, Mo. 638,270, pub. 9–25–56. Cl. 6.
Linen Thread Co., Inc., The, New York, N. Y. 638,274, pub. 8–14–56. Cl. 7.
London, James R., Napa, Calif. 638,577, pub. 9–25–56. Cl. 52.
Louisville Chair Co., Inc., Louisville, Ky. 638,440, pub. 9–25–56. Cl. 32.
Lovell and Covel Co., to New England Confectionery Co., Cambridge, Mass. 336,666, ren. 7–14–56. Cl. 46.
Lowenstein, M., & Sons, Inc., New York, N. Y. 638,503, pub. 9–25–56. Cl. 42.
MacArthur Products Inc., Indian Orchard, Mass. 638,251, pub. 9–25–56. Cl. 3.
Macchi and Co., San Francisco, Calif. 638,343, pub. 9–25–56. Cl. 21.
Macklanburg-Duncan Co., Oklahoma City, Okla. 638,294, pub. 9–25–56. Cl. 12.
Magnet Cove Barium Corp., Houston, Tex. 638,267, pub. 9–25–56. Cl. 6.
Maiden Form Brassiere Co., Inc., New York, N. Y. 638,469, pub. 9–25–56. Cl. 39.
Maiden Form Brassiere Co., Inc., New York, N. Y. 638,488, pub. 9–25–56. Cl. 39.
Maillard Corp., The, New York, N. Y. 530,739, canc. Cl. 46.

Makransky, S., & Sons, Philadelphia, Pa., to Rogers Peet Co., to Rogers Peet Co., New York, N. Y. 342,520, ren. 1–19–57. Cl. 39.
Mallory, E. A., and Sons, Inc., Danbury, Conn., and New York, N. Y., John B. Stetson Co., Philadelphia, Pa. 114,646, ren. 12–26–56. Cl. 39.
Malt-A-Plenty, Inc., Tulsa, Okla. 530,737, canc. Cl. 12.
Manufacture de Pendulettes et Reveils Arthur Imhof S. A.: *See*—
Imhof, Arthur.
Marcus, Alfred S., d. b. a. The Raymark Co., Los Angeles, Calif. 530,580, canc. Cl. 37.
Margolis, Bernard A., d. b. a. Margolis Enterprises, Kansas City, Mo. 638,571, pub. 9–25–56. Cl. 51.
Margolis Enterprises: *See*—
Margolis, Bernard A.
Marion Milling Co.: *See*—
Kansas Milling Co., The.
Marsh, Bacchus, Concentrated Milk Co. Ltd., The, Melbourne, Victoria, Australia, to The Nestlé Co., Inc., White Plains, N. Y. 115,365, ren. 2–6–57. Cl. 46.
Marshburn Farms: *See*—
Marshburn, Inc.
Marshburn, Inc., d. b. a. Marshburn Farms, Norwalk, Conn. 638,529, pub. 9–25–56. Cl. 46.
Martini & Rossi, Turin, Italy, to Martini & Rossi Corp., New York, N. Y. 114,260, ren. 12–5–56. Cl. 49.
Martini & Rossi Corp.: *See*—
Martini & Rossi.
Marx, Louis, & Co., Inc., New York, N. Y. 632,616. Am. 7(d). Cl. 22.
McCormick & Co., Baltimore, Md. 123,615, canc. Cl. 46.
McCormick & Co., Inc., Baltimore, Md. 385,334, canc. Cl. 46.
McCormick & Co., Inc., Baltimore, Md. 638,532, pub. 9–25–56. Cl. 46.
McGraw Electric Co., Elgin, Ill. 638,371, pub. 9–25–56. Cl. 21.
McGregor-Doniger, Inc.: *See*—
Doniger, David D., & Co. Inc.
Mead Johnson & Co., Evansville, Ind. 638,330, pub. 9–25–56. Cl. 18.
Medbern Co., Cambridge, Mass. 530,716, canc. Cl. 19.
Medical Arts Press: *See*—
Wexler, Mark.
Melville Shoe Corp., New York, N. Y. 111,749, ren. 8–1–56. Cl. 39.
Merrell, William S., Chemical Co., The, to The Wm. S. Merrell Co., Cincinnati, Ohio. 115,649, ren. 2–27–57. Cl. 18.
Merrell, Wm. S., Co., The: *See*—
Merrell, William S., Chemical Co., The.
Metal & Thermit Corp.: *See*—
American Murex Corp.
Metalead Products Corp., Palo Alto, Calif. 339,823, ren. 10–20–56. Cl. 16.
Meyer, N. S., Inc., New York, N. Y. 336,703, 12(c) pub. 12–11–56. Cl. 23.
Meyer, N. S., Inc., New York, N. Y. 337,363, 12(c) pub. 12–11–56. Cl. 23.
Micromatic Hone Corp., Detroit, Mich. 342,189, ren. 1–5–57. Cl. 23.
Micromatic Hone Corp., Detroit, Mich. 342,190, ren. 1–5–57. Cl. 23.
Midwest Cap Co.: *See*—
Midwest Cap Mfg. Co.
Midwest Cap Mfg. Co., d. b. a. Midwest Cap Co., Minneapolis, Minn. 638,472, pub. 9–25–56. Cl. 39.
Midwest Dental Mfg. Co.: *See*—
Staunt, Martin.
Miehle Printing Press & Mfg. Co.: *See*—
Dexter Folder Co.
Milady Brassiere & Corset Co. Inc., New York, N. Y. 638,464, pub. 9–25–56. Cl. 39.
Miller-Wohl Co., The: *See*—
Cooper, Wells & Co.
Minnesota Linseed Oil Paint Co., Minneapolis, Minn., now by change of name Minnesota Paints Inc. 530,462, canc. Cl. 16.
Minnesota Mutual Life Insurance Co., The, St. Paul, Minn. 638,590, pub. 9–25–56. Cl. 102.
Minnesota Paints Inc.: *See*—
Minnesota Linseed Oil Paint Co.
Modern Sewing Machine Co., Brooklyn, N. Y. 638,401, pub. 9–25–56. Cl. 23.
Mohasco Industries, Inc., Amsterdam, N. Y. 638,506, pub. 9–25–56. Cl. 42.
Montgomery Elevator Co., Moline, Ill. 638,349, pub. 9–25–56. Cl. 21.
Moody, Russell C., and Co., Dallas, Tex., to Penrith-Akers Mfg. Co., Minneapolis, Minn. 638,518, pub. 9–25–56. Cl. 45.
Moore Inn, Inc., The, Seattle, Wash. 638,235, pub. 9–25–56. Cl. 1.
Morehouse Industries, d. b. a. Morehouse Mustard Mills, Los Angeles, Calif. 638,527, pub. 9–25–56. Cl. 46.
Morehouse Mustard Mills: *See*—
Morehouse Industries.
Morreale, Joseph, Harvard, Ill. 638,264, pub. 9–25–56. Cl. 6.
Morris, Philip, & Co., Ltd., Inc., to Philip Morris Inc., New York, N. Y. 344,479, ren. 3–23–57. Cl. 17.
Morris, Philip, Inc.: *See*—
Morris, Philip, & Co., Ltd., Inc.
Mullins, John, & Sons, Inc.: *See*—
Buckley-Newhall Co., The.
Mycalex Corp. of America: *See*—
Mycalex (Parent) Co., Ltd.
Mycalex (Parent) Co., Ltd., Westminster, England, to Mycalex Corp. of America, Clifton, N. J. 339,779, ren. 10–20–56. Cl. 21.
Myrurgia, S. A., Barcelona, Spain. 638,583, pub. 9–25–56. Cl. 52.
N P D Corp., The, New York, N. Y. 638,458, pub. 9–25–56. Cl. 38.
Nadin Co.: *See*—
National Bio-Chemical Co.
National Aluminate Corp., Chicago, Ill. 638,593, pub. 9–25–56. Cl. 103.
National Bio-Chemical Co., Los Angeles, to Nadin Co., Glendale, Calif. 341,205, ren. 12–1–56. Cl. 18.
National Capital Young Democratic Club, The, Washington, D. C. 638,596, pub. 9–25–56. Cl. 107.
National Carbon Co., Inc., to Union Carbide and Carbon Corp., New York, N. Y. 340,401, ren. 11–10–56. Cl. 52.
National Gypsum Co., Buffalo, N. Y. 638,298, pub. 9–25–56. Cl. 12.
National Modes, Inc., to Carolyn Fashions, Inc., New York, N. Y. 343,819, ren. 2–9–57. Cl. 39.
National Paper Products Co.: *See*—
Crown Zellerbach Corp.
National Toilet Co.: *See*—
Sunclyme House, Inc.
National Veneer and Lumber Co., Seymour, Ind. 638,293, pub. 9–25–56. Cl. 12.
Neff, Grace V., Chicago, Ill. 530,562, canc. Cl. 37.
Neff, J. W., Laboratories, Inc., Easton, Pa. 638,238, pub. 9–25–56. Cl. 1.
Nestle Co., The: *See*—
Marsh, Bacchus, Concentrated Milk Co. Ltd., The.
Newberry, J. J., Co., New York, N. Y. 530,663, canc. Cl. 37.
New England Confectionery Co.: *See*—
Lovell and Covel Co.
Niehaus Bros., Cincinnati, Ohio. 638,531, pub. 9–25–56. Cl. 46.
Nordmark Pharmaceutical Laboratories, Inc., Irvington, N. J. 638,324, pub. 9–25–56. Cl. 18.
North Western Supply Co. Ltd., Vancouver, British Columbia, Canada. 638,295, pub. 9–25–56. Cl. 12.
Nowland, Geo. H., Co., The, d. b. a. The Geo. H. Nowland Co., and The George H. Nowland Co., Cincinnati, Ohio. 638,539, pub. 9–25–56. Cl. 46.
Nowland, George H., Co.: *See*—
Nowland, Geo. H., Co., The.
Nuclear Electronics Corp., Philadelphia, Pa. 638,417, pub. 9–25–56. Cl. 26.
Office Publications Co.: *See*—
Schulhof, William.
Ogg, William, Albany, N. Y. 638,489, pub. 9–25–56. Cl. 39.
Oldsters' Enterprise, Inc., Fort Thomas, Ky. 638,243–4, pub. 9–25–56. Cl. 2.
Olin Mathieson Chemical Corp., East Alton, Ill. 638,433, pub. 9–25–56. Cl. 32.
Oliver Corp., The, Chicago, Ill. 530,472, canc. Cl. 23.
Olsen, Ole K., d. b. a. Olsen Seismograph Supplies Ind., Garland, Tex. 638,380, pub. 9–25–56. Cl. 23.
Olsen Seismograph Supplies Ind.: *See*—
Olsen, Ole K.
Onyx Novelty Co.: *See*—
Ress, Maurice.
Outlet Co., The, Providence, R. I. 638,480, pub. 9–25–56. Cl. 39.
Overall Paint and Lead Co., Inc., d. b. a. Overall Paint and Lead, Inc., Cleveland, Ohio. 638,289, pub. 9–25–56. Cl. 12.
Overall Paint and Lead, Inc.: *See*—
Overall Paint and Lead Co., Inc.
Oxford International Corp., Chicago, Ill. 638,373, pub. 9–25–56. Cl. 21.
Ozark Packing Co., Ozark, Ark. 530,636, canc. Cl. 46.
Pacific Semiconductors, Inc., Culver City, Calif. 638,356, pub. 9–25–56. Cl. 21.
Pacifica Designs, Oakland, Calif., from H. Jackson, d. b. a. Pacifica Interior Designs. 638,429, pub. 9–25–56. Cl. 32.
Pacifica Interior Designs: *See*—
Pacifica Designs.
Park and Pollard Co., Inc., The, Buffalo, N. Y. 638,554, pub. 9–25–56. Cl. 46.
Parke, L. H., Co., Philadelphia, Pa. 638,555, pub. 9–25–56. Cl. 46.
Patons & Baldwins, Ltd., Darlington, England. 343,477, ren. 2–23–57. Cl. 43.
Pecora Paint Co., also d. b. a. Pecora Paint Co., Inc., Philadelphia, Pa. 638,285, pub. 9–25–56. Cl. 12.
Pecora Paint Co., Inc.: *See*—
Pecora Paint Co.
Penick & Ford, Ltd., Inc., New York, N. Y. 638,533, pub. 9–25–56. Cl. 46.
Penn, Wm., Fluorescent Light Mfgr.: *See*—
Ranieri, William.
Penrith-Akers Mfg. Co.: *See*—
Moody, Russell C., and Co.
Pentron Corp., The, Chicago, Ill. 638,370, pub. 9–25–56. Cl. 21.
Perma-Drape Co., Inc., The, Long Beach, Calif. 638,431, pub. 9–25–56. Cl. 32.
Philco Corp.: *See*—
Electromaster, Inc.
Pickering Associates, Inc., Oceanside, N. Y. 638,360, pub. 9–25–56. Cl. 21.
Pilgrim Mills, Inc., Racine, Wis. 638,545, pub. 9–25–56. Cl. 46.
Pillsbury Mills, Inc., Minneapolis, Minn. 638,560, pub. 9–25–56. Cl. 46.
Pioneer Suspender Co., Darby, Pa. 638,468, pub. 9–25–56. Cl. 39.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 638,266, pub. 9–25–56. Cl. 6.
Pix Inc., New York, N. Y. 638,462, pub. 9–25–56. Cl. 38.
Platt Luggage, Inc., Chicago, Ill. 638,254, pub. 9–25–56. Cl. 3.
Pliantform Foundations, Inc., New York, N. Y. 638,479, pub. 9–25–56. Cl. 39.



Plymouth Undergarment Co., New York, N. Y. 638,482, pub. 9–25–56. Cl. 39.
Poggioli, B., & Son: *See*—
Poggioli Canning Corp.
Poggioli Canning Corp., from Poggioli, B., & Son, Vineland, N. J. 530,741, canc. Cl. 46.
Portable Industries, Inc., Cleveland, Ohio. 638,407, pub. 9–25–56. Cl. 23.
Potter Engineering Co.: *See*—
Potter, Harry F.
Potter, Harry F., d. b. a. Potter Engineering Co., Lewistown, Pa. 638,426, pub. 9–25–56. Cl. 31.
Powder-Power Tool Corp., Portland, Oreg. 530,612, canc. Cl. 23.
Princeton Knitting Mills, Inc., New York, N. Y. 638,497, pub. 2–28–56. Cl. 42.
Protane Corp., Erie, Pa., by The Protane Corp., Cleveland, Ohio. 195,892, 12(c) pub. 12–11–56. Cl. 15.
Protane Corp., The: *See*—
Protane Corp.
Providence Sugar Co., Inc., d. b. a. Kimo Sales Co., Providence, R. I. 638,524, pub. 9–25–56. Cl. 46.
Purdue Frederick Co., The, New York, N. Y. 638,818–19, pub. 9–25–56. Cl. 18.
Purdue Frederick Co., The, New York, N. Y. 638,821, pub. 9–25–56. Cl. 18.
Purex Corp., Ltd., South Gate, Calif. 638,578, pub. 9–25–56. Cl. 52.
Quinlan, Kathleen Mary, Inc., to Colgate-Palmolive Co., New York, N. Y. 339,485, ren. 10–13–56. Cl. 51.
R. K. Laboratories: *See*—
Rampel, Guy.
Rampel, Guy, d. b. a. R. K. Laboratories, Pelham, N. Y. 638,582, pub. 9–25–56. Cl. 52.
Ramsey Corp., Dover, Del., and St. Louis, Mo. 530,543, canc. Cl. 35.
Ranco Inc.: *See*—
Automatic Reclosing Circuit Breaker Co., The.
Ranieri, William, d. b. a. Wm. Penn Fluorescent Light Mfgr., Philadelphia, Pa. 638,341, pub. 9–25–56. Cl. 21.
Raybestos-Manhattan, Inc., Manheim, Pa. 638,565, pub. 9–25–56. Cl. 50.
Raymark Co., The: *See*—
Marcus, Alfred S.
Ray-O-Vac Co., Madison, Wis. 638,372, pub. 9–25–56. Cl. 21.
Red Wing Co., Inc., The, Fredonia, N. Y. 638,550, pub. 9–25–56. Cl. 46.
Reiss Mfg. Corp., New York, N. Y. 638,438, pub. 9–25–56. Cl. 32.
Reliable Luggage, Inc., West Pittsburgh, Pa. 638,252–3, pub. 9–25–56. Cl. 3.
Republic Paint & Varnish Co., Chicago, Ill. 530,486, canc. Cl. 16.
Ress, Maurice, d. b. a. Onyx Novelty Co., Brooklyn, N. Y. 530,494, canc. Cl. 37.
Revlon: *See*—
Revlon Products Corp.
Revlon Products Corp., d. b. a. Revlon, New York, N. Y. 638,576, pub. 9–25–56. Cl. 51.
Rich's, Inc., Atlanta, Ga. 638,592, pub. 9–25–56. Cl. 103.
Riley, Bradford C., d. b. a. Wireway Looms Co., Needham, Mass. 638,247, pub. 9–25–56. Cl. 3.
Robinson Building Co.: *See*—
Robinson, J. W., Co.
Robinson, J. W., Co., to Robinson Building Co., Los Angeles, Calif. 638,466, pub. 9–25–56. Cl. 39.
Robinson, William C., & Son Co., Baltimore, Md. 114,384, 12(c) pub. 12–11–56. Cl. 15.
Rocky Mountain Metal Products Co., Denver, Colo. 638,511, pub. 9–25–56. Cl. 44.
Rogers Peet Co.: *See*—
Makransky, S., & Sons.
Rolling Hills Orchards: *See*—
Rolling Hills Orchards, Inc.
Rolling Hills Orchards, Inc., d. b. a. Rolling Hills Orchards, Los Angeles, Calif. 638,547, pub. 9–25–56. Cl. 46.
Rosenbaum, Sam, & Sons Co., d. b. a. Kalamazoo Pant Co., to Kalamazoo Pant Co., Kalamazoo, Mich. 339,912, ren. 10–27–56. Cl. 39.
Rosenberg Brothers, to Harry and David, Medford, Oreg. 343,706, ren. 3–2–57. Cl. 46.
Rosenfeld, Harry, Inc., New York, N. Y. 638,255, pub 9–25–56. Cl. 3.
Rowenta Metallwarenfabrik G. m. b. H., Offenbach (Main), Germany. 638,353, pub. 9–25–56. Cl. 21.
Roxborough Co., The, Philadelphia, Pa. 638,492, pub. 9–25–56. Cl. 39.
Ruskowski, William, d. b. a. The Wilruss Co., Spencer, Mass. 530,670, canc. Cl. 46.
Safeway Stores, Inc., Oakland, Calif. 638,557, pub. 9–25–56. Cl. 46.
Savings Oil Co., Tupelo, Miss. 638,308–9, pub. 9–25–56. Cl. 15.
Schering & Glatz, New York, N. Y., to Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 112,934, ren. 10–3–56. Cl. 18.
Schneider, Sam, d. b. a. Best Made Co., Carteret, N. J. 530,576, canc. Cl. 39.
Schneidewind, Howard B., Inc., New York, N. Y. 638,602. Cl. 42.
Schrank, M. C., Co., Bridgeton, N. J. 342,030, ren. 12–29–56. Cl. 39.
Schulhof, William, d. b. a. Office Publications Co., to Office Publications Co., New York, N. Y. 342,123, ren. 1–5–57. Cl. 38.
Schulmerich Carillons, Inc., Sellersville, Pa. 638,342, pub. 9–25–56. Cl. 21.
Seagrave, O. O., Denver, Colo. 638,457, pub. 9–25–56. Cl. 38.
Seamprufe Inc., New York, N. Y. 638,484, pub. 9–25–56. Cl. 39.
Security Sash & Screen Co., Detroit, Mich. 638,287, pub. 9–25–56. Cl. 12.
Seebanco Laboratories, Inc., to Crescent Drug Products Co., Philadelphia, Pa. 339,528, ren. 10–13–56. Cl. 18.
Seton Pharmaceutical Co., Inc., Brooklyn, N. Y. 638,313, pub. 9–25–56. Cl. 18.
Severance Tool Industries Inc., Saginaw, Mich. 638,397–8, pub. 9–18–56. Cl. 23.
Sexton, John, & Co., Chicago, Ill. 530,694, canc. Cl. 6.
Seymour, Jane, Ltd., London, England. 638,574, pub. 9–25–56. Cl. 51.
Shlansky, Philip, & Sons, Inc., New York, N. Y. 638,483, pub. 9–25–56. Cl. 39.
Shortening Corp. of America, Inc., Jersey City, N. J. 638,551, pub. 9–25–56. Cl. 46.
Shulton, Inc., Clifton, N. J. 638,569, pub. 9–25–56. Cl. 51.
Siegel, Abe, New York, N. Y. 530,602, canc. Cl. 37.
Silveco Rubber Products, Inc., Chicago, Ill. 638,496, pub. 9–25–56. Cl. 40.
Silver Canning Co., The, Colora, Md. 530,571, canc. Cl. 46.
Sinclair Refining Co., New York, N. Y. 530,522, canc. Cl. 15.
Slide-Away Auto Screens Inc., Dayton, Ohio. 530,746, canc. Cl. 19.
Smallman, I., & Sons Co., New York, N. Y. 638,248–9, pub. 9–25–56. Cl. 3.
Smith-Douglass Co., Inc., d. b. a. Smith-Rowland Co., Norfolk, Va. 638,281, pub. 9–25–56. Cl. 10.
Smith Kline & French Laboratories, Philadelphia, Pa. 638,333, pub. 9–25–56. Cl. 18.
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Snellbaker Mfg. Co., Mechanicsburg, Pa. 638,474, pub. 9–25–56. Cl. 39.
Société Anonyme Dite: Edras, Casablanca, French Morocco. 638,336, pub. 9–18–56. Cl. 19.
Société Anonyme Laboratoires du Dr. N. G. Payot, Paris, France. 638,568, pub. 9–25–56. Cl. 51.
Societe Anonyme M. Naef & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 283,686, 12(c) pub. 12–11–56. Cl. 51.
Societe de Produits Chimiques des Terres Rares, Paris, France. 442,141, canc. Cl. 1, 6, and 14.
Societe Industrille de Lunetterie, Paris, France. 638,423, pub. 9–25–56. Cl. 26.
Socony Paint Products Co., Metuchen, N. J. 638,310, pub. 5–1–56. Cl. 16.
Socony-Vacuum Oil Co., Inc., New York, N. Y. 530,688, canc. Cl. 15.
Southwest Pump Co., Bonham, Tex. 638,411, pub. 9–25–56. Cl. 26.
Spalding, Dexter B., Joliet, Ill. 530,599, canc. Cl. 37.
Speidel Corp., Providence, R. I. 638,425–27, pub. 9–25–56. Cl. 28.
Spencer Products Co.: *See*—
Johnson, Cleon R.
Sperti Faraday, Inc., Adrian, Mich. 638,361, pub. 9–25–56. Cl. 21.
Sprague Electric Co., North Adams, Mass. 638,365, pub. 9–25–56. Cl. 21.
Spruance, Russell, d. b. a. Russell Spruance Co., Philadelphia, Pa. 638,528, pub. 9–25–56. Cl. 46.
Spruance, Russell, Co.: *See*—
Spruance, Russell.
Spyco Smelting & Refining Co., Minneapolis, Minn. 530,691, canc. Cl. 6.
Standard Brands Inc.: *See*—
Clinton Foods Inc.
Staunt, Martin, d. b. a. Midwest Dental Mfg. Co., to Midwest Dental Mfg. Co., Chicago, Ill. 638,512, pub. 9–25–56. Cl. 44.
Stavanger Hermetiske Fabrik A. S., Stavanger, Norway. 638,520. Cl. 46.
Stearns Mfg. Co., St. Cloud, Minn. 638,236, pub. 9–25–56. Cl. 1.
Steinen, Wm., Mfg. Co., Newark, N. J. 638,345, pub. 9–25–56. Cl. 21.
Stetson, John B., Co.: *See*—
Mallory, E. A., and Sons, Inc.
Stora Kopparbergs Bergslags Aktiebolag, Falun, Sweden. 638,268, pub. 9–25–56. Cl. 6.
Strickler, Frank D., d. b. a. Waxene Products Co., to O. C. Cardwell, d. b. a. Waxene Products Co., Wichita, Kans. 341,735, ren. 12–22–56. Cl. 52.
Strong Electric Corp., The, Toledo, Ohio. 638,363, pub. 9–25–56. Cl. 21.
Stuart, John, Inc., New York, N. Y. 638,437, pub. 9–25–56. Cl. 32.
Sunclyme House, Inc., Miami, Fla., to National Toilet Co., Paris, Tenn. 343,858, ren. 3–9–57. Cl. 51.
Supreme Products, Inc., Chicago, Ill. 638,385, pub. 8–28–56. Cl. 23.
Swiveller Co. Inc., Brooklyn, N. Y. 638,364, pub. 10–2–56. Cl. 21.
Synero Machine Co., Perth Amboy, N. J. 638,390, pub. 9–25–56. Cl. 23.
Syracuse Smelting Works, Brooklyn, N. Y. 113,312, ren. 10–10–56. Cl. 14.
Syracuse Smelting Works, Brooklyn, N. Y. 113,313, ren. 10–10–56. Cl. 14.
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T of K Co.: *See*—
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Taber Instrument Corp., North Tonawanda, N. Y. 638,412, pub. 9–25–56. Cl. 26.

Taylor, E. E., Corp., Freeport, Maine. 638,490, pub. 9–25–56. Cl. 39.
Taylor Instrument Co., Rochester, N. Y. 638,513, pub. 9–25–56. Cl. 44.
Taylor Instrument Companies, Rochester, N. Y. 342,161, ren. 1–5–57. Cl. 13.
Techni-Craft, Petersburg, Va. 638,564, pub. 9–25–56. Cl. 50.
Tedrick Brothers Mfg. Co., Inc., Kent, Wash. 638,292, pub. 9–25–56. Cl. 12.
Terrell Machine Co., The, Charlotte, N. C. 342,148, ren. 1–5–57. Cl. 23.
Testworth Products Corp., Addison, Ill. 638,262, pub. 9–25–56. Cl. 5.
Tewksbury Wall Paintings: *See*— Canepa, Enrique.
Texas Star Flour Mills: *See*— Burrus Mills, Inc.
Theta Kappa Phi Fraternity, Worcester, Mass. 638,598, pub. 9–25–56. Cl. 200.
Todel-Ao Corp., The, New York, N. Y. 638,346, pub. 9–25–56. Cl. 21.
Trasformazioni Tessili S. r. l., Turin, Italy. 638,470, pub. 9–25–56. Cl. 39.
Trelleborgs Gummifabriks Aktiebolag, Trelleborg, Sweden. 530,539, canc. Cl. 35.
Tremco Mfg. Co., The, Cleveland, Ohio. 638,291, pub. 9–25–56. Cl. 12.
Tribe of Kent, d. b. a. T of K Co., Frederick, Md. 530,480, canc. Cl. 23.
Tropical Tool Co., Providence, R. I. 530,537, canc. Cl. 23.
Twardzik, Theodore F., d. b. a. Ateeco, Shenandoah, Pa. 638,540, pub. 9–25–56. Cl. 46.
Union Carbide and Carbon Corp.: *See*— National Carbon Co., Inc.
United Co-Operatives, Inc., Alliance, Ohio. 638,445, pub. 9–25–56. Cl. 35.
United States Rubber Co., New York, N. Y. 530,453, canc. Cl. 35.
Universal Beverages, Inc., Denver, Colo. 638,526, pub. 9–25–56. Cl. 46.
Universal-Cyclops Steel Corp., Bridgeville, Pa. 638,307, pub. 9–25–56. Cl. 14.
Universal Paper & Packaging Service, Inc., d. b. a. Gee Gee Co-Operative Packers, Boston, Mass. 638,538, pub. 9–25–56. Cl. 46.
Upjohn Co., The, Kalamazoo, Mich. 638,315–16, pub. 9–25–56. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 638,323, pub. 9–25–56. Cl. 18.
Upressit Metal Cap Corp., Danbury, Conn. 633,296. Am. 7(d). Cl. 50.
Urney Chocolates Ltd., Tallaght, Ireland. 638,524, pub. 9–25–56. Cl. 46.
Van Camp Sea Food Co., Inc., Terminal Island, Calif. 638,549, pub. 9–25–56. Cl. 46.
Van der Clute, William W., Cranford, N. J. 630,596, canc. Cl. 22.
Variety Mfg. & Engineering Co. Inc., Chicago, Ill. 638,288, pub. 9–25–56. Cl. 12.
Vitro Corp.: *See*— Vitro Mfg. Co., The
Vitro Mfg. Co., The, Pittsburgh, Pa., by Vitro Corp. of America, New York, N. Y. 184,300, 12(c) pub. 12–11–56. Cl. 6.
Walker Laboratories, Inc., Mount Vernon, N. Y. 638,325, pub. 9–25–56. Cl. 18.
Wallram Hartmetallwerk und Hartmetallwerkzeugfabrik Meutsch, Voigtlander & Co., Essen, Germany. 638,300, pub. 9–25–56. Cl. 14.
Wamsutta Mills, New York, N. Y. 638,500, pub. 9–25–56. Cl. 42.
Warner-Lambert Pharmaceutical Co.: *See*— Schering & Glatz.
Warner-Lambert Pharmaceutical Co., New York, N. Y. 638,314, pub. 9–25–56. Cl. 18.
Waxene Products Co.: *See*— Strickler, Frank D.
Webb Publishing Co., The, St. Paul, Minn. 638,451, pub. 9–25–56. Cl. 38.
Weber, Kem, d. b. a. Kem Weber Designers, Santa Barbara, Calif. 530,717, canc. Cl. 22.
Weber Kem Designers: *See*— Weber, Kem.
Wedgeworth Produce, Inc., Belle Glade, Fla. 638,523, pub. 9–25–56. Cl. 46.
Weinschel Engineering Co., Inc., Kensington, Md. 638,354, pub. 9–25–56. Cl. 21.
Weisbaum Bros., Brower Co., The, to Beau Brummell Ties, Inc., Cincinnati, Ohio. 340,093, ren. 11–5–56. Cl. 39.
Wellington Sears Co., New York, N. Y. 638,498, pub. 9–25–56. Cl. 42.
West, Harvey A., d. b. a. Harvey West Music Co., Greensboro, N. C. 638,446, pub. 9–25–56. Cl. 36.
West, Harvey, Music Co.: *See*— West, Harvey A.
Western Auto Supply Co., Kansas City, Mo. 530,510, canc. Cl. 4.
Western Auto Supply Co., Kansas City, Mo. 638,351, pub. 9–25–56. Cl. 21.
Wexler, Mark, d. b. a. Medical Arts Press, Minneapolis, Minn. 638,449, pub. 9–25–56. Cl. 37.
Wheeling Corrugating Co., Wheeling, W. Va. 638,286, pub. 9–25–56. Cl. 12.
White & Bagley Co., The, Worcester, Mass. 530,560, canc. Cl. 15.
Wilcox-Rich Corp., Detroit, Mich., to Eaton Mfg. Co., Cleveland, Ohio. 342,060, ren. 12–29–56. Cl. 23.
Wilkes Hosiery Mills Co., North Wilkesboro, N. C. 539,446, ren. 10–6–56. Cl. 39.
Wilruss Co., The: *See*— Ruskowski, William.
Windsor Lloyd Products, Inc., Wilmington, Del. 638,579, pub. 9–25–56. Cl. 52.
Winkler, Myron M., Chicago, Ill. 530,756, canc. Cl. 39.
Winpower Mfg. Co., Newton, Iowa. 638,368, pub. 9–25–56. Cl. 21.
Winterbottom Book Cloth Co., Ltd., The, Manchester, England. 113,329, ren. 10–10–56. Cl. 37.
Wireway Looms Co.: *See*— Riley, Bradford C.
Wohl, L. & Co., Inc., New York, N. Y. 530,724, canc. Cl. 39.
Wusthof, Ed., Dreizackwerk, Solingen, Germany. 638,387, pub. 9–25–56. Cl. 23.
Wyeth Laboratories, Div. of American Home Products Corp.: *See*— American Home Products Corp.
Yam Products, Fairfield, Conn. 530,660, canc. Cl. 46.
Zatko Metal Products Co., Euclid, Ohio. 638,444, pub. 9–25–56. Cl. 35.
Zeta Tau Alpha Sorority, Evanston, Ill. 638,456, pub. 9–25–56. Cl. 38.
Zinnamon, Burton L., Santa Rosa, Calif. 638,510, pub. 9–25–56. Cl. 44.

U. S. GOVERNMENT PRINTING OFFICE: 0——1956

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December 18, 1956 Volume 713 Number 3

# PATENTS

## NOTICES

### Amendment to Trademark Rule 2.12

TITLE 37—PATENTS, TRADEMARKS, AND COPYRIGHTS

CHAPTER I—PATENT OFFICE, DEPARTMENT OF COMMERCE

*Part 2—Rules of Practice in Trademark Cases*

PERSONS WHO MAY PRACTICE BEFORE PATENT OFFICE IN TRADEMARK CASES

The following amendment is made to take effect on publication in the Federal Register. The purpose of the amendment is to conform the rule which is amended to a recent court decision.

Paragraph (b) of § 2.12 is amended to read as follows:

§ 2.12 *Persons who may practice before the Patent Office in trademark cases.* • • •

(b) Non-lawyers: Persons who are not attorneys at law as specified in paragraph (a) of this section are not recognized to practice before the Patent Office in trademark cases, except that persons not attorneys at law who were recognized to practice before the Patent Office under this Chapter prior to January 1, 1957, will be recognized as agents to continue practice in trademark cases in the Patent Office.

(Sec. 41, 60 Stat. 440, sec. 1, 66 Stat. 795; 15 U. S. C. 1123, 35 U. S. C. 31)

Dated: November 16, 1956.

[SEAL] ROBERT C. WATSON,
*Commissioner of Patents.*

Approved:
SINCLAIR WEEKS,
*Secretary of Commerce.*

[F. R. Doc. 56—9616; Filed, Nov. 23, 1956; 8:47 a. m.]
(*Published in the Federal Register for November 24, 1956, 21 F. R. 9198*)

### Errata

The claim for Patent No. 2,770,665 appearing in the OFFICIAL GAZETTE of November 13, 1956 is incorrect.

The claim should read:

1. A process for the preparation of propylene tetramer which comprises passing a gas consisting essentially of propylene upwardly through a reactor containing a fixed bed of phosphoric acid polymerization catalyst consisting of a thin film of phosphoric acid adsorbed on quartz particles having a particle size smaller than 4 mesh at a temperature of about 300° to 400° F. and a pressure of about 250 to 400 pounds per square inch to form liquid propylene tetramer, maintaining said reactor full of liquid propylene polymers, and withdrawing said liquid propylene tetramer from the top portion of the reactor.

### Adjudicated Patent

(C. A. Ill.) Cubert Patent No. 2,304,339 (179—107), for an improved mounting of microphone in wearable hearing aid. Claims 1, 2, 15, and 16 *Held* not infringed. *Auree Corp.* v. *Beltone Hearing Aid Co.*, 236 F.2d 644; — USPQ —

### Adverse Decisions in Interferences

In the designated interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed.

Pat. 2,515,196, J. C. Coe, Automatic gain control, decided Aug. 29, 1956, Interference No. 86,915, claims 1, 2, 3, 4, 5, 8, 10, and 11.

Pat. 2,702,612, H. N. Sudduth, Slack adjuster arrangement for empty and load brakes, decided Nov. 8, 1956, Interference No. 87,681, claim 3.

Pat. 2,725,323, G. E. Chadwick, G. E. Collins, and W. J. Roff, Method for the manufacture of fabrics, decided Oct. 31, 1956, Interference No. 88,048, claims 3, 4, 5, and 6.

### Disclaimer

2,715,912.—*Martin H. Cameron*, Dearborn, and *Walter Brutus*, Detroit, Mich. MOVING AIR SUPPLY SYSTEM. Patent dated Aug. 23, 1955. Disclaimer filed Nov. 13, 1956, by the assignee, *Chrysler Corporation*.

Hereby enters this disclaimer to claims 1, 3, 8, 9, 10, 11, and 12 of said patent.

### Patents Available for Licensing or Sale

2,732,026. Muffler With Flashing and Spark Eliminating Means. Burr C. Folts, 422 N. Caroline St., Herkimer, N. Y.

2,766,459. Crease-Maintaining Belt. Vincent Stiglin, 532 51st St., West New York, N. J.

L. V. Grover offers the following two patents. Inquiries concerning the patents should be addressed to: L. V. Grover, 341 West Arden Blvd., Glendale 3, Calif.

2,494,755. Quick Disconnect Socket.

2,513,560. Cut Film Holders for Cameras.

General Electric Company is prepared to grant nonexclusive licenses to domestic manufacturers on reasonable terms under the following 27 patents.

Applications for license under the following 18 patents should be directed to: Hotpoint Co., 227 South Seeley Ave., Chicago 12, Ill.

### New Applications Received During October 1956

| | |
|---|---|
| Patents | 6,722 |
| Designs | 473 |
| Plants | 9 |
| Reissues | 21 |
| Total | 7,225 |

### Issue

| | | |
|---|---|---|
| Patents | 895—No. 2,774,073 to No. | 2,774,967, incl. |
| Designs | 31—No. 179,404 to No. | 179,434, incl. |
| Plants | 3—No. 1,539 to No. | 1,541, incl. |
| Reissues | 1—No. 24,257 | |
| Total | 930 | |

*Electric Ranges and Heating Units Therefor*

2,313,582. Door Structure.
2,519,051. Electric Heating Appliance.
2,525,062. Vent Structure.
2,554,063. Electric Range.
2,565,432. Electric Hotplate Hinge Device.
2,635,600. Backsplash Structure for Stoves.
2,662,157. Surface Heating Unit With Improved Hinge and Ground Connection.
2,716,697. Thrift Cooker.
2,742,557. Controls for Electric Ovens.
2,742,558. Control for Electric Ovens.

*Switching Devices*

2,517,392. Electric Switch.
2,691,084. Control Device.
2,722,574. Switch.

*Miscellaneous Electrical Devices*

2,657,580. Multirange Resistance Thermometer.
2,666,189. Electric Terminal Block Assembly.
2,667,560. Heating Circuit Control for Electric Appliances.
2,691,147. Terminal Block.
2,758,150. Electrical Connector for Refrigerator Defrosting Means.

Applications for licenses under the following patent may be addressed to: General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio. Attention: Counsel.

2,459,519. Speed Limiting Arrangements for Turbine Rotors.

Applications for licenses under the following two patents may be addressed to: Patent Counsel, Switchgear & Control Division, General Electric Company, 6901 Elmwood Ave., Philadelphia 42, Pa.

2,599,242. Rotary Circuit Interrupter.
2,757,554. Power Actuator for Doors.

Applications for licenses under the following patent may be addressed to: Patent Counsel, Defense Electronics Division, General Electric Company, Syracuse, N. Y.

2,757,765. Locomotive Grille.

Applications for licenses under the following four patents may be addressed to: Patent Counsel, Construction Materials Division, General Electric Company, 1285 Boston Ave., Bridgeport 2, Conn.

2,752,442. Pull-Operated Switch With Arc Snuffer.
2,752,581. Convenience Outlet With Protective Rotating Shutters.
2,756,401. Combined Appliance Outlet and Fuse Holder.
2,756,403. Combined Cord Connector and Strain Relief.

Applications for licenses under the following patent may be addressed to: General Electric Company, Aircraft Products Department, 1 River Road, Schenectady 5, N. Y.

2,752,574. Method and Apparatus for Electrical Filtering.

# CONDITION OF PATENT APPLICATIONS AS OF OCTOBER 31, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217,058 |
| Total number of pending Design applications | 6,321 |
| Total number of applications awaiting action (excluding Designs) | 117,257 |
| Total number of Design applications awaiting action | 2,972 |
| Date of oldest new application | June 27, 1955 |
| Date of oldest amended application | June 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, L. G., CHEMICAL AND RELATED ARTS | 6, 31, 38, 43, 44, 50, 55, 59, 60, 63, 64. |
| II. STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 15, 22, 26, 37, 42, 44, 48, 51, 54, 69, 70. |
| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 39, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 6, 20, 29, 33, 36, 40, 41, 52, 66. |
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| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

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| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 2- 6-56 | 8- 3-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 3-19-56 | 1-14-55 |
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| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-22-55 | 3-21-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 9-22-55 | 1- 5-55 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 2- 1-56 | 2-14-55 |
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| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Cleaning and Liquid Treatment of Solids | 1- 3-56 | 3-10-55 |
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| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 1-10-56 | 11-22-54 |
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| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 10-19-55 | 9-30-54 |
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| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 2- 9-56 | 2- 2-55 |
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| 26. (II) YOUNG, R. E., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 2- 5-56 | 9- 2-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 2- 1-56 | 3-29-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyors; Fluid Current Conveyors; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-24-55 | 2-21-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Butter, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 12- 2-55 | 11-26-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 5- 2-56 | 7- 3-55 |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application | |
|---|---|---|
| | New | Amended |
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 12-28-55 | 11-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 2-15-56 | 8- 1-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 2- 1-56 | 12- 3-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 12-19-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Fluent Material Handling, Filling; Toilet, Kitchen and Table Articles | 12- 9-55 | 2-14-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 11- 2-55 | 10-19-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 11-30-55 | 5-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Aza, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 3- 1-56 | 10-11-55 |
| 39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-31-56 | 11-10-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 3- 1-56 | 10- 3-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds | 10- 3-55 | 9-16-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 6-27-55 | 11- 3-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus) | 11- 2-55 | 4- 1-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes | 7-22-55 | 6-18-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 11- 4-55 | 2-18-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 12- 7-55 | 1-12-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 2- 6-56 | 9-13-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 7-20-55 | 9-23-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 11-21-55 | 4- 4-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 1- 6-56 | 11- 3-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 3- 1-56 | 9-13-54 |
| 52. (V) NEFF, P. R., Supports Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 12- 8-55 | 12-24-54 |
| 53. (IV) REYNOLDS, E. E., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 1-20-56 | 5-24-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 12-12-55 | 12- 1-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors | 8-22-55 | 12- 1-54 |
| 56. (I) SPECK, J. B., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 1-25-56 | 11-18-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 4-10-56 | 5- 5-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons | 12-14-55 | 4-21-55 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 12-19-55 | 3-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 12-29-55 | 1-24-55 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 2- 6-56 | 3-16-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 2- 6-56 | 8-17-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives; Fats and Metal Containing Carbocyclic or Acyclic Carbon Compounds | 2- 1-56 | 1-12-55 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 2-13-56 | 1- 3-55 |
| 66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics | 12-23-55 | 9- 7-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-26-55 | 2-15-55 |
| 69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators | 1- 3-56 | 8-11-54 |
| 70. (II) BREWRINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 3- 2-56 | 1- 9-56 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 2- 6-56 | 9- 1-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-18-56 | 8- 3-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 1-26-56 | 6-24-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 3- 2-56 | 3- 1-56 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 4- 4-56 | 8- 3-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 3-19-56 | 4-17-56 |

The following divisions have been abolished: 65 and 68

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1955*.

Patents ..... Numbers 2,181,858 to 2,185,169, inclusive
Plant Patent ..... Numbers 349 to 351, inclusive



# PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

**2,649,718**, H. E. Tants, Trunnion, filed May 29, 1952, D. C., W. D. Wis. (Madison), Doc. 2341, *Rockwell Mfg. Co. v. Yates-American Machine Co.* Patent held invalid and not infringed as to claims 1, 2, 3, 4, 10, and 11; complaint dismissed Nov. 12, 1956.

**2,321,597**. (See Re. 23,137.)

**2,338,911**, C. E. Emmer, Machine for applying plastic bindings; **2,556,644**, same, Portable punching machine, filed Nov. 13, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1898, *General Binding Corp. v. Cummins-Chicago Corp.*

**2,359,476**, C. K. Gravley, Electrostatic method and apparatus, filed Aug. 3, 1953, D. C., N. D. Ohio (Cleveland), Doc. 30436, *Ransburg Electro-Coating Corp. v. Metaloid Co. et al.* Consent decree; patent and claims held valid and infringed; injunction granted Nov. 14, 1956.

**2,425,655**, E. H. Tompkins, Therapeutic device, filed Nov. 14, 1956, D. C., N. D. Tex. (Wichita Falls), Doc. 1110, *Mattarama, Inc. et al. v. United Mattress Co. et al.*

**2,443,187**. (See Re. 23,137.)

**2,513,694**, G. O. Hall, Curing of meat to inhibit undesirable color change, filed Jan. 6, 1955, D. C., E. D. Va. (Richmond), Doc. 2084, *Hall Laboratories, Inc. v. Kingan, Inc.* Judgment favor plaintiff; patent held infringed by defendant and its privy, Hygrade Food Products Corp. Sept. 24, 1956. Same, appeal filed Nov. 8, 1956, C. C. A., 4th Cir., Doc. 7350, *Kingan, Inc. v. Hall Laboratories, Inc.*

**2,524,704**, R. Henderson, Card indexing device; Des. 154,848, same, Selective index or similar article, filed Jan. 18, 1955, D. C., S. D. N. Y., Doc. 98/152, *Robert Henderson v. Brown & Bigelow.* Stipulation and order of dismissal with prejudice Nov. 9, 1956.

**2,531,234**, P. H. Seckel, Longitudinally separable extruded thermoplastic strip and process of producing same, filed Mar. 21, 1951, D. C. N. J. (Newark), Doc. 285/51, *Anchor Plastics Co., Inc. et al. v. Stay-Rite Supply Co. et al.* Patent held invalid; complaint dismissed Nov. 15, 1956.

**2,556,044**. (See 2,338,911.)

**2,561,986**, P. A. Jones, Recessed light fixture with separate outlet box, filed Nov. 13, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1903, *Preston A. Jones et al. v. Marketone Mfg. Co.*

**2,562,134**, A. Romolt, Handle for luggage, filed Apr. 6, 1955, D. C. N. J. (Newark), Doc. 325/55, *Philadelphia Brief Case Co. et al. v. Specialty Leather Products Co., Inc.* Judgment favor defendant Nov. 13, 1956.

**2,677,971**, H. B. Greenwood, Angular adjustment device; **2,705,143**, same, Skip-feed mechanism, appeal filed Nov. 6, 1956, C. C. A., 4th Cir., Doc. 7346, *Flynn & Emrich Co. v. Greenwood Engineering Co., Inc. et al.*

**2,705,143**. (See 2,677,971.)

**Re. 23,137** (of 2,443,187), J. C. Hobbs, Pipe coupling; **Re. 23,272** (of 2,321,597), same, Valve construction, filed Mar. 19, 1951, D. C., W. D. Wis. (Madison), Doc. 2188, *James C. Hobbs v. Wisconsin Power & Light Co. et al.* Claims 1 to 10 incl., 12 to 15 incl., 17, 19, 20, 22, and 23 of Re. 23,272 held invalid; claims 1 to 3 incl., 7 to 10 incl., 12, 15, 17, 19, 20, 22, and 23 of Re. 23,272 held not enforceable against defendants; claims 1, 5, 6, and 7 of Re. 23,137 held invalid; no infringement to any valid claim owned by plaintiff; complaint dismissed Nov. 12, 1956.

**Re. 23,272**. (See Re. 23,137.)

**Re. 23,849**, W. Baltz, Suspended horse, filed Sept. 7, 1955, D. C., W. D. Tenn. (Memphis), Doc. —, *Wonder Products Co. et al. v. V. F. Botto & Co. et al.* Reissue patent held valid and infringed Oct. 31, 1956.

**Des. 154,848**. (See 2,524,704.)

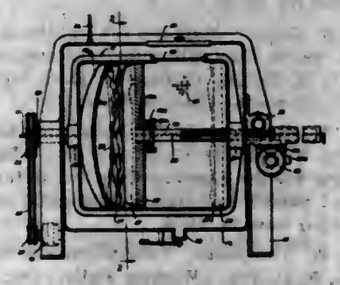
# REISSUES

## DECEMBER 18, 1956

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

**24,257**
**COMBINED WASHING AND SQUEEZE DRYING MACHINE**
**Leo M. Kahn, Island Park, N. Y.**
**Original No. 2,611,257, dated September 23, 1952, Serial No. 607,587, July 28, 1945. Application for reissue September 6, 1956, Serial No. 608,415**
**15 Claims. (Cl. 68—21)**

1. In a washing and drying apparatus including a washing drum having perforations formed therein, means to express wash water from a mass of washed articles in said washing drum, said means comprising a pair of fluid operated members laterally enclosing said mass of washed articles, first pressure means for bodily advancing one of said fluid operated members within the drum and toward the other member so as to embrace said mass and second pressure means operative after said mass has been embraced by the action of said first pressure means, said second pressure means operated to apply fluid under pressure to at least one of said fluid operated members, said



fluid under pressure exerting a considerably higher force than said first pressure means so as to express the wash water from said mass.

# PLANT PATENTS

## GRANTED DECEMBER 18, 1956

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

**1,539**
**CAMELLIA PLANT**
**Rene Casadaban, Abita Springs, La.**
**Application January 30, 1956, Serial No. 562,353**
**1 Claim. (Cl. 47—60)**

A new and distinct variety of camellia plant of the Sasanqua class, substantially as herein shown and described, characterized particularly as to novelty by its strong and improved growing habits, its free-blooming habit, and by its double flowers of Red general color tonality comparable to the color of the flowers of the variety "Shishi-gashira" (unpatented).

**1,540**
**ROSE PLANT**
**Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York**
**Application January 5, 1956, Serial No. 557,619**
**1 Claim. (Cl. 47—61)**

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its free flowering habit, the very stiff petals and long-lasting quality of its flowers, and the colorful effect attributed to its long-lasting White flowers and rich foliage, with attending suitability for out-of-door decoration.

**1,541**
**ROSE PLANT**
**Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York**
**Application January 5, 1956, Serial No. 557,620**
**1 Claim. (Cl. 47—61)**

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its very free flowering habit, its extremely rich fragrance, the long-lasting keeping quality of its flowers both as cut flowers and on the bush, and the distinctive Cameo Pink lightly overcast with Rose Pink general color tonality of its flowers, said color being maintained without appreciable fading throughout substantially the entire life of the flowers.



# PATENTS

## GRANTED DECEMBER 18, 1956

## GENERAL AND MECHANICAL

**2,774,073**
**LADIES' GIRDLES**
**Henry M. Herbener, Thomasville, Ga.**
**Application April 30, 1954, Serial No. 426,691**
**10 Claims. (Cl. 2—36)**



2. A girdle or like garment comprising a flexible body encircling portion which tends to roll at its top, resilient supporting means secured to the body encircling portion and serving to oppose such rolling action, said resilient supporting means including upper and lower frame sections, the upper frame section including generally radial substantially U-shaped loops which are connected at their outer ends, said generally radial loops extending throughout the bottom of the upper frame section, said lower frame section including generally radial substantially U-shaped loops which are connected at their outer ends, the radial loops of the lower frame section extending throughout the top of the lower frame section, and a stiff coupling element connecting the bottom of the upper frame section and the top of the lower frame section adjacent to their longitudinal centers and engaging with certain of the radial loops in said bottom and top for holding such engaged loops against turning movement with respect to the coupling, said coupling being positioned near the elevation of that portion of the body where the most bending occurs, the substantially U-shaped loops in said bottom extending for a substantial distance beyond each end of the coupling element and the substantially U-shaped loops in said top extending for a substantial distance beyond each end of the coupling element, the arrangement being such that the torsional action occurs in said substantially U-shaped loops arranged exteriorly of said coupling element when a relative angular movement is effected between the upper and lower frame sections.

**2,774,074**
**GARMENTS WITH INTERLININGS**
**Alfred Lehmann, Unterflockenbach im Odenwald, Germany**
**Application March 22, 1954, Serial No. 417,781**
**9 Claims. (Cl. 2—97)**



1. In combination with an article of apparel which includes a shape imparting interlining, said interlining consisting of a full interlining and at least one arched plaque secured thereto for imparting said shape, the provision of a plaque comprising: a thin, non-woven, porous, air-permeable, flexible, isotropic sheet material consisting in its entirety of an open skeleton of intermingled, fine, cardable, polyposed moisture absorbent fibers; and resilient adhesive means interconnecting said fibers at their points of intersection to form said fibrous sheet material with preservation of numerous, relatively large interstices between the fibers, said interstices communicating with each other to form circuitous paths for the circulation of air transversely through the sheet material, portions of said fibers intermediate said points of intersection being exposed for the absorption of perspiration.

**2,774,075**
**GARMENT WITH DETACHABLE SLEEVES**
**Mario Giovanni Saccoccio, Malverne, N. Y., assignor to Princess Fair Blouse, Inc., New York, N. Y., a corporation of Maryland**
**Application October 25, 1955, Serial No. 542,729**
**1 Claim. (Cl. 2—106)**



A garment having detachable sleeves with the adjacent shoulder portions thereto presenting a smooth appearance, comprising a body portion provided with sleeve openings therein, the upper edge portions of said sleeve openings sloping upwardly and the lower edge portions of said sleeve openings extending at an angle with respect to the upper edge portions thereof and downwardly, a bound portion defining the leading edge of each of said sleeve openings, a circumferential planar holding member secured within the forward portion of the interior surface of each of said sleeve openings about the entire circumference thereof and having only its leading longitudinal edge disposed within said bound portion and fastened thereto, with the trailing longitudinal edge thereof being entirely free of said sleeve opening; spaced fastening means upon said holding member, detachable sleeve members adapted to terminate above the elbow of the wearer secured to said body portion at said sleeve openings, wherein said sleeve members are of sufficient circumferential size to permit the arm of the wearer to be loosely disposed therein, an additional holding member secured to the upper portion of the outer surface of each of said sleeve members, and additional spaced fastening means complementary to said first-named fastening means upon said additional holding member.

**2,774,076**
**TUBULAR NECKTIE AND MODE OF MAKING SAME**
**Theodore M. Brostoff, Hollywood, Calif.**
**Application July 19, 1955, Serial No. 522,977**
**3 Claims. (Cl. 2—146)**

1. The method of producing a tubular necktie consisting in hemming the ends of a facing strip with over-

lying end portions of the latter, applying a lining strip over said facing strip on the side thereof opposite the overlying end portions thereof with one longitudinal margin thereof aligned with one of the longitudinal margins of said facing strip and with one end of the lining inturned around and overlying the adjacent hemmed end of the facing strip, stitching together said aligned marginal portions of said strips together with



said inturned end of the lining strip, inturning the other end portion of the lining strip over the adjacent hemmed end of the facing strip and stitching one marginal portion thereof to the previously stitched margins of the strips, aligning and stitching together the other marginal portions of the strips thereby forming a fabric tube having its ends closed by the inturned ends of the lining strip, and then turning the resultant fabric tube inside out.

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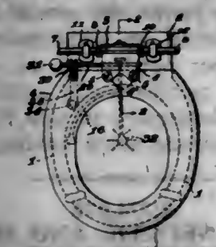
**2,774,077**
**HEAT AND WEAR RESISTING MATERIAL AND ARTICLE FORMED THEREOF**
Charles K. Preasler and John H. Weaver, Newark, Ohio
Application October 15, 1953, Serial No. 386,312
8 Claims. (Cl. 2—167)



1. An article of heat resisting wearing apparel comprising an inner casing shaped to receive a portion of the human anatomy; an outer casing substantially conforming to and carried by said inner casing, said outer casing having a base sheet of woven fibers; and a covering of chenille composed of glass fibre yarns on the outer side of said base sheet.

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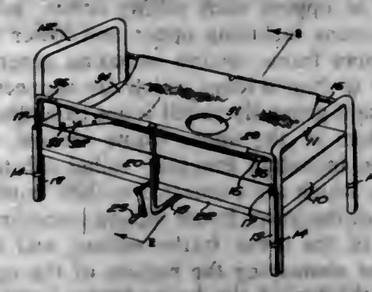
**2,774,078**
**BIDET SEAT**
Nicolas Pazos, Havana, Cuba
Application December 13, 1954, Serial No. 474,768
3 Claims. (Cl. 4—7)



1. In a bidet seat connected to a block hinged to a shaft secured to the rear portion of a water closet bowl, said shaft being a pipe and serving as a water inlet, a douche pipe having an open end slidably mounted through an opening in the block, said douche pipe having its open end adapted for fitting against packing fixedly located within the block, the said open end of the douche pipe being straight and rotatably mounted in the block and the opposite end terminating in a spray nozzle and being curved to follow the contour of the seat, a spring coiled around the douche pipe, a geared sector secured to the straight portion of said douche pipe, said spring having one end secured under the seat and the other end secured to the geared sector and being under tension to normally rotate the curved portion of said douche pipe beneath the seat and urge the open end of the douche pipe into sealed engagement with said packing, a hand actuated rod slidably mounted on the block and provided with teeth at a portion thereof meshing with said sector, the block and a portion of the geared sector having cam surfaces thereon, which, when the geared sector is rotated cause the same to draw back with the douche pipe pressing the said spring and unseating the open end of the douche pipe from the packing while the curved end of the douche pipe is swung from beneath the seat so that the spray nozzle is in operative position.

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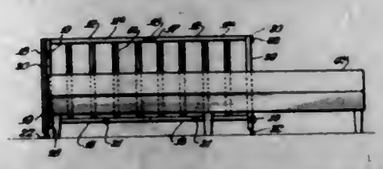
**2,774,079**
**AUXILIARY BED HOIST**
Margaret J. Flatley, Pawtucket, R. I.
Application March 27, 1953, Serial No. 345,024
2 Claims. (Cl. 5—84)



1. An auxiliary bed hoist comprising a pair of spaced parallel rails extending along each side of a bed, means independent of the bed for supporting said rails at each end, means for simultaneously raising or lowering said rails, and a supporting fabric extending over said bed and releasably hooked to said rails, said raising means comprising a bar mounted transversely beneath said bed and having a crank at one end, said bar having oppositely disposed threads toward each end, a threaded collar riding on each set of threads, a U-shaped bar connected to said rails and extending beneath said threaded bar, a fixed collar in the center of said U-shaped bar, and a pair of pivoted links connecting said fixed collar to said threaded collars.

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**2,774,080**
**CONVERTIBLE PLAYPEN AND BED GUARD CONSTRUCTION**
Alvin J. Randall, Evanston, Ill.
Application February 1, 1954, Serial No. 407,497
6 Claims. (Cl. 5—93)

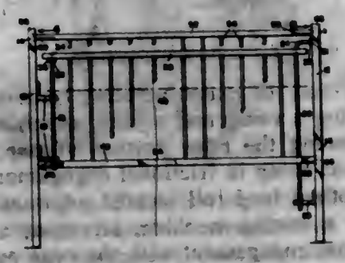


5. An article of manufacture being a convertible playpen and bed guard device and comprising a pair of opposed vertical playpen side members; a vertical playpen first end member being adapted to serve as a head board and being secured to said side members; connector means on the ends of said side members opposite said first end member; a vertical second end member releasably connected opposite said first end member to said side members; a playpen floor connected to said second end member and when in use extending inwardly toward said first end member, said second end member and said floor being removable from said playpen; a releasably mounted floor support mounted adjacent said first end member opposite the connector means when said article is used as a playpen, said floor support being connected to said connector means and disposed opposite said first end member when said second end member and floor are removed from the playpen to thereby provide a bed guard.



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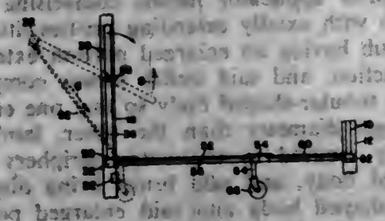
**2,774,081**
**CONSTRUCTIONS FOR DEMOUNTABLE CRIBS**
Elso J. Luikala, Ashburnham, Mass.
Application October 8, 1953, Serial No. 384,953
12 Claims. (Cl. 5—99)



10. A crib construction comprising end panel members, a detachable rear wall and a front drop side, detachable joints at the ends of the rear wall for separable connection to the end panel members, a fitting on each end panel member, a slide rod for detachable securement to each fitting, said front drop side being slidably mounted on said slide rods when the latter are assembled to the end panel members, each joint comprising a hook on the rear wall and a cooperating fitting in the respective end panel member, each fitting having an interior surface slanted relative to the rear wall and receiving the hook and camming the same inwardly upon a pivoting motion between the rear wall and the respective end panel member.

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**2,774,082**
**FOLDING PLAY-YARD**
Robert W. Bowman and James W. Hendricks, Gardner, Mass., assignors to Gem Crib and Cradle Company, Gardner, Mass., a corporation of Massachusetts
Application April 14, 1955, Serial No. 501,308
17 Claims. (Cl. 5—99)



8. A folding play-yard comprising a front frame, a wall pivoted therein, side walls and a rear wall, a folding floor having a part hinged at one edge to an edge of the pivoted wall and folded thereon by rotation thereof, said floor including a part having a free edge remote from its hinged edge, said free-edged part being foldable onto the pivoted wall to depend therefrom in supported relation thereto at the outside aspect thereof, with the hinged floor part at the inside aspect of the pivot wall, the latter being pivoted on a horizontal axis, and including means to latch the pivoted wall in upright condition.



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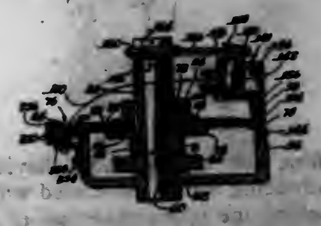
**2,774,083**
**LOCKING MEANS FOR CAM OPERATED CHASERS**
Duro Stora, Buenos Aires, Argentina
Application September 9, 1954, Serial No. 455,042
5 Claims. (Cl. 10—122)



1. A threading die comprising, in combination, support means having an axis and an end portion; at least one pair of die members slidably mounted opposite each other in said end portion on opposite sides of said axis and adjustable thereto; cam disc means mounted turnably about said axis and operatively connected to said die members to adjust their position relative to said axis during turning movement of said cam disc means, said cam disc means having a pair of parallel faces substantially normal to said axis and one of said faces being in contact with said die members; an abutment ring surrounding said cam disc means and fixedly connected to said end portion of said support means, said abutment ring having an abutting face facing the other of said faces of said cam disc means and being spaced therefrom; and a pair of locking means screwed into said cam disc means, said locking means located respectively on opposite sides of said axis, each of said locking means having a locking face facing said abutting face and located between said other face of said cam disc means and said abutting face of said abutment ring, said locking faces being movable from a first position where said locking faces are spaced from said abutting face to a second position where said locking faces are clamped against said abutting face, whereby when said locking faces are in said first position said cam disc means is freely turnable to adjust said die members and when said locking faces are in said second position said cam disc means is pressed against said die members so that said cam disc means is prevented from turning and said die members are locked in their positions.

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**2,774,084**
**WASHER FEED MEANS FOR ASSEMBLY MACHINE**
Moritz H. Nielsen, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Original application October 11, 1951, Serial No. 250,914, now Patent No. 2,711,550, dated June 28, 1955. Divided and this application February 16, 1955, Serial No. 488,646
6 Claims. (Cl. 10—169)

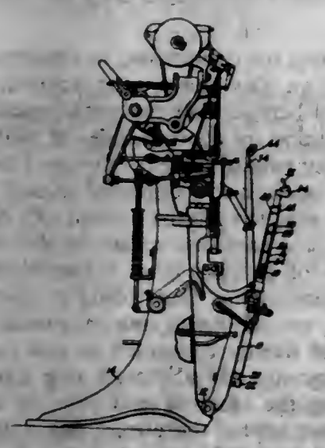


1. Washer feeding apparatus comprising an inclined movable feed member having an inclined surface receiving a supply of washers to be fed and having marginal recesses receiving washers from the inclined surface of the feed member and substantially complementary to such washers, a second movable member spaced below and parallel to said feed member and having marginal recesses similar to those in the feed member and in alignment with the recesses of said feed member, means for driving both of said members in unison, and a fixed plate

of limited extent positioned between said feed member and said second member for first supporting washers in the recesses of said feed member and then dropping the washers into the recesses of said second member.

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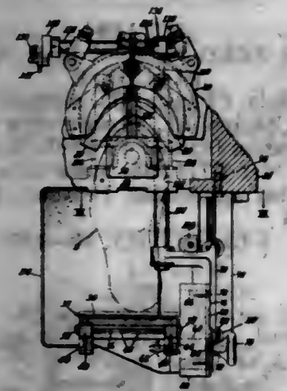
2,774,085
**HEEL END ASSEMBLING MACHINES**
Ernest L. Butler, Lynn, and Otis M. Holmes, Beverly, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application December 22, 1953, Serial No. 399,692
18 Claims. (Cl. 12—1)



8. In a machine for operating on shoes, the combination with an operating instrumentality, of work supporting means and a depressor, both the work supporting means and the depressor being constructed and arranged to provide for the positioning of the work in any one of a plurality of predetermined angular positions relatively to the operating instrumentality.

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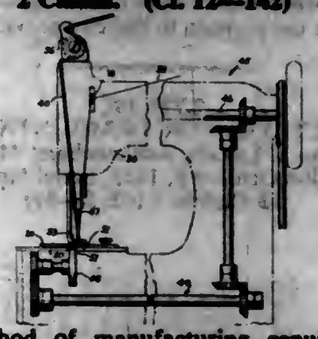
2,774,086
**HEEL REST MECHANISMS**
Philip E. Burby, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application July 13, 1953, Serial No. 367,381
6 Claims. (Cl. 12—12.4)



3. In a machine for lasting shoes having a frame structure, end-embracing wipers associated with the frame structure for working the upper materials of a shoe into lasted position at the toe end of the shoe, a toe plate and a toe rest for clamping the toe end of the shoe against said plate, a heel rest for engaging the heel end of the shoe, said heel rest comprising a heel-engaging member, a support held against movement in a direction lengthwise of the shoe away from said wipers and provided with a substantially flat surface lying in a plane extending transversely of the shoe, and antifriction means interposed between said heel-engaging member and the flat surface on said support, a guide member rigidly secured to the frame structure in offset lateral relation to a shoe in the machine, and means for movably mounting said support on the guide member.

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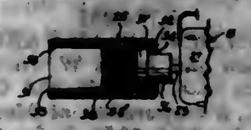
2,774,087
**METHOD FOR SECURING TOGETHER MOCCASIN VAMPS AND PLUGS**
Joseph D. Bozza, Jersey City, N. J., assignor to Jo-An Shoe Mfg. Co., Inc., Fair Lawn, N. J.
Application November 12, 1953, Serial No. 391,458
2 Claims. (Cl. 12—142)



1. The method of manufacturing genuine moccasin footwear having a vamp and a plug, which method comprises: positioning the edge portion of one face of the forepart of said vamp in frictional engagement with a rotating saw-toothed feed roll located adjacent one side of the needle of a sewing machine, arranging a cord along and in frictional engagement with the edge portion of the opposite face of said forepart of said vamp for movement therewith, under said needle, constantly tensioning said cord so that the frictional engagement between said cord and vamp edge portion retards the cord-engaged face to a speed below that of the said opposite face thereby producing substantially uniform gathers along said vamp edge portion, and stitching said cord to and along said gathered vamp edge portion to retain the latter in gathered condition, and then securing the edge of said plug to the gathered and stitched edge of said vamp.

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2,774,088
**POWER OPERATED SHOE POLISHER**
Edward F. Liska, Berwyn, Ill.
Application November 30, 1953, Serial No. 395,115
2 Claims. (Cl. 15—4)



1. For a power operated shoe polisher, a rotatable combination shoe polish applicator means and a buffer, said shoe polish applicator means comprising a brush having a hub with axially extending bristles fitted thereupon, said hub having an enlarged portion extending in a radial direction, and said buffer means comprising a tapered rigid tubular-shaped body so that one end thereof is of larger diameter than the other, lamb's wool means fixedly secured to the outer periphery of said tubular-shaped body, and said brush being disposed in said tubular-shaped body and said enlarged portion of said hub being in frictional interengagement with the inner periphery of said tubular-shaped body whereby said buffer and brush will rotate in unison.

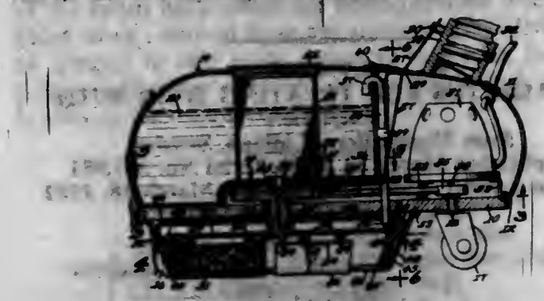
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2,774,089
**AUTOMATIC FLOOR MOP**
Lester H. Brown, Indianapolis, Ind.
Application October 15, 1954, Serial No. 462,564
2 Claims. (Cl. 15—98)

1. In a cleaning implement, a horizontally disposed base, a hollow housing mounted on said base, a container



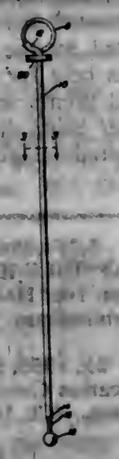
for holding a quantity of fluid positioned in said housing and supported on said base, a cylindrical filter positioned in said container, a lid removably mounted on said container above said filter, there being an opening in the bottom of said container, a hollow bearing arranged in said base, a vertically disposed driven shaft rotatably supported in sad bearing and provided with a bore, a resilient bushing positioned in the opening in the bottom of said container, a bracket arranged in engagement with said bushing, a manually operable cable connected to said bracket, a first pulley mounted on the upper end of said shaft, a motor mounted on said base and positioned in said housing, a drive shaft operated by said motor, a second pulley mounted on said drive shaft, an endless belt trained over said first and second



pulleys, a hollow open drum having a truncated, conical annular wall directly joined intermediate its bottom and top by a partition connected centrally thereof and coaxially with said drum directly to said driven shaft, said partition provided with a plurality of circumferentially spaced cutouts adjacent its junction with said wall, a tube having its lower end projecting down into the top portion of said drum adjacent said cutouts and its upper end communicating with said container, the truncated end of the conical wall being its bottom, a plurality of spring pressed plates secured to said partiton and arranged therebelow, a cleaning element connected to the lower surface of each of said plates, a guard secured to said base and surrounding said rotary drum, wheels positioned below said base and connected thereto, and a handle extending upwardly from said housing and secured thereto.

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2,774,090
**GUN CLEANING ROD**
Neil Allinson, Bellingham, Wash.
Application April 20, 1953, Serial No. 349,695
2 Claims. (Cl. 15—104.165)



1. As a new article of manufacture, a gun barrel cleaner comprising a straight, substantially rigid steel rod, said rod being copper-clad to render the same substantially non-corrodible and being provided at one end with a finger ring, said ring being formed by bending one end portion of the rod without closing the ring and constituting handle means, said rod being provided at its opposite end with an enlarged malleable metal head to facilitate the use of a conventional cleaning patch in conjunction with said head, a protective sleeve encasing and fixed on said rod and having one end portion laterally directed and extending onto and snugly encasing a portion of the finger ring to guard against lengthwise slippage of said one end portion relative to either the finger ring or the adjacent portion of the rod, the opposite end of said sleeve terminating in spaced relation from said head to expose a portion of the rod between the sleeve and head and to facilitate the fastening of the aforementioned patch by tying or otherwise.

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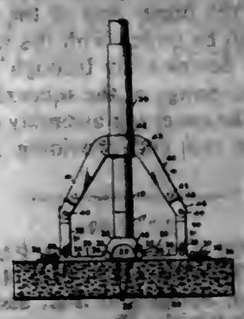
2,774,091
**WRINGER TYPE MOP**
Nathaniel B. Greenleaf, Toronto, Ontario, Canada
Application July 31, 1951, Serial No. 239,449
7 Claims. (Cl. 15—119)



1. In a cleaning device, a mop head having lug extensions struck up therefrom and integral therewith, a split socket of generally tubular shape and formed with an open sided substantially rectilinear base presenting at the open side thereof opposite edge portions of said socket in contiguous coplanar relation, said lug extensions forming a pattern to guide said socket into assembled relation with said head, with said socket base and extensions in abutting contact over an appreciable surface area and with one of said lug extensions in contact with said coplanar edge portions and bridged across the opening therebetween, and means rigidly securing said socket base to said extensions and fixing said base in rectilinear form.

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2,774,092
**MOP DEVICE, TOGGLE OPERATED**
Sidney P. Vaughn, San Diego, Calif.
Application October 31, 1951, Serial No. 254,133
14 Claims. (Cl. 15—119)



12. A mop device comprising, a handle, a rigid unitary attaching head secured to the handle, said attaching head including a body portion and spaced members carried by the body portion and formed integral therewith, said spaced members extending downwardly below the body portion and forming with the body portion a deep recess having a lower open end, said members being immovable with relation to the body portion and in relation to each other, pressure plates, spaced separate pivot elements pivotally connecting the inner end portions of the pressure plates with said members, the pivot

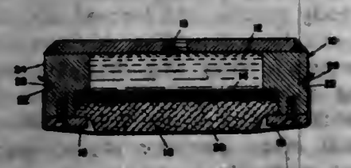
elements being arranged exteriorly of the recess and spaced from the upper end of the recess, said plates being shiftable to opened and closed positions, parts of said unitary attaching head being arranged to contact with parts of said pressure plates to limit the opening movement of the pressure plates, a sponge mop element arranged beneath the pressure plates and secured thereto and including a continuous intermediate portion extending across the lower open end of said recess when said pressure plates are in the opened position, and means to swing the pressure plates to the inner position, said means being separate from the unitary attaching head and including an element mounted upon the handle to move longitudinally thereof.

2,774,093
**TOILET MOP AND CONTAINER THEREFOR**
James D. Klag, Greenwich, Conn.
Application October 16, 1952, Serial No. 315,070
1 Claim. (Cl. 15—123)



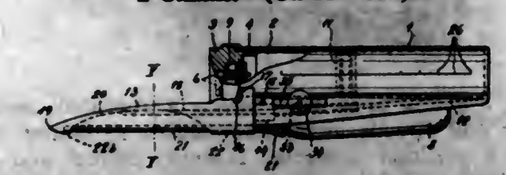
A toilet mop and container therefor comprising an open top vessel adapted to contain a disinfectant, a standard cover top removably attached to the open top vessel, an inverted squeezing cup having a bottom end, said bottom end disposed adjacent to the inner face of the cover top to depend therefrom, said cover top and said bottom end of the cup having aligned central openings, a bushing extending through said aligned openings and upwardly from the outer face of the cover top, said bushing having a peripheral flange on its lower end engageable with the inner face of the bottom end of the inverted cup, an elongated handle sleeve surrounding and secured to the upper end of the bushing, the outside diameter of said handle sleeve being greater than the diameter of the aligned openings and engaging the outer face of the cover top to prevent the downward displacement of the sleeve therethrough and to hold the cup, bushing and sleeve upon the cover top in tight assembled relationship therewith, an elongated handle rod slidable through the handle sleeve and bushing, said handle rod being substantially greater in length than the depth of the vessel, a sponge attached to the lower end of the handle rod and adapted to be pulled into said squeezing cup by said rod to free the sponge of excess disinfectant, and a partial stop handle member fixed to the upper end of the elongated handle rod and adapted to be united with the said handle sleeve, as the rod is slid downwardly through the cover top assembly to free the sponge of the squeezing cup, to permit the hand to hold the cover top assembly elevated upon the upper end of the rod and providing a unitary handle therewith.

2,774,094
**LIQUID APPLICATOR FOR PACKAGING MACHINES AND THE LIKE**
Robert Rutherford, Springfield, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application May 16, 1951, Serial No. 226,566
1 Claim. (Cl. 15—127)



An applicator for controlled continuous application of liquid to surfaces moving relatively thereto, the same comprising an elongated open-bottomed housing the top of which is provided with a constantly open orifice for continuous inflow of liquid, a pad and above it a pervious liquid distributor closing the bottom of the housing, clamping bars extending along the bottoms of the side walls of the housing and confining said pad against said distributor and said distributor against shoulders formed on said side walls, the space between the distributor and the top of the housing forming a reservoir adapted to be completely and continuously filled by the continuous inflowing liquid; the pad, secured to the housing as specified, projecting below the housing, and a fabric sheet for contact with said moving surface extending under the pad and under the clamping bars with its longitudinal edges secured to the opposite longitudinal walls of the housing.

2,774,095
**APPARATUS FOR TREATING HAIR WITH LIQUIDS**
Sven Martin Berg, Lidingo, Sweden
Application March 23, 1953, Serial No. 343,981
Claims priority, application Sweden March 28, 1952
2 Claims. (Cl. 15—137)



1. Apparatus for treating hair with liquids comprising an elongated casing of rigid material, said casing enclosing a cylindrical space extending longitudinally of the casing adapted to serve both as a reservoir for the liquid and a pump cylinder, a piston slidable in said cylinder, an inlet for air to one end portion of said cylinder at one side of said piston, an outlet for liquid from the opposite end portion of said cylinder at the other side of said piston, an elongated bladder extending along the side of said casing constituting an air pump and adapted to be actuated by the fingers of the hand in which the apparatus is held, an air channel between the compressed air outlet of said bladder and the air inlet to said cylinder, a liquid distributing finger extending from one end of said casing, said finger being provided with a channel for distributing the liquid, a liquid channel extending between the liquid outlet from said pump cylinder and said channel in said finger, valve means in said liquid channel between said liquid outlet from said pump cylinder and said channel in said finger, and means adapted to be actuated by the thumb of the hand in which the apparatus is held for controlling operation of said valve means, said thumb actuated valve controlling means and said bladder being disposed on opposite sides respectively of a longitudinal plane through the axis of said pump cylinder.

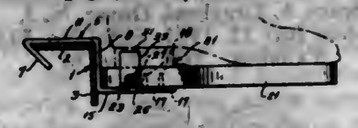
2,774,096
**COLLAPSIBLE BRUSHES**
Michael Everard Taylor, Iver Heath, England, assignor to Twinco Limited, Birmingham, England, a British company
Application May 23, 1955, Serial No. 510,411
Claims priority, application Great Britain May 27, 1954
3 Claims. (Cl. 15—203)



1. A collapsible brush comprising a shallow channel-like brush back having parallel flanges substantially perpendicular to a base part, bearings in the flanges, elongated bristle mounts having trunnions at their ends which are rotatably received in the bearings, bristles mounted on the bristle mounts and movable on rotation of the trunnions in their bearings between a position of use in which they extend substantially perpendicular to the base part and a recumbent position in which they lie substantially flat upon the base part, surfaces on the bristle mounts eccentric to the axes of their trunnions, a slideway between the bristle mounts and base part of the brush back and a slider for insertion in the slideway where it comes into engagement with said eccentric surfaces of the bristle mounts which in cooperation with the slider rotate the mounts to raise the bristles and securely anchor the bristle mounts in the position of use, guide means in the flanges of the brush back above the bristle mounts whereby the slider when removed from the slideway may alternatively be inserted in said guide means to turn back the bristle mounts and form a cover for the brush back with the bristles in the recumbent position.



2,774,097
**SHOE SHINING STAND**
Karl T. Lehmann, St. Charles, Mo.
Application October 18, 1952, Serial No. 315,488
1 Claim. (Cl. 15—267)



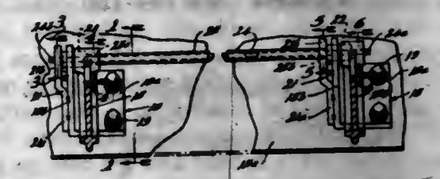
In combination with an angle iron bed rail having a horizontal part and a vertical part depending from the outboard edge of said horizontal part, a shoe shining stand removably mounted on said rail and comprising a one piece mounting bracket having a pair of legs and a flat-surfaced web connecting said legs, said web engaging the upper surface of the horizontal part of said rail, one of said legs forming a reentrant angle with the web and engaging the inboard edge of said horizontal part, and the other of said legs engaging the outboard surface of said vertical part, said other leg having at its lower end an outwardly, horizontally extending platform; a separate shoe-sole shaped shoe support; means engaged with the heel section of the said shoe support for removably mounting the said shoe support on the said platform, and clamping means having a threaded member extending laterally through the heel section of the said support and carrying oppositely disposed heel gripping plates, said clamping means being unconnected to the said mounting bracket.

2,774,098
**OPHTHALMIC MOUNTING HINGE**
Arthur J. Tieri, Worcester, Mass.
Application August 19, 1952, Serial No. 305,107
4 Claims. (Cl. 16—128)



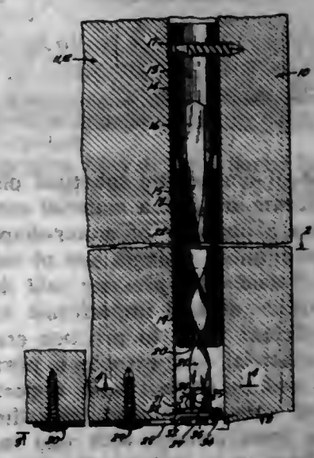
1. In a hinge assembly, a pair of spaced parts formed with aligned openings the walls forming said openings each flaring outwardly throughout its length to form inwardly tapered conical seats, an intermediate body member formed with a cylindrical opening axially aligned with the openings in said spaced parts, the opening in said intermediate body member having the same diameter throughout its length as the minimum diameter of said flared openings, a deformable tubular hinge member arranged in said aligned openings, said hinge member having a uniform outer diameter throughout its length and having one end portion with its inner wall surface converging at approximately the angle of one of said conical seats, and a core member for axial movement into said tubular hinge member, said core member having an outwardly flared conical end of such dimension as to expand one end of the deformable hinge member snugly into its conical seat, the other end of said core member having such a diameter as to urge the converging inner wall of the hinge member snugly into its conical seat.

2,774,099
**HOOD OR DECK LID HINGE**
Gerald R. Thomas, St. Clair Shores, Mich., assignor, by mesne assignments, to Chrysler Corporation, a corporation of Delaware
Application September 4, 1953, Serial No. 378,524
4 Claims. (Cl. 16—180)



1. In a vehicle body having an up and down swinging lid or closure, a pair of transversely spaced supports fixed to the body, a pair of transversely spaced hinge members pivotally mounted on said supports to swing about a common transverse axis, each of said hinge members being attached to the lid or closure to provide for up and down swinging movement thereof, torsional spring means comprising a torsion tube and a torsion bar extending coaxially therethrough and along the axis of said hinge members, said torsion tube being attached coaxially adjacent one end to one hinge member and coaxially adjacent its opposite end to one of said supports, said torsion bar being attached coaxially adjacent one end to the other hinge member and coaxially adjacent its opposite end to the other support, said torsional spring means being initially torsionally deflected to exert turning effort on said hinge members tending to swing the lid upwardly toward open position.

2,774,100
**ADJUSTABLE SPRING SASH BALANCE**
Algot Larson, Stamford, Conn., and Howard A. Smith, Chicago, Ill., assignors to Unique Balance Co., Inc., New York, N. Y., a corporation of Illinois
Application August 30, 1952, Serial No. 307,232
6 Claims. (Cl. 16—197)

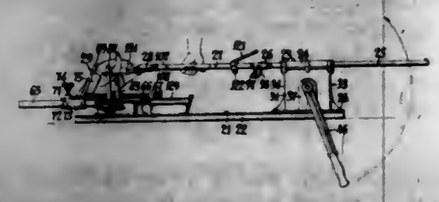


1. In a window sash balance, mechanism for adjusting the angular position of the spiral rod which determines

the tension of the power spring, said mechanism comprising, a sash attachment plate having one end formed to define an elongated slot therein, a post received within the slot and adapted to have the lower end of the rod secured thereto, said post having an annular groove therein on one side of the slot, ratchet and pawl mechanism having the two component parts thereof respectively secured to said post and to said plate at the inner end of said slot, a tension spring with one end anchored to said plate at the inner end of said slot and the other end received in said groove, said spring both locking said post in assembled position and urging said post towards the inner end of said slot to maintain said ratchet and pawl in engagement, and means to turn the post in the slot.

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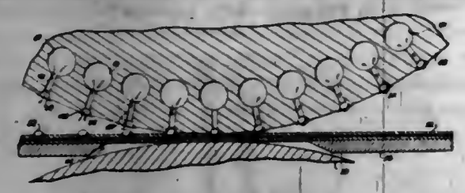
**2,774,101**
**EVISCERATING APPARATUS FOR POULTRY**
**Stephen J. Ograbisz, Hamburg, N. Y.**
**Application October 4, 1954, Serial No. 460,213**
**5 Claims. (Cl. 17—11)**



1. An eviscerating machine comprising a stage for supporting a carcass, an arm, mechanism for moving the arm linearly toward and away from the stage, a pivotal connection between the arm and mechanism for arcuate movement of the arm in a vertical plane, a claw pivotally mounted on the end of the arm adjacent the stage for arcuate movement in a vertical plane and downwardly toward said stage, yieldable means interconnecting the arm and claw and normally holding the claw in an outstretched position with respect to the arm, said claw being movable downwardly by extraneous pressure applied to the surface thereof, and a latching device between the arm and claw for holding the claw in an angular position with respect to the arm when the claw has been rotated through a predetermined arc.

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**2,774,102**
**BEAD SETTING METHOD AND APPARATUS**
**Jackson L. Campbell, Cleveland, Ohio, assignor, by mesne assignments, to General Electric Company, a corporation of New York**
**Application April 15, 1946, Serial No. 662,373**
**15 Claims. (Cl. 18—1)**

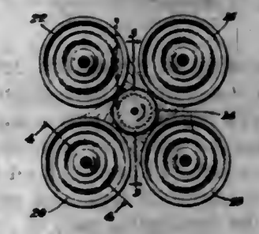


1. The method of embedding spherical objects in the surface of imperforate areas of a material comprising the steps of, providing a plurality of crater-shaped material extruding dies, positioning a single one of said spherical objects in each of said dies, pressing said dies and objects into the surface of said imperforate areas of the material with sufficient force to produce craters in the surface of said material and extrude a portion of the material around and in contact with a portion of the periphery of each spherical object, and thereafter removing said dies from contact with said material and said spherical objects so as to leave the latter embedded in the craters and held by the said extruded portions of the material.

5. An apparatus of the character described comprising, a supporting framework, a roll journalled in said framework, said roll having a plurality of spaced openings in the circumference thereof, a plurality of material extruding dies on the circumference of the roll, there being one of said dies surrounding each of said openings, means for supplying a plurality of spherical objects to the circumference of said roll, means cooperating with the openings in said roll to retain one of said spherical objects in each of said openings during a portion of each revolution of the roll, means cooperating with said roll and adapted to support a sheet of material in intimate contact with a portion of the circumference of the roll, and means to rotate said roll, whereby a sheet of material presented to said roll and the means cooperating with the circumference thereof will be moved therebetween by the rotation of said roll, so that the spherical objects carried by the roll will be pressed into a surface of the said sheet of material, and the die surrounding each opening in the roll will extrude a portion of the material of the sheet around and into contact with a portion of the periphery of the corresponding spherical object.

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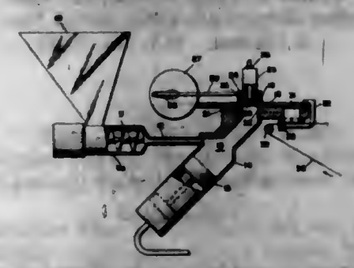
**2,774,103**
**APPARATUS FOR FIBERIZING MOLTEN MATERIAL**
**Bruce A. Graybeal, Dover, N. J.**
**Application July 22, 1955, Serial No. 523,906**
**3 Claims. (Cl. 18—2.6)**



2. A fiberizing rotor assembly consisting of a central rotor, at least three symmetrically mounted, symmetrically shaped fiberizing rotors adjacent to and equally spaced from said central rotor, means to drive said central rotor, and means to drive each of the fiberizing rotors, each of said fiberizing rotors having a corrugated disc body.

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**2,774,104**
**MOLDING AND DISPENSING OF PLASTIC MATERIALS**
**Bruce D. Miller, Louisville, Ky., assignor, by mesne assignments, to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware**
**Application July 15, 1952, Serial No. 298,912**
**11 Claims. (Cl. 18—5)**

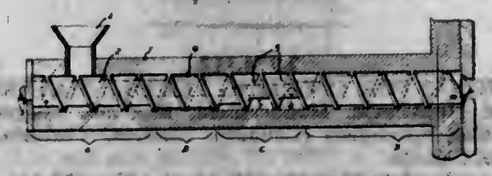


1. In a machine for molding and dispensing plastic material, the combination of a mold adapted to receive therein the plastic material and having an outlet, conveyor means adapted to be advanced step-by-step past the outlet of said mold, means for expelling a predetermined quantity of the plastic material from the outlet of said mold, cutting means movable across the outlet of said mold in a path substantially parallel to said conveyor means for detaching the predetermined quantity of plastic material expelled from said mold, and means cooperating with said conveyor means for lifting the conveyor means into adhesive contact with the predetermined quantity of material expelled to support the latter as it is being detached between advancement steps of said conveyor means in avoidance of deformation of the expelled material.



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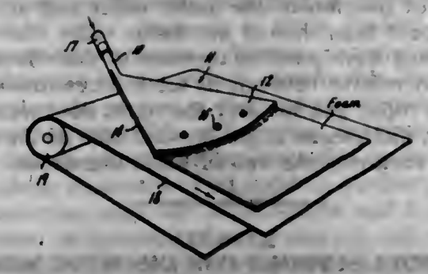
**2,774,105**
**EXTRACTION-EXTRUSION APPARATUS**
**Ernest C. Bernhardt, Montclair, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware**
**Application April 27, 1954, Serial No. 425,985**
**3 Claims. (Cl. 18—12)**



1. An extrusion-extraction apparatus for removing volatile component from a mixture of a plastic material containing said volatile component, comprising a cylindrical barrel, a helical screw conveying device rotatably mounted in said barrel and a means for driving said screw conveying device, said screw having a zone of greater drag-flow capacity following a throttling zone of lesser drag flow capacity, said screw having a hollow core communicating with the said zone of greater drag-flow capacity, and with a means for applying a vacuum thereto, said communication being positioned in the forward half of the zone of greater drag-flow capacity, and in the forward half of a channel between threads in the said zone.

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**2,774,106**
**METHOD OF AND APPARATUS FOR FORMING A SHEET OF LATEX FOAM**
**Eugene J. Bethe, Mishawaka, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey**
**Application December 17, 1952, Serial No. 326,505**
**6 Claims. (Cl. 18—12)**



1. Apparatus for forming a flat sheet of liquid foam that is uniform as to thickness, comprising an extruding nozzle for extruding freshly formed liquid foam, a source of foam under a number of pounds of pressure operatively connected to the nozzle, said nozzle having a tubular foam-receiving portion and an outwardly-flaring wide discharge portion of much greater cross-sectional area than said receiving portion and having spaced side walls and continuously diverging edge walls that connect the side walls and a curved outer end the entire curve of which lies an equal distance from a plane extending transversely to the base of said outwardly-flaring portion so that each portion of the foam stream leaves the nozzle under uniform pressure, and a traveling belt positioned to receive the foam stream as it leaves the nozzle.

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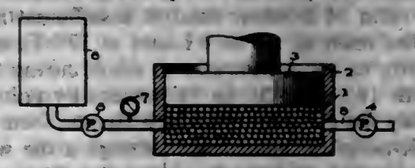
**2,774,107**
**EXTRUSION APPARATUS**
**Benjamin H. Davis, Noank, Conn., assignor to The Standard Machinery Company, Mystic, Conn., a corporation of Connecticut**
**Application October 15, 1954, Serial No. 462,537**
**7 Claims. (Cl. 18—12)**



7. In extrusion apparatus, the combination of a substantially horizontal extrusion cylinder having a surrounding cylindrical jacket body in heat exchange relation therewith and external circumferential cooling ribs of substantially uniform height on said body substantially over the longitudinal extent of the latter; and a cylindrical cover surrounding said jacket body substantially throughout the longitudinal extent of said ribs and being arranged eccentrically with respect to said jacket body so as to be spaced progressively closer from said ribs from the bottom side of said cover toward the top side thereof, said cover having closed ends and two airports extending on said top and bottom sides, respectively, of the cover substantially throughout the longitudinal extent of the latter.

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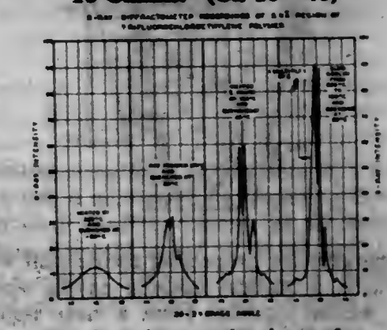
**2,774,108**
**METHOD OF MAKING LOW-RESISTANCE ION-EXCHANGE MEMBRANES**
**Malcolm R. J. Wyllie, Indiana Township, Allegheny County, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware**
**Application September 16, 1952, Serial No. 309,760**
**6 Claims. (Cl. 18—47.5)**



1. A process of preparing an electrolytically-conducting membrane having ion-exchange properties which comprises compacting a finely-divided ion-exchange material to reduce the interstitial voids between particles to less than 25 percent of the total volume, and, while maintaining the particles in compacted form, evacuating the interstitial voids between said compacted particles, filling the interstitial voids with an electrically-insulating polymerizable resinous liquid, and effecting polymerization of said liquid.

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**2,774,109**
**HEAT TREATING PROCESS FOR TRIFLUORO-CHLOROETHYLENE POLYMERS**
**Herman S. Kaufman, New York, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware**
**Application May 6, 1953, Serial No. 353,393**
**18 Claims. (Cl. 18—48)**



1. A process for the production of an amorphous

polymer of trifluorochloroethylene which comprises heating a thermoplastic polymer of trifluorochloroethylene above its transition temperature and subsequently immersing said heated polymer while at a temperature above its transition temperature in a cooling media maintained at a temperature not higher than —30° C.

2,774,110

## METHOD OF EXTRUSION OF FURANE RESINS

Joseph M. Walters, Allentown, Pa., assignor to Electro Chemical Engineering & Manufacturing Company, Emmaus, Pa., a corporation of Delaware

Application July 19, 1954, Serial No. 444,319
1 Claim. (Cl. 18—55)



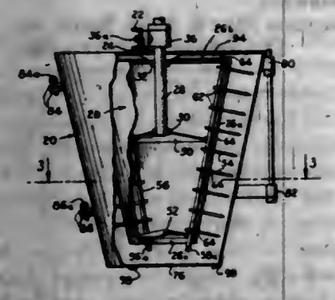
The process of extruding a furane resinous composition, which comprises mixing at a temperature consistently maintained below 100° F. (*a*) a furane resin having a viscosity between 15 and 5000 centipoises when measured at 77° F. and selected from the class consisting of polyfurfuryl alcohol, polymerizable mixtures of furfuryl alcohol and not more than 15 percent by weight of furfural, polymerizable mixtures of furfuryl alcohol and formaldehyde in molar ratios of between 1 to 0.5 and 1 to 3, and polymerizable mixtures of ketone and furfural in molar ratios of between 1 to 1 and 1 to 8, the ketone having at least two hydrogen atoms on an alpha carbon and having groups of the class of alkyl and ethylenic groups each of carbon chain length not in excess of four, with (*b*) between 1 and 15 percent on the weight of the resin of a latent catalyst insufficient in activity to cause the resin to set in 4 hours at 77° F. and sufficient in activity to cause the resin to set at curing temperature, and with (*c*) from 50 to 71 percent by volume of filler, extruding the composition which has the form of slurry of solid particles in liquid resin through a die while cooling the composition and maintaining the temperature below 120° F., accepting the extrusion beyond the die in an acid liquid which is within ±10 percent of the specific gravity of the extrusion and free from soluble attack on the extrusion, the extrusion remaining as a solid in the extruded form in the acceptance liquid and the acceptance liquid serving to reduce the forces tending to distort the solid extrusion, and curing the extrusion thus formed at elevated temperature.

2,774,111

## THREAD REMOVING APPARATUS

Charles S. Allen, Jr., Greenville, S. C.

Application August 16, 1954, Serial No. 450,187
5 Claims. (Cl. 19—90)



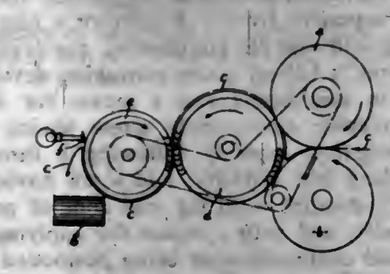
1. An apparatus for processing textile mill waste comprising a frame, a vertical housing having walls of circular cross section tapering from a large upper end to a relatively small lower end mounted within said frame, a rotatable element of substantially conical configuration positioned within and spaced from said housing so as to form a passageway between the housing and the rotatable element, a plurality of spaced shafts rotatably mounted within said rotatable element, a plurality of spaced beaters fixedly mounted on said shafts projecting outwardly from the rotatable element through slots therein, means for turning said shafts so as to withdraw the beaters entirely within the conical element, a hopper adjacent the small end of the housing for introducing waste into the space between the housing and the conical element, means adjacent the large end of the housing for removing the processed waste and hinge means for opening a section of the housing for removing the threads which have been built up on the conical element by pulling the threads off the small end of the conical element after the beaters have been withdrawn.

2,774,112

## MACHINES FOR TREATING TEXTILE MATERIALS

Harold Hopkinson, Huddersfield, England, assignor to Carding Specialists (Canada), Limited, Toronto, Ontario, Canada

Application May 13, 1954, Serial No. 429,641
2 Claims. (Cl. 19—106)



1. In a carding engine, the combination of a pair of upper and lower pressure rollers mounted for rotation in relatively opposite directions for passage of a web of fibres between them, a card clothed doffer roller having a side thereof in close proximity to a side of the lower pressure roller and having means for rotating it at a surface speed greater than that of the lower pressure roller and in a direction to carry the web upwardly therefrom, the doffer roller having teeth pointing opposite to their direction of rotation, a card clothed stripper roller having a side thereof in close proximity to a side of the doffer roller and rotating in a direction opposite to the direction of rotation of the doffer roller and at a lower surface speed than that of the doffer roller, the stripper roller having teeth pointing opposite to their direction of rotation to receive between its teeth fibres thrown from the doffer roller and to carry the fibres downwardly and forwardly, and means at the forward side of the stripper roller for removing the web of fibres therefrom.

2,774,113

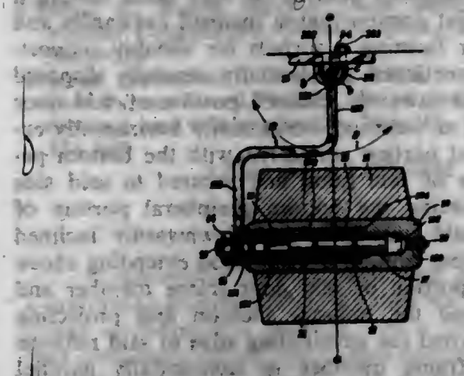
## TOP ROLL SUPPORT FOR DRAWING MECHANISMS OF TEXTILE MACHINES

Bertil Johansson, Goteborg, Sweden, assignor to SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung, Schweinfurt, Germany

Application October 7, 1953, Serial No. 384,672
8 Claims. (Cl. 19—142)

1. In a drawing mechanism for spinning machines, in combination, top roll means formed with an axial bore; bearing means located in said bore to support said top roll means for free rotation about its axis; a shaft fixed to said bearing means and extending through one end of said axial bore beyond said top roll means; an elongated guide arm having an intermediate substantially straight portion and a pair of opposite substantially straight end portions substantially perpendicular to said intermediate portion and extending in opposite directions from opposite ends of said intermediate portion, respectively, one of said end portions having a free end located opposite said one end of said bore and fixed to said shaft, and said intermediate portion being located opposite the outer working face of said top roll means, being substantially parallel to the axis of said top roll means, and extending





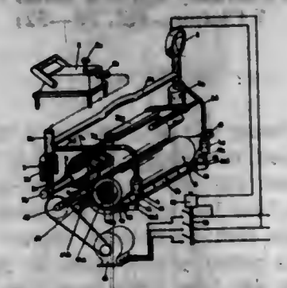
up to a substantially central plane of said top roll means normal to said axis thereof, the other of said end portions of said arm being located in said plane and having a free end formed with a cutout passing therethrough; a substantially U-shaped rod having a central curved portion passing through said cutout; and a stationary frame part fixed to and carrying said rod.

2,774,114

## MECHANISM FOR A TEXTILE MACHINE

Jean Marc Barnabé Gonay, Verviers, Belgium

Application October 16, 1952, Serial No. 315,152
Claims priority, application Belgium October 26, 1951
1 Claim. (Cl. 19—165)



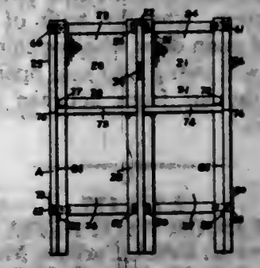
A gill-box mechanism comprising a conduit for supplying fluid under pressure, a pump feeding the fluid into the conduit, pressure cylinders communicating with the conduit and having pistons reciprocable therein, rods connected to the pistons, a shaft interconnecting the rods and movable therewith, anti-friction bearings mounted on the shaft, a pressure roller journalled in the bearings, branch-ducts connected to the conduit, auxiliary cylinders communicating with the branch-ducts and having control pistons reciprocable therein, control rods connected to the control pistons, pivoted rocker arms operatively contacting the distal ends of the control rods, a draft roller cooperating with the pressure roller, a counter-pressure roller cooperating with the pressure and draft rollers, drive means for the draft roller, a plate mounted on the rocker arms and having curved portions contacting the surfaces of the draft and counter-pressure rollers remote from the pressure roller, and pressure-sensitive control means to cut off the supply of power to the drive means responsive to increase of pressure in the conduit upon displacement of the plate from contact with the draft and counter-pressure rollers by the passage of an excessive amount of treated material therebetween therewith displacing the control rods in a direction to increase pressure in the branch-ducts and conduit.

2,774,115

## UNITARY FOLDING VOTING BOOTH

James Derderian and Everett Vernon Sanborn, Methuen, Mass.

Application March 18, 1954, Serial No. 417,109
5 Claims. (Cl. 20—3)



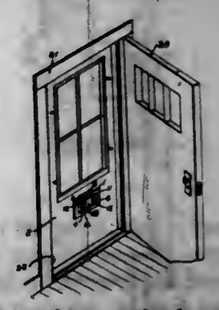
1. A two compartment, unitary, folding voting booth comprising a central upstanding partition member having a panel in its upper portion and a shelf end receiving opening through its intermediate portion; a pair of identical upstanding back wall members each having a panel in its upper portion and each hinged along its inner vertical edge to an opposite side of the rear vertical edge of said central partition member to fold from a position with its inside face flatwise thereagainst and parallel to the other to a position at right angles thereto and in extension of the other; a pair of identical, upstanding end wall members each having a panel in its upper portion and a shelf receiving opening in its lower portion, each end wall member being hinged along its inner vertical edge to the outer vertical edge of one of said back wall members to fold from a position with its outer face flatwise against the outer face of said back member through an angle of about 270° to a position with its inner face at right angles to the inner face of said back wall member; a pair of identical shelves, each hinged along the lower edge of the upper panel of one of said end wall members to fold from a depending position wholly within the shelf receiving opening of said end wall member upwardly toward the other to a horizontal position in extension thereof and with the free terminal ends of said shelves substantially abutting against each other in the shelf end receiving opening of said central partition member and latching means mounted on said central partition member for supporting the free ends of said shelves in a horizontal plane and retaining said free ends against movement away from each other in said horizontal plane.

2,774,116

## DOUBLE ACTING RELIEF VALVE

Percy B. Wolverton, Kansas City, Kans.

Application August 11, 1954, Serial No. 449,125
2 Claims. (Cl. 20—16)

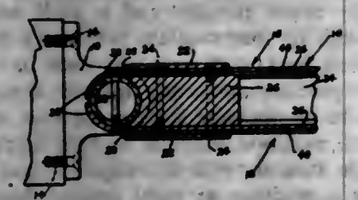


1. In combination with a main door of a building structure and a storm door having an opening therein exteriorly of said main door for passage of air therethrough entrapped between said doors, a double acting relief valve comprising a plate having an opening therein hinged to the inner face of the storm door covering the opening in the storm door, ears projecting from the plate, curved

arms pivotally connected to said ears and extending through the opening in said plate, a second plate secured to the free ends of said arms and covering the opening in the first named plate and swingable in said opening in the storm door, said last named plate comprising a valve and seating against the inside of the first named plate around said opening therein, whereby both of said plates will swing toward said main door when opening said doors and the second plate will swing into said opening in the storm door to relieve the air from between said doors upon closing said doors.

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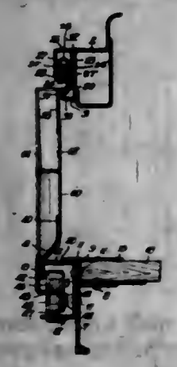
2,774,117
**RESILIENT DOOR WITH OFFSET MOUNT**
Oliver C. Eckel, Carlisle, Mass.
Application July 20, 1955, Serial No. 523,326
4 Claims. (Cl. 20—16)



1. Door apparatus comprising a door body, door mount means embodying retaining portions at opposite faces of said door body having curved portions spaced apart and extending towards each other and providing an opening therebetween, a pivot member extending into said opening, means fastening said pivot member to said curved portions, two attaching portions, two offset portions connecting said retaining portions and said attaching portions and extending outwardly in offset relationship to said retaining portions, means fastening said attaching portions to said door body, a casing member having a portion extending from a point opposite and under a said attaching portion along a face of said door body, and another portion along the opposite face of said door body to a point opposite and under the other said attaching portion, a wear strip having a portion extending from a point opposite and under a said attaching portion along a face of said door body and a portion extending along the opposite face of said door body to a point opposite and under the other said attaching portion.

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2,774,118
**SIDE DOOR FOR RAILWAY CARS**
Karl F. Nystrom, Chicago, Ill., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application August 4, 1950, Serial No. 177,671
5 Claims. (Cl. 20—22)



1. In a hood structure for a vertically shiftable and laterally movable door for a railway car wall having a door frame therein wherein the door terminates in a door frame member including a substantially centrally disposed downwardly and inwardly inclined portion, the top marginal periphery of said door frame member terminating in an outwardly and downwardly extending U-shaped portion having a reflange disposed in substantially parallel spaced relation to the plane of said door frame member, a side plate, a hood having a vertically disposed central portion supported on said side plate, said vertically disposed portion of said hood having a bottom peripheral portion that is inclined outwardly and downwardly for forming a surface for slidably supporting said aforementioned substantially centrally disposed downwardly and inwardly inclined portion of said door frame member, an inturned substantially horizontally extending marginal portion connected with the bottom peripheral portion of said hood and secured to said side plate for supporting the bottom peripheral portion of said hood in said outwardly and downwardly inclined position, the upper portion of said hood extending above said U-shaped portion of said door frame member and over and beyond the reflange thereon and projecting downwardly beyond the terminating edge of said reflange on said door frame member in substantially parallel spaced vertical relation thereto, the said downwardly extending portion of said hood being reversed upon itself and extending upwardly in spaced parallel relation to said door frame member in a reflange engaging the reflange of said door frame member and supporting said door frame member in a position free to shift vertically while moving laterally as the inclined surface on said door frame member slides outwardly or inwardly on the supporting inclined surface on said hood in relation to the door frame in the car wall.

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2,774,119
**SPRING SASH BALANCE**
Fred C. Osten, Detroit, Mich.
Application February 8, 1954, Serial No. 408,939
7 Claims. (Cl. 20—52)



1. A combination sash balance and hollow channel sash guide for an edge-grooved vertically-sliding window sash, comprising an elongated hollow channel structure including a hollow front rib having an elongated recess in the back thereof, elongated front flanges extending laterally in opposite directions away from said rib, and elongated side flanges extending rearwardly away from said front flanges, said rib guidingly engaging an edge groove of said sash in sliding relationship therewith, a sash balancing spring anchorage secured to the upper portion of said channel structure, balancing spring means mounted within said channel structure and depending from said spring anchorage, lower and upper pulleys rotatably mounted in vertically-spaced relationship at substantially stationary locations in said recess within said rib, an elongated flexible force-transmitting member secured at its inner end to said spring means and extending around said pulleys outwardly through an opening in said rib, and a sash attachment element secured to the outer end of said flexible member.



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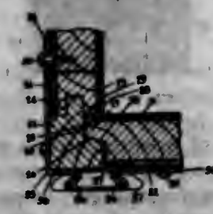
2,774,120
**SEALING STRIP FOR REFRIGERATOR DOOR**
Charles H. Beare, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application February 6, 1951, Serial No. 209,624, now Patent No. 2,716,778, dated September 6, 1955. Divided and this application May 13, 1953, Serial No. 354,859
3 Claims. (Cl. 20—69)



1. A rubber-like cushioning sealing strip comprising; a preformed seamless relatively thin walled outer hollow casing of rubber-like material, and a foam latex rubber core completely filling said hollow casing, said core being completely encased, formed and shaped in situ in said casing for providing a support for said casing and having contacting surface portions bonded thereto.

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2,774,121
**JOINT FOR STRUCTURAL SECTIONS**
Henry Ludwig Graevenitz and Frederick Stanley Dunham, East Orange, N. J., assignors to Otis Elevator Company, New York, N. Y., a corporation of New Jersey
Application February 24, 1951, Serial No. 212,618
3 Claims. (Cl. 20—92)

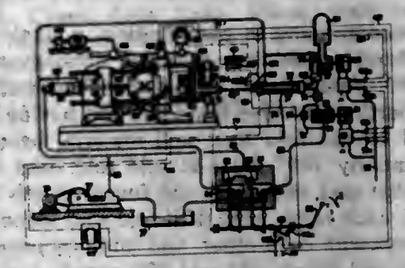


1. A joint for a pair of adjacent panels arranged at a right angle to each other, said joint being between the edge of one of said panels and the inner face of the other of said panels at the edge of said other panel and comprising; a tongue formed on said edge of said one panel, one side of said tongue being in line with the inner face of said one panel and the other side being at an obtuse angle to said edge of said one panel, said inner face of said other of said panels adjacent said edge of said other panel having a groove formed therein into which said tongue extends, the side of said groove opposite said inner face of said one panel being in line with said inner face of said one panel and the other side of said groove being at an angle conforming to that of said other side of said tongue, said groove being narrower than said tongue and thus providing clearance between said end of said tongue and the bottom of said groove and between said edge of said one panel and said inner face of said other panel outside said tongue and groove when said tongue is wedged in said groove; and clamping means on said panels securing said panels together in said tongue and groove relationship with a wedge-like action, insuring a tight fit of said panels at the point of joinder.

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2,774,122
**DIE-CASTING MACHINE**
Fritz Hodler, Territet, Switzerland
Application February 5, 1953, Serial No. 335,215
Claims priority, application Switzerland February 7, 1952
8 Claims. (Cl. 22—68)

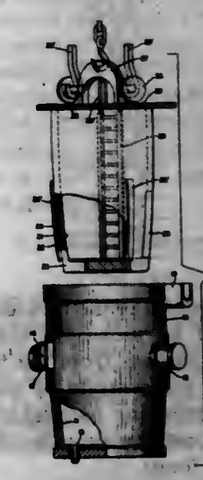
1. An apparatus for injecting casting material into a die, said apparatus comprising an injection cylinder; an injection plunger; an hydraulically operated piston actuating said injection plunger to deliver shots of molten casting material from the injection cylinder to the die; a first feedline feeding hydraulic fluid under pressure to said piston; a regulating valve in said feedline for supplying to said piston hydraulic fluid at a rate sufficient only to advance said piston in a first operative main phase; a second feedline feeding hydraulic fluid to said piston, said second feedline bypassing said first feedline and allowing passage of hydraulic fluid sufficient to drive the piston at high speed for a second operative main phase of rapid shot



injection; a valve in said second feedline; an electromagnet actuating said valve; a suction pump for withdrawing air from the die, an air suction conduit connecting the die cavity with said pump; a valve controlling the opening of said conduit into the die cavity; a pressure indicating device in said conduit; an electric circuit connecting said pressure indicating device with said electro-magnet actuating said valve in said second feedline; and means on said pressure indicating device closing said circuit at a predetermined vacuum indicated by said pressure indicating device and opening said valve in said second feedline to initiate a second phase of rapid shot injection.

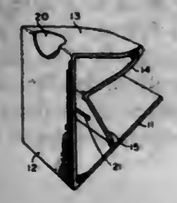
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2,774,123
**LADLE MAINTENANCE APPARATUS**
June H. Reighart, Cleveland, Ohio
Application August 10, 1953, Serial No. 373,118
3 Claims. (Cl. 22—85)



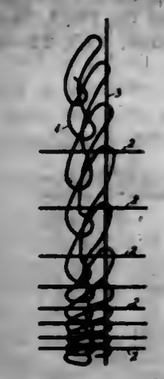
1. A ladle insert for protecting a human operator from the heat of a ladle used for molten metal, and comprising the combination of bucket shaped inner and outer walls and heat insulating material between said walls around the sides of said insert and at the bottom thereof, a ladder extending down into the interior of said insert, a top platform extending from said ladder to a position adapted to overhang a side of the ladle, spacer guide ribs on the exterior of the shell for centering the shell within a ladle, and a door in said ladle insert for providing access thereto.

**2,774,124**
**CLIP**
Philip Brady, Dedham, Mass.
Application August 12, 1955, Serial No. 527,939
5 Claims. (Cl. 24—66)



1. A clip comprising in combination, a single strip of relatively flexible foldable material divided into first, second, third, fourth and fifth panels by first, second, third and fourth transverse fold lines and having an aperture at said second fold line, said material being folded with substantially 180° folds at said fold lines in directions such that said third and said fourth panels are contiguous with each other, said fifth and said second panels are contiguous with each other, and said first panel is contiguous with said fourth and said fifth panels, and a spring clip having two legs with rounded ends arranged through said aperture with one leg extending between said third and fourth panels and frictionally engaging said fourth panel and the other leg extending between said second and fifth panels and frictionally engaging said fifth panel, whereby the clip is adapted to receive material to be bound between said first and said fourth panels.

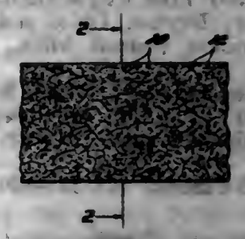
**2,774,125**
**METHOD OF SUPPORTING THREADS OR GROUPS OF THREADS IN A THREAD LAYER WHEN THE THREADS OR GROUPS OF THREADS ARE TO BE SEPARATED SINGLY FROM THE SAID LAYER**
Svend Sigurd Christie Fleischer, Charlottenlund, Denmark
Application June 4, 1954, Serial No. 434,572
3 Claims. (Cl. 28—22)



1. A method of supporting the threads of a thread layer which are held apart by means of thread loops during the separation of the threads from the thread layer, comprising the provision transversely of the thread layer of a supporting thread extending parallel to the row of loops and arranged to support the threads of the thread layer as well as the thread loops.

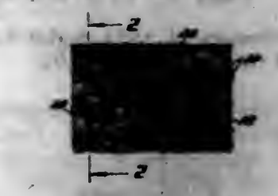
**2,774,126**
**PROCESS FOR MAKING FELT-LIKE PRODUCTS**
Horace A. Secrist, Dedham, Mass., assignor to The Kendall Company, Boston, Mass., a corporation of Massachusetts
Original application November 4, 1950, Serial No. 194,195. Divided and this application March 5, 1956, Serial No. 569,349
2 Claims. (Cl. 28—72.3)

1. The method of making an extensible, conformable, felt-like sheet material which comprises subjecting a body of cotton fibers intermingled with fibers having latent coalescent properties to the action of a liquid causticizing agent for cellulose at low temperature while supporting said body by means of said liquid agent substantially without tensional stress and surface frictional restraint, thereby causing said cotton fibers to kink, bend, twist and inter-



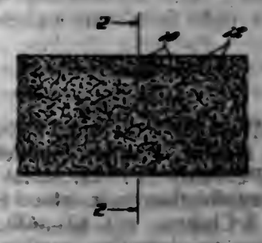
curl; and contract said body in area, and removing said causticizing agent from the fibers without substantially stretching said body, and thereafter activating the fibers having latent coalescent properties so as to bond the two types of fibers at some, at least, of their points of contact.

**2,774,127**
**TEXTILE SHEET MATERIAL**
Horace A. Secrist, Dedham, Mass., assignor to The Kendall Company, Boston, Mass., a corporation of Massachusetts
Application October 24, 1950, Serial No. 191,933
5 Claims. (Cl. 28—79)



1. As an article of manufacture, a unital, coherent, integrated, shrunken textile sheet material having substantial extensibility, conformability, integrity, and resilience and consisting essentially of cotton fibers spun into yarns and in apposition therewith unspun cotton fibers which are chemically swollen, said spun fibers and said unspun fibers being mutually integrated and frictionally interlocked by chemically induced permanent deformations of the said unspun fibers, said deformations being in the form of random kinks, bends, twists, and curls in substantially all three dimensions and being in excess of the deformations normally present in cotton fibers, the unspun fibers being entangled with themselves and with each other and with the spun fibers to which they are in apposition, the entanglement being substantially continuous and uniform throughout the sheet.

**2,774,128**
**FELT-LIKE PRODUCTS**
Horace A. Secrist, Dedham, Mass., assignor to The Kendall Company, Boston, Mass., a corporation of Massachusetts
Application November 4, 1950, Serial No. 194,195
1 Claim. (Cl. 28—79)



As an article of manufacture, a unitile, coherent, integrated, shrunken textile sheet material having substantial



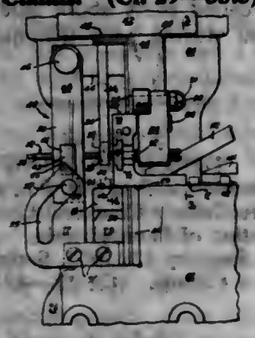
extensibility, conformability, integrity, and resilience and consisting essentially of fibers having latent coalescent properties and unspun cotton fibers, said unspun cotton fibers being chemically swollen, said fibers having latent coalescent properties and said unspun cotton fibers being mutually integrated and frictionally interlocked by chemically induced permanent deformations of said unspun cotton fibers, said deformations being in the form of random kinks, bends, twists, and curls in substantially all three-dimensional directions and being in excess of the deformations normally present in cotton fibers, the unspun cotton fibers being entangled with themselves and with each other and with said fibers having latent coalescent properties, the entanglement being substantially continuous and uniform throughout the sheet, said fibers having latent coalescent properties being adhesively bonded at some at least of their points of contact with each other and with said cotton fibers by the activation of their coalescent properties.

**2,774,129**
**SYNTHETIC FELTS**
Horace A. Secrist, Dedham, Mass., assignor to The Kendall Company, Boston, Mass., a corporation of Massachusetts
Application November 6, 1950, Serial No. 194,384
1 Claim. (Cl. 28—79)



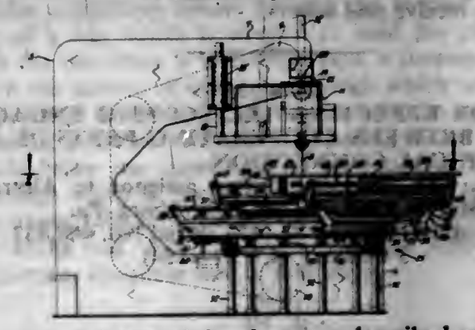
A nonwoven fabric sheet composed essentially of unspun synthetic fibers held in a network relationship by the release of built-in potential energy of a curl and twist inducing nature, which results in fibers having artificially induced bends, twists, curls, writhes and gyrations which frictionally interlock to form a coherent fabric sheet structure which is primarily dependent for its integrity upon said interlock of said fibers.

**2,774,130**
**INSULATION STRIPPING APPLICATOR AND METHODS OF APPLICATION**
Earl E. Folkenroth, Harrisburg, Pa., assignor to Aircraft-Marine Products Inc., Harrisburg, Pa.
Application April 27, 1953, Serial No. 351,158
15 Claims. (Cl. 29—33.5)



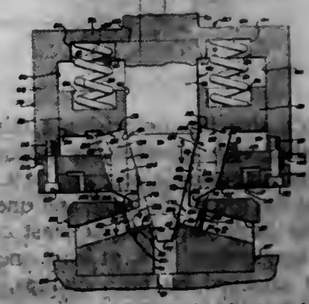
1. A machine for applying connectors to the end of an insulated wire comprising wire insulation stripping means and connector crimping means both disposed closely adjacent in a single operating zone, operating ram means positioned to engage the crimping means and actuate it to crimp a connector positioned therein, means engaging said ram with said stripping means during a positive stroke of said ram before the dies are driven into crimping engagement with a connector, means to feed a connector into position for crimping by said crimping means, means to move a wire from the stripping position to the crimping position and insert its stripped end into a connector disposed in said crimping means, means actuated by said ram to operate said wire moving means during the same operating stroke of the ram means, but after the wire stripping means has been operated and prior to the crimping of said connector.

**2,774,131**
**METAL CUTTING BAND SAW WITH MANUALLY CONTROLLABLE POWER DRIVEN WORK FEED**
Robert L. Crane, Glen Lake, Minn., assignor to Continental Machines, Inc., Savage, Minn., a corporation of Minnesota
Application January 31, 1955, Serial No. 484,904
6 Claims. (Cl. 29—68)



1. A band saw of the character described comprising: a rigid C-shaped main frame having vertically spaced apart upper and lower arms defining a work zone therebetween; a saw band mounted in the main frame with a stretch thereof traveling downwardly through the work zone along a defined vertical path; a work supporting carriage upon which work to be cut may be mounted; means mounting the carriage for movement thereof in a horizontal plane above but adjacent to the lower arm of the main frame for feeding motion in a direction to carry work thereon against the cutting edge of said stretch of the saw band, and for swiveling motion in either direction about an axis substantially coincident with the cutting edge of said stretch of the saw band; an operator's platform vertically adjustably mounted on the main frame and disposed in front of the toothed edge of the saw band; power means for moving the work supporting carriage; control instrumentalities for governing said power means, said control instrumentalities including a manually operable control element on the operator's platform; and optical means mounted on the operator's platform and arranged to provide a view of the saw band at its actual point of entry into the work.

**2,774,132**
**METHOD OF MAKING ROLLER BEARING ROLLER RETAINERS**
John R. Squire, Grosse Pointe, Mich., assignor, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application August 17, 1953, Serial No. 374,488
10 Claims. (Cl. 29—148.4)



1. A method of expanding, slotting and swaging a roller bearing roller retainer in a single substantially continuous

operation, said method comprising forming an open-centered frusto-conical shell corresponding in size and shape substantially to the size and shape of the completed retainer, placing said shell in a die having a cavity with a size and shape corresponding to the size and shape desired for the expanded shell and with apertures therein corresponding in size and shape to the slots desired in said retainer, forcibly expanding the side wall of said shell outwardly into contact with said die cavity, holding the thus expanded shell in said die cavity while forming multiple slots in said side wall of said shell at circumferentially-spaced locations, said slots corresponding in size and location to the size and location of the rollers in the assembled bearing, and continuing to hold the thus expanded and slotted shell in said die cavity while swaging the longitudinal edges of said slots to form approximate bevels thereon to receive said rollers.

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2,774,133

## TOOL FOR EFFECTING TELESCOPING ENGAGEMENT BETWEEN COOPERATING PARTS OF AN ELECTRICAL CONNECTION

Gilbert C. Sitz, Harrisburg, Pa., assignor to Aircraft-Marine Products, Inc., Harrisburg, Pa.

Application February 8, 1954, Serial No. 408,632
3 Claims. (Cl. 29—254)



1. A terminal applying tool comprising a shank having at its head end a terminal receiving longitudinal recess and an end wall defining the outer end of said recess, a slot extending through said end wall coaxially and connecting with said recess to form terminal engaging end flanges, and a wire receiving groove opening through a lateral wall portion of said head and into an inner end portion of said recess, said groove being angularly offset from said recess, said recess having a lateral opening extending between and connecting said slot and said groove.

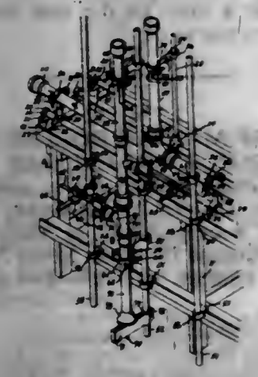
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2,774,134

## PLUMBER'S PIPE JIG

John Lawrence Smith and Edwin Elmo McCartney, Memphis, Tenn.

Application October 22, 1953, Serial No. 387,732
2 Claims. (Cl. 29—286)



1. A plumber's pipe jig comprising a table, table supports for the table, two substantially horizontal parallel longitudinal rails supported along one side of the table, one rail adjacent the top of the table and one intermediate the height of the table supports, at least one adjustable clamp on each longitudinal rail, at least one substantially vertical support engaged by both clamps, two substantially horizontal parallel transverse rails supported on the top of the table and extending angularly to the longitudinal rails, at least one adjustable clamp on each transverse rail, at least one substantially horizontal support mounted in both transverse rail clamps, and at least one adjustable pipe clamp mounted on each of the vertical and horizontal supports.

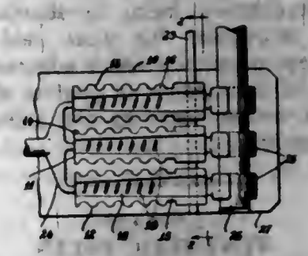
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2,774,135

## METHOD OF MAKING A MULTIPLE PART ANCHORAGE

Louis H. Morin, Bronx, N. Y.

Application September 22, 1952, Serial No. 310,903
2 Claims. (Cl. 29—417)



1. Method of continuously and successively forming multiple part anchor members on a continuous length of strand comprising moving a short length of said strand between a pair of relatively movable dies and adjacent a movable transfer core disposable between the dies, said dies having mating cavities for forming said parts, said short length being straight and having a free end disposed between said dies while the other end thereof extends beyond the dies and is integrally joined to said continuous length, closing the dies and casting a plurality of threaded parts in spaced side by side relation about said short length of strand by injecting casting material in one injection step to said dies, said short length becoming embedded in said parts, simultaneously forming on each part during said injection a lug portion in engagement with said transfer core, opening the dies, moving said parts and embedded length out of the dies by moving said transfer core and at the same time moving a succeeding short length of strand between the dies, partially closing the dies about the transfer core and stripping the latter from said lug portions, trimming said parts, severing the embedded length from said succeeding short length, moving said parts into a circumferential relation with respect to one another by bending the embedded length or portions thereof intermediate said parts, thereby forming an anchor member, and casting a succeeding plurality of threaded parts about said succeeding short length of strand during said trimming, severing, and bending steps.

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2,774,136

## TORCH WELDING

William H. Schechter, Zelienople, Pa., assignor, by mesne assignments, to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application January 13, 1953, Serial No. 330,947
6 Claims. (Cl. 29—494)



1. In a method of torch welding, the step of supplying flux to the flame comprising passing welding gas on its way to the torch into contact with solid product of reaction between ammonia and a lower alkyl borate.



2,774,137

## METHOD AND FLUX FOR SOLDERING ALUMINUM

Max Yarow, Philadelphia, Pa.

No Drawing. Application August 4, 1953, Serial No. 372,403
4 Claims. (Cl. 29—495)

3. The method of soldering aluminum comprising cleaning the metal surface to be soldered, coating the clean aluminum surface with a flux consisting of 27 to 33% by weight of non-drying glyceride oil in which oleic acid is a predominantly fatty acid, a petroleum lubricating oil fraction having a viscosity of about 10 to 80 S. A. E. in proportion of about 24 to 36% by weight, the balance being rosin in proportion of about 30 to 40% by weight, and applying to said flux coated aluminum surface a molten solder composition comprising at least 35% tin, the balance being lead and usual impurities.

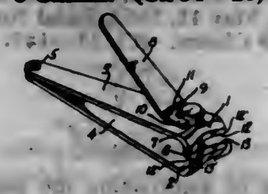
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2,774,138

## NIPPER

Dwight M. Gowdey, Seattle, Wash.

Application September 3, 1954, Serial No. 454,074
5 Claims. (Cl. 30—28)



1. A digit nail nipper comprising jaws having cooperating cutting edges of reverse-curve profile, each cutting edge including a concave portion and a convex portion merging at a point, said concave and convex portions having their outer ends terminating abruptly in sharp corners, and such cooperating cutting edges of said nipper extending to such corners and adapted for engagement when said jaws are closed.

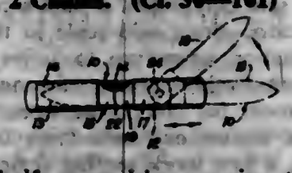
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2,774,139

## POCKET KNIVES

Emil S. Polk, New York, N. Y.

Application May 31, 1952, Serial No. 291,030
2 Claims. (Cl. 30—161)



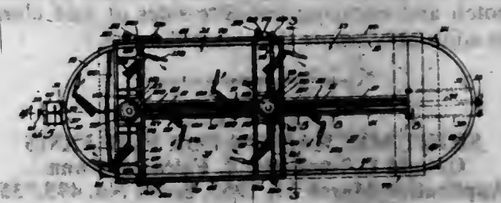
1. A pocket knife comprising a casing, the casing comprising spaced parallel side members and a bottom member integrally formed with the corresponding edges of the side members at one end, the casing having an open top and one open end and one closed end and a bottom opening adjacent the open end, a blade for the casing, means for pivotally securing the shank of the blade intermediate the side members adjacent said open end, a fixed U-shaped cover with open top disposed over a portion of the side and bottom members, the fixed cover having an inner end spaced from the open end of said casing a distance greater than twice the length of the shank of the blade, a slidable cover of U-shaped cross-section for the remainder of the side members in opposed relationship to the fixed cover, the slidable cover further having inwardly directed flanges over the open top of the casing, the U-shaped slidable cover further having formed in the bottom thereof a longitudinal slot coacting with the shank, and an inwardly directed stop disposed on the bottom of the slidable cover and adapted for engagement with an edge of the casing to prevent disengagement of the slidable cover.

2,774,140

## TRAVELING ROTARY VAT STRAINER

Aldo E. Nessler, Evanston, and Joseph G. Hartman, Wilmette, Ill., assignors to Kraft Foods Company, Chicago, Ill., a corporation of Delaware

Application October 12, 1954, Serial No. 461,724
13 Claims. (Cl. 31—48)



1. Apparatus adapted for use in draining free whey from cheese curd while said curd is in the form of discrete particles comprising means defining the bottom and side walls of a tray which is adapted to hold the curd from which the free whey is to be separated, a foraminous section in the bottom of said tray through which whey may be drained, a frame for supporting said tray in a generally horizontal position, said frame including means defining a guide below the upper edge of each side of said tray, a carriage which is supported on said guides for movement along said tray, means for reciprocating said carriage along said tray, and agitator means supported by said carriage to agitate curd in said tray.

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2,774,141

## PONTICS FOR DENTAL BRIDGES

William T. Quinn, Grosse Pointe, Mich.

Application March 23, 1953, Serial No. 343,946
8 Claims. (Cl. 32—6)



1. The method of constructing a dental bridge for anchorage to metallic holding means in space abutting teeth comprising as steps, the utilization of a preformed two piece pontic comprising a lower permanent tooth colored portion and an upper mating impermanent portion in interlocked engagement therewith, removing the latter and casting therefrom a metallic duplicate thereof, soldering said duplicate to the metallic holding means, and cementing the duplicate and permanent portions together.

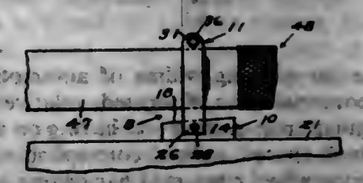
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2,774,142

## TELESCOPE SIGHT MOUNT FOR FIREARMS WITH ELEVATION AND WINDAGE ADJUSTMENT MEANS

Ernest T. Lake and Robert R. Hardgrove, Livingston, Mont.

Application May 17, 1954, Serial No. 430,216
4 Claims. (Cl. 33—50)

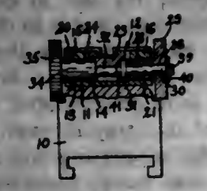


1. In a telescopic sight mount for mounting a telescopic sight above a firearm portion and longitudinally thereof, a mounting unit including a base, means securing said base to a top portion of a firearm, said base comprising an elongated block adapted to be disposed longitudinally of the firearm and having a top face inclined from end-to-end thereof relative to the top portion of the firearm, said mounting unit including a clamp having an

opening in which an end portion of a telescopic sight barrel is adapted to be clamped, said clamp having a bottom portion provided with a downwardly opening notch loosely straddling the base and resting on the inclined top face thereof, set screws mounted in the bottom portion of said clamp and extending into opposite sides of said notch and engaging opposite sides of said elongated base to adjustably secure the clamp thereon.

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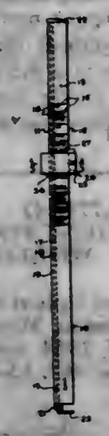
**2,774,143**
**SIGHT MECHANISM FOR FIREARMS**
**Oswald O. Sunderland, Fairfield, Conn.**
**Application March 21, 1955, Serial No. 495,735**
**10 Claims. (Cl. 33—56)**



6. A sight for firearms, said sight comprising a base, a horizontally disposed pivot pin carried thereby, a sight leaf mounted on said pin for pivotal movement about the axis of the pin and for lateral sliding movements, a shaft rotatably mounted in the base and disposed substantially parallel to said pivot pin, a cam on said shaft upon which said sight rests, means for rotating said shaft to move the leaf about its pivot, means for moving said shaft longitudinally of its axis with respect to the base, and means constraining said leaf to move with the shaft upon longitudinal movement of the latter, said last-named means comprising spaced abutments on the shaft between which a part of the leaf extends, and one of said abutments being on each side of said cam.

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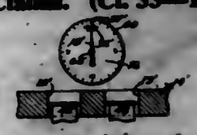
**2,774,144**
**WIDTH GAUGE FOR VEHICLE WHEEL RIMS**
**Charles Gilbertson Conger, Durham, N. C.**
**Application May 5, 1951, Serial No. 224,705**
**2 Claims. (Cl. 33—143)**



1. A device for gauging widths of automotive vehicle wheel rims, comprising an elongated, relatively thin flat bar of rectangular cross-section and having on at least one flat face thereof spaced indicia corresponding to given widths of various wheel rims, said bar having a groove of substantial depth opening laterally outwardly along the length of the edge thereof and defining spaced wall portions, an elongated rod of diameter approximating the width of said groove to be rotatably received within the same, means between said wall portions overlying said rod to retain the same rotatably within said groove, said rod having a gauging finger affixed thereon to be positioned at one end of the bar, said finger being of relatively narrow width not substantially exceeding the thickness of the bar and having a flat inwardly presented gauging face, means on said rod adjacent the other end of the bar for rotating the rod to swing said finger thereon from a retracted position in which it is superimposed with respect to said one end of the bar to a freely extended gauging position at an angle to the general plane of the bar and with said gauging face at right angles to said plane for engagement of the gauging face with one side portion of a rim, a member having a rectangular opening slidably receiving said bar and having thereon a second finger adapted to extend in the same direction as the freely-extended first-named finger and having a flat engaging face at right angles to said plane for engagement with an opposite side portion on the rim, and indicator means on said member and including an edge portion coordinated with the gauging face of said second finger for indicating on said indicia the corresponding width of a rim so engaged at opposite side portions by said gauging faces.

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**2,774,145**
**CENTER SPACING TEST COMPARATOR AND METHOD**
**George E. Sorensen, Fairfield, Conn.**
**Application May 11, 1953, Serial No. 354,131**
**19 Claims. (Cl. 33—147)**



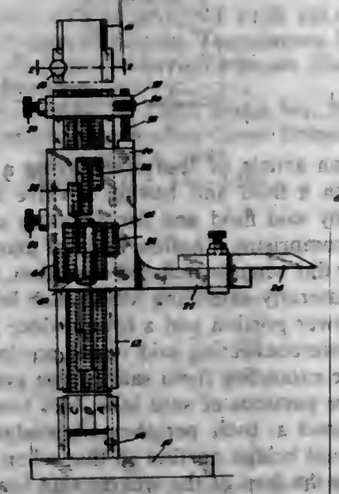
1. The method of ascertaining the measure of error between an unmeasurable spacing of hole centers in a work piece and a standard dimension with which said center spacing if accurate should accord, which includes the steps of, measuring at least a component of a first differential between said standard dimension and the distance separating two sides respectively of said holes, spacing off said component from a zero graduation on a half-value denominated over-and-under scale, positioning an indicator at the point on said scale arrived at by said spacing off step, doubling the distance of separation of said indicator and said zero graduation along said scale, measuring at least a component of a second differential between the distance that separates a different two sides respectively of said holes and said standard dimension, and spacing off said component of said second differential from said indicator along said scale in the direction of said zero graduation wherefore to arrive on said scale at a point quantitatively denoting said measure of error.

6. An instrument for comparing work center spacing with a standard dimension, embodying in combination, frame structure, a first work sensing feeler fixed on said frame structure, a second work sensing feeler carried by said frame structure in movable relation to said first feeler, an over-and-under scale carried by said frame in rotatably shiftable relation thereto and to said second feeler including a series of graduations extending in part in respectively opposite directions from a zero graduation on said scale, indicia on said scale respectively denominating said graduations as units of measurement progressively aggregated in each of said directions, an indicator carried by said frame structure in movable relation thereto and to said scale, connections between said indicator and said second feeler operative to transmit motion from the latter to the former in such ratio that said indicator performs increments of movement denoted on said scale by said indicia to be one half the true extent of corresponding increments of relative movement between said feelers, said connections including a motion transmitting coupling variable in dimension in a manner to alter simultaneous relative positions of said indicator and said second feeler, a marker operatively associated with said scale in a manner to be movable in unison with the shifting of said scale and also relatively to said scale, and means to shift said scale relatively to said frame structure and to said indicator independently of relative movement between said feelers.



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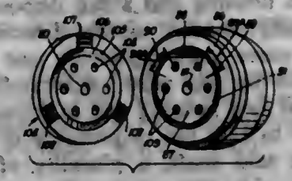
**2,774,146**
**DIRECT-READING HEIGHT GAUGE**
**Roger T. McCoy, Indianapolis, Ind.**
**Application July 15, 1954, Serial No. 443,671**
**2 Claims. (Cl. 33—169)**



1. A direct-reading height gauge, comprising a base, a vertical rule adjustably carried by the base and carrying a plurality of scale-sets each having a pair of scales running upward and downward from a common zero point, with the zero points of said scale-sets at spaced points along the rule, means to secure the rule in adjusted position with its zero points at selected reference heights from the base, and a scribe-supporting saddle carrying reading indicia for each of said scales of said sets and cooperatively related thereto, said saddle being vertically movable with respect to the rule to carry said indicia in scale-reading relation both upward and downward along the scales from the zero points with the rule secured to adjusted position as aforesaid.

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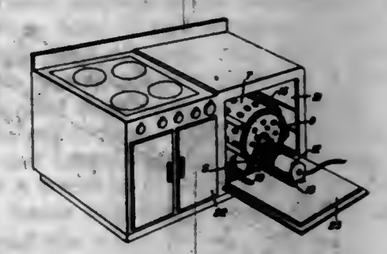
**2,774,147**
**MEANS FOR AXIALLY LOCATING A ROTATABLE SLEEVE ON A PIN**
**John Loxham, Letchworth, England, assignor to The Sigma Instrument Company Limited, Letchworth, England, a British company**
**Application May 29, 1953, Serial No. 358,489**
**6 Claims. (Cl. 33—181)**



1. In combination a pin, a sleeve rotatably mounted on the pin, a cap plate carried on an end of the pin, peripheral portions of the plate projecting radially beyond the periphery of the pin, a first face on the sleeve and adjacent said peripheral portions, a second face on the peripheral portions and adjacent said sleeve, angularly spaced pads projecting from one of said faces towards the other of said faces, reference surfaces on said pads for contacting said other face, said reference surfaces and said other face being perpendicular to the axis of rotation of the sleeve about the pin, and means for resiliently pressing together said other face and said reference surfaces.

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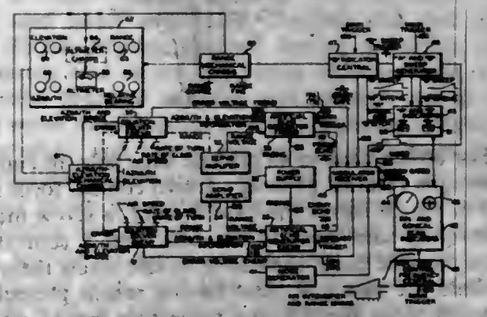
**2,774,148**
**PORTABLE CLOTHES DRYER**
**William E. Werth, Kodiak, Territory of Alaska**
**Application June 3, 1954, Serial No. 434,129**
**1 Claim. (Cl. 34—133)**



In combination with a heating chamber having a door swingable into an open horizontal position in front of the chamber, of a clothes dryer removably positioned in the chamber and comprising a unitary structure including a base having a pair of uprights, a perforated clothes drum rotatably supported on the uprights, a ring gear at one end of the drum, an extension coplanar with the base and resting on the open door of the chamber, a motor supported on the extension and having a pinion in driving engagement with the ring gear, and a longitudinally extending air scoop on the outer surface of the drum, said drum having an opening intermediately adjacent the air scooping side of said air scoop and through which air is deflected to the interior of the drum by the air scoop.

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**2,774,149**
**RADAR TRAINER**
**Raymond L. Garman, Flushing, N. Y., and Marcel E. Droz and Sidney B. Cohen, Cambridge, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy**
**Application February 19, 1946, Serial No. 648,793**
**8 Claims. (Cl. 35—10.4)**



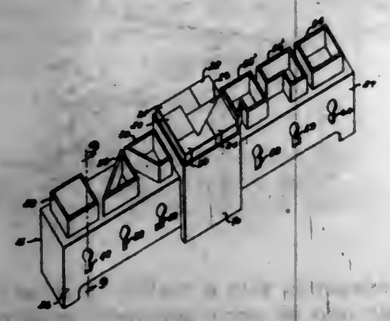
1. A system for training radar operators in the location of moving objects comprising an indicator unit having indicator displays, indicator adjustments, power supplies, sweep generators, trigger voltage sources, and data panels as found on a radar system; means to produce outputs giving range, azimuth, and elevation data about the position of an object in response to adjustments adapted to represent the air speed, rate of climb, and rate of turn of said object; apparatus for producing signals derived from said indicator sweep, delayed by a time proportional to said range data, and attenuated in response to said azimuth and elevation data and to indicator adjustments of azimuth and elevation; means to modulate said signal in response to voltage representing the characteristics of high frequency radar scanning, means to apply said modulated signal to said indicator, and means connected to said indicator adjustments to present on said data panels the position parameters indicated for said objects.





by each of said side shafts to rotate therewith and cut a bulldozer assembly comprising rearward extensions of

2,774,150
**EDUCATIONAL TOY**
Robert I. Genin, Hollis, N. Y.
Application May 19, 1955, Serial No. 509,634
9 Claims. (Cl. 35—22)



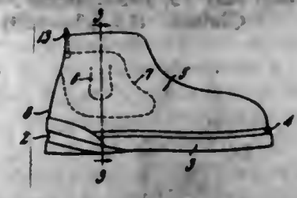
1. An educational toy comprising a housing having a plurality of openings of different shape section, block elements respectively of similar shape and adapted to fit the openings, cam elements journalled in the housing under the respective openings and adapted to support and elevate said block elements when turned, said housing having a plurality of different shape key openings, said cam elements having recesses respectively aligned with the key openings and adapted to receive the key and to be engaged thereby so that a turning of the cam elements may be effected.

2,774,151
**CLEAT FOR ATHLETIC SHOES**
Oscar E. Dahlquist and Edwin I. Ackerson, Rockford, Ill.
Application January 20, 1955, Serial No. 483,068
1 Claim. (Cl. 36—59)



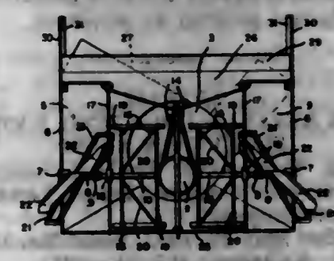
For attachment to an athletic shoe sole, in combination, a metallic cleat of generally frusto-conical form the larger end of which forms the base thereof, a screw member for connecting said cleat to the sole, and a centrally perforated metallic plate applicable to said screw member intermediate the sole and cleat having means projecting from opposite sides thereof, the projecting means on one side being to grip the sole and secure the plate against rotation relative thereto, and the projecting means on the other side being in the form of spring lugs in circumferentially spaced relation to the screw receiving hole and all inclined in one direction and at approximately the same acute angle with respect to said plate, said cleat having an axial bore threaded for threaded engagement on said screw and having circumferentially arranged with respect to said bore on the base a circular series of radial ratchet teeth arranged for deflection of the spring lugs and positive ratchet locking engagement with said lugs when the cleat is tightened on the screw against the plate, the metal of the radial ratchet teeth being die-cast metal which is softer than the metal of said spring lugs and plate, whereby the ratchet teeth on the cleat are adapted to be stripped by the cutting action of the lugs on the die-cast metal of the teeth when the cleat is forcibly turned in a loosening direction with a force appreciably greater than that to which the cleat is subjected under ordinary playing conditions.

2,774,152
**ARTICLE OF FOOTWEAR**
Robert Alber, St. Anton, Austria, assignor to Alcoa-Etablissement, Vaduz, Liechtenstein, a company of Liechtenstein
Application June 1, 1955, Serial No. 512,461
Claims priority, application Austria October 2, 1954
3 Claims. (Cl. 36—71)



1. In an article of footwear having a bladder adapted to contain a fluid and having a valve for inflating said bladder by said fluid and for deflating said bladder; said bladder comprising a hollow body of plastic material, substantially flat when in deflated condition, said body including two laterally extending lobes, each lobe having an upper narrower portion and a lower wider portion, a bridge portion interconnecting said upper portions of said lobes, said valve extending from said bridge portion beyond the said upper portions of said lobe, said lower lobe portions being shaped at their peripheral boundaries and with respect to said bridge portion so that when said footwear is applied to the foot of the wearer said lower lobe portions and said upper lobe portions cover substantially the ankle bones of the wearer's foot as well as regions adjacent thereto, and said bridge portion overlies the area above the heel bone and covers the Achilles tendon of the foot of the wearer, said valve being located centrally of the rear of said article of footwear.

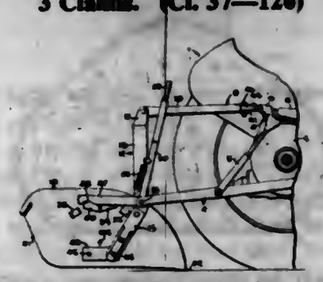
2,774,153
**SNOW PLOW**
Selden G. Washburn, Goodwin, S. Dak.
Application May 20, 1953, Serial No. 356,239
2 Claims. (Cl. 37—43)



1. In combination with a snow plow of the rotary type having a housing and a fan disposed in said housing substantially normal to the direction of travel of the plow to move snow upwardly and away from the road traversed by the plow, a rotatable shaft carried transversely of said housing and in forwardly spaced position relative to said fan, a plurality of arms extending radially from said shaft, a plurality of cutters carried by said arms, said cutters being disposed in spaced substantially parallel relation to said shaft, said arms being of such length and said shaft being so located that said cutters engage and cut snow lying forwardly of said fan and in close proximity to the ground over which they travel as they rotate with said shaft, the axis of rotation of said cutters being normal to the axis of rotation of said fan, said cutters serving to pre-cut and pulverize snow before it reaches said fan to facilitate the operation of the latter, a pair of side shafts rotatably carried in said housing in angular relation to said central shaft, means connecting one end of each of said side shafts to the adjacent end of said central shaft to rotate said side shafts from said central shaft, and a side cutter carried by each of said side shafts to rotate therewith and cut snow lying laterally of said cutters, said side cutters each comprising a substantially U-shaped blade carried by and extending substantially radially from said side shafts, and a radially extending impeller carried on said side shafts and in rearwardly spaced relation to said blades to move snow cut by said blades into said fan.

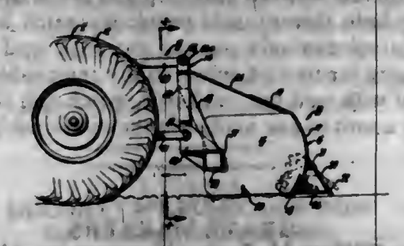


2,774,154
**EARTH MOVING ATTACHMENT FOR TRACTORS**
James Curtis McNeice, Lillington, Leamington Spa, England, assignor to Massey-Harris-Ferguson (Sales) Limited, a British company
Application November 30, 1953, Serial No. 395,217
Claims priority, application Great Britain December 1, 1952
3 Claims. (Cl. 37—126)



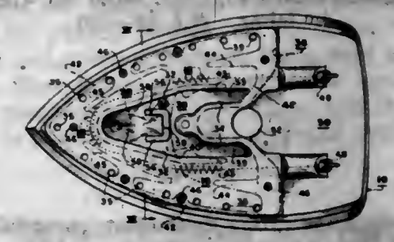
1. A reversible dig and carry implement for attachment behind a tractor having a pair of draft links trailingly pivoted on its rear end portion for a vertical movement by a power unit on the tractor, which comprises a scoop-supporting bail pivotally attachable between said draft links and liftable thereby, a scoop having a first pair of pivot means at opposite sides thereof between its center of gravity and its digging edge for pivotally engaging the bail ends to swingably suspend said scoop with the digging edge directed forwardly towards the tractor, an alternate pair of pivot means at opposite sides of said scoop between said rear wall and said center of gravity for pivotally engaging said bail ends to swingably suspend said scoop with the digging edge directed rearwardly away from the tractor, means to prevent swinging of the bail about its pivotal attachment when the scoop carried thereby is digging either toward or away from the tractor and means for holding said scoop in a fixed position relative to said bail having release means to permit the weight of the scoop acting through the center of gravity to swing the scoop for dumping in a direction away from the tractor when the scoop is positioned for either forward or reverse direction digging.

2,774,155
**COMBINED SCRAPER, BULLDOZER, AND SCARIFIER**
Ronald N. Hipp, Menlo Park, Calif., assignor to Bob Hipp Welding Works, Palo Alto, Calif., a copartnership
Application September 8, 1953, Serial No. 379,037
1 Claim. (Cl. 37—145)



A combination scraper, bulldozer and scarifier comprising a bucket having spaced, parallel side walls, an open top and front and a curved, outwardly convex rear wall; a scraper blade attached to said rear wall and extending below the lower edges of the rear and side walls; a bulldozer assembly comprising rearward extensions of said side walls and at least one intermediate stop member extending rearwardly from said rear wall, and a bulldozer blade pivoted to said extensions, said extensions and intermediate stop member serving as abutments to limit forward pivoting of the bulldozer blade; a massive cross beam fixed to and extending between said side walls at their forward ends, said beam being formed with slots to receive scarifier teeth; an A-shaped frame mounted on said cross beam and adapted to couple the device to the self-leveling coupling of a tractor; and reinforcement and connecting means connecting the upper end of said A frame to the rear wall of the bucket, said connecting means including a forward and upward extension of said rear wall.

2,774,156
**STEAM IRON BASE**
Bernard F. Parr, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 3, 1953, Serial No. 365,949
4 Claims. (Cl. 38—77)



1. A steam iron of the flash type comprising a soleplate having front and rear portions and provided with a bottom pressing surface, a steam generating chamber disposed in said soleplate and provided with a side wall, said soleplate having a passage extending from the rear portion of said steam generating chamber and communicating with said bottom pressing surface, a cover plate disposed in vapor-tight relation to said soleplate and overlying said steam generating chamber and said passage, an electric heating element having a portion disposed adjacent said steam generating chamber side wall and a portion disposed adjacent said passage, means for admitting water to said steam generating chamber through said cover plate, and a trap disposed in said steam generating chamber rearwardly of said water admitting means, said steam generating chamber having a bottom surface sloping downwardly in the direction toward said trap and serving to direct unvaporized water into the confines of said trap, said trap being in spaced relation to the side wall of said steam generating chamber and having a U-shaped wall extending upwardly from said bottom surface to said cover plate, said trap wall, together with the bottom surfaces of said steam generating chamber and of said cover plate, forming a cup having an opening facing said water admitting means, and said trap serving to obstruct flow of said water to said passage.

2,774,157
**ANIMATED DISPLAY DEVICE**
George Glacius, Freeport, N. Y., assignor to Ekson-Freeman Co., Inc., Long Island City, N. Y., a corporation of Delaware
Application June 24, 1954, Serial No. 438,956
13 Claims. (Cl. 40—68)

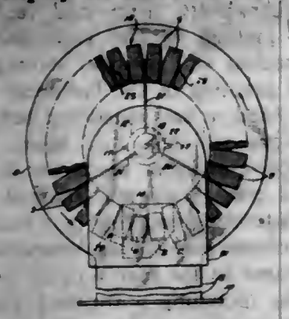
1. An animated display comprising an endless carrier, drive means for effecting movement of said carrier along a predetermined closed path, a plurality of display elements rotatably supported on said carrier for rotation thereabout and movable therewith along said path, each display element having front and rear display faces, and





a hollow metallic body portion secured on the top wall upon itself, presenting a pair of opposed loops with the

a stationary cam positioned in said path and engageable by successive display elements for effecting substantially



180° rotation thereof about said carrier, all of said display elements thus being reversed to present opposite faces upon successive cycles of carrier movement.

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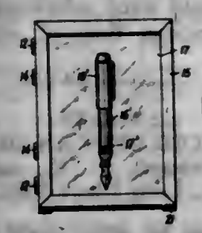
**2,774,158**
**INDICIA REGISTERING MECHANISM**
**William Tamcochat, Bronx, N. Y., assignor to The Zell Products Corporation, Norwalk, Conn.**
**Application March 15, 1954, Serial No. 416,029**
**4 Claims. (Cl. 40—70)**



1. An indicia indicating mechanism comprising a first and second dial mounted on the same axis, and a stationary member; each of said dials containing a plurality of indicia thereon; a cover for said dials containing means for viewing certain of the indicia on said dials; connecting means interlocking the first and second dials to cause both dials to rotate as a unit when the first dial is rotated in one direction, said connecting means including a disconnector for unlocking the two dials when the first dial is rotated in the reverse direction; holding means interlocking the second dial and the stationary member for preventing rotation of the second dial when the first dial is rotated in the reverse direction, said holding means including a releasing mechanism for unlocking the second dial from the stationary member when the first and second dials are rotating in the same direction.

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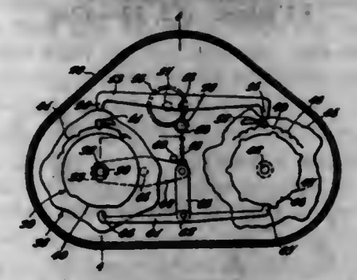
**2,774,159**
**DISPLAY DEVICES**
**John Stewart Bell Wright, London, England, assignor to Transart Aktiebolag, Gothenburg, Sweden, a corporation of Sweden**
**Application July 18, 1952, Serial No. 299,670**
**Claims priority, application Great Britain July 21, 1951**
**4 Claims. (Cl. 40—102)**



2. A display device comprising a rigid support bearing an element of a composite representation, means mounting the support in a position slightly inclined to the vertical on a vertical surface, a plurality of transparent sheets each bearing further elements of the composite representation, each transparent sheet being carried by a peripheral rigid frame of an essentially greater thickness than that of its sheet, means to hinge one of said transparent sheets at one edge to the support and means to hinge the second transparent sheet at the same edge to the first, said hinge means being located so as to cause the support and frames to project into one another and to cause registration of the elements of the support and the transparent sheets in a superimposed position of the support and the transparent sheets.

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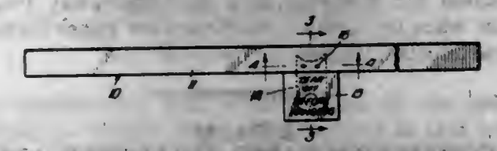
**2,774,160**
**PERPETUAL CALENDARS**
**Robert John Gilson, New Malden, England**
**Application February 14, 1955, Serial No. 487,959**
**Claims priority, application Great Britain June 11, 1954**
**9 Claims. (Cl. 40—112)**



1. A perpetual calendar comprising a reference member, three scales mounted movably on said reference member and marked respectively with year numbers, month names, and day-date numbers, means on said reference member to register with portions of said scales to be read for a given date indication, means for manually moving said year number scale, independent means for manually moving said month name scale, and mechanical transmission means connecting said year number scale and said month name scale to said day-date scale to effect movement of said day-day date scale relative to either one of said year number and month name scales by movement of the other of said last named scales.

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**2,774,161**
**SUSPENDING BINDER STRIP AND TAB UNIT FOR CALENDARS AND THE LIKE**
**Lyman W. Dixon, Chicago, Ill.**
**Application April 8, 1954, Serial No. 421,885**
**4 Claims. (Cl. 40—119)**



1. An article of manufacture for use in binding, comprising a binding strip, a suspending eyelet tab of readily bendable metal disposed in overlapped relation to said strip, and a protective patch of flexible, non-metallic material interposed between said strip and tab in overlapped relation to both thereof, said protective patch being dimensioned to substantially overlap the outer end of said tab while being freely and substantially removable out of association with said tab, said strip, patch and tab being secured as a unit to one anoher in the relationship described.

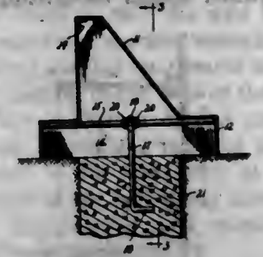
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**2,774,162**
**GRAVE MARKERS**
**William M. Porter, Montgomery, Ala.**
**Application January 11, 1955, Serial No. 481,108**
**1 Claim. (Cl. 40—124.5)**

A grave marker comprising a hollow base formed from sheet metal and having an open bottom and a top wall provided with a substantially centrally disposed opening,



a hollow metallic body portion secured on the top wall of said base in register with said opening, a horizontal shaft disposed centrally in said base, the end portions of said shaft being secured to the underside of said top wall at opposite edges of said opening and the intermediate portion of the shaft extending transversely under the opening, a rod-shaped anchoring member provided at one end thereof with an eye swingably mounted sub-



stantially midway on said shaft and projecting into said hollow body portion, a laterally angulated ground anchoring element provided at the free end of said anchoring member, and a pair of collars provided on said shaft at opposite sides of said eye, said anchoring member being of such dimension relative to said opening whereby to permit swinging thereof on said shaft from a projected position through the open bottom of the base to a retracted position within said base and body portion.

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**2,774,163**
**DISPLAY DEVICE FOR USE WITH TIRES**
**Ernest Leslie Wathen, Rocky River, Ohio**
**Application March 27, 1956, Serial No. 574,275**
**14 Claims. (Cl. 40—125)**




10. A display device for use with tires, the same consisting of a vertically elongated piece of flexible sheet material of suitable thickness and stiffness having a transverse bending line adjacent its upper end, the portion above said line forming a tab that is adapted to be extended downwardly and rearwardly, and the part below said line constituting the body portion of the device, the lower end of the body portion being adapted to be inserted into the bottom portion of an upstanding tire so that the body portion may be bowed forwardly about the front side of the top portion of the tire, and means connected to said tab and extended downwardly about the rear side of the top portion of the tire and anchored beneath said portion so as to retain the body portion in forwardly bowed condition and under stress.

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**2,774,164**
**DECORATIVE PACKAGE BOW**
**Bill Y. James, Miami, Okla.**
**Application September 25, 1953, Serial No. 382,233**
**4 Claims. (Cl. 41—10)**

1. A substantially circular decorative bow comprising a number of identical, initially separate, flat, elongated strips, each having a central perforation and a hole at each end thereof respectively, each strip being rebent upon itself, presenting a pair of opposed loops with the holes thereof aligned with its central perforation, said loops having arcuate bights and being relatively superimposed and uniformly offset relatively in spoke-like fashion radiating from the aligned holes and perforations in all directions; a short strip having an opening adjacent each end thereof and formed into a loop with the openings thereof in alignment with the central perforations of the elongated strips thereabove; an initially flat attaching member having an aperture therethrough in



alignment with said central perforations therebeneath, said member being adapted for adhesive interconnection with the article to be adorned; and a fastening element having a head thereon in engagement with said short strip within the loop formed thereby and at least one bendable leg passing through the openings, the perforations and said aperture, said leg being bent intermediate the ends thereof into engagement with said attaching member whereby to retain the strips and the attaching member in place and properly arranged thereon.

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**2,774,165**
**ARTIFICIAL CHRISTMAS TREE**
**Garland B. Smith, Madison, Wis.**
**Application December 27, 1954, Serial No. 477,655**
**5 Claims. (Cl. 41—15)**



1. An ornament comprising: a base; a plurality of rods extending upwardly from the base, said rods having their bottoms secured to the base closely adjacent to one another and being thereby held substantially parallel to one another; a sheet of ornamental material partially embracing each of said rods, with a portion of each sheet at a narrow medial zone thereof interposed between the rods and with opposite side portions of the sheet extending substantially radially outwardly from the rod embraced thereby; and securement means at the upper ends of said rods holding their upper end portions drawn together in clamping engagement with the adjacent medial zones of the several sheets of ornamental material to hold said sheets against displacement.

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**2,774,166**
**AUTOMATIC FISHHOOK JERKING DEVICE**
**Myron Brenzo, Port Clinton, Ohio**
**Application May 9, 1956, Serial No. 583,719**
**4 Claims. (Cl. 43—15)**

1. A device for automatically jerking fish hooks comprising, in combination, a track of channel shape form in





end thereof to a tail end, said body having eyes at the therefrom, a guide plate formed integrally with the lower

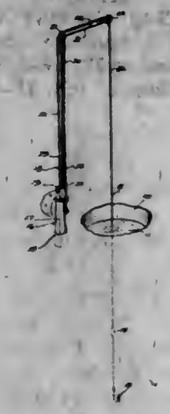
cross section, said track being adapted to have a fishing line attached thereto, a carriage slidably mounted upon said track, an arm extending laterally from said carriage, a latch fixed to said arm and extending downwardly, a nib fixed to said track and projecting forwardly from the back of said channel, there being sufficient space on each side of said nib for said latch to move upwardly or downwardly past said nib when said latch is swung to one side of said nib, a lug fixed to said track in position



to limit the movement of said carriage therealong, a resilient retractable member consisting of a strip of elastic material, means for attaching said resilient retractable member to said track adjacent its upper end and to said carriage, whereby said resilient retractable member is elastically deformed when said catch is engaged with said nib, and means for connecting a fish hook to said arm, whereby a tug upon said fish hook will release said catch from said nib and said fish hook will be jerked.

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**2,774,167**
**ICE FISHING DEVICE**
**Earl Tyson, Oshkosh, Wis.**
**Application December 30, 1954, Serial No. 478,635**
**2 Claims. (Cl. 43—17)**

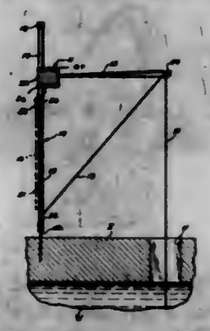


1. A fishing device having a base, a resilient wire-like standard extending substantially rectilinearly from said base, and an outstanding portion joined to and extending from said standard and terminating in a line guide, an angle guide positioned adjacent the junction of the standard and said outstanding portion, a signal member having a pulley-like member and mounted to reciprocate freely along said standard, a line secured to said base and extending successively through the angle guide, through the pulley-like member, back through the angle guide and through the terminal line guide on said outstanding portion to a fish hook, whereby a pull on the line portion extending from said terminal guide in the direction of said hook will flex the standard and the outstanding portion and will pull upwardly on the signal member to move the same and to provide for an extension of line for the run of a fish pulling on the line.

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**2,774,168**
**ICE FISHING APPARATUS**
**Curtis Chute, Wayzata, Minn.**
**Application May 20, 1954, Serial No. 431,188**
**1 Claim. (Cl. 43—17)**

In an ice fishing apparatus, an elongated support adapted to be mounted in upright position on the ice, a housing mounted on the support, an audible signal mechanism disposed within the housing, an elongated rod pivoted to the housing for up and down movement and extending therefrom at right angles to the support for sounding the signal mechanism as said rod is moved downwardly, and switch means connecting the rod to the housing allowing continued downward movement of the rod about its pivot after the signal mechanism has been sounded, said switch means comprising a fixed contact



mounted on the housing, a bracket movable with said rod and pivotally mounted on the housing for swinging movement toward and away from the fixed contact, and a movable contact mounted on the bracket and adapted to engage the fixed contact as the bracket swings toward the fixed contact, said movable contact being of a yieldable material to maintain engagement with the fixed contact with continued movement of the bracket toward said fixed contact.

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**2,774,169**
**WEEDLESS LIVE BAIT FISHING PLUG**
**Herman A. Matz, Perham, Minn.**
**Application December 2, 1954, Serial No. 472,630**
**4 Claims. (Cl. 43—41)**



1. A live bait holding and fishing device comprising, in combination, a buoyant plug, a fishhook spaced from the trailing end of said plug and having a rigid shank mounted axially in said plug, a rigid live bait hook having a rigid shank superimposed upon the top of said plug, secured to a central portion of said plug and in parallelism with said first named shank, said plug being longitudinally slotted and embodying complemental top and bottom portions, each of said shanks having an eye and the eyes being aligned with one another and one of said eyes confined in the slot between said top and bottom portions, and a single assembling screw screwed through said top portion and into said bottom portion and also passing through both of said eyes to in this manner assemble the cooperating parts, said slot being tapered outwardly and having a filler therein.

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**2,774,170**
**FISH LURE**
**Trevor Baker, Palmer, Mass.**
**Application June 22, 1954, Serial No. 438,453**
**1 Claim. (Cl. 43—42.5)**



A fish lure comprising a comparatively thin body having a general longitudinal axis extending from a head



end thereof to a tail end, said body having eyes at the respective ends thereof; said lure having at its forward end a downwardly inclined portion on the lateral surface of the lure; the tail portion of the lure on the same side presenting an upwardly inclined surface with respect to the said longitudinal axis of the lure, when viewed from below; the back or upper edge of the lure having a single reverse S formation from head to tail, the opposite or belly edge having an approximate double S formation from head to tail; the said lateral surface having scales and markings thereon resembling those of a fish, the other lateral surface or reverse side being concave from a point slightly to the rear of the head opening to the tail; the lower portion of the concavity being delineated by a line having the tail end thereof slightly inclined with respect to the remainder of the line when in plan the head end of the lure being directed upwardly and the tail end downwardly with respect to the said axis when viewed from above.

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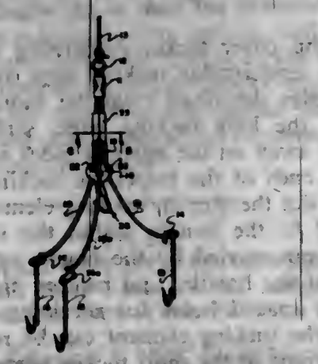
**2,774,171**
**FISHING LURE**
**Lynn E. Pulver, Swea City, Iowa**
**Application April 20, 1955, Serial No. 502,600**
**6 Claims. (Cl. 43—42.19)**



6. A fish lure adapted to be connected intermediate a fish hook member and a fishing line, said device comprising a blade provided with an integrally formed lip member which extends at approximately a 85° angle with respect thereto, said lip member having a hole therethrough, a shaft extending through the hole in said lip member, said blade being substantially elliptical in plan with the outer free end thereof of greater width than said lip member, the outer surface of said blade being transversely concave and the inner surface thereof being transversely convex, the tip of the free end of said blade extending angularly toward said shaft.

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**2,774,172**
**FISHHOOK SPREADER**
**Charles A. Leverth, Jr., Bedford, Ohio**
**Application September 4, 1956, Serial No. 607,860**
**2 Claims. (Cl. 43—42.74)**



1. A device of the character described comprising a multiplicity of leaders connected together at one of their ends, means for attaching a fish hook to the other end of each of said leaders, and means for selectively spacing the said other ends from one another, said means comprising a cylindrical sleeve closely surrounding said leaders, a neck formed integrally with the lower end of said sleeve and extending downwardly and outwardly therefrom, a guide plate formed integrally with the lower end of said neck and extending downwardly and forwardly therefrom, said plate having an opening therethrough for the passage of each of said leaders, and guide means for said leaders in the upper end of said sleeve, said last-mentioned means comprising openings in the upper end of said sleeve each adapted to receive therethrough one of said leaders, the upper end of said sleeve having integrally formed therewith a pair of ears bent to face-to-face relationship, said openings in said sleeve being positioned immediately adjacent said ears.

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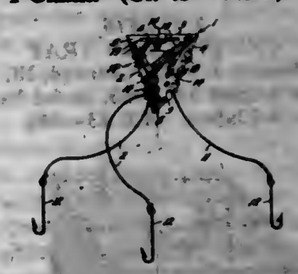
**2,774,173**
**TAPERED LEADER FOR FISHING PURPOSES FROM SYNTHETIC POLYMERS**
**Heinz Thienemann, Beuel (Rhine), Germany**
**Application June 28, 1954, Serial No. 461,037**
**2 Claims. (Cl. 43—44.98)**




1. A tapered leader having excellent throw characteristics comprising a single thread of synthetic linear high polymers of a length between 1.8 and 3.5 meters, in which the diameter of the thread decreases at different rates to the two ends from a maximum diameter located between the ends, said ends being of different diameters, and the distance from the maximum diameter to the finer of the two ends is at least twice as great as the distance from the maximum diameter to the coarser end.

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**2,774,174**
**SINKER**
**Harry Ganger, Atlantic City, N. J.**
**Application January 13, 1955, Serial No. 481,590**
**1 Claim. (Cl. 43—44.99)**



A sinker consisting of a hollow lead pyramidal framework, the side walls of the framework having apertures large enough to let chum protrude therefrom; a detachable cover conforming in shape to the top edge of the framework and tightly fitting within the framework; a central eye in the cover for attaching a fishing line thereto; each of the side walls of the sinker having a relatively small bar formed near its upper edge; the cover being provided with a slot adjacent each of the side edges thereof, each slot being parallel with the adjacent side edge; and a stainless steel clip fitting over each of the respective bars and fitting within each of the respective slots in the cover for tightly holding the cover to the framework, and the clips being adapted to reflect any light that may strike the said clips when the sinker is immersed.

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**2,774,175**
**ANIMAL TRAP**
**Ellsworth L. Maddocks, Gustine, Calif.**
**Application September 10, 1954, Serial No. 455,159**
**2 Claims. (Cl. 43—61)**

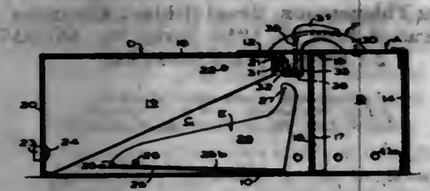
1. In an animal trap: a box having a bottom, spaced-apart opposing side walls rising therefrom; and a top wall





spring means for protracting the first manikin and con-

fixed to the side walls and extending from the rear end of the box to a point intermediate the ends of the side walls; a swingable lid including a top cover wall extending from said top wall to the front of the box, a front wall depending from said top cover wall; and opposed side walls attached to the top cover wall and the depending front wall, the side walls of the lid being positioned inwardly but adjacent to the opposing side walls of the box; a transverse pivot rod projecting through registering openings in the side walls of the box and lid for pivotally connecting the box and lid together, said rod being disposed intermediate the ends of the lid; the front of the box being open when the lid is raised, and the front wall of the lid providing a closure at the front of the box when the lid is lowered; and a swingable platform disposed in the box,



and including a bottom having spaced-apart side walls rising therefrom positioned adjacent to and inwardly of the side walls of the box; and a transverse pivot rod extending through registering openings in the side walls of the box and platform for pivotally connecting the box and platform together; the latter pivot rod being disposed at a forward section of the platform, and the back section of the platform being movable up and down; the side walls of the platform terminating at their tops with forwardly-projecting hooks, which are removably engageable over a back section of the lid for holding the lid in raised position when the trap is set; said platform being swingable to disengage the hooks from the lid by an animal advancing over the back section of the platform towards the rear of the box.

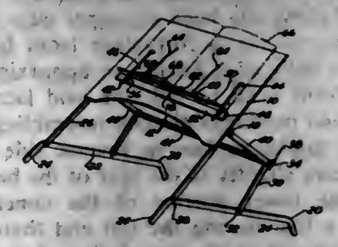
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**2,774,176**
**CRUSTACEAN TRAP**
**Dennis J. Finn, Chicago, Ill.**
**Application August 11, 1955, Serial No. 527,814**
**4 Claims. (Cl. 43—69)**



1. A device for trapping Crustacea including a foraminous housing and an inlet mechanism disposed in a surface thereof, said inlet mechanism comprising a frame member including a downwardly extending wall defining an opening into said housing, a plurality of spaced-apart recesses in the lower portion of said wall, and weight-sensitive means for permitting ingress and preventing egress of said Crustacea through said opening, said weight-sensitive means comprising a plurality of depending members, said depending members having upper portions pivotally suspended in said recesses and being substantially complementary to the lower portion of said wall when said depending members are in closed position to prevent egress of said Crustacea through said opening, said depending members also having lower portions extending generally inwardly from said upper portions and cooperating in the normal suspended position of said depending members to obstruct said opening.

**2,774,177**
**COLLAPSIBLE ADJUSTABLE COMBINED BOOKREST**
**John Battista Murgia, Englewood, N. J.**
**Application December 30, 1953, Serial No. 401,278**
**2 Claims. (Cl. 45—60)**



1. A collapsible support comprising a thin substantially rectangular somewhat elongated member; a pair of spaced parallel base bars disposed under the end margins of the member; a front strut frictionally pivotally riveted at one end to the front end portion of each bar and at the other end to the adjacent front corner of the member; a rear strut frictionally pivotally riveted at one end to each bar slightly to the rear of the mid part thereof; a clamping pivot bolt passed through the other end of each rear strut and having a head at one end and threads with thumb nut thereon at the other end; a link pivoted at one end on said bolt and at the other end to said member a short distance to the rear of the pivot point on the member of the front strut; whereby said book rest is movable to approximately vertical and horizontal and intermediate positions relative to said base bars; a tube on said bolt engaging with rear struts; and legs frictionally pivotally riveted on the lower face of the member and normally disposable under the rear edge of the member and provided with notches in the free end adapted to receive the bar when the member is horizontal and said legs are substantially vertical.

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**2,774,178**
**SLIP COVER TUCKER**
**Alfred N. Nelson, Flushing, N. Y.**
**Application May 6, 1954, Serial No. 427,956**
**3 Claims. (Cl. 45—138)**



1. A slip cover tucker comprising a tucking element having a semicircular tucking edge and a short corner tucking edge described from the same radius that may prescribe the long tucking edge, said tucking element being cut away on the opposite sides and between corresponding ends of the respective tucking edges, a handle having a slot therein, the tucking element being pivotally connected to the handle within the slot, and a spring retaining pin carried by the handle and extendible into the slot of the handle, said tucking element having diametrically spaced holes for receiving the retaining pin whereby the tucking element can be retained to present either the long or the short tucking element edge.

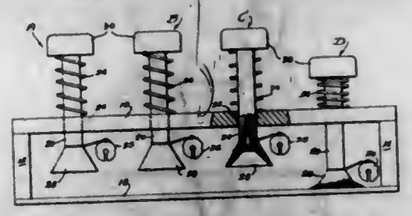
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**2,774,179**
**POUNDING TOY**
**Albert M. Zalkind, Arlington, Va.**
**Application November 25, 1953, Serial No. 394,285**
**5 Claims. (Cl. 46—1)**

1. A child's pounding device comprising a plurality of reciprocable vertically disposed rod means, spaced within



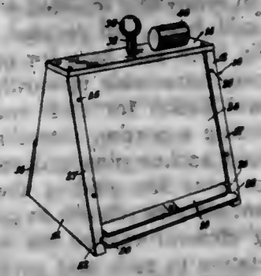
arm's reach, plate means having bores through which individual rod means are slidably movable, a resilient element surrounding each rod means and having an end engageable therewith to maintain respective rod means in initial raised position, a suction cup affixed on the lower end of each rod means, a second plate means



comprising a smooth upper surface below said first plate means engageable by the mouths of said suction cups for pneumatic adhesion thereof upon depression of said rod means, each resilient element having an upward biasing force sufficient to overcome its respective suction cup adhesion after a predetermined interval.

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**2,774,180**
**TOY SUPPORT FOR PLAY BLOCKS**
**Frances L. Ilg, New Haven, Conn.**
**Application June 10, 1953, Serial No. 360,690**
**8 Claims. (Cl. 46—1)**



4. An educational toy comprising, in combination, a case, said case including a base adapted to lie in a horizontal plane and means defining a sloping supporting surface for receiving a plurality of blocks in substantially co-planar alignment, said supporting surface sloping inwardly from said base toward the central vertical axis of said case and having a horizontal dimension substantially as great as its vertical dimension, means extending from said case for supporting the lowermost of said plurality of blocks from below as they lie against said sloping supporting surface in co-planar alignment in a plane sloping from said last-named means toward said axis, means for displacing at least the lowermost of said blocks away from said supporting surface, said displacing means being normally urged by biasing means away from displacement movement toward said blocks, and manually-controlled actuating means acting against said biasing means for effecting block-displacing movement of said means for displacing the blocks.

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**2,774,181**
**TOY RAILWAY SIGNAL TOWERS**
**Lawrence Cowen, New York, N. Y., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York**
**Application February 3, 1954, Serial No. 407,942**
**9 Claims. (Cl. 46—12)**

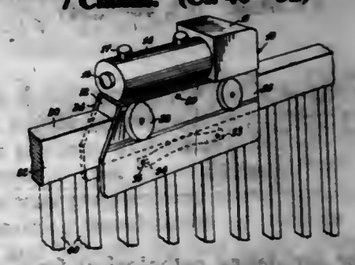
1. A toy railway signal tower having a toy tower body simulating a two-story building and provided with an upwardly and rearwardly extending, external stairway and with a front doorway at the second story level, two manikins, means for supporting one manikin from the tower body for oscillatory movement back and forth through the doorway, means for supporting the other manikin for sliding movement up and down the stairway, spring means for protracting the first manikin and concurrently holding the second manikin at the top of the



stairway, and electromagnetic means for retracting the first manikin and releasing the second manikin so that it may slide down along the stairway.

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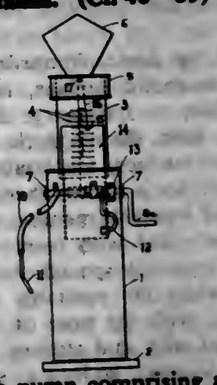
**2,774,182**
**MOVABLE TOY ON RAIL**
**Samuel L. Beder, New York, N. Y.**
**Application June 10, 1953, Serial No. 360,729**
**7 Claims. (Cl. 46—32)**



1. A toy for use in combination with the rail of a play pen, crib and the like comprising, in combination, a body portion having a lower surface for engagement with the top surface of the rail for free sliding movement thereover, depending laterally spaced-apart legs extending from said lower surface a distance substantially greater than the width of said lower surface between said legs, said legs being positioned to overlie the sides of the rail when said lower surface is in engagement with the rail and having portions extending downwardly therefrom, said legs defining with said body portion an elongated channel for reception of said rail, said channel being of substantially rectangular cross-section with a top defined by said lower surface of the body portion, sides defined by said downwardly-extending portions, and being open at the bottom, and retaining means positioned in one of said downwardly-extending portions for engagement with the under surface of said rail, said retaining means being manually displaceable out of engagement with said rail lower surface and while engaging said under surface permitting free sliding movement of said toy over said rail.

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**2,774,183**
**TOY GAS PUMP**
**Joseph B. Montgomery, Douglasville, Pa.**
**Application August 4, 1954, Serial No. 447,787**
**4 Claims. (Cl. 46—39)**



3. A toy gasoline pump comprising a vertical, tubular base of opaque material having concentrically mounted

thereon a transparent tubular portion of reduced diameter which is devoid of liquid therein, an opaque cap mounted on said last mentioned tubular portion, an opaque cylindrical element having a closed top end and telescopically fitted in said transparent tubular portion with its open ended bottom portion projecting into said tubular base, a crank rotatably mounted on and extending outwardly of the top portion of said base, drive means between said crank and said opaque cylindrical element to effect lifting and lowering thereof as said crank is turned in one direction or in an opposite direction, so as to simulate lifting and lowering of gasoline in said transparent tubular portion.

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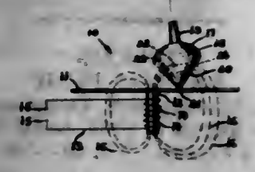
2,774,184
**DOLL FOR SIMULATION OF PATHOLOGICAL FEVER**
Albert Hefferan, Eastmanville, and George Lester Jones, Marne, Mich.; said Hefferan assignor of fifty percent of his right to G. Lester Jones
Application July 10, 1953, Serial No. 367,166
3 Claims. (Cl. 46—234)



1. A doll for simulating pathological fever conditions comprising a scale replica of a human form including torso, head, arm and leg components, an electric heating element contained therein, said heating element having means for connection to a source of electric current, a mouth for said doll constituted as a pouch opening on the exterior of the head component, said pouch being adapted to receive a clinical thermometer, a portion of said heating element being disposed in surrounding relation to said pouch to heat the same in simulation of a pathological fever condition for effecting a reading on the thermometer inserted in said pouch, and filler material surrounding said element and contiguous to said pouch for transmitting the heat of said element to the zone defined by said pouch.

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2,774,185
**MAGNETIC TOP DEVICE**
Alois J. Koech, Columbus, Nebr.
Application March 22, 1955, Serial No. 495,897
9 Claims. (Cl. 46—235)



1. A magnetic top device comprising a member having an upper, non-magnetic surface, means for producing about said surface a stationary, alternating, toroidal-shaped, magnetic field, the magnetic axis of which is perpendicular to said surface, a rotatable member having a base which terminates in a nose through which the longitudinal axis of said rotatable member passes, said rotatable member being provided with permanent magnet means having its poles arcuately spaced about said longitudinal axis such that when the rotatable member is given a rotatable impetus, with the nose of said rotatable member in engagement with said surface, the rotatable member will continue to rotate so long as said means continues to produce said alternating magnetic field.

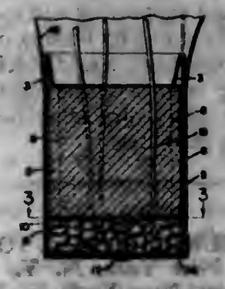
2,774,186
**FLORAL BASKET AND ANCHORING MEANS FOR FUNERAL USE**
George L. Wilkins, Cape Charles, Va.
Application June 8, 1954, Serial No. 435,220
2 Claims. (Cl. 47—41)



1. A floral basket comprising a body adapted to hold flowers, an enlarged base on a lower portion of said body having a flat lower surface for supporting said body and a handle secured to said body; retractible anchor means carried in converging angular relation on opposite side portions of said body and in close disposition thereto, the base including a downwardly opening lower recess portion in communication with aperture portions extending through said base, said retractible anchor means including elongated anchor pins reciprocably received within said aperture portions, said pins including a lower enlarged pointed end receivably retained within the lower recess portion of said base, said pionted end being extensible downwardly from said base for penetration into the ground and being retractable upwardly, a guide element carried on said basket for each anchor pin, said guide element including a portion extending around the circumference of said anchor pins and reciprocably receiving said anchor pins for guiding the reciprocable movement of said anchor pins relative to said basket, and a resilient securing element carried on said basket in vertically spaced relation to each said guide element for receiving an upper portion of said anchor pin for retaining the same in retracted position with the enlarged lower pointed end thereof located wholly within said recess, said resilient securing element including an arcuate portion terminating in an outwardly curving lip for facilitating the removable retention of said anchor pin.

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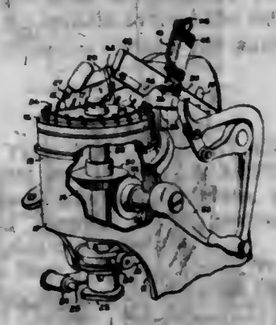
2,774,187
**PACKAGE FOR TRANSPORTING CUT FLOWERS**
Vernon L. Smithers, Akron, Ohio
Application May 18, 1954, Serial No. 430,590
5 Claims. (Cl. 47—41)



1. A package for the preservation and transportation of cut flowers comprising a water-retentive container open at the top, a block of a cellular water-absorbent synthetic resin material in the container adapted to receive the stems of cut flowers, and means to hold the block substantially below the top of the container, said block having a coating of a wetting agent thereon, and a transparent waterproof and airproof wrapping surrounding the container and the flowers, the stems of which are inserted in the block.



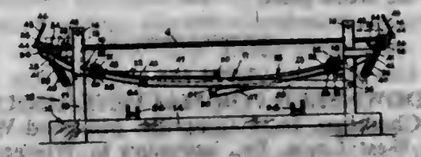
2,774,188
**CHIPPING ATTACHMENT FOR LENS CUTTING MACHINE**
Charles M. Jordan, Jr., Clinton, N. C.
Application July 29, 1955, Serial No. 525,237
5 Claims. (Cl. 49—48)



1. In a lens cutting machine of the type including a rotary clamping table, means for scoring a lens and means for rotating the table, a lens chipping attachment comprising: a plurality of cam pins projecting from said table, a hammer, means pivoting said hammer to said cutting machine, means resiliently biasing said hammer toward the lens, and means on said hammer engaging said cam pins whereby upon rotation of said cutting table and said cams, said hammer is caused to move outwardly away from said lens and then released to move toward said lens sharply thereby tapping the lens to remove the unwanted glass.

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2,774,189
**APPARATUS FOR BENDING GLASS SHEETS OR PLATES**
Joseph E. Jendrisak, Rossford, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application March 12, 1952, Serial No. 276,090
11 Claims. (Cl. 49—67)

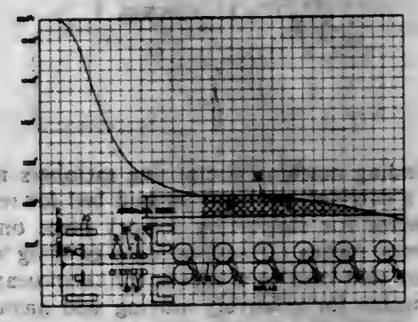


10. In apparatus for bending glass sheets, a mold including a plurality of sections, hinge means connecting said sections together in end to end relation, and synchronizing means connecting at least two of said sections together at spaced apart points for causing said sections to move from an open to a closed position in timed relation to one another.

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2,774,190
**ANNEALING GLASS**
Florian V. Atkeson, Springdale, Pa., assignor to Pittsburgh Plate Glass Company, a corporation of Pennsylvania
Application May 18, 1953, Serial No. 355,815
6 Claims. (Cl. 49—89)

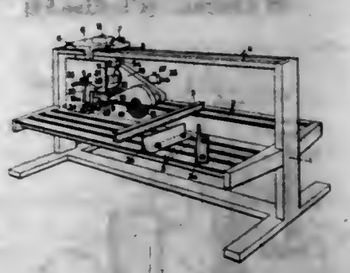
1. A process which comprises forming a continuous ribbon of glass from a molten glass bath, ...ving the glass ribbon through a cooling zone before the glass has cooled to the annealing temperature range, passing fluid coolant through the cooling zone on each side of the moving glass ribbon in indirect heat exchange relationship with the glass ribbon, applying heat separately to portions of the cooling zone opposite portions of the glass surface across the ribbon and on each side thereof within the cooling zone, maintaining said application of heat to each of said portions, separately adjusting the amount of said heat application to each of said portions, whereby the portions of the surface of the glass ribbon on each side are cooled rapidly to reach an annealing temperature substantially at the upper limit of the annealing range at substantially the same time and to create a temperature gradient between the center of the glass and the surfaces that is substantially uniform in the portions of the glass ribbon, passing the cooled ribbon through an equalizing zone while maintaining the portions of the surface of the glass ribbon on each side at an annealing temperature



substantially at the upper limit of the annealing range for a sufficient length of time to reduce substantially said temperature gradient, and passing the ribbon through an annealing zone to cool the surfaces on both sides of the glass ribbon at a progressively increasing rate of cooling while maintaining equalization of surface temperatures thereacross and between the two sides, whereby the glass surfaces are simultaneously cooled to the lower limit of the annealing range and the temperature gradient between the center and the surfaces is increased in the portions thereacross by a uniform amount.

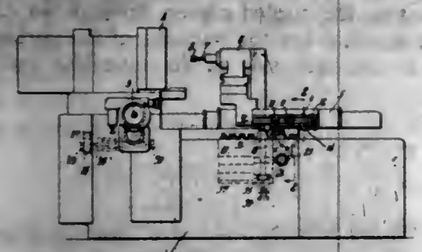
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2,774,191
**CUTTING MACHINE**
Jean Henri Marie Joseph Bouchez, Arras, France
Application August 5, 1955, Serial No. 526,583
Claims priority, application France August 10, 1954
2 Claims. (Cl. 51—34)



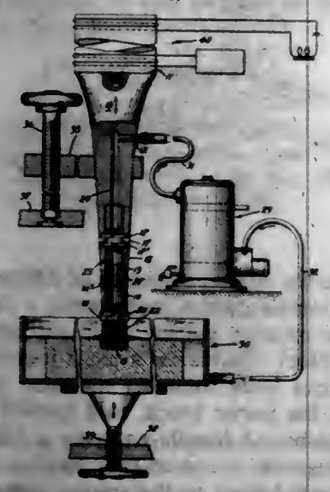
1. A machine for cutting materials of different hardness comprising in combination a framework, a carriage slidable thereon, a rotating cutting tool and driving motor mounted on a block tiltable on a shaft journaled in said carriage, a control lever rotatably mounted on the shaft which supports the motor block, said control lever comprising a spring biased handle carrying a latch member which cooperates with a curved rack fixed to a flange on the carriage, a pawl fixed to the control lever and cooperating with an abutment on the shaft supporting the motor block for regulating the depth of the cut made by said tool, a crossbar fixed to said shaft, a weight slidably mounted on said crossbar, and means for retaining the weight in place at any desired position for adjusting the downward pressure on said tool to the kind of material being cut, said means for tiltably supporting said cutting tool permitting it to be tilted upwardly at any place in its cutting movement to relieve excessive pressure against the material being cut, to avoid abnormal resistance, or to follow the shape of the material.

2,774,192
## MACHINE TOOL CYCLE CONTROL
Paul A. Grobey, Springfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application June 28, 1954, Serial No. 439,721
11 Claims. (Cl. 51—59)



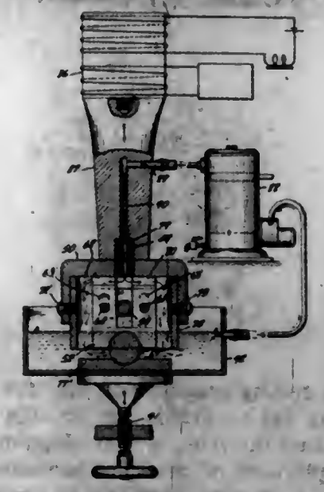
1. A grinding machine comprising members including a bed and a carriage mounted on said bed for rectilinear motion, means for supporting a work piece on one of said members, means for supporting a grinding wheel on the other of said members, means for reciprocating said carriage, means for relatively moving said members for relative feed of said wheel and work piece transverse to the direction of reciprocation, means for controlling the relative motions of said members in a predetermined cycle, said means including a rotary shaft, means controlled by certain of the relative motions of said members for turning said shaaft by definite angular distances, and means controlled by the angular positions of said shaft for controlling the relative motions of said members in predetermined sequence, including a grinding step, means effective during such grinding step to actuate said feed relative moving means, and said machine including means actuated by a predetermined limit of feed to terminate said grinding step.

2,774,193
## TOOLS FOR ULTRASONIC CUTTING
Charles J. Thatcher, New York, N. Y., and Benson Carlin, Fairlawn, N. J.; said Carlin assignor to said Thatcher
Application October 10, 1955, Serial No. 539,405
15 Claims. (Cl. 51—59)



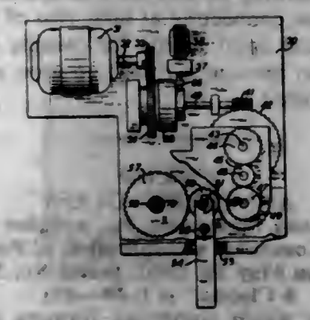
1. A hollow tool for cutting or drilling of hard materials by vibratory ultrasonic, impact abrasion, having a blunt tool end and channels on the exterior and interior surfaces of said tool from the upper to the lower ends thereof for flow of liquid abrasive slurries to, under and from the working, lower end face of the tool, means to vibrate said tool, axially, at high frequency and low amplitude and to force said liquid through said channels, said channels having inlet and outlet ports to said working face which are inclined with respect to the axis of vibratory movement of said tool.

2,774,194
## ULTRASONIC TOOLS
Charles J. Thatcher, New York, N. Y.
Application November 8, 1954, Serial No. 467,443
8 Claims. (Cl. 51—59)



1. A tool for mass-production of slices of semi-conductors for the manufacture of transistors, adapted simultaneously to cut uniformly dimensioned, multiple slices from ingots to brittle, semi-conductor work-pieces by impact of a supersonically vibrated tool end upon abrasive particles of a slurry film circulated between the tool end and work face, which comprises: a tool hub and body and clamping means for the tool cutting element, and tool di-patterns formed of sheet metal rigidly supported by said hub and body and by die-pattern clamping means against displacement during said supersonic vibratory movement of the tool end, and means for altering the pattern and replaceably clamping said sheet metal die patterns to said tool body, and means forceably to circulate a liquid abrasive slurry through the interior of said tool and back of and around said die patterns and between them and the confronting surfaces of the work-piece.

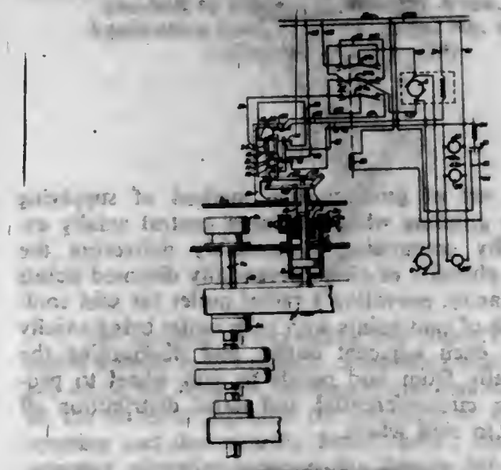
2,774,195
## DOWNFEED FOR MACHINE TOOLS
John L. Chapman, Jr., Catonsville, Md., and William R. Yeich, West Lawn, Pa., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 18, 1954, Serial No. 450,764
3 Claims. (Cl. 51—92)



1. A downfeed mechanism, in combination with a threaded spindle having a hand wheel fixed thereto for manual actuation to rapidly feed a driven cutting wheel downwardly toward a path in which work on a support is given successive reciprocable movements between given limits during each half cycle of a rotatable element for driving the support, the mechanism comprising driving means energized while the cutting wheel is driven, a gear mounted on the threaded spindle, a train of gears including a one revolution clutch interposed between the gear on the spindle and the driving means and operatively connected thereto, and means rotatable with the driving element to cause actuation of the clutch during each half cycle of the driving element when the work support is adjacent each limit to operatively connect the driving means through the train of gears to the gear on the spindle to rotate the spindle to feed the cutting wheel predetermined like distances toward the path.

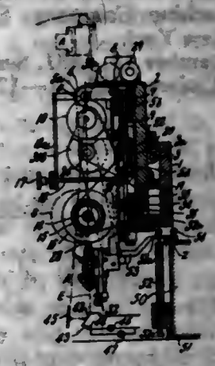


2,774,196
## CONTROL OF THE TOOLS OF GLASS GRINDING AND/OR POLISHING MACHINES
Edmond Lavordiane, Auvelais, Belgium, assignor to Les Glaceries de la Sambre, Societe Anonyme, Auvelais, Belgium, a Belgian company
Application May 19, 1954, Serial No. 430,914
Claims priority, application Belgium May 27, 1953
7 Claims. (Cl. 51—112)



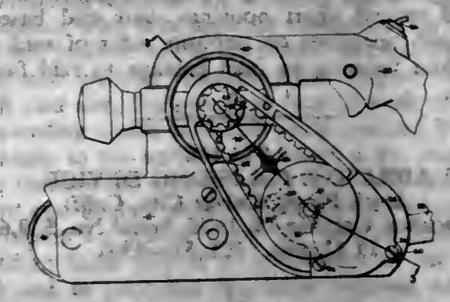
1. In a machine for simultaneously grinding or polishing both faces of a glass sheet; the combination of a support fixed in relation to its distance from the glass sheet, at least one tool holder, means mounting said tool holder on said support for movement relative to the latter in first and second directions respectively toward and away from the glass sheet, safety stop means carried by said support and movable relative to the latter in said first and second directions, an abutment connected to said tool holder to move with the latter and engageable with said stop means so that the latter adjustably limits the movement of said tool holder in said first direction relative to said support, motor means operatively connected to said safety stop means and capable of forward and reverse operation to move said stop means in said first and second directions, respectively, relative to said support, control means for said motor means operating in response to the relative movement and positioning of said abutment with respect to said safety stop means and including means normally operative in response to the slow movement of said abutment in said first direction toward said stop means to cause forward operation of said motor thereby to move said stop means in said first direction away from said abutment, means halting the forward operation of said motor means in response to the attainment of a predetermined clearance between said stop means and abutment and means operative in response to the rapid movement of said abutment in said first direction toward said stop means to interrupt the forward operation of said motor means and to cause reverse operation of the latter thereby to move said safety stop means in said second direction against said abutment for also moving said tool holder in said second direction relative to said support, and means halting the reverse operation of said motor means in response to the movement of said abutment and tool holder in said second direction to predetermined positions relative to said support.

2,774,197
## MEANS FOR FEEDING A GRINDING WHEEL OF A PERIPHERAL GRINDING ATTACHMENT INTO A WORKPIECE
Otto Bretscher, Geriafingen, Switzerland, assignor to Gesellschaft der Ludw. von Roll'schen Eisenwerke AG., Geriafingen, Switzerland, a Swiss company
Application August 9, 1954, Serial No. 448,653
Claims priority, application Switzerland August 11, 1953
7 Claims. (Cl. 51—165)



1. In a grinding machine having a grinding wheel, means supporting said grinding wheel and arranged for pendular swinging movement about a first axis to move said grinding wheel toward and away from a workpiece, respectively, and dresser means for trueing said grinding wheel; a first arm swingably attached at one end thereof to said supporting means for movement about a second axis, and rest means attached to the other end of said arm and carrying said dresser means, said first and second axes being disposed in said supporting means and in a common plane with the axis of rotation of said grinding wheel.

2,774,198
## PORTABLE BELT SANDING MACHINE
Arthur N. Emmons, Nedrow, N. Y., assignor to The Porter-Cable Machine Company, Syracuse, N. Y., a corporation of New York
Application April 5, 1955, Serial No. 499,381
3 Claims. (Cl. 51—170)

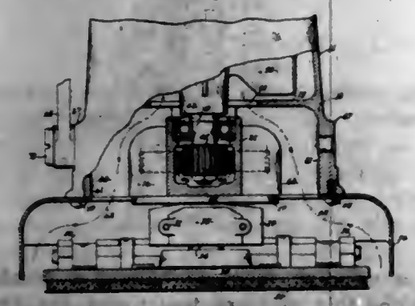


1. A power operated, bodily manipulable belt sanding machine comprising a frame having a top wall, a vertically disposed side wall depending from a side edge of the top wall, a motor housing on the top wall, a motor mounted in the housing and having its power shaft extending transversely of said top wall and having an end portion projecting outwardly from the plane of the side wall, a belt pulley fixed to said end portion of the motor shaft, said side wall being formed with a recess in its outer surface in proximity to the rear end of the frame to provide a gear compartment, an idler roll journalled at the forward end of the frame, a shaft journalled in the rear end portion of said side wall and extending transversely below said top wall, a driving roll fixed to the inner end of said shaft, the outer end of said shaft extending into said recess, a closure for said recess forming in conjunction therewith a grease tight gear compartment, a jack shaft journalled in said gear compartment and having an end portion extending outwardly through said

closure, gearing arranged in said gear compartment and operatively connecting said jack shaft to said driving roll shaft, a pulley fixed to the extending portion of said jack shaft, the periphery of said pulleys being formed with cogs, and a cog belt trained over said pulleys.

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2,774,199
ABRADING MACHINE
Arthur N. Emmons, Nedrow, N. Y., assignor to The Porter-Cable Machine Company, Syracuse, N. Y., a corporation of New York
Application September 15, 1951, Serial No. 246,785
3 Claims. (Cl. 51—177)



1. A portable power operated abrading machine comprising a base of substantially rectangular shape provided on its upper surface with a centrally arranged fan compartment and with a gear compartment in its lower portion, said gear compartment consisting of a pair of spaced apart housings and a central housing positioned intermediate said spaced apart housings and communicating therewith, a crank shaft journalled in each of said spaced apart housings and said shafts having crank portions depending from the gear compartment, an abrasive pad operatively connected to said crank portions for movement thereby, a motor mounted above the fan compartment and having its shaft extending through the fan compartment into the central housing of the gear compartment, a suction fan mounted on the motor shaft in the fan compartment, gearing arranged in said housings and operatively connecting said motor shaft to said crank shafts, said central housing being smaller in dimension than said spaced apart housings, and said base being formed with apertures on opposite sides of said central housing and forming an inlet passage to said fan compartment.

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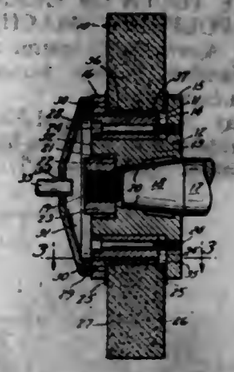
2,774,200
ABRASIVE POLISHING DEVICE
Alock Block, Culver City, Calif.
Application October 10, 1955, Serial No. 539,623
11 Claims. (Cl. 51—194)



1. An abrasive band comprising a central circular core member formed of a substantially rigid piece of cardboard tubing, a plurality of small rectangular abrasive strips adhered to the outer surface of said core member around the entire circumference thereof, said strips extending axially with respect to said core member, each of said strips having abrasive material on the exposed side thereof, said strips being disposed in substantially overlapping relationship to each other, the opposite ends of each of said strips extending a substantial distance into and being adhered to the interior of said core member, there being a sufficient number of said strips so that each strip has an exposed edge adapted to wear away in use to expose the portion of the adjacent strip disposed therebeneath.

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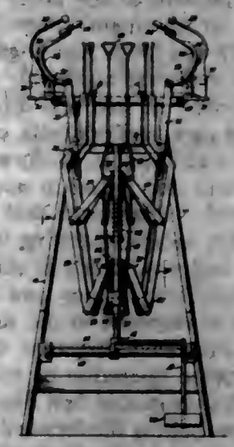
2,774,201
LIQUID COOLED GRINDING WHEEL
John A. Harrington, Minneapolis, Minn., assignor to Continental Machines, Incorporated, Savage, Minn., a corporation of Minnesota
Application November 4, 1954, Serial No. 466,717
9 Claims. (Cl. 51—267)



6. In the art of grinding, the method of supplying coolant to a grinding wheel having a central axially extending cavity comprising controllably delivering the coolant to a plurality of circumferentially disposed points within said cavity, providing a radial outlet for said coolant from each of said points with each outlet being axially spaced from each adjacent outlet, and discharging the coolant radially from said points to said wheel to provide uniform circumferential and axial distribution of said coolant to said wheel.

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2,774,202
PAPER SOCKER
William V. Henry, Candler, N. C., assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application May 22, 1953, Serial No. 356,614
6 Claims. (Cl. 53—13)



1. Apparatus for manipulating a hollow yarn package during application of a paper sleeve thereto which comprises supporting means movable to and from a position in suporting relationship to one annular end wall of the package, clamping means movable to and from a position engaging the side wall of said package to hold the sleeve against axial movement, means movable to and from a position to spread the sleeve over said annular end wall, said spreading means comprising a plurality of levers, means responsive to predetermined upward movement of said levers to spread the same radially and to move said supporting means from supporting position



and means responsive to movement of said supporting means away from supporting position to move said clamping means away from clamping position.

5. The method of covering a hollow yarn package with a tubular covering of limited flexibility and long enough to cover all surfaces of the package that comprises initially surrounding the outer surface of the package while in a vertical position with one end of the tubular covering, drawing the remainder of the tubular covering across the upper end and down through the interior of said package, thereafter spreading the tubular covering over the lower end of said package and dropping the package while spreading the remaining covering over the outer surface of the package.

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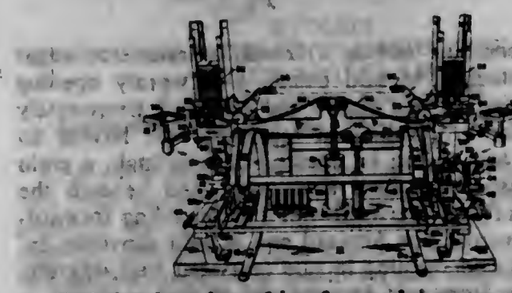
2,774,203
METHOD OF FILLING TUBULAR COIN WRAPPERS
Henry Augustus Smathers, Charleston, S. C., assignor of one-half to Vincent G. Jarman, Avon, N. J.
Application June 21, 1954, Serial No. 437,931
4 Claims. (Cl. 53—29)



1. The method of expanding and filling flattened open ended tubular coin wrappers comprising holding the wrapper while flat between the fingers and positioning one end of the wrapper adjacent the entrance of a downwardly opening and downwardly flared recess, compressing the wrapper edgewise between the fingers for partially expanding it so that the end thereof may be inserted into said recess, inserting said end of the partly expanded wrapper upwardly within the flared recess and toward the reduced end of the recess to gradually impart to the wrapper a substantially truly cylindrical shape, introducing a finger into the lower end of the expanded wrapper to form a support for a stack of coins of known height to be introduced into the wrapper so that the stack of coins when introduced will be positioned approximately centrally with respect to the length of the wrapper, and then introducing the stack of coins downwardly through the top of the wrapper so that the stack is supported within the wrapper by the finger.

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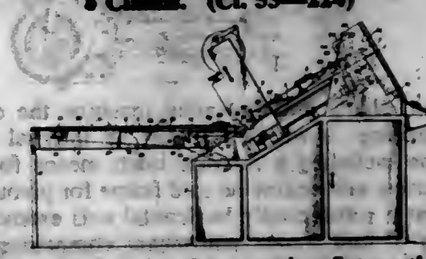
2,774,204
PATCH END MACHINE
Paul F. Bowman, Ridgewood, N. J., assignor to Continental Paper Company, Ridgefield Park, N. J., a corporation of New Jersey
Application January 31, 1955, Serial No. 485,013
5 Claims. (Cl. 53—137)



1. A patch end machine for applying a sealing patch to the open end of a tubular carton having end flaps adapted to receive the sealing patch, the patch being provided with a thermoplastic adhesive on the surface thereof which is brought into contact with the carton end flaps, the machine comprising a rotatable turret adapted to receive and carry the tubular carton successively from a receiving station through an end-sealing station to a discharge station, the turret being provided with carton-carrying means for holding the carton in axial parallelism with the axis of rotation of the turret, flap folding guides positioned so as to fold the carton end flaps inwardly into patch-receiving position normal to the walls of the tubular carton as the carton is placed in receiving position in the turret and is carried from the receiving station to the sealing station, a movable patch-holding arm pivotally mounted for movement in a substantially vertically disposed arc from a horizontal position to a vertical position adjacent the end flaps of the carton, the holding arm being provided with suction means adapted to hold a patch to the lower surface of the arm when the arm is held in horizontal position, a patch feeder for feeding a single patch to the lower surface of the patch-holding arm when the arm is in its horizontal position, a heating element mounted so as to swing into a patch-heating position directly below a patch held by the holding arm, and holding arm operating means for moving the arm holding a heated patch downwardly into vertical position in contact with the inwardly folded end flaps and thus effecting sealing engagement of the heated adhesive-bearing surface of the patch with the carton end flaps.

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2,774,205
WRAPPING AND FOLDING MACHINES
Leslie Gordon Forster, Ealing, London, England, assignor to Forsters Machine Company Limited, Hayes, England, a corporation of Great Britain
Application January 2, 1953, Serial No. 329,295
8 Claims. (Cl. 53—224)



1. Wrapping machine for covering flat or thin articles in succession with thin material comprising in combination, a bed inclined to the horizontal and having a longitudinal slot passing therethrough; fingers, extending through said slot, the operative face of each of said fingers extending above said bed being inclined backwards at an angle to the vertical to engage a flat face of said article; mechanism located below said bed and adapted to move said fingers lengthwise of the bed whereby each finger moves an article along the bed in opposition to a retarding force due to a component of the force of gravity and to frictional resistance between an edge of the article and the bed; means for feeding a strip of covering material towards said bed; means for cutting off a length of said material in front of said article; and means for carrying out tucking and folding operations thereafter.

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2,774,206
TANDEM DISC HARROW ARRANGEMENTS
Patrick Henry Lynch, Jr., Dunn, N. C.
Application March 11, 1953, Serial No. 341,672
7 Claims. (Cl. 55—30)

1. A tandem disc harrow arrangement for use with a tractor, said arrangement comprising a tongue, said tongue having means on its forward portion whereby it may be secured appropriately to the tractor to extend rearwardly therefrom, a forward cross support member, the last said member being secured to the tongue transversely thereto, said member serving to support at least one gang of disc harrows transversely to the tongue, a jaw bar, said jaw

bar being disposed to extend rearwardly in longitudinal alignment with and underlying a portion of the tongue, and said jaw bar being pivotally secured by its forward end to the said tongue to open away from said tongue upon being pivoted and to close against said tongue when



said jaw bar is moved upwardly, framing secured to said jaw bar toward the free end thereof, disc harrows mounted below said framing and means mounted on the free end of said tongue restraining the free end of said jaw bar from lateral movement with respect to the tongue.

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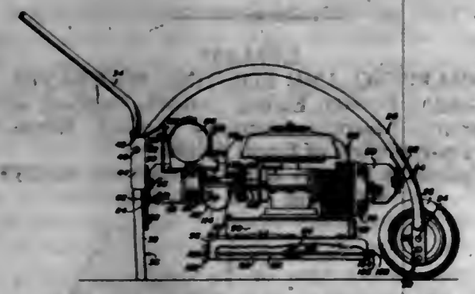
2,774,207

## POWER MOWER WITH PIVOTAL CONNECTION BETWEEN CARBURETOR AND MOTOR

John G. Sedgwick, Houston, Tex.

Application July 2, 1953, Serial No. 365,637

4 Claims. (Cl. 56—25.4)



1. In an edging and trimming machine the combination comprising: a wheeled frame; an internal combustion engine including a mixture inlet; means for adjustably mounting said engine on said frame for pivotal movement about a substantially horizontal axis extending longitudinally of said frame, said means comprising locking means for retaining said engine in an adjusted position; a cutting blade drivingly connected to said engine for pivotal movement therewith and rotation thereby; a carburetor for said engine fixed to said frame and including a mixture outlet; and a swivel connection between the mixture outlet of said carburetor and the mixture inlet of said engine.

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2,774,208

## COTTON PICKER

Frank R. Putnam, Odessa, Tex.

Application June 8, 1953, Serial No. 360,144

4 Claims. (Cl. 56—48)



1. In a cotton picker, the combination of at least one pair of picking cylinders mounted on vertical axes and having their peripheries spaced from each other, a vertical shaft parallel with and spaced from the axis of each said cylinder, spiders mounted on each said shaft and spaced one above the other, vertical fan blades connected between the arms of said spiders, brushes carried by said blades and having their bristles extending outwardly beyond the outer vertical edges of said fan blades, a substantially cylindrical housing around each said vertical shaft outwardly of the ends of the bristles of said brushes, and a discharge duct in each said housing.

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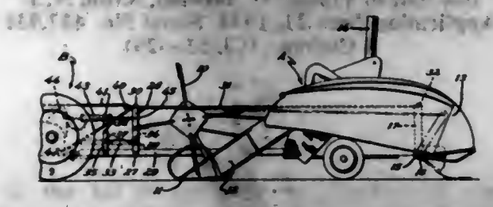
2,774,209

## STRAW BUNCHING ATTACHMENT FOR COMBINES

Fred R. Bauer, Durand, Wis., assignor of forty-nine percent to Norbert Benedict Bauer and Anna Mae Bauer, Durand, Wis.

Application June 30, 1951, Serial No. 234,529

8 Claims. (Cl. 56—122)



1. A waste collector attachment for a combine having a draw bar, a chaff and straw outlet, and a transverse shaft supported by the body of the combine forwardly of the shaft and straw outlet the attachment including in combination a chaff and straw collector having a plurality of aligned tines for collecting and dumping said chaff and straw in windrows pivotally supported by said transverse shaft beneath the straw outlet, said collector being pivotal between an elevated collecting position and an inclined dumping position a lever arm connecting to the collector for pivotal motion in unison therewith, a second lever pivotally supported upon the combine draw bar, means connecting said levers at points spaced from the pivot points thereof so that said levers move in unison, and latch means connected to said second lever for holding said levers in position to hold said collector elevated.

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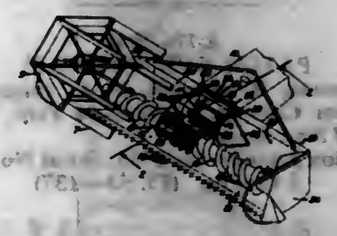
2,774,210

## GRAIN SAVING SHIELD FOR COMBINES

Reuben Kay, Blair, Nebr.

Application October 15, 1953, Serial No. 386,321

2 Claims. (Cl. 56—158)



1. In a combine having a frame, a transverse auger rotatably attached to said frame, a forwardly opening scoop attached to said frame and having a transversely disposed rearward wall, said rearward wall having an upper edge and having an opening therethrough, a grain conveyor disposed behind said auger and beneath the upper edge of said rearward wall and extending forwardly and rearwardly, the forward end of said conveyor extending into said opening in said rearward wall whereby grain escapes from said forward end of said conveyor; a shield having a rearward end pivotally connected to the upper edge of the rearward wall of said scoop and extending forwardly and downwardly over the exposed forward end of said conveyor and over the central portion of said auger and partially around the forward side of said auger to direct grain downwardly to said auger for the saving of grain and for protection of the operator against blowing chaff.



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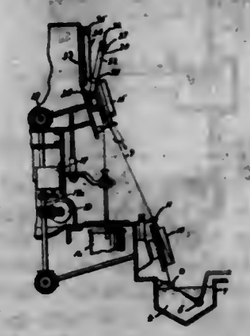
2,774,211

## MULTIPLE STRAND SPINNING MACHINE

Everett T. Sipsey, Drexel Hill, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application October 8, 1951, Serial No. 250,241

7 Claims. (Cl. 57—34)



1. In a machine for spinning a plurality of strands, a separate receiver for collecting each strand into a separate package, two spaced sets of rotors, each rotor having a peripheral surface adapted to store a plurality of wraps of a strand, each set of rotors being disposed in a generally straight alignment parallel to the alignment of the other set whereby strands traveling from the rotors of one set to respective strand-receiving rotors of the other set traverse parallel substantially stationary paths and are discharged from the latter set of strand-receiving rotors toward said receivers, said rotors being arranged to advance each strand from a rotor of one set to a rotor of the other set in a single pass and one direction only along respective paths, means for driving said strand-receiving rotors at equal peripheral speeds; mechanism for severing the strands simultaneously comprising an elongate means extending in a direction generally parallel to the alignment of the sets of rotors and between the two sets in closely spaced lateral relationship with said paths, severing elements mounted on the elongate means, means for moving the elongate means to carry the elements substantially simultaneously through said paths, counting means connected in synchronism with the strand-receiving rotors for measuring the rotation thereof, and control means in connection with the counting means and the means for moving the elongate means, said control means being actuated by the counting means when a predetermined amount of rotation of the strand-receiving rotors has occurred.

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2,774,212

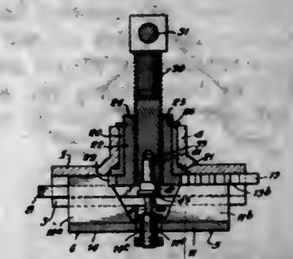
## CHAIN TOOL WITH SINGLE DRIVE MEANS FOR PUNCH AND CLAMP

Arthur W. Jacobs, Chicago, Ill.

Application February 12, 1953, Serial No. 336,593

6 Claims. (Cl. 59—7)

1. A chain tool comprising a base member, guides on said base member, a pair of generally U-shaped chain gripping jaw members slidably mounted within said guides, a rotatable means on said base member between said guides, cooperating means on said rotatable member and said jaw members for causing said jaws to be moved towards and away from each other upon the rotation of said rotatable means, a rod in threaded engagement with said rotatable member, said rod being adapted for rotation through said rotatable member, said threaded engagement being effective to cause rotation of said rotatable means in response to rotation of said rod therethrough, a pin carried by said rod between said jaw-members and adapted, upon continued rotation of said rod, to contact the work between said jaw members the



power necessary to rotate said rod relative to said rotatable means being greater than the power necessary to rotate said rotatable means relative to said jaw-members whereby initial rotation of said rod is effective to cause rotation of said rotatable means.

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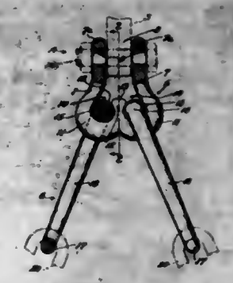
2,774,213

## CLEVIS WITH TWO POSITIONED SPACED LINK

Ray D. Gantz, Columbus, Ohio, assignor to The Carroll Chain Company, Columbus, Ohio, a corporation of Ohio

Application September 28, 1955, Serial No. 537,093

3 Claims. (Cl. 59—84)



3. As a new article of manufacture, a shackle for fastening chain, comprising: a generally U-shaped body symmetrical about a plane passing longitudinally and centrally therethrough; said shackle body being formed at one end thereof with a pair of relatively spaced side arms which terminate in transversely spaced apertured eyes defining a sole entrance for the positioning of end links in said shackle; said arms at the opposite end of the shackle merging into an integral arcuate loop; a lug having an enlarged outer end integrally formed with said loop; said lug projecting into said shackle and occupying a central longitudinal position therein; said lug forming in connection with the inner surfaces of said loop on opposite sides of the lug a pair of link-seating pockets, the latter having link entrances establishing communication between the interiors of said shackle and said pockets, the width of each of said entrances being less than the diameter of each pocket.

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2,774,214

## ROCKET PROPULSION METHOD

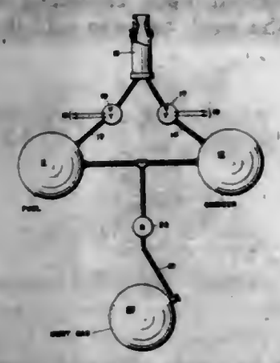
Frank J. Malina and John W. Parsons, Pasadena, Calif., assignors to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio

Application September 1, 1950, Serial No. 182,742, which is a division of application Serial No. 486,236, May 8, 1943, now Patent No. 2,573,471, dated October 30, 1951. Divided and this application February 8, 1954, Serial No. 412,196

3 Claims. (Cl. 60—35.4)

1. The method of producing thrust which comprises ejecting, from a reaction chamber, the gaseous products produced by the spontaneous combustion of an oxidizer

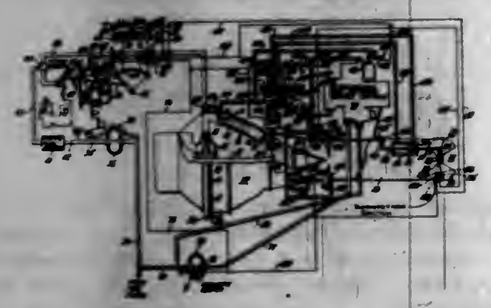
selected from the group consisting of red fuming nitric acid, white fuming nitric acid and nitrogen dioxide; and



a heterocyclic nitrogen compound selected from the group consisting of pyrrole and pyridine.

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2,774,215
TAILPIPE OR AFTERBURNING CONTROL FOR TURBOJET ENGINES
Frank C. Mock and Thomas J. Thompson, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application April 22, 1949, Serial No. 89,054
35 Claims. (Cl. 60—35.6)

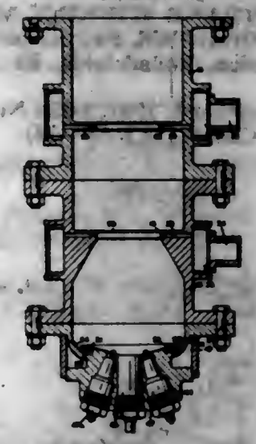


18. In a thrust augmentation system for a turbojet engine having a compressor, a burner and a tailpipe chamber, means for regulating the flow of fuel to said tailpipe chamber including a fuel conduit having a feed restriction therein, a valve for regulating the flow of fuel through said restriction, a pressure-responsive device operatively connected to said valve, means for subjecting said device to a pressure varying as a function of compressor discharge pressure, and means operable as a function of a temperature which varies with variations in compressor inlet temperature for modifying the pressure to which said device is subjected, whereby the flow of fuel through said restriction to said tailpipe chamber varies as required.

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2,774,216
ROCKET MOTORS
Sidney Allen, Coventry, England, assignor to Armstrong Siddeley Motors Limited, Park Side, Coventry, England
Application November 12, 1952, Serial No. 319,832
Claims priority, application Great Britain January 21, 1952
3 Claims. (Cl. 60—35.6)

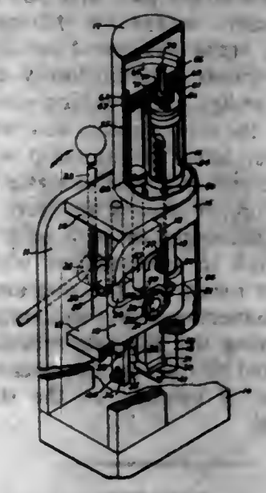
1. A rocket motor comprising a number of coaxial rings secured to one another and providing a preheating chamber upstream of the combustion chamber of the motor, the motor being designed to operate on a liquid fuel and a liquid oxidizer as propellent, a heating means at the upstream end of the preheating chamber including means for supplying a small portion of the fuel and the oxidizer and an igniter to ignite said small portions of fuel and oxidizer, a constriction provided by the walls of the preheating chamber downstream of the heating means, means for supplying a first portion of the rest of the oxidizer to spray holes in the wall providing the constriction, a further constriction in the preheating chamber



downstream of said first-mentioned constriction provided by a baffle, means for supplying the rest of the oxidizer to spray holes in said baffle, a burner at the upstream end of the combustion chamber, and means for supplying the rest of the fuel to said burner.

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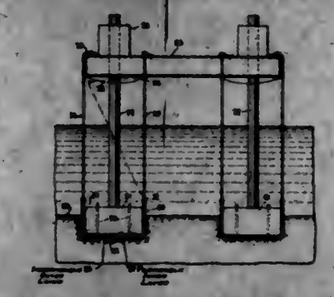
2,774,217
THRUST-PRODUCING APPARATUS SUCH AS PRESSES AND THE LIKE
Philip E. Ashton, Meriden, Conn.
Application July 5, 1950, Serial No. 172,159
26 Claims. (Cl. 60—54.5)



1. A thrust producing device comprising, in combination, a supporting frame, a thrust member mounted thereon for movement relative thereto, power-transmission means carried by said frame and movable relative thereto, said power-transmission means having a member in engagement with said thrust member for imparting an initial force thereto, thrust-multiplying means carried by said frame having a portion connected to, and operable by movement of, said power-transmission means to impart a multiplied thrust to said thrust member, said power-transmission means being moved by reaction of the said initial force imparted by said member to said thrust member whereby said thrust-multiplying means imparts a multiplied thrust to said thrust member.



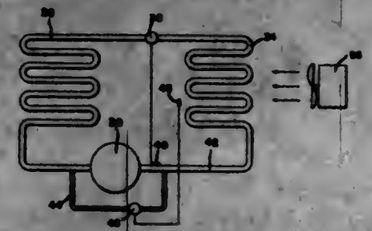
2,774,218
METHODS AND MEANS FOR FACILITATING REMOVAL OF OFFSHORE PLATFORM SUPPORTS FROM MUD
John T. Hazak, New York, N. Y., assignor to Raymond Concrete Pile Company, New York, N. Y., a corporation of New Jersey
Application November 18, 1955, Serial No. 547,809
13 Claims. (Cl. 61—46.5)



1. Apparatus for facilitating removal of the bottom end portion of a supporting member of a marine platform from contact with the mud on the ocean floor, which comprises a support end cover formed of flexible, water impermeable material adapted to receive such end portion of said supporting member, in combination with means to introduce fluid under pressure substantially uniformly over the space between said end portion and said cover, thereby substantially eliminating any suction forces existing therebetween when such end portion is being raised from the mud.

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2,774,219
AUTOMOBILE REFRIGERATING APPARATUS
Curtis P. Kelley, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 27, 1954, Serial No. 465,094
7 Claims. (Cl. 62—3)

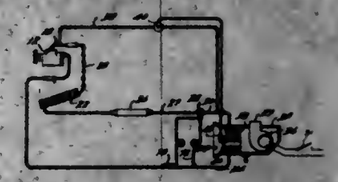


1. In an air conditioning system, a compressor, a condenser, an evaporator contacted by flowing air, refrigerant flow connections between said compressor, condenser, and evaporator, a thermostatic expansion valve in said connections adjacent the inlet of said evaporator, said thermostatic expansion valve including thermal means responsive to the temperature at the outlet of said evaporator for controlling the flow of refrigerant through said valve, means responsive to the temperature of the air flowing away from the evaporator for preventing operation of said evaporator whenever the evaporator is at a temperature below the freezing temperature of condensation which might form thereon, said last named means comprising means for applying heat to said thermal means sufficient to actuate said valve in response to a predetermined decrease in the temperature of air leaving said evaporator.

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2,774,220
CONTROL FOR A REFRIGERATION SYSTEM
Raymond S. Heyn, Birmingham, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application July 23, 1953, Serial No. 369,761
1 Claim. (Cl. 62—3)

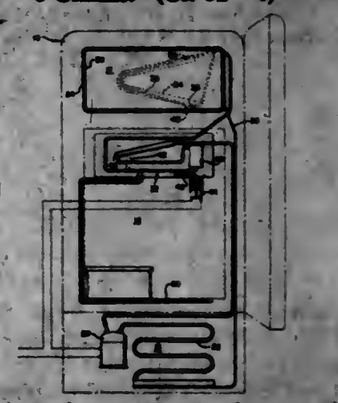
In a refrigerating system of the compressor, condenser and evaporator type having an air duct, said evaporator being positioned in said duct, air propelling means associated with said duct and operable to induce a circulation of air through said duct and over said evaporator, control means for selectively rendering said air propelling means operative and inoperative, an expansion valve interposed between the condenser and evaporator and a bypass line for delivering uncondensed refrigerant to a point in the circuit between the expansion valve and the evaporator, the combination of a thermal bulb responsive valve in said bypass line for controlling the



capacity thereof, a thermal bulb operatively connected to said valve and positioned in the path of the circulating air, and a body of heat conducting material positioned in heat transfer relationship with said thermal bulb and said evaporator, said body of heat conducting material having a relatively small surface area as compared to the surface area of said thermal bulb so that when said air propelling means is operating the air temperature is the controlling factor in determining the temperature of said thermal bulb.

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2,774,221
TWO-TEMPERATURE REFRIGERATING SYSTEM
John H. Heldorn, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 14, 1953, Serial No. 367,867
6 Claims. (Cl. 62—4)



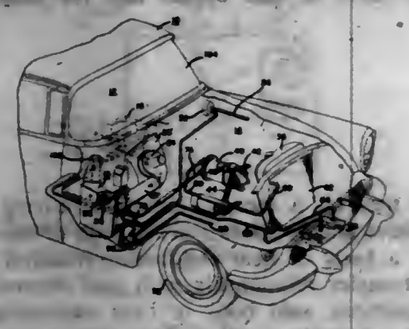
6. In a refrigerating system having a pair of evaporators connected in series wherein the last of said evaporators is adapted to be defrosted cyclically, means forming a pair of insulated compartments for separately enclosing said evaporators, an accumulator for momentarily storing overflow refrigerant from said first evaporator section before being supplied to said second evaporator section, said accumulator comprising an outer receptacle having an inlet connected to said first evaporator section, an outlet tube for conveying liquid refrigerant from said accumulator to said second evaporator section, said outlet tube being arranged to enter the upper end of said receptacle and extending downwardly into the lower end thereof and having a vent hole provided in its wall adjacent the upper end of said receptacle.

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2,774,222
VEHICLE REFRIGERATING APPARATUS
James W. Jacobs and Daniel J. Barbolesco, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 19, 1954, Serial No. 430,890
7 Claims. (Cl. 62—4)

1. In combination with a vehicle having a passenger compartment and an engine compartment, an engine with-

in said engine compartment for propelling said vehicle, a windshield forming a portion of the front wall of said passenger compartment, a compressor, means for transmitting power from said engine to said compressor, a condenser, an evaporator, and refrigerant flow connections between said compressor, condenser, and evaporator, means for circulating air for said passenger compartment in thermal exchange relationship with said evaporator, an auxiliary air cooling unit for cooling air for one portion



of said passenger compartment, means for circulating a heat transfer liquid between said evaporator and said auxiliary air cooling unit, duct means for directing the air cooled by said evaporator into the forward portion of said passenger compartment, and air directing baffle means at the outlet of said duct means operable to selectively direct the outgoing air either onto said windshield or rearwardly away from the lower edge of said windshield.

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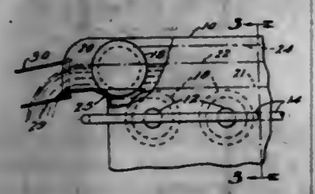
2,774,223

## ICE MAKING METHOD AND APPARATUS

Glenn Muffly, Springfield, Ohio

Application July 20, 1950, Serial No. 174,944

15 Claims. (Cl. 62—7)



1. The method of forming a plurality of relatively thick pieces of ice between adjacent wetted surfaces facing each other by cooling a plurality of small areas of each of said surfaces to form separate pieces of ice thereon, causing water to flow over the ice while forming on said cooled areas, continuing said cooling until the pieces of ice which have formed on a pair of opposed areas have increased in thickness until they have made contact with each other and frozen together at thicker sections of each piece to form a double-thickness solid piece of ice, and then releasing the last said piece of ice from said surfaces.

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2,774,224

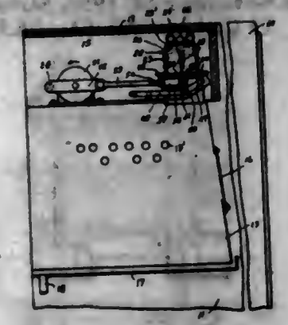
## ICE CUBE MAKING REFRIGERATOR

John R. Bayston, Encino, Calif., assignor to John R. Bayston, trustee, Icecrafter (Liquidating) Trust, Encino, Calif.

Application January 31, 1955, Serial No. 484,925

9 Claims. (Cl. 62—7)

1. A refrigerator having a food compartment and an ice bin located therein to receive ice cubes for refrigeration thereof, an evaporator including an inverted cell open at the bottom and positioned to discharge ice cubes into said bin, means controlled by the temperature to alternately generate a freezing cycle and a defrosting cycle in said evaporator, a header movable into and out of evaporator closing position having a water passage communicating with a nozzle orifice positioned centrally of said cell through which water is sprayed upwardly therein during the freezing cycle, said header having a return channel communicating with said cell for receiving unfrozen water, a water tank in said header connected with said return channel having a source of water supply, a motor driven pump mounted on said header having its



intake side connected with said tank for circulating water under pressure through said passage into said cell during the freezing cycle, a motor controlled by said means operably connected to said header for reciprocating it between evaporator opening and closing positions, and a guide for initially tilting said header downwardly and transversely free of said evaporator to opening position.

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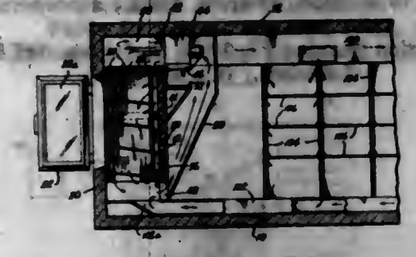
2,774,225

## REFRIGERATED FOOD DISPLAY CABINETS

Frank C. Grilley and Morris M. Smith, Tacoma, Wash., assignors to Room-Temp Lockers, Inc., Tacoma, Wash., a corporation of Washington

Application August 19, 1955, Serial No. 529,539

10 Claims. (Cl. 62—89.5)



1. A refrigerated article storage case comprising top, bottom, rear and opposite-end outer walls forming an insulating closure, said closure having a front wall including at least one access door therein permitting access into said closure, top, rear and opposite-end inner walls mounted in said closure at respective locations spaced inwardly thereof from the corresponding outer walls, thereby to form a storage compartment accessible through said door, and thereby also to form top, rear and opposite-end wall air ducts between corresponding outer and inner walls of said closure, said inner walls comprising rigid material panels of perforate form permitting passage of air freely therethrough over substantially their entire area adjoining said storage compartment, a plurality of perforate storage racks mounted generally horizontally in said storage compartment at successively different heights therewithin to support refrigerated articles thereon to be stored, means for introducing refrigerated air into the top wall duct and into the upper ends of the rear and opposite-end wall ducts, means to withdraw refrigerated air from the bottoms of said rear and opposite-end air ducts and from the bottom of said storage compartment, and baffle means extending generally horizontally across substantially the full widths respectively of said rear and opposite-end wall ducts generally intermediate the tops and bottoms thereof for blocking descent of refrigerated air therein, thereby to divert such air through said perforate rear and opposite-end inner walls into said storage compartment above said baffles and to



induce the withdrawing of refrigerated air into said rear and opposite-end wall air ducts below said baffles by said withdrawal means.

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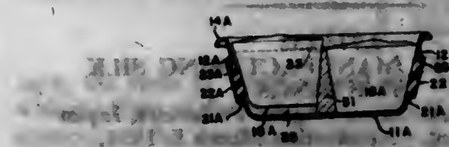
2,774,226

## FREEZING DEVICE

Edmund F. Schweller, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 6, 1954, Serial No. 473,107

2 Claims. (Cl. 62—108.5)



1. A freezing device comprising, an elongated sheet metal tray provided with a row of compartments in which water is to be frozen into separated ice blocks, said tray having an uninterrupted continuously flat bottom adapted to be supported on a freezing member whereby to retain the fast freezing characteristics of the metal tray, at least one wall of each of said compartments being inclined outwardly from said bottom of the tray to the top thereof, an upright side wall of said tray having spaced apart openings therein each opposed to the said one wall of said compartments, the edge portion of said tray side wall adjacent openings therein being flanged outwardly and forming a depression therein, a resilient membrane in each opening in said tray side wall and interlocked with said edge portion of said openings, said membranes filling said depressions and having their inner surface flush with the inner surface of said tray side wall, said membranes being exposed at a side of said tray, said membranes being manually flexed one at a time in succession throughout the length of said tray toward an inclined wall of a compartment to selectively pry a single ice block thereagainst, and said prying action shifting said single ice block in a straight line direction upwardly along said inclined wall to position a portion of said single ice block above a compartment wall while leaving other ice blocks in said device bonded to said tray.

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2,774,227

## AIR CONDITIONING APPARATUS FOR BUSES AND THE LIKE

Hans O. Schjolin and Karl Schuster, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 23, 1953, Serial No. 369,910

10 Claims. (Cl. 62—117)



2. In combination, a passenger vehicle having a passenger compartment; means forming a machinery compartment adjacent said passenger compartment; air conditioning apparatus for cooling the air in said passenger compartment; said air conditioning apparatus including an evaporator, a compressor, a condenser and refrigerant flow connections between said evaporator, compressor and condenser; said compressor and condenser being mounted in said machinery compartment; means for supporting said condenser adjacent an outside wall of said vehicle; an engine for driving said compressor; said engine having a main crankshaft extending substantially parallel to the side wall of said vehicle; a power take-off shaft projecting from said engine at right angles to said shaft; a condenser cooling fan having a shaft arranged parallel to said power take-off shaft and perpendicular to said condenser; and means for drivingly connecting said shaft to said power take-off shaft, said condenser being mounted between the one side of said vehicle and said condenser fan; control means for said engine including a first ignition switch mounted in said machinery compartment and a second ignition switch mounted within said passenger compartment; a door for said machinery compartment; and means whereby closing of said door opens the first of said ignition switches.

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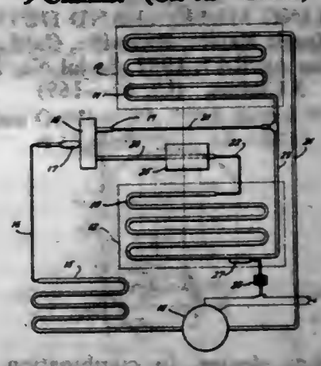
2,774,228

## PLURAL TEMPERATURE REFRIGERATORS

Farough Farnam Farnsaien, Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application October 30, 1953, Serial No. 389,430

9 Claims. (Cl. 62—117.3)



1. In a refrigerating system of the type including refrigerant circulating means, expansion means, evaporator means, and means defining a pair of alternative flow paths interconnecting said expansion means and said evaporator means, flow control apparatus effective to cause refrigerant to flow toward said evaporator means through one of said paths under one condition of operation, and effective to cause refrigerant to flow toward said evaporator means through the other of said paths under another condition of operation, said flow control means comprising: a body of material of relatively high thermal mass associated in heat exchange relation with one of said paths and being disposed to absorb heat from the ambient atmosphere during periods of idleness of said circulating means, the construction and arrangement being such that heat passes from said body to the path disposed in heat exchange relation therewith and is effective to evaporate liquid refrigerant flowing through the latter path whereby to vapor-block the same for the period of time, following initiation of operation of said circulating means, required to cause the temperature of said body closely to approach the temperature of the refrigerant flowing through the said path, whereby the flow of liquid refrigerant through the said path is delayed for a period of time which is a function of the quantity of heat contained in said body.

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2,774,229

## DRAFT BEER DISPENSER

Karl Thaa, Towson, and August Kiel, Sr., Baltimore, Md., assignors to Kay-Tee Corporation, a corporation of Maryland

Application July 25, 1955, Serial No. 523,957

3 Claims. (Cl. 62—141)

1. A draft beer dispenser comprising a cabinet having an upper compartment and a lower compartment sep-

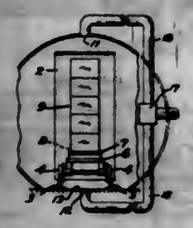
arated by a horizontal partition, a refrigeration unit having its compressor and condensing coil positioned in the upper compartment and its expansion coil positioned in the lower compartment, a high pressure carbon dioxide cylinder mounted within the cabinet, and extending through said horizontal partition, a reducing valve con-



nected to the outlet of said cylinder, a pipe leading from said reducing valve and adapted to be connected to a keg positioned in said lower compartment, a spigot mounted in said upper compartment and a pipe extending from said spigot into said lower compartment and adapted to be connected to said keg.

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**2,774,230**
**COOLING METHOD AND DEVICE**
Morris Kaner, Roseville, Calif.
Application April 17, 1952, Serial No. 284,836
3 Claims. (Cl. 62—169)



1. In a cooling device, in combination, a stack of closed boxes containing a produce to be cooled and having vent openings arranged on opposite walls of said boxes for directing cross draft in said boxes, a vacuum chamber, a carriage to carry said stack or boxes into and out of said vacuum chamber, means on said carriage to permit access to the bottom of said stack of boxes, said vacuum chamber having ports at opposite walls thereof, and suction means to draw a vacuum in said chamber through said ports so as to produce a draft through said boxes and said produce for evaporating moisture present on said produce.

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**2,774,231**
**MOUNTING HAVING A LARGE CENTRAL GEM OVERLYING ADJACENT SMALL GEMS**
Henry Petersen, New York, N. Y.
Application December 28, 1953, Serial No. 400,714
6 Claims. (Cl. 63—28)




1. A mounting for a diamond or the like, comprising a top plate having a relatively large opening formed therethrough at approximately its center and adapted to seat a relatively large diamond and means on the surface of said top plate for holding said diamond in place, said top plate having a plurality of relatively smaller openings formed therethrough, evenly, sparsely and circumferentially disposed around said larger central opening, each adapted to seat a diamond of relatively smaller size having a central flat top section, in position to have said smaller diamond underlie and abut the underside of said larger diamond, with said larger diamond overlying a part of said flat top section of each of said smaller diamonds, and means adjacent to each of said smaller openings for holding a smaller diamond in place therein, said top plate having a smooth, concaved, light reflecting surface extending radially inwardly toward said larger central opening and curving upwardly away from and surrounding and extending beyond each of said smaller openings and the smaller diamond set thereinto.

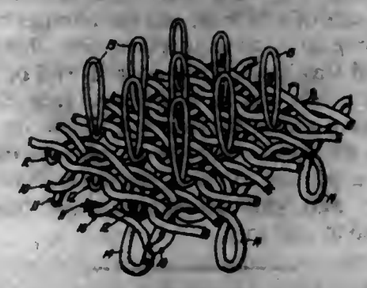
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**2,774,232**
**METHOD OF MANUFACTURING SILK STOCKINGS**
Hisashi Kakizaki, Suwa, Nagano Prefecture, Japan
No Drawing. Application March 5, 1951, Serial No. 214,017
Claims priority, application Japan June 9, 1950
4 Claims. (Cl. 66—178)

1. The method of manufacturing hose substantially from raw silk fibers, comprising the steps of knitting raw silk fibers previously treated to fix sericin therein to thereby obtain a major part of said hose, and then knitting previously degummed raw silk fibers to attain the remainder of said hose, whereby said remainder of said hose presents elasticity and flexibility relatively higher than said major part of said hose.

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**2,774,233**
**KNITTED TERRY FABRICS**
Vincent Lombardi, Miami, Fla.
Application July 12, 1952, Serial No. 298,565
12 Claims. (Cl. 66—191)



1. Knitted terry fabric comprising main yarn and wrap yarn and having a plural-wale and plural-course portion comprising said main yarn and said wrap yarn, and portions at the sides of the first-mentioned portion comprising said main yarn but not said wrap yarn, at least one of said yarns being knitted in the first-mentioned portion and said main yarn being knitted in the last mentioned portions, and at least one of said yarns being drawn into terry loops in said first-mentioned portion.

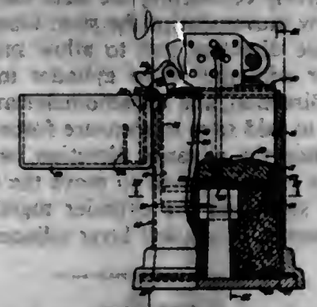
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**2,774,234**
**TABLE LIGHTER**
George G. Blaisdell and Lester Flickinger, Bradford, Pa., assignors to Zippo Manufacturing Company, Bradford, Pa., a corporation of Pennsylvania
Application January 12, 1954, Serial No. 403,611
6 Claims. (Cl. 67—4.1)

3. A table lighter of the type in which an insert body carrying the lighter mechanism is inserted in a table body having a fuel reservoir, the improvement which comprises: the table body having a top wall and side walls, a pair of inner partitions depending from the top wall, the partitions being spaced inwardly from the side walls of the table body to provide fuel reservoirs, and an insert body inserted between the inner partitions, the inner partitions being spaced apart such a distance as to closely engage the sides of the insert body, the insert body being



provided with a wick surrounded by absorbent material, and said fuel reservoirs being filled with an absorbent material, the table body having a U-shaped auxiliary



wick, the arms of which extend into the reservoirs, and with the bight of the U being in contact with the absorbent material of the insert body to make fuel from the body reservoirs available to the wick of the insert body.

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**2,774,235**
**BURNER FOR CIGARETTE-LIGHTERS AND CIGARETTE-LIGHTERS PROVIDED THEREWITH**
Theodor Raetz, Marstetten, Switzerland
Application December 19, 1955, Serial No. 554,014
Claims priority, application Switzerland June 27, 1955
12 Claims. (Cl. 67—53)

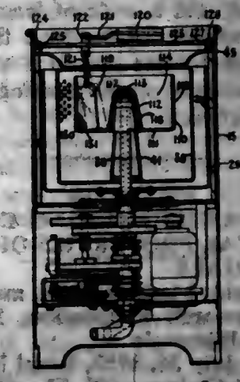


1. In a cigarette lighter provided with a fuel burner head and a tightly closed inner fuel reservoir for vaporizable fuels, the combination of a tubular member mounted inside said reservoir, lower and upper openings in said member, wick elements positioned in said lower openings with a tight fit therein, said elements having one end positioned in the fuel reservoir and extending through said tubular member to said upper opening, means mounted in said upper opening to retard the flow of fuel from said wick elements, said means forming the burner head, and means connecting said tubular member and fuel reservoir for transmitting to said wicks the pressure prevailing above the fuel level in said reservoir.

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**2,774,236**
**FOOD MIXING ATTACHMENT FOR DOMESTIC WASHING MACHINE**
George Gill, Annie Kathleen Gill, and George Jeffrey Gill, Pudsey, near Leeds, England, assignors to Fisher & Ludlow Limited, Birmingham, England, a British company
Application April 21, 1954, Serial No. 424,664
2 Claims. (Cl. 68—4)

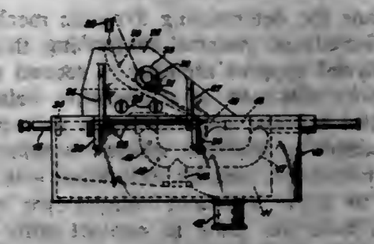
1. In a domestic washing machine of the type comprising a power driven driving element rotatable about a substantially vertical axis within an outer stationary open mouthed casing, the provision of a food mixing attachment comprising the combination of a food-stuffs containing bowl having a driving portion adapted for detachable engagement with said power driven driving element and a tool supporting member with a pair of differently arranged tools mounted on opposite sides of said tool supporting member, means being provided on opposite sides of said casing mouth for mounting said supporting member detachably on said casing in a position in which



said tool supporting member extends across said mouth and in two alternative positions in which one or the other of said tools depend from said supporting member into the interior of said bowl to co-act therewith.

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**2,774,237**
**JET BOX**
Ernest J. Griset, Jr., Asheville, N. C., assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application October 27, 1954, Serial No. 465,019
4 Claims. (Cl. 68—181)



1. A spinning in unit for a tube spinning machine comprising a box, a transparent jet-tube unit, said tube having a yarn receiving mouth spaced from said jet, quick detachable means to support said unit within said box, a deflector having a yarn guiding groove therein and a hinged side wall of said box supporting said deflector for movement from a normal position above said unit with its groove leading to said mouth to a position affording visual and manual access to said unit.

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**2,774,238**
**FREEZE-TESTER**
Larry L. Gerwig, Elmira Heights, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware
Application June 4, 1952, Serial No. 291,732
8 Claims. (Cl. 73—17)



1. In a freeze-tester for liquids, a metallic freezing rod, a transparent sheath mounted on the rod in spaced rela-

tion thereto with freedom for relative movement, a heat reservoir connected to one end of the rod, a source of cooling medium, means for bringing the cooling medium into intimate thermal contact with the other end of the rod, means for wetting the surface of the rod with the liquid to be tested, and a scale of length of the rod for determining the position of the frost line on the rod in relation to the ends of the rod; said transparent sheath being mounted coaxially on the freezing rod with a capillary space therebetween.

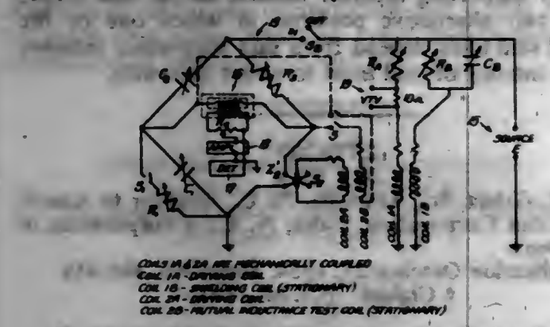
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2,774,239

## TAILPIPE OR AFTERBURNING CONTROL FOR MECHANICAL PROPERTIES OF VISCOELASTIC MATERIALS

Edwin R. Fitzgerald, Madison, Wis., assignor to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

Application July 26, 1952, Serial No. 301,061
24 Claims. (Cl. 73—67)



18. Means for determining dynamic mechanical properties of viscoelastic material comprising, in combination, a first material support member, a second material support member disposed in cooperative relation to said first material support member so as to receive therebetween a sample of material whose viscoelastic properties are to be measured, means cooperating with said support members to apply sufficient compressive stress to said sample to hold the same in contact with said support members without slipping when the same are oscillated relative to each other sufficiently to apply shearing stress to said sample, wire tension means individual to each of said support members for mounting the same for translatory movement in space substantially free of friction, means for translatorily moving said support members relative to each other to apply shearing stress to the sample of material, and means for measuring such movement.

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2,774,240

## SOIL TESTING APPARATUS

Hans Beat Fehlmann, Bern, Switzerland, assignor to A. G. für Grundwasserbauten, Bern, Switzerland

Application April 1, 1952, Serial No. 279,892
Claims priority, application Switzerland April 9, 1951
5 Claims. (Cl. 73—84)



1. An apparatus for the step-by-step determination of the skin resistance of a series of soil layers comprising a probe cylinder to be advanced into the soil, a stem of smaller diameter than said cylinder, means to drive the stem and cylinder into a soil layer, lost motion coupling means operatively connecting the stem and the probe cylinder to allow movement of the stem alone in other than in the advance direction and to allow movement of the stem together with the probe cylinder in other than in the advance direction, and dynamometer means operatively connected to said stem to measure forces applied thereto in other than the advance direction, whereby the difference in the force required to move the stem alone and to move the stem and the cylinder together determines the skin resistance of the soil layer adjacent the cylinder.

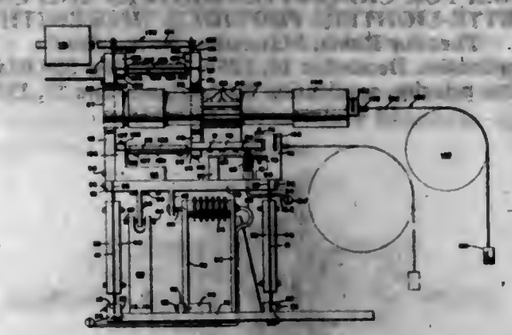
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2,774,241

## WEIGHT MEASURING, THRUST DETERMINING APPARATUS

Lowell W. Bennett, Derwood, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application October 4, 1954, Serial No. 460,288
2 Claims. (Cl. 73—116)



1. A weight measuring, thrust determining arrangement for simultaneously determining the loss of weight of a missile propellant as well as the thrust developed by the propellant during the burning thereof as a function of time, comprising, means including a plurality of leaf springs for supporting a missile motor having a propellant therein and for maintaining said missile motor substantially horizontally during burning of said propellant, means for sensing and indicating the horizontal displacement of said missile motor during burning of said propellant, means including a second plurality of leaf springs for vertically supporting said missile motor, and means for sensing and indicating the vertical displacement of said missile motor as a function of the burning of the propellant therein.

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2,774,242

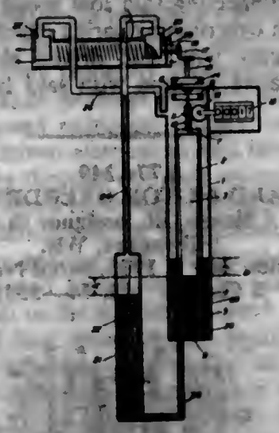
## CALORIMETER

Adam Wesp, Messenhausen, Germany, assignor to VDO Tachometer Werke, Adolf Schindling G. m. b. H., Frankfurt am Main, Germany, a corporation of Germany

Application June 17, 1954, Serial No. 437,423
Claims priority, application Germany June 17, 1953
12 Claims. (Cl. 73—193)

1. A calorimeter for central heating installations adapted to measure the product of the volume of the heat carrier flowing through such installation and the temperature difference between the inflow and the outflow of such installation, said calorimeter comprising a gas-filled chamber in the inflow and in the outflow portions of such installation, two interconnected closed vessels connected to said chambers, an inner and outer cylinder mounted for rotation within the first vessel, the outer cylinder having openings communicating with said first vessel, a liquid partially filling said first and second vessels and said outer cylinder, an impeller disposed in the inflow portion of such installation provided with means for driving said inner cylinder, said outer cylinder being actuated by the liquid coupling said cylinders and a counting mech-





anism connected to said outer cylinder upon which the revolutions of said outer cylinder are registered.

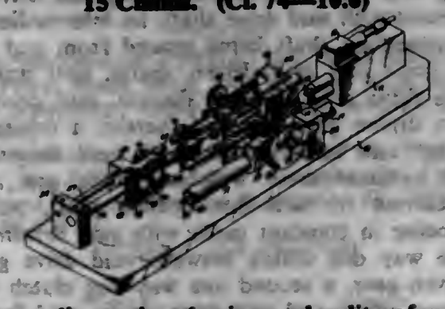
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2,774,243

## TUNING MECHANISM FOR RADIO RECEIVERS

Frank J. Skwarek, Westbury, N. Y., assignor to Polarad Electronics Corporation, Brooklyn, N. Y., a corporation of New York

Application February 1, 1955, Serial No. 485,515
15 Claims. (Cl. 74—10.6)



1. In a radio receiver having a plurality of preselector stages, each stage having a reciprocable tuning element, in combination, a shaft, a cam mounted on said shaft, a reciprocable cam follower cooperating with said cam, said follower being mounted on a slide and spring-pressed against said cam, a block on said slide, rods connected to the tuning elements mounted in bores in said block, means mounted on said block and bearing against said rods to transmit movement of said block to the tuning elements simultaneously, and means for individually varying the movement of said transmitting means and of said rods.

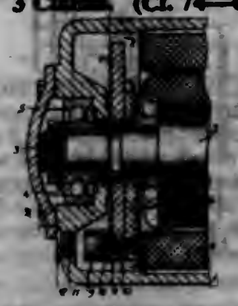
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2,774,244

## VARIABLE AMPLITUDE VIBRATOR

Ernst Rune Bergström, Trollbacken, Nils Rune Fagerqvist, Kläston, and Åke Oskar Martin Norrman, Alvsjo, Sweden, assignors to Vibro-Plus Corp., Woodside, N. Y., a corporation of Delaware

Application June 2, 1954, Serial No. 434,026
3 Claims. (Cl. 74—61)



3. In a variable amplitude rotary vibrator the combination of a shaft, an eccentric mass secured to said shaft, a relatively adjustable eccentric mass rotatably mounted on said shaft for cooperation with said fixed eccentric mass, means axially movable to operative position for interlocking said eccentric masses, a casing housing said eccentric masses and accommodating said shaft, and an opening in said casing aligned with the axially movable interlocking means making said interlocking means accessible from the outside of the casing, said opening forming a socket adapated to receive a part of said interlocking means when the latter is axially moved to inoperative position to release said adjustable eccentric mass from said fixed eccentric mass, said interlocking means, when partly received in said socket, preventing relative rotation between said adjustable eccentric mass and said casing.

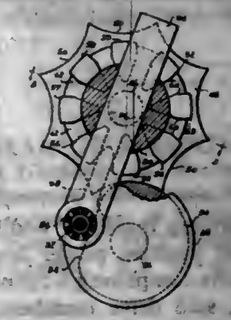
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2,774,245

## INTERMITTENT MOTION DEVICE

Francis H. Shepard, Jr., Madison, N. J.

Application January 22, 1953, Serial No. 332,712
9 Claims. (Cl. 74—84)



1. In an intermittent motion device, a driving shaft, a driven shaft, means for mounting the shafts for rotation adjacent to each other, an inverted scallop wheel carried by the driven shaft for rotation therewith, a locking member formed with a circular periphery having a cutaway portion carried by the driving shaft for rotation therewith, the curvature of the periphery of the locking member corresponding to the curvature of each inverted scallop, a crankpin, means for mounting the crankpin on the driving shaft for rotation therewith, a driving member formed with a plurality of radially extending passageways carried by the driven shaft for rotation therewith, an elongated tooth having one end thereof rotatably carried by the crankpin and separate means for continuously orienting the axis of the elongated tooth to extend radially through the axis of rotation of said driving member.

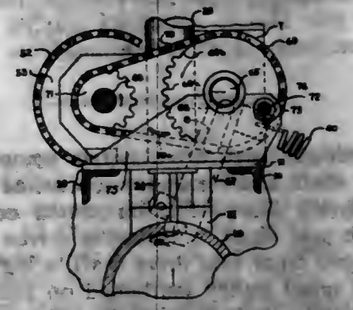
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2,774,246

## INTERMITTENT DRIVE MECHANISM

Melvin J. Happe and Edwin B. Nolt, New Holland, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, a corporation of Delaware

Application April 5, 1952, Serial No. 280,751
7 Claims. (Cl. 74—84)

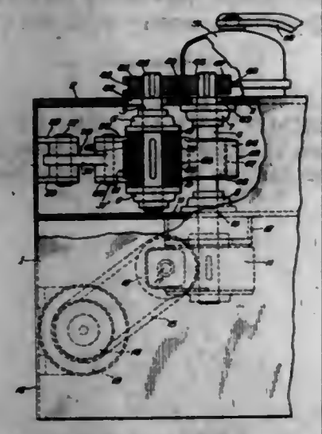


1. Crusher roll release mechanism for a hay crusher comprising, a rotatably mounted shaft, a power drive mechanism including a drive chain, an incomplete sprocket wheel rotatable with said shaft, a portion of the pe-

riphery of said wheel being smooth and free of sprocket teeth, said drive chain being slidable disposed around said smooth portion of the wheel, releasable latch mechanism normally restraining said wheel against movement with said chain.

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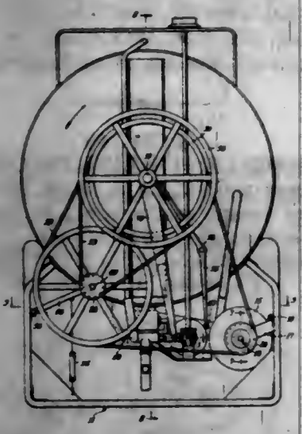
2,774,247
**DRIVE FOR METAL FORMING MACHINE**
Lloyd H. Knost, Carthage, Mo.
Application February 26, 1952, Serial No. 273,427
6 Claims. (Cl. 74—206)



1. In a metal forming machine, bodily movable forming roll shafts, and positive power transmission means connecting said shafts comprising a cylindrical drive member on each shaft, said drive members each having resilient cylindrical peripheral portions for direct face to face frictional driving contact, and said peripheral portions each being of a radial thickness greater than the maximum bodily movement of said shafts and radially distortable to permit said maximum relative bodily movement of said shafts toward and away from each other.

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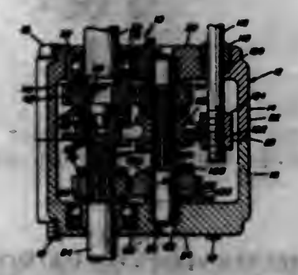
2,774,248
**MULTIPLE SPEED DRIVE SYSTEM**
Albert H. De Moss, Milwaukee, Wis.
Application May 7, 1953, Serial No. 353,490
12 Claims. (Cl. 74—217)



1. A multiple speed drive system comprising a rotatable drive shaft, a drive pulley journalled on said drive shaft, a spring biased friction clutch connecting said pulley with said shaft, a rotatable driven shaft parallel to and spaced from said drive shaft, a high speed pulley and a low speed pulley journalled on said driven shaft, an intermediate shaft parallel to and spaced from said drive and driven shafts, an intermediate high speed pulley and an intermediate low speed pulley ganged together and carried on said intermediate shaft, a belt connecting said drive pulley, said high speed pulley and said intermediate high speed pulley, a belt connecting said low speed pulley and said intermediate low speed pulley, an overrunning spring clutch connecting said low speed pulley with said driven shaft, an overrunning spring clutch connecting said high speed pulley with said driven shaft, and control means in operative relation with said last named spring clutch.

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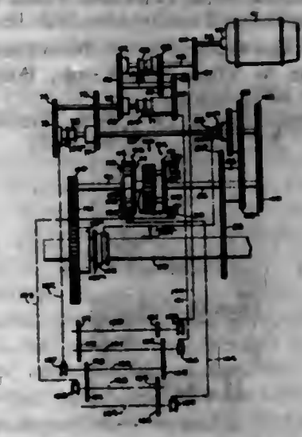
2,774,249
**OUTBOARD MOTOR OVERDRIVE UNIT**
Elliott Moline, Chicago, Ill., assignor to Frank L. Young, Milwaukee, Wis.
Application July 6, 1955, Serial No. 520,179
2 Claims. (Cl. 74—359)



1. An outboard motor overdrive unit having a drive shaft, with a reduced pilot on one end thereof a driven shaft, with a pilot hole in one end thereof, said pilot engaging said pilot hole and retaining said driven shaft in alignment with said drive shaft, an intermediate shaft, said intermediate shaft being spaced from and parallel to said drive and said driven shafts, said drive shaft having a drive gear attached thereto, said driven shaft having a driven gear attached thereto, a driven pinion carried by said intermediate shaft, said driven pinion being in constant mesh with said drive gear, a drive pinion carried by said intermediate shaft, said drive pinion being in constant mesh with said driven gear, a first one way dog clutch between said drive gear and said driven gear, a second one way dog clutch between said driven pinion and said drive pinion, said first clutch and said second clutch being positionable to selectively drive said driven shaft through said gears and through said gears and pinions, said clutches being interconnected and having a single operator.

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2,774,250
**MULTI-SPEED TRANSMISSION FOR MACHINE TOOLS**
Keith F. Gallimore, Fond du Lac, Wis., assignor to Giddings & Lewis Machine Tool Company, Fond du Lac, Wis., a corporation of Wisconsin
Application July 30, 1954, Serial No. 446,833
21 Claims. (Cl. 74—364)

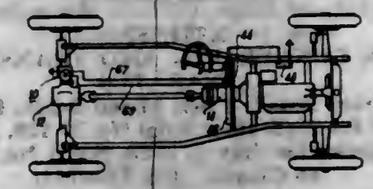


1. In a machine tool, the combination of a multispeed transmission with a speed preselector device; said transmission comprising rotatable driving and driven elements, a fixed ratio speed reduction gearing, first and second speed change gearings each including a plurality of clutches shiftable between two positions to effect different speed change ratios, means tandemly connecting said first and second speed change gearings between said driving element and said speed reduction gearing, means drivingly connecting said driven element to said first speed change gearing optionally through (*a*) said second speed change gearing and said speed reduction gearing and (*b*) through said first speed change gearing independently of said second speed change gearing and said speed reduction gearing, the ratio of said speed reduction gearing being approximately equal to the maximum speed reduction ratio afforded by said first speed change gearing; and a preselector device including a plurality of rotatable and axially movable shifter shafts operatively connected with respective ones of said clutches to shift the latter upon axial movement of the former, and means for simultaneously and axially shifting those shifter shafts indexed to predetermined rotational positions according to a preselected pattern, whereby said driven element may have any one of a plurality of speeds when connected through said first speed gearing and a corresponding one of a plurality of speeds when connected through said speed reduction gearing, as determined by the preselected positional pattern of said clutches.



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2,774,251
**TRANSMISSION OPERATING MECHANISM**
Earl R. Price, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Original application June 3, 1949, Serial No. 97,011, now Patent No. 2,695,983, dated November 30, 1954. Divided and this application September 16, 1954, Serial No. 456,430
5 Claims. (Cl. 74—365)

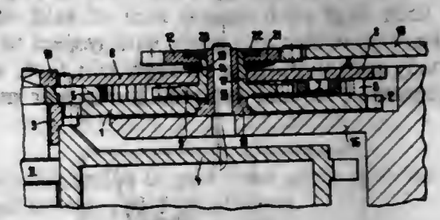


1. A power mechanism adapted to operate a change speed transmission of an automotive vehicle, said mechanism including an electric motor having a shaft, a casing, means within the casing comprising a worm gear and worm driving unit drivably connected to said shaft, a transmission operating rod, force transmitting means interconnecting the rod and worm gear including a disk directly connected to the rod and further including a spring interposed between the disk and the worm gear of said unit, said spring being energized when the motor is energized to effect an operation of the unit; cut off switch mechanism for in part controlling the operation of the motor, and means connected to the worm gear for operating the switch mechanism.

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2,774,252
**DIFFERENTIAL GEAR**
Friedrich Meyer, Grenchen, Switzerland, assignor to Felsa S. A., Grenchen, Switzerland
Application July 26, 1955, Serial No. 524,342
Claims priority, application Switzerland September 4, 1954
3 Claims. (Cl. 74—674)

1. In a differential gear for timepiece movements, a first toothed transmission wheel having crown teeth extending laterally from the median plane of the wheel, a sleeve rigidly and coaxially connected with said first transmission wheel to extend towards the side of said crown teeth, a mover unit pivoted on said sleeve to be separated as a whole from said sleeve and comprising, a sun wheel axially supported by said first transmission wheel, a hub integral with said sun wheel, detachably pivoted on said sleeve and extending away from said first transmission wheel, a second toothed transmission wheel coaxially pivoted on said hub and held at a distance from



said first toothed transmission wheel by said crown teeth, a planet wheel carried by said second toothed transmission wheel and in mesh with said sun wheel and said crown teeth, a driven wheel coaxially mounted on said hub, and means holding said second transmission wheel and said driven wheel at an axial distance from each other on said hub.

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2,774,253
**GEAR DIFFERENTIAL**
Everett S. Minard, Glendale, and Frederick Lenzen, Whittier, Calif., assignors to Librascope, Incorporated, Glendale, Calif., a corporation of California
Application March 26, 1953, Serial No. 344,810
5 Claims. (Cl. 74—675)



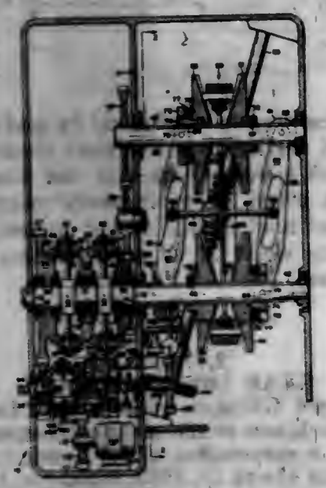
1. In a differential gear assembly of the character described, a hollow shaft having a resiliently deformable end portion provided with a plurality of symmetrically disposed slots, a differential gear assembly carried by said hollow shaft beyond the inner ends of said slots and comprising a pair of ring gears rotatably mounted on said hollow shaft, each of said ring gears being provided with an external shoulder for receiving a spur gear, a spider fixed to said hollow shaft between said ring gears, a spider gear meshing with said ring gears, clamp means for resiliently deforming inwardly the slotted end portion of said hollow shaft to secure the same to a support shaft passing through in any desired angular relation with respect to said support shaft, and means carried by said spider engageable by a tool whereby said hollow shaft may be adjusted with respect to said support shaft to facilitate engagement of spur gears carried by said shoulders of said ring gears with locked gears arranged for meshing relationship therewith.

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2,774,254
**AUTOMATIC CONSTANT SPEED DEVICE**
Walter J. Gerber, San Diego, Calif.
Application January 21, 1955, Serial No. 483,450
17 Claims. (Cl. 74—675)
(Granted under Title 35, U. S. Code (1952), sec. 266)

3. An automatic constant speed device which comprises a power input shaft, power differential means including at least one gear means rotatably fixed to said shaft, variable ratio transmission means having drive means and driven means, said drive means being rotatably fixed to said shaft, variable tooth gear means in engagement with said drive means and driven means,

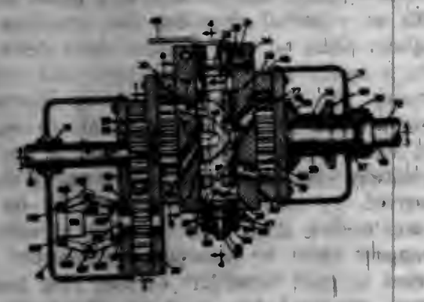
said variable tooth gear comprising a substantially circular rigid body means, a plurality of gear tooth slats slidably disposed in said body means, means on certain of said slats for limiting sliding movement thereof, resilient means supported by said body means and engaging certain of said slats for biasing all of said slats in a tilted position such that each lateral face of said slat members is disposed at an acute angle with respect to a radius of said body means passing through said face, actuating means connected to said variable tooth gear means for



altering the position thereof relative to said drive means and said driven means, said driven means being connected to a portion of said power differential means, power output means connected to said power differential means, governor differential means having a member connected to a source of power producing a substantially constant speed, and means connecting the output of said governor differential means to said actuating means for controlling the ratio of said variable ratio transmission means.

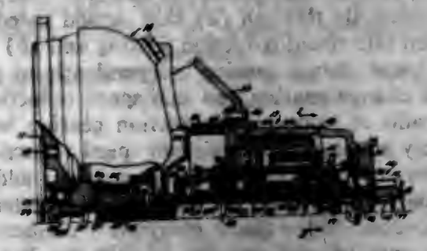
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**2,774,255**
**HYDRAULIC VARIABLE SPEED TRANSMISSION**
Frank A. Morris, Malvern, Ohio
Application January 11, 1954, Serial No. 403,094
14 Claims. (Cl. 74—687)



8. A hydraulic variable speed transmission including an oil pump, means for driving the pump, a pair of similar fluid motors, means connecting the pump to one of said motors for rotating said one motor, differential gear, means causing the other motor of said pair to counterrotate, means for throttling the incoming oil to that motor which may counterrotate, said last-named means including a variable orifice at the incoming side of said other motor and means providing communication between the pressure side of the pump and said variable orifice, and pressure oil means opposing rotation of the counterrotating motor and comprising means providing communication between the pressure side of the pump and the outgoing side of that motor which may counterrotate.

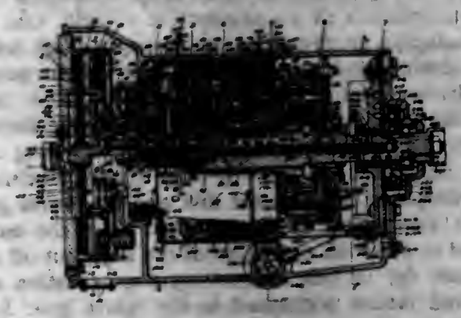
**2,774,256**
**AUTOMATIC OVERDRIVE AND TRANSMISSION SYSTEM**
Oscar H. Banker, Evanston, Ill., assignor to New Products Corporation, Chicago, Ill., a corporation of Delaware
Application September 8, 1951, Serial No. 245,721
16 Claims. (Cl. 74—740)



1. A transmission system comprising an engine driven coupling unit, a change speed unit and a manually controllable transmission unit drivingly connected to one another, an electrically energizable control unit operatively connected to said change speed unit to actuate the same for change speed action, and means controlling said control unit, including an engine driven governor, and an electrical circuit independent of the ignition circuit of said engine connected to said control unit and said governor and completed through the latter to energize the control unit, said circuit comprising a change speed unit energizing portion and a change speed unit holding portion, a switch in said energizing circuit portion operable to complete the same, a further switch in said holding circuit portion operable to complete and to overrule said holding portion notwithstanding uninterrupted ignition operation of said engine, and a manually actuable operating member common to and mechanically connected to said switches to control the latter in different positions of the member.

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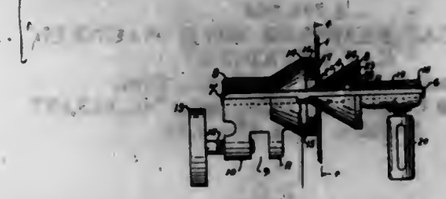
**2,774,257**
**MOTION CONVERTING AND TRANSMITTING APPARATUS**
Tracy Brooks Tyler, Miami Beach, Fla.
Substituted for application Serial No. 37,128, July 6, 1948.
This application July 7, 1950, Serial No. 172,599
46 Claims. (Cl. 74—752)



1. In a motion converting and transmitting device, in combination with driving and drivable elements, transmission means effectuable to establish a drive between said elements at relatively variable ratio including a primary drive ratio, automatic ratio changing means normally conditioned to effect the primary drive ratio and automatically variable to a different condition which defines a different ratio, means including automatic motivating and timing means to automatically vary the condition of said ratio changing means responsive to the elapse of a limited time interval, and means whereby said ratio changing means is operable to automatically select, initiate and effect the change from one drive ratio to the other responsive to the elapse of said limited time interval.



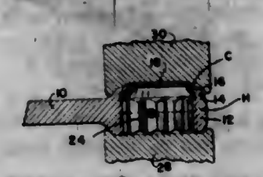
**2,774,258**
**HOLDER FOR DISC SAWS AND THE LIKE**
John B. Eagle, Los Angeles, Calif.
Application February 9, 1953, Serial No. 335,808
6 Claims. (Cl. 76—79)



2. Apparatus for rotating and holding a disc shaped saw blade during filing, grinding or setting of the teeth thereof, which comprises an elongated shaft, support means to support one end portion of said shaft, a clamping body having a generally conical recess, said clamping body encompassing said shaft at such a position that the axis of the wall of said recess is coaxial with said shaft, a cone element mounted on the other end portion of said shaft in sliding relationship, said cone element having an exterior conical surface coaxial with said shaft and adapted to enter said conical recess, said exterior conical surface being also adapted to enter a central opening in said saw blade and force said saw blade against stop means associated with said clamping body, means to lock said cone element at various longitudinal positions on said shaft, a first bearing race fixed in rotational position relative to said support means, a second bearing race adapted to rotate with said saw blade, and rolling elements mounted between said bearing races to permit substantially frictionless rotation of said saw blade relative to said support means.

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**2,774,259**
**METHOD OF MAKING BOX WRENCHES**
Frank T. Caulkins, Bryan, Ohio
Application July 11, 1955, Serial No. 521,235
3 Claims. (Cl. 76—114)

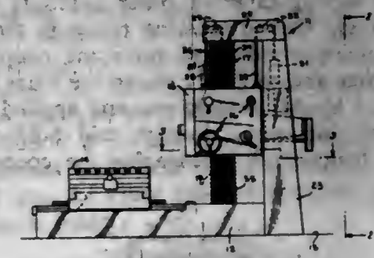


2. In a method for making box wrenches, the steps of forging a handle and a substantially cylindrical wrench head at one end thereof with a thick walled portion having a bore and a thin walled portion of greater internal diameter than said bore and less external diameter than said head, through-broaching said bore to other-than-round shape for engaging a nut or the like, and contracting the outer end of said thin walled portion by means of a forming die to form it into a perforated cap-like extension of said thick walled portion.

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**2,774,260**
**HORIZONTAL BORING MACHINE WITH COLUMNAR GUIDES**
Willi Schraub, Wickrath (Niers), Germany, assignor to Scharmann & Co., G. m. b. H., a company with limited liabilities
Application February 16, 1954, Serial No. 410,477
Claims priority, application Germany February 25, 1953
4 Claims. (Cl. 77—3)

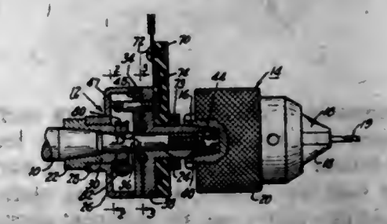
1. In a horizontal boring machine, having a bed and a spindle box vertically movable in opposite directions above said bed, in combination, two vertical columns supported on said bed guiding said spindle box vertically, an upright support adjacent said columns connected to said bed, a cross piece interconnecting the top of both columns and of the support to stabilize said columns,



and means connected to said cross piece and operable for raising and lowering said spindle box.

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**2,774,261**
**CONTROL MECHANISM FOR DRILL PRESSES**
William E. Leibing, Pasadena, Calif.
Application April 20, 1956, Serial No. 579,536
3 Claims. (Cl. 77—55)



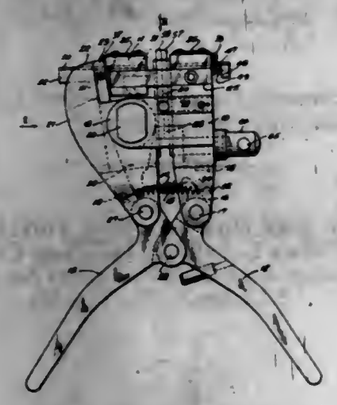
1. A torque switch for a drill press or the like having a spindle, comprising a shaft adapted to be operatively connected to the spindle and to rotate in unison therewith, a second shaft axially aligned with said first mentioned shaft and capable of rotating relative thereto for receiving a chuck, a disc-shaped member joined to said first mentioned shaft for rotation therewith and having an arcuate slot therein forming an abutment, a disc-shaped member joined to said second mentioned shaft for rotation therewith, a post seated in said second mentioned disc-shaped member and extending through said slot, a cup-shaped shell around said first mentioned shaft and joined thereto, a spring connected at one end to said post and at the other end to said shell for urging said post against said abutment, an electrical contact mounted on said first mentioned disc-shaped member and adapted to make electrical contact with said post when said shafts rotate relative to one another, an electrical non-conducting, nonrotating plate around said second mentioned shaft, an electrical conducting ring on said plate connected to a terminal on said plate and a means connecting said contact to said ring, and a means for adjusting the tension on said spring including a gear secured to said first mentioned shaft and a worm on said shell for rotating said shell relative to said first mentioned member, thereby to vary the amount of torque on the drill required to cause said second mentioned shaft to rotate relative to said first mentioned shaft.

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**2,774,262**
**BUTT PRESSURE WELDING DEVICE**
Anthony Bagnold Sowter, Ickenham, England, assignor to The General Electric Company Limited, London, England, a British company
Application August 15, 1952, Serial No. 304,539
Claims priority, application Great Britain March 26, 1952
12 Claims. (Cl. 78—82)

3. Pressure welding apparatus for butt joining a pair of wires or the like of pressure weldable metal comprising a pair of holder members arranged for relative rectilinear movement and normally biased away from each other, welding pressure applying means for moving said members together, pairs of cooperating jaw plates associated with each holder member, each pair of jaw

plates being formed with a central bore having a diameter slightly less than the diameter of the wires to be joined and having tapering outer contours engaging a correspondingly shaped tapering recess in the associated holder member, whereby to force the cooperating jaw plates together and to firmly clamp the wires held in the bores thereof by the welding pressure applied to the butted ends of said wires through said holder members, means for temporarily disengaging the cooperating jaw



plates comprising a pin depending from each jaw plate and arranged to cam with a slot in the recess of the associated holder member, said slot being parallel to the contour of said jaw members, a sliding plate interposed between said jaw plates and the adjacent recess, said sliding plate having a pair of transverse slots each engaging one of said pins, and resilient means normally urging said sliding plate to a position to maintain said jaw plates in engaged position, and operating means for said sliding plate for temporarily disengaging said jaw plates.

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2,774,263
ROLLING MILL
Axel Gustav Edvard Lenfven, Goteborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Goteborg, Sweden, a corporation of Sweden
Application August 7, 1952, Serial No. 303,045
Claims priority, application Sweden February 5, 1945
5 Claims. (Cl. 80—56)



1. A rolling mill comprising a pair of rolls and separate journal boxes therefor, a box for one roll being mounted on and being supported solely by the corresponding box for the other roll, preloadable bolt means for directly connecting the upper of the boxes with the lower box and constituting the sole means for positioning and supporting the upper box and for securing the upper box in position on the lower box in stressed position and thereby resisting the upward thrusts of the rolls tending to separate the boxes, and additional means operative while the boxes are in stressed condition for adjusting at least one of the rolls relative to its boxes to relatively adjust the rolls in both axial and radial directions.

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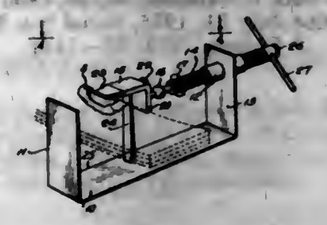
2,774,264
BOTTLE CAP REMOVER WITH MAGNETIC CAP RETAINER
Stuart G. Bryant, San Pedro, Calif.
Application October 22, 1954, Serial No. 463,897
1 Claim. (Cl. 81—3.1)



A bottle opener comprising: a mounting plate, a flange on said plate, means in part on the flange and in part on said plate for removing a cap from a bottle, the part of said means that is on said flange comprising a bolt mounted on said flange, said bolt including a head having a dove-tail kerf therein and a permanent magnet provided with a dovetail slidably mounted in the kerf, said magnet having a portion which contacts the bottle cap while the cap is being removed from the bottle and which magnetically holds onto the cap after it is separated from the bottle.

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2,774,265
AUTOMOTIVE UNIT
Philip Feuer, Newark, N. J.
Application February 16, 1954, Serial No. 410,588
2 Claims. (Cl. 81—3.7)



1. An automotive device for separation of spring leaves comprising an elongated base member having a longitudinal edge, a flat guide member secured to and extending upwardly perpendicular to one end thereof and adapted to bear against and abut one of the side edges of the spring leaves to be separated, with the base member positioned below said leaves to be separated, a bearing on said base member, a bar member movably positioned in said bearing, complementary means on said bar member and bearing for controlled movement of said bar member toward and away from the guide member, a pointed separation finger, means to secure the finger to the end of said bar member for movement, on movement of the bar, intermediate the spring leaves to be separated, and arm means depending from the finger abutting a longitudinal edge of the base member to guide the finger for movement in a plane parallel to the axis of said longitudinal edge of the base member.

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2,774,266
WATCH REPAIR TOOL
John C. Sheffield, Shreveport, La.
Application November 24, 1954, Serial No. 470,932
5 Claims. (Cl. 81—6)

1. A watchmaker's assembly tool comprising a base, a plunger mounted for vertical movement in said base, an adjusting rod mounted for horizontal movement in said base, the upper end of the plunger and the inner end of said adjusting rod being provided with aligning pins extending through a recess in the upper surface of said base

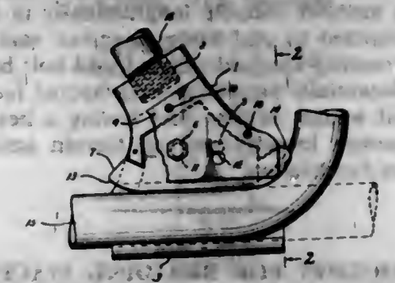


in spaced, parallel relationship, a pivoted lever member engaging a notched portion of the plunger for retracting the plunger pin, and a knob member threaded on the outer end of the adjusting rod for moving the adjusting rod pin toward and away from the plunger pin.



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2,774,267
PIPE AND ROD BENDER
Charles B. Bostick, Houston, Tex.
Application March 14, 1955, Serial No. 494,004
5 Claims. (Cl. 81—15)



1. In a pipe bending tool, a shoe receiving member, one end of said member having an internally threaded handle receiving socket, and the other end of said member having pipe receiving means, a shoe adjustably mounted in said shoe receiving member between said socket and pipe receiving means and having a pair of transverse ports, a fulcrum pin selectively mounted in one of said ports and said shoe receiving member, said shoe having its extended end curved and a gradually deepening concave channel formed in the outer face of said shoe.

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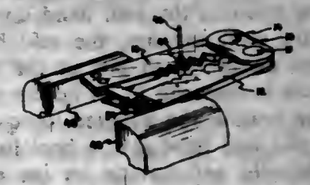
2,774,268
PLIER-LIKE TOOLS FOR USE WITH TOY RAILROAD TRACK
Abraham Kagan, East Orange, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application April 29, 1954, Serial No. 426,454
2 Claims. (Cl. 81—15)



1. A plier-like tool for use with a toy railroad track connecting pin having reduced diameter portions spaced from the ends thereof, and adapted to be inserted into the head of a sheet metal toy railroad track rail, said tool comprising crossed levers forming handles at one end and jaws at the other end, and wherein the jaws have clamping surfaces to hold the pin while it is being forced into the rail head, wherein the extreme outer end of the jaws have semicylindrical cut-outs parallel with the hinge axis for embracing the rail head, the jaws having opposite teeth projecting into the cut-outs and spaced from a side edge of the jaws an amount to enter one reduced diameter portion of a pin and gauge its insertion into the head, the opposed teeth also being positioned to crimp the rail head into the other reduced diameter portion to secure the pin in place.

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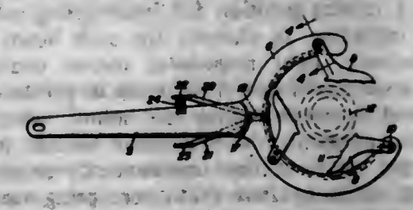
2,774,269
CRIMPING TOOL
Henry W. Demler, Lebanon, and Martin L. Klingler, Hershey, Pa., assignors to Aircraft-Marine Products, Inc., Harrisburg, Pa.
Application March 2, 1955, Serial No. 491,682
5 Claims. (Cl. 81—15)



1. A crimping tool adapted to be operated by means of a pressing machine comprising a pair of levers of the second class having free ends adapted for insertion between compression-exerting elements of such pressing machine, means pivoting the levers together near their opposite ends, said free ends being swingable toward each other into a closed position and away from each other into an open position, said levers including closure-limiting means engaging each other along substantially the entire length of said levers when said levers are in their closed position to prevent further closure, opposed dies carried by said levers intermediate said pivot means and said free ends arranged to co-operate with each other as said levers are closed, and a pair of lateral guide members secured to one of said levers near its free end and adapted to overlap opposite sides of the other lever, said guide members having portions adapted to bear against opposite sides of said other lever when said levers are nearly in closed position.

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2,774,270
PIPE WRENCH
Charles A. Daniel, Strykersville, N. Y.
Application March 7, 1955, Serial No. 492,378
3 Claims. (Cl. 81—53)



1. A wrench comprising a handle having a fixed crescent-shaped extension, a plurality of coacting jaws pivoted to the extension internally of the latter, an arcuate member positioned in side-by-side concentric relation with respect to the crescent-shaped extension and connecting the pivoted jaws to each other for simultaneously opening and closing movement, and manipulating means for the arcuate member, said manipulating means being supported by the handle and connected to the arcuate member for rotating the latter to effect an opening and closing movement of the pivoted jaws.

2,774,271

## LEVER-ACTUATED, SLIDABLE JAW WRENCH

Raphaël Lucien Mano, Paris, France, assignor to Société d'Etudes Mécaniques et d'Organisation Industrielle, Paris, France, a société anonyme of France

Application March 18, 1955, Serial No. 495,211
5 Claims. (Cl. 81—127)



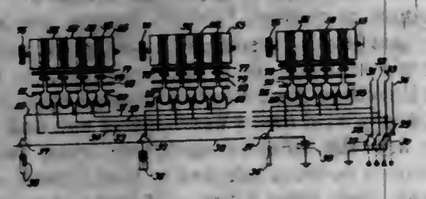
1. An adjustable spanner having a fixed jaw, a shaft end rigidly secured to the said fixed jaw, a movable jaw slidably-mounted along the said shaft end, a control spring mounted on the said shaft end and adapted to urge the said movable jaw towards the said fixed jaw, an operating handle for the said spanner, the said handle being pivotally-mounted on the fixed jaw at the extremity of the said jaw which is opposite to its lip, an abutment on the said operating handle and adapted to co-operate with an abutment on the said fixed jaw, a heel formed on the said operating handle and having an incurved portion arranged opposite the rear part of the said movable jaw, the said incurved portion being hollowed-out in the form of a gutter so as to come into abutment by its base with the said movable jaw.

2,774,272

## PHOTOELECTRIC MUSICAL INSTRUMENT

Watson D. Harbaugh, Evanston, Ill.

Application November 23, 1951, Serial No. 257,731
14 Claims. (Cl. 84—1.18)



1. A system for producing a compound sound wave including a plurality of different complex sound waves of musical instruments comprising means for producing a plurality of light beams, each of said light beams varying in intensity in accordance with characteristics of a different musical instrument sound wave, means normally occupying a resting position for interrupting said beams selectively including an element for each beam of varying translucency, light responsive means energized by light beams selected by said elements to produce a compound sound wave including the sound waves of the light beams energizing the responsive means, means including finger actuated keys momentarily engaging said interrupting means to drive said interrupting means from their respective resting positions when moved in one direction for varying the positions of said elements to vary the magnitude of the intensity of the light beams energizing the responsive means to produce a compound sound wave of predetermined content, means for restoring said elements to beam interrupting positions at a predetermined speed to taper the compound sound proportionally throughout the range of its components including a continuously rotating member engaged by said interrupting means when driven from said resting positions and means controlled by said key for interrupting said engagement by said interrupting means when the key is moved in the opposite direction.

2,774,273

## ANCHOR BOLT HAVING WEDGE SHAPED EXPANDER MEMBER SECURED THERETO

Henry N. Olson, Milwaukee, Wis.

Application September 30, 1953, Serial No. 383,259
3 Claims. (Cl. 85—2.4)



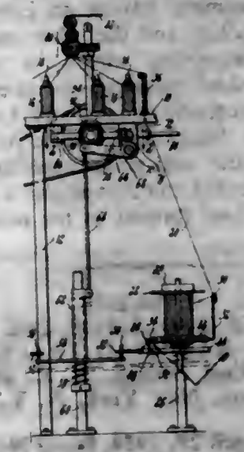
1. In an anchor bolt, a bolt body member adapted for axial insertion into an opening in a support and having a lateral recess presenting a face tapered longitudinally of said member and further presenting a shoulder at the deeper end of said recess, said body member having formed longitudinally therein an aperture opening at said shoulder and provided with a restriction adjacent said shoulder, a wedge member cooperating with said tapered face and adapted for engagement with the walls of said opening for firmly securing the bolt in the opening, and a retaining member slidable longitudinally in said aperture and attached to said wedge member, said retaining member extending longitudinally of said bolt body member and substantially parallel to said tapered face and the path of said wedge member and having a head portion in said aperture loosely confined therein against withdrawal by said restriction.

2,774,274

## STOP MOTION FOR BRAIDING MACHINES

Benjamin Hutnick, Malden, Mass.

Application June 12, 1953, Serial No. 361,171
2 Claims. (Cl. 87—18)



1. In a braiding machine having a main frame including an elevated circular platform, bobbin-carrying spindles in said platform a circular series of warp thread guides on said platform, a stand for a spool of warp thread under each said guide, and driving means for said spindles including a clutch and a lever operable to engage and disengage the clutch members; stop mechanism comprising a rod slidably mounted on said frame and attached to said lever, spring means on said rod biased to rock said lever to disengage the clutch, said rod having a notch in a side thereof, a bell-crank rockably mounted on said frame with an upright arm normally engaging in said notch to hold said rod against clutch opening movement, said bell-crank also having a horizontal arm, a link pivotally attached to said horizontal arm and extending downward therefrom, a vertically slidable member attached to the lower end of said link, spring means supporting the weight of said slidable member and link to maintain said bell-crank arm engaged in said notch,



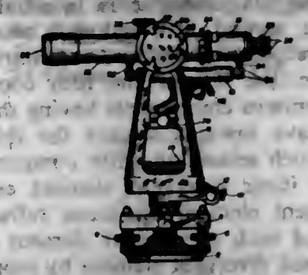
a vertically slidable element carried by each said stand under the spool thereon, each said element having a portion overlapping a portion of said vertically slidable member, a rockable hook depending from each said stand and normally engaging the slidable element thereunder to hold said element against downward movement, spring means on each said stand pressing the corresponding slidable element thereon downward, and an elongated trigger operatively connected to said hook and normally engaged by a warp thread from the spool to hold said hook in engagement with said slidable element, the parts being so arranged that when the trigger is released from the warp thread, the trigger rocks to disengage the hook, releasing the slidable element which depresses the slidable member, rocking the bell-crank clear of the notch so that the spring means on the rod disengages the clutch members and stops the machine.

2,774,275

## OPTICAL INSTRUMENT

William G. Keller, Summit, N. J., assignor to Kouffel & Esser Company, Hoboken, N. J., a corporation of New Jersey

Application May 1, 1952, Serial No. 285,510
1 Claim. (Cl. 88—2.2)



An instrument for locating points in a plane perpendicular to an optical line of sight comprising a telescope, an axle carrying said telescope, means for adjusting the line of sight of said telescope perpendicular to the axis of said axle, bearings supporting said axle for rotation about its axis, an adjustable standard supporting said bearings, an element having a plane reflecting surface mounted on said axle so that the plane of the reflecting surface is perpendicular to the axis of the axle and thereby parallel to the plane generated by the line of sight of the telescope as the telescope is rotated on its axle, mounting means for the element having a plane reflecting surface for positioning the plane reflecting surface of said element perpendicular to the axis of said axle, the perpendicularity of the plane reflecting surface to the axis of the axle being determinable by rotating the axle while observing through another optical instrument an image reflected from said plane reflecting surface so that any necessary adjustment to secure perpendicularity can be made, whereby points may be located in a plane perpendicular to the optical line of sight of another optical instrument by adjusting said standard to make the axis of said axle parallel to the optical line of sight of the optical instrument as determined by an image on the line of sight of the optical instrument being reflected from said plane reflecting surface backward into the optical instrument and sighting through said telescope carried on said axle while said instrument is so adjusted.

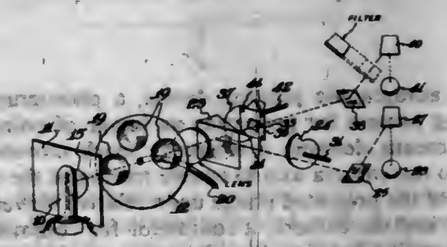
2,774,276

## COLORIMETER

Leo G. Glasser and Daniel J. Troy, Jr., Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

Application August 28, 1951, Serial No. 243,936
7 Claims. (Cl. 88—14)

1. A colorimeter comprising a light source and in optical alignment therewith a light filter, a convergent lens producing a real image of said light source and a semi-transparent mirror directing the light from said convergent lens along two distinct paths, the first of said two paths being provided with a light regulator having an adjustable control means and a color sample support disposed past said light regulator, the second of said paths being provided with a linear light transmitting mask-light regulator assembly having an adjustment means calibrated so as to permit determination of color values and a reference color support disposed past said mask-light regulator assembly, said convergent lens, said semi-transparent mirror, said light regulator and said mask-light regulator assembly being all disposed in close



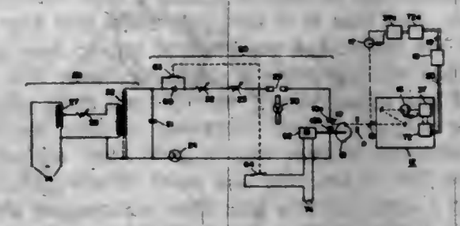
proximity one to another, a pair of vacuum phototubes, on viewing the sample and the other the reference disposed out of the line of sample and reference specular reflection with respect to said color sample support and said reference color support, connected in a light ratio-responsive series-aiding electrical bridge circuit provided with a direct current voltage source, an electrometer tube having a grid element in electrical connection with said bridge circuit between said phototubes and an associated plate element in circuit with a direct current power source, and an indicating meter in electrical connection with the output side of said electrometer tube adapted to sense the electrical unbalance between said phototubes.

2,774,277

## SYSTEMS FOR SPECTROCHEMICAL ANALYSIS

Raymond C. Machler, Philadelphia, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application November 5, 1952, Serial No. 318,807
9 Claims. (Cl. 88—14)



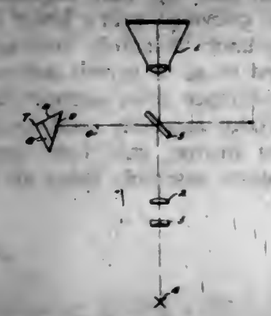
1. In combination, a spectrometer system having a source of radiant energy operable over a range of selected repetition rates and a phototube responsive to a selected band of the spectrum of said radiant energy for producing radiant-energy pulses at a selected repetition rate, an amplifier having an input circuit including said phototube and an output circuit in which there appears an output signal including amplified pulses corresponding with those applied to said input circuit, a synchronous rectifier in said output circuit, means for applying to said input circuit radiant-energy pulses during alternate half cycles only of an alternating-current reference voltage to insure unipolarity of the rectified amplified pulses throughout said range of selected repetition rates, and means including said reference voltage for operating said synchronous rectifier to produce switching operations at a predetermined time in the cycle of said reference voltage.

2,774,278

## AUTOGRAPH PHOTOGRAMMETRIC PLOTTING DEVICES BASED ON THE DEVILLE PRINCIPLE

Umberto Nistri, Rome, Italy

Application June 2, 1953, Serial No. 359,177
1 Claim. (Cl. 88—24)



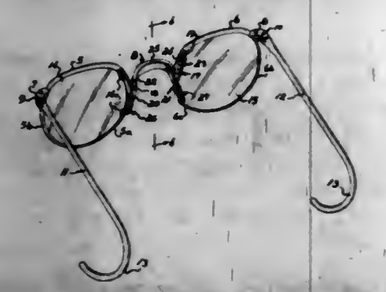
In an autographic plotting device, a photogrammetric projecting camera for projecting an image of points to be plotted, means defining a reference mark movable with respect to the camera axis to enable tracing of the contour features of the projected image upon relative movement of the mark and the camera, a collimator for collimating the rays proceeding from said mark, a plane semi-transparent reflector mounted between said camera and the reference mark and oriented so as to reflect a part of the rays from the camera and a part of the rays from the mark in opposite directions along substantially a common axis, and a trihedral reflector prism disposed on said common axis for reflecting said part of the rays from the mark back along said common axis to merge for observation with the part of the camera rays reflected by said reflector; the entry face of said trihedral prism being tilted with respect to said common axis through an angle at least equal to half the angle of the semi-field of the observing system, whereby fused images of the camera rays and of the mark are visible along said common axis free from secondary reflections.

2,774,279

## SPECTACLES FOR ATHLETIC COMPETITORS

Marshall S. Olson and Richard C. Lindmark, Minneapolis, Minn., assignors to N. P. Benson Optical Company, Inc., Minneapolis, Minn., a corporation of Minnesota

Application February 9, 1953, Serial No. 335,664
6 Claims. (Cl. 88—43)



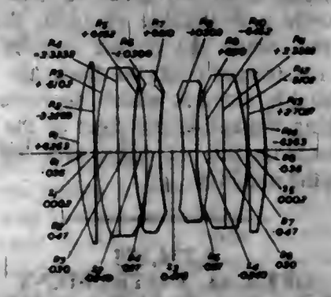
1. An ophthalmic assembly including in combination an eye wire having a nasal and a temporal side, a lens mounted within said eye wire and having a nasal side with a recess formed in the peripheral portions thereof, a bridge member rigidly connected with said eye wire and supporting the same, and a soft, resilient and tough arch encasing said bridge member and having portions thereof extending through the recess of said lens and encircling the nasal side of said eye wire to preclude rotation of said lens and more firmly affix said arch to said bridge member and said eye wire, said arch being shaped to conform to the bridge of a nose of a human and functioning to protect the wearer from said eye wire and said bridge member in the event of a sharp concussion received thereagainst and to simultaneously protect said eye wire from deformation and consequent ejection of its lens.

2,774,280

## OPTICAL OBJECTIVES COMPRISING SIX AIR SPACED COMPONENTS IN AXIAL ALIGNMENT

Gordon Henry Cook, Leicester, England, assignor to Taylor, Taylor & Hobson Limited, Leicester, England, a British company

Application May 11, 1953, Serial No. 354,270
Claims priority, application Great Britain May 14, 1952
12 Claims. (Cl. 88—57)



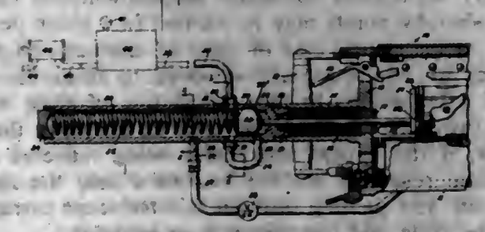
1. An optical objective for photographic and other purposes corrected (at least for a substantial portion of the visible spectrum) for spherical and chromatic aberrations, coma, astigmatism, field curvature and distortion, and comprising six components in axial alignment of which the first, second, fifth and sixth counting from the front are convergent and the third and fourth are divergent and biconcave, the second and fifth components being compound meniscus components having their air-exposed surfaces concave inwards toward the third and fourth components, such second and fifth components each consisting of an inner divergent element cemented to an outer convergent element the mean refractive index of the material of such convergent element exceeding that of the associated divergent element by more than .05, the arithmetic mean of the equivalent focal lengths of the first and sixth components lying between 1.8L and 2.7L, that of the second and fifth components between 3L and 10L, and that of the third and fourth components between —2.2L and —1.5L, where L is the overall axial length of the objective from the front surface of the first component to the rear surface of the sixth component and wherein the said overall axial length (L) is substantially 0.373 times the equivalent focal length (F) of the whole objective.

2,774,281

## INJECTOR PUMP FOR BREECH COOLING OF GUNS

George A. Hawkins, West Lafayette, Ind., assignor to Purdue University, Lafayette, Ind.

Application September 19, 1945, Serial No. 617,374
2 Claims. (Cl. 89—1)



1. In an injector pump for cooling a gun having a receiver body, a barrel, a reciprocating bolt and a bolt buffer assembly, comprising, a pump cylinder, closed at its rearward end and provided with a reduced, axially bored, threaded forward head portion, said cylinder adapted to be threadably secured in coaxial relation to the rearward end of said bolt buffer assembly, a piston rod connected at its forward end to said reciprocating bolt and extending axially and rearwardly through said bolt buffer assembly, said axial bore in head portion on said pump cylinder and into the forward portion of said pump cylinder, a piston secured on the rearward end of said piston rod and slidable in said pump cylinder, a spring in said pump cylinder normally biasing said piston in a forward direction, an annular channel surrounding said pump cylinder, a first pipe connecting said annular channel with a source of liquid coolant, a series of radial ports in said cylinder wall communicating between said annular channel and said pump cylinder, a second pipe communicating between said annular channel and the forward portion of said pump cylinder immediately forward of said piston when said piston is at its full forward position in said pump cylinder, a third pipe communicating between said pump cylinder at a point substantially rearward of said piston, when said piston is in said full forward position, and a barrel on said gun, said piston acting upon recoil to move in a rearward direction to force said liquid coolant into said barrel of said gun and a pressure regulating valve on said third pipe.

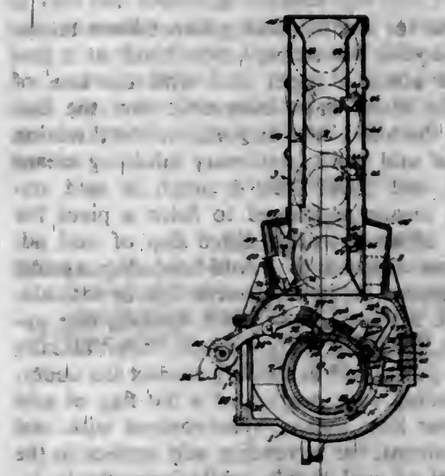


2,774,282

## REPEATING ROCKET LAUNCHER

Andrew Ballash, Los Angeles, Stephen A. Stam, Glendale, and Paul E. Anderson, Torrance, Calif., assignors to the United States of America as represented by the Secretary of the Army

Application February 8, 1951, Serial No. 210,026
21 Claims. (Cl. 89—1.7)



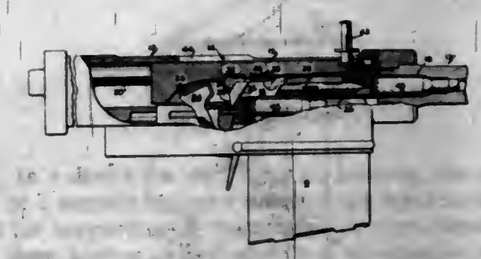
7. In a repeater rocket launcher, a main body, forward and rear open aligned bearings carried by said body, a launching tube assembly including a semi-cylindrical tube portion having coaxial bearing sleeves at its ends, each sleeve being journaled in a respective one of said bearings, said assembly also including first and second quarter-cylindrical doors, each hinged along one edge to a respective edge of said tube portion, said doors being pivotable from a first closed position forming with said tube portion a complete launching tube, to a second open position in which a rocket may be loaded laterally into said tube portion, said doors having flanges along their free edges which meet when in first position, a clamp member hinged to said second door and pivotable from an open position free of said flanges to a clamping position holding said flanges in gas-tight relation, cam means carried by said main body, follower means carried by said doors and clamp member, all said follower means engaging said cam means and effective, in response to rotation of said launching tube assembly as a unit in said bearings, to move said doors and clamp member from open positions when said tube portion is in upwardly-facing position, to closed and clamping positions, respectively, when said assembly has been rotated through a predetermined angle, and means carried by said main body to rotate said assembly.

2,774,283

## BREECH MECHANISM FOR A FIREARM

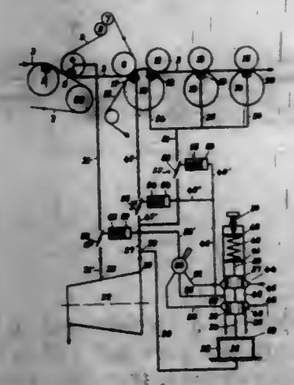
Earle M. Harvey, Agawam, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application June 14, 1954, Serial No. 436,749
1 Claim. (Cl. 89—194)
(Granted under Title 35, U. S. Code (1952), sec. 266)



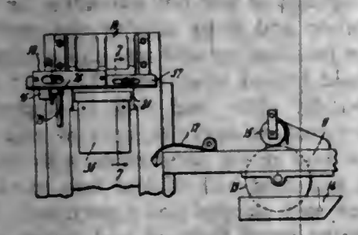
In a firearm having a receiver and a barrel with a chamber for a cartridge provided with a projectile and a case rearwardly projectable from the chamber when the cartridge is fired, a carrier slidably mounted in the receiver for reciprocation between a battery and a recoil position, said carrier being provided with a longitudinal recess in the underside of the front portion thereof and oppositely disposed holes extending laterally from said recess adjacent the front end thereof, a guide rotatably mounted in each one of said holes and having a tongue portion on the inner end thereof, a bolt received by said recess for longitudinal movement therein, longitudinal recessed guideways in opposite sides of said bolt and adjacent the front portion thereof for slidably receiving said tongue portions to slidably support the front end of said bolt and to mount said bolt for pivotal movement of the rear end thereof between a downward locked position and an upward unlocked position, a head portion in said bolt for rearwardly abutting the base of the case to transfer the recoil force of the case to said bolt for rearward movement thereof, means for transferring the rearward movement of said bolt simultaneously to said carrier for acceleration thereof from said battery position to said recoil position, a heel portion extending downwardly from the rear end of said bolt, a rear portion on said heel portion engageable with a lock abutment in the receiver for stopping said bolt when said bolt is in said lock position and when said carrier is energized sufficiently for movement to said recoil position, a transverse rib extending downwardly from the top side of said recess and having an underside and an upwardly and forwardly sloping surface on the front side, a cam portion extending upwardly and forwardly from said rear end of said bolt for engageable cooperation with said sloping surface to cam said rear end of said bolt downwardly to said lock position for engagement of said rear end portion on said heel portion with said locked abutment, a stepped-down portion on the top side of said bolt extending forwardly from said cam portion and being slidably engageable with said underside for maintaining said rear end portion in engagement with said locked abutment while said carrier continues rearwardly after said bolt is stopped, inclining shoulders disposed on opposite sides of said bolt, inclining ledges in said recess cooperable with said shoulders for pivoting said rear end of said bolt to said unlocked position when said stepped-down portion is free of said underside during recoil flight of said carrier for engaging said bolt to said carrier for rearward movement therewith after the projectile has left the barrel and for supporting said rear end of said bolt in said unlocked position during movement of said bolt and said carrier together to said recoil position and resilient means for returning said carrier to said battery position.

**2,774,284**
**MACHINE FOR MAKING LENGTHS OF PAPER OR CELLULOSE**
Kurt Feer, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application March 21, 1955, Serial No. 495,612
Claims priority, application Switzerland March 23, 1954
5 Claims. (Cl. 92—44)



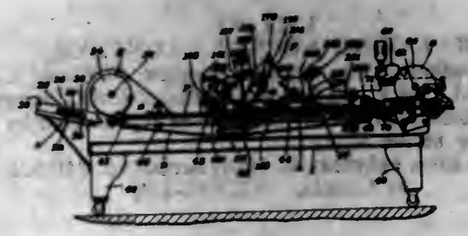
1. A paper making machine comprising a wire at the wet end of the machine, a felt ribbon for taking over the paper mat from the wire, a roll over which said felt ribbon is laid, a suction box placed inside of said roll for normally drawing the paper mat from said wire to said felt ribbon, a plurality of rolls guiding the moving paper mat after it has been taken over by said felt ribbon, vacuum boxes individually connected with said last mentioned rolls for removing moisture from the paper mat, a turbocompressor, a conduit connecting said turbocompressor with said suction box and conduit means connecting said turbocompressor with said vacuum boxes for producing a vacuum in said boxes, a control mechanism responsive to the pressure in at least one of said vacuum boxes, a valve in the conduit connecting said turbocompressor with said suction box, and a manually operable device including means for selectively manually operating said valve and for connecting said control mechanism with said valve when said valve is not manually operated for automatic actuation of said valve by said control mechanism according to the pressure in at least one of said vacuum boxes.

**2,774,285**
**AUTOMATIC ACTUATING MEANS FOR BOX SETTING-UP MACHINES**
Clarence Lloyd Claff and Carl A. Moeller, Randolph, Mass., assignors, by mesne assignments, to M. B. Claff & Sons, Inc., Randolph, Mass., a corporation of Massachusetts
Original application February 26, 1947, Serial No. 731,064, now Patent No. 2,658,433. Divided and this application November 26, 1952, Serial No. 322,752
6 Claims. (Cl. 93—36.3)



1. In a box setting-up machine, the combination with blank gluing and folding mechanism, of a pair of pressure members movable relatively toward and from one another, power means for causing such movement, devices for rendering said power means operative, a contact member positioned to be engaged by the blank to actuate said devices while the blank is being held and advanced to the pressure members, a wiper plate upon one of the pressure members having a slot extending in the direction of the path of advance of the blank through which slot the contact member extends, and means for adjustably mounting the contact member upon the rear face of the wiper plate to permit the contact member to be positioned nearer to or further from the pressure members to vary the time of rendering the power means operative with respect to the movement of the blank.

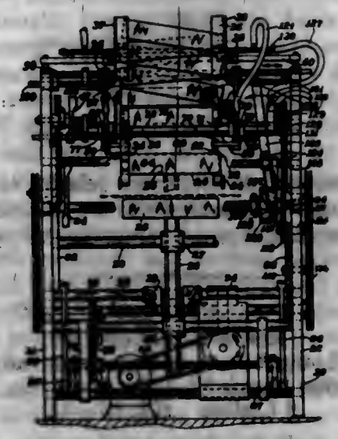
**2,774,286**
**MACHINE AND METHOD FOR FOLDING BOX BLANKS**
Leon E. La Bombard, Nashua, N. H., assignor to International Paper Box Machine Company, Nashua, N. H., a corporation of New Hampshire
Application March 18, 1952, Serial No. 277,242
10 Claims. (Cl. 93—49)



1. In a machine for use in making knockdown boxes; means for continuously advancing a box blank at a predetermined speed along a paper line with the line of articulation of the blank flaps transverse, and the line of articulation of the blank tabs diagonal, to the direction of advancement of said blank; stationary infolding means positioned above said paper line; a notch in said stationary infolding means positioned to form a pivot for the leading edge of an upwardly lifted flap of said advancing blank and adapted to infold said flap against the main body thereof on its transverse line of articulation as said blank advances thereunder; leading flap uplifting mechanism, including a rigid, plane, longitudinally extending surface positioned to slidably contact the undersurface of the leading edge portion of a flat flap of said blank, at the paper line; means, synchronized with said blank advancing means, for advancing said surface in the direction of travel of said blanks while increasingly inclining said surface, thereby guiding the leading edge of each successive leading flap upwardly above the paper line into engagement in the notch of said stationary infolding means; and a stationary longitudinally extending folder bar positioned above the path of a triangular tab, adjacent said infolding means and uplifting mechanism, said folder bar being arranged to fold said tab in the opposite direction to that of said infolded leading flap.

**2,774,287**
**SUCTION STRIPPING AND STACKING APPARATUS**
Harold J. Goss, Nashua, N. H., assignor to The International Paper Box Machine Company, Nashua, N. H., a corporation of New Hampshire
Application March 31, 1955, Serial No. 498,261
12 Claims. (Cl. 93—51)

1. In a machine for making boxes said machine having a box forming channel with an exit end, box forming means reciprocable in said forming channel and a box receiving channel with an entrance end, said channels being coaxial and facing each other with said ends spaced apart, suction gripper means facing toward said box forming channel and adapted to secure a grip on a box positioned bottom foremost at the exit end thereof, means for moving said suction gripper means up to said entrance end along a predetermined path located in the space between said ends and moving said suction gripper means back to said exit end along a predetermined path at least partly located beyond the space between said ends, said moving means being cooperable with said box forming means to remove each successive box therefrom and advance the box bottom foremost into the entrance end of the box receiving channel; suction means



operably connected to said gripper means, including mechanism for releasing suction in said suction gripper means to disengage a box therefrom at the entrance end of said box receiving channel and box pusher means on, and movable with, said suction gripper means, said pusher means facing toward said box receiving channel and being adapted to push further into said channel, each successive box released at the entrance end thereof on the previous path circuit of said suction gripper means.

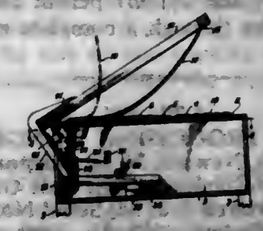


**2,774,288**
**LENS STANDARD**
Nikolaus Karpf, Munich, Germany, assignor to Valentin Linhof, Munich, Germany, a German company
Application April 11, 1952, Serial No. 281,817
Claims priority, application Germany April 13, 1951
1 Claim. (Cl. 95—50)



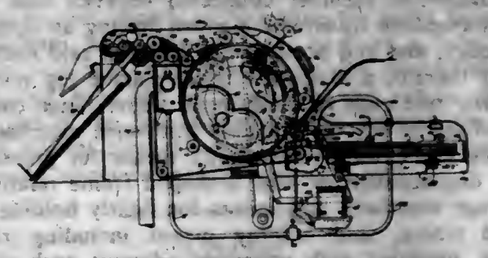
Adjustment means for a lens standard of a camera having a carriage; comprising a socket mounted centrally of said carriage, a knob provided with a peripheral groove and rotatably engaging said socket, interengaging means on said knob and said socket to move said knob axially upon rotation of said knob, said socket being provided with a slot extending in the direction of axial movement of said knob, and a member including a hinge connection to said standard and extending from the latter through said slot into said groove, said hinge connection being located below said lens standard and forming the tilting axis thereof, whereby rotative movement of said knob is translated into tilting movement of said standard about said tilting axis, said slot being defined by an inclined wall forming a stop against which said member abuts in predetermined position of said knob groove relative to said socket, said member and said stop when engaged with each other ensuring retention of said knob in said socket, and resilient means coacting with said carriage and said member to bias said member in one direction.

**2,774,289**
**PRINTING DEVICE**
Carroll B. Collins, Pittsburgh, Pa., assignor to Peerless Photo Products, Inc., Shoreham, N. Y., a corporation of New York
Application January 9, 1952, Serial No. 265,556
5 Claims. (Cl. 95—76)



1. In a device for photographic printing, the combination of a support having a substantially horizontal surface area for supporting the material to be reproduced, a flexible sheet having an operative area coextensive with said surface area and having its rear portion connected to the rear portion of said surface area, a frame member having connected to its front portion the front portion of the sheet, means pivotally connecting the rear portion of said frame member to the support on an axis located behind the rear end of said surface area and substantially below the level of said surface area whereby when the frame member moves from a vertical position to a horizontal position a sagging portion of the sheet will move progressively into contact with substantially the whole area of said surface until the frame member reaches fully closed position on said surface area.

**2,774,290**
**AUTOMATIC COPYING MACHINES**
Jackson F. Mormann, Audubon, N. J.
Application April 10, 1952, Serial No. 281,617
3 Claims. (Cl. 95—77.5)



1. In an automatic duplicating machine for making prints from translucent originals, comprising an automatic feed mechanism, a revolving cylinder, manual control means and a driving mechanism; said cylinder having a transparent closure in the peripheral surface thereof; clamping means pivotally mounted on the peripheral surface of said cylinder and positioned adjacent the leading edge of said transparent closure, said clamping means having extending fingers to receive and grip the leading edge of said translucent original; said manual control means being operatively and selectively connectible to said cylinder, said driving mechanism and said clamping means; said manual control means having a first, second and third position, said manual control means manually moved to said first position to connect said driving mechanism to said revolving cylinder, said manual control means disconnecting said driving mechanism from said revolving cylinder when said manual control means is moved to said third and said second position; means operatively connected to said control means to move said manual control means to said second position following a complete revolution of said revolving cylinder, said manual control means operatively connected to said clamping means only when said control means is in said third position to thereby render said



**2,774,291**
**MACHINE FOR MAKING CORRUGATED PAPER BOARD**
Ernest Wilson Sykes, Bromley, England, assignor to Bryant & May Limited, London, England, a British company
Application March 31, 1953, Serial No. 345,966
Claims priority, application Great Britain April 4, 1952
3 Claims. (Cl. 93—53)



1. In a machine for making corrugated paper board, the combination of a pair of corrugating rolls, a pair of feed rolls for feeding a web of paper to said corrugating rolls, a pair of pressure rolls for feeding a web of paper to said corrugating rolls, a pair of pressure rolls for feeding a web of paper to said corrugating rolls in contact with the corrugated face of the web of paper passing between

clamping means ineffective to grip the leading edge of said translucent original; said machine having automatic duplicating operation from a single translucent original when said manual operating means is maintained in said first position; speed adjusting means operatively connected to said driving means to regulate the speed of said driving means and thereby permit continuous rotation of said cylinder through a complete cycle and from cycle to cycle.

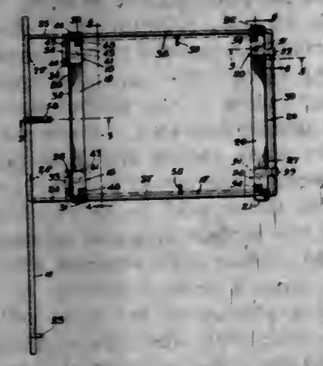
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**2,774,291**

## FILM PROCESSING HANGER

Michael Domenech, Newark, N. J., assignor of twenty-five percent to Samuel Jules Lustig, East Orange, N. J.

Application March 5, 1954, Serial No. 414,313
5 Claims. (Cl. 95—100)



1. A film processing hanger comprising a main frame having a channel section hanger member, two laterally spaced parallel rod members secured to said hanger member and depending downwardly therefrom, a lower transverse member connected between the lower ends of said rod members, said lower transverse member having an upturned lower edge and turned up flexible ends secured to the outer side of said rods, and an intermediate transverse member connected between said rods, said intermediate transverse member having an upturned upper edge, and end portions rolled about said rods and secured thereto, a U-shaped frame having leg portions with their free ends inwardly bent, sleeve hinge connections affixed to the intermediate transverse member and receiving said inwardly bent ends, means for preventing lateral displacement of said U-shaped frame relative to said hinge members, and means for tightly holding film in said frame, said holding means including raised mounds, provided with openings, adjacent each corner of the main frame and pin members at each corner of the U-shaped frame adapted to enter the openings in said raised mounds.

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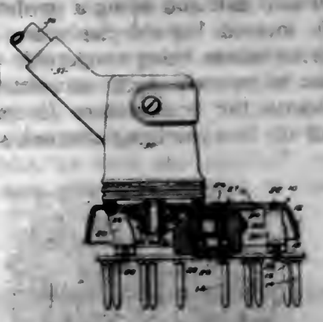
**2,774,292**

## EARTH CONDITIONING DEVICE

Eric Hartmann, Syracuse, N. Y., assignor to The Porter-Cable Machine Company, Syracuse, N. Y., a corporation of New York

Application April 28, 1954, Serial No. 426,212
7 Claims. (Cl. 97—43)

1. A manually supported and manipulable power operated earth conditioning device comprising a body including a motor housing, and an upwardly extending handle for manipulating the device, a motor mounted in said housing, a frame mounted on the under side of the body, frame supporting means carried by the body for suspending said frame for horizontal movement relative to the body, a plurality of vertically disposed earth engaging prong members fixedly mounted on said frame, said prong members depending from said frame in a non-linear group pattern distributed over an area of substantial lateral and longitudinal extent, some of said prongs being at the perimeter of said area and some of said prongs being in the mid-portion of said area, motion transmitting means journalled in the body and being operatively connected to said motor and said frame, said motion transmitting means



effecting movement of the frame relative to the body in a positively controlled orbital path of predetermined magnitude in a horizontal plane perpendicular to said prongs.

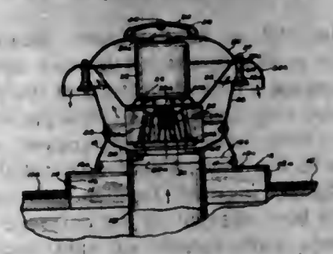
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**2,774,293**

## ROOF EXHAUSTER

Louis J. Jonas, Indianapolis, Ind.

Application March 27, 1953, Serial No. 345,030
8 Claims. (Cl. 98—43)



1. In a roof exhauster adapted to be supported by the roof of a building or a curb extending upwardly from said roof having in combination, an annular member extending upwardly and outwardly, a conduit connected to the lower end of said annular member and extending downwardly into said building means for supporting said annular member from said roof or curb, a second annular member extending upwardly and outwardly from said first mentioned annular member and supported thereby, a third annular member spaced from said second annular member supported therefrom, extending downwardly therein and forming therewith an upwardly extending passage for air from said conduit said third annular member having a bottom with an opening therein, a motor supported on said bottom and closing the same, said motor having a depending driveshaft and a fan disposed above said conduit and secured to said shaft for forcing air upwardly through said passage.

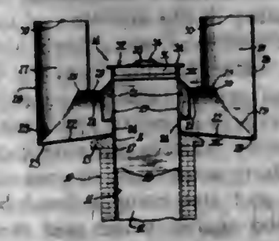
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**2,774,294**

## RAIN COVER FOR CHIMNEYS

Max O. K. Kahle, Chicago, Ill.

Application October 6, 1954, Serial No. 460,556
4 Claims. (Cl. 98—76)



1. A rain cover for a chimney comprising means providing a first duct disposed on a vertical axis and having side walls adapted to be inserted into a chimney opening, said side walls having a pair of oppositely disposed openings formed therein, each opening having in register



therewith means providing a second duct disposed on a generally horizontal axis and having side walls integrated with said side walls of said first duct, the bottom portion of said side walls of each said second duct depending downwardly to prescribe an acute angle with the subjacent side walls of said first duct and forming an angularly inclined bottom drain directed outwardly away from said first duct, each said bottom portion having a drain aperture formed therein at the lowermost extremity thereof to gravitationally release all liquid fluids from said second duct, each said second duct terminating at its outer end in means providing a third duct disposed on a vertical axis substantially laterally displaced from said vertical axis of said first duct and having side walls integrated with said side walls of said second duct, each said third duct having a top opening forming an outlet for the chimney, means forming a baffle between said third duct and the upper portion of said second duct, an upright baffle adjacent said bottom portion of each said second duct between said first duct and said second duct and extending across the lowermost portion of said second duct to prevent liquid fluids from passing through said second duct into said first duct, said side walls of each said second duct being angularly offset to taper outwardly in diverging relation at the area of integration with said side walls of said first duct, thereby to increase the open cross-sectional area between said second ducts and said first duct in compensation for the cross-sectional area closed by each said baffle, the total cross-sectional area of both said second ducts and of both said third ducts being in excess of the open cross-sectional area of said first duct, said first duct having a top opening formed therein above the level of intersection of said second ducts with said first duct, and a removable cover seated in and closing said top opening, whereby flue gases from the chimney will pass through said first duct outwardly through said second ducts and said third ducts.

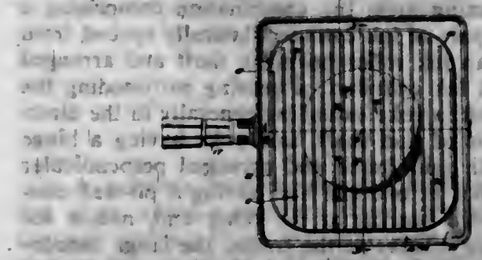
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**2,774,295**

## RIBBED GRILL

William B. Watkins, Evanston, Ill., assignor to The Wm. B. Watkins Co., a corporation of Illinois

Application December 13, 1952, Serial No. 325,853
1 Claim. (Cl. 99—425)



A cooking utensil, comprising an upstanding outer peripheral wall joined to an inwardly extending base wall and an elevated, generally rectangular, food receiving cooking member having a depending peripheral wall joined integrally to said base wall to define a peripheral grease receiving cavity, said cooking member having a level peripheral area portion of uniform thickness and a generally circular central portion within said peripheral area of progressively greater thickness providing an upper surface sloping downwardly from generally the center of the utensil to said level peripheral area portion, said level peripheral area portion being of varying width around the central portion and both of said portions having a width to receive and hold food to be cooked, a plurality of generally parallel spaced ribs extending across the food receiving cooking member in raised relation to said upper surface, some of said ribs extending across the portion of uniform thickness without intersecting the central portion having the downwardly sloping surface, said ribs being arranged for supporting food to be cooked at least partially above said upper surface, said sloping and level surface portions between the ribs providing for drainage of food exuded liquids to said cavity, said sloping surface portions between the ribs having varying downward gradients whereby said drainage occurs at relatively different rates and provides areas on the cooking surface for selective rates and conditions of cooking, and a substantially flat surface on the side of said cooking member opposite said ribs for cooking food when the utensil is inverted.

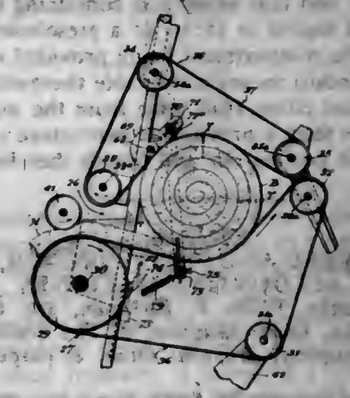
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**2,774,296**

## TWINELESS STITCHER FOR ROTARY BALER

Werner W. Martinmaas, Jr., Miller, S. Dak., assignor to Inland Incorporated, a corporation of South Dakota

Application December 30, 1953, Serial No. 401,104
13 Claims. (Cl. 100—5)



1. A twineless stitcher for a rotary hay baler, comprising, in combination: long, reciprocable needle means adapted to move in and out of a rolled bale of hay to puncture several layers of the bale to form a hole along a line which extends generally along a chord through the bale and to tuck strands of hay from the outer layers of the bale into layers therebeneath to from a bale-tying stitch in said hole; and mechanism for simultaneously moving said bale and reciprocating said needle means in and out of the bale along a chord through the bale to form several stitches which are spaced both longitudinally and circumferentially about the bale.

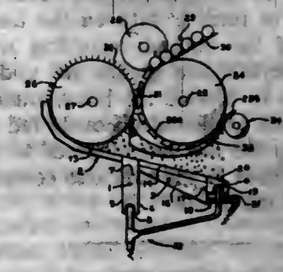
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**2,774,297**

## OIL SEPARATING, CITRUS JUICE RECEIVING PAN ADAPTED FOR COOPERATION WITH A CITRUS JUICE EXTRACTOR

Charles Hall, Los Angeles, Calif.

Application October 3, 1950, Serial No. 188,154
2 Claims. (Cl. 100—105)



1. An extracted juice receiving pan for receiving juices from three separate portions of a juice expressing machine comprising: a three division, three compartment receiving pan means cooperable with the citrus fruit juice expressing machine in receiving position below the juice expressing region of the citrus fruit juice expressing machine, said receiving pan means including a front compartment, a middle compartment and a rear compartment physically relatively positioned with respect to each other

and with respect to the citrus fruit juice expressing machine when in cooperative relation with respect thereto whereby said front compartment of said receiving pan means will be cooperatively positioned to receive virtually all of the citrus fruit peeling oil produced from a front zone as a result of the severing and impaling of the citrus fruit peeling, and whereby said middle compartment will be cooperably positioned to receive expressed citrus fruit juice from a middle zone and having less than a preselected percentage of citrus fruit peeling oils and liquids therein, and whereby said rear compartment of said receiving pan means will be cooperatively positioned to receive citrus fruit peeling oil and liquids expressed from the citrus fruit peelings in a rear zone of greatest compression and damage thereto; said front and rear compartments being provided with outlet conduit means cooperable therewith to drain off the citrus fruit juice from the front and rear zones and containing citrus fruit peeling oil and liquids in excess of a preselected percentage; said middle compartment being provided with a separate outlet conduit means cooperable therewith to drain off the expressed citrus fruit juice from the middle zone and having less than a preselected percentage of undesirable citrus fruit peeling oils and liquids therein.

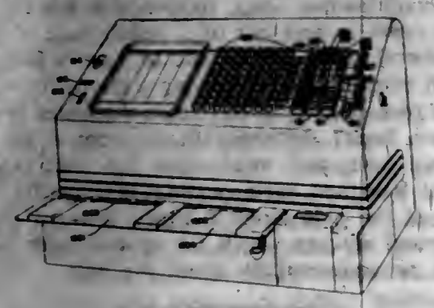
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**2,774,298**

## SELECTIVE FEED AND PRINT CONTROL MEANS IN ACCOUNTING MACHINES

Everett H. Placke, Willis E. Eickman, and Charles S. Nagy, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland

Application January 28, 1955, Serial No. 484,709
53 Claims. (Cl. 101—93)



1. In a machine of the class decribed, the combination of a plurality of means to record data in columns on a plurality of record materials, one recording means being provided for each column, line-spacing means to line-space the record materials, sensing means coacting with the record materials, means controlled by the sensing means when one of the plurality of record materials is fed into position to receive data on the last line thereof to disable one of the column-recording means for the other record material; and means set under control of the sensing means to disable the last-named means when the record materials are simultaneously fed into positions to receive data on the last lines thereof to thereby cause the data to be printed in the said one column on the last lines of the record materials.

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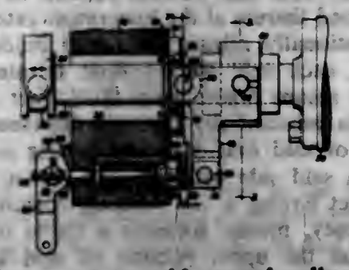
**2,774,299**

## SOCKET FOR INK CYLINDER

Cornon Walter Chase, Oak Park, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois

Application February 18, 1955, Serial No. 489,091
7 Claims. (Cl. 101—348)

7. In a printing press, the combination comprising a side frame, a pair of ink transferring rollers spaced from one another, an ink cylinder having a shaft and arranged to engage said ink rollers, a bearing including a bushing surrounding the end of said shaft, a yoke having spaced arms extending along the axis of said shaft, said yoke having a transverse pivot connection with said bushing at its inner end and having a pivot connection with the press frame at its outer end, said pivot connections being parallel to one another and in the region of the axis of said shaft so that the cylinder is guided for movement



centrally with respect to said spaced rollers, said yoke having a cross member interconnecting said arms for maintaining them spaced apart a greater distance than the outer diameter of said bushing so that the bushing is free to move sideways between said arms over a limited range, thereby to enable said cylinder to assume a precisely centered condition relative to said spaced rollers, and means for biasing said yoke toward said rollers.

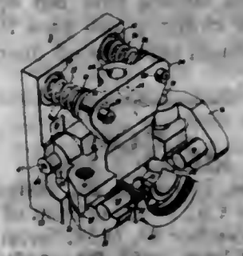
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**2,774,300**

## SOCKET FOR INK ROLLER

Cornon Walter Chase, Oak Park, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois

Application February 18, 1955, Serial No. 489,099
13 Claims. (Cl. 101—348)



1. In a printing press the combination comprising a side frame, a pair of ink cylinders laterally spaced from one another, an ink roller having a shaft and arranged to engage said ink cylinders, a bearing surrounding the end of said shaft, a yoke extending generally in the direction of the axis of said shaft, said yoke having a hinge connection with said frame and arranged perpendicular to the roller axis at one end and having a pivoted connection with said bearing at the other end, means for biasing the yoke relative to the frame, the hinge connection between the frame and the yoke having provision for changing the direction of the hinge axis with respect to the axis of the roller to vary the direction of the force applied to the roller by the yoke so as to proportion the forces applied by the roller to the individual ink cylinders.

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**2,774,301**

## INK ROLLER MOUNTING FOR PRINTING MACHINES

Emory W. Worthington, Dobbs Ferry, N. Y., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York

Application May 13, 1953, Serial No. 354,709
13 Claims. (Cl. 101—352)

1. An ink motion roller mounting for printing machines comprising, in combination, a roller supporting member, means movably mounting the said member on a machine frame for movement toward and away from a printing machine element cooperating with the roller, and means for resiliently urging the roller supporting member toward the cooperating element, comprising a flexible gas container, means for maintaining gas at a predetermined



pressure therein, and means fixed to the machine frame supporting the said container in pressure sustaining relation to the said roller supporting member.

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**2,774,302**

## FLEXIBLE PRINTING PLATE

Reidar Strömme, Boston, Oslo, Norway

Application June 8, 1954, Serial No. 435,258
Claims priority, application Sweden June 15, 1953
4 Claims. (Cl. 101—378)



1. Flexible printing plate means for attachment to a curved printing bed having magnetic means, said printing plate means comprising a flexible, non-magnetic printing plate in combination with a substantially continuous layer of elements of magnetizable material fastened to the rear face of the plate in such an arrangement that the printing plate retains its flexibility for disposal around a printing cylinder.

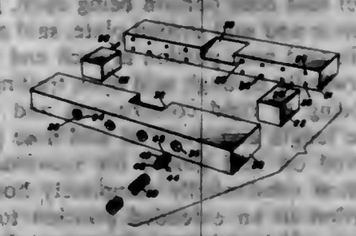
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**2,774,303**

## LOCKING DEVICE FOR LINE SLUGS

Clarence A. Kelley, Lake Villa, and Jerome S. Jervan, Waukegan, Ill.

Application August 17, 1954, Serial No. 450,451
5 Claims. (Cl. 101—392)



1. A printing form holder for holding a group of line slugs within a printer's chase, comprising a holding and locking frame for said slugs, consisting of a backing bar provided with spaced attaching means, exchangeable spacer blocks, selected from a group of blocks of varying lengths and provided with means for detachably attaching them to the attaching means of the backing bar, two of said spacer blocks the length of which corresponds to the number of line slugs to be held, being attached to the backing bar in positions so spaced on the said backing bar that the distance at which they are attached corresponds to the length of the line slugs, a pressure bar applied against said spacer blocks, chase filling elements within the printer's chase applying pressure against the pressure bar, said pressure bar carrying spring pressed pressure pins, projecting from said pressure bar, the line slugs after insertion into the space between the spacer blocks and the backing and pressure bars, being resiliently held in one direction between the backing bar and the pressure bar by the spring pressed pressure pins projecting from the pressure bar while the slugs are laterally held against longitudinal displacement by the spacer blocks held on the backing bar.



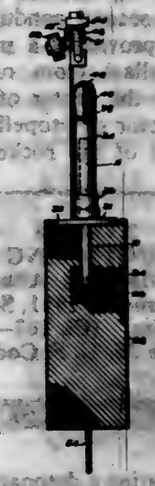


**2,774,304**

## BOTTOM FIRING DETONATOR

John L. Wornel, Palisades, N. Y., assignor to the United States of America as represented by the Secretary of the Navy

Application March 12, 1953, Serial No. 341,867
1 Claim. (Cl. 102—7)



In combination with a casing containing an explosive, a bomb arming mechanism comprising, an elongated hollow element in said casing, said elongated element having a portion protruding through said casing, percussive material within said hollow element, said element being adapted to collapse suddenly upon exposure to pressure exceeding a predetermined intensity, a frangible envelope enclosing said protruding portion and isolating said portion from ambient pressures, a pivoted arm mounted in a position to strike said frangible envelope, resilient means exerting a force upon said arm, latch means for preventing said arm from striking said envelope, and inertial means for unlatching said arm.

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**2,774,305**

## ROCKET STEERING SYSTEM

Thomas W. Fitzgerald, Kenmore, and Robert W. Farren, Williamsville, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application July 9, 1952, Serial No. 297,936
1 Claim. (Cl. 102—49)

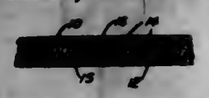


A system for steering rocket-propelled vehicles in space by shifting the center of mass of the vehicle with respect to the vector of propelling thrust by controlled movement of liquid ballast comprising, a pencil-shaped rocket having a propelling means producing thrust directed rearwardly along the longitudinal centerline of the rocket, said rocket including a housing, four radially-positioned walled liquid storage compartments within the housing and defined by radial partitions located at 45°, 135°, 225°, and 315° with respect to the longitudinal centerline of the rocket, a common cylindrical outer wall and a common cylindrical inner wall for the compartments with each cylindrical wall being concentric with the centerline of the rocket, a first conduit situated so as to pass through the 315° and 45° partitions in order to establish communication between compartments joining the 315° and 45° partitions, a second conduit situated so as to pass through the 315° and 225° partitions in

order to establish communication between compartments joining the 315° and 225° partitions, a first pump means located in the compartment bounded by the 315° and 45° partitions and operatively engaged to the first conduit, and a second pump means located in the compartment bounded by the 315° and 225° partitions and operatively engaged to the second conduit, the arrangement of the first and second conduits and the first and second pump means providing a means for selectively transferring liquid ballast from one compartment to another so as to shift the center of mass of the rocket with respect to the vector of propelling thrust to control the direction of flight of the rocket.

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2,774,306
MEANS FOR INITIATING EXPLOSION
Norman A. MacLeod, Altadena, Calif.
Application November 6, 1951, Serial No. 255,129
1 Claim. (Cl. 102—70)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A device for propagating a detonation wave, comprising a sheet formed of spaced sheaths of flexible plastic, spacing members between said sheaths forming a network of interconnecting interstices, and flexible explosive material filling said interstices and forming a plurality of separate paths interconnected at a plurality of points along their length for propagation of a wave front.

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2,774,307
ROTARY PUMP
Emil Zepp, Mannesbeim, Kreis Bruchsal, Germany, assignor of one-half to Heinrich Schiez, Mannheim, Germany
Application December 3, 1952, Serial No. 323,743
Claims priority, application Austria February 19, 1952
5 Claims. (Cl. 103—93)



1. A rotary pump for gases and for liquids comprising a rotatable shaft, a pump wheel having a hub portion mounted on said shaft and having a peripheral portion, a plurality of blades mounted on and extending outwardly from said peripheral portion substantially radially of the rotation axis of said shaft and affording flow of the medium to be pumped in a direction substantially parallel to the rotation axis of said shaft, said blades having leading edges positioned in an imaginary plane which is at a right angle to the rotation axis of said shaft, said blades having trailing edges positioned in an imaginary plane which is at a right angle to the rotation axis of said shaft and spaced from the plane in which said leading edges are positioned, and a pump casing surrounding said pump wheel, said casing having a cylindrical outer wall portion whose interior surface is adjacent to said blades, said casing having interior wall portions individually opposed to said leading edges and to said trailing edges and being individually wound around the rotation axis of said shaft in helixes whose generatrices are at a right angle to the interior surface of said cylindrical wall portion for forming an inlet channel and an outlet channel for the medium pumped by said pump wheel.

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2,774,308
RADIAL FLOW IMPELLERS
Per Helge Nathanael Ulander, London, England, and William Hepples Johnston, Glasgow, Scotland
Application April 22, 1952, Serial No. 283,534
5 Claims. (Cl. 103—97)



1. A centrifugal impeller comprising a back plate, an annular shroud plate disposed co-axially with and spaced from said back plate, a plurality of blades each backwardly inclined with respect to the direction of rotation of said impeller, each blade including a nose portion and a tail portion, said nose portion comprising a rigid, hollow structure of airfoil cross section extending between said back plate and said shroud plate and fixed thereto, the trailing edge of said nose portion being open, guides fixed to said back plate and said shroud plate, said guides being disposed within said nose portion at each end thereof and extending rearwardly through said open trailing edge, said tail portion being of rigid construction and of substantially the same length and width as said nose portion and slidably received on said guides for movement from a retracted position substantially completely housed within said nose portion to an extended position to provide a blade having a width substantially twice the width of said nose portion and means to secure said tail portion in adjusted position.

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2,774,309
PUMP
Ludwig T. Stoyke and Oliver W. Schadlow, Rockford, Ill., assignors to Sundstrand Machine Tool Co., a corporation of Illinois
Application August 14, 1953, Serial No. 374,252
3 Claims. (Cl. 103—126)



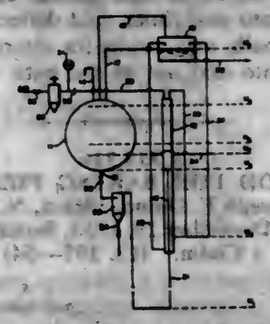
1. A gear pump comprising, a casing having a cylindrical pumping chamber with inlet and outlet ports, an internal ring gear rotatably mounted in the chamber, a pinion of the same thickness as and meshing with said ring



gear, a shaft supported eccentrically of said chamber and carrying said pinion gear, said pinion gear having an external diameter less than the internal diameter of the ring gear to provide an arcuate space therebetween, a member of substantially the same thickness as the gear and pinion fixed in said chamber and located in said space, said member being tapered at each end to give the member substantially the shape of a crescent with said ends being located adjacent the inlet and outlet ports of the chamber, a plate closing one end of the chamber and contacting one suface of the gear and pinion in sealing relationship, said member having a bevelled portion extending from side to side of said member along one surface thereof beginning near the center of said surface and terminating short of the outlet end of said member to provide a passage sealed from said outlet port and defined between said member and said plate, said bevelled portion increasing in depth from adjacent said outlet end to said beginning whereby said passage gradually decreases in volume from its beginning toward the outlet port, a passageway connecting said passage with the outlet port, said passage establishing communication between the outlet port and a plurality of gear spaces in the ring and pinion gears immediately preceding the outlet port to introduce into said gear spaces a gradually decreasing volume of oil at substantially outlet port pressure.

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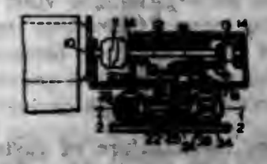
2,774,310
PUMP
James C. Ward, Jr., Phillips, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application February 20, 1953, Serial No. 338,069
6 Claims. (Cl. 103—234)



1. A gas powered pump comprising, in combination, a storage tank; a vent conduit in the upper end portion of said storage tank; a liquid outlet in the lower end portion of said storage tank; a sludge pot below said storage tank, a conduit connecting the liquid outlet of said tank and said sludge pot; means defining a feed chamber positioned beside said storage tank, the top of said feed chamber being at approximately the level of the top of said storage tank and the bottom of said feed chamber being below the bottom of said storage tank; a constant level device located at a level above said storage tank; a vapor return conduit extending from the upper end of said constant level device to the upper portion of said storage tank; a liquid overflow line extending from the central portion of said constant level device to said storage tank; a conduit extending from said constant level device to a point of consumption; a conduit extending from the lower end portion of said feed chamber to said constant level device; a first U-shaped conduit comprising a first leg communicating with the upper end portion of said feed chamber and a second leg communicating with said constant level device, the bottom of said first U-shaped conduit being at a level above the lower end portion of said feed chamber, means in addition to said conduit extending from the lower end portion of said feed chamber to said constant level device to supply liquid being pumped from said feed chamber to said first U-shaped conduit; a second U-shaped conduit extending from the upper end portion of said sludge pot up into the said feed chamber, the end of said conduit in said feed chamber being at a level approximately equal to the lower end portion of said supply tank and the distance between the upper end of the conduit extending into said feed chamber and the lower portion of said second U-shaped conduit being greater than the length of the second leg of said first U-shaped conduit; and a gas supply conduit communicating with the upper end portion of said feed chamber for introducing gas thereto.

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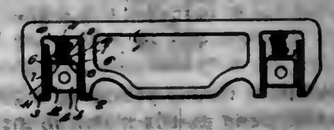
2,774,311
CONSTRUCTION OF TOY LOCOMOTIVE
Jack H. Berry, Chicago, Ill.
Application July 29, 1953, Serial No. 370,980
3 Claims. (Cl. 105—99)



1. A toy locomotive traction truck comprising a unitary bolster and hollow king pin, the bolster portion being hollow, having end walls and formed by an upper member and a lower member meeting along a horizontal plane passing through the midportion of the bolster, a freely rotating vertical shaft passing through the king pin and terminating within the interior of the bolster, the bolster being provided with a horizontal opening in either end wall centered on the said horizontal plane and surrounded with protruding collar members having enlarged portions in spaced relationship with the bolster end walls, a rotatable horizontal unitary shaft mounted in the said horizontal plane within the bolster and extending through and beyond the said end wall holes, the vertical shaft being connected by gear means to the horizontal shaft, hollow gear boxes having end walls formed by an upper member and a lower member joined along a horizontal plane in their midportion, the gear boxes further provided with openings centered on the said horizontal plane and in the end walls, said openings being adapted to interlock with the said bolster collars forming a rotatable mounting, axles mounted within the gear boxes extending beyond the sides thereof and centered on the said horizontal plane, the horizontal shaft being connected by gear means to the axles, whereby rotary motion induced in the vertical shaft may be transferred to the axles independently of rotation of the bolster about the axis of the king pin and independently of rotation of the axles about a horizontal axis at right angles to the said axles.

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2,774,312
PEDESTAL GUIDE ASSEMBLY
William T. Rossell, New York, N. Y., assignor to Transit Research Corporation, New York, N. Y., a corporation of New York
Application July 29, 1952, Serial No. 301,570
5 Claims. (Cl. 105—224)



1. In a rail truck, a truck frame having pairs of pedestal guides, a journal bearing positioned between the members of each pair of said guides, spring means supporting said frame from said bearings and providing for relative vertical movements therebetween, a friction plate interposed between said spring means and each of said

journal bearings, said pedestal guides limiting the movements of said journal bearings and said plates longitudinally of said frame, said spring means urging said plate constantly against one of its guides, said bearing being movable longitudinally of said frame against the friction of said plate as permitted by the spacing of the members constituting said guides.

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2,774,313
**RAVIOLI MACHINE**
Louis G. Lombi, West Englewood, N. J., assignor to Ezio L. Lombi, West Englewood, N. J.
Application November 14, 1955, Serial No. 546,538
3 Claims. (Cl. 107—1)



1. Machine for manufacture of ravioli and the like comprising a die roll having mold cavities in the surface of the same, means for imparting rotative movement to said die roll, means for applying a first layer of material over the top of the die roll, a nozzle for depositing filling material over said first layer of material on the die roll, means for sucking the applied layer of material into the die cavities as they reach a position beneath said filling material nozzle, means for applying a layer of cover material over said first layer and the deposited filling material and means for applying fluid pressure to the mold cavities as they reach a position at the bottom of the roll, said filling material nozzle being shaped to the approximate curvature of the die roll and being shiftable toward and away from the layer of material overlying the top of the die roll.

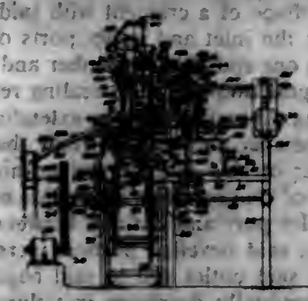
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2,774,314
**VARIEGATORS**
Frank T. Moser, Easton, Pa., assignor to American Food Laboratories, Inc., Brooklyn, N. Y., a corporation of New York
Application May 26, 1954, Serial No. 432,383
16 Claims. (Cl. 107—1)



1. In combination, means providing a passageway for an edible flowable pasty matrix material, means for introducing at least one stream of an edible flowable variegating material into the matrix material flowing through said passageway, and stationary branching means located in the path of travel of said stream of variegating material for dividing said stream of variegating material into continuously flowing outwardly displaced smaller streams.

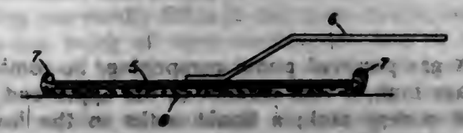
2,774,315
**AUTOMATIC CONE MAKING MACHINE WITH STATIONARY ROLLER UNIT**
Albert A. Heyman, Baltimore, Md., assignor to The Maryland Baking Company, Baltimore, Md., a corporation of Maryland
Application July 14, 1952, Serial No. 298,875
8 Claims. (Cl. 107—4)



1. An automatic cone making machine comprising a movable chain of waffle irons for baking wafers to be rolled into cones, said waffle irons comprising each a base member and a hinged cover member, a stationary unit adjacent said chain for rolling said wafers into cones, said unit comprising a stationary hollow inverted cone mold and a cooperating spinner core, said mold having a slotted inlet for the wafers and a scraper member adjacent said inlet, means for intermittently inserting said spinner core in and removing it from said mold, means for rotating said core during its insertion in said mold, means for arresting the rotation of said core and stripping cones therefrom upon removal thereof from the mold, a chute for receiving said stripped cones, a deflector in the path of movement of said spinner core for deflecting stripped cones into said chute, said deflector being removable from said path, and means for intermittently moving said deflector into and out of the path of movement of said core.

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2,774,316
**METHOD FOR BAKING PIZZA PIE**
Joseph F. Daino, Ithaca, N. Y.
Application December 29, 1953, Serial No. 400,891
1 Claim. (Cl. 107—54)



The method of preparing a pizza shell which consists in taking a flat proofed sheet of pizza dough of the general peripheral contour desired and placing on its central area a flat control plate of heat conducting material having a similar peripheral contour but of sufficiently smaller diameter to leave an upwardly exposed border around the rim of the dough, the dough is then given a preliminary baking during which it is restrained from rising in its central area by the downward pressure of the inherent weight of said control plate applied thereover with the effect that a shallow pizza shell is formed due to the greater vertical rise of the unrestrained rim portion, the preliminary baking being terminated after the pizza shell is definitely formed in its final contour but before it is finally browned, whereby a fully formed pizza shell may be manufactured as a brown-and-serve dish.

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2,774,317
**BOILER BASE**
Marvin E. King, Cambra, Pa.
Application March 4, 1952, Serial No. 274,708
9 Claims. (Cl. 110—96)

1. A firebox-providing boiler base section providing a boiler-supporting seat adjacent its top and having open-



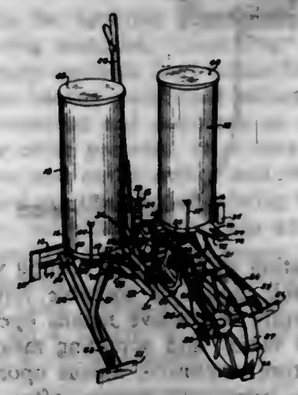
ings at a plurality of lateral sides, interchangeable closure plates for said openings, means detachably securing said closure plates to said base over said openings, a door carried by one of said closure plates and affording access to the firebox interior, and a burner unit for disposition



within said base through a selected one of said openings, said burner unit incorporating one of said plates as a closure for said openings and positionable over a selected one of the latter when the burner is in operative position within said base.

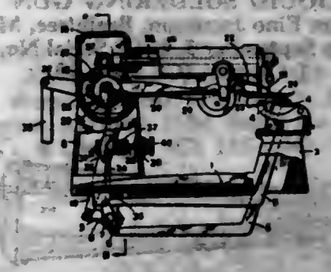
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2,774,318
**SIDE DRESSING FERTILIZER SPREADER**
Clarence J. Johnson, Helenon, Wis.
Application December 10, 1952, Serial No. 325,119
2 Claims. (Cl. 111—59)



1. In a fertilizer spreader, a transportable frame, a pair of laterally spaced fertilizer receptacles fixedly mounted upon said frame and each having a rear lower outlet, a rearwardly and downwardly inclined fertilizer distributing trough suspended from said frame beneath each of said receptacles and each having its trailing lower end formed to travel beneath the ground to produce a shallow trench, means for effecting lateral adjustment of each of said troughs relative to the adjacent receptacle to vary the distance between the troughs, a flexible fertilizer conducting conduit connecting each receptacle outlet with the lower end portion of the adjacent trough for distribution of the fertilizer within said trenches, a plow blade carried directly by the trailing end of each trough for promptly covering the fertilizer deposited within said trenches, a rotary disk within each of said receptacles for controlling the flow of fertilizer through the said outlets, a transverse shaft journalled on said frame and connected by bevel gearing to both of said disks, a pair of laterally spaced rearwardly extending rigid beams having their front ends swingably suspended from said shaft between said receptacles, a ground engaging wheel journalled on the rear ends of said beams and propelled along the ground during the forward advancement of the frame, a drive for imparting rotary motion from said wheel to said shaft, a lever secured to at least one of said beams for elevating said wheel from the ground, and a spring coacting with said frame and with a medial portion of one of said beams for constantly urging said wheel toward ground engaging position.

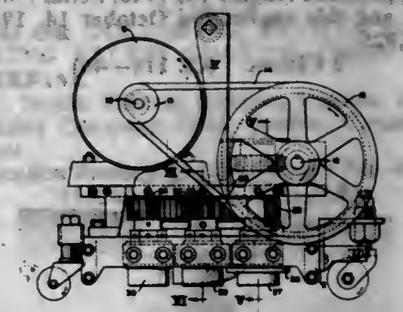
2,774,319
**BLIND STITCH SEWING MACHINES**
Edward Franklin, Alwoodley, Leeds, and Norman Adamson, Oakwood, Leeds, England
Application July 23, 1953, Serial No. 369,845
3 Claims. (Cl. 112—176)



1. In a blind stitch sewing machine, the combination of a stationary body portion, a work support having at least one plunger, said work support arranged to be stationary during normal operation of the machine, an elongated head extending forwardly from said machine body at right angles thereto and in a direction parallel to the line of feed and carrying at its forward outer end a needle plate, needle, looper and feeder and their operating connections, said head having its rear end pivotally mounted on said machine body behind said work support so that when its forward outer end is raised angularly the widest part of the gap for insertion and removal of the work is nearest to the operator, and a manually operable means connected to said pivoted head for enabling the operator to lower and raise the forward outer end of said head with its associated parts towards and away from said stationary support to allow insertion and removal of the work.

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2,774,320
**METAL ROOF SEAM FORMING MACHINE**
Thomas J. Boyd, Cross Creek District, W. Va., assignor, by mesne assignments, to Charles H. Manion, Wellsburg, W. Va., and Thomas J. Boyd, Cross Creek District, W. Va.
Application November 15, 1952, Serial No. 320,747
2 Claims. (Cl. 113—55)



1. A metal roof seam forming machine comprising a body, wheels carried by the body for rolling the machine along a roof, a series of means carried by the body aligned generally in the direction of movement of the machine along the roof for progressively turning projecting edges of metal roofing material to form a seam upon movement of the machine along the roof, each of said means comprising a roll mounted in the body for rotation about a fixed axis and a portion movable transversely of the body in opposed relationship to the roll, two of said transversely movable portions each comprising a roll and a support in which the roll is journaled for rotation, the body having guide means for each of such supports guiding the same in a fixed transverse path, a third such transversely movable portion comprising a deflector adapted for sliding action against the edges being formed into a seam and being disposed between and guidingly mounted in said supports, and means resiliently urging

each of the supports and the deflector toward the roll mounted in the body for rotation about a fixed axis which cooperates therewith.

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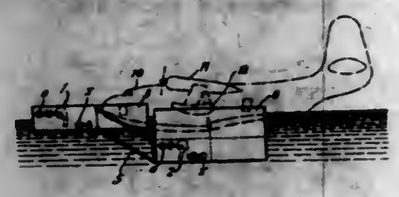
2,774,321
LIQUID SOLDERING GUN
William Elmo Jacobsen, Braintree, Mass.
Application September 5, 1952, Serial No. 308,837
1 Claim. (Cl. 113—93)



In a soldering tool, an elongated casing having forward and rear ends, a tubular solder reservoir within said casing, said reservoir having a rear end, means closing the rear end of the reservoir, said reservoir having a forward end portion projecting forwardly beyond the forward end of said casing, said forward end portion having a longitudinal eccentric passage extending therethrough, transverse rod means on said end portion, said rod means having ends projecting beyond opposite sides of said end portion, a tip having a socket rotatably receiving said end portion, said tip having circumferentially spaced slots receiving the ends of the rod means, said slots being wider than the ends of the rod means, said tip having a longitudinal eccentric passage therethrough registrable with the passage in the reservoir end portion in one position of rotation of the tip relative to the reservoir.

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2,774,322
WATER-BORNE AIRPLANE TERMINAL
Frederic R. Harris, deceased, late of New York, N. Y., by Florence R. Downe, Michael S. Lobenthal, and Monroe Percy Bloch, executors, all of New York, N. Y., assignors to Frederic R. Harris, Inc., New York, N. Y., a corporation of New York
Original application August 14, 1946, Serial No. 610,749. Divided and this application October 14, 1953, Serial No. 386,825
3 Claims. (Cl. 114—46)

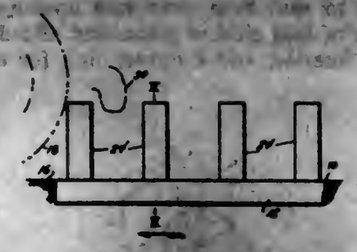


1. A marine terminal for seaplanes comprising a pontoon having a hull having a bottom and a deck with elevated walls at its sides, a second pontoon having a recess in one end of full depth opening through the deck and bottom presented to the first pontoon, and beams in said recess at the sides thereof pivotally linked to both pontoons to permit up and down movement of one with respect to the other.

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2,774,323
AUDIO ROAD SIGNAL
Everett S. Kirk, Lima, Ohio
Application May 18, 1956, Serial No. 589,139
6 Claims. (Cl. 116—63)

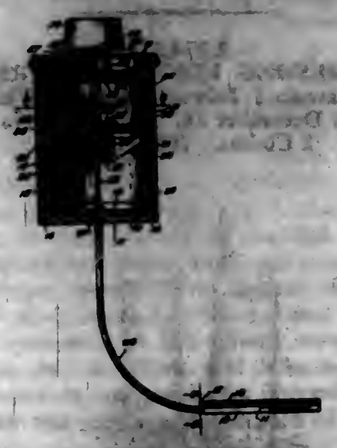
1. In a device for imparting an audio signal to the occupant of a vehicle moving along a highway, a base element longitudinally extending along and affixed to the highway, said base element provided with a series of seats therealong, a compressible body interlocked in each seat



and an integral flexible finger upwardly extending from said body.

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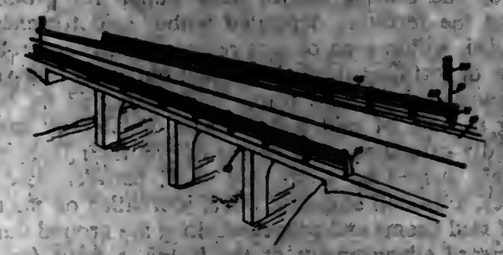
2,774,324
SIGNALLING DEVICE
Lawrence H. James, Glen Ellyn, Ill.
Application April 1, 1953, Serial No. 346,138
11 Claims. (Cl. 116—109)



1. In combination with a liquid heating vessel adapted to boil a wettable liquid, a wettable liquid contained therein, temperature responsive means operatively associated with said vessel, and actuating means responsive to said temperature responsive means upon exposure of said temperature responsive means, after immersion in the wettable liquid, to the area immediately adjacent the top surface of boiling wettable liquid and the drop in temperature of the surface of the temperature responsive means upon evaporation of the last liquid therefrom, said actuating means serving to actuate indicator means which serves to indicate when the liquid level of boiling wettable liquid falls below a predetermined level.

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2,774,325
BRIDGE WARNING DEVICE
Charles H. Budde, St. Louis, Mo.
Application August 8, 1952, Serial No. 303,688
5 Claims. (Cl. 116—114)



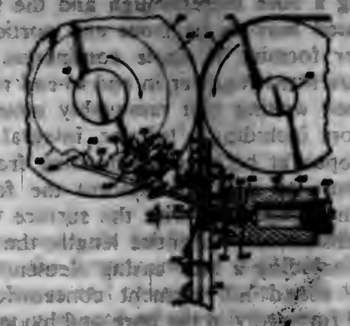
1. A warning device for a bridge to indicate washout, said device comprising a cable extending the full length of the bridge, means anchoring one end of said cable, a housing in which the opposite end of said cable is disposed, a warning device having a part and movable to a position across at least one lane of the bridge, means piv-



otally connecting said post to said housing, a movable stop in said housing and contacted by said post to hold said post erect, frangible means connecting said stop to said cable in order to prevent said cable from applying excessive force to said movable stop but transmitting sufficient force from said cable to said top to actuate the latter, and resilient means reacting on said stop and said housing constantly urging said stop in a direction to engage and hold said post.

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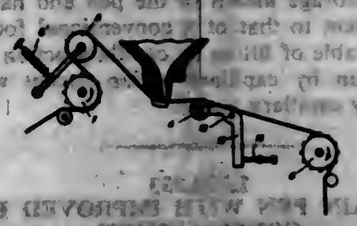
2,774,326
AUTOMATIC GLUE APPLYING APPARATUS
Victor A. Nelson, Portland, Oreg.
Application July 18, 1950, Serial No. 522,561
6 Claims. (Cl. 118—12)



1. Apparatus for applying glue intermittently to continuously moving material, comprising, in combination with continuously movable feed means for said material, glue applicator means positioned adjacent the outfeed path of said material and including an outlet orifice, a source of glue under pressure, valve means interconnecting said source and outlet orifice and movable between open and closed positions for regulating the flow of glue to said orifice, valve actuating means connected to said valve means, and timed operating means connected to the actuator means and driven by the moving feed means for actuating said valve means to open and closed positions intermittently on a predetermined cycle during continuous movement of the feed means.

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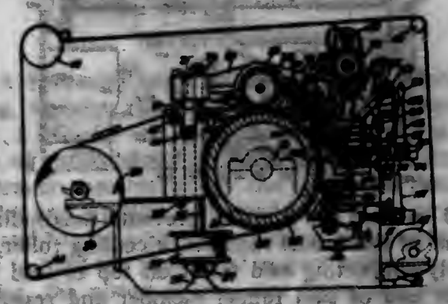
2,774,327
APPARATUS FOR PRODUCTION OF COATED TAPE
Albert Barbier, Saint-Ouen-les-Paris, Paris, France
Application June 28, 1952, Serial No. 296,111
Claims priority, application France July 19, 1951
9 Claims. (Cl. 118—33)



1. An apparatus for depositing a sound track on a flexible film, comprising a nozzle a part of which is shaped externally according to a cylindrical surface, and provided with at least one slit along a part of said cylindrical surface, the upstream edge of said slit being substantially coincident with the generatrix of said cylindrical surface situated at a location where said film leaves said cylindrical surface tangentially thereto, while the downstream edge of said slit is constituted by the lower edge of a scraper situated on the extension of said cylindrical surface at a predetermined distance from the line from which said film leaves said cylindrical part, so that said lower edge of said scraper is situated at a level above the path of travel followed by said film from the line at which said film leaves said cylindrical part, means for advancing the film past the nozzle, and means for causing the film to pass over and in contact with a substantial portion of the cylindrical surface immediately upstream of the slit.

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2,774,328
TIPPING ATTACHMENT FOR CLOTH EMBOSSING MACHINES
Werner P. Rees, Oakland, N. J.
Application April 14, 1954, Serial No. 423,099
2 Claims. (Cl. 118—44)



2. A combined cloth embossing and ink tipping machine comprising an engraved embossing press roll and a backing roll having a complementary raised pattern, a tipping attachment having a tipping roll with recesses therein to escape the tipping of certain of the embossed portions of the cloth, a second tipping attachment spaced from the first tipping attachment and having recesses therein for permitting the escape of the projections tipped by the first attachment and effecting the tipping of the remaining projections, said backing roll having a large gear thereon, one of the said tipping attachments having a gear meshing with the large gear to be driven by the same and the other of said tipping attachments having an adjustable gear meshing with the large gear whereby adjustment of the tipping roll of one machine can be effected relative to the recessed tipping roll of the other attachment.

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2,774,329
WIPING OR DOCTORING DEVICES FOR REMOVING EXCESS COATING FROM SHEET MATERIAL
Roland V. Smith, Ottawa, Ontario, Canada, assignor to E. B. Eddy Company, Hull, Quebec, Canada, a body corporate
Application January 25, 1954, Serial No. 405,909
11 Claims. (Cl. 118—118)



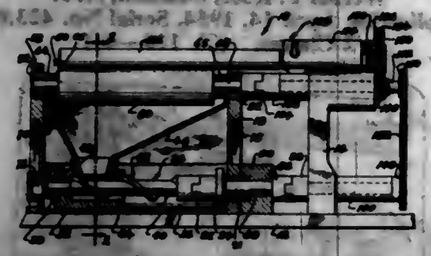
1. A wiping device for doctoring coated sheet material comprising a wiping rod of magnetic material rotatable about its longitudinal axis, a seat for said rod and magnetic means holding said rod in said seat.

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2,774,330
COATING MACHINE
Charles F. Schaefer, Stratford, Conn.
Application March 30, 1954, Serial No. 419,827
15 Claims. (Cl. 118—259)

1. A coating machine comprising a base, a tank for coating solution removably mounted on said base and

having a laterally extending well at the bottom thereof, a pump housing seating in said well and removable upwardly from the latter, said housing having an outlet at the top thereof and accommodating a pumping member operative to propel coating solution from said well through said outlet, an upwardly opening funnel member fitting removably in said tank and held against lateral displacement by the latter, said funnel member seating at its lower end in said outlet of the pump housing thereby to prevent lateral displacement of said housing in the



well and so that the housing prevents longitudinal displacement of the funnel member, a coating roller, means removably supporting said roller on top of said tank in the upper end of said funnel member and resisting upward movement of the latter relative to said tank, and means for driving said roller and said pumping member so that coating solution is pumped by the latter from said tank through said housing and funnel member to said coating roller and spills over the top of said funnel member to mix with the remainder of the coating solution in said tank.

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2,774,331

## MARKING ELEMENT AND DISPENSING MEANS THEREFOR

John Sherman Smith, Atlanta, Ga., assignor to Scripto, Inc., a corporation of Georgia

Application June 24, 1953, Serial No. 363,769
3 Claims. (Cl. 120—13)



1. A marking element dispensing means comprising a housing having axially aligned rear and forward tubular portions separated by an inwardly extending annular flange and communicating through said flange, a feed mechanism arranged in said rear housing portion and incorporating a plunger extensible from said rear portion through said forward portion by operation of said feed mechanism at the rear end of said housing, a protective sleeve incasing a marking element supply retained by said housing in said forward portion, said protective sleeve being of a uniform interior diameter and being formed interiorly with longitudinal ridges extending throughout the length thereof, a flexible collar slidably disposed interiorly of said protective sleeve at the rear end thereof, a tubular assembly sleeve removably fixed within said forward tubular portion and surrounding said protective sleeve, the rear face of said assembly sleeve being spaced from said annular housing flange and said protective sleeve being formed with an outwardly extending flange at its rear end for retaining engagement with said housing between said assembly sleeve rear face and annular housing flange and overlying said assembly sleeve rear face, both said marking element supply and said flexible collar being of substantially the same diameter as the interior diameter of said protective sleeve and being gripped therein by said ridges while remaining free for sliding along said ridges within said protective sleeve, and said flexible collar frictionally gripping the forward end of said plunger for dispensing the marking element supply from said protective sleeve by said flexible collar and plunger through operation of said feed mechanism.

2,774,332

## FOUNTAIN PENS

Ivan D. Toft, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin

Application January 9, 1952, Serial No. 265,649
3 Claims. (Cl. 120—50)



1. A capillary fountain pen comprising a pen body including a front section and a rear section, the front section having a bore therethrough and the rear section having a vented bore in its front end portion, the two bores together forming a single continuous bore when the sections are fitted together in end-to-end relation, and a self-contained writing unit removably mounted in the continuous bore including a tubular, integral casing and nib element open at both ends extending from the rear end of the bore to a point adjacent the forward end thereof and in engagement with the surface of the bore throughout substantially its entire length, the casing and nib element including a rear casing element and a forward arcuate slitted nib element concentric therewith and extending forwardly in the bore and having a tapered writing point, the casing and nib element forming a tube of uniform diameter and opening through each end at full-diameter dimension and the casing element being substantially longer than the nib element, said nib element being contained within said bore except its writing point which projects forwardly of the pen body, the casing element having a threaded portion intermediate its ends and the body sections having interior threaded portions engaged with the threaded portion on the casing element operative for securing the body sections together and mounting the writing unit in the body, and a unitary, substantially cylindrical, resilient capillary filler-and-reservoir element in and confined by said casing and nib element with a portion in capillary ink feeding relation with said nib element throughout substantially the entire arcuate dimension of the latter and substantially the entire longitudinal extent of the portion of the nib element disposed inwardly of the extreme forward end of the pen body, said filler-and-reservoir element being substantially longer than said nib element and substantially filling the casing and having capillary spaces distributed through its volume, said filler-and-reservoir element constituting the sole ink storage means in the pen and having a capacity equivalent to that of a conventional fountain pen and being capable of filling by capillary action and holding ink therein by capillary action except when it is written out by capillary action.

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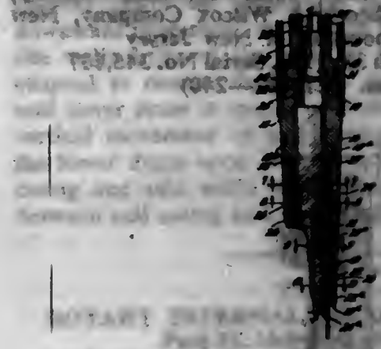
2,774,333

## FOUNTAIN PEN WITH IMPROVED FEED CONSTRUCTION

David Kahn, Englewood, N. J., assignor to David Kahn, Inc., North Bergen Township, N. J., a corporation of New Jersey

Application December 19, 1950, Serial No. 201,625
2 Claims. (Cl. 120—52)

2. In a writing instrument, a barrel, a nozzle having an upper tubular end seated in the lower end of said barrel, a shoulder arranged on said nozzle and abutting the lower end of said barrel, said nozzle being provided with a surface to prevent rotation of the nozzle in the barrel, said nozzle tapering downwardly so that it gradually decreases in diameter, a hood extending from the lower end of said nozzle and provided with a longitudinally extending arcuate groove for partially surrounding a nib having an aperture therein, a rib extending longitudinally along said groove and provided with a flat surface, said nozzle being provided with a longitudinally extending bore, a feed bar seated in said bore and provided with a capillary groove extending longitudinally therethrough and arranged in confronting relation with respect to said rib, the flat surface of said rib and capillary groove being arranged on opposite sides of said nib, the upper end of said nozzle being reduced



in diameter, said rib having its inner ends merging into the nozzle, the lower end of said rib terminating adjacent the lower end of said nozzle, said capillary groove terminating in spaced relation from the end of said feed bar, the bore in said nozzle including a plurality of aligned sections of increasing diameter, and a shoulder arranged on said nozzle between adjacent sections and defining a space around said feed bar to catch any overflow of ink.

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2,774,334

## RECIPROCATING PRIME MOVER

William H. Cline, Jr., Houston, Tex., assignor to Hughes Tool Company, Houston, Tex., a corporation of Delaware

Application May 1, 1953, Serial No. 352,544
14 Claims. (Cl. 121—28)



1. In a reciprocatory prime mover the combination comprising, a housing having an inlet at one end thereof for the admission of pressure fluid to the interior of the housing, an annular piston slidably mounted within the housing and having an end thereof peripherally reduced, a depending sleeve at the inlet to the housing forming with the housing an annular chamber, an end portion of the piston slidably fitting within said chamber, there being a passage between said chamber and the exterior of the housing, spaced seals between the piston and housing, and means for alternately confining pressure fluid within the piston and diverting the pressure fluid to the exterior of the piston between said seals to advance and retract the piston within the housing.



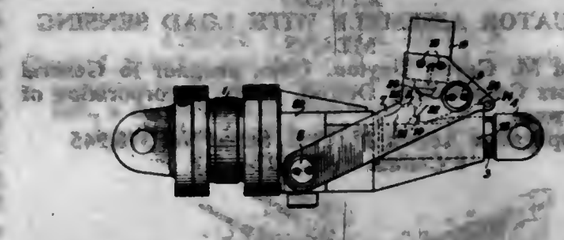


2,774,335

## HYDRAULIC LATCHES

David G. Loomis, Newark, N. J.

Application October 4, 1955, Serial No. 538,374
7 Claims. (Cl. 121—40)



1. A hydraulic latch of the character described comprising, a piston rod provided with a latch bar having a recess, a cylinder out of which the piston rod is extended, a pair of parallel links pivotally mounted on the cylinder, a hydraulic ram carried by the links, said ram having a cylinder and a piston, a pivoted latch pawl carried by the links and having a part for latching engagement with the recess to hold the piston rod against extension out of the cylinder, the piston of the ram being operative against the latch pawl to cause the cylinder of the ram to be moved to pivot the links and the latch to an extent to cause disengagement of the latch pawl from the recess under axial movement of the piston rod.

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2,774,336

## LOCKING MEANS FOR FLUID MOTOR OR THE LIKE

Howard M. Geyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Continuation of abandoned application Serial No. 78,412, February 25, 1949. This application November 27, 1953, Serial No. 394,669
9 Claims. (Cl. 121—40)

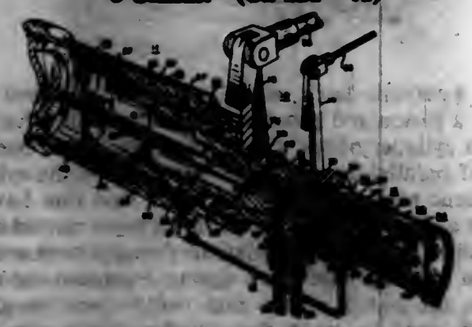


1. A fluid pressure actuating unit, comprising in combination, a cylinder with a support, a piston movable therein, a piston rod movable along the cylinder and connected to a load, means for applying and draining fluid pressure to and from the cylinder, lock means cooperable with the cylinder and piston for maintaining an assumed position of the piston against movement by the load, including a screw threaded in the piston and extending along a central bore of the piston rod, a head member of the screw journalled in one end of the cylinder, a brake disc driven by the screw head and supported for axial movement thereof, a friction surface provided by the cylinder adjacent the disc and adapted to be engaged thereby, spring means supported by the head member of said screw normally effecting engagement between the disc and the friction surface, and means oper-

able coincident with application of fluid pressure to the said cylinder for disengaging the brake disc and friction surface.

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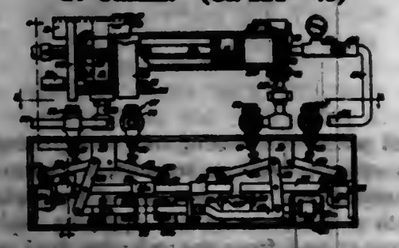
2,774,337
**ACTUATOR ASSEMBLY WITH LOAD SENSING MEANS**
Howard M. Geyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 27, 1953, Serial No. 376,945
8 Claims. (Cl. 121—41)



1. An actuator assembly including in combination, a fluid pressure operated power actuator comprising a cylinder having disposed therein a reciprocable piston capable of fluid pressure actuation in either direction, a manually operable actuator comprising a cylinder having disposed therein a reciprocable piston capable of manual actuation in either direction and a member operatively connected to said manually actuated piston so as to be rotated upon piston movement, and valve means disposed between the actuators and operatively associated with said actuators for controlling the application of pressure fluid to said power actuator, said valve means including a valve element integral with the rotatable member of said manually operable actuator so that movement of said manually operable actuator piston controls the application of pressure fluid to said power actuator, the construction and arrangement being such that the force required to actuate the manually operable actuator is proportional, percentagewise, to the force exerted by the power operable actuator.

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2,774,338
**ELECTRO-MECHANICAL VALVE CONTROL MECHANISM**
Jesse J. Shackelford, Fairmont, W. Va., assignor to Fairmont Box Company, Consolidated, N. Y., a corporation of New York
Application June 3, 1953, Serial No. 359,245
10 Claims. (Cl. 121—45)



1. A piston control device comprising, a piston, a cylinder, a source of fluid under pressure communicating with the cylinder adjacent each end thereof, intake valves for controlling the admission of fluid, exhaust valves communicating with the cylinder adjacent each end thereof, a frame, a pair of longitudinal shafts mounted for oscillatable movement in said frame, said shafts being disposed in end to end relation and in the same horizontal and vertical planes, a plurality of spaced cams carried by said shafts for operating said intake and exhaust valves responsive to movement of the shafts, electrically operable means for oscillating said shafts for opening and closing the intake valves and the exhaust valves in pairs and switch means for actuating said electrically operable means in predetermined timed relation, thereby controlling the length of the piston stroke.

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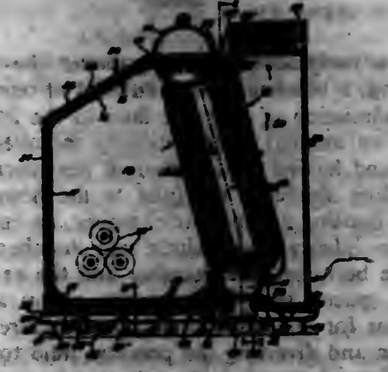
2,774,339
**FLUID HEATER FURNACE**
Wolfgang Jenkenmann, Oberhausen, Rhineland, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application March 31, 1953, Serial No. 345,887
6 Claims. (Cl. 122—240)



1. A furnace unit having a pair of upright outer walls forming opposing lateral boundaries of a furnace chamber, upright partitions inwardly spaced from said lateral boundaries and respectively defining therewith separate gas receiving compartments, said partitions defining an interior well space arranged to receive heating gases from said compartments, and through which space said gases are directed, said furnace chamber having a bottom wall common to said compartments and said well space, and furnaces in which the combustion of ring-forming solid fuel particles is effected, said furnaces having outlets through which gases of combustion from separate furnaces are discharged into the separate compartments against the respective partitions and deflected downwardly thereby toward said bottom wall, said partitions having lower ends upwardly spaced from said bottom wall at elevations lower than said furnace outlets and defining therewith areas through which said gases flow into a lower portion of said well space.

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2,774,340
**VAPOR GENERATOR**
Henry J. Jankowski, North Plainfield, N. J., assignor to Foster Wheeler Corporation, New York, N. Y., a corporation of New York
Application March 15, 1954, Serial No. 416,283
6 Claims. (Cl. 122—510)



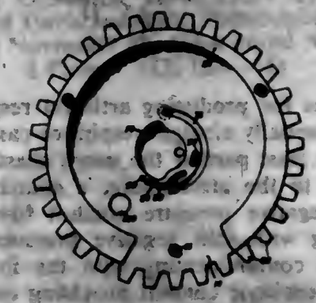
1. A vapor generator comprising two pairs of oppositely disposed walls, a roof and a floor, a casing enclosing



said walls, roof and floor, means forming a furnace chamber having a combustion gas outlet for discharging combustion gases from said chamber, firing means in said chamber for producing gases of combustion, an upper drum and a lower drum, a plurality of tubular members in communication with and extending between said drums and in heat exchange relationship with gases of combustion flowing to said gas outlet, said casing being secured to said upper drum, a foundation for supporting the casing, support means for supporting said lower drum against downward movement, said casing and a pair of said opposite walls adjacent the ends of said lower drum being adapted to receive therein the opposite end portions of said lower drum in spaced relationship thereto to provide vertical movement of said casing and walls relative to the lower drum upon expansion and contraction of said casing and said walls, and an expansion joint arranged between said casing and said foundation.

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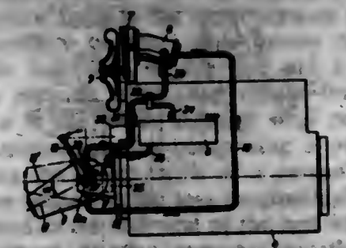
2,774,341
**ROTARY INTERNAL COMBUSTION ENGINE**
Paul M. Moore, Carlinville, Ill.
Application November 22, 1954, Serial No. 470,332
6 Claims. (Cl. 123—44)



1. A rotary internal combustion engine comprising a stator having a chamber therein, a rotor journaled in said chamber, a reaction member journaled in said chamber and having a circular ring surrounding said rotor, pairs of circumferentially spaced, radially disposed compressor and power cylinders in said rotor, pistons slidable in each cylinder and having their outer ends abutting said circular ring, said ring and said rotor having parallel axes of rotation, said stator having an end wall, means for supplying a combustible mixture to said compressor cylinders, means for transferring compressed combustible mixture from the compressor cylinders to the power cylinders, means for igniting combustible mixtures in the power cylinders, means for discharging exhaust products from the power cylinders each of said means including cooperating passages in said end wall and in said rotor.

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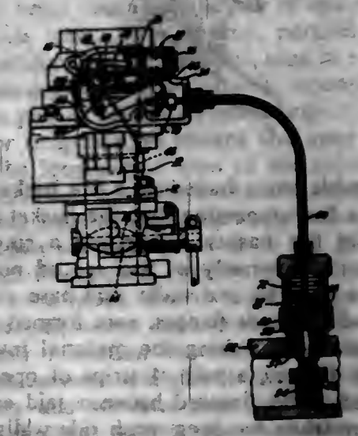
2,774,342
**INTERNAL COMBUSTION ENGINE**
Otto Schilling, Stuttgart-Untertürkheim, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application January 18, 1955, Serial No. 482,943
Claims priority, application Germany January 9, 1954
16 Claims. (Cl. 123—119)



1. In an internal combustion engine, the combination comprising a supercharger, and a hydrostatic torque converter transmission for driving said supercharger, said hydrostatic torque converter transmission being provided with piston elements.

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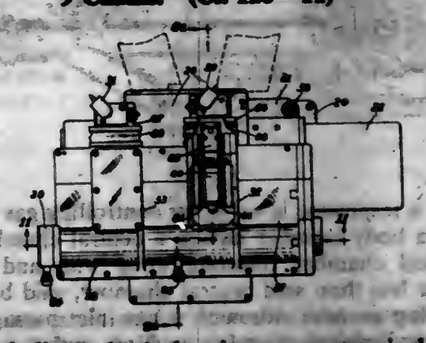
2,774,343
**CHOKE CONTROL DEVICE**
David J. Schaffer and Robert R. Dorland, Detroit, Mich., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application April 9, 1952, Serial No. 281,422
4 Claims. (Cl. 123—119)



1. In a choke control device of a carburetor for an engine having an induction passage with a choke valve mounted on a shaft therein: a vacuum responsive member operatively connected to said shaft for urging said valve toward opened position, a lever on said shaft, a spring connected to said lever, a link connected to said spring, resilient means having a one-way connection with said link adapted to constantly urge said choke valve toward closed position, a temperature responsive element having a one-way connection with said link adapted to oppose said resilient means.

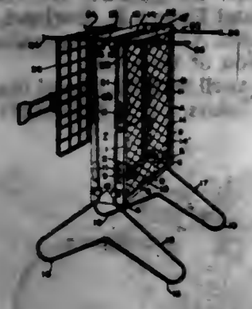
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2,774,344
**GRINDING WHEEL DRESSING APPARATUS**
Nils Hoglund, Summit, N. J.
Application April 16, 1954, Serial No. 423,657
9 Claims. (Cl. 125—11)



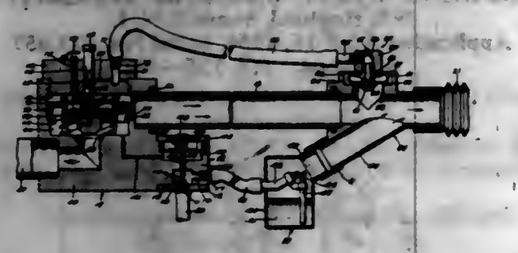
1. A grinding wheel dressing apparatus including a base, a frame slidably mounted on said base for movement in one direction, a dressing tool mounted on said frame and movable normally to said one direction, a first slide on said frame movable parallel to the movement of said frame, a second slide on said frame movable parallel to the movement of said tool, connections between said base and said second slide, connections between said tool and said first slide, and means connected between said first and second slides whereby movement of said one slide causes movement of said frame relative to said base while said tool remains stationary relative to said frame or causes relative movement of said tool with respect to said frame while said frame remains stationary with respect to said base.

2,774,345
**PORTABLE STOVE**
Stephen C. Peplin, Lakewood, Ohio, assignor to Lakewood Manufacturing Company, Westlake, Ohio, a corporation of Ohio
Application August 15, 1955, Serial No. 528,224
4 Claims. (Cl. 126—25)



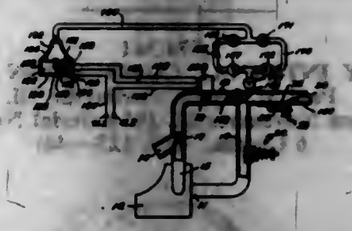
1. A portable stove including a fire basket and a pair of main legs for supporting said fire basket in a vertical position, said fire basket comprising a single sheet of material bent transversely at two spaced points to constitute a base and two end walls, said base and end walls being formed with side flanges, ears formed in said base and end walls by punching the material inwardly adjacent the side flanges, a pair of strips of open mesh material adapted to be disposed between said ears and side flanges to constitute the open mesh side walls of said fire basket, horizontally extending ears formed near the bottom of each end wall by punching the material outwardly to engage and removably clamp the main legs, transversely extending brackets rigid with the upper ends of said main legs, vertically extending ears near the upper ends of said end walls to engage and clamp the center portions of said brackets.

2,774,346
**RESPIRATOR**
Erle Palmer Halliburton, Corpus Christi, Tex., assignor to Dorothy L. Bischof, Los Angeles, Calif.
Application July 13, 1953, Serial No. 367,511
26 Claims. (Cl. 128—29)



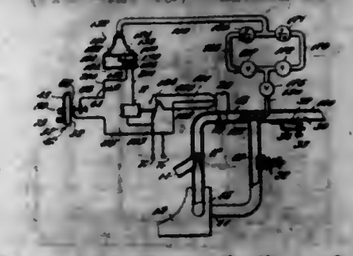
1. In a respirator, a valve for controlling gas flow comprising a body member having a central chamber, and a cylindrical chamber communicating with and having a diameter less than said central chamber, said body member having an inlet side with a gas inlet passage leading to said cylindrical chamber and an outlet side with a gas oulet passage leading from said central chamber; a valve seat formed in said body member and surrounding said inlet passage; and a valve member mounted for reciprocation in said cylindrical chamber, said valve member including a seating portion adapted to contact said seat to close said gas inlet passage, said seating portion having a surface exposed to gas pressure in said inlet passage acting in a direction to unseat said valve, and a body member having a surface adapted to be exposed to said gas pressure when said valve member is unseated, the area of said body member surface being substantially greater than the area of said seating portion surface, whereby the pressure differential existing between the inlet and outlet sides of said valve required to unseat said valve member is substantially greater than the pressure differential required to maintain said valve member in the open position, the body member of said valve having a flange with a cylindrical skirt member depending from the periphery thereof, said skirt member having a port therein and cooperating with said cylindrical chamber walls to confine gas under pressure within said cylindrical chamber during substantial movement of said valve member from said seat, whereupon, upon further movement of said valve member, communication between said chambers is established through said port.

2,774,347
**APPARATUS FOR PRODUCING ARTIFICIAL RESPIRATION**
John H. Emerson, Arlington, Mass.
Application March 17, 1954, Serial No. 416,858
24 Claims. (Cl. 128—30)



1. Apparatus for producing artificial respiration comprising a substantially air-tight respirator casing to receive and enclose at least part of the user's chest but with his head exposed to the atmosphere, a source of negative pressure, a negative pressure conduit having one end communicating with said negative pressure source and the other end communicating with the interior of the casing, an atmospheric conduit providing communication between the interior of the casing and the atmosphere, a valve in the atmospheric conduit movable to open and closed position and which, when in open position, admits gas from the atmosphere through the atmospheric conduit to the casing to assist the user's exhalation and substantially to neutralize the negative pressure created in the casing by said source of negative pressure during each period of inhalation, electrically operated means to actuate said valve, a pneumatically operated switch for controlling said electrically operated means, a transfer conduit providing communication between said pneumatically operated switch and the interior of the casing, and a check valve in said conduit which is moved to open position by negative pressure in the transfer conduit and to closed position by at least substantially atmospheric pressure in the conduit whereby said switch is moved in one direction by negative pressure in said transfer circuit by said means for continuously creating negative pressure.

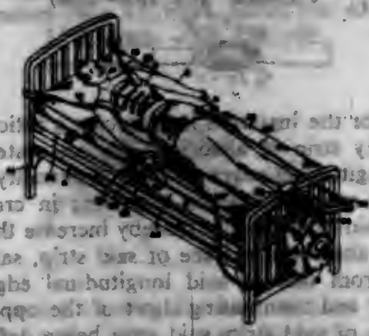
2,774,348
**ARTIFICIAL RESPIRATOR**
John H. Emerson, Arlington, Mass.
Application May 31, 1952, Serial No. 290,856
23 Claims. (Cl. 128—30)



20. A valve apparatus for cyclically producing alternating negative and positive or atmospheric pressures in apparatus for treating users comprising, delivery conduit means, a source of positive or atmospheric pressure, a source of negative pressure less than the pressure of the surrounding atmosphere, a conduit system affording communication between said negative and positive or atmospheric sources of pressure and said delivery conduit means, valve means in said conduit system to alternately afford operative communication between said delivery conduit means and said positive or atmospheric pressure source and between said delivery conduit means and said negative pressure source, whereby said pressures are alternately delivered to said delivery conduit means, pneumatic means responsive to initiation of each inhalation by the user for operating said valve means without further effort on the part of the user through a time cycle comprising two alternating periods, during one of which periods said valve means is actuated to provide operative communication between said delivery conduit means and said source of positive or atmospheric pressure and during the other of said periods said valve means is actuated to provide operative communication between said delivery conduit means and said source of negative pressure.

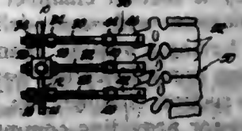


2,774,349
**BED WITH LUMBAR TRACTION APPARATUS**
Bernard Davis Judovich, Philadelphia, Pa.
Application November 12, 1954, Serial No. 468,222
1 Claim. (Cl. 128—71)



A bed wherein a patient is treated for lesion of the spine comprising a frame supported by legs at the head and foot end, said frame having means thereon for elevation of the head and foot portion, a fixed half-section secured upon the upper surface of said frame adjacent the head end thereof and being adapted to support the upper segment of a person's body, and a mobile half section borne upon the upper surface of said frame adjacent the foot end thereof and being adapted to support the lower segment of a person's body, said mobile half-section having a plurality of rollers, each rotatably supported about a horizontal axis and riding upon a track on the upper surface of said frame, and a plurality of guide wheels each rotatably supported about a vertical axis upon the lower portion of said mobile half-section, said guide wheels being positioned against vertical guide rails on said frame whereby said mobile half-section is adapted to move rectilinearly between said fixed half-section and the foot end of the bed, means for applying a counter traction force to the upper segment of a person's body, said counter traction force means having straps affixed to the head end of the bed and a harness for embracing a person's chest, and means for applying a traction force to the lower segment of a person's body, said last mentioned means comprising a pelvic harness for embracing the lower trunk of a person's body, said pelvic harness being secured to a longitudinally oscillating bracket secured to the foot end of the bed whereby maximum intermittent traction may be directly applied to the region of the person's body overlying the area between said fixed and mobile half-sections.

2,774,350
**SPINAL CLAMP OR SPLINT**
Carl S. Cleveland, Jr., Kansas City, Mo.
Application September 8, 1952, Serial No. 308,337
4 Claims. (Cl. 128—92)



1. A spinal brace comprising a pair of spaced, parallel, elongated guide rods; three spaced, parallel, elongated cross-heads having their longitudinal axes in substantially coplanar relationship; means shiftably mounting each of the outermost pair of said cross-heads respectively on the guide rods for reciprocation toward and away from each other along the longitudinal axes of the guide rods with the longitudinal axes of the cross-heads perpendicular to the longitudinal axes of the guide rods; means releasably holding said pair of cross-heads upon the guide rods to maintain a predetermined relative positioning between said pair of cross-heads and to hold the guide rods in spaced parallelism; means rigid to each guide rod respectively, shiftably mounting the remaining cross-head on the guide rods between said pair of cross-heads for reciprocation along and rotation about its longitudinal axis with the longitudinal axis of the remaining cross-head perpendicular to the longitudinal axes of the guide rods; an elongated member for each cross-head respectively; means mounting each member on a corresponding cross-head between said guide rods in perpendicularly extending relationship to its cross-head for reciprocation of the member along and rotation about its longitudinal axis; and structure on each member respectively for releasably holding the spinous process of a vertebra.

2,774,351
**FLAME ARRESTORS FOR ANAESTHETIC EQUIPMENT**
Howard M. Wiles, Waukesha, Wis.
Application April 18, 1955, Serial No. 501,925
2 Claims. (Cl. 128—188)



1. A flame arrester for anaesthetic equipment comprising a tubular shell, multi-apertured end couplings thereon, a wafer valve on the plural apertures of one coupling element, and a plurality of segmented alternated plates adapted to pass gas in radial directions therethrough.

2,774,352
**BREATHING ASSISTOR VALVE**
John H. Emerson, Arlington, Mass.
Application March 28, 1952, Serial No. 279,105
5 Claims. (Cl. 128—203)

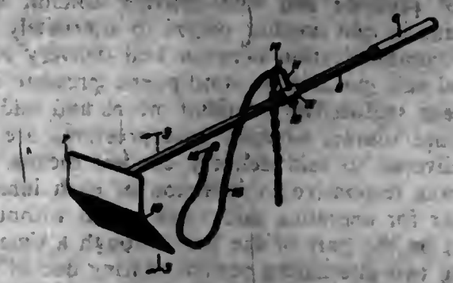
1. A breathing assistor valve for providing positive pressure substantially throughout each period of inhalation of a user comprising a delivery chamber having a delivery port, means for operably connecting said de-

livery port with an airway to the user's lungs, a positive pressure gas inlet port adapted to provide communication with a source of gas under positive pressure, a closure member for said positive pressure gas inlet port, a conduit providing communication between the positive pressure gas inlet port and the delivery chamber, said conduit being defined in part by a suction chamber which is in continuous communication with said delivery chamber, a control chamber having a suction chamber passage continuously providing communication between the control chamber and the suction chamber, an atmospheric pressure gas inlet port for providing communication between the suction chamber and a source of gas under atmospheric pressure, a check valve for said atmospheric pressure gas inlet port adapted to open in response to reduced pressure of a predetermined amount in the control chamber, said conduit being also defined in part by means for aspirating gas out of said control chamber through said suction chamber passage and into said suction chamber in response to the flow of gas from said souce of gas under positive pressure through said gas inlet port and said conduit and consequently through said aspirating means and suction chamber, said aspirating means being defined in part by said suction chamber, means for normally urging said closure member into a substantially closed position, means, responsive to the negative pressure transmitted through said delivery chamber, suction chamber and suction chamber passage to said control chamber upon the initiation of each inhalation by the user, to open said closure member and initiate a substantial flow of gas



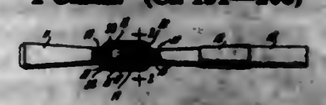
through said conduit and aspirating means, said pressure responsive means being also responsive to the negative pressure created in said control chamber by the aspiration of gas therefrom by said aspirating means in response to said initiated flow of gas through said conduit and said aspirating means, to further open said closure member and increase the flow of gas through said conduit and the pressure in said delivery chamber sufficiently to automatically complete said inhalation with no further effort on the part of the user, said pressure responsive means also being responsive to pressure in said control chamber created by the resistance of the user's lungs to further flow of gas thereinto to automatically close said closure member and means effective during at least a part of the time that said closure member is closed for relieving positive pressure in said conduit and delivery chamber, whereby when the closure member for the positive pressure inlet port is opened responsive to negative pressure created in the control chamber through the delivery chamber, suction chamber and suction chamber passage by a slight inspiratory effort of the user gas flows under positive pressure through said conduit and consequently through said aspirating means and said suction chamber and the aspirating action of said aspirating means in response to said flow of said gas therethrough draws gas from the control chamber though said suction chamber passage into the suction chamber further reducing the pressure in the control chamber and further opening the closure member for the positive pressure gas inlet port, thereby producing positive pressure at said delivery port.

2,774,353
**CALF DELIVERING INSTRUMENT**
Harvey L. Quist, St. Croix Falls, Wis.
Application April 14, 1955, Serial No. 501,354
3 Claims. (Cl. 128—352)



1. A calf delivering instrument of the character described comprising: a lever, a handle on one end of said lever, a bearing plate on the other end of the lever, an arm mounted for sliding and rotary adjustment on the lever, a hook on the outer end of said arm, and a chain, for connection with a calf to be delivered, adjustably engaged with said hook.

2,774,354
**CHLOROPHYL IMPREGNATED FILTER MEANS FOR TOBACCO PRODUCTS**
Irving Florman, New York, N. Y.
Application May 21, 1952, Serial No. 289,123
1 Claim. (Cl. 131—206)



A filter for the insertion in a smoker's article comprising a lengthy strip of absorbent fibrous material having opposite longitudinal edges and with a plurality of parallel and equally spaced incisions extending in cross-wise direction of said filter strip to thereby increase the effectiveness of the absorbent surface of said strip, said incisions extending from one of said longitudinal edges of said strip toward and terminating short of the opposite longitudinal edge of said strip, said strip being deformable to thereby expose the incised edge thereof in the direction from which the smoke is to be first received, said fibrous material consisting essentially of compressed asbestos fibers impregnated with a deodorizing agent in the form of menthol flavored chlorophyl compound.

2,774,355
**PERMANENT HAIR WAVING NEUTRALIZATION BY MONOPERSULFATE**
Thomas E. Bell, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 23, 1955, Serial No. 496,335
3 Claims. (Cl. 132—7)

1. The process of restoring disulfide linkages to hair in which the linkages have been disrupted by reduction comprising treating said hair with an aqueous solution containing between about 500 and 2000 p. p. m. of active oxygen bound in the form of the monopersulfate of an alkali metal, said treatment being carried out at a pH of about 2–3 and a temperature of about 20–40° C. for not more than about 5 minutes.

2,774,356
**HAIR DRESS HAIRCUT**
Irving Del D'Lowe, New York, N. Y.
Application June 24, 1954, Serial No. 438,966
3 Claims. (Cl. 132—7)

1. A method of simultaneously cutting and setting hair which consists of cutting, shortening, thinning and



shaping the hair to the contour of the head whereby to provide the basic haircut of the hair, forming and securing moist ringlets of the hair on one side of the head and positioning a heat device to direct heat upon the ringlets to set them, and while heating the ringlets on the one side of the head, forming and securing moist ringlets on the other side of the head and then positioning the heat device to direct heat upon these ringlets and while heating these ringlets on the other side of the head, combing out the ringlets on the one side of the head and finish cutting the hair on the one side and thereafter removing the heat device from the other side of the head and combing out the ringlets and finish cutting and shaping the hair on the other side of the head.



2,774,357
**DEVICE FOR DYEING HUMAN HAIR**
Jacob Glitin, New York, N. Y.
Application May 17, 1954, Serial No. 430,158
17 Claims. (Cl. 132—9)



1. A device for treating the hair with an agent while protecting the scalp from contact therewith, comprising a pack of parallel leaves of absorbent material loosely joined together, each leaf having a lower scalp-contacting edge treated with a waterproofing substance both on the edge and on the sides of the leaf immediately thereadjacent and said lower edges being recessed so that the pack will snugly fit the contour of the scalp; a frame to support the pack; connecting means for supporting the leaves in the frame; and clamp means on the frame for compressing the leaves together to bring the hair into contact therewith.

2,774,358
**HAIR TREATING DEVICE**
Alexis Zachary, New York, N. Y.
Application December 4, 1951, Serial No. 259,785
3 Claims. (Cl. 132—34)



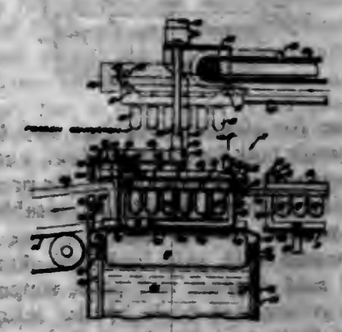
1. A hair treating device comprising a hollow bar having one end closed, a head slidably mounted on the bar adjacent said end, a stem affixed to the head and extending along said bar towards the other end thereof, said stem tapering in thickness transversely of said bar, and a spring in said bar seated against said closed end for holding said head with the outer extremity of said stem adjacent said other end of the bar, said stem being thinnest at said extremity, said bar having longitudinal ribs on its outer surface, one of said ribs having a groove open to the interior of the bar, said stem having a projection slidably disposed in said groove abutting the spring.

2,774,359
**HAIR CUTTING GUIDE**
Richard G. Foley, Mellen, Wis.
Application November 22, 1954, Serial No. 470,334
4 Claims. (Cl. 132—129)



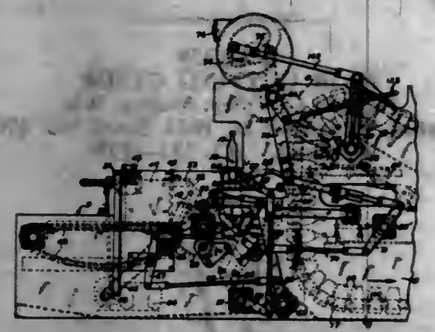
1. A hair cutting guide comprising a head-contacting member conforming to the contour of the head of a person, and a row of teeth carried by said member in spaced-apart parallel relation to each other and positioned laterally with respect to the member and adapted for placing under the hair to hold the same outwardly from the head, said row of teeth including a stationary group of teeth and a movable group of teeth movable inwardly and outwardly relative to the head and both groups of teeth being arranged in a continuous row, and said stationary group of teeth being of gradually decreased diameter in a direction away from the movable teeth.

2,774,360
**AUTOMATIC MOLD DEFROSTER**
Max Hughes, West Sacramento, Calif.
Application November 30, 1953, Serial No. 394,938
8 Claims. (Cl. 134—46)



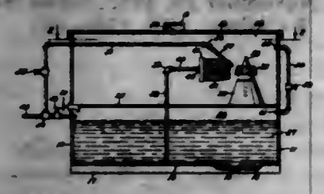
1. A mold defroster comprising a vertically acting plunger, a mold carrier on said plunger including a pair of arms engageable on the upper sides thereof with a frozen confection stick holder and on the lower sides thereof with a frozen confection mold, a defrosting tank disposed below said mold carrier, means for lowering said plunger and said mold carrier whereby said stick holder and said mold are immersed in said defrosting tank for a predetermined length of time, means for raising said plunger and said mold carrier whereby said stick holder is elevated to a predetermined vertical position, and a conveyor disposed substantially at said predetermined vertical position for disengagement of said stick holder from said mold carrier.

2,774,361
BOTTLE WASHER
Archie E. Ladewig, Waukesha, Wis., assignor to Archie Ladewig Co., Waukesha, Wis., a corporation of Wisconsin
Application March 7, 1955, Serial No. 492,501
16 Claims. (Cl. 134—74)



1. In a bottle washer, a casing having therein means for dividing the casing into a lower chemical solution bottle soaking basin and a succession of upper chemical solution and fresh water bottle washing zones segregated from said basin, a conveyor for transporting bottles successively in upright position while immersed within chemical solution through said lower basin and in inverted position while subjected to washing sprays through said upper zones, means for heating the chemical solution in said basin, means for circulating a portion of the hot chemical solution from said basin directly through said chemical solution bottle washing zone, and means for pre-heating the water delivered to said fresh water bottle washing zone with another portion of the hot chemical solution passing through said circulating means.

2,774,362
DEVICE FOR WASHING AND DRYING BEARINGS AND THE LIKE
James R. Nordling, Portland, Oreg.
Application November 8, 1952, Serial No. 319,453
4 Claims. (Cl. 134—99)



1. A device for cleaning bearings and the like comprising a reservoir tank for cleaning fluid, a compressed air supply pipe connected with said tank for pressurizing said fluid, a washing chamber having a rotatable support for parts to be washed, nozzle means at one side of said support connected with said tank and directed tangentially toward said support and parts supported thereby to wash and rotate said parts by the action of jets of cleaning fluid from said nozzle means, and a nozzle at one side of said support connected with said air supply pipe and directed tangentially toward said support and parts supported thereby to dry and rotate said parts by the action of an air jet from said nozzle.

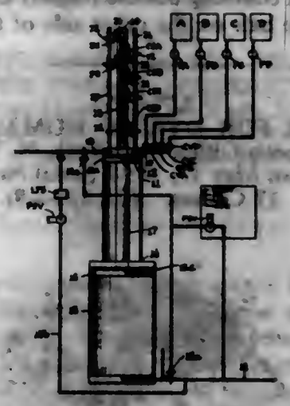
2,774,363
VALVE OPERATION
Fritz Emil Paul Bezzies, South Orange, N. J., assignor to Colgate-Palmolive Company, a corporation of Delaware
Application February 28, 1952, Serial No. 273,982
9 Claims. (Cl. 137—1)

6. The method of maintaining a rotatable plug valve against freezing due to crystallization or caking of line fluid during periods when the valve is closed which comprises introducing into the space between the seating surfaces of the plug and valve body a solvent liquid for



crystallized or caked line fluid material under sufficient substantially constant pressure for continuously seeping said solvent liquid through said space for maintaining said surfaces constantly moistened.

2,774,364
PROPORTIONING AND DISPENSING MEANS
Carl K. Brobeil, Oxford, Conn.; Olga S. Brobeil, administratrix of said Carl K. Brobeil, deceased
Application March 17, 1954, Serial No. 416,796
19 Claims. (Cl. 137—3)



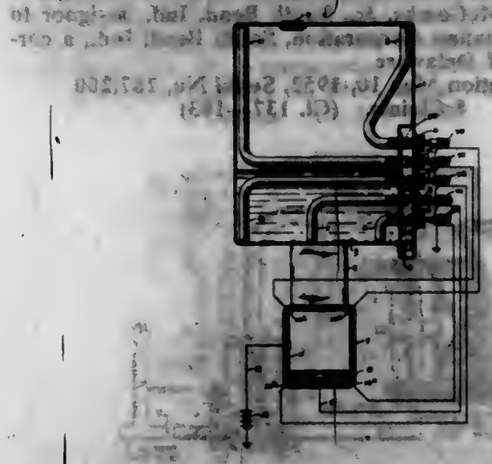
1. An apparatus for proportioning and dispensing fluid materials comprising a plurality of supply stations for the materials; feed means connected to each of the stations to feed material therefrom to a common vessel; means selectively controlling the starting and stopping of each of the feed means in accordance with the predetermined volume of material fed into the vessel; and emptying means feeding the mixed materials from the vessel to a receiver therefor.

2,774,365
WITHDRAWAL OR VENTING SYSTEM FOR TANKS CONTAINING LIQUIDS
Ronald Bryson Stewart, York Township, York County, Ontario, and Ronald Greville Dennys, Brampton, Ontario, Canada, assignors to A. V. Roe Canada Limited, Peel, Ontario, Canada, a corporation
Application May 26, 1954, Serial No. 431,247
7 Claims. (Cl. 137—44)

1. In combination, a first tank containing liquid and having a plurality of outlets at different locations in the tank, valves controlling the outlets, each valve having an outlet opening position and an outlet closing position, a second tank similar to and in fixed relationship to the first tank, a plurality of electrical terminals in the second tank and insulated therefrom, the terminals corresponding in position to the outlets in the first tank, an electrically conductive liquid partially filling the second tank the conductive liquid contacting different terminals at different positions of the second tank, means imparting an electrical potential to the conductive liquid whereby a terminal contacted by the conductive liquid assumes the potential of the conductive liquid, and a control for each valve, each valve control including an electrical device, different ones of the electrical devices



being connected to different ones of the terminals, each valve control being operable to change the position of



its valve when the terminal to which its electrical device is connected assumes said potential.

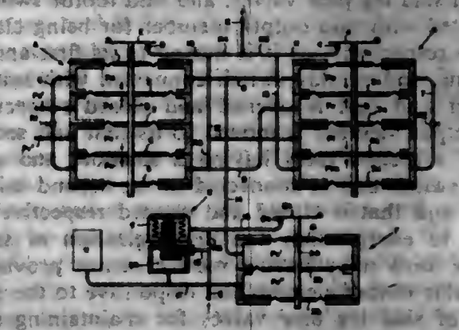
2,774,366
TEMPERATURE-RESPONSIVE CHECK VALVE
John R. Dado, Whiting, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application September 24, 1954, Serial No. 458,053
3 Claims. (Cl. 137—75)



1. An excess temperature shutoff valve for use on an impulse line for direct pressure-operated control valves which comprises in combination a generally cylindrical casing, conduit engaging means at opposite ends of said casing, a ribbed sleeve slidably positioned within said casing, a ball check within said casing, a plurality of low melting restraining pins carried by the downstream ends of the ribs of said sleeve and restraining said ball check within said sleeve under normal operating temperature conditions, fluid flow channels in said sleeve permitting flow about said ball check when restrained by said pins, a valve port adjacent the downstream end of said casing below said sleeve and adapted to be closed by said ball check to prevent flow through said casing when said restraining pins are deformed by hot fluids passing successively through said flow channels and through said valve port in said casing, and coupling means external of said casing for retaining said sleeve within said casing.

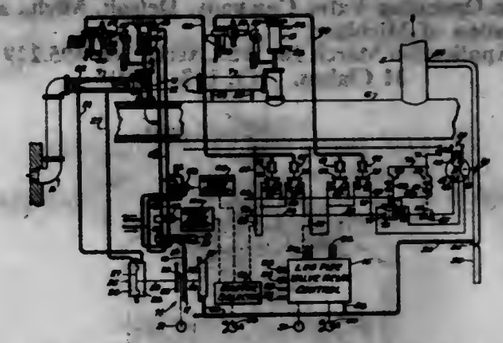
2,774,367
AIR-OPERATED CONTROLLER HAVING MANUALLY ADJUSTABLE RESTRICTIONS GIVING INTEGRAL OR RESET, DIFFERENTIAL OR RATE, AND PROPORTIONAL BAND-ADJUSTMENT MODES OF OPERATION
Edward C. Gregan, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application August 7, 1952, Serial No. 303,070
23 Claims. (Cl. 137—86)

1. An elastic-fluid-pressure-actuated controller, including, means to derive a process variable force proportional to the deviation of a process variable from a predetermined value, means responsive to said process variable force to create a second force containing a component proportional to said process variable, means responsive to said second force to create a third force containing a component proportional to said process variable plus the derivative of said deviation with respect to time, means to oppose said second force and said third force to each other to create a fourth force proportional to said derivative of said deviation with respect



to time, means to integrate said fourth force proportional to the derivative of said deviation with respect to time so as to create a fifth force proportional to said deviation, and means to oppose said process variable force and said fifth force to said third force to produce an output force which is the resultant of said forces.

2,774,368
BLAST FURNACE WIND DISTRIBUTION CONTROL
Sam H. Jones, Flossmoor, Ill., assignor to Askania Regulator Company, Chicago, Ill., a corporation of Illinois
Application September 10, 1954, Serial No. 455,257
9 Claims. (Cl. 137—100)



6. A system for maintaining selected ratios of volume rate of flow of blast air to multiple tuyeres of a blast furnace through plural leg pipes individually supplying the tuyeres from a common blast main and each of which leg pipes has a valve that is adjustable to vary rate of air flow through it and a relay arranged for adjusting that valve to more open and closed conditions respectively in response to decrease and increase in that flow rate; said system comprising a bleeder line in communication with said blast main for discharging a pilot flow of air, means for measuring the volume flow rate of said pilot flow, developing a master signal proportional to that rate and applying said signal to all of said leg pipe valve-controlling relays in a sense to adjust said leg pipe valves toward more open and closed conditions respectively in response to preselected opposite senses of variation of said pilot flow and master signal, a bleeder valve in said bleeder line that is adjustable to vary said pilot flow volume rate and said master signal, an electric motor operatively connected with said bleeder valve for adjusting it toward more open and more closed positions respectively by running in opposite directions and a pair of motor circuits respectively closable for operating the motor in opposite directions and maintaining said motor stopped while both are open, a first motor-control relay having motive means having a movable output member and actuable in response to all said leg pipe valves to move that member to a first position when all said leg

pipe valves are closed to positions corresponding to a preselected degree and to a second position when one of said leg pipe valves is open to that degree, a first motor switch connected in the one of said motor circuits that is closable to operate the motor in the direction to adjust said leg pipe valve and vary said master signal in senses to open said leg pipe valves, and said motor switch being connected with said output member for being closed and opened respectively as it is moved to its first and second positions, and a relay switch connected with said output member and that is opened and closed respectively as said output member is moved to its first and second positions, a second relay having a solenoid and a second motor switch that is connected in the second said motor circuit and that is closed and opened respectively in response to energization and deenergization of said solenoid, a third relay having motive means provided with a movable output element and responsive to the positions of all of said leg pipe valves for maintaining said element in a first position while all of said leg pipe valves are more closed than a preselected limit condition more widely open than said preselected degree and to move said element to a second position when any leg pipe valve is opened to said limit condition, a second relay switch operable by said output element and opened and closed respectively in the first and second positions thereof, and a circuit for energizing said solenoid and including said first and second switches in series connection.

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2,774,369
VALVE
Dominic A. Di Tirro, Royal Oak, Mich., assignor to Ross Operating Valve Company, Detroit, Mich., a corporation of Michigan
Application March 18, 1955, Serial No. 495,229
31 Claims. (Cl. 137—102)



14. In a device of the class described, a housing having a pair of ports for connection to separate sources of intermittent fluid pressure, a chamber in said housing, a port leading from said chamber for connection to a device to be actuated by said intermittent pressure sources, a pair of vent passages in said housing, a pair of oppositely disposed piston operated vent valves between said chamber and said vent passages, resilient means normally holding said valves in closed position, passages in said valves leading from the chambers formed by the valve pistons to said first-mentioned chamber, said valve piston chambers being connected to said first-mentioned ports, a pair of elements disposed within said last-mentioned passages, said elements each being movable between a normally open position permitting fluid flow in either direction in said passage and a position closing said passage, the passage of fluid from said valve piston chambers toward said first-mentioned chamber urging said elements toward their closed positions, and means interconnecting said elements so as to hold the elements simultaneously in their open positions when the forces on said elements are substantially equal, a differential in said forces causing one of said elements to move into its closed position, whereby continued fluid pressure from its corresponding first-mentioned port will cause the corresponding vent valve to move into its open position.

2,774,370
MAKE-AND-BREAK DEVICE FOR PERIODIC OR CYCLIC APPLICATION OF FLUID PRESSURE
Howard L. McCombs, Jr., South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application May 16, 1952, Serial No. 287,200
8 Claims. (Cl. 137—103)



1. A device adapted to be interposed in a fluid pressure or suction conduit between a source of pressure and a point of applied pressure for producing fluid pressure pulsations at said point, comprising a housing, a flexible wall in said housing dividing the interior thereof into first and second chambers, a passageway connecting said first chamber with said conduit, a port in said housing formed to connect said first chamber with a source of higher pressure, means for connecting said second chamber with said conduit posterior said first chamber, a valve in said housing adapted to control the communication between said port and said passageway, the effective area of said valve exposed to conduit pressure being less than that of said flexible wall, and means operatively connecting said wall and said valve.

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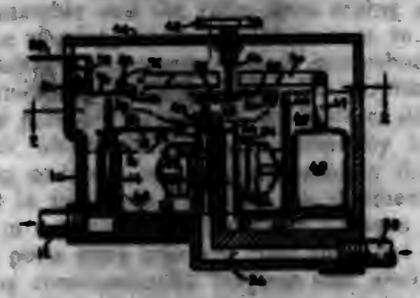
2,774,371
SLUICE VALVE
Allan Grassmann, Stockholm, Sweden
Application July 3, 1952, Serial No. 297,124
Claims priority, application Sweden July 10, 1951
1 Claim. (Cl. 137—243)



Sluice valve to be used in pulp lines, comprising a case having a flow passage extending therethrough, a disc movable in an opening in said case intersecting said flow passage, two sharp-edged ledges arranged inside said valve case bordering said opening, one at each side of said disc providing a seal between said disc and said case, said ledges starting from diametrically opposite sides of said flow passage and extending beyond each other only a short distance at the bottom of the case, the bottom end of said disc having a central peripheral groove, so that two acute-angled cutting edges are formed, each cooperating with the sharp edge on the corresponding ledge.



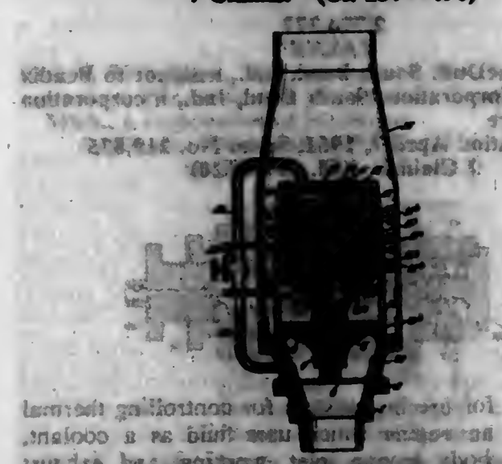
2,774,372
TILTABLE CONTROL VALVE HAVING SAFETY TRIP-OUT
Lourdes W. McCarty, Milwaukee, Wis., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware
Application January 18, 1955, Serial No. 482,576
7 Claims. (Cl. 137—460)



1. A constant level control valve comprising, a casing having an inlet, a valve for the inlet, an annular float in the casing and connected to the valve for regulating the valve action to maintain a constant level in the casing, an outlet from the casing located substantially centrally of the float, a valve for regulating flow through said outlet, a wall defining an overflow chamber in the casing and having sufficient height to preclude flow over the wall, a safety float in the chamber, a striker plate above the inlet valve, means biasing the striker towards the valve to close the valve, means retaining the striker in an inoperative position and connected to the safety float to release the striker when the level in the overflow chamber reaches a predetermined level, and conduit means originating substantially centrally of the annular float and terminating in the chamber, said conduit means originating at an overflow level above said constant level so liquid in the casing will flow through the conduit means into the overflow chamber when the level in the casing reaches the overflow level.

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2,774,373
SAFETY VALVE, NOTABLY FOR HYDROCARBON RESERVOIRS AND PIPINGS
Henri Fievet, Sens, France, assignor to Societe Technique et Commerciale d'Installations Industrielles Lacoste, Sens (Yonne), France
Application January 24, 1955, Serial No. 483,583
Claims priority, application France January 30, 1954
7 Claims. (Cl. 137—490)



1. A safety valve disposed between two rooms each of which contains a gaseous fluid under pressure, comprising, in combination, a valve assembly having a substantially tubular valve-body secured on the wall separating the rooms and formed with a valve-seat facing a first room, a valve member part of which faces the second room, a spring applying said valve member against said valve-seat as long as the fluid pressure in said first room remains between two predetermined limits, a cylinder with a closed end secured on said valve-body and located within the second room, a hollow differential piston having a head end and an open end and being slidably mounted in said cylinder to define a chamber therewith and secured on the part of said valve member facing said second room, said hollow piston defining an inner cavity, means for separating the inner cavity of said hollow piston from the second room, means for connecting said inner cavity to said first room, pressure responsive means for connecting said chamber to said cavity in response to the fluid pressure in the first room attaining the upper limit whereby the valve assembly is instantaneously opened, pressure responsive means for connecting said chamber exclusively to the second room in response to the falling of the fluid pressure in the first room under said upper limit whereby the valve assembly is instantaneously closed, and means for opening the valve assembly in response to the fluid pressure in said first room falling under the lower limit, said piston being formed with ducts respectively connecting its inner cavity to the first and second rooms, said piston being formed with an orifice through its head end, the pressure responsive means for connecting the chamber to said cavity comprising a needle valve housed in said piston and closing said orifice, a deformable bellows housed in said piston, operatively connected to said needle valve, and having its outer face submitted to the fluid pressure in the first room through the ducts connected to the first room, the inner face of the bellows being submitted to the fluid pressure in the second room through the ducts connected to the second room, means for separating the two spaces defined by said bellows in the piston cavity, and adjustable means for resiliently applying said needle valve against the piston bottom.

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2,774,374
PULSATION SMOOTHING VALVE
Edgar R. Schneider, Sullivan, Mo.
Application February 21, 1951, Serial No. 212,158
5 Claims. (Cl. 137—505.29)



1. A device that is adapted to receive fuel from the fuel pump of an engine and to direct said fuel toward the mixing jet of the carburetor of said engine while minimizing pulsations in the pressure and flow of said fuel and that comprises a liquid-tight container to receive and confine fuel, an inlet opening for said container, an outlet opening for said container, a valve seat and a movable valve element intermediate said inlet and outlet openings, said movable valve element being movable away from said valve seat to permit fuel to flow from said inlet opening to said outlet opening and being movable toward said valve seat to valve the flow of fuel from said inlet opening to said outlet opening, a fulcrum, a low weight and small mass lever that is movable about said fulcrum to move said movable valve element relative to said valve seat, a pressure-responsive element that is in communication with the interior of said container, a link that is mounted on and carried by said pressure-responsive element and that extends between said pressure-responsive element and said lever and is movable by said pressure-responsive element to move said lever and thereby move said movable valve element toward said valve seat, a spring that biases said pressure-responsive element

and said link for movement to a position that permits said lever and said movable valve element to move away from said valve seat, said spring being yieldable to permit the pressure on fuel in said container to act upon said pressure-responsive element and move said pressure-responsive element and said link and thereby move said lever and said movable valve element toward said valve seat, a lost motion connection between said link and said lever that permits said pressure-responsive element and said link to move toward said position independently of said lever and said movable valve element, and a second spring that acts between said pressure-responsive element and said lever to normally take up the lost motion in said lost motion connection, said link acting upon said lever intermediate said fulcrum and said movable valve element to multiply the movement imparted to said movable element by said lever in response to movement of said pressure-responsive element and said link, the first said spring being at one face of said pressure-responsive element, said second spring being at the opposite face of said pressure-responsive element, said second spring being a helical compression spring, said second spring surrounding and having its axis parallel to said link, the first said spring being a helical compression spring, the first said spring and said second spring have their axes disposed in end to end alignment, the first said spring and the pressure on the fuel in said container maintaining said link and the portion of said pressure-responsive element engaged by said link in a floating position in said container whereby said pressure-responsive element and said link can move quickly when the pressure on said fuel falls, said pressure-responsive element being substantially completely under the control of the pressure on the fuel in said container and of the first said spring, whereby said device can be operated in any position.

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**2,774,375**

## AUTOMATIC SHUT-OFF VALVES

Raoul Bernat and Henri Bernat, Bordeaux, France; said Henri Bernat, sole heir of said Raoul Bernat, deceased

Application April 22, 1953, Serial No. 350,448
In France February 19, 1946
Section 1, Public Law 690, August 8, 1946
Patent expires February 19, 1966
3 Claims. (Cl. 137—516.19)



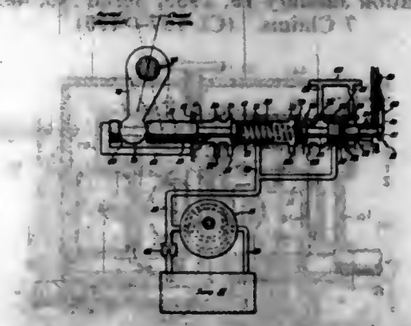
1. A valve arrangement comprising, in combination, a valve member having valve openings arranged in an annular row therein opening in a face of said valve member and having on said face valve seat means about said valve openings; a plurality of spaced permanent magnet means arranged in said valve member both within and outside of said annular row of valve openings with poles thereof located in the region of said valve seat means so as to form in the region of said valve seat means a plurality of independent points of magnetic attraction along said valve openings; a thin laminar annular magnetizable valve closure member arranged on said valve seat means attracted to the same by said spaced permanent magnet means at a plurality of points of magnetic attraction so as to be seated thereon, but movable away from said valve seat means against action of said permanent magnet means by pressure of fluid passing through said valve opening means, said annular magnetizable valve closure member at least partially overlying the permanent magnet means both within and outside of said annular row of valve openings; and stop means limiting movement of said magnetizable valve closure member away from said valve seat means.

**2,774,376**

## TRANSMISSION CONTROL

Richard E. Young, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application May 24, 1951, Serial No. 228,038
2 Claims. (Cl. 137—620)



1. In a fluid pressure regulating system the combination of a manually positionable control lever depressible from one limit position toward another, a spring for returning the lever to its said one limit position upon the manual release of the lever, a source of fluid pressure, fluid pressure control means connected with said source and including a first valve and a second valve resiliently connected with the first valve, linkage positively connecting said first valve and said control lever and including a pivotal member having a rounded portion that fits into a slot in the first valve so that movement of the control lever pivots the pivotal member and moves the first valve longitudinally, said first valve functioning upon depression of the control lever to bias the second valve away from a retracted position, a land on said second valve and one side of the land being effective for metering the fluid pressure supplied by said source and supplying a fluid pressure substantially proportional to the degree of displacement of the second valve from its retracted position, and means for applying the last-mentioned fluid pressure to the opposite side of said land on said second valve to oppose the bias on the second valve by the first valve through the resilient connection, said first valve being returned to a retracted position by the action of said spring upon the manual release of said lever to thereby relieve the bias on the second valve away from its said retracted position and said last-mentioned fluid pressure at this time being effective to urge the second valve toward its said retracted position.

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**2,774,377**

## VALVE

Stanley I. MacDuff, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application April 7, 1951, Serial No. 219,875
2 Claims. (Cl. 137—620)



1. A valve for use in a system for controlling thermal conditions in an engine which uses fluid as a coolant, comprising a body having inlet, working, and exhaust ports therein, a partition member in the body separating the inlet and working ports from the exhaust port, forming work and exhaust chambers, a portion of said body including a wall which forms work and control chambers, a passage in said partition member communicating the working port and the exhaust port, a valve stem reciprocable in a bore through the portion of the body forming the work and control chambers and extending into said chambers, said valve stem having a passageway therein which communicates the inlet port with the working port, a conical valve seat on said stem on the end extending into said working chamber for controlling the communication between the aforementioned inlet and working ports, a spring operatively associated with the partition member and the valve stem urging said stem toward the control chamber, said passage in the partition including a valve seat adjacent said exhaust chamber, an abutment extending from the partition at the end of the passage leading into the work chamber, said valve seats, abutment, passage, passageway and valve stem being co-lipear, a ball engageable in the conical valve seat in said stem and with the abutment on said partition to establish communication between the inlet and work ports when unseated from the valve seat, and establishing communication between said work and exhaust ports when seated in the valve seat on the stem and in contact with the abutment, a second ball engageable with the valve seat in the partition member and operative to control communication between the work and exhaust port when the first mentioned ball engages said abutment, a spring in said exhaust chamber urging said second ball to a seated position in its cooperating valve seat, said spring being of a greater strength than the first mentioned spring, a reciprocable pin in the passage of the partition and having a greater length than said passage, said pin being in contact with each of the aforementioned ball members and operative to unseat the second ball from its valve seat, permitting communication between the working and exhaust ports when sufficient force is exerted on the stem in the control chamber, overcoming the spring force in the exhaust chamber, and when the first mentioned ball is seated on the abutment, the end of the passage opposite to that containing the valve seat for the second ball including radial grooves adjacent the abutment permitting the aforementioned communication between the working and exhaust ports when the pin unseats the second ball due to force on the stem in the control chamber, and an adjustable pressure responsive means contained in said control chamber in engagement with the end of the stem extending into the control chamber, said last mentioned means operative to control communication between the inlet and work ports or the work and exhaust ports depending on preset conditions of said last mentioned means.

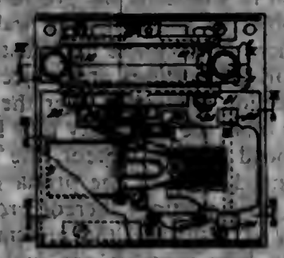
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**2,774,378**

## VALVE

Earl F. Mekelburg, Wauwatosa, and Carl B. Sohns, Milwaukee, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan

Application March 10, 1951, Serial No. 214,962
13 Claims. (Cl. 137—623)



1. In an electrically operated device for controlling the flow of pressurized fluid, a valve body having a plurality of passages therein through which said fluid passes, means within said valve body for directing the flow of fluid through said passages, means biasing said directing means toward one position, and electromagnetic means including an armature and core for controlling the position of said directing means, said armature having a connection to said directing means which decreases in mechanical advantage as said armature approaches said core whereby the shock associated with closing of said armature upon said core is minimized.

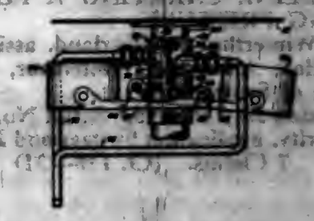
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**2,774,379**

## DUAL VALVE FOR CONTROLLING LIQUID LEVEL

Morgan L. Sweeney, Jr., Los Angeles, Calif., assignor to The Parker Appliance Company, Cleveland, Ohio, a corporation of Ohio

Application May 24, 1950, Serial No. 163,919
8 Claims. (Cl. 137—637)



8. A fluid flow control device comprising a casing having a main fluid passage therethrough, said passage including a valve chamber and inlet and outlet ports at opposite sides of said valve chamber, said ports being in axial alignment with each other, a pair of oppositely acting fluid pressure operated inlet and outlet valves within said chamber, the inlet valve controlling the flow of fluid from the inlet port to the valve chamber and the outlet valve controlling the flow of fluid from the valve chamber to the outlet port, a pressure chamber associated with each of said valves, a bypass duct leading from each pressure chamber and other ducts for conducting fluid from said passage to each of said pressure chambers the inlet valve having an area exposed to fluid in the inlet port for opening the inlet valve when the pressure of fluid in the inlet is greater than the pressure of fluid in the respective pressure chamber, the outlet valve having an area exposed to fluid in the valve chamber for opening the outlet valve when the pressure of the fluid in the valve chamber is greater than the pressure of fluid in the respective pressure chamber, and a pilot valve associated with each bypass duct for controlling discharge of fluid from the pressure chambers.

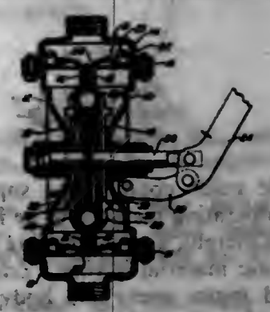
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**2,774,380**

## DIAPHRAGM ANNULUS WITH A SPRING THEREIN

William L. Hudson and Harold Lee, Fort Wayne, Ind., assignors to Tokheim Corporation, a corporation of Indiana

Application April 28, 1952, Serial No. 284,722
7 Claims. (Cl. 137—793)



1. A pump diaphragm assembly, comprising a working annulus extending between an outer peripheral rim and a central piston adapted to be reciprocated axially with respect to the rim, said annulus comprising opposite outwardly convex walls of flexible material defining a space of substantially circular cross-section, and an endless helical spring ring within said space and of smaller cross-section than said space and said spring being substantially

incompressible across its section, extending circumferentially around said annulus between said annulus walls and the turns of said spring being spaced from each other and contacting each wall in a substantially circular series of points so that said ring will stretch and contract along its helical axis and will provide mutual support between the walls during reciprocation of said piston relative to said rim.

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2,774,381

**DEVICE FOR REDUCING PRESSURE INCREMENTS IN A PIPELINE CARRYING A FLUID UNDER PULSATING PRESSURE**

Alfred Burl, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application July 16, 1953, Serial No. 367,336
Claims priority, application Switzerland July 12, 1952
7 Claims. (Cl. 138—31)



1. A device for reducing pressure increments in a conduit carrying a fluid under pulsating pressure, comprising, in combination, a vapor cushion chamber, means for producing a vapor cushion within said chamber, a hollow cylinder connecting said chamber with the conduit, a piston adapted to reciprocate within said cylinder, means affording a restricted fluid communication between the conduit and said vapor cushion chamber, and means connected with said piston for supplying forces adapted to freely floatingly retain said piston in middle position within said cylinder.

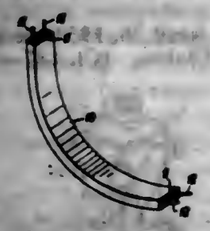
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2,774,382

**GUIDING CONDUIT**

James Sydney Bentley, London, England, assignor to Teleflex Incorporated, Wilmington, Del., a company of Delaware

Application June 12, 1953, Serial No. 361,377
5 Claims. (Cl. 138—56)



1. A flexible guide conduit and support for an elongated flexible operating member to be housed therein and shifted relative thereto, and comprising an elongated body of flexible plastic material having a cross section presenting major and minor axes, said body having extending longitudinally therethrough a bore which is relatively small as compared to the cross section of the body along its major axis whereby to leave a substantial amount of material along the major axis of the body outside of the bore to add stiffness to the body for supporting the flexible operating member within the said bore, and an elongated reinforcing element embedded in the plastic body and extending longitudinally and substantially from end to end thereof and disposed between the bore and a narrow edge of the body for resisting stretching or collapsing of the body, the material of the body along the major axis thereof being resistant to bending therealong but facilitating bending of the body along the minor axis thereof and twisting of the body along its longitudinal axis to enable the conduit to negotiate curved installations.

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2,774,383

**INSULATION FOR UNDERGROUND CONDUITS AND METHOD OF PRODUCING THE SAME**

Alexander C. Kidd, South Orange, N. J., assignor to Insul-Fil Co., Inc., New York, N. Y., a corporation of New Jersey

Application June 3, 1955, Serial No. 512,953
8 Claims. (Cl. 138—68)



1. The combination of a metal conduit, an inner annular plastic layer of a mixture of about 50% by volume of a hydrocarbon having a high softening point in Fahrenheit degrees of about 280 to 310 and of about 50% by volume of expanded perlite particles coated with a similar high softening point hydrocarbon in contact with and surrounding said conduit, and an outer substantially solidified layer of a sintered mass of said mixture.

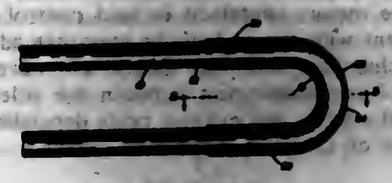
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2,774,384

**HEAT EXCHANGER U-TUBES**

Robert M. Wallace, Massillon, Ohio, assignor to The Griscom-Russell Company, Massillon, Ohio, a corporation of Delaware

Application September 15, 1953, Serial No. 380,236
2 Claims. (Cl. 138—69)



1. Heat exchanger U-tube construction including, a primary metallic tube having a substantially U-bend portion intermediate the ends thereof, the U-bend being formed on a relatively small radius such as to cause thinning of the tube wall at the bend, said primary tube having walls of uniform thickness throughout the unbent portions thereof sufficient to withstand the pressure to which those portions are subjected and a thinner wall at the U-bend portion insufficient in thickness to withstand the pressure to which the parallel portions are subjected, a secondary metallic tube section telescoped over the U-bend portion of said primary tube, the secondary tube having a thinned wall in the U-bend portion thereof, the combined thickness of the thinned walls of the primary and secondary tubes in the U-bend portions thereof providing sufficient metal thickness to withstand the pressure to which the parallel primary tube portions are subjected, the metal constituting the secondary tube section having a smaller coefficient of expansion than the metal constituting the primary tube, the metal constituting the secondary tube section having a greater tensile strength than the metal constituting the primary tube, and the primary tube being expanded into the secondary tube section to bring the interface surfaces of said two tubes into intimate metal-to-metal heat transfer contact.



2,774,385

**VALVE CAP**

Juan Costas Rabassada, Barcelona, Spain

Application July 13, 1954, Serial No. 442,995
3 Claims. (Cl. 138—89.3)



1. A valve cap comprising a cylindrical member provided with a threaded drill hole adapted for engagement with the outer threads of a pneumatic inner tube valve stem and having an end wall opposite the hole, an outer member provided with open ends guided for free rotation over the cylindrical member, a coupling and retaining device operatively connecting said members so that after the cylindrical member has been turned by the outer member to tightly screw the cap onto the valve stem, turning movement of the outer member in the opposite direction is not imparted to the cylindrical member, and means on the end wall of the cylindrical member engageable by a loosening key, so that the cap cannot be unscrewed in the absence of such key, the coupling and retaining device including a piece resiliently connected to one of said members and formed with a sharp end permanently contacting the facing surface in the other member, the material forming said facing surface being softer than the material forming the sharp end, whereby the latter may bite into said surface thus forming notches with which it is engaged operatively for locking the cap.

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2,774,386

**PROFILE ELEMENT FOR HARNESS FRAMES**

Paolo Formenti, Cavalo Bolzanin (Milan), Italy

Application June 27, 1951, Serial No. 233,784
Claims priority, application Italy June 28, 1950
4 Claims. (Cl. 139—91)



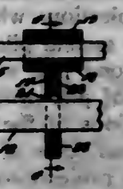
1. A profiled element for use in heddle frames comprising a single folded metal sheet provided with an intermediate body, and with opposite T-shaped end pieces, said intermediate body being provided with at least one portion offset with respect to the longitudinal center line passing through the webs of said T-shaped end pieces, said T-shaped end pieces including each two web-forming strip parts substantially parallel to each other and substantially symmetrical with respect to said center line, furthermore two substantially flat flange-forming strip parts extending from said web-forming strip parts in opposed direction to each other and substantially perpendicular to said longitudinal center line, at least one of said T-shaped end pieces being provided with a flat cross-strip part interconnecting said two flange-forming strip parts adjacent the outermost ends thereof, said flange-forming strip parts of said T-shaped end pieces being in height substantially coextensive with said offset portion and extending in planes substantially parallel to each other.

2,774,387

**HEDDLE FRAMES**

Abbott S. Gainher, North Andover, and James T. Trowbaim, Andover, Mass., assignors to Emmons Loom Harness Company, Lawrence, Mass., a corporation of Massachusetts

Application November 17, 1954, Serial No. 469,528
8 Claims. (Cl. 139—92)



1. In a heddle frame for looms having slidable members therein for supporting the heddle bars intermediate their ends, said slidable members being made of moldable plastic material and each comprising a horizontal portion shaped for sidewise movement in the frame, and a vertically extending portion having a recess within which the heddle bar is positioned, and an internal reinforcing member within said vertically extending portion.

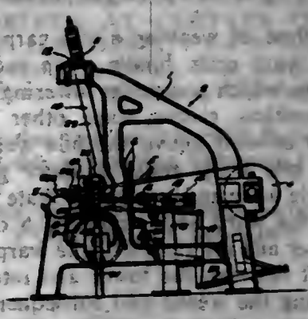
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2,774,388

**SHUTTLE CONTROL**

Herman C. Frantzel, Shorewood, Wis.

Application September 3, 1953, Serial No. 378,259
41 Claims. (Cl. 139—126)



1. In a shuttle control for a loom the combination comprising a shuttle box, a shuttle brake having a first brake member and a second brake member frictionally engageable and disengageable with respect to said first brake member adapted to slip with respect to the first brake member when engaged therewith to develop braking friction and cooperatively engageable with a shuttle entering said box to impart braking drag thereto, brake disengaging means responsive to relative position of said braking members, and shuttle homing means having a member movable along said box to move a shuttle therein after braking of the shuttle.

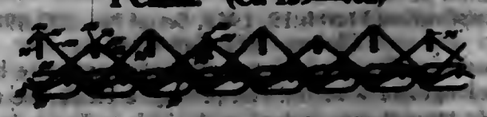
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2,774,389

**PILE FABRIC**

Frank W. E. Hasselhorth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania

Original application March 3, 1952, Serial No. 274,866, now Patent No. 2,731,988, dated January 24, 1956. Divided and this application June 22, 1953, Serial No. 363,254
1 Claim. (Cl. 139—402)



A velvet pile carpet having a plurality of contrasting pile warp sets, stuffer warp ends, binder warp ends and wefts interwoven together, all of the ends of the pile warp sets being raised in the pile in successive transverse

rows of pile projections in the fabric, the fabric having a plurality of first pile areas distributed in spaced relation, and a plurality of second pile areas distributed in spaced relation, the pile warp ends of the first pile warp set forming in each of the first pile areas, rows of pile projections which extend above the pile projections of the second pile warp set, and forming in the second pile areas rows of pile projections whose tops are below the pile projections of the second pile warp set, and the pile warp ends of the second pile warp set forming in the first pile areas, rows of pile projections whose tops are below the pile projections of the first pile warp set and in the second pile areas rows of pile projections which extend above the pile projections of the first pile warp set, whereby in one pile area the pile projections formed by one pile set have the heights which the pile projections of the other pile warp set have in a different pile area.

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2,774,390
**FLOAT UNDER THE WIRE**
Frank W. E. Hoosibeath, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Application July 5, 1955, Serial No. 519,747
6 Claims. (Cl. 139—403)

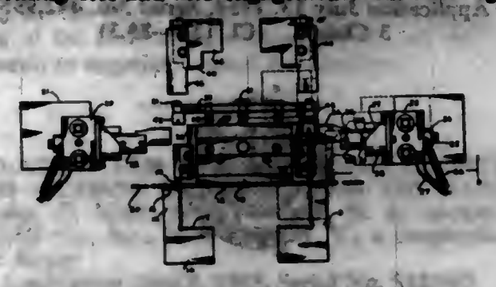


1. The method of weaving a pile carpet, using a plurality of pile warp ends, binder warp ends, stuffer warp ends and wefts, which comprises lowering pile warp ends into lower position, raising some other warp ends, inserting a shot of weft above the pile warp ends; raising some of the pile warp ends to upper position, raising some of the pile warp ends to intermediate position, lowering some of the warp ends, inserting a cutting wire between the upper and intermediate pile warp ends, inserting a shot of weft between the lower and intermediate warp ends; continuing the weave and subsequently raising different pile warp ends to the upper position, maintaining the same ends which were previously in the intermediate position again in the intermediate position and lowering the ends previously in the upper position to the lower position, inserting a cutting wire in the upper position and inserting a shot of weft in the lower position; continuing the weave and finally lowering the pile warp ends previously in the intermediate position to the lower position, raising some other warp ends half way and inserting a shot of weft above the pile warp ends formerly in the intermediate position to terminate a low float, the low float extending over at least two wefts in the face of the fabric, the pile warp ends having a weight of between 20 and 45 yards per ounce and the height of the cutting wires being not in excess of 0.150 inch, and withdrawing the cutting wires to cut the pile over the wires and release the low floats to rise above the cut pile.

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2,774,391
**DEVICE FOR FORMING WIRE HANDLES**
Francis C. Bertram, Maryville, N. Y., assignor, by mesne assignments, to Reif-Rexoll, Inc., Buffalo, N. Y., a corporation of New York
Application March 19, 1952, Serial No. 277,498
7 Claims. (Cl. 140—75)

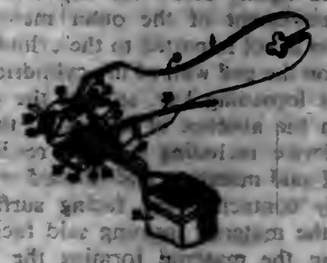
1. A device for producing a multiple bend wire handle from a length of wire rod comprising, a block, die means movable toward one end of said block to bend the ends of a length of wire rod therearound and form the hand grip and leg portions of a handle, forming dies, means mounting said forming dies for movement toward said block on one side of said leg portions, means for then rotating said forming dies to partially bend said leg portions, and slidable dies mounted for movement toward said forming dies and into engagement with such leg por-



tions to complete bending thereof by moving said leg portions relative to said forming dies in a manner and to an extent further rotating said forming dies.

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2,774,392
**WIRE WORKING TOOL**
Dustin C. Cerne, Lannsville, Ohio
Application August 26, 1953, Serial No. 376,577
3 Claims. (Cl. 140—124)



1. An improvement in wire working tools of the type having a handle, a head rotatably mounted on the handle and having an axially extending wire-receiving opening therethrough and a peripheral wall, said improvement comprising, in combination, means formed on a side portion of said head and adapted to unwrap a coil of wire from around a strand of wire, said means including a groove for liftingly engaging the wire being unwrapped, said groove including a bottom surface for applying force to said wire, and spaced side surfaces for retaining said wire on said bottom surface and a cam surface adjacent an inner open end of said groove to guide and provide clearance for the wire being unwrapped; a ratchet formed on said head; a spring-pressed pawl pivotally mounted on the handle and in unidirectional driving engagement with said ratchet for operating said means upon actuation of said handle.

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2,774,393
**FRUIT JUICE DISPENSER**
William S. Swan, New York, N. Y.
Application October 20, 1955, Serial No. 541,710
3 Claims. (Cl. 141—18)



2. A multiple variety liquid dispenser comprising a container housing having a lid thereon, a removable wire rack divided vertically into container receiving trays to support containers thereon, the lower tray being spaced vertically from the bottom of the rack and having a plurality of equi-spaced fluid storage container recesses and an upper tray spaced above the container recesses and having a horizontal tray area for supporting a number



of fluid supply containers thereon, individual storage container dispensers insertable into the recesses in said lower tray, a plurality of individual spigots projecting outwardly from said container housing and communicating each with an individual fluid storage container through the housing, fluid supply receiving containers having bottom pour spouts selectively positioned in the containers so that each pour spout communicates with an individual storage container therebelow, said fluid supply receiving containers being supported on said horizontal tray area above the fluid storage container recesses and fluid storage containers, liquid supply can puncturing means positioned within the fluid supply receiving containers whereby upon depressing a fluid filled can onto the puncturing means, fluid will flow into a fluid supply receiving container and through the pour spout and then into the storage container below.

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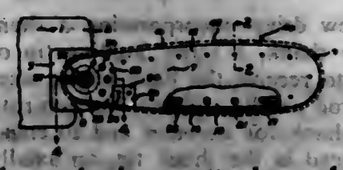
2,774,394
**EXHAUST SYSTEM**
Ellen N. Meese, Swampscott, and Lloyd E. Shaw, Newburyport, Mass., assignors to Columbia Broadcasting System, Inc., Salem, Mass., a corporation of New York
Application August 18, 1951, Serial No. 242,547
10 Claims. (Cl. 141—65)



1. An exhaust system comprising, a member to be evacuated, a pump having an intake stack, a tube connecting said intake stack to said member, and a trap connected to said intake stack, said tube penetrating said trap and terminating in an open end therein, said tube having a lateral aperture formed therein preventing the passage of solid material, but permitting the free flow of gases therethrough.

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2,774,395
**CHAIN SAWS**
Charles J. Tweedie, Fanny Bay, British Columbia, Canada
Application March 23, 1956, Serial No. 573,482
4 Claims. (Cl. 143—32)



1. In a chain saw having a cutter bar and a saw chain adapted to encircle the cutter bar, said cutter bar having side plates defining a peripheral channel, each of said side plates having a groove spaced from the edge of the cutter bar to form a pair of ball races, said chain being formed with links connected together in a single plane, each of said links having a pair of apertures, a bearing ball loosely retained in each of the apertures, said links being located in the channel and said balls being located in the races.

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2,774,396
**SAW CHAIN, TOOTH THEREFOR AND METHOD OF CUTTING**
Dewey E. Gemmel, Indianapolis, Ind., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application February 19, 1951, Serial No. 211,742
21 Claims. (Cl. 143—139)

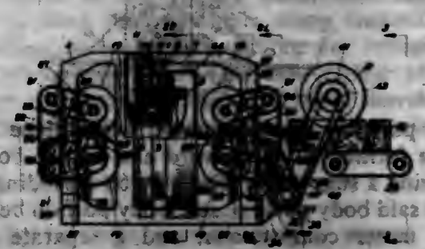
1. A saw chain comprising a plurality of pivotally-joined links, certain of said links having formed thereon laterally-extending slicing elements extending from one marginal edge of said chain toward, and traversing the longitudinal median plane of said chain, said certain links being longitudinally spaced in said chain and some of them having their slicing elements extending from one marginal edge of said chain while others of them have their slicing elements extending from the opposite marginal edge of said chain, said some and other certain links



having their slicing elements disposed so as to intersect the path of the next preceding slicing element so as to separate completely an independent chip from the material sawed, and a depth gauge for each slicing element positioned in said chain ahead of the corresponding slicing element to control the depth of cut of such slicing element comprising means defining an active end portion adapted to engage the surface of the material sawed created by the immediately preceding slicing element.

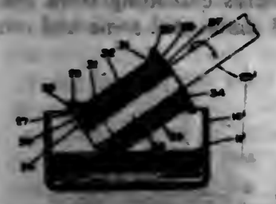
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2,774,397
**BARKING MACHINE HAVING FEED ROLLER POWER-DRIVEN AT CERTAIN PERIPHERAL SPEED OR LOG-DRIVEN AT HIGHER SPEED**
Nils Gustav Leffler, Sundsvall (near Sundsvall), Sweden, assignor to Svenska Cellulosa Aktiebolaget, Stockholm, Sweden
Original application October 31, 1952, Serial No. 317,980. Divided and this application February 12, 1954, Serial No. 409,912
Claims priority, application Sweden November 3, 1951
5 Claims. (Cl. 144—247)



1. An improvement in a barking machine of the kind having at least one barking tool movable into and out of engagement with an axially fed log, the barking tool and the log being relatively rotatable about a longitudinal axis of an axially fed log, and said machine having conventional means for feeding a log at a given axial speed, said improvement comprising at least one rotatably driven member located in a feeding path of an axially fed log, means connecting said member to a driving mechanism which rotates said member at a certain peripheral speed not exceeding said given axial speed of a log, means supporting said member for rotation about an axis transverse to and spaced from said longitudinal axis of a fed log, said supporting means being swingable about a second transverse axis spaced from that side of said longitudinal axis opposite to said first transverse axis and also spaced from said log-feeding path, an oncoming log engaging said member and swinging said supporting means about said second transverse axis until said member rests against a log, whereby said driving mechanism will cause said member to drive a log forward only when the axial speed of a log, because of too much feeding resistance, drops below said certain peripheral speed.

2,774,398
**METHOD OF PRODUCING PLASTIC RIM SPOOLS**
Louis H. Morin, Bronx, N. Y., assignor to Coats & Clark Inc., a corporation of Delaware
Application March 5, 1951, Serial No. 213,968
7 Claims. (Cl. 144—309)



1. The herein described method of forming a spool which consists in mounting a spool body on a mandrel disposed at an acute angle to the surface of a settable coating fluid, submerging a flange end of the spool body in the coating fluid to an extent submerging one corner portion only of a flange end, rotating the mandrel and spool body, thus submerged, to apply a ring-like deposit of the fluid on the flange end of the spool body, thus completely enveloping the flange thereof, then raising the spool body above the level of fluid while continuing rotation of said body to displace excess fluid, leaving a deposit of the fluid on said spool body, setting the deposit, and nicking said flange end of the spool body by cutting through the set deposit to form a non-chippable, thread-holding nick in said end.

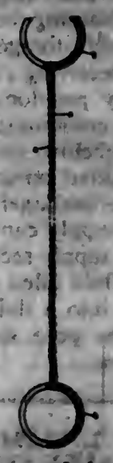
2,774,399
**POWER OPERATED WOOD PLANE WITH CHIP AND SHAVING DISCHARGE MEANS**
Arthur N. Emmons, Nedrow, N. Y., assignor to The Porter-Cable Machine Company, Syracuse, N. Y., a corporation of New York
Application March 15, 1955, Serial No. 494,353
8 Claims. (Cl. 145—4)



1. A portable power-operated wood plane comprising a frame formed at its forward end with a body portion and having a supporting shoe portion extending rearwardly from said body portion, said body portion being formed with a cutter compartment and a separate chip compartment located forward of said cutter compartment, the lower portions of said compartments being in communication, said compartments extending transversely of the frame and being open at like ends for the discharge of shavings and chips therefrom, said cutter compartment having an opening in the bottom wall thereof, a motor mounted on the frame at the ends of said compartments opposite to said like ends and having a power shaft extending into said cutter compartment, a cutter mounted on said shaft and being exposed through the opening in the bottom wall of said cutter compartment, and a depth adjustment shoe mounted at the forward end of said body portion for movement vertically toward and from the plane of said supporting shoe.

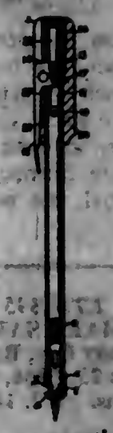
2,774,400
**POCKET-SAW WITH WIRE-REINFORCED BLADE**
Werner Frichleben, Schweppenhausen, Germany
Application October 20, 1954, Serial No. 463,456
Claims priority, application Germany April 29, 1954
2 Claims. (Cl. 145—31)

1. A pocket-saw comprising a saw blade toothed at both edges with the teeth of the opposite edges pointing in opposite directions, at least two steel wires twisted in spaced parallel relation with the saw blade, the terminal portions of the blade being toothless and wound together



with the terminal portions of the said wires round rings forming the handles of the saw.

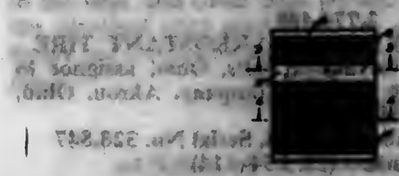
2,774,401
**SCREW-HOLDING DRIVERS**
Arthur Blakey Hallam, Leeds, England, assignor to Chas. F. Thackray Limited, Leeds, England, a British company
Application July 20, 1953, Serial No. 369,179
Claims priority, application Great Britain July 28, 1952
7 Claims. (Cl. 145—52)



1. A screw driver incorporating a shank, means for rotating the shank, a screw holding tip on the end of said shank to receive the head of the screw, a pressure applicator rod axially slidable but non-rotatably mounted in said shank for its outer end to engage and clamp the screw head in the shank tip, an axially displaceable spring loaded driver tip in said clamping end of the rod to engage the screw head and rotate with the rod, a pivoted lever connected by a link to the rod to give it axial movement and apply pressure on the screw head, said lever being connected through its fulcrum to a mounting element, an adjustable thrust member engaging the said element to make the pressure applicator rod initially adjustable in relation to a screw head, and means providing resilience of the operating lever adjacent its fulcrum between the latter and the pivot of its link connection to the rod to ensure a firm grip on a screw head and allow for slight variations in screw heads.

2,774,402
**VENTILATED PLASTIC BAG**
Richard H. White, Adrian, Ga.
Application December 1, 1951, Serial No. 259,347
3 Claims. (Cl. 150—1)

1. A ventilated bag made of plastic sheet material, said sheet material having an imperforate border portion, perforate portions lying within said border portion and integrally formed therewith, and an imperforate intermediate portion lying within said border portion between said perforate portions, said perforate portions each comprising



a plurality of filaments which are integrally connected in a manner to form ventilating openings therebetween, said sheet being joined together at opposite portions and sealed against itself along at least one other portion.



2,774,403
**SHORT BAG GOLF CLUB CARRIER**
Norman Bruce Williamson, Portland, Oreg., assignor to Jarman-Williamson Company, a partnership
Application April 27, 1953, Serial No. 351,440
1 Claim. (Cl. 150—1.5)



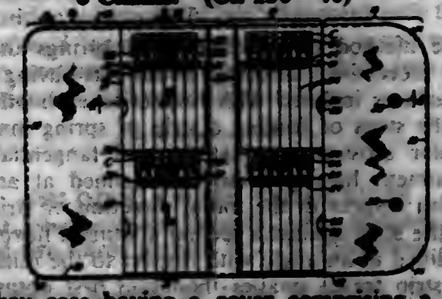
An attachment for golf carts comprising a short bag for the handle ends of clubs, said bag having a bottom wall, a peripheral side wall with a top rim and a vertical dividing wall forming two compartments within the bag, said dividing wall being deflectable in opposite directions into one or the other of said compartments to form a large mouth in the opposite compartment, a flap on the upper end of said dividing wall adapted to overlie the rim of said peripheral wall, releasable fastener means on said flap and rim, a rigid supporting hoop for said side wall, the upper edge of said side wall being folded over said hoop to form said top rim, and a clamp on said hoop for securing the bag on a cart.

2,774,404
**WALLET OF UNITARY CONSTRUCTION**
David B. Hoggatson, Leslie, Ark.
Application November 22, 1955, Serial No. 548,335
5 Claims. (Cl. 150—36)



1. A wallet comprising a back panel, a front panel, a first intermediate panel, and a second intermediate panel, said back and front panel being connected along the lower edges thereof, the first intermediate panel being connected to the top edge of the back panel and disposed against the inner surface thereof, the second intermediate panel being connected to the top edge of the front panel and disposed against the inner surface thereof, an outwardly extending tab on each end of said back panel, an outwardly extending tab on one end of said first intermediate panel, means on said front panel for interlocking engagement with the tab on the first intermediate panel and the tab on the end of the back panel remote from the tab on the first intermediate panel, said tab on the other end of said back panel adapted to bridge the free ends of the wallet for retaining the wallet in folded relation.

2,774,405
**KEY CASE**
Sherman W. Grisolle, Chicago, Ill.
Application August 1, 1955, Serial No. 525,424
6 Claims. (Cl. 150—40)



1. A key case having a cover comprising a pair of laminated flexible plastic sheets joined together along the peripheral edges thereof, said cover having a pair of transversely extending inner sections adjacent each other and a pair of transversely extending outer sections at opposite ends thereof, at least one key-holding assembly being mounted upon each of said inner sections and providing a longitudinal series of transversely extending swivel key hooks adapted to hold a plurality of keys, a transparent sheet of flexible plastic being mounted upon said inner sections and interposed between said inner sections and said key-holding assemblies, said transparent sheet being secured to said inner sections along transverse lines extending along adjacent portions of said inner sections, and along longitudinally extending lines on opposite side edges of said inner sections and adjacent said series of key-holding assemblies, said outer and inner sections being foldable along transverse fold lines extending between said sections for bringing said series of key-holding assemblies into facing alignment with one of said outer sections interposed therebetween, and fastening means for securing said sections in folded relation.

2,774,406
**METAL CONTAINER BODY SIZER**
Thomas A. McCoy, Stockton, Calif., assignor to Caruado Machine Works, Stockton, Calif., a partnership
Application January 14, 1954, Serial No. 404,073
3 Claims. (Cl. 153—45)



1. A device for sizing an open-ended cylindrical container body by expanding the same, said device comprising a pair of opposed alined units relatively movable toward and from each other into and out of the body to be sized from the ends thereof, and means to so move the units; each unit including a plurality of shoes, longitudinally flat on their outer faces, and arranged in a circumferential row to fit into the container body before the latter is expanded and means to move the shoes radially out after they are disposed within the container body whereby to expand the same; the shoes of the two units meeting each other in end to end alinement when the units are fully moved toward each other and together having a length not less than that of the body.

2,774,407

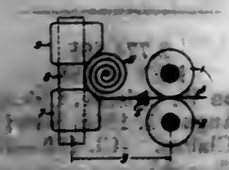
## METHODS OF AND MACHINES FOR WINDING SPIRAL SPRINGS

William I. B. Isaacson, Paris, France

Application April 26, 1951, Serial No. 222,973

Claims priority, application Switzerland April 27, 1950

7 Claims. (Cl. 153—65)



1. The method of winding spiral springs utilizing a series of successively arranged abutments having flat frictional surfaces inclined with respect to each other comprising the steps of forcing a strip of spring material of rectangular cross-section against and tangentially of a first abutment having a surface inclined at an obtuse angle with respect to the initial direction of strip travel, forcing the strip against a second abutment having a surface inclined at an angle with respect to the initial direction of strip travel smaller than said first obtuse angle, forcing the strip against a third abutment having a surface inclined at an acute and even smaller angle with respect to the initial direction of strip travel, the included angles between said three successive abutment surfaces being progressively smaller whereby the frictional resistance of the surfaces causes the strip limit of elasticity to be surpassed resulting in permanent deformation of said strip to curvilinear form, and finally relatively displacing the abutments as the winding progresses to increase the spacing of the regions of the adjacent pairs of friction surfaces contacted by said strip, thereby to increase the spring diameter.

2,774,408

## FLARING TOOL

George E. Franck, Riverside, Ill., assignor to The Imperial Brass Manufacturing Company, a corporation of Illinois

Application May 4, 1953, Serial No. 352,929

6 Claims. (Cl. 153—79)



5. A tube flaring tool comprising a frame including means providing an axially elongated opening, a force applying member mounted in said opening and accurately guided thereby for axial movement, said force applying member terminating at one end in a flaring cone head, tube clamping means rigid with said frame for holding a tube to be flared in axial alignment with said force applying member, a carrier movably mounted on said frame and a flare forming adapter loosely carried by the carrier for movement relative to said carrier in the direction of movement of said force applying member and limitedly in a plane normal to its own direction of movement during the primary tube flaring operation, said adapter at one end being shaped to produce a flare on a tube in the clamping means when forced against the tube by said force applying member and at the other end having a recess complementary to the shape of and receiving the head of said force applying member with a close fit therein to be thereby placed and held in accurate alignment with the tube to be flared and said force applying member.

2,774,409

## METHOD OF MAKING SKID-RESISTANT TIRE

Frank O. Skidmore, Cuyahoga Falls, Ohio, assignor to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application December 31, 1952, Serial No. 328,847

7 Claims. (Cl. 154—14)



3. A process of retreading a tire comprising the steps of buffing off the tread of said tire to form a buffed crown of substantially uniform width, buffing off the tread of a second tire and cutting the shoulders thereof to form a strip of substantially uniform thickness having a width substantially the same as that of said buffed crown and a length several times said width, assembling the cut strip over said buffed crown with a vulcanizable adhesive compound disposed between said crown and said strip and with the fabric side of the strip providing a road-engaging surface, placing the assembled tire in a retread mold, and vulcanizing the adhesive compound in said mold.

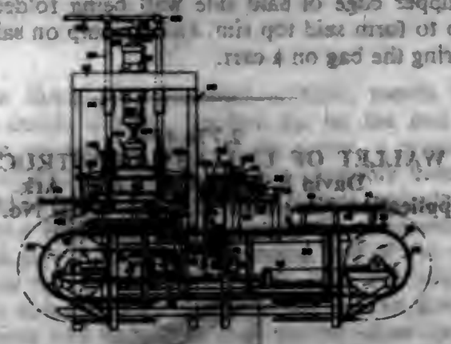
2,774,410

## METHOD AND APPARATUS FOR TENSIONING AND EDGE TURNING THE COVER MATERIAL OF AUTOMOBILE DOOR LAMINATED PANELS

Clarence J. Davies, Detroit, Mich., assignor to National Automotive Fibres, Inc., Detroit, Mich., a corporation of Delaware

Application August 31, 1953, Serial No. 377,338

19 Claims. (Cl. 154—41)



1. Apparatus for tensioning and edge turning a cover of a laminated panel, which comprises a support conforming closely in size and shape to the panel against which the panel with its cover is positioned with the cover interposed between the panel and support with marginal portions of the cover extending beyond the edges of the panel and support, a frame movable relative to said support perpendicular to the plane of the panel, a friction device on said frame movable across the edges of the support in frictional engagement with the marginal portion of the cover to tension the cover, a pressure pad movable toward and away from said support and engageable with the panel to press the cover and panel against said support to retain tension in the cover while said friction device remains in contact with the marginal portion of the cover, said frame being movable past said



support to release the marginal portion of the cover and movable in reverse direction to start to form the marginal portion of the cover around the panel, and flexible diaphragm means actuated by fluid pressure to conform to the edge and cover edge portion of the panel to turn the marginal edge portion of the cover and to press it firmly and uniformly against the rear edge portion of the panel.

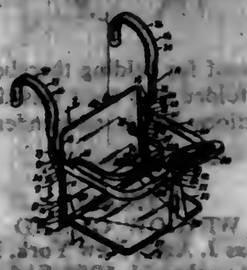
2,774,411

## AUXILIARY AUTOMOBILE SEAT

Dennis Berlin, Philadelphia, Pa.

Application March 29, 1954, Serial No. 419,363

3 Claims. (Cl. 155—79)



1. A foldable auxiliary seat adapted for attachment to the back of a chair, said auxiliary seat comprising a back member, a movable seat member movably attached to said back member, a child restraining bar movably attached to one side of said back member and detachably attached to the other side of said back member, said detachable attachment of said restraining bar permitting lateral movement of said restraining bar for the placement or removal of the child into and out of the confines of said auxiliary seat, said back member being of metal having outwardly extending upper portions, vertical pivots therethrough, attachment hooks mounted upon the pivots, a recess at one side of the back member and a U-shaped member vertically pivoted in said recess, and one end of said restraining bar attached to said U-shaped member, a seat supporting strap detachably connected to said restraining bar and said back and being adapted to serve as a seat per se whereby said seat can be dropped beneath said supporting strap.

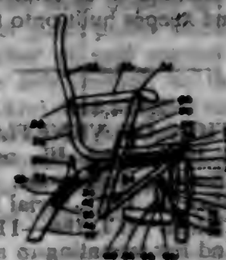
2,774,412

## RECLINING CHAIR WITH EXTENSIBLE SECTIONAL LEG REST

Johannes Lachhardt, Berlin-Dahlem, Germany, assignor, by mesne assignments, to Norman P. Martin and Otto L. Walter as trustees of Delta Trust, Lake Worth, Fla.

Application July 6, 1953, Serial No. 366,988

11 Claims. (Cl. 155—110)



3. An article of repose for supporting the body of a person, comprising in combination: a support, a seat swingably arranged on said support, controlling means movably arranged on said support, said controlling means and said seat being in operative relation to each other so as to perform movements in predetermined relation to each other, a leg-rest structure including a main portion and an extension movably joined at adjacent ends, the main portion of said leg-rest structure being swingably mounted on the front end portion of said seat, said controlling means being operatively engaged with said main portion of the leg-rest structure so as to effect movements of the latter in coordination with movements of said seat, said extension of the leg-rest structure being in a folded position relative to said main portion of the leg-rest structure when the latter is in a sitting position, and a double-armed lever swingably mounted on said main portion of said leg-rest structure, a first link pivoted at one of its ends to one arm of said double-armed lever and at its other end to said extension, and a second link pivoted at one of its ends to the other arm of said double-armed lever and at its other end to said seat, whereby said extension of the leg-rest structure is swung from its folded position substantially into alignment with the main portion of said leg-rest structure during a movement of said main portion from said sitting position into another end position by said controlling means.

2,774,413

## FOLDING CHAIR STRUCTURE

William L. Shepherdson, Phoenix, Ariz., assignor of sixty-six and two-thirds percent to J. E. Meacham, Phoenix, Ariz.

Application January 26, 1956, Serial No. 561,411

3 Claims. (Cl. 155—196)



1. A folding chair structure including a leg assembly having a cross rail, dowel pin means on the top of said rail, a seat, means on the under side of said seat to receive said dowel pin means, a link pivotally connected to said leg assembly below said cross rail and pivotally connected to the underside of said seat at a point inwardly from said cross rail, and a latch means between said rail and the under side of said seat having a point of clamping pressure located within a triangle defined by the pivotal connections of the ends of said link and the point of engagement of said dowel pin means with said seat.

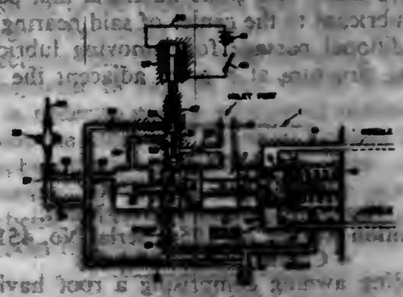
2,774,414

## FUEL FLOW EQUALIZER VALVE

Sigmund Maschinski, Penasco, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application April 26, 1950, Serial No. 158,274

3 Claims. (Cl. 158—36)



1. For use in distributing fuel equally to a plurality of fuel nozzles for a variable speed engine; the combination comprising a fuel flow regulating valve having a plurality of variable size orifices controlled thereby to regulate flow of fuel to each of said nozzles, a spring biasing said regulating valve in a sense to close said orifices to the flow of fuel, input fuel pressure responsive means for biasing said regulating valve in a sense for opening said orifices to the flow of fuel to said nozzles so as to main-

tain substantially equal flow of fuel to said nozzles, stop means for limiting the movement of the valve in said closing sense, a drain line controlled by said valve, operator-operative means to actuate said stop means to an inoperative position, a control valve for said pressure responsive means, said actuating means operatively connected to said control valve so as to cause the pressure responsive means to permit the spring to effect movement of said regulating valve in a sense to connect said nozzles to the drain line upon the actuation of said stop means to an inoperative position.

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**2,774,415**
**EVAPORATOR**
Harold H. Belcher, Orange, Mass., assignor to Rodney Hunt Machine Company, Orange, Mass., a corporation of Massachusetts
Application October 25, 1951, Serial No. 253,126
15 Claims. (Cl. 159—6)



1. In an evaporator, including a chamber having a substantially vertical cylindrical wall, a rotor rotatably mounted in said chamber substantially coaxial with said wall, a plurality of vanes radially spaced around said rotor and extending outward therefrom into close proximity with said wall, means for rotating said rotor, means at the upper end of said chamber for introducing liquid to be evaporated, and heating means on said wall below said inlet; a substantially flat plate detachably secured to said chamber and closing the lower end thereof; and said plate having a plurality of circumferentially spaced outlets for unevaporated concentrate, a downwardly and outwardly flared member secured at its base to said plate within said chamber substantially centrally of said chamber, the outer edge of said member being adjacent said outlets to deflect the concentrate outward toward said outlets and bearing structure for said rotor rigidly secured to said plate, said plate having a first passage for supplying lubricant to the center of said bearing structure and an additional passage for removing lubricant from said bearing structure at a point adjacent the periphery thereof.

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**2,774,416**
**FOLDING AWNING**
Harvey L. Angus, Havre, Mont.
Application August 24, 1954, Serial No. 451,774
4 Claims. (Cl. 160—68)

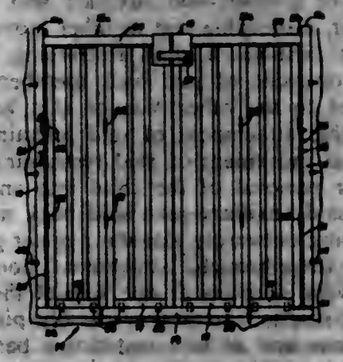
1. A folding awning comprising a roof having upper and lower sections and being movable between a raised, folded position and a lowered, opened position, means hingedly supporting the upper section by its upper portion for vertical swinging movement, means hingedly connecting the upper end of the lower section to the lower end of the upper section for relative swinging and folding movement, a brace pivoted at one end to the lower end of the lower section and at its other end supported for vertical swinging movement for joint movement with the roof, a foldable end hinged to said roof, said end comprising a pair of end sections each hinged to one of said roof sections at the outer edge and to



the underside thereof for folding therebetween when said roof sections are folded into their raised and folded position, said end sections being independent of each other.

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**2,774,417**
**WINDOW GUARD**
Thomas J. Agar, New York, N. Y.
Application December 31, 1954, Serial No. 479,010
1 Claim. (Cl. 160—104)



A window guard for double-hung windows, comprising side frame members and a base portion adapted to be securely fastened to a window frame; a grille made up of two foldable halves having lugs, adapted to interlock into openings in the base portion; a pair of top frame members adapted to fit over the upper portions of the grille halves, said grille being capable of fitting within the frame formed by the said top frame members, side frame members, and base portion; and a link, having a portion adapted to fit over and receive the top of the grille assembly, and said link having another portion adapted to fit under and receive the lower end of a window frame, said link having a removable section adapted to be attached to said link by means of a hook and keeper built onto the components of said link.

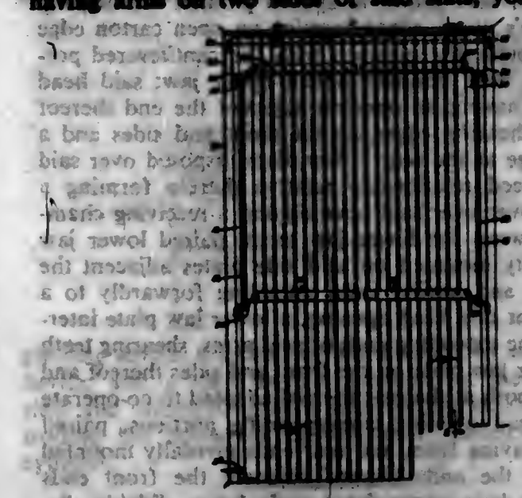
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**2,774,418**
**CONSTRUCTION OF VENETIAN BLINDS**
Walter Turkewski, Hollywood, Ill., assignor to Walter Turkewski and Bernice Turkewski, Hollywood, Ill.
Application May 25, 1951, Serial No. 228,161
6 Claims. (Cl. 160—118)

1. A window blind for mounting in a rectangular window frame including a U-shaped frame having a horizonal top cross frame member and vertical side frame members, a rod in said top cross-frame member having its ends extending beyond both ends of said top cross-frame member and adapted to support said window blind on brackets in said window frame, a plurality of vertically positioned slats, each having means for supporting said slats on said rod for sliding movement longitudinally of said rod and for pivotal movement of said slats on their individual axes, and means for imparting sliding movement to said slats to gather the same together adjacent



a side frame member, turning the same about their longitudinal axes, or draping the same adjacent their lower ends, said means including a control member having arms on two sides of said slats, yoke members



pivotally connected between said arms, said slats extended through said yokes, a lever connected to a side frame member, said arms pivotally connected to said lever and said lever vertically slidably mounted in said side frame member.

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**2,774,419**
**VENETIAN BLIND**
Hans Börje Thysell, Anderslev, Sweden
Application October 28, 1953, Serial No. 387,173
Claims priority, application Sweden October 23, 1952
6 Claims. (Cl. 160—168)



1. A Venetian blind comprising head and bottom rails, a plurality of slats therebetween, ladder tapes including opposed side members and slat supporting cross rungs extending between said slide members, shafts in the head rail longitudinally thereof and having screws formed on part thereof, means in said head rail disposed adjacent each of the ends of said shafts and carrying said ladder tapes, a slide reciprocable in said head rail and provided with apertures adapted to the cross-sectional form and size of the screws on said shafts which are introduced into said apertures of the slide, cord pulley means in said slide, guide pulley means in said head rail, a pair of control cords extending from the bottom rail of the blind over said guide pulley means to the cord pulley means in said slide, one of said control cords passing from said cord pulley means in said slide outside the blind at one side thereof, and further guide pulley means in said head rail for leading the other of said control cords outside the blind at the same side thereof, so that when a pull is exerted on one control cord only the slats of the blind will be set at the desired angles, while a pull exerted on both control cords simultaneously results in a raising of the blind, and a release of both control cords simultaneously in a lowering of the blind.

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**2,774,420**
**COVER FOR HATCHES, WAGGONS AND THE LIKE**
Claude Lisowski, Villeneuve-sur-Verre, France, assignor to International MacGregor Organization (I. M. G. O.), Casablanca, Morocco, a body corporate of Morocco
Application January 4, 1955, Serial No. 479,757
Claims priority, application France January 22, 1954
4 Claims. (Cl. 160—193)

1. In ship's hatches, railway waggons and the like comprising an opening with longitudinally extending lateral parallel guideways flanking the opening formed by plane surfaces and constituting a straight open rolling path, a cover arrangement comprising a plurality of separate cover sections adapted to ride on said guideways and to spread over said opening while forming an unbroken sheet over said latter, rolling means mounted on the edges of said sections in rolling engagement with said guideways, said rolling means resting on said guideways by the virtue of the weight of the corresponding section and freely rolling thereon to close and open said opening, a stowage space at one end of said opening with lateral longitudinal runways for locating said sections in the folded condition when the hatch is open, said sections resting in said stow-



age space in a vertical position and substantially on an edge, rigid link means for pivotally interconnecting any two separate and adjacent sections and transmitting operating thrusts and tractions, pivot means connecting each of said link means at one of its ends to the rear end portion of the section of said pair which is remotest from the stowage space, and at a substantially intermediate portion of the other section of the pair, said sections resting in said stowage space on the said runways by means of said pivot means which belong to the rear portion of the relevant sections, and rope means connected at least to the section which is remotest from the stowage space for ensuring the control of all said sections.

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**2,774,421**
**HEAT-REFLECTING LIGHT-TRANSMITTING WINDOW SHADE OR THE LIKE AND MATERIAL FOR USE IN MANUFACTURING THE SAME**
Kurt S. Lion, Watertown, Mass.
Application October 6, 1937, Serial No. 167,493
4 Claims. (Cl. 160—238)



1. A shade for a window of a room comprising a carrier medium and a metal medium carried thereby that is highly reflective to rays in the infra-red portion of the spectrum in order to prevent substantial radiation of heat from outside the room into the room through the window, that is highly non-absorptive of the said rays in order to prevent substantial transfer of absorbed heat from the shade to the room, and that is thin enough to be substantially transparent to rays in the visible portion of the spectrum, the carrier medium being also substantially transparent to rays in the visible portion of the spectrum in order to permit substantial radiation of light from outside the room into the room through the window though substantially preventing the heat outside the room entering the room through the window, and the shade being dulled in order to diffuse the light radiated into the room through the window.

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**2,774,422**
**TIME DELAY MECHANISM**
Eric Clay Fielding, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application September 14, 1953, Serial No. 380,055
Claims priority, application Great Britain September 16, 1952
4 Claims. (Cl. 161—1)

4. Time-delay electric switching apparatus comprising a source of electrical power, a gear-wheel bearing a dial

for indicating intervals of time, a switch operating means coupled to said gear wheel for operating an electrical switch after an interval of time as indicated by said dial; an electric motor coupled to said power source for driving a gear-train, clutching means coupled to said gear train for driving said gear wheel in one direction from a starting position, to operate said switch and to wind up a spring; an electro-magnetic means for controlling said clutching means; means in said switch for disconnecting



electric power from said motor upon operation of said switch; means in said gear train operable via said clutching means for preventing unwinding of said spring when said electric motor is disconnected; a balance-wheel and escapement means for controlling the rate of unwinding of said spring and driving said gear wheel in the opposite direction to said starting position, upon the failure of electric power to said electro-magnetic means; and means for preventing the operation of said escapement means during the forward driving process of said gear wheel.

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2,774,423

## SAFETY DEVICE FOR USE IN THE PRODUCTION OF TOW

Ernest J. Griest, Jr., Asheville, N. C., assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware

Application October 27, 1954, Serial No. 464,986
6 Claims. (Cl. 164—36)



1. In tube spinning apparatus for tow, guiding means defining a straight line tow path beyond the end of the last tube in the system, yieldable means normally modifying said straight line path, a knife extending in cutting relation to said straight line path whereby when the tension is excessive the resilient means yields and moves the tow into contact with the knife.

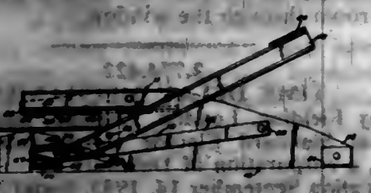
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2,774,424

## CORRUGATED CARTON HANDLE FORMING MACHINE

Joseph E. McNamara, Detroit, Mich.

Application April 18, 1956, Serial No. 581,921
4 Claims. (Cl. 164—43)



1. A corrugated carton handle forming machine comprising spaced parallel vertical side plates having lower edges forming a supporting base, a front end, a rear end, upper edges on said plates, means interconnecting said plates adjacent their lower edges, neck portions on said plates intermediate the ends thereof rising above said plates, a head portion disposed between said plate neck portions and cantilevered forward to a point adjacent the front ends of said plates in spaced parallel relationship to said plate's upper edges forming an open carton edge receiving mouth therebetween with the cantilevered portion of said head constituting an upper jaw; said head jaw portion having an opening adjacent the end thereof defined by shearing edges on the front and sides and a crimping edge at the rear; a top plate disposed over said head in spaced relationship relative thereto forming a protective cover over said opening and a receiving chamber therebetween for lower jaw teeth, paired lower jaw arms pivotally mounted on said side plates adjacent the rear thereof and having ends extending forwardly to a point adjacent said head opening, a lower jaw plate interconnecting the extending ends of said arms, shearing teeth on said lower jaw plate on the front and sides thereof and a crimping tooth at the rear thereof adapted to co-operate with said head opening corresponding portions; paired lever arms having front and rear ends pivotally mounted intermediate the ends thereof adjacent the front ends thereof; said lever arms front ends being slidably disposed beneath said lower jaw plate; a pad member interconnecting said lever arm rear ends, a spring mounted on said lower jaw adapted to urge said lower jaw and associated linkage out of association with said head to maintain the mouth area normally open, and a resilient member in said head opening area adapted to prevent the lanced and crimped portion of a carton from entering said head opening.

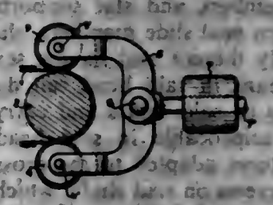
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2,774,425

## MEANS FOR LONGITUDINALLY SLITTING WEBS OF PAPER OR OTHER FLEXIBLE MATERIAL

Victor Hermstein, Duesseldorf-Lohausen, and Karl Schelp, Duesseldorf-Werdan, Germany, assignors of one-half to Jagenberg-Werke Akt.-Ges., Duesseldorf, Germany

Application December 18, 1953, Serial No. 399,138
15 Claims. (Cl. 164—60)



1. Means for slitting a web of paper or other flexible material longitudinally thereof comprising a smooth counter-cylinder around which a web to be slit passes, disk-knife means movably mounted with respect to the axis of the counter-cylinder and cooperating with one portion of the counter-cylinder for slitting the web, said disk-knife means having an axis parallel to the cylinder axis, additional means freely rotatable about an axis parallel to the aforementioned axes and cooperating with an opposite portion of the counter-cylinder and means operably coupling the said additional means to the disk-knife means so as to constitute a distance sustainer for the disk-knife means.

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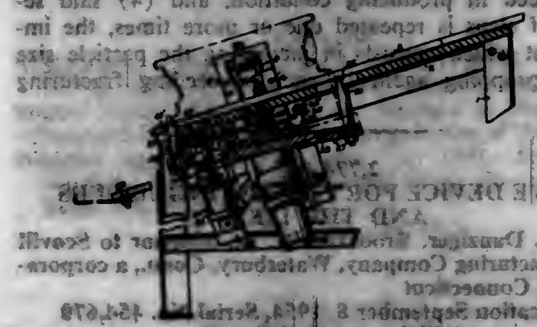
2,774,426

## PIERCING MACHINE

Frederick P. Sharpe, Dearborn, Mich., assignor to Kelsey-Hayes Wheel Company, Detroit, Mich., a corporation of Delaware

Application November 30, 1953, Serial No. 395,004
5 Claims. (Cl. 164—87)

1. A machine for piercing rims comprising a guide along which the rims are movable, a device for piercing successive rims, a stop device having stops spaced longitudinally of said guide for alternate engagement with adjacent rims to stop the rims successively in registration with said piercing device, a fluid pressure operated cylinder for operating said stop device, a switch actuated by the successive rims for controlling the operation of said



piercing device, a second switch actuated by said piercing device, and a third switch actuated by the successive rims and cooperating with said second switch for controlling the operation of said fluid pressure operated cylinder.

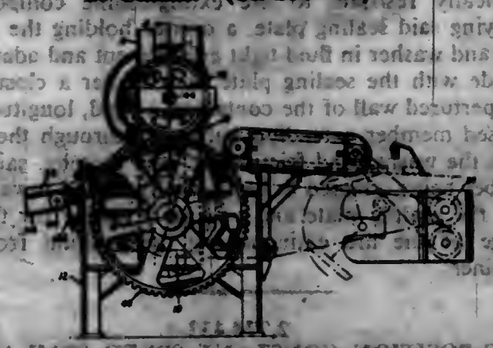
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2,774,427

## CONTINUOUS ROTARY CARTON PERFORATING MACHINE

Kenneth L. Crabtree, Fairfield, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine

Application March 17, 1954, Serial No. 416,573
15 Claims. (Cl. 164—49)



1. A perforating machine comprising a conveyor having holding means thereon for positively engaging a workpiece at a predetermined loading station and conveying said workpiece to a perforating position, said holding means being provided with perforating means thereon in a position to contact the workpiece at all times during which the workpiece is on said holding means, movable clamping means adapted to move into timed coinciding and compressive relationship with said holding means at said perforating position whereby said perforating means is caused to pierce said workpiece, stripping means movable with said holding means for stripping said workpiece from said holding means, means for actuating said stripping means when said holding means reaches a predetermined unloading station, and conveyor means for removing said workpiece from said unloading station.

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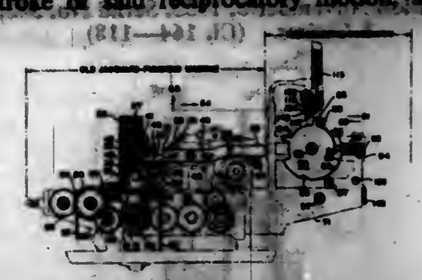
2,774,428

## SELECTOR MECHANISM FOR JACQUARD-PUNCHING MACHINE AND THE LIKE

Frank B. Ware, Moorestown, N. J., assignor to Tarton Knitting Mills, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application September 9, 1952, Serial No. 308,577
3 Claims. (Cl. 164—112)

1. Selector mechanism for jacquard-punching machines and the like, said selector mechanism including a plurality of individually and selectively movable selectors for actuating corresponding punch-activating elements of said jacquard-punching machine, each of said selectors having an initial or retracted inoperative position, an operative position, and a second inoperative position, means for automatically reciprocating said selectors in unison, means for causing said selectors to move from their operative positions to their second inoperative positions by the return stroke of said reciprocatory motion, and means



for automatically moving said selectors in unison from the last-mentioned position to their initial inoperative positions by any return stroke of the aforesaid reciprocatory motion if such return stroke follows the arrival of all selectors in the aforesaid second inoperative position.

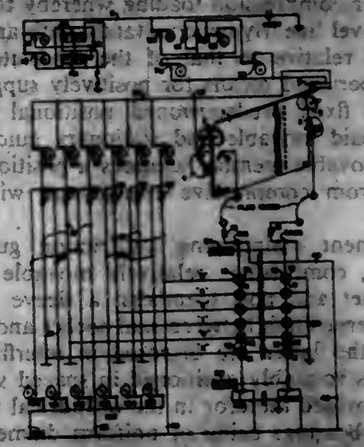
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2,774,429

## MAGNETIC CORE CONVERTER AND STORAGE UNIT

Edward J. Rabenda, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 28, 1953, Serial No. 358,101
10 Claims. (Cl. 164—115)



1. A record converter comprising in combination, sensing means adapted to read information represented by perforations in a record card having columns of information representing index positions in accordance with a first code wherein said index positions are sensed in succession, a storage matrix adapted for storage of information in accordance with a second code and employing a plurality of bistable magnetic elements arranged in columns with the number of elements in each column conforming to said second code and with the information represented as relative stable states of magnetic remanence, means coupling said sensing means and said storage matrix, means operated in synchronism with said sensing means for activating certain combinations of said elements during the sensing of successive index positions whereby information read by said sensing means is simultaneously converted to said second code and stored in said matrix, means for reading information from said matrix in the form of electrical impulses and further means for restoring the elements to the remanence state attained prior to interrogation so that the information may be recorded in a portion of one or more duplicated records having columns of information representing index positions in accordance with said second code, said further means including apparatus for activating certain combinations of said elements subsequent to operation of said means for reading information and in coincidence with said electrical impulses.

2,774,430

## LATCHING MEANS FOR DIE SET RETAINERS

William J. Blazek, New Lexington, Ohio, assignor to Lempco Products, Inc., Bedford, Ohio, a corporation of Ohio

Application November 8, 1955, Serial No. 545,694
8 Claims. (Cl. 164—118)



1. Guide mechanism for the die sets of presses, comprising: a stationary member; a movable member disposed in coaxial order with the stationary member and movable longitudinally into and out of interfitting relationship therewith; a retaining sleeve occupying an annular space formed between said members when the latter are disposed in interfitting order; ball elements rotatably movable in socket-forming openings provided therefor in the wall of said sleeve and having antifriction guiding engagement with the adjacent wall surfaces of said members defining said space, said elements when in simultaneous contact with said member surfaces being placed under compression loading whereby to cause said sleeve to travel linearly concomitantly with and at a controlled rate relative to that of the associated movable guide member; and means for positively supporting said sleeve in a fixed predetermined positional order with respect to said movable and stationary guide members when the movable member assumes a position removing the same from compressive engagement with the ball elements.

3. Alignment maintaining antifriction guide means for die sets, comprising: relatively movable axially arranged socket and post members; a sleeve formed for movable interposition between said socket and post members when the latter are disposed in interfitting order; ball bearings rotatably positioned in spaced seat-forming openings provided therefor in the cylindrical wall of said sleeve, said bearings being of uniform diameter and arranged in said sleeve openings to project equidistantly beyond the inner and outer wall surfaces of the sleeve for simultaneous compressive contact with adjacent wall surfaces of said socket and post members during interfitting longitudinal movement of one of said last-named members with respect to the other, whereby to produce movement of the sleeve in a linear direction concomitantly with relative movement between said members; and means operative when said members attain relative positions in which the bearings of said sleeve are relieved of sustaining compressive forces produced by simultaneous contact of said bearings with said members to effect the support of said sleeve in a definite operational position relative to said members.

2,774,431

## METHOD FOR INCREASING PRODUCTION FROM WELLS

John E. Sherborne, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application August 25, 1954, Serial No. 452,229
15 Claims. (Cl. 166—22)

1. In a process for increasing the productivity of a subterranean oil-producing formation penetrated by a well bore wherein (1) a viscous fluid containing a particulate solid propping agent is forced down said well and into said formation under a pressure sufficient to fracture said formation, (2) said fluid is thereafter withdrawn from the fractures so formed leaving said propping agent deposited within said fractures, (3) said well is thereafter placed in producing condition, and (4) said sequence of steps is repeated one or more times, the improvement which consists in increasing the particle size of said propping agent in each succeeding fracturing step.

2,774,432

## VALVE DEVICE FOR FIRE EXTINGUISHERS AND THE LIKE

Joseph L. Danziger, Brooklyn, N. Y., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut

Application September 8, 1954, Serial No. 454,670
4 Claims. (Cl. 169—31)



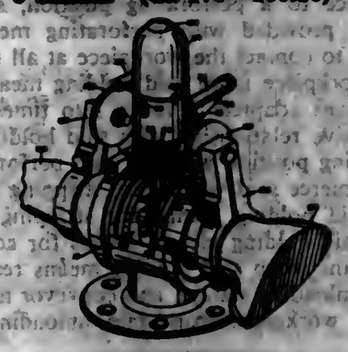
1. A valve device for attachment to an apertured wall of a container adapted to hold a fire extinguishing composition under pressure, comprising a unitary assembly of an imperforate frangible sealing plate, a washer formed of elastomeric, dimensionally stable material which is chemically resistant to fire extinguishing compositions overlying said sealing plate, a carrier holding the sealing plate and washer in fluid-tight engagement and adapted to provide with the sealing plate and washer a closure for the apertured wall of the container, a rigid, longitudinally recessed member extending outwardly through the opening in the washer and frictionally held thereby, said rigid member being adapted to be manually forced inwardly to burst the sealing plate and provide a nozzle for the discharge of the fire extinguishing composition from the container.

2,774,433

## TWO-POSITION CONSTANT SPEED SEMI-AUTOMATIC PROPELLER PITCH CONTROL

Clinton Corum, San Diego, Calif.

Application September 8, 1952, Serial No. 308,437
8 Claims. (Cl. 170—160.16)



2. Constant propeller speed maintaining means characterized by having dual settings, comprising a guided plunger movable parallel to the propeller axis of rotation, fly-weights operatively connected to said plunger, a fly-weight counterbalancing spring means operatively connected with said plunger to bias the plunger in one direction, connection means for operatively connecting said plunger to the blades of a propeller for pitch control such that movement of the plunger in said one direction reduces the pitch of the blades, and means to add to the fly-weight counterbalancing force of said spring means comprising an auxiliary spring and a spring stop means both connected to said plunger for normally moving with the plunger, and means for arresting said spring stop means temporarily to render said auxiliary spring effective and additive to said spring means.

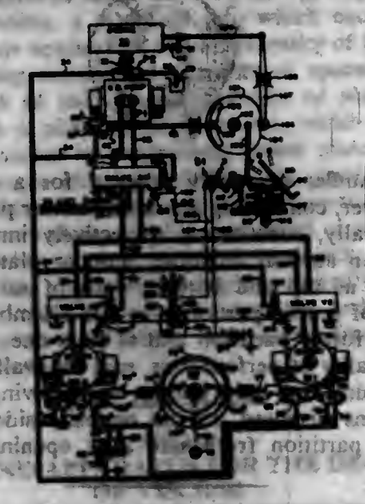


2,774,434

## STEERING CONTROL FOR INDUSTRIAL TRUCK WITH HYDRAULIC WHEEL DRIVE MOTORS

Walter Ferris, Milwaukee, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin

Original application September 28, 1951, Serial No. 248,830. Divided and this application May 11, 1953, Serial No. 354,293
13 Claims. (Cl. 180—6.3)



1. A drive for a vehicle having a body, a plurality of wheels for supporting said body and including a pair of driving wheels, and means for steering said vehicle including a steering wheel; said drive comprising two hydraulic motors each of which is connected to one of said driving wheels and has means for varying its displacement, means for supplying motive liquid to both of said motors to enable the same to rotate said driving wheels, a cam wheel having a cam track thereon, means for rotating said cam wheel in response to rotation of said steering wheel, control means for effecting operation of the displacement varying means of each of said motors and including an element for adjusting said control, and a cam follower carried by each of said elements and engaging said cam track to cause said elements to adjust said control means in response to rotation of said cam wheel; said cam track being so shaped that during rotation of said cam wheel in either direction from a neutral position said track will hold the element of the control means for one of said motors stationary and will move the element of the control means for the others of said motors in a direction to cause that control means to effect a reduction in the displacement of said other motor.

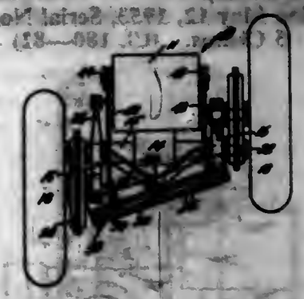
2,774,435

## LEVELING TRACTOR AND DRAWBAR CONSTRUCTION

Owen J. Mattson, Connell, Wash., assignor of one-fourth to Arthur C. Johnson, Connell, Wash.

Application March 28, 1955, Serial No. 497,153
2 Claims. (Cl. 180—41)

1. In a leveling tractor the combination with a frame; a pair of power driven traction wheels supporting the tractor, manually controlled powered means for movement of the wheels to selective vertical positions in the planes of said wheels; and a taut cable having its ends anchored relative to the axes of said wheels and extending downwardly under and supporting said frame; of a laterally extending vertically tiltable guidebar journaled substantially at the lateral center of said tractor on a horizontal longitudinal axis; a drawbar pivotally united to said tractor spaced from its forward end, the rearward end of said drawbar being associated with and guided for lateral swinging movements by said guidebar; cables



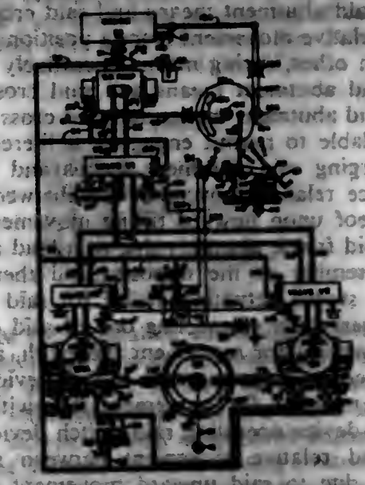
anchored adjacent to the ends of said guidebar extending upwardly over pulleys journaled on said frame and having their opposed ends fixed relative to the axes of said wheels, whereby the guidebar is maintained in substantially parallel relationship to the surface of the ground over which the tractor traverses.

2,774,436

## HYDRAULIC DRIVE FOR INDUSTRIAL TRUCKS AND COMBINED ENGINE AND PUMP CONTROL THEREFOR

Walter Ferris, Milwaukee, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin

Application September 26, 1951, Serial No. 248,830
3 Claims. (Cl. 180—66)



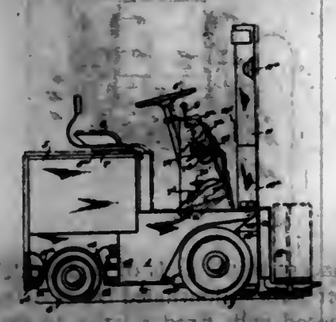
1. A drive for a vehicle having a pair of driving wheels, said drive comprising a hydraulic motor connected to each of said wheels, a pump for supplying motive liquid to said motors and having means for varying its displacement, fluid channels connecting said pump to both of said motors including two reversing valves each of which is connected between one of said motors and said pump, means for shifting each of said valves to reverse the flow of liquid to each of said motors and thereby reverse each of said motors, an internal combustion engine connected to said pump to drive the same and having means for varying its speed, an element movable in opposite directions from a neutral position, a pump control operable by said element and connected to said pump displacement varying means for operating the same, means for transmitting motion from said element to said speed varying means, means for moving said element in opposite directions selectively from its neutral position to cause said pump control and said motion transmitting means to effect simultaneous operation of said pump displacement varying means and said speed varying means, and means responsive to movement of said element in one of said directions from its neutral position for effecting operation of said valve shifting means.

2,774,437

## OVERLOAD RESPONSIVE SWITCH MECHANISM FOR INDUSTRIAL ELEVATING TRUCK

Edward H. Rands, Cleveland, Ohio, assignor, by mesne assignments, to The Baker-Raulang Company, a corporation of Delaware

Application May 12, 1953, Serial No. 354,524
5 Claims. (Cl. 186—82)



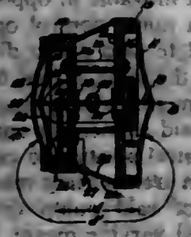
1. In a vehicle having a frame assembly, means for supporting one end of said frame assembly comprising a wheel, means for connecting said wheel to said frame assembly including a longitudinal member extending longitudinally of said frame assembly, means connecting one end of said longitudinal member to said frame assembly and comprising a cross member carried by said longitudinal member at said one end thereof and extending transversely thereof and on opposite sides thereof, abutment means fixed to said frame assembly on opposite sides of said longitudinal member, said cross member being positioned below said abutment means, means connecting said abutment means and said cross member for limited relative movement from a position in engagement with each other, spring means operatively connected between said abutment means and said cross member for urging said abutment means and said cross member apart and yieldable to permit engagement thereof, said spring means urging said abutment means and cross member to produce relative movement therebetween and separation thereof upon upward tilting movement of said one end of said frame assembly due to a load applied to said frame assembly at the opposite end thereof, a switch device, a switch actuating device for said switch device, means operatively connecting one of said devices to said frame assembly for movement therewith, and means operatively connecting the other of said devices to said longitudinal member for movement therewith, said switch actuating device operating said switch device upon a predetermined relative movement between said abutment members due to said upward movement of said frame assembly.

2,774,438

## MECHANICAL DAMPING MEANS FOR THE DIAPHRAGMS OF MICROPHONES, SPEAKERS, AND THE LIKE

Benjamin B. Bauer, Oak Park, Ill., assignor to Shure Brothers Incorporated, Chicago, Ill., a corporation of Illinois

Application April 25, 1951, Serial No. 222,747
7 Claims. (Cl. 181—31)



1. In a sound translating device including a diaphragm adapted to vibrate, energy-absorbing means for damping such diaphragm vibrations throughout the ordinary sound frequency spectrum comprising non-gaseous dissipative means, and means for connecting said diaphragm to such damping means including a rigid member attached to said diaphragm over a relatively small area thereof.

2,774,439

## MUFFLER FOR LAWN MOWER

Cecil E. Chaney, Hebron, Ohio, assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York

Application September 28, 1954, Serial No. 458,888
2 Claims. (Cl. 181—66)



1. A muffler especially adapted for a motor driven lawn mower, comprising a pair of circular plates arranged concentrically, constituting respectively inner and outer walls of an annular chamber, annular plates serving respectively as top and bottom walls of said chamber, a plurality of spaced partitions in said chamber comprising one imperforate partition and at least one partition having a plurality of perforations, said top wall having a gas inlet opening and said bottom wall having a group of perforations disposed on the opposite side of said imperforate partition from said inlet opening.

2,774,440

## GAS DISENGAGER

Eric V. Bergstrom, Short Hills, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application December 6, 1954, Serial No. 473,232
2 Claims. (Cl. 183—1)



1. An apparatus for removing granular solids from a high pressure contacting chamber and reducing the gaseous pressure associated with said solids, which comprises in combination: an upright cylindrical disengaging chamber, a depressuring leg conduit of substantially less cross-sectional area than said contacting chamber and said disengaging chamber extending from said contacting chamber into the upper end of said disengaging chamber and terminating centrally on a downwardly facing open discharge end therein, a solid upright frusto-conical shaped hood with sides extending downwardly and outwardly at an angle with the horizontal greater than 30 degrees to a region at least adjacent the walls of said disengaging chamber to thereby prevent substantially all free surface flow of granular solids as the solids issue from said conduit, a first plurality of vertically spaced horizontal plates all situated below said hood and all equipped with a plurality of uniformly spaced rectangular apertured, the uppermost of said first plurality of plates being situated immediately below said hood, a plurality of nipples of rectangular cross-sectional shape depending from each of said plates, one such nipple depending from each of said apertures and said nipples from each plate terminating on a common level intermediately between the plate from which the nipples depend and the one next below so that a horizontally continuous gas space is formed above the lower ends of the nipples and a horizontally continuous accumulation of contact material is formed on the plate below the nipples, a plurality of passageways extending from said chamber below each of said plates but above the lower end of each row of nipples so that gas will be removed from each of said gas spaces at a plurality of points, a manifold into which each of said gas passageways connects, a second plurality of horizontal plates extending across said chamber at spaced vertical intervals, each of said second plurality of plates being equipped with a plurality of apertures, which apertures decrease in number in successively lower plates and are arranged in staggered relationship to one another so that each plate below the upper receives proportional solids flow from the one above and the uppermost of said second plurality of plates being positioned immediately below the lower ends of the nipples extending downwardly from the lowermost of said first plurality of plates, and a central solids outlet conduit extending downwardly from the bottom of said chamber.



2,774,441

## PROCESS AND APPARATUS FOR THE DEGASSING OF VISCOSE

Aart Boersma, Velp, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware

Application November 30, 1953, Serial No. 395,161
Claims priority, application Netherlands February 9, 1953
5 Claims. (Cl. 183—2.5)



4. The method of degassing spinning solutions that comprises, passing succeeding volumes of a spinning solution upwardly through a column and spilling the same into a zone at the top of the column while adjusting the temperature of the viscose entering the column and the pressure in said zone to cause boiling to occur in the column but to terminate before the solution spills into said zone and recovering the degassed solution from said zone.

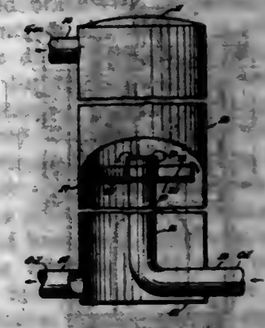
2,774,442

## GAS SEPARATOR

Harold H. Wright, Tulsa, Okla., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application April 29, 1954, Serial No. 426,467
6 Claims. (Cl. 183—2.7)

1. In a device for continuously separating entrained and occluded hydrocarbon gases from crude petroleum comprising an enclosing shell, an inlet connection to said shell to permit the introduction therein to of a mixed stream of liquid and gas, a connection from a high point of said shell to permit the discharge of separated gas therefrom, a connection from a low point of said shell to permit the discharge of liquid therefrom, the improvement which comprises: a tray positioned in said shell, laterally concentric therewith, spaced from the walls



thereof, and vertically intermediate of the said inlet connection and the said liquid discharge connection; pierced areas in the deck of said tray; a movable plate positioned on the deck of the said tray, having pierced areas corresponding in position to those in the deck of the said tray, and rotatably movable over the deck of the said tray to vary the relative positions of pierced areas of tray and plate from full coincidence to zero coincidence.

2,774,443

## GAS SEPARATOR

James Slayter, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Application June 23, 1953, Serial No. 363,516
5 Claims. (Cl. 183—51)



1. Apparatus for separating entrained particles from a gas stream including, in combination, an elongated bag-like unit, said unit being formed of an assemblage of relatively fine interfelted glass fibers, a frame including a rectangularly shaped portion adapted to engage the unit at the open end thereof, said unit having a retroflexed portion forming inner and outer walls of glass fibers, the end of the retroflexed portion being closed and the closed zone disposed adjacent the entrance of the unit, a plurality of rods having end portions secured to the frame, said rods being shaped to engage the unit at spaced zones shaping the unit into a plurality of chambers of substantially triangular cross-section.

2,774,444

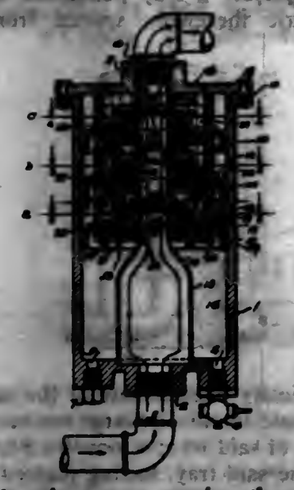
## AIR SEPARATOR

Thomas C. Scully, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a corporation of Illinois

Application June 18, 1954, Serial No. 435,752
6 Claims. (Cl. 183—91)

1. An air separator comprising an elongated casing having an inlet near one end for laden air and a discharge opening near the other end for cleansed air, at least two cleaning units provided in said casing and arranged sequentially with said air inlet for movement therethrough of the air to the discharge opening, each cleaning unit comprising an air distributing member having a plurality of passageways disposed in a plane normal to the longi-

tudinal axis of the casing and forming a part of the path of travel of the air through the separator, interceptor vanes on the casing forming bucket-like recesses opposing but spaced from the outer ends of said passageways, said passageways being curved, whereby relatively heavy



particles in the air stream passing therethrough will be directed into said recesses, the cross section area of the passageways in the air distributing member of the cleaning unit nearest the air inlet being greater than that of the passageways in the next air distributing member.

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2,774,445

**BRAKE ADJUSTOR**

George W. Prentiss III, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application October 31, 1951, Serial No. 254,049

19 Claims. (Cl. 188—79.5)



17. An adjusting device comprising a first member, a second member threadedly received on said first member, a third member carried by said second member and having limited movement therewith, and stationary means providing predetermined abutments engageable with said third member at one side to produce rotation of said third member and at the other side to produce rotation of said second member.

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2,774,446

**SHOCK ABSORBERS**

Christian Marie Lucien Louis Bourcier de Carbon, Neuilly-sur-Seine, France

Application October 14, 1952, Serial No. 314,714

Claims priority, application France May 5, 1952

2 Claims. (Cl. 188—88)

1. A double acting shock absorber of the class of those adapted to function as energy-dissipating brakes for cushioning the relative movement between two members without contributing to any substantial degree to the support or springing of said members; said shock absorber comprising, in combination, an air-tight and liquid-tight casing adapted to be connected to one of said members and enclosing a single substantially cylindrical working chamber, a working piston disposed in said chamber and adapted to reciprocate therein upon relative movement of the members, a slender piston rod of the conventional small diameter relative to the diameter of the cylinder which characterizes this class of shock absorber as opposed to fluid suspension devices, said piston rod having one end fixed to said piston and its opposite end secured to the other of said members, said rod passing through a packed opening in one end of said casing, a body of working liquid in said working chamber within which liquid the piston moves, and means providing severely restricted by-passing of the working liquid past the piston in both directions as the piston moves respectively in its compression and rebound strokes, and an anti-cavitation provision comprising the



following: a fixed body of compressible gaseous fluid within the single working chamber of the casing at the opposite end thereof, said fixed body of compressible gaseous fluid being under a permanent high pressure of at least about five atmospheres and a maximum pressure only sufficient to prevent the occurrence of cavitation in the working fluid upon movement of the piston and not enough to afford suspension means for the members, said provision also affording compensation in volume for the displacement of working liquid occasioned by the entrance of successive portions of the piston rod upon the compression stroke of the shock absorber, the sole operative agencies controlling the damping of the piston movement, comprising the liquid by-passing means and the compressible gaseous fluid body, being contained within the said chamber.

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2,774,447

**SHOCK ABSORBER**

Christian Marie Lucien Louis Bourcier de Carbon, Neuilly-sur-Seine, France

Application April 17, 1952, Serial No. 282,812

Claims priority, application France December 10, 1951

3 Claims. (Cl. 188—88)



1. A shock absorber for use in damping the relative movements of two members, which comprises a housing



enclosing a working chamber, a body of working fluid in said chamber, an element adapted to reciprocate within said working fluid in said chamber, and means connecting said housing and said reciprocating element respectively with the two members, said fluid consisting of a pneumatic emulsion comprising an intimate mixture of liquid and gas under a pressure greater than atmospheric pressure even when the device is at rest.

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2,774,448

**INERTIA RESPONSIVE SHOCK ABSORBER**

Clifford T. Hutton, Ashington, Va.

Application April 28, 1953, Serial No. 351,762

7 Claims. (Cl. 188—88)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A double acting shock absorber comprising a cylinder and piston, fluid storage means in connection with said cylinder, hydraulic fluid in said cylinder and storage means, valve means in connection with said cylinder, which valve means serves to bleed fluid around said piston through a by-pass upon rapid longitudinal acceleration of said cylinder, said valve means comprising a weighted sleeve surrounding said cylinder and being longitudinally spring centered to hold said by-pass in a closed position, a limiting mechanism in connection with said sleeve valve which permits the sleeve valve to move in either direction to the end of its travel thereby to open the by-pass when the cylinder is rapidly accelerated in either direction, but which limiting mechanism prevents the sleeve valve from returning beyond its centered and closed position when the cylinder is immediately and rapidly accelerated in the opposite direction.

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2,774,449

**DOUBLE-ACTING TYPE SLACK ADJUSTER FOR BRAKES**

Bert Henry Brownell, Malmö, Sweden, assignor to Svenska Aktiebolaget Bromsregulator, Malmö, Sweden, a corporation of Sweden

Application January 7, 1955, Serial No. 480,323

6 Claims. (Cl. 188—196)



1. An automatic slack adjuster of the character described for brakes on railway cars and the like, comprising a brake rod included in the brake rigging and comprising a first non-rotatably part, a second non-rotatable part and an intermediate rotatable section having a non-effecting screw connection with said second part of said brake rod and being rotatable in both directions for increasing and reducing, respectively, the slack said adapted to be rotated in the direction for increasing the slack through the stress arising in said brake rod when braking, coacting clutch faces on said first part and said rotatable section of said brake rod for locking said rotatable section against rotation under the action of stress in said brake rod, a rotatable member on said brake rod, actuating means connected to the brake structure and adapted to rotate said rotatable member in one direction during application and in the other direction during release of the brake, clutch means between said rotatable member and said rotatable section of said brake rod for clutching said rotatable section to said rotatable member during rotation thereof in the direction in which said rotatable section is to be rotated for reducing the slack, movable abutment means on said first part of said brake rod, abutment means on said rotatable member coacting with said movable abutment means on said first part of said brake rod and shiftable angularly in relation thereto into one and the other of two different positions by the beginning of the rotation of said rotatable member occurring at application and release, respectively, of the brake, and said coacting abutment means on said first part of said brake rod and said rotatable member being adapted, when in said one of said two angularly different positions, in relation to one another, to prevent said clutch faces on said first part and said rotatable section of said brake rod from engaging one another up to a certain point of the rotation of said rotatable member occurring during application of the brake and, when in said other of said two angularly different positions in relation to one another, to permit said clutch faces to engage one another at any point of rotation of said rotatable member for locking said rotatable section against rotation under the action of stress arising in said brake rod at released brake.

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2,774,450

**FOLDABLE, LIMP-WALLED ARTICLE OF LUGGAGE**

Harry R. Smallberg, New York, N. Y.

Application February 13, 1954, Serial No. 410,694

4 Claims. (Cl. 190—43)



1. In a foldable, limp-walled article of luggage of the character described, including limp front wall, rear wall and side walls and rigid top and bottom walls, said top and bottom walls and said side walls secured at right angles to one another, means for rigidifying the end sections of said article of luggage to enable it to rest erectly on its top and bottom walls when in folded state, comprising flat, rigid stiffening elements of a width equal approximately to the width of a side wall and of a height less than the height of a folded section of said article of luggage, and means for removably retaining one of said stiffening elements in each corner of said article of luggage flatly against the inner face of the side wall at said corner, said means for retaining the outer wall of each folded section in distended position comprising a relatively stiff resilient bar element the width of the outer wall of said article of luggage and a pocket formed on the outer wall portion of each folded section, transversely thereof, for retaining said resilient bar element in place.

## 2,774,481
## SHIFTABLE CLUTCH IN CHANGE-SPEED TRANSMISSION

Erwin Stumpp, Stuttgart-Untertürkheim, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application October 28, 1950, Serial No. 192,690
Claims priority, application Germany October 31, 1949
6 Claims. (Cl. 192—48)



1. In a transmission, the combination comprising two co-axially mounted spaced gears provided with external clutch teeth on their adjacent ends, an externally splined rotary member mounted between said gears co-axial therewith, the external splines of said member being formed with reduced ends and with a widened central section located between and contiguous with said ends and forming a pair of stop shoulders on either side face of said splines, and an internally splined clutch member mounted on and slidably engaging said rotary member, the internal splines of said clutch member having end surfaces and smooth sides, said clutch member being adapted to be shifted from a central neutral position in which it rides on said widened central section being disengaged from said gears to either one of two positions in which it engages said clutch teeth of one of said gears and the adjacent ones of said reduced ends of said external splines and with the end surfaces of the internal splines of said clutch member abutting said stop shoulders.

## 2,774,482
## MAGNETIC CLUTCH AND CONTROL THEREFOR

Franklin O. Winston, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application February 11, 1952, Serial No. 270,985
13 Claims. (Cl. 192—84)



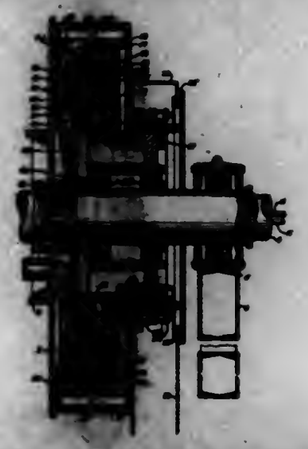
1. In a clutch having two rotatable members provided with surfaces for frictional engagement therebetween, magnetically controlled means for bringing the members into engagement, said means including an armature supported on one of the members for limited movement relative thereto and providing a magnetic circuit therewith, a pressure pad arranged contiguously said other member and attached to said one member for rotation therewith and having a force transmitting connection to said armature, centrifugally actuated mechanism interposed in the connection between said pad and armature for adjusting said connection as one of the surfaces wears, said mechanism comprising a screw threadedly engaging said connection, a weight responsive to centrifugal force for rotating said screw to thereby force said pressure pad and armature apart, means for preventing rotation of said screw in one direction, and means for detecting wear of said one surface.

## 2,774,483
## PNEUMATIC CLUTCHES

Sakio Hara Wilson, Wheaton Hills, Ill.

Continuation of application Serial No. 60,865, November 23, 1948. This application December 8, 1954, Serial No. 473,943

6 Claims. (Cl. 192—88)

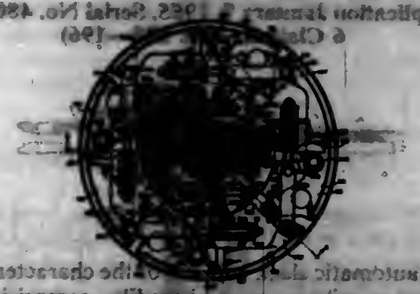


1. In a fluid pressure actuated clutch assembly for use in a recess formed in a drum flange, a rotary drive member, a rotary driven member, coacting friction discs interposed between said drive and driven members, certain of said friction discs being engageable with said drive member and certain of said friction discs being engageable with said driven member, said discs being axially movable within said recess, an attachable plate mounted on the outer end of said recessed drum flange, an axially expansible tube member disposed intermediate the outermost of said friction discs and said plate for actuating said friction discs, said outermost friction discs and said plate being non-rotatable relative to said axially expansible tube member, means conducting a pressure fluid to the inner axial side of said drum flange recess, and means including a flexible conduit for conducting said pressure fluid from said means to the outer axial face of said axially expansible tube member.

## 2,774,484
## CLUTCHES

Hale Kinchloe, Drexel Hill, Pa.

Application August 28, 1953, Serial No. 376,290
8 Claims. (Cl. 192—105)



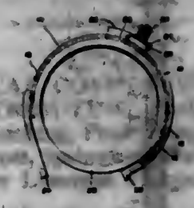
1. A clutch comprising a driving member, a driven member having a drum, a plurality of spaced driving brackets carried by said driving member, each of said driving brackets having an abutment member thereon, a plurality of shoe members corresponding to said bracket members for engagement with said drum, a pivotal connection from each of said shoe members to the next driving bracket in one direction, a second pivotal connection from each of said shoe members to the next driving bracket in the opposite direction, said said shoe members having portions for driving engagement by said abutment member.



## 2,774,485
## CLUTCH OR BRAKE BAND

David N. Goldsmith, Wheeling, W. Va.

Application June 16, 1953, Serial No. 361,933
6 Claims. (Cl. 192—107)



1. In a clutch or brake band, semi-circular band sections having overlapping ends, means interconnecting said ends for relative pivotal movement about a radial axis, said interconnecting means including means permitting limited bodily relative radial movement between the ends of the sections.

## 2,774,486
## DUMP CHUTE FOR WAGONS

James Lawrence Pentler, Van Wert, Ohio

Application December 28, 1951, Serial No. 263,917
7 Claims. (Cl. 193—6)



1. A discharge-chute structure for incorporation in a wagon or like vehicle, comprising a body open at its top and having opposed side walls projecting downwardly from such top, a chute having a bottom wall and side walls overlapping those of the body, a pivot member, said chute side-walls having pairs of aligned openings arranged in rows generally parallel to said bottom wall for selective positioning of said chute in desired projecting relation laterally of said body and in desired angular relation to said body, each pair of said aligned openings being adapted to receive said pivot member, and means on said body for supporting said pivot member in fixed position adjacent the bottom of said body.

## 2,774,487
## FRONT FEED DEVICE FOR BUSINESS OFFICE MACHINES

Andreas Schlieger, Rosenheim am Main, Germany, assignor to Toepfer-Werke Aktiengesellschaft, Fabrik für Büro- und Schreibmaschinen, Rosenheim am Main, Rodenbüttel, Germany, a German company

Application August 17, 1953, Serial No. 374,741
Claims priority, application Germany August 16, 1952
3 Claims. (Cl. 197—127)

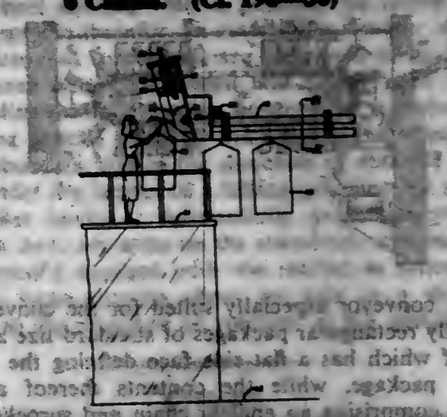
1. A front feed device for business office machines comprising draw-in rollers for feeding a front feed sheet having at least one perforation therein, a feeler finger movable between an inoperative position remote from the feeding path of the front feed sheet and an operative position projecting across said path for engaging in a perforation of the front feed sheet to move with the latter during the feeding of the sheet, locking means effective to limit the rotation of said draw-in rollers in response to movement of said finger with the front feed sheet in the direction of feeding of the latter, spring means operative to urge said finger to said operative position thereof and in the direction of feeding of the front feed sheet, and control means normally rendering said spring means inoperative and effective, during the operation of said draw-in rollers, to release said spring means for urging said finger in the direction of feed of the sheet so that the tendency of the finger engaged in a perforation of the sheet to tear the sheet is thereby avoided.



## 2,774,488
## SEGREGATOR CONVEYOR

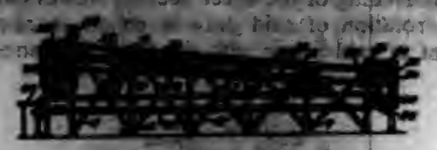
William J. Kaiser, Cincinnati, Ohio, assignor to The National Marking Machine Company, Cincinnati, Ohio, a corporation of Ohio

Application November 24, 1953, Serial No. 393,992
6 Claims. (Cl. 198—36)



1. In an apparatus for classifying garments on coat hangers into a plurality of different categories wherein there is provided a conveyor for transporting the garments from a loading zone to a distributing zone, and a plurality of rails at the distributing zone for receiving the garments from the conveyor, each rail being adapted to receive garments belonging to a particular category, the combination of a transverse carrier on said conveyor, means on said carrier for receiving the hooks of the coat hangers and supporting the garments in their travel from the loading zone to the distributing zone, and a plurality of dividers spaced at equal intervals along said carrier to divide said receiving means into as many slots as there are rails, said dividers being in the general form of flat, upstanding blocks, the side faces of which are parallel to the side faces of adjacent dividers to form transversely extending slots spaced along the carrier for receiving the hooks of the coat hangers.

2,774,459
**RACK FOR COOLING FRESHLY GALVANIZED PIPE**
Oscar R. Olsen, Pittsburgh, Pa.
Application April 22, 1953, Serial No. 350,371
2 Claims. (Cl. 198—34)



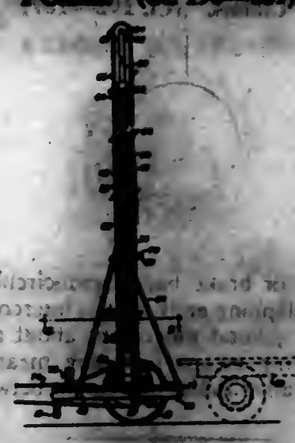
1. A rack for cooling lengths of freshly galvanized pipe sections which comprises, a frame with upper and lower track levels and a transfer therebetween at one end, a pipe receiving station on the upper track level and a pipe discharge station on the lower track level at the opposite end of said frame from said transfer, conveyor means along said track levels having spaced abutments to shove separated pipe sections from the receiving to the discharge station and causing the pipe sections to rotate due to their frictional contact with the track to maintain a uniform distribution of the galvanize before it cools and hardens, said upper track level being disposed on a lateral slope at the pipe receiving station and horizontal at said transfer end, whereby to drain any excess galvanizing fluid from the rotating pipe sections and to match the inclination of the pipe sections when delivered at the receiving station.

2,774,460
**QUICK-FREEZE CONVEYORS**
Charles L. Speerhouse, Seattle, Wash.; Jean E. Speerhouse, administratrix of said Charles L. Speerhouse, deceased, assignor to Lewis Refrigeration & Supply Company, Seattle, Wash., a partnership
Application March 16, 1953, Serial No. 342,481
6 Claims. (Cl. 198—131)



1. A conveyor especially suited for the conveyance of generally rectangular packages of standard size and shape each of which has a flat side face defining the thickness of the package, while the contents thereof are being frozen, comprising an endless chain and sprocket wheels over which said chains run, the whole arranged with the chain's upper and lower runs generally horizontally disposed, and blades spaced along said chain at intervals somewhat exceeding the thickness of the package, each blade including three rigidly connected portions, namely, an inner base portion secured rigidly to a chain link, and having an upper package-supporting surface slanted, in the upper run, downwardly and forwardly with respect to the direction of advance, a connecting portion extending in the main approximately at a right angle to the chain's upper run, from the forward edge of the base portion's slanted package-supporting of surface, being that edge which is nearer the chain, and said connecting portion being of a height overall somewhat in excess of the height of the package, and an outer flange portion extending rearwardly from the outer edge of the connecting portion back over the base portion, and generally at a right angle to said connecting portion, and being of a width to leave less spacing between itself and the next blade, in the horizontal runs of the chain, than the thickness of the package, the spacing between connecting portions of successive blades being such, with relation to the upright dimension of the package, that with the package's side face resting upon the base's slanted package-supporting surface the upper forward edge of the package will lean against the upright connecting portion of the same blade.

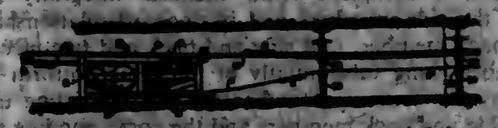
2,774,461
**TOBACCO ELEVATOR**
Stanley Odell Young, Cynthiana, Ky.
Application March 22, 1954, Serial No. 417,799
1 Claim. (Cl. 214—139)



A tobacco elevator comprising a wheeled frame, an elongated tubular support fixed to said frame and extending upwardly therefrom, said support having a longitudinal slot extending downwardly from the upper end thereof, upper and lower telescoping members mounted within said elongated tubular support for raising and lowering movement with respect thereto, said lower telescoping member being tubular and having a longitudinal slot formed therein intermediate its ends in alignment with the longitudinal slot of said tubular support, a pin extending transversely outwardly from the lower end of said lower telescoping member through said support slot, said upper telescoping member being tubular and having a transverse handle extending from the lower portion thereof outwardly through said aligned slots, aperture means on said lower telescoping member cooperating with said handle for holding said upper telescoping member in vertically adjusted position with respect to said lower telescoping member, means on said frame connected with said pin for raising and lowering said telescoping members within said support while said telescoping members are held in a relative adjusted position and an endless chain conveyor extending between the bottom of said support and the top of said upper telescoping member, said endless chain being adjustable in length so as to operate at different heights within a slanted roof barn in accordance with the relative adjustment of said telescoping members and their vertical position with respect to said support.

2,774,462
**SPOOLED RIBBON SUPPORTED EXTENSIBLE BELT CONVEYOR**
William N. Peterkin, Morgantown, W. Va., assignor to Pittsburgh Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 1, 1950, Serial No. 551,941
12 Claims. (Cl. 198—139)

1. An extensible straight line belt conveyor comprising a mobile loading tailpiece at the loading terminal, material discharge means at the discharge terminal, ribbon material mounted on and extensible from a spool at one terminus, means at the other terminus for securing the free end of said ribbon material, means for supporting said ribbon material between the termini in a generally troughed shape, an endless single strand of flexible conveyer belting slidable along said ribbon material, said



strand being laced over said ribbon material in surface contact therewith, through each terminus and beneath said ribbon material out of contact therewith, and means beneath said ribbon material for supporting said conveyer belting between the said terminal.



2,774,463
**TYPOGRAPHICAL COMPOSING, CASTING AND DISTRIBUTING MACHINES**
Louis Rossetto, Flushing, Paul Hilpman, Garden City, and William B. Abbott, Springfield Gardens, N. Y., assignors to Mergenthaler Linotype Company, a corporation of New York
Application September 9, 1950, Serial No. 184,672
10 Claims. (Cl. 199—11)

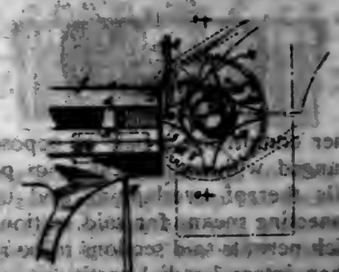


1. A typographical composing, casting and distributing machine equipped with a main shaft and provided with a series of cams controlling the operation of various organs of the machine and adapted to make one complete rotation at each cycle of operation of the machine, means for driving said main cam shaft at a rate of speed of the order of twelve cycles per minute, a series of rotary cams for operating matrix releasing devices and adapted to make one complete rotation at each matrix releasing operation, a continuously rotating roll for operating said cams, means for driving the roll at a rate of speed of the order of 550 R. P. M., a continuously moving assembling belt to receive the matrices as they are released from their storage magazine and deliver them to the assembler, means for operating said belt at a rate of speed of the order of 125" per second, a continuously rotating star wheel located beyond the assembling belt to act upon the matrices as they leave therefrom and stack them in the assembler, means for rotating the star wheel at a rate of speed of the order of 375 R. P. M., a distributor comprising a set of continuously rotating screws for advancing the matrices along the distributor bar for return to their storage magazine, and means for rotating the distributor screws at a rate of speed of the order of 510 R. P. M.

5. In a typographical casting machine, the combination of a main shaft provided with a series of cams controlling the operation of various organs of the machine and adapted to make one complete rotation at each cycle of operation of the machine, means for driving said main cam shaft at a rate of speed substantially in excess of seven cycles per minute in order to cast slugs at a corresponding rate, a rotatable mold disk provided with two identical molds disposed diametrically opposite thereon, and means operated from the main cam shaft for imparting to the mold disk two one-quarter turns in each machine cycle whereby the molds are brought alternately into casting position in successive machine cycles to avoid overheating of the molds as a result of the increased rate of speed in the casting of successive slugs.

8. In a typographical composing machine, the combination of a matrix storage magazine arranged at an inclination of the order of 70°, an assembling belt to receive the matrices as they are released from their storage magazine and deliver them to the assembler, the angle of inclination of said belt being of the order of 17° 45' minutes, and means for driving the assembling belt at a rate of speed of the order of 125" per second.

2,774,464
**ASSEMBLING MECHANISM FOR TYPOGRAPHICAL COMPOSING MACHINES**
Paul Hilpman, Garden City, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York
Application May 11, 1953, Serial No. 353,957
3 Claims. (Cl. 199—27)



1. Assembling mechanism for typographical machines equipped with gravitational matrices and expansible spacebands, including, in combination, a constantly rotating starwheel formed with a plurality of radial arms, a driving spindle therefor, an assembling elevator wherein the matrices and spacebands are composed in line under the influence of the starwheel, and a pawl and ratchet free-wheeling driving coupling between the starwheel and the driving spindle whereby the starwheel is capable of turning about its axis in the direction of rotation of the spindle under the impact of a falling spaceband or matrix, said ratchet having a substantially greater number of teeth than there are arms on the starwheel, and said pawl being normally engaged with the ratchet to prevent the starwheel from turning about its axis in a direction opposite to the direction of rotation of the spindle.

2,774,465
**LINE STOP FOR TYPOGRAPHICAL CASTING MACHINES**
Charles G. Inglish, Corpus Christi, Tex., assignor to Mergenthaler Linotype Company, a corporation of New York
Application July 17, 1953, Serial No. 368,758
8 Claims. (Cl. 199—59)



1. A line stop for the first elevator or line transporter of a typographical casting machine, said transporter being formed in its opposite side walls with a pair of opposed horizontally disposed matrix supporting grooves as well as with a distinct pair of opposed horizontally disposed spaceband supporting grooves, which spaceband

supporting grooves are of less vertical height and are more widely spaced apart than the matrix supporting grooves but are located within the vertical limits of said grooves, characterized in that said line stop comprises an elongated, U-shaped resilient member shaped and spaced for a sliding movement in the spaceband supporting grooves, and a pair of thin and narrow abutment plates shaped and spaced for a sliding movement in the matrix supporting grooves, said abutment plates being made separate from but united to the two leg portions of the U-shaped resilient member at its open end, and said U-shaped resilient member being stressed at its closed end to exert a separating force upon its two leg portions when the line stop is inserted into the line transporter and thus to hold the abutment plates under lateral pressure in frictional face contact with the vertical walls of the matrix supporting grooves for braking purposes.

2,774,466

## CONTAINER

Andrew J. Lisko, Flint, Mich.

Application April 22, 1954, Serial No. 424,336

1 Claim. (Cl. 206—42)



A container comprising a pair of opposed cup-shaped sections arranged with cylindrical brim portions at the circular walls thereof overlapping and underlying one another, connecting means for said sections at said brim portions which permits said sections to be rotated relative to one another, integral radial partitions in the hollow of the section having the underlying brim portion and extending beyond the brim portion thereof and into the hollow of the other section and with the free edges thereof conforming to the general concaved contour of the interior of said other section, said partitions dividing the interiors of both of the sections into compartments, said underlying brim portion having a plurality of notches in its edge that extend different depths at different compartments into its respective cupped portion, said overlapping brim portion having a single notch in its edge and extending into its respective cupped portion a depth at least equal to that of the notch of greatest depth in said underlying brim portion, said notch in said overlapping brim portion being adapted to be registered with any one of the different size notches in the underlying brim portion by said rotation and thereby providing dispensing openings of different sizes to different compartments of the container.

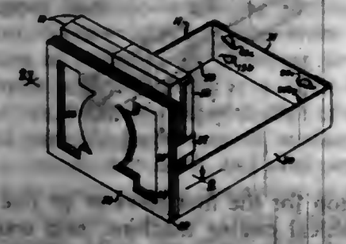
2,774,467

## DISPENSING DEVICE FOR PACKAGED MERCHANDISE

Joseph Michiel, Long Beach, N. Y.

Substitute for abandoned application Serial No. 191,863, October 24, 1950. This application August 31, 1956 Serial No. 606,177

1 Claim. (Cl. 206—44.12)



A dispensing tray in combination with containers for merchandise, the tray comprising a substantially rigid bottom member to accommodate the containers arranged upright in at least one row; the tray further comprising side members in opposed relationship and a back member, said members being integrally formed with the bottom member and in planes substantially perpendicular thereto, a two-piece front member integrally formed with the side members and in opposed relationship with the back member, said side and back and two-piece front member being substantially of the same uniform height, means for securing together the corresponding ends of the side and back members and the corresponding ends of the two-piece front member; the tray further comprising a one-piece front member integrally formed with the bottom member and in juxtaposition with the outer surface of the two-piece front member, the one-piece front member having a height less than the height of the containers and greater than the height of the other members, a decorative member superposed on the outer surface of said one-piece front member, said decorative member having an opening made in each side thereof, a rectangular elastic member extending from each opening and around the containers, and a slit retaining member for each end of said rectangular elastic member coacting with the openings in the side of said decorative member.

2,774,468

## CAN DISPLAY PACKAGE WITH LOCKING TABS

Ben Rous, Brooklyn, N. Y., assignor to Federal Carton Corporation, North Bergen, N. J., a corporation of New York

Application December 15, 1954, Serial No. 475,528

3 Claims. (Cl. 206—45.14)



2. A package comprising a cylindrical container having transversely outwardly extending, peripheral end beads, and a carton adapted for packaging and displaying said container, said carton being generally rectangular and comprising a bottom wall and four side walls connected to said bottom wall, said carton being open at its top, said container being mounted within said carton with one of its beads resting upon said bottom wall, the upper end portion of said container extending above the side walls of said carton, opposed walls having bottom tabs hingedly connected thereto and extending downwardly and inwardly from their hinge lines into frictional engagement with the upper surface of the lower bead, opposed walls having upper tabs hingedly connected to their upper edges and extending upwardly and inwardly into frictional engagement with the lower surface of the upper bead.

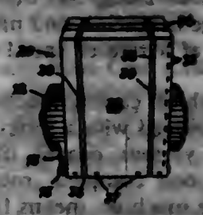
2,774,469

## PACKAGE PUMP UNIT

Kenneth R. Lang, Dayton, Ohio, assignor to The Tait Manufacturing Company, a corporation of Ohio

Application August 23, 1954, Serial No. 451,342

4 Claims. (Cl. 206—46)



3. A pump and package assembly comprising a cylindrical tank, a pump and motor of substantially less length than said tank mounted on the side of said tank, a base, means for securing said tank to said base with said tank extending horizontally and with said pump and motor uppermost thereon, a carton of substantially the same height as the distance from said base to the top of said pump and motor, said carton being of such width as to enclose said tank and of substantially lesser length than said tank to enclose said pump and motor with the ends of said tank projecting therebeyond, said carton having cutouts in both end walls thereof for receiving the ends of said tank therethrough, and means for securing the bottom edges of said carton to said base to complete said package.



2,774,470

## DISPENSING CARTON FOR PILLS OR OTHER SMALL ARTICLES

John H. O'Part, Toronto, Ontario, Canada

Application June 14, 1951, Serial No. 231,532

1 Claim. (Cl. 206—56)



A pill shipping and display package of the dispensing type comprising a box of rectangular shape with front, back, side, top and bottom walls, said front wall terminating above the bottom wall and thereby providing a slot across its lower edge for the full width thereof excepting for the thickness of the side walls, an elongated dispensing member adapted to extend for the greater part of its length through the slot and to be worked therein for the purpose of dispensing the pills therefrom, said dispensing member being of a length substantially equal to the height of the front wall of the box, of a width substantially equal to the width of the slot and of a cross-section conforming to the slot area, said dispensing member being disposed flush against the front wall of the box and over the slot, thereby providing a temporary closure to retain the pills within the box during shipment and display, and means for releasably securing the dispensing member to the box in its slot closing position.

2,774,471

## ANNULAR STRAND PACKAGE WITH FABRIC COVER

James E. Williams, Springfield, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application March 6, 1953, Serial No. 340,847

6 Claims. (Cl. 206—59)



1. In combination with an annular wound strand package, a tubularly-woven cover therefor comprising an intermediate section constituted of a plurality of layers of fabric that are generally concentrically superposed with respect to the axis of the package and extend over the entire inner surface of the package, and two sections joined to the intermediate section at the opposite ends thereof, each of the latter two sections comprising a single layer of fabric, said layers of the intermediate section being relatively movable and free of interconnection except for juncture with said latter-named sections, the cover extending from the inner surface of the package over both end surfaces thereof to dispose said latter-named sections in adjacent relationship along the outer peripheral surface of the package, said cover comprising a continuous yarn system extending progressively from one end of the cover to the other without seams throughout all of said sections and the layers thereof.

2,774,472

## SLIDE CARRYING MEANS

Frank C. Badalich, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

Application August 24, 1954, Serial No. 451,898

1 Claim. (Cl. 206—62)



Slide holding means comprising, in combination, an elongated tray having an open top and rectangular vertical and horizontal cross sections and transversely extending septums for separating slides which extend above the open top, the ends of said tray having U-shaped openings and downwardly and upwardly facing shoulders in the region of the upper portion thereof, and a cover telescoped with the upper portion of said tray, the ends of said cover having upwardly facing shoulders along the lower edges thereof and downwardly facing shoulders spaced upwardly from the lower edges thereof cooperating respectively with said shoulders on said tray to hold said cover thereon and to space its top side above the upper edges of the projecting slides, the end portions of said cover carrying the shoulders cooperating with said downwardly facing shoulders on said tray being sufficiently flexible to permit engagement and disengagement thereof and said U-shaped openings extending below said end portions of said cover to facilitate the insertion of an operating member to engage the inner side of either end portion to flex the same outwardly to effect disengagement of said shoulders.

2,774,473

## SUPPORT-PROTECTOR FOR FRAGILE ARTICLES

Philip M. Williams, Oakland, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine

Application January 31, 1952, Serial No. 269,210

2 Claims. (Cl. 206—65)



2. A package comprising a rectangular box-like crate, a first rectangular support sheet within said crate, said sheet being constructed of molded-pulp material and having a set of deep, tangential, dome-shaped cavities and a set of arcuate segments of shallow dish-shaped cavities formed therein between adjacent dome-shaped cavities, each of said sets of cavities depending in the same direction, a plurality of truncated cone portions

formed integral with each of said shallow, disk-shaped cavities, there being a plurality of circular bosses formed integral with the central bottom portions of said dome-shaped cavities, said circular bosses depending from and projecting beyond the lower portions of said dome-shaped cavities down to the level of the lower ends of said cone portions, the lower ends of said circular bosses and of said cone portions resting on the bottom of said crate, a plurality of fragile objects supported within the cavities and segments of cavities in spaced relation to the bottom of said crate, a second support sheet identical with said first support sheet and turned end-for-end with respect thereto, said second support sheet overlying said fragile articles supported by said first support sheet to form an enclosed bottom layer and adapted to support a similar enclosed layer thereupon within said crate.

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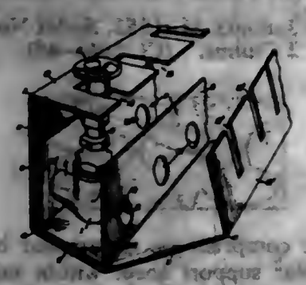
2,774,474
PACKAGING DEVICE FOR CYLINDRICAL OBJECTS
David B. Phillips, Berea, Ohio
Application August 2, 1954, Serial No. 447,269
2 Claims. (Cl. 206—65)



1. A shipping package of axially inflexible elongated articles having a flat base and a tapered nose section, comprising; a flat base plate having the upper flat surface thereof provided with at least one recessed horizontal seat against which the flat base of said inflexible article is seated; a flat cover plate of approximately equal dimensions to said base plate having at least one through aperture interconnecting the opposed flat faces thereof; and means for drawing said base and cover plates toward each other when positioned with respect to said article; said aperture being substantially concentrically disposed above said seat when said cover plate is superimposed over said base plate in vertically spaced relationship; said aperture having a plurality of radial dimensions along its axial length receiving the tapered nose section therein; said nose section projecting through and above the upper-most plane of said cover plate.

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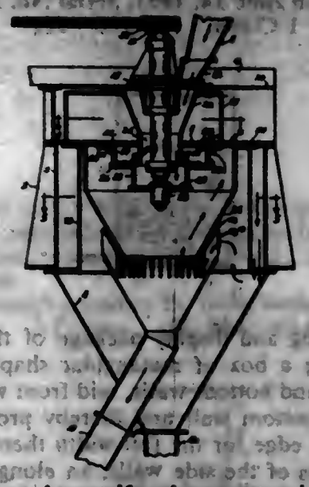
2,774,475
VALVE PACKAGE
Carl H. Morken, West Elmira, N. Y., assignor to The Kennedy Valve Mfg. Co., Elmira, N. Y., a corporation of New York
Application January 24, 1955, Serial No. 483,726
3 Claims. (Cl. 206—65)



1. A valve package comprising a plurality of valves of roughly T-form with a casing having oppositely extending portions to which pipe connections may be made and a stem portion to which is secured a gland nut through which a valve stem extends, a U-shaped inner liner of corrugated board having a web portion and flanges substantially normal thereto, said flanges having spaced sets of aligned apertures in the opposite sides thereof to receive the ends of the oppositely extending portions of the respective valves with the web portion of said liner adjacent the under portion of said valves, and a positioning member of corrugated board bent to hollow rectangular form snugly fitted about said liner and having overlapping end portions with spaced sets of aligned slots therein embracing said valve stems.

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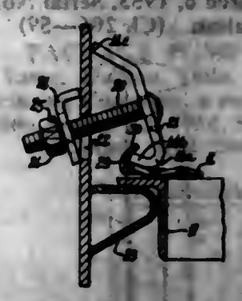
2,774,476
MACHINE FOR CLASSIFYING AND SEPARATING MATERIALS
William T. Doyle, Boston, Mass., assignor to Sturtevant Mill Company, Boston, Mass., a corporation of Massachusetts
Application October 25, 1954, Serial No. 464,442
9 Claims. (Cl. 209—139)



1. An improved centrifugal separator including a casing formed with a feed inlet for receiving a finely divided material, a material classifier mechanism mounted within the casing, a fan located on the casing above the classifier mechanism in a position to induce the flow of air upwardly through the classifier, upper and lower conduit means defining converging apertures for guiding material along reversely directed spiralling paths of movement, and said casing being formed with discharge outlet means for selectively releasing classified material carried in said spiralling paths of movement.

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2,774,477
SCREEN CLAMPING MECHANISM
Harold C. Pollitz, Cedar Rapids, Iowa, assignor to Iowa Manufacturing Company of Cedar Rapids, Iowa, Cedar Rapids, Iowa, a corporation of Iowa
Application December 6, 1954, Serial No. 473,400
2 Claims. (Cl. 209—403)

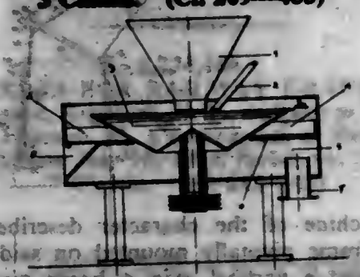


1. Screen tightening apparatus for positioning a screen in a plane comprising in combination, a peripheral support frame surrounding said screen, a plurality of screen supports attached to said frame and having one surface thereof positioned in said plane for supporting said screen at a plurality of points, first means associated with said frame for attachment to the peripheral edge of said screen, second means for drawing said first means upwardly and outwardly toward said frame, third means for contact with said screen on the opposite side thereof from said support and inwardly from the peripheral edge of said screen for urging the central body of said screen downwardly securely against said supports when said second means is drawn toward said frame, and fourth means positioned substantially under said third means on the side of said screen opposite from said third means for contact with said screen whereby drawing said second means toward said frame clamps said screen tightly against said fourth means at a point inwardly of the peripheral edge of the screen.



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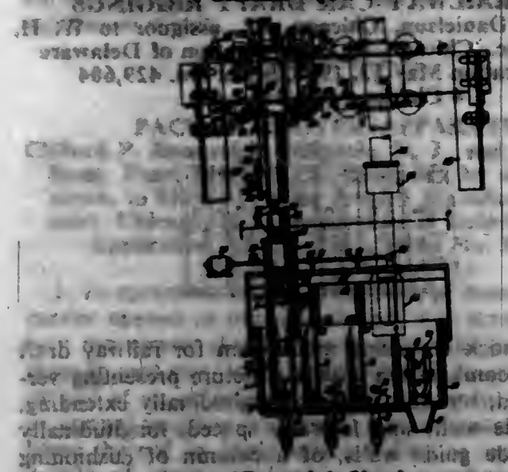
2,774,478
CENTRIFUGAL OLIVE WASHER AND SEPARATOR
Giorgio Diefenbach, Monza, Italy
Application February 21, 1955, Serial No. 489,510
Claims priority, application Italy February 22, 1954
3 Claims. (Cl. 209—453)



1. A centrifugal washer for olives and other fruits, comprising a rotary basin, means for supplying said fruits into said basin, means for feeding water thereinto, a casing enclosing said basin from the side and bottom in spaced relationship, a perforated metal sheet dividing the space between said basin and said casing in a substantially horizontal plane, means for rotating said basin, an outlet in the bottom of said casing below said perforated sheet for discharging said water, an outlet in the sidewall of said casing for discharging said fruits above said perforated sheet, said basin being shaped to facilitate deposits of heavy foreign matter onto the bottom of said basin by gravity and carrying substantially radial arms to push said fruits towards said outlet above said sheet.

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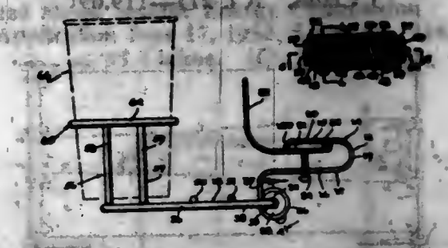
2,774,479
FILTERING APPARATUS
Ross Cummings, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application January 5, 1945, Serial No. 571,421
6 Claims. (Cl. 210—184)



4. A pressure differential filtering apparatus, comprising a vertically movable tubular support mounted upon a supporting framework, a hollow porous filter element rotatably mounted on said tubular support, a valve unit having a rotatable portion attached to said filter element and a non-rotatable portion attached to said tubular support, a tube communicating with one side of said valve unit and extending into the interior of said filter element, a plurality of conduits housed within said tubular support and communicating with the other side of said valve unit, and a passage through the rotatable portion of said valve unit adapted to place said tube in communication with each of said plurality of conduits individually in a predetermined sequence upon rotation of the filter element.

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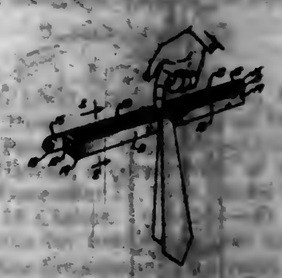
2,774,480
BEVERAGE AND SNACK DISPENSER FOR AUTOMOBILES
Herbert Bunyan, Wallkill, N. Y.
Application October 21, 1953, Serial No. 388,318
12 Claims. (Cl. 211—86)



1. A serving tray device adapted to be mounted on an automobile instrument panel and comprising a bracket, means for attaching the bracket to an instrument panel, a serving tray, said bracket having a hollow cylindrical portion having a horizontally extending axis, a pair of members mounted within opposite ends of said cylindrical portion and projecting outwardly therefrom, means fixedly securing one of said members to said cylindrical portion against movement, means for mounting said other member for limited non-rotating sliding movement inwardly of said cylindrical portion toward said one member, a coil compression spring within said cylindrical portion and between said pair of members urging said other member outwardly in a direction away from said one member, said tray having a pair of extending arms, means pivotally connecting the ends of said tray arms with said pair of members respectively for rotation about the horizontal axis of said cylindrical portion, and means on said one member for releasably engaging the respective adjacent tray arm to maintain the tray against rotation in an outwardly extending operative horizontal position.

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2,774,481
ARTICLE SUPPORTING RACK
Bernice E. Sievers and Eldred D. Sievers, Winona, Minn.
Application July 22, 1953, Serial No. 369,627
2 Claims. (Cl. 211—89)



1. An article supporting rack comprising an elongated rectangular frame including a pair of relatively long longitudinal side pieces and a pair of relatively short end pieces connecting the longitudinal side pieces, outwardly extending portions projecting from the ends of the frame adapted to be penetrated by fastening means for mounting

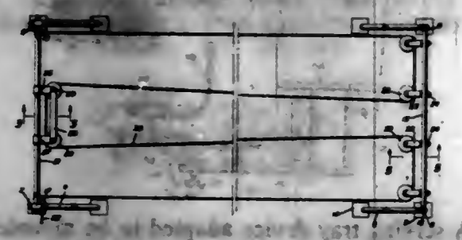
the rack in generally horizontal position against a wall or other vertical surface, and a pair of separate strips of sponge rubber substantially rectangular in cross section substantially filling the frame, one strip being secured to each of the inside surfaces of the longitudinal side pieces of the frame, said strips having the major portions of their inner surfaces disposed in closely spaced parallelism and each strip having the junctures of its said inner surface and each exposed outer surface right angular thereto beveled so that the strips combine to provide a narrow slit extending substantially the full length of the frame and having flaring lips opening on each outer surface adapted for the ready insertion of small articles to be held in gripping engagement by the opposed inner surfaces of the strips.

2,774,482

**CLOTHESLINE SUPPORT**

Nelson R. Haynie, Gothenburg, Nebr.

Application September 8, 1953, Serial No. 378,828
1 Claim. (Cl. 211—119.09)



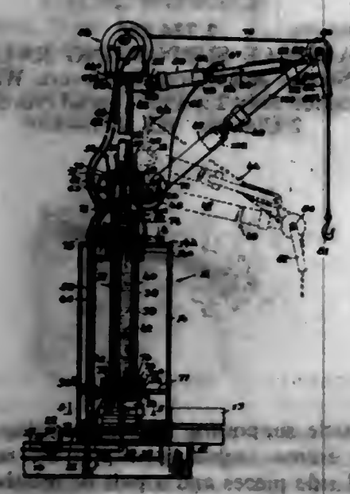
A clothesline supporting structure comprising a first pair of posts and a second pair of posts supported in the ground in a rectangular arrangement, a brace for each post also supported in the ground and with the upper ends of the braces spaced from an adjacent post, bearing blocks secured between each of said first pair of posts and their related braces, a shaft rotatably supported in said bearing blocks, a bar secured between the second pair of posts and their related braces, brackets attached respectively to the shaft and bar and having pulleys supported thereby, said shaft being rotatable in its related bracket, a line trained over the pulleys and having its ends attached to the shaft, and means for turning the shaft for winding the line thereon to tighten the line.

2,774,483

**HYDRAULIC CRANE DEVICE**

Clifford H. Raymond, Iron River, Mich.

Application September 11, 1953, Serial No. 379,661
17 Claims. (Cl. 212—35)



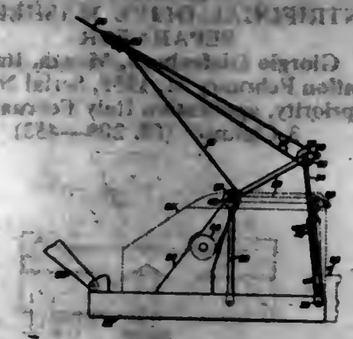
1. A hydraulic crane device comprising a vertical cylinder, a piston therein, a boom pivoted on said cylinder, a piston rod extending upwardly from the piston, a guy device pivoted on said piston rod and connected with the outer end of the boom, a first hydraulic motor for rotating said cylinder and with it said boom and guy, a second hydraulic motor carried by said piston rod adjacent said guy, a winch associated with a said second motor and driven thereby, a cable wound on said winch and passing over the outer end of said boom, and separate hydraulic means for extending and contracting said boom and guy device respectively.

2,774,484

**GANTRY**

Fred L. White, Marion, Ohio, assignor to The Osgood Company, Marion, Ohio, a corporation of Ohio

Application May 20, 1953, Serial No. 356,217
2 Claims. (Cl. 212—59)



1. A machine of the character described having a chassis, a frame pivotally mounted on said chassis for rotation about a vertical axis, a boom pivoted at one end to said frame at one side of said axis, and having its opposite end free, a counterweight removably mounted on said frame at the opposite side of said vertical axis from said boom, a gantry fixedly secured to said frame, a cylinder pivotally connected at its lower end to said frame, a piston reciprocable in said cylinder and having a piston rod secured thereto to project outwardly of said cylinder, a leg member pivotally connected at one end to said gantry, means pivotally connecting the projecting end of said piston rod to said leg member intermediate the ends of said leg member, the other end of said leg member having means whereby it may be connected to said counterweight so that said counterweight may be lifted and lowered, respectively, upon raising and lowering of said piston in said cylinder, and means extending serially between said gantry and leg member and the free end of said boom for raising and lowering said boom.

2,774,485

**RUBBER SHOCK ABSORBING MECHANISMS FOR RAILWAY CAR DRAFT RIGGINGS**

Vernon S. Danielson, Chicago, Ill., assignor to W. H. Miner, Inc., Chicago, Ill., a corporation of Delaware

Application May 13, 1954, Serial No. 429,604
4 Claims. (Cl. 213—46)



1. In a shock absorbing mechanism for railway draft rigging, the combination with a structure presenting vertically spaced, top and bottom, longitudinally extending, interior guide walls and laterally spaced, longitudinally extending side guide walls; of a column of cushioning units disposed in the space defined by said walls, said units being divided into groups, each consisting of a plurality of units, each of said units consisting of a pair of rectangular metal plates disposed at right angles to the axis of the column and a solid mass of rubber disposed between and bonded to said plates; interengaged bosses and sockets on said plates for keeping the units aligned with respect to each other; and means for stabilizing the column under compression comprising: rectangular aligning follower plates alternated with the groups of units; bosses and sockets on said follower plates interengaged with the sockets and bosses of the adjacent units to position the units with respect to the follower plates; and a pair of flanges on each edge of each follower plate disposed normal thereto, one of which flanges extends from one end of the edge into juxtaposition to the center of that edge and upstands from one face of the follower plate, and the other one of which flanges extends from the other end of that edge into juxtaposition to the center of the edge and upstands from the other face of the follower plate, said flanges having sliding engagement with said walls to maintain the follower and unit plates at right angles to said axis, thereby to stabilize the column under compression.

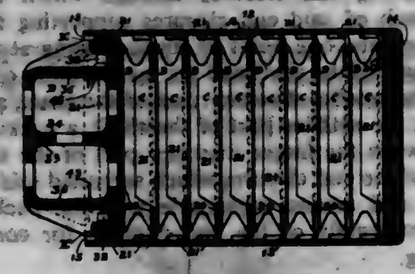


2,774,486

**DRAFT GEARS FOR RAILWAY DRAFT RIGGING**

Eric G. Fennell, Kenmore, N. Y., assignor to W. H. Miner, Inc., Chicago, Ill., a corporation of Delaware

Application July 18, 1955, Serial No. 522,596
7 Claims. (Cl. 213—45)



1. A draft gear for railway draft rigging comprising: a metallic casing of rectangular section closed at its rear end and open at its front end; a resilient column in said casing; a pressure applying plunger telescoped into said casing and projecting forwardly therefrom; a generally rectangular base on said plunger; grooves in the sides of said base extending from the top to the bottom of the base; a retainer bar disposed in each groove extending from end to end thereof and having a portion at each end of the bar extending beyond the groove; and triangular flanges at the front corners of the casing engaged by said extending portions of the retaining bars for holding the plunger in the casing, thereby to hold the gear together as a unit.

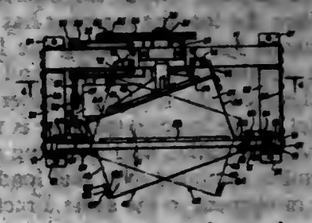
2,774,487

**PACK TURNOVER APPARATUS**

Clifford P. Rosenfeld, Hillsdale, N. J., and Leo C. Wilkens, Pearl River, N. Y., assignors, by mesne assignments, to Mickle Printing Press & Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application July 30, 1953, Serial No. 371,364
20 Claims. (Cl. 214—1)

1. In apparatus for inverting piles of sheets, a box-like carrier opened at one side thereof and arranged for rotary movement about a horizontal axis passing axially through said side, said carrier being disposed transversely of and at an oblique angle with respect to said axis and in normal position presenting opposed parallel wall portions thereof in horizontal position to receive therein a pile of sheets, and means for rotating said carrier about said axis from said normal position through an angle of approximately 180° in a direction such that said carrier will assume a rearward inclination as it rotates whereby the pile of sheets is retained therein and inverted.

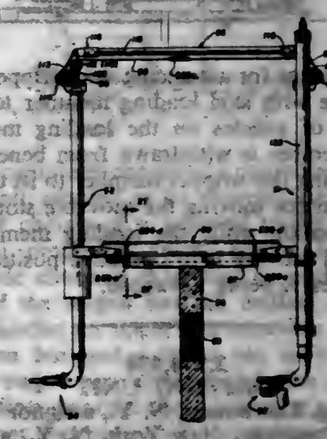


2,774,488

**REMOTE-CONTROL MANIPULATOR**

Raymond C. Goertz, Downers Grove, Ill., Roland G. Schmitt, Jr., Fort Worth, Tex., and Robert A. Olson, Chicago, and Robert B. Wehrle, Lemont, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application June 17, 1955, Serial No. 516,340
11 Claims. (Cl. 214—1)



7. A remote-control manipulator comprising spaced generally parallel master and slave arms, a support extending between the arms, means mounting the arms on the support for longitudinal movement axial of the arms with respect to the support and for angular movement with respect to the support about axes at the support, a handle and a grasper connected with the lower ends of the master arm and the slave arm, respectively, a link interconnecting the upper ends of the arms to transmit angular movement from the master arm to the slave arm, the link moving toward or away from the support during axial movements of the arms, a first tie means extending from the upper end of the master arm, along the same to the support, along the support to the slave arm, and along the same to the lower end thereof, and a second tie means extending from the upper end of the slave arm, along the same to the support, along the support to the master arm, and along the same to the lower end thereof.

2,774,489

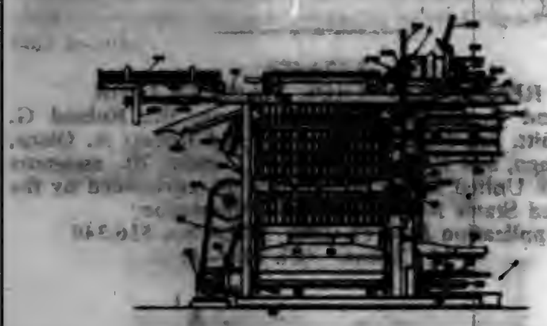
**STACKING AND UNSTACKING MACHINE**

Gustav Grigas, Honolulu, Territory of Hawaii, assignor to Hawaiian Pineapple Company, Limited, Honolulu, Territory of Hawaii, a corporation of Hawaii

Application December 17, 1954, Serial No. 476,021
16 Claims. (Cl. 214—6)

1. An apparatus for loading articles upon a pallet including feed means for supplying a stream of said articles, pallet support means, a loading member mounted for generally horizontal reciprocating movement over said pallet support means, said loading member receiving said articles from the feed means to carry them over the pallet and including a stop member mounted adjacent its forward edge movable to and from an operative position in

which it engages the foremost row of articles upon the loading member and an inoperative position in which it is clear of said articles, means for interrupting said supply stream when the loading member has received a load of articles, means for reciprocating the loading member to and from a position over the pallet, and means for stripping the articles from the loading member to form a layer upon the pallet as the loading member is withdrawn from its position over the pallet, said stripping means including a stripper member mounted over said loading member for reciprocating movement in the same direction as the load-



ing member, means for advancing said stripper member in timed sequence with said loading member to engage the rearmost row of articles on the loading member while the loading member is withdrawn from beneath the load and for retracting the stripper member to its original position, and means for moving the movable stop member to inoperative position while the loading member is being withdrawn and moving it to operative position while the loading member is being advanced.

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2,774,490

**SHIPPING UNIT**

Allen K. Strong, Larchmont, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application December 30, 1954, Serial No. 478,746

The terminal portion of the term of the patent subsequent to January 4, 1972, has been disclaimed

4 Claims. (Cl. 214—10.5)



1. A shipping unit comprising in combination a pile composed of laterally unsupported courses of filled bags of oblong shape each course containing at least one bag disposed longitudinally along one side of said pile and another bag disposed between the inner side thereof and the opposite side of the pile and adjacent courses having a longitudinally disposed bag on opposite sides of said pile and a lifting skid located under the bottom course of the pile, said skid consisting essentially of a pair of parallel hollow members extending longitudinally under said pile and located centrally under said longitudinally disposed packages and having walls sufficiently rigid to support at least 25% of the weight of the pile and an internal size sufficient to receive the forks of a lift truck and a flexible web connecting said hollow members and having a length such as to support the central area of said bottom course when they are lifted.

2,774,491

**ROTARY FEEDING DEVICE FOR PULP MAKING APPARATUS**

Hjalmar S. Mossing, New York, N. Y., assignor to American Defibrator Inc., New York, N. Y., a corporation of New York

Application July 23, 1953, Serial No. 369,936

3 Claims. (Cl. 214—17)



1. A rotary feeder comprising a rotor having material-holding pockets, a housing enclosing the rotor, the housing having inlet and delivery passages from which material is respectively received and delivered by the pockets, means for supplying steam under pressure into the housing, the rotor having a stepped shaft providing shaft-sections of various diameters, the shaft having relatively large diameter portions situated close to the body of the rotor and small diameter portions situated remotely therefrom, the housing having end closures through which the shaft extends, each of said end closures supporting the shaft at spaced points, one point of support being at the large diameter part of the shaft and the second point of support being at the smaller diameter part of the shaft, a bearing supporting the smaller part of the shaft, a packing interposed between the larger diameter part of the shaft and the parts of the end closures which surround said parts of the shaft, and means engageable with the packing and operable externally of the end closures for compacting the packing.

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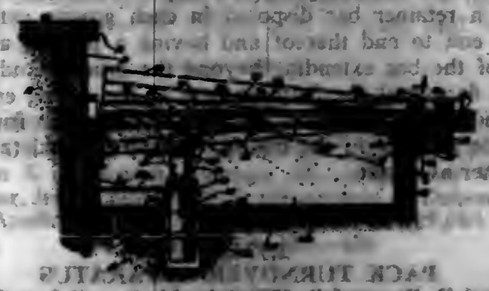
2,774,492

**TRUCK DOCK RAMP**

John B. Harrison, Memphis, Tenn., assignor to Dover Corporation, a corporation of Delaware

Application January 13, 1955, Serial No. 481,543

1 Claim. (Cl. 214—38)



In a loading dock including a road surface for highway trucks and a loading platform abruptly elevated above the road surface, ramp means adapted to support a highway truck adjacent the platform and comprising a stationary ramp support located below the road surface and elongated horizontally in generally parallel spaced relation to the adjacent edge of the loading platform, vertically extendable jacking means mounted below the road surface between the ramp support and the loading platform, a cylindrical torque tube adapted to rest on the jacking means in substantially parallel spaced relation to the adjacent edge of the platform, two pairs of horizontally spaced vertical bracket plates welded to the tube in substantially encircling relation thereto on opposite sides



of the longitudinal center of the tube, four parallel generally horizontal flanges fixed to the upper edges of said respective bracket plates, four anchor brackets disposed in a straight horizontal series substantially parallel to the torque tube and individually anchored to the ramp support in horizontal alinement with said respective torque tube bracket flanges, two longitudinal ramp units formed substantially as mirror images of each other; each ramp unit including two parallel longitudinal rails dimensioned lengthwise to extend horizontally from the ramp support substantially to the loading platform, a rectangular floor plate fixed to the upper edges of both rails and extending longitudinally for the full length of the rails and laterally beyond opposite sides of the respective rails, the longitudinal marginal edge of the floor plate on an inboard side thereof being turned sharply upward, and two pivotal support brackets attached to the underside of the respective rails adjacent one end of the ramp unit; the horizontal spacing between the longitudinal rails of the respective ramp units corresponding to the horizontal spacing between the two bracket flanges on the respective ends of the torque tube, four pivotal connectors pivotally connecting said respective anchor brackets individually to the respective support brackets on the two ramp units, means firmly securing said respective torque tube bracket flanges to the respective rails on the two ramp units, and removable plate means bridging the upturned marginal edges of the floor plates of the two ramp units to form a raised longitudinal curb between the two units.

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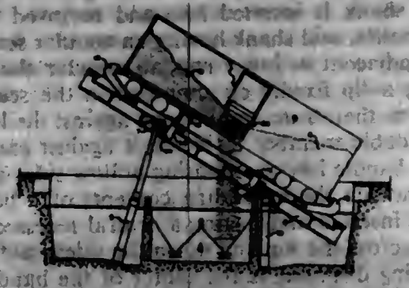
2,774,493

**METHOD FOR UNLOADING VEHICLES**

August P. Winter, St. Vital, Manitoba, Canada

Application October 7, 1954, Serial No. 460,933

1 Claim. (Cl. 214—83)



The steps in a method of unloading granular material from a railway box car comprising upending the car by a hydraulic ram, lowering the upended car by exhausting the ram, and directing the exhaust of the ram to an impactor arranged to impact the lower end of the car by upward strokes on the bottom thereof.

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2,774,494

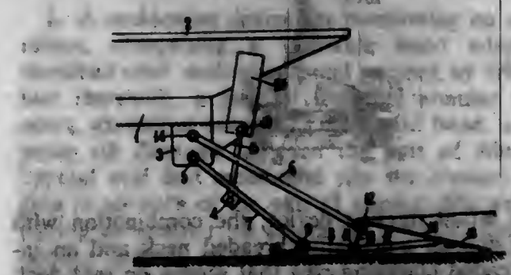
**LIFTING ARRANGEMENT FOR LOADING VEHICLES**

Carl O. Malmström, Karlskrona, Sweden

Application September 27, 1954, Serial No. 458,656

Claims priority, application Sweden September 30, 1953

2 Claims. (Cl. 214—77)



1. An arrangement for lifting and lowering goods to and from a vehicle or the like comprising a lifting platform hinged at its inward end to the upper of two pairs of superposed arms of equal extended length, pivotally connected at one of their ends to the vehicle and pivotally interconnected at their other ends by a link, the lower of said pair of arms being formed in two parts connected by a knuckle permitting the parts of the arm to assume an upwardly directed obtuse angle when the outward ends of the arms rest on the ground and ensuring that the parts of the arm form a substantially straight line when the platform is raised, a cantilever arm mounted on the lower pivotal connection of the link for engagement with a stop on the platform to support the latter and lifting means such as an hydraulic cylinder and piston connected between the vehicle and the lower pair of said arms for raising and lowering said arms and thereby the platform.

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2,774,495

**UNLOADING UNITS FOR TRAILER WAGONS**

Dietrich D. Regier, Henderson, Nebr.

Application June 3, 1955, Serial No. 513,102

3 Claims. (Cl. 214—83.36)



1. A self-contained completely operable and assembled unloading unit adapted to be mounted between a wagon box and the chassis of a wheeled trailer comprising: a unitary steel supporting frame having laterally spaced elongated side channels extending beyond the front and rear ends of the wagon box; an endless unloading conveyor web having an upper run movable upon the floor of the wagon box and a lower run movable below the floor of the wagon box within said frame and comprising a pair of endless sprocket chains carrying material-moving flights; a front conveyor shaft, rotatably mounted on the front extension of said frame channels, having a pair of sprockets secured thereto for engagement with said chains; conveyor chain tighteners carried on said frame front extension; power-actuated conveyor driving means carried on said frame front extension; a rear conveyor shaft, rotatably mounted on the rear extension of said frame, having a pair of drive sprockets secured thereto in engagement with said endless chains; power transmitting means, for rotating said rear conveyor shaft, operatively connected with said power-actuated driving means; said power-actuated driving means comprising a conveyor drive mechanism consisting of an electric motor, a crankshaft adapted to be driven by said motor, a connecting rod reciprocated by said crankshaft, a short link connecting said connecting rod with one arm of a bellcrank that is pivotally supported on said front frame extension, a link-rod connected at one end by a short link to the other arm of said bellcrank for transmitting reciprocatory motion to a pawl and ratchet wheel drive operatively connected with said rear conveyor shaft; and a power take-off shaft driving connection on the outer end of said crankshaft.

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2,774,496

**TRACTOR MOUNTED HIGH LIFT LOADER**

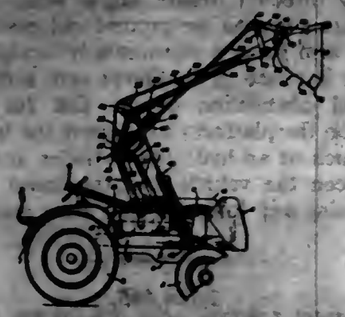
Evan E. Durkins, Ottawa, Kans., assignor to Ottawa Steel, Inc., Ottawa, Kans., a corporation of Kansas

Application August 3, 1955, Serial No. 526,262

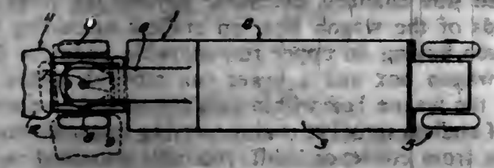
6 Claims. (Cl. 214—140)

1. In a material handling implement for attachment to a tractor, a frame, laterally spaced arms one on each side of the tractor and extending forwardly thereof, a bucket mounted adjacent the forward end of the arms and positioned adjacent the forward end of the tractor when the

arms are in lowered position; support links having lower ends pivotally connected to the frame, a crossbar extending transversely of the tractor and fixed to the upper portions of the support links, bearing means on the rearward portions of the arms and pivotally mounted on the crossbar for swinging movement of said arms; levers fixed relative to the bearing means and swingable with the arms, brace links pivotally connecting said levers with the frame in spaced relation to the support links, and hydraulically operated lifting means supported by the frame and connected to the arms intermediate the length thereof for raising and lowering said lifting arms.

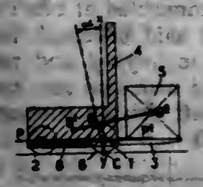


2,774,497
NOTCHED GOOSENECK TRAILER CONSTRUCTION
William E. Martin, Kewanee, Ill.
Application April 16, 1953, Serial No. 349,159
15 Claims. (Cl. 214—506)



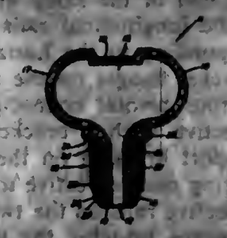
1. In a trailer, a bed, a hitch unit to connect said trailer bed with towing hitch means on a towing vehicle, said hitch unit incorporating a tongue connected with said trailer bed and extending outwardly away from said trailer bed, and loading ramps comprising side wings on said tongue disposed in spaced relation to said trailer bed, said side wings terminating intermediate the length of said tongue.

2,774,498
MATERIALS HANDLING FORK TRUCK
Jacques Cordes, Versailles, and Jean Desor, Paris, France
Application October 28, 1954, Serial No. 465,354
Claims priority, application France November 4, 1953
6 Claims. (Cl. 214—731)



1. Material handling fork truck comprising an underslung horizontal platform of relatively substantial weight embodied in the essential structure of said truck, the upper face of which platform lies in place somewhat below the longitudinal axis of the front wheel axle, means mounted on said platform for controlling the lifting and handling operations, load holding means comprising a fork having pivoted prongs; an apron member for supporting said pivoted prongs, this apron member comprising two sleeve members provided with transverse slots; two prongs the journals of which are force driven in said sleeves, these journals being provided with slots mating with the aforesaid slots; a pair of small-cylindrical bushings and a locking cap with a friction washer therebetween for holding in place said journals; a laminated spring extending through the slots of the sleeve members and the slots of the journals, this laminated spring connecting the two prongs; means for tensioning or loading the spring which, under normal conditions, holds the prongs in parallel relationship.

2,774,499
BOTTLE STOPPER
Claude H. Strickland, Edward D. Ehrets, and Donald Lee Robb, Cincinnati, Ohio, assignors to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application October 24, 1953, Serial No. 388,785
1 Claim. (Cl. 215—7)



A bottle stopper comprising a tubular shank having an open lower end and an open upper end, a hollow bulbous handle integral with the upper end and in fluid communication with the shank, said handle at the juncture with the shank forming an annular outstanding shoulder on the exterior of the upper end of the shank; a yieldable sleeve member circumposed about the shank for positioning in the neck of a bottle and rotatable relative to the shank to permit rotation of the handle with respect to the bottle when the shank is inserted into and removed from the neck of a bottle, said shank having an annular seat formed exteriorly adjacent its lower end, an annular elastic member having a lip fixedly circumposed in the seat against displacement therefrom and bearing against the lower end of the yieldable member to locate it against axial movement, said handle having opposing hollow sides and a top to accommodate the expanding contents of a bottle into which it is inserted and having a central recessed portion extending across the top and down the sides, said recessed portion being disposed at the center of the handle above and in line with the shank to receive a seal extending from the sides of the recessed portion down along the outside of the neck of a bottle and adapted to be fixed thereto at opposite points, and said handle having bulged ends forming hand grips to afford increased leverage for manual rotation of the handle.

2,774,500
INFANT NURSING DEVICE
Dino J. Bertini, Cleveland, Ohio
Application January 18, 1956, Serial No. 559,964
10 Claims. (Cl. 215—11)

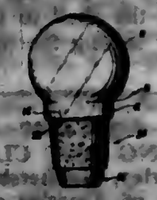


1. In an infant nursing device, the combination with a bottle having an externally threaded neck and an internally threaded clamping ring that screws on said neck and that has a top flange that overlies the top of the bottle and defines a central opening, of a nursing nipple having



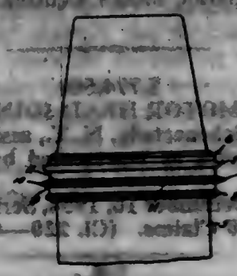
a hollow flexible apertured teat portion that projects through said opening and a base portion within said ring that forms a partition between the bottle and said teat portion and that includes a collapsible annular shoulder that underlies said flange and that is disposed between said flange and said bottle top, means providing a passage for liquid through said base portion to said teat portion, and means controlled by collapse of said shoulder by pressure applied thereto by said clamping ring for regulating the flow through said passage.

2,774,501
BOTTLE STOPPER
Dan Robb, Cincinnati, Ohio, assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application September 21, 1953, Serial No. 381,300
7 Claims. (Cl. 215—46)



3. A bottle stopper comprising a head, an outwardly tapering shank projecting from said head, there being a peripheral groove formed in said shank adjacent to and spaced inwardly from the projecting end thereof, an open ended yieldable shell slidably circumposed about said shank, said shank being slidable with respect to said shell to expand and contract the latter for sealing and unsealing a bottle opening, and a resilient ring having an internal rib and circumposed about said shank with said rib seated in said groove, said ring being in engagement with said shell to prevent the removal of the latter from said shank, the groove having a side wall facing the head and disposed normal to the axis of the shank and on which the rib is seated to urge the ring into engagement with the shell, said rib being narrower than said groove to permit movement of said ring and shell relative to said shank.

2,774,502
CUSHIONING BAND FOR CYLINDRICAL OBJECTS
Edward J. Nowak, Eagle River, Wis.
Application May 22, 1953, Serial No. 356,551
2 Claims. (Cl. 215—100)



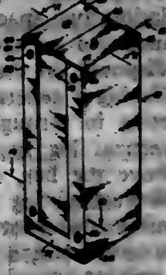
2. A cushioning device for positioning on a cylindrical object, comprising a yieldable band adapted to be stretched over such object and secured by frictional contact therewith, a pair of identical annular ribs spaced apart, extending outwardly from said band, a central annular rib disposed between the pair of ribs, extending beyond said first mentioned ribs for contact with a surface in advance of the pair of annular ribs and said band having an annular slit extending inwardly from the outer surface thereof at the base of said central annular rib lending flexibility to said central annular rib.

2,774,503
CUSHIONED SHIPPING CRATE
Clyde Maurice Moore, Richmond, Va., assignor to Moore Industries, Inc., Richmond, Va., a corporation of Virginia
Application September 19, 1951, Serial No. 247,236
5 Claims. (Cl. 217—63)



1. A demountable shipping crate comprising; separable panels defining the walls of said crate, means releasably joining adjacent edges of adjacent panels, an inflatable cushion fixed to the inner face of each of said panels, said cushions covering substantially the entire area of their respective panels and fixed thereto around their peripheral portions, and valve means in each panel accessible from the exterior of said crate and each communicating directly with the interior of the cushion on its respective panel to provide for inflation thereof after assembly of said crate.

2,774,504
CONTAINER FOR LIQUID COMMERCIAL PRODUCTS
George Arlington Moore, New York, N. Y.
Application April 28, 1955, Serial No. 504,468
20 Claims. (Cl. 220—4)

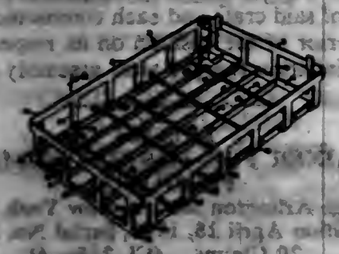


1. A square elongated heavy duty container of aluminum sheet of relatively heavy guage comprising an assembly of two pre-shaped structural components formed of said sheet that provide initially, six stably formed enclosure walls of said container consisting of four side walls arranged in opposing pairs and two opposed end walls, the bottom end walls being constructed two-ply in general and being provided with wall buttress portions bonded to surface portions of the upper wall layer thereof, two opposed side walls having marginal side flanges bent inwardly along their respective opposing vertical corner edges with bottom ends of said flanges disposed in abutment with the upper surface of said upper wall layer of the bottom end wall adjacent free corner edges thereof, the exterior surfaces of said flanges being in coplanar relationship with surfaces of said edges, two opposed alternate side walls being disposed in surface contact with the entire exterior surfaces of said marginal and corner edges, said alternate walls having marginal flanges bent inwardly over marginal surface portions of said pair of first mentioned side walls including a pair of lower transverse marginal flanges bent upwardly from two opposed corner edges of the exterior wall layer of said bottom end wall, the top end wall opposed to said bottom end wall being integral of the first mentioned two opposed side walls and being flatly disposed between two upwardly bent marginal flange portions thereof and provide two outwardly ex-

posed by-pass open ports of the top end wall co-operatively provided by outwardly spaced enclosure wall surface sides of upper wall portions of said alternate side walls including upper portions of said flanges thereof, said pair of by-pass open ports providing means of access into the interior of said container for bar apparatus used in bonding the constructed seams formed of the assembly of said two structural components, the surfaces of said seams being provided with pre-applied resinous adhesive, after which, said ports may be closed and sealed by bonding together engaged surfaces of bent wall portions that provides the open ports and that are disposed in parallel, each opposed pair of wall portions being bent in alternate direction to be in overlapped surface to surface relationship, engaged surfaces of which have pre-applied epoxy resin adhesive compound thereupon and upon being cured, effects the bonding thereof including other said constructed seams of the container.

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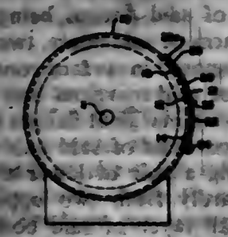
2,774,585
**WORK TRAY**
Harold N. Ipsen, Rockford, Ill.
Application July 1, 1953, Serial No. 365,997
3 Claims. (Cl. 220—4)



1. A work tray comprising a generally rectangular horizontal frame including two spaced parallel side bars, a plurality of arms mounted on each of said bars, each of said arms being disposed on the outside of the corresponding bar and having a generally L-shape with the horizontal leg projecting in through an opening in the bar and with the vertical leg spaced outwardly from and projecting up above the bar, an enlargement rigid with the end of said vertical leg inside said bar and larger than said opening to prevent the arm from shifting outwardly relative to the bar, a generally rectangular rail wider than and spaced above said frame and fastened to the upper ends of the vertical legs of said arms, and a plurality of bars disposed between said side bars parallel to the latter and rigidly connected to said frame whereby all of said bars cooperate to form the work supporting bottom of the tray.

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2,774,586
**DOOR CONSTRUCTIONS FOR LAUNDRY MACHINERY**
Hermann Miller, Detroit, Mich., assignor to Miller Laundry Company, Detroit, Mich.
Application May 3, 1956, Serial No. 582,420
6 Claims. (Cl. 220—24)



1. In a combination including a horizontal cylindrical shell having a front door opening where vertical edges are near the flat ends of the shell and whose horizontal edges are well above and well below the center axis of the shell to define a large low front opening, and including a front door construction for closing and exposing said opening, said door construction including an upper half hinged at its upper edge to the shell near but above the upper edge of the door opening and a lower half having its lower edge sometimes positioned near but below the lower edge of the door opening, with both halves hinged to each other near the center of the opening, the construction being such that the upper half can swing up on its upper edge as a pivot to expose the opening and at the same time and therewith the lower half can swing up on its upper edge as a pivot to overlie the upper half, and both halves can swing down together to form a continuous door to close the opening and including means for swinging the halves upwardly together or downwardly together to expose or close the opening, in such a combination sealing means for moving the halves after they are in position to close the opening towards the axis of the shell to seal the halves tightly against the shell for sealing the opening then closed by the door.

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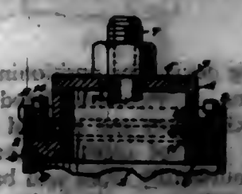
2,774,597
**SEALING DISC CLOSURE**
Charles Warren Hurley, Gaithersburg, Md., assignor to the United States of America as represented by the Secretary of the Army
Application December 10, 1954, Serial No. 474,629
13 Claims. (Cl. 220—37)



1. A closure for a container, comprising an inverted cup-shaped plug having an end wall and a screw threaded side wall, said end wall being formed with an upwardly directed non-circular recess, a resilient disc having a central portion formed with a depending non-circular hollow boss providing an upwardly directed non-circular recess, said boss being complementary to said recess of said end wall and being non-rotatably seated therein, said disc having an annular free edge portion disposed concentrically outwardly of said plug, a substantially rigid plug actuating member, said member having a non-circular boss below the same, said last-named boss being complementary to said recess of said disc and being fixedly seated therein, means securing said actuating means to said disc, and separate means securing said disc and plug together.

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2,774,598
**MOTOR HEAD JOINT**
John E. Larsen, Schenectady, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application December 10, 1954, Serial No. 474,628
10 Claims. (Cl. 220—46)



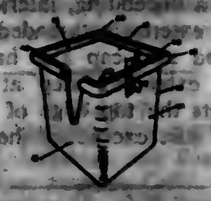
9. In a motor head seal a tube having a series of circumferentially spaced apertures in its wall near one end thereof, a tubular head member comprising a cap portion and an outwardly extending circular flange integral with said cap portion, said flange having a diameter substantially the same as the internal diameter of said tube, said



flange having a channel formed in the periphery of its cylindrical surface an O-ring adapted to fit within said channel and forming a sealing means between said flange and the inner wall of said motor tube, a shear ring having a plurality of circumferentially spaced threaded bores formed therein, a pair of semi-circular snap ring segments having circumferentially spaced openings formed therein, said segments provided with outwardly extending ears integral to the outer periphery of said snap ring segments, each said ears being disposed within a respective aperture in said tube, and cap screws passing through openings in said segments and threadedly engaged in the threaded holes in said shear ring to bear against the upper surface of said flange and maintain said head member against axial movement outwardly of said one end.

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2,774,509
**PROTECTIVE STRIP FOR CONTAINERS**
Carl W. Knobloch, Erie, Pa., assignor to Erie Art Metal Company, Inc., Erie, Pa., a corporation of Pennsylvania
Application November 9, 1953, Serial No. 390,933
2 Claims. (Cl. 220—73)

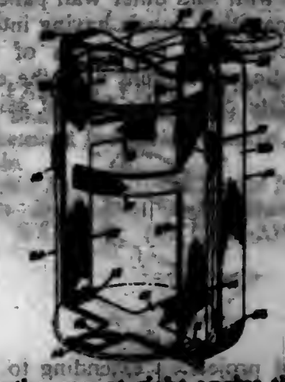


1. In combination, a buffer strip for a container and an open top container having upwardly directed walls comprising a continuous sheet of material bent back on itself to form a first and a second leg, the first leg being bent away from the second leg to form an extending portion, and the second leg bent to form a second extending portion generally parallel to and spaced from the first extending portion, said extending portions then bent toward each other and terminating in end portions in spaced relation to each other and to said parallel portions to form a groove therebetween, and resilient buffer means disposed in said groove, said buffer means comprising a buffer strip, a holding section, and an intermediate section between said buffer strip and said holding section, said holding section and said buffer section retaining said end portions in supporting relation thereto, said buffer portion, said holding portion, and said intermediate portion defining two grooves, said end portions being disposed in said grooves, said strip being formed to conform to the periphery of said container and attached to the inner periphery thereof, said first leg being attached to the inside of said container around the upper peripheral edge and the part bent out of said first leg being disposed above said upwardly extending sides and extending outwardly therefrom, the upper edge of said container and said buffer strip extending outwardly from the upper edge of said container and around the entire periphery of said container.

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2,774,510
**PAINT CAN HOLDER**
Arthur L. Lagen, Charlottesville, Va.
Application February 20, 1956, Serial No. 566,478
6 Claims. (Cl. 220—90)

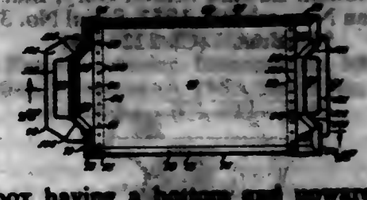
A combination paint can holder, brush wiper and brush holder comprising an elongated strip adapted to pass under the paint can, the ends of said strip being bent upwardly at right angles to the portion thereof below the paint can, and extending upwardly beyond the top of the can, one end of said strip being bent across the top of the can in freely spaced relationship thereto forming a brush wiper, first means for securing the ends of said brush wiper to the other end of said strip, said other end of said strip being bent outwardly away from said can and downwardly parallel to itself to form a handle having inner and outer portions freely spaced apart, second means for securing the end of said handle portion to the portion of said strip passing under the can, a base supporting strip secured to the portion of said first strip



passing under the can at right angles thereto, and a pair of side strips secured to the ends of said first strip on opposite sides of the can, said side strips being bent around the periphery of the can whereby to engage the same snugly, and a pair of laterally spaced upwardly extending ears secured to the upper end of said handle portion and adapted to receive therebetween the handle of the paint brush.

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2,774,511
**TOTE BOX**
Benjamin David Mandel and Sandra M. Scherr, Los Angeles, Calif.
Application January 11, 1956, Serial No. 493,366
1 Claim. (Cl. 220—97)



A tote box having a bottom and upwardly and outwardly extending opposed side walls and end walls, one of said walls comprising a first centrally located outwardly open channel-shaped portion of substantial width lying inwardly of the normal plane of said wall, the wall opposite said one wall comprising a centrally located inwardly open channel-shaped portion of substantial width lying outwardly of the normal plane of its wall, said channel-shaped portions extending the height of said walls and being open-ended at the top thereof, said outwardly open channel being also open-ended at the bottom thereof, whereby a plurality of said boxes may be nested one within the other with their corresponding elements superimposed or stacked one upon the other with an outwardly facing channel overlying an inwardly facing channel and interengaging means at the top and bottom portions of said opposed walls preventing relative lateral displacement between stacked boxes comprising tongue segments on the upper edges of said opposed walls, said tongue ends having upstanding portions engaging side portions of the channel of a similar box stacked thereon.

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2,774,512
**BOTTLE CARRIER**
Robert M. Dunning, St. Paul, Minn., assignor to Waldorf Paper Products Company, St. Paul, Minn., a corporation of Minnesota
Application September 22, 1951, Serial No. 247,878
2 Claims. (Cl. 220—115)

1. A bottle carrier including a pair of sections hingedly connected together, each section including an end

wall panel, an outer wall panel, a second end wall panel, and five partition walls all foldably connected in consecutive relation along generally parallel fold lines, said end wall panels and partition panels being of substantially one-third the width of the outer wall panels, the intermediate panel of said five partition panels being secured in surface contact with said outer wall panels, the outermost of said five partition panels having integral inwardly directed projections on the planes of the partition panels each extending to a point near the center line of the said intermediate panel, the first of said five panels



having an outward projection extending to a point near the center line of said intermediate panel, fold lines connecting the outermost partition panels and projections of one section with the corresponding parts of the other section, and a bottom member, said bottom member including a glue flap overlapping one of said outer wall panels and secured thereto, said glue flap having a notch in its free end, one of the second partition panels of said five having a projection on its lower edge intermediate its side edges forming a vertical extension thereof of similar shape to said notch.

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2,774,513

**SHAKER FOR A COMMODITY**

Solomon Edward Miller, Gary, Ind.

Application November 8, 1952, Serial No. 319,451

9 Claims. (Cl. 222—99)



1. A device of the kind described comprising a hollow outer member, a hollow non-collapsible inner container member mounted for movement in the outer member, said inner container member being provided with a passage to permit dispensing of a commodity therefrom, and an actuator carried by one of the members for actuating the inner container member.

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2,774,514

**COMBINATION SALT AND PEPPER SHAKER**

Donald Sheppard, Ottawa, Ontario, Canada, assignor of one-half to Wilfred Charron, Eastview, Ontario, Canada

Application January 25, 1954, Serial No. 406,040

2 Claims. (Cl. 222—142.9)



1. A combination salt and pepper shaker comprising a cylindrical container open at top and bottom with a horizontal platform spaced a short distance above the open bottom of said container, said container being exteriorly threaded about its open top, a hollow tube coaxial with said cylindrical container rising from said platform to the level of the top of said container and a pair of radial wings extending from diametrical opposite sides of said tube to the wall of the container dividing the section of said container above said platform into two companion compartments each with an open top and a closed bottom; a semi-circular shutter valve normally covering the open top of one compartment; a spindle stem secured to said valve and depending through said tube and extending below said platform; manually operable, spring retracted mechanism housed in said container below said platform engaging the lower end of said valve spindle stem for rotating it through 180 degrees; a closure plate threadedly attached to the open bottom of said cylindrical container and enclosing said mechanism; and a perforated shaker cap applied to the top of said cylindrical container to overlie and enclose said shutter valve in close fitting non-binding relation, said cap being readily removable for refilling the compartments without interference by the shutter valve or its operating mechanism, said perforated shaker cap having a depending, interiorly threaded skirt that screws on the exteriorly threaded top of said cylindrical container and said cap also having an interiorly disposed inwardly extending step at its junction with said skirt that abuts the top edge of the container, the depth of said step just exceeding the thickness of said shutter valve.

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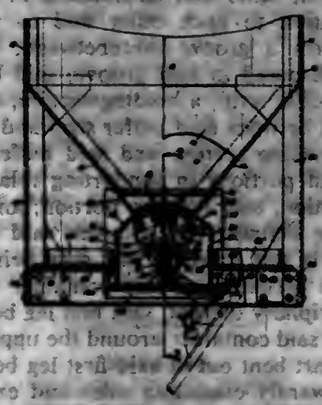
2,774,515

**TRANSPORTATION CONTAINERS FOR BULK MATERIALS**

Carl E. Johannesen and Albert S. Noble, Cleveland, Ohio, assignors to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio

Application July 20, 1953, Serial No. 368,978

6 Claims. (Cl. 222—185)



1. A container for bulk materials comprising a supporting base, a bottom discharge opening, a frame extending around and downwardly below said discharge opening, a shaft journalled in said frame, linkage secured to and operable by said shaft, a door hingedly mounted upon said frame below said discharge opening for closing said frame, said door swinging downwardly when being opened, means connecting said door to said linkage, a sleeve journalled in said container and mounted upon said shaft for rotation relative thereto about the axis of said shaft, and a rotary valve for closing said discharge opening, said valve being mounted to and rotatable with said sleeve, said valve rotating downwardly when being opened, said shaft and said sleeve being operable independently of each other to open and close said door and said valve.



2,774,516

**APPARATUS FOR WEIGHING AND PACKAGING POWDER OR GRANULAR MATERIAL**

Ejler Jensen, Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a corporation of New Jersey

Application December 13, 1946, Serial No. 682,967

6 Claims. (Cl. 222—195)



1. In apparatus for weighing and packaging pulverulent material, the combination of a supply bin for the material and having means for maintaining the material in a fluidized condition, an elongated distributing tube connected to the discharge outlet of the supply bin, a plurality of discharge means leading from the distributing tube at longitudinally spaced points, and a riser pipe extending upwardly from the tube at a point remote from the supply bin for equalizing the pressure head of fluidized material flowing to the discharge means.

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2,774,517

**FLUID DISPENSER DEVICE**

James E. Teagarden, Altadena, and Benjamin D. Mankin, Los Angeles, Calif.

Application September 19, 1952, Serial No. 310,096

7 Claims. (Cl. 222—385)



1. A fluid dispensing device comprising a cylinder, an internal projection means in the wall of the cylinder, a resilient piston operatively mounted in the cylinder, a resilient external projection means associated with the piston for limiting its stroke in the cylinder, the resiliency of the piston and the external projection means being adapted for snapping them past the internal projection means into the cylinder, a valve mounted in the wall of the cylinder for valving fluid therethru, a second valve for valving fluid out of the cylinder, and a spring means for urging the piston through a return stroke.

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2,774,518

**MOLDABLE CONE BELLOWS**

Norman Gerome, New York, N. Y.

Application June 8, 1953, Serial No. 359,124

16 Claims. (Cl. 222—386)



1. A vertically compressible bellows comprising a single body of material shaped to form a series of concentric steps converging upwardly, each step having a generally upright wall and a generally horizontal wall, said bellows having radial grooves ascending with the steps, and said grooves being deeper than the individual steps, said grooves narrowing to accommodate the reduction in peripheral length of the steps when the bellows is compressed, the lower end of each of said grooves terminating in an upright wall to yield outwardly when the bellows is compressed.

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2,774,519

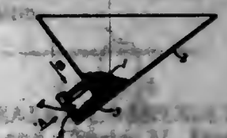
**TABLET FEED HOPPERS**

Leslie Aldred, Blackley, Manchester, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

Application July 31, 1952, Serial No. 301,864

Claims priority, application Great Britain August 3, 1951

6 Claims. (Cl. 222—319)



3. Tablet feed mechanism comprising a hopper having a base sloping relative to the horizontal, an outlet passage of limited depth leading from the lower end of said hopper, a brush movably mounted adjacent said outlet passage, the longitudinal extent of said brush being located in a plane which is at right angles to the plane of the base and extending transversely thereof, the bristles of said brush extending toward but terminating short of the plane of said base whereby said brush partially closes said outlet passage, and means for oscillating said brush in said plane in which the longitudinal extent of said brush is located.

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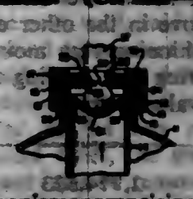
2,774,520

**VALVE MECHANISM**

Le Roy C. Lansley, Birmingham, Mich.

Application November 4, 1955, Serial No. 544,912

6 Claims. (Cl. 222—394)



1. A valve mechanism comprising a resilient housing having the least one thin stretchable wall under tension, with a ball valve in contact therewith, another wall of said housing having an opening therein which serves as a valve seat for said ball, said ball being normally held on said seat by the tension of said first named wall, and said first named wall of said housing having a plurality of apertures therein.

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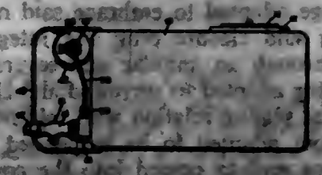
2,774,521

**BEVERAGE CONTAINER AND DISPENSER**

Delbert B. Creighton, Van Nuys, Calif.

Application March 4, 1955, Serial No. 492,138

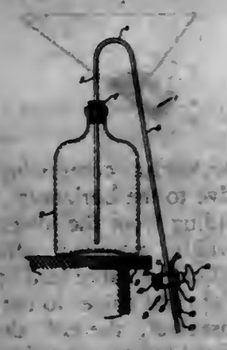
8 Claims. (Cl. 222—399)



1. A storage container and dispenser for draught beer, which comprises a generally rectangular corrosion resistant tank, the height of said tank being less than the conventional spacing between shelves of a household

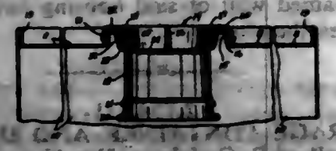
refrigerator, a fill plug in the upper wall of said tank, a fitting in the lower portion of one end wall of said tank, a spigot threaded into said fitting and including sealed valve means for drawing beverage from said tank, a U-shaped handle mounted on said tank and bridging over said one end wall, mounting means provided on said handle, a gas pressure cartridge mounted in said mounting means, a tube connecting said cartridge to said fitting, and passage means in said fitting to effect communication between said tube and the inside of said tank.

2,774,522
SIPHONS
Mark Cosulich, San Francisco, Calif.
Application December 5, 1955, Serial No. 550,941
1 Claim. (Cl. 222—416)



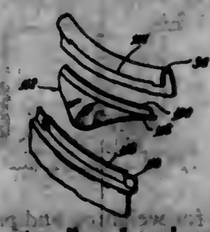
A siphon of the character described, comprising a tube bent to present a gooseneck and two legs projecting therefrom, one leg being longer than the other one and having a transverse bearing with a conical inner face formed integral therewith so as to communicate with the leg passage, a conical valve stem revolvable in the bearing and having a ground fit therewith and having a transverse passage adapted for lining up with the leg passage when the valve stem is firmly seated in the bearing, a handle at the larger end of the valve stem, the stem having an annular groove in the other end spaced from the bearing, and a cushioning ring mounted in said groove and normally clearing the bearing to allow of partial withdrawal of the valve stem.

2,774,523
PULL SPOUT CLOSURE FOR CONTAINERS
Glenn T. Rishe, Auburn, Ind., assignor to Rishe Metal Products Corporation, Auburn, Ind., a corporation
Application June 8, 1953, Serial No. 360,061
12 Claims. (Cl. 222—525)



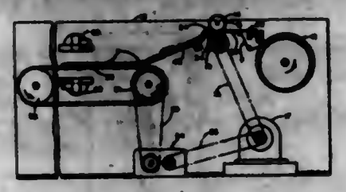
1. A pull spout closure unit for a container having an opening surrounded by an upstanding neck, comprising a closure member having a closure plug and an outer sealing flange adapted to embrace said neck, said flange surrounding said closure plug and integrally connected therewith through an annular and severable diaphragm, a retainer ring adapted to surround and clamp said flange in permanent sealing relation with said neck, and a tubular pull spout adapted to be suspended by said sealing flange at one end to extend into the container when in retracted position and slidable through said opening into sealing engagement with said sealing flange at its opposite end to project outwardly from said container in pouring position upon said diaphragm being severed.

2,774,524
COMBINATION OF COOKING UTENSIL AND SPOUT
Walter W. Krause and Fred C. Schwenker, Chicago, Ill., assignors to Dormeyer Corporation, Chicago, Ill., a corporation of Illinois
Application November 1, 1954, Serial No. 466,949
7 Claims. (Cl. 223—87)



1. In a cooking utensil, a housing member having an inset upper marginal edge, a cooking well having an outwardly and downwardly turned flange adapted to engage said marginal edge, and a spout member having an upwardly turned flange adapted to removably engage between said marginal edge and said downwardly turned flange to maintain said housing member and cooking well in mutually stable alignment.

2,774,525
PLEATING APPARATUS
William H. Angevine, Jr., Bristol, R. I., assignor to Cranston Print Works Company, Cranston, R. I., a corporation of Rhode Island
Application July 1, 1955, Serial No. 519,386
5 Claims. (Cl. 223—32)



1. A pleating machine for continuously pleating an extended web of sheet material in a direction transversely thereof comprising a frame, a pair of cylindrical driven rolls mounted on said frame and having a pressure nip for feeding a web of sheet material therethrough, at least one of the said rolls having a plurality of laterally spaced peripheral grooves therein, a plurality of flat spring strip members extending through said grooves between said rolls, the flat side of said members being generally parallel to the floors of said grooves, and web restraining means providing a longitudinally extended passageway of substantial thickness extending from adjacent the nip of said roll means for receiving and folding said web as it is fed from said roll means and confining said web in a direction generally perpendicular thereto continuously to provide adjacent, successive, irregular pleats therein.

2,774,526
GARMENT HANGER
Emily I. Reuter, Ashland, Ohio
Application September 7, 1954, Serial No. 454,494
4 Claims. (Cl. 223—89)



1. An adjustable clothes hanger comprising a pair of substantially U-shaped hanger elements each including a pair of legs interconnected by a web, the legs of one member slidably telescoping within the legs of the other, and a supporting hook assembly movably mounted on one of the legs for suspending the hanger, said supporting hook assembly including an elongated resilient flat strip having slots adjacent each end thereof of substantially the same cross-sectional shape as said one of said legs, said one of said legs being received in said slots and normally retaining said strip in a bowed position, and a supporting hook attached to said strip.



2,774,527
GARMENT HANGER COVER
Arden L. Iverson, Lincolnwood, Ill., assignor to Para-Lex Products Company, Chicago, Ill., a corporation of Illinois
Application November 12, 1953, Serial No. 391,436
2 Claims. (Cl. 223—98)



1. In a shielded garment hanger unit including a wire garment hanger of flexible lightweight construction provided with a suspending stunk having arms diverging downwardly therefrom interconnected at the lowermost ends thereof with a cross strut, the provision of a rigidity imparting protective cover fixedly applied in intimate and tight bracing relation to substantially the entire length of the arms and strut of said hanger, said cover having a body portion of substantially the same outline and outer dimensions of said hanger as defined by the arms and strut thereof, the lowermost margin of said body portion extending downwardly below said strut throughout at least substantially the longitudinal length thereof, a first zone of pressure sensitive adhesive extending substantially the full width of said body portion near the bottom margin thereof and being of sufficient width to overlie said strut above and below the same and further being in intimate contact with a side surface of said strut throughout at least substantially its entire length, a pair of wings integrally formed with converging margins and integral with said body portion and each being closely folded about an arm of said hanger in intimate bracing contact therewith and into face-to-face contact with said body portion, said wings being provided with vertically directed centrally located margins in overlapped relation, the lowermost margins of said wings substantially coinciding with the lowermost margin of said body portion, and a second zone of pressure sensitive adhesive on the innermost faces of said wings in adhering contact with said first zone to position said wings in fixed relation with said body portion and in tightly drawn intimate bracing contact with and between said strut and said arms.

2,774,528
FOLDING LADDER
Harris W. Crouse, Winchester, Mass.
Application March 15, 1954, Serial No. 416,869
6 Claims. (Cl. 228—37)

1. A folding ladder comprising: a pair of side uprights; a bar mounted on each of said uprights and slidably in the longitudinal direction thereof; a plurality of rungs connecting said uprights and journalled thereon for rotation from a position perpendicular thereto to a position nearly parallel thereto; and means on said bars for locking said rungs in said perpendicular position, said locking means comprising a series of pairs of blocks, mounted on said bars, each pair engaging an end of a rung and limiting the rotation of the rung with respect to the bar, and lock members adapted to fix said bars to their respective uprights when said rungs are in said perpendicular position.



2,774,529
STAPLE SEALED CORRUGATED BOX
Walter J. Abrams and Charles H. Jennings, Cincinnati, Ohio, assignors to Fashion Frocks, Inc., Cincinnati, Ohio, a corporation of Ohio
Application May 15, 1953, Serial No. 355,234
3 Claims. (Cl. 229—33)

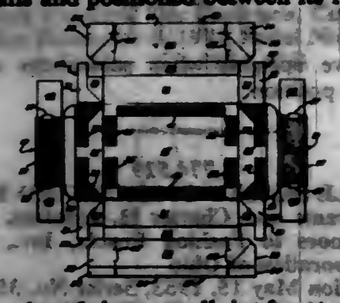


1. A box made of corrugated paper comprising a bottom wall, a lid, a rear wall interconnecting said bottom wall and said lid, a pair of end walls joined to said bottom wall at the ends thereof, a front wall joined to said bottom wall opposite the rear wall, said front wall and said bottom wall being joined by a score line formed on said corrugated paper, said front wall being incised along a line extending longitudinally thereof, said incision extending from the interior of the box outwardly partially through said corrugated sheet, the portion of said front wall on the side of said incision remote from said bottom wall being overfolded along said incision at right angles to the front wall and constituting a flap extension, said lid including a lip extending forwardly of the front portion of the lid, said lip being disposed to overlie said flap extension when the lid is in the closed position, means securing the end walls to the front wall, said lid being provided with lid flaps adjacent to the ends thereof, said lid flaps being disposed interiorly of said end walls when the lid is closed, said front wall inclining outwardly at the upper edge thereof due to the resiliency of said corrugated paper, whereby said flap extension protrudes beyond said lip when the lid is in the closed position, the incision in said front wall providing a line of weakening along which said box can readily be opened by cutting said flap from said front wall.

2,774,530
CELL WALL CARTON
Hubert V. Bolding, Clarksville, and Ernest G. Gowens, Jeffersonville, Ind., assignors to The Bradley & Gilbert Company, Louisville, Ky., a corporation of Kentucky
Application February 27, 1956, Serial No. 568,815
8 Claims. (Cl. 229—34)

1. A tray-type double-wall box structure which in erected condition comprises a rectangular bottom, side and end wall forming panels extending from the side

edges and end edges respectively of said bottom and forming spaced double walls, each of said side and end wall forming panels being delineated by hinge lines to define an outer wall, a bridging panel, and an inner wall spaced from said outer wall, the inner walls of the end wall forming panels being end inner walls, the inner walls of the side wall forming panels being side inner walls, means for maintaining the bottom hinge lines of said side inner walls in fixed relation to said bottom, bellows fold means interconnecting the adjacent vertical edge portions of said outer walls to facilitate erection and collapse of said carton, brace means including inner end braces each of which being hinged to its respective vertical edge of said side inner walls and positioned between its respective end



outer wall and end inner wall in face-to-face bracing engagement with an adjacent predetermined portion of its respective end inner wall, said brace means including means for fixedly positioning the bottom hinge edges of said inner end braces adjacent said bottom and parallel to the end edges of said bottom on lines substantially directly under the inner horizontal hinge line of their respective end bridging panels, each of said inner end braces having a fold line extending diagonally upwardly from its outermost bottom corner portion to facilitate collapse and erection of said end braces, and means on said end inner walls operatively engaging said brace means to hold the erected carton in braced and interlocked erected condition.

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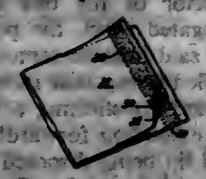
2,774,531

**DISPOSABLE WASTE RECEPTACLE**

Daniel Rosenthal, Brooklyn, N. Y.

Application March 19, 1954, Serial No. 417,350

1 Claim. (Cl. 229—53)



A receptacle for waste and the like which comprises a folding paper bag closed at one end and open at the other end, the open end of the bag being provided with a plurality of substantially parallel cuts extending a substantial distance toward the closed end of the bag, the inboard ends of the cut lines being interconnected by fold lines extending transversely across the bag, one of the end portions of the bag between said cuts being provided with a deposit of a pressure-sensitive material protected by a superimposed but readily removable strip of sheet material.

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2,774,532

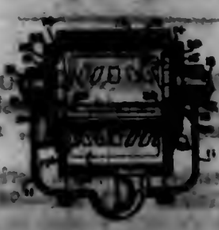
**VACUUM PUMP**

Edward J. Beach, Brooklyn, N. Y., assignor to Beach-Russ Company, Brooklyn, N. Y., a corporation of New York

Substitute for abandoned application Serial No. 574,459, January 25, 1945. This application March 5, 1953, Serial No. 340,444

4 Claims. (Cl. 230—153)

1. In a vacuum pump, an elliptically cam-bored cylinder, cylinder heads mounted on the ends of said cylinder and provided with bearings for the shaft of the pump and also having cylindrical recesses coaxial with said bearings and having flat loop walls, inlet ports upon said base walls of said cylindrical recesses, a rotor of smaller diameter than said cylinder mounted eccentrically therein and provided with a shaft supported in said bearings, a slide valve mounted in a slot in said rotor and extending therefrom into contact with said cylinder, said slide valve having inlet ports in its edges for aligning with



said inlet ports, rotor end plates mounted on the ends of said rotor and engaging into said cylindrical recesses and having inlet ports aligned with the inlet ports of said slide valve in certain positions of said valve, flat and thin cut-off plates mounted on said rotor end plates and having inlet ports aligned with the inlet ports of said rotor end plates, and light resilient means for urging said flat cut-off plates against the base walls of said cylindrical recesses, and outlet means in said cylinder.

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2,774,533

**COIN COLLECTING DEVICE**

Max L. Gaunt, Providence, R. I.

Application February 6, 1951, Serial No. 209,615

2 Claims. (Cl. 232—44)



1. A transversely elongate coin receiving device for a box designed to receive multiple-coin fares, said device having a base and an upper surface having therein a hopper-like depression with front, rear and side walls, the front wall being substantially plain and sloping downwardly and rearwardly at an angle of approximately 60° to the horizontal, that surface of the rear wall which is opposed to the front wall being curved convexly toward said plain front wall, the upper portion of the convexly curved rear wall having a slope angle which is substantially less than the slope angle of the front wall, the terminal portion of said convexly curved rear wall having a downward and rearward slope approximating the slope of the flat front wall, the side walls converging downwardly toward each other, and the several walls terminating at their lower portions at an elongate exit slot of narrow front-to-rear width.

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2,774,534

**ELECTRICAL COUNTING AND LIKE DEVICES**

Roland Harris Dunn, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application July 16, 1952, Serial No. 298,843

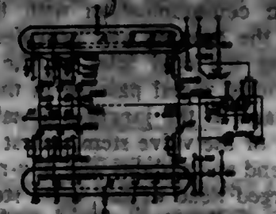
Claims priority, application Great Britain July 17, 1951

7 Claims. (Cl. 235—92)

1. A divider comprising two electrical counting chains, each containing a succession of counting elements, interconnections between predetermined pairs of said elements the particular pairs being used for a particular desired divisor, each pair consisting of one counting element from each of said chains, an output circuit connected with all of said interconnections, means forming part of said interconnections for producing an impulse in said output



circuit when both elements of a pair are operated, an input circuit connected to one of said counting chains, said one counting chain being adapted to step when an input



impulse is received by said input circuit, and means for causing the other of said counting chains to step when an impulse is produced in said output circuit.

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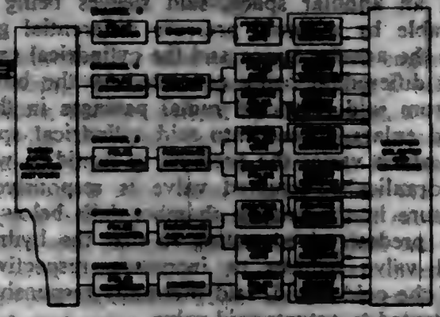
**VARIABLE AMPLITUDE SIGNAL ANALYZER**

Lloyd D. Anderson, Takoma Park, Md.

Application April 21, 1951, Serial No. 221,481

11 Claims. (Cl. 235—92)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a stress cycle counter the improvement comprising a plurality of channels in parallel connection, at least one of said channels including a positive memory tube and a negative memory tube, means comprising an input voltage having an instantaneous value representative of the instantaneous magnitude of stress on an object being metered to cause conduction of said positive memory tube when the voltage increases through a predetermined datum level, means connecting said input voltage to cause conduction of said negative memory tube when said voltage decreases through a predetermined datum level, a positive memory element actuated when said positive memory tube conducts, and a negative memory element actuated when said negative memory tube conducts, first switching means interconnecting the positive memory tube present in each channel except the channel with the positive memory tube of the channel corresponding to the next higher datum level, second switching means interconnecting the negative memory tube present in each channel except the highest with the negative memory tube of the channel corresponding to the next lower datum level, said first switching means arranged so that as said voltage increases through successively higher datum levels conduction of all positive memory tubes except the one at the highest datum level reached is cut off, said second switching means arranged so that as said voltage decreases through successively lower datum levels conduction of all negative memory tubes except the one at the lowest datum level reached is cut off.

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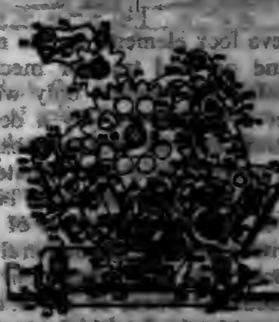
**CALCULATING MACHINE**

Harold J. Cleall, Clara's Valley, Calif., assignor to Friden Calculating Machine Co., Inc., a corporation of California

Application June 23, 1950, Serial No. 169,675

9 Claims. (Cl. 235—134)

1. A calculating machine accumulator comprising a base, a pair of side plates disposed perpendicular to said base and in parallel relationship to each other, separator plates uniformly spaced apart between said side plates in spaced apart relationship to the latter, means rigidly securing said side plates and separator plates to said base, a pair of sleeves extending through said separator plates adjacent said base and in spaced apart and parallel relationship to each other, bail shafts extending one through each of said sleeves and through said side plates, an accumulator gear shaft extending through said side and separator plates in spaced and parallel relationship to said sleeves, accumulator gears mounted on said accumulator gear shaft and disposed one in each ordinal space between said plates, a tens-transfer cam on each accumulator gear, a drive gear shaft extending through said plates in spaced and parallel relationship to said accumulator gear shaft, drive gears mounted on said drive gear shaft, one in each ordinal space between adjacent plates and meshing with the coordinal accumulator gears, positive tens-transfer levers mounted on one of said sleeves one in each ordinal space between adjacent plates and spring-urged in a direction to impart tens-transfer movements to the coordinal accumulator gears, negative tens-transfer levers mounted on the other of said sleeves one in each ordinal space between adjacent plates and spring-urged in a direction to impart



tens-transfer movements to the coordinal accumulator gears, latch lever shafts extending through said plates at respectively opposite sides of said accumulator gear shaft and in spaced and parallel relationship to the latter, positive latch levers mounted on one of said latch lever shafts one in each ordinal space between adjacent plates and spring-urged to position to engage the corresponding positive tens-transfer levers and individually latch the tens-transfer levers in inoperative position, negative latch levers mounted on the other of said latch lever shafts one in each ordinal space between adjacent plates and spring-urged to position to latch the corresponding negative tens-transfer levers in inoperative position, each latch lever engaging a tens-transfer lever of the next higher order and said latch levers being moved to release the tens-transfer levers by the tens-transfer cams on the coordinal accumulator gears when the accumulator gears are turned through ten unit spaces from their "0" positions, a bail mounted on each of said bail shafts and respectively effective to restore said positive and negative tens-transfer levers from their gear engaging to their latched positions, and a power driven cam connected to said bails to operate said bails in a predetermined manner during each operating cycle of the associated calculating machine.

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2,774,537

**TOTALIZING MECHANISM**

Alva C. Russell, Stamford, and William F. Barnett, New Canaan, Conn., assignors to Pitney-Bowes, Inc., Stamford, Conn., a corporation of Delaware

Application January 12, 1953, Serial No. 331,326

9 Claims. (Cl. 235—139)

1. A register mechanism having a plurality of numeral wheels each having transfer gear teeth associated therewith, each numeral wheel having a main driving gear

and a transfer driving gear and differential gearing between said driving gears and the numeral wheel whereby the latter may be driven by either of said driving gears while the other is being held against turning at a predetermined rate or by both said main driving gear and transfer driving gear rotating simultaneously at twice said predetermined rate; and transfer mechanism between a numeral wheel of lower order and a numeral wheel of next higher order to transfer to the latter a full increment of movement and including means to lock the transfer driving gear of the numeral wheel of higher order against turning in both the "9" position and the "0" position thereof, said locking means including co-



operating Geneva lock elements on the numeral wheel of lower order and on said transfer mechanism movable relatively to unlocking position only when the numeral wheel of lower order moves idly a determinate extent past "9" position and to locking position when said numeral wheel moves idly a determinate extent before it reaches its "0" position, the gear ratio between the transfer gear teeth of the numeral wheel of lower order and the transfer driving gear of the numeral wheel of higher order being such as to compensate for said idle movements of the numeral wheel of lower order and to impart to the numeral wheel of higher order a full increment of movement.

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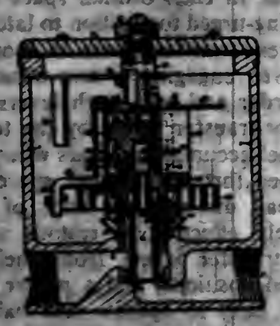
## APPARATUS FOR MIXING LIQUIDS OF DIFFERENT TEMPERATURES

William John a'Beckett, Mona Vale, New South Wales, Australia

Application September 9, 1955, Serial No. 533,455

Claims priority, application Australia September 10, 1954

7 Claims. (Cl. 236—12)



1. An apparatus for mixing liquids of different temperatures to provide a constant temperature effluent, said apparatus comprising a housing incorporating a mixing chamber and having inlet ports for liquids of different temperatures and an outlet port for the mixed effluent, a hydraulically actuated valve means adapted to vary the input of the cold liquid, a thermally responsive means disposed in said mixing chamber, said hydraulically actuated valve means comprising a stationary valve stem having an enlarged head and a shank with a shouldered portion, restricted radial passages in the shouldered portion of the shank, the shank being provided with internal passageways communicating with hot and cold liquid outlet ports disposed in spaced relationship longitudinally in the wall of the shank, said shank being rigidly affixed in the housing so that the passageways of the shank are respectively in communication with the hot and cold inlet ports of the housing and provided with a passageway connecting the cold inlet of the housing with at least one restricted radial passage in the shouldered portion of the shank at the junction of said shank with the enlarged head of the valve stem, a first cylindrical sleeve closed at one end and slidably and non-rotatably disposed over the enlarged head of the valve stem, and a second cylindrical sleeve slidably and non-rotatably disposed on said shank of said valve stem one end of which abuts with and is secured in liquid tight manner to the open end of said first cylindrical sleeve, said second sleeve being adapted to vary the opening of the outlet ports in the wall of the shank and also adapted to permit the flow of liquid from the outlet ports into the mixing chamber, the free end of said enlarged head and the closed end of the first sleeve defining a cylindrical space, the shank end of the enlarged head of the valve stem and that end of the second sleeve which abuts with the first sleeve defining an annular space, said sleeves being slidably displaceable by a liquid pressure differential generated between the annular space and the cylindrical space, said pressure differential being generated by the bleeding of liquid from said restricted radial passages in the shank past said enlarged head into said cylindrical space, and a valve which varies the pressure of liquid to which the said hydraulically actuated valve is responsive as the temperature in the mixing chamber falls below or rises above a predetermined setting so that the hydraulically actuated valve reduces or increases, respectively, the input of the cold liquid, said thermally responsive means being adapted to actuate said valve.

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2,774,539

## THERMOSTATIC OVER-TEMPERATURE PILOT SHUT OFF

Samuel G. Eddie, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application July 28, 1954, Serial No. 444,548

2 Claims. (Cl. 236—31)



1. In an over temperature pilot gas shut off valve, a valve body having an inlet for gas leading thereinto, an outlet for pilot gas leading therefrom and a spaced outlet for main burner gas also leading therefrom, a valve controlling the flow of gas into said valve body through said inlet, spring means biasing said valve to a closed position and a thermal electrically energized electromagnet holding said valve open, a valve within said body controlling the flow of gas through said burner outlet, spring means biasing said valve in an open position, a thermostatic element on the end of said valve body having operative connection with said valve, for closing the same when the temperature sensed reaches the temperature for which the thermostatic element is set, a pilot gas valve in said valve body and having a thermostatic element extending outside of said valve body for contact with the tank of a hot water heater, and a passageway from said inlet through said pilot gas valve and from said pilot gas valve through said pilot gas outlet and including a valve seat, said thermostatic element for said pilot gas valve comprising a resilient disk, and said pilot gas valve being mounted on said disk for resilient engagement with the end said valve seat and resiliently permitting overtravel thereof.

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2,774,540

## AUTOMOBILE THERMOSTAT

Edwin W. Parlance, Highland Park, Ill., assignor to Flexonics Corporation, a corporation of Illinois

Application February 2, 1951, Serial No. 209,853

10 Claims. (Cl. 236—34)



1. A thermostat for internal combustion engines comprising a casing having an opening defining a valve seat, a thermostatic bellows carried by the casing, a valve cooperable with said seat, said valve being mounted for bodily generally axial movement when it is adjacent its closed position, a valve stem connected to the bellows and having a terminal end portion disposed substantially at said valve seat, the valve and said terminal end portion of said valve stem being pivotally interconnected for relative pivotal movement about an axis extending transversely of said valve stem, and means for tilting said valve about said axis after said valve has begun an opening movement.

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2,774,541

## THERMOSTATICALLY OPERATED SHUT-OFF VALVE

Samuel G. Eddie, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application August 23, 1954, Serial No. 451,142

3 Claims. (Cl. 236—48)



1. In a thermostatically operated shut-off valve of the class described, a valve body having a power member guided therein for movement therealong for operating a device to be operated, a cylinder extending within said valve body and forming a guide for said power member, a casing forming an outward continuation of said cylinder and containing a fusible thermal responsive material in association with said cylinder, for extending said power member from said cylinder upon predetermined temperature rise, a valve chamber within said valve body, an inlet into said valve body and chamber and an outlet therefrom, a valve seat separating said inlet from said outlet, a rectilinearly movable valve cooperable with said seat, a snap acting disk supported adjacent its periphery within said valve chamber and carrying said valve, an operating member for said disk having fulcrum points engaging said disk inwardly of its support, a rectilinear guide for said operating member, and a right angled drive from said power member to said operating member comprising a ball having engagement with said operating member, and a cam operated by said power member and movable at right angles to the axis of movement of said operating member and valve, said cam having an inclined cam surface engageable with said ball to move the same to effect movement of said snap acting disk past its dead center position, to move said valve into engagement with said seat with a snap action upon the extension of said power member from said cylinder effected by said predetermined temperature rise.



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2,774,542

## RAIL SPLICE

William T. Anthony, Bethlehem, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania

Application February 19, 1953, Serial No. 337,356

5 Claims. (Cl. 238—261)



1. In a rail-splice for connecting adjacent rail ends, comprising a pair of splice bars disposed on opposite sides of the rails and adapted to fit between the head and base flanges of the rail, each splice bar having continuous and uniform contact with the underside of the rail head and the topside of the rail flange, one of said splice bars being formed with a plurality of pins extending through holes therein and welded thereto each having adjacent to its outer end vertically aligned grooves, and the other splice bar adapted for longitudinal adjustment and formed with a plurality of keyhole-slots, a forged depression and inclined outer lips formed adjacent to each keyhole slot, said inclined outer lips engaging the vertically aligned grooves in the pins when the splice bar is longitudinally adjusted for frictional engagement, and causing the splice bar to retain full contact with the rail head and flange.

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2,774,543

## PLURAL ROTOR IMPACT GRINDING MILL WITH COOLING MEANS

Bernhard Keller, Zurich, Switzerland, and Eugene John Mayer de Barencze, Toronto, Ontario, Canada

Application February 18, 1953, Serial No. 336,167

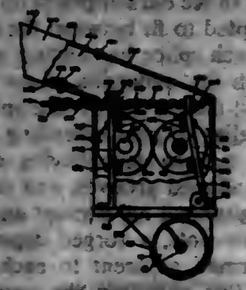
6 Claims. (Cl. 241—65)



11. In a grinding mill having a rotor with a horizontal axis of rotation, blades radially extending from said rotor, and means for driving said rotor; a housing surrounding said rotor and providing a chamber therefor, said housing including an arcuate screen positioned below said rotor defining the bottom of said chamber, an inner arcuate wall above said rotor defining the top of said chamber, an outer arcuate wall above said rotor spaced from said inner wall and provided with a plurality of circumferentially spaced apertures, a plurality of radial partitions connecting said inner and outer walls and dividing the space between said walls into a plurality of arcuate channels in communication with said circumfer-

entially spaced apertures, respectively, said housing being provided with an axially extending central opening, said driving means extending through said central opening with clearance therebetween, a shell surrounding said driving means and connected with said outer wall of said housing about said central opening, said shell being provided with a peripheral opening adjacent said housing and in communication with said central opening and with an exhaust opening remote from said housing, means adjacent said shell and connected with said driving means for facilitating air circulation through said shell, and further means adjacent said rotor housing and connected to said driving means for directing air circulation through said housing, whereby upon actuation of said driving means and said rotor air is automatically sucked into and through said peripheral opening, a part of said air passing through said central opening into said annular channels and out said radial apertures to cool said chamber, another part of said air passing out said shell exhaust opening remote from said housing to cool said driving means.

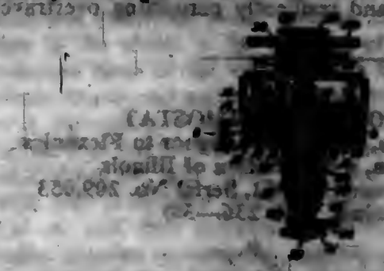
2,774,544
CORN CRACKING APPARATUS WITH A YIELDINGLY MOUNTED ROLL FOR THE PASSAGE OF FOREIGN OBJECTS
Arthur W. Rasmussen and George A. Rasmussen, Tekamah, Nebr.
Application August 21, 1953, Serial No. 375,635
3 Claims. (Cl. 241—232)



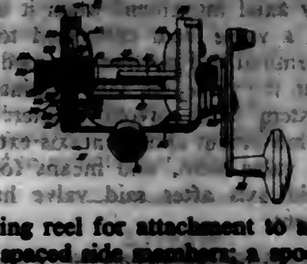
2. In a grain cracker, the combination which comprises an elongated housing having a base frame in the lower part, spaced vertically disposed parallel stationary bars having openings in the upper ends mounted on said base frame and positioned in one side of the housing, spaced vertically disposed floating bars also having openings in the upper ends pivotally mounted on the base frame and positioned with the openings thereof aligned with the openings of the stationary bars, a pair of cracking rolls positioned in the housing, means for rotatably mounting one of said rolls on the stationary bars, means for rotatably mounting the other of said rolls on the floating bars, rods freely mounted in the openings in the upper ends of the stationary bars and extended laterally therefrom, the ends of the rods at one side of the stationary bars extending freely through the openings in the upper ends of the floating bars, springs on the portions of the rods positioned between the stationary and floating bars, springs on ends of the rods extending from the sides of the stationary bars opposite to the sides on which the floating bars are positioned, the springs on the extending ends of the rods having greater tension than the springs between the bars, nuts threaded on the ends of the rods for adjusting the tension of the springs, and an elongated hopper positioned below the rolls for receiving the cracked grain.

2,774,545
FISHING REEL
Roy L. Chambers, Washington, D. C.
Application October 6, 1955, Serial No. 538,824
7 Claims. (Cl. 242—84.4)

1. A fishing reel comprising a conventional support arm adapted for mounting on the butt end of a fishing rod, a gear frame, a speed-up gearing in said frame, a reciprocable crankshaft connected to said gearing for providing a drive in reverse direction and having a crank and handle fixed to its free end and a spool mounted on its front end for direct driving by means of the crank handle, a low-pitch thread means on said shaft for reciprocating it the width of said spool, and a rotor bracket having a line guide fixed thereto at the rim of said spool, said rotor being driven by said reverse drive, whereby said line guide will have a relative winding speed with respect to said spool equivalent to a gear ratio of one more than that of the speed-up gearing.



2,774,546
FISHING REEL
John Bolle, Pompano Beach, Fla.
Application March 31, 1953, Serial No. 346,948
9 Claims. (Cl. 242—84.6)

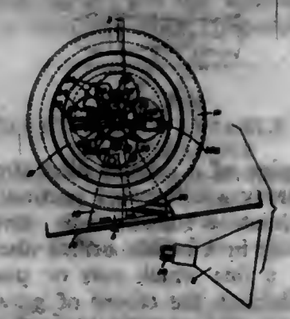


1. In a fishing reel for attachment to a casting rod, a frame having spaced side members; a spool for a fishing line rotatively supported between the side members with capacity for free endwise play in either direction, said spool having trunnions respectively at opposite ends thereof; and rotation-restraining means including a disk of friction material affixed to one end of the spool, and a screw bushing to serve as a non-rotative braking element in which the trunnion on the last mentioned end of the spool is journaled, adjustable in the corresponding side member of the frame with its inner end confronting the friction disk on the reel whereby, with the axis of the spool positioned vertically and the friction disk contacting the non-rotative braking element, the spool is restrained to overcome the jerk caused by the whip effect of the rod in casting the line, whereby upon wrist movement of the rod through a partial turn to bring the reel into horizontal position, the retarding restraint upon the reel is gradually minimized and the reel eventually released for free rotation to permit free unwinding of the line, and whereby upon wrist movement of the rod in the opposite direction after the force of the cast is substantially expended, the spool is shifted axially by gravity and the friction disk thereon is again brought into contact with the non-rotative braking element and is thus retarded to prevent overrunning of the line.

2,774,547
REEL
Cecil Hugh Latimer-Needham, Broadstone, and Ronald F. Worlidge, Lower Parkstone, England, assignors to Flight Refuelling Limited, London, England, a British company
Application April 1, 1952, Serial No. 279,775
Claims priority, application Great Britain April 3, 1951
3 Claims. (Cl. 242—86)

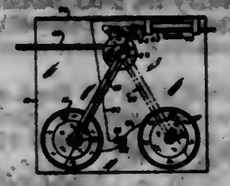
3. For use in reeling the unwinding of a reel, such as a reel upon which a trailing connection between two aircraft is wound, the sub-combination which comprises a frame secured upon one of the aircraft, the reel, a shaft rotatably carried by said frame and upon which the reel is fixed, a pinion fixed upon said shaft, a crank element pivotally mounted on said frame, a train of two-stage speed-reduction gearing carried by said frame and operatively connected with said pinion and said crank to transmit movement from said pinion to said crank element, at least one extensible and contractable liquid spring member having one end fixed to said frame and the other end





operatively connected with said crank element, the resistance of said liquid spring member being provided by elastic volumetric compression of a liquid between its fixed and movable ends, a motor carried by said frame, gear means operatively connected between said motor and said reel to transmit motion at reduced speed from the motor to the reel in the direction for winding in said extensible connecting member, and controllable means for disconnecting said motor from the reel to enable said extensible member to be payed out freely.

2,774,548
WIRE PAYOFF APPARATUS
Estyle D. Hanson, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application February 6, 1953, Serial No. 335,124
3 Claims. (Cl. 242—128)



3. In apparatus for paying off wire from reels wherein a pair of reels are spaced from one another and are connected by a section of wire that extends therebetween, the improvement which comprises an arm mounted pivotally above the reels and having means for guiding the wire being payed off from one of the reels, power-driven means for shifting the arm from a position over one reel to a position over the other reel, means for controlling the power-driven means, and switch means located between the reels for actuating the control means and responsive to movement of the section of wire extending between the reels at the movement a reel being unwound becomes exhausted

2,774,549
BOBBIN HOLDER
Robert Rulon-Miller and Werner H. Taber, Bristol, R. I., assignors to Dixon Corporation, a corporation of Rhode Island
Application June 3, 1954, Serial No. 434,142
8 Claims. (Cl. 242—130)

1. A bobbin holder comprising a tubular body having slots therethrough, resilient arms outwardly of the body connected to said body and located in registry with said slots and movable therethrough upon flexing, and abutments carried by said body and rotatable relative thereto



into and out of registry with said slots to selectively block or permit the moving of said arms through said slots.

2,774,550
STRAND TENSION DEVICE
Alphonse F. Pieper, Brighton, N. Y.
Application August 15, 1955, Serial No. 528,214
4 Claims. (Cl. 242—156)



1. In a strand tensioning means, a support including a pair of spaced parallel cylindrical openings and a pair of cylindrical arms of refractory material removably positioned in said openings, said support having another opening located between and transversely of and partially intersecting the first mentioned openings, a tapered nylon pin removably positioned in said other opening engaging the peripheries of said arms, and a threaded plug in said other opening engaging the nylon pin and acting to force the pin against said arms.

2,774,551
STRAND TENSIONING MECHANISM
Alphonse F. Pieper, Brighton, N. Y.
Application August 15, 1955, Serial No. 528,213
3 Claims. (Cl. 242—156)



1. In a strand tensioning mechanism including a frame, spaced ears on the frame, a metal plate having a supporting portion along one edge and bearing portions, a plate extending through said bearing portions, and pivotally mounted at its ends in said ears, a comb member of refractory material fastened to said supporting portion, a fastening screw extending through said comb member and supporting portion, and a stop located on the frame under the opposite edge of the plate, the improvement which consists in a spiral spring under compression having one end engaging said frame and a reduced spiral portion at its opposite end threaded on said fastening screw and acting to hold the plate against said stop.

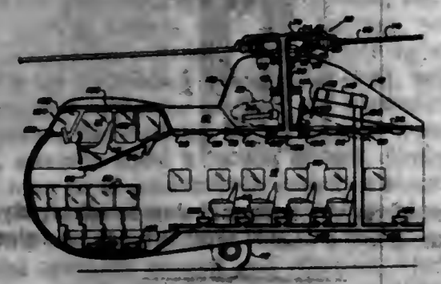
2,774,552

**HELICOPTER AIR CIRCULATING SYSTEM**

Nicholas C. Glad, Stratford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 25, 1955, Serial No. 503,604

12 Claims. (Cl. 244—17.11)



1. In an air circulating system for a helicopter type aircraft in combination, a fuselage having a cabin, a suction duct extending along said fuselage in communication with said cabin, a hollow mast having its lower end connected with said suction duct, and means for creating a suction to withdraw air from said cabin through said duct and said hollow mast including a rotatable blade having a spanwise duct communicating with said mast at its inboard end and communicating with a blade orifice outboard from said mast.

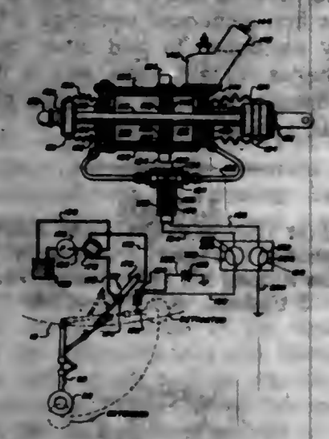
2,774,553

**DAMPER BY-PASS FOR LAG-LEAD CONTROL OF HELICOPTER ROTOR BLADES**

Harry T. Jensen, Milford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 4, 1955, Serial No. 498,819

11 Claims. (Cl. 244—17.17)



2. In a helicopter having a body, a landing gear, a sustaining rotor comprising a shaft, a rotor hub mounted on said shaft, a rotor blade connected to said hub by a hinge permitting blade movement in the plane of rotation relative to said hub, damping means interconnecting said blade and said hub for controlling said movement about said hinge, and means operated by said landing gear for controlling said damping means.

10. A rotary wing aircraft having a fuselage, said fuselage having a pilot compartment, a rotor hub, a blade pivoted on said hub for lag-lead movements, a damper controlling the lag-lead movements of said blade, pilot operable means in said compartment, and means interconnecting said pilot operable means with said damper for varying the damping effect of said damper during flight.

2,774,554

**JET FLOW CONTROL FOR JET-SUSTAINED AND JET-PROPELLED AIRCRAFT**

Peter Frederick Ashwood, Farnham, and George William Crouse, Aldershot, England, assignors to Power Jets (Research and Development) Limited, London, England, a British company

Application May 25, 1953, Serial No. 357,116

Claims priority, application Great Britain May 30, 1952

5 Claims. (Cl. 244—23)



1. In the jet pipe of a jet-propelled aircraft, a nozzle unit including firstly a bifurcated portion having a forwardly facing inlet, a downwardly turned discharge branch terminating in a nozzle orifice discharging to atmosphere along a line which cuts or passes near to a transverse line through the center of gravity of the aircraft, and a rearwardly extending branch terminating in a rearwardly discharging jet nozzle orifice, in combination secondly with deflecting means movable in said bifurcated portion from a position blocking up the said downwardly turned discharge branch while leaving the rearwardly extending branch open, to a position blocking up the rearwardly extending branch and deflecting the jet into the downwardly turned branch, said deflecting means including at least one element which, when the means are in the position for deflecting the jet downwards, provides guiding surfaces lying substantially along the desired path of the deflected jet.

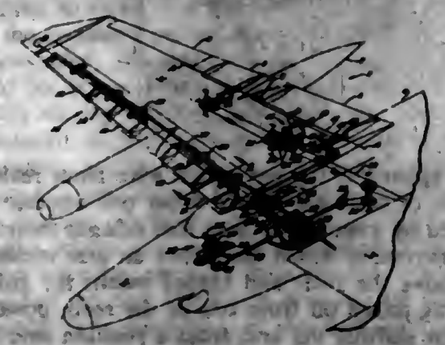
2,774,555

**LEADING EDGE FLAP AND CONTROL SYSTEM**

James E. Crawford and Eugene V. Browne, Los Angeles, John E. Glenn, Hawthorne, and John D. Pigford, Inglewood, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application February 19, 1953, Serial No. 337,723

2 Claims. (Cl. 244—42)



1. In an airplane having a laterally extending wing: a first flap assembly mounted on the trailing edge of said wing for angular movement through an operating range between retracted and full down positions with respect to said wing; a predetermined portion of said operating range adjacent said retracted position constituting an initial range and the remainder of said operating range constituting a final range of said first flap assembly; a second flap assembly mounted on the leading edge of said wing for angular movement between retracted and full down positions with respect to said wing; a first and a second set of actuators pivotally attached to and extending between said wing and said first and second flap assemblies, respectively, and adapted to move said respective flap assemblies between said retracted and full down positions thereof when actuated; power means mounted in said airplane for actuating said second set of actuators;



a control unit pivotally mounted on said plane; control means operationally connecting said control unit and said first set of actuators whereby said first flap assembly may be moved throughout said operational range in response to movements of said control unit; a follow up mechanism, including a movable element adapted to control the flow of power to said power means, operationally extending between said first flap assembly and said second power means whereby said second flap assembly is caused to assume said retracted position or said full down position at such times as said first flap assembly is positioned in said initial or said final range, respectively.

2,774,556

**AIRCRAFT WITH VARIABLE WING ARRANGEMENT**

Roger A. Robert, Boulogne-sur-Seine, France

Application June 13, 1951, Serial No. 231,360

Claims priority, application France April 13, 1946

8 Claims. (Cl. 244—46)



1. In an aircraft having a fuselage member, two supporting wings on said fuselage member disposed substantially in the form of a cross having different wing areas defining different wing loadings and adapted respectively to support the aircraft at high speeds and at relatively low speeds, and the branches of the cross intersecting along the longitudinal axis of the aircraft, the fuselage member being mounted for rotation about said axis relatively to the remainder of the aircraft, and means for rotating said fuselage member about said axis thereby selectively to bring a desired one of said wings to an aircraft-supporting position.

2,774,557

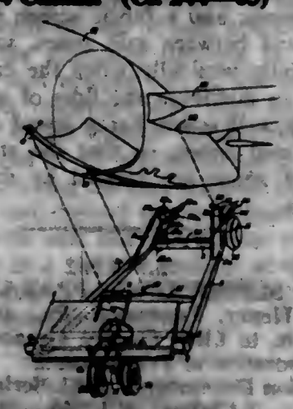
**AIRCRAFT TAKE-OFF CARRIAGE AND THE METHOD OF UTILIZING SAME**

Wdzwoled John Jakimiak and Georges Jules Bernard Victor Herelt, Paris, France, assignors to Societe Nationale de Constructions Aeronautiques du Sud-Est, Paris, France

Application April 15, 1953, Serial No. 349,016

Claims priority, application France May 2, 1952

24 Claims. (Cl. 244—63)



1. An assembly adapted for conveying over and launching from rough ground an aircraft having a fuselage and a retractable landing gear comprising, in combination, a launching carriage displaceable over rough ground having a dismountable light weight rectangular frame structure including two longitudinal girders and two cross members, and the height of which is determined in order to move the same under the fuselage of the aircraft to be launched, a set of front steering wheels and a set of rear wheels on the carriage, main braking means associated with said rear wheels for applying a braking force to the carriage, means on the aircraft connected to said main braking means for actuating the same for handling the carriage to launch the hoisted aircraft therefrom, means on the carriage for actuating said main braking means after releasing of said aircraft from the carriage, means on the carriage for securing the aircraft thereto while resting on the belly of its fuselage, supplemental propelling means supported by the carriage for moving the same to launch the aircraft, means for mounting said supplemental propelling means on the carriage, means on the aircraft connected to said propelling means for starting the same, supplemental braking means on the carriage for applying a supplemental braking force thereto after releasing of the aircraft therefrom to quickly stop said carriage, means on the carriage operable at the release of the aircraft from said carriage for actuating said supplemental braking means, a towing cross-country vehicle, a rigid coupling device universally mounted on said towing vehicle, means for connecting said coupling device to said carriage for moving the same to hoist the aircraft thereon and to convey it to a starting position to launch the hoisted aircraft, means for disconnecting said coupling device from said carriage at said starting position, said towing vehicle having a winch provided with a rope the free end of which is anchored to the bottom of the aircraft fuselage at the front thereof to hoist the aircraft on the carriage, and means on the carriage coinciding the longitudinal planes of symmetry of the carriage and of the aircraft during the hoisting operation.

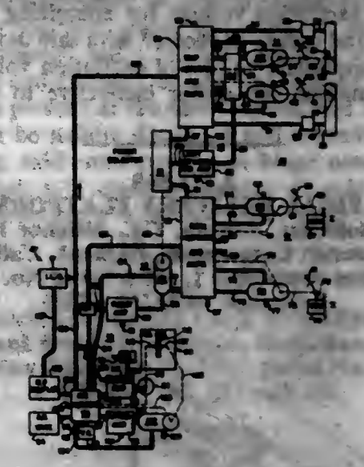
2,774,558

**ATTACK ANGLE CONTROL APPARATUS FOR POWERED AIRCRAFT**

Ross C. Alderson, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application January 18, 1951, Serial No. 206,578

42 Claims. (Cl. 244—77)

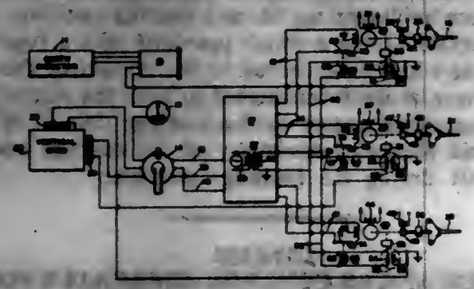


21. Attack angle control apparatus, for aircraft having at least one engine, comprising, in combination: means for adjusting the speed of the engine; means for adjusting the manifold pressure of the engine; means responsive to deviation of the attack angle of the craft from a selected value; and means connected to both said adjusting means and to said responsive means for simultaneously controlling operation of both said adjusting means in accordance with said deviation.

42. Control apparatus comprising, in combination: servomotor means for causing change, within a range of values, in a variable to be controlled; selecting means giving a signal in accordance with a selected value of the variable; follow-up means giving a signal which varies non-uniformly with operation of said servomotor means and is greatest for positions thereof resulting in values

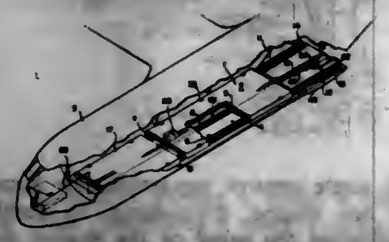
of said variable near the lower end of said range; responsive means giving a signal which varies non-uniformly with the actual value of said variable and is greatest for values of said variable near the upper end of said range; and means connected to said servomotor means, said selecting means, said follow-up means, and said responsive means for controlling said servomotor means in accordance with all said signals, the ranges of values of the signals from said follow-up means and said responsive means being so selected that when the value of said variable is near the lower end of said range the apparatus operates essentially as a proportioning system, while as the value of said variable increases the apparatus is smoothly transformed to essentially a floating system, without any abrupt transition.

2,774,559
**POSITIONING SYSTEM MONITOR**
Alan M. MacCallum, Maywood, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application December 15, 1949, Serial No. 133,043
2 Claims. (Cl. 244—77)



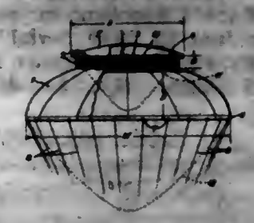
1. A positioning system having a motor for operating a controlled member in response to a control signal, follow-up means connected to the motor for preventing oscillation of the system, said means comprising a two-part inductive device for developing a follow-up signal, a source of excitation voltage for energizing one part of said device, and means connected with said device and said motor and responsive to loss of excitation voltage by said device for making the motor ineffective to said control signal.

2,774,560
**AERIAL DELIVERY PLATFORM**
Francis B. Johnson, Atlanta, Ga., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application September 1, 1954, Serial No. 453,631
8 Claims. (Cl. 244—138)



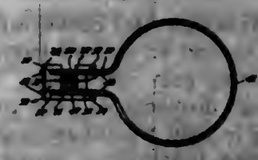
1. An aerial delivery platform adapted to be carried by an aircraft and released therefrom in flight comprising, a load supporting panel, extraction means connecting with said panel and releasably securing said platform to said aircraft, normally stowed drag producing means connecting with said panel and with said extraction means for decreasing the free fall terminal velocity of said device and for stabilizing the platform in a right-side-up position throughout its descent in response to actuation of said ejection means, a plurality of spring-like arms swingably carried by the underside of said panel adjacent the outer edges thereof for movement between a retracted position resting against the underside of said panel and an extended position projecting generally outwardly from the panel for absorbing shock loads and maintaining the platform right-side-up when landing, spring means acting between said panel and said arms and urging the latter into the extended position, and means carried by said panel for securing said arms in a retracted position against the action of said spring means while said platform is carried by said aircraft.

2,774,561
**LOAD-RETARDING CANOPY OF PREFORMED TYPE**
Walter S. Finken, Brooklyn, N. Y., assignor to Leonard P. Frieder, Great Neck, N. Y.
Application April 26, 1954, Serial No. 425,447
4 Claims. (Cl. 244—145)



1. A load-retarding canopy comprising a preformed lower zone of flexible sheet material having a circular horizontal cross-section throughout its depth and open at both ends, the opening at its upper end being of substantially smaller diameter than the opening at its lower end; a monitor top aligned with said upper opening and including a preformed upper zone of flexible sheet material having a circular horizontal cross-section throughout its depth, said upper zone being open at its lower end and closed at its upper end, and having its lowest diameter substantially greater than the diameter of the upper opening in the lower zone, so as to provide overlapping margins of the zones having substantial radial dimensions, the overlapping margins of the zones defining between them on air passage of substantial radial length and effective to direct an outward flow of air substantially at right angles to the path of movement of the canopy; means connecting the upper zone to the lower zone adjacent its upper opening, said connecting means comprising a plurality of flexible straps adapted to extend vertically when loaded and when vertically extended defining a plurality of peripheral openings between said zones; and a fabric screen extending between said straps and between said zones, said screen extending substantially vertically when the canopy is deployed and serving to distribute the flow of air evenly through said openings, said screen being sewed only to said straps and not to said zones, so that the stresses transmitted between said zones are carried by the straps and not by the screen.

2,774,562
**SUPPORTING APPARATUS**
William F. Henry, Edgewood, Pa., assignor, by mesne assignments, to Little Garden Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 8, 1952, Serial No. 324,727
2 Claims. (Cl. 248—125)



1. In an apparatus for supporting an article, a vertical column, a bracket on the column in the form of a rectangular frame having opposed pairs of long and short sides and an elongated opening therein substantially



longer than the corresponding transverse dimension of said column, the opposed short sides of said frame having edges adapted to frictionally engage the opposed surfaces of said column, and one long side of said frame having a gap therein, said gap being sufficiently wide to permit said frame to be slipped laterally onto or from said column, and a member including a portion for supporting said article, said member having parallel arm portions with hook-like ends, said frame having an extension from one short side thereof, said extension being provided with vertical holes arranged on a line generally perpendicular to the long sides of the frame and spaced apart a distance greater than the thickness of said column, said hook-like ends engaged in, and removably locked in said holes and said arm portions being so positioned that said article supporting portion extends in a generally horizontal direction from said column, the length of said member being so proportioned to the transverse dimension of the column that when the article is supported by said member the frictional forces between said edges and the column are adequate to maintain the frame, the member, and the article in any elevated position on the column, the article supporting portion of the member being positioned on said frame on the opposite side of said column from said extension, the arm portions of said member extending generally parallel with the long sides of said frame on opposite sides of said column, one of said arms extending across said gap in said frame to prevent the frame from slipping sideways from the column.

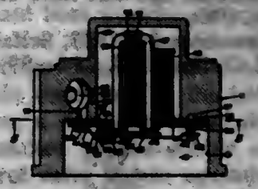
2,774,563
**COLLAPSIBLE GUN REST**
Herman K. Pribil, Schenectady, N. Y.
Application October 19, 1953, Serial No. 386,727
1 Claim. (Cl. 248—127)



A rest for shoulder weapons comprising a pair of open top containers, means hingedly connecting the tops of corresponding end walls of said containers, a pair of uprights each having an elongated opening provided therethrough, a pair of pins each mounted in an upper portion of the side walls of one of said containers and extending through the elongated opening in one of said uprights whereby said upright can be slid longitudinally and pivoted on its respective pin, each container having a lateral slot in the bottom thereof below said pin for receiving an end of its respective upright, a pair of shoulders provided along the side walls of each container from the hinged end thereof to the bottom slot therein for cooperating with said slot and pin for supporting its respective upright in a vertical position at times and for supporing said upright within its container when in a substantially horizontal position.

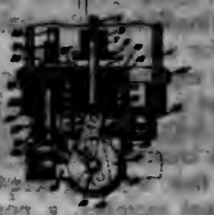
2,774,564
**ELECTROMAGNETICALLY OPERATED CONTROLLER FOR VALVES OR THE LIKE**
Lawrence C. Biggie, Altadena, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California
Application May 24, 1951, Serial No. 228,071
11 Claims. (Cl. 251—30)

1. In a valve structure; a support having a pair of spaced ports; a member having jet openings corresponding to the ports and detachably secured to the support; said jet openings extending in spaced relationship; said jet openings having edges that are defined by plane surfaces; and a tiltable structure mounted on the member and at a point intermediate the jet openings, and having a valve closure with plane surfaces cooperating with said



edges for alternately exposing one jet opening and closing the other opening in accordance with the angular position of the tiltable structure.

2,774,565
**VALVE FOR GAS WATER HEATERS**
Siegfried Kleine and Hans Dörges, Remscheid, Germany, assignors to Johann Vaillant Kommanditt Gesellschaft, Remscheid, Germany
Application March 13, 1951, Serial No. 215,343
6 Claims. (Cl. 251—75)



1. A fitting for gas water heaters, comprising a valve casing having a passage through it, a valve adapted to shut off the passage and provided with a control member, said valve opening and closing by the movement of said control member, a hand operated control mechanism comprising a gear housing which is fastened to said valve casing, a bail shaped crank pivoted in said gear housing and provided with a control lever extending through a slot provided in said gear housing and being rotatable in this slot about an angle of approx. 180° between an "open" and a "closed" position, a ring covering said slot and fastened at said bail shaped crank, connecting rods pivoted at the two sides of said ring, a push rod that can be axially displaced and extending into the valve casing, said connecting rods hinge connected with said push rod, said control member of said valve connected for movement with said push rod.

2,774,566
**FLUID COOLED PERMEABLE TURBINE BLADE**
Edward Adams Richardson, Bethlehem, Pa.
Application December 12, 1947, Serial No. 791,200
4 Claims. (Cl. 253—39.15)



1. In a turbine, a rotor, a hollow permeable metal blade, spaced metal ribs depending from the outer end of said blade remote from the rotor and into the interior of the blade, bolt means secured to said ribs and to said rotor whereby the blade may be placed under initial compression, a source of gaseous cooling fluid and means to conduct said cooling fluid into the interior of the hollow blade, said fluid flowing around said bolt and through the permeable blade.

2,774,567
**TRIPOD JACK**
Ralph G. Shroyer, Columbus, Ohio, assignor of one-third to Harry L. Mollman and one-third to Myer W. Mollman, Columbus, Ohio
Application November 28, 1953, Serial No. 393,310
5 Claims. (Cl. 254—99)



1. A duo-functional operating handle of round single piece bar stock for use in a tripod jack having a sheet metal main frame member of channel formation comprising a rear wall and a pair of side walls, an apertured flap member integral with the rear wall and overlying the upper end of the channel member, a bearing assembly seated upon said flap, a lifting screw rotatably mounted within said channel member, a portion of said lifting screw adjacent its upper end extending through openings in said bearing assembly, said lifting screw being provided with a transverse hole above the flap member, said operating handle being characterized by a horizontal portion on said handle extending through the transverse hole in the lifting screw at the upper end thereof to thereby support the screw on the bearing assembly, a portion of the surface of the horizontal portion of the handle being flattened to engage the upper surface of the bearing assembly whereby load applied to said load lifting means is transmitted through the horizontal portion of the handle to the bearing assembly and thence to said flap, said flattened portion holding the handle in a horizontal position when load is applied to the lifting screw.

2. In a jack of the tripod type, a sheet metal main frame member adapted to receive a lifting screw, and comprising a rear wall and a pair of side walls, each of said side walls being provided adjacent its upper end with an offset bulging cam portion, said bulging cam portion being inclined outwardly from the forward edge of the side wall, a pair of legs, one of said legs being pivotally mounted on one side of the offset bulging cam portion, and the other leg being pivotally mounted on the other bulging cam, said legs being cammed outwardly to extended position, and cammed inwardly towards the sheet metal main frame member to a position of close parallelism when not in use.

2,774,568
**POST HOLE DIGGER AND DRIVING MEANS THEREOF**
Glen H. Jones, Indianola, Iowa
Application June 15, 1953, Serial No. 361,495
3 Claims. (Cl. 255—19)



1. In combination with a post hole digger having a vertically disposed U-frame and a power head slidably mounted in said U-frame having an auger mounted thereon, a telescoping drive, said drive comprising a tubular member having an H-shaped shaft slidably mounted therein, said tubular member further having a plurality of opposed rollers axially mounted on the inner surface thereof and received between the flanges of the said H-shaped shaft, a universal joint mounted on the outer ends of said H-shaft, a second universal joint mounted on the outer end of the tubular member and positioned to engage the aforementioned power head.

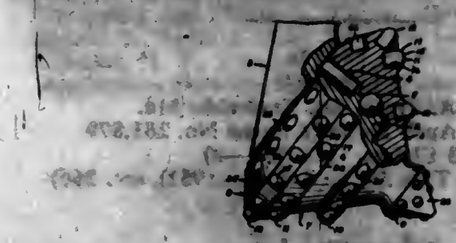
2,774,569
**EARTH MOVING HYDRAULIC SUCTION NOZZLES**
Karl Oscar F. Jacobsen, Seattle, Wash.
Application April 5, 1954, Serial No. 426,833
3 Claims. (Cl. 255—24)



1. The earth-moving hydraulic suction nozzle device comprising a nozzle base member of tubular form adapted for connection to an hydraulic suction conduit for drawing of earth materials through said tubular member by hydraulic suction applied thereto, a plurality of elongated members carried by said tubular member and projecting beyond one end thereof at locations spaced apart around the circumference of said tubular member, said elongated members throughout their length being of substantially uniform width measured circumferentially of said tubular member, said elongated members being formed to converge mutually in the direction away from said tubular member, a generally pointed nozzle tip member interconnecting the projecting ends of said convergent members to form an open grid structure of generally conical form through which indrawn hydraulic liquid and earth materials pass before flowing through said tubular member, and helical spring means received concentrically within said open grid structure and extending lengthwise thereof substantially throughout the length of said grid structure, the successive coils of said helical spring means being of progressively graduated diameters to fit closely within said grid structure and reinforce the same against inward deformation of the elongated members thereof, said helical spring means coils being spaced apart to permit passage therebetween of said indrawn liquid and materials and serving as a deflector of indrawn objects otherwise tending to become lodged between said elongated members.

2,774,570
**ROLLER CUTTER FOR EARTH DRILLS**
Robert A. Cunningham, Houston, Tex., assignor to Hughes Tool Company, Houston, Tex., a corporation of Delaware
Application May 3, 1954, Serial No. 428,640
5 Claims. (Cl. 255—367)

1. In a roller cutter for earth boring drills, a cutter body comprising, a pair of integral oppositely extending conical portions symmetrical about a common axis and having a common base intermediate the ends of the cutter body, one of said portions having a plurality of cutting elements thereon adapted to engage and disintegrate the bottom of a hole being drilled, said cutting elements including a series of cutters surrounding the body proximate said base, and an annular series of cylindrical inserts of hard wear resistant material secured in the other of said portions and spaced from said base, said



inserts having their axes extending outwardly and substantially normal to the surface of said other portion and presenting protrusions at the surface thereof to effect disintegrating action and to maintain gage of the well bore being drilled.

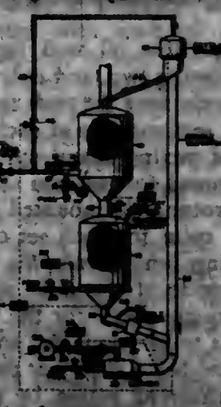


2,774,571
**CONE TYPE WELL DRILL**
Erwin A. Morlan, Houston, Tex., assignor to Hughes Tool Company, Houston, Tex., a corporation of Delaware
Application July 6, 1954, Serial No. 441,360
4 Claims. (Cl. 255—367)



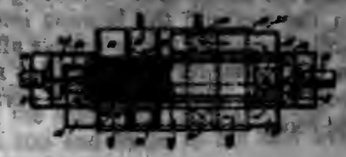
4. In an earth boring drill having a plurality of conical cutters rotatably mounted thereon, each of said cutters having annular series of wear resistant inserts arranged thereon and protruding from the surface thereof to disintegrate the entire bottom of the hole being formed by the drill; the improvement comprising nose portions on the cutters in mutually confronting relation and terminating proximate the axis of the drill, a plurality of axially spaced annular series of wear resistant inserts secured in each nose and protruding from the surface thereof, series of inserts on the respective noses being so spaced along the noses that a track made by one series overlaps the track made by the corresponding series of another nose whereby the nose portions disintegrate the formation traversed by said nose portions.

2,774,572
**IMPROVED PEBBLE HEATER**
Robert R. Geisz, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application November 5, 1951, Serial No. 254,965
4 Claims. (Cl. 257—2)



1. In a heat transfer apparatus comprising a pebble heating chamber, a heat transfer chamber located below said heating chamber, means for gravitating pebbles downwardly through said chambers, and a gas lift pebble elevating means having a gas entry, a pebble entry, a gas exit and a pebble exit adapted to remove pebbles from the bottom of said heat transfer chamber and to deliver said pebbles to the top of said heating chamber, the improvement comprising, a first pressure determining means operatively connected to the bottom of said heat transfer chamber; a second pressure determining means operatively connected to the pebble entry of said gas lift means; control valve means operatively connected to the gas exit of said gas lift means; and means operatively connected to said first and second pressure determining means and to said control valve so as to control said valve in response to the differential in pressure existing between said first and second pressure determining means.

2,774,573
**REGENERATIVE HEAT EXCHANGER WITH RECIPROCABLE RODS**
Sven Holm, Wellsville, N. Y., assignor to The Air Preheater Corporation, New York, N. Y.
Application July 16, 1952, Serial No. 299,105
6 Claims. (Cl. 257—6)

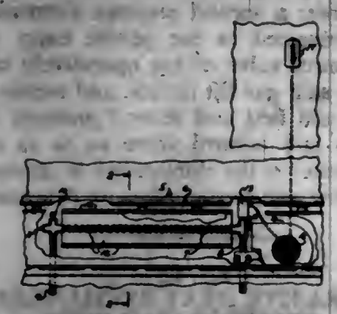


1. A heat exchanger having a casing providing a series of passages for hot gases arranged in alternation with passages for relatively cool air all bounded by parallel wall members; a bundle of reciprocable, parallel rods extending through said wall members and laterally of said passages, said rods being of a length to simultaneously extend across all of said passages and to project beyond the extreme wall at either end of said series by an amount greater than the stroke of reciprocation of said rods; cross-bar means located at either end of said bundle of rods and secured to both ends of all of said rods; means connected to each of said cross-bars and operable to apply drawing forces to opposite ends of said rods in alternation to effect their reciprocation to move portions thereof from gas passages into adjacent air passages and vice versa; means forming a pair of chambers at either end of said series of passages of a width to receive the portions of said rods that project from the end wall member on either movement of reciprocation of said rods; conduit means interconnecting said chambers with spaced hot gas passages for circulating gas through said chambers to heat the rod portions therein; valves across said conduits controlling the flow of gas through said chambers; and means responsive to the position of said rods for opening the valves controlling flow through the chamber occupied by rod portions that project into said chamber and for closing said valves on retraction of said rods.

2,774,574
**BASEBOARD RADIATOR**
Grayden M. Patterson, Austin, Minn.
Application October 23, 1952, Serial No. 316,343
1 Claim. (Cl. 257—133)

In a baseboard radiator the combination of an elongated housing of low height adapted to be secured adjacent the baseboard in a room, said housing having apertured upper portions through which air is discharged, an elongated heating element mounted within the interior of said housing between the upper and lower portions thereof and extending longitudinally through the housing, a plurality of elongated heat-transferring fins extending longitudinally along said heating element and substantially

radially outwardly from said heating element into spaced relation with said housing, said fins being secured to said heating element along the length thereof in heat-transmitting relation, and a blower mounted within said housing and having an air discharge opening disposed in close proximity with one end of said heating element and said fins and directing air longitudinally between said fins, the center of the air discharge opening being disposed below



said heating element and directing a proportionately greater quantity of air between the downwardly extending fins as compared to the air driven between the upwardly extending fins, whereby portions of the air driven longitudinally between the downwardly extending fins will circulate between the fins and the housing into proximity with the upwardly extending fins to receive all of the heat available from the upwardly extending fins and then be discharged through the apertured upper portions of the housing into the room.

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**2,774,575**
**REGENERATOR**
**Hellmuth Walter, Upper Montclair, N. J., assignor to Worthington Corporation, a corporation of Delaware**
**Application March 7, 1952, Serial No. 275,364**
**5 Claims. (Cl. 257—221)**



1. In a regenerator, a shell having one end open, a tube sheet closing said open end, said tube sheet constructed of a plurality of sections disposed parallel and in spaced relation to each other, means connecting the sections of the tube sheet to permit expansion and contraction of one section of the tube sheet without transferring thermal stresses to the other section, a removable head attached to said tube sheet and shell having an inlet for the medium to be heated and an outlet pipe for heated medium, at least one partition means coacting with one of the tube sheet sections to form an inlet chamber and an outlet chamber inwardly of said inlet chamber, said inlet chamber communicating with said inlet and said outlet chamber communicating with said outlet pipe, a plurality of U-shaped tubes having their inner legs connected to one of said sections of the tube sheet and their outer legs connected to another of said sections of the tube sheet and disposed to extend into said shell to form an inner heat exchange section and an outer heat exchange section, the outer legs of said U-shaped tubes communicating with said inlet chamber and the inner legs of said U-shaped tubes communicating with said outlet chamber, means in said shell forming an inlet for hot gases, means on said shell forming an outlet to exhaust cool the gases from said shell, and means in said shell coacting with said inlet and outlet means to direct the flow of hot gases in a sinuous path over and about said inner and outer heat exchange sections.

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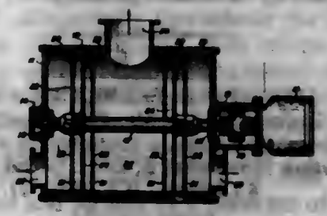
**2,774,576**
**BLENDER**
**Milton A. Frank, Sr., Frederick, Md.**
**Application April 11, 1952, Serial No. 281,879**
**13 Claims. (Cl. 259—9)**
**(Granted under Title 35, U. S. Code (1952), sec. 266)**



1. A blender comprising the combination of a closed container, an opening in the bottom wall of said container, a sleeve secured in said opening and extending upwardly within said container to a point below the top thereof, a shaft connected to a rotating source of power on the exterior of said container and extending through said sleeve to a point above said sleeve, a downwardly extending blade carrying sleeve surrounding and spaced from said first-mentioned sleeve and attached to said shaft at the upper end thereof, bearing means for said blade carrying sleeve said bearing means including a bearing near the top of said blade carrying sleeve, openings in said blade carrying sleeve positioned at a point near its upper end, below the bearing and above the liquid level in said container.

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**2,774,577**
**HOMOGENIZERS FOR OIL WELL LIQUIDS**
**Terry O. Anderson and James E. Brandon, Duncan, Okla., assignors to Halliburton Oil Well Cementing Company, Duncan, Okla.**
**Application August 26, 1955, Serial No. 530,842**
**2 Claims. (Cl. 259—9)**



1. A homogenizer for oil well liquids comprising a cylindrical vessel having two, and only two, sets of stator disks mounted therein near the ends thereof so as to provide two churning sections, one at each end of the vessel, and an impact and mixing chamber in the center of the vessel, a shaft mounted for rotation about the axis of the cylindrical vessel, rotor disks mounted on said shaft, there being at least one rotor for each set of stator disks, two inlets for conveying liquids into the vessel, said inlets being disposed outside of the disks at opposite ends of the vessel, and a single outlet for the vessel located centrally thereof so as to be connected to the mixing chamber, the arrangement being such that two streams of liquid are subjected to churning action by the disks and then caused to converge and be thrown together in the mixing chamber.



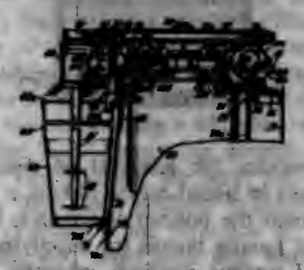
**2,774,578**
**METHODS AND APPARATUS FOR WHIPPING FOOD PRODUCTS**
**Newton E. Spicer, Jr., Oakdale, Edward M. Gregson, East Northport, and Henry L. Hesse, Oakdale, N. Y., assignors to National Dairy Research Laboratories, Inc., Oakdale, N. Y., a corporation of Delaware**
**Application September 24, 1952, Serial No. 311,221**
**5 Claims. (Cl. 259—25)**



1. A closed system for providing a continuous output of a whipped plastic product, comprising pumping means including at least two stages for introducing the solid, unwhipped product into a conduit under pressure, said pumping means comprising a screw feed device and gear pump connected in series and establishing a substantially constant volume of flow in the conduit at varying pressures, means for introducing gas continuously into the product within the conduit including an orifice, means for providing a gas behind the orifice at a pressure which is at least twice the maximum pressure of the product within the conduit, and closed whipping means for receiving the product and the gas from the conduit and for agitating the same to incorporate the gas uniformly throughout the product in a continuous whipping operation.

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**2,774,579**
**MULTIPLE DRINK MIXING MACHINE**
**Le Roy A. Brown and John R. Bouchardge, Rock Falls, Ill., assignors to Prince Castle Mfg. Division, Inc., Sterling, Ill., a corporation of Illinois**
**Application February 23, 1954, Serial No. 411,701**
**6 Claims. (Cl. 259—131)**



1. A multiple drink mixing machine comprising a support, a spider mounted on said support and including a circular center portion, a motor mounted on said spider, a master driving wheel driven by said motor, a plurality of mixing spindles mounted on said spider around said circular center portion, a plurality of spindle driving means, one associated with each of said spindles for selectively driving any one or more of said spindles from said master driving wheel, an energization circuit for said motor including a control switch, a switch actuating member in the form of an open ring pivotally mounted to said spider at the open end thereof and including means for operating said switch, said open ring including a circular section extending around said center portion, container actuated plungers one for each spindle for rendering the associated spindle, driving means effective to drive said associated spindle from said master driving wheel, said container actuated plungers being spaced around a circle having a diameter of the order of the diameter of said circular section, and means on each of said container actuated plungers for engaging a different part of said circular section for operating said switch actuating member to close said switch in response to operation of said container actuated plungers whereby said motor is energized whenever said master driving wheel is in driving engagement with any one of said spindle driving means.

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**2,774,580**
**PAINT MIXING DEVICE**
**Stanley J. O'Brien and Alfred S. Karcewski, Lansdale, Pa.**
**Application May 18, 1954, Serial No. 430,538**
**2 Claims. (Cl. 259—144)**



1. A paint mixing device for use in a paint can comprising; a flat metallic sheet of rectangular configuration having a top edge, a bottom edge, and side edges; one of the corners of said sheet being obliquely cut from said top edge to one of said side edges; and a pair of triangular wing-like members integrally attached to said sheet on opposite sides thereof, the said members lying in spaced planes perpendicular to the plane of said sheet and each having an edge coplanar with the bottom edge of said sheet; the said sheet having cut-out portions corresponding in size and shape to the said wing-like members.

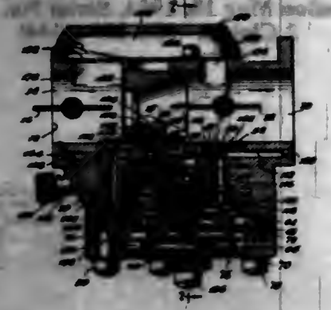
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**2,774,581**
**EVAPORATIVE COOLER**
**Marvin W. Bowersox, Elk City, Kans.**
**Application October 26, 1954, Serial No. 464,361**
**2 Claims. (Cl. 261—24)**



1. An evaporative cooler comprising, a housing having bottom, side, end and top walls, said housing being adapted to contain evaporative liquid in the lower portion thereof, a baffle secured to the side and end walls intermediate the bottom and top walls and curving inwardly and downwardly from said side and end walls and terminating in an inwardly turned substantially continuous flange having spaced relation to the evaporative liquid level in the housing, said inwardly turned flange defining a central opening through the baffle, fibrous material in the housing between the baffle and bottom wall and extending into the evaporative liquid in the housing, louvers in the side walls adjacent to and below the portion of the baffle secured to the side walls for entry of air into the housing, said housing having an opening in a selected wall for introducing evaporative liquid into the portion containing the fibrous material, said housing having an air discharge opening in the upper portion thereof above the baffle, and a motor driven fan in the upper portion of the housing and aligned with the air discharge opening whereby operation of the fan draws air through the louvers and wetted fibrous material between the baffle and evaporative liquid level to cool the air by evaporation of said liquid and then through the opening in the baffle and discharges the cooled air through the air discharge opening.

2,774,583
CARBURETOR
Robert F. Brochu, Arlington Heights, Ill., assignor, by mesne assignments, to Mall Tool Company, a corporation of Illinois
Application April 3, 1952, Serial No. 280,321
5 Claims. (Cl. 261—41)



1. A carburetor of the class described comprising a body providing an air passage therethrough, a jet for supplying fuel to air passing through said passage, a fuel inlet for said carburetor, a pair of passages connecting said jet with said inlet, and a freely movable weight for controlling one of said passageways, said weight being normally inoperative but moved to close said passage under the force of gravity when said carburetor is inverted, whereby said weight meters the supply of fuel.

2,774,583
APPARATUS FOR PRODUCING FIRE EXTINGUISHING FOAM
Edward Hatton, Ealing, London, England
Application August 14, 1953, Serial No. 374,387
Claims priority, application Great Britain February 3, 1953
5 Claims. (Cl. 261—76)



2. In a nozzle for producing a fire extinguishing foam and projecting it as a substantially streamline jet formed as a continuous tube having air inlets in its walls and an apertured closure defining an inlet end to which a supply of water under pressure to which a foam agent is admixed may be connected, an ejector member in said apertured closure defining a turbulence chamber having axially aligned apertured end plates, one of which is movable toward and away from the other, for atomising liquid directed therethrough, a cylindrical member having air inlets in its walls secured at one end to said closure and positioned about said ejector member and extending inwardly of said tube therefrom, a second cylindrical member of larger diameter than said first mentioned cylindrical member and having air inlets in its walls positioned in said tube in partially overlapping relation to said first mentioned cylindrical member and means forming a closure between said second cylindrical member and said tube, and a secondary apertured closure on said second cylindrical member with said first mentioned cylindrical member extending through the aperture therein, said cylindrical members forming progressively larger air-suction chambers progressively downstream from said ejector member.

2,774,584
GAS AND FLUID MIXING DEVICE
Ella P. Agbuckle, New York, N. Y.
Application February 18, 1953, Serial No. 337,503
7 Claims. (Cl. 261—76)



2. A faucet attachment including a casing having internal threads to connect it to a faucet, perforated means in the casing, and washer means resting on the perforated means, said washer means having a perforated disc covering the opening in the washer, rims on both sides of the washer, the rim on one side of the washer extending radially inwardly to a greater extent than on the other side thereof, both rims being attached to the washer.

2,774,585
APPARATUS FOR PURIFYING LIQUID MATERIALS
John J. Wirt, Cleveland, Ohio
Application August 17, 1953, Serial No. 374,637
The entire term of the patent to be granted has been dedicated irrevocably to the free use of the Public of the United States and the Territories thereof
2 Claims. (Cl. 261—122)



1. In an apparatus for removal of dissolved or suspended substances in liquid media having a tank or other container at or near the bottom of which is located a porous medium and having means for supplying a gas under pressure to said porous medium whereby said gas diffuses through said porous medium thence through the liquid medium, thereby separating said dissolved or suspended substances from said liquid medium, an improvement characterized in that the walls of the pores of said porous medium have been coated with a thin coating of an organosiloxane resin having an average of from 1 to 1.7 monovalent hydrocarbon radicals per silicon, at least a major portion of the silicon atoms being connected by Si—O—Si linkages, any remaining silicon atoms being connected by linkages selected from the group consisting of Si—C—Si and Si—Si.

2,774,586
FLOOR SCRAPING MACHINE HAVING FLOATING SCRAPER
Anthony F. Becker, Houston, Tex., assignor to The American Floor Surfacing Machine Company, Toledo, Ohio, a corporation of Ohio
Application June 14, 1954, Serial No. 436,510
9 Claims. (Cl. 262—9)

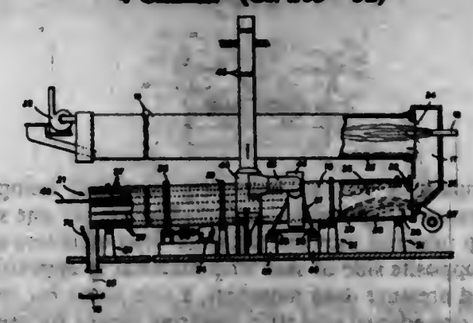
1. In a floor scraping device, a wheeled framework, a cutter arm housing on said framework, cutter arm channels in said housing, cutter arms loosely mounted in said channels being free to move vertically and longitudinally therein, cutter blades on the forward end of said arms, a rotatable cam shaft mounted on said framework and eccentric cams mounted on said cam shaft,





one of said cams being positioned adjacent each of said channels and means for yieldingly maintaining said cutter arms in contact with said eccentric cams and said cutter blades in contact with the floor to be scraped.

2,774,587
APPARATUS FOR COOLING CEMENT CLINKER
Henry D. Mayenschein and John E. Veley, Fairborn, Ohio
Application September 30, 1952, Serial No. 312,222
4 Claims. (Cl. 263—32)



1. Cooling apparatus for cement clinker and the like comprising an elongated cylinder supported for rotation about the axis thereof with said axis slightly inclined with respect to the horizontal for gravity flow of clinker therethrough, means for introducing hot clinker particles at the higher end of said cylinder for passage therethrough and discharge from the lower end thereof, means for introducing cooling fluid endwise into said cylinder with resulting formation of hot gases therewithin, means forming a plurality of enclosed pockets mounted in angularly spaced relation on the outside of said cylinder intermediate the ends thereof, means forming a plurality of vent openings in said cylinder each connecting directly with the inner end of one of said pockets, the outer end of each of said pockets being open, said pockets extending circumferentially of said cylinder in the direction of rotation thereof a distance from said vents such that when the inner end of each thereof is below the level of said clinker particles within said cylinder the outer end is above said clinker level, a hood surrounding said cylinder and said pockets, means for rotating said cylinder in the direction from the inner ends of said pockets to the outer ends thereof to cause portions of said clinker particles to drop by gravity into successive said pockets for temporary lifting thereby exteriorly of said cylinder followed by gravity return into said cylinder from the successive rising said pockets while said hot gases pass outwardly of said cylinder into said hood from the outer ends of said pockets, and means for venting said hot gases from said hood.

2,774,588
MAGNETICALLY CONTROLLED SAMPLE ADDITION MEANS
Hamel J. Otis, Hammond, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application December 29, 1955, Serial No. 556,260
5 Claims. (Cl. 263—47)

1. A combustion boat comprising a closely wound spiral of quartz tubing, said spiral having between about 5 and 20 turns, a diameter of between about 0.375 and 0.75 inch, said tubing being open at both ends, a hook means at one end of said spiral for manipulating the boat to discharge fluids therefrom, and detachable coupling means linked to



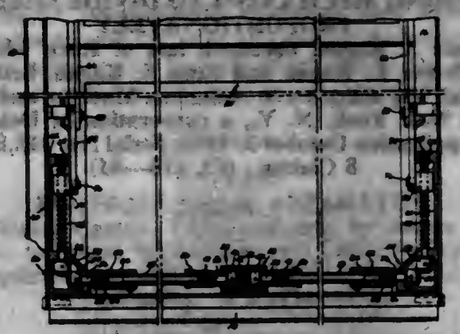
the said hook means, said coupling means including paramagnetic bar means and hook means on said coupling means engaging the hook means on said spiral.

2,774,589
CUTTING TORCH MACHINE HAVING REVOLVING TEMPLATE MOUNTS
Joseph Bonner, San Francisco, Calif.
Application July 2, 1954, Serial No. 441,990
4 Claims. (Cl. 266—23)



4. In combination with a cutting machine having a plurality of movable cutting torches and a tracing element engageable with a template and controlling the movement of said cutting torches, a template mount comprising, a base, a swivel plate pivoted on said base, template-mounting means on said plate whereby the mounted template is centered with reference to said pivot, and locking means operable to lock said plate with the template in any of a plurality of angular positions about the center of said pivot.

2,774,590
MECHANICAL OPERATOR FOR AWNING TYPE WINDOWS
Donn C. Blanchard, Miami, Fla., assignor, by mesne assignments, to Stanley Building Specialties Company, a corporation of Florida
Application May 28, 1954, Serial No. 433,045
4 Claims. (Cl. 268—23)



1. In an awning type window including a plurality of vertically spaced horizontally swingable ventilators, an operating mechanism for the ventilators comprising a central gear unit composed of a pair of facing beveled driven gears and a central drive gear meshing with said driven gears, a pair of spaced parallel vertical screws, elongated actuating bars pivotally connected to said ventilators for activating the latter, means operatively connecting said screws to said actuating bars for imparting rectilinear motion to the latter during rotation of said screws, a pair of end gear units of which includes first and second relatively perpendicular and meshing gears, said first gears being fixed to said screws, externally splined stub shafts fixedly supporting said second gears, tubular connectors carried by the stub shafts and a pair

of coaxial drive shafts having inner ends operatively and detachably engaged with said driven gears, and said drive shafts having outer ends telescopingly engaged with the connectors of said stub shafts.

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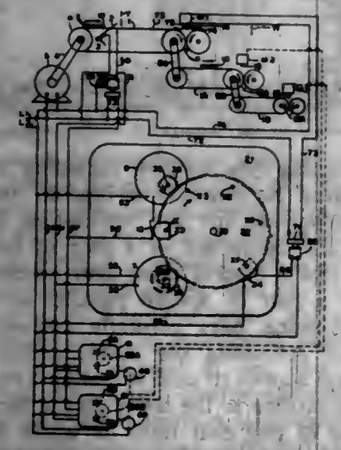
2,774,591
WINDOW OPERATOR
Deane N. Jewett, Fraser, Mich., assignor to Detroit Hardware Manufacturing Company, Detroit, Mich., a corporation of Michigan
Application September 2, 1952, Serial No. 307,520
2 Claims. (Cl. 268—105)



1. A window operator for swinging a border member of an outwardly-projecting window relatively to the frame of the window opening, said operator comprising an elongated thrust bar member having a resilient portion adapted to bend arcuately during the swinging of said window outward from said frame, a first elongated guideway mounted on said frame, a first slider mounted on the inner end of said thrust bar member in sliding engagement with said first guideway for travel therealong, the outer end of said thrust bar member being fixedly pivoted to said border member, a second elongated guideway mounted on the inner portion of said thrust bar member, a pivot mounted on said frame, a window-operating arm member pivotally mounted on said pivot and pivotally connected to said thrust bar member intermediate the ends thereof, a second slider mounted on the outer end of said arm member in sliding engagement with said second guideway for travel therealong, said arm member having an arcuate portion with gear teeth thereon disposed concentric with said pivot, a gear meshing with said teeth, a shaft rotatably mounted on said frame and drivingly connected to said gear, and a rotary handle operatively connected to said shaft.

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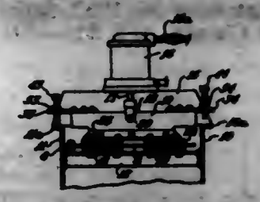
2,774,592
TIMING MECHANISM TO DIVIDE SHEETS PROPORTIONATELY
Benjamin S. Kagan, deceased, late of Rock Island, Ill., by Esther E. Kagan and Zona S. Kagan, heirs, Rock Island, Ill., assignors to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application October 2, 1952, Serial No. 312,834
8 Claims. (Cl. 270—81)



1. In a machine adapted to operate on a sheet, means for moving a sheet at a constant speed past the machine, detector means in the path of said sheet, a rotatable cam, means including a first constant speed motor for rotating said cam from its initial position at one speed while the sheet passes said detector means, circuit means connecting said detector means and said first constant speed motor for initiating rotation of said cam thereby upon engagement of said detector means by a sheet, a second device including a constant speed motor for rotating said cam at a different speed after the sheet has passed said detector means, circuit means for initiating rotation of said cam by said second device constant speed motor upon disengagement of said detector means by the sheet, and an actuator for the machine engaged by said cam in its travel.

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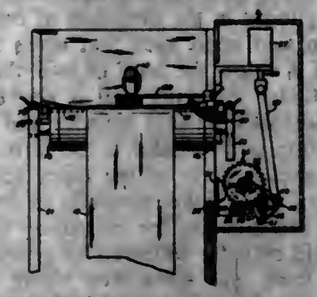
2,774,593
APPARATUS FOR GUIDING STRIP MATERIAL
Robert D. Lewis, Crooksville, and Karl F. Wietzel, Zanesville, Ohio, assignors to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio
Application December 2, 1952, Serial No. 323,595
2 Claims. (Cl. 271—2.6)



1. Apparatus for guiding strip material, comprising fixed pressure drag members adapted to contact one side of said strip material movable pressure drag members engaging the opposite side of said strip material in opposition to said fixed pressure drag members, a side guide for engagement by one edge of said strip material, means for applying pressure to said movable pressure drag members, and means to selectively vary the intensity of pressure applied to one edge of said strip material with respect to the other, whereby a differential pressure may be applied transversely of said strip material, to cause said strip material to hug said side guide.

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2,774,594
MATERIAL GUIDING APPARATUS
Allen L. Loucks, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 10, 1955, Serial No. 493,531
3 Claims. (Cl. 271—2.6)

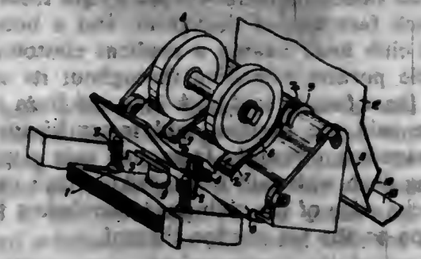


1. Apparatus for guiding a thin metal foil strip having a predetermined width, which comprises a guide roller over which such a strip is advanced continuously and normally along a predetermined path of travel, means for mounting the guide roller for rotation on its longitudinal axis, means operable for changing the angular relationship of the longitudinal axis of the roller with respect to the normal path of travel of the strip, a pair of electrical contacts mounted on the roller for rotation therewith and positioned substantially flush with the periphery, said contacts being spaced apart a distance slightly greater than the width of the strip and extending circumferentially only partially around the roller so that when the strip deviates slightly from its normal path of travel, one or the other of said contacts engages and disengages the strip once per revolution of the roller, means for insulating the contacts electrically from the strip so long as the strip maintains said normal path of travel, means for impressing an electrical potential between the strip and the contacts, and solenoid operated means connected to said contacts and designed to be energized, when any one of the contacts is engaged by the strip, to actuate the means for changing the angular relationship of the longitudinal axis of the roller in such a manner as to cause the strip to return to its normal path of travel.



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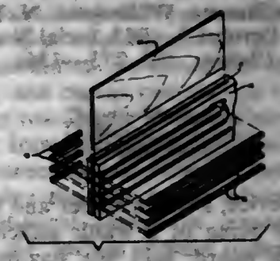
2,774,595
APPARATUS FOR SEPARATING STACKED FLAT ARTICLES
Hugh Ernest James Butler, Harrow, England, assignor to Hall Telephone Accessories Limited, London, England, a British company
Application July 15, 1952, Serial No. 298,908
Claims priority, application Great Britain July 24, 1951
3 Claims. (Cl. 271—12)



1. Apparatus for separating a flat article from the top of a stack of such articles, comprising a base, support means on said base for retaining said articles in stacked relation, suction means disposed on said base for movement along a path located above and substantially centrally of said stack, said suction means, when at one portion of said path of movement thereof and connected to a source of low pressure, being disposed above said support means for engaging the central portion of the uppermost article so as to draw, raise and remove said article from said stack, a pair of arms carried by said base and located, respectively, above said support means and spaced from said suction means on opposite sides of said one portion of said path of movement of the latter, a stop on each of said arms for engagement with the lateral portions of said article, means on said base for adjusting said arms toward and away from said support means, respectively, said arms with said stops normally extending further toward said support means and said stack than said suction means, with said stops being vertically spaced from said top of said stack, whereby said article, upon being rasied by said suction means, abuts with its lateral portions against said stops and is centrally buckled upwardly while being removed from said stack but again becomes flat upon movement of said suction means along said path and away from said stops, a first guide located on said base and adjacent another portion of said path of movement of said suction means, said first guide being arranged at an upward slant relative to said base and said path and intersecting the latter so as to engage the leading edge of said article upon arrival of said suction means at said other portion of said path of movement, thereby guiding said article upwardly, said first guide being provided with a pair of spaced parallel slots extending therethrough in the direction of movement of said article therealong, said slots being substantially aligned with said stops, a pair of spaced, parallel shafts rotably supported on said base adjacent the ends of said slots, respectively, a pair of endless flexible belts supported on said shafts for movement in respective endless paths, corresponding portions of said belts extending through said slots for movement along the article-engaging part of said first guide, a third shaft mounted on said base and above said first guide, a pair of friction rollers rotatably mounted on said third shaft and opposite said slots, said rollers being in peripheral engagement with said belts, respectively, means operatively connected to at least one of said shafts for driving said belts along said endless paths, whereby said article, upon release from said suction means due to disconnection of the latter from said source of low pressure, will have said lateral portions thereof entrained between said rollers and said belts for movement along said first guide and with said central portion of said article out of contact with said rollers and belts, and a second, subtantially vertical guide on said base and adjacent the end of said first guide remote from said suction means for receiving said article in flat condition from said first guide and providing a drop path for said article toward a conveyer belt when the latter is located beneath said second guide.

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2,774,596
HOCKEY STICK
Henrik N. Brodersborg, Champlain, N. Y.
Application October 26, 1955, Serial No. 542,827
1 Claim. (Cl. 273—67)



A hockey stick comprising a solid elongated handle integrally formed at its lower end with a head member for contacting the puck, said head member having a longitudinally extending central slot extending inwardly from the lower end thereof, a rectangular plate formed of several plies of veneer within said slot for widening the head, and laminated means for preventing the head from splitting or breaking, said laminated means comprising the sides of said head member having a plurality of vertically spaced, longitudinally extending slots disposed at right angles to said first slot and having their inner ends staggered with respect to each other, and a thin piece of plywood secured within each of said vertically spaced slots.

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2,774,597
FOOTBALL GAME APPARATUS
Paul Folger, Canton, Ohio, assignor, by mesne assignments, to Joseph W. Edwards and Lewis W. Watkins
Application August 19, 1953, Serial No. 375,119
6 Claims. (Cl. 273—94)



1. In a game apparatus, a board having a simulated football field thereon having end zones at opposite ends and side lines at opposite sides, an oblong panel of less length and less width than the simulated football field imposed upon said simulated football field and spaced from the ends and sides thereof and lines indicating 1-yard lines extending transversely from one side line to

the other throughout the spaces between the end zones and ends of said panel and extending transversely from each sideline to the adjacent side of the panel throughout the length of the panel, apertures in the side lines at the intersections therewith of each of the 1-yard lines, a pair of dials upon the panel having indicia thereon representing all types of plays which may occur in a football game, each dial comprising three concentric circles, the circles on one dial representing kickoffs and punts, punt returns and intercepted pass returns, the circles on the other dial representing line plays, passes, and field goal and extra point attempts, a rotatable spinner hand concentrically mounted upon each dial for selectively indicating the play upon any of the three circles thereon, an individual playing piece simulating a football movably supported upon the simulated football field and movable thereon at the will of a player in accordance with the result of a spin of either of said rotatable spinning hands, and a distance marker of a length equal to the spacing between ten of said 1-yard lines and having depending post portions for insertion into any equally spaced pair of said apertures in the side lines.

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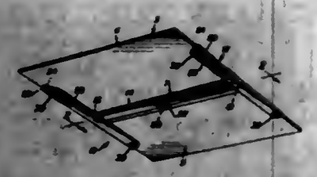
2,774,598
**TURNTABLE DEVICES**
Gene Streece, Whitestone, N. Y.
Application October 7, 1953, Serial No. 384,650
5 Claims. (Cl. 273—136)



2. In a game device, a box member and a game board; said box member being of a width sufficient to receive therein said game board; said box having a horizontal wall thereon extending across the entire extent of the box, the upper surface of said wall being adapted to underlie and be in supporting engagement with said game board, the latter being an independently movable member operatively movable into and out of said box and adapted for positioning upon said horizontal wall; and rotary mounting means on said board and wall, said means comprising two coacting male and female snap fastener elements proportioned for relative rotary movement when said elements are in operative engagement, one of said elements being only on said horizontal wall and the other only on said board, whereby the board is rotatably supported by said wall.

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2,774,599
**FOLDING GAMEBOARD AND RIGIDIFYING AND TURNING ATTACHMENT THEREFOR**
Gilbert M. Dunn, Concord, N. H.
Application October 11, 1954, Serial No. 461,396
5 Claims. (Cl. 273—136)



1. For use on and in association with a manually foldable table-type gameboard, a rigidifying and turning attachment for said gameboard comprising a strip member separate from said gameboard and having a pivoting boss intermediate its respective ends, and clamping and retaining adapters removably attachable to opposite marginal edge portions of said gameboard and adapted to bridge the central portion of said gameboard parallel to each other and at right angles to said strip member, the ends of said strip member being detachably connectible with the intermediate portions of said adapters, whereby to permit the gameboard to be converted from its compact folded form to unfolded playing form with the half-sections coplanar and joined rigidly with each other.

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2,774,600
**ANTI-NICKING GOLF CLUB**
Milton B. Reach, Springfield, Mass.
Application February 25, 1954, Serial No. 412,494
4 Claims. (Cl. 273—174)



2. A golf club with a head comprising heel and toe portions and extending therebetween a rigid front striking face, a back face spaced therefrom, and a bottom sole area; said club head having a resilient elastomer insert with a sole portion extending throughout its sole area from said front face to said back face and from said heel portion to said toe portion; said insert having a face portion extending upwardly from said sole portion and terminating flush with said front striking face and forming the facial edge of the club head therebelow from the heel portion to the toe portion thereof.

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2,774,601
**DEVICE FOR USE IN PLAYING GOLF**
Frederick G. White, New Rochelle, N. Y.
Application June 1, 1953, Serial No. 358,765
2 Claims. (Cl. 273—190)



1. A golf training device comprising a generally crescent-shaped compressible cushion, formed of spongy material and having a substantially rectangular cross-section, the concave portion being adapted to fit the human neck, said body having upper and lower faces for engagement with the chin and chest of a player and having an uncompressed thickness of the order of 2½ inches such that, when the body is held between the chin and the chest of a player, the player's head will be in the position normally occupied when the ball is correctly addressed, said body, at one end thereof, having an increased thickness for engagement with the shoulder of the player during the follow-through of a golfing stroke.

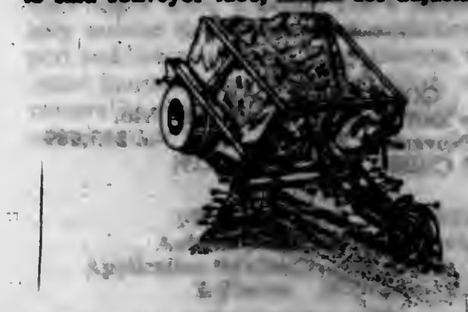
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2,774,602
**MATERIAL SPREADING APPARATUS**
George H. Sanderson, Ada, Ohio
Application January 10, 1952, Serial No. 265,851
6 Claims. (Cl. 275—2)

1. A rock salt spreading device of a type adapted for ready mounting and removal from the tail gate of a dump truck at a gated aperture thereof wherein said device when so mounted is rendered operable upon movement of the dump bed to an elevated position thereby to spread material over the surface of a highway, said device comprising a hopper, mounting means on said hopper comprising a plurality of laterally extending flanges adapted for passage through the gated aperture of the said tail gate and engageable with the



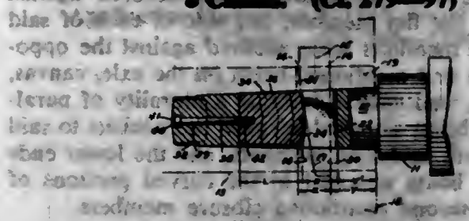
inner walls of the tail gate thereby attaching the hopper to the truck and constructed and arranged to be maintained therein by lowering of the aperture gate of the truck tail gate, agitating means in said hopper for moving material entering the hopper at said mounting means to an outlet opening at one end of said hopper, an auger type conveyor flight and tube extending laterally from said hopper at the outlet thereof and communicating therewith, a housing for the discharge end of said conveyor flight, said conveyor tube having a single elongated slotted outlet at the end remote from said hopper, a vertically slideable material control gate mounted on the hopper for movement into the hopper outlet at the inlet to said conveyor tube, means for adjustably varying the



control gate setting for material flow to said conveyor tube, a depending discharge chute at the outlet end of said housing and pivotally mounted about the discharge end of said conveyor tube, a deflector element pivotally mounted at the lower end of said chute and extending downward substantially in alignment with the front wall of the chute, and driving means including a wheel mounted on said device and adapted for engagement with the road surface upon elevation of the dump bed, said driving means including power transfer for simultaneously driving the material agitating means and the conveyor means with rotation of said wheel as the truck moves along the road, whereby said driving means functions to vary the quantity of flow in proportion to the rate of travel of the vehicle.

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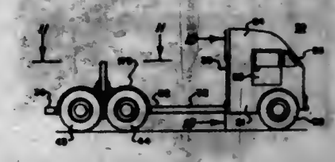
2,774,603
**TOOL SHANK AND HOLDBACK KEYWAY CONSTRUCTION**
Robert O. Jackson, St. Clair Shores, Mich., assignor to Beaver Tool and Engineering Corporation, Royal Oak, Mich., a corporation of Michigan
Application February 4, 1954, Serial No. 408,278
8 Claims. (Cl. 279—97)



1. A holdback keyway construction for a tool having a taper shank, comprising a slot formed transversely through the longitudinal center line of said shank, said slot being dimensioned to form the sides and bottom end of said keyway and a locating surface, and an insert member having a thickness suitable for insertion in said slot and a width not exceeding the diameter of said shank, one end of said insert member being shaped to provide a working face for said keyway and the other end formed to engage the said locating surface of said slot, the length of said insert member being dimensioned to establish the desired length for the holdback keyway formed in said tool shank between the bottom end of said slot and the said working face of said insert member, and means for detachably securing said insert member in said slot whereby the length of said keyway may be varied as a function of the length of said insert member.

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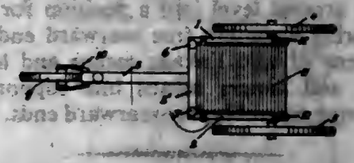
2,774,604
**TRUCKS OR OTHER TYPES OF VEHICLES FOR MOVING HEAVY MATERIAL HAVING A VERTICALLY ADJUSTABLE LOAD CARRYING FRAME**
Herbert A. Rendel and Robert L. Schauer, Lemon Grove, Calif.
Application February 18, 1955, Serial No. 489,248
14 Claims. (Cl. 280—6)



1. A heavy load carrying vehicle including forward and rear sections, said forward section including a front frame adapted to be wheel supported and to be advanced by a motor, said rear section including a rear frame, means connecting said rear frame to the front frame for relative up and down movement of the rear frame while the rear frame remains substantially horizontal, wheels at opposite sides of the rear frame, springs mounted for bodily displacement relative to the wheels and through which a portion of rear frame imposed load is supported by the wheels, means interconnecting the springs and wheels for transmitting said portion of rear frame load to the wheels and interconnecting the rear frame and wheels for transmitting the remainder of rear frame load to the wheels, and means operable to raise the horizontally remaining rear frame including elevator means connected in rear frame supporting relation with the springs and means connecting said elevator means with the rear frame for raising the rear frame relative to the wheels, springs and elevator means in response to operation thereof while the springs remain under rear frame imposed load.

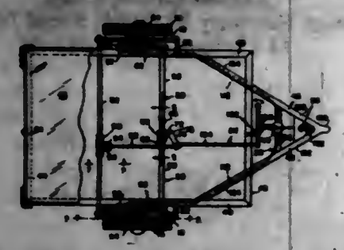
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2,774,605
**COLLAPSIBLE INVALID'S VEHICLE**
Gert Schleidebach, Hanau (Main), Germany, assignor to Adam Wilhelm Lehr, Offenbach (Main), Germany
Application July 22, 1952, Serial No. 300,316
Claims priority, application Germany July 25, 1951
1 Claim. (Cl. 280—39)



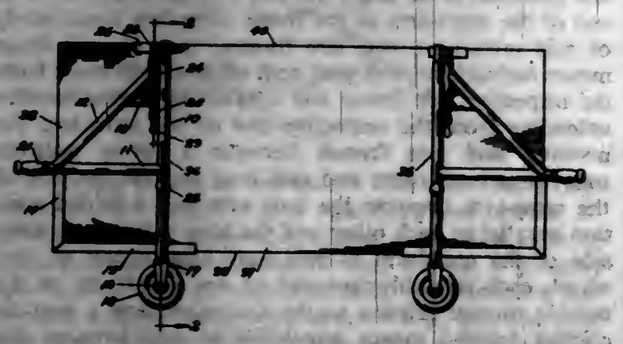
A foldable invalid's chair comprising, in combination a rigid generally T-shaped main frame, a steering fork rotatably mounted on the free end of the long arm of said frame, a front wheel supported by said fork, said wheel being pivotal between a position aligned with said arm and positions at an angle thereto, a hinge means at each end of the cross-arm of the frame extending transversely of said cross-arm, two side frames, each of said hinge means including a pivot post bent off at a right angle from the respective side frame and a receiving sleeve therefor extending from the respective end of the cross-arm for pivoting said side frames between a set-up position parallel to each other and said long arm on the side of the cross-arm opposite the long arm and a folded position parallel to each other and the long arm on the same side of the cross-arm as said long arm, a pair of rear wheels each rotatably mounted on one side frame on the outside thereof relative to the cross-arm, and a seat including bracing means attachable to and between the side frames in the set-up position thereof, thereby retaining the frames in the said position.

2,774,606
**TRAILER WITH ELEVATABLE BED**
Lorenz Baswegen, Harper Woods, and Paul E. Kreiker, Royal Oak, Mich.
Application June 17, 1954, Serial No. 437,341
7 Claims. (Cl. 280—44)



1. A trailer of the type described comprising a framed trailer body, draft framing conjoined to said body at its forward end adapted to be removably connected to a draft vehicle, trailer body hanger means rotatably supported on said body framing, independent wheel axle shafts supported on said body framing forward of said hanger means and substantially parallel thereto, said wheel axle shafts having crank arms and wheel supporting stub shafts on said crank arms outwardly of said body framing, semi-elliptic wheel spring assemblies fixedly and rotatably anchored at their forward ends on each side of said body framing and free at their rearward ends to rotate about their forward ends, said spring assemblies being mounted on said stub shafts, said hanger means having eccentric crank arms outboard of said trailer body engageable upon and disengageable from said free rear ends of said spring assemblies upon rotation of said latter crank arms, linkage means movably supported on said body and draft framing simultaneously coupling said wheel axle shafts together and rotating said hanger means out of an engaging position with said spring assemblies, and simultaneously disassociating said wheel axle shafts and rotating said hanger means into a position for engagement with said spring assemblies, and hydraulic lift means mounted on said body and draft framing adapted to raise said trailer body and said hanger means out of engagement with said spring assembly free rearward ends and to lower said trailer body to ground level when said spring assemblies and said hanger means have been disassociated by relative movement of said linkage means, and adapted to raise said trailer body and said hanger means from ground level into a position for engagement with said spring assembly free rearward ends upon relative movement of said linkage means and to lower said trailer body and hanger means into supported position upon said spring assembly free rearward ends.

2,774,607
**PANEL HANDLER**
Richard L. Palmer, Indianapolis, Ind., assignor to Palmer Industries, Inc., a corporation of Indiana
Application August 1, 1955, Serial No. 525,593
6 Claims. (Cl. 280—47.3)



1. A unit for handling panels comprising a standard; a wheel mounted at the lower end of the standard; a member secured to the standard and extending laterally therefrom; a substantially right angled member of angle iron form, said right angled member having an upright length secured to said first member remotely from said standard, and a horizontal length secured to said standard below said first member, each of said lengths having a leg lying in a common plane and another leg extending in a common direction therefrom, said legs receiving a corner portion of said panel thereagainst; a clamp jaw slidingly carried by an upper portion of said standard, said jaw having a leg also turned in said direction; and means shifting said jaw in directions parallel to said standard for engagement and disengagement with a panel edge opposite said horizontal length leg.

2,774,608
**GOLF CLUB CART**
Archie Earl Sanders, Kansas City, Mo.
Application November 23, 1953, Serial No. 393,689
2 Claims. (Cl. 280—47.19)



1. An improved club cart comprising: an axle, a pair of wheels, said pair of wheels spaced on said axle, a tongue, said tongue having one end thereof attached at a right angle to the mid-length of said axle, a beam, said beam being parallel with and secured on said axle, a second beam, said second beam being parallel with and secured on said tongue, a flat member, said flat member being of a rectangular shape having a width substantially equal to the length of the first mentioned beam, said flat member being secured flatwise on the beams with one edge thereof flush with the side of the beam opposite the tongue connection thereto, closure members, said closure members being secured flatwise against the side of the first mentioned beam on the axle and the mentioned one edge of the flat member, said closure members being projected above the flat member, said closure members being curved above the flat member, said closure members being equally spaced on the first mentioned beam, a second plurality of closure members, each of said second plurality of closure members having a curved edge and a straight edge, the straight edge of said second closure members being secured against the bottom of the flat member, one side of each of said second closure members being secured against the opposite side of the first mentioned beam on the axle, canvas, strip members, said canvas forming a plurality of parallel pockets by being attached between the pockets to said flat member with said strip members, and the lower ends of the canvas being attached to the curved portions of said first and second mentioned closure members.

2,774,609
**DOLLY WITH DISASSEMBLY FACILITATING MEANS**
Raymond C. Wieger, Livonia, Mich.
Application January 4, 1954, Serial No. 401,862
1 Claim. (Cl. 280—79.1)

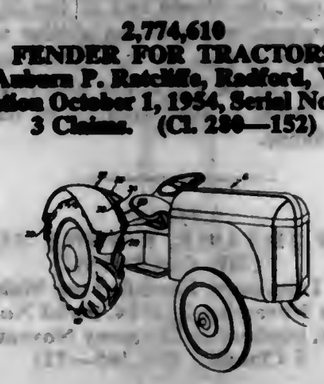
A portable truck comprising side frame members having a plurality of longitudinally-spaced vertically-extending dovetail grooves on the inner sides thereof, said side frame members further having dovetail projections on the respective opposite ends thereof, a plurality of short intermediate and end frame members having respectively dovetail projections on the respective opposite ends thereof, corner parts having vertically-extending dovetail grooves adapted to receive the end projections of the side and end frame members, said intermediate frame members being secured by their end projections to the dovetail groove in the inner side of the side frame members, said end frame members being secured between the dovetail grooves in the corner parts, said corner parts having depending projections and squared openings in





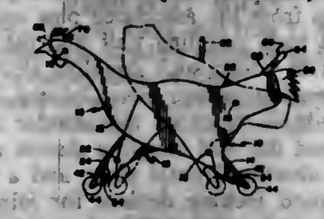
their upper ends, a castor sleeve adapted to be releasably secured to the depending projection of each corner part and having a thumb screw thereon, a castor fork and roller journaled on the castor sleeve, and corner posts removably secured within the squared openings of the corner parts.

2,774,610
**FENDER FOR TRACTORS**
Auburn P. Ratcliffe, Radford, Va.
Application October 1, 1954, Serial No. 459,712
3 Claims. (Cl. 280—152)



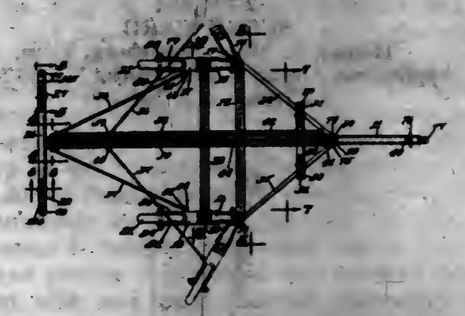
1. In a tractor, in combination, a wheel-supported axle an adapter frame removably bolted on said axle adjacent to said wheel, a sector-shaped plate constituting a safety guard and opposed to said frame, a wheel fender cooperating with a tread portion of said wheel and having a flange interposed between said frame and guard, and nut-equipped bolts passing through cooperating portions of said frame, guard, and flange.

2,774,611
**COMBINATION ROCKER-GLIDER AND PUSHCART**
Hugh C. Steeber, Royal Oak, Mich., and George A. Moore, Encinitas, Calif.
Application November 7, 1955, Serial No. 545,406
1 Claim. (Cl. 280—218)



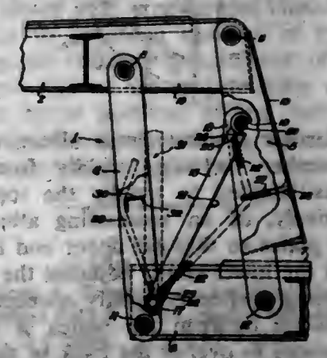
A child's mechanical riding toy comprising; a body portion comprising two vertical side panels in horizontally opposed, spaced relation; crossbars extending therebetween; said side panels having opposed downwardly and rearwardly extending leg portions; a seat assembly fixed to and between said panels; said seat assembly having opposed, downwardly and forwardly extending leg portions, means to pivotally engage said seat assembly with said body portion; said means comprising a pivot bolt extending through adjacent portions of said seat assembly and said body portion; a coil spring axially mounted on each of said bolts; one end of said spring being fixed to one of the rearwardly extending leg portions; the other end of said spring being fixed to one of the forwardly extending leg portions.

2,774,612
**DROP FRAME BOAT TRAILER**
Ralph S. Evans, Miami, Fla.
Application September 30, 1955, Serial No. 537,639
3 Claims. (Cl. 280—414)



1. A boat trailer comprising a longitudinally disposed tubular center beam, a tongue slidably mounted in said center beam, a transversely disposed axle spaced from the forward end of the beam and secured to the under surface thereof, said axle having inclined hubs on ends thereof, wheel mounting arms pivotally connected to said hubs, wheel carrying brackets pivotally mounted on said wheel mounting arms, wheels rotatably mounted in the wheel carrying brackets, a traveler slidably mounted on the center beam, stabilizer bars connecting the traveler to the wheel carrying brackets, a latch for locking the traveler in position with the wheels positioned for travel, boat carrying cradles extended from sides of the center beam, and braces connecting ends of the axle to the forward end of the center beam, the axes of the hubs at the ends of the axle being inclined whereby upon movement of the trailer to the rear and with the locking means of the traveler released the wheels move outwardly and upwardly in relation to the axle and beam.

2,774,613
**SAFETY LOCKING BAR FOR FOLDING TRAILER HITCH**
William E. Martin, Kewanee, Ill.
Application December 4, 1951, Serial No. 259,799
4 Claims. (Cl. 280—415)

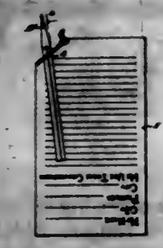


1. A self-locking hitch mechanism for a trailer comprising a hitch tongue, a support on the trailer bed, fore and aft pivotal shafts on said tongue, fore and aft pivotal shafts on said support, a ling connecting said forward shafts, a link connecting the rearward shafts, and a motion locking means interposed between said links comprising a safety bar, pivotal means to swingably carry one end of said bar on one link to permit the other end of said bar to swing freely relative to said links, a latching element on the other of said links, and a releasable latch means supported upon the freely swingable end of said bar and arranged to connect with said latching element on the other of said links; said pivotal means, said bar and said element all being disposed along a line intersecting one of said pivotal shafts when said bar is disposed in latched position with said element whereby

stresses in either direction through said link bar are directed through said one pivotal shaft and its associated mounting.

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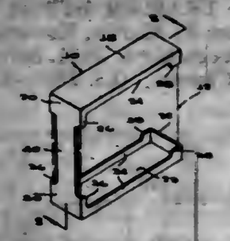
2,774,614
SCORE CARD
Thomas R. Moss, Dyersburg, Tenn.
Application August 9, 1955, Serial No. 527,367
1 Claim. (Cl. 281—1)



A score card comprising a rectangular relatively stiff sheet, one face of said sheet having printed thereon indicia and spaced lines, there being two groups of indicia and two groups of spaced lines, a score line extending between the upper and lower edges of said sheet and disposed midway between the side edges of said sheet, said sheet also having a diagonally disposed score line across each upper corner whereby a triangular tab may be bent upwardly and at right angles to said sheet, said sheet having an opening through each tab to receive and hold a pencil used in placing scores between said lines, the openings in said tabs registering upon bending of said sheet along said first mentioned score lines.

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2,774,615
HOLDER FOR PHONOGRAPH ALBUM RECORDS
Joe G. Joseph, San Antonio, Tex.
Application May 24, 1955, Serial No. 510,617
3 Claims. (Cl. 281—20)

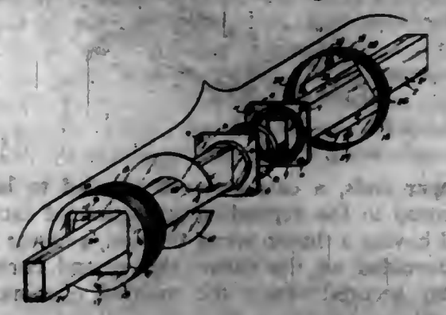


1. A holder for a phonograph album comprising: a C-shaped member including rigidly formed top and bottom plates adapted to overlie the top and bottom ends, respectively, of an upstanding album positioned between said plates so that the upper end is adjacent the top plate and the lower end is adjacent the bottom plate, and a connecting portion integrally connected at its ends to and extending between the plates at corresponding ends of the plates to overlie the back of the album, said connecting portion being inherently resilient and biasing the plates by its resiliency toward each other into engagement with said upper and lower ends of the album.

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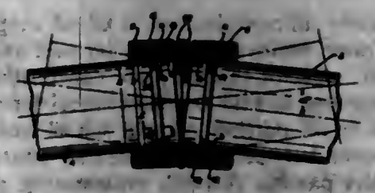
2,774,616
QUICK RELEASE COUPLING HAVING DETACHABLE SCREW THIMBLE-GLAND
Roy F. Dodd and Albert A. Nims, Baltimore, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 7, 1953, Serial No. 353,460
2 Claims. (Cl. 285—33)

2. In a coupling device for waveguide sections of non-equilateral rectangular cross-section and having rectangular coupling flanges at their ends, an externally threaded coupling member having a hole therethrough of configuration similar to that of the flanges whereby it may be assembled over one of said flanges onto one of said waveguide sections, an annular retaining ring having a side opening of a width somewhat greater than the shorter dimension of the waveguide cross-section but smaller than the longer dimension thereof, whereby it may be assembled on said one of said waveguide sections to retain said member thereon, an internally threaded collar closed at one end, the closed end of the collar having a hole therethrough of configuration similar to that of the flanges and a pair of pins on said closed end projecting toward the open end of the collar and engageable with the waveguide flange to limit rotation of the collar with respect to said flange.



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2,774,617
ANGULARLY TILTABLE, RAPIDLY ADJUSTABLE TUBE COUPLING
Karl Ludwig Lassinger, Frankfurt am Main, Germany
Application November 2, 1954, Serial No. 466,255
Claims priority, application Germany November 16, 1953
5 Claims. (Cl. 285—71)

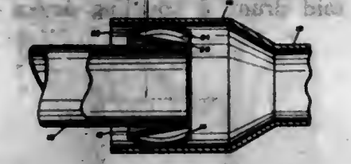


1. A rapidly connectible coupling for angularly tiltable pipes, comprising, in combination, two identical coupling sleeves, one on each pipe end to be connected, with the inside diameter of the coupling sleeves being greater than the outside diameter of the pipes, an arched annular recess in the inside wall of each coupling sleeve and a ring-shaped protuberance on each pipe end interlocking with the aforesaid recesses to prevent parting of the coupling sleeves from the associated pipe ends, a sealing gasket between each coupling half and the corresponding pipe end with which such coupling sleeve is associated, the said sealing gaskets being located, with respect to the pipe ends, in front of the annular recesses and extending beyond the said coupling sleeves and the pipe ends to define abutting frontal seals, and a pair of diametrically opposed locking devices for joining the two coupling sleeves and pressing the aforesaid frontal seals against each other.

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2,774,618
COMBINATION BALL AND SLIP JOINT FOR PIPES
Winston T. Alderson, San Diego, Calif.
Application September 13, 1954, Serial No. 455,676
4 Claims. (Cl. 285—223)

1. A combination ball and slip joint for pipes comprising first pipe end portion and a second pipe end portion in coaxial overlapping relation to the first pipe end portion, a resilient tapered collar having its smaller end peripherally sealed to the first pipe end portion, a hollow ball sleeve defining a major portion of a sphere and peripherally sealed to the larger end of said tapered collar and extending in returned overlapping relation to said collar, said ball sleeve having continuous internal frictional engagement with said second pipe end portion during substantial angular movement of said first pipe end portion.



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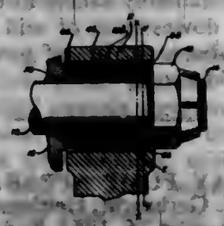
2,774,619
SEALING MEANS FOR A SLIDABLE MEMBER IN A PRESSURE UNIT
Jean Mercier, New York, N. Y.
Application January 22, 1954, Serial No. 405,581
Claims priority, application France July 4, 1953
4 Claims. (Cl. 286—26)



1. Equipment of the character described comprising a container, a plunger slidably mounted in said container, said container having a bore at one end through which said plunger extends, said bore having an annular groove in its inner periphery, a resilient sealing ring in said annular groove encompassing said plunger, a sleeve of resilient material rigidly mounted at one end with respect to said container adjacent said bore, on the inner side of said ring, extending into said container and encompassing said plunger, the free end of said sleeve defining an annular lip normally resiliently retained against said plunger.

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2,774,620
RESILIENT JOINT
Leon F. Thiry, Chagrin Falls, and Dan T. Bradley, Shaker Heights, Ohio; said Bradley assignor to Harris Products Company, a corporation of Ohio
Application February 11, 1952, Serial No. 271,010
2 Claims. (Cl. 287—85)



2. A bearing comprising in combination an externally cylindrical inner member, an internally cylindrical outer member coaxial with and spaced radially outwardly of the inner member, and an annular rubber-like bushing element dilated upon the inner member and engaging said members in pressure friction adherence, said bushing element in its free state having a bore substantially less in diameter than the outer diameter of the inner member, and having in the free state a central portion of considerably greater wall thickness than the thickness of at least one end portion, and at least one end portion having an average annular cross-sectional area in the dilated state before insertion into the outer member substantially less than the annular cross-sectional area between the said inner and outer members, the central portion of the bushing having in its free state an average annular cross-sectional area greater than the annular cross-sectional area between the inner and outer members, the wall thickness of the central and at least one end portion of the bushing being so proportioned that, when the dilated bushing mounted upon the inner member is contractilely inserted into the outer member, the central portion is radially compressed and at least the said one end portion is expanded into pressure friction engagement with said outer member contiguous with and axially beyond the engagement of the central portion to the outer member, the length of the bushing measured along the bore being substantially the same in both the free and assembled states.

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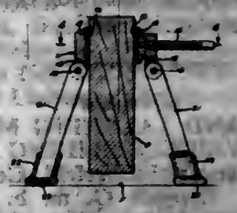
2,774,621
FLEXIBLE GASKETS
Frederick L. Kilbourne, Jr., Woodmont, Conn., assignor to The Connecticut Hard Rubber Company, New Haven, Conn., a corporation of Connecticut
Application February 1, 1954, Serial No. 407,525
3 Claims. (Cl. 288—23)



1. A gasket constructed principally of cured polydimethylsiloxane elastomer and having around the elastomer a sheathing of a nonelastic macromolecular organic structural material more resistant to liquid chemicals than the polydimethylsiloxane, bonded to the elastomer and selected from the class consisting of polytrifluorochloroethylene and polytetrafluoroethylene said gasket having closed path grooves and closed path ridges on substantially all extended surfaces of the gasket to provide corrugated surfaces longitudinal of the gasket, whereby deformation of the gasket under normal compressive forces flexes portions of the corrugated nonelastic sheathing into a projected area different from that covered by the undeformed gasket.

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2,774,622
DOOR HOLDER
William A. Priebe, Los Angeles, Calif.
Application July 9, 1954, Serial No. 442,291
1 Claim. (Cl. 292—288)

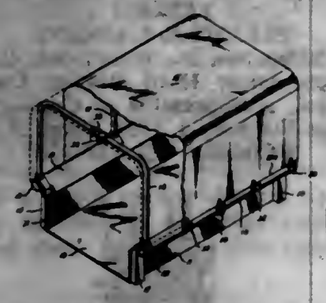


In a door holder to hold a pivoted door against pivotal movement in either direction, a U-shaped bracket adapted to extend around the vertical edge of a door, a pair of door-contacting jaws having non-abrasive abutting surfaces of non-metallic resilient material adapted to contact and clamp against the opposite vertical sides of said door adjacent said edge, one of said jaws being fixed on one arm of said bracket and the other of said jaws being

movable with respect thereto, a rotatable screw carried by the second arm of said bracket and supporting said movable jaw for movement toward and from said door upon rotation, said screw having a handle at its end spaced from said door, a single rigid leg member pivoted to each arm of said bracket on axes located below the plane of said screw and depending therefrom on the opposite sides of said door, said leg members being pivoted about an axis extended parallel to the plane of said door and each being formed with a knee so that with its upper end extended outwardly at an angle from said door its lower end extends more nearly perpendicularly to the floor, said legs lying in a vertical plane passing substantially through the axis of said screw and friction slide-resistant floor-contacting shoes at the lower ends of said leg members.

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2,774,623
**BRACKET FOR SUPPORTING VEHICLE TOP BOW**
Bennie D. Owen, Houston, Tex.
Application July 16, 1953, Serial No. 368,334
6 Claims. (Cl. 296—104)

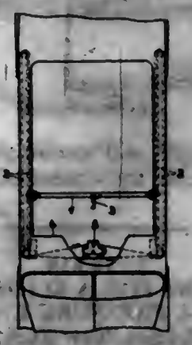


1. A bracket suitable for use on the wall of a vehicle body or the like, which wall has an upper section sloping upwardly and outwardly and terminating along its upper edge in an outturned, horizontally extending, rolled portion, and wherein a stake box is carried by the side wall, said bracket comprising, a circular body section having its inner circumferential face conforming to and adapted to slidably engage the outer circumferential face of said rolled portion about an arc in excess of 180°, a flat section extending from one end of the circular body portion and engageable with the upper surface of the sloped portion of said side wall to provide a stop limiting rotation of the bracket in one direction, a tie down eye carried by the bracket outboard of the zenith of the rolled portion with the stop means engaged, an anchoring leg carried by the flat section and extending into the stake box when the stop means is engaged to prevent movement of the bracket along the rolled portion, said anchoring leg having a length dimension which will clear the wall of the stake box most remote from said rolled portion as the bracekt is rotated about the rolled portion to remove the anchoring leg from the stake box, said bracket when rotated about the rolled portion to remove the anchoring leg from the stake box being slidable along the rolled portion of the side wall.

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2,774,624
**OPERATING AND LATCHING MECHANISM FOR A VEHICLE SLIDING ROOF**
Helmut Lewer, Wuppertal-Elberfeld, Germany, assignor to Firma Gebr. Happich G. m. b. H., Wuppertal-Elberfeld, Germany, a corporation of Germany
Application June 30, 1954, Serial No. 440,497
Claims priority, application Germany June 30, 1953
8 Claims. (Cl. 296—137)

1. A closing device for a sliding roof for a vehicle comprising a hook member secured to the front end of the said roof, a cross beam disposed on top of the said vehicle, the said hook member being adapted to pull the said sliding roof tightly against the said cross beam, a cable drum secured to the said cross beam, a cable wound on the said drum and adapted to open and close, respectively, the said sliding roof upon turning of the said drum, and a driving member for the turning of the said drum, a coupling device disposed be-



tween the said drum and the said driving member and controlled by the said cable, said coupling device including means for disconnecting said drum from said driving member, said hook member operatively engaging said driving member simultaneously with the disconnection of said drum from said driving member.

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2,774,625
**APPARATUS UTILIZING DETONATION WAVES FOR SPRAYING POWDERS**
George P. Hawley and Edward T. Tune, Speedway, Ind., assignors to Union Carbide and Carbon Corporation, a corporation of New York
Application October 21, 1954, Serial No. 463,643
2 Claims. (Cl. 299—28.6)



1. In a detonation gun having an elongated barrel having an open end, said barrel having a length-to-diameter ratio sufficiently high to permit the formation of a detonation therein, mixing chamber means directly and continuously communicating with said barrel for forming and passing to said barrel charges of detonatable fluid fuel mixture, means for supplying the components of said detonatable fluid fuel mixture to said mixing chamber means, supply means associated with said barrel for providing comminuted solid material in said detontable fluid fuel mixture, and means associated with said barrel for igniting said fluid fuel mixture in said barrel to initiate said detonation and propel said comminuted solid material from said gun, the improvement which comprises employing, as said supply means, powder entry tube means passing substantially axially through said elongated barrel to a point downstream of said igniting means for introducing a gas-borne stream of powder into said fluid fuel mixture in said barrel.

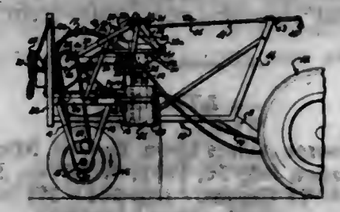
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2,774,626
**SPRAY PUMP APPARATUS**
Osceola J. Gerbracht, Hettinger, N. Dak.
Application August 26, 1954, Serial No. 452,255
6 Claims. (Cl. 299—45)

5. A wheeled apparatus for traveling over the terrain and spraying plants growing thereon comprising, a supply line for delivering carrying fluid, spaced nozzles for overlying the terrain during operation of the apparatus, means for supplying carrying fluid under substantially constant pressure from said supply line to said nozzles to deliver the carrying fluid at a substantially continuous and controlled manner through said nozzles, a mounting



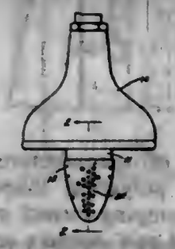
structure on said apparatus, a pump assembly mounted on said mounting assembly, said mount being reciprocable upwardly and downwardly for removing and inserting



said pump assembly into a source of liquid chemical, and a drive mechanism interconnecting said apparatus with the pump assembly for driving thereof at a rate proportional to the rate of travel of said wheeled apparatus.

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2,774,627
**SHOWER CONE**
Felix J. Johnson, Sausalito, Calif.
Application November 2, 1953, Serial No. 389,666
4 Claims. (Cl. 299—83)



1. A hollow cone member having a cavity in the lower portion of the cone filled with water soluble perfumed crystals, said cavity having outside perforated side walls for admitting water to the interior of said cavity when said cone is in use, said cone having a permanent imbedded magnet in its upper structure magnetically engaging with a shower head.

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2,774,628
**APPARATUS FOR DISPENSING UNDER PRESSURE**
Kathleen B. Engstrum, Arlington, Va.
Application May 10, 1954, Serial No. 428,553
10 Claims. (Cl. 299—95)



2. For use with an atomizing nozzle formed to discharge fluent mixtures under pressure from a container loaded with a liquefied gaseous medium, a syphon means inside of the container comprising a chamber, a foraminous barrier across said chamber, said chamber having openings on each side of said barrier, and discharge tubing coupled in said openings and to said atomizing nozzle, said barrier serving to separate any flocculated material from deflocculated material in said fluent mixture discharging through said syphon means, thereby preventing clogging of said atomizing nozzle, said chamber below said barrier having an internal volume greater than the internal volume of said tubing below said barrier, whereby any flocculated material in said chamber below said barrier is deflocculated by pressure into a fine dispersed state for efficient atomization by said nozzle.

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2,774,629
**VARIABLE AREA FUEL NOZZLES**
T Cyril Nees, Bainbridge Township, Geauga County, and Frank C. Bayer, East Cleveland, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application September 8, 1950, Serial No. 183,772
7 Claims. (Cl. 299—118)



6. In a nozzle having an inlet and an outlet, means defining a chamber communicating at one end with said inlet and at the other end with said outlet, piston means slidable in said chamber, metering means operated by said piston means for providing increased flow with increased inlet pressure, and check valve means for preventing flow from said outlet to said other end of said chamber while allowing flow in the reverse direction to permit free movement of said piston means in response to increased inlet pressure.

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2,774,630
**BLOWER NOZZLE**
Thomas W. Henry and George D. Beggs, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware
Application July 17, 1952, Serial No. 299,488
4 Claims. (Cl. 299—140)



1. A blower comprising a horizontally disposed body having opposed surfaces spaced to provide an elongated passage extending vertically through the blower body; chambers within said body adapted to contain gases; a plurality of parallel channels disposed in a row at each side of the passage for discharging gas under pressure from each chamber in the form of a blast; the lower portions of surfaces bounding the passage in said blower body being arranged in substantial parallelism, the gas-discharge channels being configurated to direct the gases of the blasts in converging relation at an included angle of approximately twenty-four degrees and out of contact with the substantially parallel surfaces of the walls of the passage.

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2,774,631
**TWO-PART ORIFICE SPRAY NOZZLE AND METHOD OF MAKING SAME**
Fred W. Wahlin, Oak Park, Ill., assignor to Spraying Systems Co., Bellwood, Ill., a corporation of Illinois
Application June 11, 1952, Serial No. 292,798
8 Claims. (Cl. 299—153)

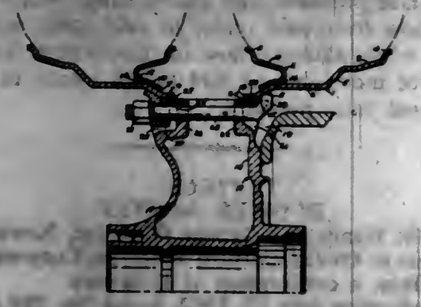


1. A spray nozzle having a passage therein with a dome shaped end which is concentric with and has the

summit thereof concentric with the axis of said passage, said nozzle having at said passage end a spray orifice which is elongated in a direction leading across the summit of said dome shaped end and opens outwardly from said dome shaped end of the passage to the exterior of the nozzle, said orifice being elevationally contoured in conformity to said dome shaped end and having portions of the length thereof which slope downwardly from an interposed place of narrower orifice width to respective places of greater orifice width which face outwardly from the nozzle respectively in directions away from one another.

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2,774,632
TIRE RIM
Rupert L. Aikin, Grosse Pointe Woods, Mich., assignor to Kelsey-Hayes Wheel Company, Detroit, Mich., a corporation of Delaware
Application December 29, 1954, Serial No. 478,305
3 Claims. (Cl. 301—13)



1. A tire rim of the type having an annular well comprising an endless annular member having a tire bead seat, a tire retaining flange at one edge of said tire bead seat, a well side wall at the other edge of said tire bead seat, a well base connecting into said side wall and a mounting portion connecting into the edge of said base spaced from said side wall and extending axially beyond said base and decreasing in diameter away from said base, and a second endless annular V-shaped member having a tire bead seat, a tire retaining flange at one edge of said last-mentioned tire bead seat and a return bent portion at the other edge of said last-mentioned tire bead seat rigidly secured to said base and extending over said mounting portion to reinforce the latter, said return bent portion cooperating with said base and side wall to form the annular well, said mounting portion providing a frusto-conical surface and a substantially radially extending surface, one of said surfaces being engageable with a clamp, and the other of said surfaces being engageable with a seat.

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2,774,633
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application June 11, 1953, Serial No. 360,863
4 Claims. (Cl. 301—37)



1. In a cover structure for a wheel, a cover comprising divergent circular portions having at their junction spaced apertures, a circular part on the rearside of said cover having spaced tabs projecting through said apertures and overlying the opposite and outer side of said cover to interlock said part of said cover and forming an interrupted annular ornamentation on said outer side of the cover, and wheel engaging cover retaining fingers carried by and projecting rearwardly from said circular part.

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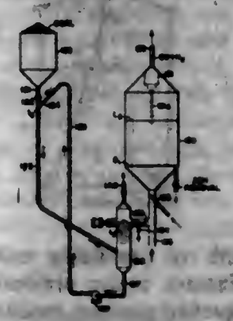
2,774,634
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application July 30, 1952, Serial No. 301,633
11 Claims. (Cl. 301—37)



1. As an article of manufacture, a circular wheel cover made from a polygonal shaped stamping having the corners of the stamping turned under the main body of the cover, each of said corners comprising an axially extending resilient flange notched out at the rear extremity to define an opening of sufficient width for receiving a cover retaining spring clip, the base of said notched portion being turned upon itself toward the cover proper and forming a shoulder at said opening engageable by a spring clip.

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2,774,635
SOLIDS PUMP APPLIED TO COAL GASIFICATION
Henry J. Ogorzaly, Summit, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Original application October 22, 1949, Serial No. 123,070. Divided and this application June 1, 1954, Serial No. 433,359
2 Claims. (Cl. 302—14)

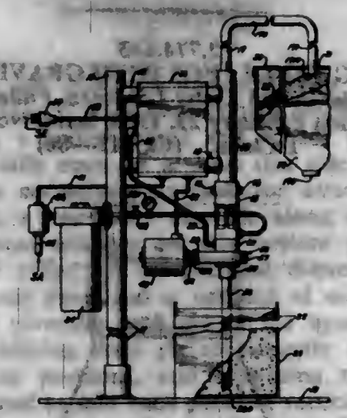


1. In a system for introducing solid particles of relatively low density from a low pressure zone into a treatment zone operating at higher pressure, the combination which comprises a standpipe for a high density liquid, means for feeding said solids at low pressure into the top of said standpipe, means for circulating a stream of dense liquid, from a quiescent receiver zone, at high velocity into the top of said standpipe and downwardly through the standpipe so as to entrain and carry said particles downwardly with said stream notwithstanding their low density and the buoyant effect of said dense liquid, the quiescent receiver zone connected with the lower end of said standpipe, wherein the particles are permitted to rise out of said liquid into a collecting zone, and an impelling feeder for moving said collected particles transversely into the treatment zone, the standpipe being of such height and the liquid of such density as to balance the pressure differential between the low pressure zone and the treatment zone.



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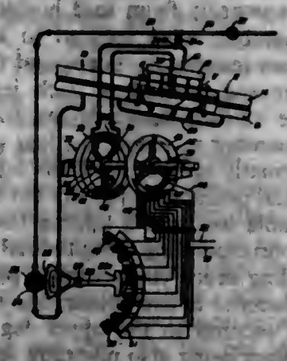
2,774,636
HOPPER LOADERS
Carl H. Whitlock, Avon Township, Oakland County, Mich.
Application October 21, 1955, Serial No. 542,024
9 Claims. (Cl. 302—17)



1. In a hopper loader, venturi means including air jets therein creating a vacuum therebelow and an airstream thereabove, a rigid suction tube positionable in a container of material to be loaded into a hopper, a flexible connector associated in rotatable sealed relationship with said venturi removably and flexibly connecting said rigid suction tube to said venturi in communication with the vacuum side thereof, the lower end of said suction tube being diagonally cut, and means operative responsive to the establishment and maintenance of a predetermined vacuum in said suction tube rotating said suction tube whereby to assure withdrawal of material from said container substantially uniformly around the lower end of said suction tube, and a discharge tube communicating between said venturi airstream and said hopper.

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2,774,637
APPARATUS FOR CONVEYING PULVERULENT MATERIAL
Karl Jens Sylvest, Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a corporation of New Jersey
Application February 24, 1954, Serial No. 412,345
12 Claims. (Cl. 302—29)



1. In a system for conveying pulverulent material, the combination of a covered channel having an inclined bottom, means for supplying the material to the channel at the high end, a source of air under pressure, means for passing air from the source through the material in the channel to render the material sufficiently fluent to form a layer flowing along the bottom of the channel, means for varying the action of the supplying means, and means responsive to the difference in pressure of the air before and after it has passed through the layer of material to vary the action of the supplying means, said responsive means being normally inactive.

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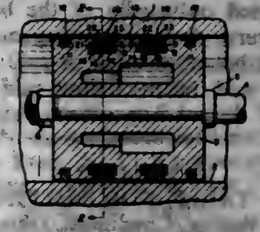
2,774,638
ECCENTRIC TRACK ADJUSTMENT
David Lucien Spencer, Leeds, England, assignor to The Elmco Corporation, Salt Lake City, Utah, a corporation of Utah
Application June 28, 1954, Serial No. 439,775
Claims priority, application Great Britain June 26, 1953
3 Claims. (Cl. 305—9)



1. Endless track-tensioning means for an endless track unit having a track frame, a main idler wheel carried at one end of the track frame, a drive sprocket carried at the other end of the track frame, and an endless track extending therebetween comprising a cylindrical mounting member on which the main idler wheel is rotatable, a pair of spindles extending through said mounting member parallel to the axis thereof, said spindles being spaced apart one on each side of the axis of the mounting member, bearing means mounting one of said spindles in the track frame, tie means at each end of the spindles connecting said spindles in rigid relationship, and an operating member secured to one tie means for effecting angular adjustment about the axis of the spindle located in said bearing means and to cause arcuate movement of the other spindle for effecting angular adjustment of said mounting member.

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2,774,639
PISTON RING EXPANDER
Julius Naab, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey
Application September 25, 1956, Serial No. 611,929
4 Claims. (Cl. 309—35)



1. A piston having a peripheral encircling groove, said groove consisting of an inner slot and a narrower outer slot, a piston ring in the groove, a spring having a maximum width no greater than the width of said outer slot and a relaxed outer diameter at least as great as the outer diameter of the piston, said spring being located in said groove between the bottom thereof and the inner side of the ring constantly urging the ring radially outward, said spring being axially misaligned so that when in place in the inner slot of the groove the said spring can expand only until it abuts against the outer boundary of the inner slot.

2,774,640
**COLLAPSIBLE REAR SEAT SERVICE TRAY FOR AUTOMOBILES**
Clement R. Harmon and Charles R. Twenty, Toledo, Ohio
Application July 5, 1955, Serial No. 519,722
5 Claims. (Cl. 311—21)



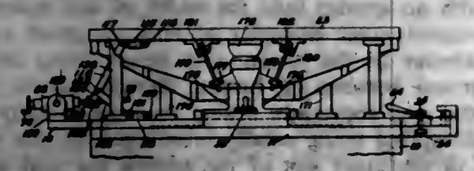
1. A collapsible service tray comprising a centrally disposed vertical guide channel, a rectilinear tray, a guide member on one edge of said tray and movable along said channel, swinging support means pivotally connected to each side of said tray on a pivot line parallel to but removed from said first edge of said tray, means for attaching to a vertical surface the lower end of said guide channel and the upper ends of said support means, adjustable locking means carried in said centrally disposed channel, and a spring pressed plunger cooperating with said locking means and carried on said tray.

2,774,641
**AUTOMOBILE SERVING TRAY HOLDER**
Robert L. Borders, Jr. and Geraldine Sitz, Gadsden, Ala.
Application July 22, 1955, Serial No. 523,649
2 Claims. (Cl. 311—22)



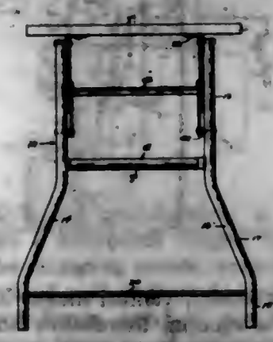
1. For use in supporting a serving tray on the outside of an automobile having a window with a gutter above it, a relatively rigid frame having substantially vertically extending arms, hook members at the upper ends of said arms disposed to hook over the gutter, an inwardly extending member adjacent the lower end of said frame adapted to engage a side of the automobile body, said arms being bowed outwardly intermediate said hook members and said inwardly extending member whereby they are positioned outwardly of the body of the automobile, a transverse tray supporting member connected to the outwardly bowed portion of said arms, and a tray leg support on said frame below said tray supporting member.

2,774,642
**ADJUSTABLE TABLE FOR MILLING MACHINES**
Campbell Ernst Waller, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application March 21, 1955, Serial No. 495,460
7 Claims. (Cl. 311—35)



1. A tilting table structure for a milling machine or the like including a base and a table supported in spaced relation thereto, supporting means intervening the base and table including a ball and socket swivel, a power means carried by the base and engaging the table at a plurality of points in spaced relation to said ball and socket swivel for effecting tilting of the table about two axes intersecting at said swivel and lying in a plane parallel to said base, and means attached to said table along one of said axes and spaced from said swivel for preventing rotary movement of said table about an axis passing through said swivel perpendicular to said plane, said means including a second ball and socket joint having interfitting parts, one of which is secured to the table and the other guided on said base for confined movement along said one of said axes.

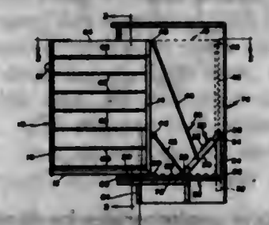
2,774,643
**FOLDING TABLE LEGS WITH GRAVITY LOCK**
David Gladeden and Lester Gladeden, Philadelphia, Pa.
Application February 23, 1955, Serial No. 489,911
1 Claim. (Cl. 311—86)



A folding table construction, comprising a rectangular table top and a supporting leg at each corner of said table top, each leg comprising a vertically extending upper end portion, a vertically extending lower end portion which is offset outwardly from said upper end portion, and a diagonally extending intermediate portion which is connected at its upper end to said upper end portion and at its lower end to said lower end portion, the two legs situated at each end of said rectangular table top being rigidly secured to each other by means of horizontal bars which are secured at their respective ends to said legs, one horizontal bar being secured to the upper end portions of said legs, the other of said horizontal bars being secured to the lower end portions of said legs, whereby the two legs at each end of the rectangular table top are rigidly secured together to form a single integral unit, four longitudinal frame members secured to the under-side of said table top, one at each corner thereof, said frame members being all disposed longitudinally of said table top, each said frame member comprising an angle bar having an upper horizontal flange and a vertically extending flange projecting downwardly from said horizontal flange, each said frame member being secured to said table top by means of screws securing its horizontal flange to the table top, the upper end portion of each leg being pivotally secured to the vertical flange of the correspondingly located frame member to render the legs pivotally movable from their normally upright positions supporting the table top to horizontal positions generally flat against the underside of said table top, and a folding brace between each leg and its corresponding longitudinal frame member, each said folding brace comprising a pair of bars which are pivotally secured to each other, one of said bars being also pivotally secured to the upper leg portion and the other of said bars being also pivotally secured to the vertical flange of said longitudinal frame member, and a stop portion on one of said bars which is engageable with the other of said bars when the legs are in upright position and said bars are disposed at an angle of 180 degrees to each other to prevent further angular movement of said bars relative to each other beyond said angle of 180 degrees.



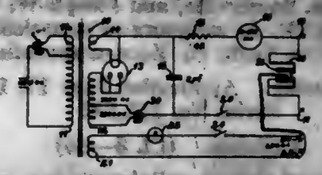
2,774,644
**DRAWER AND STABILIZING MEANS THEREFOR**
Ray A. Patterson, El Cajon, Calif.
Application February 15, 1954, Serial No. 416,324
4 Claims. (Cl. 312—331)



1. A drawer and stabilizing means therefor for installation in an enclosure structure having a baseboard, said drawer having a bottom panel and a back panel and being substantially open on at least one side, said stabilizing means comprising a track for attachment to the baseboard, a free roller movable along said track, a rigid elongated member on said bottom panel and riding on said roller, an upright post disposed to the rear of said back panel and at one end of said track, a lever member pivotally attached to the upper end of said post, stabilizing rods pivoted directly upon said lever at spaced positions, said stabilizing rods being pivotally attached to said back panel at vertically spaced positions, said track extending to the rear of said back panel when the drawer is in retracted position and said lever and stabilizing rods being disposed behind said back panel of the drawer in all positions thereof.

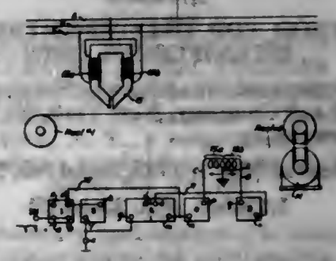
2,774,645
**METHOD FOR REACTIVATING CATHODE RAY TUBES**
Joseph B. Batchelor, Jr., Monroe, Ga., assignor to Wesley R. Schaun, Chicago, Ill.
Application February 8, 1954, Serial No. 408,721
4 Claims. (Cl. 316—2)

1. The method of rejuvenating a used television cathode ray tube having an indirectly heated cathode with a heater and a single-aperture cup-shaped grid, said method comprising the steps of energizing the heater with substantially normal voltage, applying a direct voltage between the cathode and the grid making the latter so highly positive with respect to the former as to cause build-up of current flow between the cathode and the grid which is greatly in excess of the rated, normal cathode current, and removing said voltage at the time the current reaches a reference value for the magnitude of the applied voltage



which is characteristic of a new tube of the type under treatment, said reference current having a value of substantially 60 milliamperes thereby to (*a*) reactivate the cathode material and (*b*) remove any foreign matter present in the aperture of the grid.

2,774,646
**MAGNETIC RECORDING METHOD**
Byron E. Phelps, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1951, Serial No. 264,341
8 Claims. (Cl. 346—74)



1. Apparatus for receiving and recording successive time displaced discrete intelligence pulses on a moving magnetic record medium, including in combination: a moving magnetic record medium; first controllable means for continuously generating either a magnetic flux of a first polarity or of a second polarity opposite to said first polarity on said and record medium; second means for controlling said first controllable means to change the magnetic flux polarity on said magnetic recording medium from either said first polarity of magnetization to said second polarity of magnetization, or vice versa, upon receipt of each one of said intelligence pulses, whereby each intelligence pulse is represented on said magnetic record medium solely by a change in either direction of the polarity of magnetization of said magnetic record medium.

## CHEMICAL

2,774,647
**DYEING OF POLYESTERS WITH VAT DYES**
Jerry M. Mecco, Somerville, and Joseph W. Creely, East Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application May 17, 1952, Serial No. 288,544
2 Claims. (Cl. 8—34)

1. A process of dyeing fibrous polyesters of a glycol and a polycarboxylic acid with vat dyes, which comprises heating the said polyester fibers in an aqueous dyebath containing an unesterified leuco vat dye, a reducing agent and sodium tripolyphosphate, and having a pH between 6.5 and 7.5, at a temperature between the boiling point of water and 290° F., the pH of the aqueous dyebath during dyeing being maintained between 6.5 and 7.5 by means of the sodium tripolyphosphate buffer, and oxidizing the dyestuff on the fiber after dyeing is complete.

2,774,648
**DYEING OF POLYACRYLONITRILE WITH VAT DYES**
Jerry M. Mecco, Somerville, and Joseph W. Creely, East Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application May 17, 1952, Serial No. 288,541
5 Claims. (Cl. 8—34)

1. A method of dyeing with vat dyes polyacrylonitrile fibers which are copolymers of acrylonitrile and a small amount of methyl acrylate and spun from a concentrated aqueous thiocyanate solution, which comprises heating at a temperature between 160°–325° F. the said fibers in an aqueous dyebath containing an unesterified leuco vat dyestuff, a reducing agent and a sufficient amount of zirconium oxychloride to substantially reduce heat yellowing of said fiber, the dyebath having a pH between 6 and 8, maintaining the pH of said aqueous dyebath between 6 and 8 during said heating until the dyeing is complete and oxidizing the dyestuff on the fiber.

2,774,649

## DYEING OF CELLULOSE CARBOXYLIC ACID ESTERS WITH VAT DYES

Jerry M. Mecca, Somerville, and Joseph W. Creely, East Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 17, 1952, Serial No. 288,542

4 Claims. (Cl. 8—36)

1. A method of dyeing cellulose esters of carboxylic acids with vat dyes which comprises heating the said cellulose ester material in an aqueous dyebath containing an unesterified leuco vat dyestuff, a reducing agent and sodium tripolyphosphate and having a pH between 6.5 and 7.5, at a temperature between 160° F. and the boiling point thereof, maintaining the pH of the said dyebath between 6.5 and 7.5 by means of said sodium tripolyphosphate buffer during said heating until the dyeing is complete, and regenerating the vat dye on the said cellulose material by oxidation.

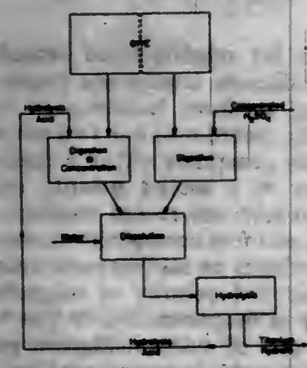
2,774,650

## METHOD FOR DECOMPOSITION OF TITANIFEROUS ORES

Asmr G. Oppegaard, Fredrikstad, Norway, assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

Application May 1, 1953, Serial No. 352,547

1 Claim. (Cl. 23—117)



Process for decomposition of titaniferous material with sulfuric acid which comprises the following steps: (1) separating said material into two portions; (2) reacting one of said portions with concentrated sulfuric acid, the amount of concentrated sulfuric acid used being sufficient to form a product from 35% to 40% basic; (3) reacting the other portion of said material with hydrolysis acid and simultaneously concentrating to form a product, the amount of hydrolysis acid used being sufficient to form a product which is neutral to 10% acidic; and (4) subsequently dissolving and combining the so-formed products in an aqueous media to form a solution which has a basicity from 15% to 25%.

2,774,651

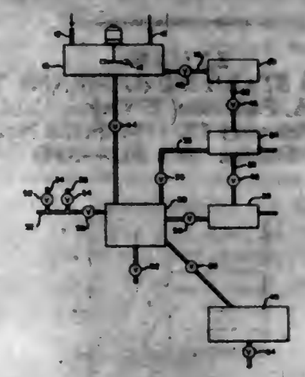
## DRYING AGENT AND PROCESS OF MAKING THE SAME

Kenneth A. Loftman, Boston, Mass., assignor to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application November 7, 1952, Serial No. 319,287

8 Claims. (Cl. 23—122)

1. A process for producing a desiccant which comprises the steps of reacting calcium silicate with a solution of sulfuric acid having a concentration of between 10 and 35%, and in a molar amount of at least 95% of the molar amount of calcium silicate, and agglomerating the resulting product to form agglomerates by densifying to a bulk density of above about 19 lbs./cu. ft.



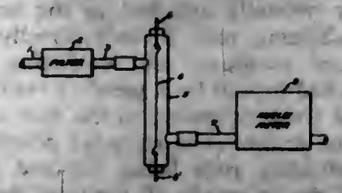
2,774,652

## HALOGEN VAPOR DETECTOR

Bernard Vonnegut, Alplaus, N. Y., assignor to General Electric Company, a corporation of New York

Application September 22, 1951, Serial No. 247,864

1 Claim. (Cl. 23—232)



The method of measuring the relative amount of halogen in a gas which comprises freeing said gas from condensation nuclei which may be present, bringing a volume of said gas into contact with a platinum surface heated to a temperature of about 500 to 800° C. whereby condensation nuclei composed of platinum halides are formed by chemical interaction of halogen with said heated platinum, humidifying said volume of gas, condensing water vapor about said condensation nuclei to form a droplet cloud, irradiating said droplet cloud with a beam of light to indicate the amount of scattering of light by said droplet cloud as a measure of said halogen.

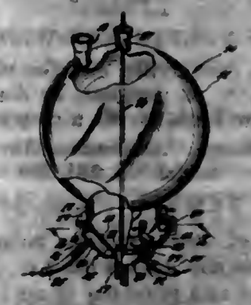
2,774,653

## CHEMICAL APPARATUS FOR REACTING CHEMICALS REQUIRING HEAT TRANSFER

Aristodemo J. Cannetto, Rye, N. Y.

Application March 26, 1953, Serial No. 344,863

3 Claims. (Cl. 23—259)



1. An apparatus for reactive chemicals requiring heat transfer comprising a substantially spherical glass vessel adapted to receive the chemicals, said vessel at the bottom thereof having a relatively large, substantially circular opening, a laterally extending, substantially circular flange integrally formed in the bottom of said vessel around said opening, a substantially funnel-shaped metallic member adapted to be positioned in and close said opening, a laterally extending, substantially circular flange integrally formed in the mouth of said funnel-shaped member adapted to coincide with said flange in said vessel, means for securing said flanges together, a jacket freely and unobstructably spaced from and connected to the outer surface of said funnel-shaped member, adapted to circulate a heat transfer fluid around the outside of said funnel-shaped member, said jacket having an inlet and an outlet, means for supplying heat transfer fluid to said inlet, said vessel having an open neck, said funnel-shaped member including an open neck, a bottom outlet stopper within said neck, an elongated rod connected at its lower end to said stopper and extending upwardly through the open neck of said vessel, said funnel-shaped member being coated with a thin layer of glass.



2,774,654

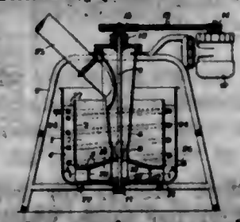
## CONTACT MIXER

John Alva Reed, Gleadop, England, assignor, by mesne assignments, to Tootal Broadhurst Lee Company Limited, Manchester, England, a British company

Application February 26, 1952, Serial No. 273,440

Claims priority, application Great Britain March 1, 1951

6 Claims. (Cl. 23—285)



1. An apparatus for treating one substance with another of which at least one is a liquid comprising a cylindrical tank, a central passage element rising from a level above the bottom of the tank to a level above the top of the tank, a cylindrical partition within the tank surrounding said central passage element with its upper end below the top of the tank and below the top of the central passage element and its lower end above the bottom of the tank to define an outer flow chamber between itself and the cylindrical wall of the tank and to define an inner flow chamber between itself and said central passage element, a lower partition extending from the lower end of said cylindrical partition to the lower end of said central passage element to define between itself and the bottom of the tank a connecting space between the central passage element and the outer flow chamber, and an impeller located in said connecting space immediately beneath the central passage element, said central passage element having at least one opening therein below the mid-height of said cylindrical partition at a level above the impeller to connect the central passage element with the inner flow chamber.

2,774,655

## APPARATUS FOR PURIFYING RAW SULPHUR

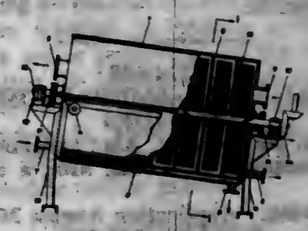
Gerlando Marullo and Domenico Maragliano, Milan, Italy, assignors to Montecatini, Societa Generale per l'Industria Mineraria e Chimica, a corporation of Italy

Original application February 8, 1951, Serial No. 210,024, now Patent No. 2,699,783, dated September 21, 1954. Divided and this application May 23, 1952, Serial No. 289,620

Claims priority, application Italy March 28, 1950

4 Claims. (Cl. 23—286)

1. In apparatus for purifying raw sulphur, a hollow drum, supports for said drum to hold it in a position inclined with respect to the horizontal, inlet and outlet means for passing molten sulphur through the lower half of said drum, inlet and outlet means for passing an $SO_2$-gas current through the upper half of said drum in countercurrent relationship to the molten sulphur, a rotary shaft passing through said drum along its axis, seal bearings for said shaft at both heads of said drum, means for rotating said shaft, a plurality of spaced radially arranged baffles mounted in and dividing the lower part of said drum into a number of imperforate-walled compartments open at the top, said baffles extending up only to a point slightly below said axial shaft, and a plurality of spaced sheet metal discs having a diameter slightly smaller than the inner diameter of said drum concentrically fitted on said shaft to rotate therewith and extending into said compartments.





2,774,656

## SUPPLEMENTARY FUEL MIXTURE FOR COLD STARTING DIESEL ENGINES

Stanley R. Newman, Beacon, and Herbert E. Vermillion, Wappingers Falls, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application August 28, 1953, Serial No. 377,239

4 Claims. (Cl. 44—53)

1. A supplementary fuel mixture for manifold introduction into a diesel engine for cold starting comprising 5 to 50 percent diethyl ether and 50 to 95 percent of a compound selected from the group consisting of ethylene glycol diethyl ether and diethylene glycol diethyl ether.

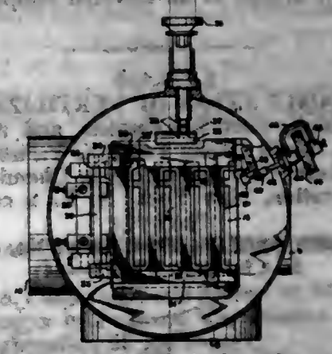
2,774,657

## PROPORTIONING AND MIXING APPARATUS

Hartwig M. Hanson, Baltimore, Md., assignor to The C. M. Kemp Manufacturing Company, Baltimore, Md., a corporation of Maryland

Application March 25, 1954, Serial No. 418,737

6 Claims. (Cl. 48—184)



6. In a gas and air mixing device, the combination of a tightly closed partitioned casing having air, gas and mixing chambers therein, the casing having inlet openings leading through the casing wall and collecting with the respective air and gas chambers and having an outlet leading through the casing wall to the mixing chamber, an orificed flat cover plate extending over the outlet ends of said air and gas chambers, an orificed slide valve slidable over said flat cover plate over the air and gas chambers, means to reciprocally slide the slide valve to vary the flow of air and gas therethrough simultaneously, and adjustable auxiliary valve means in one of the gas orifices of said orificed cover plate and flush with the slide valve, shaped to provide a substantially V-shaped orifice opening toward the slide valve and covered and uncovered

thereby in its reciprocation and extending in the direction of sliding of the slide valve adjacent the orifice cover plate over the gas chamber to provide an additional gas inlet area to the mixing chamber which increases in size both because of the withdrawal of the reciprocating plate in its reciprocation and of the direction and shape of the auxiliary valve orifice.

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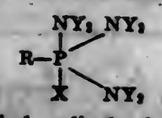
2,774,658

## HERBICIDAL ALKYL-AMINO-PHOSPHONIUM HALIDES

William T. Dye, Jr., Decatur, Ala., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 30, 1955, Serial No. 531,571
12 Claims. (Cl. 71—2.7)

7. A method of destroying undesirable plants which comprises contacting said plants with a herbicidal composition comprising an inert carrier and as the essential active ingredient, in a quantity which is injurious to said plants, a phosphonium halide having the formula



in which R is an alkyl radical of from 6 to 22 carbon atoms, X is selected from the class consisting of chlorine and bromine and Y is an alkyl radical of from 1 to 4 carbon atoms.

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2,774,659

## POLYMERIZATION PRODUCTS OF UREA AND ALPHA,BETA UNSATURATED ACIDS USED AS SOIL CONDITIONER

Gerhard Abel and Theodor Volker, Darmstadt, Germany, assignors to Rohm & Haas G. m. b. H., Darmstadt, Germany

No Drawing. Application August 25, 1953, Serial No. 376,520
Claims priority, application Germany August 25, 1952
18 Claims. (Cl. 71—28)

1. As new compounds, polymerization products of the reaction products obtained by reacting urea with $\alpha:\beta$-unsaturated acids of the general formula $H_2C{=}CRCOOH$ where R is selected from the group consisting of hydrogen, alkyl and aryl groups at an elevated temperature below 200° C.

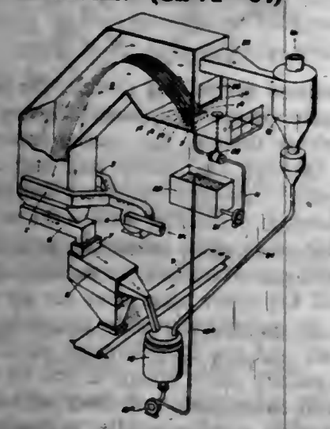
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2,774,660

## GRANULATION OF FERTILIZERS

Lucien H. Cook, Port Washington, and Alexander W. Hodge, Jr., South Ozone Park, N. Y., and John Colonias, Elizabeth, N. J., assignors to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

Application April 26, 1954, Serial No. 425,362
15 Claims. (Cl. 71—64)



1. The process for the production of uniform and moisture-stable granules of a nitrogen fertilizer which comprises: heating said nitrogen fertilizer to a temperature slightly above its melting point; jetting the resulting molten fertilizer upwardly under a positive pressure into an uninterrupted, unidirectional stream consisting of a homogeneous body of liquid; separating such stream into droplets by the forces of gravity and surface tension; countercurrently contacting said droplets with an inert cooling gas and thereby removing moisture from said droplets; and recovering a uniform and moisture-stable product.

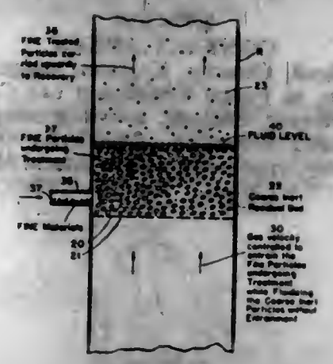
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2,774,661

## METHOD OF HEAT-TREATING FINES IN A COARSE SOLIDS FLUIDIZED BED

Frank S. White, Stockbridge, Mass., assignor to The Dorr Company, Stamford, Conn., a corporation of Delaware

Application August 7, 1951, Serial No. 240,687
5 Claims. (Cl. 75—9)




1. The continuous process for heat-treating finely-divided thermally reactive solids, which comprises establishing in an enclosed chamber a bed of thermally-stable non-reactive coarse solids at a predetermined temperature of incandescence on a gas-permeable support with a freeboard space overlying the bed, introducing reactive fine solids from an external source into the bed while maintaining the bed as a homogeneous non-stratifying fluidized bed by passing therethrough a gas stream uprising at a velocity sufficient to fluidize both the coarse and fine bed solids as well as to entrain fine solids from the upper surface of the bed but insufficient to entrain coarse solids thereby dispersing such fine solids throughout said fluidized bed, reacting such fine solids during such dispersal, controlling the time of residence of fine solids in the bed to be sufficient to react such fine solids and discharging the reacted fine solids from the bed by entrainment in the uprising gas stream.

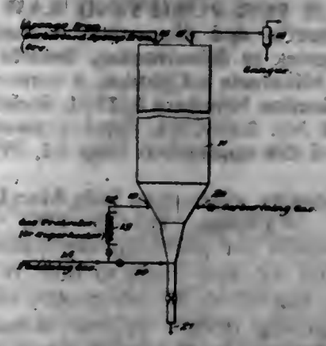
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2,774,662

## REDUCTION AND FUSION OF METALS

Hugh S. Graham, Hellertown, and John E. Eberhardt, Bethlehem, Pa., assignors to Bethlehem Steel Company, a corporation of Pennsylvania

Application September 13, 1955, Serial No. 534,111
4 Claims. (Cl. 75—26)



1. A process of melting iron in a fluidized bed comprising maintaining a fluidized bed of carburized sponge iron, maintaining the temperature in the upper zone of the bed above the melting point of the iron but below the melting point of the gangue associated therewith, and maintaining the temperature in the lower zone of the bed below the melting point of iron, thereby forming globules of molten iron in said upper zone and cooling and solidifying said globules in said lower zone.



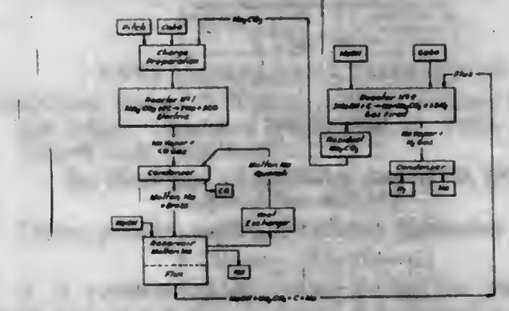
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2,774,663

## PRODUCTION OF SODIUM

Roy C. Kirk, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application October 18, 1955, Serial No. 541,274
5 Claims. (Cl. 75—66)



1. In a process for producing sodium which comprises reducing sodium carbonate with carbon in a high temperature reactor to produce sodium vapor and carbon monoxide, condensing the sodium vapor to produce a mixture of molten sodium and a dross consisting principally of sodium carbonate and carbon, fluxing the dross from the molten sodium with sodium hydroxide and separating the flux from said molten sodium, the improvement which comprises the steps of heating said flux in a low temperature reactor along with added sodium hydroxide and carbon to produce sodium vapor, hydrogen and residual sodium carbonate, separating said sodium carbonate from the sodium vapor and hydrogen, and feeding said sodium carbonate and added carbon into the above-mentioned high temperature reactor to complete a cyclical process for making sodium.

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2,774,664

## MAGNESIUM-BASE ALLOY

John C. McDonald, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 16, 1953, Serial No. 386,666
3 Claims. (Cl. 75—168)

1. A magnesium-base alloy comprising from 0.5 to 8 percent of thorium, from 0.2 to 2 percent of manganese, the balance being magnesium.

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2,774,665

## PRODUCTION OF SOLUBLE SULFIDES

Eugene W. Schoeffel and Daniel M. Barton, Kronenwetter, Wis., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application November 12, 1953, Serial No. 391,753
3 Claims. (Cl. 92—2)

1. A process for regenerating an alkaline sulfide pulping liquor from black liquor containing sodium hydroxide, sodium sulfide, sodium sulfate and sodium carbonate which includes: oxidizing black liquor to destroy organic matter therein and convert the sodium salts substantially entirely to sodium sulfate and sodium carbonate by heating under a pressure sufficient to maintain at least part of the reaction mixture in the liquid phase, said black liquor at a temperature above about 240 degrees centigrade with sufficient oxygen to convert all the carbon to carbon dioxide and all the hydrogen to steam; liming the resulting oxidized liquor to convert a major proportion of the sodium carbonate therein to sodium hydroxide and form insoluble calcium carbonate; separating the insoluble calcium carbonate, thereby providing an alkaline filtrate; mixing said alkaline filtrate with an amount of barium sulfide chemically equivalent to a major proportion of the sodium sulfate therein; separating the insoluble barium sulfate; and, recovering and recycling a sulfide-enriched filtrate comprising sodium hydroxide, sodium carbonate, sodium sulfide and sodium sulfate suitable for use in digesting wood chips by an alkaline sulfide process.

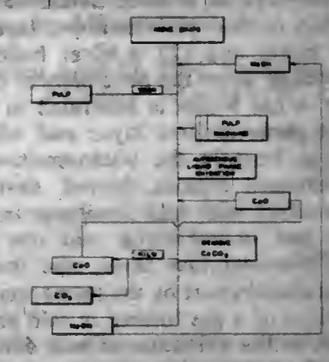
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2,774,666

## RECOVERY OF COOKING LIQUOR FROM SPENT SODA PULPING LIQUORS

Daniel M. Barton and Eugene W. Schoeffel, Kronenwetter, Wis., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

Application June 24, 1954, Serial No. 439,067
5 Claims. (Cl. 92—2)



1. A process for the recovery of soda base cooking liquor which comprises: digesting wood chips with soda base cooking liquor; separating a waste soda liquor and oxidizing, in the liquid phase, this liquor at a temperature of between 150 and 372 degrees centigrade and at least 400 pounds per square inch pressure with at least sufficient oxygen to convert all the carbon to carbon dioxide and all the hydrogen to steam; treating the liquid effluent containing sodium carbonate and bicarbonate with sufficient alkaline earth hydroxide to cause precipitation of substantially all of the carbonates and bicarbonates; separating the precipitated alkaline earth carbonates; and, recycling the filtrate containing sodium hydroxide to treat subsequent batches of wood chips.

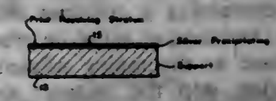
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2,774,667

## PHOTOGRAPHIC SILVER HALIDE TRANSFER PROCESS

Edwin H. Land, Cambridge, and Meroe M. Morse, Boston, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application July 2, 1951, Serial No. 234,854
14 Claims. (Cl. 96—29)

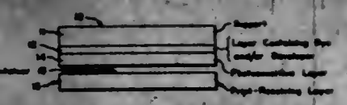


1. The process of forming images in silver which comprises developing a latent image in a silver halide emulsion, reacting a silver halide solvent with part at least of the undeveloped silver halide of said emulsion, transferring at least part of said soluble silver complex to an image-receiving material comprising a silver precipitating agent dispersed in a silica matrix formed by the hardening in situ of a colloidal solution of hydrated silica whose silica particles have a particle size averaging less than 30

millimicrons, and precipitating the silver of said complex at said image-receiving material to form a print of said latent image among said hydrated silica.

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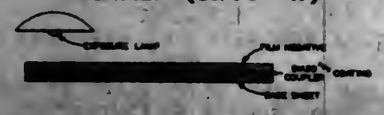
2,774,668
PROCESS AND PRODUCT FOR FORMING COLOR IMAGES FROM COMPLETE DYES
Howard G. Rogers, Weston, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application May 28, 1953, Serial No. 358,012
8 Claims. (Cl. 96—29)



1. A process of forming images in color which comprises absorbing a liquid into a photosensitive element including a photosensitive silver halide layer having a latent image therein and providing in solution in said layer a substantially uniform distribution of (1) a dye which possesses a coupling function and which is reactable with oxidized portions of a silver halide developer, said dye being mobile in said photosensitive layer when dissolved in said liquid and (2) a silver halide developer capable of providing, upon the development of said latent image to silver, a gas which is generated in the exposed regions of said photosensitive layer and which thereby forms bubbles at least in the photosensitive layer and adjacent said exposed regions thereof, developing said latent image to silver with said developer in said photosensitive layer and immobilizing said dye in exposed regions of said photosensitive layer, said immobilization being effected at least in part by the formation of a barrier comprising bubbles of a gas formed in said photosensitive layer as a result of the oxidation of said developer while providing in said photosensitive layer as a further result of development an imagewise distribution comprising mobile dye and unreacted developer and transferring from said photosensitive layer, by imbibition, at least part of said imagewise distribution of mobile dye to a print-receiving element located in superposed relation to said photosensitive element to impart to said print-receiving element an image in terms of said mobile dye.

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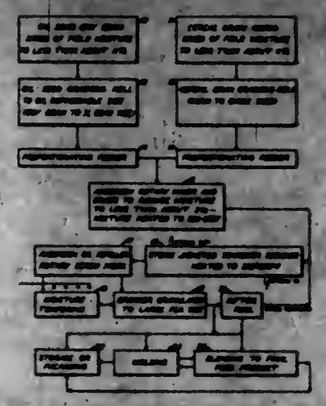
2,774,669
DIAZOTYPE REPRODUCTION PROCESS
Thomas U. Marron, Franklin Park, and Clarence J. Shoemaker, Glenview, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois
Application April 13, 1953, Serial No. 348,504
1 Claim. (Cl. 96—49)



A method for the production of copy comprising positioning a positive in surface contact with a copy sheet having a coating dried on the surface thereof formed with a composition containing a cellulose derivative selected from the group consisting of cellulose ethers and cellulose esters and acetone as the major solvent to prevent excessive penetration into the support and containing a diazo compound capable of coupling to form an azo dyestuff, a diazo coupling component and an acid medium present in sufficient amount to prevent a coupling reaction to form a dyestuff, exposing the coated support through the positive to destroy the diazo in the exposed areas leaving a latent image of the dye forming components in the unexposed areas, contacting the coated surface of the support containing the latent image with a sheet containing a chromium hexamino compound capable of releasing a base by volatilization at elevated temperature, heating the sheet during contact to cause volatilization of the base from the sheet to the coated surface of the copy sheet to adjust the pH in the coating forming the latent image whereby a coupling reaction takes place to develop the latent image on the support as an azo dyestuff.

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2,774,670
CEREAL FOOD AND METHOD
Max Albert, Gallesburg, Ill.
Application September 28, 1953, Serial No. 382,679
16 Claims. (Cl. 99—2)



1. An empirically non-oily dry non-cellular and oil-distributing pressure fused food product comprising a substantially homogeneous non-cellular blend of a cereal grain and an oil seed, each adjusted in proportion to the other to impart an edible oil content to the blend in the range of about 3 to 6%, said product being formed by mixing the cereal grain and oil seed in said proportions and heating and pressing the mixture at a pressure exceeding about 3000 p. s. i. and a temperature exceeding about 250° F.

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2,774,671
PRODUCING DRY VEGETABLE-MOLASSES PRODUCT
Robert H. Cotton, Harbor Beach, Mich., and Guy O. Rornabaugh, Colorado Springs, Colo., assignors to Holly Sugar Corporation, Colorado Springs, Colo., a corporation of New York
Application December 6, 1950, Serial No. 199,536
10 Claims. (Cl. 99—6)

1. A method of producing a relatively dry vegetable product having a substantial proportion of molasses solids, from vegetable matter having a high water content, which comprises pressing said vegetable matter to reduce the water content thereof; mixing a concentrated molasses with said pressed vegetable matter; permitting the mixture to stand for a sufficient period of time to cause moisture in the vegetable matter to dilute the molasses; pressing the mixed product to remove the dilute molasses; and drying the said pressed mixed product.

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2,774,672
METAPHOSPHATE COMPOSITION
Edward J. Griffith, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application March 18, 1955, Serial No. 495,317
13 Claims. (Cl. 99—95)

8. A leavening composition comprising from 20 weight percent to 75 weight percent of sodium bicarbonate and from 25 weight percent to 80 weight percent of a metaphosphate having the empirical formula,

$$Na_xH_y(PO_3)_{x+y}$$

wherein $x$ and $y$ are positive numbers and $x/y$ is between ½ and 9.



2,774,673
FOOD ADDITIVE
Robert H. Young, Wooster, Ohio
No Drawing. Application June 2, 1954, Serial No. 434,090
5 Claims. (Cl. 99—143)

1. A food additive for accenting the natural flavor of and for tenderizing foods comprising a proteolytic enzyme from vegetable sources within the range of 1½ to 3% by weight, monosodium glutamate within the range of 7½ to 12% by weight, purified maize carbohydrates within the range of 6 to 13½% by weight, anti-oxidant condiments within the range of 4 to 8% by weight, and salt the remainder.

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2,774,674
ANTI-ADHESION COMPOSITIONS
Jean René Dumas, Venissieux, France, assignor to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate
No Drawing. Application August 30, 1954, Serial No. 453,151
Claims priority, application France September 3, 1953
4 Claims. (Cl. 106—2)

1. A composition of matter having the property of imparting to a surface to which it is applied a resistance to the adhesion of other substances, which consists essentially of an aqueous dispersion of at least one organopolysiloxanic oil containing at least 15% by weight of water, finely divided silica in a proportion of 20–70% by weight of the total organo-polysiloxanic oil present, an emulsifier in a proportion of 15–55% by weight of the total of organo-polysiloxanic oil and the silica, and an alkali salt of an organo-silane-triol in a proportion of 0.5 to 20% by weight of the total of organo-polysiloxanic oil and silica.

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2,774,675
GLASS COMPOSITION
Games Slayter, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
No Drawing. Application February 25, 1953, Serial No. 338,913
8 Claims. (Cl. 106—50)

1. A glass composition consisting essentially of from 40 to 50 parts by weight alumina, from 35 to 50 parts by weight calcia, and from 5 to 20 parts by weight tin oxide.

2. The composition of claim 1 in fibrous form.

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2,774,676
AQUEOUS BITUMEN DISPERSIONS AND A PROCESS OF MAKING THEM
Karl Meyer, Wanne-Eickel, Franz Eisenhut, Gelsenkirchen-Horst, and Adolf Siegl, Essen-Ruhr, Germany
No Drawing. Application December 23, 1952, Serial No. 327,682
Claims priority, application Germany December 31, 1951
7 Claims. (Cl. 106—277)

1. A stabilized aqueous bitumen dispersion, consisting essentially of a bitumen having a maximum Kraemer-Sarnow softening point of 60° C. dispersed in water by finely divided solid particles of at least one water-dispersible mineral, said bitumen and said mineral dispersed in said water having a tendency to settle; and between 0.5–4% by weight of at least one polycyclic condensed ring aromatic hydrocarbon having a maximum of three rings being added thereto, said polycyclic hydrocarbon stabilizing said dispersion and reducing the tendency of said bitumen and said mineral dispersed in said water to settle.

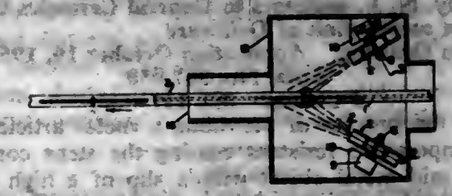
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2,774,677
PHTHALOCYANINE LAKES
Robert E. Brookfield, Westfield, and Thomas D. Mutello, North Plainfield, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application September 18, 1953, Serial No. 381,149
13 Claims. (Cl. 106—289)

1. In a process for the manufacture of a phthalocyanine lake in which a water-insoluble alkaline earth metal resinate is precipitated by reaction between a water soluble alkaline earth metal salt and a water soluble salt of a resin in acid in an aqueous medium in the presence of a water-insoluble phthalocyanine coloring matter, the improvement which comprises effecting the precipitation in the presence of about .01 to 0.2 part by weight per part of pigment of a 1-hydroxyethyl glyoxalidine containing a long chain hydrocarbon in the 2 position.

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2,774,678
PREPARATION OF SHEET METAL FOR ENAMELING
Clarence J. Rodman, Alliance, Ohio, assignor, by mesne assignments, to AllianceWare, Inc., a corporation of Delaware
Application April 21, 1953, Serial No. 350,017
5 Claims. (Cl. 117—9)



1. The process which comprises working the surface of an iron sheet product by bombarding it with relatively fine metallic shot, the shot being high in the scale of hardness compared to the iron sheet, whereby the worked surface is covered with pock marks, and then porcelain-enameling the surface.

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2,774,679
TREATING OF PLASTIC SURFACES
Robert K. Reuter, St. Charles, Ill., assignor to The Strathmore Company, Aurora, Ill., a copartnership
Application February 10, 1953, Serial No. 336,034
2 Claims. (Cl. 117—11)



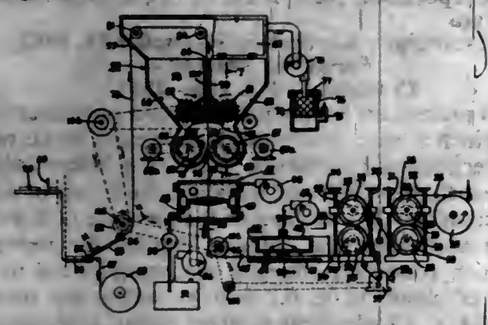
1. The method of treating the surface of cellulose acetate film which comprises spraying a traveling web of said film with water containing finely divided abrasive, an alkali metal hydroxide and an anhydride of a lower alkyl dibasic acid.

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2,774,680
PROCESS FOR MAKING AEROSOL FILTERS
Edward J. Hackney, Charles D. Faucette, and Frederick R. Durkis, Durham, N. C.
Original application October 7, 1953, Serial No. 384,684. Divided and this application July 6, 1954, Serial No. 444,882
14 Claims. (Cl. 117—17)

1. The process of making an aerosol filter which includes moving a flat band consisting of generally parallel filaments of textile material, all of said filaments bearing a similar electrical charge tending to separate the fila-

ments and a majority thereof being within the field of at least a neighboring filament, into and through an atmospheric suspension of rod-like fibers of diameter not exceeding about 40 microns or the diameter of the fila-



ments whichever is less, and gathering said filaments into a compact bundle in contiguous relation with gas flow passage spaces therebetween in longitudinal relation to said filaments and with said fibers extending across said passage spaces in spaced relation along said spaces.

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2,774,681

## PROCESS OF COATING METAL WITH MICA AND ARTICLE

Paul Huppert, Plainfield, and Arthur F. Jakubczak, Perth Amboy, N. J., assignors to General Ceramics Corporation, a corporation of Delaware

No Drawing. Application October 19, 1953, Serial No. 387,050

4 Claims. (Cl. 117—33)

1. In the process of providing a metal article with a high temperature resistant coating the steps comprising coating said metal object with a slip of a high temperature resistant, ceramically maturable vitreous enamel composition, incorporating mica particles into the surface region of the coating of the thus coated metal object prior to completing the drying of the applied slip, drying the slip and firing the ceramic composition at a temperature of the order of 50° F. higher than the normal maturing temperature of such ceramic composition whereby to provide a vitreous enamel coating containing mica particles at least partially embedded therein.

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2,774,682

## METHOD OF FORMING A PHOSPHOR SCREEN

Simon Larach, New Brunswick, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 15, 1952, Serial No. 314,925

3 Claims. (Cl. 117—33.5)



1. The method of forming a phosphor screen on a substrate, said method comprising the steps of preparing a water suspension of finely divided phosphor particles, introducing said suspension into a solution of an alkali halide to form a second suspension, thoroughly mixing the constituents of said second suspension in order to adsorb halide ions onto the surfaces of each of said phosphor particles, treating said phosphor particles and adsorbed halide ions with an alkali silicate to form a binder sheath around said phosphor particles, forming a suspension of said sheathed phosphor particles, introducing said last mentioned suspension over said substrate, and settling said sheathed particles onto said substrate through a neutral settling medium.

2,774,683

## METHOD OF PREPARING THE SURFACE OF ARTICLES OF MAGNESIUM AND MAGNESIUM BASE ALLOYS FOR THE RECEPTION OF NICKEL ELECTROPLATE

Herbert K. De Long, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 25, 1952, Serial No. 273,354

4 Claims. (Cl. 117—62)

1. In a method of treating the surface of an article of magnesium and the magnesium base alloys containing at least 85 percent of magnesium so as to render the surface receptive to electrodeposition of a uniform adherent plating of nickel, the steps which consist in subjecting the article to the action of an aqueous solution containing from 30 to 100 grams of copper sulfate ($CuSO_4$) and from 6 to 30 grams of chromium trioxide ($CrO_3$) per liter the pH of the solution being from 2 to 6, so as to form a copper containing coating on the article, rinsing the so treated article in water, and then subjecting the article to the action of an aqueous acid fluoride solution containing from about 17 to 280 grams of HF per liter of solution.

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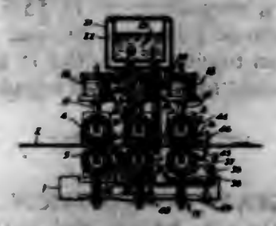
2,774,684

## METHOD AND APPARATUS FOR APPLYING LUBRICANTS TO SHEET METAL

Angelo M. Fuciarri, Detroit, Mich., assignor to The H. A. Montgomery Company, Detroit, Mich., a corporation of Michigan

Application June 12, 1953, Serial No. 361,174

11 Claims. (Cl. 117—65)



1. A process for preparing a sheet of metal for subsequent drawing, comprising applying to the sheet a film of a lubricating composition having a melting point substantially above the initial temperature of the sheet, the temperature of the lubricating composition as applied being above its melting point, and applying pressure to said film by means of a rolling surface maintained at a finishing temperature between said melting point and said initial temperature of the sheet for reducing the thickness of the film and forcing it into more intimate contact with the sheet while chilling the film to accelerate setting to a non-tacky condition.

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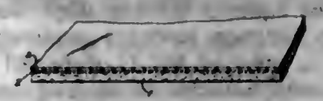
2,774,685

## FLEXIBLE FELT BASE COVERING

David Carnegie, Jr., Wallpack Center, N. J., assignor to Congoleum-Nairn Inc., a corporation of New York

Application September 18, 1953, Serial No. 380,893

3 Claims. (Cl. 117—76)



1. A flexible hard-surface covering which comprises a felt base sheet impregnated with bitumen constituting not more than about 85% of the kerosene value of the felt, a seal coat which is directly adherent to and formed on said impregnated felt and which consists essentially solely of tricresyl phosphate anl vinyl chloride polymer resin in the proportion of about twenty to about fifty parts by weight of said tricresyl phosphate to 100 parts by weight of said vinyl chloride polymer resin, and a layer of vinyl resin composition directly adherent to and formed on said seal coat.



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2,774,686

## HOT DIP ALUMINUM COATING PROCESS

Allen W. Hodge, Columbus, Ohio, assignor, by mesne assignments, to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

No Drawing. Application January 8, 1952, Serial No. 265,548

13 Claims. (Cl. 117—114)

1. In the art of hot dip coating of basis metals with a metal selected from the group consisting of aluminum and its alloys, the improvement which comprises introducing alkali metal into a bath of a molten metal selected from the group consisting of aluminum and its alloys and wherein no protective atmosphere is employed over said bath, and passing said basis metal through the melt to provide said basis metal with a coating of said molten metal, the alkali metal being at least one metal selected from the group consisting of sodium, potassium and mixtures thereof and being introduced in a minor amount sufficient to enable said basis metal to be coated at a faster rate and the resulting coating to be complete, even and smooth as compared to a similar bath which has not been treated with said alkali metal, and to increase drainage and to extend bath life.

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2,774,687

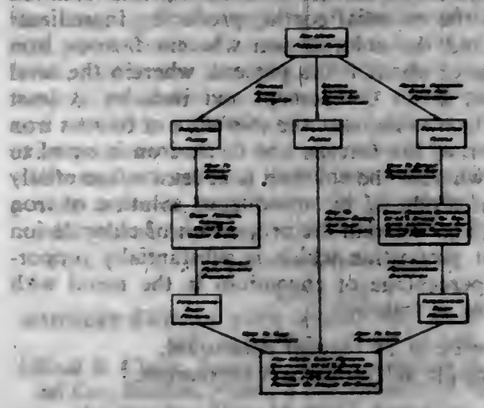
## PROCESS FOR THE MANUFACTURE OF POROUS FLEXIBLE SHEET MATERIAL

Carl Ludwig Nottebohm, Weinheim an der Bergstrasse, Germany, Werner Jacob, Lowell, Mass., and Wilhelm Laeppe and Robert Schubert, Weinheim an der Bergstrasse, Germany

Application September 1, 1953, Serial No. 377,979

Claims priority, application Germany September 3, 1952

9 Claims. (Cl. 117—120)



1. In the manufacture of porous sheet material similar to textile or leather and containing from about 25–65% by weight of rubber based on the combined weights of fibers and rubber, wherein a fleece of cardable polyposed fibers is impregnated with an aqueous dispersion of a rubber and the impregnated fleece is thereafter dried to deposit the rubber primarily at the crossing points of the fibers, the improvement which comprises introducing into the fibrous sheet material, in addition to the rubber, from 1 to 15 parts by weight per 100 parts by weight of rubber solids of a water-soluble condensation product of formaldehyde with a member of the group consisting of ureas, melamines and phenols, and thereafter converting said condensation product to water-insoluble form.



2,774,688

## NICKEL PLATING BY CHEMICAL REDUCTION

Robert J. Girard, Chicopee Falls, Mass.

No Drawing. Application June 1, 1954, Serial No. 433,824

2 Claims. (Cl. 117—130)

2. A method for nickel plating by chemical reduction comprising the step of immersing a metal article from the group consisting of iron, platinum, silver, gold, copper, palladium, brass, bronze and titanium into a controlled nickel sulphate solution including the following constituents in the following amounts per litre, nickel sulphate about 80 grams/l., sodium hypophosphite about 24 grams/l., sodium acetate about 12 grams/l., boric acid about 8 grams/l., and ammonium chloride about 6 grams/l., at a temperature of between 196° F. and 204° F.

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2,774,689

## PROCESS FOR RENDERING FIBROUS MATERIAL WATER-REPELLENT

Ludwig Orthner and Martin Reuter, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Hoechst, Germany, a company of Germany

No Drawing. Application October 15, 1953, Serial No. 386,392

Claims priority, application Germany October 18, 1952

13 Claims. (Cl. 117—135.5)

1. The process of imparting hydrophobic properties to fibrous material which comprises treating the material with a solution in an organic solvent of a mixture of zirconium alcoholate and an organic acid selected from the group consisting of carboxylic and sulfinic acids.

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2,774,690

## WATER REPELLENT TREATMENT UTILIZING A METHYLHYDROGENPOLYSILOXANE AND A TITANIUM COMPOUND

Sydney Russell Cockett, Halifax, John Gwynant Evans, Meanston-in-Wharfedale, and George Landells, Leeds, England, assignors to Bradford Dyers' Association Limited, Bradford, England

No Drawing. Application April 8, 1952, Serial No. 281,222

Claims priority, application Great Britain April 16, 1951

4 Claims. (Cl. 117—135.5)

3. The method of rendering textile material water repellent comprising contacting said material with both a methylhydrogenpolysiloxane containing between 1.0 and 1.5 methyl radicals and between 0.75 and 1.25 hydrogen atoms bonded to silicon per silicon atom, there being a total of between 2 and 2.25 methyl radicals plus hydrogen atoms per silicon atom, and a titanium compound selected from the group consisting of esters of titanic acid, titanium salts of fatty acids, titanium halides, and titanium sulfates.

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2,774,691

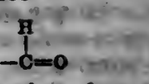
## TREATMENT OF TEXTILE MATERIALS AND PRODUCT

Carl W. Schroeder, Orinda, and Robert W. Somers, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application September 21, 1954, Serial No. 457,530

18 Claims. (Cl. 117—139.4)

1. A process for rendering cellulosic textile fabrics crease and shrink resistant which comprises impregnating the cellulosic fabric with an aqueous solution containing a mixture of polyepoxide and an aliphatic polyaldehyde containing from 2 to 4 free



groups and a minor quantity of an acid-acting curing agent, and heating the resulting impregnated fabric to a relatively high temperature for a short period.

2,774,692

## COATED FIBROUS PRODUCTS AND METHODS OF MAKING THEM

James P. Shelley, Drexel Hill, and Earl M. Young, Jr., Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 16, 1954, Serial No. 437,269
13 Claims. (Cl. 117—155)

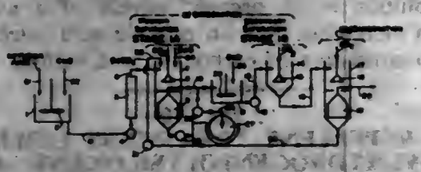
1. A method for producing a coated paper product having high gloss comprising applying to the paper an aqueous dispersion containing a water-soluble high molecular weight condensate of a mixture comprising the dicarbamate of diethylene glycol and formaldehyde, in which the molar ratio of formaldehyde to the dicarbamate is from 2:1 to 3.5:1, said condensate having a viscosity, at a concentration of 60% in water at 25° C., of 2 to 25 poises, drying, and curing the coating to a water-insoluble condition.

2,774,693

## METHOD FOR PURIFYING SUGAR JUICES BY LIMING AND CARBONATION

Arne Vignad Brieghel-Müller, Gentofte, Denmark, assignor to Aktieselskabet de Danske Sukkerfabrikker, Copenhagen, Denmark, a corporation of Denmark

Application March 21, 1951, Serial No. 216,810
Claims priority, application Sweden March 24, 1950
9 Claims. (Cl. 127—50)



1. A method for the purification of sugar juice by liming and carbonation, comprising the steps of stabilizing the sugar juice by the addition thereto of a liming reagent, the alkalinity of which does not exceed 0.25 gram CaO per 100 ml., to an alkalinity above 0.00 gram CaO per 100 ml. but not exceeding 0.05 gram CaO per 100 ml., liming the juice thus stabilized by the addition of a liming reagent, subjecting the juice thus limed to carbonation in a primary saturation stage to an alkalinity of below 0.1 gram CaO per 100 ml., separating precipitates formed by said carbonation from the juice, further liming the thus separated juice by the addition of a liming reagent subjecting the thus further limed juice to carbonation in a secondary saturation stage to an alkalinity of about 0.08 gram CaO per 100 ml., and subjecting the thus carbonated juice to a further carbonation to an alkalinity of about 0.02 gram CaO per 100 ml.

2,774,694

## PROCESS FOR THE DESCALING OF SUGAR FACTORY EVAPORATORS AND OTHER HEAT TRANSFER EQUIPMENT

Leslie Frederick Wiggins, St. Augustine, Trinidad, British West Indies

No Drawing. Application September 30, 1954, Serial No. 459,529
Claims priority, application Great Britain October 15, 1953
9 Claims. (Cl. 134—13)

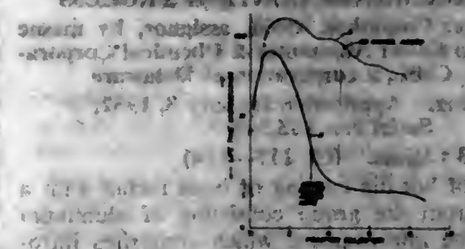
1. A process for the de-scaling of sugar factory evaporators and other heat transfer apparatus consisting in treating the apparatus with a hot alkaline solution of a sequestering agent consisting of the tetra-sodium salt of ethylene diamine tetra-acetic acid, and later recovering the said agent by bringing the pH value of the solution to about 2.5, removing the precipitate from the solution, and subsequently making the solution alkaline to about pH 11 with an alkali metal hydroxide.

2,774,695

## PROCESS OF FABRICATING GERMANIUM SINGLE CRYSTALS

Joseph A. Burton, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application February 27, 1953, Serial No. 339,364
2 Claims. (Cl. 148—1.5)



1. The method of fabricating a single crystal body essentially of germanium of predetermined length, said body having a substantially uniform resistivity characteristic along said length, said body having a significantly higher injected carrier lifetime characteristic in one portion of said length than the injected carrier lifetime characteristic in the other portion of said length, that comprises adding an amount of nickel not in excess of .001 percent by weight to said other portion during fabrication.

2,774,696

## METHOD OF FORMING OXALATE COATING ON CHROMIUM ALLOYS

Robert C. Gibson, Birmingham, Mich., assignor to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application October 19, 1950, Serial No. 190,895
2 Claims. (Cl. 148—6.14)

1. The method of coating a metal of the class consisting of chromium and chromium-nickel-iron alloys in which the major content is a non-ferrous metal selected from the group consisting of nickel and chromium, said method comprising the step of contacting at a coating temperature the metal surface with an aqueous solution comprising as the essential coating-producing ingredients iron oxalate and the chloride ion wherein ferrous iron is in the range of about 0–0.8 percent, wherein the total iron is at least about 0.5 percent and includes at least enough ferric iron to increase the solubility of ferrous iron so that the sum of the ferrous and ferric iron is equal to at least .5%, wherein the solution is at least substantially as acid as that produced by an aqueous solution of iron oxalate alone, and wherein the proportion of chloride ion is at least that proportion which is substantially proportional to the percentage of chromium in the metal with reference points as follows:

1 percent chloride at 15 percent chromium,
11 percent chloride at 100 percent chromium.

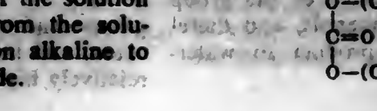
2,774,697

## ADHESIVE COMPRISING ALKENYL DIGLYCOL CARBONATE AND ARTICLES BONDED THEREWITH

Francis F. Koblitz, Fitchburg, Wis., assignor to Bjorksten Research Laboratories, Inc., Madison, Wis., a corporation of Illinois

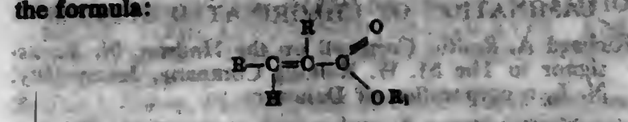
No Drawing. Application June 17, 1953, Serial No. 362,411
14 Claims. (Cl. 154—43)

1. As a composition of matter, a mixture of copolymer formed from a monomer having the formula:





wherein $n$ may be from 2 to 7, and a monomer having the formula:



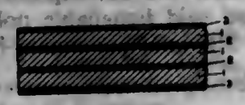
wherein R is selected from —H, —Cl, —Br, and —$CH_3$ and $R_1$ is an aliphatic hydrocarbon radical containing from one to seven carbon atoms and vinyl polysiloxane in the amount of about .5% of the amount of said copolymer.

2,774,698

## COMPOSITE BOARD

Robert L. Jenk and John C. Redd, Chillicothe, Ohio

Application May 12, 1953, Serial No. 354,445
4 Claims. (Cl. 154—45.9)



1. A composite substantially rigid and dimensionally stable panel structure comprising in combination an integral internal fiber board assembly consisting of a plurality of laminae of board filler elements with a layer of water insoluble adhesive between adjacent laminae, each of said laminae having incorporated therein a water repellent material to render said laminae substantially water impervious and said water impervious laminae being joined into said integral fiber board assembly by said water insoluble adhesive layer between said laminae, and a water, water vapor proof and relatively high heat resistant continuous barrier film of resinous material adhered to and in direct contact with each of the outer surfaces of said fiber board assembly and substantially uniformly distributed over said surfaces to effectively prevent diffusion of water and water vapor into said fiber board assembly, said barrier film composed of polyethylene film forming material, said water repellent material substantially prohibiting penetration of said barrier film into the fiber structure of said board filler elements, said panel structure by reason of said water repellent material, said water insoluble adhesive and said barrier film having low moisture vapor, water transmission, sorption and relatively high temperature heat resistant characteristics whereby said composite panel structure is rendered stable against warping and dimensional change from exposure to water, conditions of high relative humidity and conditions of relatively high temperature heat treatment.

2,774,699

## RIBBED STRIPS FOR INSOLES, AND METHODS OF MAKING THE SAME

Alfred S. Clark, Beverly, Mass., assignor to B. B. Chemical Co., Boston, Mass., a corporation of Massachusetts

Application May 14, 1954, Serial No. 429,926
9 Claims. (Cl. 154—53.6)



1. That improvement in methods of making composite strips for attachment to insoles to provide sewing ribs thereon, which comprises the steps of drawing from a source of supply simultaneously a fabric strip coated on at least one side with pressure-responsive cement and a strip of fibrous material narrower than the fabric strip and coated on one side with pressure-responsive cement, assembling the two strips in a manner such that an edge of one strip is substantially flush with the corresponding edge of the other strip, pressing the strips together progressively over a restricted area of their respective widths to form a two-ply rib portion and to leave portions of said strips unbonded and substantially free of each other, turning the unbonded portion of the strip of fibrous material away from the fabric strip, and bending the unbonded portions of both strips outward at substantially right angles to the two-ply rib portion to form oppositely extending flanges for attachment of the composite strip to an insole.

2,774,700

## MANUFACTURE OF TRIM PANELS

Albert Arthur Killington, Romford, England, assignor to Briggs Manufacturing Co., Detroit, Mich., a corporation of Michigan

Application March 5, 1953, Serial No. 340,467
4 Claims. (Cl. 154—126.5)



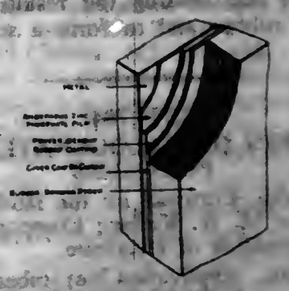
1. The method of manufacturing a laminated panel having a foundation sheet and a superimposed cover sheet, comprising the steps of arranging said sheets on the bed of a press in superimposed relation with a layer of resinous material therebetween in partially reacted condition, successively bonding said sheets together at predetermined sections of said panel by successively moving separate platens against said sections in turn to press the same against said bed, and simultaneously with the pressing of each section subjecting that section to a high frequency electric field to complete the reaction of the resinous material.

2,774,701

## METHOD OF BONDING RUBBER TO METAL AND THE RESULTING ARTICLE

Leonard D. Kocyba, Parma, Ohio, assignor to Richard C. Weiss, Cleveland, Ohio, as trustee

Application July 16, 1956, Serial No. 597,964
2 Claims. (Cl. 154—130)



2. The process comprising treating a steel object with a solution comprising zinc ions, phosphate ions, and a modifier which inhibits the formation of crystalline zinc phosphate, to form an amorphous coating on the steel which does not display crystalline structure at a magnification of 100 diameters and which consists principally of zinc phosphate, drying the object, coating the object with a rubber cement, placing the object thus prepared into a mold along with rubber to be applied to the object, heating the rubber and rubber cement at a sufficiently high temperature to melt the rubber and polymerize the rubber cement whereby the rubber is bonded to the object.

2,774,702

## LAMINATION OF PERFLUOROCHLOROOLEFINS AND POLYACRYLONITRILE

Richard A. Smith, Cornwall on the Hudson, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application December 17, 1953, Serial No. 398,891

14 Claims. (Cl. 154—139)

1. A process for forming a laminated structure which comprises contacting a layer of a solid perfluorochloroolefin polymer with a layer of a solid polyacrylonitrile polymer; and maintaining said layers in contact at a temperature of at least 135° C. but below the decomposition temperature of said laminating materials and at a pressure of at least 5 pounds per square inch gage.

11. A laminated structure comprising a layer of a solid copolymer of a perfluorochloroolefin and another halogenated ethylene containing at least one halogen atom selected from the group consisting of chlorine and fluorine bonded to a layer of a solid polyacrylonitrile polymer.

2,774,703

## RUBBER-FABRIC LAMINATES AND BONDING AGENT THEREFOR

William B. Reynolds, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application January 5, 1953, Serial No. 329,721

25 Claims. (Cl. 154—139)

5. As a bonding agent, for bonding rubber to fabric prepared from organic fibers an aqueous alkaline solution containing at least 0.5 weight per cent of a copolymer prepared by polymerizing a mixture consisting essentially of a conjugated diene and an acid selected from the group consisting of acrylic and methacrylic acid, said conjugated diene comprising at least 10 parts by weight per 100 parts of the monomeric mixture.

25. A process of preparing a rubber-fabric laminate comprising treating the fabric with an aqueous alkaline solution containing 0.5 to 15 percent by weight of a copolymer prepared by polymerizing a mixture of 10 to 80 parts by weight per 100 parts of monomers of a conjugated diene and 90 to 20 parts by weight of an acid selected from the group consisting of acrylic and methacrylic acid, contacting the thus treated fabric with an acid solution to precipitate the polymer in the fabric, applying a layer of rubber thereto, and heating the resulting laminate to vulcanize said rubber and to form a strong rubber-to-fabric bond.

2,774,704

## LAMINATION OF HALOGENATED OLEFIN POLYMERS

Richard A. Smith, Cornwall on the Hudson, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application November 27, 1953, Serial No. 394,897

33 Claims. (Cl. 154—139)

1. A process for bonding a halogenated olefin polymer surface to another surface which comprises applying to at least one of the surfaces a coating comprising a normally solid copolymer of a perfluorochloroolefin and a halogenated olefin selected from the group consisting of vinyl chloride, vinylidene chloride, vinyl fluoride, vinylidene fluoride and 1,1-fluorochloroethylene, contacting the coated surface with the surface to which it is to be bonded and maintaining the surfaces in contact at a temperature of at least 135° C. and below the decomposition temperature of said surfaces and said copolymer and a pressure of at least 5 pounds per square inch gage.

2,774,705

## LAMINATION OF CHLORINATED OLEFINS

Richard A. Smith, Cornwall on the Hudson, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application November 27, 1953, Serial No. 394,900

24 Claims. (Cl. 154—139)

1. A process for bonding a chlorinated olefin polymer surface to another surface which comprises applying to at least one of the surfaces a liquefiable polymer of trifluorochloroethylene selected from the group consisting of oils, greases and waxes having a softening point below about 150° C., contacting the coated surface with the surface to which it is to be bonded and maintaining the surfaces in contact at a temperature of at least 135° C. and below the decomposition temperature of said surfaces and said liquefiable polymer and a pressure of at least 5 pounds per square inch gage.

2,774,706

## FUNGICIDAL COMPOSITION COMPRISING S-HYDROCARBYL ISOTHIOUREA SALTS AND METHOD OF APPLYING THE SAME

Johannes Thomas Hackmann and Willem Albertus Pel, Amsterdam, Netherlands, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application September 16, 1953, Serial No. 380,606

Claims priority, application Germany September 20, 1952

9 Claims. (Cl. 167—22)

8. A fungicidal composition comprising an aqueous medium, a surface-active wetting agent and a fungicidal toxic amount of isothiourea salt, the isothiourea portion of said salt being chosen from the group consisting of S-alkyl isothiourea wherein said alkyl radical contains between 4 and 16 carbon atoms and S-phenylalkyl isothiourea wherein said phenyl alkyl radical contains between 1 and 16 carbon atoms, and the acid portion of said salt being an acid of an element selected from the group consisting of nitrogen, phosphorus, sulfur, selenium, tellurium, chromium, molybdenum, and tungsten.

2,774,707

## TRITHIANYLIUM SULFENYL CHLORIDES

Gail H. Birum, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application October 27, 1955, Serial No. 543,265

19 Claims. (Cl. 167—33)

1. An adduct in which one mole of trithiane is combined with from 1 to 3 moles of a sulfenyl chloride of the formula RSCl in which R is selected from the class consisting of hydrocarbon radicals of from 1 to 8 carbon atoms which are free of non-benzenoid unsaturation and which contain at least one substituent selected from the class consisting of halogen and the nitro radical.

17. A biological toxicant comprising an inert carrier and as the essential effective ingredient an adduct in which one mole of the trithiane is combined with from 1 to 3 moles of a sulfenyl chloride of the formula RSCl in which R is selected from the class consisting of hydrocarbon radicals of from 1 to 8 carbon atoms which are free of non-benzenoid unsaturation and which contain at least one substituent selected from the class consisting of halogen and the nitro radical.



2,774,708

## ALKYL DIMETHYL DICHLOROBENZYL AMMONIUM MERCAPTOBENZOTHIAZOLATES AND PESTICIDAL CONCENTRATES CONTAINING THE SAME

Sylvan I. Cohen, Flushing, and Martin S. Frant, Ossining, N. Y., assignors to Gallowhur Chemical Corporation, New York, N. Y., a corporation of New York

No Drawing. Application December 27, 1954, Serial No. 477,921

6 Claims. (Cl. 167—33)

1. An alkyl dimethyl dichlorobenzyl ammonium 2-mercaptobenzothiazolate, wherein alkyl means a mixture of radicals ranging from $C_8H_{17}$ to $C_{18}H_{37}$.

2,774,709

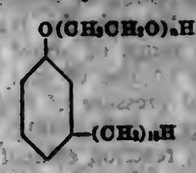
## POLYOXYETHYLATED ALKYL PHENOL EMULSIFICATION OF INSOLUBLE HYDROCARBON INSECTICIDES

Raymond L. Mayhew, Phillipsburg, Leslie G. Nunn, Plainfield, and Robert L. Sundberg, Alpha, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 16, 1953, Serial No. 392,509

18 Claims. (Cl. 167—42)

1. An emulsifiable mixture comprising a water-insoluble liquid hydrocarbon and about 1 to 60% by weight of the mixture of a compound having the formula



wherein $n$ has a value of from 3 to 15.

2,774,710

## PHARMACEUTICAL PREPARATION FOR THE TREATMENT OF HYPERACIDITY

Kenneth Wade Thompson, Montclair, and Anthony Matthew Corrente, East Orange, N. J., assignors to Organon Inc., Orange, N. J., a corporation of New Jersey

No Drawing. Application December 1, 1953, Serial No. 395,619

Claims priority, application Netherlands December 15, 1952

5 Claims. (Cl. 167—55)

1. A pharmaceutical preparation for the treatment of hyperacidity in tablet form, said preparation comprising, intimately mixed with each other, an antacid agent, guar gum in an amount from about 10% to about 30% by weight of said antacid agent, and oatmeal in an amount from about 5% to about 15% by weight of said antacid agent.

2,774,711

## SOLUBILIZED ADRENOCHROME HEMOSTATIC COMPOSITIONS

Desider Fleischhacker, New York, and Norman Barsel, Lawrelton, N. Y., assignors to International Hormones, Inc., Brooklyn, N. Y., a corporation of New York

No Drawing. Application July 23, 1953, Serial No. 369,958

8 Claims. (Cl. 167—65)

1. A haemostatic composition comprising at least 20 parts by weight of a non-toxic, water soluble salt of para naphthionic acid and 1 part by weight of an adrenochrome derivative selected from the group consisting of adrenochrome mono-oxime and adrenochrome mono-semicarbazone, said composition having water solubility greater than that of the adrenochrome derivatives per se.

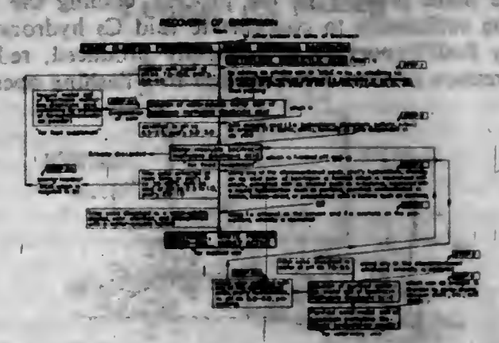
2,774,712

## BACITRACIN COMPOUND AND RECOVERY OF BACITRACIN

Abraham Louis Baron, Bloomfield, N. J., assignor to S. B. Penick & Company, New York, N. Y.

Application November 14, 1955, Serial No. 546,330

13 Claims. (Cl. 167—65)



13. Bacitracin-containing compounds selected from the group consisting of the reaction product of bacitracin and methylene disalicylic acid and the alkali metal salts of said reaction product.

2,774,713

## PROCESS FOR THE RECOVERY OF SAPONINS AND SAPOGENINS FROM VEGETABLE MATTER

David H. Gould, Leonia, Emanuel B. Hershberg, West Orange, and Temple Clayton, Parsippany, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application October 6, 1952, Serial No. 313,368

7 Claims. (Cl. 195—32)

1. In a process for the recovery of dioscin saponin and diosgenin from dioscorea roots, the steps which comprise comminuting the roots, and subjecting the resulting pulp to auto-transformation in its natural state and in the absence of added inhibiting maetrial until the content of extractable saponin and diosgenin has markedly increased over the quantity obtainable from the fresh roots.

2,774,714

## PROCESS FOR THE EXTRACTION OF SAPOGENINS FROM PLANT MATERIALS

Emanuel B. Hershberg, West Orange, and David H. Gould, Leonia, N. J.

No Drawing. Application October 10, 1952, Serial No. 314,198

19 Claims. (Cl. 195—32)

1. Process for the extraction of steroid sapogenins from steroidal saponin-bearing plant material of a family of the group consisting of Liliaceae, Amerillidaceae, and Dioscoreaceae, which comprises subjecting the plant material to the action of aqueous non-oxidizing acid to effect hydrolysis of the saponins contained therein and form the water-insoluble steroidal sapogenin, subsequently separating the acid solution from the insoluble material containing the said sapogenin and the fibrous residue of the plant material, and extracting the said insoluble material with a substantially water-immiscible organic solvent for the sapogenin.

2,774,715

## AUTOMATIC CONTROL OF REBOILER ON DEETHANIZING ABSORBER

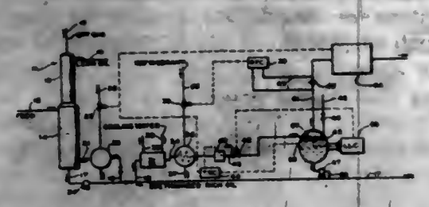
Forrest E. Gilmore, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application August 25, 1952, Serial No. 306,265

10 Claims. (Cl. 196—8)

1. A process for operating a deethanizing still comprising introducing a rich absorption oil comprising absorbed $C_3$ hydrocarbons, methane, $C_2$ and higher boiling

hydrocarbons into a deethanizing still, removing gaseous effluent overhead from said still as one product of the process, adding reboiling heat to the liquid contents of the kettle section of said still to promote deethanizing reboiling, withdrawing kettle product, dividing the withdrawn material into two portions, removing one portion as the main product of the process, cooling the other portion sufficiently to concentrate said $C_2$ hydrocarbons in the flash vapors as subsequently produced, reducing the pressure of the cooled portion in a flashing operation



whereby said flash vapors comprising ethane are evolved from residual liquid, controlling the degree of cooling of said other portion in direct response to the rate of evolution of the flashed gases and in an amount sufficient to produce the flashed gas at a constant rate, and regulating the addition of said reboiling heat to the liquid contents of the kettle section of the still in direct response to the $C_2$ hydrocarbon content of the evolved gas, the addition of said reboiling heat being sufficient to operate said deethanizing still.

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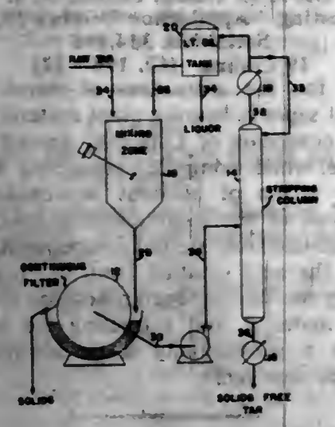
2,774,716

## PROCESS FOR REMOVING FINELY DIVIDED SOLIDS FROM RAW LOW TEMPERATURE CARBONIZATION COAL TARS

Metro D. Kulik, Pittsburgh, Pa., assignor to Pittsburgh Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application January 29, 1954, Serial No. 406,926

11 Claims. (Cl. 196—14.1)



1. A process for removing solids consisting essentially of finely divided solid particles from the class of coal and partially devolatilized coal from raw low temperature carbonization tar which comprises mixing the raw tar with 0.5 to 3.0 volumes of a predominantly nonaromatic low temperature carbonization tar distillate fraction containing at least 2 percent by volume of tar acids, separating rejected pitch and agglomerated solids, and recovering the liquids.

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2,774,717

## REMOVAL OF CYCLIC SULFUR COMPOUNDS FROM A HIGHLY OLEFINIC GASOLINE

Paul W. Garbo, Freeport, N. Y., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application May 16, 1952, Serial No. 288,332

12 Claims. (Cl. 196—28)

1. A method of desulfurizing a highly olefinic hydrocarbon fraction, which comprises bringing hydrogen and a hydrocarbon fraction containing more than 1% by weight of sulfur in the form of cyclic sulfur compounds and a volume of olefins greater than the volume of paraffins and naphthenes therein, said volume of olefins being more than 20% by volume of said hydrocarbon fraction and imparting to said hydrocarbon fraction a high octane number into contact with a siliceous catalyst consisting essentially of a major weight proportion of silica and a minor weight proportion of at least one difficultly reducible metal oxide in a reaction zone maintained at a temperature in the range of 850 to 975° F., the contact of said hydrogen and said hydrocarbon fraction resulting in a net consumption of hydrogen, passing said hydrocarbon fraction through the reaction zone at a space velocity in the range of about 0.5 to 5.0 liquid volumes per hour per volume of said siliceous catalyst, maintaining the partial pressure of hydrogen in said reaction zone in the range of 100 to 400 p. s. i., and recovering from the resulting reaction effluent a highly olefinic hydrocarbon fraction containing less than 0.3% by weight of sulfur and a major portion of said olefins and having a high octane number.

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2,774,718

## PROCESS FOR HYDROFINING A HIGHLY OLEFINIC GASOLINE

Clarence A. Johnson, Princeton, and Seymour C. Schuman, Titusville, N. J., assignors to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application February 19, 1952, Serial No. 272,512

13 Claims. (Cl. 196—28)

1. A method of desulfurizing a highly olefinic hydrocarbon fraction, which comprises bringing hydrogen and a hydrocarbon fraction containing more than 1% by weight of sulfur in the form of cyclic sulfur compounds and a volume of olefins greater than the volume of paraffins and naphthenes therein, said volume of olefins being more than 20% by volume of said hydrocarbon fraction and imparting to said hydrocarbon fraction a high octane number into contact with an alumina of high surface area containing a catalyst promoter comprising an element selected from the class consisting of the metallic elements of groups VA, VIA and VIII of the periodic table in a reaction zone maintained at a temperature in the range of 825 to 975° F., the contact of said hydrogen and said hydrocarbon fraction resulting in a net consumption of hydrogen, passing said hydrocarbon fraction through the reaction zone at a space velocity in the range of about 0.5 to 5 liquid volumes per hour per volume of said alumina, maintaining the partial pressure of hydrogen in said reaction zone in the range of 20 to 100 p. s. i., and recovering from the resulting reaction effluent a highly olefinic hydrocarbon fraction containing less than 0.3% by weight of sulfur and a major portion of said olefins and having a high octane number.



2,774,719

## HYDRODESULFURIZING A HIGHLY OLEFINIC GASOLINE CONTAINING CYCLIC SULFUR COMPOUNDS

Edwin S. Johanson, Trenton, N. J., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application May 16, 1952, Serial No. 288,337

16 Claims. (Cl. 196—28)

1. A method of desulfurizing a highly olefinic hydrocarbon fraction, which comprises bringing hydrogen and a hydrocarbon fraction containing more than 1% by weight of sulfur in the form of cyclic sulfur compounds and a volume of olefins greater than the volume of paraffins and naphthenes therein, said volume of olefins being more than 20% by volume of said hydrocarbon fraction and imparting to said hydrocarbon fraction a high octane number into contact with a promoted siliceous catalyst consisting essentially of a major weight proportion of silica, a minor weight proportion of at least one difficultly reducible metal oxide and a catalyst promoter comprising an element selected from the class consisting of the metallic elements of groups VA, VIA and VIII of the periodic table in a reaction zone maintained at a temperature in the range of 775 to 925° F., the contact of said hydrogen and said hydrocarbon fraction resulting in a net consumption of hydrogen, passing said hydrocarbon fraction through the reaction zone at a space velocity in the range of about 0.5 to 5 liquid volumes per hour per volume of said promoted siliceous catalyst, maintaining the partial pressure of hydrogen in said reaction zone in the range of 20 to 100 p. s. i., and recovering from the resulting reaction effluent a highly olefinic hydrocarbon fraction containing less than 0.3% by weight of sulfur and a major portion of said olefins and having a high octane number.

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2,774,720

## STABILIZATION OF A HIGHLY OLEFINIC GASOLINE

Paul W. Garbo, Freeport, N. Y., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application May 16, 1952, Serial No. 288,331

10 Claims. (Cl. 196—36)

1. A method of eliminating gum-forming constituents from a highly olefinic hydrocarbon fraction, which comprises bringing hydrogen and a hydrocarbon fraction containing gum-forming constituents and a volume of olefins greater than the volume of paraffins and naphthenes therein, said volume of olefins being more than 20% by volume of said hydrocarbon fraction and imparting to said hydrocarbon fraction a high octane number into contact with a siliceous catalyst consisting essentially of a major weight proportion of silica and a minor weight proportion of at least one difficultly reducible metal oxide in a reaction zone maintained at a temperature in the range of 750 to 875° F., the contact of said hydrogen and said hydrocarbon fraction resulting in a net consumption of hydrogen, passing said hydrocarbon fraction through the reaction zone at a space velocity in the range of about 0.5 to 5 liquid volumes per hour per volume of said siliceous catalyst, maintaining the partial pressure of hydrogen in said reaction zone in the range of 50 to 325 p. s. i., and recovering from the resulting reaction effluent a highly olefinic hydrocarbon fraction with a substantially decreased content of gum-forming constituents and containing a major portion of said olefins and having a high octane number.

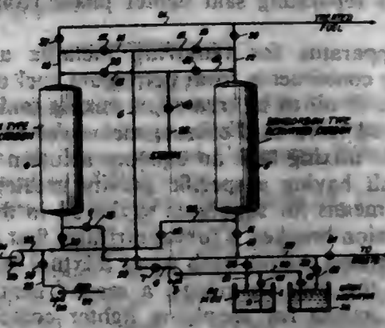
2,774,721

## STABILIZING FUEL OIL BY OXIDATION IN THE PRESENCE OF ACTIVE CARBON IMPREGNATED WITH ALKALI

Max G. Siebert and Herbert Taube, Bremen, Germany, assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York

Application July 13, 1954, Serial No. 443,124

2 Claims. (Cl. 196—42)



1. A method of stabilizing fuel fractions of petroleum oil which comprises contacting in the presence of free molecular oxygen a fuel fraction of petroleum oil boiling above the gasoline range and being unstable with respect to the formation of sediment and color with a bed of a reagent consisting essentially of activated carbon containing about 5 to about 15 percent alkali metal hydroxide and at a rate not exceeding about 160 barrels of said fuel per hour per ton of said activated carbon until the lead corrosion test exceeds 3 milligrams per 100 cubic centimeters of treated oil, stopping the flow of said fuel, washing said carbon with a solvent for contaminants and steaming said carbon to regenerate the same and impregnating said regenerated carbon with about 5 to about 15 weight percent alkali metal hydroxide, said activated carbon being an activated carbon having a bulk density (dried at 220° F.) of about 18.53 pounds per cubic foot, a true density (voids filled with helium) of about 118 pounds per cubic foot, a surface area of at least about 1485 square meters per gram, and an average pore diameter of 41 angstroms.

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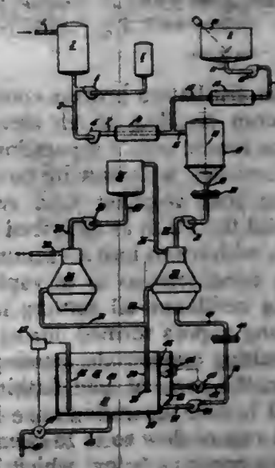
2,774,722

## PROCESS FOR REMOVING ASH-FORMING IMPURITIES FROM PETROLEUM RESIDUAL OILS

Bruce O. Buckland, Donald G. Sanders, and Cecil M. Gardiner, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application August 5, 1954, Serial No. 447,954

7 Claims. (Cl. 196—44)



1. A process for treating petroleum residual oil which contains at least one impurity selected from the class consisting of sodium, vanadium, and calcium salts, which

process consists of the steps of (1) washing said oil with an aqueous solution having a magnesium salt dissolved therein in sufficient concentration to provide a solution having a specific gravity greater than that of said oil, whereby magnesium ions replace a large portion of the sodium and calcium ions in said oil and whereby a two-phase mixture is obtained with said oil as the lighter phase and with an aqueous solution as the heavier phase and (2) separating said lighter phase from said heavier phase.

6. Apparatus for removing metallic and other ash forming constituents from petroleum fuel oils comprising a source of oil to be treated, a mixing tank connected to receive oil from said source, means for supplying to the oil in the mixing tank an aqueous solution of an alkaline earth salt having a specific gravity greater than that of the oil, means for supplying to the oil in the mixing tank an emulsion breaker, a first centrifuge, first conduit means for supplying the oil-wash water mixture from the mixing tank to the first centrifuge, a second centrifuge, second conduit means for supplying lighter components of the mixture from the first centrifuge to the second centrifuge, a settling tank, a chamber adjacent the settling tank having an outlet at the top thereof for decanting oil into the chamber, third conduit means for returning lighter components of the mixture from the bottom of the chamber to the first centrifuge, fourth conduit means for removing wash solution and impurities from the bottom of the settling tank, regulating means for maintaining at a preselected intremediate level in the settling tank the interface zone separating the lighter oil-containing components of the mixture in the upper part of the settling tank from the heavier wash solution in the lower part of the settling tank, and fifth conduit means for receiving the heavier components of the mixture separated in both said centrifuges and including means for discharging said heavier components into the settling tank at a level just below said interface zone.

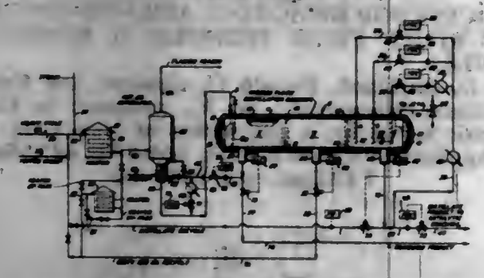
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2,774,723

## VACUUM DISTILLATION OF OILS

Golden A. Meyer, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 23, 1952, Serial No. 316,411
8 Claims. (Cl. 196—77)



3. A vacuum distillation process comprising heating an oil to be vacuum distilled, to an elevated temperature; passing oil thus heated into a separation zone to separate any vapors therefrom; withdrawing unvaporized oil from said separation zone together with residual distillation product admixed therewith as described hereinafter; introducing oil thus withdrawn into a vacuum distillation zone under flashing conditions so as to vaporize a portion of same, resulting residuum oil settling in said distillation zone; condensing vapors formed during said flashing and recovering resulting condensate; passing a portion of oil residuum from the zone of said flashing into admixture with heated oil in said separation zone in an amount and at a controlled rate of flow so as to quench said heated oil therein to a temperature below which incipient cracking of same takes place, and to act as a heat carrier during said flashing; and recovering a remaining portion of said residuum.

2,774,724

## AIR-BLOWN ASPHALT-RESIN COMPOSITION AND PROCESS OF MAKING SAME

William B. Watson, Park Forest, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 7, 1953, Serial No. 347,393
5 Claims. (Cl. 196—142)

1. A molding compound consisting essentially of an air-blown mixture of an asphalt whose air blowing characteristics are such that when air-blown to about a 300° F. softening point at an elevated temperature its needle penetration at 77° F. will not be more than about 5, and a paraffinic petroleum resin fraction having a Saybolt Universal viscosity at 210° F. of about 2500 to 8000 seconds, said resin fraction being about 30 to 70 weight percent of said mixture.

3. A method of manufacturing a molding compound which comprises mixing an asphalt whose air blowing characteristics are such that when air-blown to about a 300° F. softening point at an elevated temperature its needle penetration at 77° F. will not be more than about 5, and a paraffinic petroleum resin fraction having a Saybolt Universal viscosity at 210° F. of about 2500 to 8000 seconds to obtain a mixture in which said resin fraction is about 30 to 70 weight percent of said mixture, and introducing air into said mixture while maintaining the mixture at an elevated temperature.

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2,774,725

## METHOD OF CONCENTRATING AQUEOUS HYDRAZINE

Oscar J. Swenson, Crystal Lake, and Don W. Ryker, Alton, Ill., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application April 2, 1953, Serial No. 346,513
18 Claims. (Cl. 202—57)

1. In the process of concentrating aqueous hydrazine, the step which comprises distilling said hydrazine in contact with a dehydrating agent and a saturated hydrocarbon whose boiling temperature at atmospheric pressure is within the range of about 90° C. to 175° C., said hydrocarbon being present in an amount sufficient to maintain the vapor of said hydrocarbon in intimate contact with the evolved hydrazine vapor throughout the distillation.

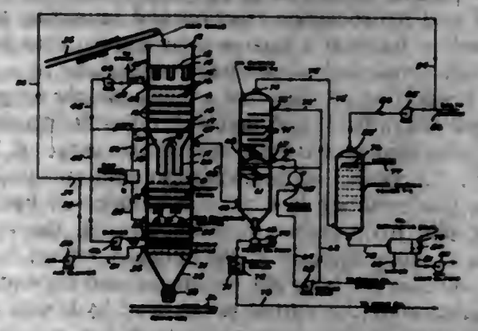
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2,774,726

## APPARATUS FOR THE RECOVERY OF OIL AND GASEOUS PRODUCTS FROM SHALE

James R. Eichna, Cedar Grove, N. J., assignor to Foster Wheeler Corporation, New York, N. Y., a corporation of New York

Application August 22, 1950, Serial No. 180,768
8 Claims. (Cl. 202—93)



1. In apparatus for the recovery of oil from shale, a retorting tower having a hopper space at its top into which raw shale is introduced periodically, a partition at the bottom of the hopper space having openings, seal legs connected with said opening and in communication with the tower space below said partition and through which raw shale may move downwardly continuously from the hopper space, shale distributing grates positioned at different levels below said partition, a gas distributor below said grates, a hopper-like partition extending transversely of said tower below the gas distributor and with the first-named partition defining a preheating and drying section in said tower, said hopper-like partition having openings, seal legs connected with said openings and providing passage for downward movement of shale from the preheating and drying section, shale distributing grates positioned at different levels below said last-named seal legs, gas collecting grates below the last-named distributing grates, said gas collecting grates defining the lower boundary of a retorting zone in said tower whose upper boundary is the hopper-like partition, gas withdrawal pipes positioned below the gas collecting grates, shale distributing grates at different levels below said pipes, gas distributing means positioned between various of the last-named grates, air introducing means below the gas distributing means and defining the lower boundary of a combustion zone whose upper boundary lies substantially at the level of said pipes, burnt shale discharge means below said air introducing means, means for withdrawing effluent gases from the tower adjacent the upper boundary of the retorting zone, means for withdrawing spent gases from the drying and preheating section, means for withdrawing gaseous products of combustion through said pipes and means for recycling both spent gases withdrawn from the preheating and drying section and gaseous products of combustion withdrawn through said pipes to the combustion zone.



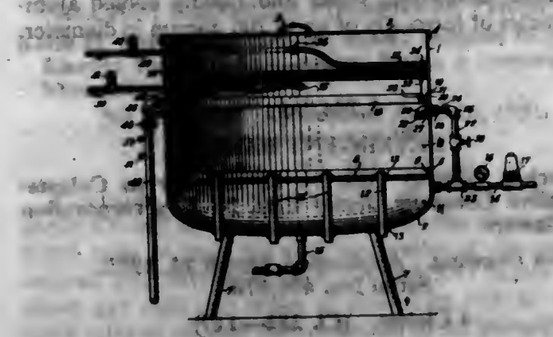
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2,774,727

## STILL FOR RECLAIMING SOLVENTS

Russell B. Hobson, Jr., Montclair, N. J., assignor to Par Corporation, Montclair, N. J., a corporation of New Jersey

Application October 21, 1954, Serial No. 463,636
1 Claim. (Cl. 202—187)



A still for reclaiming a liquid solvent comprising a hollow cylindrical body open at the top and having means at its bottom to set on a floor, a steam chest at the lower end of said hollow cylindrical body including an approximately flat plate extending transversely of said cylindrical body throughout the cross-sectional area thereof, said plate and the wall of said body forming a vaporizing and condensing chamber having a diameter substantially greater than the height thereof above said plate, a condensate collector trough disposed above said plate and spaced downwardly from the top of said body and extending along the inner surface of the side wall of said cylindrical body, a condenser coil above said condensate collector trough and closely adjacent the side wall of said body, an outlet pipe extending from said condensate collector trough outwardly from said body, a cover for said open top to provide for easy and quick dumping of liquid or sludge through said open top onto said plate in a layer below said condensate collector trough and for removal of said liquid or sludge from the body, and a steam inlet pipe below said condensate collector trough and above the level of the top surface of such layer having an outlet extending circumferentially of the body adjacent the side wall of the body and downwardly toward said plate to provide a blanket cloud of steam swirling or rotating circumferentially of said body over the top surface of the layer of sludge or liquid on said plate.

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2,774,728

## ADDITION AGENT FOR COPPER PLATING

Christian J. Wernlund, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 29, 1955, Serial No. 537,256
10 Claims. (Cl. 204—52)

1. An aqueous copper cyanide bath for electrodepositing a bright, ductile, copper electroplate, said bath containing about 5–20 oz./gal. of copper cyanide, about 0.006–0.06 oz./gal. of potassium antimonyl tartrate and methylene-bis(naphthalene sulfonic acid).

2. An aqueous copper cyanide bath for electrodepositing a bright, ductile copper electroplate, said bath containing about 5–20 oz./gal. of copper cyanide, about 0.05–10 oz./gal. of an alkali metal thiocyanate and about 0.006–0.6 oz./gal. of potassium antimonyl tartrate.

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2,774,729

## RECOVERY OF URANIUM BY ELECTROLYSIS OF A FUSED BATH

George Meister, Newark, N. J., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 31, 1944, Serial No. 520,550
3 Claims. (Cl. 204—64)

1. The method of recovering metallic uranium from uranium halides which comprises the steps of providing a fused electrolyte consisting essentially of barium fluoride and barium chloride, adding a uranium fluoride to said fused electrolyte and electrolyzing said mixture at a temperature of approximately 1150° C. to electrodeposit uranium therefrom in coalescent form.

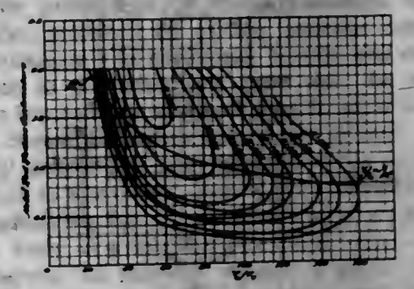
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2,774,730

## NEUTRONIC REACTOR HAVING A FLATTENED ACTIVITY CURVE

Gale J. Young, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application September 5, 1944, Serial No. 552,730
1 Claim. (Cl. 204—193)



An air-cooled neutronic reactor which comprises a moderator of graphite, there being channels extending horizontally entirely therethrough, said channels being spaced 7 inches apart, said channels being square in cross section with one of the diagonals vertical and 1.75 inches on a side, natural uranium rods of one diameter disposed in the channels in a central zone of the reactor, natural uranium rods of another diameter disposed in the channels in an outer zone of the re-

actor, the diameter of the rods being such that a lower neutron reproduction factor exists in the central zone than in the outer zone the neutron reproduction factor in both zones being greater than one, the diameter of the rods in both central and outer zones being determined by Fig. 17 of the drawing, the intersection of curve A with the curve for the desired K factor for each zone specifying the diameter of rod required to obtain the desired K factor, the neutron density within the reactor thereby being substantially the same throughout a large volume of the reactor so that a more uniform distribution of heat throughout the reactor is obtained than would be obtained if the neutron reproduction factor were uniform throughout the reactor, the purity of the graphite and the uranium and the total mass thereof being sufficient to sustain a chain reaction.

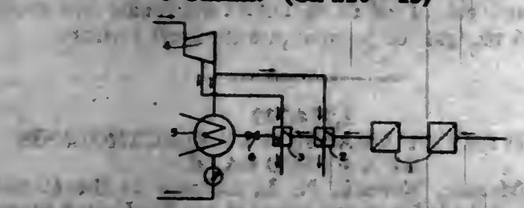
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2,774,731

## METHOD FOR DEGASIFYING WATER

Paul Profos, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application December 10, 1953, Serial No. 397,382
Claims priority, application Switzerland December 18, 1952
3 Claims. (Cl. 210—15)



1. A method of degasifying water, particularly boiler feed water in a steam power plant, which water has been purified by ion exchange, comprising transferring heat to the water in at least two consecutive heating stages by heat carriers having different specific heat contents and expanding the so heated water for releasing undesired gases, the amount of heat which is transferred to the water being determined by the expansion pressure and by the amount and type of gas to be removed from the water.

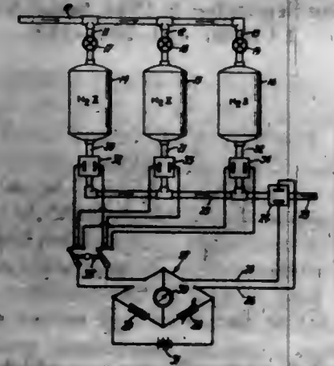
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2,774,732

## OPERATION OF CATION EXCHANGE UNITS

Frank Charles Blight, Hanworth, England, assignor to The Permutit Company, New York, N. Y., a corporation of Delaware

Application June 14, 1951, Serial No. 231,570
Claims priority, application Great Britain June 14, 1950
3 Claims. (Cl. 210—24)



1. A process of determining when any one of at least two hydrogen cation exchange units operating in parallel requires regeneration which comprises, comparing the conductivity of the combined effluents from said units, with the conductivity of the effluent from said one unit, and regenerating said one unit when the conductivity of its effluent becomes substantially lower than the conductivity of the combined effluents.

2,774,733

## LUBRICATING COMPOSITION

Paul H. Williams, Orinda, and Lawrence B. Scott, Lafayette, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Original application May 12, 1953, Serial No. 354,622, now Patent No. 2,744,871, dated May 8, 1956. Divided and this application February 6, 1956, Serial No. 563,617
11 Claims. (Cl. 252—56)

1. A lubricating composition adapted for extreme pressure use comprising a major amount of a water-miscible mixture of monohydroxy oxyethylene oxy-1,2-propylene aliphatic monoethers in which the ethylene oxide and 1,2-propylene oxide are combined therein as oxyethylene and oxy-1,2-propylene groups in a ratio which is at least one-third part of 1,2-propylene oxide for each part of ethylene oxide by weight, said mixture having an average molecular weight of at least 300 attributable to said groups, the aliphatic monoethers of said mixture containing in a single molecule both the oxyethylene and oxy-1,2-propylene groups, and a minor amount, sufficient to improve the extreme pressure properties thereof, of citric acid.

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2,774,734

## FLUID FOR GRAVITY SEPARATION

Franz Rodis and Friedrich Thomas, Knapsack, Kreis Koln, Germany, assignors to Knapsack-Griesheim Aktiengesellschaft für Stickstoffdünger und Autogentechnik, Knapsack, Bezirk Koln, Germany, a manufacturing and trading organization under the laws of the Allied Control Council and Allied High Commission of Germany

No Drawing. Application September 23, 1952, Serial No. 311,148
Claims priority, application Germany October 2, 1951
5 Claims. (Cl. 252—60)

1. A composition of matter useful for gravity separation of gangue from comminuted mineral matter, said composition comprising water and rapidly cooled atomized particles of ferro-ally of up to 200 micron in diameter.

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2,774,735

## DETERGENT BARS

Paul Becher, Murray Hill, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application March 22, 1955, Serial No. 496,070
4 Claims. (Cl. 252—117)

1. A detergent composition in the form of bars or cakes having improved processing properties and reduced tendency to slough, said composition consisting essentially of at least about 50% by weight of higher fatty acid water soluble soap; about 5 to 12% by weight moisture; about 5 to 30% by weight of water soluble salt of higher fatty acid monoglyceride monosulfate; about 3 to 7% by weight of non-ionic detergent comprising hydrophobic polyoxypropylene glycol of molecular weight at least 900 condensed with sufficient ethylene oxide to prepare a water soluble product; and about 0.5% to 3% by weight, sufficient to improve the physical processing characteristics and sloughing resistance of said bars or cakes but insufficient to deleteriously affect the foaming properties thereof, of polymeric material prepared by adding propylene oxide to ethylene diamine until a condensation product having a molecular weight of about 2,000 to 6,000 is obtained, and then adding ethylene oxide to said condensation product until said ethylene oxide constitutes about 10 to 80% of the final polymer.



2,774,736

## METHOD OF APPLYING METAL AND METAL VAPOR DECONTAMINANTS

William M. Sisli, Teaneck, N. J., assignor to William M. Sisli & Co., Inc., Teaneck, N. J., a corporation of New Jersey

No Drawing. Original application December 5, 1950, Serial No. 199,371. Divided and this application September 21, 1953, Serial No. 381,504
4 Claims. (Cl. 252—192)

1. The method of decontaminating an area exposed to metallic mercury which consists of the steps of mixing at least 5% and not more than 20% of ethylene diamine tetra acetic acid with at least 80% and not more than 95% of sodium thiosulphate, slowly dissolving the mixture in water to form a milky solution, applying the said solution in the form of a wash to the contaminated surfaces and allowing the said solution to dry in contact with the metallic mercury.

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2,774,737

## COMPOSITION FOR COATING ELECTRO-LUMINESCENT LAMPS

Eric L. Mager, Peabody, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

No Drawing. Application July 2, 1953, Serial No. 365,781
1 Claim. (Cl. 252—301.3)

A suspension for coating electroluminescent lamps, said suspension being in the proportion of about 100 grams of ceramic powder, about 60 grams of electroluminescent phosphor powder, about 15 grams of ethyl cellulose, about 54 grams of mineral oil, about 15 cubic centimeters of butanol, about 435 cubic centimeters of xylol, about 75 grams of a plasticizer, and about 2100 cubic centimeters of chloroform.

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2,774,738

## CALCIUM CADMIUM PHOSPHATE PHOSPHOR

Keith H. Butler, Marblehead, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

No Drawing. Application April 10, 1951, Serial No. 220,357
1 Claim. (Cl. 252—301.6)

A calcium cadmium phosphate phosphor activated by about 0.1 mol of manganese and between about 0.01 and 0.025 mole of lead, for each two moles of the phosphate radical, and having between 0.6 and 2.17 moles of cadmium per each two moles of phosphate radical, with the mole ratio of calcium plus cadmium to the phosphate radical between about 2.95/2.00 and 2.60/2.00.

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2,774,739

## METHOD OF MAKING AN ELECTROLUMINESCENT PHOSPHOR

Keith H. Butler, Marblehead, and Richard M. Rulon, Salem, Mass., assignors to Sylvania Electric Products, Inc., Salem, Mass., a corporation of Massachusetts

No Drawing. Application July 22, 1952, Serial No. 300,358
2 Claims. (Cl. 252—301.6)

1. The method of making an electroluminescent phosphor which comprises; firing a mixture of zinc sulfide with between about 0.0004 to about 0.0015 gram atom of copper for each mole of zinc sulfide; then mixing the resultant material with between about 0.0002 and about 0.0012 gram atom of lead per mole of zinc sulfide and a small amount of zinc oxide, and firing the mixture.

2,774,740

## GEL BREAKERS OF HEAVY METAL SOAP GELS

Sidney J. Magram, Baltimore, Md.

No Drawing. Application February 12, 1954, Serial No. 410,052
19 Claims. (Cl. 252—326)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for the breaking of gels composed of a polyvalent metal soap and a liquid hydrocarbon which comprises adding to said gel a chelating agent of the group consisting of beta-di-oxo compounds, 8-hydroxyquinoline, and orthohydroxy aromatic aldehydes in a quantity sufficient to liquefy the gel.

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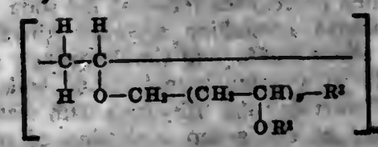
2,774,741

## PROCESS FOR BREAKING EMULSIONS

Anthony J. Martinelli, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 3, 1954, Serial No. 473,041
3 Claims. (Cl. 252—331)

1. A process for breaking a water-in-oil type emulsion comprising subjecting such emulsion to the action of a polymeric vinyl ether characterized by the formula



wherein $R^2$ and $R^3$ are lower alkyl radicals; $y$ has a value of from 1 to 7; and $n$ has a value of at least 5.

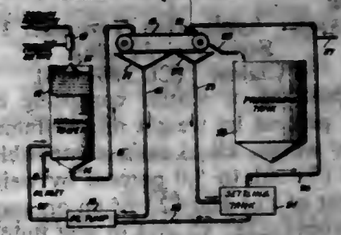
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2,774,742

## DEOILING OF SPHEROIDAL CHROMIA-ALUMINA HYDROGEL PARTICLES

William A. Stover, Pitman, and Robert C. Wilson, Jr., Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application November 19, 1954, Serial No. 469,963
7 Claims. (Cl. 252—448)



1. In the production of chromia-alumina spheroidal gel particles prepared by mixing aqueous solutions of sodium aluminate and chromium acetate and controlling the sodium to aluminum ion ratio and the acetate to chromium ion ratio in said solutions to yield a hydrosol having a chromia-alumina content of at least about 10 percent by weight and characterized by an inherent capacity to set to a hydrogel upon lapse of a suitable period of time, admitting said sol in the form of separate globules to a body of a liquid substantially immiscible with water wherein the globules assume a spheroidal shape and set to hydrogel, aging, washing, and drying the spheroidal hydrogel, the improvement which comprises removing adherent substantially water-immiscible liquid from the freshly formed hydrogel particles after separation thereof from said body of liquid, but prior to said aging, by washing said particles with an aqueous ammonium salt solution having a pH of between about 8.0 and about 9.5 and an ammonium salt concentration of between about 5 and about 20 percent by weight.

2,774,743

## PROCESS FOR PRODUCING SPHEROIDAL ALUMINA

James Hoekstra, Evergreen Park, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application November 21, 1951, Serial No. 257,633
5 Claims. (Cl. 252—448)

1. A process for producing a platinum-on-alumina catalyst in which the alumina has an apparent bulk density below about 0.5 gm. per cc., which comprises aging alumina gel first in oil at a temperature of at least 125° F. for at least 10 hours and then in ammonium hydroxide solution at a temperature of at least 125° F. for at least 10 hours, and subsequently compositing platinum with the alumina gel.

2,774,744

## METHOD OF PREPARING LOW SODA-CONTENT ALUMINA CATALYST

Wayne T. Barrett, Baltimore, Md., and Charles E. Welling, Pittsburgh, Pa., assignors to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut

No Drawing. Application November 6, 1950, Serial No. 194,394
16 Claims. (Cl. 252—465)

1. A one-step process for reducing the soda content of soda-contaminated crystalline alumina trihydrate to a value below about 0.05% and simultaneously converting the trihydrate to alumina monohydrate, which consists essentially of slurrying the trihydrate with water and an acidic material of the group consisting of nitric acid, hydrochloric acid, acetic acid, the aluminum salts of said acids and mixtures thereof, autoclaving the slurry at a temperature above 350° F. thereby effecting substantially complete conversion to the monohydrate and thereby solubilizing soda as a result of the conversion, and filtering and water washing the thus treated alumina.

2,774,745

## HIGH-SLIP NITROCELLULOSE LACQUERS

Robert C. Hedlund, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application November 17, 1952, Serial No. 321,061
4 Claims. (Cl. 260—16)

1. A composition of matter consisting essentially of (1) 25 to 90 percent by weight nitrocellulose, (2) 10 to 75 percent by weight alkyd resin compatible with nitrocellulose and (3) .01 to 5.0 percent by weight based on the total weight of (1) and (2) of an organopolysiloxane fluid boiling above 225° C. and in said fluid, the organic radicals are monovalent hydrocarbon radicals which are bonded to silicon atoms by Si-C bonds.

2,774,746

## DIETHYLENE GLYCOL BIS-CARBAMATE-FORMALDEHYDE CONDENSATES

James P. Shelley, Drexel Hill, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 16, 1954, Serial No. 437,268
19 Claims. (Cl. 260—29.4)

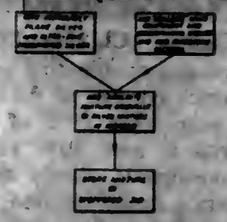
1. A composition comprising a water-soluble high molecular weight condensate of a mixture comprising the dicarbamate of diethylene glycol and formaldehyde, in which the molar ratio of formaldehyde to the dicarbamate is from 2:1 to 3.5:1, said condensate having been prepared in an aqueous medium at a pH of 2.3 to 3.5 and at a temperature of at least 70° C. and having a viscosity, at a concentration of 60% in water at 25° C., of 2 to 25 poises.

2,774,747

## ELECTRICALLY CONDUCTING CEMENTS CONTAINING EPOXY RESINS AND SILVER

Henry Wolfson and George Elliott, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application March 25, 1952, Serial No. 278,527
Claims priority, application Great Britain April 5, 1951
1 Claim. (Cl. 260—32.8)



An electrically conducting cement, comprising 27% fine flake silver, 46% ultra fine precipitated silver, 24.5% hardenable resinous reaction product of epichlorohydrin with a diphenol and 2.5% diacetone alcohol.

2,774,748

## COMPOSITION CONTAINING GLYCIDYL POLYETHER OF A POLYHYDRIC PHENOL AND A METHYLOL SUBSTITUTED 2-ALKENYLOXYBENZENE

Harry W. Howard, South Orange, and Clifford V. Wittenwyler, Roselle, N. J., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application April 14, 1952, Serial No. 282,274
10 Claims. (Cl. 260—45.5)

9. A composition comprising a mixture of (1) an epoxide resin, which is a condensate of epichlorohydrin and a dihydric phenol, (2) an alkenyloxybenzene from the group consisting of allyloxybenzene and methallyloxybenzene, said alkenyloxybenzene containing 3 methylol groups linked singly at the 2, 4 and 6 positions on the benzene ring, in proportions of 1 to 9 parts of (1) to 9 to 1 parts by weight of (2), and (3) phosphoric acid in an amount of from 0.2% to 5% by weight based on the total composition as a curing catalyst.

2,774,749

## PRODUCTION OF DICYANDIAMIDE-FORMALDEHYDE CONDENSATION PRODUCTS

Lester N. Stanley, Brookview, and Alois C. Roggenstoss, Delmar, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 15, 1952, Serial No. 320,813
3 Claims. (Cl. 260—69)

2. A process for condensing paraformaldehyde ammonium chloride and dicyandiamide comprising mixing said substances in dry form and in molar proportions respectively of about 1–3:0.5–1:1 and heating the mixture at a temperature of about 70 to 150° C. under anhydrous conditions for a sufficient time to produce an acidic condensation product which, in the form of its hydrochloride, is soluble in dilute aqueous acid media.

2,774,750

## MONOMERIC COMPOUNDS COMPRISING A PLURALITY OF VINYL GROUPS

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application December 8, 1954, Serial No. 474,003
19 Claims. (Cl. 260—78)

1. As a new composition, a compound having the structure of Formula I.

I $(H_2C{=}CHOANRCO{-})_nY$

where A is an alkylene group of 2 to 18 carbon atoms of which at least two carbon atoms thereof separate the adjoining O and N atoms, R is selected from the group consisting of H, cyclohexyl, benzyl, and alkyl groups of 1 to 12 carbon atoms, Y is selected from the group consisting of alkylene, alkenylene, phenylene, oxa-alkylene, and thia-alkylene groups, tri- and tetravalent saturated aliphatic hydrocarbon groups, tri- and tetravalent saturated aliphatic hydroxyl-substituted hydrocarbon groups, and tri-, tetra-, and hexavalent monocyclic aromatic hydrocarbon groups, and $n$ is an integer having a value of 2 to 4.

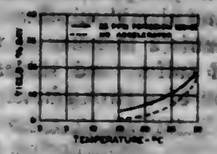


2,774,751

## MANUFACTURE OF FLUORINE CONTAINING POLYMERS

Herbert J. Passino, Englewood, and Albert L. Dittman, North Bergen, N. J., and John M. Wrightson, Whittier, Calif., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application June 11, 1953, Serial No. 360,893
12 Claims. (Cl. 260—87.5)



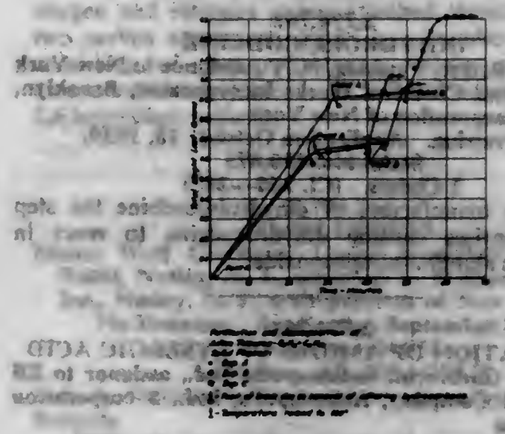
1. A process for the production of a normally solid fluorine-containing polymer which comprises polymerizing a substituted ethylene compound having at least 2 fluorine atoms in the molecule at a temperature above about 0° C. and below 40° C. in the presence of an aqueous-suspension medium having a water-soluble inorganic peroxide as a polymerization promoter, a water-soluble reducing agent as an activator, selected from the group consisting of alkali bisulfites, alkali hydrosulfites, alkali thiosulfates and trimethylamine and an amount of a water-soluble iodide as an accelerator within a range between about 1 and 1000 p. p. m. calculated as iodine.

2,774,752

## PROCESS FOR TREATING HYDROCARBONS WITH THIOUREA

Manuel H. Gorin and Ludwig Rosenstein, San Francisco, Calif.

Application January 31, 1951, Serial No. 208,816
11 Claims. (Cl. 260—96.5)



1. A process for forming an adduct with expanded thiourea characterized by a bulk density of substantially 0.45 gram per cc. and also characterized by reactivity which enables complete adduct formation when said thiourea is used as the sole reagent with liquid cyclohexane in a contact period at room temperature not exceeding one hour, comprising passing a gas stream, containing at least one hydrocarbon capable of forming an adduct with thiourea, over a mass of said expanded thiourea as the sole reagent at a temperature below approximately 60° C. and for a contact time of less than one hour to form an adduct of thiourea and said hydrocarbon.

2,774,753

## COMBINED SOLVENT AND ADSORBENT PROCESS FOR REFINING ROSIN

Edwin C. Howard, Hattiesburg, Miss., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 15, 1954, Serial No. 468,989
10 Claims. (Cl. 260—107)

1. The process for refining dark rosin which comprises separating dark rosin into a crude pale rosin fraction and a fraction containing primarily naphtha-insoluble material by partitioning the dark rosin between an adsorbent refining solvent and acetonitrile, the amount of acetonitrile being in the range of 0.1 to 5 parts per part of said naphtha-insoluble material, and contacting the resultant solution of crude pale rosin with a solid adsorbent.

2,774,754

## METHOD OF DISPOSING AND UTILIZATION OF SULFITE WASTE LIQUOR

Albert Schmid, Zurich, Switzerland

No Drawing. Application December 10, 1953, Serial No. 397,486
Claims priority, application Switzerland December 15, 1952
1 Claim. (Cl. 260—124)

In a method of disposing of and utilising sulfite waste liquid obtained from sulfite cellulose plants, the steps of reducing the water content of the crude sulfite waste liquor down to about 20–40% by multi-stage vacuum evaporation of the crude liquor in a first concentration stage, then further reducing the water content of the so-concentrated liquor down to 10–20% by film evaporation under atmospheric pressure in a second concentration stage, the pH of the liquor in both said concentration stages being at a value within the range of 5–6, and bringing the pH of the final liquid concentrate to a value in the range of about 7.2–8 by mixing it intimately with carbide sludge while maintaining intimate contact with air at a temperature of about 70–100° C. whereby polymerization of the concentrate takes place.

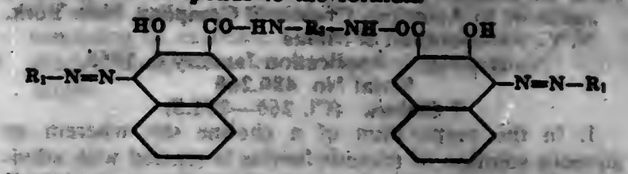
2,774,755

## ACID AMIDE DERIVATIVES OF AZO-DYESTUFFS

Max Schmid, Riehen, and Eduard Meyer and Christoph Frey, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application December 14, 1953, Serial No. 398,226
Claims priority, application Switzerland December 24, 1952
5 Claims. (Cl. 260—174)

1. An acid amide derivative of an azo compound which derivative is free from groups imparting solubility in water and corresponds to the formula




in which $R_1$ represents a member selected from the group consisting of mononuclear aromatic radicals of the benzene series and binuclear aromatic radicals of the naphthalene series and contains a carboxylic acid ester group in vicinal position to the azo linkage, and $R_2$ represents

an aromatic hydrocarbon radical containing 6n ring carbon atoms, *n* representing a whole number of at the most 2.

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2,774,756

## NEW TRIAZINE COMPOUNDS AND PROCESS OF MAKING THEM

Hermann Bretschneider and Wilhelm Kleter, Innsbruck, Austria, assignors to Österreichische Stickstoffwerke Aktiengesellschaft, Linz (Donaubo), Austria, an Austrian joint-stock company

No Drawing. Application March 28, 1953, Serial No. 343,892
Claims priority, application Austria March 28, 1952
7 Claims. (Cl. 260—239.7)

1. A 2-(benzenesulfonamido)-1,3,5-triazine selected from the group consisting of 2-(4'-aminobenzenesulfonamido)-4,6-dimethoxy-s-triazine and its salts.

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2,774,757

## PROCESS FOR THE PRODUCTION OF THIOACYLHYDRAZONES

Engelbert Kühle and Richard Wegler, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application July 26, 1955, Serial No. 524,581
Claims priority, application Germany August 19, 1954
7 Claims. (Cl. 260—240)

1. The process of producing thioacylhydrazones which comprises heating to temperatures of between about 120 to about 180° C. a mixture of sulfur and a heterocyclic compound containing a reactive methyl group said compound being selected from the group consisting of 2- and 4-methylpyridine, quinaldine, 2-methylbenzothiazole, 2-methylthiophene, 2,4-dimethylpyridine, 2,5-dimethylpyridine, and an organic carboxylic acid hydrazide selected from the class consisting of benzoic acid hydrazide, the hydrazides of halogen-substituted-, nitro-substituted- and alkyl-substituted benzoic acids, naphthoic acid hydrazide, diphenylcarboxylic acid hydrazide, the pyridine carboxylic acid hydrazides, the quinoline carboxylic acid hydrazides, pyromucic acid hydrazide and thiophenecarboxylic acid hydrazide, and recovering the thioacylhydrazones formed from the reaction mixture.

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2,774,758

## MORPHOLINE DERIVATIVE

William H. Yanko, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 5, 1954, Serial No. 448,143
3 Claims. (Cl. 260—247)

1. The method which comprises contacting morpholine with fumaronitrile and recovering 4-morpholinesuccinonitrile from the resulting reaction product.

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2,774,759

## PREPARATION OF CHOLINE BASE AND CHOLINE SALTS

Eben G. Blackett and Arnold J. Selkday, Marietta, Ohio, assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 6, 1955, Serial No. 480,268
7 Claims. (Cl. 260—251.5)

1. In the preparation of a choline salt wherein an aqueous solution of trimethylamine is reacted with ethylene oxide to form choline base, the improvement which comprises first partially neutralizing the aqueous solution of choline base with an acid, distilling off the unreacted trimethylamine under vacuum, and completely neutralizing the remaining choline base.

2,774,760

## PROCESS FOR PRODUCTION OF PYRIMIDINES

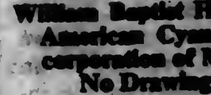
Calvert W. Whitehead, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application October 14, 1953, Serial No. 386,136
6 Claims. (Cl. 260—256.4)

1. The process for the preparation of substituted pyrimidines which comprises heating together a compound represented by the formula

Y—$CH_2$—Z

wherein Y and Z represent radicals of the group consisting of cyano, carbamyl, carboxyl, lower carbalkoxy, lower aliphatic carboxyacyl and lower alkoxyoxalyl radicals; an alkyl orthoformate, and a compound represented by the formula



wherein R represents a member of the group consisting of hydrogen, lower alkyl, cyclohexyl, lower hydroxyalkyl, lower alkoxyalkyl and phenyl-substituted lower alkyl radicals, and X represents a member of the group consisting of oxygen and sulfur; and subjecting the product thereof to the action of a strong base.

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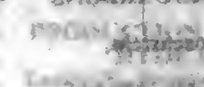
2,774,761

## PREPARATION OF SULFURIC ACID HALF ESTERS OF LEUCO VAT DYES

William Baptist Hardy, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 1, 1953, Serial No. 377,980
13 Claims. (Cl. 260—274)

1. The process of preparing sulfuric acid half esters of leuco vat dyes which comprises subjecting a vat dye to treatment with a metal selected from the class consisting of metals of group II-B of the periodic table having an atomic number less than 50 and metals of group VIII of the periodic table having an atomic number less than 30, and with a sulfur trioxide addition product of a dialkylcyanamide of the formula:



in which $R_1$ and $R_2$ represent alkyl groups of less than 4 carbon atoms.

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2,774,762

## DIHYDROISOCODEINE

Manuel M. Balzer, Flushing, N. Y., assignor to New York Quinine and Chemical Works Incorporated, Brooklyn, N. Y., a corporation of New York

No Drawing. Application October 18, 1950, Serial No. 190,573
2 Claims. (Cl. 260—285)

1. In the manufacture of dihydroisocodeine the step which comprises causing dihydrocodeine to react in toluene with aluminumisopropoxide.

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2,774,763

## PREPARATION OF AMIDES OF LYSERGIC ACID

William L. Garbrecht, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application November 21, 1955, Serial No. 548,242
13 Claims. (Cl. 260—285.5)

1. The method which comprises reacting sulfur trioxide with a member of the group consisting of lysergic acid and basic salts thereof at a temperature not substantially exceeding room temperature to produce a mixed anhydride of lysergic and sulfuric acids, and reacting said mixed anhydride with a nitrogenous base having at least one hydrogen linked to nitrogen, thereby to produce a lysergic acid amide, and isolating said amide.



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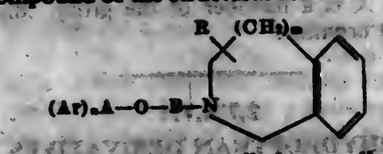
2,774,764

## 2-(ARALKOXYALKYL) DERIVATIVES OF TETRAHYDROISOQUINOLINE AND ISOINDOLINE

John W. Cusic, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application October 21, 1953, Serial No. 387,505
15 Claims. (Cl. 260—289)

1. A compound of the structural formula



wherein A and B are lower alkylene radicals, *m* is an integer selected from the group consisting of zero and one, *n* is a positive integer less than three, R is a member of the class consisting of hydrogen, lower alkyl and pheayl radicals and Ar is a member of the class consisting of methoxypheayl, aryl hydrocarbon, and haloaryl radicals, the total number of carbon atoms in $(Ar)_n$ being between 6 and 16 carbon atoms, inclusive.

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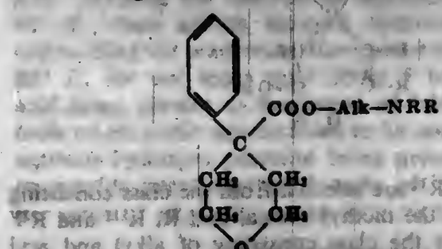
2,774,765

## ESTERS OF 4-PHENYL-4-TETRAHYDROPYRANCARBOXYLIC ACID AND THEIR SALTS

William W. Jenkins, Morton Grove, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application May 10, 1954, Serial No. 428,846
6 Claims. (Cl. 260—294.3)

1. A compound of the structural formula



wherein Alk is a lower alkylene radical separating the oxygen and nitrogen atoms attached thereto by at least two carbon atoms and NRR' is a member of the class consisting of di-n-propylamino, diisopropylamino, di-(secondary butyl)amino, 2,5-dimethylpyrrolidino and 2,6-lupetidino radicals.

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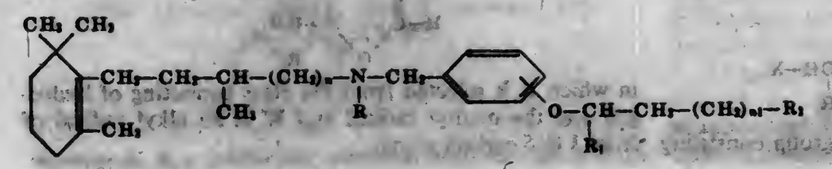
2,774,766

## BASIC ETHERS

Moses Wolf Goldberg, Upper Montclair, and Sidney Teitel, Nutley, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application September 8, 1954, Serial No. 454,826
6 Claims. (Cl. 260—294.7)

1. A compound selected from the group having the formula



wherein

R and $R_4$ are members of the group consisting of hydrogen and lower alkyl,

$R_3$ is a member of the group consisting of the radicals dilowеralkylamino, piperidino, morpholino and pyrrolidino, and

*n* and $n_1$ are members of the group consisting of 0 and 1, and salts thereof.

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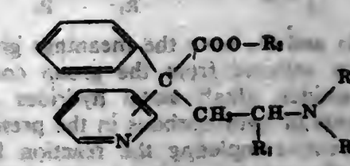
2,774,767

## PROCESS OF PREPARING 2-PHENYL-2-PYRIDYL-(4')-4-DILOWERALKYL AMINO BUTYRIC LOWER ALKYL ESTERS

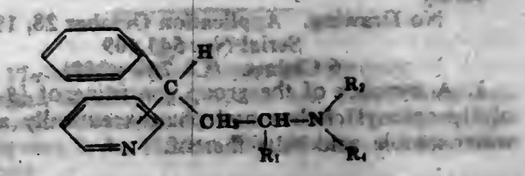
Gustav Ehrhart, Bad Soden am Taunus, Karl Schmitt, Frankfurt am Main, and Heinrich Ott, Eppstein (Taunus), Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application April 22, 1955, Serial No. 503,337
Claims priority, application Germany May 3, 1954
4 Claims. (Cl. 260—295)

1. The process of preparing basic esters of the general formula:



wherein $R_1$ represents a member of the group consisting of hydrogen and methyl, $R_3$ represents an alkyl radical having at most 4 carbon atoms and $R_5$ and $R_6$ represent alkyl radicals having at most 3 carbon atoms and taken together with —N< form a saturated heterocyclic ring system, which comprises reacting compounds of the general formula:



wherein $R_1$, $R_3$ and $R_4$ have the meanings given above, with a member selected from the group consisting of alkali metal amides, alkali metal hydrides and alkali metal compounds of hydrocarbons in the presence of an indifferent solvent, completing the reaction by heating, and then adding to the reaction mixture without isolation of the alkali metal compound formed, an ester of the group consisting of carbonic acid and chlorocarbonic acid, the alcohol components of which contain at most 3 carbon atoms.

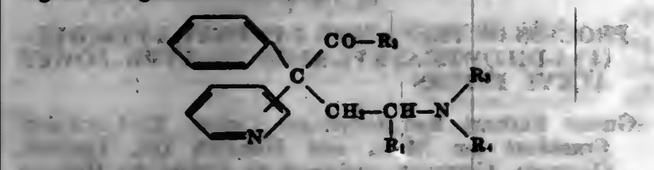
2,774,768

## PROCESS OF PREPARING BASIC KETONES

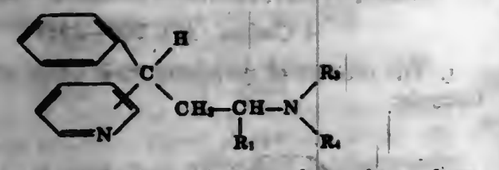
Gustav Ehrhart, Bad Soden am Taunus, Karl Schmitt, Frankfurt am Main, and Heinrich Ott, Eppstein (Taunus), Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application April 26, 1955, Serial No. 504,094
Claims priority, application Germany May 3, 1954
5 Claims. (Cl. 260—296)

1. The process of preparing basic ketones corresponding to the general formula:



wherein $R_1$ represents a member of the group consisting of hydrogen and methyl, $R_2$ represents an alkyl radical having at most 4 carbon atoms, and $R_3$ and $R_4$ represent alkyl radicals having at most 3 carbon atoms and taken together with—N< form a saturated heterocyclic ring system, which comprises reacting compounds of the general formula:



wherein $R_1$, $R_2$ and $R_4$ have the meanings given above, with a member selected from the group consisting of alkali metal amides, alkali metal hydrides and alkali metal compounds of hydrocarbons in the presence of an indifferent solvent, completing the reaction by heating and adding to the reaction mixture, without isolation of the alkali metal compound formed, a member of the group consisting of esters and halides of lower aliphatic carboxylic acids, the alcohol components of the said esters containing at most 3 carbon atoms.

2,774,769

## IMIDAZOLYLPROPIONYL CHOLINE SALTS

Arthur Stempel, River Edge, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application October 28, 1955, Serial No. 543,609
6 Claims. (Cl. 260—309)

1. A member of the group consisting of [β-(4-imidazolyl)propionyl]choline and pharmaceutically acceptable, water-soluble acid salts thereof.

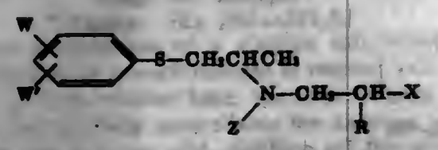
2,774,770

## SULFUR-CONTAINING AMINES

James F. Kerwin and Glenn E. Ullyot, Philadelphia, Pa., assignors to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application September 20, 1951, Serial No. 247,553
6 Claims. (Cl. 260—332.5)

1. A compound of the class consisting of a free base and its acid addition salts, the free base having the formula:



in which W and W' are members of the group consisting of hydrogen, alkyl containing not more than four carbon atoms, alkoxy containing not more than four carbon atoms, fluorine, chlorine and bromine; Z is a member of the group consisting of alkyl containing not more than eight carbon atoms, alkenyl containing not more than eight carbon atoms, benzyl, benzyl substituted in the phenyl portion by methyl, methoxy, fluorine, chlorine and bromine, phenoxyalkyl the alkyl portion containing not more than four carbon atoms and phenoxyalkyl substituted in the phenyl portion by methyl, methoxy, fluorine, bromine and chlorine, and thenyl and thenyl substituted in the thiophene portion by alkyl containing not more than four carbon atoms, fluorine, chlorine and bromine; R is a member of the group consisting of hydrogen and methyl; and X is a member of the group consisting of chlorine and bromine.

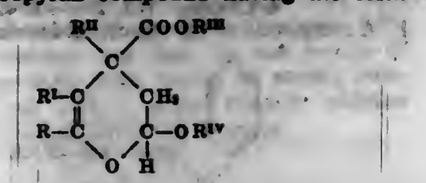
2,774,771

## DIHYDROPYRAN DERIVATIVES

Raymond I. Longley, Jr., Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 11, 1955, Serial No. 527,869
3 Claims. (Cl. 260—345.8)

1. The process which comprises heating, at a temperature of from 100° C. to 300° C. a keto-ester having the formula $RCOCR^{I}{:}CR^{II}COOR^{III}$ in which $R^{I}$ and $R^{II}$ are selected from the class consisting of hydrogen and the methyl radical and R and $R^{III}$ are selected from the class consisting of alkyl and aryl radicals of from 1 to 18 carbon atoms, with a vinyl ether having the formula $CH_2{:}CHOR^{IV}$ in which $R^{IV}$ is selected from the class consisting of alkyl and aryl radicals of from 1 to 18 carbon atoms, and recovering from the resulting reaction product a dihydropyran compound having the formula



in which $R^{I}$ and $R^{II}$ are selected from the class consisting of hydrogen and the methyl radical and R, $R^{III}$ and $R^{IV}$ are selected from the class consisting of alkyl and aryl radicals of from 1 to 18 carbon atoms.

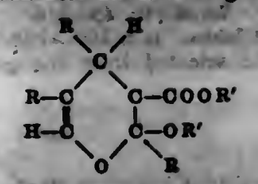
2,774,772

## DIHYDROPYRAN DERIVATIVES

Raymond I. Longley, Jr., Springfield, Mass., William S. Emerson, Glendale, Mo., and Theodore C. Shafer, Lafayette, Ind., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 15, 1955, Serial No. 528,344
8 Claims. (Cl. 260—345.8)

8. Dihydropyran derivatives having the formula



in which R is selected from the class consisting of hydrogen and the methyl radical and R' is an alkyl radical of from 1 to 5 carbon atoms.



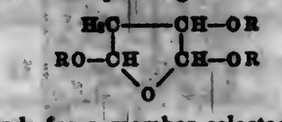
2,774,773

## PROCESS FOR THE PRODUCTION OF 2,3,5-TRIALKOXY-TETRAHYDROFURANES

Arthur Stoll, Arlesheim, Ernst Jucker, Binningen, and Adolf Lindenmann, Basel, Switzerland, assignors to Sandoz A. G., Basel, Switzerland

No Drawing. Application June 21, 1954, Serial No. 438,332
Claims priority, application Switzerland June 24, 1953
5 Claims. (Cl. 260—347.8)

1. A process for the preparation of a 2,3,5-trialkoxy-tetrahydrofurane corresponding to the formula



wherein R stands for a member selected from the group consisting of $CH_3$, $—CH_2CH_3$, $—CH_2CH_2CH_3$ and $—CH(CH_3)_2$, which comprises treating furane with a member selected from the group consisting of chlorine and bromine in an excess of an alcohol of the formula

R.OH

wherein R has the aforesaid significance, in the absence of a hydrogen halide-binding agent, at a temperature of −20° to −2° C., whereby trialkoxylation results.

2,774,774

## IN SITU EPOXIDATION OF OLEIC ACID USING FORMIC ACID

Frank P. Greenspan and Ralph J. Gall, Buffalo, N. Y., assignors, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

No Drawing. Application March 26, 1954, Serial No. 419,102
3 Claims. (Cl. 260—348.5)

1. The method of epoxidizing an ethylenic unsaturated higher fatty acid containing oleic acid which comprises adding to said acid an inert organic solvent and formic acid, warming the mixture to approximately 50° C. to 80° C., then adding aqueous hydrogen peroxide and maintaining the reaction mixture at substantially 50° C. to 80° C. for not more than about 5 hours, said formic acid being present to the extent of 0.25 to 1.0 mole per mole of ethylenic unsaturation to be epoxidized, and said aqueous hydrogen peroxide being present in an amount to provide approximately 1 mole of hydrogen peroxide per mole of ethylenic unsaturation to be epoxidized.

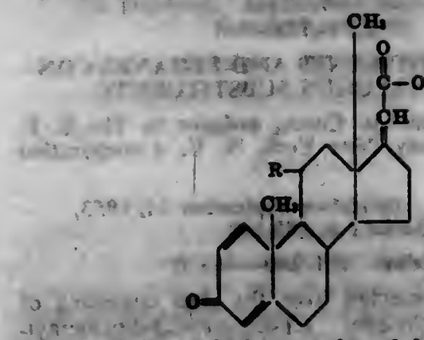
2,774,775

## CARBONYLOXY STEROIDS

Jerome Korman, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application January 26, 1954, Serial No. 406,364
9 Claims. (Cl. 260—397.1)

1. 3 - keto - 1,4,17(20) - pregnatriene - 21 - carbonyloxy steroid represented by the following formula:



wherein R is a substituent selected from the group consisting of hydrogen, α-hydroxy, β-hydroxy, α-lower-hydrocarbonyloxy and ketonic oxygen and wherein R' is a radical selected from the group consisting of hydrogen and lower-alkyl.

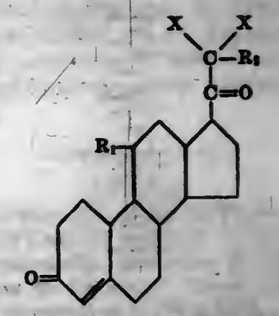
2,774,776

## DIHALOSTEROIDS

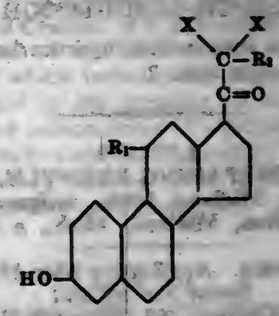
John A. Hogg, Philip F. Beal, and Frank H. Lincoln, Jr., Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 30, 1952, Serial No. 307,385
37 Claims. (Cl. 260—397.1)

1. A compound selected from the group consisting of (1) a compound represented by the formula:



and (2) a compound represented by the formula:



wherein $R_1$ is a member of the group consisting of hydrogen, α-hydroxy, β-hydroxy and keto, $R_2$ is a member of the group consisting of formyl and alkoxyoxalyl wherein the alkyl group contains from one to eight carbon atoms, inclusive, and X is a member of the group consisting of chlorine, bromine and iodine.

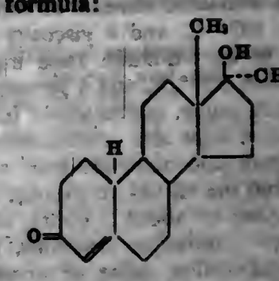
2,774,777

## 17α-METHYL-19-NORTESTERONE

Carl Djerassi, Birmingham, Mich., and Luis Miramontes and George Rosenkranz, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Original application November 12, 1952, Serial No. 320,154, now Patent No. 2,744,122, dated May 1, 1956. Divided and this application April 10, 1956, Serial No. 582,900
4 Claims. (Cl. 260—397.4)

1. A process for the production of a compound having the following formula:



which comprises reducing a lower alkyl ether of estrone with an alkali metal in liquid ammonia followed by hydrol-

yais with a mineral acid and oxidation with chromic acid to form $\Delta^4$-19-norandrosten-3,17-dione, selectively forming a 3-enol ether of said dione and treating said ether with a methyl Grignard reagent, followed by hydrolysis with a mineral acid.

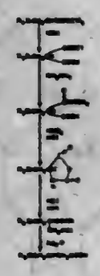
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2,774,778

## TRIORGANOSILYL AMINO ACIDS

Leo H. Sommer, State College, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

Application June 15, 1954, Serial No. 436,771
3 Claims. (Cl. 260—448.2)



1. A compound of the formula

$$R_3Si(CH_2)_nCHNH_2COOH$$

in which R is a monovalent hydrocarbon radical and *n* is an integer other than 2.

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2,774,779

## METHOD OF PREPARING PHENYLHALOSILANES

John W. Gilkey, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application May 27, 1953, Serial No. 357,921
3 Claims. (Cl. 260—448.2)

1. A process of preparing monomeric phenylsilanes which comprises heating a silcarbane in which the silicon atoms are connected by phenylene links, the remaining valences of the silicon being satisfied by a radical selected from the group consisting of halogen atoms and monovalent hydrocarbon radicals, with benzene in the presence of a catalyst of the group consisting of boron and aluminum halides, at a temperature of from 150 to 450° C., in a closed system.

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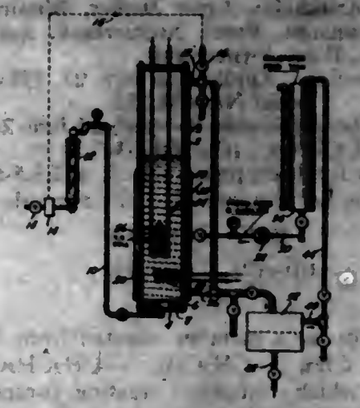
2,774,780

## OXIDIZED OIL PRODUCT AND PROCESS FOR THE PRODUCTION THEREOF

Joseph J. Saube, Warrensville, and David Frazier, Cleveland Heights, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

Application September 11, 1952, Serial No. 309,888
1 Claim. (Cl. 260—452)

The method of forming a soluble oil which comprises oxidizing a solvent-extracted mineral oil having an aniline number of about 107° C. and a viscosity of about 115 SSU at 100° F. in an oxidation zone maintained at a temperature of about 320° F. and a pressure of about 57 lbs. per square inch gauge, continuously introducing said oil into the oxidation zone and continuously withdrawing the oxidized oil from said oxidation zone at substantially the same rate so that the oil has an average residence time in the oxidation zone of about 2 hours, said withdrawn oil comprising two immiscible fractions, the lighter of which has a saponification value of about 81 and the heavier of which has a saponification value of about 250, permitting the oxidized product to separate into two layers, separating the highly oxidized lower layer from the lesser oxidized upper layer, and neutralizing the highly



oxidized lower layer with potassium hydroxide to form a soluble oil miscible with water as a stable emulsion.

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2,774,781

## METHOD FOR THE PREPARATION OF BENZYLMALONONITRILE

Jerome C. Westfahl, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application September 14, 1953, Serial No. 380,124
8 Claims. (Cl. 260—465)

1. A method of preparing benzylmalononitrile which comprises reacting benzene with 1,1-dicyano ethylene in the presence of aluminum chloride under anhydrous conditions and hydrolyzing the aluminum chloride-benzylmalononitrile complex.

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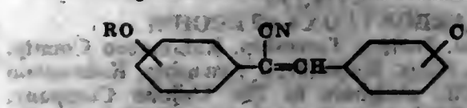
2,774,782

## o-HYDROXYPHENYL-β-ALKANOYLPHENYL AND β-GLYCOLYLPHENYL ACRYLONITRILES AND DERIVATIVES THEREOF

Kurt J. Rorig, Evanston, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application June 7, 1954, Serial No. 435,072
9 Claims. (Cl. 260—465)

1. A compound of the structural formula



wherein R is a member of the class consisting of hydrogen and lower alkylcarbonyl radicals and R' is a member of the class consisting of lower alkyl, hydroxymethyl and lower alkylcarbonyloxymethyl radicals.

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2,774,783

## 1,1-DICYANO ETHYLENES AND ETHANES CONTAINING HALOGEN SUBSTITUENTS

Alan E. Ardis, Hamden, Conn., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application September 24, 1953, Serial No. 382,189
20 Claims. (Cl. 260—465.7)

15. A chemical selected from the class consisting of 1,1-dicyano-2-haloethylene, 1,1-dicyano-2,2-dihaloethylene, 1,1-dicyano-1,2-dihaloethane, 1,1-dicyano-1,2,2-trihaloethane, and 1,1-dicyano-1,2,2,2-tetrahaloethane in which the halogen is selected from the class consisting of chlorine and bromine.



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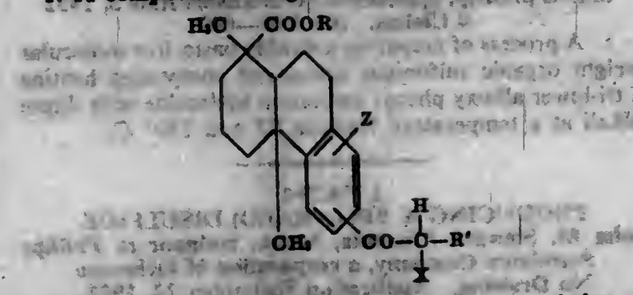
2,774,784

## HALOALKANOYL RESIN ACID DERIVATIVES

George M. Picha, Skokie, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application August 30, 1954, Serial No. 453,147
15 Claims. (Cl. 260—469)

1. A compound having the structural formula



wherein R and R' are members of the group consisting of hydrogen and lower alkyl radicals, Z is a member of the group consisting of 6-hydroxy, 6-(lower)alkoxy and 7-isopropyl radicals, and X is a halogen atom.

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2,774,785

## ADDITION OF HYDROGEN CHLORIDE OR HYDROGEN BROMIDE TO MALEIC, FUMARIC, OR ACRYLIC ACIDS OR THEIR ESTERS

Vernon P. Wystrach, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 23, 1954, Serial No. 412,067
3 Claims. (Cl. 260—485)

1. A process for hydrohalogenation which comprises bringing into reactive contact at ambient temperatures and atmospheric pressure an alpha-beta unsaturated compound selected from the group consisting of acrylic, maleic and fumaric acids, their lower alkyl esters and the lower alkyl diesters of maleic and fumaric acid, dimethyl formamide, and a gaseous hydrogen halide selected from HCl and HBr, and maintaining the mixture at from about 18° to about 60° C., until reaction substantially ceases.

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2,774,786

## PHOSPHONO-AMMONIUM SURFACE ACTIVE AGENTS

John G. Erickson, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware

No Drawing. Application August 10, 1953, Serial No. 373,459
4 Claims. (Cl. 260—501)

1. Compounds having the formula



in which R is an aliphatic hydrocarbon group containing from 8–22 carbon atoms, $R^1$ and $R^2$ are aliphatic groups containing from 1–4 carbon atoms, $R^3$ is a divalent aliphatic hydrocarbon group containing from 2–6 carbon atoms, and M is selected from the group consisting of sodium, potassium and ammonium.

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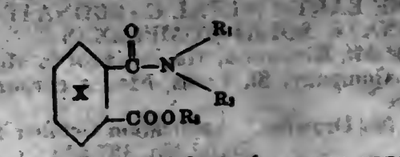
2,774,787

## POLYHYDROPHTHALAMIC ACID VISCERAL SMOOTH MUSCLE RELAXANTS

Charles F. Geschickter, Kensington, and Leonard M. Rice, Baltimore, Md.

No Drawing. Application September 3, 1953, Serial No. 378,417
5 Claims. (Cl. 260—514)

1. A new composition of matter having the formula



in which the ring X is selected from the group consisting of cyclohexene and cyclohexane, $R_1$ is selected from the group consisting of methyl and ethyl groups, $R_2$ is selected from the group consisting of methyl and ethyl groups, and $R_3$ is selected from the group consisting of hydrogen and magnesium.

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2,774,788

## PREPARATION OF 2-METHYL-4-CHLOROPHENOXYACETIC ACID

Alex Hlynsky, Painesville, and John W. Jenney, Madison, Ohio, assignors to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application February 6, 1953, Serial No. 335,685
4 Claims. (Cl. 260—521)

1. The method of synthesizing 2-methyl-4-chlorophenoxyacetic acid which includes the steps of chlorinating cresoxyacetic acid in the presence of an aliphatic acid having less than 4 carbon atoms at a temperature sufficient to preclude crystallization of the product or solidification of said aliphatic acid, and thereafter recovering 2-methyl-4-chlorophenoxyacetic acid therefrom.

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2,774,789

## l-ARTERENOL AND ITS ACID-ADDITION SALTS AND PREPARATION THEREOF

Benjamin F. Tuller, East Greenbush, N. Y., assignor to Sterling Drug Inc., Wilmington, Del., a corporation of Delaware

No Drawing. Application October 24, 1947, Serial No. 782,012
10 Claims. (Cl. 260—570.6)

1. A substance selected from tthe group consisting of l-arterenol and its acid-addition salts, said substance being in crystalline and substantially pure form and being substantially free from its optical antipode.

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2,774,790

## CONVERTING OXAZINE COMPOUNDS TO GAMMA-HYDROXY AMINES

Howard D. Hartough, Wilmington, Del., and Joseph J. Dickert, Jr., Westville, and Seymour L. Meisel, West Deptford Township, Gloucester County, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Original application June 17, 1950, Serial No. 168,852. Divided and this application October 24, 1952, Serial No. 316,777
3 Claims. (Cl. 260—584)

1. A method for converting a nitrogen-containing product selected from the group consisting of 1,3-oxazines and bis-(1,3-oxazino)methanes at least one carbon atom of the heterocyclic nucleus of said oxazines and oxazino radicals having at least one substituent radical selected from the group consisting of lower alkyl radicals and phenyl radical and being otherwise unsubstituted into gamma-hydroxy amines, which comprises reacting said

nitrogen-containing product with dilute aqueous mineral acid at reflux temperature, neutralizing with an aqueous solution of an alkali-metal-hydroxide, and separating the gamma-hydroxy amine from the neutralized product.

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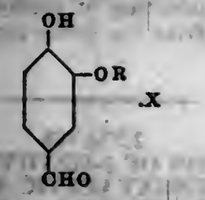
2,774,791

## WATER SOLUBLE SUBSTITUTED p-HYDROXYBENZALDEHYDE-ALKALI METAL AND ALKALINE EARTH METAL CARBONATE AND BICARBONATE SOLID COMPLEXES

Arthur Alt, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

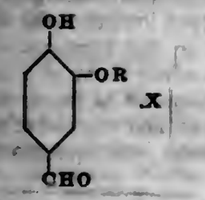
No Drawing. Application October 19, 1953, Serial No. 387,034
15 Claims. (Cl. 260—600)

1. As compositions of matter, water-soluble solid complexes having the following formula

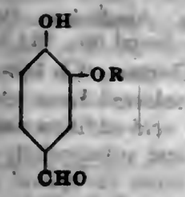



wherein R represents an organic radical and X represents a compound selected from the group consisting of the alkali metal and alkaline earth metal carbonates and bicarbonates.

7. A process for the preparation of water-soluble solid complexes having the formula




wherein R represents an organic radical and X represents a compound selected from the group consisting of the alkali metal and alkaline earth metal carbonates and bicarbonates, which comprises admixing in an inert organic solvent under substantially anhydrous conditions a substituted para-hydroxybenzaldehyde having the formula




wherein R represents an organic radical with an anhydrous compound selected from the group consisting of the alkali metal and alkaline earth metal carbonates and bicarbonates.

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2,774,792

## PROCESS FOR DRYING CARBONYLIC COMPOUNDS

George J. Carlson, Berkeley, George W. Gaertner, Oakland, and Frank B. West, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application September 3, 1954, Serial No. 454,012
9 Claims. (Cl. 260—601)

1. A method of drying a lower molecular weight, normally liquid, monocarbonyl-substituted hydrocarbon which comprises contacting said carbonyl compound with an aluminum alcoholate of a monohydroxy-substituted hydrocarbon alcohol having one to ten carbon atoms per molecule in an amount between about the stoichiometric requirement for reaction with the water present to form aluminum hydroxide and an excess over such stoichiometric amount not greater than 0.02 mole per mole of carbonyl-substituted hydrocarbon at a temperature of about 0° C. to 45° C. whereby reaction of the aluminum alcoholate with the water takes place and aluminum hydroxide is formed without substantial conversion of said carbonylic hydrocarbon.

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2,774,793

## WEAKLY BASIC ORGANIC SULFONIUM COMPOUNDS

Geert J. De Jong and Johannes A. Zoogers, Geleen, Netherlands, assignors to Stamicarbon N. V., Heerlen, Netherlands

No Drawing. Application May 28, 1953, Serial No. 358,175
Claims priority, application Netherlands June 5, 1952
4 Claims. (Cl. 260—607)

1. A process of preparing a weakly basic, low molecular weight organic sulfonium compound comprising heating a tri-lower alkoxy phenyl sulfonium hydroxide with dilute alkali at a temperature between 75 and 150° C.

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2,774,794

## PRODUCING A BIS (β-HALO) DISULFIDE

John M. Stewart, Missoula, Mont., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application September 22, 1952, Serial No. 310,914
8 Claims. (Cl. 260—608)

1. The method of producing a bis (β-halo) disulfide which comprises reacting, in the absence of water, a halogen selected from the group consisting of chlorine and bromine with an olefin sulfide containing the structure




and containing from 2 to 18 carbon atoms the amounts of halogen and olefin sulfide present being sufficient to produce said bis (β-halo) disulfide.

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2,774,795

## METHOD OF DECOMPOSING LIGNIN AND LIGNIN-CONTAINING MATERIALS

Johann Giesen, Haldenstein, Chur, Graubunden, Switzerland, assignor to Inventa A.-G. für Forschung und Patentverwertung Luzern, Lucerne, Switzerland

No Drawing. Application March 3, 1953, Serial No. 340,135
Claims priority, application Switzerland March 5, 1952
6 Claims. (Cl. 260—619)

1. A process of decomposing lignin and lignin-containing material which comprises subjecting an aqueous suspension of the lignin-containing material to a hydrogen pressure of 500–1000 atmospheres at a temperature of about 300° C. in the presence of copper oxide-chromium oxide as a hydrogenating catalyst to effect hydrogenation and hydrolysis and to produce phenol products.

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2,774,796

## METHOD FOR PREPARATION OF NITROPHENOLS

Joshua C. Conner, Jr., Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Original application October 5, 1950, Serial No. 188,645, now Patent No. 2,718,530, dated September 20, 1955. Divided and this application June 9, 1954, Serial No. 435,625
9 Claims. (Cl. 260—622)

1. The process of preparing a nitrophenol from an organic compound containing an aromatic hydrocarbon nucleus having attached to the ring thereof at least one nitro group and at least one alkyl group having at least two carbon atoms and at least one hydrogen atom on the carbon atom alpha to the aromatic ring, which comprises passing an oxygen-containing gas through said organic compound in liquid phase under noncatalytic conditions



to obtain the corresponding hydroperoxide, and contacting said hydroperoxide under acidic conditions with an acidic condensation catalyst to obtain said nitrophenol.

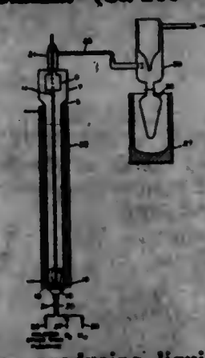
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2,774,797

## METHOD OF PRODUCING FLUOROHALOCARBONS BY REACTING CARBON WITH FLUORINE AND ANOTHER HALOGEN

Russell M. Mantell, Orange, Herbert J. Pasino, Englewood, and Wilbur O. Teeters, River Edge, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of New Jersey

Application April 2, 1954, Serial No. 420,656
6 Claims. (Cl. 260—653)



1. A process for producing liquid fluorohalocarbons which comprises reacting elemental fluorine with a fluidized mass of finely divided carbon particles in a reaction zone maintained at a temperature between about 500° F. and about 800° F. to which zone there is charged an elemental halogen selected from the group consisting of chlorine, bromine, and mixtures thereof such that the relative quantities of reactants charged to the conversion zone are between about 0.50 and about 20 parts of fluorine per part of halogen other than fluorine by volume.

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2,774,798

## PROCESS FOR DEHALOGENATION OF ORGANIC COMPOUNDS IN THE PRESENCE OF A DETERGENT

Horace R. Davis, Cedar Grove, and Stanley Hal Kwei Chiang, Jersey City, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application November 23, 1954, Serial No. 470,809
18 Claims. (Cl. 260—653)

1. A process for dehalogenating a halogen-containing organic compound which comprises dehalogenating a dehalogenatable fluorine-containing alkane which contains at least one halogen of the group consisting of fluorine and chlorine on a carbon atom and at least one chlorine atom on an adjacent carbon atom and in which all other substituents are selected from the group consisting of alkyl, aryl, halogen and hydrogen substituents with a metal dehalogenating agent in the presence of water containing a detergent which does not react with the halide of the metal dehalogenating agent to form a water insoluble compound.

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2,774,799

## SELECTIVE DEHYDROHALOGENATION OF FLUOROHALOALKANES USING A COPPER CATALYST

Russell M. Mantell, Orange, and William S. Barnhart, Cranford, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application April 1, 1954, Serial No. 420,451
6 Claims. (Cl. 260—653)

1. A process for producing vinylidene fluoride which comprises heating a 1,1-difluorochlorethane at a temperature between about 500° C. and about 730° C. for a period of time between about 1 and about 60 seconds in the presence of a copper catalyst selected from the group consisting of metallic copper, alloys of copper with noncatalytic metals and copper salts.

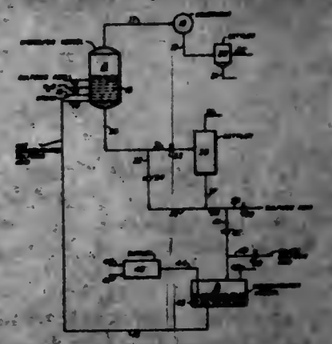
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2,774,800

## METHOD FOR HYDROLYZING SULFONIC ACIDS

Albert J. Stumbl, Crosby, and James L. Walker, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application August 23, 1954, Serial No. 451,456
4 Claims. (Cl. 260—668)



1. In a continuous method for hydrolyzing aromatic hydrocarbon sulfonic acids wherein said sulfonic acids, water and a stream of concentrated sulfuric acid are continuously charged to a hydrolysis zone having a temperature within the range from about 280° to 310° F. in amounts sufficient to cause hydrolysis of said sulfonic acids to form an aromatic hydrocarbon fraction and a dilute sulfuric acid fraction and wherein the said hydrocarbon fraction and the said dilute sulfuric acid fraction are continuously withdrawn from said hydrolysis zone, the improvement which comprises the steps of passing said dilute sulfuric acid fraction into an acid concentration zone and there discharging a high temperature inert gas through said sulfuric acid fraction to concentrate the sulfuric acid and to heat the same to a temperature above the temperature of said hydrolysis zone and continuously recycling at least a portion of the said heated concentrated sulfuric acid to said hydrolysis zone as the concentrated sulfuric acid charge stream, said recycled portion of said heated concentrated sulfuric acid being introduced into said hydrolysis zone at a temperature above the temperature of said hydrolysis zone in an amount sufficient to maintain the temperature of said hydrolysis zone within said range of about 280° to 310° F.

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2,774,801

## CONVERSION OF METHYLNAPHTHALENES

Harry L. Coonradt, Woodbury, and Wilbur K. Lewman, Pitman, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application September 16, 1952, Serial No. 309,931
8 Claims. (Cl. 260—672)

1. A process for converting methyl-substituted naphthalenes into other valuable aromatic hydrocarbons, which comprises contacting the methyl-substituted naphthalene with a catalyst selected from the group consisting of (1) chromia supported on alumina and containing between about 4 weight percent and about 12 weight percent chromia, (2) chromia cogelled with alumina and containing between about 18 mole percent and about 80 mole percent chromia, and (3) molybdenum oxide-alumina containing between about 5 weight percent and about 20 weight percent molybdenum oxide, at a temperature of between about 1000° F. and about 1150° F., for a contact time of between about one second and about 1000 seconds, and in the presence of hydrogen gas under pressures of between about 50 pounds per square inch gauge and about 200 pounds per square inch gauge.

2,774,802

**SEPARATION OF ALKYL BENZENES BY SELECTIVE CLATHRATION OF THE PARA-ISOMER WITH A 4-ALKYL PYRIDINE WERNER COMPLEX IN THE PRESENCE OF A 3-SUBSTITUTED PYRIDINE**

Curtis G. Christian, Anaheim, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application November 8, 1954, Serial No. 467,655
8 Claims. (Cl. 260—674)

1. A method for resolving a mixture of alkyl benzene hydrocarbons, said mixture containing at least one para-dialkyl benzene and a monoalkyl benzene, which comprises contacting said mixture with a solid Werner complex, said Werner complex being composed of a salt of a divalent transitional metal coordinated wtih a 4-alkyl pyridine, said contacting being carried out in the presence of a 3-substituted pyridine base selected from the group consisting of nicotinamide, lower alkyl 3-pyridyl ketones, lower alkyl esters of nicotinic acid, thionicotinamide and nicotinonitrile, whereby said para-dialkyl benzene is integrated into the crystal structure of said complex in stronger preference to said mono-alkyl benzene than would be the case in the absence of said 3-substituted pyridine.

# ELECTRICAL

2,774,803

**INDUCTIVE STIRRING DEVICE FOR METALLURGICAL FURNACE**

Ludwig Dreyfus, Vasteras, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a Swedish corporation

Application September 8, 1953, Serial No. 378,940
Claims priority, application Sweden September 20, 1952
7 Claims. (Cl. 13—9)



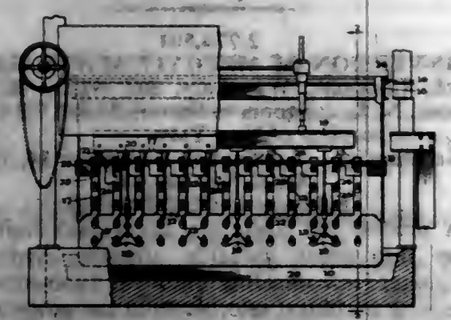
1. Inductive stirring means for metallurgical furnaces, comprising at least two two-pole magnet wheel systems mounted below the furnace, substantially parallel and horizontal shafts carrying said wheel systems, and means whereby the wheel systems are synchronously rotated in the same direction, the pole axes of said magnet wheel systems being substantially parallel and in an angular relationship no greater than 45°, and the polarities of said systems being opposed.

2,774,804

**STUD POSITIONING JIG WITH CONTINUOUS SELF-BAKING ELECTRODE AND METHOD OF POSITIONING CONTACT STUDS THEREIN**

Delmer W. Dow, Tacoma, and Thomas Tregoning, Puyallup, Wash., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application November 20, 1952, Serial No. 321,646
17 Claims. (Cl. 13—18)



1. A continuous self-baking electrode of the channelless horizontal stud type having a lower baked portion and an upper unbaked portion and provided with contact studs partially embedded in the electrode and arranged in substantial horizontal and vertical alignment along the side surfaces of the electrode, in combination with a contact stud positioning jig provided with guiding surfaces positioned to retain each respective contact stud partially embedded in the unbaked portion of the electrode in a relative position of substantially fixed vertical spacing and alignment with a contact stud partially embedded in the baked portion of the electrode.

2,774,805

**BATTERY STRUCTURE**

John B. Harrison and Garth A. Rowis, Muncie, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 22, 1952, Serial No. 316,191
6 Claims. (Cl. 136—79)



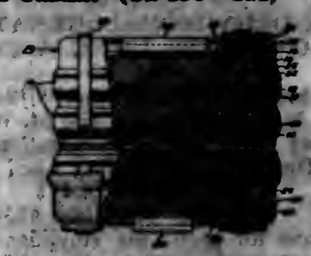
1. A heavy duty type storage battery adapted to withstand continued overcharging comprising in combination; a container adapted to receive a cover having a plurality of openings therein; a plurality of plates within the container, said plates consisting of positive plates, and negative plates; separators between the plates; positive and negative terminal posts attached to the respective plates and extending through apertures in said cover; a support rib within the container adapted to have certain of said plates and separators rest therein; wire-like members forming the frame of the positive plates; a lug integral with the wire-like members of the positive plate adapted to contact the support rib and thereby position the positive plate; and a wire-like support means for the positive plate connected to the lug and the frame wire, said support means being of relative less cross sectional area than the frame wire of the positive plate so as to be permanently deformed upon the distortion of the positive plate due to overcharging whereby said means only functions as a support during initial use of said battery.

2,774,806

**PRIMARY BATTERY**

George T. Jobe, Cleveland, Fredrick J. Weber, Parma, and Albert F. Visel, Shaker Heights, Ohio, assignors to Union Carbide and Carbon Corporation, a corporation of New York

Application June 12, 1953, Serial No. 361,318
2 Claims. (Cl. 136—111)



1. In a low temperature primary galvanic battery with a high electrolyte content comprising a plurality of cells arranged in series stacked relation, each of said cells comprising a carbon electrode, an immobilized aqueous electrolyte, an electrolyte-wet depolarizer mix wherein the moisture contained is over 58 percent by volume of said mix, and a zinc electrode, the combination of non-rigid, plastic envelopes, each including cell components which when grouped, form a battery and a rigid, non-absorbent, plastic depolarizer-mix-retaining collar within each of said envelopes, said collar confining said wet mix and serving to prevent movement of said mix and distortion of said non-rigid envelope when said battery is assembled, said envelope completely enclosing the marginal portions of the carbon electrode of one cell and the zinc electrode, electrolyte and depolarizer mix of the adjoining cell, a separator blanket having a bibulous portion separating said mix from said electrode and a portion separating the outer walls of said collar from the inner walls of said envelope.

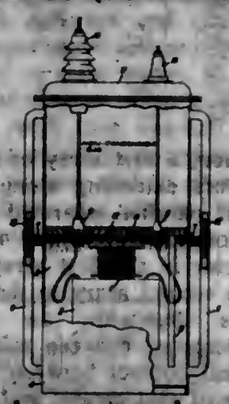


2,774,807

**VAPORIZATION-FORCED LIQUID COOLED TRANSFORMER**

Lawrence C. Whitmore, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York

Application February 19, 1953, Serial No. 337,801
4 Claims. (Cl. 174—15)



2. In an electrical apparatus submerged within a dielectric cooling liquid within a closed tank, said tank having a noncondensable gas therein above the surface of said liquid and vertical cooling radiators connected at opposite ends thereof adjacent the top and bottom of said tank, said liquid having a boiling point temperature within the normal operating temperature range of said apparatus whereby a substantial quantity of vapors are formed from said liquid during normal operation of said apparatus, means for segregating said vapors and non-condensable gas and causing said vapors to accelerate circulation of said liquid through said radiators comprising a horizontal baffle extending to all side walls of said tank and dividing said tank into approximately equal isolated upper and lower halves, said lower half and said radiators connected by horizontal ducts extending from substantially immediately below said baffle to central portions of said radiators, said lower half completely filled with said liquid and said upper half having a minimum of said liquid therein whereby approximately only the lower halves of said radiators are filled with said liquid, a drain extending from said baffle to adjacent the bottom of said tank, and said apparatus positioned in said lower half.

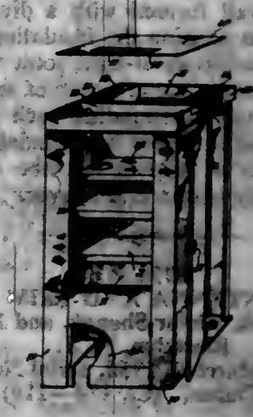
2,774,808

**ELECTRICAL EQUIPMENT CABINETS**

Mark W. Bullock, Dallas, Tex., assignor to Continental Electronics Manufacturing Company, Dallas, Tex., a corporation of Texas

Application April 9, 1952, Serial No. 281,444
1 Claim. (Cl. 174—16)

A cabinet adapted for the enclosure of a plurality of items of heat dissipating electrical apparatus requiring electrostatic and electromagnetic shielding from each other, said cabinet being constructed of sheet metal and having air intake and air exhaust openings therein, said cabinet having a body composed essentially of top and bottom horizontal members and three one-piece vertical members all extending substantially the full height of the cabinet, the vertical members consisting of a vertical transverse partition member and two vertical angle members, said vertical angle members comprising front, intermediate and rear horizontally spaced parallel walls, said front parallel wall and intermediate parallel wall being joined together at their outer edges by a first lateral wall and the intermediate parallel wall and rear parallel wall being joined together at their inner edges by a second lateral parallel wall, said vertical transverse partition being secured to each of said angle members at their intermediate parallel walls, thereby forming a main front compartment that extends the full width of the cabinet,



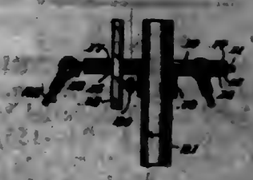
two rear corner compartments, and an intermediate rear compartment, and hinged access doors for each of the compartments, the vertical members being bent along their vertically extending free edges to provide supporting means to lend rigidity to said cabinet, and said main compartment being provided with vertically spaced shelve members which occupy a substantial portion of the cross sectional area of said main cabinet, whereby heat dissipating apparatus may be arranged vertically upon the cabinet members without the necessity for special vertical chassis mountings, said vertical, horizontal and shelve members having electrical conductivity and magnetic permeability to provide shielding action, and said vertical members being apertured to permit flow of air from one of said compartments which constitutes a plenum compartment into each of the other compartments, all of the latter compartments being in communication with the exhaust opening.

2,774,809

**TV ANTENNA GUY WIRE ATTACHING RING**

Ernest E. Burkhart, Gleason, Ind.

Application November 18, 1952, Serial No. 321,255
5 Claims. (Cl. 174—45)

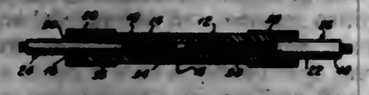


3. In a supporting device, a post, a disc having an annular groove in the periphery fixedly mounted on said post, a ring having spaced eyes therein slidably mounted in the groove of the disc, said disc having an opening therein, a grommet positioned in the opening through the disc, a lead-in wire extended through said grommet, and guy wires extended from the eyes of said ring.



occurring in a given sequence, a photo-cathode sensitive, operating from said source of alternating current, means

2,774,810
ELECTRICAL CONNECTOR
George T. Ritter, Harrisburg, Pa., assignor to Aircraft-Marine Products, Inc., Harrisburg, Pa., a corporation of New Jersey
Application August 21, 1951, Serial No. 242,850
4 Claims. (Cl. 174—84)



1. An electrical connector adapted to receive the stripped ends of insulated electrical conductors of different sizes and to be crimped to provide a water-tight electrically conductive joint between said conductors, said connector comprising a tube made of an electrically conductive metal and formed to receive said stripped ends, a plastic tube surrounding said metal tube and extending substantially beyond the ends thereof, said plastic tube having an inner wall formed with a diverging taper at each end thereof to position the insulating layers of said conductors to insure a water-tight joint when said connector is crimped, and a metal sleeve of substantially uniform diameter snugly surrounding each tapered end of said plastic tube, said sleeves being axially spaced from the proximate ends of said metal tube and said tapers being located wholly within said sleeves.

2,774,811
ANTENNA AND TRIM
Abraham Shanok, Victor Shanok, and Jesse Shanok, Brooklyn, N. Y.
Application March 2, 1954, Serial No. 413,524
2 Claims. (Cl. 174—110)



1. A radio antenna for a motor vehicle including a relatively thin projecting lip member comprising an elongated channel-shaped body portion of substantially U-shaped cross-section, said body portion including opposed sides and an enclosed end and being formed of an electrically insulating synthetic resin, a metal foil ribbon extending longitudinally through said strip and enveloped thereby, said enclosed end being substantially semi-circular in cross-section, said opposed sides converging toward each other along their free ends, said free ends being positioned in substantial contiguity to form a longitudinally extending opening for said body whereby said projecting lip is adapted to be received between said opposed sides and to be resiliently gripped therebetween and means for electrically connecting said metal foil to the input terminal of radio equipment within said vehicle.

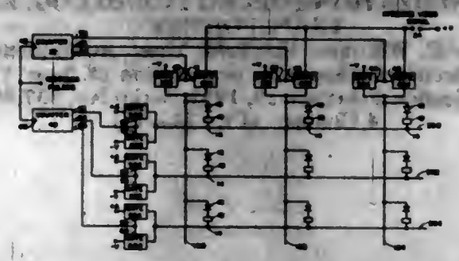
2,774,812
HERMETICALLY SEALED ELECTRIC TERMINAL
Richard U. Clark, West Acton, Mass.
Application April 27, 1953, Serial No. 351,317
6 Claims. (Cl. 174—153)

2. An electrical terminal comprising a metallic electrode having a transverse flange, a tubular insert having a transverse flange, said insert formed from plastic material having cold flow properties, an outer metallic shell having a transverse flange and a knife edge spaced therefrom, said electrode having an enlargement thereon remotely spaced from said flange, said insert disposed within said outer shell with said flanges adjacently disposed, said electrode disposed within said insert with said flanges adjacently disposed, and said insert distorted around the knife edge at the end of said shell remote



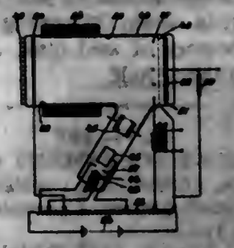
from said flanges by the said enlargement of said electrode.

2,774,813
ELECTROLUMINESCENT TELEVISION PANEL
Donald C. Livingston, Bayside, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application November 1, 1955, Serial No. 544,152
11 Claims. (Cl. 178—5.4)



1. In combination, a first array of parallel, separated electrical conductors extending along a first direction; a second array of parallel separated electrical conductors extending along a second and non-parallel direction, each conductor in the first array passing over all conductors in the second arary to define a plurality of cross-over points therewith; an electroluminescent phosphor film interposed between said arrays to establish direct electrical contact between said film and the conductors in one of said arrays; and a rectifying layer of the barrier type deposited on said film and connected to the conductors in the other array, said layer being divided into a like plurality of insulatedly separated barrier layer elements respectively positioned at each cross-over point, each element together with its corresponding other array conductor constituting a rectifier, whereby each conductor in said first array is electrically connected through a rectifier and said film to each conductor in said second array.

2,774,814
POST-DEFLECTION HORIZONTAL COLOR STRIPE PICK-UP TUBE
Jean Robert Perlboa and Johan Lodewijk Hendrik Jonker, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application April 15, 1952, Serial No. 282,332
Claims priority, application Netherlands May 2, 1951
7 Claims. (Cl. 178—5.4)

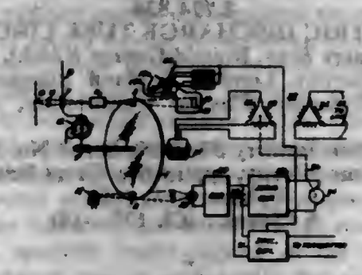


2. A color television camera device comprising a color filter constituted by a plurality of parallel strips having *n*-different color absorption properties and periodically



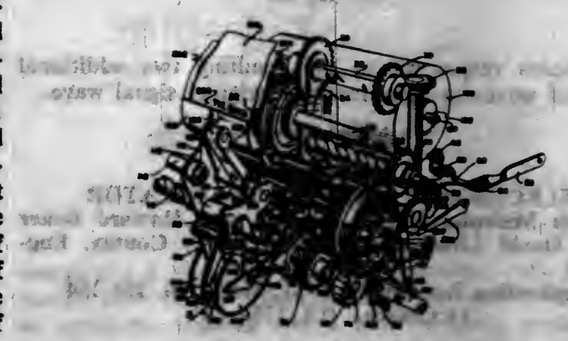
occurring in a given sequence, a photo-cathode sensitive to light rays passing through said filter, a target plate, a field electrode interposed between said photo-cathode and said target plate, means to apply a given potential to said field electrode, electron-optical means interposed between said photo-cathode and said target plate to cause the electrons being emitted from a given area of said photo-cathode to impinge upon a corresponding area of said target plate to produce thereon an image of said color strips, an electron gun including a cathode for producing an electron beam to impinge on the image on said target plate, means to apply a potential to said cathode which is less than said given potential, a grid comprising parallel wires mounted parallel to said strips and between said field electrode and said photo-cathode and between said field electrode and said electron gun, *n*-strips of said filter being associated with each aperture defined by two adjacent wires of said grid, means to apply a potential intermediate the potential of said cathode and said field electrode to said grid whereby a potential gradient and electrostatic lines of force are produced between said grid and said field electrode, said grid potential having a value lower than that which would prevail at its position in its absence, deflection means interposed between said grid and said electron gun for scanning said target plate whereby the electron beam is caused to intercept the direction of the lines of force at an angle at which the beam is deflected and concentrated in the direction of the target plate and at which the width of the beam measured at right angles to the direction of the grid wires at the area at which the beam strikes the target plate is not more than one-half of the width of the beam at the area of the grid, and means to apply an alternating voltage to said grid to change the potential gradient existing between said grid and said field electrode and to thereby change the image on said target plate struck by said beam.

2,774,815
FILM TO VIDEO TRANSLATION APPARATUS
Frank N. Gillette, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application September 13, 1952, Serial No. 309,535
3 Claims. (Cl. 178—7.2)



1. In film to video translating apparatus, a video camera pickup tube having a photosensitive mosaic screen and means for producing a focused electron beam for scanning said screen to translate images thereon into electrical video signals, a source of alternative current, means synchronously operated by said alternating current source for cyclically scanning said electron beam over said screen at a horizontal frequency which is high as compared to the vertical scanning frequency to thereby give successive picture fields separated by fly-back intervals at one picture rate, motion picture projection means including means for intermittently advancing a motion picture film strip at a second picture rate, means for projecting images from said film strip on to said camera screen including a source of light and light-interrupting means, means for operating said intermittent means and said light-interrupting means in synchronism including a synchronous motor operating from said source of alternating current, means responsive to the operation of said light-interrupting means for generating electrical control pulses at a frequency which is a function of said first picture rate, means for comparing the time phase of said cyclically scanning means with said generated control pulses and means responsive to the comparison of the phase of said control pulses with the phase of said cyclically scanning means for advancing or retarding the phase of the alternating current supplied to said motor.

2,774,816
PRINTING TELEGRAPH RECEIVER
Kermit D. Yost, Skokie, Ill., assignor to Kleinschmidt Laboratories, Inc., Deerfield, Ill., a corporation of Delaware
Application April 27, 1953, Serial No. 351,285
11 Claims. (Cl. 178—29)

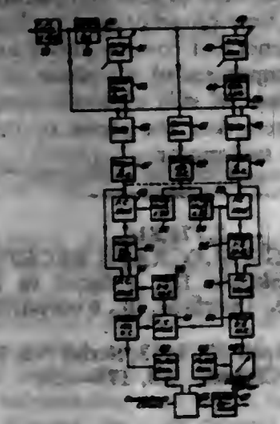


1. A telegraphic page printer comprising a guide for mounting a recording medium; a rotatable shaft; a type carrier operatively connected to said shaft and movable longitudinally thereof behind said guide upon rotation of said shaft; a second rotatable shaft; a printing hammer operatively connected to said second shaft for longitudinal movement relative thereto in front of said guide upon rotation of said second shaft and adapted to be moved toward and away from said type carrier; means for moving said printing hammer toward said type carrier to strike a recording medium mounted in said guide against said type carrier to print a character on the front of said recording medium; means responsive to predetermined type carrier positions for preventing the printing hammer from moving to strike a recording medium when no character is to be printed; and means to simultaneously rotate said shafts to move said type carrier and printing hammer longitudinally of their respective shafts to effect spacing between characters to be printed upon the recording medium.

2,774,817
RECEIVERS FOR PULSED FREQUENCY MODULATION CARRIER SYSTEMS
Charles William Earp, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 23, 1951, Serial No. 257,809
Claims priority, application Great Britain December 1, 1950
13 Claims. (Cl. 179—15)

1. A receiving arrangement for an electric communication system of the kind in which a signal wave is periodically sampled and in which each signal sample is represented by at least one transmitted train of waves, the frequency of which indicates the amplitude of the signal sample, comprising means for producing two sets of two differently phased wave trains at least one set from each transmitted wave train, means for combining the two trains of each set to produce an additional train of waves corresponding to each set and having a phase

which varies in accordance with the difference between the phases of the waves of the respective combined trains,



and means responsive to the resulting two additional trains of waves to reproduce the original signal wave.

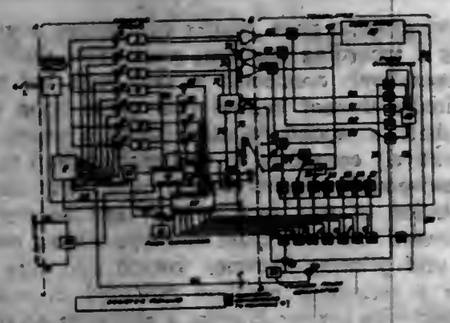
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2,774,818

## ELECTRONIC REGISTER TRANSLATOR

Kenneth Malcolm Heron, London, and Howard Baker and David Livingstone Benson, Surrey County, England

Application January 29, 1951, Serial No. 208,284
14 Claims. (Cl. 179—18)



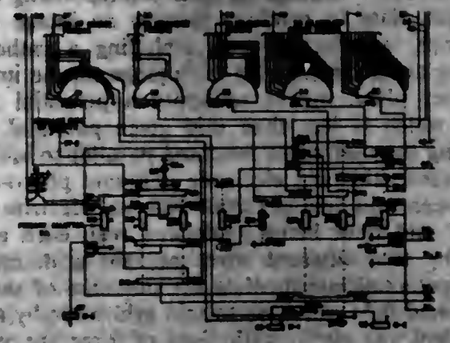
1. In an automatic telephone exchange apparatus, at least two electronic registers, an electronic translator, and common connecting means between said translator and said registers; said registers each comprising means for electronically storing signals representing dialled in codes and digits; said translator comprising code circuit means constituted by electronic elements each corresponding to a code for which a translation is to be supplied to a register by said translator, a code field comprising a plurality of electronic switching elements related to the codes for which translations are to be supplied, code identification leads, and means for connecting said electronic switching elements to said code circuit means and to said code identification leads; said translator further comprising a translation field comprising a plurality of electronic switch means and translation leads related translationwise to the codes for which translations are to be supplied, and means for connecting said electronic switch means to said code circuit means and to said translation leads; said translator further comprising a source of pulses, a pulse distributor circuit, means for applying pulses from said source to said pulse distributor circuit, means for connecting said pulse distributor circuit to said switching elements for rendering said switching elements sequentially operative and for effecting sequential connection of the distributed pulses to said code identifying leads, and means for signalling to said registers translations from said translation field.

2,774,819

## FINDER ARRANGEMENT IN TELEPHONE SYSTEMS

Clarence E. Lemer, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware

Application February 1, 1954, Serial No. 407,263
33 Claims. (Cl. 179—18)



1. In a telephone system, a number of groups of line circuits, a corresponding number of groups of primary line finders having access to said line circuits, a group of secondary finders each having access to finders of different ones of said primary groups, a primary allotter for each of said primary groups, a plurality of secondary allotters for said secondary group, each of said secondary finders having a plurality of sets of test bank contacts each set for use with a different one of said secondary allotters, each of said primary allotters having means operative in response to the origination of a call in a line circuit of the associated primary group for starting an idle one of said primary finders on a searching operation, seizing an idle one of said secondary allotters and causing said primary finder to be marked as calling in the set of test bank contacts of the secondary finders which corresponds to the secondary allotter seized by said primary allotter, said secondary allotter being operative in response to said seizure for starting an idle one of said secondary finders in search of a calling primary finder in the set of bank contacts only that corresponds to the last-mentioned secondary allotter.

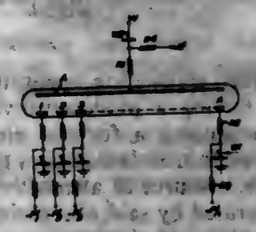
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2,774,820

## ELECTRIC DISCHARGE TUBE CIRCUITS

Frederick Harry Bray, Ronald George Knight, and George Clifford Hartley, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application January 30, 1953, Serial No. 334,192
Claims priority, application Great Britain
February 13, 1952
6 Claims. (Cl. 179—18)



1. A static electrical switch comprising a plurality of groups of cold cathode gas discharge gaps having anode and cathode electrodes, an equal plurality of circuits constituting a first group each circuit multiplied to one electrode of a respective group of gaps, a number of circuits constituting a second group each circuit multiplied to the other electrode in each of said groups of gaps, the circuits of both said first and second groups of circuits being individually adapted to assume any one of three different electrical conditions in respect of said gaps: the



first condition representing non-availability, a second condition representing availability, and a third condition representing that the line is busy, means for biasing said anode and cathode electrodes of said gaps so that no gap will fire unless the connected circuits are simultaneously in the electrical condition representing availability, means for changing the electrical conditions of said first group of circuits from a condition representing non-availability to one representing availability in turn in a first cycle of time positions, means for changing the electrical conditions of said second group of circuits from a condition representing non-availability to one representing availability in turn in a second cycle of time position, said first and second cycle of time positions being such that pairs of circuits each consisting of a circuit of the first group and a circuit of the second group can be offered to one another in a condition representing availability in time positions individual to each pair, whereby a circuit of the first group can be connected to a circuit of the second group to the exclusion of all other circuits by firing of the gap individual to said pair of circuits in the time position individual thereto, and means for automatically changing the electrical condition of a pair of circuits to one representing that the circuits are busy when the respective gap is fired.

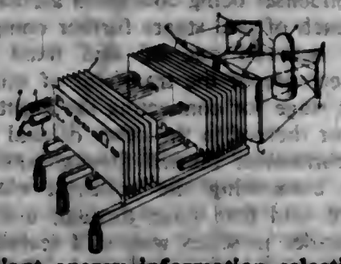
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2,774,821

## CARD TRANSLATOR

Clayton B. Brown, Bellspage, Leon N. Hampton, Pleasantville, and Felix A. Thiel, Jr., Brooklyn, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 6, 1952, Serial No. 286,374
17 Claims. (Cl. 179—18)



15. In a radiant energy information selecting device, a plurality of media having coded areas including signal areas, radiant energy producing means, radiant energy responsive means, means for selectively displacing a single one of said media relative to the others whereby a number of said radiant energy responsive means are selected for response in accordance with the coded areas of said selected media, other energy responsive means, circuit means including said other radiant energy responsive means operable under control of the signal areas of said displaced one of said media for modifying the condition of said circuit means, and means responsive to said circuit means when so modified for enabling the said selected number of said selected radiant energy responsive means to respond.

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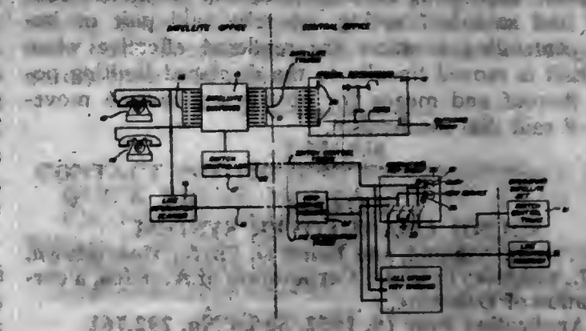
2,774,822

## COMMUNICATION SYSTEM

Kermit S. Dunlap, Madison, and Clarence A. Lovell, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 2, 1952, Serial No. 302,371
4 Claims. (Cl. 179—18)

1. A telephone system comprising a plurality of subscriber telephones, a satellite office, a subscriber line connecting each of said telephones to said satellite office, a central office remote from said satellite office, a plurality of trunks connecting said satellite office to said central office, a plurality of switching means within said satellite office for connecting said trunks to any of said subscriber lines, one of said switching means being associated with each of said trunks, switch controller means within said satellite office common to all of said switching means for controlling the operation of said switching means, and transmitting means within said central office for sending to said switch controller means coded information corresponding to the code designation of a particular one of said subscriber lines, said switch controller means comprising a plurality of marking buses and means for receiving said coded information from said central office and for translating said information to apply marking potentials to particular ones of said buses in accordance with said information, and each of said switching means



comprising a plurality of relays, operating coils for actuating each of said relays, each of said coils comprising an operating winding and a hold winding, means for completing a plurality of circuits each including a certain operating winding of one of said switching means and said marking buses common to all of said switching means on choice in said central office of the trunk associated with said one switching means to actuate the operating windings of certain of said relays dependent on the potentials applied to said marking buses by said switch controller, means for passing current through said hold windings of said relays common to said certain operating windings on operation of said certain operating windings, and means for preventing subsequent operation of said operating windings while said hold windings are being actuated.

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2,774,823

## SELECTIVE ELECTRICAL DIALING SYSTEM

Pedro Salinas Maynez, Mexico City, Mexico

Application December 21, 1951, Serial No. 262,692
7 Claims. (Cl. 179—90)



1. In an automatic telephone system, a unidirectionally rotatable finger actuated dial mechanism movable through selected permutation and combination positions, a pair of impulse-controlling contacts comprising a sequence contactor, means driven by said dial mechanism for selectively controlling the opening and closing of said contacts through a successive series according to selections effected by said finger actuated dial mechanism, a gear driven by said dial mechanism, a shaft extending in a direction substantially tangential to said gear, a worm wheel carried by said shaft and meshing with said gear, means for mounting said shaft for both rotative and translatory movement in an axial direction from an initial limiting position to a displaced limiting position, a leaf

spring extending across the path of said shaft normal to the axis thereof and flexed for normally exerting a force against the end of said shaft for biasing said shaft to the initial limiting position thereof, a pair of opposed contacts carried by said leaf spring in a position displaced from the position at which the end of said shaft engages said leaf spring, a pair of aligned contactors co-acting with said contacts, means for mounting one of said pair of opposed contacts for establishing contacting connection with one of the aligned contactors when said shaft is biased to the initial limiting position thereof, means for mounting the other of said opposed contacts for establishing contacting connection with the other of said contactors in the displaced limiting position of said shaft and circuit connections between said pair of impulse controlling contacts, said first mentioned contactor and said leaf spring, whereby said pair of impulse controlling contacts are rendered effective when said shaft is moved lineally to the displaced limiting position thereof and means for obstructing reverse movement of said dial mechanism.

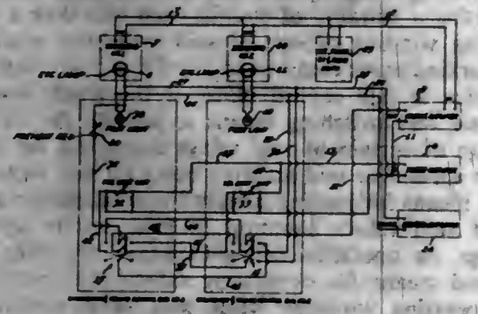
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2,774,824

## SOUND CHANGEOVER SYSTEM

John F. Byrd, Ashland, and James D. Phyfe, Moorestown, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application June 10, 1952, Serial No. 292,762
The terminal fifteen years of the term of the patent to be granted has been disclaimed
7 Claims. (Cl. 179—100.3)



1. A system for switching between a plurality of sound film reproducers comprising a plurality of sound film reproducers, an exciter lamp in each of said reproducers adapted to illuminate sound film therein, a common energy supply for said exciter lamps, a double throw switch for each of said reproducers, a resistor, a fixed circuit between said exciter lamp supply and said exciter lamps in series, and a circuit between said exciter lamp supply, said resistor, and one of said exciter lamps in one position of said switches, said one exciter lamp being energized to normal operating condition and said other lamp being partially energized.

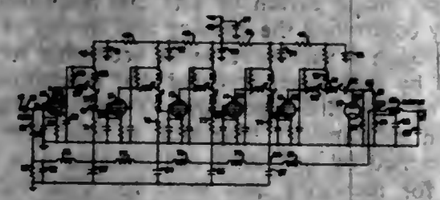
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2,774,825

## LOGARITHMIC AMPLIFIER

Solomon Sherr, Tuckahoe, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application February 17, 1953, Serial No. 337,291
4 Claims. (Cl. 179—171)



1. A logarithmic amplifier comprising, a plurality of electronic amplifying stages connected in cascade, a rectifier connected to the amplifier output producing a rectified signal at the output of said rectifier, a rectifier circuit including a resistor interconnecting the control grid and cathode of at least the latter of said amplifier stages forming a diode circuit for signals above a preselected level whereby signals above said preselected level initiate grid current flow and are rectified by the control grid-cathode circuit thereof, and a time delay network interconnecting said rectifier circuit and the output of said rectifier whereby signals rectified in said amplifier stage are added to said rectifier output in phase therewith.

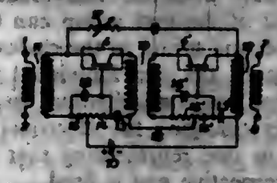
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2,774,826

## STABILIZED TRANSISTOR AMPLIFIER

Jean-Marie Moulon, Paris, France

Application April 10, 1953, Serial No. 348,089
Claims priority, application France June 23, 1952
4 Claims. (Cl. 179—171)



1. A stabilized two-stage transistor amplifier, adapted to be power-supplied from a single direct-current source, comprising an input circuit and a two winding interstage transformer, first and second amplifying stages each including a transistor having a base electrode, an emitter electrode and a collector electrode, each of said stages further including a potentiometer having an adjustable sliding contact and two fixed terminals and first and second condensers both of low impedance at the frequencies of the currents to be amplified by said amplifier, said first condenser being connected across said two fixed terminals, each of said stages further comprising a direct connection between one of said fixed terminals and the base electrode of the transistor of said stage, means in said first stage for connecting the emitter electrode of the transistor thereof to the other of said fixed terminals of the potentiometer thereof through said input circuit, means for connecting the collector electrode of the transistor of said first stage through a first winding of said transformer in series with said second condenser of said first stage to the base electrode of the transistor of said first stage, means in said second stage for connecting the emitter electrode of the transistor thereof to the fixed terminal of the potentiometer thereof other than that connected to the base electrode of the same said transistor through the second winding of said transformer, means for connecting the collector electrode of the transistor of said second stage through said output circuit in series with said second condenser of said second stage to the base electrode of the transistor of said second stage, means for connecting the positive terminal of said direct current source to the sliding contact of the potentiometer of said first stage, means for connecting the negative terminal of said source to the collector electrode of the transistor of said second stage through said output circuit and a direct connection between the sliding contact of the potentiometer of said second stage and said first winding of said transformer.

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2,774,827

## ORGAN COUPLER STACKS

Samuel G. Bowman, Mount Lebanon Township, Allegheny County, Pa., assignor of one-half to Anna H. Bowman, Mount Lebanon Township, Allegheny County, and one-half to James M. Guthrie, Crafton Borough, Pa.

Application May 28, 1954, Serial No. 433,147
7 Claims. (Cl. 200—5)

1. An organ coupler stack comprising a support, a row of fixed elongate electrical contact members mounted in said support and each including a series of V-shaped recesses, electrical insulating barriers secured between and extending longitudinally of the successive contact members and adjacent to the apexes of the V-shaped recesses in such members, a longitudinally reciprocable elongate trace mounted adjacent to and extending trans-





versely of the contact members of the row, and a plurality of electrical contact fingers secured to said trace and extending laterally therefrom severally into a plurality of the recesses in said contact members for electrical engagement with and disengagement from said contact members within and at the apexes of the V-shaped recesses therein when said trace is reciprocated.

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2,774,828

## CONTROL SYSTEM FOR AUTOMOBILE HEADLIGHTS

Anthony Arnejo, Detroit, Mich.

Application October 9, 1952, Serial No. 313,939
1 Claim. (Cl. 200—11)



A device of the character described comprising, in combination with an automobile instrument panel, the provision of a switch including a switch board mounted on the rear of said panel, a plurality of fixed contacts mounted on said switch board, a shaft extending through said panel and said switch board, a contact arm radially affixed to one end of said shaft and adapted to selectively contact said fixed contacts, a handle carried at the other end of said shaft, and tension means for maintaining said contact arm in contact with said fixed contacts, said means including a thin arcuate plate of dielectric material, and a pair of posts of dielectric material interconnecting the outer face of said board and the respective end portions of said thin arcuate plate, said contact arm being positioned between said board and said plate and in slidable engagement with said thin arcuate plate.

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2,774,829

## STARTER SWITCH FOR CONTROL SWITCH SYSTEM FOR AUTOMOBILE LIGHTING AND IGNITION SYSTEM

Anthony Arnejo, Detroit, Mich.

Application November 20, 1952, Serial No. 321,641
1 Claim. (Cl. 200—16)



A device of the character described comprising in combination with a casing, a forward partition, a central partition and a rear partition defining recesses therebetween, a reciprocal shaft extending through said forward and central partitions and terminating at its rear end in the recess between the central and rear partitions, a circular block affixed to the rear end of said reciprocal shaft, a plate of electrically conductive material affixed to the rear face of said circular block, a pair of fixed contact members extending through the rear partition, and means in the recess between said forward and central partitions for normally urging said shaft and its attached elements in a forward direction, said means comprising a collar of dielectric material affixed to said reciprocal shaft, a flange formed integrally with the forward side of said collar, a washer loosely mounted on said reciprocal shaft rearwardly of said collar, and a compression spring surrounding said reciprocal shaft and bearing against said flange and said washer, said partitions being formed integrally with and extending outwardly from said casing.

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2,774,830

## CONTACT POSITIONING ARRANGEMENT FOR QUICK BREAK MECHANISM OF LOAD TAP CHANGING TRANSFORMER

William C. Sealey, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application September 20, 1955, Serial No. 535,419
5 Claims. (Cl. 200—17)



1. A load tap changing transformer comprising a tap changing switch having a plurality of spaced stationary contacts and a pair of correspondingly spaced movable contacts cooperating with said stationary contact members to define operating positions for said transformer, detent means for switching one of said movable contacts from one of said stationary contacts to the next with a snap action to cause said one movable contact to be rapidly separated from said one stationary contact, said means including a stationary index plate provided with a plurality of main notches, and a latch device movable in accordance with the movement of said movable contacts and engageable with said main notches to accurately position said movable contacts with respect to said stationary contacts at said operating positions, and an auxiliary notch adapted to receive said latch device to momentarily stop said movable contacts at a point between said operating positions which disposes said one movable contact further from said one stationary contact than said next stationary contact, said auxiliary notch disposed between said main notches with the latch engaging portion of said auxiliary notch extended in the direction of movement of said latch device.

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2,774,831

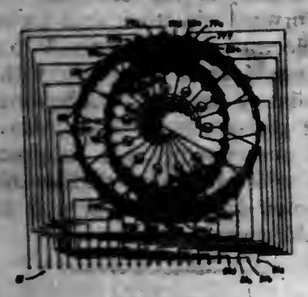
## MULTIPLE SLIP RING JOINT

Edward C. Lafferty and William O. Yeazell, Springfield, Ohio, assignors, by mesne assignments, to Kelsey-Hayes Wheel Company, Detroit, Mich., a corporation of Delaware

Application November 20, 1953, Serial No. 393,396
10 Claims. (Cl. 200—24)

1. A multiple slip ring joint for transferring a large number of electric circuits between a stationary base and

a rotary member, comprising two sets of contact elements mounted on said base in stationary relation with each other and in rotatable relation with both said base and said rotary member, said contact elements in each said set being arranged in angularly spaced relation to form a discontinuous ring, a plurality of brushes fixed in stationary relation on said base and in electric contact with the first set of said contact elements respectively, a plurality of brushes mounted on said rotary member in



electric contact with the second said set of contact elements respectively and in rotatable relation therewith, means connecting successive said contact elements in said first set with separate successive said contact elements in said second set, and means for rotating said contact elements and said rotary member at different speeds with respect to each other and to said base such that a circuit between each stationary brush and the same associated rotating brush is maintained at all times by successive said connected pairs of contact elements in rotation.

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2,774,832

## HIGH TENSION DISCONNECTING SWITCH

Joseph Albert Turgeon, Toronto, Ontario, Canada, assignor to Eastern Power Devices Limited, Toronto, Ontario, Canada

Application February 16, 1956, Serial No. 565,970
5 Claims. (Cl. 200—48)



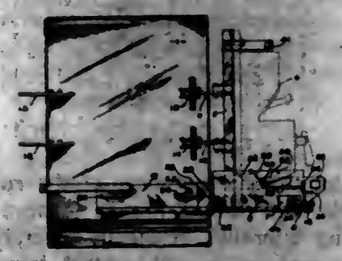
1. A high tension disconnecting switch comprising a single supporting post, an insulator column mounted on said post, a second insulator column having a shaft rotatably carried by said first column, manually operable means for rotating said shaft, a switch blade having a pair of pivotally connecting arms, a contact assembly having a pair of jaws for reception of one of said arms, said arms being swingable into colinear relation for reception by said jaws and into angular relation with each other for withdrawal from said jaws, and gear and chain means connecting said shaft with said arms and responsive to rotation of said shaft in one direction to swing said arms from said angular relation to colinear relation and thereafter to rotate said colinear arms into twisting contact with said jaws, said means being responsive to rotation of said shaft in the reverse direction to initially rotate said colinear arms out of twisting contact with said jaws and thereafter to swing said arms into said angular relation.

2,774,833

## CIRCUIT BREAKER DRAWOUT

Thomas R. Sheep and John J. Espey, Baltimore County, Md., assignor to The Wolfe & Mann Mfg. Co., Baltimore, Md., a corporation of Maryland

Application June 29, 1954, Serial No. 440,884
7 Claims. (Cl. 200—50)



1. A circuit breaker carrier comprising a movable frame assembly for supporting the breaker, stationary terminals of a lead-in circuit, electrical connecting elements fixedly secured to said frame assembly and adapted to move therewith, tracks for supporting said frame assembly along each side thereof, each of the tracks being formed in two sections, an inner fixed section and a pivotal outer section, the inner section of the tracks supporting the frame assembly in inner breaker connected and outer breaker test positions, the movement of the frame assembly between said positions moving the connecting elements carried by the frame assembly into and out of engagement with the said stationary terminals and lever means for positively moving the frame between said positions, said lever means comprising the outer section of the tracks, said section having one end pivotally mounted on and adjacent the outer ends of the fixed tracks and movable between a vertical and a horizontal position, and forming a continuation of the fixed track sections when horizontal and releasable means between said movable sections and the breaker supporting frame, said frame being movable onto the horizontal track sections upon the release of the releasable means.

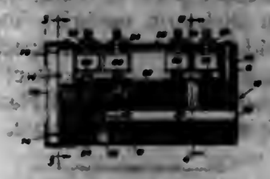
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2,774,834

## BREATH OPERATED SWITCH FOR MUSICAL INSTRUMENTS

Edward H. Kenworthy, Pasatc, Calif.

Application May 24, 1955, Serial No. 510,603
4 Claims. (Cl. 200—52)



1. A breath operated switch for use in combination with a musical instrument comprising a main block having an air inlet communicating with a transverse air cell, a first bore in said block communicating with said air cell, a blow contact member movably positioned in said first bore, first contact means positioned for engagement by said blow contact member upon application of breath into said air inlet, a second bore in said block communicating with said air cell, a draw contact member movably positioned in said second bore, and second contact means positioned for engagement by said draw contact member upon application of suction on said air inlet, and heater means adjacent said block for evaporating moisture in said air cell and said bores.



2,774,835

## CONTROL FOR OFF-THE-ROAD VEHICLES

William F. Staley, Botetourt County, Va.

Application February 7, 1955, Serial No. 486,356
6 Claims. (Cl. 200—61.47)



1. In combination with a self-propelled vehicle having an ignition circuit, a control for said ignition circuit, which control comprises an elongated body portion removably fast to said vehicle, said body portion having therein a single, generally pistol-shaped recess extending substantially the full length of said body portion, the barrel portion of said recess comprising a well which is closed at its leading or bottom end, remote from the broadened, trailing or butt end of said recess, said well being flared intermediate its said leading end and said butt portion of said recess; paired and spaced, generally L-shaped electrodes provided in said body portion and adapted for connection in the ignition circuit of the related vehicle, and extending in spaced relation both to each other and to said body portion, into said recess to a point just short of the bottom thereof; and a body of mercury in the bottom of said well, of depth sufficient to cover the contact ends of the spaced electrodes when the associated vehicle is in repose, the flare of the intermediate extent of said well portion being such that when said control, which is fast to the vehicle, is rocked bodily through a sufficient angular extent, the mercury thereupon flows out of the bottom of the well into the flared portion, thereby breaking contact between the paired electrodes.

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2,774,836

## SNAP SWITCH

Donald W. Powers, Glen Cove, N. Y., assignor to Roanwell Corporation, Brooklyn, N. Y., a corporation of New York

Application July 1, 1954, Serial No. 440,789
7 Claims. (Cl. 200—67)



1. Switch actuating means comprising a frame member, an elongated bar supported on said frame member for movement toward and away from the frame member, a lever mounted on said bar for pivotal movement about an axis extending transversely of the bar substantially at its center, said lever having two opposed arms, a switch, an actuator for said switch mounted on said frame member in alignment with one arm of said lever and movable toward and away from said one arm of the lever, means biasing said actuator into engagement with the lever and tending to rotate the lever about said axis to bring its other arm into engagement with the frame member and thereafter to rotate said lever about the point of engagement of the other arm and the frame member as a fulcrum and thereby to move said bar bodily away from the frame member, means limiting the movement of the bar away from the frame member, said bar and lever cooperating upon movement of any point along said bar toward said frame member to move said actuator against said biasing means.

2,774,837

## SNAP SWITCH

Philip D. Grover, Chicago, Ill., assignor to Grover Products Corporation, a corporation of Illinois

Application August 22, 1955, Serial No. 529,719
6 Claims. (Cl. 200—67)



6. A snap switch comprising, in combination; a base having at least one contact supported thereon, a resilient switch blade member having one end secured to the base and a free end normally spaced from said contact, a first wire secured to the free end of the switch blade member forming one part of a first pivot joint, a second wire having portions forming parts of a second fixed pivot joint adjacent the secured end of the switch blade member and a third pivot joint normally parallel to said first pivot joint and above a plane between said first and second pivot joints, resilient wire means mounted between said first and third pivot joints, actuating means for pivoting said second wire member downwardly whereupon said switch blade member is moved with a snap action into engagement with said contact, and means for returning the switch blade member to its normal position.

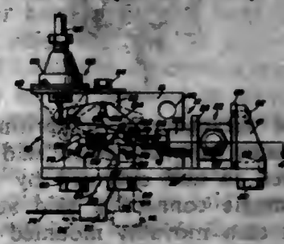
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2,774,838

## CIRCUIT BREAKER

Irvin Bertrand, Lawtell, La., assignor of one-fourth to Mildred B. Lally and one-fourth to John F. Lally, Jr., New Orleans, La.

Application October 14, 1954, Serial No. 462,136
1 Claim. (Cl. 200—81)

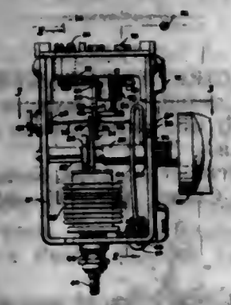


A switch mechanism for use on a vehicle having an internal combustion engine system including a battery ignition system, said switch mechanism comprising a mounting bracket securable on the vehicle chassis, said mounting bracket including an elongated horizontally mounted leg and shorter vertically positioned leg, a first mounting block on said horizontal leg remote from said vertical leg, an insulated housing carried by said first mounting block, a pair of opposed insulated terminals carried by said housing in spaced relation, said terminals extending transversely of said mounting bracket, an operating shaft reciprocably supported by said housing, said operating shaft having on one end a transverse bridging contact selectively engageable with said terminals to complete a circuit between said terminals to permit current to flow through the ignition system, a pair of spaced blocks mounted on said horizontal leg intermediate the ends thereof, a lever positioned between said spaced blocks and pivotally connected thereto, said lever including an elongated leg depending below said horizontal leg and having connected thereto a manually operable control member, said lever including a relatively short leg, a stop block carried by said horizontal leg remote from said first mounting block, a shaft generally aligned with said operating shaft, said last mentioned shaft having one end anchored by said stop block and having the opposite end disposed adjacent said operating shaft, pivotally connected linkage extending between and connecting together said operating shaft and said last mentioned shaft, a spring element carried by said last mentioned

shaft for urging said last mentioned shaft and said operating shaft toward said terminal whereby said bridging contact engages said terminals, a positioning block mounted on said last mentioned shaft intermediate its ends, said short leg of said lever engaging said positioning block and positioning said last mentioned shaft in said operating shaft, a second mounting block secured to said vertical leg, a latch member, a pivot pivotally connected at intermediate portions of said latch member, a mounting plate carried by said second mounting block, a vacuum motor mounted on said mounting plate, said vacuum motor including a communicating conduit connectable to the vehicle engine and an extensible plunger engaged with said latch member for moving said latch member into latching engagement with said last mentioned shaft in response to the operation of the vehicle engine to maintain a complete electrical circuit in the electrical system when the engine is running.

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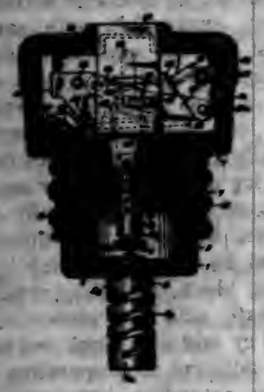
2,774,839
ELECTRICAL APPARATUS
Albert O. Greene, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio, a corporation of Delaware
Application October 10, 1951, Serial No. 250,693
2 Claims. (Cl. 200—83)



1. A control arrangement comprising a support, a reciprocal actuator mounted upon said support, switch means connected to and operated by said actuator, a spring-loaded toggle connecting said actuator and said support, a first cam movably mounted on said support to adjustably limit actuator movement in one direction, a second cam movably mounted on said support to adjustably limit actuator movement in the other direction, and a control knob operably connected to both cams for simultaneous operation of said cams.

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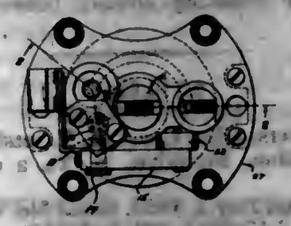
2,774,840
AUTOMATIC SWITCHES
Wilhelm Leyhausen, Nuremberg, Germany
Application April 6, 1953, Serial No. 347,090
Claims priority, application Germany September 1, 1952
3 Claims. (Cl. 200—87)



1. In an automatic electric switch comprising a casing, a magnet coil in said casing spaced from the bottom thereof to define a contact chamber below it, and a fixed contact in said contact chamber intersected by the axis of the magnet coil, the combination of a contact rod having a contact thereon for co-operation with said fixed contact and displaceable axially within the magnet coil from a circuit closing position in which the contact on the contact rod bears against said fixed contact, into a circuit breaking position in which the contact rod is retracted from the fixed contact with the contact on said rod located within the interior of the magnet coil, so that the switch air gap between said contacts, in the circuit breaking position, is located partly within the magnet coil, with switch operating mechanism in said casing above the magnet coil and comprising a switch lever articulated to said contact rod for displacing said rod axially of the magnet, a spring biasing said switch lever to urge the contact rod to circuit breaking position, a manually operable switch slide displaceable verticaly in the switch casing and having a horizontal slot therein, a horizontal toggle comprising a pair of toggle members with a connecting pin slidable in said horizontal slot, one of said toggle members articulated to said switch lever, a locking member pivoted in the switch casing and articulated to the other toggle member, a latch member biased to normally engage said locking member and means on the movable core for displacing said latch member to release the locking member on the core being drawn into the magnet under the action of an overload current.

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2,774,841
CIRCUIT INTERRUPTER WITH THERMAL COMPENSATED TIME DELAY
William J. Weisfurt, Wauwatosa, Wis., assignor to McGraw Electric Company, Milwaukee, Wis., a corporation of Delaware
Application October 22, 1952, Serial No. 316,151
1 Claim. (Cl. 200—97)



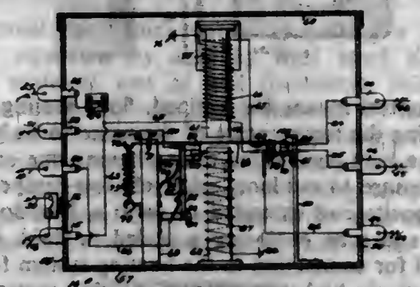
In a circuit interrupter, the combination of switch means, an electromagnetically operated plunger for operating said switch means, hydraulic means for controlling the rate of travel of said plunger, said hydraulic means including a cylinder for said plunger and a hydraulic medium, and temperature control means submerged in said hydraulic medium and having a body portion provided with an outlet vent communicating with said cylinder, a cylindrical rotary valve extending through said body portion and provided with means for controlling said vent and projecting at one end from said body portion, a cup shaped member adjustably secured to said body portion and surrounding the projecting portion of said cylindrical valve, and a spirally arranged bimetal member surrounding said projecting portion and positioned within said cup shaped member and having its inner end secured to said projecting portion and its outer end secured to said cup shaped member.

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2,774,842
AUTO ELECTRIC FIRE STOPPER SWITCH
Frank A. Shrader, Reseda, Calif.
Application April 27, 1954, Serial No. 425,813
1 Claim. (Cl. 200—102)

In a safety switch, a housing, a first, second, third, fourth, fifth, sixth, and seventh terminal extending from said housing, an upper and lower solenoid core positioned in said housing and spaced from each other, a support member secured to said housing and provided with a slot in its upper end, an armature movably mounted between said cores and including a guide pin positioned in said slot, a clip secured to said support member, resilient means extending between said clip and armature, a wire connecting said armature to said seventh terminal, a bracket mounted in said housing, an insulated shelf secured to said bracket, a first and second lower contact secured to said shelf, a wire connecting said first contact to said sixth terminal, a fine winding surrounding said upper core and having one end connected to said second contact and its other end grounded, a wire connecting said second contact to said fifth terminal, a third and fourth spaced apart contact carried by said armature and mounted for movement into and out of engagement with said first and second contact, a heavy winding surrounding said upper core and connected to said fourth contact, a wire connecting said heavy winding to said first terminal and to an eighth terminal, a fine winding surrounding said lower core, a lower contact member





connected to the winding on said lower core, an upper contact member connected to said armature and to said third terminal, a body member secured to said support member, an insulated arm having its lower end pivotally connected to said body member and having its upper end adapted to engage said upper contact member, a conducting strip secured to one side of said arm and electrically connected to said fourth terminal, and a spring member secured to said support member and arranged in engagement with said conducting strip, the magnetic attraction of said lower solenoid core being greater than the magnetic attraction of the upper solenoid core until a short circuit occurs whereby the magnetic pull of the upper solenoid core will then be greater than the magnetic pull of the lower solenoid core to thereby cause said armature to move upwardly, whereby when said armature is lifted upwardly, said spring member will force said insulated arm away from said support member so that the upper end of said conducting strip will engage said upper contact member which is connected to the armature.

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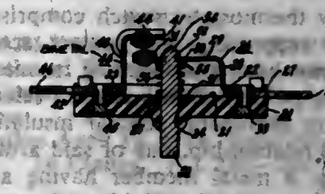
2,774,843
SENSITIVE RELAY
Walter B. Kenick, Skokie, Ill., assignor to W. M. Welch Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application February 17, 1953, Serial No. 337,360
4 Claims. (Cl. 200—110)



1. A sensitive construction of the type described, comprising a primary magnet unit including permanent magnet means of substantial strength, an armature rotatable between pole pieces of said unit, a magnetic contact carrying arm secured to said armature for swinging movement therewith, magnetic contact holding means positioned for engagement by said arm, assisted by a secondary, relatively weak magnetic field between the arm and said contact holding means, upon rotation of said armature, and a shield of magnetic material interposed between said primary magnet unit and said contact holding means, said magnet unit comprising a pair of magnet members between which said armature rotates and a member of highly permeable magnetic material in bridging contact with the ends of said respective magnet members remote from said armature, said shield being fixedly positioned across said secondary field and between the same and said permeable bridging member to afford a shielded zone at the latter at which stray flux of said primary magnet unit is localized.

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2,774,844
RESETTABLE CIRCUIT BREAKER
Charles E. Buck and Argyle G. Lautzenhiser, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 12, 1952, Serial No. 319,858
4 Claims. (Cl. 200—116)



1. An automatic circuit breaker, comprising in combination; a bimetallic strip member having a freely moveable end and a fixed end mounted to a support, a flexible strip member having one end fixed to said support and having the other end free to move and normally spaced from said bimetallic member, a moveable plunger movable relative to and adopted to move the free end of said flexible member into contacting engagement with said bimetallic member, and a means on said plunger engageable with the free end of said bimetal member for maintaining said members in said contacting engagement until the bimetallic member thermally responds to a predetermined current passing therethrough and causes said means to be released.

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2,774,845
ELECTRIC LIGHT FLASHER
Noel J. Lisschy, New York, N. Y.
Application February 15, 1955, Serial No. 488,341
9 Claims. (Cl. 200—122)

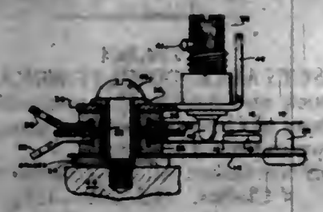


1. An electric light bulb flasher device for insertion in a light cord comprising a casing having cord inlet and exit openings, two spaced chambers and a chamber connecting opening, a stationary conductor strip mounted in the casing in the chambers and extending through the chamber connecting opening, a movable conductor strip mounted in the casing in the chambers and extending through the chamber connecting opening and spaced from said stationary conductor strip, said strips having opposed contacts at one end disposed for contacting one another and terminals at the other end, said movable conductor strip being of bimetallic material, a heating coil mounted adjacent the bimetallic movable conductor strip to heat said

strip for movement thereof relative to said stationary strip, said heating coil having one end connected with the movable conductor strip, said stationary conductor strip having an offset portion with two brackets thereon, and an insulated wrapper around a portion of said movable conductor strip, said wrapper being held by said brackets, said strips extending through the same chamber connecting opening in the casing.

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2,774,846
THERMOSTAT APPARATUS
Paul R. Lee, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 12, 1954, Serial No. 422,427
4 Claims. (Cl. 200—138)



4. A unitary thermostatic switch comprising a plurality of contact supporting and contact actuating arms, each of said arms having an opening in one end thereof, said arms being positioned in a stacked relationship with said openings in alignment, annular insulating members in said stacked relationship, one of said arms comprising a bimetal strip, a metal member having a flat surface adjacent said one end of said bimetal arm, said metal member and a portion of said bimetal arm adjacent the opening therein being brazed together, and a post extending through said openings and through said insulating members to rigidly clamp said arms, said insulating members and said metal member in said stacked relationship, the brazed portion of said bimetal arm and said member extending at least to the edge, nearest the deflectible contact actuating end of the bimetal, of that area of said bimetal that may be subjected to variable clamping forces in said stack, said bimetal strip being stiffened over the brazed portion so that its effective deflective length is constant regardless of changes in the clamping forces in said stack during or subsequent to manufacture of said switch.

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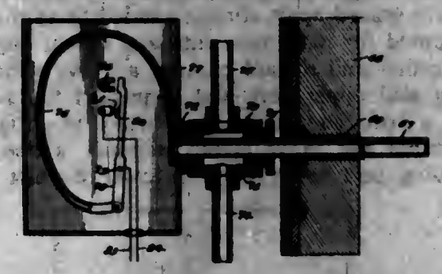
2,774,847
CIRCUIT CONTROLLER FOR AIR HEATING CONTROL SYSTEM
William A. Ray, North Hollywood, Evan J. Davidson, Glendale, William F. Keller, Covina, and Arthur P. Swift, Woodland Hills, Calif., assignors to General Controls Co., Glendale, Calif., a corporation of California
Application February 7, 1955, Serial No. 486,538
14 Claims. (Cl. 200—139)



10. In a control mechanism: a pivoted rocker; means angularly positioning the rocker as a function of a condition; a pair of snap switches; operating members respectively for the snap switches; range screws cooperating with the members for determining the positions of the rocker corresponding to snap-over of the respective switches; a manually operable movable setting arm for each range screw; and connections between the setting arms and the respective range screws for positioning the range screws respectively in accordance with the positions of the setting arms.

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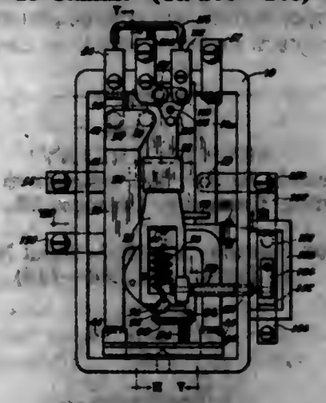
2,774,848
CONTROL MEANS FOR A HEATING SYSTEM
Edwin B. Tidd, Mount Prospect, Ill., assignor to Bell & Gossett Company, Morton Grove, Ill., a corporation of Illinois
Original application June 24, 1947, Serial No. 756,615, now Patent No. 2,626,755, dated January 27, 1953. Divided and this application January 16, 1953, Serial No. 331,646
3 Claims. (Cl. 200—140)



2. Control means for a piped, fluid heating system for regulating the temperature of the space to be heated comprising a heat conducting casing having one end arranged for exposure to outdoor, relatively low temperatures and the opposite end extended to form a Bourdon tube, the casing and tube enclosing a sealed in fluid, pipe means adapted for connection to the heating system for directing the relatively high temperature, heating system fluid into heat exchange relation with the casing fluid in and for applying heat to a relatively concentrated area of the opposite end of the casing adjacent its connection with the tube, movements of the free end of the tube being occasioned by pressure variations in the casing fluid effected by the mutually modifying actions of the relatively high and low temperatures, and electrical switch means operably related to the free end of the tube for determining the supply of heat to the space.

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2,774,849
CONTROL DEVICE FOR ELECTRICALLY HEATED APPLIANCES
Victor Weber, Greensburg, and Hugh J. Tyler, Pittsburgh, Pa., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application January 5, 1954, Serial No. 402,374
13 Claims. (Cl. 200—140)



1. In a control device for clothes driers having means for producing heat and heat distributing means, the combination of means for controlling the rate of heat output of the heat producing means, switching means movable between open and closed positions for controlling said heat distributing means, means for setting said control means to maintain a first heat output rate, means responsive to a temperature condition to be controlled, means for setting said control means to maintain a second heat output rate lower than said first rate upon a change in said temperature condition affecting said temperature responsive means, means for setting said control means to terminate the heat output of the heat producing means upon a further change in said temperature condition affecting said temperature responsive means, and means for moving said switching means between said positions upon an additional further change in said temperature condition affecting said temperature responsive means.



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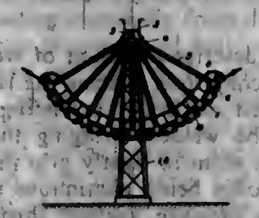
2,774,850
FIRE DETECTION CONDUCTORS
John J. Ziccardi, Jr., Pittsburgh, Pa.
Application September 28, 1954, Serial No. 458,914
5 Claims. (Cl. 200—143)



3. A current controlling cable comprising a pair of conductors separated by a bulky steel wool electrical conducting material, one of said conductors being separated from said bulky conducting material by insulating material of a relatively low melting temperature to establish an electrical circuit between said conductors through said bulky material in response to rising temperature above normal ambient temperatures in the area of installation and an outer wall covering for said cable.

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2,774,851
ELECTRIC HIGH TENSION CIRCUIT BREAKERS
Haakon Forwald, Ludvika, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application August 17, 1954, Serial No. 450,355
Claims priority, application Sweden August 31, 1953
5 Claims. (Cl. 200—148)

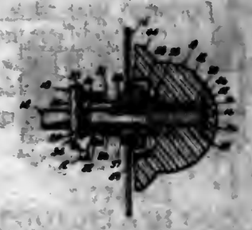


1. An electric high tension circuit breaker comprising a plurality of containers spaced from each other and arranged in the arc of a circle and enclosing series connected breaking gaps, a valve located at the center of said arc for controlling the delivery of operating air to the different gaps simultaneously, and separate tubular members of equal length for conveying the operating air from said valve to the said breaking gaps.

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2,774,852
ELECTRIC SWITCH
Raymond H. Boardman, Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a corporation of Connecticut
Application November 13, 1953, Serial No. 391,856
8 Claims. (Cl. 200—172)

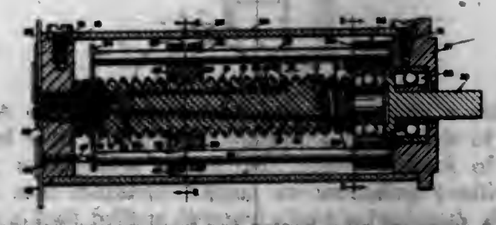
1. In an electric switch having a switch operating member provided with a recess and surrounded by a casing having an opening opposite the recess, the combination of a switch operating spindle projecting through said opening and having one end disposed in said recess, one wall of said recess having a longitudinal groove parallel to said spindle, said spindle having a longitudinal channel and a transverse groove adjacent said one end, a leaf spring supported in said channel extending through said opening, said spring having an inturned portion at one end in engagement with said transverse groove to prevent relative longitudinal movement of said spring and spindle, a transversely extending U-shaped portion on said spring in frictional engagement with said longitudinal groove and



engageable with the inner side of said casing to prevent withdrawal of said spindle therefrom, a longitudinally extending outwardly convex bow in said spring at its other end, and a knob having a recess embracing the other end of said spindle and frictionally engaging said bow to retain the knob on the spindle.

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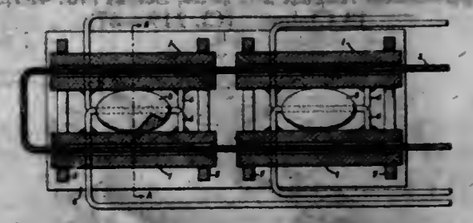
2,774,853
VARIABLE RESISTANCE INSTRUMENT
Elmer C. Anthony, Rutherford, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 19, 1954, Serial No. 423,909
16 Claims. (Cl. 201—56)



1. A variable electrical resistance instrument, comprising a support including a continuous screw thread, a resistance element extending along the apex of and insulated from the thread, a follower, including a screw thread meshing with the support thread and rotatable thereon, and a contact element mounted on the follower and slidably engaging the outer face of the resistance element.

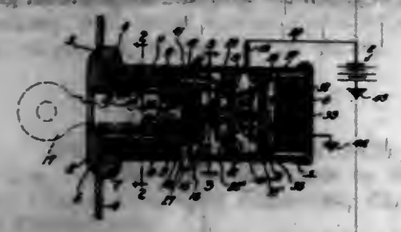
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2,774,854
THERMISTOR ASSEMBLY
Sydney S. Stack, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application August 31, 1954, Serial No. 453,381
10 Claims. (Cl. 201—63)



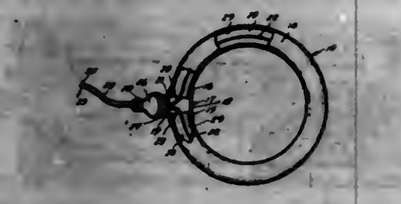
1. A thermistor assembly, comprising at least one pair of heat conductive elements, and at least one thermistor element contactably disposed in heat exchange relationship between said heat conductive elements and supported thereby.

2,774,855
**THERMOSTATICALLY CONTROLLED KEY LOCK HEATER**
Richmond R. Simmons, Columbus, Ohio
Application October 21, 1954, Serial No. 463,681
3 Claims. (Cl. 219—19)



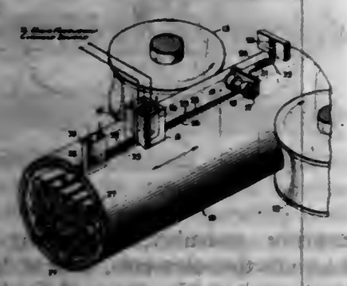
3. In combination with a key-actuated lock; an electrically-actuated heating means disposed in close thermal proximity to said lock and energizable to heat said lock; a first normally open switch electrically connected in series with said heating means and having an actuator for closing said switch in response to the full insertion of a key within said lock; and a second, normally open, thermostatic switch electrically connected in series with said heating means and said first switch and arranged to establish an operating circuit for said heating means in response to a given low ambient temperature.

2,774,856
**BUOYANT RING HEATER FOR ICE FISHING**
Lloyd O. Paulson and Clarence O. Christenson, Isle, Minn.
Application July 7, 1955, Serial No. 520,548
4 Claims. (Cl. 219—41)



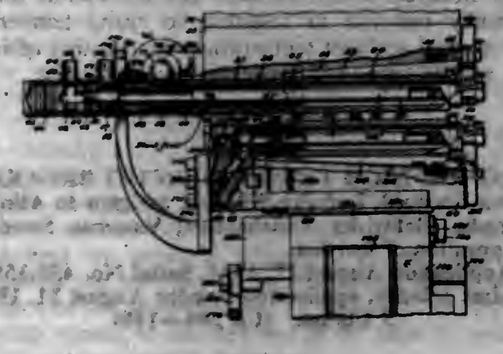
1. A buoyant ring heater for keeping ice fishing holes open comprising a ring-shaped tubular casing enclosing an annular chamber, a snout being in fixed water-tight relationship with said casing and projecting generally upwardly and outwardly therefrom to define an inlet into said chamber, and a heater comprising a resistance-wire loop disposed in said chamber and lead-in wires extending through said snout and in electrical connection with said loop, said ring heater including said casing and snout and heater being buoyant in water with said casing being adapted to float at the surface of the water.

2,774,857
**TUBE WELDING**
Wallace C. Rudd, Larchmont, and Robert J. Stanton, Brooklyn, N. Y., assignors to Magnetic Heating Corp., New Rochelle, N. Y., a corporation of New York
Application August 23, 1954, Serial No. 451,536
13 Claims. (Cl. 219—67)



1. Method for welding together the edges of a longitudinal gap in metal tubing which comprises: longitudinally advancing the tubing while subjecting same to pressure from opposite sides thereof to bring the gap edges together adjacent a welding point, while heating said edges to welding temperature by applying contacts connected to a source of radio frequency current to points on the tubing at opposite sides of the gap at a position in advance of said welding point, and while also applying an electrical connection between opposite sides of the gap at a position shortly in advance of the welding point, said current being of such radio frequency that because of its frequency, a low impedance path therefor in the metal of the tubing between the contacts is provided along on the approaching gap edges from the contacts to and from said connection, the resulting current flow and consequent resistance heating being concentrated at such edges, and acting to continue to increase the temperature thereof until same reach said connection.

2,774,858
**METHOD OF AND APPARATUS FOR WELDING LAP SEAMS**
Richard D. Hellsborn, Chicago, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application May 10, 1954, Serial No. 428,592
33 Claims. (Cl. 219—78)

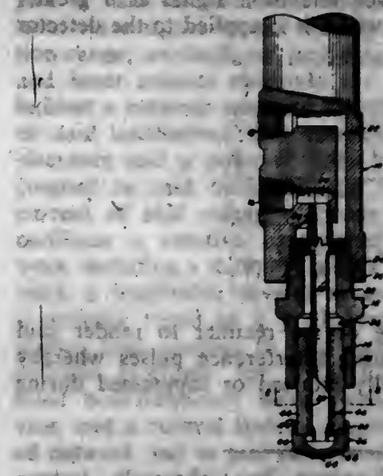


1. The herein described method of welding elongated lap seams which comprises, placing the lap seam between opposing elongated electrodes extending the full length of the seam to be welded, bringing the electrodes together against the seam to tightly grip the seam between them, said electrodes being continuous so as to present an uninterrupted pressure surface throughout the full length of the seam and being deformable upon application of welding pressure and resilient so as to be adapted by reason of their inherent quality of returning after each pressure deformation to their normal cross section for applying follow up pressure as fusion of the seam takes place, and while so applying pressure to the seam, passing electric current through the electrodes and the gripped seam to provide a one shot fusing and welding of the metal in the lap seam throughout the full length thereof.

2,774,859
**ELECTRODE**
Fred H. Johnson, Detroit, Mich., assignor, by mesne assignments, to Warren Alloy, Warren, Mich., a copartnership
Application July 12, 1951, Serial No. 236,350
10 Claims. (Cl. 219—120)

8. A welding electrode comprising an elongate body having a cylindrical end portion and provided with a removable cap at said cylindrical end portion, said cap having a cylindrical opening at one end for slidable telescopic engagement over said end of said body, the mouth of said opening being slightly larger than the external diameter of said end of said body to facilitate insertion of the cap over said cylindrical end of said body and the cylindrical portion of said opening spaced inwardly of and adjacent said mouth portion being dimensioned slightly smaller than the external diameter of said end portion of said body prior to assembly.





2,774,860
**LUGGAGE ILLUMINATOR**
Evelyn Probol and Theodore J. Probol, Lincoln, Nebr.
Application July 24, 1953, Serial No. 370,132
1 Claim. (Cl. 240—6.45)



In a luggage lighter, a tubular battery casing, a pluality of clip means mounted on said battery casing and adapted to secure said battery casing to one of the lips of a luggage piece and internally thereof, a pair of lamps positioned one at each end of the casing, a plurality of batteries within said casing, a plunger-like light switch having a shaft projecting outwardly from the wall of the casing and positioned between said batteries, contact points on the inner end of said shaft, sliding contact pins mounted in the battery casing and cooperating with said contact points to provide an electrical circuit between said batteries and said lamps, spring means on said switch shaft to bias said shaft outwardly and move said sliding contact pins into engagement with the batteries to energize the lamps, another clip adapted to be mounted on the other lip of the luggage piece, said last mentioned clip being adapted to engage said switch when the baggage piece is in closed position to deenergize the lamps.

2,774,861
**REPEATING FLASHGUN**
Robert E. Shaw, Beverly, and Frank H. Walliw, Salem, Mass., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application February 19, 1954, Serial No. 411,452
1 Claim. (Cl. 240—37)



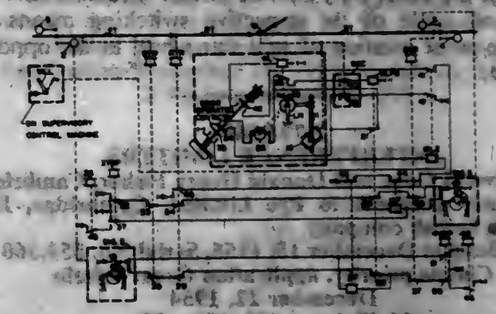
A repeating photoflash gun for glass photoflash bulbs having a contact base comprising a reflector having a central opening, a hollow chamber fixed to said reflector, said chamber having an opening in register with the opening in the reflector to permit passage of a bulb from the chamber to the reflector, a rotatable annular cylinder extending around said chamber and being concentric therewith and having longitudinal bulb-receiving grooves in its inner surface, said chamber having a longitudinal opening through which a bulb can pass from said cylinder to said chamber when the cylinder is rotated to bring a bulb into register with said opening, means for grasping a bulb by said contact base and means for moving said grasping means longitudinally through said chamber into said reflector to hold said bulb in said reflector solely by the grasping of said contact base.

2,774,862
**PHOTOFLASH GUN**
John J. Zwald, Rochester, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application September 30, 1953, Serial No. 383,361
3 Claims. (Cl. 240—37)



1. A repeating photoflash gun comprising a reflector formed with an opening concentric of its axis of symmetry, a magazine adapted to receive a stack of flash bulbs, said magazine having an unloading position in which a flash bulb is disposed along a feed path aligned with said axis of symmetry, a bulb holder supported within said reflector along said axis of symmetry and retractible along said feed path into said magazine to receive successive bulbs from said magazine, and feed means extensible along said feed path to advance a flash bulb from said unloading position through a predetermined linear thrust toward said reflector for endwise insertion into said bulb holder.

2,774,863
**RAILWAY SWITCH LOCK CONTROL SYSTEM**
George J. Johanek, Rochester, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application November 12, 1952, Serial No. 320,066
3 Claims. (Cl. 246—146)

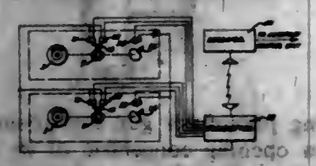


1. In a signal control system having a signal governing traffic through a hand throw switch, an electric lock mechanism connected to said hand operated track switch, said electric lock mechanism having a lock plunger oper-

able between a full normal locking position and a releasing position by manually operable lock control handle, said electric lock having an electromagnet operating a locking dog and effective when the electromagnet is deenergized to permit only limited movement of said lock control handle away from said full normal position, a lock circuit controller operated by said lock control handle having a normal contact closed only when said handle is in said full normal position, a switch circuit controller connected to said track switch having a normal contact closed only when the switch points are in their full normal positions, a switch and lock repeater relay, a pickup circuit for said switch and lock repeater relay including in series said normal contact of said lock circuit controller and said normal contact of said switch circuit controller, stick circuit means for maintaining said switch and lock repeater relay energized, said stick circuit means being effective to maintain said switch and lock repeater relay picked up irrespective of said normal contact of said lock circuit controller, and said stick circuit means being subject to deenergization upon the energization of said electromagnet, and signal control means for governing said signal including contacts of said switch and lock repeater relay.

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2,774,864
**REMOTE CONTROL KEYER**
Jacob J. Hagopian, Los Angeles, and Norman Meadowcroft, Santa Monica, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 27, 1950, Serial No. 152,042
28 Claims. (Cl. 250—2)

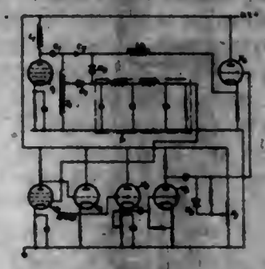


1. A switch controller comprising a rotatable knob, a star wheel connected to be rotated by said knob, a toggle pivotally mounted in the same plane of rotation as said star wheel, a wheel follower attached to said toggle, said follower being located between two adjacent wheel points and on a straight line between the pivot of said toggle and the rotational center of said wheel when said toggle is in a central position, two oppositely extending rocker arms formed on said toggle, a pair of spring-loaded on-off switching means each having an adjustable actuator positioned adjacent and in the path of motion of one of said rocker arms, respectively, when said star wheel is rotated in either direction, one of said rocker arms thereby operating one only of said switch actuators through one on-off cycle of its respective switching means for each one-point rotation of said star wheel in one direction, and the other of said rocker arms thereby operating the other only of said switch actuators through one on-off cycle of its respective switching means for each one-point rotation of said star wheel in the opposite direction.

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2,774,865
**INTERFERENCE LIMITERS**
John Edward Cope and Donald Henry Fisher, Cambridge, England, assignors to Pye Limited, Cambridge, England, a British company
Application December 15, 1955, Serial No. 553,360
Claims priority, application Great Britain December 22, 1954
11 Claims. (Cl. 250—20)

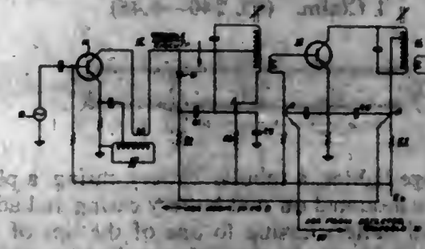
1. An interference limiting circuit comprising an interference limiting rectifier having two electrodes, means for feeding the detected video signal to one electrode of said rectifier, means for applying a bias to the other electrode of said rectifier so that said rectifier is normally held non-conducting during the video signal, and means for applying the received television signal at a greater amplitude than that at which it is applied to the detector



to said other electrode of the rectifier to render said rectifier conducting during interference pulses whereby the signal is substantially reduced or suppressed during the interference pulses.

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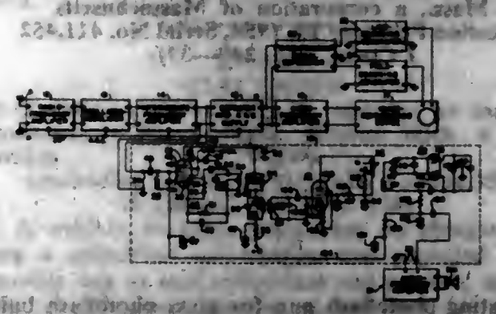
2,774,866
**AUTOMATIC GAIN AND BAND WIDTH CONTROL FOR TRANSISTOR CIRCUITS**
Francis J. Berger, Lecnia, N. J., assignor to Emerson Radio & Phonograph Corporation, Jersey City, N. J., a corporation of New York
Application January 30, 1956, Serial No. 562,072
6 Claims. (Cl. 250—20)



6. The combination with a transistor radio receiver comprising a converter stage, an intermediate frequency amplifying stage, a transformer for coupling said stages, and an automatic gain control voltage connected to said amplifier stage, of varibale damping means connected between the primary of said transformer and the output circuit of said amplifier stage consisting of a diode and capacitor in series across the portion of the primary of said transformer and an impedance connection from the common point of said diode and capacitor to the output circuit of said amplifier stage.

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2,774,867
**FREQUENCY MODULATION DETECTOR HAVING FIXED OUTPUT FREQUENCY CONVERTER**
Bernard D. Loughlin, Lynbrook, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application June 14, 1952, Serial No. 293,600
10 Claims. (Cl. 250—20)



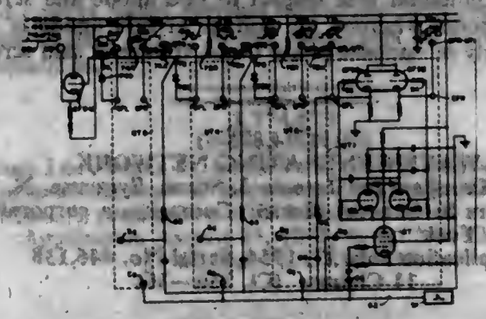
7. A frequency-conversion apparatus comprising: an electron-discharge device having an output electrode and a cathode electrode and a plurality of intermediate



electrodes including an inner control electrode and an outer control electrode; an input circuit coupled to a pair of said electrodes for applying a frequency-modulated wave signal thereto having a predetermined deviation range; an oscillator including said cathode electrode and inner control electrode for developing local oscillations; a network tuned to approximately the frequency of said oscillations and coupled between said output electrode and a point of fixed reference potential and coupled to said oscillator and responsive only to the current of said output electrode for supplying to said oscillator a reactive component of current, said network including a damping means providing for said network a bandwidth several times said deviation range; a network tuned to a predetermined intermediate frequency and coupled to said output electrode and said cathode electrode for translating a frequency-modulated beat-frequency wave signal derived by said device; and a control system coupled to said last-mentioned network and to said cathode electrode and said outer control electrode and responsive to the frequency modulation of said beat-frequency signal for deriving and applying between said last-mentioned electrodes a control signal exerting a first order control effect on said output electrode current flowing to said tuned network and on said reactive component of current for varying the operating frequency of said oscillator to maintain the center frequency of said beat-frequency signal at substantially said predetermined frequency.

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2,774,868
**BINARY-DECADE COUNTER**
Byron L. Havens, Chester, N. J., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 21, 1951, Serial No. 262,734
14 Claims. (Cl. 250—27)

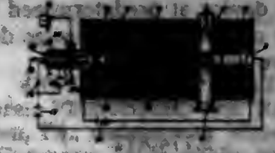


10. A decade counter including, four counting elements each having two electrical conditions alternately assumed in response to pulses to be counted; a source of pulses to be counted; circuit means coupling each of said counting elements to said source so that each pulse present at said source is applied simultaneously to each of said counting elements; and coincidence circuit means selectively interconnecting said counting elements to condition said counting elements to be responsive to pulses from said source in a preselected fashion.

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2,774,869
**ELECTRON DISCHARGE APPARATUS**
Peter Francis Conway Burke, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 7, 1950, Serial No. 194,540
Claims priority, application Great Britain November 8, 1949
4 Claims. (Cl. 250—27)

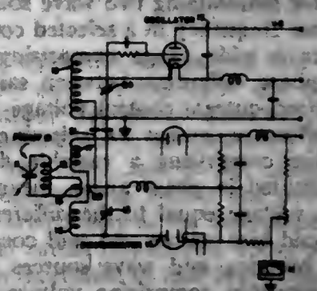
1. Electron discharge apparatus comprising an electromagnetic waveguide in the form of a helical conductor, for propagating waves of a given frequency with a phase velocity a fraction that of light, the mean radius a of the helix and the propagation constant $\gamma$ of the waves being such that the product $\gamma a$ lies between 0.6 and 1.4, an electron beam source positioned to project a beam of electrons along the said guide to progressively amplify waves of the said frequency, the dispersion of the waveguide being such that the amplification is selective for



that frequency with respect to sub-multiples and multiples thereof, a source of waves of a submultiple frequency of said given frequency positioned intermediate said beam source and said guide and means for modulating the charge density along the beam with energy from said wave source.

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2,774,870
**DEVICE FOR INDICATING PHYSICAL PHENOMENA**
Hans Rutishauser, Altadena, Calif.
Application October 23, 1952, Serial No. 316,487
2 Claims. (Cl. 250—27)



1. A device for indicating physical phenomena comprising a pickup, said pickup comprising a variable capacitor and a pickup coil connected across said variable capacitor, a detector coil connected across said pickup coil; a discriminator, a tuned circuit in said discriminator comprising a capacitor and a pair of discriminator coils, said coils being serially connected with each other across said adjustable capacitor; said detector coil being disposed between and linked to both of said discriminator coils, an oscillator, a tank circuit in said oscillator comprising a tank coil and an adjustable tank capacitor, a lead interconnecting said tank coil and a point in the tuned circuit between the discriminator coils, whereby the oscillator supplies high frequency energy to the discriminator coils, and changes in reactance of the pick-up modulate the frequency of said high frequency energy.

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2,774,871
**COUNTER OR STEP WAVE GENERATOR**
Orville E. Dow, Port Jefferson, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application September 18, 1952, Serial No. 310,342
2 Claims. (Cl. 250—27)

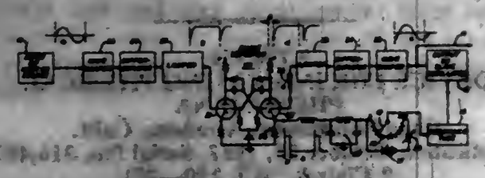


1. A step wave generator receptive to a pulse input, comprising: an amplifier for said pulse input, a storage device, a first electron discharge device receptive to the pulse input and operative to add an increment of charge

to the storage device for every pulse received, a cathode follower also receptive to said pulse input, a delay line receptive to the output of said cathode follower, a second electron discharge device coupled to said storage device and biased by the voltage on the storage device and the delayed pulses from the delay line so that the second electron discharge device is rendered conductive to discharge the storage device at predetermined intervals, and a cathode follower coupled to the storage device for providing a step wave output.

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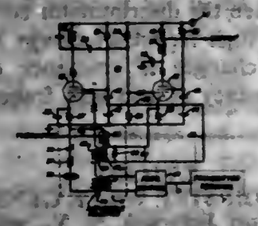
2,774,872
PHASE SHIFTING CIRCUIT
Louis Hovagn, Bloomfield, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 17, 1952, Serial No. 326,541
4 Claims. (Cl. 250—36)



1. A system for maintaining two wave sources of substantially the same frequency in a selected constant phase relationship over a wide range comprising means for translating the phase difference between said two wave sources into a direct-current control voltage proportional to said phase difference, means for selecting the desired phase relationship comprising a variable direct-current bias source calibrated in phase angle, means for deriving a difference voltage equal to the difference between the voltage of said bias source and said control voltage, and means for bringing said wave sources into the desired phase relationship comprising voltage-actuated reactance means for one of said wave sources and means for applying said difference voltage to said reactance means for shifting the phase of said one wave source.

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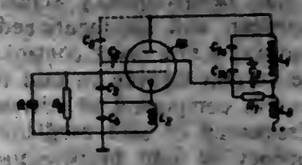
2,774,873
BRIDGE STABILIZED OSCILLATOR
John W. Ehrke, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 15, 1955, Serial No. 528,369
7 Claims. (Cl. 250—36)



1. In a carrier communication system having a receiver terminal and a transmitter terminal at the respective ends of each section of a transmission medium, separate bridge stabilized oscillators for generating carrier frequency energy at the receiver terminal and at the transmitter terminal, respectively, each of said oscillators comprising an amplifying device including at least one electron discharge device having a cathode and a screen grid, a feedback circuit connecting the output of said amplifying device to the input thereof, an impedance bridge connected in said feedback path, a temperature sensitive resistance, a separate capacitive voltage divider connected between the screen grid of each of said discharge devices and direct current ground, means connecting a point on said bridge above direct current ground to an intermediate point on each of said voltage dividers, a saturable reactor connected in one arm of said receiver terminal oscillator bridge circuit, frequency sensitive means including said saturable reactor for adjusting the frequency of said receiver terminal oscillator to correspond with the frequency of the said transmitter terminal oscillator, a resistor, and oscillator power output stabilizing means including said resistor and connected in said receiver terminal oscillator feedback loop between the output of said amplifier and the input of said bridge.

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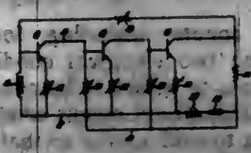
2,774,874
CIRCUIT ARRANGEMENT TO NEUTRALIZE THE GRID-TO-ANODE CAPACITY IN SCREEN-GRID TUBES
Erich Heinecke, Berlin-Tempelhof, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application August 20, 1954, Serial No. 451,189
Claims priority, application Germany August 21, 1953
4 Claims. (Cl. 250—36)



1. A neutralizing arrangement for an oscillator circuit, comprising an electron discharge device having cathode, grid, screen grid and anode electrodes, an L-C oscillatory circuit coupled across said anode and screen grid electrodes; and means for neutralizing the stray capacities between said anode-grid electrodes and said screen grid-grid electrodes, characterized in that one of the reactances forming said L-C circuit comprises a pair of components, means coupling the junction of said components to a reference potential with respect to said anode and screen grid electrodes whereby the voltage at said anode is approximately of opposite phase to the voltage at said screen grid.

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2,774,875
WAVE GENERATING NETWORK
Edward Keonjian and Jerome J. Suran, Syracuse, N. Y., assignors to General Electric Company, a corporation of New York
Application July 27, 1954, Serial No. 446,138
11 Claims. (Cl. 250—36)



1. In an active periodic wave generator, a re-entrant network comprising at least two transistor amplifiers connected in cascade, at least one of said amplifiers having the impressed signal applied to the base electrode thereof, an inductance connected between the base electrode of said one of said amplifiers and an emitter supply lead, a variable resistance connected between the emitter of said one of said amplifiers and said emitter supply lead, and means supplying electric energy to the operating electrodes of said transistor amplifiers.

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2,774,876
MOLECULAR RESONANCE GAS CELL
Robert H. Dicke, Princeton, N. J.
Application May 19, 1954, Serial No. 430,866
19 Claims. (Cl. 250—36)

1. A gas cell comprising, an envelope containing a gas of low pressure capable of exhibiting molecular resonance,



means for introducing microwave energy into said envelope at a frequency for which said gas is resonant,



and a plurality of conductive elements within said cell spaced one-half wavelength apart at said resonant frequency.

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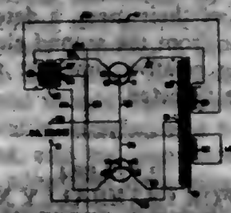
2,774,877
AUTOMATIC FREQUENCY CONTROL
Lowell E. Norton, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 1, 1955, Serial No. 519,371
19 Claims. (Cl. 250—36)



1. A frequency stabilization system comprising, a cell containing a molecularly resonant body of gas at low pressure, at least a pair of radio-frequency oscillators coupled to said gas cell, means coupled to said gas cell for deriving from said gas cell a separate frequency control signal for each of said oscillators, and means coupled to said control signal deriving means for applying said separate control signals to said oscillators to stabilize their frequencies.

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2,774,878
OSCILLATORS
James Lee Jensen, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application August 29, 1955, Serial No. 530,981
10 Claims. (Cl. 250—36)

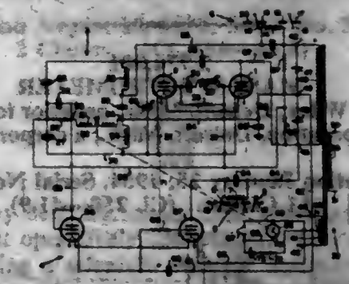


1. Electronic apparatus for converting a direct current to an alternating current, said apparatus comprising: electronic amplifying means, said amplifying means having control elements for varying the flow of current through said amplifying means; means for connecting the output circuit of said electronic amplifying means to a direct current source; means for connecting said output circuit to a load device; feedback means including inductive coupling means having its input connected to said output circuit by means additional to said means for connecting said output circuit to a load device and having its output connected to the control elements thereof, said feedback means being connected in such a manner as to initially tend to increase the flow of current through the output circuit of said electronic amplifying means and hence to further increase the signal applied to said control elements; said inductive coupling means of the feedback means including a saturable core for limiting the amount of signal transmitted to said control elements so that upon such limiting value being reached, the inductive coupling means is effective to decrease the signal transmitted to said control elements to result in said electronic amplifying means again becoming nonconductive.



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2,774,879
CONTROL APPARATUS
Robert J. Elrod, Philadelphia, and Roger F. Wernlund, Southampton, Pa., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application March 26, 1952, Serial No. 278,609
12 Claims. (Cl. 250—36)



1. Control apparatus, comprising first and second electronic devices each having input and output circuits, a single adjustable impedance element common to said circuits and connected in an oscillatory feedback connection within the input and output circuits of said first device and operative to permit and prevent the oscillation thereof accordingly as the impedance of said element is adjusted to values respectively above and below a first critical value individual to said first device, an impedance device effectively connected in series with said element in an oscillatory feedback connection within the input and output circuits of solely said second device and operative to oppose the effect of said element with respect to said second device and hence to establish a second, higher critical value for the impedance of said element which is individual to said second device and above and below which the oscillation of the latter is respectively permitted and prevented, first and second responsive circuit portions of said apparatus, means adapted to connect energizing means to said first and second portions and to said first and second devices and operative to permit the oscillation of said first device but to prevent the oscillation of said second device during one half of each cycle of an alternating energizing voltage, and to prevent the oscillation of said first device but to permit the oscillation of said second device during the other half of each of said cycles, first and second electro-responsive means respectively individual to said first and second portions, and means operative to control the operative energization of each of said responsive means in accordance with the state of oscillation of the respective device and hence in accordance with the deviation of the impedance value of said element from the respective one of said critical values.

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2,774,880
TELEVISION TUNING SYSTEM
Norman C. Fulmer, Montclair, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application December 6, 1952, Serial No. 324,580
6 Claims. (Cl. 250—40)

1. An electrical tuning device comprising an element of a tuned circuit, a contact member connected to said element, an inductive elongated contact arm, an electrical circuit connected to a single point on said arm, means to



selectively connect said contact member to said contact

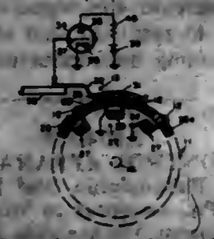


constant momentum on the ions in a first direction, a

is faced by said back rest panel, said extendable means

over said surface, removing from said surface all but a

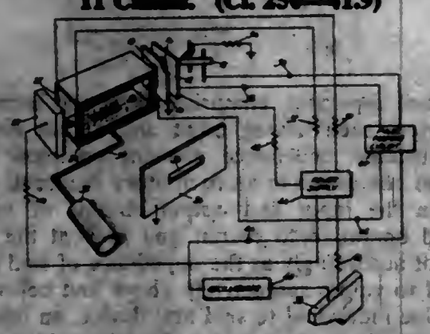
selectively connect said contact member to said contact arm, means to slide said contact member along said arm to continuously vary the inductance between said element and said electrical circuit and a capacitor plate connected



to said tuned circuit, said capacitor plate positioned to move with respect to said contact arm when said contact is slid along said arm, whereby both the capacitance and inductance of said tuned circuit are varied.

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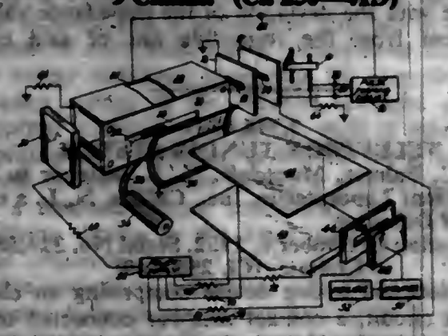
2,774,881
MASS SPECTROMETER
William C. Wiley, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application January 25, 1954, Serial No. 405,767
11 Claims. (Cl. 250—41.9)



1. A mass spectrometer, including, means for providing a first region, means for providing a second region past the first region, means for providing a plurality of ions in the first region, means for initially applying a force of substantially zero magnitude in the first region to retain the ions in the region and for applying a force of considerable magnitude in the second region, means for adjusting the forces applied in the first and second regions to provide in the regions forces of uniform strength to accelerate individual ions of each particular mass through the regions at a substantially uniform rate, means disposed past the second region at a position of optimum focus for detecting the ions, and means for indicating the relative times at which the ions are detected.

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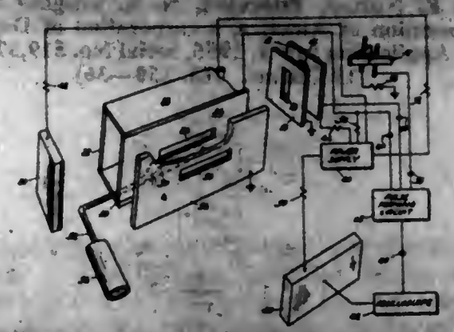
2,774,882
MASS SPECTROMETER
William H. Wells, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application June 15, 1953, Serial No. 361,699
9 Claims. (Cl. 250—41.9)



1. A mass spectrometer, including, means for providing pulses of ions, means for imposing a substantially constant momentum on the ions in a first direction, a pair of plates positioned in substantially parallel relationship to each other, means for imposing a voltage difference on the plates so as to produce an electric field for separating the ions in the transverse direction on the basis of their mass, and means for determining the relative disposition of the ions of different mass in the transverse direction after their travel through a relatively great distance in a direction substantially parallel to the plates so as to provide an indication of the different ion masses.

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2,774,883
MASS SPECTROMETER
William C. Wiley, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application December 17, 1953, Serial No. 398,718
6 Claims. (Cl. 250—41.9)



1. A mass spectrometer, including, a backing plate, a first electrode disposed at a particular distance from the backing plate, a second electrode disposed at a particular distance from the first electrode, means for biasing the backing plate and the first electrode with voltages having substantially equal and relatively large magnitudes to produce a substantially field-free region between the plate and the electrode and to produce a field of considerable intensity between the first and second electrodes, means for providing a plurality of ions for retention in the field-free region between the backing plate and the first electrode, means for adjusting the bias on only the first electrode to provide a field of moderate intensity between the backing plate and the first electrode and to maintain a field of considerable intensity between the first and second electrodes for producing a movement of the ions pass the electrodes and a separation of the ions on the basis of their mass, a detector disposed at a particular distance from the second electrode, and means for indicating the relative times at which the ions of different mass are detected.

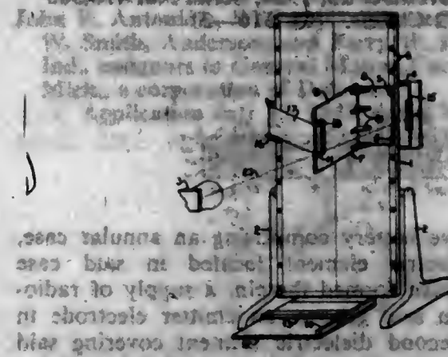
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2,774,884
APPARATUS FOR LATERALLY X-RAYING THE SPINAL COLUMN
Ernest A. Fee, Battle Creek, Mich.
Application June 22, 1953, Serial No. 363,261
8 Claims. (Cl. 250—69)

1. In an apparatus for taking lateral X-ray pictures of a patient or the like through the use of an X-ray emitter and a cassette carrying and supporting apparatus, the combination therewith of a support assembly, means for mounting said support assembly on said cassette carrying and supporting apparatus at the side of same facing said X-ray emitter, said support assembly having as part of same a back rest panel extending edgewise in the general direction toward said X-ray emitter, and in a plane substantially perpendicular to said cassette carrying and supporting apparatus, and means extendable between the outer edge of the edgewise extending portion of said back rest panel and the outer edge portion of said cassette carrying and supporting apparatus which



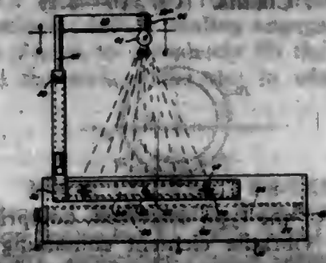
is faced by said back rest panel, said extendable means being of flexible X-ray pervious material with a disengageable fastening means attachable to the outer edge of said back rest panel and a take-up means on the outer edge of said cassette carrying and supporting apparatus for tightening said flexible X-ray pervious material against a patient to be X-rayed, whereby a patient with his back



up against the back rest panel and sidewise to said cassette carrying and supporting apparatus and held immobilized in that position with the aid of said means extending between said cassette carrying and supporting apparatus and the outer edge portion of said back rest panel will be in position to have satisfactory routine lateral X-ray pictures taken.

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2,774,885
X-RAY APPARATUS
Howard J. Brown, Beloit, Kans.
Application January 22, 1954, Serial No. 405,635
1 Claim. (Cl. 250—62)



In an X-ray apparatus, a frame, a grid disposed in said frame, a supporting plate carried by said frame, spring hangers connecting said plate and said grid, means for imparting reciprocating movement to said grid in said frame, means for tilting said grid relative to the plane of said frame, said means including a pivotal mounting for said plate, slots in said plate in opposite sides of said mounting, bolts fixed to said frame entirely through said slots, means releasably securing said bolts in a selected position in said slot, said last-mentioned means comprising wing nuts, and adjustable supporting means carried by said plate for supporting a tube mounting, said means being movable in a direction perpendicular to said frame.

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2,774,886
METHOD OF DETECTING SURFACE DISCONTINUITIES
Tabor de Forest, Northbrook, and Donald W. Parker, Jr., Chicago, Ill., assignors, by mesne assignments, to Switzer Brothers, Inc., Cleveland, Ohio, a corporation of Ohio
No Drawing. Application November 19, 1952, Serial No. 321,496
6 Claims. (Cl. 250—71)

1. The method of testing articles for surface discontinuities, which comprises applying to the surface of an article to be tested a noncorrosive miscible liquid penetrant containing coloring matter which is susceptible to fading upon exposure to high intensity short-wave ultraviolet light, forming a continuous layer of said penetrant over said surface, removing from said surface all but a residual adherent film of said colored penetrant, destroying the background color in said film by exposing said film to high intensity short wave ultra-violet light, terminating said exposure short of the time required to destroy the color of any penetrant lodged in a surface discontinuity, and finally inspecting said surface under a source of fluorescigenous irradiation of lesser intensity and of longer wave length that renders contrastingly visible the presence of any colored penetrant in a surface discontinuity.

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2,774,887
RADIATION SENSING DEVICE
Robert C. McMaster, Columbus, and Michael D. Phillips, Obetz, Ohio, assignors, by mesne assignments, to The Haloid Company, Rochester, N. Y., a corporation of New York
Application August 13, 1952, Serial No. 304,162
2 Claims. (Cl. 250—83.3)



1. An X-ray detector, comprising a voltage source, an electric circuit operatively connected to said source, said circuit including a selenium element in vitreous form in electrical series with said source, and means for detecting changes in the electrical resistance of said element, said vitreous form selenium being characterized by the property of varying in electrical resistance in response to irradiation by electromagnetic energy with preferential sensitivity to the X-ray region of the spectrum of said energy over the visible region thereof.

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2,774,888
ELECTRONIC SWITCH
Robert B. Trousdale, Webster, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware
Application August 23, 1955, Serial No. 530,089
6 Claims. (Cl. 307—88.5)



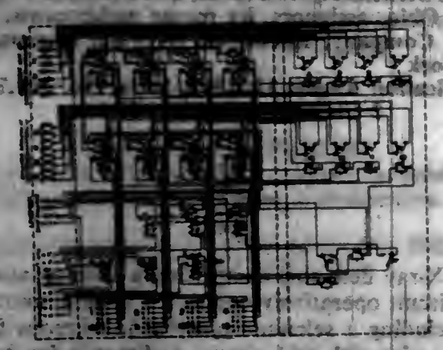
1. An electronic switch comprising a semi-conductive device having first and second emitter-collector junctions, and a control electrode, an input circuit connected to said first junction, an output circuit connected to said second junction, a control circuit connected to said control electrode, means associated with said control circuit for enabling said device to pass electrical signals with the instantaneous value of said signals determining which of said first and second junctions functions as an emitter junction and which of said first and second junctions functions as a collector junction, and means for maintaining the value of current in said control circuit substantially constant regardless of the instantaneous value of the signal passed by the switch.

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2,774,889
CONTROL CIRCUIT FOR A SERIES OF ELECTRICAL UNITS
Fred J. Bucher, Library, Pa.
Application June 22, 1954, Serial No. 438,571
21 Claims. (Cl. 307—112)

20. A circuit connection for controlling a series of electrical units which operate in associated relation comprising a control relay for each electrical unit having elec-

trical unit control contacts and electrical unit interlocking contacts, one current supply line connected with one side of each control relay interlocking contact, an interlocking terminal board having two sets of interlocking terminal posts, one of a first set of interlocking terminal posts connected to the other side of each interlocking contact, one of a second set of interlocking terminal posts connected to one side of each control relay operating coil, independent connections for the other side of each control relay operating coil to the other current supply line, independent connections between selected of said interlocking terminal posts of each set to energize the op-



erating coils of the control relays in a predetermined sequence, circuit breaker means having its energizing current connected across said current supply lines and having contact means to interrupt the supply of current to said control relays, a trip relay having one side of its operating coil connected to one current supply line and the other side of its operating coil connected to said other supply line, a back contact of said trip relay interposed in the circuit of the operating coil of said circuit breaker and circuit closing means interposed in the circuit of the operating coil of the trip relay which when actuated will energize the trip relay and de-energize the operating coils of the circuit breaker.

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2,774,890

**NONRECIPROCAL TRANSMITTING DEVICES**

Charles L. Semmelman, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 30, 1952, Serial No. 307,263

18 Claims. (Cl. 307—149)



16. An arrangement for intercoupling first, second and third transmission paths for transmission from the first to the second, from the second to the third, and from the third to the first, while substantially suppressing transmission in the reverse direction, comprising a passive, non-reciprocal coupler with first, second and third external coupling facilities, said coupler being characterized by an internal transmission path from the first external coupling facility to the second, from the second external coupling facility to the third, and from the third external coupling facility to the first, at least two of said internal transmission paths being non-reciprocal, and the first-mentioned first, second and third transmission paths being connected respectively to the first, second and third external coupling facilities.

2,774,891

**MEANS FOR COLLECTING AND UTILIZING ELECTRICAL ENERGY OF NUCLEAR TRANSFORMATIONS**

Edward J. Danielsohn, Glendale, and Harry C. Lieb, Rockville Centre, N. Y., assignors to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts

Application November 23, 1954, Serial No. 470,565

12 Claims. (Cl. 310—3)



1. A radioactive battery comprising an annular case, an annular dielectric element located in said case and having a groove formed therein, a supply of radioactive material in said groove, an emitter electrode in said groove, a second dielectric element covering said groove and electrode and bonded to said first mentioned dielectric element to thereby seal said radioactive material and electrode therebetween, and a cover closing said case, said case and cover forming a collector electrode to absorb charged particles emitted by said radioactive material.

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2,774,892

**ANNULAR VIBRATOR WITH LUMPED LOADING**

Leon W. Camp, Glendale, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware

Application May 29, 1951, Serial No. 228,956

7 Claims. (Cl. 310—8.1)



1. A device of the type described, comprising: an annular, radially vibratile element containing electro-mechanically responsive material, and means for electrically coupling said element to an electric circuit; said element consisting of an even number of arcuate regions, alternate ones of which have substantially identical mass identically distributed along their arcuate dimensions and the intervening regions of which have substantially identical mass identically distributed along their arcuate dimensions, the mass of said alternate regions being greater than the mass of said intervening regions.

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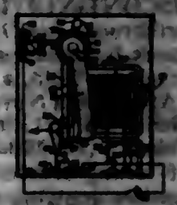
2,774,893

**IMPULSE MOTOR**

Donald A. Lace, Chicago, Ill., assignor to Time-O-Matic Company, Danville, Ill.

Application February 26, 1953, Serial No. 339,031

16 Claims. (Cl. 310—32)



1. In an impulse motor, an electromagnet, movable members comprising an armature for said magnet and a torque arm mounted for relative rotation, said torque arm being mounted in the path of movement of at least a



portion of said armature, and circuit means including one of said members and a pair of contacts, one being stationary and the other attached to one of said members for intermittently energizing said magnet to drive said torque arm.

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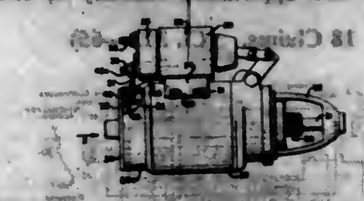
2,774,894

**CONNECTOR FOR AN ELECTRIC MOTOR**

John E. Antonidis, William C. Edmondson, and Clayton W. Smith, Anderson, and Perry W. Hayes, Pendleton, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 13, 1953, Serial No. 367,484

4 Claims. (Cl. 310—71)



1. In an electric motor having a field frame in which a field winding is positioned and a motor control switch mounted on the outside of said frame, means for connecting a terminal of said control switch with the end of said field winding comprising a conductor bar adapted to be positioned in a slot formed in the end of the field frame and movable therein for connection with the field winding, said bar being connected at one end with a terminal of the control switch and at the other end with a lead extending from the field winding and of sufficient length to permit easy connection of the lead with the conductor bar when the latter is movable in said slot, and before it is secured in its final position of assembly therein, and a relatively soft rubber grommet surrounding said conductor bar in sealing engagement therewith and of such size as to completely fill the space between the bar and the wall of the slot in which said bar is received.

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2,774,895

**EDDY CURRENT BRAKE**

Armand Zachermann, Paris, France

Application September 21, 1953, Serial No. 381,205

Claims priority, application France September 23, 1952

25 Claims. (Cl. 310—93)



1. An electrodynamic eddy current brake of the homopolor type comprising, in combination, a stator having two annular sets of circumerentially spaced teeth forming pole pieces, said two sets being spaced concentrically from each other so as to form an annular interval therebetween, a rotor comprising a rotary shaft, a hub provided with arms and secured to said shaft, and a cylindrical hollow body mounted in overhanging relationship on said arms and extending across said annular interval of said stator, said cylindrical hollow body consisting of ferromagnetic material and having a thickness materially greater than the gaps formed between said body and said two annular sets of teeth, a stationary annular winding mounted in said annular interval so as to register with the free end face of said cylindrical hollow body, whereby all the teeth of the same annular set act as poles having the same polarity when said winding is energized, means for simultaneously incrementing the reluctance of said cylindrical hollow body, increasing the heat transfer surface of said body, and circulating air drawn from the surrounding atmosphere across the spaces defined between the poles, and means for withstanding the effects of dilatation on said body.

2,774,896

**ELECTRICAL MACHINE, THE MAGNETIC CIRCUIT OF WHICH COMPRISES ONE OR MORE PERMANENT MAGNETS**

Maximilien Félix Reynst and Robert Henri de Boer, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application December 6, 1952, Serial No. 324,524

Claims priority, application Netherlands December 29, 1951

8 Claims. (Cl. 310—163)



1. Electrical apparatus comprising axially-arranged, axial air-gap spaced rotor and stator members, one of said members, including a flat permanent magnet portion mounted at right angles to the axes of the members and magnetized in its thickness direction and thus parallel to the axes of the members to produce pole surfaces, said permanent magnet portion being constituted of a high coercive force material and being substantially non-demagnetizable, the other of said members comprising a substantially flat member of soft ferromagnetic material mounted at right angles to the axes of said members and adjacent a pole surface of the permanent magnet portion, and a winding on a reduced portion of said soft ferromagnetic member, said soft ferromagnetic member having a portion intermediate said reduced portion and a portion remote therefrom of greater thickness than said reduced and remote portions, said rotor and stator members being rotatable relative to one another about their axes whereby interaction may occur between the field produced by the permanent magnet and the winding on the soft ferromagnetic member.

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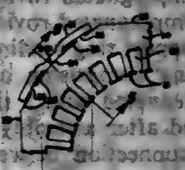
2,774,897

**STATOR AND METHOD OF MAKING SAME**

Milton C. Matthews, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 8, 1953, Serial No. 366,680

3 Claims. (Cl. 310—217)



1. A stator for a dynamoelectric machine comprising a stack of metal laminae having a plurality of pairs of peripheral tabs; said tabs extending outwardly beyond the general periphery of the laminae, said tabs of each pair being arranged in a straight line which are parallel to the axis of the stator; a plurality of metal binding members located adjacent each pair of tabs and retaining the stack in assembled relation; said tabs being mashed by the members by an electrical projecting welding operation which unites said tabs with the binding members whereby the laminae are held in assembled relationship.

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2,774,898

**SLIP RING CONSTRUCTION**

Robert G. Le Tourneau, Longview, Tex.

Application June 15, 1953, Serial No. 361,642

3 Claims. (Cl. 310—232)

1. A slip ring arrangement for dynamo electric machines including a rotor shaft, comprising: a pair of radial face slip rings supported on the shaft, a pair of brush holders spaced from said slip rings, semicircular wearable brushes disposed between said slip rings and

said brush holders, common means operating between the brush holders to urge said brushes into contact with said slip rings, each of said brush holders including a pair of complementary elements, means disposed be-



tween said complementary elements and engageable with said brushes to limit rotative movement of the same, and quickly releasable means for fastening said complementary elements together.

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2,774,899

## DUAL RING SUPPORT FOR END TURNS OF FORM WOUND COILS

Albert B. Zeinler, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application July 29, 1955, Serial No. 525,135

5 Claims. (Cl. 310—260)



1. A member for a dynamoelectric machine comprising a core formed of magnetic material and having coil receiving slots formed therein, form wound coils in said slots having end turns projecting beyond the ends of said slots, and means for supporting said coil end turns comprising a first support ring positioned concentrically around said end turns and a second support ring arranged in substantially the same radial plane as said first support ring between the inner and outer arms of said end turns formed of an impregnated roving, means comprising loops formed of impregnated roving formed integrally with said second support ring binding said end turns to said rings, said roving comprising an initially flexible fibrous material impregnated with a thermosetting resinous composition cured after assembly on said end turns to produce a rigid connection between said end turns and said rings.

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2,774,900

## WEBBING OF ROTOR BAR EXTENSIONS

Jack C. Acton and Albert B. Zeinler, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application July 20, 1955, Serial No. 523,182

2 Claims. (Cl. 310—270)



1. In a dynamoelectric machine having a rotor member including coil receiving slots, bar wound coils having coil sides disposed in said slots and having end turn portions extending beyond the ends thereof, a plurality of connecting clips arranged at the axial extremities of the end turns for electrically connecting selected ends of individual bars together to form a winding, and means for reinforcing and securing the connecting clips in position comprising strips of fibrous roving impregnated with a thermosetting resin crisscrossed between adjacent pairs of connecting clips, said strips of roving being in contact at the points of crisscross and baked after assembly to form a unitary rigid network comprising a plurality of integral triangular braces spacing the connector clips from each other and reinforcing each connector clip against movement.

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2,774,901

## TUBE FOR ELECTRO-MAGNETIC IMAGES

Edward Emanuel Shelton, New York, N. Y.

Original application July 8, 1947, Serial No. 759,531, now Patent No. 2,586,391, dated February 19, 1952. Divided and this application January 8, 1952, Serial No. 265,463

18 Claims. (Cl. 313—65)



1. A vacuum tube comprising in combination means for producing a beam of electrons and an imperforate screen for receiving said beam of electrons, said screen comprising in that order a continuous light reflecting and pervious to electrons layer, fluorescent means, said light reflecting layer having one side exposed and the opposite side facing said fluorescent means, adjacent to said fluorescent means and extending over a major portion of one side of said fluorescent means, said fluorescent means furthermore comprising a plurality of different phosphors emitting luminescent light, one of said phosphors being responsive to electrons and at least one of said phosphors being responsive to luminescent light emitted by said phosphor responsive to electrons, and a light transparent, continuous and electrically conducting layer mounted on the side of said fluorescent means opposite to the side which is adjacent to said light reflecting layer, outside of said fluorescent means and facing said fluorescent means and extending over a major portion of one side of said fluorescent means.

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2,774,902

## ELECTROLUMINESCENT LAMP

Lawrence Burns, Swampscott, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

No Drawing. Application August 18, 1953, Serial No. 375,055

3 Claims. (Cl. 313—108)

1. An electroluminescent lamp comprising two electrodes and a layer therebetween of a copper-activated zinc sulfide electroluminescent phosphor containing from about $10^{-4}$ to about $10^{-3}$ percent by weight of a substance selected from the group consisting of nickel, cobalt and iron, the copper activator being present in amount between 0.0002 and 0.0015 gram atoms per mole of zinc sulfide.

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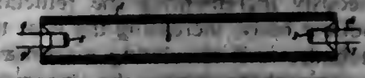
2,774,903

## NON-ACTINIC FLUORESCENT LAMP

Lawrence Burns, Swampscott, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

Application January 17, 1951, Serial No. 206,440

10 Claims. (Cl. 313—109)



1. A fluorescent lamp having an internal fluorescent coating and electric discharge emitting long-wavelength



ultraviolet radiations and visible radiations and an outer envelope of ultraviolet-absorbing light-transmitting glass containing a substance which absorbs long wavelength ultraviolet radiations and selected from the group consisting of: zinc oxide, titanium oxide, cerium oxide, said glass being selected from the group consisting of lead glass and lime glass.

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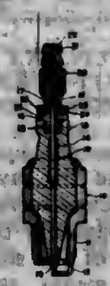
2,774,904

## SPARK PLUG

Frank A. Buchan, Cochrane, Ontario, Canada

Application February 9, 1953, Serial No. 335,753

3 Claims. (Cl. 313—125)



2. A spark plug for internal combustion engines, an insulator, an internally threaded axially bored longitudinally calibrated stud axially terminally secured to the said insulator, a central electrode having one end thereof externally threaded, extending through the said insulator and said stud and movable towards or away from a fixed second electrode, a peripherally calibrated metal cap terminally secured to the said central electrode, a pin slidably mounted radially in the said stud for locking engagement with said central electrode, and a ring encircling the said stud and pin and secured thereto for revolvable movement, the inner surface of the said ring being formed with an eccentric portion for the actuation of the said pin.

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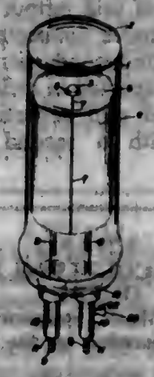
2,774,905

## INDUCTION LAMP

Fridtjof Niels Carl Hansen, Beverly Farms, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

Application July 8, 1955, Serial No. 520,767

10 Claims. (Cl. 313—161)



1. An electric induction lamp comprising a magnetic field concentrator; a refractory induction target in operative relation therewith to be heated by the magnetic field of said concentrator, the field in the immediate region of the concentrator deteriorating the surface thereof in said region during operation of the lamp, said target extending away from said concentrator for a distance greater than that over which appreciable deterioration occurs.

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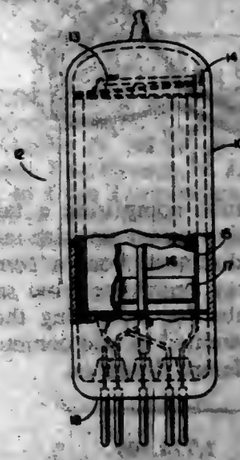
2,774,906

## VOLTAGE REGULATOR

Russell R. Law, Wenham, Mass., assignor to Columbia Broadcasting System, Inc., a corporation of New York, doing business under the name CBS-Hytron, a Division of Columbia Broadcasting System, Inc., Danvers, Mass.

Application October 22, 1954, Serial No. 463,846

7 Claims. (Cl. 313—206)



5. A glow-discharge voltage regulator tube comprising, an envelope containing ionizable gas, an anode disposed centrally of said envelope, a cathode concentric with and surrounding said anode, a substantially conical insert within and connected at its large end to said cathode, said conical insert having an eccentric opening in the small end thereof, said anode passing through said opening.

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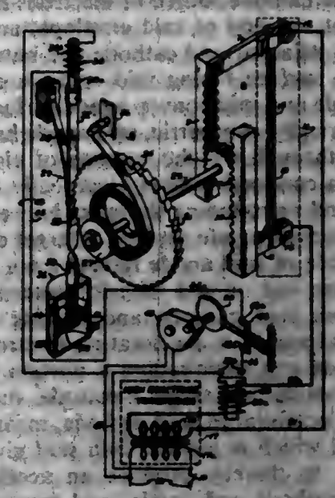
2,774,907

## ARC LAMP AND CONTROL SYSTEM THEREFOR

Harold R. Benson, Maywood, Ill., assignor to nuArc Co., Inc., Chicago, Ill., a corporation of Illinois

Application July 6, 1955, Serial No. 520,287

12 Claims. (Cl. 314—77)



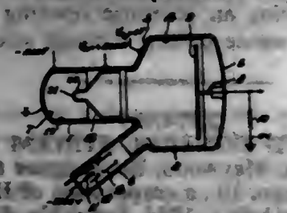
1. In an arc lamp, the combination of a pair of electrodes mounted for relative movement toward and away from each other, biasing means for continually urging said electrodes into contacting engagement, means for producing a predetermined relative separation of said electrodes against the force of said biasing means to draw an arc of a predetermined length, and timing means for cyclically maintaining said last mentioned means effective for the major portion of the cycle but rendering it ineffective for a short instant during each cycle, thereby periodically adjusting the length of said arc to produce a substantially constant light intensity.

2,774,908
**CATHODE-RAY TUBES OF THE FEED-BACK VARIETY**
John T. Wallmark, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 30, 1955, Serial No. 497,946
4 Claims. (Cl. 315—10)



1. A cathode-ray tube comprising a target electrode having electron-sensitive signal-emissive areas arranged thereon at different distances from a common pick-up region for signal energy emanating from said areas; and means within said tube for equalizing the intensity of the signal energy transmitted to said common pick-up region through said different distances.

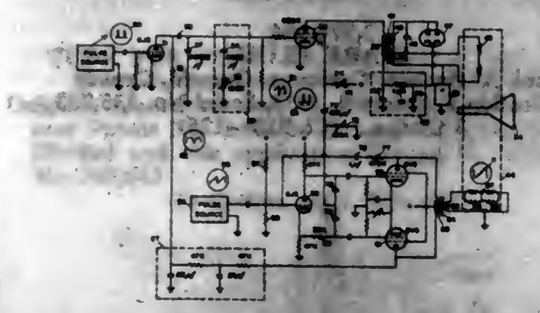
2,774,909
**TELEVISION PICK-UP TUBE COMPRISING ELECTROSTATIC ELECTRON-OPTICAL MEANS**
Jan Carel Francken, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, as trustee
Application July 8, 1952, Serial No. 297,702
Claims priority, application Netherlands August 9, 1951
5 Claims. (Cl. 315—11)



1. A television pick-up tube comprising an envelope, a photo-electric cathode source of electrons having a concave surface at one end of said envelope, an anode electrode disposed adjacent said cathode and having a convex hemi-spherical surface facing said concave cathode, said concave cathode and said convex anode surface being substantially spherically concentric, said anode having a small aperture therethrough for the passage of electrons from said cathode, a conductive layer electrically connected to said cathode and surrounding the space between said cathode and said convex anode surface, a target electrode disposed on the side of said anode remote from said cathode and at the other end of said tube for receiving electrons emanating from said cathode and passing through the aperture in said anode, a decelerating electrode insulated from said anode and surrounding a portion of the space between said anode and target electrode, means for applying a given potential to said cathode, means for applying a potential which is greater than said given potential to said anode to thereby produce an accelerating field between said cathode and anode, and means to apply a potential to said decelerating electrode which is less than the potential applied to said anode to thereby produce a decelerating field between said anode and target.

2,774,910
**CATHODE RAY SWEEP CORRECTION SYSTEM**
Emil Sanford, Clifton, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application January 2, 1952, Serial No. 264,511
12 Claims. (Cl. 315—24)

10. A cathode ray tube electron beam deflecting system for correcting geometrical distortion resulting from the difference in center of curvature of the tube faceplate and of the sweep of the electron beam comprising, in combination, means for producing the first sawtooth deflecting signal, means for producing a second sawtooth deflecting signal, an integrating circuit, means including a connection between the output of said first sawtooth signal producing means and the input of said integrating



circuit for integrating said first sawtooth signal and providing a parabolic correcting-waveform and modulating means for causing said parabolic correcting-waveform to modulate the amplitude of the signal produced by said second sawtooth signal means, said modulating means including a connection between the output of said integrating circuit and the input of said second sawtooth signal producing means.

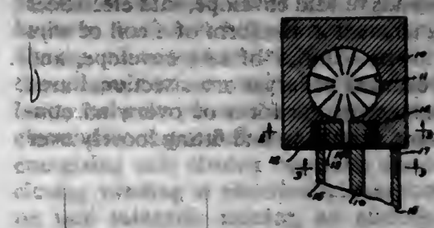
2,774,911
**CIRCUIT ARRANGEMENT FOR THE GENERATION OF SAW-TOOTH SHAPED DEFLECTING CURRENTS**
Rudolf Urtel, Pforzheim, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application February 8, 1954, Serial No. 408,967
5 Claims. (Cl. 315—27)



1. A circuit for the generation of sawtooth currents in the deflecting coils of a cathode-ray tube, comprising an input tube having an anode, grid and cathode, a deflecting coil and storage condenser in series in the anode-cathode circuit of said output tube, a rectifier having an anode and cathodee connected in shunt with said series deflecting coil and condenser, and a transformer having one winding connected in series between the anode of said input tube and said deflecting coil and another winding in series with a second rectifier connected across said condenser.

2,774,912
**H-GUIDE TYPE COUPLING FOR COAXIAL OUTPUT**
Jack Kline, Concord, Mass., assignor to the United States of America as represented by the Secretary of the Air Force
Application September 27, 1955, Serial No. 537,877
1 Claim. (Cl. 315—39)

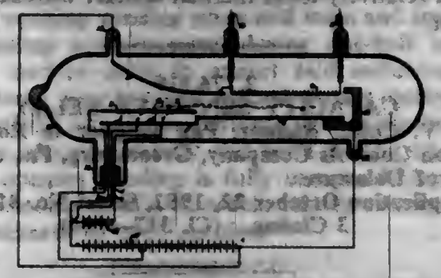
A magnetron having an anode member and a plurality of resonant cavities formed within said anode, an annular recess in the outer surface of said anode, a block member mounted within said recess, said block member having a central slot communicating with one of the resonant cavities within said anode structure, an annular ring member surrounding said block within said recess, said ring member and said slotted block forming an H-type waveguide, a coaxial output cable, means to asymmetrically attach said coaxial cable to said H-type waveguide so as to asymmetrically excite the principal mode of said



cable from said waveguide whereby power is coupled from said resonant cavity to said coaxial cable.



2,774,913
**ELECTRON DISCHARGE TUBE WITH CROSSED ELECTRIC AND MAGNETIC FIELDS**
Daniel Charles, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, Paris, France, a French company
Application May 28, 1952, Serial No. 290,530
Claims priority, application France May 31, 1951
2 Claims. (Cl. 315—39.3)



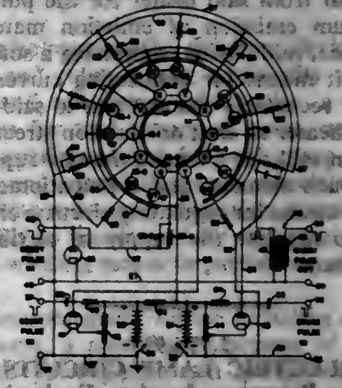
1. An electron discharge tube comprising a first substantially flat electrode extending parallel to the axis of the tube, a substantially flat emissive cathode situated in the same plane as the first flat electrode, means for applying a common potential to the cathode and first electrode, a second electrode comprising a first portion of hyperbolic profile having its convex surface facing the emissive surface of said cathode and a second portion of average rectilinear profile extending from the first portion, a grid separating the space between the first and second electrodes, said grid extending from a zone of the tube adjacent the cathode to a zone of the tube adjacent the junction between the first and second portions of the second electrode, means for applying a positive potential to the second electrode relatively to the first electrode, means for applying to the grid a potential intermediate those applied to the first and second electrodes, and means for producing a magnetic field having lines of force perpendicular to the axis of the tube and to the lines of force of the electric field resulting from the difference of potential between the first and second electrodes.

2,774,914
**MAGNETRONS**
Herbert Standish, Reading, England, assignor to English Electric Valve Company Limited, London, England, a British company
Application February 14, 1952, Serial No. 271,527
Claims priority, application Great Britain February 19, 1951
2 Claims. (Cl. 315—39.67)



1. A magnetron comprising a hollow cavity resonator, means for exciting a standing wave in said cavity resonator, said means comprising a plurality of split anode magnetron systems eccentrically mounted within said cavity resonator, each of said systems including a cathode and two anode segments, said segments consisting of semi-cylindrical members spaced at their opposite lineal edges along diametrical lines through said cavity resonator and means for effecting the withdrawal of useful power from said cavity resonator.

2,774,915
**GASEOUS COUNTING AND STORAGE DEVICE**
Leo Gussman, New York, N. Y., Albert V. Bazarian, Summit, N. J., Marvin N. Silver, New York, N. Y., and John F. Grimm, East Orange, N. J., assignors, by mesne assignments, to Gera Corporation, New York, N. Y., a corporation of New Jersey
Application July 19, 1954, Serial No. 444,198
8 Claims. (Cl. 315—84.6)

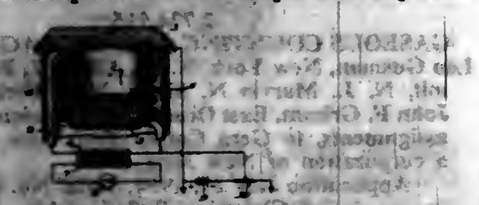


6. A gaseous storage device for storing a count made by a gaseous counting system comprising; an envelope filled with a gas at reduced pressure; a system for counting applied electrical pulses by the movement of a glow discharge positioned within the envelope; a first source of potential external of the envelope for supplying the current for said glow discharge; a plurality of storage cathodes within the envelope, each corresponding to a counting position within the counting system and positioned adjacent to a counting glow discharge; a plurality of storage transfer cathodes positioned between said counting glow discharges and the corresponding storage cathodes; each of said storage cathodes and storage transfer cathodes comprising a hollow cylinder enclosed in a common block of insulating material with an open end of a cylinder mounted adjacent to the surface of the block; a second source of potential external of the envelope for supplying the current for a glow discharge for a storage cathode; conductive means within the envelope which connects all of the storage transfer cathodes to a common lead-in conductor which is connected to an external circuit for receiving an electrical storage pulse; means for establishing a preferential path for transferring the discharge from a counting glow discharge to a storage cathode when an electrical storage pulse is received; and a common anode which is equally spaced from all the storage cathodes to comprise a common terminal for the storage discharges.

2,774,916
**CATHODES FOR ELECTRICAL DISCHARGE DEVICES**
Helmut Katz, Erlangen, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a German corporation
Application June 9, 1952, Serial No. 292,433
Claims priority, application Germany June 9, 1951
5 Claims. (Cl. 315—94)

1. In an indirectly heated dispenser type cathode comprising a receptacle element containing a supply of emis-

sion material and an emissive element connected therewith through which emission material from said supply can migrate in operation to a surface formed thereby, said surface constituting the cathode emitting surface, and having an insulated heater and a current source for heating it so as to transfer heat to both said elements for the purpose of heating them to effect migration of emission material from said supply to said emitting surface; a device for selectively regulating the temperature of one of said elements independent of the temperature imparted



thereto by heat from said heater for the purpose of providing optimum emission of emission material at said emitting surface, said device comprising a source of direct current, circuit means for connecting current from said source to said receptacle element and to said heater so as to cause said heater to emit an electron stream impinging primarily upon said one element, thereby supplying auxiliary heat to such element, and a potentiometer included in said circuit means for regulating electron emission from said heater to regulate the supply of auxiliary heat to said one element.

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2,774,917

## ELECTRIC LAMP CIRCUITS

Charles Rivers Pasmore, London, England, assignor to Thorn Electrical Industries Limited, London, England, a British company

Original application February 23, 1951, Serial No. 212,212, now Patent No. 2,683,241, dated July 6, 1954. Divided and this application July 2, 1954, Serial No. 442,121

4 Claims. (Cl. 315—97)



1. An electric discharge lamp circuit including two or more low-pressure electric discharge lamps of the hot-cathode type having two electrodes, or two or more groups of such lamps, each lamp or group of lamps being connected between the terminals of the secondary winding of an associated matching transformer, the primary windings of the matching transformers being connected in series, means for supplying to the series-connected primary windings a potential difference which is progressively variable by a dimmer control while the lamps are operating, and means for supplying heating current continuously to each of the electrodes of the lamps at least over the lower part of the operating range of brightness of the lamps, the arrangement being such that both said means are supplied from the same source of power, and the circuit including ballast impedance for limiting the lighting current flowing in each lamp.

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2,774,918

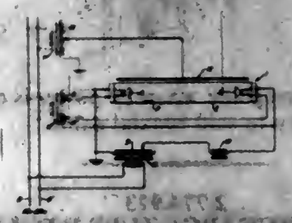
## ELECTRIC DISCHARGE DEVICE

Eugene Lemmers, Cleveland Heights, Ohio, assignor to General Electric Company, a corporation of New York

Application October 6, 1951, Serial No. 250,106

29 Claims. (Cl. 315—96)

1. An electric discharge device of the positive column type, comprising a closed envelope, an inert gas at a pressure of a few millimeters and a small quantity of mercury contained in said envelope, and a pair of filamentary electrodes sealed into the ends of said envelope, said electrodes comprising a heating element in the form of a coil of wire having connections to the exterior of said envelope, and an electron-emitting element of larger cross-sectional area than said heating element in the form of overwind convolutions of wire wound axially on and fitting loosely over



the turns of said coil, and having connections to the ends thereof, said overwind convolutions being coated with activated electron-emitting material, and said overwind convolutions having a diameter many times larger than the diameter of said wires and having a relatively high winding pitch in order to establish said electron-emitting element in relatively loose thermal contact with said heating element.

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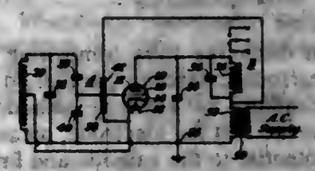
2,774,919

## CAPACITY SENSITIVE RELAY

Ralph V. Coles, Radnor, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application October 22, 1952, Serial No. 316,219

3 Claims. (Cl. 317—146)



1. An impedance sensitive device having a source of alternating voltage, comprising in combination, an oscillator circuit including an electron discharge device having an anode, a cathode and a grid, an oscillatory tank circuit connected between said grid and one side of the source, means for connecting the other side of the source to said anode, means for connecting the electrical center of said tank circuit to said cathode, means including a variable impedance associated with said oscillatory tank circuit for varying the amplitude of oscillation in said device, and a resistance connected to the anode side of the source and to said grid for applying a voltage to said grid in phase with the anode voltage.

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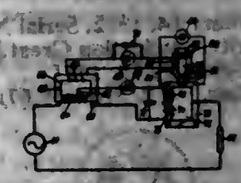
2,774,920

## ELECTROMAGNETIC SWITCH ARRANGEMENT

Fritz Kesselring, Zollikon-Zurich, Switzerland, assignor to FKG Fritz Kesselring Gerätebau, Bachtobel-Wollfeldsen, Switzerland, a Swiss corporation

Application October 4, 1951, Serial No. 249,731

9 Claims. (Cl. 317—156)



1. An electromagnetic switch arrangement for the control of current flow from an alternating current source to a load comprising an electrical circuit closing magnetic system, an electrical circuit opening magnetic system, a switching element, a saturable reactor, and an



electronic device, said circuit closing magnetic system comprising a first and second pole piece electrically insulated from each other and having an air gap therebetween, said switching element electrically bridging said air gap when said switching element is moved to circuit closed position, a main closing winding wound on at least one pole piece of said closing magnetic system and electrically connected to one pole piece for magnetically energizing said closing magnetic system when said main closing winding is electrically energized, a main winding on said saturable reactor, an electrical circuit for connecting said electronic device to said pole pieces, an electrical circuit for connecting the load to the other of said pole pieces, said main winding and said main closing winding being electrically connected in series with said alternating current source and load through said pole pieces and electronic means, said switching element short circuiting said electronic means when moved to bridge said one air gap of said poles of said closing magnetic system, a secondary winding on said saturable reactor, an opening winding on said opening magnetic system for magnetically energizing said opening magnetic system when said opening winding is electrically energized, first means to prevent full energization of said opening winding when said main and auxiliary closing winding are energized during one-half of the alternating current cycle to attract said switching element to closed position and second means during the other half of the alternating current cycle to prevent full energization of said auxiliary and main closing windings when said opening winding is fully energized from said secondary winding of said saturable reactor to move said switching element to open position.

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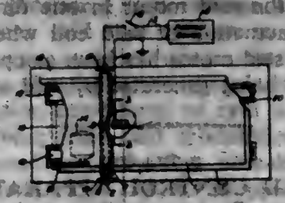
2,774,921

## APPARATUS FOR ELECTROSTATICALLY CHARGING INSULATING IMAGE SURFACES FOR ELECTROPHOTOGRAPHY

Lewis E. Walkup, Columbus, Ohio, assignor, by mesne assignments, to The Haloid Company, Rochester, N. Y., a corporation of New York

Application April 23, 1953, Serial No. 350,578

2 Claims. (Cl. 317—262)



1. Apparatus for charging a xerographic plate having a photoconductive insulating layer, said apparatus comprising support means for said plate, a high resistance pliable continuous layer charging electrode of substantially uniform resistance of at least $10^6$ ohms when measured between probes spaced one centimeter apart on a strip of material one centimeter wide positioned to engage the surface of said layer while the plate is positioned on said support means, a conductive contact spaced from and substantially parallel with said layer and secured in contact with the charging electrode across said layer, means for moving the electrode and plate with respect to each other and in a direction transverse to said electrode to bring the electrode progressively into contact with the working area of said layer, an electrical potential source to apply a potential in the range of about 200 to 2000 volts, and connectors to connect the terminals of the potential source to said conductive contact and to the plate when in position on said support means, respectively, whereby during the application of potential from said potential source charge is deposited and trapped on the surface of said layer by progressively withdrawing said charging electrode from the surface of said layer while the flow of electric charge through said charging electrode is restricted.

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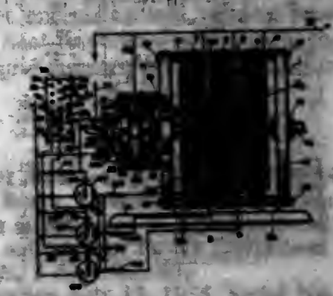
2,774,922

## STEP MOTOR AND CONTROL SYSTEM THEREFOR

Albert G. Thomas, Chattanooga, Tenn.

Application June 20, 1952, Serial No. 295,694

38 Claims. (Cl. 318—162)



1. In an electromagnetic stepping device including stator means and rotor means, a plurality of groups of stator poles and associated rotor poles, a plurality of winding means for said groups of poles, means for energizing said winding means for said group in predetermined order, and electrical means associated with said rotor for limiting movement thereof in direciton opposite to the direction as determined by the order of magnetization of said winding means to partial step displacements of said rotor.

2. In an electromagnetic device including stator means and rotor means, a plurality of groups of stator poles and associated rotor poles, said groups of stator and rotor poles being relatively positionally phased, a plurality of winding means for said groups of poles, means including current control means for supplying current to said group winding means in predetermined order, means for limiting movement of said rotor means in a direction opposite to the direction as determined by the order of energization of said group winding means, and means for reversing effective direction of said rotor movement-limiting means.

38. In a machine tool system, a plurality of movable members, a plurality of three phase step motors for causing movement of said members, a plurality of electronic tubes for supplying current to the phases of said motors, a belt or tape having three rows of spaced characteristics for each said motor, means for sensing said characteristics, means associating said sensing means with said electronic tubes to control said tubes in accordance with said characteristics, means for moving said belt or tape, and biased locking means to permit only one way rotation of the rotors of said motors, and means for reversing the effective direction of braking of said brake means.

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2,774,923

## ELECTRIC CONTROL FOR ALTERNATING-CURRENT MOTOR

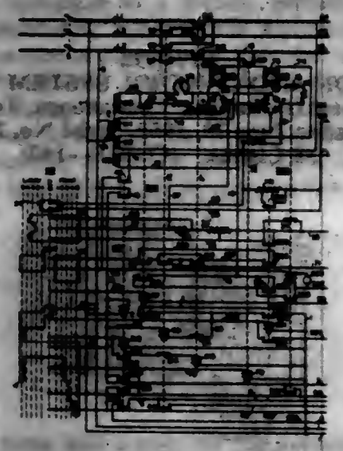
William R. Wickersham, Buffalo, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 21, 1952, Serial No. 277,749

6 Claims. (Cl. 318—282)

1. In a system of control for an induction motor, in combination, an induction motor having a primary winding and a secondary winding, said motor being coupled to a machine having a moment arm of a selected length at the output end of the machine, first means responsive to the force at the end of the moment arm for producing a voltage proportional to such force, second means responsive to the speed of the motor for producing a voltage proportional to motor speed, voltage unbalancing control means for unbalancing the voltage of the energy

supply to the motor to change the torque characteristics of the motor, and means for modifying the operation



of said voltage unbalancing control means by the electrical voltages produced by said first and second means.

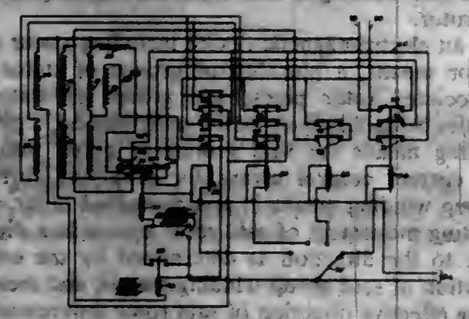
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**2,774,924**

**MULTISPEED SINGLE PHASE MOTOR**

Stanley Wild, St. Louis, Mo., assignor to Century Electric Company, St. Louis, Mo., a corporation of Missouri

Application February 24, 1953, Serial No. 338,487
8 Claims. (Cl. 318—224)



1. A multispeed single phase motor comprising a primary winding arranged to selectively produce a first or a second predetermined number of poles, said primary winding including a tapped section comprising at least two poles selectively connectible in series to form alternate poles of like instantaneous polarity for producing said first predetermined number of poles or in parallel to form adjacent poles of opposite instantaneous polarity for producing said second predetermined number of poles, and an auxiliary winding wound in slots adjacent the slots occupied by said two poles of said tapped section and having polar axes coaxial with the polar axes of said two poles, said auxiliary winding being connected to the tap of said tapped section and energized in series with the windings of said tapped section only when said section is connected to produce said second predetermined number of poles.

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**2,774,925**

**ELECTRIC MOTOR SPEED CONTROL SYSTEM**

Edward J. Wagner, Berwyn, Ill., assignor to Dormeyer Corporation, Chicago, Ill., a corporation of Illinois

Application April 29, 1953, Serial No. 351,940
2 Claims. (Cl. 318—259)

1. In an electrical series wound motor having an armature winding, a field winding, and a set of brushes engaging the commutator, means for varying the speed of said motor including a fixed resistance, a shiftable rigging and two arcuate contacts concentric with the armature, contact members mounted on said rigging and movable therewith for engagement of said arcuate contacts, one of said arcuate contacts being bipartite and being divided by a space less than the width of the contact member, said resistance being connected between one section of said bipartite contact and the other of said



contacts, whereby said resistance is connected in parallel with the armature when one of said contact members bridges said gap.

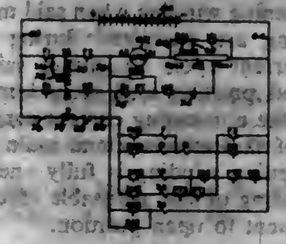
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**2,774,926**

**CONTROL CIRCUITS FOR ELECTRIC TRUCKS**

Wilbert M. Gilman, Wellesley Hills, and Peter F. Gardella, Watertown, Mass., assignors to Lewis-Shepard Company, Watertown, Mass., a corporation of Massachusetts

Application August 29, 1952, Serial No. 307,016
6 Claims. (Cl. 318—284)



1. Controlling circuits for use with a direct current motor in an electric driven truck for causing said motor to run in either direction, said circuits including a reversible series field for said motor, a circuit shunted around said motor armature which includes a coil for actuating contactors for establishing circuits for varying the speed of the motor, said shunt circuit having therein a rectifier for preventing flow of current in said shunt in the direction the reverse of that in which current normally flows during acceleration of the said motor in one direction, thereby to prevent the actuation of said coil when said field is reversed before said motor has been stopped and while a counter EMF is being generated by said armature.

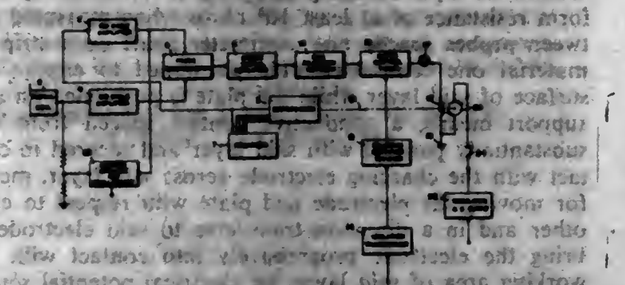
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**2,774,927**

**SPEED CONTROL APPARATUS**

William T. Evans, Beaumont, Tex., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application August 25, 1953, Serial No. 376,369
3 Claims. (Cl. 318—314)



2. Apparatus for controlling the speed of a record driving motor during reproduction of a signal from a record driven thereby comprising means for reproducing a signal from a record driven by a record driving motor means for producing a signal related to the recorded signal as it existed at the time of its recording, means producing an output responsive to dissimilarities between the produced signal and the reproduced signal, and means supplying current to said record driving motor normally driving said motor at approximately operating speed and including a power tube having its grid connected to said output and its cathode connected to the record driving motor for regulating the speed of the motor in response to said output.

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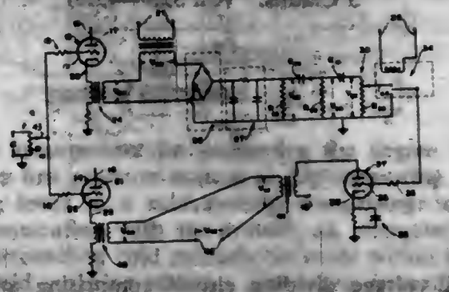


**2,774,928**

**LEAD NETWORK FOR SERVO-MECHANISMS WITH A. C. CARRIER VOLTAGE**

Thomas D. Johnson, Euclid, Ohio, and Martin G. Seteren, Forest, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application August 26, 1952, Serial No. 306,404
2 Claims. (Cl. 318—448)



1. A lead network for a servo system having displacement-error detecting means which is energized at predetermined carrier frequency and which operates to provide an error voltage, said error voltage being suppressed carrier modulated at displacement-error frequency and in accordance with the sense and magnitude of the displacement-error, said lead network comprising first and second cathode follower circuits, means for applying the error voltage to said cathode follower circuits, said cathode follower circuits operating as buffer means and respectively providing first and second voltages corresponding to said error voltage, means providing a reference voltage at said carrier frequency and of preselected magnitude exceeding the magnitudes of said first voltage, means for adding said reference voltage to the first voltage to produce a sum voltage, means for rectifying and filtering said sum voltage to produce a unipolar voltage having an amplitude modulation component corresponding to the displacement error, means for isolating the modulation component of said unipolar voltage, means for deriving from said modulation component a voltage corresponding to the first time-derivative of the displacement-error, a D. C.-A. C. chopper circuit, including buffer means having high input impedance, for converting the first time-derivative voltage to a third voltage having said carrier frequency and suppressed carrier modulated in accordance with said first time-derivative voltage, and means for adding said third voltage to said second voltage to produce a lead-modified error voltage.

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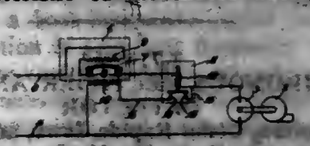
**2,774,929**

**UNDER LOAD PROTECTIVE SYSTEM FOR ELECTRIC MOTOR**

Edward J. Schaefer, Fort Wayne, Ind.

Application May 27, 1953, Serial No. 357,821
15 Claims. (Cl. 318—474)

1. In a pumping system of the type wherein the pump load decreases when the supply of working fluid for the pump is exhausted, the combination of an electric motor, a pump having a driving connection with the motor, a line for connecting the motor to a source of electrical energy, and a protective circuit for protecting the motor and pump against lack of working fluid comprising heat-responsive means interposed in the line for interrupting the supply of electrical energy to the motor, electric heating means disposed in operative relation adjacent said heat-responsive means, and relay means connected in circuit with the motor and responsive to an electrical characteristic of the motor during underload



operation for energizing said heating means whereby to actuate said heat-responsive means for stopping the motor when the liquid supply of working fluid for the pump is exhausted.

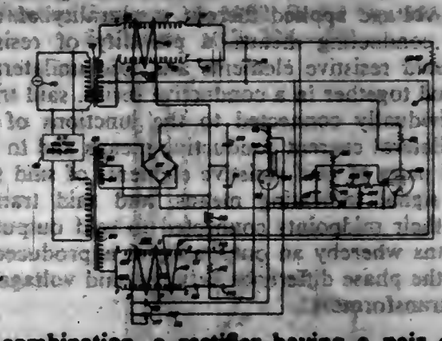
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**2,774,930**

**REGULATED RECTIFYING APPARATUS**

William H. Bixby, Detroit, Mich., assignor to Donald R. Middleton and Stanley M. Hanley, doing business under the name and style of Power Equipment Company, Detroit, Mich., a copartnership

Application July 18, 1955, Serial No. 522,634
13 Claims. (Cl. 321—18)



7. In combination, a rectifier having a pair of input terminals and a pair of output terminals, means having resistance for supplying current from an alternating-current supply source to said rectifier input terminals, a constant voltage device, a current path comprising said constant voltage device connected to said rectifier output terminals, means comprising said constant voltage device for setting up a reference voltage which is substantially constant over an operating range of current including a predetermined minimum current supplied to said constant voltage device, a shunt current path connected across said rectifier input terminals, and means for reducing the impedance of said shunt current path to cause the current supplied to said constant voltage device to be reduced below said predetermined minimum current, thereby reducing said reference voltage below said substantially constant voltage.

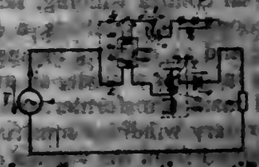
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**2,774,931**

**ALTERNATING CURRENT SWITCHING DEVICE**

Fritz Kesselring, Zollikon-Zurich, Switzerland, assignor to FKG Fritz Kesselring Gerätebau A. G., Bachtobel-Weinfelden, Thurgau, Switzerland, a corporation of Switzerland

Application March 18, 1953, Serial No. 343,078
Claims priority, application Switzerland March 22, 1952
11 Claims. (Cl. 321—27)

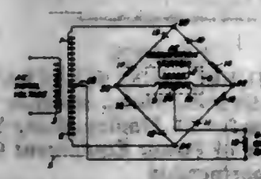


1. In a parallel path magnetic rectifier comprising a first and a current path; a diode in said current path; a compensating means; said compensating means magnetically coupling said first path to said current path; electrical biasing means for said first path; said compensating means neutralizing the effect of said biasing means at a predetermined time within the conducting

cycle of said rectifier; said compensating means being a transformer; said electrically biasing means being a D. C. source.

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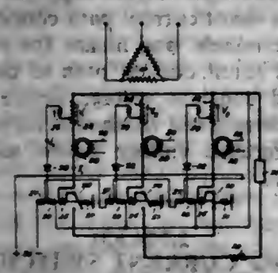
2,774,932
SYNCHRONOUS RECTIFIER AND PHASE DETECTOR
Henry W. Patton, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 8, 1954, Serial No. 473,994
4 Claims. (Cl. 321—47)



1. A phase detector and synchronous rectifier comprising a plurality of transformers each having an alternating current voltage applied thereto, a plurality of unilateral current conducting means, a plurality of resistive elements, said resistive elements and said unilateral means connected together in a conductive series, said transformers individually connected to the junctions of pairs of said unilateral current conducting means and to the junctions of pairs of said resistive elements of said series, an output signal indicating means, and said transformers having their midpoints connected to said output indicating means whereby an output signal is produced responsive to the phase difference between said voltages applied to said transformers.

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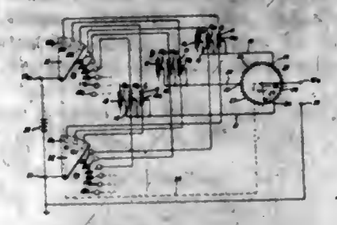
2,774,933
BY-PASS CIRCUIT FOR ELECTROMAGNETIC RECTIFIERS
Fritz Kesselring, Zollikon Zurich, and Ernst Egli, Aarau, Switzerland, assignors to FKG Fritz Kesselring Gerätebau, A. G., Bachtobel-Weinfelden, Switzerland, a corporation of Switzerland
Application January 13, 1955, Serial No. 481,678
8 Claims. (Cl. 321—48)



1. An electromagnetic rectifier supplying a D. C. load from a three phase A. C. source comprising a main transformer, commutating reactors, electromagnetic switches and by-pass circuits; said main transformer having a three phase primary winding and a three phase secondary winding; said commutating reactors having a main winding and a flux reversal control winding; said electromagnetic switch having cooperating contacts, a closing winding, a holding winding and an opening means; said by-pass circuits comprising in series a diode, an auxiliary secondary winding of said main transformer and said closing coil; each of said auxiliary windings constructed to have their voltage phase shifted from the voltage of the corresponding main secondary winding; each phase of said electromagnetic rectifier comprising in series one of said main transformer secondary windings, commutating reactor main windings, holding windings and electromagnetic switch cooperating contacts; each phase of said three phase transformer winding connected to deliver power to said D. C. load when said electromagnetic switch cooperating contacts are engaged; each main secondary winding of said main transformer connected in parallel with a by-pass circuit; said auxiliary secondary winding voltage and the impedance of said by-pass circuit constructed to energize said closing coil sufficiently to close said cooperating contacts when the voltage across said cooperating contacts is zero, said auxiliary winding voltage to maintain current in said by-pass circuit until the voltage of said auxiliary secondary winding reverses.

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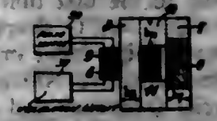
2,774,934
VOLTAGE DIVIDER WITH ADJUSTABLE OUTPUT CHARACTERISTIC
Louis G. Gitzendanner, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application June 5, 1953, Serial No. 359,796
3 Claims. (Cl. 323—43.5)



1. A voltage dividing circuit comprising a plurality of impedance elements each having an adjustable tap, an endless circular potentiometer having three spaced fixed taps and a movable output tap, switching means for consecutively connecting each fixed tap to the adjustable taps of different impedance elements, and a mechanical connection between said switching means and said movable output tap for correlating their movement and maintaining said output tap throughout its movement always in contact with a portion of said potentiometer between the fixed taps not being switched.

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2,774,935
INDUCTANCE ASSEMBLY SUCH AS A TRANSFORMER FOR THE TRANSMISSION OF PULSES
Adriaan Rademakers and Hugo Georg Bruyning, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application May 29, 1953, Serial No. 358,312
Claims priority, application Netherlands June 3, 1952
4 Claims. (Cl. 323—56)

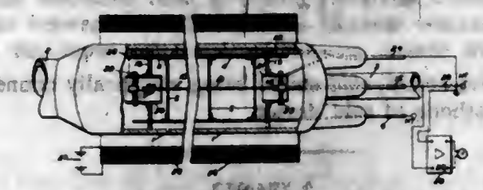


1. An inductive system comprising a highly permeable ferromagnetic core, said core having an air-gap therein bounded by core surfaces having given cross-sectional dimensions and a given length dimension, a permanent magnet disposed in said air-gap and defining with said core a closed magnetic circuit, said permanent magnet being magnetized in the direction of length of the air-gap and having cross-sectional dimensions parallel to said core surfaces which are smaller than the dimensions of said surfaces thereby producing a shunting air-gap, said magnet consisting of an electrically non-conductive permanent magnetic material having a ratio of remanence to coercive field strength of less than 4, primary and secondary windings on said core, and means for applying an alternating current varying between two extremes to said primary winding, said magnet having a field intensity at which said core is substantially saturated in one direction at one extreme of said alternating current, said other extreme of said alternating current having a polarity at which a field is produced in said core opposing the field of the permanent magnet and having a magnitude at which said core is saturated in the opposite direction to said one direction, said shunting air-gap cooperating to prevent said opposing field from substantially demagnetizing said magnet.



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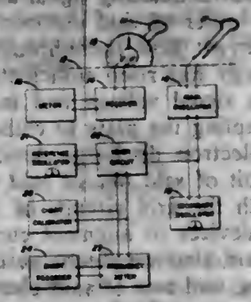
2,774,936
IONISATION MANOMETERS
Arnold Hugh William Beck and Alan Douglas Brisbane, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application July 27, 1953, Serial No. 370,550
Claims priority, application Great Britain July 29, 1952
4 Claims. (Cl. 324—33)



2. An arrangement for estimating the degree of vacuum in a low pressure system or for measuring and/or detecting leaks in a said system, comprising: a vessel in communication with the system; an elongated anode and a surrounding cold cathode electrode within the said vessel; field emission surfaces protruding inwardly from the cathode electrode intermediate the ends thereof; means, including the provision of a magnetic field axially of the anode and cathode electrodes, for causing electrons emitted from the said surfaces to follow helicoidal paths about the said axis; and means for measuring changes of current flowing between the said anode and cathode electrodes, the measuring means comprising means for amplifying the voltage or voltage change across a load resistor, the said anodes being mounted by insulating means between a pair of guard electrodes and the guard electrodes being positioned by further insulating means locating the anode in respect to the cathode, the said guard electrodes being connected to one end of the said load resistor so as to by-pass leakage currents between anode and cathode.

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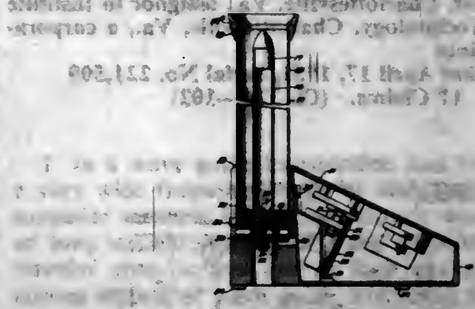
2,774,937
METHOD OF MEASURING Q
Mitchell H. Dunn, Palos Verdes Estates, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application June 3, 1953, Serial No. 359,269
2 Claims. (Cl. 324—58)



2. A method of measuring the Q of a resonant cavity or circuit comprising the steps of measuring the excitation level in the cavity or circuit, energizing the circuit or cavity with a first signal and varying the frequency thereof to the maximum excitation level as indicated by the measuring step whereby said frequency is the resonant frequency, combining a second variable frequency signal with said first signal to produce an energizing signal having a frequency equal to the sum frequency of the first and second signals and varying the frequency of said second signal between the .707 maximum excitation levels as indicated by the measuring step, mixing with said second signal a reference signal having a constant frequency substantially equal to that of said second signal to produce a beat frequency signal, measuring the frequency variation in said beat frequency signal as the bandwidth of the cavity or circuit whereby Q is calculable from the measured resonant frequency divided by the measured bandwidth, and repeatedly varying the frequency of said second signal between the .707 maximum excitation levels to provide a plurality of measurable frequency changes whereby identity between the frequency variations establish the absence of non-linear frequency drift in the signals so that the bandwidth is properly indicated by the measurement of the beat frequency signal frequency variation.

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2,774,938
ELECTRONIC MOISTURE METER
Julius A. Edinburgh, Houston, Tex., assignor to University of Wichita Foundation for Industrial Research, Wichita, Kans., a Kansas foundation
Application January 15, 1952, Serial No. 266,580
5 Claims. (Cl. 324—61)



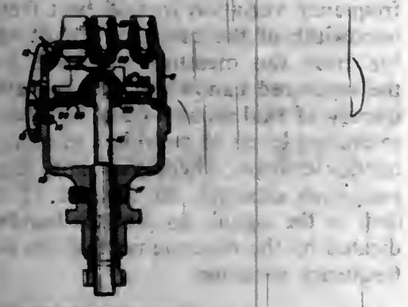
5. In apparatus of the character described, a condenser adapted to be in circuit with electric means for determining the dielectric capacity thereof, comprising an elongated inner cylindrical shell open at both ends and having a length substantially greater than its diameter, a cone-shaped plug mounted within the upper end of said inner shell and providing a closure therefor, an outer cylindrical shell having a diameter substantially greater than the diameter of said inner shell and a length exceeding the length of said inner shell and having an upper edge terminating in substantial alignment with the upper end of said plug, an insulating funnel carried by the upper end of said outer shell and extending thereabove, and insulating support means providing a bottom closure for said outer shell and providing also a support for said inner shell to hold the same in substantially coaxial relation within said outer shell, said condenser being adapted to receive a quantity of grain to an elevation above the end of said plug and above the upper edge of said outer shell so that a portion of grain being tested is operative to substantially eliminate the end capacitive effects of said condenser whereby the accuracy of the dielectric measurement is increased.

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2,774,939
ELECTRIC TACHOMETER
Warren Walker Hastings, Rochester, N. Y., assignor to Rochester Manufacturing Company, Inc., Rochester, N. Y., a corporation of New York
Application May 18, 1955, Serial No. 509,305
5 Claims. (Cl. 324—70)

1. A tachometer comprising a rotary member, a wire-wound resistor comprising a core and a coil of wire wound about the axis of said core, a shaft mounted in said rotary member and having an eccentric bearing portion offset from its axis, and perpendicular to the axis of said core and on which said core is mounted to pivot about an axis parallel to the axis of said rotary member under centrifu-

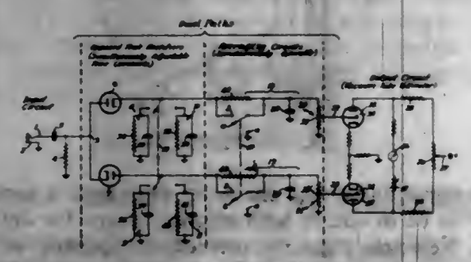
gal force as said rotary member rotates, and an electrically-conducting leaf spring having rolling contact with said resistor as said resistor pivots, and means connecting



said spring and one end of said coil electrically in circuit to actuate an indicator, said shaft being rotatably adjustable to calibrate the tachometer.

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2,774,940
## AUTOMATIC EVALUATOR
Edwin J. Berset, Charlottesville, Va., assignor to Institute of Textile Technology, Charlottesville, Va., a corporation of Virginia
Application April 17, 1951, Serial No. 221,569
11 Claims. (Cl. 324—102)

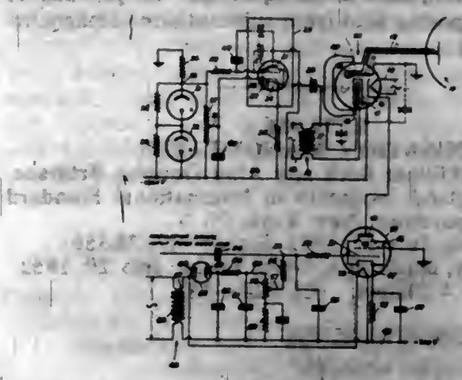


7. A system for automatically and continuously evaluating uniformity of an electrical potential having random variations of amplitude and frequency of occurrence and therefore of constantly changing mean, which includes a plurality of rectifier means proportioned and arranged to be separately and selectively responsive to the outward and inward peaks of said variations but substantially unresponsive to frequency variations thereof, means for independently averaging the outward and inward peaks of said variations, means for deriving a first averaged potential from said outward peaks only, means for deriving a second, averaged potential from said inward peaks only, said averaged potentials being of opposite sign, means establishing two currents, a plurality of separate means respectively responsive to said first and second potentials for controlling said currents, respectively, and for establishing a potential from each controlled current and means for measuring the difference between said last-named potentials.

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2,774,941
## COMMUNICATION SYSTEMS
David P. Kennedy, Cambridge, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application November 14, 1952, Serial No. 320,553
2 Claims. (Cl. 332—5)

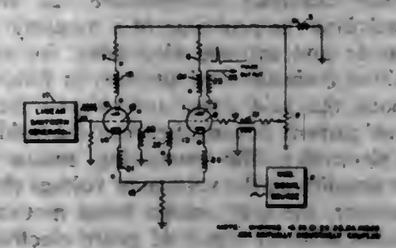
1. An electron discharge system comprising a magnetron, said magnetron having a main cathode, said cathode having a heater substantially insulated therefrom and a power supply for said magnetron, said power supply comprising a degenerative feedback amplifier stage comprising a grid-controlled electron discharge device having a load impedance in the cathode circuit thereof, and the main cathode of said magnetron in the anode circuit of said device, said device being substantially surrounded by a



conductive shield, said shield being electrically connected to the cathode of said device.

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2,774,942
## TIME MODULATORS
Irving F. Barditch, Baltimore, Md., assignor to Aircraft Armaments, Inc., Baltimore, Md., a corporation of Ohio
Application February 2, 1953, Serial No. 334,623
5 Claims. (Cl. 332—9)



1. A time modulator comprising, a pair of electron discharge devices, each including an anode, a cathode and a control grid electrode, a source of direct current potential connecting with each said anode, a modulating signal source connecting with the grid of one of said electron discharge devices for controlling current flow therethrough, the cathodes of said electron discharge devices being connected together for maintaining a common cathode voltage for both said pair of electron discharge devices which is proportional to said modulating signal voltage, a sawtooth wave generator, generating linear sawtooth wave energy at a frequency greater than the frequency of said modulating signal and connecting with the grid of the other of said electron discharge devices for effecting current flow therethrough when said sawtooth wave energy has risen sufficiently with respect to said modulating signal voltage and inductive means regeneratively coupling the plate to cathode circuit of said other of said electron discharge devices with the plate to cathode circuit of said one of said electron discharge devices and with the grid circuits of both of said electron discharge devices to augment current flow through said other of said electron discharge devices and simultaneously driving said one of said electron discharge devices beyond the cut-off when current flow is effected through said other of said electron discharge devices.

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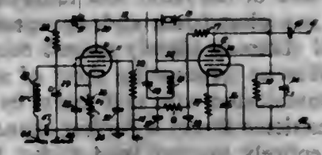
2,774,943
## FREQUENCY MODULATED OSCILLATOR
Robert H. Watson, Sunnyvale, Calif., assignor to Sierra Electronic Corporation, San Carlos, Calif., a corporation of California
Application June 30, 1952, Serial No. 296,365
1 Claim. (Cl. 332—28)

In an electronic oscillation generator, amplifying means





including a vacuum tube having plate, control grid and cathode elements, a reactive circuit having a resonant frequency higher than the frequency range of operation of the generator and including elements of inductance and capacitance, a variable reactance tube forming a part of said circuit and having plate, control grid and cathode elements, said inductive element being connected in shunt with the plate to cathode path of the reactance tube, means serving to supply plate current to said reactance tube, phase shifting means forming a part of said circuit and including a resistor in series with a condenser and coupled across the plate to cathode path of the variable reactance tube, a lead connecting the point of connection between said resistor and condenser to the control grid of the reactance tube, a crystal resonator connected in series between the plate of the variable reactance tube and the input of the amplifier, an output lead from



the amplifier connected to the plate of the variable reactance tube, said crystal resonator together with said reactive circuit forming a network connecting the output of the amplifier to the amplifier input, said reactive circuit having a resonant frequency higher than the frequency range of operation, the component values of reactance and resistance of the crystal resonator together with the component values of the amplifier input impedance being so proportioned with respect to the component reactance elements of said reactive circuit that the voltage developed across the reactive circuit leads the amplifier equivalent generator voltage and whereby the amplifier input voltage is in phase with the equivalent generator voltage, said generator serving to provide a frequency modulated signal output responsive to application of control voltage to the control grid of the variable reactance tube.

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2,774,944
## SPACER DISK ARRANGEMENT FOR COAXIAL CABLES OR THE LIKE
Hermann Lintzel, Berlin-Siemensstadt, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany
Application May 28, 1955, Serial No. 510,004
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
8 Claims. (Cl. 333—96)



1. A spacing disk arrangement for high frequency lines comprising an inner and an outer conductor, a spacing disk for the inner conductor entering into an annular groove formed in at least one of said conductors and being held thereby, the ratio between the inner diameter D of the outer conductor and the outer diameter $d$ of the inner conductor corresponding to

$$\ln D/d = \frac{Z\sqrt{\epsilon}}{60}$$

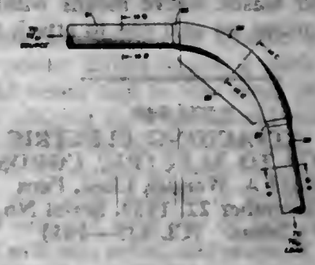
wherein Z is the characteristic impedance of the adjoining line and $\epsilon$ the dielectric constant of the disk material, the diameter ratio $D/d$ being such as to satisfy with respect to the characteristic impedance of the adjoining line the requirement

$$Z = \frac{60 \ln D/d}{\sqrt{\epsilon}}$$

and wherein auxiliary recesses are formed in at least one of the coacting elements comprising the conductors and the spacing disk, to produce in operation in axial direction along the entire spacing disk a characteristic impedance which corresponds substantially to that of the adjoining line.

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2,774,945
## METHODS AND APPARATUS FOR TRANSMITTING CIRCULAR ELECTRIC WAVES IN WAVE GUIDES
Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 10, 1951, Serial No. 255,835
4 Claims. (Cl. 333—98)



1. In a wave guide transmission line for transmitting a very wide frequency range of high frequency electromagnetic waves in the circular electric mode, a plurality of long straight sections of wave guide of substantially circular cross section and at least one relatively short curved section of wave guide interposed between consecutive ones of said straight sections, said curved section having a substantially elliptical cross section to substantially eliminate the tendency of the circular electric mode wave to degenerate into other modes of wave energy.

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2,774,946
## CONTROLLER FOR WAVE GUIDE TUNER, PHASE SHIFTER, OR ATTENUATOR
Claire D. McGillem and Frank E. Hasseld, Jr., Indianapolis, Ind., assignors to the United States of America as represented by the Secretary of the Navy
Application March 12, 1954, Serial No. 415,987
10 Claims. (Cl. 333—98)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a waveguide a means for controlling the microwave energy therein comprising, a pair of circular openings through a wall of the waveguide in longitudinal relation, a pair of circular elements rotatably journaled in said circular openings respectively with the inner face of each flush with the inner surface of said waveguide and being coupled to rotate in unison, and an elongated microwave control element in said waveguide and lying longitudinally thereof, said control element being pivotally associated with said pair of circular elements at separate points whereby rotation of either circular element of said pair will shift said control element laterally in said waveguide.

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2,774,947
## SEALING MEANS ON FIXTURES FOR FLUORESCENT TUBES
Otto Fresenius, Zurich, Switzerland
Application January 24, 1952, Serial No. 268,019
Claims priority, application Switzerland January 25, 1951
1 Claim. (Cl. 339—69)

A seal assembly for use in connection with the fixture of a fluorescent lighting tube comprising a cap having a





a shallow channel with a plane floor, parallel side walls, mitter and controlled by said pressure responsive means

passage-way for insertion of the tube, elastic sleeve means seated within a recess provided in said cap and including a sealing portion deformable in radial direction to said tube to thereby bring about tight contact of said sealing portion with the surface of said tube, spiral-shaped spring means enclosed within said sleeve means and engaging said sealing portion for deforming the latter into said



tight contact, means located within said cap and engaging said elastic sleeve means to retain the latter in said recess of said cap, said retaining means and said spring means being arranged spaced apart from each other and being embraced by said elastic sleeve means within said cap, and engageable means on said cap to attach the latter to a support.

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2,774,948

## MEANS FOR ATTACHING ELECTRIC SOCKET PLUGS TO ELECTRIC CORDS

Clifford A. Wendel, Lima, Peru

Application November 22, 1954, Serial No. 470,264
5 Claims. (Cl. 339—101)



1. Means for attaching an electric socket plug to an electric cord comprising a handle forming sleeve adapted for attachment at one end to said plug and for extension of an electric cord therethrough, said sleeve having a hollow core of bendable material secured therein and adapted to surround said cord, said core being deformable by compression into permanently flattened shape for friction gripping engagement with said cord.

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2,774,949

## INVERTIBLE SOCKETS OR RECEPTACLES

Charles P. Cardoni, South Hamilton, and Joseph Harrington, Jr., Wenham, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application May 20, 1955, Serial No. 509,772
4 Claims. (Cl. 339—128)



4. The combination with a work support having a circular socket-receiving opening defined by walls formed with peripherally spaced slots and a cylindrical tube socket mounted in said opening having peripheral lands extending between its end faces and adapted to register with said slots when presented from either side of the support with either end face in up position, said socket having a plurality of peripheral grooves adapted to receive, respectively, the outer ends of pin-receiving contacts formed with axially spaced latching shoulders, the periphery of the socket being additionally formed with other lands spaced between said end faces and having stop surfaces parallel thereto for abutting either side of said support to fix the position of the socket therein in cooperation with said latching shoulders.

2,774,950

## ELECTRONIC SOCKET

Ervin J. Hobson, Chicago, Ill.

Application April 16, 1954, Serial No. 423,695
1 Claim. (Cl. 339—193)



A contact socket construction characterized by an insulating socket body having a plurality of contact recess formations arranged in a generally circular series, each of said formations including a contact receiving recess extending rearwardly from a forward face of said socket toward a rear face of the latter and terminating short of said rear face in a closed rear end, an opening generally paralleling said recess in closely spaced relation thereto, said opening likewise terminating short of said rear face and being communicated with said recess by an intervening, laterally restricted throat, a further channel-like opening extending entirely through said socket body in generally parallel relation to said recess and first named opening, an axially extending partition between said openings, said partition having a forward end adjacent but in rearwardly retracted relation to said forward socket body face, and a contact in said recess having a conducting lead secured thereto through said restricted throat, said lead extending rearwardly of the socket body through said further opening and being bent around said forward end of said partition, said further opening being internally enlarged therealong to a point just short of its end communication with the rear face of the socket body to provide a removable portion for allowing the introduction of a second lead therethrough.

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2,774,951

## TERMINAL CLIP

Robert J. Kinkaid, Newville, and Kemper M. Hammell, Harrisburg, Pa., assignors to Aircraft-Marine Products, Inc., Harrisburg, Pa.

Application December 16, 1954, Serial No. 475,734
6 Claims. (Cl. 339—258)



1. In an electrical connector, a terminal clip having a substantially planar floor and overhanging spring members extending from opposed sides of said floor, a central contact area of said floor being elevated to raise a contact surface for the clip above the sides thereof, said central area being transversely bowed in a continuous curvature from side-to-side thereof to extend the elastic system of said members from the respective terminal edges thereof to the crown of said bow and to counteract substantially the tendency of said area to bow concavely upon insertion of a mating contact blade in said clip.

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2,774,952

## CONNECTOR MEMBER WITH CURVED FLANGE EXTENSIONS

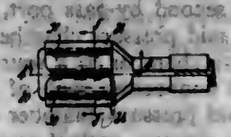
Hugh W. Batcheller, Newton Highlands, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts

Application October 6, 1954, Serial No. 460,631
4 Claims. (Cl. 339—258)

1. A female electrical connector member consisting of a single piece of sheet metal bent into the form of



a shallow channel with a plane floor, parallel side walls at the sides of the floor, a narrow flange projecting inward from each wall parallel to the floor, and a resil-



ient extension on each said flange having its free end disposed above the middle portion of said floor and nearer thereto than are said flanges.

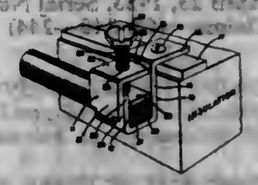
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2,774,953

## SOLDERLESS LUG AND CONNECTOR FOR ELECTRICAL CABLES

Raymond T. Trier, Canton, Ohio, assignor to The Superior Switchboard & Devices Company, Canton, Ohio, a corporation of Ohio

Application March 11, 1954, Serial No. 415,631
2 Claims. (Cl. 339—272)



2. A solderless connector comprising a U-shaped member having a relatively long leg and a relatively short leg, an inverted L-shaped cap having a vertical leg overlying said relatively short leg and a horizontal leg overlying the open end of the U-shaped member, an extension lug upon the rear end of the horizontal leg, an inturned angular lug upon the lower end of the vertical leg, there being apertures complementary to said lugs in the upper portion of the long leg and the lower portion of the short leg respectively to prevent movement of the cap directly upwardly of the open top of the U-shaped member, and a binding screw threaded through the cap for entry into the open end of the U-shaped member, and a clamping plate swiveled upon the end of the screw for clamping inserted wires in the U-shaped member.

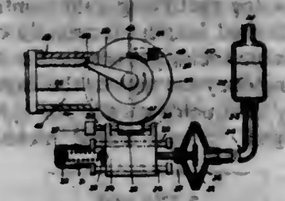
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2,774,954

## ATTITUDE COMPENSATED ECHO SOUNDING DEVICE

Ito Yosuke, Minato-ku, Tokyo, Japan, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application May 22, 1952, Serial No. 289,305
Claims priority, application Japan May 24, 1951
5 Claims. (Cl. 340—3)



1. An echo sounding device adapted for mounting on a vessel or the like comprising a pressure wave transmitter adapted to be completely submerged in a fluid supporting said vessel, means for actuating said transmitter to transmit periodically a signal wave for travel through said fluid and reflection from a surface, means submerged in said fluid for the detection of said reflected signal wave, means for producing a variable pressure related to the extent of displacement movements of said vessel, pressure responsive means, and means associated with said transmitter and controlled by said pressure responsive means for varying the time at which said signal waves are transmitted by such a time period as to compensate for said displacement movements.

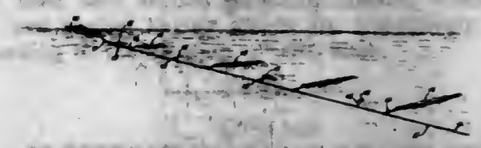
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2,774,955

## APPARATUS FOR SUBMARINE SEISMIC PROSPECTING

Eugene James Toomey, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware

Application October 29, 1952, Serial No. 317,505
4 Claims. (Cl. 340—7)



1. Apparatus for submarine seismic prospecting that comprises a power driven vessel, a cable adapted to be towed by said vessel and to tow other objects, float and cable means adapted to suspend said cable a short distance below the surface of the water as it is towed by the vessel, a series of elongated horizontally surface floating seismometer platforms, a series of connector cables, each connected at one end with one of said platforms and at its other end with said cable, said series of platforms being connected via said series of connector cables at spaced intervals along said cable, said connector cables being of a length to enable said platforms to float on the surface and swing freely in any direction when not being towed so that said platforms can orient themselves in conformity with wind, waves, and other surface disturbances, at least one seismometer carried by each seismometer platform, each said platform and seismometer combination having a specific gravity only slightly less than that of the water in which it is to operate whereby said platform and seismometer combination will ride in the water substantially awash, electrical connections from each seismometer to the towing vessel, and amplifying and recording equipment on the towing vessel for recording the outputs of the seismometers.

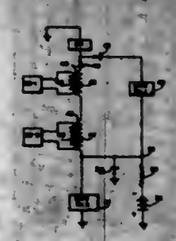
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2,774,956

## MAGNETIC GATING CIRCUIT FOR CONTROLLING A PLURALITY OF LOADS

Theodore H. Bonn, Philadelphia, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application February 28, 1955, Serial No. 490,850
23 Claims. (Cl. 340—174)



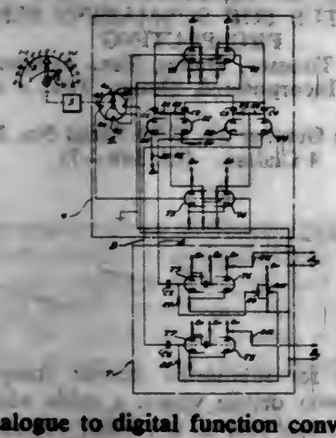
1. In a system of magnetic gating, a source of spaced power pulses, a first load, a second load, means shunted across the first load and in series with both the second load and said source for controlling the flow of current from said source to said loads, the last-named means including at least two magnetic amplifiers each having a control winding and a power winding, said power windings being connected to the source and to said loads to determine flow of current to the latter, and a signal source for each control winding for energizing the control winding during the spaces between power pulses.

2,774,957

## ANALOGUE TO DIGITAL FUNCTION CONVERTER

George H. Towner, San Diego, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application March 5, 1954, Serial No. 414,309
17 Claims. (Cl. 340—205)



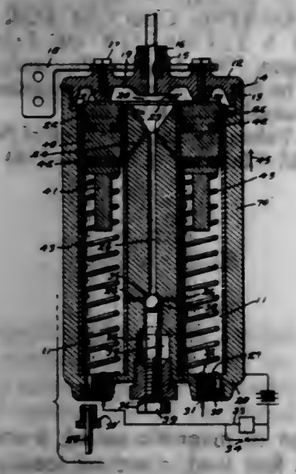
1. An analogue to digital function converter, comprising: an impulse flip-flop circuit having two inputs and two outputs; a gating control flip-flop circuit having two inputs and two outputs; impulse gating means, the outputs of said gating control flip-flop circuit connected thereto for control thereof; differentiating means for producing impulses from the outputs of said impulse flip-flop circuit connecting the impulse flip-flop outputs to the input of said gating means; and means connecting said flip-flop inputs for triggering said impulse and said gating control flip-flop circuits alternately in one sequence for an increasing analogue-represented function and in reversed sequence for a decreasing analogue-represented function, whereby impulses are provided to said gating means and passed therethrough according to the outputs of said gating control flip-flop circuit controlling said gating means.

2,774,958

## SAFETY VALVE AND SIGNAL MEANS FOR HYDRAULIC BRAKES

Eduardo Aldasoro, Mexico City, Mexico, assignor of one-half to Jose Alvarez Cuervo, Mexico City, Mexico

Application March 24, 1954, Serial No. 418,378
3 Claims. (Cl. 340—242)



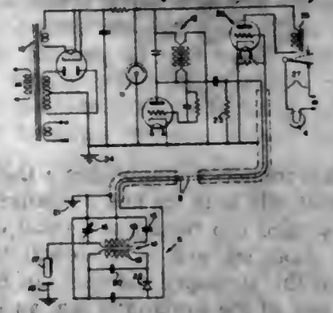
3. A safety valve for hydraulic systems comprising a housing having at least one pair of spaced apart cylinders therein, said housing having a pressure chamber at one end thereof communicating with each of said cylinders, an imperforate free piston mounted for reciprocation in each of said cylinders, said housing having a by-pass port extending from said pressure chamber to said cylinder beyond the piston when said piston is at the pressure chamber end of said cylinder, said housing having a second by-pass port extending from said pressure chamber to each of said cylinders at the end opposite said pressure chamber, a manually controlled valve normally closing said second by-pass port, a spring biasing said piston toward said pressure chamber, a conduit connecting said pressure chamber to a source of fluid under pressure, a conduit connecting each of said cylinders at the end opposite said pressure chamber to a pressure responsive device, an electric contact mounted in the end wall of said cylinder electrically contacting said piston when said piston is in the lower end of said cylinder, an alarm, and an alarm circuit connected to said electric contact whereby said piston will actuate said alarm upon reaching the bottom of said cylinder.

2,774,959

## LEVEL INDICATOR FOR SUPERVISING THE LEVEL OF AGGLOMERATE MATERIALS

Abraham Edelman, New York, and Robert M. Frank, Larchmont, N. Y., assignors to Photobell Company, New York, N. Y., a partnership composed of said Edelman and Johanna E. Edelman

Application April 23, 1953, Serial No. 350,716
8 Claims. (Cl. 340—244)



1. A level indicator for supervising the level of an agglomeration of material having abrasive and impact causing properties, the said indicator comprising two separate units, one of said units including impact sensitive electronic power supply means for generating a high frequency current and impact sensitive signal means and the other unit constituting a level detecting means and including an impact resistant closed casing for suspension in a level supervising position in which it is exposed to direct physical contact with the material to be supervised, capacitance bridge means disposed within said casing for protecting the bridge means from damage by said material, the said bridge means comprising as sensing means a single probe element protruding from the casing electrically insulated therefrom and forming together with its surroundings including said material a component of said bridge means the capacitance of which varies as a function of changes in the spatial relationship of said probe element relative to the material, the said changes in capacitance generating a control signal, and rectifying means for rectifying said control signal; and a cable of any desired length electrically connecting said two units, said cable including conductor means for feeding said high frequency current to the capacitance bridge means and other conductor means for returning the rectified control signal to said signal means.

2,774,960

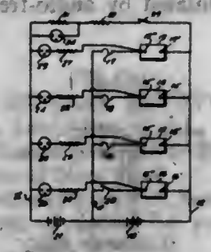
## CURRENT FAILURE INDICATOR

Howard I. Pedoll, Mamaroneck, N. Y.

Application January 6, 1954, Serial No. 402,425
10 Claims. (Cl. 340—250)

1. In an electrical power distribution system having a primary source of power, means for connecting at least one load therewith and current interrupting means in series with said load, an alarm for indicating failure of current in said load comprising an auxiliary power source having one terminal connected to one side of said primary power source, a cold cathode indicator lamp having an ionizing voltage greater than the voltage of said primary power source and greater than the voltage of said auxiliary power source and less than the combined voltage of the auxiliary power source and the primary voltage source, a connection between one terminal of said lamp and the other terminal of said auxiliary source and a connection between the other terminal of said lamp and the junction of said interrupting means and said load whereby opening of said interrupting means will apply a voltage to said lamp approximately equal to the sum of said power sources.



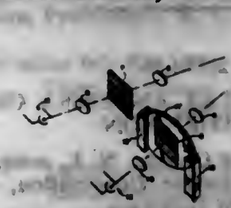


2,774,961

## MOVING OBJECT INDICATOR

Carl Orlando, Long Branch, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application August 30, 1954, Serial No. 453,168
4 Claims. (Cl. 340—258)
(Granted under Title 35, U. S. Code (1952), sec. 266)



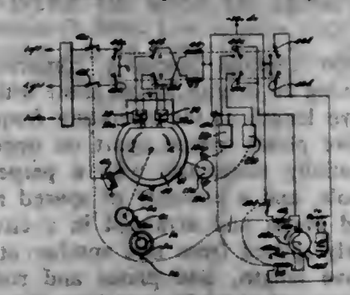
1. A moving object indicator comprising a lens system directable toward an area to be surveyed, a pair of light controlling density wedges each having a linear scale of values said wedges being positioned with their scales at 180° to each other and in position to transmit portions of the light from said lens system, separate photo-electric means for integrating the light transmitted by each wedge, alarm means connected to and controlled by said photo-electric means and nullifying means for canceling the difference in output of said photo-electric means when no change in light energy distribution incident on said wedges takes place whereby when a change in light energy occurs the alarm will be sounded.

2,774,962

## ELECTRICAL KEYER

Stuart Randall Hennies, Palo Alto, and Donald D. Keep, Inglewood, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application December 7, 1953, Serial No. 396,615
11 Claims. (Cl. 340—359)



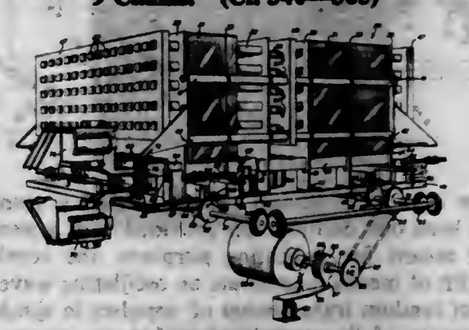
1. An electrical keyer, comprising: a knob having a calibrated dial thereon; fixed pointer, said dial indicating against said pointer; first switching means actuated by rotation of said knob in one direction; second switching means actuated by rotation of said knob in the other direction; first control means responsive to the actuation of said first switching means; second control means responsive to the actuation of said second switching means; first keying means; second keying means; and driving means for actuation of said keying means and resetting said first and second switching means, said driving means for actuating of said keying means and actuate said first keying means and reset said first switching means and said driving means controlled by said second control means to actuate said second keying means and reset said second switching means, whereby said first and second keying means are respectively actuated according to the rotation of said knob.

2,774,963

## ELECTROMECHANICAL TRANSLATOR

John M. Melick, Cranhill, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 6, 1953, Serial No. 340,717
9 Claims. (Cl. 340—365)



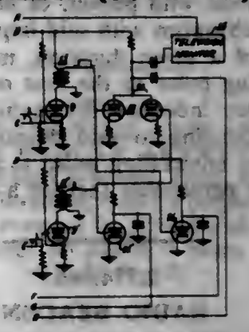
1. A card translator comprising a plurality of perforated metallic cards; a plurality of stationary contact members passing through said metallic cards; means for selecting any one of said metallic cards; and means for moving said selected card to cause said selected card to make electrical contact with an individual combination of some of said plurality of contact members.

2,774,964

## AUTOMATIC RADAR TARGET TRACKING SYSTEM

Richard E. Baker, Indianapolis, Ind., and Frank D. Covely, Collingswood, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application April 28, 1951, Serial No. 223,508
5 Claims. (Cl. 343—7.3)



1. A system for automatically tracking a moving radar target for use with a radar system which records the positional location of radar targets within its service area comprising, means for producing an electrical charge pattern representative of the ranges and azimuths of said radar targets, means coupled to said charge pattern producing means for generating signals for producing in said charge pattern an area of charge which surrounds an image in said charge pattern corresponding to a radar

target to be tracked, and means responsive to movement of said target for controlling said signal generating means to maintain said image positioned within said area of charge.

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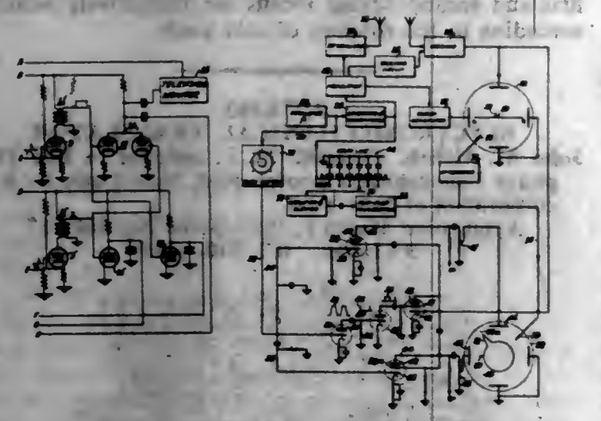
2,774,965

**RADIO DETECTION SYSTEM**

Louis A. De Rosa, Staten Island, N. Y., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application February 6, 1943, Serial No. 474,967

10 Claims. (Cl. 343—13)



1. In a radio detection system having a transmitter, and at least one oscillograph provided with a sweep producing means for indicating purposes, the combination therewith of means to generate an oscillating wave, means to effect random transmission of impulses in synchronism with certain of the periods of said wave, means to synchronize the sweep of said oscillograph with periods of said wave, means to generate in synchronism with said impulses a sweep controlling pulse of duration equal approximately to a period of said wave, and means to apply said sweep controlling pulse to said oscillograph to control the perceptibility of the sweep thereof.

2. In a radio detection system having a transmitter, a receiver and first and second oscillographs for indicating an echo pulse, produced by an obstacle in response to a transmitted impulse, the combination therewith of means to generate an oscillating wave of a given frequency, means to synchronize transmission of impulses with certain of the periods of said wave, means to synchronize the sweep of the first oscillograph with the transmission of said impulses, means to synchronize the sweep of the second oscillograph with periods of said wave, means to generate in synchronism with said impulses a sweep controlling pulse of a given duration, means to apply the sweep controlling pulse to the first oscillograph to produce a reference indicator designating a time interval thereon corresponding to said duration, and means to apply the sweep controlling pulse to the second oscillograph to render perceptible thereon a sweep of the same duration.

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2,774,966

**RADIO BEACON**

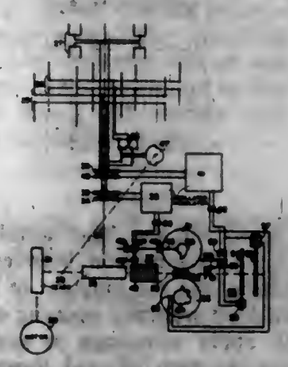
Carl-Erik Granqvist, Lidingo, Sweden, assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application January 5, 1953, Serial No. 329,521

Claims priority, application Sweden February 23, 1952

10 Claims. (Cl. 343—106)

1. A radio beacon comprising: a radiating system having a first radiation pattern of the shape of a sharply concentrated beam and a second radiation pattern of the general shape of a figure eight disposed with its axis normal to the axis of said beam; driving means coupled to said system for simultaneously rotating said patterns; a circuit for supplying a first carrier-frequency wave signal intermittently modulated by audio-frequency bearing in-



formation at predetermined angles of rotation of said first pattern; a circuit for supplying a second carrier-frequency wave signal intermittently modulated by an audio-frequency signal coincident with said intermittent modulation of said first wave signal; and means coupled to said circuits for applying said wave signals to said radiating system.

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2,774,967

**BALANCED DOUBLET ANTENNA OF SMALL DIMENSION**

Frank J. Landberg, East Orange, N. J., assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application November 19, 1949, Serial No. 128,332

5 Claims. (Cl. 343—815)



3. A radio antenna assembly comprising a dipole radiator having an overall length short with respect to a quarter wave length at the operating frequency, a pair of conductive plates spaced apart on opposite sides of and substantially concentric with a perpendicular axis of said dipole, and a plurality of spaced rods interconnecting said plates and arranged in a circular pattern, and regularly spaced from one another at substantially a tenth wave length, said plates and rods forming a resonator cage substantially matching the impedance of said antenna to the radiation space at said operating frequency.

# DESIGNS

## DECEMBER 18, 1956

179,404

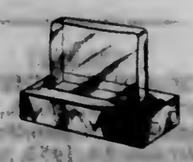
**TELEVISION RECEIVER**

William R. Aiken, Los Altos, Calif., assignor by mesne assignments, to Kaiser Aircraft & Electronics Corporation, a corporation of New York

Application January 21, 1955, Serial No. 34,118

Term of patent 14 years

(Cl. D56—4)



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179,405

**EXPANSIBLE LINK CHAIN FOR A BRACELET OR SIMILAR ARTICLE**

Karl C. Augenstein, Cranston, R. I., assignor to Speidel Corporation, Providence, R. I., a corporation of Rhode Island

Application July 18, 1956, Serial No. 42,286

Term of patent 14 years

(Cl. D45—4)



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179,406

**CHAIR GLIDE**

Philip D. Becker, Hingham, Mass.

Application January 24, 1956, Serial No. 39,889

Term of patent 14 years

(Cl. D10—6)



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179,407

**CANISTER OR SIMILAR ARTICLE**

Charles O. Bliss, Los Angeles, Calif.

Application July 10, 1956, Serial No. 42,192

Term of patent 14 years

(Cl. D44—6)



179,408

**RUBBER FLOOR COVERING OR SIMILAR ARTICLE**

Alan Brown, Higganum, Conn., assignor to The Buxbaum Company, Canton, Ohio, a corporation of Ohio

Application December 21, 1955, Serial No. 39,413

Term of patent 3½ years

(Cl. D92—4)



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179,409

**TOY STRUCTURE**

Bruno Prochera, Oyster Bay, N. Y.

Application March 29, 1956, Serial No. 40,830

Term of patent 14 years

(Cl. D34—15)



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179,410

**COMBINED COASTER AND ASH TRAY OR SIMILAR ARTICLE**

Donald J. Burke, East Cleveland, Ohio, assignor to Erico Products, Inc., Cleveland, Ohio, a corporation of Ohio

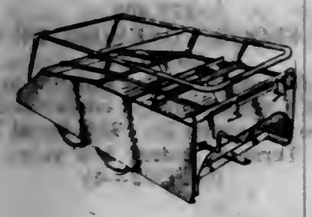
Application November 2, 1955, Serial No. 38,694

Term of patent 7 years

(Cl. D44—10)



179,411
LAWN CULTURE TRAILER
Joseph Coopersmith, New York, N. Y., and Francis W. Ruzicka, Florham Park, N. J., assignors to Liquilawn, Inc., New York, N. Y., a corporation of New York
Application November 28, 1955, Serial No. 39,054
Term of patent 14 years
(Cl. D14—3)



179,412
LINE MEASURING DEVICE
Carlyle A. Crecelius, Cove, Wash.
Application May 27, 1955, Serial No. 36,251
Term of patent 3½ years
(Cl. D52—1)



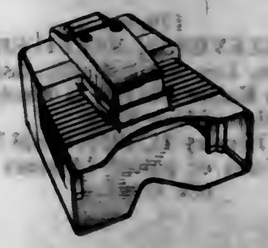
179,413
FLOWER TRELLIS
Carmen D'Amico, St. Louis, Mo.
Application January 3, 1956, Serial No. 39,579
Term of patent 14 years
(Cl. D35—3)



179,414
SEWING MACHINE CABINET
Robert C. Flynt, Sr., Kernersville, N. C.
Application February 1, 1956, Serial No. 40,000
Term of patent 3½ years
(Cl. D33—12)



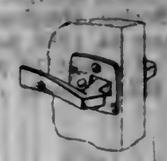
179,415
PHOTOGRAPHIC SLIDE VIEWER
Clarence Lee Folden, Downers Grove, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application May 29, 1956, Serial No. 41,694
Term of patent 14 years
(Cl. D61—1)



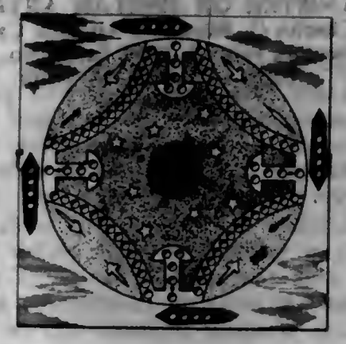
179,416
ROOM AIR CONDITIONER
Clarence F. Graser, Orange, Conn., assignor to General Electric Company, a corporation of New York
Application October 19, 1955, Serial No. 38,451
Term of patent 14 years
(Cl. D62—4)



179,417
PUSH-PULL SCREEN DOOR LATCH
Evelyn H. Greenwood, Buena Park, Calif., assignor to Kwikset Locks, Inc., Anaheim, Calif., a corporation of California
Application January 23, 1956, Serial No. 39,886
Term of patent 14 years
(Cl. D10—8)



179,418
GAME BOARD
Percie W. Hopkins, Altadena, and Glenn B. Woodbury, Pasadena, Calif.
Application April 13, 1956, Serial No. 41,052
Term of patent 7 years
(Cl. D34—5)





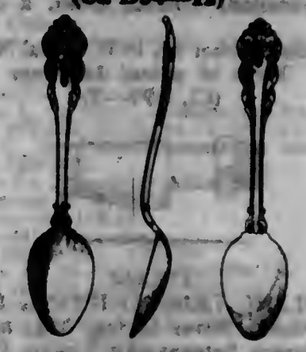
179,419
STAND
Carlton A. Johnson, New Brunswick, N. J.
Application August 23, 1955, Serial No. 37,627
Term of patent 14 years
(Cl. D33—14)



179,420
VERTICAL TAKE-OFF AIRCRAFT OR SIMILAR ARTICLE
Peter G. Kappus, Cincinnati, Ohio, assignor to General Electric Company, a corporation of New York
Application November 17, 1955, Serial No. 38,939
Term of patent 14 years
(Cl. D71—1)



179,421
SPOON OR SIMILAR ARTICLE
Isadore Albert Lipman, Meriden, Conn.
Application May 23, 1956, Serial No. 41,607
Term of patent 14 years
(Cl. D54—12)



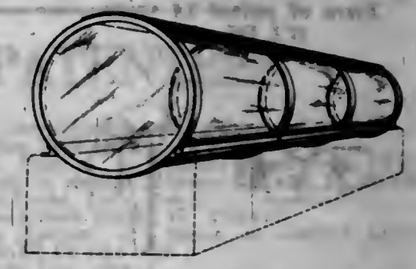
179,422
TROPHY
Arthur J. Lordon, North Attleboro, Mass., assignor to the United States of America as represented by the Secretary of the Navy
Application November 1, 1955, Serial No. 38,682
Term of patent 14 years
(Cl. D29—23)



179,423
CHANUKAH TABLE PLACE MAT
Sara Rae Naiman, Milwaukee, Wis.
Application March 12, 1956, Serial No. 40,565
Term of patent 14 years
(Cl. D92—26)



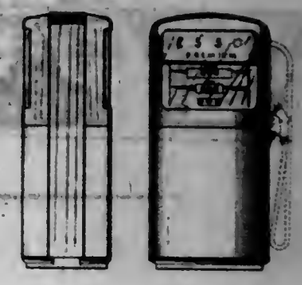

179,424
DISPLAY CASE
Tadeusz S. Olejniczak, Trenton, N. J.
Application August 20, 1954, Serial No. 31,953
Term of patent 14 years
(Cl. D80—11)



179,425
CLOSURE CAP FOR A WRITING INSTRUMENT
Kenneth Parker, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application October 10, 1955, Serial No. 38,313
Term of patent 14 years
(Cl. D74—1)



179,426
GASOLINE DISPENSING PUMP
Edward D. Rapisarda, Agawam, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a corporation of Massachusetts
Application October 4, 1954, Serial No. 32,519
Term of patent 14 years
(Cl. D52—2)



179,427
**BEDFRAME LEG**
Melvin E. Roche, Strongsville, Ohio, assignor to The Harvard Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application December 9, 1954, Serial No. 33,468
Term of patent 14 years
(Cl. D5—2)



179,428
**BEDFRAME SUPPORT LEG**
Melvin E. Roche, Strongsville, and Leslie K. Jackson, Lakewood, Ohio, assignors to The Harvard Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application October 19, 1954, Serial No. 32,716
Term of patent 14 years
(Cl. D5—2)



179,429
**BEDFRAME LEG**
Melvin E. Roche, Strongsville, and Leslie K. Jackson, Lakewood, Ohio, assignors to The Harvard Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application November 12, 1954, Serial No. 33,067
Term of patent 14 years
(Cl. D5—2)



179,430
**WALLET**
Abraham Radensky, Brooklyn, N. Y.
Application January 31, 1956, Serial No. 39,980
Term of patent 7 years
(Cl. D67—3)




179,431
**OUTDOOR STOVE**
Milton H. Sellborn, Northbrook, and Larry S. Henry and George F. Henry, Morton Grove, Ill., assignors to George Henry Company, Morton Grove, Ill., a corporation of Illinois
Application December 7, 1955, Serial No. 39,186
Term of patent 14 years
(Cl. D61—10)



179,432
**INDICATING DIAL**
De Witt T. Van Alen, Delavan, Wis., assignor to The George W. Borg Corporation, Chicago, Ill., a corporation of Delaware
Application July 20, 1955, Serial No. 37,042
Term of patent 14 years
(Cl. D52—1)



179,433
**FAUCET**
William D. Williams, Toledo, Ohio, assignor to Multi-Meter Corporation, Toledo, Ohio, a corporation of Ohio
Application October 14, 1955, Serial No. 38,377
Term of patent 14 years
(Cl. D91—3)



179,434
**OPHTHALMIC LENS CHIPPING CABINET**
Joseph A. Wycoski, Silver Spring, Md., and Thomas T. Matsuura, Setagaya-ku, Tokyo, Japan
Application March 2, 1956, Serial No. 40,442
Term of patent 14 years
(Cl. D67—1)



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Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,541, 12–18–56, Cl. 47—61.

Casadaban, Rene. Camellia plant. 1,539, 12–18–56, Cl. 47—60.

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Becker, Philip D. Chair glide. 179,406, 12–18–56, Cl. D10—6.

Bliss, Charles O. Canister or similar article. 179,407, 12–18–56, Cl. D44—6.

Borg, George W., Corp., The: *See*—
Van Alen, De Witt T. 179,432.

Brown, Alan, to The Buxbaum Co. Rubber floor covering or similar article. 179,408, 12–18–56, Cl. D32—4.

Burke, Donald J., to Erico Products, Inc. Combined coaster and ash tray or similar article. 179,410, 12–18–56, Cl. D44—10.

Buxbaum Co., The: *See*—
Brown, Alan. 179,408.

Coopersmith, Joseph, and F. W. Rusicka, to Liquilawn, Inc. Lawn culture trailer. 179,411, 12–18–56, Cl. D14—3.

Crecelius, Carlyle A. Line measuring device. 179,412, 12–18–56, Cl. D52—1.

D'Amico, Carmen. Flower trellis. 179,413, 12–18–56, Cl. D35—3.

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Foldes, Clarence L., to Sears, Roebuck and Co. Photographic slide viewer. 179,415, 12–18–56, Cl. D61—1.

Flynt, Robert C., Sr. Sewing machine cabinet. 179,414, 12–18–56, Cl. D32—12.

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Graser, Clarence F. 179,416.
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Roche, Melvin E. 179,427.
Roche, Melvin E., and Jackson. 179,428.
Roche, Melvin E., and Jackson. 179,429.

Henry, George, Co.: *See*—
Selborn, Milton H., and L. S. and G. F. Henry. 179,431.

Henry, George F.: *See*—
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Roche, Melvin E., and Jackson. 179,429.

Johnson, Carlton A. Stand. 179,419, 12–18–56, Cl. D32—14.

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Greenwood, Evelyn H. 179,417.

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Wycoski, Joseph A. 179,434.

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Roche, Melvin E., and L. K. Jackson, to The Harvard Mfg. Co. Bedframe leg. 179,429, 12–18–56, Cl. D5—2.

Rudensky, Abraham. Wallet. 179,430, 12–18–56, Cl. D67—3.

Rusicka, Francis W.: *See*—
Coopersmith, Joseph, and Rusicka. 179,411.

Sears, Roebuck and Co.: *See*—
Foldes, Clarence L. 179,415.

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Augenstein, Karl C. 179,405.

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Williams, William D., to Multi-Meter Corp. Faucet. 179,433, 12–18–56, Cl. D91—3.

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A'Beckett, William J. Apparatus for mixing liquids of different temperatures. 2,774,538, 12–18–56, Cl. 236—12.

Abel, Gerhard, and T. Volker, to Rohm & Haas G. m. b. H. Polymerization products of urea and alpha, beta unsaturated acids used as soil conditioner. 2,774,059, 12–18–56, Cl. 71—28.

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Malina, Frank J., and Parsons. 2,774,214.

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Dessler, Henry W., and Klingler. 2,774,269.
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Holm, Sven. 2,774,573.

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Dreyfus, Ludwig. 2,774,503.
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Blackett, Eben G., and Soliday. 2,774,759.
Hardy, William B. 2,774,761.
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Baurman, Aart. 2,774,441.
Griset, Ernest J., Jr. 2,774,237.
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Becker, Anthony F. 2,774,568.

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Moser, Frank T. 2,774,514.

American Machine and Metals, Inc.: *See*—
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Anthony, Elmer C., to Bendix Aviation Corp. Variable resistance instrument. 2,774,853, 12–18–56, Cl. 201—56.

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Hogg, John A., Beal, and Lincoln. 2,774,776.

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Heron, Kenneth M., Baker, and Benson. 2,774,818.

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Mantell, Russell M., and Barnhart. 2,774,799.







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Barrett, Wayne T., and C. B. Welling, to W. R. Grace & Co. Method of preparing low soda-content alumina catalyst. 2,774,744, 12–18–56, Cl. 252—465.

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Burton, Joseph A. 2,774,695.
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MacCallum, Alan M. 2,774,559.
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Bernat, Raoul, deceased, and H. Bernat; said H. Bernat, sole heir of said R. Bernat. Automatic shut-off valves. 2,774,575, 12–18–56, Cl. 137—516.19.

Bernot, Edwin J., to Institute of Textile Technology. Automatic evaluator. 2,774,940, 12–18–56, Cl. 234—102.

Bernhardt, Ernest C., to E. I. du Pont de Nemours and Co. Extraction-extrusion apparatus. 2,774,106, 12–18–56, Cl. 18—12.

Berry, Jack H. Construction of toy locomotive. 2,774,311, 12–18–56, Cl. 105—90.

Bertram, Francis C. to Reif-Bezoil, Inc. Device for forming wire handles. 2,774,391, 12–18–56, Cl. 140—75.

Bertrand, Irvin, ¾ to M. B. Lally and ¼ to J. F. Lally, Jr. Circuit breaker. 2,774,823, 12–18–56, Cl. 200—87.

Bethe, Eugene J., to United States Rubber Co. Method of and apparatus for forming a sheet of latex foam. 2,774,106, 12–18–56, Cl. 18—12.

Bethlehem Steel Co.: *See*—
Anthony, William T. 2,774,642.
Graham, Hugh S., and Eberhardt. 2,774,662.

Biggie, Laurence C., to General Controls Co. Electromagnetically operated controller for valves or the like. 2,774,564, 12–18–56, Cl. 251—30.

Biram, Gail H., to Monsanto Chemical Co. Trithianylium sulfenyl chlorides. 2,774,707, 12–18–56, Cl. 167—33.

Bischof, Dorothy L.: *See*—
Halliburton, Erle P. 2,774,346.

Bixby, William H., to D. R. Middleton and S. M. Hanley, d. b. a. Power Equipment Co. Regulated rectifying apparatus. 2,774,930, 12–18–56, Cl. 321—18.

Bjorksten Research Laboratories, Inc.: *See*—
Koblitz, Francis F. 2,774,697.

Blackett, Eben G., and A. J. Soliday, to American Cyanamid Co. Preparation of choline base and choline salts. 2,774,759, 12–18–56, Cl. 260—251.5.

Blaisdell, George G., and L. Flickinger, to Zippo Mfg. Co. Table lighter. 2,774,234, 12–18–56, Cl. 67—4.1.

Blanchard, Doan C., to Stanley Building Specialties Co. Mechanical operator for awning type windows. 2,774,590, 12–18–56, Cl. 268—23.

Blasek, William J., to Lempco Products, Inc. Latching means for die set retainers. 2,774,490, 12–18–56, Cl. 164—118.

Blight, Frank C., to The Permutit Co. Operation of cation exchange units. 2,774,732, 12–18–56, Cl. 210—24.

Bloch, Monroe P.: *See*—
Harris, Frederic R. 2,774,322.

Block, Aleck. Abrasive polishing device. 2,774,200, 12–18–56, Cl. 51—194.

Boardman, Raymond H., to The Hart Mfg. Co. Electric switch. 2,774,852, 12–18–56, Cl. 200—172.

Bogge, George D.: *See*—
Henry, Thomas W., and Bogge. 2,774,630.

Bolding, Hubert V., and H. G. Gowens, to The Bradley & Gilbert Co. Cell wall carton. 2,774,530, 12–18–56, Cl. 229—24.

Bonn, Theodore H., to Sperry Rand Corp. Magnetic gating circuit for controlling a plurality of loads. 2,774,956, 12–18–56, Cl. 340—174.

Bonner, Joseph. Cutting torch machine having revolving template mounts. 2,774,539, 12–18–56, Cl. 266—23.

Borders, Robert L., Jr., and G. Sitz. Automobile serving tray holder. 2,774,641, 12–18–56, Cl. 311—22.

Borg-Warner Corp.: *See*—
Gemmel, Dewey H. 2,774,266.
Young, Richard E. 2,774,376.

Bostick, Charles R. Pipe and rod bender. 2,774,267, 12–18–56, Cl. 51—15.

Bouchez, Jean H. M. J. Cutting machine. 2,774,191, 12–18–56, Cl. 51—34.

Bourcier de Carbon, Christian M. L. L. Shock absorbers. 2,774,446, 12–18–56, Cl. 188—88.

Bourcier de Carbon, Christian M. L. L. Shock absorber. 2,774,447, 12–18–56, Cl. 188—88.

Bowersox, Marvin W. Evaporative cooler. 2,774,581, 12–18–56, Cl. 261—24.

Bowman, Anna H.: *See*—
Bowman, Samuel G. 2,774,827.

Bowman, Paul F., to Continental Paper Co. Patch end machine. 2,774,204, 12–18–56, Cl. 53—137.

Bowman, Samuel G., ½ to A. H. Bowman, and ½ to J. M. Guthrie. Organ coupler stacks. 2,774,827, 12–18–56, Cl. 200—5.

Boyd, Thomas J., to C. H. Manion, and T. J. Boyd. Metal roof seam forming machine. 2,774,220, 12–18–56, Cl. 113—58.

Bozza, Joseph D., to Jo-An Shoe Mfg. Co., Inc. Method for securing together moccasin vamps and plugs. 2,774,067, 12–18–56, Cl. 12—142.

Bracke, Robert F., to Mall Tool Co. Carburetor. 2,774,582, 12–18–56, Cl. 261—41.

Bradford Dyers' Association Ltd.: *See*—
Cockett, Sydney E., Evans, and Landells. 2,774,690.

Bradley, Dan T.: *See*—
Thiry, Leon F., and Bradley. 2,774,620.

Bradley & Gilbert Co., The: *See*—
Bolding, Hubert V., and Gowens. 2,774,530.

Brady, Philip. Clip. 2,774,124, 12–18–56, Cl. 24—66.

Bray, Frederick H., R. G. Knight, and G. C. Hartley, to International Standard Electric Corp. Electric discharge tube circuits. 2,774,830, 12–18–56, Cl. 179—18.

Bredenberg, Henrik N. Hockey stick. 2,774,596, 12–18–56, Cl. 273—67.

Breese, Myron. Automatic fishhook jerking device. 2,774,166, 12–18–56, Cl. 43—15.

Bretschger, Otto, to Gesellschaft der Ludw. von Roll'schen Eisenwerke AG. Means for feeding a grinding wheel of a peripheral grinding attachment into a workpiece. 2,774,197, 12–18–56, Cl. 51—165.

Bretschneider, Hermann, and W. Kletzer, to Osterreichische Stickstoffwerke Aktiengesellschaft. New triazine compounds and process of making them. 2,774,756, 12–18–56, Cl. 260—239.7.

Brieghel-Müller, Arne V., to Aktieselskabet de Danske Sukkerfabrikker. Method for purifying sugar juices by liming and carbonation. 2,774,693, 12–18–56, Cl. 127—50.

Briggs Mfg. Co.: *See*—
Killington, Albert A. 2,774,700.

Brisbane, Alan D.: *See*—
Beck, Arnold H. W., and Brisbane. 2,774,936.

Broaddus, James E.: *See*—
Andersen, Terry O., and Broaddus. 2,774,577.

Brobell, Carl K., deceased: O. S. Brobell administratrix. Proportioning and dispensing means. 2,774,364, 12–18–56, Cl. 137—3.

Brobell, Olga S.: *See*—
Brobell, Carl K. 2,774,364.

Brostoff, Theodore M. Tubular necktie and mode of making same. 2,774,076, 12–18–56, Cl. 2—146.

Brotheridge, John E.: *See*—
Brown, Le Roy A., and Brotheridge. 2,774,579.

Brouillard, Robert E., and T. D. Mutaffis, to General Aniline & Film Corp. Phthalocyanine lakes. 2,774,677, 12–18–56, Cl. 106—289.

Browall, Bert H., to Svenska Aktiebolaget Bromsregulator. Double-acting type slack adjuster for brakes. 2,774,449, 12–18–56, Cl. 188—196.

Brown, Clayton B., L. N. Hampton, and F. A. Thiel, Jr., to Bell Telephone Laboratories, Inc. Card translator. 2,774,821, 12–18–56, Cl. 179—18.

Brown, Howard J. X-ray apparatus. 2,774,885, 12–18–56, Cl. 250—62.

Brown, Le Roy A., and J. E. Brotheridge, to Prince Castle Mfg. Division, Inc. Multiple drink mixing machine. 2,774,579, 12–18–56, Cl. 259—131.

Brown, Lester H. Automatic floor mop. 2,774,089, 12–18–56, Cl. 15—98.

Browne, Eugene V.: *See*—
Crawford, James E., Browne, Glenn, and Pigford. 2,774,555.

Bruyning, Hugo G.: *See*—
Rademakers, Adriaan, and Bruyning. 2,774,935.

Bryant Chucking Grinder Co.: *See*—
Grobey, Paul A. 2,774,192.

Bryant, Stuart G. Bottle cap remover with magnetic cap retainer. 2,774,264, 12–18–56, Cl. 81—3.1.

Buchan, Frank A. Spark plug. 2,774,904, 12–18–56, Cl. 313—125.

Bucher, Fred J. Control circuit for a series of electrical units. 2,774,889, 12–18–56, Cl. 307—112.

Buck, Charles R., and A. G. Lautzenhiser, to General Motors Corp. Resettable circuit breaker. 2,774,844, 12–18–56, Cl. 200—116.

Buckland, Bruce O., D. G. Sanders, and C. M. Gardiner, to General Electric Co. Process for removing ash-forming impurities from petroleum residual oils. 2,774,722, 12–18–56, Cl. 196—44.

Budde, Charles H. Bridge warning device. 2,774,325, 12–18–56, Cl. 116—114.

Budiani, Dane J. Infant nursing device. 2,774,500, 12–18–56, Cl. 215—11.

Buerger, Herbert. Beverage and snack dispenser for automobiles. 2,774,480, 12–18–56, Cl. 211—86.

Bullock, Mark W., to Continental Electronics Mfg. Co. Electrical equipment cabinets. 2,774,806, 12–18–56, Cl. 174—16.

Burby, Philip B., to United Shoe Machinery Corp. Heel rest mechanisms. 2,774,086, 12–18–56, Cl. 12—12.4.

Burger, Francis J., to Emerson Radio & Phonograph Corp. Automatic gain and band width control for transistor circuits. 2,774,866, 12–18–56, Cl. 250—20.

Buri, Alfred, to Sulzer Freres, Societe Anonyme. Device for reducing pressure increments in a pipeline carrying a fluid under pulsating pressure. 2,774,381, 12–18–56, Cl. 138—31.

Burke, Peter F. C., to International Standard Electric Corp. Electron discharge apparatus. 2,774,809, 12–18–56, Cl. 250—27.

Burkhart, Ernest B. TV antenna guy wire attaching ring. 2,774,809, 12–18–56, Cl. 174—45.

Burns, Laurence, to Sylvania Electric Products Inc. Electroluminescent lamp. 2,774,902, 12–18–56, Cl. 313—108.

Burns, Laurence, to Sylvania Electric Products Inc. Nonactinic fluorescent lamp. 2,774,903, 12–18–56, Cl. 313—109.

Burton, Joseph A., to Bell Telephone Laboratories, Inc. Process of fabricating germanium single crystals. 2,774,695, 12–18–56, Cl. 148—1.5.

Burweger, Lorenz, and P. E. Kreker. Trailer with elevatable bed. 2,774,606, 12–18–56, Cl. 280—44.

Butler, Ernest L., and O. M. Holmes, to United Shoe Machinery Corp. Heel end assembling machines. 2,774,085, 12–18–56, Cl. 12—1.

Butler, Hugh H. J., to Hall Telephone Accessories Ltd. Apparatus for separating stacked flat articles. 2,774,595, 12–18–56, Cl. 271—12.

Butler, Keith H., to Sylvania Electric Products Inc. Calcium cadmium phosphate phosphor. 2,774,738, 12–18–56, Cl. 252—301.6.

Butler, Keith H., and R. M. Ruion, to Sylvania Electric Products Inc. Method of making an electroluminescent phosphor. 2,774,739, 12–18–56, Cl. 252—301.6.

Buurman, Aart, to American Enka Corp. Process and apparatus for the degassing of viscose. 2,774,441, 12–18–56, Cl. 183—2.5.

Byrd, John F., and J. D. Phyfe, to Radio Corp. of America. Sound changeover system. 2,774,824, 12–18–56, Cl. 179—100.2.

CBS-Hytron, a division of Columbia Broadcasting System, Inc.: *See*—
Law, Russell R. 2,774,906.

Cabot, Godfrey L., Inc.: *See*—
Loftman, Kenneth A. 2,774,651.

Callery Chemical Co.: *See*—
Schechter, William H. 2,774,136.

Camp, Leon W., to Bendix Aviation Corp. Annular vibrator with lumped loading. 2,774,892, 12–18–56, Cl. 310—8.1.

Campbell, Jackson L., to General Electric Co. Bead setting method and apparatus. 2,774,102, 12–18–56, Cl. 18—1.

Canada Machine Works: *See*—
McCoy, Thomas A. 2,774,406.

Cardani, Charles P., and J. Harrington, Jr., to United Shoe Machinery Corp. Invertible sockets or receptacles. 2,774,949, 12–18–56, Cl. 339—128.

Carding Specialists (Canada), Ltd.: *See*—
Hopkinson, Harold. 2,774,112.

Carlin, Benson: *See*—
Thatcher, Charles J., and Carlin. 2,774,193.

Carlson, George J., G. W. Gaertner, and F. B. West, to Shell Development Co. Process for drying carbonylic compounds. 2,774,792, 12–18–56, Cl. 260—601.

Carnegie, David, Jr., to Congoleum-Nairn Inc. Flexible felt base covering. 2,774,685, 12–18–56, Cl. 117—76.

Carroll Chain Co., The: *See*—
Gantz, Ray D. 2,774,213.

Caulkins, Frank T. Method of making box wrenches. 2,774,259, 12–18–56, Cl. 76—114.

Century Electric Co.: *See*—
Witt, Stanley. 2,774,924.

Chall, Harold J., to Friden Calculating Machine Co., Inc. Calculating machine. 2,774,536, 12–18–56, Cl. 235—194.

Chambers, Roy L. Fishing reel. 2,774,545, 12–18–56, Cl. 242—84.4.

Chapman, John L., Jr., and W. R. Yeich, to Western Electric Co., Inc. Downfeed for machine tools. 2,774,196, 12–18–56, Cl. 51—92.

Charles, Daniel, to Compagnie Generale de Telegraphie Sans Fil. Electron discharge tube with crossed electric and magnetic fields. 2,774,913, 12–18–56, Cl. 315—39.3.

Charron, Wilfred: *See*—
Sheppard, Donald. 2,774,514.

Chase, Corson W., to The Goss Printing Press Co. Socket for ink cylinder. 2,774,299, 12–18–56, Cl. 101—348.

Chase, Corson W., to The Goss Printing Press Co. Socket for ink roller. 2,774,300, 12–18–56, Cl. 101—348.

Chemical Construction Corp.: *See*—
Cook, Lucien H., Hodge, and Colonias. 2,774,660.

Chesser, Cecil E., to Sears, Roebuck and Co. Muffler for lawn mower. 2,774,439, 12–18–56, Cl. 181—66.

Chiang, Stanley H. K.: *See*—
Davis, Horace R., and Chiang. 2,774,798.

Chicago Railway Equipment Co.: *See*—
Soddy, Thomas C. 2,774,444.

Christensen, Clarence O.: *See*—
Paulsen, Lloyd O., and Christensen. 2,774,856.

Christian, Curtis G., to Union Oil Co. of California. Separation of alkyl benzenes by selective clathration of the para-isomer with a 4-alkyl pyridine Werner complex in the presence of a 3-substituted pyridine. 2,774,802, 12–18–56, Cl. 260—674.

Chrysler Corp.: *See*—
Heym, Raymond S. 2,774,220.
Thomas, Gerald R. 2,774,090.

Chute, Curtis. Ice fishing apparatus. 2,774,168, 12–18–56, Cl. 43—17.

Ciba Ltd.: *See*—
Schmid, Max, Moser, and Frey. 2,774,755.

Cincinnati Milling Machine Co., The: *See*—
Waller, Campbell E. 2,774,642.

Claff, Clarence L., and C. A. Moeller, to M. B. Claff & Sons, Inc. Automatic actuating means for box setting-up machines. 2,774,285, 12–18–56, Cl. 93—36.3.

Claff, M. B., & Sons, Inc.: *See*—
Claff, Clarence L., and Moeller. 2,774,285.

Clark, Alfred S., to B. B. Chemical Co. Ribbed strips for insoles, and methods of making the same. 2,774,600, 12–18–56, Cl. 154—53.6.

Clark, Richard U. Hermetically sealed electric terminal. 2,774,812, 12–18–56, Cl. 174—152.

Clayton, Temple: *See*—
Gould, David H., Hershberg, and Clayton. 2,774,713.

Cleveland, Carl S., Jr. Spinal clamp or splint. 2,774,350, 12–18–56, Cl. 128—92.

Cline, William H., Jr., to Hughes Tool Co. Reciprocating prime mover. 2,774,334, 12–18–56, Cl. 121—28.

Coats & Clark Inc.: *See*—
Morin, Louis H. 2,774,396.

Cockett, Sydney R., J. G. Evans, and G. Landells, to Bradford Dyers' Assn. Ltd. Water repellent treatment utilising a methylhydrogenpolysiloxane and a titanium compound. 2,774,630, 12–18–56, Cl. 117—135.5.

Cohen, Sidney B.: *See*—
Garman, Raymond L., Dres, and Cohen. 2,774,149.

Cohen, Sylvan L., and M. S. Frant, to Gallowhur Chemical Corp. Alkyl dimethyl dichlorobenzyl ammonium mercaptobenzothiazolates and pesticidal concentrates containing the same. 2,774,708, 12–18–56, Cl. 167—33.

Coles, Ralph V., to Robertshaw-Fulton Controls Co. Capacity sensitive relay. 2,774,919, 12–18–56, Cl. 317—146.

Colgate-Palmolive Co.: *See*—
Becher, Paul. 2,774,735.
Bensien, Fritz E. P. 2,774,363.





Collins, Carroll B., to Peerless Photo Products, Inc. Printing device. 2,774,289, 12–18–56, Cl. 95—76.

Collins Radio Co.: *See*—
Patton, Henry W. 2,774,932.

Colonias, John: *See*—
Cook, Lucien H., Hodge, and Colonias. 2,774,660.

Columbia Broadcasting System, Inc.: *See*—
Law, Russell R. 2,774,906.
Morse, Elihu N., and Shaw. 2,774,894.

Compagnie Generale de Telegraphie Sans Fil: *See*—
Charles, Daniel. 2,774,913.

Conger, Charles G. Width gauge for vehicle wheel rims. 2,774,144, 12–18–56, Cl. 33—143.

Congoleum-Nairn Inc.: *See*—
Carnegie, David, Jr. 2,774,685.

Connecticut Hard Rubber Co., The: *See*—
Kilbourne, Frederick L., Jr. 2,774,621.

Conner, Joshua C., Jr., to Hercules Powder Co. Method for preparation of nitrophenols. 2,774,796, 12–18–56, Cl. 260—622.

Continental Can Co., Inc.: *See*—
Hellsborn, Richard D. 2,774,858.

Continental Electronics Mfg. Co.: *See*—
Bullock, Mark W. 2,774,806.

Continental Machines, Inc.: *See*—
Crane, Robert L. 2,774,131.
Harrington, John A. 2,774,201.

Continental Paper Co.: *See*—
Bowman, Paul F. 2,774,204.

Controls Co. of America: *See*—
McCarty, Lourdes V. 2,774,372.

Cook, Gordon H., to Taylor, Taylor & Hobson Ltd. Optical objectives comprising six air spaced components in axial alignment. 2,774,280, 12–18–56, Cl. 88—57.

Cook, Lucien H., A. W. Hodge, Jr., and J. Colonias, to Chemical Construction Corp. Granulation of fertilizers. 2,774,660, 12–18–56, Cl. 71—64.

Coonradt, Harry L., and W. K. Leaman, to Socony Mobil Oil Co., Inc. Conversion of methylnaphthalenes. 2,774,801, 12–18–56, Cl. 260—672.

Cope, John E., and D. H. Fisher, to Pye Ltd. Interference limiters. 2,774,665, 12–18–56, Cl. 250—20.

Cordes, Jacques, and J. Desor. Materials handling fork truck. 2,774,498, 12–18–56, Cl. 214—731.

Corne, Dustin C. Wire working tool. 2,774,392, 12–18–56, Cl. 140—124.

Corrente, Anthony M.: *See*—
Thompson, Kenneth W., and Corrente. 2,774,710.

Corum, Clinton. Two-position constant speed semi-automatic propeller pitch control. 2,774,433, 12–18–56, Cl. 170—160.16.

Cossette, Aristedeme J. Chemical apparatus for reacting chemicals requiring heat transfer. 2,774,653, 12–18–56, Cl. 23—259.

Cosulich, Mark. Siphons. 2,774,522, 12–18–56, Cl. 222—416.

Cotton, Robert H., and G. O. Borabaugh, to Holly Sugar Corp. Producing dry vegetable-molasses product. 2,774,671, 12–18–56, Cl. 99—6.

Covely, Frank D.: *See*—
Baker, Richard R., and Covely. 2,774,964.

Cowen, Lawrence, to The Lionel Corp. Toy railway signal towers. 2,774,181, 12–18–56, Cl. 46—12.

Crabtree, Kenneth L., to Keyes Fibre Co. Continuous rotary carton perforating machine. 2,774,427, 12–18–56, Cl. 164—68.

Crane, Robert L., to Continental Machines, Inc. Metal cutting band saw with manually controllable power driven work feed. 2,774,131, 12–18–56, Cl. 29—68.

Cranston Print Works Co.: *See*—
Angevine, William H., Jr. 2,774,525.

Crawford, James E., E. V. Browne, J. E. Glenn, and J. D. Pigford, to Northrop Aircraft, Inc. Leading edge flap and control system. 2,774,555, 12–18–56, Cl. 244—42.

Creely, Joseph W.: *See*—
Mecco, Jerry M., and Creely. 2,774,647.
Mecco, Jerry M., and Creely. 2,774,648.
Mecco, Jerry M., and Creely. 2,774,649.

Creighton, Delbert B. Beverage container and dispenser. 2,774,521, 12–18–56, Cl. 222—399.

Crosse, George W.: *See*—
Ashwood, Peter F., and Crosse. 2,774,554.

Crouse, Harris W. Folding ladder. 2,774,528, 12–18–56, Cl. 228—37.

Cuervo, Jose A.: *See*—
Aldasoro, Eduardo. 2,774,958.

Cummings, Ross, to the United States of America as represented by the United States Atomic Energy Commission. Filtering apparatus. 2,774,479, 12–18–56, Cl. 210—184.

Cunningham, Robert A., to Hughes Tool Co. Roller cutter for earth drills. 2,774,570, 12–18–56, Cl. 255—247.

Cusic, John W., to G. D. Searle & Co. 2-(aralkoxyalkyl) derivatives of tetrahydroisoquinoline and isoindoline. 2,774,764, 12–18–56, Cl. 260—289.

Dado, John R., to Standard Oil Co. Temperature-responsive check valve. 2,774,366, 12–18–56, Cl. 137—75.

Dahlquist, Oscar M., and E. I. Ackerson. Cleat for athletic shoes. 2,774,151, 12–18–56, Cl. 36—59.

Daimler-Benz Aktiengesellschaft: *See*—
Schilling, Otto. 2,774,842.
Stump, Eugen. 2,774,451.

Daino, Joseph F. Method for baking pizza pie. 2,774,316, 12–18–56, Cl. 107—54.

Daniel, Charles A. Pipe wrench. 2,774,270, 12–18–56, Cl. 81—53.

Danielson, Vernon S., to W. H. Miner, Inc. Rubber check absorbing mechanisms for railway car draft riggings. 2,774,485, 12–18–56, Cl. 213—45.

Danziger, Joseph L., to Scovill Mfg. Co. Valve device for fire extinguishers and the like. 2,774,432, 12–18–56, Cl. 169—31.

Darkis, Frederick R.: *See*—
Hackney, Edward J., Faucette, and Darkis. 2,774,680.

Davidson, Evan J.: *See*—
Rey, William A., Davidson, Keller, and Swift. 2,774,847.

Davies, Clarence J., to National Automotive Fibres, Inc. Method and apparatus for tensioning and edge turning the cover material of automobile door laminated panels. 2,774,410, 12–18–56, Cl. 154—41.

Davis, Benjamin H., to The Standard Machinery Co. Extrusion apparatus. 2,774,107, 12–18–56, Cl. 18—12.

Dasey, Mitchell H., to the United States of America as represented by the United States Atomic Energy Commission. Method of measuring Q. 2,774,937, 12–18–56, Cl. 324—58.

De Beer, Robert H.: *See*—
Reynst, Maximilien F., and de Beer. 2,774,906.

De Berncastle, Eugene J. M.: *See*—
Keller, Bernhard, and de Berncastle. 2,774,543.

De Forest, Taber, and D. W. Parker, Jr., to Switzer Brothers, Inc. Method of detecting surface discontinuities. 2,774,886, 12–18–56, Cl. 250—71.

De Jong, Gert J., and J. A. Zeegers, to Stamicarbon N. V. Weakly basic organic sulfonium compounds. 2,774,793, 12–18–56, Cl. 260—607.

De Long, Herbert K., to The Dow Chemical Co. Method of preparing the surface of articles of magnesium and magnesium base alloys for the reception of nickel electroplate. 2,774,683, 12–18–56, Cl. 117—62.

Delta Trust: *See*—
Luckhardt, Johannes. 2,774,412.

Demler, Henry W., and M. L. Klingler, to Aircraft-Marine Products, Inc. Crimping tool. 2,774,260, 12–18–56, Cl. 81—15.

De Moss, Albert H. Multiple speed drive system. 2,774,248, 12–18–56, Cl. 74—217.

Denays, Ronald G.: *See*—
Stewart, Ronald B., and Denays. 2,774,365.

Derderian, James, and E. V. Sanborn. Unitary folding voting booth. 2,774,115, 12–18–56, Cl. 20—3.

De Rosa, Louis A., to International Telephone and Telegraph Corp. Radio detection system. 2,774,965, 12–18–56, Cl. 343—13.

Desor, Jean: *See*—
Cordes, Jacques, and Desor. 2,774,498.

Detroit Hardware Mfg. Co.: *See*—
Jewett, Deane N. 2,774,591.

Diamond Alkali Co.: *See*—
Hlynsky, Alex, and Jenney. 2,774,788.

Dick, A. B., Co.: *See*—
Marson, Thomas U., and Shoemaker. 2,774,669.

Dicke, Robert H. Molecular resonance gas cell. 2,774,876, 12–18–56, Cl. 250—36.

Dickert, Joseph J., Jr.: *See*—
Hartough, Howard D., Dickert, and Meisel. 2,774,790.

Diefenbach, Giorgio. Centrifugal olive washer and separator. 2,774,478, 12–18–56, Cl. 209—458.

Di Tirro, Domenic A., to Rose Operating Valve Co. Valve. 2,774,360, 12–18–56, Cl. 137—102.

Dittman, Albert L.: *See*—
Pasmino, Herbert J., Dittman, and Wrightson. 2,774,751.

Dixon Corp.: *See*—
Ruion-Miller, Robert, and Tabor. 2,774,549.

Dixon, Lyman W. Suspending binder strip and tab unit for calendars and the like. 2,774,161, 12–18–56, Cl. 40—119.

Djerassi, Carl, L. Miramontes, and G. Rosenkranz, to Syntex S. A. 17 α-methyl-19-nortesterone. 2,774,777, 12–18–56, Cl. 260—397.4.

D'Lower, Irving D. Hair dress haircut. 2,774,358, 12–18–56, Cl. 132—7.

Dodd, Roy F., and A. A. Nims, to the United States of America as represented by the Secretary of the Navy. Quick release coupling having detachable screw thimble-gland. 2,774,616, 12–18–56, Cl. 285—33.

Dolve Valve Co., The: *See*—
Eskin, Samuel G. 2,774,539.
Eskin, Samuel G. 2,774,541.

Domenech, Michael, 25% to S. J. Lustig. Film processing hanger. 2,774,291, 12–18–56, Cl. 95—100.

Donges, Hans: *See*—
Klemp, Siegfried, and Donges. 2,774,565.

Dorkins, Evan E., to Ottawa Steel, Inc. Tractor mounted high lift loader. 2,774,496, 12–18–56, Cl. 214—140.

Dorland, Robert E.: *See*—
Schaffer, David J., and Dorland. 2,774,343.

Dormeyer Corp.: *See*—
Krause, Walter W., and Schwaneke. 2,774,524.
Wagner, Edward J. 2,774,925.

Dorr Co., The: *See*—
White, Frank S. 2,774,661.

Dover Corp.: *See*—
Harrison, John B. 2,774,492.

Dow Chemical Co., The: *See*—
De Long, Herbert K. 2,774,683.
Kirk, Roy C. 2,774,663.
McDonald, John C. 2,774,664.

Dow Corning Corp.: *See*—
Gilkey, John W. 2,774,779.
Hedlund, Robert C. 2,774,745.
Sommer, Leo H. 2,774,778.

Dow, Delmar W., and T. Tregoning, to Kaiser Aluminum & Chemical Corp. Stud positioning jig with continuous self-baking electrode and method of positioning contact studs therein. 2,774,804, 12–18–56, Cl. 13—18.

Dow, Orville R., to Radio Corp. of America. Counter or step wave generator. 2,774,871, 12–18–56, Cl. 250—27.

Downs, Florence B.: *See*—
Harris, Frederick R. 2,774,322.

Doyle, William T., to Sturtevant Mill Co. Machine for classifying and separating materials. 2,774,476, 12–18–56, Cl. 209—139.

Dreyfus, Ludwig, to Allmanna Svenska Elektriska Aktiebolaget. Inductive stirring device for metallurgical furnace. 2,774,803, 12–18–56, Cl. 13—9.

Dros, Marcel E.: *See*—
Germain, Raymond L., Dros, and Cohen. 2,774,149.

Dumas, Jean E., to Societe des Usines Chimiques Rhone-Poulenc. Anti-adhesion compositions. 2,774,674, 12–18–56, Cl. 106—2.

Du Mont, Allen B., Laboratories, Inc.: *See*—
Fulmer, Norman C. 2,774,880.
Sanford, Emil. 2,774,910.

Dunham, Frederick S.: *See*—
Graevenitz, Henry L., and Dunham. 2,774,121.

Dunlap, Kermit S., and C. A. Lovell, to Bell Telephone Laboratories, Inc. Communication system. 2,774,822, 12–18–56, Cl. 179—18.

Dunn, Gilbert M. Folding gameboard and rigidifying and turning attachment therefor. 2,774,599, 12–18–56, Cl. 273—136.

Dunn, Roland H., to International Standard Electric Corp. Electrical counting and like devices. 2,774,534, 12–18–56, Cl. 235—92.

Dunning, Robert M., to Waldorf Paper Products Co. Bottle carrier. 2,774,612, 12–18–56, Cl. 220—113.

Du Pont, E. I., de Nemours and Co.: *See*—
Bell, Thomas E. 2,774,355.
Bernhardt, Ernest C. 2,774,105.
Glasser, Leo G., and Troy. 2,774,276.
Wernlund, Christian J. 2,774,728.

Dye, William T., Jr., to Monsanto Chemical Co. Herbicidal alkyl-amino-phosphonium halides. 2,774,658, 12–18–56, Cl. 71—2.7.

Dziedziula, Edward J., and H. C. Lieb, to Universal Winding Co. Means for collecting and utilizing electrical energy of nuclear transformations. 2,774,891, 12–18–56, Cl. 310—3.

Earp, Charles W., to International Standard Electric Corp. Receivers for pulsed frequency modulation carrier systems. 2,774,817, 12–18–56, Cl. 179—15.

Eastern Power Devices Ltd.: *See*—
Turgeon, Joseph A. 2,774,832.

Eberhardt, John E.: *See*—
Graham, Hugh S., and Eberhardt. 2,774,662.

Eberts, Edward D.: *See*—
Strickland, Claude H., Eberts, and Robb. 2,774,499.

Eckel, Oliver C. Resilient door with offset mount. 2,774,117, 12–18–56, Cl. 20—16.

Eddy, E. B., Co.: *See*—
Smith, Roland W. 2,774,329.

Edelman, Abraham, and R. M. Frank, to Photobell Co. Level indicator for supervising the level of agglomerate materials. 2,774,959, 12–18–56, Cl. 340—244.

Edinborgh, Julius A., to University of Wichita Foundation for Industrial Research. Electronic moisture meter. 2,774,938, 12–18–56, Cl. 324—61.

Edmundson, William C.: *See*—
Antonidis, John E., Edmundson, Smith, and House. 2,774,894.

Edwards, Joseph W.: *See*—
Folger, Paul. 2,774,597.

Egli, Ernst: *See*—
Kesselring, Fritz, and Egli. 2,774,933.

Ehret, Robert J., and R. F. Wernlund, to Minneapolis-Honeywell Regulator Co. Control apparatus. 2,774,879, 12–18–56, Cl. 250—36.

Ehrhart, Gustav, K. Schmitt, and H. Ott, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process of preparing 2-phenyl-2-pyridyl-(4')-4-diloweralkyl amino butyric lower alkyl esters. 2,774,767, 12–18–56, Cl. 260—295.

Ehrhart, Gustav, K. Schmitt, and H. Ott, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process of preparing basic ketones. 2,774,768, 12–18–56, Cl. 260—296.

Eichna, James R., to Foster Wheeler Corp. Apparatus for the recovery of oil and gaseous products from shale. 2,774,726, 12–18–56, Cl. 202—93.

Eickman, Willis E.: *See*—
Placke, Everett H., Eickman, and Nagy. 2,774,298.

Eimco Corp., The: *See*—
Spanjer, David L. 2,774,638.

Einson-Freeman Co., Inc.: *See*—
Glacius, George. 2,774,157.

Eisenhut, Franz: *See*—
Meyer, Karl, Eisenhut, and Siegl. 2,774,676.

Electro Chemical Engineering & Mfg. Co.: *See*—
Walters, Joseph M. 2,774,110.

Elliott, George: *See*—
Wolfson, Henry, and Elliott. 2,774,747.

Emerson, John H. Apparatus for producing artificial respiration. 2,774,347, 12–18–56, Cl. 128—30.

Emerson, John H. Artificial respirator. 2,774,348, 12–18–56, Cl. 128—30.

Emerson, John H. Breathing assistor valve. 2,774,352, 12–18–56, Cl. 128—203.

Emerson Radio & Phonograph Corp.: *See*—
Burger, Francis J. 2,774,866.

Emerson, William S.: *See*—
Longley, Raymond I., Jr., Emerson, and Shafer. 2,774,772.

Emmons, Arthur N., to The Porter-Cable Machine Co. Portable belt sanding machine. 2,774,198, 12–18–56, Cl. 51—170.

Emmons, Arthur N., to The Porter-Cable Machine Co. Abrading machine. 2,774,199, 12–18–56, Cl. 51—177.

Emmons, Arthur N., to The Porter-Cable Machine Co. Power operated wood plane with chip and shaving discharge means. 2,774,309, 12–18–56, Cl. 145—4.

Emmons Loom Harness Co.: *See*—
Galaher, Abbott S., and Trenholm. 2,774,887.

Engle, John B. Holder for disc saws and the like. 2,774,258, 12–18–56, Cl. 76—79.

English Electric Valve Co. Ltd.: *See*—
Sixsmith, Herbert. 2,774,914.

Engstrum, Kathleen B. Apparatus for dispensing under pressure. 2,774,628, 12–18–56, Cl. 299—95.

Erickson, John G., to General Mills, Inc. Phosphonoammonium surface active agents. 2,774,786, 12–18–56, Cl. 260—501.

Erie Art Metal Co., Inc.: *See*—
Knobloch, Carl W. 2,774,509.

Eskin, Samuel G., to The Dole Valve Co. Thermostatic overtemperature pilot shut off. 2,774,539, 12–18–56, Cl. 236—21.

Eskin, Samuel G., to The Dole Valve Co. Thermostatically operated shut-off valve. 2,774,541, 12–18–56, Cl. 236—48.

Espey, John J.: *See*—
Shoop, Thomas E., and Espey. 2,774,833.

Esso Research and Engineering Co.: *See*—
Ogorzaly, Henry J. 2,774,635.
Schmidli, Albert J., and Walker. 2,774,800.

Evans, John G.: *See*—
Cockett, Sydney R., Evans, and Landells. 2,774,690.

Evans, Ralph S. Drop frame boat trailer. 2,774,612, 12–18–56, Cl. 280—414.

Evans, William T., to Sun Oil Co. Speed control apparatus. 2,774,927, 12–18–56, Cl. 318—314.

FKG Fritz Kesselring Geratebau: *See*—
Kesselring, Fritz. 2,774,920.

FKG Fritz Kesselring Geratebau, A. G.: *See*—
Kesselring, Fritz. 2,774,931.
Kesselring, Fritz, and Egli. 2,774,933.

Fagerqvist, Nils R.: *See*—
Bergström, Ernst R., Fagerqvist, and Norrman. 2,774,244.

Fairmont Box Co.: *See*—
Shackelford, Jesse J. 2,774,338.

Farbenfabriken Bayer Aktiengesellschaft: *See*—
Kühle, Engelbert, and Wegler. 2,774,757.

Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning: *See*—
Ehrhart, Gustav, Schmitt, and Ott. 2,774,767.
Ehrhart, Gustav, Schmitt, and Ott. 2,774,768.
Orthner, Ludwig, and Reuter. 2,774,689.

Farmalan, Farough F., to Philco Corp. Plural temperature refrigerators. 2,774,228, 12–18–56, Cl. 62—117.3.

Farren, Robert W.: *See*—
Fitzgerald, Thomas W., and Farren. 2,774,305.

Fashion Frocks, Inc.: *See*—
Abrams, Walter J., and Jennings. 2,774,529.

Faucette, Charles D.: *See*—
Hackney, Edward J., Faucette, and Darkis. 2,774,680.

Federal Carton Corp.: *See*—
Rous, Ben. 2,774,468.

Federal-Mogul-Bower Bearings, Inc.: *See*—
Squire, John R. 2,774,132.

Feer, Kurt, to Suisse Freres, Societe Anonyme. Machine for making lengths of paper or cellulose. 2,774,284, 12–18–56, Cl. 92—44.

Fehlmann, Hans B., to A. G. für Grundwasserbauten. Soil testing apparatus. 2,774,240, 12–18–56, Cl. 73—84.

Felsa S. A.: *See*—
Meyer, Friedrich. 2,774,252.

Ferris, Walter, to The Oilgear Co. Steering control for industrial truck with hydraulic wheel drive motors. 2,774,434, 12–18–56, Cl. 180—6.3.

Ferris, Walter, to The Oilgear Co. Hydraulic drive for industrial trucks and combined engine and pump control therefor. 2,774,436, 12–18–56, Cl. 180—66.

Fielding, Eric C., to International Standard Electric Corp. Time delay mechanism. 2,774,422, 12–18–56, Cl. 161—1.

Fievet, Henri, to Societe Technique et Commerciale d'Installations Industrielles Luceat. Safety valve, notably for hydrocarbon reservoirs and pipings. 2,774,373, 12–18–56, Cl. 137—490.

Finken, Walter S., to L. P. Frieder. Load-retarding canopy of preformed type. 2,774,561, 12–18–56, Cl. 244—145.

Finn, Dennis J. Crustacean trap. 2,774,176, 12–18–56, Cl. 43—69.

Firma Gebr. Happich G. m. b. H.: *See*—
Lower, Helmut. 2,774,624.

Fisher, Donald H.: *See*—
Cope, John E., and Fisher. 2,774,865.

Fisher & Ludlow Ltd.: *See*—
Gill, George, A. K. and G. J. 2,774,236.

Fitzgerald, Edwin R., to Wisconsin Alumni Research Foundation. Apparatus for determining dynamic mechanical properties of viscoelastic materials. 2,774,239, 12–18–56, Cl. 73—67.

Fitzgerald, Thomas W., and R. W. Farren, to the United States of America as represented by the Secretary of the Navy. Rocket steering system. 2,774,305, 12–18–56, Cl. 102—49.

Flatley, Margaret J. Auxiliary bed hoist. 2,774,079, 12–18–56, Cl. 5—84.

Fleischer, Svend S. C. Method of supporting threads or groups of threads in a thread layer when the threads or groups of threads are to be separated singly from the said layer. 2,774,125, 12–18–56, Cl. 28—22.

Fleischhacker, Desider, and N. Barsel, to International Hormones, Inc. Solubilised adrenochrome hemostatic compositions. 2,774,711, 12–18–56, Cl. 167—65.

Flexonics Corp.: *See*—
Parlasca, Edwin W. 2,774,540.

Flickinger, Lester: *See*—
Blaisdell, George G., and Flickinger. 2,774,284.

Flight Refueling Ltd.: *See*—
Latimer-Needham, Cecil H., and Worlidge. 2,774,547.

Florman, Irving. Chlorophyl impregnated filter means for tobacco products. 2,774,354, 12–18–56, Cl. 131—208.





Foley, Richard G. Hair cutting guide. 2,774,359, 12–18–56, Cl. 132—129.

Folger, Paul, to J. W. Edwards and L. W. Watkins. Football game apparatus. 2,774,597, 12–18–56, Cl. 273—94.

Folkearoth, Earl R., to Aircraft-Marine Products Inc. Insulation stripping applicator and methods of application. 2,774,130, 12–18–56, Cl. 29—33.5.

Foner, Philip. Automotive unit. 2,774,265, 12–18–56, Cl. 81—57.

Food Machinery and Chemical Corp.: *See*—
Greenspan, Frank P., and Gall. 2,774,774.

Formenti, Paolo. Profile element for harness frames. 2,774,386, 12–18–56, Cl. 139—91.

Formsell, Eric G., to W. H. Miner, Inc. Draft gears for railway draft rigging. 2,774,486, 12–18–56, Cl. 213—45.

Forster, Leslie G., to Forsters Machine Co. Ltd. Wrapping and folding machines. 2,774,205, 12–18–56, Cl. 53—224.

Forsters Machine Co. Ltd.: *See*—
Forster, Leslie G. 2,774,205.

Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Electric high tension circuit breakers. 2,774,851, 12–18–56, Cl. 200—148.

Foster Wheeler Corp.: *See*—
Eichna, James R. 2,774,726.
Jankowski, Henry J. 2,774,240.

Fox, Ernest A. Apparatus for laterally X-raying the spinal column. 2,774,884, 12–18–56, Cl. 250—50.

Franck, George E., to The Imperial Brass Mfg. Co. Flaring tool. 2,774,408, 12–18–56, Cl. 153—79.

Franckson, Jan C., to Hartford National Bank and Trust Co., as trustee. Television pick-up tube comprising electrostatic electron-optical means. 2,774,809, 12–18–56, Cl. 315—11.

Frank, Milton A., Sr. Bleader. 2,774,576, 12–18–56, Cl. 259—8.

Frank, Robert M.: *See*—
Edelman, Abraham, and Frank. 2,774,959.

Franklin, Edward, and N. Adamson. Blind stitch sewing machines. 2,774,219, 12–18–56, Cl. 112—176.

Frant, Martin S.: *See*—
Cohen, Sylvan, and Frant. 2,774,706.

Frasier, David: *See*—
Szabo, Joseph J., and Frasier. 2,774,780.

Frensch, Otto. Sealing means on fixtures for fluorescent tubes. 2,774,947, 12–18–56, Cl. 339—60.

Frentzel, Herman C. Shuttle control. 2,774,388, 12–18–56, Cl. 139—196.

Frey, Christoph: *See*—
Schmid, Max, Moser, and Frey. 2,774,755.

Frickhofen, Werner. Pocket-saw with wire-reinforced blade. 2,774,400, 12–18–56, Cl. 145—81.

Friden Calculating Machine Co., Inc.: *See*—
Chall, Harold J. 2,774,536.

Frieder, Leonard P.: *See*—
Finken, Walter S. 2,774,561.

Fucinari, Angelo M., to The H. A. Montgomery Co. Method and apparatus for applying lubricants to sheet metal. 2,774,664, 12–18–56, Cl. 117—66.

Fulmer, Norman C., to Allen B. Du Mont Laboratories, Inc. Television tuning system. 2,774,880, 12–18–56, Cl. 250—40.

Gaertner, George W.: *See*—
Carlson, George J., Gaertner, and West. 2,774,792.

Galaher, Abbott S., and J. T. Trenholm, to Emmons Loom Harness Co. Heddle frames. 2,774,887, 12–18–56, Cl. 139—92.

Gall, Ralph J.: *See*—
Greenspan, Frank P., and Gall. 2,774,774.

Gallmore, Keith F., to Giddings & Lewis Machine Tool Co. Multi-speed transmission for machine tools. 2,774,250, 12–18–56, Cl. 74—364.

Gallowhur Chemical Corp.: *See*—
Cohen, Sylvan, and Frant. 2,774,706.

Gandolfo, Peter F.: *See*—
Gilman, Wilbert M., and Gandolfo. 2,774,926.

Ganger, Harry. Sinker. 2,774,174, 12–18–56, Cl. 43—44.99.

Gantz, Ray D., to The Carroll Chain Co. Clevis with two positioned spaced link. 2,774,213, 12–18–56, Cl. 59—84.

Garbo, Paul W., to Hydrocarbon Research, Inc. Removal of cyclic sulfur compounds from a highly olefinic gasoline. 2,774,717, 12–18–56, Cl. 196—28.

Garbo, Paul W., to Hydrocarbon Research, Inc. Stabilization of a highly olefinic gasoline. 2,774,720, 12–18–56, Cl. 196—36.

Garbrecht, William L., to Eli Lilly and Co. Preparation of amides of lysergic acid. 2,774,763, 12–18–56, Cl. 260—285.5

Gardiner, Cecil M.: *See*—
Buckland, Bruce O., Sanders, and Gardiner. 2,774,722.

Garman, Raymond L., M. E. Drox, and S. B. Cohen, to the United States of America as represented by the Secretary of the Navy. Radar trainer. 2,774,149, 12–18–56, Cl. 35—10.4.

Gem Crib and Cradle Co.: *See*—
Beaman, Robert W., and Hendricks. 2,774,062.

General Aniline & Film Corp.: *See*—
Brouillard, Robert E., and Mutaffis. 2,774,677.
Martinelli, Anthony J. 2,774,741.
Mayhew, Raymond L., Nunn, and Sandberg. 2,774,709.
Stanley, Lester N., and Baggenstoss. 2,774,749.

General Ceramics Corp.: *See*—
Heppert, Paul, and Jakubczak. 2,774,681.

General Controls Co.: *See*—
Biggie, Laurence C. 2,774,564.
Ray, William A., Davidson, Keller, and Swift. 2,774,847.

General Dynamics Corp.: *See*—
Trumdale, Robert B. 2,774,888.

General Electric Co.: *See*—
Acton, Jack C., and Zeissler. 2,774,900.
Buckland, Bruce O., Sanders, and Gardiner. 2,774,722.
Campbell, Jackson L. 2,774,102.
Gitsendanner, Louis G. 2,774,934.
Keonjian, Edward, and Suran. 2,774,875.
Lemmers, Eugene. 2,774,916.
Stack, Sydney S. 2,774,854.
Vonnegut, Bernard. 2,774,652.
Whitman, Lawrence C. 2,774,907.
Zeissler, Albert R. 2,774,899.

General Electric Co. Ltd., The: *See*—
Sowter, Anthony B. 2,774,262.

General Mills, Inc.: *See*—
Erickson, John G. 2,774,786.

General Motors Corp.: *See*—
Antonidis, John E., Edmundson, Smith, and House. 2,774,894.
Beare, Charles H. 2,774,120.
Buck, Charles E., and Lautzenhiser. 2,774,844.
Geyer, Howard M. 2,774,336.
Geyer, Howard M. 2,744,337.
Grooms, Albert O. 2,774,889.
Harrison, John B., and Rowls. 2,774,805.
Heidora, John H. 2,774,221.
Jacobs, James W., and Barbulesco. 2,774,222.
Kelley, Curtis F. 2,774,219.
Matthews, Milton C. 2,774,897.
Schjolin, Hans O., and Schuster. 2,774,227.
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General Precision Laboratory Inc.: *See*—
Gillette, Frank N. 2,774,815.
Sherr, Solomon. 2,774,825.

General Railway Signal Co.: *See*—
Johanek, George J. 2,774,843.

General Tire & Rubber Co., The: *See*—
Skidmore, Frank O. 2,774,409.

Genin, Robert I. Educational toy. 2,774,150, 12–18–56, Cl. 35—22.

Gera Corp.: *See*—
Gusman, Leo, Bazarian, Silver, and Grimm. 2,774,915.

Gerber, Walter J. Automatic constant speed device. 2,774,254, 12–18–56, Cl. 74—675.

Gerbracht, Osceola J. Spray pump apparatus. 2,774,626, 12–18–56, Cl. 299—45.

Gerwig, Larry L., to Bendix Aviation Corp. Freeze-tester. 2,774,238, 12–18–56, Cl. 73—17.

Geschickter, Charles F., and L. M. Rice. Polyhydrophthalmic acid visceral smooth muscle relaxants. 2,774,767, 12–18–56, Cl. 260—514.

Gesellschaft der Ludw. von Roll'schen Eisenwerke AG.: *See*—
Bretscher, Otto. 2,774,197.

Geyer, Howard M., to General Motors Corp. Locking means for fluid motor or the like. 2,774,336, 12–18–56, Cl. 121—40.

Geyer, Howard M., to General Motors Corp. Actuator assembly with load sensing means. 2,774,337, 12–18–56, Cl. 121—41.

Gibson, Robert C., to Parker Rust Proof Co. Method of forming oxalate coating on chromium alloys. 2,774,696, 12–18–56, Cl. 148—6.14.

Giddings & Lewis Machine Tool Co.: *See*—
Gallmore, Keith F. 2,774,250.

Giesen, Johann, to Inventa A-G. für Forschung und Patentverwertung Luzern. Method of decomposing lignin and lignin-containing materials. 2,774,795, 12–18–56, Cl. 260—619.

Gilkey, John W., to Dow Corning Corp. Method of preparing phenylhalosilanes. 2,774,779, 12–18–56, Cl. 260—448.2.

Gill, Annie K.: *See*—
Gill, George, A. K., and G. J. 2,774,236.

Gill, George, A. K., and G. J., to Fisher & Ludlow Ltd. Feed mixing attachment for domestic washing machines. 2,774,236, 12–18–56, Cl. 68—4.

Gill, George J.: *See*—
Gill, George, A. K., and G. J. 2,774,236.

Gillette, Frank N., to General Precision Laboratory Inc. Film to video translation apparatus. 2,774,815, 12–18–56, Cl. 178—7.2.

Gilman, Wilbert M., and P. F. Gandolfo, to Lewis-Shepard Co. Control circuits for electric trucks. 2,774,926, 12–18–56, Cl. 318—284.

Gilmore, Forrest E., to Phillips Petroleum Co. Automatic control of reboiler on deethanizing absorber. 2,774,715, 12–18–56 Cl. 196—8.

Gilson, Robert J. Perpetual calendars. 2,774,160, 12–18–56, Cl. 40—112.

Girard, Robert J. Nickel plating by chemical reduction. 2,774,668, 12–18–56, Cl. 117—130.

Gitlin, Jacob. Device for dyeing human hair. 2,774,357, 12–18–56, Cl. 132—9.

Gitsendanner, Louis G., to General Electric Co. Voltage divider with adjustable output characteristic. 2,774,934, 12–18–56, Cl. 323—43.5.

Glacius, George, to Einson-Freeman Co., Inc. Animated display device. 2,774,157, 12–18–56, Cl. 40—68.

Glad, Nicholas C., to United Aircraft Corp. Helicopter air circulating system. 2,774,552, 12–18–56, Cl. 244—17.11.

Gladeden, David and L. Folding table legs with gravity lock. 2,774,643, 12–18–56, Cl. 311—56.

Gladeden, Lester: *See*—
Gladeden, David and L. 2,774,643.

Glasser, Leo G., and D. J. Troy, Jr., to E. I. du Pont de Nemours & Co. Colorimeter. 2,774,276, 12–18–56, Cl. 88—14.

Glenn, John R.: *See*—
Crawford, James E., Browne, Glenn, and Pigford. 2,774,555.

Geertz, Raymond C., R. G. Schmitt, Jr., R. A. Olson, and R. R. Wehle, to the United States of America as represented by the United States Atomic Energy Commission. Remote-control manipulator. 2,774,486, 12-18-56, Cl. 214—1.

Geiger, Peter P., and R. J. Gall, to Food Machinery and Chemical Corp. Fin size cyclodation of oleic acid vapor. 2,774,402, 12-18-56, Cl. 260—348.8.

Gelbfish, Edward J., to Monsanto Chemical Co. Mercaptoplastic compositions. 2,774,672, 12-18-56, Cl. 99—95.

Gelfand, Harry, Jr., and Jerome Lemkowitz, to Bell Telephone Laboratories, Inc. Electrical contact. 2,774,680, 12-18-56, Cl. 200—166.

Gelfand, Morris A., and Sidney Gelfand, to Gelfand Mfg. Corp. Sewing machine. 2,774,915, 12-18-56, Cl. 112—2.

Gelfand, Sidney, and Morris A. Gelfand, to Gelfand Mfg. Corp. Sewing machine. 2,774,916, 12-18-56, Cl. 112—2.

Gelfand, Sidney, and Morris A. Gelfand, to Gelfand Mfg. Corp. Sewing machine. 2,774,917, 12-18-56, Cl. 112—2.

Gelfand, Sidney, and Morris A. Gelfand, to Gelfand Mfg. Corp. Sewing machine.

Jankowski, Henry J., to Foster Wheeler Corp. Vapor generator. 2,774,340, 12–18–56, Cl. 122—510.

Jansen, William J. E. Methods of and machines for winding spiral springs. 2,774,607, 12–18–56, Cl. 153—65.

Jarman, Vincent G.: *See*—
Smathers, Henry A. 2,774,203.

Jarman-Williamson Co.: *See*—
Williamson, Norman B. 2,774,403.

Jendrisak, Joseph E., to Libbey-Owens-Ford Glass Co. Apparatus for bending glass sheets or plates. 2,774,189, 12–18–56, Cl. 49—67.

Jenk, Robert L., and J. C. Redd. Composite board. 2,774,698, 12–18–56, Cl. 154—45.9.

Jenkins, William W., to G. D. Searle & Co. Esters of 4-phenyl-4-tetrahydropyrancarboxylic acid and their salts. 2,774,765, 12–18–56, Cl. 260—294.3.

Jens, Louis J. Roof exhauster. 2,774,293, 12–18–56, Cl. 98—43.

Jenney, John W.: *See*—
Hlynsky, Alex, and Jenney. 2,774,788.

Jennings, Charles H.: *See*—
Abrams, Walter J., and Jennings. 2,774,529.

Jensen, Ejler, to F. L. Smidth & Co. Apparatus for weighing and packaging powder or granular material. 2,774,516, 12–18–56, Cl. 222—195.

Jensen, Harry T., to United Aircraft Corp. Damper by-pass for lag-lead control of helicopter rotor blades. 2,774,553, 12–18–56, Cl. 244—17.17.

Jensen, James L., to Minneapolis-Honeywell Regulator Co. Oscillators. 2,774,878, 12–18–56, Cl. 250—36.

Jervan, Jerome S.: *See*—
Kelley, Clarence A., and Jervan. 2,774,303.

Jewett, Deane N., to Detroit Hardware Mfg. Co. Window operator. 2,774,591, 12–18–56, Cl. 268—105.

Jo-An Shoe Mfg. Co., Inc.: *See*—
Bossa, Joseph D. 2,774,087.

Jobe, George T., F. J. Weber, and A. F. Vinal, to Union Carbide and Carbon Corp. Primary battery. 2,774,806, 12–18–56, Cl. 136—111.

Johanek, George J., to General Railway Signal Co. Railway switch lock control system. 2,774,863, 12–18–56, Cl. 246—146.

Johann Vaillant Kommandit Gesellschaft: *See*—
Klemp, Siegfried, and Donges. 2,774,565.

Johansson, Bertil, to SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung. Top roll support for drawing mechanisms of textile machines. 2,774,113, 12–18–56, Cl. 19—142.

Johanson, Edwin S., to Hydrocarbon Research, Inc. Hydrodesulfurizing a highly olefinic gasoline containing cyclic sulfur compounds. 2,774,719, 12–18–56, Cl. 196—28.

Johansson, Carl E., and A. S. Noble, to The Youngstown Steel Door Co. Transportation containers for bulk materials. 2,774,515, 12–18–56, Cl. 222—185.

Johnson, Arthur C.: *See*—
Milliken, Owen J. 2,774,435.

Johnson, Clarence A., and S. C. Schuman, to Hydrocarbon Research, Inc. Process for hydrofining a highly olefinic gasoline. 2,774,718, 12–18–56, Cl. 196—28.

Johnson, Clarence J. Side dressing fertilizer spreader. 2,774,318, 12–18–56, Cl. 111—59.

Johnson, Felix J. Shower cone. 2,774,627, 12–18–56, Cl. 299—83.

Johnson, Francis B., to Lockheed Aircraft Corp. Aerial delivery platform. 2,774,560, 12–18–56, Cl. 244—138.

Johnson, Fred H., to Warren Alloy. Electrode. 2,774,859, 12–18–56, Cl. 219—120.

Johnson, Thomas D., and M. G. Sateren, to the United States of America as represented by the Secretary of the Navy. Lead network for servo-mechanisms with A. C. carrier voltage. 2,774,928, 12–18–56, Cl. 318—448.

Johnson, William H.: *See*—
Ulander, Per H. N., and Johnson. 2,774,308.

Jones, G. Lester: *See*—
Hefferan, Albert, and Jones. 2,774,184.

Jones, George L.: *See*—
Hefferan, Albert, and Jones. 2,774,184.

Jones, Glen H. Post hole digger and driving means thereof. 2,774,568, 12–18–56, Cl. 255—19.

Jones, Sam H., to Askania Regulator Co. Blast furnace wind distribution control. 2,774,868, 12–18–56, Cl. 137—100.

Jonker, Johan L. H.: *See*—
Perilhou, Jean E., and Jonker. 2,774,814.

Jordan, Charles M., Jr. Chipping attachment for lens cutting machine. 2,774,188, 12–18–56, Cl. 49—48.

Joseph, Joe G. Holder for phonograph album records. 2,774,615, 12–18–56, Cl. 281—20.

Jucker, Ernst: *See*—
Steil, Arthur, Jucker, and Lindenmann. 2,774,773.

Judovich, Bernard D. Bed with lumbar traction apparatus. 2,774,249, 12–18–56, Cl. 128—71.

Junkermann, Wolfgang, to The Babcock & Wilcox Co. Fluid heater furnace. 2,774,339, 12–18–56, Cl. 122—240.

Kagan, Abraham, to The Lionel Corp. Plier-like tools for use with toy railroad track. 2,774,268, 12–18–56, Cl. 81—15.

Kagan, Benjamin S., deceased, by E. E. and Z. S. Kagan, heirs, to American Machine and Metals, Inc. Timing mechanism to divide sheets proportionately. 2,774,592, 12–18–56, Cl. 270—81.

Kagan, Esther E.: *See*—
Kagan, Benjamin S. 2,774,592.

Kagan, Zena S.: *See*—
Kagan, Benjamin S. 2,774,592.

Kahle, Max O. K. Rain cover for chimneys. 2,774,294, 12–18–56, Cl. 98—76.

Kahn, David, to David Kahn, Inc. Fountain pen with improved feed construction. 2,774,333, 12–18–56, Cl. 120—52.

Kahn, David, Inc.: *See*—
Kahn, David. 2,774,333.

Kaiser Aluminum & Chemical Corp.: *See*—
Dow, Delmar W., and Treguning. 2,774,804.
Hodge, Allen W. 2,774,696.

Kakinuki, Hisashi. Method of manufacturing silk stockings. 2,774,282, 12–18–56, Cl. 66—178.

Karcewski, Alfred S.: *See*—
O'Brien, Stanley J., and Karcewski. 2,774,580.

Karpf, Nikolaus, to V. Linhof. Lens standard. 2,774,288, 12–18–56, Cl. 95—50.

Kasser, Morris. Cooling method and device. 2,774,230, 12–18–56, Cl. 62—169.

Katz, Helmut, to Siemens & Halske Aktiengesellschaft. Cathodes for electrical discharge devices. 2,774,916, 12–18–56, Cl. 315—94.

Kaufman, Herman S., to The M. W. Kellogg Co. Heat treating process for trifluorochloroethylene polymers. 2,774,109, 12–18–56, Cl. 18—48.

Kay, Reuben. Grain saving shield for combines. 2,774,210, 12–18–56, Cl. 56—158.

Kay-Tee Corp.: *See*—
Thau, Karl, and Kiel. 2,774,229.

Keep, Donald D.: *See*—
Hennies, Stuart R., and Keep. 2,774,962.

Keller, Bernhard, and E. J. M. de Berneastle. Plural rotor impact grinding mill with cooling means. 2,774,543, 12–18–56, Cl. 241—56.

Keller, William F.: *See*—
Ray, William A., Davidson, Keller, and Swift. 2,774,847.

Keller, William G., to Keuffel & Esser Co. Optical instrument. 2,774,275, 12–18–56, Cl. 88—2.2.

Kelley, Clarence A., and J. S. Jervan. Locking device for line slugs. 2,774,303, 12–18–56, Cl. 101—392.

Kelley, Curtis P., to General Motors Corp. Automobile refrigerating apparatus. 2,774,219, 12–18–56, Cl. 62—3.

Kellogg, M. W., Co., The: *See*—
Davis, Horace R., and Chiang. 2,774,798.
Kaufman, Herman S. 2,774,109.
Mantell, Russell M., and Barnhart. 2,774,799.
Mantell, Russell M., Passino, and Teeters. 2,774,797.
Passino, Herbert J., Dittman, and Wrightson. 2,774,751.
Smith, Richard A. 2,774,702.
Smith, Richard A. 2,774,704.
Smith, Richard A. 2,774,705.

Kelsey-Hayes Wheel Co.: *See*—
Atkin, Rupert L. 2,774,632.
Lafferty, Edward C., and Yeasell. 2,774,831.
Sharpe, Frederick P. 2,774,426.

Kemp, C. M., Mfg. Co., The: *See*—
Hanson, Hartwig M. 2,774,657.

Kendall Co., The: *See*—
Secrist, Horace A. 2,774,126.
Secrist, Horace A. 2,774,127.
Secrist, Horace A. 2,774,128.
Secrist, Horace A. 2,774,129.

Kenick, Walter B., to W. M. Welch Mfg. Co. Sensitive relay. 2,774,843, 12–18–56, Cl. 200—110.

Kennedy, David P., to Raytheon Mfg. Co. Communication systems. 2,774,941, 12–18–56, Cl. 332—5.

Kennedy Valve Mfg. Co., The: *See*—
Morken, Carl H. 2,774,475.

Kent Mfg. Corp.: *See*—
Batcheller, Hugh W. 2,774,952.

Kenworthy, Edward H. Breath operated switch for musical instruments. 2,774,834, 12–18–56, Cl. 200—52.

Keonjian, Edward, and J. J. Suran, to General Electric Co. Wave generating network. 2,774,875, 12–18–56, Cl. 250—36.

Kerwin, James F., and G. E. Ullyot, to Smith, Kline & French Laboratories. Sulfur-containing amines. 2,774,770, 12–18–56, Cl. 260—332.5.

Kesselring, Fritz, to FKG Fritz Kesselring Geratebau. Electromagnetic switch arrangement. 2,774,920, 12–18–56, Cl. 317—156.

Kesselring, Fritz, to FKG Fritz Kesselring Geratebau A. G. Alternating current switching device. 2,774,931, 12–18–56, Cl. 321—27.

Kesselring, Fritz, and E. Egli, to FKG Kesselring Geratebau, A. G. By-pass circuit for electromagnetic rectifiers. 2,774,933, 12–18–56, Cl. 321—48.

Keuffel & Esser Co.: *See*—
Keller, William G. 2,774,275.

Keuper, William J., to The National Marking Machine Co. Segregator conveyor. 2,774,458, 12–18–56, Cl. 198—38.

Keyes Fibre Co.: *See*—
Crabtree, Kenneth L. 2,774,427.
Williams, Philip M. 2,774,473.

Kidd, Alexander C., to Insul-Fil Co., Inc. Insulation for underground conduits and method of producing the same. 2,774,383, 12–18–56, Cl. 138—68.

Kiel, August, Sr.: *See*—
Thau, Karl, and Kiel. 2,774,229.

Kilbourne, Frederick L., Jr., to The Connecticut Hard Rubber Co. Flexible gaskets. 2,774,621, 12–18–56, Cl. 288—23.

Killington, Albert A., to Briggs Mfg. Co. Manufacture of trim panels. 2,774,700, 12–18–56, Cl. 154—126.5.

King, James D. Toilet mop and container therefor. 2,774,093, 12–18–56, Cl. 15—123.

King, Marvin E. Boiler base. 2,774,317, 12–18–56, Cl. 110—86.

Kinkaid, Robert J., and K. M. Hammell, to Aircraft-Marine Products, Inc. Terminal clip. 2,774,951, 12–18–56, Cl. 339—258.

Kirk, Everett S. Audio read signal. 2,774,323, 12–18–56, Cl. 116—63.

Kirk, Roy C., to The Dow Chemical Co. Production of sodium. 2,774,663, 12–18–56, Cl. 75—66.





Kleinschmidt Laboratories, Inc.: *See*—
Yost, Kermit D. 2,774,816.

Klemp, Siegfried, and H. Donges, to Johann Vaillant Kommandit Gesellschaft. Valve for gas water heaters. 2,774,565, 12–18–56, Cl. 251—75.

Kline, Jack, to the United States of America as represented by the Secretary of the Air Force. H-guide type coupling for coaxial output. 2,774,912, 12–18–56, Cl. 315—39.

Klingler, Martin L.: *See*—
Demler, Henry W., and Klingler. 2,774,269.

Klotzer, Wilhelm: *See*—
Bretschneider, Hermann, and Klotzer. 2,774,756.

Knapsack-Griesheim Aktiengesellschaft für Stickstoffdünger und Autogentechnik: *See*—
Rodis, Franz, and Thomas. 2,774,784.

Knight, Ronald G.: *See*—
Bray, Frederick H., Knight, and Hartley. 2,774,820.

Knobloch, Carl W., to Erie Art Metal Co., Inc. Protective strip for containers. 2,774,509, 12–18–56, Cl. 220—73.

Knost, Lloyd H. Drive for metal forming machine. 2,774,247, 12–18–56, Cl. 74—206.

Koblitz, Francis F., to Bjorksten Research Laboratories, Inc. Adhesive comprising alkenyl diglycol carbonate and articles bonded therewith. 2,774,097, 12–18–56, Cl. 154—43.

Korman, Jerome, and J. A. Hogg, to The Upjohn Co. Carbonyloxy steroids. 2,774,775, 12–18–56, Cl. 260—397.1.

Koryta, Leonard D., to R. C. Weiss, as trustee. Method of bonding rubber to metal and the resulting article. 2,774,701, 12–18–56, Cl. 154—130.

Kosch, Alois J. Magnetic top device. 2,774,185, 12–18–56, Cl. 46—235.

Kraft Foods Co.: *See*—
Nessler, Aldo E., and Hartman. 2,774,140.

Krause, Walter W., and F. C. Schwaneke, to Dormeyer Corp. Combination of cooking utensil and spout. 2,774,524, 12–18–56, Cl. 222—567.

Kreker, Paul E.: *See*—
Burweger, Lorenz, and Kreker. 2,774,606.

Kühle, Engelbert, and R. Wegler, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of thioacylhydrazones. 2,774,757, 12–18–56, Cl. 260—240.

Kulik, Metro D., to Pittsburgh Consolidation Coal Co. Process for removing finely divided solids from raw low temperature carbonization coal tars. 2,774,716, 12–18–56, Cl. 196—14.1.

Kurkjian, Haig. Clutches. 2,774,454, 12–18–56, Cl. 192—105.

La Bombard, Leon E., to International Paper Box Machine Co. Machine and method for folding box blanks. 2,774,286, 12–18–56, Cl. 93—49.

Lace, Donald A., to Time-O-Matic Co. Impulse motor. 2,774,893, 12–18–56, Cl. 310—32.

Ladewig, Archie, Co.: *See*—
Ladewig, Archie E. 2,774,361.

Ladewig, Archie E., to Archie Ladewig Co. Bottle washer. 2,774,361, 12–18–56, Cl. 134—74.

Lafferty, Edward C., and W. O. Yeasell, to Kelsey-Hayes Wheel Co. Multiple slip ring joint. 2,774,831, 12–18–56, Cl. 200—24.

Lake, Ernest T., and R. R. Hardgrove. Telescope sight mount for firearms with elevation and windage adjustment means. 2,774,142, 12–18–56, Cl. 33—50.

Lakewood Mfg. Co.: *See*—
Peplin, Stephen C. 2,774,345.

Lally, John F., Jr.: *See*—
Bertrand, Irvin. 2,774,838.

Lally, Mildred B.: *See*—
Bertrand, Irvin. 2,774,838.

Land, Edwin H., and M. M. Morse, to Polaroid Corp. Photographic silver halide transfer process. 2,774,667, 12–18–56, Cl. 96—29.

Landells, George: *See*—
Cockett, Sydney R., Evans, and Landells. 2,774,690.

Lanzinger, Karl L. Angularly tiltable, rapidly adjustable tube coupling. 2,774,617, 12–18–56, Cl. 285—71.

Larach, Simon, to Radio Corp. of America. Method of forming a phosphor screen. 2,774,682, 12–18–56, Cl. 117—33.5.

Larsen, John E., to the United States of America as represented by the Secretary of the Army. Motor head joint. 2,774,508, 12–18–56, Cl. 220—46.

Larson, Algot, and H. A. Smith, to Unique Balance Co., Inc. Adjustable spring sash balance. 2,774,100, 12–18–56, Cl. 16—197.

Latimer-Needham, Cecil H., and R. F. Worlidge, to Flight Refuelling Ltd. Reel. 2,774,547, 12–18–56, Cl. 242—86.

Laundry, Le Roy C. Valve mechanism. 2,774,520, 12–18–56, Cl. 222—394.

Lauppe, Wilhelm: *See*—
Nottebohm, Carl L., Jacob, Lauppe, and Schabert. 2,774,687.

Lautzenhiser, Argyle G.: *See*—
Buck, Charles E., and Lautzenhiser. 2,774,844.

Laverdisse, Edmond, to Les Glaceries de la Sambre Societe Anonyme. Control of the tools of glass grinding and/or polishing machines. 2,774,196, 12–18–56, Cl. 51—112.

Law, Russell R., to Columbia Broadcasting System, Inc., doing business under the name CBS-Hytron, a division of Columbia Broadcasting System, Inc. Voltage regulator. 2,774,906, 12–18–56, Cl. 318—308.

Leaman, Wilbur K.: *See*—
Cosgradt, Harry L., and Leaman. 2,774,801.

Lecomte, Claude, to International MacGregor Organization (I. M. G. O.). Cover for hatches, waggons and the like. 2,774,420, 12–18–56, Cl. 160—193.

Lee, Harold: *See*—
Hudson, William L., and Lee. 2,774,380.

Lee, Paul R., to Westinghouse Electric Corp. Thermostat apparatus. 2,774,846, 12–18–56, Cl. 200—138.

Leeds and Northrup Co.: *See*—
Machler, Raymond C. 2,774,277.

Lefler, Nils G., to Svenska Cellulose Aktiebolaget. Barking machine having feed roller power-driven at certain peripheral speed or log-driven at higher speed. 2,774,397, 12–18–56, Cl. 144—241.

Lehmann, Alfred. Garments with interlinings. 2,774,074, 12–18–56, Cl. 2—97.

Lehmann, Karl T. Shoe shining stand. 2,774,097, 12–18–56, Cl. 15—257.

Lehr, Adam W.: *See*—
Schladebach, Gert. 2,774,605.

Leibing, William E. Control mechanism for drill presses. 2,774,261, 12–18–56, Cl. 77—55.

Lemmers, Eugene, to General Electric Co. Electric discharge device. 2,774,918, 12–18–56, Cl. 315—98.

Lempco Products, Inc.: *See*—
Blasek, William J. 2,774,430.

Lensen, Frederick: *See*—
Minard, Everett S., and Lensen. 2,774,253.

Les Glaceries de la Sambre Societe Anonyme: *See*—
Laverdisse, Edmond. 2,774,196.

Le Tourneau, Robert G. Slip ring construction. 2,774,898, 12–18–56, Cl. 310—232.

Leufven, Axel G. E., to Aktiebolaget Svenska Kullagerfabriken. Rolling mill. 2,774,263, 12–18–56, Cl. 80—56.

Leverth, Charles A., Jr. Fishhook spreader. 2,774,172, 12–18–56, Cl. 43—42.74.

Lewis Refrigeration & Supply Co.: *See*—
Spoonhour, Charles L. 2,774,460.

Lewis, Robert D., and K. F. Wietzel, to Armco Steel Corp. Apparatus for guiding strip material. 2,774,593, 12–18–56, Cl. 271—2.6.

Lewis-Shepard Co.: *See*—
Gilman, Wilbert M., and Gandolfo. 2,774,926.

Leyhausen, Wilhelm. Automatic switches. 2,774,840, 12–18–56, Cl. 200—87.

Libbey-Owens-Ford Glass Co.: *See*—
Jendrisak, Joseph E. 2,774,189.

Librascope, Inc.: *See*—
Minard, Everett S., and Lensen. 2,774,253.

Lieb, Harry C.: *See*—
Dziedzula, Edward J., and Lieb. 2,774,891.

Lilly, Eli, and Co.: *See*—
Garbrecht, William L. 2,774,763.
Whitehead, Calvert W. 2,774,760.

Lincoln, Frank H., Jr.: *See*—
Hogg, John A., Beal, and Lincoln. 2,774,776.

Lindenmann, Adolf: *See*—
Steil, Arthur, Jucker, and Lindenmann. 2,774,773.

Lindmark, Richard C.: *See*—
Olson, Marshall B., and Lindmark. 2,774,279.

Linhof, Valentin: *See*—
Karpf, Nikolaus. 2,774,288.

Lintzel, Hermann, to Siemens & Halske Aktiengesellschaft. Spacer disk arrangement for coaxial cables or the like. 2,774,944, 12–18–56, Cl. 333—96.

Lion, Kurt S. Heat-reflecting light-transmitting window shade or the like and material for use in manufacturing the same. 2,774,421, 12–18–56, Cl. 160—238.

Lionel Corp., The: *See*—
Cowen, Lawrence. 2,774,181.
Kagan, Abraham. 2,774,268.

Liska, Andrew J. Container. 2,774,466, 12–18–56, Cl. 206—42.

Liska, Edward F. Power operated shoe polisher. 2,774,088, 12–18–56, Cl. 15—4.

Little Garden Corp.: *See*—
Henry, William F. 2,774,562.

Lituchy, Noel J. Electric light flasher. 2,774,845, 12–18–56, Cl. 200—122.

Livingston, Donald C., to Sylvania Electric Products Inc. Electroluminescent television panel. 2,774,813, 12–18–56, Cl. 178—5.4.

Lobenthal, Michael S.: *See*—
Harris, Frederic R. 2,774,322.

Lockheed Aircraft Corp.: *See*—
Johnson, Francis B. 2,774,560.

Loftman, Kenneth A., to Godfrey L. Cabot, Inc. Drying agent and process of making the same. 2,774,651, 12–18–56, Cl. 23—122.

Logan, Arthur L. Paint can holder. 2,774,510, 12–18–56, Cl. 220—90.

Lomax, Clarence E., to Automatic Electric Laboratories, Inc. Finder arrangement in telephone systems. 2,774,819, 12–18–56, Cl. 179—18.

Lombardi, Vincent. Knitted terry fabrics. 2,774,233, 12–18–56, Cl. 66—191.

Lombi, Ezio L.: *See*—
Lombi, Louis G. 2,774,313.

Lombi, Louis G., to E. L. Lombi. Ravioli machine. 2,774,313, 12–18–56, Cl. 107—1.

Longley, Raymond I., Jr., to Monsanto Chemical Co. Dihydropyran derivatives. 2,774,771, 12–18–56, Cl. 260—345.6.

Longley, Raymond I., Jr., W. S. Emerson, and T. C. Shafer, to Monsanto Chemical Co. Dihydropyran derivatives. 2,774,772, 12–18–56, Cl. 260—345.8.

Loomis, David G. Hydraulic latches. 2,774,335, 12–18–56, Cl. 121—40.

Loucks, Alton L., to Western Electric Co., Inc. Material guiding apparatus. 2,774,504, 12–18–56, Cl. 271—2.6.

Loughlin, Bernard D., to Haseltine Research, Inc. Frequency modulation detector having fixed output frequency converter. 2,774,867, 12–18–56, Cl. 250—20.

Lovell, Clarence A.: *See*—
Dunlap, Kermit S., and Lovell. 2,774,822.

Lower, Helmut, to Firma Gebr. Happich G. m. b. H. Operating and latching mechanism for a vehicle sliding roof. 2,774,624, 12–18–56, Cl. 296—137.

Lorham, John, to The Sigma Instrument Co. Ltd. Means for axially locating a rotatable sleeve on a pin. 2,774,147, 12–18–56, Cl. 33—181.

Luckhardt, Johannes, to N. P. Martin and O. L. Walter as trustees of Delta Trust. Reclining chair with extensible sectional leg rest. 2,774,412, 12–18–56, Cl. 155—110.

Lukala, Eino J. Constructions for demountable cribs. 2,774,061, 12–18–56, Cl. 5—99.

Lundberg, Frank J., to International Standard Electric Corp. Balanced doublet antenna of small dimension. 2,774,967, 12–18–56, Cl. 343—818.

Lung, Kenneth R. to The Tait Mfg. Co. Package pump unit. 2,774,469, 12–18–56, Cl. 206—46.

Lustig, Samuel J.: *See*—
Domenech, Michael. 2,774,291.

Lynch, Patrick H., Jr. Tandem disc harrow arrangements. 2,774,206, 12–18–56, Cl. 55—30.

Lyon, George A. Wheel cover. 2,774,633, 12–18–56, Cl. 301—37.

Lyon, George A. Wheel cover. 2,774,634, 12–18–56, Cl. 301—37.

MacCallum, Alan M., to Bendix Aviation Corp. Positioning system monitor. 2,774,559, 12–18–56, Cl. 244—77.

MacDuff, Stanley I., to Bendix Aviation Corp. Valve. 2,774,377, 12–18–56, Cl. 137—620.

Machlanski, Sigmund, to Bendix Aviation Corp. Fuel flow equaliser valve. 2,774,414, 12–18–56, Cl. 158—36.

Machler, Raymond C., to Leeds and Northrup Co. Systems for spectrochemical analysis. 2,774,277, 12–18–56, Cl. 88—14.

MacLeod, Norman A. Means for initiating explosion. 2,774,306, 12–18–56, Cl. 102—70.

Maddocks, Ellsworth L. Animal trap. 2,774,175, 12–18–56, Cl. 43—61.

Mager, Eric L., to Sylvania Electric Products Inc. Composition for coating electroluminescent lamps. 2,774,737, 12–18–56, Cl. 252—301.3.

Magnetic Heating Corp.: *See*—
Budd, Wallace C., and Stanton. 2,774,857.

Magram, Sidney J. Gel breakers of heavy metal soap gels. 2,774,740, 12–18–56, Cl. 252—326.

Malina, Frank J., and J. W. Parsons, to Aerojet-General Corp. Rocket propulsion method. 2,774,214, 12–18–56, Cl. 60—35.4.

Mall Tool Co.: *See*—
Bracha, Robert F. 2,774,582.

Malmström, Carl O. Lifting arrangement for loading vehicles. 2,774,494, 12–18–56, Cl. 214—77.

Manion, Charles H.: *See*—
Boyd, Thomas J. 2,774,320.

Mano, Raphaël L., to Societe d'Etudes Mecaniques et d'Organisation Industrielle. Lever-actuated, slidable jaw wrench. 2,774,271, 12–18–56, Cl. 81—127.

Mantell, Russell M., and W. S. Barnhart, to The M. W. Kellogg Co. Method of producing fluorohalocarbons by reacting carbon with fluorine and another halogen. 2,774,797, 12–18–56, Cl. 260—653.

Mantell, Russell M., and W. S. Barnhart, to The M. W. Kellogg Co. Selective dehydrohalogenation of fluorohaloalkanes using a copper catalyst. 2,774,799, 12–18–56, Cl. 260—653.

Maragliano, Domenico: *See*—
Marullo, Gerlando, and Maragliano. 2,774,655.

Marron, Thomas U., and C. J. Shoemaker, to A. B. Dick Co. Diazotype reproduction process. 2,774,669, 12–18–56, Cl. 96—49.

Martin, Norman P.: *See*—
Luckhardt, Johannes. 2,774,412.

Martin, William E. Notched gooseneck trailer construction. 2,774,497, 12–18–56, Cl. 214—506.

Martin, William E. Safety locking bar for folding trailer hitch. 2,774,613, 12–18–56, Cl. 280—415.

Martinelli, Anthony J., to General Aniline & Film Corp. Process for breaking emulsions. 2,774,741, 12–18–56, Cl. 252—331.

Martinsmaas, Werner W., Jr., to Inland Inc. Twineless stitcher for rotary baler. 2,774,296, 12–18–56, Cl. 100—5.

Marullo, Gerlando, and D. Maragliano, to Montecatini, Societa General per l'Industria Mineraria e Chimica. Apparatus for purifying raw sulphur. 2,774,655, 12–18–56, Cl. 22—206.

Maryland Baking Co., The: *See*—
Heyman, Albert A. 2,774,315.

Masland, C. H., & Sons: *See*—
Hoeselbarth, Frank W. E. 2,774,389.
Hoeselbarth, Frank W. E. 2,774,390.

Massey-Harris-Ferguson (Sales) Ltd.: *See*—
McNeice, James C. 2,774,154.

Matthews, Milton C., to General Motors Corp. Stator and method of making same. 2,774,897, 12–18–56, Cl. 310—217.

Matz, Herman A. Weedless live bait fishing plug. 2,774,160, 12–18–56, Cl. 43—41.

Mayenschein, Henry D., and J. E. Velsy. Apparatus for cooling cement clinker. 2,774,567, 12–18–56, Cl. 263—32.

Maybew, Raymond L., L. G. Nunn, and R. L. Sundberg, to General Aniline & Film Corp. Polyoxyethylated alkyl phenol emulsification of insolable hydrocarbon insecticides. 2,774,709, 12–18–56, Cl. 167—42.

Maynes, Pedro S. Selective electrical dialing system. 2,774,823, 12–18–56, Cl. 179—90.

McCartney, Edwin E.: *See*—
Smith, John L., and McCartney. 2,774,134.

McCarty, Lourdes V., to Controls Co. of America. Tiltable control valve having safety trip-out. 2,774,372, 12–18–56, Cl. 137—400.

McCombs, Howard L., Jr., to Bendix Aviation Corp. Make-and-break device for periodic or cyclic application of fluid pressure. 2,774,370, 12–18–56, Cl. 137—103.

McCoy, Roger T. Direct-reading height gauge. 2,774,146, 12–18–56, Cl. 33—169.

McCoy, Thomas A., to Carando Machine Works. Metal container body sizer. 2,774,406, 12–18–56, Cl. 153—48.

McDonald, John C., to The Dow Chemical Co. Magnesium-base alloy. 2,774,664, 12–18–56, Cl. 75—168.

McGillem, Clare D., and F. E. Hasseld, Jr., to the United States of America as represented by the Secretary of the Navy. Controller for wave guide tuner, phase shifter, or attenuator. 2,774,946, 12–18–56, Cl. 333—98.

McGraw Electric Co.: *See*—
Weinfurt, William J. 2,774,841.

McMaster, Robert C., and M. D. Phillips, to The Haloid Co. Radiation sensing device. 2,774,887, 12–18–56, Cl. 250—83.3.

McNamara, Joseph E. Corrugated carton handle forming machine. 2,774,424, 12–18–56, Cl. 164—43.

McNeice, James C., to Massey-Harris-Ferguson (Sales) Ltd. Earth moving attachment for tractors. 2,774,154, 12–18–56, Cl. 37—126.

Meacham, J. E.: *See*—
Shepherdson, William L. 2,774,413.

Meadowcroft, Norman: *See*—
Hagopian, Jacob J., and Meadowcroft. 2,774,864.

Mecco, Jerry M., and J. W. Creely, to American Cyanamid Co. Dyeing of polyesters with vat dyes. 2,774,647, 12–18–56, Cl. 8—34.

Mecco, Jerry M., and J. W. Creely, to American Cyanamid Co. Dyeing of polyacrylonitrile with vat dyes. 2,774,648, 12–18–56, Cl. 8—34.

Mecco, Jerry M., and J. W. Creely, to American Cyanamid Co. Dyeing of cellulose carboxylic acid esters with vat dyes. 2,774,649, 12–18–56, Cl. 8—36.

Meisel, Seymour L.: *See*—
Hartough, Howard D., Dickert, and Meisel. 2,774,790.

Meister, George, to the United States of America as represented by the United States Atomic Energy Commission. Recovery of uranium by electrolysis of a fused bath. 2,774,729, 12–18–56, Cl. 204—64.

Mekelburg, Earl F., and C. B. Sohns, to Square D Co. Valve. 2,774,378, 12–18–56, Cl. 137—623.

Melamed, Sidney, to Rohm & Haas Co. Monomeric compounds comprising a plurality of vinyl groups. 2,774,750, 12–18–56, Cl. 260—78.

Melick, John M., to Bell Telephone Laboratories, Inc. Electromechanical translator. 2,774,963, 12–18–56, Cl. 340—365.

Mellman, Harry L.: *See*—
Shroyer, Ralph G. 2,774,567.

Mellman, Myer W.: *See*—
Shroyer, Ralph G. 2,774,567.

Menkin, Benjamin D.: *See*—
Teegardin, James R., and Menkin. 2,774,517.

Menkin, Benjamin D., and S. M. Schorr. Tote box. 2,774,511, 12–18–56, Cl. 220—97.

Mercier, Jean. Sealing means for a slidable member in a pressure unit. 2,774,619, 12–18–56, Cl. 286—26.

Mergenthaler Linotype Co.: *See*—
Hilpman, Paul. 2,774,464.
Inglish, Charles G. 2,774,465.
Rossetto, Louis, Hilpman, and Abbott. 2,774,463.

Messing, Hjalmar S., to American Defibrator Inc. Rotary feeding device for pulp making apparatus. 2,774,491, 12–18–56, Cl. 214—17.

Meyer, Friedrich, to Felsa S. A. Differential gear. 2,774,252, 12–18–56, Cl. 74—674.

Meyer, Karl F. Eisenbut, and A. Siegl. Aqueous bitumen dispersions and a process of making them. 2,774,676, 12–18–56, Cl. 106—277.

Michiel, Joseph. Dispensing device for packaged merchandise. 2,774,467, 12–18–56, Cl. 206—44.12.

Middleton, Donald R.: *See*—
Bixby, William H. 2,774,930.

Miehle Printing Press & Mfg. Co.: *See*—
Rounsefell, Clifford P., and Williams. 2,774,487.

Miller, Bruce D., to National Cylinder Gas Co. Molding and dispensing of plastic materials. 2,774,104, 12–18–56, Cl. 18—5.

Miller, Herman, to Miller Laundry Co. Door constructions for laundry machinery. 2,774,506, 12–18–56, Cl. 220—34.

Miller Laundry Co.: *See*—
Miller, Herman. 2,774,506.

Miller, Solomon E. Shaker for a commodity. 2,774,513, 12–18–56, Cl. 222—39.

Miller, Stewart E., to Bell Telephone Laboratories, Inc. Methods and apparatus for transmitting circular electric waves in wave guides. 2,774,945, 12–18–56, Cl. 333—98.

Milliken, Owen J., ¼ to A. C. Johnson. Leveling tractor and drawbar construction. 2,774,435, 12–18–56, Cl. 180—41.

Minard, Everett S., and F. Lennen, to Librascope, Inc. Gear differential. 2,774,253, 12–18–56, Cl. 74—675.

Miner, W. H., Inc.: *See*—
Danielson, Vernon S. 2,774,485.
Forssell, Eric G. 2,774,486.

Minneapolis-Honeywell Regulator Co.: *See*—
Alderson, Ross C. 2,774,555.
Ehret, Robert J., and Wernlund. 2,774,879.
Grogan, Edward C. 2,774,207.
Jensen, James L. 2,774,678.

Miramontes, Luis: *See*—
Djerassi, Carl, Miramontes, and Rosenkranz. 2,774,777.

Mock, Frank C., and T. J. Thompson, to Bendix Aviation Corp. Tailpipe or afterburning control for turbojet engines. 2,774,215, 12–18–56, Cl. 60—35.6.

Moeller, Carl A.: *See*—
Claff, Clarence L., and Moeller. 2,774,285.

Moline, Elliott, to F. L. Young. Outboard motor overdrive unit. 2,774,249, 12–18–56, Cl. 74—359.





Monsanto Chemical Co.: *See*—
Alt, Arthur. 2,774,791.
Birum, Gail H. 2,774,707.
Dye, William T., Jr. 2,774,658.
Griffith, Edward J. 2,774,672.
Longley, Raymond I., Jr. 2,774,771.
Longley, Raymond I., Jr., Emerson, and Shafer. 2,774,772.
Yanko, William H. 2,774,758.

Montecatini, Societa General per l'Industria Mineraria e Chimica: *See*—
Marullo, Gerlando, and Maragliano. 2,774,655.

Montgomery, H. A., Co., The: *See*—
Fucinari, Angelo M. 2,774,684.

Montgomery, Joseph B. Toy gas pump. 2,774,183, 12–18–56, Cl. 46—39.

Moore, Clyde M., to Moorex Industries, Inc. Cushioned shipping crate. 2,774,503, 12–18–56, Cl. 217—53.

Moore, George A.: *See*—
Stueber, Hugh C., and Moore. 2,774,611.

Moore, George A. Container for liquid commercial products. 2,774,504, 12–18–56, Cl. 220—4.

Moorex Industries, Inc.: *See*—
More, Clyde M. 2,774,503.

Morin, Louis H. Method of making a multiple part anchorage. 2,774,135, 12–18–56, Cl. 29—417.

Morin, Louis H., to Coats & Clark Inc. Method of producing plastic rim spools. 2,774,395, 12–18–56, Cl. 144—309.

Morken, Carl H., to The Kennedy Valve Mfg. Co. Valve package. 2,774,475, 12–18–56, Cl. 206—65.

Morlan, Erwin A., to Hughes Tool Co. Cone type well drill. 2,774,571, 12–18–56, Cl. 255—247.

Mormann, Jackson F. Automatic copying machines. 2,774,200, 12–18–56, Cl. 95—77.5.

Morris, Frank A. Hydraulic variable speed transmission. 2,774,255, 12–18–56, Cl. 74—687.

Morse, Elihu N., and L. B. Shaw, to Columbia Broadcasting System, Inc. Exhaust system. 2,774,394, 12–18–56, Cl. 141—65.

Morse, Merce M.: *See*—
Land, Edwin H., and Morse. 2,774,667.

Morse, Paul M. Rotary internal combustion engine. 2,774,341, 12–18–56, Cl. 123—44.

Moser, Eduard: *See*—
Schmid, Max, Moser, and Frey. 2,774,755.

Moser, Frank T., to American Food Laboratories, Inc. Variegators. 2,774,314, 12–18–56, Cl. 107—1.

Moss, Thomas R. Score card. 2,774,614, 12–18–56, Cl. 281—1.

Moulon, Jean-Marie. Stabilised transistor amplifier. 2,774,826, 12–18–56, Cl. 179—171.

Moyer, Golden A., to Phillips Petroleum Co. Vacuum distillation of oils. 2,774,723, 12–18–56, Cl. 196—77.

Muffly, Glenn. Ice making method and apparatus. 2,774,223, 12–18–56, Cl. 62—7.

Murgia, John B. Collapsible adjustable combined bookrest. 2,774,177, 12–18–56, Cl. 45—60.

Mutaffis, Thomas D.: *See*—
Brouillard, Robert E., and Mutaffis. 2,774,677.

Naab, Julius, to Ingersoll-Rand Co. Piston ring expander. 2,774,039, 12–18–56, Cl. 309—35.

Nagy, Charles S.: *See*—
Placke, Everett H., Eickman, and Nagy. 2,774,298.

National Automotive Fibres, Inc.: *See*—
Davies, Clarence J. 2,774,410.

National Cash Register Co., The: *See*—
Placke, Everett H., Eickman, and Nagy. 2,774,298.

National Cylinder Gas Co.: *See*—
Miller, Bruce D. 2,774,104.

National Dairy Research Laboratories, Inc.: *See*—
Spicer, Newton E., Jr., Gropen, and Hense. 2,774,578.

National Lead Co.: *See*—
Oppegaard, Ansur G. 2,774,650.

National Marking Machine Co., The: *See*—
Kemper, William J. 2,774,458.

Navy, United States of America as represented by the Secretary of the: *See*—
Bennett, Lowell W. 2,774,241.
Dodd, Roy F., and Nims. 2,774,616.
Fitzgerald, Thomas W., and Farren. 2,774,805.
Garman, Raymond L., Dros, and Cohen. 2,774,149.
Johnson, Thomas D., and Saterea. 2,774,928.
McGillem, Clare D., and Hasseld. 2,774,946.
Worsel, John L. 2,774,204.

Nelson, Alfred N. Slip cover tucker. 2,774,178, 12–18–56, Cl. 45—138.

Nelson, Victor A. Automatic glue applying apparatus. 2,774,326, 12–18–56, Cl. 118—12.

Nemler, Aldo R., and J. G. Hartman, to Kraft Foods Co. Traveling rotary vat strainer. 2,774,140, 12–18–56, Cl. 31—48.

Newman, Stanley R., and H. E. Vermillion, to The Texas Co. Supplementary fuel mixture for cold starting diesel engines. 2,774,656, 12–18–56, Cl. 44—53.

New Products Corp.: *See*—
Bamber, Oscar H. 2,774,258.

New York Quinine and Chemical Works Inc.: *See*—
Balser, Manuel M. 2,774,762.

Nielsen, Morits H., to Illinois Tool Works. Washer feed means for assembly machine. 2,774,084, 12–18–56, Cl. 10—109.

Nims, Albert A.: *See*—
Dodd, Roy F., and Nims. 2,774,616.

Nistri, Umberto. Autograph photogrammetric plotting devices based on the Deville principle. 2,774,276, 12–18–56, Cl. 88—24.

Noble, Albert S.: *See*—
Johannsen, Carl H., and Noble. 2,774,515.

Nolt, Edwin B.: *See*—
Happe, Melvin J., and Nolt. 2,774,246.

Noon, T. Cyril, and F. C. Baper, to Thompson Products, Inc. Variable area fuel nozzles. 2,774,629, 12–18–56, Cl. 299—113.

Nordling, James R. Device for washing and drying bearings and the like. 2,774,362, 12–18–56, Cl. 134—99.

Norrman, Åke O. M.: *See*—
Bergström, Ernst R., Fagerqvist, and Norrman. 2,774,244.

Northrop Aircraft, Inc.: *See*—
Crawford, James H., Browne, Glenn, and Pigford. 2,774,555.
Hagopian, Jacob J., and Meadowcroft. 2,774,864.
Hennies, Stuart R., and Keep. 2,774,962.
Towner, George H. 2,774,957.

Norton, Lowell E., to Radio Corp. of America. Automatic frequency control. 2,774,377, 12–18–56, Cl. 250—36.

Nottlebohm, Carl L., W. Jacob, W. Lauppe, and R. Schubert. Process for the manufacture of porous flexible sheet material. 2,774,637, 12–18–56, Cl. 117—120.

Novak, Edward J. Cushioning band for cylindrical objects. 2,774,502, 12–18–56, Cl. 215—100.

nuArc Co., Inc.: *See*—
Benson, Harold R. 2,774,907.

Nunn, Leslie G.: *See*—
Mayhew, Raymond L., Nunn, and Sundberg. 2,774,700.

Nystrom, Karl F., to Standard Railway Equipment Mfg. Co. Side door for railway cars. 2,774,118, 12–18–56, Cl. 20—22.

O'Brien, Stanley J., and A. S. Karcewski. Paint mixing device. 2,774,580, 12–18–56, Cl. 259—144.

Ogorzaly, Henry J., to Esso Research and Engineering Co. Solids pump applied to coal gasification. 2,774,635, 12–18–56, Cl. 302—14.

Ograblas, Stephen J. Eviscerating apparatus for poultry. 2,774,101, 12–18–56, Cl. 17—11.

Oilgear Co., The: *See*—
Ferris, Walter. 2,774,434.
Ferris, Walter. 2,774,436.

Oita, Itsumi J., to Standard Oil Co. Magnetically controlled sample addition means. 2,774,588, 12–18–56, Cl. 265—47.

Olin Mathieson Chemical Corp.: *See*—
Swenson, Oscar J., and Kyser. 2,774,725.

Olsen, Robert A.: *See*—
Goertz, Raymond C., Schmitt, Olsen, and Wehrle. 2,774,488.

Olson, Henry N. Anchor bolt having wedge shaped expander member secured thereto. 2,774,273, 12–18–56, Cl. 85—2.4.

Olson, Marshall S., and R. C. Lindmark, to N. P. Benson Optical Co., Inc. Spectacles for athletic competitors. 2,774,279, 12–18–56, Cl. 88—43.

Olson, Oscar R. Rack for cooling freshly galvanized pipe. 2,774,459, 12–18–56, Cl. 198—84.

Oppegaard, Ansur G., to National Lead Co. Method for decomposition of titaniferous ores. 2,774,650, 12–18–56, Cl. 23—117.

Organon Inc.: *See*—
Thompson, Kenneth W., and Corrente. 2,774,710.

Orlando, Carl, to the United States of America as represented by the Secretary of the Army. Moving object indicator. 2,774,961, 12–18–56, Cl. 340—258.

Orthner, Ludwig, and M. Reuter, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for rendering fibrous material water-repellent. 2,774,689, 12–18–56, Cl. 117—135.5.

Osgood Co., The: *See*—
White, Fred L. 2,774,484.

Osten, Fred C. Spring sash balance. 2,774,119, 12–18–56, Cl. 20—52.

Osterreichische Stickstoffwerke Aktiengesellschaft: *See*—
Bretschneider, Hermann, and Klotzer. 2,774,756.

Otis Elevator Co.: *See*—
Graevenitz, Henry L., and Dunham. 2,774,121.

Ott, Heinrich: *See*—
Ehrhart, Gustav, Schmitt, and Ott. 2,774,767.
Ehrhart, Gustav, Schmitt, and Ott. 2,774,768.

Ottawa Steel, Inc.: *See*—
Dorkins, Evan E. 2,774,496.

Owen, Bennie D. Bracket for supporting vehicle top bow. 2,774,623, 12–18–56, Cl. 296—104.

Owens-Corning Fiberglas Corp.: *See*—
Henry, Thomas W., and Boggs. 2,774,630.
Slayter, Games. 2,774,448.
Slayter, Games. 2,774,678.

Palmer Industries, Inc.: *See*—
Palmer, Richard L. 2,774,607.

Palmer, Richard L., to Palmer Industries, Inc. Panel handler. 2,774,607, 12–18–56, Cl. 280—47.3.

Para-Lux Products Co.: *See*—
Iverson, Arden L. 2,774,527.

Parker Appliance Co., The: *See*—
Sweney, Morgan L., Jr. 2,774,379.

Parker, Donald W., Jr.: *See*—
De Forest, Taber, and Parker. 2,774,884.

Parker Pen Co., The: *See*—
Teff, Ivan D. 2,774,332.

Parker Rust Proof Co.: *See*—
Gibson, Robert C. 2,774,696.

Parlasca, Edwin W., to Flexonics Corp. Automobile thermostat. 2,774,540, 12–18–56, Cl. 236—34.

Parr, Bernard F., to Westinghouse Electric Corp. Steam iron base. 2,774,156, 12–18–56, Cl. 38—77.

Parsons, John W.: *See*—
Malina, Frank J., and Parsons. 2,774,214.

Passino, Herbert J.: *See*—
Mantell, Russell M., Passino, and Teeters. 2,774,797.

Passino, Herbert J., A. L. Dittman, and J. M. Wrighton, to The M. W. Kellogg Co. Manufacture of fluorine containing polymers. 2,774,751, 12–18–56, Cl. 260—87.5.

Passmore, Charles R., to Thorn Electrical Industries Ltd. Electric lamp circuits. 2,774,917, 12–18–56, Cl. 315—97.

Patterson, Graydon M. Baseboard radiator. 2,774,574, 12–18–56, Cl. 257—133.

Patterson, Ray A. Drawer and stabilizing means therefor. 2,774,644, 12–18–56, Cl. 312—331.

Patten, Henry W., to Collins Radio Co. Synchronous rectifier and phase detector. 2,774,932, 12–18–56, Cl. 321—47.

Paulsen, Lloyd O., and C. O. Christensen. Buoyant ring heater for ice fishing. 2,774,856, 12–18–56, Cl. 219—41.

Pazos, Nicolas. Bidet seat. 2,774,078, 12–18–56, Cl. 4—7.

Peerless Photo Product, Inc.: *See*—
Collins, Carroll B. 2,774,289.

Pel, Willem A.: *See*—
Hackmann, Johannes T., and Pel. 2,774,706.

Penick, S. B., & Co.: *See*—
Baron, Abraham L. 2,774,712.

Peplin, Stephen C., to Lakewood Mfg. Co. Portable stove. 2,774,945, 12–18–56, Cl. 126—25.

Per Corp.: *See*—
Holmes, Russell B., Jr. 2,774,727.

Perilhou, Jean R., and J. L. H. Jonker, to Hartford National Bank and Trust Co., as trustee. Post-deflection horizontal color stripe pick-up tube. 2,774,814, 12–18–56, Cl. 178—5.4.

Permutit Co., The: *See*—
Blight, Frank C. 2,774,732.

Peterson, Henry. Mounting having a large central gem overlying adjacent small gems. 2,774,231, 12–18–56, Cl. 63—23.

Phelps, Byron E., to International Business Machines Corp. Magnetic recording method. 2,774,646, 12–18–56, Cl. 346—74.

Philco Corp.: *See*—
Farmalian, Farough F. 2,774,228.

Phillips, David B. Packaging device for cylindrical objects. 2,774,474, 12–18–56, Cl. 206—65.

Phillips, Michael D.: *See*—
McMaster, Robert C., and Phillips. 2,774,887.

Phillips Petroleum Co.: *See*—
Gilmore, Forrest E. 2,774,715.
Goins, Robert R. 2,774,572.
Meyer, Golden A. 2,774,723.
Reynolds, William B. 2,774,703.
Stewart, John M. 2,774,794.
Word, James C., Jr. 2,774,810.

Phyfe, James D.: *See*—
Byrd, John F., and Phyfe. 2,774,824.

Picha, George M., to G. D. Searle & Co. Haloalkanoyl resin acid derivatives. 2,774,784, 12–18–56, Cl. 260—469.

Pieper, Alphonse F. Strand tension device. 2,774,550, 12–18–56, Cl. 242—154.

Pieper, Alphonse F. Strand tensioning mechanism. 2,774,551, 12–18–56, Cl. 242—154.

Pigford, John D.: *See*—
Crawford, James E., Browne, Glenn, and Pigford. 2,774,555.

Pitney-Bowes, Inc.: *See*—
Russell, Alva G., and Bernart. 2,774,537.

Pittsburgh Consolidation Coal Co.: *See*—
Kalik, Metro D. 2,774,716.
Poundstone, William N. 2,774,462.

Pittsburgh Plate Glass Co.: *See*—
Atheson, Florian V. 2,774,190.

Placke, Everett H., W. E. Eickman, and C. S. Nagy, to The National Cash Register Co. Selective feed and print control means in accounting machines. 2,774,296, 12–18–56, Cl. 101—93.

Podell, Howard I. Current failure indicator. 2,774,960. 12–18–56, Cl. 340—250.

Polarad Electronics Corp.: *See*—
Skwarek, Frank J. 2,774,243.

Polaroid Corp.: *See*—
Land, Edwin H., and Morse. 2,774,667.
Rogers, Howard G. 2,774,668.

Polk, Emil S. Pocket knives. 2,774,139, 12–18–56, Cl. 30—161.

Pollits, Harold C., to Iowa Mfg. Co. of Cedar Rapids, Iowa. Screen clamping mechanism. 2,774,477, 12–18–56, Cl. 209—403.

Pontius, George W., III, to Bendix Aviation Corp. Brake adjustor. 2,774,445, 12–18–56, Cl. 188—79.5.

Porter-Cable Machine Co., The: *See*—
Emmons, Arthur N. 2,774,198.
Emmons, Arthur N. 2,774,199.
Emmons, Arthur N. 2,774,399.
Hartmann, Eric. 2,774,292.

Porter, William M. Grave markers. 2,774,162, 12–18–56, Cl. 46—124.5.

Poundstone, William N., to Pittsburgh Consolidation Coal Co. Spooled ribbon supported extensible belt conveyor. 2,774,462, 12–18–56, Cl. 198—139.

Power Equipment Co.: *See*—
Bixby, William H. 2,774,930.

Power Jets (Research and Development) Ltd.: *See*—
Ashwood, Peter F., and Crosse. 2,774,554.

Powers, Donald W., to Roanwell Corp. Snap switch. 2,774,836, 12–18–56, Cl. 200—67.

Prebol, Evelyn and T. J. Luggage illuminator. 2,774,860, 12–18–56, Cl. 240—6.45.

Prebol, Theodore J.: *See*—
Prebol, Evelyn and T. J. 2,774,860.

Presler, James L. Dump chute for wagons. 2,774,456, 12–18–56, Cl. 193—4.

Premier, Charles K., and J. H. Weaver. Heat and wear resisting material and article formed thereof. 2,774,077, 12–18–56, Cl. 2—167.

Pribis, Herman K. Collapsible gun rest. 2,774,563, 12–18–56, Cl. 248—127.

Price, Earl R., to Bendix Aviation Corp. Transmission operating mechanism. 2,774,251, 12–18–56, Cl. 74—385.

Priebe, William A. Door holder. 2,774,622, 12–18–56, Cl. 292—288.

Prince Castle Mfg. Division, Inc.: *See*—
Brown, Le Roy A., and Brotheridge. 2,774,579.

Princess Fair Blouse, Inc.: *See*—
Saccoccio, Mario G. 2,774,075.

Profos, Paul, to Sulzer Freres, Societe Anonyme. Method for degasifying water. 2,774,731, 12–18–56, Cl. 210—15.

Pulver, Lynn E. Fishing lure. 2,774,171, 12–18–56, Cl. 43—42.19.

Purdue University: *See*—
Hawkins, George A. 2,774,281.

Putnam, Frank R. Cotton picker. 2,774,208, 12–18–56, Cl. 56—48.

Pye Ltd.: *See*—
Cope, John E., and Fisher. 2,774,865.

Q'Part, John H. Dispensing carton for pills or other small articles. 2,774,470, 12–18–56, Cl. 206—56.

Quinn, William T. Postics for dental bridges. 2,774,141, 12–18–56, Cl. 32—6.

Quist, Harvey L. Calf delivering instrument. 2,774,353, 12–18–56, Cl. 128—352.

Rabassda, Juan C. Valve cap. 2,774,285, 12–18–56, Cl. 138—89.3.

Rabenda, Edward J., to International Business Machines Corp. Magnetic core converter and storage unit. 2,774,429, 12–18–56, Cl. 164—115.

Rademakers, Adriaan, and H. G. Bruyning, to Hartford National Bank and Trust Co., as trustee. Inductance assembly such as a transformer for the transmission of pulses. 2,774,935, 12–18–56, Cl. 323—56.

Radio Corp. of America: *See*—
Baker, Richard E., and Covely. 2,774,964.
Byrd, John F., and Phyfe. 2,774,824.
Dow, Orville E. 2,774,871.
Larach, Simon. 2,774,682.
Norton, Lowell E. 2,774,577.
Wallmark, John T. 2,774,908.

Randall, Alvin J. Convertible playpen and bed guard construction. 2,774,060, 12–18–56, Cl. 5—93.

Rasmussen, Arthur W. and G. A. Corn cracking apparatus with a yieldingly mounted roll for the passage of foreign objects. 2,774,544, 12–18–56, Cl. 241—232.

Rasmussen, George A.: *See*—
Rasmussen, Arthur W. and G. A. 2,774,544.

Ratcliffe, Auburn P. Fender for tractors. 2,774,610, 12–18–56, Cl. 280—152.

Ray, William A., E. J. Davidson, W. F. Keller, and A. P. Swift, to General Controls Co. Circuit controller for air heating control system. 2,774,847, 12–18–56, Cl. 200—139.

Raymond, Clifford H. Hydraulic crane device. 2,774,483, 12–18–56, Cl. 212—85.

Raymond Concrete Pile Co.: *See*—
Hasak, John T. 2,774,218.

Raytheon Mfg. Co.: *See*—
Kennedy, David P. 2,774,941.

Reach, Milton B. Anti-sicking golf club. 2,774,600, 12–18–56, Cl. 273—174.

Redd, John C.: *See*—
Jenk, Robert L., and Redd. 2,774,698.

Reed, John A., to Tootal Broadhurst Lee Co. Ltd. Contact mixer. 2,774,654, 12–18–56, Cl. 23—285.

Regier, Dietrich D. Unloading units for trailer wagons. 2,774,496, 12–18–56, Cl. 214—83.36.

Reif-Rexoll, Inc.: *See*—
Bertram, Francis C. 2,774,391.

Reighart, June H. Ladle maintenance apparatus. 2,774,123, 12–18–56, Cl. 22—85.

Remde, Edward H., to The Baker-Raulang Co. Overload responsive switch mechanism for industrial elevating truck. 2,774,437, 12–18–56, Cl. 180—82.

Remer, Robert K., to The Strathmore Co. Treating of plastic surfaces. 2,774,079, 12–18–56, Cl. 117—11.

Rendel, Herbert A., and R. L. Schauer. Trucks or other types of vehicles for moving heavy material having a vertically adjustable load carrying frame. 2,774,604, 12–18–56, Cl. 280—6.

Reuer, Emily I. Garment hanger. 2,774,526, 12–18–56, Cl. 223—99.

Reuter, Martin: *See*—
Orthner, Ludwig and Reuter. 2,774,689.

Reynolds, William B., to Phillips Petroleum Co. Rubber-fabric laminates and bonding agent therefor. 2,774,703, 12–18–56, Cl. 154—139.

Reymst, Maximilien F., and R. H. de Beer, to Hartford National Bank and Trust Co., as trustee. Electrical machine, the magnetic circuit of which comprises one or more permanent magnets. 2,774,896, 12–18–56, Cl. 310—103.

Rice, Leonard M.: *See*—
Geschickter, Charles F., and Rice. 2,774,787.

Richardson, Edward A. Fluid cooled permeable turbine blade. 2,774,566, 12–18–56, Cl. 253—39.15.

Rieke, Glenn T., to Rieke Metal Products Corp. Pull spout closure for containers. 2,774,523, 12–18–56, Cl. 222—525.

Rieke, John W., to Bell Telephone Laboratories, Inc. Bridge stabilized oscillator. 2,774,873, 12–18–56, Cl. 250—36.

Rieke Metal Products Corp.: *See*—
Rieke, Glenn T. 2,774,523.

Ritter, George T., to Aircraft-Marine Products, Inc. Electrical connector. 2,774,810, 12–18–56, Cl. 174—84.

Roanwell Corp.: *See*—
Powers, Donald W. 2,774,836.

Robb, Don, to Schenley Industries, Inc. Bottle stopper. 2,774,501, 12–18–56, Cl. 215—48.

Robb, Donald L.: *See*—
Strickland, Claude H., Eberts, and Robb. 2,774,499.

Robert, Roger A. Aircraft with variable wing arrangement. 2,774,554, 12–18–56, Cl. 244—46.

Robertshaw-Fulton Controls Co.: *See*—
Coles, Ralph V. 2,774,919.
Weber, Victor, and Tyler. 2,774,840.





Rochester Mfg. Co., Inc.: *See*—
Hastings, Warren W. 2,774,930.

Rodia, Frans, and F. Thomas, to Knapsack-Griesheim Aktiengesellschaft für Stickstoffdünger und Autogentechnik. Fluid for gravity separation. 2,774,734, 12–18–56, Cl. 252—60.

Rodman, Clarence J., to Alliance Ware, Inc. Preparation of sheet metal for enameling. 2,774,678, 12–18–56, Cl. 117—8.

Roe, A. V., Canada Ltd.: *See*—
Stewart, Ronald B., and Deanys. 2,774,365.

Rogers, Howard G., to Polaroid Corp. Process and product for forming color images from complete dyes. 2,774,668, 12–18–56, Cl. 96—29.

Rohm & Haas Co.: *See*—
Melamed, Sidney. 2,774,750.
Shelley, James P. 2,774,746.
Shelley, James P., and Young. 2,774,692.

Rohm & Haas G. m. b. H.: *See*—
Abel, Gerhard, and Volker. 2,774,659.

Room-Temp Lockers, Inc.: *See*—
Grilley, Frank C., and Smith. 2,774,225.

Rorabaugh, Guy O.: *See*—
Cotton, Robert H., and Rorabaugh. 2,774,671.

Rorig, Kurt J., to G. D. Searle & Co. α-hydroxyphenyl-β-alkanoylphenyl and β-glycolylphenyl acrylonitriles and derivatives thereof. 2,774,783, 12–18–56, Cl. 260—465.

Rose, Werner P. Tipping attachment for cloth embossing machines. 2,774,328, 12–18–56, Cl. 118—44.

Rosenkrans, George: *See*—
Djerassi, Carl, Miramontes, and Rosenkrans. 2,774,777.

Rosenstein, Ludwig: *See*—
Gorin, Manuel H., and Rosenstein. 2,774,752.

Rosenthal, Daniel. Disposable waste receptacle. 2,774,531, 12–18–56, Cl. 229—53.

Ross Operating Valve Co.: *See*—
Di Tirro, Domenic A. 2,774,369.

Rossell, William T., to Transit Research Corp. Pedestal guide assembly. 2,774,312, 12–18–56, Cl. 105—224.

Rossetto, Louis, P. Hilpman, and W. B. Abbott, to Mergenthaler Linotype Co. Typographical composing, casting and distributing machines. 2,774,462, 12–18–56, Cl. 199—11.

Rounsefell, Clifford P., and L. C. Williams, to Mobile Printing Press & Mfg. Co. Pack turnover apparatus. 2,774,467, 12–18–56, Cl. 214—1.

Rous, Ben, to Federal Carton Corp. Can display package with locking tabs. 2,774,466, 12–18–56, Cl. 206—45.14.

Rowis, Garth A.: *See*—
Harrison, John B., and Rowis. 2,774,805.

Rudd, Wallace C., and E. J. Stanton, to Magnetic Heating Corp. Tube welding. 2,774,857, 12–18–56, Cl. 219—67.

Ruetz, Theodor. Burner for cigarette-lighters and cigarette-lighters provided therewith. 2,774,235, 12–18–56, Cl. 67—53.

Rulon-Miller, Robert, and W. H. Taber, to Dixon Corp. Bobbin holder. 2,774,540, 12–18–56, Cl. 242—130.

Rulon, Richard M.: *See*—
Butler, Keith H., and Rulon. 2,774,739.

Russell, Alva G., and W. F. Bernart, to Pitney-Bowes, Inc. Totalizing mechanism. 2,774,537, 12–18–56, Cl. 235—130.

Rutherford, Robert, to Sun Oil Co. Liquid applicator for packaging machines and the like. 2,774,094, 12–18–56, Cl. 15—127.

Rutishauser, Hans. Device for indicating physical phenomena. 2,774,670, 12–18–56, Cl. 250—27.

Ryker, Don W.: *See*—
Swenson, Oscar J., and Ryker. 2,774,725.

SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung: *See*—
Johanson, Bertil. 2,774,112.

Saccoccio, Mario G., to Princess Fair Blouse, Inc. Garment with detachable sleeves. 2,774,075, 12–18–56, Cl. 2—106.

Saint-Hilaire, Albert B. Apparatus for production of coated tape. 2,774,327, 12–18–56, Cl. 118—33.

Salsberger, Andreas, to Torpedo-Werke Aktiengesellschaft Fahrrader und Schreibmaschinen. Front feed device for business office machines. 2,774,457, 12–18–56, Cl. 197—127.

Sanborn, Everett V.: *See*—
Derderian, James, and Sanborn. 2,774,115.

Sanders, Archie E. Golf club cart. 2,774,605, 12–18–56, Cl. 280—47.19.

Sanders, Donald G.: *See*—
Buchland, Bruce O., Sanders, and Gardiner. 2,774,722.

Sandersohn, George H. Material spreading apparatus. 2,774,602, 12–18–56, Cl. 275—2.

Sandon A. G.: *See*—
Stoll, Arthur, Jucker, and Lindenmann. 2,774,773.

Sanford, Emil, to Allen B. Du Mont Laboratories, Inc. Cathode ray sweep correction system. 2,774,910, 12–18–56, Cl. 315—24.

Satersa, Martin G.: *See*—
Johnson, Thomas D., and Satersa. 2,774,928.

Schabert, Robert: *See*—
Nottebohm, Carl L., Jacob, Lauppe, and Schabert. 2,774,687.

Schaefer, Charles F. Coating machine. 2,774,230, 12–18–56, Cl. 118—259.

Schaefer, Edward J. Under load protective system for electric motor. 2,774,929, 12–18–56, Cl. 318—474.

Schaffer, David J., and R. E. Dorland, to Bendix Aviation Corp. Choke control device. 2,774,343, 12–18–56, Cl. 123—119.

Scharmann & Co., G. m. b. H.: *See*—
Schraub, Willi. 2,774,260.

Schauer, Robert L.: *See*—
Rendel, Herbert A., and Schauer. 2,774,604.

Schechter, William H., to Callery Chemical Co. Torch welding. 2,774,136, 12–18–56, Cl. 29—494.

Scheelow, Oliver W.: *See*—
Stoyke, Ludwig T., and Scheelow. 2,774,309.

Schelp, Karl: *See*—
Hornstein, Victor, and Schelp. 2,774,425.

Schenley Industries, Inc.: *See*—
Robb, Don. 2,774,501.
Strickland, Claude H., Eberts, and Robb. 2,774,499.

Schering Corp.: *See*—
Gould, David H., Hershberg, and Clayton. 2,774,713.

Schilling, Otto, to Daimler-Benz Aktiengesellschaft. Internal combustion engine. 2,774,342, 12–18–56, Cl. 123—119.

Schjolin, Hans O., and K. Schuster, to General Motors Corp. Air conditioning apparatus for buses and the like. 2,774,227, 12–18–56, Cl. 62—117.

Schlaadebach, Gert, to A. W. Lehr. Collapsible invalid's vehicle. 2,774,005, 12–18–56, Cl. 280—38.

Schlee, Heinrich: *See*—
Zepp, Emil. 2,774,307.

Schmid, Max, and C. Frey, to Ciba Ltd. Acid amide derivatives of azo-dyestuffs. 2,774,755, 12–18–56, Cl. 260—174.

Schmitt, Karl: *See*—
Ehrhart, Gustav, Schmitt, and Ott. 2,774,767.
Ehrhart, Gustav, Schmitt, and Ott. 2,774,768.

Schmitt, Roland G., Jr.: *See*—
Geerts, Raymond C., Schmitt, Olsen, and Wehrle. 2,774,468.

Schneider, Edgar B. Pulsation smoothing valve. 2,774,374, 12–18–56, Cl. 137—505.29.

Schnell, Albert. Method of dispersing and utilization of sulfite waste liquor. 2,774,754, 12–18–56, Cl. 260—124.

Schoeffel, Eugene W.: *See*—
Barton, Daniel M., and Schoeffel. 2,774,666.

Schoeffel, Eugene W., and D. M. Barton, to Sterling Drug Inc. Production of soluble sulfides. 2,774,665, 12–18–56, Cl. 92—2.

Schorr, Nadia M.: *See*—
Menkin, Benjamin D., and Schorr. 2,774,511.

Schraub, Willi, to Scharmann & Co., G. m. b. H. Horizontal boring machine with columnar guides. 2,774,260, 12–18–56, Cl. 77—5.

Schroeder, Carl W., and R. W. Sumers, to Shell Development Co. Treatment of textile materials and product. 2,774,691, 12–18–56, Cl. 117—139.4.

Schum, Wesley R.: *See*—
Batchelor, Joseph B., Jr. 2,774,645.

Schuman, Seymour C.: *See*—
Johnson, Clarence A., and Schuman. 2,774,718.

Schuster, Karl: *See*—
Schjolin, Hans O., and Schuster. 2,774,227.

Schwaneke, Fred C.: *See*—
Krause, Walter W., and Schwaneke. 2,774,524.

Schweller, Edmund F., to General Motors Corp. Freezing device. 2,774,226, 12–18–56, Cl. 62—106.5.

Scott, Lawrence B.: *See*—
Williams, Paul H., and Scott. 2,774,733.

Scovill Mfg. Co.: *See*—
Danziger, Joseph L. 2,774,452.

Scripto, Inc.: *See*—
Smith, John S. 2,774,331.

Sealey, William C., to Allis-Chalmers Mfg. Co. Contact positioning arrangement for quick break mechanism of lead tap changing transformer. 2,774,850, 12–18–56, Cl. 200—17.

Searle, G. D., & Co.: *See*—
Cusic, John W. 2,774,764.
Jenkins, William W. 2,774,765.
Picha, George M. 2,774,764.
Rorig, Kurt J. 2,774,783.

Sears, Roebuck and Co.: *See*—
Chesser, Cecil E. 2,774,439.

Secrist, Horace A., to The Kendall Co. Process for making felt-like products. 2,774,126, 12–18–56, Cl. 28—72.2.

Secrist, Horace A., to The Kendall Co. Textile sheet material. 2,774,127, 12–18–56, Cl. 28—79.

Secrist, Horace A., to The Kendall Co. Felt-like products. 2,774,128, 12–18–56, Cl. 28—79.

Secrist, Horace A., to The Kendall Co. Synthetic felts. 2,774,129, 12–18–56, Cl. 28—79.

Sedgwick, John G. Power mower with pivotal connection between carburetor and motor. 2,774,207, 12–18–56, Cl. 56—25.4.

Semmelman, Charles L., to Bell Telephone Laboratories, Inc. Nonreciprocal transmitting devices. 2,774,880, 12–18–56, Cl. 307—149.

Shackelford, Jesse J., to Fairmont Box Co. Electro-mechanical valve control mechanism. 2,774,338, 12–18–56, Cl. 121—45.

Shafer, Theodore C.: *See*—
Longley, Raymond L., Jr., Emerson, and Shafer. 2,774,772.

Shanok, Abraham, V., and J. Antenna and trim. 2,774,811. 12–18–56, Cl. 174—110.

Shanok, Jesse: *See*—
Shanok, Abraham, V., and J. 2,774,811.

Shanok, Victor: *See*—
Shanok, Abraham, V., and J. 2,774,811.

Sharpe, Frederick P., to Kelsey-Hayes Wheel Co. Piercing machine. 2,774,426, 12–18–56, Cl. 164—87.

Shaw, Lloyd E.: *See*—
Morse, Elihu N., and Shaw. 2,774,394.

Shaw, Robert E., and F. H. Walker, to Sylvania Electric Products Inc. Repeating shotgun. 2,774,861, 12–18–56, Cl. 240—37.

Sheffield, John C. Watch repair tool. 2,774,306, 12–18–56, Cl. 81—6.

Sheldon, Edward E. Tube for electro-magnetic images. 2,774,901, 12–18–56, Cl. 313—65.

Shell Development Co.: *See*—
Carlson, George J., Geertner, and West. 2,774,792.
Hackmann, Johannes T., and Pel. 2,774,706.
Howard, Harry W., and Wittenwyler. 2,774,748.
Schroeder, Carl W., and Sumers. 2,774,691.
Williams, Paul H., and Scott. 2,774,733.

Shelley, James P., and E. M. Young, Jr., to Rohm & Haas Co. Coated fibrous products and methods of making them. 2,774,692, 12–18–56, Cl. 117—155.

Shelley, James P., to Rohm & Haas Co. Diethylene glycol bis-carbamate-formaldehyde condensates. 2,774,746, 12–18–56, Cl. 260—29.4.

Shepard, Francis H., Jr. Intermittent motion device. 2,774,245, 12–18–56, Cl. 74—84.

Shepherdson, William L., 66⅔% to J. B. Meacham. Folding chair structure. 2,774,418, 12–18–56, Cl. 155—196.

Sheppard, Donald, ⅓ to W. Charron. Combination salt and pepper shaker. 2,774,514, 12–18–56, Cl. 222—142.9.

Sherborne, John E., to Union Oil Co. of California. Method for increasing production from wells. 2,774,481, 12–18–56, Cl. 166—22.

Sherr, Solomon, to General Precision Laboratory Inc. Logarithmic amplifier. 2,774,825, 12–18–56, Cl. 179—171.

Shmidl, Albert J., and J. L. Walker, to Esso Research and Engineering Co. Method for hydrolyzing sulfonic acids. 2,774,800, 12–18–56, Cl. 260—668.

Shoemaker, Clarence J.: *See*—
Marron, Thomas U., and Shoemaker. 2,774,669.

Shoop, Thomas R., and J. J. Espey, to The Wolfe & Mann Mfg. Co. Circuit breaker drawout. 2,774,833, 12–18–56, Cl. 200—50.

Shrader, Frank A. Auto electric fire stopper switch. 2,774,842, 12–18–56, Cl. 200—102.

Shreyer, Ralph G., ⅓ to H. L. and ⅓ to M. W. Mellman. Tripod jack. 2,774,587, 12–18–56, Cl. 254—99.

Shure Brothers Inc.: *See*—
Bauer, Benjamin B. 2,774,438.

Siebert, Max G., and H. Taube, to Socony Mobil Oil Co., Inc. Stabilizing fuel oil by oxidation in the presence of active carbon impregnated with alkali. 2,774,721, 12–18–56, Cl. 196—42.

Siegl, Adolf: *See*—
Mayer, Karl, Eisenhut, and Siegl. 2,774,676.

Siemens & Halske Aktiengesellschaft: *See*—
Katz, Helmut. 2,774,916.
Lintzel, Hermann. 2,774,944.

Sierra Electronic Corp.: *See*—
Watson, Robert H. 2,774,943.

Sievers, Bernice E. and E. D. Article supporting rack. 2,774,481, 12–18–56, Cl. 211—89.

Sievers, Eldred D.: *See*—
Sievers, Bernice E. and E. D. 2,774,481.

Sigma Instrument Co. Ltd., The: *See*—
Lorham, John. 2,774,147.

Silver, Marvin N.: *See*—
Sussman, Leo, Bazarian, Silver, and Grimm. 2,774,915.

Simmons, Richard R. Thermostatically controlled key lock heater. 2,774,855, 12–18–56, Cl. 219—19.

Sinclair Refining Co.: *See*—
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Sipsey, Everett T., to American Viscose Corp. Multiple strand spinning machine. 2,774,211, 12–18–56, Cl. 57—34.

Sitz, Geraldine: *See*—
Borders, Robert L., Jr., and Sitz. 2,774,841.

Sitz, Gilbert C., to Aircraft-Marine Products, Inc. Tool for effecting telescoping engagement between cooperating parts of an electrical connection. 2,774,133, 12–18–56, Cl. 29—254.

Sixsmith, Herbert, to English Electric Valve Co. Ltd. Magnetrons. 2,774,914, 12–18–56, Cl. 315—39.67.

Skidmore, Frank O., to The General Tire & Rubber Co. Method of making skid-resistant tire. 2,774,409, 12–18–56, Cl. 154—14.

Skwarek, Frank J., to Polarad Electronics Corp. Tuning mechanism for radio receivers. 2,774,243, 12–18–56, Cl. 74—10.6.

Slayter, Games, to Owens-Corning Fiberglas Corp. Filter. 2,774,443, 12–18–56, Cl. 183—51.

Slayter, Games, to Owens-Corning Fiberglas Corp. Glass composition. 2,774,675, 12–18–56, Cl. 106—50.

Smallberg, Harry R. Foldable, limp-walled article of luggage. 2,774,450, 12–18–56, Cl. 190—43.

Smathers, Henry A., ½ to V. G. Jarman. Method of filling tubular coin wrappers. 2,774,203, 12–18–56, Cl. 53—29.

Smidth, F. L., & Co.: *See*—
Jensen, Ejler. 2,774,516.
Sylvest, Karl J. 2,774,637.

Smith, Clayton W.: *See*—
Antonidis, John E., Edmundson, Smith, and House. 2,774,894.

Smith, Garland B. Artificial Christmas tree. 2,774,165, 12–18–56, Cl. 41—15.

Smith, Howard A.: *See*—
Larson, Algot, and Smith. 2,774,100.

Smith, John L., and E. E. McCartney. Plumber's pipe jig. 2,774,134. 12–18–56, Cl. 29—236.

Smith, John S., to Scripto, Inc. Marking element and dispensing means therefor. 2,774,331, 12–18–56, Cl. 120—13.

Smith, Kline & French Laboratories: *See*—
Kerwin, James F., and Ullyot. 2,774,770.

Smith, Morris M.: *See*—
Grilley, Frank C., and Smith. 2,774,225.

Smith, Richard A., to The M. W. Kellogg Co. Lamination of perfluorochlorooleflns and polyacrylonitrile. 2,774,702, 12–18–56. Cl. 154—139.

Smith, Richard A., to The M. W. Kellogg Co. Lamination of halogenated olefin polymers. 2,774,704, 12–18–56, Cl. 154—139.

Smith, Richard A., to The M. W. Kellogg Co. Lamination of chlorinated olefins. 2,774,705, 12–18–56, Cl. 154—139.

Smith, Roland V., to E. B. Eddy Co. Wiping or doctoring devices for removing excess coating from sheet material. 2,774,320, 12–18–56, Cl. 118—118.

Smithers, Vernon L. Package for transporting cut flowers. 2,774,187, 12–18–56, Cl. 47—41.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Dumas, Jean R. 2,774,674.

Societe d'Etudes Mecaniques et d'Organisation Industrielle: *See*—
Mano, Raphaël L. 2,774,271.

Societe Nationale de Constructions Aeronautiques du Sud-Est: *See*—
Jakimiuk, Wsiewolod J., and Herell. 2,774,557.

Societe Technique et Commerciale d'Installations Industrielles Lucaat: *See*—
Fievet, Henri. 2,774,373.

Socony Mobil Oil Co., Inc.: *See*—
Bergstrom, Eric V. 2,774,440.
Conradt, Harry L., and Leaman. 2,774,801.
Hartough, Howard D., Dickert, and Meisel. 2,774,790.
Siebert, Max G., and Taube. 2,774,721.
Stover, William A., and Wilson. 2,774,742.

Soddy, Thomas C., to Chicago Railway Equipment Co. Air separator. 2,774,444, 12–18–56, Cl. 183—81.

Soffe, John. Fishing reel. 2,774,546, 12–18–56, Cl. 242—84.5.

Sohns, Carl B.: *See*—
Mekelburg, Earl F., and Sohns. 2,774,378.

Soliday, Arnold J.: *See*—
Blackett, Eben G., and Soliday. 2,774,750.

Sommer, Lee H., to Dow Corning Corp. Triorganosilyl amino acids. 2,774,778, 12–18–56, Cl. 260—448.2.

Sorensen, George H. Center spacing test comparator and method. 2,774,145, 12–18–56, Cl. 33—147.

Sowter, Anthony B., to The General Electric Co. Ltd. Butt pressure welding device. 2,774,262, 12–18–56, Cl. 78—82.

Spanjer, David L., to The Bimco Corp. Eccentric track adjustment. 2,774,638, 12–18–56, Cl. 305—9.

Sperry Rand Corp.: *See*—
Bonn, Theodore H. 2,774,956.
Happe, Melvin J., and Nolt. 2,774,246.

Spiess, Newton E., Jr., E. M. Gropen, and H. L. Hesse, to National Dairy Research Laboratories, Inc. Methods and apparatus for whipping food products. 2,774,578, 12–18–56, Cl. 259—25.

Spoonhour, Charles L., deceased; J. B. Spoonhour, administratrix, to Lewis Refrigeration & Supply Co. Quick-freeze conveyors. 2,774,460, 12–18–56, Cl. 198—131.

Spoonhour, Jean E.: *See*—
Spoonhour, Charles L. 2,774,460.

Spraying Systems Co.: *See*—
Wahlin, Fred W. 2,774,631.

Square D Co.: *See*—
Mekelburg, Earl F., and Sohns. 2,774,378.

Squire, John R., to Federal-Mogul-Bower Bearings, Inc. Method of making roller bearing roller retainers. 2,774,132, 12–18–56, Cl. 29—148.4.

Stack, Sydney S., to General Electric Co. Thermistor assembly. 2,774,854, 12–18–56, Cl. 201—63.

Staley, William F. Control for off-the-road vehicles. 2,774,835, 12–18–56, Cl. 200—61.47.

Stam, Stephen A.: *See*—
Ballash, Andrew, Stam, and Anderson. 2,774,282.

Stamicarbon N. V.: *See*—
De Jong, Geert J., and Zeegers. 2,774,793.

Standard Machinery Co., The: *See*—
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Standard Oil Co. (Illinois): *See*—
Dado, John R. 2,774,366.
Oita, Itsumi J. 2,774,588.

Standard Oil Co., Ohio, The: *See*—
Szabo, Joseph J., and Frazier. 2,774,780.

Standard Railway Equipment Mfg. Co.: *See*—
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Stanley Building Specialties Co.: *See*—
Blanchard, Dean C. 2,774,590.

Stanley, Lester N., and A. C. Baggenstoss, to General Aniline & Film Corp. Production of dicyandiamide-formaldehyde condensation products. 2,774,749, 12–18–56, Cl. 260—69.

Stanton, Robert J.: *See*—
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Stewart, John M., to Phillips Petroleum Co. Producing a bis(β-halo)disulfide. 2,774,794, 12–18–56, Cl. 260—608.

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| | 119.60: 2,774,482 | | 134: 2,774,536 | | 60: 2,774,734 | | 448.2: 2,774,778 | | 20: 2,774,615 | | 97: 2,774,917 |
| 212— | 35: 2,774,483 | | 139: 2,774,537 | | 117: 2,774,735 | | 2,774,779 | 295— | 33: 2,774,616 | | 98: 2,774,918 |
| | 89: 2,774,484 | 266— | 12: 2,774,538 | | 182: 2,774,736 | | 452: 2,774,780 | | 71: 2,774,617 | 316— | 2: 2,774,645 |
| 213— | 45: 2,774,485 | | 21: 2,774,539 | | 201.3: 2,774,737 | | 466: 2,774,781 | | 223: 2,774,618 | 317— | 146: 2,774,919 |
| | 2,774,486 | | 24: 2,774,540 | | 201.6: 2,774,738 | | 2,774,782 | 296— | 26: 2,774,619 | | 158: 2,774,920 |
| 214— | 1: 2,774,487 | | 48: 2,774,541 | | 2,774,739 | | 465.7: 2,774,783 | 297— | 85: 2,774,620 | | 202: 2,774,921 |
| | 2,774,488 | 268— | 261: 2,774,542 | | 226: 2,774,740 | | 469: 2,774,784 | 298— | 28: 2,774,621 | 318— | 162: 2,774,922 |
| | 6: 2,774,489 | 269— | 6.45: 2,774,880 | | 331: 2,774,741 | | 485: 2,774,785 | 299— | 268: 2,774,622 | | 202: 2,774,923 |
| | 10.5: 2,774,490 | | 37: 2,774,881 | | 448: 2,774,742 | | 501: 2,774,786 | 300— | 104: 2,774,623 | | 224: 2,774,924 |
| | 17: 2,774,491 | | 2,774,882 | | 2,774,743 | | 514: 2,774,787 | | 187: 2,774,624 | | 260: 2,774,925 |
| | 33: 2,774,492 | 341— | 55: 2,774,543 | | 466: 2,774,744 | | 521: 2,774,788 | 309— | 28.6: 2,774,625 | | 284: 2,774,926 |
| | 83: 2,774,493 | | 223: 2,774,544 | 283— | 30.15: 2,774,566 | | 570.6: 2,774,789 | | 45: 2,774,626 | | 314: 2,774,927 |
| | 77: 2,774,494 | 342— | 94.4: 2,774,545 | 284— | 99: 2,774,567 | | 594: 2,774,790 | | 88: 2,774,627 | | 448: 2,774,928 |
| | 83.35: 2,774,495 | | 94.5: 2,774,546 | 285— | 19: 2,774,568 | | 650: 2,774,791 | | 95: 2,774,628 | | 474: 2,774,929 |
| | 140: 2,774,496 | | 98: 2,774,547 | | 24: 2,774,569 | | 651: 2,774,792 | | 118: 2,774,629 | 321— | 19: 2,774,930 |
| | 282: 2,774,497 | | 128: 2,774,548 | | 347: 2,774,570 | | 657: 2,774,793 | | 140: 2,774,630 | | 27: 2,774,931 |
| | 731: 2,774,498 | | 130: 2,774,549 | | 2,774,571 | | 658: 2,774,794 | | 163: 2,774,631 | | 47: 2,774,932 |
| 215— | 7: 2,774,499 | | 184: 2,774,550 | 287— | 2: 2,774,572 | | 819: 2,774,795 | 201— | 13: 2,774,632 | | 48: 2,774,933 |
| | 11: 2,774,500 | | 2,774,551 | | 6: 2,774,573 | | 822: 2,774,796 | | 37: 2,774,633 | 323— | 43.5: 2,774,934 |
| | 48: 2,774,501 | 344— | 17.11: 2,774,552 | | 133: 2,774,574 | | 659: 2,774,797 | | 2,774,634 | | 58: 2,774,935 |
| | 100: 2,774,502 | | 17.17: 2,774,553 | | 221: 2,774,575 | | 2,774,798 | 302— | 14: 2,774,635 | 324— | 22: 2,774,936 |
| 217— | 53: 2,774,503 | | 23: 2,774,554 | 289— | 9: 2,774,576 | | 2,774,799 | | 17: 2,774,636 | | 88: 2,774,937 |
| 219— | 19: 2,774,555 | | 42: 2,774,555 | | 9: 2,774,577 | | 668: 2,774,800 | | 20: 2,774,637 | | 61: 2,774,938 |
| | 41: 2,774,556 | | 44: 2,774,556 | | 25: 2,774,578 | | 672: 2,774,801 | 305— | 9: 2,774,638 | | 70: 2,774,939 |
| | 67: 2,774,557 | | 63: 2,774,557 | | 121: 2,774,579 | | 674: 2,774,802 | 307— | 88.5: 2,774,888 | | 102: 2,774,940 |
| | 73: 2,774,558 | | 77: 2,774,558 | | 144: 2,774,580 | 291— | 24: 2,774,851 | | 112: 2,774,889 | 329— | 5: 2,774,941 |
| | 139: 2,774,559 | | 120: 2,774,560 | 293— | 16: 2,774,745 | | 41: 2,774,852 | | 140: 2,774,890 | | 9: 2,774,942 |
| 220— | 4: 2,774,504 | | 138: 2,774,560 | | 29.4: 2,774,746 | | 76: 2,774,853 | 309— | 35: 2,774,639 | | 28: 2,774,943 |
| | 2,774,505 | | 145: 2,774,561 | | 32.8: 2,774,747 | | 2,774,854 | 310— | 3: 2,774,801 | 328— | 98: 2,774,944 |
| | 24: 2,774,506 | 346— | 146: 2,774,562 | | 45.5: 2,774,748 | | 122: 2,774,855 | | 9.1: 2,774,802 | | 98: 2,774,945 |
| | 39: 2,774,507 | 349— | 135: 2,774,563 | | 69: 2,774,749 | 292— | 3: 2,774,856 | | 32: 2,774,803 | | 2,774,946 |
| | 46: 2,774,508 | | 137: 2,774,563 | | 78: 2,774,750 | 293— | 32: 2,774,857 | | 71: 2,774,804 | 330— | 69: 2,774,947 |
| | 73: 2,774,509 | 350— | 2: 2,774,564 | | 87.5: 2,774,751 | | 47: 2,774,858 | | 69: 2,774,805 | | 101: 2,774,948 |
| | 89: 2,774,510 | | 20: 2,774,565 | | 90.5: 2,774,752 | 295— | 23: 2,774,859 | | 103: 2,774,806 | | 123: 2,774,949 |
| | 97: 2,774,511 | | 2,774,566 | | 107: 2,774,753 | 298— | 23: 2,774,860 | | 217: 2,774,807 | | 199: 2,774,950 |
| | 113: 2,774,512 | | 2,774,567 | | 124: 2,774,754 | | 105: 2,774,861 | | 222: 2,774,808 | | 213: 2,774,951 |
| 222— | 30: 2,774,513 | | 27: 2,774,568 | | 174: 2,774,755 | 270— | 81: 2,774,862 | | 260: 2,774,809 | | 2,774,952 |
| | 142.9: 2,774,514 | | 2,774,569 | | 220.7: 2,774,756 | 271— | 2.6: 2,774,863 | | 270: 2,774,810 | 372— | 2,774,953 |
| | 185: 2,774,515 | | 2,774,570 | | 240: 2,774,757 | | 2,774,864 | 311— | 21: 2,774,640 | 340— | 9: 2,774,954 |
| | 186: 2,774,516 | | 2,774,571 | | 247: 2,774,758 | | 12: 2,774,865 | | 22: 2,774,641 | | 7: 2,774,955 |
| | 205: 2,774,517 | | 36: 2,774,572 | | 251.5: 2,774,759 | 272— | 67: 2,774,866 | | 35: 2,774,642 | | 174: 2,774,956 |
| | 209: 2,774,518 | | 2,774,573 | | 259.4: 2,774,760 | | 94: 2,774,867 | | 89: 2,774,643 | | 205: 2,774,957 |
| | 210: 2,774,519 | | 2,774,574 | | 274: 2,774,761 | | 135: 2,774,868 | 312— | 231: 2,774,644 | | 242: 2,774,958 |
| | 224: 2,774,520 | | 2,774,575 | | 285: 2,774,762 | | 2,774,869 | 313— | 65: 2,774,001 | | 244: 2,774,959 |
| | 269: 2,774,521 | | 2,774,576 | | 285.5: 2,774,763 | | 174: 2,774,600 | | 103: 2,774,002 | | 259: 2,774,960 |
| | 416: 2,774,522 | | 2,774,577 | | 289: 2,774,764 | | 180: 2,774,601 | | 109: 2,774,003 | | 263: 2,774,961 |
| | 235: 2,774,523 | | 2,774,578 | | 294.3: 2,774,765 | 275— | 2: 2,774,602 | | 123: 2,774,004 | | 259: 2,774,962 |
| | 247: 2,774,524 | | 2,774,579 | | 294.7: 2,774,766 | 279— | 97: 2,774,603 | | 161: 2,774,005 | | 265: 2,774,963 |
| 223— | 38: 2,774,525 | | 40: 2,774,580 | | 295: 2,774,767 | 280— | 6: 2,774,604 | | 208: 2,774,006 | 343— | 7.2: 2,774,964 |
| | 89: 2,774,526 | | 41.9: 2,774,581 | | 298: 2,774,768 | | 28: 2,774,605 | 314— | 77: 2,774,007 | | 12: 2,774,965 |
| | 95: 2,774,527 | | 2,774,582 | | 309: 2,774,769 | | 44: 2,774,606 | 315— | 10: 2,774,008 | | 106: 2,774,966 |
| 226— | 37: 2,774,528 | | 2,774,583 | | 322.5: 2,774,770 | | 47.19: 2,774,608 | | 11: 2,774,009 | | 818: 2,774,967 |
| 229— | 33: 2,774,529 | | 50: 2,774,584 | | 345.8: 2,774,771 | | 47.3: 2,774,607 | | 24: 2,774,010 | 346— | 74: 2,774,646 |


## Classification of Designs


| | | | | | |
|---|---|---|---|---|---|
| D 5— 2: Des. 179,427 | D29— 28: Des. 179,422 | D35— 3: Des. 179,413 | D52— 1: Des. 179,432 | D61— 1: Des. 179,415 | D61—10: Des. 179,431 |
| Des. 179,428 | D33—12: Des. 179,414 | D44— 6: Des. 179,407 | 2: Des. 179,425 | D62— 4: Des. 179,416 | D67— 2: Des. 179,430 |
| Des. 179,429 | 14: Des. 179,419 | 10: Des. 179,410 | D54—12: Des. 179,421 | D71— 1: Des. 179,420 | D91— 2: Des. 179,433 |
| D10— 6: Des. 179,406 | D34— 5: Des. 179,418 | D45— 4: Des. 179,405 | D56— 4: Des. 179,404 | D74— 1: Des. 179,426 | D99— 4: Des. 179,408 |
| 8: Des. 179,417 | 15: Des. 179,409 | D52— 1: Des. 179,412 | D57— 1: Des. 179,434 | D80—11: Des. 179,424 | 20: Des. 179,423 |
| D14— 3: Des. 179,411 | | | | | |



# OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

December 18, 1956 Volume 713 Number 3


# TRADEMARKS

## NOTICES

### Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 239,284 (V. P. D.), Joshua Meier, Inc., Transparent envelopes; TM 564,225 (SPRL-BINDER), same, Display albums and loose leaf binders, appeal filed Oct. 31, 1955, C. C. A., 2nd Cir., Dec. 22268, *Joshua Meier Co., Inc.* v. *Albany Novelty Mfg. Co.* Judgment affirmed in part and reversed in part July 30, 1956.

TM 515,282 (DIMENSIONAL), Lares Textiles Co., Hosiery; TM 622,748, same, Women's slips and nightgowns, filed Oct. 10, 1956, D. C., S. D. N. Y., Doc. 113/362, *Lares Inc.* v. *The American Maid Co., Inc.* Consent judgment for injunction Nov. 9, 1956.

TM 564,225. (See TM 239,284.)

TM 622,748. (See TM 515,282.)

### Amendment to Trademark Rule 2.12

TITLE 37—PATENTS, TRADEMARKS, AND COPYRIGHTS

CHAPTER I—PATENT OFFICE, DEPARTMENT OF COMMERCE

*Part 2—Rules of Practice in Trademark Cases*

PERSONS WHO MAY PRACTICE BEFORE PATENT OFFICE IN TRADEMARK CASES

The following amendment is made to take effect on publication in the Federal Register. The purpose of the amendment is to conform the rule which is amended to a recent court decision.

Paragraph (b) of § 2.12 is amended to read as follows:

§ 2.12 *Persons who may practice before the Patent Office in trademark cases.* * * *

(b) Non-lawyers: Persons who are not attorneys at law as specified in paragraph (a) of this section are not recognized to practice before the Patent Office in trademark cases, except that persons not attorneys at law who were recognized to practice before the Patent Office under this Chapter prior to January 1, 1957, will be recognized as agents to continue practice in trademark cases in the Patent Office.

(Sec. 41, 60 Stat. 440, sec. 1, 66 Stat. 795; 15 U. S. C. 1123, 35 U. S. C. 31)

Dated: November 16, 1956.

[SEAL] ROBERT C. WATSON,
*Commissioner of Patents.*

Approved:

SINCLAIR WEEKS,
*Secretary of Commerce.*

[F. R. Doc. 56—9616; Filed, Nov. 23, 1956; 8:47 a. m.]

*(Published in the Federal Register for November 24, 1956, 21 F. R. 9132)*

### CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 2, 1956

| | |
|---|---|
| Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] | 7,310 |
| Date of oldest new application | Apr. 19, 1956 |
| Date of oldest amended application | Jan. 19, 1956 |

MERCHANT, JOHN, Director, Trademark Examining Operation

| TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION | Oldest Application | |
|---|---|---|
| | New | Amended |
| I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 33, 30, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A | 5-2-56 | 5-10-56 |
| II. SHRYOCK, R. F., Classes 6, 18, 48, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B | 4-19-56 | 4-25-56 |
| III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 28, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52 | 9-1-56 | 1-19-56 |
| Renewals (All Classes) | 10-8-56 | |
| Sec. 12 (c) Publications (All Classes) | 10-5-56 | |

Applications Filed During the Month of October 1956—1,925

Registrations Issued 316—No. 638,605 to No. 638,920

Renewals Issued 51


The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable, and all communications addressed; subscription price, $10.50 per annum, foreign mailing $5.50 additional; single copies, 20 cents each.

# MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

## CLASS 1

## RAW OR PARTLY PREPARED MATERIALS

SN 682,886. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Synthetic Resins in the Form of Sheets, Rods, Tubes, Filaments, Etc. for Further Manufacture in the Industrial Arts; Textile Fibres, Superpolyamide Fibres, Filaments, Strands, Bristles and Wires for Use in the Fabrication of Threads, Yarns, Textile Fabrics, Brushes, Strings, Fishing Lines, and the Like.

SN 694,043. Blaney Farms, Inc., Madison, Wis. Filed Sept. 1, 1953.




No claim is made to the representation of the outline of the State of Wisconsin and the ear of corn apart from the mark as shown.
For Agricultural Seeds—Namely, Corn, Wheat, Oats, and Barley.
First use in the year 1945.

SN 10,542. Lamiseal Plastics Corp., Richmond Hill, N. Y. Filed June 19, 1956.

LAMISEAL

For Plastic Sheet Materials of Vinyl Resin, Polyethylene Resin, and Other Synthetic Plastic and Resinous Materials.
First use Aug. 1, 1953.



## CLASS 2

## RECEPTACLES

SN 6,796. Continental Can Company, Inc., New York, N. Y. Filed Apr. 20, 1956.

Lanafoil

Owner of Reg. Nos. 389,688 and 390,204.
For Empty Bags Produced From Laminated Sheet Materials Wholly or in Part From Foil, Plastic Film Materials, and Paper.
First use Sept. 1, 1955.

SN 7,205. Magnolia Paper Company, Houston, Tex. Filed Apr. 26, 1956.

TUFFY

For Plastic Bags.
First use about January 1950.

SN 7,238. J. S. Carr, Deland, Fla. Filed Apr. 27, 1956.

Sunshine Crates

The term "Crates" is disclaimed apart from the mark as shown.
For Miniature Crates for Packaging Prepared Food Products, Fruits, and Nuts.
First use Feb. 26, 1951.

SN 9,360. Marathon Corporation, Menasha, Wis. Filed June 4, 1956.

ADVAC

For Paper Trays for Meat Products.
First use May 21, 1956.

SN 9,804. Master Metal Products, Incorporated, Buffalo, N. Y. Filed June 7, 1956.

CHROME QUEEN

For Bread Boxes, Kitchen Canisters for Foodstuffs, Step-On Cans, and Waste Baskets and Waste Cans.
First use Feb. 27, 1956.



SN 10,858. The Diamond Match Company, New York, N. Y. Filed June 25, 1956.

SARANAC

For Molded Pulp Pie Plates.
First use June 19, 1953.

SN 10,862. Wallace Container Company, Santa Ana, Calif. Filed June 25, 1956.

VYNITE

For Flexible Plastic Containers.
First use on or about Oct. 1, 1953.

SN 12,593. Continental Can Company, Inc., New York, N. Y. Filed July 23, 1956.

Snow Blast!

For Paper Cups.
First use June 4, 1956.

SN 12,708. Continental Paper Company, Ridgefield Park, N. J. Filed July 24, 1956. Sec. 2(f).

ALFORD

For Cartons, Containers, Carriers, and Folding Boxes of Paper Board.
First use about 1946.

## CLASS 3

## BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 700,796. Henry L. Kotkins, Seattle, Wash. Filed Dec. 29, 1955.

MISS SKYWAY

Owner of Reg. Nos. 358,373, 503,005, and 513,863.
For Ladies' Luggage.
First use Nov. 18, 1955.

## CLASS 4

## ABRASIVES AND POLISHING MATERIALS

SN 682,887. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Polishing Paste, Polishing Agents, Polishing, Cleaning, and Preservative Preparations for Treating Leather and Floor Polish.

SN 9,352. Finishine Laboratories, Inc., Syracuse, N. Y. Filed May 31, 1956. Sec. 2(f).

QUICKLEEN

For Polish for Furniture, Automobiles, and Hardwood Floors.
First use December 1932.

SN 9,633. The Gauf Corporation, New York, N. Y. Filed June 5, 1956.

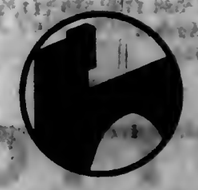
ALLEGRO

For Furniture Polish.
First use May 1, 1956.

## CLASS 5

## ADHESIVES

SN 682,888. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.

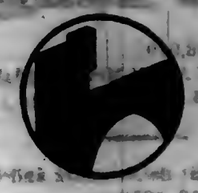


The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Synthetic Adhesives.

## CLASS 6

## CHEMICALS AND CHEMICAL COMPOSITIONS

SN 682,889. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Photographic Fixers and Developing Compositions, Finishing and Bleaching Agents for Textiles, Leather Preservatives, Flux and Welding Chemicals, Cement Curing and Hardening Compositions, Synthetic Resins in the Form of Compositions, Granules, Powder Etc., Dyes and Dyestuffs, Bleaching Preparations, Mordants, Chemical Covered Preservatives, Fire Extinguishing Agents, Insecticides and Fungicides, Chemical Refrigerants and Liquified Gases for Use as Propelling Agents in the Formations of Aerosols.

SN 695,016. R. S. Parker Associates, Cranford, N. J. Filed Sept. 20, 1955.

PAR-CONE 15

For Silicone Treatment Which Softens Leather and Imparts Waterproofing Properties Thereto.
First use June 1, 1955.

SN 695,068. American Aniline Products, Inc., New York, N. Y. Filed Sept. 21, 1955.

## AMAQUEST

For Sequestering Agents for Textiles.
First use Aug. 24, 1955.

SN 697,871. United States Rubber Company, New York, N. Y. Filed Nov. 7, 1955.

## VIBRATHANE

For Synthetic Resins—Namely, Polyester Resins.
First use Aug. 8, 1955.

SN 698,092. Ultra Chemical Works, Inc., Paterson, N. J. Filed Nov. 10, 1955.

## SULFRAMIDL

Owner of Reg. Nos. 584,173, 589,111, and others.
For Surface Active Agents.
First use July 14, 1955.

SN 105. Texize Chemicals Inc., Greenville, S. C. Filed Jan. 3, 1956. Sec. 2(f).

## THE MAID IN A BOTTLE

For Plastic Starch, Pine Oil Disinfectant, Foaming Action Bleach, Laundry Starch, Transparent Starch.
First use October 1948 for laundry starch.

SN 5,507. Columbia-Southern Chemical Corporation, Pittsburgh, Pa. Filed Mar. 30, 1956.

## PITTABS

Owner of Reg. No. 426,919.
For Hypochlorites of Alkali Metals and Alkali Earth Metals.
First use Jan. 9, 1956.

SN 6,240. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Apr. 12, 1956.

## TERACOL

For Polyalkylene Ether Glycols.
First use on or before Jan. 26, 1956.

SN 6,525. Hydroponic Chemical Company, Inc., Copley, Ohio. Filed Apr. 17, 1956.

## ONEX

For Rat and Mouse Killer Bait.
First use Mar. 22, 1956.

SN 9,395. Reichhold Chemicals, Inc., Detroit, Mich. Filed May 31, 1956.

## EPOXIDOL

For Epoxidised Oil Plasticisers.
First use Apr. 27, 1956.

SN 9,639. Philip A. Hunt Company, Palisades Park, N. J. Filed June 5, 1956.

## GRAPH-O-FAX

For Photographic Developing Powder.
First use May 17, 1956.

SN 9,671. Sandoz Chemical Works, Inc., New York, N. Y. Filed June 5, 1956.

## LEVANA

For Chemical Preparations Used as Dyeing Assistants and Leveling and Protecting Agents for Dyeing Textiles.
First use 1930.

### CLASS 7

### CORDAGE

SN 682,890. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Ropes, Strings, Cables, Tape, Twine, Wire, and Braids, for Tying Purposes.

### CLASS 10

### FERTILIZERS

SN 682,891. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Fertilizers.

SN 696,507. Crown Zellerbach Corporation, San Francisco, Calif. Filed Oct. 17, 1955.



Owner of Reg. Nos. 247,811, 601,509, and others.
For Solids of Waste Sulfite Liquor, for Use as a Fertilizer and Soil Conditioner.
First use September 1954.



### CLASS 11

### INKS AND INKING MATERIALS

SN 682,892. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Inks, Ingredients of Inks and Resinous Materials for Use in Inks.

### CLASS 12

### CONSTRUCTION MATERIALS

SN 663,484. Martin Bros., Los Angeles, Calif. Filed Mar. 29, 1954.

## MARTRACK

For Stud Fastening Bases and Plaster Grounds Incorporated in Walls During Their Construction.
First use Mar. 26, 1954.

SN 687,044. Barber-Colman Company, Rockford, Ill. Filed May 9, 1955.

## WEATHER-KING

For Building Doors and Panels Therefor.
First use October 1954.

SN 692,456. Dalmine S. p. A. Milan, Italy. Filed Aug. 4, 1955.



Owner of Italian Reg. No. 100,766, dated Feb. 16, 1951.
For Construction Materials—Namely, Piles, Pillars, Asbestos Cement Tubes With or Without Steel Reinforcement, and Asbestos Cement Layers Cast on Steel Tubes.

SN 692,457. Dalmine S. p. A. Milan, Italy. Filed Aug. 4, 1955



Owner of Italian Reg. No. 99,025, dated Nov. 18, 1950.
For Construction Materials—Namely, Piles, Pillars, Asbestos Cement Tubes With or Without Steel Reinforcement, and Asbestos Cement Layers Cast on Steel Tubes.

SN 693,821. Kay M. Grier, d. b. a. The Softop Corporation, North Hollywood, Calif. Filed Aug. 29, 1955.

PLACON

## SOFTOP

For Resilient Surfacing Composed of Canvas, Rubber, and Plastics and Used To Cover Playground Surfacing To Prevent Injuries From Falls.
First use July 15, 1955.

SN 697,713. Style-Rite Homes Corporation, Columbus, Ohio. Filed Nov. 4, 1955.

## Style-rite

For Prefabricated Houses.
First use Sept. 11, 1952.

SN 699,830. Reflectal Corporation, Chicago, Ill. Filed Dec. 12, 1955.

## REFLECTAL

For Aluminum Foil Insulation, Wire Fabric Screening, and Pre-Fabricated Roofing.
First use June 2, 1955, on aluminum foil insulation.

SN 813. Metal Decking Corporation, Indianapolis, Ind. Filed Jan. 16, 1956.

## ALUMADEK

For Prefabricated Aluminum Paneling for Use in Construction of Roof Decks and Siding.
First use July 26, 1955.

SN 831. Reflectal Corporation, Chicago, Ill. Filed Jan. 16, 1956.



Owner of Reg. Nos. 513,546, 607,849, and others.
For Aluminum Foil Insulation, Wire Fabric Screening, and Pre-Fabricated Roofing and Parts Thereof for Replacement and Repair.
First use June 2, 1955, on aluminum foil insulation.

SN 1,471. Pont Electric Co., Inc., Detroit, Mich. Filed Jan. 25, 1956.

JEFCO

For Building Brick.
First use Jan. 3, 1956.

SN 2,188. Pricemetal Corporation, San Francisco, Calif. Filed Feb. 6, 1956.

Pricemetal

For Metal Building Partitions, Doors, and Door Frames for Industrial and Marine Use, Shelving, and Metal Window Frames.
First use Sept. 1, 1948.

SN 2,265. Simplex Forms System, Inc., Rockford, Ill. Filed Feb. 7, 1956.

Simplex

For Concrete Forms and Tie Wires, Wall Braces, Tie Bars, and Combined Tie Bars and Scaffold Brackets, and Other Hardware Used in Connection With Concrete Forms and Sold Therewith.
First use July 30, 1954.

SN 2,745. The Burns and Russell Company, Baltimore, Md. Filed Feb. 16, 1956.

Spectra-Flor

Owner of Reg. Nos. 584,145, 615,720, and others.
For Molded Masonry Building Blocks and Bricks.
First use Feb. 2, 1956.

SN 3,968. Veerman International Company, New York, N. Y. Filed Mar. 6, 1956.

VICO

For Ceramic Wall and Floor Tile.
First use May 19, 1953.

SN 4,751. Harry L. Acomb, Wayne, Pa. Filed Mar. 19, 1956.

"POLYWOOD"

For Molded Wood Products Consisting of Particulate Wood and a Resin Binder.
First use Mar. 7, 1956.

SN 5,569. Western Mineral Products Company, Minneapolis, Minn. Filed Mar. 30, 1956.

spra-vyt

The drawing is lined for yellow but no claim is made to a specific color.
For Dry Pre-Mixed Granular Mineral Material That When Mixed With Water Becomes a White Texture Finish Coating for Application to Interior Surfaces and Having a Property of Acoustical Correction.
First use Mar. 2, 1956.

SN 5,668. The Proko Company, Dallas, Tex. Filed Apr. 2, 1956.

TRIKO PRODUCTS

The word "Products" is disclaimed apart from the mark as shown.
For Spachtling and Patching Paste, and for Combination Joint Cement, Topping Cement and Texture Paint.
First use Dec. 21, 1955, on spachtling and patching compound.

SN 6,705. The Flintkote Company, New York, N. Y. Filed Apr. 19, 1956.

DURA-SHIELD

Owner of Reg. No. 608,573.
For Asbestos-Cement Siding.
First use on or about Jan. 31, 1952.

SN 6,706. The Flintkote Company, New York, N. Y. Filed Apr. 19, 1956.

FLINTAR

For Tar Composition Pavement Sealer.
First use in or about July 1954.

SN 8,983. The Reardon Company, St. Louis County, Mo. Filed May 24, 1956.

SX

For Joint Cement and Topping Cement.
First use Jan. 10, 1956.

SN 9,116. Comstock-Kitte Company, Philadelphia, Pa. Filed May 28, 1956.

DURAFORM

For Plastic Faced Plywood for Concrete Forms Used in Construction Work.
First use June 1, 1954.



## CLASS 13

## HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 700,073. Akron Brass Manufacturing Co., Inc., Wooster, Ohio. Filed Dec. 2, 1955. Sec. 2(f).

AKRON

For Fire-Fighting Apparatus—Namely, Nozzles, Couplings, Valves, Tips, Siamese Hose Fittings, Shut-Offs, Play Pipes, Deck Pipes, Ladder Pipes and Accessories—Namely, Hose and Ladder Straps, Thread Adapters, Siphons, Hose Jackets, Clamps, Strainers, Expanders, Hose-Mending Sleeves, Caps, and Plugs; and Portable Irrigation Equipment—Namely, Conduit, Couplings, Sprinklers, Valves, Elbows, Stabilisers, Risers, Gaskets, and Plugs.
First use in or about 1918.

SN 9,787. The Gabriel Company, Cleveland, Ohio. Filed June 7, 1956.

DUBL-GRIP

For Hose Coupling.
First use Sept. 5, 1952.

SN 12,020. Flynn Burner Corporation, New Rochelle, N. Y. Filed July 12, 1956.

UNIMIXER

For Air-Gun Mixers.
First use Mar. 24, 1953.

SN 12,021. The Gailstyn Company Inc., New York, N. Y. Filed July 12, 1956.

GAIL-A-WARE by GAILSTYN

For Householdware Consisting of Ice Buckets, Casseroles, Water Pitchers, Tumblers, Tid-Bit Trays, Trays and Lazy Susans Made of Base Metals Such as Aluminum, Copper, Brass, Steel and/or Combinations of Such Base Metals and Glass.
First use Mar. 30, 1953.

SN 12,514. Kwikset Locks, Inc., Anaheim, Calif. Filed July 20, 1956.

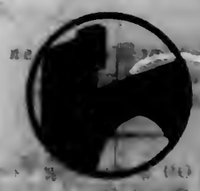
BEL AIR

For Knobs—Namely, Doorknobs, and Dummy Knobs.
First use Dec. 23, 1955.

## CLASS 14

## METALS AND METAL CASTINGS AND FORGINGS

SN 682,893. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Solders and Hardening Agents for Metals.

SN 11,508. Union Carbide and Carbon Corporation, New York, N. Y. Filed July 3, 1956.

INJECTOLOY

For Alloying Compositions for Addition to Molten Metal.
First use on or about June 22, 1954.

SN 12,269. General Machine Works, Inc., Los Angeles, Calif. Filed July 17, 1956.

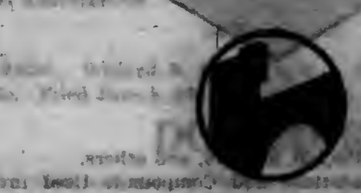


For Metal Stampings.
First use July 19, 1950.

## CLASS 15

## OILS AND GREASES

SN 682,894. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Oils and Greases for Lubrication and/or Rust Prevention Purposes.

SN 4,624. Enjay Company, Inc., New York, N. Y. Filed Mar. 15, 1956.

PARADYNE

For Chemical Ingredient Used as an Additive for Liquid Fuel in Internal Combustion Engines.
First use Mar. 7, 1941.

SN 15,169. Ashland Oil & Refining Company, Ashland, Ky. Filed Sept. 6, 1956. Sec. 2(f).

Ashland FLYING OCTANES

Owner of Reg. No. 535,578.
For Gasoline.
First use Jan. 12, 1946.

SN 16,006. Standard Oil Company of California, San Francisco, Calif. Filed Oct. 8, 1956.



Owner of Reg. Nos. 356,109, 533,798, and others.
For Chemical Preparations and Compounds Used in the Manufacture of Lubricating Oil Additives; Chemical Preparations and Compounds for Use as Additives in Burner Fuel, Gasoline, Oil, Greases, and Lubricants; and Chemical Preparations and Compounds for Use in High Temperature Industrial Lubricants.
First use Aug. 1, 1956, on lubricating oil additives.

## CLASS 16

## PROTECTIVE AND DECORATIVE COATINGS

SN 682,895. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hoechst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,906, dated Mar. 7, 1952.
For Primers, Lacquers, etc. for Photographic Purposes for Imparting Protective or Decorative Coatings, Wood Preservatives as a Protective Coating, Resins as an Ingredient for Paint, Resins Used as a Floor Finish as a Protective Coating.

SN 700,276. Sunbeam Corporation, Chicago, Ill. Filed Dec. 19, 1955.

Sunbeam

Owner of Reg. Nos. 318,056 and 390,181.
For Paints.
First use September 1947.

## CLASS 18

## MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 682,896. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hoechst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,906, dated Mar. 7, 1952.
For Pharmaceutical Chemicals and Specialties of All Kinds for Medicinal and Veterinary Purposes—Namely, Analgesics, Anesthetics, Antimalarials, Antihistamines, Disinfectants, Sulfa Drugs, Antibiotics, Vaso-Constrictors and Dilators, Heart Stimulants and Hormone Preparations, and Vaccines.

SN 685,670. The Drug Products Co., Inc., Brooklyn, N. Y. Filed Apr. 18, 1955.



For Antibiotics, Acids Used for Medicinal Purposes, Compounds Used as Ingredients of Medicines, Stimulants, Sedatives, Herbs for Medicinal Purposes, Analgesics, Antispasmodics, Barium Compounds, Diuretics, Iron and Iron Compounds, Magnesium Compounds, Mercury Compounds, Oil



Compounds, Potassium Compounds, Zinc Compounds, and Biological Products in Ampule, Tablet, Liquid, Powder, or Ointment Forms.
First use Feb. 6, 1913.

SN 696,046. Johnson & Johnson, New Brunswick, N. J. Filed Oct. 7, 1955.

J&J

Owner of Reg. Nos. 605,838, 554,242, and others.
For Athlete's Foot Treatment Kits, Powders for the Treatment of Prickly Heat, Athlete's Foot and Any Other Conditions of the Skin, Antiseptics, Ointments for the Treatment, Alleviation or Prevention of Skin Infections, Inhalants, Ammonia for the Treatment of Fainting, Iodine, Bicarbonate of Soda for the Treatment of Stomach Upsets, Petrolatum, Castor Oil, Lotion for the Treatment, Alleviation and Prevention of Skin Infections, Jelly for Lubrication in Medical Treatment, and Antiseptic Jelly.
First use at least as early as 1898.

SN 697,563. Dr. Bernhard A. Makiola, d. b. a. Dr. Bernhard A. Makiola (Institut für Arzneimittelforschung), Vaduz, Liechtenstein. Filed Nov. 2, 1955.

MONOPHARM

Owner of Liechtenstein Reg. No. 233, dated Sept. 30, 1953.
For Medicinal Preparations for the Treatment of Nervous Diseases in General, Nervous Exhaustion, Neurasthenia, Skin Affections, Measles, Rozeola, Scarletina, Erysipelas, Paradentosis, Gingivitis, Stomatitis, Vascular Troubles in General, High Blood Pressure, Affections of the Mucous Membranes of the Respiratory and Digestive Organs, Nasal Catarrh, Whooping Cough, Hay Fever, Bronchial Asthma, Bronchitis, Grippe, Laryngitis, Affections of the Blood Vessels, Arteriosclerosis, Headache, Cardiac Ailments, Weak Heart, Diathesis of Uric Acid, Diabetes, Rheumatism, Neuralgias, Neuritis, Subcute and Chronic Diseases of the Joints, Myalgias, Lumbago, Arthritis, Sciatica, Gout, Goitre, Hyperthyroidism, Graves Diseases, Liver Trouble, Gallbladder Trouble, Gall Stones, Ailments of the Stomach and Intestines, Constipation, Typhoid Fever, Diarrhoea, General Weakness, Diseases of the Climacterium, Intestinal Obstructions, Hemorrhoids, Varicose Veins, Kidney Troubles, Kidney Stones, Nephrolithiasis, Cystitis, Pyelitis, Metabolic Diseases in General, Insomnia.

SN 697,564. Dr. Bernhard A. Makiola, d. b. a. Dr. Bernhard A. Makiola (Institut für Arzneimittelforschung), Vaduz, Liechtenstein. Filed Nov. 2, 1955.

POLION

Owner of Liechtenstein Reg. No. 492, dated Feb. 19, 1955.
For Pharmaceutical Preparations for the Treatment of Nervous Diseases, Atrophy, and Paralysis.

SN 697,565. Dr. Bernhard A. Makiola, d. b. a. Dr. Bernhard A. Makiola (Institut für Arzneimittelforschung), Vaduz, Liechtenstein. Filed Nov. 2, 1955.

MONORUBIN

Owner of Liechtenstein Reg. No. 519, dated Mar. 15, 1955.
For Pharmaceutical Preparations for the Treatment of Cancerous Sores and Allied Disorders.



SN 700,295. Max Sherrin, d. b. a. Renpak Chemist, Jackson Heights, N. Y. Filed Dec. 30, 1955.

RENPAK

For Preparations for the Treatment of Children's Coughs, Adults' Coughs, Colds, and Pain Due to Headache, Neuralgia, and Neuritis.
First use Dec. 1, 1930.

SN 1,611. The S. E. Massengill Company, Bristol, Tenn. Filed Jan. 27, 1956.

SEMCO

Owner of Reg. No. 549,846.
For Line of Medicated Preparations in Compressed Tablet Form.
First use Jan. 19, 1953.

SN 3,905. Whitehall Pharmacal Company, New York, N. Y. Filed Mar. 5, 1956.

3-LB4

For Medicinal Sedative Preparation in Tablet Form.
First use Nov. 28, 1955.

SN 7,002. Dr. Wendell G. Hendricks, d. b. a. Hendricks Laboratories, Los Angeles, Calif. Filed Apr. 24, 1956.

LACTO-ZYME

For Nutritional Vitamin Tablets Containing Yogurt, Lactose, and Brewers' Yeast.
First use Mar. 1, 1956.

SN 9,344. Clark, Puffer and Brown, Inc., Carlisle, Pa. Filed May 31, 1956.

CPB SEAL OF INTEGRITY

For Pharmaceutical Products—Namely, Tablets, Capsules, Liquids, Ointments, Injectibles, Suppositories, and Inhalants.
First use Mar. 15, 1956.

SN 9,685. Aktiebolaget Bofors, Bofors, Sweden. Filed June 6, 1956.

CARBOCAIN

Owner of Swedish Reg. No. 73,060, dated Nov. 21, 1952.
For Medicines and Pharmaceutical Preparations—Namely, Local Anaesthetics.

SN 9,850. Willard R. Erwin, d. b. a. Doesmore Co., Bolivar, Mo. Filed June 9, 1956.

DOESMORE

For Counter-Irritant Preparation for Providing Relief in Simple Neuralgia and Minor Muscular Strains, Aches and Pains, To Be Inhaled to Aid Relief of Nasal Congestion Associated With Simple Colds; Also Used for Chapped Hands and Cracked Cow Teats.
First use Mar. 14, 1956.

SN 9,935. Blair Laboratories, Inc., Short Hills, N. J. Filed June 11, 1956.

## SERPHYLLINE

For Preparation for the Relief of Cardiac Conditions.
First use May 28, 1956.

SN 9,937. Blair Laboratories, Inc., Short Hills, N. J. Filed June 11, 1956.

## SERPHEDRINE

For Preparation for the Relief of Asthma.
First use May 28, 1956.

SN 10,847. Chicago Pharmacal Company, Chicago, Ill. Filed June 25, 1956.

## RESYDESS

For Medicinal Preparation Used for the Treatment of Obesity Without the Accompanying Nervousness and Anxiety.
First use Dec. 30, 1955.

### CLASS 19

### VEHICLES

SN 676,536. William A. Schiller, d. b. a. Handyman Twin Lift Truck Company, Houston, Tex. Filed Nov. 12, 1954.

## Handyman Twins

For Wheels With Spiked Brackets Attached for Use in Moving Heavy Objects.
First use Dec. 15, 1953.

SN 4,827. New England Cut Stone Co., Inc., d. b. a. Boston Boat Sales Co., Dorchester, Mass. Filed Mar. 19, 1956.

## Royal

For Boats.
First use Feb. 4, 1956.

SN 7,699. Herman Mills Construction and Cement Corporation, New York, N. Y. Filed May 4, 1956.

## GARDETTE

For Automobile Accessories—Namely, Bumpers and Bumper Guards.
First use Dec. 8, 1955.

SN 10,034. Société à Responsabilité Limitée Recherches Etudes Production S. E. P., Paris, France. Filed June 11, 1956.

## MAXIHALT

Priority is claimed under Sec. 44(d) on French Reg. No. 456,302, dated Mar. 7, 1956 (Seine); Natl. Inst. No. 70,287.
For Automatic Brake Apparatus or Mechanisms for All Air or Land Vehicles, as Well as Their Spare Parts and Constituting Elements.

SN 10,545. Nils Lucander, d. b. a. International Yacht Sales, Detroit, Mich. Filed June 19, 1956.

## DAGGER

For Boats.
First use Jan. 13, 1954.

SN 10,567. Vertol Aircraft Corporation, Morton, Pa. Filed June 19, 1956.

## VERTOL Aircraft Corporation

For Aircraft of the Vertical Takeoff and Landing Type.
First use Mar. 12, 1956.

SN 10,721. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

## Pinehurst

For Automobiles.
First use Nov. 23, 1955.

SN 10,722. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

## Parkview

For Automobiles.
First use Nov. 12, 1953.

SN 10,723. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

## Pedham

For Automobiles.
First use Nov. 15, 1955.

SN 10,752. Central States Coal Co., Inc., d. b. a. Central States Sales Co., Dallas, Tex. Filed June 22, 1956.

## LONGHORN

For Combination Truck Bumpers and Trailer Hitches.
First use May 30, 1956.

SN 10,901. Neserd Enterprises, Inc., Madison, Wis. Filed June 25, 1956.

## E-Z-AIR

For Air Deflectors for Vehicles.
First use June 13, 1956.

### CLASS 21

### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 684,366. Vondy Mfg. Co., Burns, Wyo. Filed Mar. 28, 1955.

STACYWOOD

For Lamps.
First use Dec. 9, 1954.



SN 690,536. Kaiser Aluminum & Chemical Corporation, Oakland, Calif. Filed Dec. 2, 1955.

## POLYPRENE

For Insulated Conductor Cable.
First used Aug. 10, 1955.

SN 700,017. C. Conrad & Co., Nuremberg, Germany. Filed Dec. 15, 1955.

## NORIS

Owner of German Reg. No. 422,993, dated Sept. 1, 1926.
For Manufactured Products From Electric and Galvanic Carbons of All Kinds, Carbon Pencils, With and Without Addition of Illuminescent Materials, for Arc Lamps and Projectors, Carbon Rods, Carbon Cylinders, Carbon Plates for Primary Cells and Storage Batteries, Carbon Electrodes for Electrochemical and Metallurgical Processes, Carbon Brushes for Motors and Dynamos, Copper and Metal Brushes, Sliding and Pressure Contacts, Carbon Sealing Rings, Carbon Sliding Yokes for Current Takeoff Devices of Electrically-Driven Vehicles, Incandescent Carbons and Heating Rods for Heaters, Resistance Carbons for Protection Against Lightning and for Electrothermic Purposes, Artificial Graphite, Plates, Electrodes, Rods, and Other Molded Articles Made of Artificial Graphite, Silicon Carbide, and Molded Rods Made of Silicon Carbide.

SN 4,875. Robert C. Wuerth, d. b. a. Wuerth Enterprises, Philadelphia, Pa. Filed May 19, 1956.

## SURGISTOR

For Electrical Circuit Device for Initially Limiting Current to Filamentary Loads.
First use Dec. 27, 1955.

SN 5,320. Ray-O-Vac Company, Madison, Wis. Filed Apr. 9, 1956.



The drawing is lined for red and golden brown, but color is not claimed as an essential element. Owner of Reg. No. 421,450.
For Dry Cells and Dry Batteries.
First use Feb. 1, 1956; and June 4, 1945, as to "Ray-O-Lux."

SN 8,511. Spencer-Kennedy Laboratories, Inc., Boston, Mass. Filed May 17, 1956.

## SKL

For Radio and Television Equipment and Parts Thereof.
First use Jan. 31, 1949.

SN 10,389. Arguane Electronics Mfg. Corp., New York, N. Y. Filed June 18, 1956.

## POLY-VARI-CON

For Variable Condensers (Electrical).
First use Mar. 1, 1956.

SN 10,412. Charles Engelhard, Incorporated, East Newark, N. J. Filed June 18, 1956.

## CAPAC

For Electrical Control System and Cathodic Protection Apparatus for Counteracting Corrosion on Metallic Articles in Contact With Liquids.
First use Mar. 20, 1956.

SN 10,633. Westrex Corporation, New York, N. Y. Filed June 20, 1956.

## Monatel

For Radio Transmitting, Receiving, and Relaying Sets.
First use Dec. 21, 1954.

SN 10,846. Chicago Condenser Corporation, Chicago, Ill. Filed June 25, 1956.

## PI-CAPS

For Electric Capacitors.
First use May 1, 1956.

SN 11,267. Palo Alto Engineering Company, Palo Alto, Calif. Filed June 29, 1956.

## PAECO

For Transformers.
First use March 1952.

### CLASS 22

### GAMES, TOYS, AND SPORTING GOODS

SN 690,830. American Metal Specialties Corporation, Hatboro, Pa. Filed Oct. 21, 1955.

## DOLL-E-SITTER

For Packaged Kit of Items Used by Little Girls in Tending and Feeding Their Toy Dolls—Namely, Diapers, Nursing Units, and Toy Animals.
First use Apr. 1, 1955.

SN 4,906. Preston E. Michael, Richmond, Va. Filed Mar. 20, 1956.

## Michael's Races

For Parlor Games, Played on a Board With Movable Pieces and Dice.
First use Mar. 2, 1956.

SN 5,493. Cardinal Greetings, Inc., Providence, R. I. Filed Mar. 30, 1956.

## PIC-A-STORY

For Children's Card Game.
First use Mar. 1, 1956.

SN 8,353. Philbert Designs, Port Washington, N. Y. Filed May 15, 1956.

## TUBO TOY

The word "Toy" is disclaimed apart from the mark as shown.
For Dolls in Package Form Filled With Gift Favors and Toys or Playthings, Such as Noisemakers, Horns, Whistles, Pipes, Tops, Magnets, Balls, Stuffed Animals, Plastic Boats, Tricks, or Puzzles, Etc.
First use May 11, 1956.

SN 9,239. Charles R. De Angelis, Watchung, N. J. Filed May 16, 1956.

Suvie Doll

Applicant disclaims the word "Doll" apart from the mark as shown. The mark is "Suvie Doll."
For Dolls.
First use Apr. 27, 1956.

SN 9,242. Allied Manufacturing Corporation, d. b. a. AMC and Allied Mfg. Corp., Bozeman, Mont. Filed May 29, 1956.

CRAZY DUCK

No claim is made to the word "Duck" apart from the mark as shown.
For Plastic Ducks Embodying Permanent Magnets Used for Toy and Amusement Purposes.
First use November 1953.

SN 9,243. Allied Manufacturing Corporation, d. b. a. AMC and Allied Mfg. Corp., Bozeman, Mont. Filed May 29, 1956.

ROCKING CRAZY DUCK

No claim is made to the word "Duck" apart from the mark shown.
For Plastic Ducks Embodying Permanent Magnets Used for Toy and Amusement Purposes.
First use on or about July 18, 1955.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 691,784. Lawrence G. Sagen, d. b. a. Sagen Boat Hoist Co., Auburn, N. Y. Filed July 22, 1955. Sec. 2(f).

SAGEN

For Boat Hoist.
First use June 23, 1947.

SN 698,901. N'Land Industries, Inc., Lewiston, Idaho. Filed Nov. 25, 1955.

AQUAJECTOR

For Tractor-Drawn Fertiliser Machine for Injecting Fertiliser Into the Soil.
First use July 1, 1954.

SN 1,333. Clarkson (Engineers) Limited, Nuneaton, England. Filed Jan. 24, 1956.

AUTOLOCK

Owner of British Reg. No. B713,527, dated Dec. 30, 1952.
For Cutters and Chucks All Being for Use in Machine Tools.

SN 1,901. George R. Pickering, Bakersfield, Calif. Filed Feb. 1, 1956.

Pixey

For Spoons and Forks Made From Stainless Steel or Other Suitable Non-Precious Metal and Used by Infants and Children.
First use Dec. 23, 1955.

SN 2,695. Essex Conveyors, Inc., Newark, N. J. Filed Feb. 15, 1956.

FLORLIFT

For Hydraulically Operated Materials Handling Lifts.
First use June 24, 1955.

SN 10,013. Perfecta Sewing Machine Co. Inc., New York, N. Y. Filed June 11, 1956.

Perfecta

For Sewing Machines and Hand Knitting Machines.
First use Dec. 1, 1954.

SN 10,208. Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filed June 14, 1956.

AC ALLIS-CHALMERS

Owner of Reg. Nos. 14,423, 579,013, and others.
For Excavating, Transporting, Dumping, Lifting and Leveling Machinery, Towing and Pushing Tractors, Agglomerating and Pelletizing Machinery, Blending and Mixing Machinery, Casting Machines, Oil Extraction Equipment, and Hydraulic Separating Machinery.
First use on or before Oct. 1, 1952, on excavating machinery.

SN 10,273. Western Tool & Stamping Co., Des Moines, Iowa. Filed June 14, 1956.

Flexor

For Lawn Mowers, Lawn Sweepers, and Hand Electric Trimmers, Snow Plows, Trimmer Edgers, Riding Mowers, Utility Carts, Mowers, Sweeper Hitch, Seeders, and Spreaders.
First use Oct. 17, 1955.

SN 10 478. Popular Manufacturing Company, Minneapolis, Minn. Filed June 18, 1956.

DRILLMATE

For Drill Attachments and Tool Sharpening Assemblies.
First use May 19, 1956.



SN 10,479. Proportioneers, Inc., Providence, R. I. Filed June 18, 1956.

PROPORTIONEER

For Pumps for Feeding Liquid Reagents.
First use May 28, 1956.

SN 10,630. Vanton Pump & Equipment Corp., Hillside, N. J. Filed June 20, 1956.

VANTON

For Mechanical Pumps.
First use in September 1947.

SN 10,631. Vanton Pump & Equipment Corp., Hillside, N. J. Filed June 20, 1956.

VP

For Mechanical Pumps.
First use in May 1953.

SN 10,648. Bissell Carpet Sweeper Company, Grand Rapids, Mich. Filed June 21, 1956.

Continental

Owner of Reg. No. 67,695.
First use Mar. 20, 1956.

SN 10,667. Davenport Machine and Foundry Company, Davenport, Iowa. Filed June 21, 1956.

Shooter

For Core Making Machines, Mold Making Machines, Cores, Core Boxes, Molds and Parts of Said Machines, Cores, Boxes, and Molds.
First use Feb. 28, 1956.

SN 10,669. Eclipse Counterbore Company, Ferndale, Mich. Filed June 21, 1956.

ECLIPSE

Owner of Reg. Nos. 119,518 and 388,323.
For Machine Tools for Cutting in Metal—Namely, Counterbores, Pilots, Hollow Mills, Reamers, Taps, Spot Facers, Countersinks, Center Cutting Tools, Cutters, Form Cutters, End Mills, Drills, Boring Bars, Interchangeable Drives, Core Drills, Tool Holders, and Multi-Diameter Cutters.
First use Feb. 1, 1914.

SN 10,700. New Holland Machine Company, New Holland, Pa. Filed June 21, 1956. Sec. 2(f).

NEW HOLLAND

Owner of Reg. Nos. 409,512, 623,834, and others.
For Farm Equipment, Including Automatic Hay Balers, Mowers, Blower Conveyers, Wheel Loaders, Hay Rakes, Manure Spreaders, Corn Husker-Shellers, Forage Harvesters, and Attachments Therefor.
First use 1940 on automatic hay balers.

SN 10,716. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

SWEEPSTAKES

For Internal Combustion Engines for Automobiles.
First use Nov. 12, 1955.

SN 10,717. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

SKY-POWER

For Internal Combustion Engines for Automobiles.
First use Nov. 10, 1955.

SN 10,718. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

POWER STAR

For Internal Combustion Engines for Automobiles.
First use Nov. 8, 1955.

SN 10,719. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

ROUTE STAR

For Internal Combustion Engines for Automobiles.
First use Nov. 7, 1955.

SN 10,720. Studebaker-Packard Corporation, Detroit, Mich. Filed June 21, 1956.

WORK STAR

For Internal Combustion Engines for Automobiles.
First use Nov. 7, 1955.

SN 10,878. Harnischfeger Corporation, Milwaukee, Wis. Filed June 25, 1956.

ZIP-LIFT

For Hoists.
First use October 1947.

SN 10,926. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

S

Owner of German Reg. No. 484,271, dated Oct. 19, 1933.
For Rolling Mill Plants; Rolling Mill Rollers; Auxiliary Machines for Rolling Mills; Shears for Cutting Metal Blocks and Metal Sheets, Metal Rods, and Pipes; Forging Machines; Couplings, Gears, and Bearings for Rolling Mills; Pressure Fluid and Compressed Air Plants; and Parts for All the Above-Mentioned Special Machines.



SN 10,929. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

SCHLOEMANN

Owner of German Reg. No. 484,271, dated Oct. 19, 1933.
For Rolling Mill Plants; Rolling Mill Rollers; Auxiliary Machines for Rolling Mills; Shears for Cutting Metal Blocks and Metal Sheets, Metal Rods, and Pipes; Forging Machines; Couplings, Gears, and Bearings for Rolling Mills; Pressure Fluid and Compressed Air Plants; and Parts for All the Above-Mentioned Special Machines.

SN 10,930. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

SIEMAG

Owner of German Reg. No. 484,271, dated Oct. 19, 1933.
For Rolling Mill Plants; Rolling Mill Rollers; Auxiliary Machines for Rolling Mills; Shears for Cutting Metal Blocks and Metal Sheets, Metal Rods, and Pipes; Forging Machines; Couplings, Gears, and Bearings for Rolling Mills; Pressure Fluid and Compressed Air Plants; and Parts for All the Above-Mentioned Special Machines.

SN 10,931. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

SIEMAG

Owner of German Reg. No. 484,271, dated Oct. 19, 1933.
For Rolling Mill Plants; Rolling Mill Rollers; Auxiliary Machines for Rolling Mills; Shears for Cutting Metal Blocks and Metal Sheets, Metal Rods, and Pipes; Forging Machines; Couplings, Gears, and Bearings for Rolling Mills; Pressure Fluid and Compressed Air Plants; and Parts for All the Above-Mentioned Special Machines.

SN 10,932. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

SIEMAG

Owner of German Reg. No. 484,271, dated Oct. 19, 1933.
For Rolling Mill Plants; Rolling Mill Rollers; Auxiliary Machines for Rolling Mills; Shears for Cutting Metal Blocks and Metal Sheets, Metal Rods, and Pipes; Forging Machines; Couplings, Gears, and Bearings for Rolling Mills; Pressure Fluid and Compressed Air Plants; and Parts for All the Above-Mentioned Special Machines.

SN 10,933. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

SIEMAG

Owner of German Reg. No. 484,271, dated Oct. 19, 1933.
For Rolling Mill Plants; Rolling Mill Rollers; Auxiliary Machines for Rolling Mills; Shears for Cutting Metal Blocks and Metal Sheets, Metal Rods, and Pipes; Forging Machines; Couplings, Gears, and Bearings for Rolling Mills; Pressure Fluid and Compressed Air Plants; and Parts for All the Above-Mentioned Special Machines.

SN 10,934. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

SIEMAG

Owner of German Reg. No. 484,271, dated Oct. 19, 1933.
For Rolling Mill Plants; Rolling Mill Rollers; Auxiliary Machines for Rolling Mills; Shears for Cutting Metal Blocks and Metal Sheets, Metal Rods, and Pipes; Forging Machines; Couplings, Gears, and Bearings for Rolling Mills; Pressure Fluid and Compressed Air Plants; and Parts for All the Above-Mentioned Special Machines.



SN 11,010. The Cleveland Hardware and Forging Company, Cleveland, Ohio. Filed June 28, 1956.

CLEVELAND

For Hardware, Namely, Door Closers, Door Checks, Door Holders, Door Controls, Door Operators, Door Pivots, Door Hinges, Door Butts, Door Bolts, Door Latches, Door Locks, Door Trim, Door Pulls, Door Handles, Door Knobs, Door Plates, Door Escutcheons, Door Push Plates, Door Kick Plates, Door Mutes, Door Stops, Door Holders, Door Guards, Door Sweeps, Door Thresholds, Door Weatherstrips, Door Seals, Door Sills, Door Jambs, Door Frames, Door Mullions, Door Transoms, Door Sidelights, Door Panels, Door Glass, Door Screens, Door Grilles, Door Gates, Door Fences, Door Railings, Door Balustrades, Door Handrails, Door Newels, Door Posts, Door Columns, Door Pilasters, Door Arches, Door Pediments, Door Entablatures, Door Cornices, Door Friezes, Door Architraves, Door Mouldings, Door Trim, Door Casings, Door Aprons, Door Stools, Door Sills, Door Thresholds

SN 10,827. Schloemann Aktiengesellschaft, Schloemannhaus, Duesseldorf, Germany. Filed June 25, 1956.

For Hydraulic Presses.
First use in the year 1935; in commerce in the year 1935.

SN 11,066. The Imperial Brass Manufacturing Company, Chicago, Ill. Filed June 27, 1956.

## ROL-AIR

For Tube Flaring Tools.
First use in October 1951.

SN 11,181. National Vulcanized Fibre Company, Wilmington, Del. Filed June 28, 1956.

## LESTERSHIRE

For Spools and Bobbins for Winding Textile Yarns.
First use December 1927.

SN 11,460. Alfred W. Amsen, New Paltz, N. Y. Filed July 3, 1956.

## HOOK

For Scraping Tools for the Surfaces of Wood and the Like and Parts Thereof.
First use Oct. 13, 1927.

SN 11,485. Imperial Knife Company, Inc., Providence, R. I. Filed July 3, 1956.

## CRAFT-EDGE

For Kitchen Knives, Table Knives, and Pocket Knives.
First use May 1956.

SN 11,617. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

THE Stat-Bilt LINE

For Road Mixing and Stabilising Machines and Parts Thereof Including Tractors and Mixing Chambers; Rollers and Compactors, Rock Crushing Machines; Cement and Material Spreaders.
First use February 1956.

SN 11,618. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

## TRAV-L-PLANT

For Road Mixing and Stabilising Machines and Parts Thereof—Namely, Tractors, Mixing Chambers, Rotors, Tines, Hydraulic Systems, Power Steering Systems, Underbody Scarifiers, Pump and Metering Assemblies and Spray Bar Attachments.
First use on or about Dec. 9, 1955.

SN 11,620. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

## SEAMAN-ANDWALL

For Rotary Plows; Rollers and Compactors; Rock Crushing Machines; Cement and Material Spreaders; Road Mixing and Stabilising Machines and Parts Thereof—Namely, Tractors, Mixing Chambers, Rotors, Tines, Hydraulic Systems, Power Steering Systems, Underbody Scarifiers, Pump and Metering Assemblies and Spray Bar Attachments.
First use Jan. 1, 1955.

SN 11,621. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

## SEAMAN

For Rotary Plows; Road Mixing and Stabilising Equipment and Parts Thereof—Namely, Tractors, Mixing Chambers, and Power Takeoff Units.
First use in or about April 1956.

SN 11,622. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

## TILLIT

For Rotary Plows and Hoods and Mixing Units Therefor.
First use on or about Mar. 4, 1950.

SN 11,624. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

## STA-BILT

For Road Mixing and Stabilising Machines and Parts Thereof Including Tractors and Mixing Chambers; Rollers and Compactors; Rock Crushing Machines; Cement and Material Spreaders.
First use February 1956.

SN 11,625. Seaman-Andwall Corporation, Milwaukee, Wis. Filed July 5, 1956.

SA

For Rotary Plows; Rollers and Compactors; Rock Crushing Machines; Cement and Material Spreaders; Road Mixing and Stabilising Machines and Parts Thereof—Namely, Tractors, Mixing Chambers, Rotors, Tines, Hydraulic Systems, Power Steering Systems, Underbody Scarifiers, Pump and Metering Assemblies and Spray Bar Attachments.
First use on or about Jan. 9, 1955.

SN 11,962. Seneca Falls Machine Company, Seneca Falls, N. Y. Filed July 11, 1956.

## SENECA FALLS

For Lathes, Boring Machines, Drilling Machines, Milling Machines, Centering Machines, Electronic Devices, and Automation Equipment.
First use May 18, 1956.

SN 11,991. Yeomans Brothers Company, Melrose Park, Ill. Filed July 11, 1956.

## CAVETTE

For Home Waste Disposal Units.
First use June 20, 1955.



SN 12,010. The Cleveland Hardware and Forging Company, Cleveland, Ohio. Filed July 12, 1956.

For Wrenches.
First use Dec. 21, 1955.

SN 12,059. Utica Drop Forge & Tool Corporation, Utica, N. Y. Filed July 12, 1956.

## SELECT-O-LOCK

For Adjustable Hand Tools.
First use on or about Mar. 2, 1956.

SN 12,076. Lionel M. Ettlinger, d. b. a. Windomatic Service, New York, N. Y. Filed July 13, 1956.

## WINDOMATIC

For Vending Machines.
First use June 13, 1956.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 638,994. Cadillac Optical Corporation, New York, N. Y., to Compass Instrument & Optical Co., Inc., New York, N. Y. Filed June 6, 1955.

SUPREME

The expression "Trade Mark" is disclaimed. Assignee owner of Reg. Nos. 605,798 and 616,376.
For Binoculars.
First use May 21, 1954.

SN 1,796. Rudolf Leidolf, d. b. a. Rudolf Leidolf, Optisch-Mechan. Werk Stifter, Wetzlar/Lahn, Wetzlar, Lahn, Germany. Filed Jan. 31, 1956.

LORDOMAT

Owner of German Reg. No. 649,445, dated Dec. 8, 1953.
For Photographic Apparatus, Photographic Attachments—Namely, Lightmeters, Tripods, Range Finders, Universal View-Finders, Flash-Equipment, Projectors, and Enlarging Apparatus.

SN 4,790. Ether Limited, Erdington, Birmingham, England. Filed Mar. 19, 1956.

## TRANSITROL

Owner of British Reg. No. 750,881, dated Feb. 10, 1956.
For Instruments for Measuring, Indicating, and Controlling Temperature, Pressure, and Flow.

SN 7,652. Way-Wise Associates Inc., New York, N. Y. Filed May 3, 1956.

For Appliances for Indicating Excessive Smoke in Boiler Breechings.
First use Feb. 27, 1956.

SN 7,787. The Frederick Post Co., Chicago, Ill. Filed May 7, 1956. Sec. 2(f).

## VERI-LITE

Owner of Reg. No. 527,050.
For Aluminum Range Poles.
First use on or about Oct. 12, 1946.

SN 8,079. Kalimar, Inc., St. Louis, Mo. Filed May 10, 1956.

## KALIGAR

For Camera Lenses.
First use Sept. 1, 1955.

SN 8,182. Howell Instrument Co., Inc., Fort Worth, Tex. Filed May 11, 1956.

## TAPOT

For Potentiometers.
First use Mar. 15, 1955.

SN 9,448. Digit-Ometer Company, Denver, Colo. Filed June 1, 1956.

## CAL-KE PUNCH

For Electro-Mechanical Accounting Machines.
First use on or about June 1, 1953.

SN 9,896. William T. Roberts, d. b. a. William T. Roberts Tool and Die Company, North Attleboro, Mass. Filed June 8, 1956.

## DESIGNASCOPE

For Double Reflection Mirror Used by Tool and Die Makers.
First use May 1925.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 698,193. Montres Tudor S. A. (Tudor Watch Co. Ltd.), Geneva, Switzerland. Filed Nov. 14, 1955.

## TUDOR PRINCE

Owner of Swiss Reg. No. 120,238, dated Sept. 11, 1951, and U. S. Reg. No. 401,994.
For Timepieces of All Kinds and Parts Thereof.

SN 4,029. Lathin Watch Co., Inc., New York, N. Y. Filed Mar. 7, 1956.

## Zermatt

For Ladies' and Men's Watches.
First use July 15, 1955.

SN 4,872. Bulova Watch Company, Inc., Flushing, N. Y. Filed Apr. 19, 1956. Sec. 2(f) as to "Bulova."

BULOVA

The trademark consists of the word "Bulova" in association with a precious or semi-precious gem, usually a diamond, ruby,

or sapphire, set above. Owner of Reg. Nos. 184,904, 621,271, and others.
For Watches.
First use Mar. 15, 1956.

SN 4,878. Bulova Watch Company, Inc., Flushing, N. Y. Filed Apr. 19, 1956. Sec. 2(f) as to "Bulova."

BULOVA

The trademark consists of the word "Bulova" in association with a precious or semi-precious gem, usually a diamond, ruby, or sapphire, set below. Owner of Reg. Nos. 184,904, 621,271, and others.
For Watches.
First use Mar. 15, 1956; and 1907 as to "Bulova."

SN 9,226. Raymond J. Costigan, d. b. a. Salem Clock Company, Hartford, Conn. Filed May 8, 1956.

SALEM CLOCKS "America's Finest"

Applicant disclaims the words "America's Finest" and "Clocks."
For Clocks.
First use Dec. 14, 1945.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

SN 690,630. Jacques Kreisler Manufacturing Corporation, North Bergen, N. J. Filed July 1, 1955. Sec. 2(f).

Kreisler

Owner of Reg. Nos. 441,055 and 504,033.
For Jewelry for Personal Wear (Not Including Watches)—Namely, Belt Buckles Made in Whole or in Part of, or Plated With Precious Metal, Collar Clips, Cuff Links, Identification Bracelets, Tie Holders, Stud Sets, Waldemars (Watch Chains) for Men, Metal Watch Bands and Attachments for Men and Women, and Anklets, Bracelets, Charm Bracelets, Identification Bracelets, and Neck Chains.
First use in the fall of 1951.

## CLASS 29

## BROOMS, BRUSHES, AND DUSTERS

SN 9,555. Lady Beautiful, Inc., d. b. a. Jo Portaro, Cleveland, Ohio. Filed June 4, 1956.

THUMBRUSH

For Hair Grooming Devices—Namely, Hairbrushes and Combination Haircombs and Brushes.
First use on or about Mar. 15, 1956.

## CLASS 31

## FILTERS AND REFRIGERATORS

SN 10,378. Ald, Inc., [illegible]. Filed June 18, 1956.

ALDSOFT

Owner of Reg. No. 539,267.
For Water Softeners.
First use Apr. 21, 1948.

SN 10,963. Fram Corporation, Providence, R. I. Filed June 20, 1956.

FILTRONIC

Owner of Reg. No. 578,122.
For Air Filter Cartridges.
First use June 1, 1956.

SN 10,964. Fram Corporation, Providence, R. I. Filed June 20, 1956.

CEL-U-PAK

Owner of Reg. No. 595,925.
For Filter Cartridges for Filtering Liquids.
First use June 1, 1956.

SN 11,036. Richmond Engineering Co., Inc., Richmond, Va. Filed June 26, 1956.

RECO

Owner of Reg. Nos. 681,801 and [illegible].
For Filtration and Separating Equipment.
First use Feb. 28, 1956.

## CLASS 33

## FURNITURE AND UPHOLSTERY

SN 14,239. Globe Parlor Furniture Company, Incorporated, High Point, N. C. Filed Aug. 20, 1954.

Globe

For Living Room Furniture.
First use Jan. 3, 1906.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 681,702. National Plumbing Stores Corporation, Columbus, Ohio. Filed Feb. 15, 1956.

Nationwide

Owner of Reg. Nos. 606,806, 606,797, and 606,854.
For Summer-Winter Gravity Air Furnaces, Summer-Winter Forced Air Furnaces, Blower and Exhaust Air Side Units, Hot



Air Circulating Units, Air Registers and Grills, Cooling Units, Storage Water Heating Units, Heating Boilers, and Unit Heaters.
First use February 1944 on storage water heating units.

SN 11,919. The Dortch Stove Works, Inc., Franklin, Tenn. Filed July 11, 1956.

Pan-American

For Gas and Oil Ranges.
First use in the year 1941.

SN 12,220. Revcor, Inc., Carpentersville, Ill. Filed July 16, 1956.

REVCOR

For Blower Wheels.
First use July 1946.

SN 12,494. Helophane Company, Inc., New York, N. Y. Filed July 19, 1956.

REALITE

For Illumination Equipment—Namely, Glass and Plastic Lamp Panels, Screens, Globes, Reflectors, and Refractors.
First use June 28, 1956.

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 607,509. Tyrex Sales Corporation, Forest Hills, N. Y. Filed Nov. 1, 1955.

TYRE-X

For Tire Repair Kits Comprising Rubber Plugs, Applicators for Adhesive and Inserting Tools.
First use July 21, 1955.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

SN 9,638. M. Hohner, Inc., New York, N. Y. Filed June 5, 1956.

HOHNER VOX

For Accordions Having Keyboard Means for Producing Electronic Tones and Amplifiers Therefor, Sold as a Unit.
First use May 25, 1956.

## CLASS 37

## PAPER AND STATIONERY

SN 661,535. Ralph B. Williams, Portland, Oreg. Filed Feb. 23, 1954.

IDENTICHECK

For Personal Bank Checks.
First use Sept. 2, 1952.

SN 663,060. Waldorf Paper Products Company, St. Paul, Minn. Filed Mar. 22, 1954.

Stakbord

For Corrugated Paperboard.
First use May 29, 1953.

SN 1,428. Columbia Envelope Company, Melrose Park, Ill. Filed Jan. 25, 1956.

SHARKSKIN

For Mailing Envelopes.
First use Jan. 11, 1956.

SN 9,244. The American Envelope Co., West Carrollton, Ohio. Filed May 29, 1956.

AristoKlasp

For Envelopes.
First use Apr. 23, 1947.

SN 9,815. Western Kraft Corporation, Portland, Oreg. Filed June 4, 1956.



For Kraft Paper and Cardboard.
First use Nov. 2, 1955.

SN 10,215. The Reynolds & Reynolds Co., Dayton, Ohio. Filed June 25, 1956.

Auto-Best

For Accounting Forms.
First use May 10, 1956.

## CLASS 38

## PRINTS AND PUBLICATIONS

SN 10,895. Map Corporation of America, Boston, Mass. Filed June 25, 1956.

**MAPCO**

For Cartographic Publication.
First use Aug. 18, 1955.

## CLASS 39

## CLOTHING

SN 685,160. Barrie & Kersel Limited, Hawick, Scotland. Filed Apr. 8, 1955. Sec. 2(f).

**BARRIE**

Owner of British Reg. No. 694,650, dated Dec. 13, 1950.
For Knitted Outer Clothing—Namely, Jumpers, Cardigans, and Suits for Women; and, Slip-Ons, Pullovers, Cardigans, Waistcoats, Vests, Trunks, Pants, and Combinations for Men.
First use 1903; in commerce 1926.

SN 689,163. Rutherford Garment Co., Inc., Rutherford, Tenn. Filed June 8, 1955.

*Blue Chip*

For Jackets, Pants, Dungarees, and Overalls Made Exclusively of Cotton Fabrics for Men, Women, Boys, and Girls.
First use May 10, 1955.

SN 699,161. Mylan Manufacturing Co., Inc., New York, N. Y. Filed Nov. 30, 1955.

**FAIRLANE**

For Men's and Boys' Shirts.
First use Nov. 16, 1953.

SN 7,174. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Apr. 26, 1956.

**SPARTA**

Owner of Reg. No. 185,471.
For Outer Shirts.
First use June 1954.

SN 7,175. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed Apr. 26, 1956.

**TEAL**

Owner of Reg. No. 258,063.
For Outer Shirts.
First use June 1953.

SN 7,534. Armand Schwab & Co., Inc., New York, N. Y. Filed May 2, 1956.

*Splendide*

For Hats, Hat Bodies, and/or Hat Hoods.
First use Feb. 28, 1952.

SN 9,113. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 28, 1956.

**SURF RIDER**

For Swim Wear.
First use Jan. 16, 1956.

SN 9,321. A. Zerkowitz & Co., Inc., New York, N. Y. Filed May 29, 1956.

**LADIES PRIDE**

For Women's Knitted Sweaters.
First use Dec. 27, 1955.

SN 9,441. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed June 1, 1956.

**PASHA-RAMO**

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Mar. 7, 1955.

SN 9,442. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed June 1, 1956.

**VELCASIA**

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Apr. 18, 1955.

SN 9,476. Marlboro Shirt Company, Inc., Baltimore, Md. Filed June 1, 1956.

**CHALLON**

For Sport Shirts.
First use May 14, 1956.

SN 9,571. I. J. Nethe & Company, New York, N. Y. Filed June 4, 1956.

*Creations*

Exclusive rights to the word "Creations" is not claimed except in association with other features of the mark. Owner of Reg. Nos. 416,579 and 424,097.
For Neckwear, Handkerchiefs, Scarfs, and Kerchiefs.
First use March 1934.

SN 9,690. The Associated Merchandising Corporation, New York, N. Y. Filed June 6, 1956.

**CLYDE**

For Men's Shirts.
First use June 3, 1954.

SN 9,692. The Associated Merchandising Corporation, New York, N. Y. Filed June 6, 1956.

**MARK**

For Men's Shirts.
First use June 3, 1954.



SN 9,693. The Associated Merchandising Corporation, New York, N. Y. Filed June 6, 1956.

**ROY**

For Men's Shirts.
First use June 3, 1954.

SN 9,710. Faith Mills Corp., Averill Park, N. Y. Filed June 7, 1956.

**FAITH**

Owner of Reg. No. 283,190.
For Knitted Shirts, Drawers, and Union Suits for Men and Boys.
First use October 1909.

SN 10,507. The B. V. D. Company, Inc., New York, N. Y. Filed June 19, 1956.

**B.V.D.**

Owner of Reg. Nos. 49,931, 587,588, and others.
For Neckties.
First use Jan. 31, 1956.

SN 11,960. Harry Rubin, d. b. a. Carlisle Sportswear, New York, N. Y. Filed July 11, 1956.

**ANGOMERE**

For Women's and Children's Sweaters.
First use May 2, 1956.

SN 12,203. Lumay Coat Corp., New York, N. Y. Filed July 16, 1956.

**LUMANA**

For Ladies' Coats.
First use May 4, 1956.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

SN 2,662. The Continental Elastic Corporation, New Bedford, Mass. Filed Feb. 14, 1956.

**STA-TRIM**

For Seam Binding, Bias Tape, Bic-Rac Tape, and Like Notion Items.
First use Jan. 20, 1950.

SN 9,830. Fred G. Thomas, Jr., d. b. a. Ideal Enterprises, Somerville, N. J. Filed June 7, 1956.

**Saf-t-Fast**

For Diaper Pins.
First use May 24, 1956.

SN 9,884. Christine H. Oswald, Prattville, Ala. Filed June 8, 1956.

**PAJAM-O-PUS**

For Stuffed Animal Figure Used as a Bed Decoration and Pajama Container.
First use Nov. 26, 1955.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

SN 682,897. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hoechst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Asbestos Cloth Fabric.

SN 842. J. P. Stevens & Co., Inc., New York, N. Y. Filed Jan. 16, 1956.

**PLAIDLAMS**

"Plaid" is disclaimed apart from the mark as shown.
For Cotton Goods in the Piece.
First use Dec. 16, 1955.

SN 2,882. Interchemical Corporation, New York, N. Y. Filed Feb. 17, 1956.

**COFLEX**

For Stretchable Plastic Coated Fabric for Use as Upholstery Fabric.
First use Dec. 29, 1955.

SN 3,464. Pollak Industrial Corporation, Stratford, Conn. Filed Feb. 27, 1956.

**KATHARGON PROCESSED**

The word "Processed" is disclaimed apart from the mark.
For Polyethylene Film, Useful as a Fabric Substitute for Tablecloths, Place Mats, Window Draperies, Disposable Baby Pants, and Bibs.
First use Jan. 5, 1956.

SN 3,539. La Alpujarreña S. R. C., Granada, Spain. Filed Feb. 28, 1956.



Owner of Spanish Reg. No. 292,235, dated July 6, 1955.
For Textile Rugs, Carpets, and Tapestries.

SN 8,961. William Hollins & Company Limited, Nottingham, England. Filed May 24, 1956.

VIYELLON

Owner of British Reg. No. 730,314, dated May 17, 1954, and U. S. Reg. Nos. 27,847 and 551,682.
For Textile Piece Goods of Wool, or Nylon, or of Mixtures of Wool and Nylon.

SN 10,853. David Crystal, Inc., New York, N. Y. Filed June 25, 1956.

Cheri Coton

The word "Coton" is disclaimed apart from the mark as shown.
For Cotton Textile Fabrics for Ladies' and Misses' Dresses and Suits.
First use Mar. 15, 1956.

SN 12,550. Wamsutta Mills, New York, N. Y. Filed July 20, 1956.

DEBUCALE

For Sheets and Pillow Cases, Made of Cotton and/or Synthetic Fibres.
First use June 22, 1956.

## CLASS 43

## THREAD AND YARN

SN 682,898. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Asbestos Yarns, Yarns.

SN 7,559. Atlantic Industries, Inc., Mayaquez, Puerto Rico. Filed May 3, 1956.



For Jute Yarn.
First use Mar. 29, 1956.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 682,899. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Surgical Instruments, Including Syringes; Injection Needles and Ampules; Artificial Limbs; Artificial Eyes; Artificial Teeth; Plasters; Adhesive and Non-Adhesive Bandages; Substances for Making Dental Impressions and Dental Filling Material.

SN 9,511. Zylon Products Co., Inc., Providence, R. I. Filed June 1, 1956.

MEDI-SERVER

For Molded Medical Appliance—Namely, a Child's Medicine Dispenser.
First use May 2, 1956.

SN 9,531. Dr. Daily's Home Utility, Sioux City, Iowa. Filed June 4, 1956.

"Gentle Jet"

The drawing is lined for maroon.
For Tubular Rectal and Colon Cleansers.
First use Apr. 9, 1956.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

SN 641,575. Rock Creek Ginger Ale Co., Washington, D. C. Filed Jan. 30, 1953. CONCURRENT USE with SN 642,606 for the area comprising the States of Maryland, Virginia, and District of Columbia.

TRIM

For Non-Nutritive, Non-Alcoholic Maltless Dietetic Soft Drinks.
First use on or about Jan. 12, 1953.



SN 642,606. B-1 Beverage Co., St. Louis, Mo. Filed Feb. 24, 1953. CONCURRENT USE with SN 641,575 for the area comprising the States of Missouri, Illinois, and Indiana.




For Non-Nutritive, Non-Alcoholic, Maltless Dietetic Soft Drinks.
First use Feb. 1, 1952.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

SN 664,280. Beech-Nut Packing Company, Canajoharie, N. Y., now by merger and change of name to Beech-Nut Life Savers, Inc. Filed Apr. 12, 1954.

Jaffee

For Coffee Substitute.
First use Apr. 20, 1917.

SN 673,099. Edgar B. Hastings, d. b. a. Hasting's "21," Los Angeles, Calif. Filed Sept. 13, 1954.

Hasting's "21"

The name "Hasting's" is a facsimile signature of applicant.
For Spices and Seasonings, Sold as a Unit in a Single Package, To Be Used in the Making of Spaghetti Sauce.
First use April 1952.

SN 679,406. Nutrena Mills, Inc., Minneapolis, Minn. Filed Jan. 4, 1955.



The mark is composed of a design of irregularly shaped figures forming a circus or border. The drawing is lined for gold and red but no claim is made to color. The configuration of the container is disclaimed.
For Live Stock and Poultry Feeds.
First use on or about Jan. 1, 1953.

SN 679,490. Salads Incorporated, Indianapolis, Ind. Filed Jan. 5, 1955. Sec. 2(f) as to "Gatewood."




The drawing is lined for red and green, but no claim is made thereto. "Gatewood" is the name of the president of the applicant corporation, consent of record.
For Corn Meal Mush, Salads—Namely, Garden Salad, Waldorf Salad, Potato Salad, Slaw, Macaroni Salad, Fruit Salad, Pineapple Salad, Jellied Fruit Salad, Peach Salad, Cranberry Salad; Jellied Cabbage and Carrot Salad; Salad Dressing, French Dressing, Mayonnaise, and Horseradish.
First use on or about May 4, 1932, on horseradish.

SN 685,316. A. E. Staley Manufacturing Company, Decatur, Ill. Filed Apr. 11, 1955. Sec. 2(f).

The Staley Customer NEVER GUESSES—He Knows!

Owner of Reg. No. 590,942.
For Animal Feeds—Namely, Stock Feeds and Processed Cereal Grain Ingredients for Stock, Poultry and Pet Feeds—Namely, Dog Feeds.
First use 1935.

SN 690,041. Snonuts Company, Santa Cruz, Calif. Filed June 22, 1955.

SNONUTS

For Frozen Confections—Namely, Ice Cream Shaped Like a Doughnut and Disposed Between Two Edible Wafers.
First use first part of May 1955.

SN 690,681. Chip Steak Company, Oakland, Calif. Filed July 5, 1955.

CHIP BURGERS

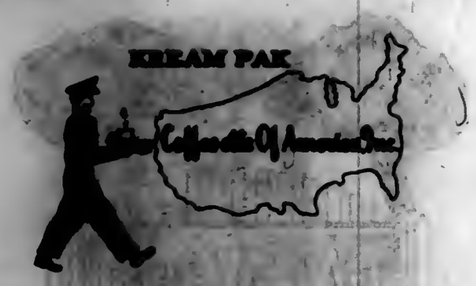
The word "Burgers" is disclaimed apart from the mark as shown.
For Frozen Ground Beef Steaks.
First use on or about May 17, 1955.

SN 692,367. Allsweet Confectionery, Inc., New York, N. Y. Filed Aug. 3, 1955.

Ruffles

For Candy.
First use Nov. 1, 1954.

SN 695,808. Coffee-Ette of America, Inc., Pittsburgh, Pa. Filed Oct. 4, 1955.




"Kream Pak" is disclaimed apart from the mark as shown.
For Soluble Cream for Coffee and Tea Sold in Packages.
First use Sept. 13, 1955.

SN 699,685. Zipf's, Inc., d. b.a. Zipf's, Reading, Pa. Filed Dec. 9, 1955. Sec. 2(f).

Zipf's

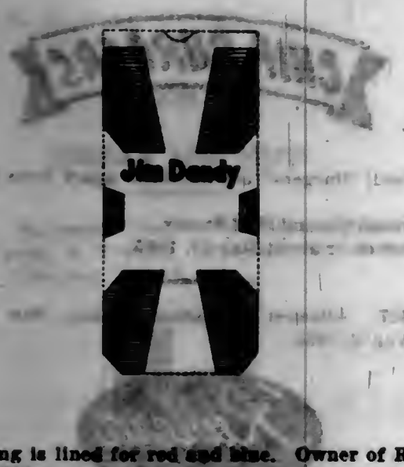
For Candy.
First use 1905.

SN 700,089. Coöperative Producenten Handelsvereeniging, "De Producent" for Short, Gouda, Netherlands. Filed Dec. 16, 1955.

PRIOR

Owner of Dutch Reg. No. 121,643, dated May 3, 1955.
For Cheese.

SN 700,288. Western Grain Company, Birmingham, Ala. Filed Dec. 19, 1955.




The drawing is lined for red and blue. Owner of Reg. Nos. 176,763, 359,388, and others.
For Corn Meal and Hominy Grits for Human Consumption and Feeds for Live Stock, Poultry, Rabbits, Dogs, and Goats.
First use in 1900 on feeds.

SN 2,120. General Mills, Inc., Minneapolis, Minn. Filed Feb. 6, 1956.

PRO

Owner of Reg. No. 235,000.
For Glum Gluten for Use in Food Products.
First use Dec. 2, 1955.

SN 3,645. Anderson, Clayton & Co., Sherman, Tex. Filed Mar. 1, 1956.

WIZARD

For Vegetable Shortening, Salad Oil, Margarine.
First use Feb. 13, 1956.

SN 8,078. Interstate Bakeries Corporation, Kansas City, Mo. Filed May 10, 1956. Sec. 2(f).

Weber's

Owner of Reg. Nos. 270,774, 312,319, and 521,717.
For Bread.
First use on or about July 12, 1930; on or about May 15, 1908, as to "Weber's."

SN 8,120. D'Arrigo Bros. Co. of California, San Jose, Calif. Filed May 11, 1956.

GREEN HEAD

Owner of Reg. No. 269,287.
For Fresh Vegetables.
First use July 1, 1929.

SN 8,211. Fair View Packing Company, Inc., Hollister, Calif. Filed May 14, 1956.

Heart Quality

Owner of Reg. No. 532,824.
For Canned Fruits and Canned Vegetables.
First use in 1942.

CLASS 47

WINES

SN 8,955. Goldwell Limited, East Malling, Kent, England. Filed May 24, 1956.

BABY BUBBLY

Owner of British Reg. No. 706,164, dated Apr. 1, 1952.
For Perry.



CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 10,485. Schenley Distillers, Inc., New York, N. Y., to Schenley Industries, Inc., New York, N. Y. Filed June 18, 1956.

VSQ

Assignee owner of Reg. No. 616,322.
For Brandy.
First use June 1, 1942.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN. 604,368. W. H. Hutchinson & Son, Inc., Chicago, Ill. Filed Oct. 3, 1950.

TOPS FOR GOOD DRINKS

For Bottle Caps.
First use June 1, 1950.

SN 691,604. Automotive Rubber Company, Inc., Detroit, Mich. Filed July 20, 1955.

"DRUMSERTS"

For Preformed Rubber Lining for Receptacles.
First use on or about Sept. 1, 1954.

SN 2,560. John E. Perry, Jr., d. b. a. Fiberaised Bar & Line Co., Marinship, Sausalito, Calif. Filed Feb. 13, 1956.

FIBERAISED

For Raised Bars Acting as Highway Traffic Marking Elements.
First use Apr. 8, 1948.

SN 14,719. Arvey Corporation, Chicago, Ill. Filed Aug. 28, 1956.

LUTEX

For Laminations of Plastic Film to Paper, Textiles, or Paperboard.
First use Aug. 7, 1956.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 688,903. Bymart-Tintair, Inc., New York, N. Y. Filed June 6, 1955.

Lanair

For Colored Creme Hair Dressing.
First use Nov. 30, 1954.
Subj. to Intf. with SN 1,092.

SN 698,159. Gold Medal Hair Products, Inc., d. b. a. G M Hair Products, Inc., Brooklyn, N. Y. Filed Nov. 14, 1955.

Wave-Trees

For Oil Cold Wave Cream for Conditioning the Hair.
First use Apr. 20, 1955.

SN 1,092. Lanair Company, Chicago, Ill. Filed Jan. 19, 1956.

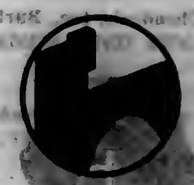
LANAIR'S

For Hand Lotion.
First use in or about December 1941.
Subj. to Intf. with SN 688,903.

CLASS 52

DETERGENTS AND SOAPS

SN 682,900. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany. Filed Mar. 7, 1955.



The mark consists of a bridge and tower design. Owner of German Reg. No. 617,606, dated Mar. 7, 1952.
For Soaps, Washing, Cleansing, and Detergent Preparations.

SN 687,046. Birkenwald, Inc., Seattle, Wash. Filed May 9, 1955.

BIRKO

For Detergents for Use in Laundry Operations; Detergents for Metal Surfaces; Detergents for Meat Products, Such as a Tripe Wash, and a Combination of Alkalis and Soaps Used in Hog Scalding To Remove the Hair and Clean the Skin of the Hog; Detergents for Wood, Painted, and Concrete Surfaces, Consisting of Silicates, Wetting Agents, Soaps, Acid Salts, Abrasives, Chlorine, Phosphates, and Alkalis in Several Combinations.
First use Jan. 1, 1955.

SN 696,612. Norman Wiggs, d. b. a. Norman Wiggs & Company, Los Angeles, Calif. Filed Oct. 17, 1955.

JET-FAST

For Compounds and Liquids for Cleaning White Sidewall Tires, for Washing Automobiles, and for Washing Car Bodies.
First use Feb. 10, 1954.

SN 107. Texize Chemicals, Inc., Greenville, S. C. Filed Jan. 3, 1956. Sec. 2(f).

Texize

Owner of Reg. Nos. 444,672, 564,391, and 587,679.
For Detergent for Dishes, Floor Cleaner, Household Cleaner, and Rug Cleaner.
First use January 1947 for household cleaner.

SN 1,093. Lanair Company, Chicago, Ill. Filed Jan. 19, 1956.

Lanair

For Toilet Soap.
First use in or about January 1951.
Subj. to Intf. with SN 668,903.

SN 3,614. Walter G. Legge Company, Inc., New York, N. Y. Filed Feb. 29, 1956.

LEGSTRIP

Owner of Reg. No. 602,582.
For Floor Cleaning Compound.
First use Feb. 2, 1956.

SN 5,750. Bonewitz Chemicals, Inc., Burlington, Iowa. Filed Apr. 4, 1956.



For Detergents—Namely, Cleaners and Cleansers for General Uses; Laundry Cleaners; Washing Compounds; Waterless Hand Cleaning Compounds; Descaling Compounds and Preparations; and Dairy Cleaning Compounds and Milkstone Remover Preparations.
First use Aug. 27, 1947.

SN 5,912. Cobehan, Inc., Caldwell, N. J. Filed Apr. 6, 1956.

Cobehn

For Solvent for Cleaning Precision Instruments and Parts Thereof, Electronic Components, Contact Points, Lapped Surfaces, Etc.
First use Dec. 6, 1954.

SN 5,913. Con L. Cole, d. b. a. Zip-Quick Products, Rockmart, Ga. Filed Apr. 6, 1956.

Z-I-P Q-U-I-C-K

For Spot Remover.
First use Mar. 9, 1956.

SN 6,792. Climax Industries, Cleveland, Ohio. Filed Apr. 20, 1956.

CLIMAX

Owner of Reg. No. 500,517.
For Rug Cleaning Compound.
First use Apr. 2, 1956.

SN 6,825. Permacel Tape Corporation, New Brunswick, N. J. Filed Apr. 20, 1956.

PERMACEL

Owner of Reg. Nos. 338,238, 596,555, and others.
For Pre-Paint Cleaners, Wax, Silicone, and Oil Removers and Degreasing Preparations.
First use Feb. 28, 1956.

SN 8,372. Ralph Bank, d. b. a. Mariotte Products Company, Brooklyn, N. Y. Filed May 9, 1956.

PERF

For Detergent Powder or Crystal.
First use Mar. 19, 1956.

SN 9,249. Colgate-Palmolive Company, New York, N. Y. Filed May 29, 1956.

TRA-LA

For Sudsing Cleaner, Cleanser, and Detergent.
First use Feb. 15, 1956.

SN 9,545. Richard Hudnut, New York, N. Y. Filed June 4, 1956.

SILI-GARDE

For Shampoo.
First use May 10, 1956.

SN 16,005. Standard Oil Company of California, San Francisco, Calif. Filed Oct. 8, 1956.



Owner of Reg. Nos. 356,109, 532,796, and others.
For Detergents.
First use Aug. 1, 1956.

# SERVICE MARKS

## CLASS 100

### MISCELLANEOUS

SN 680,903. Roadside Food System, Inc., Cleveland, Ohio. Filed Feb. 1, 1955.

EAT N TIME KITCHENS

The drawing is lined for red.
For Restaurant Services.
First use Nov. 10, 1954.

SN 688,648. Little League Baseball, Inc., Williamsport, Pa. Filed June 1, 1955.

LITTLE LEAGUE BASEBALL

Owner of Reg. Nos. 524,725, 621,335, and others.
For Services in Connection With the Development of Sportsmanship, Clean Play, and Athletic Ability in Young Boys Through the Medium of a Planned Program of Baseball.
First use June 1939.

SN 1,588. Wheeler Laboratories, Inc., Great Neck, N. Y. Filed Jan. 26, 1956.

WL

For Consulting, Research, Development, and Engineering Services in the Microwave and Radio Engineering Field.
First use Jan. 3, 1956.

## CLASS 101

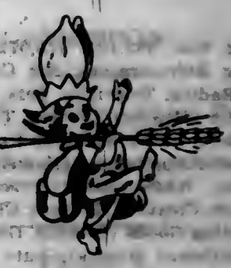
### ADVERTISING AND BUSINESS

SN 695,658. Henry Strauss & Company, Inc., New York, N. Y. Filed Sept. 30, 1955.




Without waiver of common law rights the wording "Communicators of Ideas" is disclaimed apart from the mark as shown.
For Planning and Development of Programs in the Fields of Personnel Training and Management, Sales Promotion, Public Relations, and Industrial Relations for Others by Means of Training Courses.
First use on or about Dec. 11, 1952.

SN 5,580. Bakers Associates Incorporated, Chicago, Ill. Filed Apr. 2, 1956.



Owner of Reg. No. 580,092.
For Management Counseling to the Bakery Industry Relating to Personnel, Organization, Production, Sales, Quality Control, Automotive and Plant Maintenance, and Finance.
First use June 10, 1948.

## CLASS 102

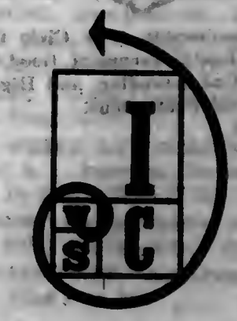
### INSURANCE AND FINANCIAL

SN 669,258. Great American Insurance Company, New York, N. Y. Filed July 1, 1954. Sec. 2(f).

Great American Insurance Company

Owner of Reg. No. 607,761.
For Underwriting the General Types of Insurance, Excluding Life.
First use Nov. 24, 1917.

SN 14,308. Wall Street Investing Corporation, Boston, Mass. Filed Mar. 6, 1956.




For Management and Investment of Funds of Others.
First use July 20, 1955.

### CLASS 103

### CONSTRUCTION AND REPAIR

SN 683,145. Sears, Roebuck and Co., Chicago, Ill. Filed Mar. 9, 1955. Sec. 2(f).

**SEARS**

Owner of Reg. Nos. 562,123, 575,072, and others.

For Repairing Refrigerators, Air Conditioners, Dehumidifiers, Freezers, Radios, Television Sets, Household Water Systems, Hot Water Heaters, Power Tools, Electric Motors, Cameras, Watches, Lawn Mowers, Garbage Disposal Units, Electric Household Appliances (Namely, Food Mixers, Irons, Stoves, Griddles, Waffle Irons, Percolators, Hair Dryers, Polishers, Vacuum Cleaners, Ironers, Clothes Dryers, Washing Machines), Sporting Goods (Namely, Guns, Fishing Reels, Tennis Racquets, Outboard Motors), Auto Parts and Accessories (Namely Tires, Tubes, Batteries).

First use as early as the year 1935.

SN 700,582. Contractors Machinery Company, Kansas City, Mo. Filed Dec. 27, 1955.

**CONMACO**

For Renting of Pile Driving Equipment—Namely, Steam Pile Hammers, Steam Pile Extractors, Drop Hammers, Driving Caps for Steam and Drop Hammers, Steam Hose, Pile Driver Guides and Boilers; Steel Sheet Piling; Heavy Construction Machinery; and Hoisting Equipment Including Construction Hoists; Gin Poles, Guy Derricks, and Stiff-Leg Derricks, and the Repairing of Like Equipment for Others.

First use May 18, 1955.

### CLASS 105

### TRANSPORTATION AND STORAGE

SN 1,346. Thos. Cook & Son, Incorporated, New York, N. Y. Filed Jan. 24, 1956. Sec. 2(f).

**COOK'S TOURS**

For Travel Agency Services—Namely, the Arranging and Conducting of Sight-Seeing and Other Similar Types of Tours, Travel Information of All Types.

First use 1841.

### CLASS 106

### MATERIAL TREATMENT

SN 4,748. Seymour D. Steg, d. b. a. M-M Photo Service, Newburgh, N. Y. Filed Mar. 16, 1956.

**VELVAMAT**

For Photo Finishing Service.

First use Mar. 1, 1956.

### CLASS 107

### EDUCATION AND ENTERTAINMENT

SN 700,192. Civic Concert Service, Inc., New York, N. Y. Filed Dec. 19, 1955.

**CIVIC MUSIC ASSOCIATION**

For Organization and Promotion of Local Concert Series and the Booking of Musical Artists for Such Series.

First use July 10, 1925.

## COLLECTIVE MEMBERSHIP MARKS

### CLASS 200

SN 680,470. The International Association of Lions Clubs, Chicago, Ill. Filed Jan. 25, 1955.

For Indicating Membership in a Civic Organization, Organized To Promote Good Government, Good Citizenship, Good Fellowship, Mutual Understanding, and High Ethical Standards in Business and the Professions.

First use July 1920.

SN 695,876. Alpha Chi Omega Fraternity, Indianapolis, Ind. Filed Oct. 5, 1955.

**ALPHA CHI OMEGA**

The lining in the drawing constitutes lining forming part of the mark and does not represent color. Owner of Reg. No. 264,413.

For Indicating Membership in a National Collegiate Fraternity.

First use 1885.

# TRADEMARK REGISTRATIONS ISSUED

## PRINCIPAL REGISTER

### CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

638,605. FIBER-SEAL. Magnet Cove Barium Corporation. SN 670,206. Pub. 10-2-56. Filed 7-19-54.

638,606. RAYOPHANE. British Rayophane Limited. SN 676,935. Pub. 10-2-56. Filed 11-19-54.

638,607. VALLEY. Phillips Associates, Inc. SN 677,732. Pub. 10-2-56. Filed 12-3-54.

638,608. HONEGGER AND DESIGN. Honegger Farms Co., Inc. SN 686,908. Pub. 10-2-56. Filed 5-5-55.

638,609. CEL-CELSIOR. American Viscose Corporation. SN 689,117. Pub. 10-2-56. Filed 6-8-55.

638,610. KERNEL GREENWOOD AND DESIGN. Greenwood Seed Co. SN 690,162. Pub. 10-2-56. Filed 6-24-55.

638,611. HOLLY-BY-GOLLY. Kathleen K. Meserve. SN 691,495. Pub. 10-2-56. Filed 7-18-55.

638,612. DESIGN OF ARCHER. Callisons, Inc. SN 693,521. Pub. 10-2-56. Filed 8-22-55.

638,613. ROBIN HOOD AND DESIGN. Callisons, Inc. SN 693,522. Pub. 10-2-56. Filed 8-23-55.

638,614. CROSBY. Crosby Chemicals, Inc. SN 694,053. Pub. 10-2-56. Filed 9-1-55.

638,615. ANGOLA. Wood & Hyde Leather Co. Inc. SN 696,273. Pub. 10-2-56. Filed 10-11-55.

638,616. FIBRENE. Sierra Talc & Clay Co. SN 697,859. Pub. 10-2-56. Filed 11-7-55.

638,617. CELLUSUEDE. Cellusuede Products, Inc. SN 698,017. Pub. 10-2-56. Filed 11-10-55.

638,618. CAMBI-KERRY. Gellich Leather Company. SN 699,793. Pub. 10-2-56. Filed 12-12-55.

638,619. BACCTO. Michigan Peat, Inc. SN 3,437. Pub. 10-2-56. Filed 2-27-56.

638,620. KODEL. Eastman Kodak Company. SN 3,662. Pub. 10-2-56. Filed 3-1-56.

638,621. VIRCOLITE. Virco Mfg. Corporation. SN 3,788. Pub. 10-2-56. Filed 3-2-56.

638,622. LAN-O-WIN AND DESIGN. The Winworth Co., Inc. SN 3,906. Pub. 10-2-56. Filed 3-5-56.

### CLASS 2

### RECEPTACLES

638,623. THERMO KING. Aladdin Industries, Incorporated. SN 693,422. Pub. 10-2-56. Filed 8-22-55.

638,624. SARNABRASS. S. S. Sarna, Inc. SN 695,029. Pub. 10-2-56. Filed 9-20-55.

638,625. MARK-IT FUL-LOK. Oneida Paper Products, Inc. SN 695,486. Pub. 10-2-56. Filed 9-28-55.

638,626. DESIGN OF PARROT. Continental Can Company, Inc. SN 695,534. Pub. 10-2-56. Filed 9-29-55.

638,627. MARK-IT. Oneida Paper Products, Inc. SN 696,817. Pub. 10-2-56. Filed 10-20-55.

638,628. NAPCO WOOD CRAFT AND DESIGN. National Potteries, Inc. SN 697,010. Pub. 10-2-56. Filed 10-24-55.

638,629. HOT-PAK. Mealpak Corporation. SN 697,987. Pub. 10-2-56. Filed 11-9-55.

638,630. RIB FOIL. Huyler's, d. b. a. Basca Manufacturing Company. SN 4,453. Pub. 10-2-56. Filed 3-13-56.

638,631. POINTING TO SERVICE & QUALITY AND DESIGN. Elyria Corrugated Box Co. SN 7,083. Pub. 10-2-56. Filed 4-25-56.

### CLASS 5

### ADHESIVES

638,632. BOOK LOK. National Starch Products Inc. SN 613. Pub. 10-2-56. Filed 1-12-56.

638,633. VINYL DEX. National Starch Products Inc. SN 1,262. Pub. 10-2-56. Filed 1-23-56.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

638,634. ROHCO PERMA-BRITE. R. O. Hull & Company, Inc. SN 691,132. Pub. 10-2-56. Filed 7-12-55.

638,635. PENTACIDE. Reichhold Chemicals, Inc. SN 693,192. Pub. 10-2-56. Filed 8-16-55.

638,636. CYPREX. American Cyanamid Company. SN 694 688. Pub. 10-2-56. Filed 9-15-55.

638,637. MILKEEP AND DESIGN. Kirk White Chemical Co. SN 694,805. Pub. 10-2-56. Filed 9-16-55.

638,638. A KILLER KATZ ETC. AND DESIGN. Harry Katz, d. b. a. Elco Manufacturing Company. SN 695,160. Pub. 10-2-56. Filed 9-22-55.

638,639. LUMBER LAST AND DESIGN. Harry Katz, d. b. a. Elco Manufacturing Company. SN 695,161. Pub. 10-2-56. Filed 9-22-55.

638 640. GEIGY. Geigy Chemical Corporation. SN 695,214. Pub. 10-2-56. Filed 9-23-55.

638,641. DEORLENE. Ciba Limited. SN 696,502. Pub. 10-2-56. Filed 10-17-55.

638,642. BAC-TIVATOR. Boyer Chemical Company. SN 696,935. Pub. 10-2-56. Filed 10-24-55.

638,643. THE KEY TO HARCHEM BETTER PLASTICS AND DESIGN. Wallace & Tiernan Incorporated. SN 697,343. Pub. 10-2-56. Filed 10-28-55.

638,644. NOTT'S ARTOX. Nott Manufacturing Co., Inc. SN 698,202. Pub. 10-2-56. Filed 11-14-55.

638,645. GELSOL. Claude Bounin. SN 698,499. Pub. 10-2-56. Filed 11-18-55.

638,646. NAPCLOR. Chapman Chemical Company. SN 699,618. Pub. 10-2-56. Filed 12-8-55.

638,647. GAMMALYT. Farbenfabriken Bayer Aktiengesellschaft. SN 700,592. Pub. 10-2-56. Filed 12-27-55.

638,648. ERJO. Edwin R. Joseph, d. b. a. E. R. Joseph Co. SN 700,613. Pub. 10-2-56. Filed 12-27-55.

638,649. SOLUGEL. Soluol Chemical Co., Inc. SN 700,677. Pub. 10-2-56. Filed 12-27-55.

638,650. LILY WHITE AND DESIGN. American Transpacific Corp., d. b. a. American Chemical & Drug Co. SN 700,706. Pub. 10-2-56. Filed 12-28-55.

638,651. JON-I-TOR. Lewis Frymire, d. b. a. The Jon-I-Tor Company. SN 775. Pub. 10-2-56. Filed 1-16-56.

638,652. C-R-P-POSITEST. Schieffelin & Co. SN 1,016. Pub. 10-2-56. Filed 1-18-56.

638,653. EUTECSOL. Eutectic Welding Alloys Corporation. SN 1,227. Pub. 10-2-56. Filed 1-23-56.

638,654. SOF-TU. Hachik Bleach Co. SN 1,528. Pub. 10-2-56. Filed 1-26-56.

638,655. SATINA. Robert R. Umhoefer, Inc., d. b. a. Mayco Colors. SN 3,564. Pub. 10–2–56. Filed 2–28–56.

638,656. MARCALEAK. Maher Color & Chemical Company. SN 3,619. Pub. 10–2–56. Filed 2–29–56.

## CLASS 9

## EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

638,657. PIRATE. V. J. Tovatt Co., d. b. a. Clipper Fireworks Co. SN 6,869. Pub. 10–2–56. Filed 4–20–56.

## CLASS 10

## FERTILIZERS

638,658. ORGRO AND DESIGN. Southern Farms Products, Inc. SN 698,926. Pub. 4–24–56. Filed 11–25–55.

## CLASS 11

## INKS AND INKING MATERIALS

638,659. PELIKAN. Guenther Wagner. SN 698,748. Pub. 10–2–56. Filed 11–22–55.

## CLASS 12

## CONSTRUCTION MATERIALS

638,660. TRAIL-O-PORCH. Trail-O-Porch and Mobile Rooms, Inc. SN 691,524. Pub. 10–2–56. Filed 7–18–55.

638,661. CIRCLE GATE. Babson Bros. Co. SN 697,460. Pub. 10–2–56. Filed 11–1–55.

638,662. DOROD ETC. AND DESIGN. General Extrusions, Inc. SN 699,227. Pub. 10–2–56. Filed 12–1–55.

638,663. SUPER POWERHOUSE AND DESIGN. Baldwin-Hill Company. SN 699,952. Pub. 10–2–56. Filed 12–14–55.

638,664. VYLUX. Contemporary Coverings Company. SN 700,086. Pub. 10–2–56. Filed 12–16–55.

638,665. EHCO AND DESIGN. Engler Huson Company. SN 1,859. Pub. 10–2–56. Filed 2–1–56.

638,666. MARBLITE. Marble Units, Inc. SN 3,418. Pub. 10–2–56. Filed 2–27–56.

638,667. REGULUX. Ralston Manufacturing Company. SN 3,629. Pub. 10–2–56. Filed 2–28–56.

638,668. CHEM-TOP. The Garland Company. SN 5,518. Pub. 9–25–56. Filed 3–30–56.

## CLASS 13

## HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

638,669. BOWDENFLEX. Bowden (Engineers) Limited. SN 693,897. Pub. 10–2–56. Filed 8–30–55.

638,670. MELNOR'S AQUA-GUN. Melnor Metal Products Co., Inc. SN 349. Pub. 10–2–56. Filed 1–9–56.

638,671. HANG-AWAY. Harwyn Products Corporation. SN 1,687. Pub. 10–2–56. Filed 1–30–56.

638,672. HANG-RITE ROD. Republic Import Corp. SN 2,571. Pub. 10–2–56. Filed 2–13–56.

638,673. HENNY PENNY P. H. T. FRYER ETC. AND DESIGN. Chester Wagner. SN 4,252. Pub. 10–2–56. Filed 3–9–56.

638,674. REPRESENTATION OF THREE INTERLOCKING RINGS AND SCREWS. George W. Moore, Inc. SN 5,782. Pub. 10–2–56. Filed 4–4–56.

638,675. GOLDENRAY. G. H. French & Company, Inc. SN 6,515. Pub. 10–2–56. Filed 4–17–56.

638,676. WING DING AND DESIGN. Diamond Expansion Bolt Co., Inc. SN 6,910. Pub. 10–2–56. Filed 4–23–56.

## CLASS 14

## METALS AND METAL CASTINGS AND FORGINGS

638,677. SANALOY. The Firestone Tire & Rubber Company. SN 696,133. Pub. 10–2–56. Filed 10–10–55.

638,678. DESIGN OF ELEPHANT. The Phosphor Bronze Corporation. SN 699,424. Pub. 10–2–56. Filed 12–5–55.

638,679. STEELY AND DESIGN. Madison Steel Company. SN 699,590. Pub. 10–2–56. Filed 12–7–55.

638,680. INOCULOY. Vanadium Corporation of America. SN 700,765. Pub. 10–2–56. Filed 12–28–55.

638,681. PHENOM-ALLOY. Eutectic Welding Alloys Corporation. SN 415. Pub. 10–2–56. Filed 1–10–56.

638,682. BAB AND DESIGN. Badger Brass and Aluminum Foundry Company. SN 538. Pub. 10–2–56. Filed 1–12–56.

638,683. S ETC. AND DESIGN. Stamford Rolling Mills Company, Inc. SN 629. Pub. 10–2–56. Filed 1–12–56.

638,684. FAHRALLOY. The Fahralloy Company. SN 670. Pub. 10–2–56. Filed 1–13–56.

638,685. CROCAR. Vanadium-Alloys Steel Company. SN 1,413. Pub. 10–2–56. Filed 1–24–56.

638,686. ALBRIGHT. Macklanburg-Duncan Company. SN 1,704. Pub. 10–2–56. Filed 1–30–56.

638,687. ALBRAS. Macklanburg-Duncan Company. SN 1,705. Pub. 10–2–56. Filed 1–30–56.

638,688. PERMETAL. Gibbs Limited. SN 2,125. Pub. 10–2–56. Filed 2–6–56.

638,689. SUPERSTON. J. Stone & Company (Charlton) Limited. SN 2,391. Pub. 10–2–56. Filed 2–9–56.

638,690. POROMESH AND DESIGN. Poroloy Equipment, Inc. SN 3,115. Pub. 10–2–56. Filed 2–21–56.

638,691. BELLAIRE. Ray F. Morgan, d. b. a. The Morgan Co. SN 3,947. Pub. 10–2–56. Filed 3–6–56.

638,692. EMCO EMPIRE METAL COMPANY AND DESIGN. Empire Metal Company. SN 4,311. Pub. 10–2–56. Filed 3–12–56.

638,693. SOULE AND DESIGN. Soulé Steel Company. SN 10,489. Pub. 10–2–56. Filed 6–18–56.

638,694. NI-ROD. The International Nickel Company, Inc. SN 12,474. Pub. 10–2–56. Filed 8–7–56.

## CLASS 16

## PROTECTIVE AND DECORATIVE COATINGS

638,695. RED COAT AND DESIGN. The Sargent-Gerke Co. SN 699,084. Pub. 10–2–56. Filed 7–16–56.

638,696. ACME-TEX. Acme Quality Paints, Inc. SN 3,643. Pub. 10–2–56. Filed 3–1–56.

## CLASS 17

## TOBACCO PRODUCTS

638,697. LORD BALTIMORE. F. X. Smith's Sons Co. SN 8,166. Pub. 10–2–56. Filed 5–11–56.



638,698. SAY-SO. F. X. Smith's Sons Co. SN 8,167. Pub. 10–2–56. Filed 5–11–56.

## CLASS 18

## MEDICINES AND PHARMACEUTICAL PREPARATIONS

638,699. PIPADONE. Burroughs Wellcome & Co. (U. S. A.) Inc. SN 677,136. Pub. 10–2–56. Filed 11–23–54.

638,700. SYNATAN. Irwin, Neisler and Company. SN 692,785. Pub. 10–2–56. Filed 8–10–55.

638,701. TASTITABS. Chas. Pfizer & Co., Inc. SN 693,624. Pub. 10–2–56. Filed 8–24–55.

638,702. MARINELLO. Sales Affiliates, Inc. SN 696,261. Pub. 10–2–56. Filed 10–11–55.

638,703. SALIS ALTERNANS. Gray Pharmaceutical Co., Inc. SN 697,291. Pub. 10–2–56. Filed 10–28–55.

638,704. DERMATOX. Morris Noveck, d. b. a. Dermatox Chemical Company. SN 698,075. Pub. 10–2–56. Filed 11–10–55.

638,705. SANGRETONE AND DESIGN. Jel-Mac Drugs, Incorporated. SN 698,982. Pub. 10–2–56. Filed 11–28–55.

638,706. OCO-L-BLU. Vincent Boccella, d. b. a. North Hills Sanatorium. SN 700,177. Pub. 10–2–56. Filed 12–19–55.

638,707. ACI-STOM. Ali Y. Debsh, d. b. a. Arlin Laboratory. SN 700,846. Pub. 10–2–56. Filed 12–30–55.

638,708. PIPRAPEN. American Cyanamid Company. SN 185. Pub. 10–2–56. Filed 1–5–56.

638,709. STRIDE. Lehn & Fink Products Corporation. SN 1,885. Pub. 10–2–56. Filed 2–1–56.

638,710. VAGIMINE. S. J. Tutag & Company. SN 2,322. Pub. 10–2–56. Filed 2–8–56.

638,711. BUFFORAMIDE. S. J. Tutag & Company. SN 2,324. Pub. 10–2–56. Filed 2–8–56.

638,712. ATELOR. Hoffmann-La Roche Inc. SN 2,429. Pub. 10–2–56. Filed 2–10–56.

638,713. RECTAGENE. The Pfeiffer Co. SN 2,910. Pub. 10–2–56. Filed 2–17–56.

638,714. PHILLIPS' CORONA OINTMENT AND DESIGN. The Corona Manufacturing Co. SN 2,952. Pub. 10–2–56. Filed 2–20–56.

638,715. PROXYDRIN AND DESIGN. Professional Pharmacal Co., Inc. SN 5,237. Pub. 10–2–56. Filed 3–26–56.

638,716. SULFAURAL. Professional Pharmacal Co., Inc. SN 5,238. Pub. 10–2–56. Filed 3–26–56.

638,717. LANOXIN. Burroughs Wellcome & Co. (U. S. A.) Inc. SN 5,389. Pub. 10–2–56. Filed 3–29–56.

638,718. ICHTHOPASTE. T. J. Smith & Nephew, Limited. SN 5,458. Pub. 10–2–56. Filed 3–29–56.

638,719. PANULIXIR. Chase Chemical Company. SN 5,496. Pub. 10–2–56. Filed 3–30–56.

638,720. SUPER VITEROMS. Chase Chemical Company. SN 5,499. Pub. 10–2–56. Filed 3–30–56.

638,721. THIAWINE. Chase Chemical Company. SN 5,500. Pub. 10–2–56. Filed 3–30–56.

638,722. RAY-MEL. Ray-Mel Products Co., Inc. SN 6,286. Pub. 10–2–56. Filed 4–12–56.

638,723. CORTOMIXIN. Broemmel Pharmaceuticals. SN 6,403. Pub. 10–2–56. Filed 4–16–56.

638,724. VETAMOX. American Cyanamid Company. SN 6,496. Pub. 10–2–56. Filed 4–17–56.

638,725. CORONAID. Mimi Horwitt, d. b. a. U. S. Nutrition Products Company. SN 6,524. Pub. 10–2–56. Filed 4–17–56.

638,726. ZERAMIDOX. Samuel Belber, d. b. a. Zerell Drug Company. SN 6,584. Pub. 10–2–56. Filed 4–18–56.

638,727. ARTHREPSIN. Laboratory of Applied Pathology Limited. SN 6,619. Pub. 10–2–56. Filed 4–18–56.

638,728. QUANAME. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation. SN 6,778. Pub. 10–2–56. Filed 4–20–56.

638,729. CORDRIN. Whitehall Pharmacal Company. SN 6,885. Pub. 10–2–56. Filed 4–20–56.

## CLASS 19

## VEHICLES

638,730. LIVE-FLEX. The Premier Autoware Company. SN 4,913. Pub. 10–2–56. Filed 3–20–56.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

638,731. STRATIT. American Electro Metal Corporation, now by change of name Schwarzkopf Development Corporation. SN 680,711. Pub. 10–2–56. Filed 1–31–56.

638,732. ROASTRYTE. New York Shipbuilding Corporation, d. b. a. Nesco, Division of New York Shipbuilding Corporation. SN 683,234. Pub. 10–2–56. Filed 3–10–55.

638,733. SPERRY. Sperry Band Corporation. SN 696,386. Pub. 10–2–56. Filed 10–13–55.

638,734. ADAMSTOP. Adams, Inc. SN 697,055. Pub. 10–2–56. Filed 11–9–55.

638,735. DINABRAKE. Louis R. Mahrt and D. Robert Laughter, trustees for Standard-Dayton Corporation. SN 700,141. Pub. 10–2–56. Filed 11–25–55.

638,736. TORSYNATOR. Air-Marine Motors, Inc. SN 1. Pub. 10–2–56. Filed 1–3–56.

638,737. GOOD-ALL. Good-All Electric Mfg. Co. SN 590. Pub. 10–2–56. Filed 1–12–56.

638,738. KENDU. Kendu Electronics, Inc. SN 5,531. Pub. 10–2–56. Filed 3–30–56.

## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

638,739. HYDRO-FLITE. Hedlund Manufacturing Company, Inc. SN 681,163. Pub. 12–13–55. Filed 2–7–55.

638,740. HORACE GREELEY. Eli-N. Castle. SN 2,282. Pub. 10–2–56. Filed 2–8–56.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

638,741. BJ UNIMATIC. Byron Jackson Co., to Borg-Warner Corporation. SN 679,910. Pub. 10–2–56. Filed 1–14–55.

638,742. GEMCO. E. C. Rollins, d. b. a. General Machine Co. SN 686,573. Pub. 6–26–56. Filed 4–29–55.

638,743. MELMAC. American Cyanamid Company. SN 690,922. Pub. 10–2–56. Filed 7–8–55.

638,744. TYLER-NIAGARA. The W. S. Tyler Company. SN 693,871. Pub. 10–2–56. Filed 8–29–55.

638,745. BULB SNATCHER. G. W. Galloway Company. SN 696,114. Pub. 10–2–56. Filed 10–10–55.

638,746. FISCHER. Kugelfischer Georg Schäfer & Co. SN 696,993. Pub. 10–2–56. Filed 10–24–55.

638,747. KISMET. F. Koeller & Co. SN 698,361. Pub. 10–2–56. Filed 11–16–55.

638,748. VISE GRIP AND DESIGN. Petersen Manufacturing Company, Inc. SN 698,546. Pub. 10–2–56. Filed 11–18–55.

638,749. MILTON. Milton Manufacturing Co., Inc. SN 1,973. Pub. 9–25–56. Filed 2–2–56.

638,750. TUBEBLOC. The Vaughn Machinery Company. SN 3,904. Pub. 10–2–56. Filed 3–5–56.

638,751. MONARCH. Newaygo Engineering Company. SN 4,352. Pub. 10–2–56. Filed 3–12–56.

638,752. CHANTECLAIR. Utica Cutlery Company. SN 5,470. Pub. 10–2–56. Filed 3–29–56.

638,753. EVEN SONG. Utica Cutlery Company. SN 5,471. Pub. 10–2–56. Filed 3–29–56.

638,754. DURA-CAST. Dura-Bond Bearing Company. SN 5,614. Pub. 10–2–56. Filed 4–2–56.

638,755. CAMTROL. Lemert Engineering Co., Inc. SN 5,648. Pub. 10–2–56. Filed 4–2–56.

638,756. IN-B-TWEEN. H. K. Porter, Inc. SN 5,744. Pub. 10–2–56. Filed 4–3–56.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

638,757. TELECOMPUTING. Telecomputing Corporation. SN 681,813. Pub. 10–2–56. Filed 2–16–55.

638,758. FEINPRUF AND DESIGN. Feinprüf, Feinmess- und Prüfgeräte Gesellschaft mit beschränkter Haftung. SN 697,365. Pub. 10–2–56. Filed 10–31–55.

638,759. REVOLUTE STAR. Paragon-Revolute Corporation. SN 3,219. Pub. 10–2–56. Filed 2–23–56.

638,760. AUER-GAMMASKOP. Auergesellschaft Aktiengesellschaft. SN 4,760. Pub. 10–2–56. Filed 3–19–56.

638,761. SUPERIOR. E. I. du Pont de Nemours and Company. SN 5,353. Pub. 10–2–56. Filed 3–28–56.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

638,762. KACO. Wm. R. Kats Company. SN 692,718. Pub. 10–2–56. Filed 8–9–55.

638,763. FOREIGN TEEN. Harold Goldkrantz. SN 6,250. Pub. 10–2–56. Filed 4–12–56.

## CLASS 29

## BROOMS, BRUSHES, AND DUSTERS

638,764. HANDIFLEX. Virginia Plastics & Chemical Co., Inc. SN 9,310. Pub. 10–2–56. Filed 5–29–56.

## CLASS 30

## CROCKERY, EARTHENWARE, AND PORCELAIN

638,765. WALKER FINE CHINA AND DESIGN. The Walker China Company. SN 3,038. Pub. 10–2–56. Filed 5–28–56.

## CLASS 31

## FILTERS AND REFRIGERATORS

638,766. MORTISLOCKED. The Marley Company. SN 4,811. Pub. 10–2–56. Filed 3–19–56.

## CLASS 32

## FURNITURE AND UPHOLSTERY

638,767. ORTHOFOAM. Sleepmaster Products Company, Inc. SN 641,984. Pub. 4–27–54. Filed 2–5–53.

638,768. GOLD LABEL. Globe Venetian Blind Corporation. SN 693,674. Pub. 10–2–56. Filed 8–25–55.

638,769. TOY-TENDA. Babee-Tenda License Corporation. SN 694,626. Pub. 10–2–56. Filed 9–14–55.

638,770. AKERBLOM. Aktiebolaget Åkerblomstolen. SN 3,567. Pub. 10–2–56. Filed 2–29–56.

638,771. RAYCO AND DESIGN. Rayco Mfg. Co. SN 5,058. Pub. 10–2–56. Filed 3–22–56.

638,772. TOP SECRET AND DESIGN. Lexington Chair Co., Inc. SN 6,260. Pub. 10–2–56. Filed 4–12–56.

638,773. ELASTI-STAND. Norman R. Lykes, d. b. a. Norman R. Lykes Company. SN 3,674. Pub. 10–2–56. Filed 3–21–56.

638,774. BABY-TENDA. Babee-Tenda License Corporation. SN 8,739. Pub. 10–2–56. Filed 5–22–56.

638,775. SILK-TEX. Clopay Corporation. SN 8,822. Pub. 10–2–56. Filed 5–23–56.

638,776. PPF. Diamond Bros. Company. SN 8,835. Pub. 10–2–56. Filed 5–23–56.

638,777. SUN-CHUM AND DESIGN. Florida Foam Products, Inc. SN 8,843. Pub. 10–2–56. Filed 5–23–56.

638,778. SLEEPERS' CHOICE. Simmons Company. SN 8,884. Pub. 10–2–56. Filed 5–23–56.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

638,779. AIR-WICK. Seeman Brothers, Inc. SN 696,104. Pub. 10–2–56. Filed 4–22–55.

638,780. CRESCENT-AIRE. Melvin W. Jackson, d. b. a. Crescent-Aire Company. SN 694,651. Pub. 10–2–56. Filed 9–14–55.

638,781. SUN D AIR AND DESIGN. Henry L. Sunderman, d. b. a. Sunderman Manufacturing Company. SN 696,469. Pub. 10–2–56. Filed 10–14–55.

638,782. THUNDERBREEZE. C & H Air Conditioning Fan Company, Inc. SN 699,290. Pub. 10–2–56. Filed 12–2–55.

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

638,783. GREAT W. Tubbs Cordage Company. SN 696,604. Pub. 10–2–56. Filed 10–17–55.

638,784. TYRESOLES. Paul E. Hawkinson Company. SN 2,354. Pub. 7–31–56. Filed 2–9–56.

638,785. MOLTOPREN. Farbenfabriken Bayer Aktiengesellschaft. SN 5,291. Pub. 10–2–56. Filed 3–27–56.

638,786. VARIBELT. U. S. Electrical Motors, Inc. SN 6,966. Pub. 10–2–56. Filed 4–23–56.

## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

638,787. ATLAS. Atlas Accordions, Inc. SN 6,979. Pub. 10–2–56. Filed 4–24–56.



## CLASS 37

## PAPER AND STATIONERY

638,788. 399 MILES OF ENVELOPES PER DAY. The Western Paper Goods Co., d. b. a. Specialty Envelope Company and Superior Envelope Company. SN 650,957. Pub. 10–2–56. Filed 7–27–55.

638,789. RIDGELO CLAY COATED AND DESIGN. Lowe Paper Company. SN 690,229. Pub. 10–2–56. Filed 12–2–55.

638,790. GRAND. The Grand Union Company. SN 2,979. Pub. 10–2–56. Filed 2–20–56.

638,791. BLUE JAY. Blauvelt-Wielandy Company. SN 3,141. Pub. 10–2–56. Filed 2–23–56.

638,792. HEATHER. Groveton Papers Co. SN 3,181. Pub. 10–2–56. Filed 2–28–56.

## CLASS 38

## PRINTS AND PUBLICATIONS

638,793. MONTHLY TRADER. National Association of Real Estate Boards. SN 689,508. Pub. 10–2–56. Filed 6–14–55.

638,794. HOLLYWOOD DREAMGIRL. Peter B. Martin. SN 691,488. Pub. 10–2–56. Filed 7–18–55.

638,795. THE CONDUCTOR & BRAKEMAN AND DESIGN. Order of Railway Conductors and Brakemen. SN 692,536. Pub. 10–2–56. Filed 8–5–55.

638,796. DESIGN OF A PROFESSOR. Home Craft Films. SN 697,980. Pub. 10–2–56. Filed 11–9–55.

638,797. HARPER'S. Harper & Brothers. SN 786. Pub. 10–2–56. Filed 1–16–56.

638,798. DESIGN OF WREATH, TORCH ETC. AND GREEK WORDS. Harper & Brothers. SN 787. Pub. 10–2–56. Filed 1–16–56.

638,799. SANTA'S OWN TOY BOOK. Oakes Consumer Catalogs. SN 8,217. Pub. 10–2–56. Filed 2–23–56.

638,800. THE TON-MILE. American Brake Shoe Company. SN 5,009. Pub. 10–2–56. Filed 3–22–56.

## CLASS 39

## CLOTHING

638,801. VELVA-TEX. The Faultless Rubber Company. SN 645,130. Pub. 10–5–54. Filed 4–13–53.

638,802. PRETTY MAID PM AND DESIGN. Pogrelis-Meyer, Inc. SN 689,303. Pub. 1–31–56. Filed 6–10–55.

638,803. FLEX-BAK. General Garment Manufacturing Company, Incorporated. SN 691,366. Pub. 10–2–56. Filed 7–15–55.

638,804. BED-JAMA. Eyeful Lingerie Inc. SN 693,129. Pub. 10–2–56. Filed 8–16–55.

638,805. HARRA. Carl Freudenberg Kommanditgesellschaft auf Aktien. SN 693,133. Pub. 10–2–56. Filed 8–16–55.

638,806. MAGIC. Shoichi Takata. SN 694,593. Pub. 10–2–56. Filed 9–8–55.

638,807. CUIRASSIER. Armand Schwab & Co., Inc. SN 700,667. Pub. 10–2–56. Filed 12–27–55.

638,808. ANDRE BENDAIR. Samuel Bender. SN 135. Pub. 10–2–56. Filed 1–4–56.

638,809. BRET. Chett, Peabody & Co., Inc. SN 1,341. Pub. 10–2–56. Filed 1–24–56.

638,810. BARRY-WALT ETC. AND DESIGN. Barry-Walt, Inc. SN 1,564. Pub. 10–2–56. Filed 1–27–56.

638,811. SUN N SAND. Schneider Knitwear Co., Inc. SN 2,194. Pub. 10–2–56. Filed 2–6–56.

638,812. RALPH EDWARDS AND DESIGN. Cagieco Sportswear. SN 2,948. Pub. 10–2–56. Filed 2–20–56.

638,813. JAMES BAY GOOSESHOOTER. The Hettrick Manufacturing Company. SN 3,187. Pub. 10–2–56. Filed 2–23–56.

638,814. DECORENZA. William B. Kessler, Inc. SN 3,758. Pub. 10–2–56. Filed 3–2–56.

638,815. DRESSPORT. Piedmont Shirt Company. SN 4,225. Pub. 10–2–56. Filed 3–9–56.

638,816. DYNAFLOW. Piedmont Shirt Company. SN 4,228. Pub. 10–2–56. Filed 3–9–56.

638,817. WING-JOY. Piedmont Shirt Company. SN 4,229. Pub. 10–2–56. Filed 3–9–56.

638,818. BREEZE-FLO AND DESIGN. Samuel E. Schlein, Inc. SN 4,371. Pub. 10–2–56. Filed 3–12–56.

638,819. LUCHELLA DI FIRENZE. Olympic Knitwear, Inc. SN 6,628. Pub. 10–2–56. Filed 4–18–56.

638,820. SHEER BEAUTY. Holly Wood Mills, Inc. SN 6,722. Pub. 10–2–56. Filed 4–19–56.

638,821. AMERICA FORM. Grilla Brassiere Co. SN 9,262. Pub. 10–2–56. Filed 5–29–56.

638,822. DESIGN OF PAGE BOY. The Page Boy Company, Inc. SN 9,288. Pub. 10–2–56. Filed 5–29–56.

638,823. PAGE BOY AND DESIGN. The Page Boy Company, Inc. SN 9,290. Pub. 10–2–56. Filed 5–29–56.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

638,824. MOLLY PORTER—1790 AND DESIGN. Robert E. Mitchell, d. b. a. Robert E. Mitchell & Company. SN 5,540. Pub. 10–2–56. Filed 3–30–56.

638,825. ZEPHYR PRINTS. Dan River Mills, Incorporated. SN 6,106. Pub. 10–2–56. Filed 4–10–56.

638,826. ACRILINER. Glenolt Mills, Inc. SN 6,612. Pub. 10–2–56. Filed 4–18–56.

638,827. A MALVIN FABRIC MALVISCO. Forge Mills, Inc. SN 7,010. Pub. 10–2–56. Filed 4–24–56.

638,828. NEW HAVEN. E. T. Barwick Mills, Inc. SN 7,151. Pub. 10–2–56. Filed 4–26–56.

638,829. ELDORADO. Monarch Rug Mills, Inc. SN 7,449. Pub. 10–2–56. Filed 5–1–56.

638,830. SCANLANDIA. D. B. Fuller & Co., Inc. SN 7,788. Pub. 10–2–56. Filed 5–7–56.

638,831. VERA CRUZ. D. B. Fuller & Co., Inc. SN 7,789. Pub. 10–2–56. Filed 5–7–56.

638,832. VICULUXE. H. M. Prince Textiles, Inc. SN 7,844. Pub. 10–2–56. Filed 5–7–56.

638,833. VERSAILLES. D. B. Fuller & Co., Inc. SN 7,978. Pub. 10–2–56. Filed 5–9–56.

638,834. RAPTURE. D. B. Fuller & Co., Inc. SN 7,979. Pub. 10–2–56. Filed 5–9–56.

638,835. KINETIC. D. B. Fuller & Co., Inc. SN 7,980. Pub. 10–2–56. Filed 5–9–56.

## CLASS 43

## THREAD AND YARN

638,836. LO-EL. Max Pollack & Company, Inc. SN 10,704. Pub. 10–2–56. Filed 6–21–56.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

638,837. TRI-WALKER. Kenneth S. Schwartz, d. b. a. Tomken Manufacturing Company. SN 2,253. Pub. 10–2–56. Filed 2–7–56.



638,838. SUPER-SEAL. Super-Seal Manufacturing Co. SN 3,000. Pub. 10–2–56. Filed 2–24–56.

638,839. SUPER-SEAL. Super-Seal Manufacturing Co. SN 3,001. Pub. 10–2–56. Filed 2–24–56.

638,840. SUPER-SEAL. Super-Seal Manufacturing Co. SN 3,002. Pub. 10–2–56. Filed 2–24–56.

638,841. SUPER-SEAL. Super-Seal Manufacturing Co. SN 3,003. Pub. 10–2–56. Filed 2–24–56.

638,842. SUPER-SEAL. Super-Seal Manufacturing Co. SN 3,004. Pub. 10–2–56. Filed 2–24–56.

638,843. SUPER-SEAL. Super-Seal Manufacturing Co. SN 3,005. Pub. 10–2–56. Filed 2–24–56.

### CLASS 45

### SOFT DRINKS AND CARBONATED WATERS

638,838. CRYSTAL DEW. Pepsi-Cola Bottling Co. SN 697,017. Pub. 10–2–56. Filed 10–24–55.

### CLASS 46

### FOODS AND INGREDIENTS OF FOODS

638,839. THRIF-T-PAK. Thrif-T-Pak Sweet Frost Company, Incorporated, to Frozen Food Factors, Incorporated. SN 645,604. Pub. 10–2–56. Filed 4–20–53.

638,840. MICHIGOLDEN AND DESIGN. Grant W. Hess, d. b. a. Hess Michigolden Farms, Hess Michigolden Duck Farms and Hemlock Poultry Farms. SN 677,785. Pub. 10–2–56. Filed 12–6–54.

638,841. OLD SMOKY. Chas. Hollenbach, Inc. SN 680,385. Pub. 10–2–56. Filed 1–24–55.

638,842. POMCO AND DESIGN. Potter-McCune Company. SN 684,464. Pub. 10–2–56. Filed 3–29–55.

638,843. GLOBE "A1" AND DESIGN. Pillsbury Mills, Inc. SN 684,677. Pub. 10–2–56. Filed 3–31–55.

638,844. PROGRESS "ITS FLAVOR WINS FAVOR" AND DESIGN. The Borden Company. SN 688,298. Pub. 10–2–56. Filed 5–26–55.

638,845. KILROY AND DESIGN. Pets Meat Packing Company. SN 689,513. Pub. 10–2–56. Filed 6–14–55.

638,846. SWISSTAR AND DESIGN. August C. Kirchhoff & Co. SN 692,239. Pub. 9–4–56. Filed 8–1–55.

638,847. PALM SPRINGS AND DESIGN. Wafer Food Company. SN 692,665. Pub. 10–2–56. Filed 8–8–55.

638,848. OTTMAN DIAMOND O ETC. AND DESIGN. Ottman & Co. Inc. SN 693,390. Pub. 10–2–56. Filed 8–19–55.

638,849. SUPRA VITE ENERGETTES. Supra-Vite Sales International Inc. SN 694,270. Pub. 10–2–56. Filed 9–6–55.

638,850. BABEE TEETHERS. Wynn Packing Corp. SN 694,615. Pub. 10–2–56. Filed 9–13–55.

638,851. BESTOVALL. H. A. Johnson Company. SN 695,000. Pub. 10–2–56. Filed 9–20–55.

638,852. TOBLER TWINS AND DESIGN. Aktiengesellschaft Chocolat Tobler, d. b. a. Chocolat Tobler, Limited, and Societe Anonyme Chocolat Tobler. SN 696,394. Pub. 10–2–56. Filed 10–14–55.

638,853. DESIGN OF CHEF. Good Foods, Inc. SN 696,432. Pub. 10–2–56. Filed 10–14–55.

638,854. BISMARCK. Macon Grocery Company, now by change of name Macon Grocery Company and Institutional Wholesalers, Inc. SN 698,623. Pub. 10–2–56. Filed 11–21–55.

638,855. XT–NO. 58. Mead Johnson & Company. SN 699,649. Pub. 10–2–56. Filed 12–8–55.

638,856. G GRACE A WORLD OF EXPERIENCE AND DESIGN. W. R. Grace & Co. SN 700,145. Pub. 10–2–56. Filed 12–13–55.

638,857. DITTO. Fine Foods, Inc. SN 51. Pub. 10–2–56. Filed 1–3–56.

638,858. SEA TRADER. Safeway Stores, Incorporated. SN 220. Pub. 10–2–56. Filed 1–5–56.

638,859. CHIC-E. M. J. Sattinger, d. b. a. Pedigree Dog Food Co. SN 702. Pub. 10–2–56. Filed 1–13–56.

638,860. TEX-PINK. Mission Fruit & Vegetable Company. SN 892. Pub. 10–2–56. Filed 1–17–56.

638,861. TEX-RED. Mission Fruit & Vegetable Company. SN 893. Pub. 10–2–56. Filed 1–17–56.

638,862. MIFCO. Mission Fruit & Vegetable Company. SN 894. Pub. 10–2–56. Filed 1–17–56.

638,863. HIS MAJESTY'S BRAND. Hotel Meat Products Co. SN 1,160. Pub. 10–2–56. Filed 1–20–56.

638,864. HI-C. Minute Maid Corporation. SN 1,164. Pub. 10–2–56. Filed 1–20–56.

638,865. EAST MESA. Frank O'Dwyer. SN 3,011. Pub. 10–2–56. Filed 2–20–56.

638,866. O'D. Frank O'Dwyer. SN 3,012. Pub. 10–2–56. Filed 2–20–56.

638,867. TARGET. A. E. Staley Manufacturing Company. SN 3,045. Pub. 10–2–56. Filed 2–20–56.

638,868. ESKIMO SURPRISE. Eskimo Pie Corporation. SN 3,085. Pub. 10–2–56. Filed 2–21–56.

### CLASS 47

### WINES

638,869. DA SILVA. Clemente Fernandes da Silva, d. b. a. C. da Silva. SN 5,596. Pub. 10–2–56. Filed 4–2–56.

### CLASS 49

### DISTILLED ALCOHOLIC LIQUORS

638,870. CHURCHILL. The Fleischmann Distilling Corporation. SN 5,355. Pub. 10–2–56. Filed 3–28–56.

638,871. DA SILVA. Clemente Fernandes da Silva, d. b. a. C. da Silva. SN 5,597. Pub. 10–2–56. Filed 4–2–56.

638,872. BON ACCORD. Schenley Distillers, Inc. SN 6,052. Pub. 10–2–56. Filed 4–9–56.

### CLASS 50

### MERCHANDISE NOT OTHERWISE CLASSIFIED

638,873. MR. ESPEY ETC. AND DESIGN. Spring Packing Corporation. SN 656,602. Pub. 9–18–56. Filed 11–18–53.

638,874. ASCOT. Aston-Hill Mfg. Co. SN 9,019. Pub. 10–2–56. Filed 5–25–56.

### CLASS 51

### COSMETICS AND TOILET PREPARATIONS

638,875. REGATTA. The Fuller Brush Company. SN 3,380. Pub. 10–2–56. Filed 2–27–56.

### CLASS 52

### DETERGENTS AND SOAPS

638,876. DALLI. Dalli Plant, Maurer & Wirtz. SN 653,453. Pub. 10–2–56. Filed 9–21–53.

638,877. PRIL. Henkel & Cie GMBH. SN 657,276. Pub. 4–5–55. Filed 12–2–53.

638,878. NEUTRALITE. Tesco Chemicals, Inc. SN 690,770. Pub. 10–2–56. Filed 7–5–55.

638,879. CLENZIT. Tesco Chemicals, Inc. SN 690,774. Pub. 10–2–56. Filed 7–5–55.

638,880. SOLVONA. Renuzit Home Products Co., d. b. a. Columbia Petroleum Products Co. SN 692,017. Pub. 10–2–56. Filed 7–27–55.

638,881. D-LITE. The Du Bois Co., Inc. SN 692,823. Pub. 11–29–55. Filed 8–18–55.

638,882. GERM-ACITE. World Chemical Sales Co., Inc. SN 695,125. Pub. 10–2–56. Filed 9–21–55.



638,883. SURFONIC. Jefferson Chemical Company, Inc. SN 1,878. Pub. 10–2–56. Filed 2–1–56.

638,884. RED BASKETWEAVE DESIGN ON YELLOW BACKGROUND. Johnson & Johnson. SN 5,699. Pub. 10–2–56. Filed 5–2–56.

## Service Marks

### CLASS 101

### ADVERTISING AND BUSINESS

638,885. SUNCHEX. Sun Oil Company. SN 632,454. Pub. 10–2–56. Filed 7–11–52.

### CLASS 102

### INSURANCE AND FINANCIAL

638,886. DICKINSON AND COMPANY INC. ETC. AND DESIGN. Dickinson and Company, Inc. SN 675,135. Pub. 10–2–56. Filed 10–20–54.

### CLASS 103

### CONSTRUCTION AND REPAIR

638,887. GREAT LAKES ETC. AND DESIGN. Great Lakes Dredge & Dock Company. SN 681,159. Pub. 10–2–56. Filed 2–7–55.

### CLASS 104

### COMMUNICATION

638,888. TEX AND DESIGN. RCA Communications, Inc. SN 3,628. Pub. 10–2–56. Filed 2–28–56.

### CLASS 106

### MATERIAL TREATMENT

638,889. RAIN-SHIELD ETC. AND DESIGN. Expert Cloth Sponging Co., Inc. SN 584. Pub. 10–2–56. Filed 1–12–56.

### CLASS 107

### EDUCATION AND ENTERTAINMENT

638,890. RINGABUK. Walt Framer. SN 693,816. Pub. 10–2–56. Filed 8–18–55.

638,891. MRS. HOMEMAKER'S FORUM. Milner Products Company. SN 695,010. Pub. 10–2–56. Filed 9–20–55.

## Collective Membership Marks

### CLASS 200

638,892. DESIGN OF FRATERNITY BADGE. Sigma Tau Gamma Fraternity. SN 699,007. Pub. 10–2–56. Filed 11–28–55.

638,893. DESIGN OF COAT-OF-ARMS. Sigma Tau Gamma Fraternity. SN 699,009. Pub. 10–2–56. Filed 11–28–55.

## SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

### CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

638,894. Forté, Dupee, Sawyer Co., Boston, Mass. SN 690,695. Filed P. R. 7–5–55. Am. S. R. 10–10–56.

*"nearest to heaven"*

For Cashmere Fibers, Sold by the Pound.
First use June 6, 1955.

638,895. Will Gerber, New York, N. Y. SN 694,643. Filed P. R. 9–14–55. Am. S. R. 10–8–56.

GOLDEN LUCKY BIRD
THE LIVE GOOD LUCK
CHARM

For Live Cage Birds.
First use June 7, 1955.

638,896. Selberling Rubber Company, Barberton, Ohio. SN 695,651. Filed P. R. 9–30–55. Am. S. R. 10–10–56.

NO-SCUF

For Plastic-Synthetic Rubber Composition Sold in Sheets and Having Uses for Shoe Uppers, Luggage, and the Like.
First use Aug. 15, 1955.

### CLASS 2

### RECEPTACLES

638,897. Harry A. Newton, d. b. a. Health Aids, New York, N. Y. SN 2,245. Filed P. R. 2–7–56. Am. S. R. 10–12–56.

DRI-COOK

For Flexible, Plastic Bags for the Packaging, Shipment, Storing, and Cooking of Frozen Foods.
First use Feb. 28, 1952.

638,898. Chicago Bridge & Iron Company, Chicago, Ill. SN 9,771. Filed 6-7-56.

## WATERSPHEROID

For Water Storage Tanks.
First use July 15, 1954.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

638,899. Esso Standard Oil Company, New York, N. Y. SN 879. Filed P. R. 1-17-56. Am. S. R. 10-19-56.

## D-FROST

For Anti-Icing Alcohol.
First use Sept. 20, 1955.

### CLASS 10

### FERTILIZERS

638,900. Lawn-Gro, Inc., Winona Lake, Ind. SN 700,240. Filed P. R. 12-19-55. Am. S. R. 10-22-56.

## LAWN-GRO

For Fertilizer.
First use Aug. 20, 1955.

### CLASS 11

### INKS AND INKING MATERIALS

638,901. Manifold Supplies Company, New York, N. Y. SN 9,654. Filed P. R. 6-5-56. Am. S. R. 10-17-56.

BLACKSTONE LINE

For Carbon Paper.
First use Dec. 29, 1948.

### CLASS 12

### CONSTRUCTION MATERIALS

638,902. Kupferer Bros. Ornamental Iron Works, Inc., St. Louis, Mo. SN 1,962. Filed P. R. 2-2-56. Am. S. R. 7-5-56.

## WROUGHT RITE

For Ornamental Iron Work for Buildings.
First use May 15, 1953.

### CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

638,903. Star Stainless Screw Co., Totowa Borough, N. J. SN 694,926. Filed P. R. 9-19-55. Am. S. R. 10-22-56.

## RIGHT OFF THE SHELF

For Fastenings of the Type Including Screws, Bolts, Studs, Pins, Rivets, Nails and Associated Parts, Accessories and Components Thereof.
First use on or about Jan. 29, 1950.

### CLASS 22

### GAMES, TOYS, AND SPORTING GOODS

638,904. Crotty Corporation, Quincy, Mich. SN 676,873. Filed P. R. 11-18-54. Am. S. R. 10-16-56.

## SKI-JAK-ETTE

For Life Jackets.
First use June 4, 1954.

### CLASS 23

### CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

638,905. Henry L. Hanson Company, Worcester, Mass. SN 10,314. Filed 6-15-56.

Hanson

For Twist Drills.
First use May 1954.

### CLASS 26

### MEASURING AND SCIENTIFIC APPLIANCES

638,906. Dynacolor Corporation, Brockport, N. Y. SN 685,010. Filed P. R. 4-6-55. Am. S. R. 10-8-56.



The drawing is lined for blue and orange, which colors are claimed as part of the mark.
For Sensitized Photographic Film.
First use in or about April 1953; and about June 1950, in a slightly different form.



### CLASS 29

### BROOMS, BRUSHES, AND DUSTERS

638,907. Paul A. Fryda, Milwaukee, Wis. SN 683,873. Filed P. R. 3-21-55. Am. S. R. 10-5-56.

Scrape-n-Brush

For Combination Brushes and Scrapers.
First use Aug. 11, 1952.

### CLASS 36

### MUSICAL INSTRUMENTS AND SUPPLIES

638,908. M. Hohner, Inc., New York, N. Y. SN 696,982. Filed P. R. 10-24-55. Am. S. R. 10-2-56.

## LA PETITE

For Accordions.
First use Sept. 1, 1955.

### CLASS 37

### PAPER AND STATIONERY

638,909. S. Safier, Inc., Jersey City, N. J. SN 693,493. Filed P. R. 8-22-55. Am. S. R. 3-2-56.

SAFE-CARRY

For Paper Bags.
First use 1926.

638,910. Norman L. Cotton, d. b. a. Addressing Machine Co., San Francisco, Calif. SN 9,026. Filed 5-25-56.

## QUIK-KARD

For Index Cards and Labels.
First use Nov. 3, 1952.

### CLASS 39

### CLOTHING

638,911. Sew-Smart Products, Media, Pa. SN 679,185. Filed P. R. 12-30-54. Am. S. R. 8-1-56.

## MATCH-A-HAT

For Ladies' Hat Frames With Patterns and Instructions for Covering the Frames Sold as a Unit.
First use Aug. 18, 1954.

638,912. Bedford Shirt Corp., New York, N. Y. SN 694,955. Filed P. R. 9-20-55. Am. S. R. 6-28-56.

## DIP IT—FERGIT IT

For Men's and Boys' Sport Shirts and Dress Shirts.
First use Aug. 24, 1955.

638,913. Enrique Cornejo Villanueva, Lima, Peru. SN 698,468. Filed P. R. 11-17-55. Am. S. R. 8-23-56.




Owner of Peruvian Reg. No. 44,658, dated Sept. 15, 1955.
For Boots, Shoes, and Slippers Made Wholly or in Part of Leather.

### CLASS 46

### FOODS AND INGREDIENTS OF FOODS

638,914. Aron Streit, Inc., New York, N. Y. SN 694,166. Filed P. R. 9-2-55. Am. S. R. 10-19-56.

## RI-STRIPS

For Matzos.
First use Aug. 30, 1955.

### CLASS 49

### DISTILLED ALCOHOLIC LIQUORS

638,915. Park & Tilford Distillers Corporation, New York, N. Y. SN 696,725. Filed P. R. 10-19-55. Am. S. R. 9-14-56.

## Mr. PARK

For Whisky.
First use Sept. 9, 1955.

638,916. Park & Tilford Distillers Corporation, New York, N. Y. SN 696,726. Filed P. R. 10-19-55. Am. S. R. 9-14-56.

## Mr. TILFORD

For Whisky.
First use Sept. 9, 1955.

638,917. Majestic Distilling Co., Inc., Lansdowne, Md. SN 699,331. Filed P. R. 12-2-55. Am. S. R. 10-19-56.

BALTIMORE COUNTY

For Whiskey.
First use July 29, 1955.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

638,918. C. Birnbaum Ltd., London, England. SN 698,831. Filed 11-25-55.

**FITWELL**

For Coat, Trousers, and Skirt Hangers.
First use in July 1933; in commerce in July 1933.

CLASS 52

DETERGENTS AND SOAPS

638,919. E. F. Drew & Co. Inc., New York, N. Y. SN 694,131. Filed P. R. 9-2-55. Am. S. R. 9-25-56.

**SAF-ACID**

For Powdered, Dry, Compounded Acid Mixture Used as a Scale Solvent in Cleaning Industrial and Marine Power Plant Equipment Such as Boilers, Evaporators, and Condensers, and in Water Treatment for Reduction of Alkalinity.
First use Aug. 9, 1955.

Service Mark

CLASS 101

ADVERTISING AND BUSINESS

638,920. Harry T. Johnson, New York, N. Y., to Merchant-Consumer Plans Inc., New York, N. Y. SN 674,163. Filed P. R. 10-1-54. Am. S. R. 6-13-56.

BANKERS Charge Account PLAN

For Promoting the Use of the Bank Facilities Through the Medium of a Plan Whereby Banks Licensed by Applicant Extend Credit to Customers, Certified by Bank, Who Purchase From Retail Outlets Subscribing to the Bank's Services.
First use Aug. 26, 1954.

## TRADEMARK REGISTRATIONS RENEWED

113,135. IOWA WRITING TABLET AND DESIGN. Cl. 37. 10-10-16.
113,453. STRUTWEAR AND DESIGN. Cl. 39. 10-17-16.
113,515. PRESTO. Cl. 51. 10-17-16.
114,601. BANTAM. Cl. 27. 12-19-56.
114,602. EARLY BIRD. Cl. 27. 12-19-16.
115,180. NOGAS. Cl. 52. 1-30-17.
115,230. ROYAL EXTRA. Cl. 35. 1-30-17.
115,650. ENJOYMINT. Cl. 46. 2-27-17.
115,680. DANULA. Cl. 23. 2-27-17.
115,832. W. W. WRIGLEY AND DESIGN. Cl. 51. 3-6-17.
115,846. PYREX. Cl. 33. 3-13-17.
115,895. LIFE SAVERS. Cl. 46. 3-20-17.
116,104. VANITY. Cl. 39. 4-3-17.
333,205. DAVIS MILLING CO. AND DESIGN. Cl. 46. 3-10-36.
334,962. ESTRELLITA AND DESIGN. Cl. 46. 5-19-36.
336,749. PRO TEK AND DESIGN. Cl. 44. 7-14-36.
336,833. DUTCHESS STAR 800. Cl. 39. 7-21-36.
338,302. SIESTA. Cl. 27. 9-1-36.
338,525. LAMOURETTE. Cl. 39. 9-8-36.
338,559. HYDRO-BROACH AND DESIGN. Cl. 23. 9-8-36.
338,653. DIRECTOMAT. Cl. 23. 9-15-36.
338,841. EXCELLA. Cl. 23. 9-15-36.
339,213. TRANS-LUX. Cl. 26. 9-29-36.
339,551. SHY. Cl. 51. 10-13-36.
339,776. CROLITE MAGICORE AND DESIGN. Cl. 21. 10-20-36.
340,163. SILENT KNIGHT. Cl. 27. 11-3-36.
340,244. LUSTRABLU. Cl. 33. 11-3-36.
340,418. HEX-FLEX. Cl. 34. 11-10-36.
340,545. METAL-TONE. Cl. 4. 11-17-36.
340,585. SOCIAL REGISTER OF GREATER MIAMI. Cl. 38. 11-17-36.
340,778. VANITY. Cl. 26. 11-24-36.
341,481. MAFAESIDE. Cl. 18. 12-8-36.
341,746. ALNOR. Cl. 26. 12-22-36.
342,578. HOLLAND HOUSE AND DESIGN. Cl. 46. 1-19-37.
342,698. DREAM MASTER. Cl. 32. 1-26-37.
342,738. ACME. Cl. 37. 1-26-37.
342,859. COON CHICKEN. Cl. 46. 2-2-37.
343,049. FOOT YOUTH AND DESIGN. Cl. 18. 2-9-37.
343,445. MAY QUEEN. Cl. 39. 2-23-37.
343,512. SCEPTRE. Cl. 51. 2-23-37.
343,609. HERESITE. Cl. 16. 2-23-37.
343,899. SIREN CHOCOLATOR. Cl. 21. 3-9-37.
344,175. PIONEER. Cl. 4. 3-16-37.
344,226. BREVEEZ. Cl. 39. 3-16-37.
344,244. SKY LINE. Cl. 15. 3-16-37.
344,299. NESTYLE. Cl. 44. 3-16-37.
344,366. PILOT. Cl. 23. 3-23-37.
344,612. ABANO. Cl. 51. 3-30-37.
344,675. PANCAKE. Cl. 21. 3-30-37.
344,778. BRITISH LOUNGER MODEL. Cl. 39. 4-6-37.
344,845. CHANSONETTE. Cl. 39. 4-6-37.

## TRADEMARK REGISTRATIONS CANCELED

Section 8

50,328. CFI. Cl. 28. 3-13-06.
170,755. MIRROR. Cl. 51. 7-24-23.
211,115. AMERICAN. Cl. 46. 4-6-26.
239,037. DIA-PADS. Cl. 39. 2-21-28.
259,377. MIRELLE. Cl. 40. 7-30-29.
264,962. NUVO. Cl. 40. 12-10-29.
267,776. BLUE RIBBON BOND. Cl. 37. 2-25-30.
313,319. LIBERTY. Cl. 48. 5-22-34.
374,477. SOFTASILK. Cl. 37. 1-9-40.
408,792. TRAIL BLAZER. Cl. 37. 8-29-44.
424,946. KETON. Cl. 1. 10-29-46.
515,835. "FILL TO FLAME." Cl. 55. 9-27-49.
515,836. AMERICAN CONDITIONING AND DESIGN. Cl. 55. 9-27-49.
523,262. DE ROSA DESIGNED. Cl. 28. 8-28-50.
524,837. POLK NO. 1. Cl. 37. 5-2-50.
524,860. SOUTH ISLANDS. Cl. 46. 5-2-50.
529,829. ARTIC-ICER. Cl. 31. 8-29-50.
529,998. DR. BENDER'S. Cl. 39. 8-29-50.
530,094. VITAMURE. Cl. 10. 9-5-50.



530,703. HOME PERMA-NET. Cl. 39. 9-12-50.
530,763. BLACK AND DESIGN. Cl. 23. 9-12-50.

*The following registrations issued Sept. 19, 1950*

530,766. KENTUCKY RIBBON. Cl. 49.
530,767. WOLSEY CREST. Cl. 39.
530,768. PERFECTION. Cl. 52.
530,772. POLAR. Cl. 1.
530,780. CLIPPER. Cl. 49.
530,781. YANKEE. Cl. 49.
530,787. BOWLERINOS. Cl. 39.
530,788. MULTI-QUINS. Cl. 50.
530,791. DORR. Cl. 23.
530,792. CALIENTE. Cl. 30.
530,793. VPO. Cl. 50.
530,799. HOERDTER LEBERTEE AND DESIGN. Cl. 18.
530,800. VAL-MOON AND DESIGN. Cl. 47.
530,803. AMERICAN GIRL. Cl. 23.
530,805. AMERICAN DINNERWARE SERVICE AND DESIGN. Cl. 30.
530,809. MASTER GLOW AND DESIGN. Cl. 4.
530,813. LAPLANT LPC CHOATE. Cl. 23.
530,816. LADURO. Cl. 47.
530,818. WHITE BEAR AND DESIGN. Cl. 12.
530,824. INDRAIC ACID. Cl. 1.
530,831. ELECTROMIX. Cl. 21.
530,832. CONTINENTAL MULTI-TOOL. Cl. 23.
530,833. HEGEMAX. Cl. 23.
530,834. DIAMOND DESIGN. Cl. 12.
530,836. COLCOMBET. Cl. 47.
530,841. LA SALLE. Cl. 24.
530,845. VICAR FIT. Cl. 52.
530,850. SCULPSTONE AND DESIGN. Cl. 1.
530,860. GOOD'ENOUGH SALVE. Cl. 18.
530,861. ENVELOPE AND DESIGN. Cl. 23.
530,865. BUSCO. Cl. 52.
530,867. AA AND DESIGN. Cl. 21.
530,879. ELECTROD. Cl. 21.
530,881. CUSH-N-FLO. Cl. 50.
530,888. HENRI DUBOIS. Cl. 36.
530,889. JAMBLER. Cl. 33.
530,891. THE AMBASSADOR. Cl. 8.
530,896. TELOTRIM. Cl. 21.
530,897. MACKENZIE. Cl. 51.
530,902. CINCH. Cl. 6.
530,904. MULTI-TOOL. Cl. 23.
530,905. PRESSEEN AND DESIGN. Cl. 51.
530,918. TE-ANNE. Cl. 52.
530,919. BOREN BLUE BLAZE. Cl. 6.
530,925. A BLENWELL BEVERAGE. Cl. 45.
530,927. VISCOL. Cl. 1.
530,931. UNCLE TOM & SON. Cl. 52.
530,934. TIG. Cl. 52.
530,935. STICWARE. Cl. 30.
530,936. 49. Cl. 51.
530,939. POST-IT AND DESIGN. Cl. 50.
530,949. CRESTWYN. Cl. 39.
530,950. BEU-TRESS. Cl. 52.
530,953. BEER-BOB. Cl. 51.
530,954. TIFONETTA. Cl. 21.
530,957. ROBOT. Cl. 50.
530,958. ELECTRIC SALESMAN. Cl. 21.
530,971. MYSTRON. Cl. 24.
530,973. TOQUADE. Cl. 51.
530,980. HOTHOUSE. Cl. 50.
530,981. NORGE HEAT. Cl. 34.
530,984. SOREXA. Cl. 6.
530,985. CUB-KIX. Cl. 39.
530,986. ONE-STRIKE. Cl. 6.
530,990. CHLORTUSSIN. Cl. 18.
530,991. THI-BO-MIN. Cl. 18.
530,993. BENZOBE. Cl. 18.
530,997. OLIODIN. Cl. 18.
531,002. NEUROSOOTH. Cl. 18.
531,004. BY SALEM IN DESIGN. Cl. 30.
531,012. RICH-GROVE. Cl. 47.
531,021. CORSAGE. Cl. 33.
531,022. DIA-PRO. Cl. 39.
531,026. LADYBIRD. Cl. 23.
531,028. LADY ERNA. Cl. 39.
531,032. GF GAY FAD CERAMIC. Cl. 33.
531,035. HERITAGE. Cl. 8.
531,037. TUFLEC. Cl. 21.
531,039. ENGI-TENNA. Cl. 21.
531,041. SECURITY QUICK WATER HEATER. Cl. 34.
531,048. QUARTEX. Cl. 12.
531,053. GLASGO. Cl. 48.
531,061. SURELOK. Cl. 34.
531,074. GEARPHOS. Cl. 6.
531,079. SACON. Cl. 6.
531,082. MODEASE. Cl. 39.
531,085. KERRICK LEANER. Cl. 23.
531,088. DOWN BEAT AND DESIGN. Cl. 36.
531,094. AD KAP. Cl. 21.
531,098. LADY THOMAS. Cl. 39.
531,101. KWIK-CUP. Cl. 13.
531,102. KENKERRY BY KNIGHT. Cl. 39.
531,103. RUG-STOP. Cl. 50.
531,105. FASHIONED BY VERDE. Cl. 39.
531,106. LIFE-X-TENSHUN. Cl. 39.
531,107. JACANROL. Cl. 23.
531,110. KOTE-O-TIN. Cl. 6.
531,111. FLYING WING. Cl. 22.
531,112. BRUSH CRAFT. Cl. 16.
531,114. PRESS-A-RUFFLE. Cl. 40.
531,116. G-I-T-S. Cl. 46.
531,120. THE HAN-DEE BAR-B-Q-PAK. Cl. 1.
531,123. SPECIALIZED CHEMICAL CREDIT SERVICE. Cl. 101.
531,124. THE SILENT BOOKKEEPER. Cl. 101.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

638,918. C. Birnbaum Ltd., London, England. SN 698,831. Filed 11–25–55.

**FITWELL**

For Coat, Trousers, and Skirt Hangers.
First use in July 1933; in commerce in July 1933.

CLASS 52

DETERGENTS AND SOAPS

638,919. E. F. Drew & Co. Inc., New York, N. Y. SN 694,131. Filed P. R. 9–2–55. Am. S. R. 9–25–56.

**SAF-ACID**

For Powdered, Dry, Compounded Acid Mixture Used as a Scale Solvent in Cleaning Industrial and Marine Power Plant Equipment Such as Boilers, Evaporators, and Condensers, and in Water Treatment for Reduction of Alkalinity.
First use Aug. 9, 1955.

Service Mark

CLASS 101

ADVERTISING AND BUSINESS

638,920. Harry T. Johnson, New York, N. Y., to Merchant-Consumer Plans Inc., New York, N. Y. SN 674,163. Filed P. R. 10–1–54. Am. S. R. 6–13–56.

BANKERS Charge Account PLAN

For Promoting the Use of the Bank Facilities Through the Medium of a Plan Whereby Banks Licensed by Applicant Extend Credit to Customers, Certified by Bank, Who Purchase From Retail Outlets Subscribing to the Bank's Services.
First use Aug. 26, 1954.

## TRADEMARK REGISTRATIONS RENEWED

113,135. IOWA WRITING TABLET AND DESIGN. Cl. 37. 10–10–16.
113,453. STRUTWEAR AND DESIGN. Cl. 39. 10–17–16.
113,515. PRESTO. Cl. 51. 10–17–16.
114,601. BANTAM. Cl. 27. 12–19–56.
114,602. EARLY BIRD. Cl. 27. 12–19–16.
115,180. NOGAS. Cl. 52. 1–30–17.
115,230. ROYAL EXTRA. Cl. 35. 1–30–17.
115,650. ENJOYMINT. Cl. 46. 2–27–17.
115,680. DANULA. Cl. 23. 2–27–17.
115,832. W. W. WRIGLEY AND DESIGN. Cl. 51. 3–6–17.
115,846. PYREX. Cl. 33. 3–13–17.
115,895. LIFE SAVERS. Cl. 46. 3–20–17.
116,104. VANITY. Cl. 39. 4–3–17.
333,205. DAVIS MILLING CO. AND DESIGN. Cl. 46. 3–10–36.
334,962. ESTRELLITA AND DESIGN. Cl. 46. 5–19–36.
336,749. PRO TEK AND DESIGN. Cl. 44. 7–14–36.
336,833. DUTCHESS STAR 800. Cl. 39. 7–21–36.
338,302. SIESTA. Cl. 27. 9–1–36.
338,525. LAMOURETTE. Cl. 39. 9–8–36.
338,559. HYDRO-BROACH AND DESIGN. Cl. 23. 9–8–36.
338,653. DIRECTOMAT. Cl. 23. 9–15–36.
338,841. EXCELLA. Cl. 23. 9–15–36.
339,213. TRANS-LUX. Cl. 26. 9–29–36.
339,551. SHY. Cl. 51. 10–13–36.
339,776. CROLITE MAGICORE AND DESIGN. Cl. 21. 10–20–36.
340,163. SILENT KNIGHT. Cl. 27. 11–3–36.
340,244. LUSTRABLU. Cl. 33. 11–3–36.
340,418. HEX-FLEX. Cl. 34. 11–10–36.
340,545. METAL-TONE. Cl. 4. 11–17–36.
340,585. SOCIAL REGISTER OF GREATER MIAMI. Cl. 38. 11–17–36.
340,778. VANITY. Cl. 26. 11–24–36.
341,481. MAFARSIDE. Cl. 18. 12–8–36.
341,746. ALNOR. Cl. 26. 12–22–36.
342,578. HOLLAND HOUSE AND DESIGN. Cl. 46. 1–19–37.
342,698. DREAM MASTER. Cl. 32. 1–26–37.
342,738. ACME. Cl. 37. 1–26–37.
342,859. COON CHICKEN. Cl. 46. 2–2–37.
343,049. FOOT YOUTH AND DESIGN. Cl. 18. 2–9–37.
343,445. MAY QUEEN. Cl. 39. 2–23–37.
343,512. SCEPTRE. Cl. 51. 2–23–37.
343,609. HERESITE. Cl. 16. 2–23–37.
343,899. SIREN CHOCOLATOR. Cl. 21. 3–9–37.
344,175. PIONEER. Cl. 4. 3–16–37.
344,226. BREVEEZ. Cl. 39. 3–16–37.
344,244. SKY LINE. Cl. 15. 3–16–37.
344,299. NESTYLE. Cl. 44. 3–16–37.
344,366. PILOT. Cl. 23. 3–23–37.
344,612. ABANO. Cl. 51. 3–30–37.
344,675. PANCAKE. Cl. 21. 3–30–37.
344,778. BRITISH LOUNGER MODEL. Cl. 39. 4–6–37.
344,845. CHANSONETTE. Cl. 39. 4–6–37.

## TRADEMARK REGISTRATIONS CANCELED

Section 8

50,328. CFL. Cl. 28. 3–13–06.
170,755. MIRROR. Cl. 51. 7–24–23.
211,115. AMERICAN. Cl. 46. 4–6–26.
239,037. DIA-PADS. Cl. 39. 2–21–28.
259,377. MIRELLE. Cl. 40. 7–30–29.
264,962. NUVO. Cl. 40. 12–10–29.
267,776. BLUE RIBBON BOND. Cl. 37. 2–25–30.
313,319. LIBERTY. Cl. 48. 5–22–34.
374,477. SOFTASILK. Cl. 37. 1–9–40.
408,792. TRAIL BLAZER. Cl. 37. 8–29–44.
424,946. KETON. Cl. 1. 10–29–46.
515,835. "FILL TO FLAME." Cl. 55. 9–27–49.
515,836. AMERICAN CONDITIONING AND DESIGN. Cl. 55. 9–27–49.
523,262. DE ROSA DESIGNED. Cl. 28. 3–28–50.
524,837. POLK NO. 1. Cl. 37. 5–2–50.
524,860. SOUTH ISLANDS. Cl. 46. 5–2–50.
529,829. ARTIC-ICER. Cl. 31. 8–29–50.
529,998. DR. RENDER'S. Cl. 39. 8–29–50.
530,094. VITAMURE. Cl. 10. 9–5–50.



530,703. HOME PERMA-NET. Cl. 39. 9–12–50.
530,763. BLACK AND DESIGN. Cl. 23. 9–12–50.

*The following registrations issued Sept. 19, 1950*

530,766. KENTUCKY RIBBON. Cl. 49.
530,767. WOLSEY CREST. Cl. 39.
530,768. PERFECTION. Cl. 52.
530,772. POLAR. Cl. 1.
530,780. CLIPPER. Cl. 49.
530,781. YANKEE. Cl. 49.
530,787. BOWLERINOS. Cl. 39.
530,788. MULTI-QUINS. Cl. 50.
530,791. DORR. Cl. 23.
530,792. CALIENTE. Cl. 30.
530,793. VPO. Cl. 50.
530,799. HOERDTER LEBERTEE AND DESIGN. Cl. 18.
530,800. VAL-MOON AND DESIGN. Cl. 47.
530,803. AMERICAN GIRL. Cl. 23.
530,805. AMERICAN DINNERWARE SERVICE AND DESIGN. Cl. 30.
530,809. MASTER GLOW AND DESIGN. Cl. 4.
530,813. LAPLANT LPC CHOATE. Cl. 23.
530,816. LADURO. Cl. 47.
530,818. WHITE BEAR AND DESIGN. Cl. 12.
530,824. INDRAIC ACID. Cl. 1.
530,831. ELECTROMIX. Cl. 21.
530,832. CONTINENTAL MULTI-TOOL. Cl. 23.
530,833. HEGEMAX. Cl. 23.
530,834. DIAMOND DESIGN. Cl. 12.
530,836. COLCOMBET. Cl. 47.
530,841. LA SALLE. Cl. 24.
530,845. VICAR FIT. Cl. 52.
530,850. SCULPSTONE AND DESIGN. Cl. 1.
530,860. GOOD'ENOUGH SALVE. Cl. 18.
530,861. ENVELOPE AND DESIGN. Cl. 23.
530,865. BUSCO. Cl. 52.
530,867. AA AND DESIGN. Cl. 21.
530,879. ELECTROD. Cl. 21.
530,881. CUSH-N-FLO. Cl. 50.
530,888. HENRI DUBOIS. Cl. 36.
530,889. JAMBLER. Cl. 33.
530,891. THE AMBASSADOR. Cl. 8.
530,896. TELOTRIM. Cl. 21.
530,897. MACKENZIE. Cl. 51.
530,902. CINCH. Cl. 6.
530,904. MULTI-TOOL. Cl. 23.
530,905. PRESSEEN AND DESIGN. Cl. 51.
530,918. TE-ANNE. Cl. 52.
530,919. BOREN BLUE BLAZE. Cl. 6.
530,925. A BLENWELL BEVERAGE. Cl. 45.
530,927. VISCOL. Cl. 1.
530,931. UNCLE TOM & SON. Cl. 52.
530,934. TIG. Cl. 52.
530,935. STICWARE. Cl. 30.
530,936. 49. Cl. 51.
530,939. POST-IT AND DESIGN. Cl. 50.
530,949. CRESTWYN. Cl. 39.
530,950. BEU-TRESS. Cl. 52.
530,953. BEER-BOB. Cl. 51.
530,954. TIFONETTA. Cl. 21.
530,957. ROBOT. Cl. 50.
530,958. ELECTRIC SALESMAN. Cl. 21.
530,971. MYSTRON. Cl. 24.
530,973. TOQUADE. Cl. 51.
530,980. HOTHOUSE. Cl. 50.
530,981. NORGE HEAT. Cl. 34.
530,984. SOREXA. Cl. 6.
530,985. CUB-KIX. Cl. 39.
530,986. ONE-STRIKE. Cl. 6.
530,990. CHLORTUSSIN. Cl. 18.
530,991. THI-BO-MIN. Cl. 18.
530,993. BENZOBE. Cl. 18.
530,997. OLIODIN. Cl. 18.
531,002. NEUROSOOTH. Cl. 18.
531,004. BY SALEM IN DESIGN. Cl. 30.
531,012. RICH-GROVE. Cl. 47.
531,021. CORSAGE. Cl. 38.
531,022. DIA-PRO. Cl. 39.
531,026. LADYBIRD. Cl. 23.
531,028. LADY ERNA. Cl. 39.
531,032. GF GAY FAD CERAMIC. Cl. 33.
531,035. HERITAGE. Cl. 8.
531,037. TUFLEC. Cl. 21.
531,039. ENGI-TENNA. Cl. 21.
531,041. SECURITY QUICK WATER HEATER. Cl. 34.
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531,053. GLASGO. Cl. 48.
531,061. SURELOK. Cl. 34.
531,074. GEARPHOS. Cl. 6.
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531,082. MODEASE. Cl. 39.
531,085. KERRICK LEANER. Cl. 23.
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531,094. AD KAP. Cl. 21.
531,098. LADY THOMAS. Cl. 39.
531,101. KWIK-CUP. Cl. 13.
531,102. KENKERRY BY KNIGHT. Cl. 39.
531,103. RUG-STOP. Cl. 50.
531,105. FASHIONED BY VERDE. Cl. 39.
531,106. LIFE-X-TENSHUN. Cl. 39.
531,107. JACANROL. Cl. 23.
531,110. KOTE-O-TIN. Cl. 6.
531,111. FLYING WING. Cl. 22.
531,112. BRUSH CRAFT. Cl. 16.
531,114. PRESS-A-RUFFLE. Cl. 40.
531,116. G-I-T-S. Cl. 46.
531,120. THE HAN-DEE BAR-B-Q-PAK. Cl. 1.
531,123. SPECIALIZED CHEMICAL CREDIT SERVICE. Cl. 101.
531,124. THE SILENT BOOKKEEPER. Cl. 101.

# REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

## CLASS 6

## CHEMICALS AND CHEMICAL COMPOSITIONS

220,798. Nov. 16, 1926. James Frederick Moseley, Manchester, England. Pub. by Industrial Processes Development, Limited, Kingston, Ontario, Canada.

**MULSOID**

For Preparations and Compounds for Scouring and Finishing Textile Yarn and Fabrics.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

332,786. Feb. 25, 1936. The Peck, Stow & Wilcox Company, Southington, Conn. Pub. by registrant.

PEXTO

For Awls; Bending Brakes; Bench Plates; Stake Holders; Bench Stakes; Chisels; Crimping Tools and Machines; Cutters for Wire and Sheet Metal; Forms for Shaping Sheet Metal; Forms for Closing Eave Trough Ends; Gouges; Grooving Tools and Machines; Hammers; Handles for Tools; Mandrels; Nippers; Notching Tools; Punches; Rivet Sets; Roof Rippers; Scrapers; Seaming Tools; Shears, Hand, Foot and Power; Slatters' Brakes and Hand Tools; Snippers; Tinners' Hand Tools; Tongs for Tinners and Roofers; Tools and Machines, Hand, Foot and Power, for Cutting, Punching, Shaping, Beading, Corrugating, Burring, Crimping, Double Seaming, Edging, Flanging, Folding, Forming, Grooving and Setting Down, Slitting, and Trimming, Sheet Metal, Pipe, Box and Pan Forming; Tools and Machines for Wire Bending; Wire Forming and Wiring Machines; and Wrenches.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

332,787. Feb. 25, 1936. The Peck, Stow & Wilcox Company, Southington, Conn. Pub. by registrant.

PEXTO

For Rules, Dividers, Straightedges, and Squares.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

434,442. Nov. 18, 1947. Vargas Manufacturing Company, Providence, R. I. Pub. by registrant.



For Ornamental Jewelry, Particularly for Children—Namely, Pendants, Necklaces, Ornamental Pins, Bracelets, Lockets, and Finger-Rings, Made Wholly or Partly of Precious Metals.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

338,737. Sept. 15, 1936. Modern Engineering Company, Inc., St. Louis, Mo. Pub. by registrant.

**WELDMASTER**

For Welding Torches.

## CLASS 37

## PAPER AND STATIONERY

350,189. Sept. 21, 1937. Blake, Moffitt & Towne, San Francisco, Calif. Pub. by registrant.

**NULINE**

For Paper Bags.

## CLASS 39

## CLOTHING

114,398. Dec. 12, 1916. United States Rubber Company, Passaic, N. J. Pub. by registrant.

**Raynster**

For Rain-Coats.





337,805. Aug. 18, 1936. Joseph Love, Inc., New York, N. Y. Pub. by Cosgrove Brothers, Inc., Quincy, Mass.

Authentic

'Princess Elizabeth'

For Knitted Wear for Children—Namely, Dresses, Panties, Coats, and Caps; Hats, Bathing Suits, Raincoats, Play Togs, Pajamas, Undershirts, and Drawers; Leather Shoes and Slippers.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

158,557. Sept. 5, 1922. The United States Dental Manufacturing Co., Cleveland, Ohio. Pub. by registrant.




For Dental Tools—Namely, Burs, Broaches, Mandrels, Dental Vulcanisers, Flask Presses, Dental Engines, Duplex Springs, Bur Gauges, Broach Holders, Root-Canal Instruments, and Hypodermic Needles.

164,254. Feb. 13, 1923. The United States Dental Manufacturing Co., Cleveland, Ohio. Pub. by registrant.

U-S-DENTCO-

For Dental Engines, Dental Handpieces, Engine Burs, Finishing Burs, Cross Cut Burs, Cavity Openers, Bur Cases, Dental Pliers, Engine Burnishers, Dental Broaches, Root-Canal Instruments, Root Pliers, Root Elevators, Disk Mandrels, Port Polishers, Dental Needles, Cone-Socket Handles, Mouth Mirrors, Separating Files, Flasks, Flask Lifter, Nerve Lances, Duplex Springs, Dental Burs, Excavating Burs, Inlay Burs, Vulcanite Burs, Bur Gauges, Dental Matrix, Handle Burnishers, Plastic Instrument, Broach Holders, Root-Canal Drills, Root Facers, Root-Canal Files, Stone Mandrels, Port-Polishing Brushes, Hypodermic Needles, Screw Drivers, Mouth-Mirror Handles, Vulcanisers, Flask Presses, Screw Posts, Acid-Proof Instruments.

192,929. Dec. 16, 1924. The United States Dental Manufacturing Co., Cleveland, Ohio. Pub. by registrant.

**ALONIUM**

For Root-Canal Instruments, Root-Canal Cleaners, Root-Canal Drills, Root-Canal Probes, Root-Canal Knives, Root-Canal Files, Root-Canal Reamers, Medicine Carriers, Root Pliers, Root Elevators, Dental Mandrels, Screw Mandrels, Disk Mandrels.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

410,879. Dec. 26, 1944. R. C. Williams & Company, Inc., New York, N. Y. Pub. by registrant.

**ROYAL SCARLET**

For Canned Vegetables; Fruits; Fruit and Vegetable Juices for Food Purposes; Fish, Shrimp, Crabmeat, Clams; Meat Products—Namely, Pork and Beans; Soups; Broths; Puddings and Brown Breads; Dried Vegetables; Wheat, Rye, Potato, Rice, Gluten, Cake, Graham and Pancake, Waffle Combination Flours; Prepared Buckwheat; Tea; Coffee; Rice; Molasses; Maple Syrup; Pancake Syrup; Honey; Sauces—Namely, Spaghetti, Chili, Worcestershire, Whole Pepper and Concentrated Hot; Gelatine; Tomato Paste; Tomato Catsup; Paprika; Spices; Chili Powder; Mustard; Poultry Seasoning; Black Pepper; White Pepper; Salad Oil; Prepared Vegetable Shortening; Barley (Packaged); Bran (Packaged); Hominy; Corn Meal; Tapioca; Farina; Corn Flakes; Rolled Oats; Bran Flakes (Packaged); Rice Flakes; Wheat Cereal; Wheat and Rice Puffs; Bouillon Cubes; Condensed and Evaporated Milk; Dried and Glace Fruits; Citron and Orange and Lemon Peels; Stuffed Assorted Fruits; Crystallized Ginger; Preserved Figs; Shelled Nuts; Macaroni; Spaghetti; Noodles; Olives, Plain and Stuffed; Olive Oil; Pimientos; Mushrooms; Anchovy Paste; Capers; Cherries (Maraschino and Mint Styles and for Dipping and Fountain Use); Fruit Preserves, Jams and Jellies; Apple Butter; Jelly Powders; Mincemeat; Salt Mackerel; Cheese; Salt; Cocoanut; Corn Starch; Pickles; Vinegar; Horse Radish; Chocolate; Cocoa; Chocolate Malt-Flavored Syrup; Marshmallow Creme; Cracker Meal; Flavoring Extracts for Food Purposes; Sweet Chocolate Coating; Hot Chocolate Powder; Chocolate Liquor; Malted Milk; Peanut Butter; Candy; Crushed Fruits; and Bird Seed.

424,386. Oct. 1, 1946. Richard & Smith, Sunset, La. Pub. by registrant.




For Fresh Sweet Potatoes.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

263,121. Oct. 29, 1929. Société Anonyme M. Naef & Cie, Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

**FLORALBA**

For Artificial and Synthetical Perfumes, Essential Oils.

270,793. May 13, 1930. Société Anonyme M. Naef & Cie, Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

**EXALTOLIDE**

For Artificial and Synthetical Perfumes, Essential Oils.

271,144. May 27, 1930. Société Anonyme M. Naef & Cie, Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

**JASMANTHEME**

For Artificial and Synthetical Perfumes, Essential Oils.

280,711. Feb. 24, 1931. Société Anonyme M. Naef & Cie, Geneva, Switzerland. Pub. by Firmenich, Incorporated, New York, N. Y.

**«LILANTHÈME»**

For Artificial and Synthetical Perfumes, Essential Oils.

# LIST OF REGISTRANTS OF TRADEMARKS

## REGISTERED DECEMBER 18, 1956

Ace Fastener Corp., Chicago, Ill. 344,366, ren. 3-23-57. Cl. 23.
Acme Card System Co., Chicago, Ill., to Acme Visible Records, Inc., Crozet, Va. 342,738, ren. 1-26-57. Cl. 37.
Acme Quality Paints, Inc., Detroit, Mich. 638,696, pub. 10-2-56. Cl. 16.
Acme Visible Records, Inc.: *See*—
Acme Card System Co.
Adams, Inc., Greenville, S. C. 638,734, pub. 10-2-56. Cl. 21
Addressing Machine Co.: *See*—
Cotton, Norman L.
Advance Polishing Wheels, Inc., to Advance Polishing Wheels, Inc., Chicago, Ill. 344,175, ren. 3-16-57. Cl. 4.
Aerovox Corp.: *See*—
Crowley, Henry L., & Co., Inc.
Air-Marine Motors, Inc., Amityville, N. Y. 638,736, pub. 10-2-56. Cl. 21.
Aktiebolaget Akerblomstolen, Stockholm, Sweden. 638,770, pub. 10-2-56. Cl. 32.
Aktiengesellschaft Chocolat Tobler, d. b. a. Chocolat Tobler, Ltd., and Societe Anonyme Chocolat Tobler, Berne, Switzerland. 638,852, pub. 10-2-56. Cl. 46.
Aladdin Industries, Inc., Nashville, Tenn. 638,623, pub. 10-2-56. Cl. 2.
Alexander Products Ltd., Bristol, England. 530,094, canc. Cl. 10.
All American Electric Co., Inc., Saginaw, Mich. 530,867, canc. Cl. 21.
American Auto-Felt Corp., Grand Rapids, Mich. 342,698, ren. 1-26-57. Cl. 32.
American Brake Shoe Co., New York, N. Y. 638,800, pub. 10-2-56. Cl. 38.
American Brewing Co. of Rochester, N. Y., Inc., Rochester, N. Y. 313,319, canc. Cl. 48.
American Chemical & Drug Co.: *See*—
American Transpacific Corp.
American Conditioning House, Inc., Boston, Mass. 515,836, canc. Cl. 35.
American Cyanamid Co., New York, N. Y. 638,708, pub. 10-2-56. Cl. 18.
American Cyanamid Co., New York, N. Y. 638,636, pub. 10-2-56. Cl. 6.
American Cyanamid Co., New York, N. Y. 638,724, pub. 10-2-56. Cl. 18.
American Cyanamid Co., New York, N. Y. 638,743, pub. 10-2-56. Cl. 23.
American Dinnerware Service: *See*—
Soelberg, Milton.
American Electro Metal Corp., Yonkers, N. Y., now by change of name Schwarzkopf Development Corp. 638,731, pub. 10-2-56. Cl. 21.
American Home Products Corp., d. b. a. Wyeth Laboratories Div. of American Home Products Corp., Philadelphia, Pa. 638,728, pub. 10-2-56. Cl. 18.
American Photograph Corp., New York, N. Y. 340,778, ren. 11-24-56. Cl. 26.
American Polish Co., The, Chicago, Ill. 530,768, canc. Cl. 52.
American Safety Razor Corp., Brooklyn, N. Y. 531,035, canc. Cl. 8.
American Stores Co., Philadelphia, Pa. 211,115, canc. Cl. 46.
American Transpacific Corp., d. b. a. American Chemical & Drug Co., San Francisco, Calif. 638,650, pub. 10-2-56. Cl. 6.
American Viscose Corp., Philadelphia, Pa. 638,609, pub. 10-2-56. Cl. 1.
American Window Glass Co., Pittsburgh, Pa. 340,244, ren. 11-3-56. Cl. 33.
Amherst Blanket Co.: *See*—
Poor, Edward E., Jr.
Ami Lawnmower Co. Ltd., London, England. 531,026, canc. Cl. 23.
Angier Chemical Co., Boston, Mass., to Angier Chemical Co., Inc. 530,990, canc. Cl. 18.
Angier Chemical Co., Boston, Mass., to Angier Chemical Co., Inc. 530,991, canc. Cl. 18.
Angier Chemical Co., Inc.: *See*—
Angier Chemical Co.
Arlin Laboratory: *See*—
Debeh, Ali Y.
Asten-Hill Mfg. Co., Philadelphia, Pa. 638,874, pub. 10-2-56. Cl. 50.
Atlas Accordions, Inc., New York, N. Y. 638,787, pub. 10-2-56. Cl. 36.
Auergesellschaft Aktiengesellschaft, Berlin, Germany. 638,760, pub. 10-2-56. Cl. 26.
B & Z Hosiery Products Co., Trooper, Pa. 531,028, canc. Cl. 39.
Babee-Tenda License Corp., Cleveland, Ohio. 638,769, pub. 10-2-56. Cl. 32.
Babee-Tenda License Corp., Cleveland, Ohio. 638,774, pub. 10-2-56. Cl. 32.
Babson Bros. Co., Chicago, Ill. 638,661, pub. 10-2-56. Cl. 12.
Badger Brass and Aluminum Foundry Co., Milwaukee, Wis. 638,682, pub. 10-2-56. Cl. 14.
Baldwin-Hill Co., Trenton, N. J. 638,663, pub. 10-2-56. Cl. 12.
Barry-Walt, Inc., New York, N. Y. 638,810, pub. 10-2-56. Cl. 39.
Barton Corp., The, West Bend, Wis. 530,841, canc. Cl. 24.
Barwick, E. T., Mills, Inc., Chamblee, Ga. 638,828, pub. 10-2-56. Cl. 42.
Basca Mfg. Co.: *See*—
Huyler's.
Bedford Shirt Corp., New York, N. Y. 638,912. Cl. 39.
Beech-Nut Life Savers, Inc.: *See*—
Mint Products Co., Inc.
Beer-Bob, Inc., New York, N. Y. 530,953, canc. Cl. 51.
Belber, Samuel, d. b. a. Zerell Drug Co., Philadelphia, Pa. 638,726, pub. 10-2-56. Cl. 18.
Bender, Frank V., Atlanta, Ga. 529,998, canc. Cl. 39.
Bender, Samuel, Brooklyn, N. Y. 638,806, pub. 10-2-56. Cl. 39.
Birnbaum, C., Ltd., London, England. 638,918. Cl. 50.
Black Mfg. Co., The, Baltimore, Md. 530,763, canc. Cl. 23.
Blackwell-Wielandy Co., St. Louis, Mo. 638,791, pub. 10-2-56. Cl. 37.
Blake, Moffitt & Towne, San Francisco, Calif. 350,189, 12(c) pub. 12-18-56. Cl. 37.
Block, Paul, & Sons: *See*—
Pee Bee Knitwear Co.
Blue Book Publishing Co., to M. J. Sertel, d. b. a. Blue Book Publishing Co., Miami, Fla. 340,585, ren. 11-17-56. Cl. 38.
Boccella, Vincent, d. b. a. North Hills Sanatorium, Glenside, Pa. 638,706, pub. 10-2-56. Cl. 18.
Borden Co., The, New York, N. Y. 638,844, pub. 10-2-56. Cl. 46.
Boren Mining Co., Salt Lake City, Utah. 530,919, canc. Cl. 6.
Borg-Warner Corp.: *See*—
Jackson, Byron, Co.
Borg-Warner Corp., Chicago, Ill. 530,981, canc. Cl. 34.
Bounin, Claude, Paris, France. 638,645, pub. 10-2-56. Cl. 6.
Bowden (Engineers) Ltd., London, England. 638,669, pub. 10-2-56. Cl. 13.
Boyer Chemical Co., Chicago, Ill. 638,642, pub. 10-2-56. Cl. 6.
British Rayophane Ltd., Wigton, England. 638,606, pub. 10-2-56. Cl. 1.
Broemmel Pharmaceuticals, San Francisco, Calif. 638,723, pub. 10-2-56. Cl. 18.
Buffalo Scientific Co.: *See*—
MacDonnell, Peggy.
Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. 638,699, pub. 10-2-56. Cl. 18.
Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. 638,717, pub. 10-2-56. Cl. 18.
C & H Air Conditioning Fan Co., Inc., Atlanta, Ga. 638,782, pub. 10-2-56. Cl. 34.
Cagleco Sportswear, Cape Girardeau, Mo. 638,812, pub. 10-2-56. Cl. 39.
California Growers Wineries, Cutler, Calif. 531,012, canc. Cl. 47.
Callisons, Inc., Seattle, Wash. 638,612-13, pub. 10-2-56. Cl. 1.
Carnegie, Hattie, Inc., New York, N. Y. 530,936, canc. Cl. 51.
Castle, Ell N., New York, N. Y. 638,740, pub. 10-2-56. Cl. 22.
Cellusuede Products, Inc., Rockford, Ill. 638,617, pub. 10-2-56. Cl. 1.
Chapman Chemical Co., Chicago, Ill. 638,646, pub. 10-2-56. Cl. 6.
Chartiers Drug & Chemical Co., Pittsburgh, Pa. 531,004, canc. Cl. 21.
Chase Chemical Co., Newark, N. J. 638,719-21, pub. 10-2-56. Cl. 18.
Chem Products, Inc., Hartford, Conn. 530,902, canc. Cl. 6.
Chicago Bridge & Iron Co., Chicago, Ill. 638,898. Cl. 2.
Chocolat Tobler, Ltd.: *See*—
Aktiengesellschaft Chocolat Tobler.
Ciba Ltd., Basel, Switzerland. 638,641, pub. 10-2-56. Cl. 6.
Cincinnati Milling Machine Co., The, Cincinnati, Ohio. 338,559, ren. 9-8-56. Cl. 23.
Clayton Mfg. Co., El Monte, Calif. 531,085, canc. Cl. 23.
Clipper Fireworks Co.: *See*—
Tovatt, V. J., Co.
Clopay Corp., Cincinnati, Ohio. 638,775, pub. 10-2-56. Cl. 32.
Cluett, Peabody & Co., Inc., Troy, N. Y. 638,809, pub. 10-2-56. Cl. 39.
Cohen, Goldman & Co., Inc., New York, N. Y., to House of Worsted-Tex, Inc., Philadelphia, Pa., and Baltimore, Md. 344,778, ren. 4-6-57. Cl. 39.
Columbia Petroleum Products Co.: *See*—
Renuit Home Products Co.
Conn, C. G., Ltd., Elkhart, Ind. 530,888, canc. Cl. 36.
Contemporary Coverings Co., Chicago, Ill. 638,664, pub. 10-2-56. Cl. 12.
Continental Can Co., Inc., New York, N. Y. 638,626, pub. 10-2-56. Cl. 2.
Continental Distilling Corp., Philadelphia, Pa. 530,780, canc. Cl. 49.
Continental Distilling Corp., Philadelphia, Pa. 530,781, canc. Cl. 49.
Continental Motors Corp., Detroit and Muskegon, Mich. 530,832, canc. Cl. 23.

Continental Motors Corp., Detroit, Mich. 530,904, canc. Cl. 23.
Corning Glass Works, Corning, N. Y. 115,846, ren. 3–13–57. Cl. 33.
Corona Mfg. Co., The, Kenton, Ohio. 638,714, pub. 10–2–56. Cl. 18.
Cosgrove Brothers, Inc.: *See*—
Love, Joseph, Inc.
Cotton, Norman L., d. b. a. Addressing Machine Co., San Francisco, Calif. 638,910. Cl. 37.
Coty, Inc., New York, N. Y. 530,973, canc. Cl. 51.
Crescent-Aire Co.: *See*—
Jackson, Melvin W.
Crescent Drug Products Co.: *See*—
Seebasco Laboratories, Inc.
Crosby Chemicals, Inc., De Ridder, La. 638,614, pub. 10–2–56. Cl. 1.
Crotty Corp., Quincy, Mich. 638,904. Cl. 22.
Crowley, Henry L., & Co., Inc., West Orange, N. J., to Aerovox Corp., New Bedford, Mass. 339,776, ren. 10–20–56. Cl. 21.
Crown Cork & Seal Co., Inc., Baltimore, Md. 530,793, canc. Cl. 50.
Dalil Plant, Maurer & Wirtz, Stolberg, Germany. 638,876, pub. 10–2–56. Cl. 52.
Dan River Mills, Inc., Danville, Va. 638,825, pub. 10–2–56. Cl. 42.
Da Silva, C.: *See*—
Da Silva, Clemente F.
Da Silva, Clemente F., d. b. a. C. da Silva, Vila Nova de Gaia (Oporto), Portugal. 638,869, pub. 10–2–56. Cl. 47.
Da Silva, Clemente F., d. b. a. C. da Silva, Vila Nova de Gaia (Oporto), Portugal. 638,871, pub. 10–2–56. Cl. 49.
Davis, W. A., Milling Co.: *See*—
Davis, William A.
Davis, William A., d. b. a. W. A. Davis Milling Co., to W. A. Davis Milling Co., High Point, N. C. 333,205, ren. 3–10–56. Cl. 46.
Debeh, Ali Y., d. b. a. Arlin Laboratory, North Chicago, Ill. 638,707, pub. 10–2–56. Cl. 18.
De Leoton Co.: *See*—
Stapleton, Sara M.
Dermatox Chemical Co.: *See*—
Noveck, Morris.
De Rosa, Ralph, Co., New York, N. Y. 523,262, canc. Cl. 28.
Diamond Bros. Co., Trenton, N. J. 638,776, pub. 10–2–56. Cl. 32.
Diamond Expansion Bolt Co., Inc., Garwood, N. Y. 638,676, pub. 10–2–56. Cl. 13.
Dickinson and Co., Inc., Cleveland, Ohio. 638,886, pub. 10–2–56. Cl. 102.
Diversey Corp., The, Chicago, Ill. 530,934, canc. Cl. 52.
Dorsy Lamp Co., Inc., Chicago, Ill. 340,418, ren. 11–10–56. Cl. 34.
Dorr Co., The, New York, N. Y. 530,791, canc. Cl. 23.
Down Beat, Inc., Chicago, Ill. 531,088, canc. Cl. 36.
Drew, E. F., & Co., Inc., New York, N. Y. 638,919. Cl. 52.
Du Bois Co., Inc., The, Cincinnati, Ohio. 638,881, pub. 11–29–55. Cl. 52.
Duffy, George A., trustee for Barbara Gowen Duffy: *See*—
Metro Research Laboratories, Inc.
Du Pont, E. I., de Nemours and Co.: *See*—
Grasselli Chemical Co., The.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 638,761, pub. 10–2–56. Cl. 26.
Dura-Bond Bearing Co., Palo Alto, Calif. 638,754, pub. 10–2–56. Cl. 23.
Dutchess Underwear Corp., New York, N. Y. 336,833, ren. 7–21–56. Cl. 39.
Dutchess Underwear Corp., New York, N. Y. 338,525, ren. 9–8–56. Cl. 39.
Dynacolor Corp., Brockport, N. Y. 638,906. Cl. 26.
E-Z Products: *See*—
Steckler, Nat P.
Eastman Kodak Co., Rochester, N. Y. 638,620, pub. 10–2–56. Cl. 1.
Elco Mfg. Co.: *See*—
Katz, Harry.
Electro-Mite Co. Inc., The, New York, N. Y. 530,954, canc. Cl. 21.
Elyria Corrugated Box Co., Avon, Ohio. 638,631, pub. 10–2–56. Cl. 2.
Empire Metal Co., Syracuse, N. Y. 638,692, pub. 10–2–56. Cl. 14.
Engler Huson Co., Grants Pass, Oreg. 638,665, pub. 10–2–56. Cl. 12.
Eppens, Smith Co., Inc., New York, N. Y., to Holland House Coffee and Tea Corp., Long Island City, N. Y. 342,578, ren. 1–19–57. Cl. 46.
Eskimo Pie Corp., Richmond, Va. 638,868, pub. 10–2–56. Cl. 46.
Esso Standard Oil Co., New York, N. Y. 638,899. Cl. 6.
Eutectic Welding Alloys Corp., Flushing, N. Y. 638,653, pub. 10–2–56. Cl. 6.
Eutectic Welding Alloys Corp., Flushing, N. Y. 638,681, pub. 10–2–56. Cl. 14.
Expert Cloth Sponging Co., Inc., New York, N. Y. 638,889, pub. 10–2–56. Cl. 106.
Eyeful Lingerie Inc., New York, N. Y. 638,804, pub. 10–2–56. Cl. 39.
Fahralloy Co., The, Harvey, Ill. 638,684, pub. 10–2–56. Cl. 14.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 638,647, pub. 10–2–56. Cl. 6.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwork, Germany. 638,785, pub. 10–2–56. Cl. 35.
Faultless Rubber Co., The, Ashland, Ohio. 638,801, pub. 10–5–54. Cl. 39.
Feinprüf, Feinmess-und Prüfgeräte Gesellschaft mit beschränkter Haftung, Gottingen, Germany. 638,758, pub. 10–20–56. Cl. 26.
Fine Foods, Inc., Seattle, Wash. 638,857, pub. 10–2–56. Cl. 46.
Firestone Tire & Rubber Co., The, Akron, Ohio. 638,677, pub. 10–2–56. Cl. 14.
Firmenich, Inc.: *See*—
Societe Anonyme M. Naef & Cie.
Fleischmann Distilling Corp., The, New York, N. Y. 638,870, pub. 10–2–56. Cl. 49.
Florida Foam Products, Inc., Hialeah, Fla. 638,777, pub. 10–2–56. Cl. 32.
Forge Mills, Inc., New York, N. Y. 638,827, pub. 10–2–56. Cl. 42.
Fort Dearborn Lithograph Co., Chicago, Ill. 267,776, canc. Cl. 37.
Forte, Dupee, Sawyer Co., Boston, Mass. 638,894. Cl. 1.
Framer, Walt, New York, N. Y. 638,890, pub. 10–2–56. Cl. 107.
French, G. H., & Co., Inc., Meriden, Conn. 638,675, pub. 10–2–56. Cl. 13.
Freudenberg, Carl, Kommanditgesellschaft Auf Aktien, Weinheim A. D. B., Germany. 638,805, pub. 10 2–56. Cl. 39.
Frozen Food Factors, Inc.: *See*—
Thrif-T-Pak Sweet Frost Co., Inc.
Fryda, Paul A., Milwaukee, Wis. 638,907. Cl. 29.
Frymire, Lewis, d. b. a. The Jon-I-Tor Co., Galesburg, Ill. 638,651, pub. 10–2–56. Cl. 6.
Fuller Brush Co., The, Hartford, Conn. 638,875, pub. 10–2–56. Cl. 51.
Fuller, D. B., & Co., Inc., New York, N. Y. 638,830–1, pub. 10–2–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 638,833–5, pub. 10–2–56. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 638,834, pub. 10–2–56. Cl. 42.
G-I-T-S: *See*—
Plaster, Herbert.
Galloway, G. W., Co., Arcadia, Calif. 638,745, pub. 10–2–56. Cl. 23.
Gardner Wire Co., Chicago, Ill. 530,818, canc. Cl. 12.
Garland Co., The, Cleveland, Ohio. 638,668, pub. 9–25–56. Cl. 12.
Gay Fad Studios, Inc., Lancaster, Ohio. 531,032, canc. Cl. 33.
Geary Chemical Corp., New York, N. Y. 531,074, canc. Cl. 6.
Geigy Chemical Corp., Ardsley, N. Y. 638,640, pub. 10–2–56. Cl. 6.
Geilich Leather Co., Taunton, Mass. 638,618, pub. 10–2–56. Cl. 1.
General Extrusions, Inc., Youngstown, Ohio. 638,662, pub. 10–2–56. Cl. 12.
General Garment Mfg. Co., Inc., Petersburg, Va. 638,803, pub. 10–2–56. Cl. 39.
General Machine Co.: *See*—
Rollins, E. C.
General Refractories Co., Philadelphia, Pa. 530,834, canc. Cl. 12.
General Time Corp.: *See*—
Western Clock Co.
Gerber, Will, New York, N. Y. 638,895. Cl. 1.
Gibbs Ltd., Boston, Mass. 638,688, pub. 10–2–56. Cl. 14.
Gilmour, Duncan, & Co., Ltd., New York, N. Y. 530,836, canc. Cl. 47.
Glaser Shoe Co., San Francisco, Calif. 530,985, canc. Cl. 39.
Glasgow Brewing Co., Inc., Norfolk, Va. 531,053, canc. Cl. 48.
Glemby Co., Inc., The, New York, N. Y. 530,703, canc. Cl. 39.
Glenoit Mills, Inc., Glen Rock, N. J. 638,826, pub. 10–2–56. Cl. 42.
Globe Venetian Blind Corp., Baltimore, Md. 638,768, pub. 10–2–56. Cl. 32.
Goerner, Paul, Hoerdt, France. 530,799, canc. Cl. 18.
Goldkrantz, Harold, New York, N. Y. 638,763, pub. 10–2–56. Cl. 28.
Good-All Electric Mfg. Co., Ogallala, Nebr. 638,737, pub. 10–2–56. Cl. 21.
Good Foods, Inc., Culver City, Calif. 638,853, pub. 10–2–56. Cl. 46.
Goodnough Bros. Co., Dayton, Ohio. 530,860, canc. Cl. 18.
Grace, W. R., & Co., New York, N. Y. 638,856, pub. 10–2–56. Cl. 46.
Graham, M. L., Seattle, Wash. 342,859, ren. 2–2–57. Cl. 46.
Grand Union Co., The, East Paterson, N. J. 638,790, pub. 10–2–56. Cl. 37.
Grasselli Chemical Co., The, Cleveland, Ohio, to E. I. du Pont de Nemours and Co., Wilmington, Del. 115,180, ren. 1–30–57. Cl. 52.
Gray Pharmaceutical Co., Inc., Newton, Mass. 638,703, pub. 10–2–56. Cl. 18.
Great Lakes Dredge & Dock Co., Chicago, Ill. 638,887, pub. 10–2–56. Cl. 103.
Greenwood Seed Co., Thomasville, Ga. 638,610, pub. 10–2–56. Cl. 1.
Griffin Brassiere Co., Griffin, Ga. 638,821, pub. 10–2–56. Cl. 39.
Groveton Papers Co., Groveton, N. H. 638,792, pub. 10–2–56. Cl. 37.
Hachik Bleach Co., Philadelphia, Pa. 638,654, pub. 10–2–56. Cl. 6.
Haldeman Potteries: *See*—
Haldeman, Virgil K.
Haldeman, Virgil K., d. b. a. Haldeman Potteries, Burbank, Calif. 530,792, canc. Cl. 30.
Hammond Research Corp., Gloucester, Mass. 530,935, canc. Cl. 30.
Hanes Associated Mills, Inc., New York, N. Y., to Hanes Hosiery Mills Co., Winston-Salem, N. C. 343,445, ren. 2–23–57. Cl. 39.
Hanes Hosiery Mills Co.: *See*—
Hanes Associated Mills, Inc.



Hanson, Henry L., Worcester, Mass. 638,905. Cl. 23.
Harper & Brothers, New York, N. Y. 638,797–8, pub. 10–2–56. Cl. 38.
Hartford Products Corp., Hartford, Conn. 531,101, canc. Cl. 13.
Harwyn Products Corp., Brooklyn, N. Y. 638,671, pub. 10–2–56. Cl. 13.
Hawkinson, Paul E., Co., Minneapolis, Minn. 638,784, pub. 7–31–56. Cl. 35.
Health Aids: *See*—
Newton, Harry.
Hedlund Mfg. Co., Inc., Nokomis, Ill. 638,739, pub. 12–13–55. Cl. 22.
Hegedus, Dr. Ede, Budapest, Hungary. 530,833, canc. Cl. 23.
Hellicser, Jacques J., New York, N. Y. 530,850, canc. Cl. 1.
Hemlock Poultry: *See*—
Hess, Grant W.
Henkel & Cie. G. m. b. H., Dusseldorf-Holthausen, Germany. 638,877, pub. 4–5–55. Cl. 52.
Heresite & Chemical Co., Manlotwoc, Wis. 343,609, ren. 2–23–57. Cl. 16.
Hess, Grant W., d. b. a. Hess Michigolden Farms, Hess Michigolden Duck Farms and Hemlock Poultry Farms, Hemlock, Mich. 638,840, pub. 10–2–56. Cl. 46.
Hess Michigolden Duck Farms: *See*—
Hess, Grant W.
Hess Michigolden Farms: *See*—
Hess, Grant W.
Hesse, Frank, d. b. a. PosT-IT, Hackensack, N. J. 530,939, canc. Cl. 50.
Hettrick Mfg. Co., The, Toledo, Ohio. 638,813, pub. 10–2–56. Cl. 39.
Hoffmann-La Roche Inc., Nutley, N. J. 638,712, pub. 10–2–56. Cl. 18.
Hohner, M., Inc., New York, N. Y. 638,908. Cl. 36.
Holland House Coffee and Tea Corp.: *See*—
Eppens, Smith Co., Inc.
Hollenbach, Chas., Inc., Chicago, Ill. 638,841, pub. 10–2–56. Cl. 46.
Holly Wood Mills, Inc., Clifton, N. J. 638,820, pub. 10–2–56. Cl. 39.
Home Craft Films, Glenview, Ill. 638,796, pub. 10–2–56. Cl. 38.
Honegger Farms Co., Inc., Forrest, Ill. 638,608, pub. 10–2–56. Cl. 1.
Horwitt, Mimi, d. b. a. U. S. Nutrition Products Co., Great Neck, N. Y. 638,725, pub. 10–2–56. Cl. 18.
Hotel Meat Products Co., St. Louis, Mo. 638,863, pub. 10–2–56. Cl. 46.
House of Worsted-Tex, Inc.: *See*—
Cohen, Goldman & Co. Inc.
Hughes, Henry L., Co. Inc., New York, N. Y. 170,755, canc. Cl. 51.
Hull, R. O., & Co., Inc., Rocky River, Ohio. 638,634, pub. 10–2–56. Cl. 6.
Huyler's, d. b. a. Basca Mfg. Co., Indianapolis, Ind. 638,630, pub. 10–2–56. Cl. 2.
Illinois Testing Laboratories, Inc., Chicago, Ill. 341,746, ren. 12–22–56. Cl. 26.
Industrial Oil Corp., Warren and Stoneham, Pa. 344,244, ren. 2–16–57. Cl. 15.
Industrial Processes Development, Ltd.: *See*—
Moseley, James F.
Industrial Raw Materials Corp., New York, N. Y. 530,824, canc. Cl. 1.
International Nickel Co., Inc., The, New York, N. Y. 638,694, pub. 10–2–56. Cl. 14.
Irons & Russell, Providence, R. I. 50,328, canc. Cl. 28.
Irwin, Neisler and Co., Decatur, Ill. 638,700, pub. 10–2–56. Cl. 16.
Jackson, Byron, Co., Los Angeles, Calif., to Borg-Warner Corp. 638,741, pub. 10–2–56. Cl. 23.
Jackson, Melvin W., d .b a. Crescent-Aire Co., Dallas, Tex. 638,780, pub. 10–2–56. Cl. 34.
Jardine, Inc.: *See*—
Jardine Liquor Corp.
Jardine Liquor Corp., Maspeth, to Jardine, Inc., Maspeth, Long Island, N. Y. 530,816, canc. Cl. 47.
Jefferson Chemical Co., Inc., Houston, Tex. 638,883, pub. 10–2–56. Cl. 52.
Jel-Mac Drugs, Inc., Waterbury, Conn. 638,705, pub. 10–2–56. Cl. 18.
Johnson, H. A., Co., Boston, Mass. 638,851, pub. 10–2–56. Cl. 46.
Johnson, Harry T., to Merchant-Consumer Plans Inc., New York, N. Y. 638,920. Cl. 101.
Johnson & Johnson, New Brunswick, N. Y. 424,946, canc. Cl. 1.
Johnson & Johnson, New Brunswick, N. J. 638,884, pub. 10–2–56. Cl. 52.
Jones, Evelyn, New Orleans, La. 530,905, canc. Cl. 51.
Jon-I-Tor Co., The: *See*—
Frymire, Lewis.
Josph, E. R., Co.: *See*—
Joseph, Edwin R.
Joseph, Edwin R., d. b. a. E. R. Joseph Co., Norristown, Pa. 638,648, pub. 10–2–56. Cl. 6.
Kalm, A., Co.: *See*—
Kalm, Abraham.
Kalm, Abraham, d. b. a. A. Kalm Co., New York, N. Y. 531,114, canc. Cl. 40.
Katz, Harry, d. b. a. Elco Mfg. Co., Pittsburgh, Pa. 638,638–9, pub. 10–2–56. Cl. 6.
Katz, Wm. R., Co., Dallas, Tex. 638,762, pub. 10–2–56. Cl. 28.
Kendu Electronics, Inc., Washington, D. C. 638,738, pub. 10–2–56. Cl. 21.
Kerr, Alexander H., and Co., Inc., Los Angeles, Calif. 530,889, canc. Cl. 33.
Kerr Glass Mfg. Corp., Sand Springs, Okla. 530,881, canc. Cl. 50.
Kessler, William B., Inc., Hammonton, N. J. 638,814, pub. 10–2–56. Cl. 39.
Kirchhoff, August C., & Co., Chicago, Ill. 638,846, pub. 9–4–56. Cl. 46.
Kleinert, I. B., Rubber Co., New York, N. Y. 289,037, canc. Cl. 39.
Kleinert, I. B., Rubber Co., New York, N. Y. 259,377, canc. Cl. 40.
Kleinert, I. B., Rubber Co., New York, N. Y. 264,962, canc. Cl. 40.
Kleinert, I. B., Rubber Co., New York, N. Y. 344,226, ren. 2–16–57. Cl. 39.
Knighthood Corp., Perth Amboy, N. J. 531,102, canc. Cl. 39.
Koeller, F., & Co., Solingen-Ohligs, Northrine-Westphalia, Germany. 638,747, pub. 10–2–56. Cl. 23.
Kugelfischer Georg Schäfer & Co., Schweinfurt, Germany. 638,746, pub. 10–2–56. Cl. 23.
Kupferer Bros. Ornamental Iron Works, Inc., St. Louis, Mo. 638,902. Cl. 12.
Kuster Laboratories, In San Francisco, Calif. 524,860, canc. Cl. 46.
La Berge, Louis E., San Diego, Calif. 531,124, canc. Cl. 101.
Laboratory of Applied Pathology Ltd., Manchester, England. 638,727, pub. 10–2–56. Cl. 18.
Lake Erie Engineering Corp., Buffalo, N. Y. 338,653, ren. 9–15–56. Cl. 23.
Laminated Plastics, Inc., East Cleveland, Ohio. 531,037, canc. Cl. 21.
La Plant-Choate Mfg. Co., Inc., Cedar Rapids, Iowa. 530,813, canc. Cl. 23.
Laughter, D. Robert: *See*—
Mahrt, Louis R., and D. Robert Laughter, trustees for Standard-Dayton Corp.
Lawn-Gro, Inc., Winona Lake, Ind. 638,900. Cl. 10.
Lazzari Fuel Co.: *See*—
Lazzari, Roy A.
Lazzari, Roy A., d. b. a. Lazzari Fuel Co., San Francisco, Calif. 531,120, canc. Cl. 1.
Lehn & Fink Products Corp., Bloomfield, N. J. 638,709, pub. 10–2–56. Cl. 18.
Lemert Engineering Co., Inc., Plymouth, Ind. 638,755, pub. 10–2–56. Cl. 23.
Lexington Chair Co., Inc., Lexington, N. C. 638,772, pub. 10–2–56. Cl. 32.
Linard, Arist D., Foxboro, Mass. 531,002, canc. Cl. 18.
Lincoln Electric Co., The, Cleveland, Ohio. 530,986, canc. Cl. 6.
Love, Joseph, Inc., New York, N. Y., by Cosgrove Brothers, Inc., Quincy, Mass. 337,805, 12(c) pub. 12–18–56. Cl. 39.
Lowe Paper Co., Ridgefield, N. J. 638,789, pub. 10–2–56. Cl. 37.
Lykes, Norman R., d. b. a. Norman R. Lykes Co., Scottsdale, Ariz. 638,773, pub. 10–2–56. Cl. 32.
Lykes, Norman R., Co.: *See*—
Lykes, Norman R.
MacDonnell, Peggy, d. b. a. Buffalo Scientific Co., Buffalo, N. Y. 530,865, canc. Cl. 52.
Mackenzie, C. R., Ltd., Long Island City, N. Y. 530,897, canc. Cl. 51.
Macklanburg-Duncan Co., Oklahoma City, Okla. 638,686–7, pub. 10–2–56. Cl. 14.
Macon Grocery Co., Macon, Ga., now by change of name Macon Grocery Co. and Institutional Wholesalers, Inc. 638,854, pub. 10–2–56. Cl. 46.
Macon Grocery Co. and Institutional Wholesalers, Inc.: *See*—
Macon Grocery Co.
Madison Steel Co., Skokie, Ill. 638,679, pub. 10–2–56. Cl. 14.
Magnet Cove Barium Corp., Bellaire, Tex. 638,605, pub. 10–2–56. Cl. 1.
Maher Color & Chemical Co., Chicago, Ill. 638,656, pub. 10–2–56. Cl. 6.
Mahrt, Louis R., and D. Robert Laughter, trustees for Standard-Dayton Corp., Dayton, Ohio. 638,735, pub. 10–2–56. Cl. 21.
Maiden Form Brassiere Co., Inc., New York, N. Y. 344,845, ren. 4–6–57. Cl. 39.
Majestic Distilling Co., Inc., Lansdowne, Md. 638,917. Cl. 49.
Mallinckrodt, L. K.: *See*—
Wood, C. Wilson.
Mallinckrodt, L. K., Inc.: *See*—
Wood, C. Wilson.
Manhattan Mannequins, Inc., New York, N. Y. 530,788, canc. Cl. 50.
Manifold Supplies Co., New York, N. Y. 638,901. Cl. 11.
Marble Units, Inc., Schenectady, N. Y. 638,666, pub. 10–2–56. Cl. 12.
Marilyn Shoe Co., Milwaukee, Wis. 530,787, canc. Cl. 39.
Marley Co., The, Kansas City, Mo. 638,766, pub. 10–2–56. Cl. 31.
Martin, Peter B., New York, N. Y. 638,794, pub. 10–2–56. Cl. 38.
Mayco Colors: *See*—
Umhoefer, Robert R., Inc.
McClure, Floyd J., Portland, Oreg. 531,039, canc. Cl. 21.
Mead Johnson & Co., Evansville, Ind. 638,855, pub. 10–2–56. Cl. 46.
Mealpak Corp., Evanston, Ill. 638,629, pub. 10–2–56. Cl. 2.
Melnor Metal Products Co., Inc., Long Island City, N. Y. 638,670, pub. 10–2–56. Cl. 13.
Merchant-Consumer Plans Inc.: *See*—
Johnson, Harry T.
Meserve, Kathleen K., St. James, N. Y. 638,611, pub. 10–2–56. Cl. 1.
Metal Mender Products Co., Inc., Minneapolis, Minn. 531,110, canc. Cl. 6.

Metro Research Laboratories, Inc., New York, N. Y., to G. A. Duffy, trustee for Barbara G. Duffy, Philadelphia, Pa. 339,551, ren. 10–13–56. Cl. 51.
Michigan Peat, Inc., New York, N. Y. 638,619, pub. 10–2–56. Cl. 1.
Midwest Paper Co., Chicago, Ill. 524,837, canc. Cl. 37.
Miller, T. L.: *See*—
Miller, Theodore L.
Miller, Theodore L., d. b. a. T. L. Miller, New Orleans, La. 113,515, ren. 10–17–56. Cl. 51.
Milner Products Co., Jackson, Miss. 638,891, pub. 10–2–56. Cl. 107.
Milton Mfg. Co., Inc., Chicago, Ill. 638,749, pub. 9–25–56. Cl. 23.
Mint Products Co., Inc., New York, to Beech-Nut Life Savers, Inc., Canajoharie, N. Y. 115,650, ren. 2–27–57. Cl. 46.
Mint Products Co., Inc., New York, to Beech-Nut Life Savers, Inc., Canajoharie, N. Y. 115,895, ren. 3–20–57. Cl. 46.
Minute Maid Corp., New York, N. Y. 638,864, pub. 10–2–56. Cl. 46.
Mission Fruit & Vegetable Co., Mission, Tex. 638,860–2, pub. 10–2–56. Cl. 46.
Mitchell, Robert E., d. b. a. Robert E. Mitchell & Co., Auburn, N. Y. 638,824, pub. 10–2–56. Cl. 42.
Mitchell, Robert E., & Co.: *See*—
Mitchell, Robert E.
Modern Engineering Co., Inc., St. Louis, Mo. 338,737, 12(c) pub. 12–18–56. Cl. 34.
Monarch Leather Co., Chicago, Ill. 530,772, canc. Cl. 1.
Monarch Rug Mills, Inc., Dalton, Ga. 638,829, pub. 10–2–56. Cl. 42.
Moore, George W., Inc., Waltham, Mass. 638,674, pub. 10–2–56. Cl. 13.
Morgan Co., The: *See*—
Morgan, Ray F.
Morgan, Ray F., d. b. a. The Morgan Co., Chicago, Ill. 638,691, pub. 10–2–56. Cl. 14.
Moseley, James F., Manchester, England, by Industrial Processes Development, Ltd., Kingston, Canada. 220,798, 12(c) pub. 12–18–56. Cl. 6.
Nahmaschinenfabrik Karlsruhe Aktiengesellschaft Vormals Haid & Neu, Karlsruhe, Germany. 338,841, ren. 9–15–56. Cl. 23.
National Association of Real Estate Boards, Chicago, Ill. 638,793, pub. 10–2–56. Cl. 38.
National Formetal Co., Inc., Cleveland, Ohio. 530,861, canc. Cl. 23.
National Potteries, Inc., Cleveland, Ohio. 638,628, pub. 10–2–56. Cl. 2.
National Sewing Machine Co., Belvidere, Ill. 530,803, canc. Cl. 23.
National Starch Products Inc., New York, N. Y. 638,632–3, pub. 10–2–56. Cl. 5.
Nelson, Ellis F., Everett, Mass. 530,896, canc. Cl. 21.
Nesco, Division of New York Shipbuilding Corp.: *See*—
New York Shipbuilding Corp.
Nestlé Co., Inc.: *See*—
Siren Mills Corp.
Nestle-Lemur Co., The, New York, N. Y. 344,299, ren. 3–16–57. Cl. 44.
Newaygo Engineering Co., Newaygo, Mich. 638,751, pub. 10–2–56. Cl. 23.
Newton, Harry A., d. b. a. Health Aids. 638,897. Cl. 2.
New York Hair Co., Inc., New York, N. Y. 530,950, canc. Cl. 52.
New York Shipbuilding Corp., d. b. a. Nesco, Division of New York Shipbuilding Corp., Milwaukee, Wis. 638,732, pub. 10–2–56. Cl. 21.
North Hills Sanatorium: *See*—
Boccella, Vincent.
Northrop Aircraft, Inc., Hawthorne, Calif. 531,111, canc. Cl. 22.
Nott Mfg. Co., Inc., Mount Vernon, N. Y. 638,644, pub. 10–2–56. Cl. 6.
Noveck, Morris, d. b. a. Dermatox Chemical Co., New Britain, Conn. 638,704, pub. 10–2–56. Cl. 18.
Oakes Consumer Catalogs, Chicago, Ill. 638,799, pub. 10–2–56. Cl. 38.
O'Dwyer, Frank, Holtville, Calif. 638,865–6, pub. 10–2–56. Cl. 46.
Olympic Knitwear, Inc., Hempstead, N. Y. 638,819, pub. 10–2–56. Cl. 39.
Oneida Paper Products, Inc., Clifton, N. J. 638,625, pub. 10–2–56. Cl. 2.
Oneida Paper Products, Inc., Clifton, N. J. 638,627, pub. 10–2–56. Cl. 2.
Order of Railway Conductors and Brakemen, Cedar Rapids, Iowa. 638,795, pub. 10–2–56. Cl. 38.
Ottman & Co. Inc., New York, N. Y. 638,848, pub. 10–2–56. Cl. 46.
Owens-Illinois Glass Co., Toledo, Ohio. 531,021, canc. Cl. 33.
P & D Madrone Vineyard: *See*—
Parducci & Domenici.
Page Boy Co., Inc., The, Dallas, Tex. 638,822–23, pub. 10–2–56. Cl. 39.
Paragon-Revolute Corp., Rochester, N. Y. 638,759, pub. 10–2–56. Cl. 26.
Parducci & Domenici, d. b. a. P & D Madrone Vineyard and as Val-Moon Winery, San Francisco, Calif. 530,800, canc. Cl. 47.
Park & Tilford Distillers Corp., New York, N. Y. 638,915–16. Cl. 49.
Parke, Davis & Co., Detroit, Mich. 341,481, ren. 12–8–56. Cl. 18.
Peck, Stow & Wilcox Co., The, Southington, Conn. 332,786, 12(c) pub. 12–18–56. Cl. 23.
Peck, Stow & Wilcox Co., The, Southington, Conn. 332,787, 12(c) pub. 12–18–56. Cl. 26.
Pedigree Dog Food Co.: *See*—
Sattinger, M. J.
Pee Bee Knitwear Co., also d. b. a. Paul Block & Sons, New York, N. Y. 530,949, canc. Cl. 39.
Pepsi-Cola Bottling Co., Dallas, Tex. 638,838, pub. 10–2–56. Cl. 45.
Petersen Mfg. Co., Inc., De Witt, Nebr. 638,748, pub. 10–2–56. Cl. 23.
Petroleum Heat and Power Co., Stamford, Conn. 515,835, canc. Cl. 55.
Pets Meat Packing Co., Rush Springs, Okla. 638,845, pub. 10–2–56. Cl. 46.
Pfeiffer Co., The, St. Louis, Mo. 638,713, pub. 10–2–56. Cl. 18.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 638,701, pub. 10–2–56. Cl. 18.
Phillips Associates, Inc., St. Paul, Minn. 638,607, pub. 10–2–56. Cl. 1.
Phosphor Bronze Corp., The, Seymour, Conn. 638,678, pub. 10–2–56. Cl. 14.
Piedmont Shirt Co., Greenville, S. C. 638,815–17, pub. 10–2–56. Cl. 39.
Pillsbury Mills, Inc., Minneapolis, Minn. 638,843, pub. 10–2–56. Cl. 46.
Plaster, Herbert, d. b. a. G-I-T-S, Lockport, N. Y. 531,116, canc. Cl. 46.
Plas-Tex Corp., The, Los Angeles, Calif. 530,980, canc. Cl. 50.
Pogrelis-Meyer, Inc., St. Louis, Mo. 638,802, pub. 1–31–56. Cl. 39.
Pollack, Max, & Co., Inc., New York, N. Y. 638,836, pub. 10–2–56. Cl. 43.
Poor, Edward E., Jr., d. b. a. Amherst Blanket Co., Northampton, Mass. 531,103, canc. Cl. 50.
Poroloy Equipment, Inc., Pacoima, Calif. 638,690, pub. 10–2–56. Cl. 14.
Porter, H. K., Inc., Somerville, Mass. 638,756, pub. 10–2–56. Cl. 23.
Post-IT: *See*—
Hesse, Frank.
Potter-McCune Co., McKeesport, Pa. 638,842, pub. 10–2–56. Cl. 46.
Pratt Paper Co., The, Des Moines, Iowa. 113,185, ren. 10–10–56. Cl. 37.
Premier Autoware Co., The, Cleveland, Ohio. 638,730, pub. 10–2–56. Cl. 19.
Prince, H. M., Textiles, Inc., New York, N. Y. 638,832, pub. 10–2–56. Cl. 42.
Prince Matchabelli, Inc.: *See*—
Prince Matchabelli Perfumery, Inc.
Prince Matchabelli Perfumery, Inc., to Prince Matchabelli, Inc., New York, N. Y. 343,512, ren. 2–23–57. Cl. 51.
Prince Matchabelli Perfumery, Inc., to Prince Matchabelli, Inc., New York, N. Y. 344,612, ren. 3–30–57. Cl. 51.
Professional Pharmacal Co., Inc., San Antonio, Tex. 638,715–16, pub. 10–2–56. Cl. 18.
Quartex Corp., Chicago, Ill. 531,048, canc. Cl. 12.
RCA Communications, Inc., New York, N. Y. 638,888, pub. 10–2–56. Cl. 104.
Ralston Mfg. Co., San Carlos, Calif. 638,667, pub. 10–2–56. Cl. 12.
Rayco Mfg. Co., Paterson, N. J. 638,771, pub. 10–2–56. Cl. 32.
Ray-Mel Products Co., Inc., Asheville, N. C. 638,722, pub. 10–2–56. Cl. 18.
Reeves Steel and Mfg. Co., Dover, Ohio. 531,061, canc. Cl. 34.
Reichhold Chemicals, Inc., Detroit, Mich. 638,635, pub. 10–2–56. Cl. 6.
Renuzit Home Products Co., d. b. a. Columbia Petroleum Products Co., Philadelphia, Pa. 638,880, pub. 10–2–56. Cl. 52.
Republic Import Corp., New York, N. Y. 638,672, pub. 10–2–56. Cl. 13.
Richard & Smith, Sunset, La. 424,386, 12(c) pub. 12–18–56. Cl. 46.
Robot Products Corp., Dearborn, Mich. 530,957, canc. Cl. 50.
Rollins, E. C., d. b. a. General Machine Co., Ogden, Utah. 638,742, pub. 6–26–56. Cl. 23.
Rosenstein, Nettie, Inc., New York, N. Y. 530,918, canc. Cl. 52.
Rubel & Co. Decorative Accessories, Inc., New York, N. Y. 530,891, canc. Cl. 8.
S. & H. Co., La Porte, Ind. 529,829, canc. Cl. 31.
Safeway Stores, Inc., Oakland, Calif. 638,858, pub. 10–2–56. Cl. 46.
Safier, S., Inc., Jersey City, N. J. 638,909. Cl. 37.
Salem China Co., The, Salem, Ohio. 531,004, canc. Cl. 30.
Sales Affiliates, Inc., New York, N. Y. 638,702, pub. 10–2–56. Cl. 18.
Sargent-Gerke Co., The, Indianapolis, Ind. 638,695, pub. 10–2–56. Cl. 16.
Sarna, S. S., Inc., New York, N. Y. 638,624, pub. 10–2–56. Cl. 2.
Sattinger, M. J., d. b. a. Pedigree Dog Food Co., Los Angeles, Calif. 638,859, pub. 10–2–56. Cl. 46.
Schenley Distillers, Inc., New York, N. Y. 638,872, pub. 10–2–56. Cl. 49.
Schieffelin & Co., New York, N. Y. 638,652, pub. 10–2–56. Cl. 6.
Schieren, Chas. A., Co., New York, N. Y. 115,230, ren. 1–30–57. Cl. 35.
Schlein, Samuel E., Inc., New York, N. Y. 638,818, pub. 10–2–56. Cl. 39.
Schneider Knitwear Co. Inc., New York, N. Y. 638,811, pub. 10–2–56. Cl. 39.



Schwab, Armand, & Co. Inc., New York, N. Y. 638,807, pub. 10–2–56. Cl. 39.
Schwartz, Kenneth S., d. b. a. Tomken Mfg. Co., White Plains, N. Y. 638,837, pub. 10–2–56. Cl. 44.
Schwarzkoff Development Corp.: *See*—
American Electro Metal Corp.
Security Mfg. Co., Kansas City, Mo. 531,041, canc. Cl. 34.
Security Warehouse Co., St. Louis, Mo. 530,766, canc. Cl. 49.
Seebasco Laboratories, Inc., Richmond, Va., to Crescent Drug Products Co., Philadelphia, Pa. 343,049, ren. 2–9–57. Cl. 18.
Seeman Brothers, Inc., New York, N. Y. 638,779, pub. 10–2–56. Cl. 34.
Seiberling Rubber Co., Barberton, Ohio. 638,896. Cl. 1.
Selby Shoe Co., The, Portsmouth, Ohio. 531,082, canc. Cl. 39.
Sertel, Mary J.: *See*—
Blue Book Publishing Co.
Sew-Smart Products, Media, Pa. 638,911. Cl. 39.
Shapiro, Max C., d. b. a. Thomas Shirt Co., to Thomas Shirt Co., Inc., Los Angeles, Calif. 531,098, canc. Cl. 39.
Sierra Talc & Clay Co., South Pasadena, Calif. 638,616, pub. 10–2–56. Cl. 1.
Sigma Tau Gamma Fraternity, St. Louis, Mo. 638,892–3, pub. 10–2–56. Cl. 200.
Silverman, Julia E., New York, N. Y. 531,022, canc. Cl. 39.
Simmons Co., New York, N. Y. 638,778, pub. 10–2–56. Cl. 32.
Siren Mills Corp., Chicago, Ill., to Nestlé Co., Inc., White Plains, N. Y. 343,699, ren. 3–9–57. Cl. 21.
Sleepmaster Products Co., Inc., Newark, N. J. 638,767, pub. 4–27–54. Cl. 32.
Smidth, F. L., & Co., Jersey City, N. J. 115,680, ren. 2–27–57. Cl. 23.
Smith, Kline & French Laboratories, Philadelphia, Pa. 530,993, canc. Cl. 18.
Smith, T. J., & Nephew, Ltd., Hull, England. 638,718, pub. 10–2–56. Cl. 18.
Smith's, F. X., Sons Co., McSherrystown, Pa. 638,697–8, pub. 10–2–56. Cl. 17.
Snia-Viscosa, Societa Nazionale Industria Applicazioni Viscosa, Milan, Italy. 530,927, canc. Cl. 1.
Societe Anonyme Chocolat Tobler: *See*—
Aktiengesellschaft Chocolat Tobler.
Société Anonyme M. Naef & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 263,121, 12(c) pub. 12–18–56. Cl. 51.
Société Anonyme M. Naef & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 270,793, 12(c) pub. 12–18–56. Cl. 51.
Société Anonyme M. Naef & Cie., Geneva, Switzerland, by Firmenich, Inc., New York, N. Y. 271,144, 12(c) pub. 12–18–56. Cl. 51.
Société Anonyme M. Naef & Cie., Geneva, Switzerland, to Firmenich, Inc., New York, N. Y. 280,711, 12(c) pub. 12–18–56. Cl. 51.
Soelberg, Milton J., d. b. a. American Dinnerware Service, Sioux City, Iowa. 530,805, canc. Cl. 30.
Soluol Chemical Co., Inc., Natick, R. I. 638,649, pub. 10–2–56. Cl. 6.
Soulé Steel Co., San Francisco, Calif. 638,693, pub. 10–2–56. Cl. 14.
Southern Farms Products, Inc., Palm Beach, Fla. 638,658, pub. 4–24–56. Cl. 10.
Specialty Envelope Co.: *See*—
Western Paper Goods Co., The.
Sperry Rand Corp., Great Neck, N. Y. 638,733, pub. 10–2–56. Cl. 21.
Spring Packing Corp., Chicago, Ill. 638,873, pub. 9–18–56. Cl. 50.
Staley, A. E., Mfg. Co., Decatur, Ill. 638,867, pub. 10–2–56. Cl. 46.
Stamford Rolling Mills Co., Inc., Springdale, Conn. 638,683, pub. 10–2–56. Cl. 14.
Standard-Dayton Corp.: *See*—
Mahrt, Louis R., and D. Robert Laughter, trustees for Standard-Dayton Corp.
Stapleton, Sara M., d. b. a. De Leoton Co., Albany, N. Y. 530,997, canc. Cl. 18.
Star Stainless Screw Co., Totowa Borough, N. J. 638,903. Cl. 13.
Steckler, Nat P., d. b. a. E-Z Products, New York, N. Y. 336,749, ren. 7–14–56. Cl. 44.
Steelcraft Mfg. Co., The, Rossmoyne, Ohio. 531,112, canc. Cl. 16.
Stone, J., & Co. (Charlton) Ltd., London, England. 638,689, pub. 10–2–56. Cl. 14.
Streit, Aron, Inc., New York, N. Y. 638,914. Cl. 46.
Struthers, James A., to Strutwear Inc., Minneapolis, Minn. 113,453, ren. 10–17–56. Cl. 39.
Strutwear Inc.: *See*—
Struthers, James A.
Sun Oil Co., Philadelphia, Pa. 638,885, pub. 10–2–56. Cl. 101.
Sunderman, Henry L., d. b. a. Sunderman Mfg. Co., Sioux Falls, S. Dak. 638,781, pub. 10–2–56. Cl. 34.
Sunderman Mfg. Co.: *See*—
Sunderman, Henry L.
Supra-Vite Sales International Inc., New York, N. Y. 638,849, pub. 10–2–56. Cl. 46.
Takata, Schoichi, Honolulu, Territory of Hawaii. 638,806, pub. 10–2–56. Cl. 39.
Tarnell Co., Inc., New York, N. Y. 531,128, canc. Cl. 101.
Taylor, Robert H., Albany, N. Y. 530,925, canc. Cl. 45.
Tel-A-Fresd Hosiery Co., Wyncote, Pa. 531,106, canc. Cl. 39.
Telecomputing Corp., Burbank, Calif. 638,757, pub. 10–2–56. Cl. 26.
Teletronics Corp., Los Angeles, Calif. 530,879, canc. Cl. 21.
Tesco Chemical, Inc., Atlanta, Ga. 638,878–9, pub. 10–2–56. Cl. 52.
Thomas Shirt Co.: *See*—
Shapiro, Max C.
Thomas Shirt Co., Inc.: *See*—
Shapiro, Max C.
Thrif-T-Pak Sweet Frost Co., Inc., Atlanta, Ga., to Frosen Food Factors, Inc. 638,839, pub. 10–2–56. Cl. 46.
Tomken Mfg. Co.: *See*—
Schwartz, Kenneth S.
Tovatt, V. J., Co., d. b. a. Clipper Fireworks Co., Lynwood, Calif. 638,657, pub. 10–2–56. Cl. 9.
Trail-O-Porch and Mobile Rooms, Inc., Toledo, Ohio. 638,660, pub. 10–2–56. Cl. 12.
Trans-Lux Corp.: *See*—
Trans-Lux Daylight Picture Screen Corp.
Trans-Lux Daylight Picture Screen Corp., to Trans-Lux Corp., New York, N. Y. 339,213, ren. 9–29–56. Cl. 26.
Tru-Cote Mfg. Co., Brooklyn, N. Y. 530,809, canc. Cl. 4.
Tubbs Cordage Co., San Francisco, Calif. 638,783, pub. 10–2–56. Cl. 35.
Tutag, S. J., & Co., Detroit, Mich. 638,710, pub. 10–2–56. Cl. 18.
Tutag, S. J., & Co., Detroit, Mich. 638,711, pub. 10–2–56. Cl. 18.
Tyler, W. S., Co., The, Cleveland, Ohio. 638,744, pub. 10–2–56. Cl. 23.
Umhoefer, Robert R., Inc., d. b. a. Mayco Colors, North Hollywood, Calif. 638,655, pub. 10–2–56. Cl. 6.
Uncle Tom & Son, Ranger, Tex. 530,931, canc. Cl. 52.
Union Oil Co. of California, to Wilco Co., Los Angeles, Calif. 340,545, ren. 11–17–56. Cl. 4.
United States Dental Mfg. Co., The, Cleveland, Ohio. 158,557, 12(c) pub. 12–18–56. Cl. 44.
United States Dental Mfg. Co., The, Cleveland, Ohio. 164,254, 12(c) pub. 12–18–56. Cl. 44.
United States Dental Mfg. Co., The, Cleveland, Ohio. 192,929, 12(c) pub. 12–18–56. Cl. 44.
U. S. Electrical Motors, Inc., Los Angeles, Calif. 638,786, pub. 10–2–56. Cl. 35.
United States Hoffman Machinery Corp., New York and Syracuse, N. Y. 530,971, canc. Cl. 24.
U. S. Nutrition Products Co.: *See*—
Horwitt, Mimi.
United States Rubber Co., Passaic, N. J. 114,398, 12(c) pub. 12–18–56. Cl. 39.
Utica Cutlery Co., Utica, N. Y. 638,752–3, pub. 10–2–56. Cl. 23.
Valk, S. J., & Son, to S. J. Valk & Son, Inc., New York, N. Y. 334,962, ren. 5–19–56. Cl. 46.
Valk, S. J., & Son, Inc.: *See*—
Valk, S. J., & Son.
Val-Moon Winery: *See*—
Parducci & Domenici.
Vanadium-Alloys Steel Co., Latrobe, Pa. 638,685, pub. 10–2–56. Cl. 14.
Vanadium Corp. of America, New York, N. Y. 638,680, pub. 10–2–56. Cl. 14.
Van Houten-Rankins, Inc., Detroit, Mich. 530,958, canc. Cl. 21.
Vanity Corset Co., Inc.: *See*—
Warner Brothers Co., The.
Vargas Mfg. Co., Providence, R. I. 434,442, 12(c) pub. 12–18–56. Cl. 28.
Vaughn Machinery Co., The, Cuyahoga Falls, Ohio. 638,750, pub. 10–2–56. Cl. 23.
Verde Fashions, Inc., New York, N. Y. 531,105, canc. Cl. 39.
Vidrio Products Co., Chicago, Ill. 530,831, canc. Cl. 21.
Villanueva, Enrique C., Lima, Peru. 638,913. Cl. 39.
Virco Mfg. Corp., Los Angeles, Calif. 638,621, pub. 10–2–56. Cl. 1.
Virginia-Carolina Chemical Corp., Richmond, Va. 530,845, canc. Cl. 52.
Virginia Plastics & Chemical Co., Inc., Roanoke, Va. 638,764, pub. 10–2–56. Cl. 29.
Wafer Food Co., Seattle, Wash. 638,847, pub. 10–2–56. Cl. 46.
Wagner, Chester, Eaton, Ohio. 638,673, pub. 10–2–56. Cl. 13.
Wagner, Gunther, Hannover, Germany. 638,659, pub. 10–2–56. Cl. 11.
Walker China Co., The, Bedford Heights, Ohio. 638,765, pub. 10–2–56. Cl. 30.
Wallace & Tiernan Inc., Belleville, N. J. 638,643, pub. 10–2–56. Cl. 6.
Wallerstein Co., Inc., New York, N. Y. 531,079, canc. Cl. 6.
Ward Blenkinsop & Co. Ltd., London, England. 530,984, canc. Cl. 6.
Warner Brothers Co., The, Bridgeport, Conn., to Vanity Corset Co., Inc., New York, N. Y. 116,104, ren. 4–3–57. Cl. 39.
Western Clock Co., Peru, to General Time Corp., La Salle, Ill. 114,601, ren. 12–19–56. Cl. 27.
Western Clock Co., Peru, to General Time Corp., La Salle, Ill. 114,602, ren. 12–19–56. Cl. 27.
Western Clock Co., Peru, Ill., to General Time Corp., New York, N. Y. 338,302, ren. 9–1–56. Cl. 27.
Western Clock Co., Peru, to General Time Corp., La Salle, Ill. 340,163, ren. 11–3–56. Cl. 27.
Western Paper Goods Co., The, d. b. a. Specialty Envelope Co. and Superior Envelope Co., Cincinnati, Ohio. 638,788, pub. 10–2–56. Cl. 37.
Wharteby, Harry A., Philadelphia, Pa. 531,107, canc. Cl. 23.
White, Kirk, Chemical Co., Oconomowoc, Wis. 638,637, pub. 10–2–56. Cl. 6.
Whitehall Pharmacal Co., New York, N. Y. 638,729, pub. 10–2–56. Cl. 18.
Wilco Co.: *See*—
Union Oil Co. of California.

Williams, R. C., & Co., Inc., New York, N. Y. 410,879, 12(c) 12–18–56. Cl. 46.
Winworth Co., Inc., The, Delawanna, N. J. 638,622, pub. 10–2–56. Cl. 1.
Wiremold Co., The, Hartford, Conn. 344,675, ren. 3–30–57. Cl. 21.
Wolsey Ltd., Leicester, England. 530,767, canc. Cl. 39.
Wood, C. Wilson, d. b. a. L. K. Mallinckrodt, Baltimore, Md. 374,477, canc. Cl. 37.
Wood, C. Wilson, d. b .a. L. K. Mallinckrodt, to L. K. Mallinckrodt, Inc., Baltimore, Md. 408,792, canc. Cl. 37.
Wood & Hyde Leather Co. Inc., Gloversville, N. Y. 638,615, pub. 10–2–56. Cl. 1.
World Chemical Sales Co., Inc., Jersey City, N. J. 638,882, pub. 10–2–56. Cl. 52.
Wrigley & Co., Philadelphia, Pa., to Wrigley Pharmaceutical Co., Inc., New York, N. Y. 115,832, ren. 3–6–57. Cl. 51.
Wrigley Pharmaceutical Co., Inc.: *See*—
Wrigley & Co.
Wyeth Laboratories Div. of American Home Products, Corp.: *See*—
American Home Products Co.
Wynn Packing Corp., Brooklyn, N. Y. 638,850, pub. 10–2–56. Cl. 46.
Zerell Drug Co.: *See*—
Belber, Samuel.

U. S. GOVERNMENT PRINTING OFFICE: 0——1956

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
December 25, 1956 Volume 713 Number 4

# PATENTS

## NOTICES

### Erratum

All references to Patent No. 2,772,674 to Carl W. Brabender, assignor to Pillsbury Mills, Inc., for Apparatus for Controlling Flowable Solid Materials, appearing in the OFFICIAL GAZETTE of December 4, 1956, should be deleted as the application was withdrawn from issue and the patent was not issued.

### Adjudicated Patents

(D. C. Ind.) Maescher, doing business as Crown Manufacturing Company, Patent No. 2,215,010 (38—8), for pressing apparatus. Claims 4 and 5 *Held* invalid. *Maescher v. Reliance Mfg. Co.*, 144 F. Supp. 574; 110 USPQ 113.

(C. A. Ill.) Cubert Patent No. 2,304,339 (179—107), for microphone. Claims 1, 2, 15, and 16 *Held* not infringed. *Acrex Corp. et al. v. Beltone Hearing Aid Company*, 236 F.2d 644; 110 USPQ 513.

(C. A. Kans.) Mackey Patent No. 2,681,673 (145—116), for drill bit. Claim 1 *Held* invalid. *Black, Mac & Stillman Hardware Co. v. Time Saver Tools Inc.*, 236 F.2d 913; 111 USPQ 6.

### Disclaimers

Re. No. 24,186.—*Biagio Castiglia*, New York, N. Y. WHEEL GAUGE. Patent dated July 24, 1956. Disclaimer filed Nov. 15, 1956, by the assignee, *Wheel Aligning Necessities, Inc.*

Hereby enters this disclaimer to claims 11 and 12 of said patent.

2,611,199.—*William Steiner*, Summit, N. J. TAG. Patent dated Sept. 23, 1952. Disclaimer filed Nov. 19, 1956, by the assignee, *Steffel Seals Corporation*.

Hereby enters this disclaimer to claims 3, 7, 10, 11, 12, 13, 24, and 25 of said patent.

### Patents Available for Licensing or Sale

2,401,107. Adjustable Splint. George Richmond, M. D., 242 Herzl St., Brooklyn 12, N. Y.

2,765,942. Easy Load Boat Trailer. Edward J. Niemeier, 3106 Mount Vernon Ave., Evansville 12, Ind.

2,767,721. Non-Slip Barrette. Mrs. Marian S. Cockley, 401 Avenue N, N. W., Winter Haven, Fla.

2,768,771. Dispenser for Carbonated Beverages. Werner K. Beutel, 2 Bayberry Lane, Rocky Hill, Conn.

2,768,949. Methods for Treating Clogged Underground Sewage Drain Systems (Done Chemically, No Pumping Out). George R. Hewey, 1323 Crafton Ave., Mentone, Calif.

2,770,876. Can Opener Aid. Murray Teitelbaum, 836 Faile St., Bronx 59, N. Y.

2,771,911. Stop Motion for Looms. Charlie W. Holt, P. O. Box 31, Draper, N. C. Correspondence to: Eaton, Bell, Hunt & Seltzer, 904 Johnston Building, Charlotte 2, N. C.

General Electric Company is prepared to grant non-exclusive licenses to domestic manufacturers on reasonable terms under the following 10 patents.

Applications for licenses may be addressed to: General Electric Company, Housewares and Radio Receiver Division, 1285 Boston Ave., Bridgeport 2, Conn.

2,250,979. Timing Device.
2,250,989. Timing Device.
2,250,997. Timing Device.
2,266,100. Attachment for Electric Appliance.
2,281,319. Control Device.
2,317,228. Electric Heater.
2,445,591. Coffee Maker.
2,531,180. Automatic Control for Water Heater.
2,582,084. Guide Bearing and Shaft.
2,588,145. Electric Cooking Appliance.

### Patent Removed From Register

The following patent is hereby withdrawn from the *Register of Patents Available for Licensing or Sale*. It was listed by General Electric Company in the Register section of the OFFICIAL GAZETTE of June 22, 1954.

2,652,532. Electrical Vapor Detector.

### Classification Order No. 267

The following transfer is hereby ordered to take effect on Monday, December 3, 1956:

From Division 46 to Division 38

Class 260, CHEMISTRY, CARBON COMPOUNDS, Subs. 453 through 460.

M. C. ROSA,
Nov. 30, 1956. *Director, Patent Examining Operation.*

### New Applications Received During October 1956

| | |
|---|---|
| Patents | 6,722 |
| Designs | 473 |
| Plants | 9 |
| Reissues | 21 |
| Total | 7,225 |

### Issue

| | |
|---|---|
| Patents | 794—No. 2,774,968 to No. 2,775,761, incl. |
| Designs | 32—No. 179,435 to No. 179,466, incl. |
| Plants | 1—No. 1,542 |
| Reissues | 5—No. 24,258 to No. 24,262, incl. |
| Total | 832 |

# CONDITION OF PATENT APPLICATIONS AS OF OCTOBER 31, 1956

| | |
|---|---|
| Total number of pending applications (excluding Designs) | 217,058 |
| Total number of pending Design applications | 6,321 |
| Total number of applications awaiting action (excluding Designs) | 117,257 |
| Total number of Design applications awaiting action | 2,972 |
| Date of oldest new application | June 27, 1955 |
| Date of oldest amended application | June 18, 1954 |

ROSA, M. C., Director, Patent Examining Operation

| PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS | DIVISIONS |
|---|---|
| I. STONE, I. G., CHEMICAL AND RELATED ARTS | 6, 31, 35, 42, 46, 50, 56, 59, 60, 63, 64. |
| II. STRACHAN, C. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS | 16, 23, 26, 37, 42, 44, 49, 51, 54, 60, 70. |
| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 36, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 8, 20, 29, 33, 36, 40, 41, 52, 66. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 5, 9, 10, 18, 22, 32, 45, 47. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 25, 30, 32, 48, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders | 11- 6-55 | 1- 3-55 |
| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 2- 6-56 | 8- 3-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 3-19-56 | 1-14-55 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 2- 1-56 | 9-10-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates | 2- 6-56 | 7- 5-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-20-55 | 8-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-23-55 | 2-21-56 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 9-23-55 | 1- 5-55 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 2- 1-56 | 9-14-55 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 10-28-55 | 1-20-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Cleaning and Liquid Treatment of Solids | 1- 3-56 | 2-10-55 |
| 12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls | 10-11-55 | 9-16-54 |
| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 1-10-56 | 11-23-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 11-14-55 | 11-16-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 2- 1-56 | 12- 6-54 |
| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 10-19-55 | 9-30-54 |
| 17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 12-15-55 | 1-17-55 |
| 18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices | 12-19-55 | 12- 8-54 |
| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 1- 5-56 | 4-20-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 2-20-56 | 2-10-55 |
| 21. (III) MADER, R. C., Textiles | 1-23-56 | 1-28-55 |
| 22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling | 12-27-55 | 12- 6-54 |
| 23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education | 8-22-55 | 7-16-54 |
| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 2- 9-56 | 2- 2-55 |
| 26. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus | 1- 3-56 | 6- 8-55 |
| 28. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 2- 5-56 | 9- 2-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 2- 1-56 | 3-29-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyors; Fluid Current Conveyors; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-24-55 | 2-21-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 12- 2-55 | 11-25-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 5- 2-56 | 7- 8-55 |



| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 12-23-55 | 11-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 2-15-56 | 8- 1-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 2- 1-56 | 12- 3-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 12-19-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Fluent Material Handling, Filling; Toilet, Kitchen and Table Articles | 12- 9-55 | 2-14-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 11- 2-55 | 10-19-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 11-30-55 | 8-11-55 |
| 39. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Aso, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 3- 1-56 | 10-11-55 |
| 39. (IV) WEIL, L., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-31-56 | 11-10-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 3- 1-56 | 10- 3-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds | 10- 3-55 | 9-16-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 6-27-55 | 11- 3-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilising and Disinfecting (except Wood Treatment Apparatus) | 11- 2-55 | 4- 1-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes | 7-22-55 | 6-16-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 11- 4-55 | 2-18-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 12- 7-55 | 1-12-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 2- 6-56 | 9-13-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 7-20-55 | 9-23-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 11-21-55 | 4- 4-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 1- 6-56 | 11- 3-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 2- 1-56 | 9-13-54 |
| 52. (V) NEFF, P. R., Supports Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 12- 8-55 | 12-24-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 1-20-56 | 5-24-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 12-12-55 | 12- 1-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors | 8-22-55 | 12- 1-54 |
| 56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 1-26-56 | 11-18-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 4-10-56 | 5- 5-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons | 12-14-55 | 4-21-55 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 12-19-55 | 3-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 12-28-55 | 1-24-55 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 2- 6-56 | 3-16-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 2- 6-56 | 8-17-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives; Fats and Metal Containing Carbocyclic or Acyclic Carbon Compounds | 2- 1-56 | 1-12-55 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 2-13-56 | 1- 3-55 |
| 66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics | 12-22-55 | 9- 7-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-26-55 | 2-18-55 |
| 69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators | 1- 3-56 | 8-11-54 |
| 70. (II) BREWRINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 3- 2-56 | 1- 9-56 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 2- 6-56 | 9- 1-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-18-56 | 8- 3-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 1-26-56 | 6-24-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 3- 2-56 | 3- 1-56 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 4- 4-56 | 5- 3-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 3-19-56 | 4-17-56 |

The following divisions have been abolished: 65 and 68

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

| | |
|---|---|
| Patents | Numbers 2,181,858 to 2,185,1[illegible] |
| Plant Patent | Numbers 2[illegible] |

# CONDITION OF PATENT APPLICATIONS AS OF OCTOBER 31, 1956

| | |
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ROSA, M. C., Director, Patent Examining Operation

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| III. YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS | 2, 12, 13, 14, 21, 24, 57, 58, 61, Designs. |
| IV. FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES. | 7, 11, 17, 27, 34, 35, 39, 53, 62. |
| V. HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION | 8, 20, 29, 33, 36, 40, 41, 52, 66. |
| VI. MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS | 1, 4, 5, 9, 10, 18, 22, 28, 45, 47. |
| VII. KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE. | 3, 15, 19, 25, 30, 32, 49, 55, 67. |
| CL. GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS. | I, II, III, IV, V. |

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| 2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers | 2- 6-56 | 8- 3-55 |
| 3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys | 3-19-56 | 1-14-55 |
| 4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Feeding of Indefinite Lengths | 2- 1-56 | 2-10-55 |
| 5. (VI) ROBINSON, C. W., Harvesters; Potato Diggers; Stalk Pullers and Choppers; Stone Gatherers; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates | 2- 6-56 | 7- 5-55 |
| 6. (I) SURLE, H., Carbon Chemistry (part), e. g. Natural Resins, Proteins, Heterocyclic Amides, Amines, General Organic Processes | 7-20-55 | 5-10-55 |
| 7. (IV) GONSALVES, J. E., Optics, Photographic Apparatus | 12-22-55 | 2-21-55 |
| 8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture | 9-23-55 | 1- 5-55 |
| 9. (VI) BRANSON, J. H., Pumps; Fans; Turbines | 2- 1-56 | 2-14-55 |
| 10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making | 10-28-55 | 1-20-55 |
| 11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Cleaning and Liquid Treatment of Solids | 1- 9-56 | 9-10-55 |
| 12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls | 10-11-55 | 9-16-54 |
| 13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning | 1-10-56 | 11-22-54 |
| 14. (III) MANIAN, J. C., Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes | 11-14-55 | 11-16-54 |
| 15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass | 2- 1-56 | 12- 6-54 |
| 16. (II) LOVEWELL, N. N., Television; Telephony; Recorders | 10-19-55 | 9-30-54 |
| 17. (IV) LEIGHEY, R. A., Paper Manufactures; Packaging; Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding; Sheet or Web Feeding | 12-15-55 | 1-17-55 |
| 18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices | 12-19-55 | 12- 8-54 |
| 19. (VII) PATRICK, P. L., Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners | 1- 5-56 | 4-20-55 |
| 20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking | 2-20-56 | 2-10-55 |
| 21. (III) MADER, R. C., Textiles | 1-23-56 | 1-28-55 |
| 22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows; Boring and Drilling | 12-27-55 | 12- 6-54 |
| 23. (II) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education | 8-23-55 | 7-16-54 |
| 24. (III) DRACOPOULOS, P. T. (HICKEY, T. J., acting), Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control | 2- 9-56 | 2- 2-55 |
| 25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus | 1- 3-56 | 8- 8-55 |
| 26. (II) YOUNG, R. R., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanism | 2- 5-56 | 9- 2-55 |
| 27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making | 2- 1-56 | 3-29-55 |
| 28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Chute, Skid, Guide and Way Conveyers; Fluid Current Conveyers; Pressure Modulating Relays; Pneumatic Dispatch; Store Service; Wheel Substitutes | 10-24-55 | 2-21-55 |
| 29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Rubber Tire Removing Tools; Washing Machines; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers | 12- 2-55 | 11-25-55 |
| 30. (VII) O'LEARY, R. A., Refrigeration; Heating Systems; Automatic Temperature and Humidity Regulation, Thermostats, Humidistats; Illuminating Burners; Miscellaneous Heating | 5- 2-56 | 7- 8-55 |



| DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group) | Oldest Application: New | Amended |
|---|---|---|
| 31. (I) HUTCHISON, E. W., Carbon Chemistry (part), e. g. Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons | 12-23-55 | 11-17-55 |
| 32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers | 2-15-56 | 8- 1-55 |
| 33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Building Structures; Roads and Pavements | 2- 1-56 | 12- 3-54 |
| 34. (IV) SAPERSTEIN, S., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements | 12-19-55 | 9-13-54 |
| 35. (IV) BROMLEY, E. D., Dispensing; Fluent Material Handling, Filling; Toilet, Kitchen and Table Articles | 12- 9-55 | 9-14-55 |
| 36. (V) McFADYEN, A. D., Measuring and Testing | 11- 2-55 | 10-19-55 |
| 37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating | 11-30-55 | 5-11-55 |
| 38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Aso, Carbocyclic or Acyclic Compounds (part), e. g. Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols | 2- 1-56 | 10-11-55 |
| 39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows) | 1-31-56 | 11-10-54 |
| 40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages | 2- 1-56 | 10- 2-55 |
| 41. (V) GURLEY, R. B., Coin Controlled Apparatus; Dispensing Cabinets; Coin Handling; Mail, Fare or Other Collection Boxes or Chutes; Buckles, Buttons and Clasps; Racks; Fire Escapes; Ladders; Scaffolds | 10- 3-55 | 9-16-54 |
| 42. (II) MARANS, H., Electric Signaling; Signals and Indicators; Telegraphy; Electrical Connectors | 6-27-55 | 11- 3-54 |
| 43. (I) ARNOLD, D., Medicines, Poisons, Cosmetics; Sugar and Starch; Skins, and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus) | 11- 2-55 | 4- 1-55 |
| 44. (II) EVANS, N. H., Antennas; Automatic Pilots; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes | 7-22-55 | 6-18-54 |
| 45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances | 11- 4-55 | 2-18-55 |
| 46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Surgery (part); Radioactive Medicines; Irradiation Chemistry; Carbon Chemistry (part) | 12- 7-55 | 1-12-55 |
| 47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles | 2- 6-56 | 9-13-55 |
| 48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Spark Plugs and Ignition Systems, Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers | 7-20-55 | 9-23-54 |
| 49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring | 11-21-55 | 4- 4-55 |
| 50. (I) BENGEL, W. G., Carbon Chemistry (part), e. g. Synthetic Resin Compositions, Synthetic Rubber Compositions, Natural Rubber | 1- 6-56 | 11- 3-54 |
| 51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Music | 2- 1-56 | 9-13-54 |
| 52. (V) NEFF, P. R., Supports Joint Packing; Valved Pipe Joints or Couplings; Rod Joints or Couplings; Tool Handle Fastenings; Pipes and Tubular Conduits; Shaft Packing | 12- 8-55 | 12-24-54 |
| 53. (IV) REYNOLDS, E. R., (NINAS, G. A., acting), Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings and Shutters; Harness; Whip Apparatus | 1-20-56 | 5-24-55 |
| 54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g. X-Ray, Ultraviolet, Radioactive) Applications | 12-12-55 | 12- 1-54 |
| 55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Sorting Solids; Centrifugal Bowl Separators; Comminutors | 8-22-55 | 12- 1-54 |
| 56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry | 1-25-56 | 11-18-55 |
| 57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings | 4-10-56 | 5- 5-55 |
| 58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Food Apparatus; Closure Operators; Baths, Closets, Sinks and Spittoons | 12-14-55 | 4-21-55 |
| 59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating | 12-19-55 | 3-24-55 |
| 60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins, Synthetic Rubber; Photographic Processes and Products | 12-28-55 | 1-24-55 |
| 61. (III) MORSE (Miss), E. L., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery | 2- 6-56 | 3-16-55 |
| 62. (IV) SHAPIRO, A., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination | 2- 6-56 | 8-17-55 |
| 63. (I) WINKELSTEIN, A. H., Foods and Beverages; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives; Fats and Metal Containing Carbocyclic or Acyclic Carbon Compounds | 2- 1-56 | 1-12-55 |
| 64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions | 2-13-56 | 1- 3-55 |
| 66. (V) LISANN, I., Geometric Instruments; Automatic Weighing Scales; Acoustics | 12-22-55 | 9- 7-54 |
| 67. (VII) KRAFFT, C. F., Laminated Fabrics; Ornamentation; Bleaching, Dyeing, Fluid Treatment of Textiles | 9-26-55 | 2-18-55 |
| 69. (II) GALVIN, D. J., Wave Guides; Electric Meters; Sound Recording; Conductors; Insulators | 1- 3-56 | 8-11-54 |
| 70. (II) BREWRINK, J. L., Security laws administration. | | |
| CLASS. DIVS. I BAILEY, J. S., Paper Making; Mineral Oils | 3- 2-56 | 1- 9-56 |
| CLASS. DIVS. II LADY, J. E., Oscillators; Amplifiers; Resistances and Rheostats | 2- 6-56 | 9- 1-55 |
| CLASS. DIVS. III WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres | 1-18-56 | 8- 3-55 |
| CLASS. DIVS. IV SMITH (Mrs.), M. P., Harrows and Diggers; Plows; Fluid Sprinkling, Spraying and Diffusing | 1-26-56 | 6-24-55 |
| CLASS. DIVS. V ANGLE, C. D., Liquid Separation or Purification; Sewerage | 3- 2-56 | 3- 1-56 |
| DESIGNS (III) A—MONCURE, J. A. (acting), Industrial Arts | 4- 4-56 | 5- 3-56 |
| DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts | 3-19-56 | 4-17-56 |

The following divisions have been abolished: 65 and 68

## EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1956, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

| | |
|---|---|
| Patents | Numbers 2,181,858 to 2,185,169, inclusive |
| Plant Patent | Numbers 349 to 351, inclusive |

# PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,169,668, H. Freedman, Artificial dental structure, appeal filed Nov. 16, 1956, C. C. A., 4th Cir., Doc. 7353, *Hyman Freedman v. Friedman Dental Supply Co. et al.*

2,190,705, N. A. Christensen, Packing, filed Nov. 14, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33232, *Jo. C. Calhoun Jr. and Esther C. Young, executors of the Estate of Niels A. Christensen, deceased v. General Motors Corp.* Same, Doc. 33233, *Jo. C. Calhoun Jr. et al. v. J. I. Case Co.* Same, Doc. 33234, *Jo. C. Calhoun Jr. et al. v. Ford Motor Co.* Same, Doc. 33235, *Jo. C. Calhoun Jr. et al. v. International Harvester Co.* Same, Doc. 33236, *Jo. C. Calhoun Jr. et al. v. Chrysler Corp.*

2,227,502, Togesen and Fisher, Electrical distribution system, filed Nov. 14, 1956, D. C., E. D. Pa. (Philadelphia), Doc. 21631, *Bulldog Electric Co. v. Keller-Smith Corp.*

2,227,695, Valentine and Peña, Powder puff, and similar article, and means and method of making the same, filed Mar. 1, 1955, D. C., S. D. N. Y., Doc. 99/97, *Victoria-Vogue, Inc. v. Valcourt, Inc.* Patent held not infringed; counterclaim dismissed Nov. 15, 1956.

2,445,222, M. C. Fridolph, Body garment, filed June 1, 1955, D. C., S. D. N. Y., Doc. 101/58, *Sarong, Inc. et al. v. Bifax Foundations, Inc.* Order of discontinuance Nov. 16, 1956.

2,481,065, A. J. Penick, Well head assembly; 2,532,662, Eckel and Jones, Wellhead assembly, filed Feb. 29, 1956, D. C., E. D. Tex. (Beaumont), Doc. 3163, *Oil Center Tool Co. v. Gulf Coast Machine & Supply Co.* Order of dismissal without prejudice (notice Nov. 16, 1956).

2,502,151, R. J. Horclois, Dimethylaminoalkylamino antihistiminic compounds, filed Nov. 20, 1956, D. C., S. D. N. Y., Doc. 114/391, *Merck & Co., Inc. et al. v. Hexagon Laboratories Inc.* Same, D. C. N. J. (Newark), Doc. 907/56, *Merck & Co., Inc. et al. v. Chemo Puro Mfg. Corp.*

2,532,662. (See 2,481,065.)

2,577,975, H. T. Moore, Wood planer, filed Aug. 2, 1956, D. C. Vt. (Burlington), Doc. 2058, *Henry Moore et al. v. Herbert L. Cummings.* Cause discontinued Nov. 8, 1956.

2,606,234. (See Re. 24,017.)

2,606,187. (See 2,618,563.)

2,615,166. (See Re. 24,023.)

2,618,563, H. J. Barnhard, Food container; 2,606,187, G. W. Stiehm, Food packing rack and method of packing food articles, filed Sept. 18, 1953, D. C., E. D. N. Y. (Brooklyn), Doc. 13844, *Peckeese-Sorveese Corp. et al. v. B. M. Reeves Co. Inc.* Case discontinued Nov. 20, 1956.

2,626,905, Antle and Bohn, Method of preventing discoloration of sliced organic materials, appeal filed June 22, 1955, C. C. A., 8th Cir., Doc. 15367, *L. L. Antle & Co., Inc. v. Sno-Spud Co.*

2,672,016, J. Gerbe, Bag distending apparatus, filed Nov. 15, 1956, D. C., E. D. Wis. (Milwaukee), Doc. 56/c/248, *John Gerbe et al. v. American Laundry and Cleaner Supplies, Inc.*

2,688,374. (See Des. 172,649.)

2,690,827, L. E. Carson, Accordion panel closure and bath enclosures using same, filed Jan. 20, 1956, D. C., S. D. Ind. (Indianapolis), Doc. IP 56/c/7, *American Shower Door Co., Inc. v. New Castle Products, Inc.* Stipulation dismissing cause with prejudice Nov. 15, 1956.

2,704,730, H. Glatt, Semi-porous coated cloth and articles made therefrom, filed Nov. 16, 1956, D. C. Md. (Baltimore), Doc. 9278, *Magic Products v. G. C. Murphy Co.*

2,708,695. (See Des. 172,456.)

2,708,654. (See Des. 172,456.)

2,708,187, Schiens and Langdon, Method of and apparatus for digesting sludge, filed Nov. 16, 1956, D. C., W. D. N. Y. (Buffalo), Doc. 7239, *Pacific Flush Tank Co. v. Buffalo Sewer Authority.*

Re. 24,017 (of 2,606,234), J. A. Henricks, Method of coating and drawing metal and composition therefor, filed Nov. 13, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1912, *Devoe Corp. et al. v. General Motors Corp. et al.*

Re. 24,023 (of 2,615,166), J. Schmidinger, Snap action device, filed Nov. 16, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 17076, *Joseph Schmidinger et al. v. Signal-Stat Corp.*

Des. 172,488, C. A. Baratelli, Case for spectacles; 2,706,885, same, Spectacle case and method of making same; 2,736,054, same, Receptacles, filed June 13, 1955, D. C. N. J. (Newark), Doc. 526/55, *American Optical Co. v. The Opticase Co. et al.* Consent judgment; patents held valid and infringed; defendants enjoined Nov. 13, 1956.

Des. 172,649, E. Rodrigues, Expansible link chain for a bracelet; 2,688,374, J. M. Bender, Wrist watch bracelet connector, filed Mar. 12, 1956, D. C., S. D. N. Y., Doc. 107/382, *Jacoby-Bender, Inc. v. Lester Friedman.* Consent judgment; injunction granted Nov. 14, 1956.

Des. 172,122, L. E. Giesen, Tray, filed Nov. 16, 1956, D. C., N. D. Ohio (Cleveland), Doc. 33240, *Mid-West Metallic Products, Inc. v. Banner Metals, Inc.*



# REISSUES

## DECEMBER 25, 1956

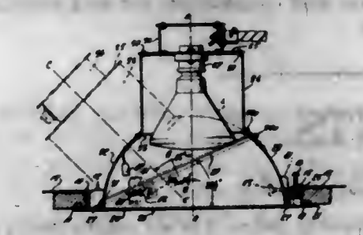
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

### 24,258
### RECESSED LIGHTING EQUIPMENT

David Burliuk, Huntington, and Edward Rambusch, Harrison, N. Y., assignors to Rambusch Decorating Company, New York, N. Y., a corporation of New York

Original No. 2,716,185, dated August 23, 1955, Serial No. 158,026, April 25, 1950. Application for reissue March 7, 1956, Serial No. 570,205

15 Claims. (Cl. 240—78)



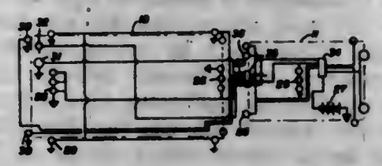
*14. The combination with a projector type incandescent lamp adapted to produce a concentrated light beam, of an overhead, two-part, lamp support, one part being above the other, wholly supported therefrom and directly supporting the lamp in a position to direct light downwardly, means for supporting a lower part for adjustment through substantially 360° about a vertical axis, means for supporting the upper part for adjustment through substantially 360° about an oblique axis making the same angle with the vertical which the beam axis of the light from the lamp makes with the oblique axis, and in a position such that when the beam axis is vertical, it coincides with the vertical axis.*

### 24,259
### COUPLING SYSTEM FOR INTERCHANGEABLY CONNECTING THE WIRING SYSTEMS OF TRUCKS AND TRAILERS

Arthur E. Hunt, Rensselaer, N. Y., assignor to Arthur E. Hunt, George B. Beatty, and Maurice W. Grady as tenants-in-common

Original No. 2,660,679, dated November 24, 1953, Serial No. 275,201, March 6, 1952. Application for reissue November 17, 1955, Serial No. 547,593

9 Claims. (Cl. 307—10)



*8. A switch bank adapted for use on a tractor to facilitate connecting various of the electric lighting circuits of the tractor to the corresponding lighting circuits on a trailer drawn by the tractor; said bank comprising a plurality of selector switches each of which has a plurality of fixed contacts and a movable contact thereon; each movable contact on a switch being adapted to be moved into contact with each of the fixed contacts on said switch to establish an electrical connection therewith; each of said movable contacts being provided with means adapting it to be electrically connected to one of the lighting circuits of a trailer; and each of said fixed contacts being provided with means adapting it to be electrically connected to one of the lighting circuits of the tractor; whereby, when the switches are connected as set forth, the movable contact of each of the switches may be moved by an operator into contact with a selected fixed contact thereon to connect each of the lighting circuits of the tractor with the corresponding lighting circuits of the trailer.*

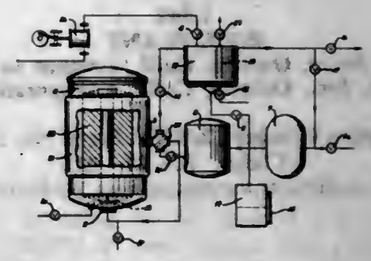
### 24,260
### PROCESS FOR DRYING TEXTILES

Alfred Friedrich Bernhard Thies, Coesfeld, Westphalia, Germany, assignor to Firma B. Thies, Spezialmaschinenfabrik, Coesfeld, Westphalia, Germany

Original No. 2,739,392, dated March 27, 1956, Serial No. 277,100, March 18, 1952. Application for reissue September 11, 1956, Serial No. 609,333

Claims priority, application Germany March 21, 1951

8 Claims. (Cl. 34—15)



1. A process for drying textile materials, comprising, in combination, the steps of passing *under superatmospheric pressure* heated air [under superatmospheric pressure] through a textile material containing moisture so that at least a portion of the moisture contained in said textile material is absorbed by said heated air under superatmospheric pressure *and said heated air leaves said textile material under superatmospheric pressure and containing moisture absorbed from said textile material;* drying said air containing absorbed moisture; reheating said thus dried air; and passing said thus dried and reheated air again through said textile material so that the air for drying said textile material is kept in a closed circuit and maintained substantially dust-free, thus drying said textile material in a substantially dust-free atmosphere.

### 24,261
### ANIMAL FEED AND METHOD FOR MAKING THE SAME

Stanley A. Martin, Deerfield Beach, Fla.

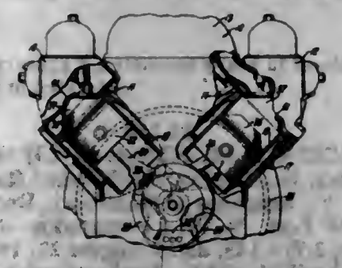
No Drawing. Original No. 2,707,151, dated April 26, 1955, Serial No. 423,523, April 15, 1954. Application for reissue February 23, 1956, Serial No. 567,433

9 Claims. (Cl. 99—6)

1. A process for dehydrating molasses which comprises the steps of mixing molasses with a filler to form a mixture, raising the temperature of said mixture so as to substantially avoid charring of said molasses to between 225° F. and 350° F. for less than about 15 seconds thereby flashing steam therefrom, rapidly cooling said mixture to a temperature below 140° F. and repeating said steps until the moisture content is below about 5% by weight.

**24,262**
**ENGINE MANUFACTURING PROCESS**
**Joseph D. Turley, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware**
**Original No. 2,722,049, dated November 1, 1955, Serial No. 321,348, November 19, 1952. Application for reissue March 1, 1956, Serial No. 568,957**
**10 Claims. (Cl. 29—425)**

1. A process of manufacturing engines of different displacement which comprises constructing identical crankshafts for all of said engines, said crankshafts being statically and dynamically balanced for operation with said engines of smaller displacement *and being statically and dynamically unbalanced for operation with said engines of larger displacement*, constructing flywheels and fan belt pulleys for operation on the rear and front ends of said crankshafts respectively, said flywheels and fan belt pulleys for said engines of smaller displacement being statically and dynamically balanced and said flywheels and fan belt pulleys for said engines of larger displacement being statically and dynamically unbalanced *to the extent necessary to balance said crankshafts for operation with said engines of larger displacement*, and assembling said engines *with the parts thereof in balanced relation and*



with said statically and dynamically balanced flywheels and pulleys on said engines of smaller displacement and with said statically and dynamically unbalanced flywheels and pulleys on said crankshafts for said engines of larger displacement.

# PLANT PATENTS

## GRANTED DECEMBER 25, 1956

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

**1,542**
**ROSE PLANT**
**Herbert C. Swim, Ontario, Calif., assignor to Armstrong Nurseries, Inc., Ontario, Calif., a corporation of California**
**Application October 12, 1955, Serial No. 540,177**
**1 Claim. (Cl. 47—61)**

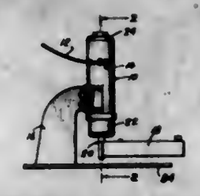
A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its abundant and glossy foliage, the abundance of its blooms throughout the growing season, its habit of bearing blooms on long and strong flowering stems, the strong fragrance of its blooms, and the very dark Red color of its buds and blooms.

# PATENTS

## GRANTED DECEMBER 25, 1956

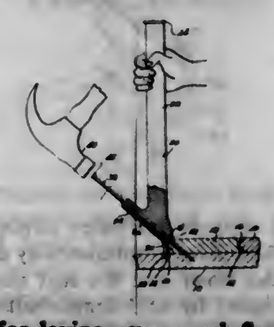
## GENERAL AND MECHANICAL

**2,774,968**
**STAPLING MACHINE**
**Lloyd M. Osborne and Oda J. Garant, Burbank, Calif.**
**Application October 4, 1954, Serial No. 460,061**
**10 Claims. (Cl. 1—44.4)**



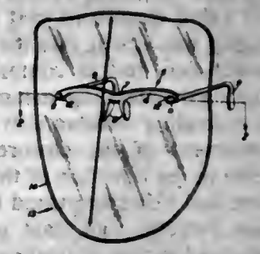
1. A stapling machine comprising an outer casing, a combination cylinder and piston slidable in the outer casing, another piston slidable in the cylindrical piston and a staple driver operated by the second piston, both pistons being pneumatically operated, the second piston being connected to the first piston for automatic disengagement therefrom, said automatic disengaging means including a pair of pins movable in tapered slots in the first piston and an upper extension of the second piston having an annular slot therein to selectively receive the pins.

**2,774,969**
**LAYING TOOL FOR TONGUE AND GROOVED FLOORING**
**Charles R. Sampler, Akron, Ohio**
**Application September 2, 1955, Serial No. 532,339**
**2 Claims. (Cl. 1—47)**



1. In a tool for laying over a sub-flooring a piece of flooring of the type including a longitudinal tongue extending along one side edge of the piece and engageable in a longitudinal groove of a previously laid piece: a wholly rigid member including an elongated, straight handle, a cross head extending normally to the length of the handle adjacent one end thereof and forming at one side of the handle a downwardly facing shoulder lying in a plane substantially normal to said length of the handle for exerting a downward pressure against said tongue, prong means projecting downwardly from the handle below the shoulder and formed as a longitudinal extension of said one side of the handle, the prong means having a tongue-engaging surface at one side of the shoulder lying in a plane substantially perpendicular to that of the shoulder, said prong means being sharpened for engagement in the sub-flooring to provide a fulcrum about which the handle may rock thus to shift the shoulder downwardly against the tongue simultaneously with conjoint, lateral movement both of the prong means and cross head for exerting a pressure in a horizontal direction against the tongue and against said side edge, respectively, of the piece being laid thereby to force said piece against the previously laid piece, and a nail guiding sleeve extending obliquely to the length of the handle and to said plane and opening downwardly at said side of the handle through the shoulder at the other side of the shoulder; and a driving tool element slidably engaged in the sleeve for driving a nail into the tongue of the piece being laid.

**2,774,970**
**FACE SHIELD**
**Rudolf Du Bois, Alliance, N. J.**
**Application December 20, 1954, Serial No. 476,331**
**4 Claims. (Cl. 2—9)**



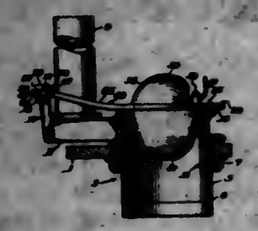
1. A shield of the character described comprising; a frame for mounting on the nose of a wearer, lugs on the end portions of said frame, and a resilient sheet having spaced openings therein for the reception of the lugs for mounting said sheet on the frame, the openings in the sheet being spaced a greater distance apart than the lugs for bowing and tensioning said sheet for frictionally securing the same on said lugs.

**2,774,971**
**KNOT-SIMULATING NECKTIE CLASP**
**Theodore G. Schrade, Nichols, Conn.**
**Application January 3, 1955, Serial No. 479,431**
**7 Claims. (Cl. 2—153)**



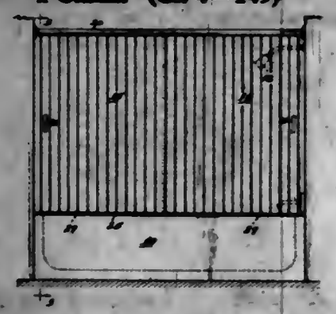
1. A knot-simulating necktie clasp comprising a shell-like body including a generally outwardly convex wall, and a block portion upon the inner side of said body having a substantially horizontal top wall substantially spaced below the upper edge of said body to provide the base of a tie loop receiving pocket above said block portion, the front and sides of which are provided by said body above said block portion, said block portion having a vertically extending tie-end receiving slot, the front wall of said slot having a centrally disposed vertically extending rib projecting rearwardly into said slot, and the rear wall of said slot comprising a pair of spring parts connected at their outer ends to said block portion and spaced apart at their inner ends to provide a central entrance opening to said slot.

2,774,972
**FLAPPER DISCHARGE VALVE FOR FLUSH TANKS**
Axel B. Nelson, Chicago, Edward G. Schmidt, La Grange, and Roy H. Zbikli, Oak Park, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois
Application December 10, 1953, Serial No. 397,456
6 Claims. (Cl. 4—57)



1. In combination with a flush tank or the like having an outlet portion provided with an outlet opening, the latter portion including a seat surface around the opening at the upper end thereof and overflow means in fluid communication with the outlet opening, a valve closure engageable with the seat surface in the closed valve position, said valve closure including extending means, means for attaching said valve closure to said outlet portion of the tank for swinging movement into the open and closed positions, said attachment means comprising post means projecting through said extending means of the closure, said post means extending substantially in the plane of the swinging movement of the closure, said extending means being flexible in the direction of the swinging movement of the closure and being apertured for the projection of the post means therethrough, said post means being provided with enlarged means extending partly over and retaining said extending means of the closure thereon when the closure is in attached relation, said extending means being of elastic material distortable over the enlarged means and onto the post means therebeyond for effecting the attachment of the valve closure.

2,774,973
**SHOWER SHIELD FOR BATHTUB**
Reino Aarnio, River Edge, N. J., assignor to Flat Metal Manufacturing Company, Franklin Park, Ill., a corporation of Illinois
Application February 6, 1951, Serial No. 209,562
1 Claim. (Cl. 4—149)



A shower shield for a bathtub comprising a pair of panels of lightweight, self-supporting plastic material, each panel being of a width corresponding with substantially half the bathtub length, each panel having vertical corrugations that terminate short of the top and bottom panel edges, the uncorrugated top and bottom edge portions of each panel being offset in the same direction from the general plane of the panel, a cooperating upwardly facing channel secured to the top of the front bathtub rim and extending the length of the bathtub, said channel being of a transverse width to receive the bottom edges of said panels with said bottom edges bearing on the channel web and to permit said panels to be moved relative to each other in overlapping relation, the said panels being reversely oriented in said channel so that the respective offset edge portions thereof are adjacent, and means engaging the top edge portions of said panels for maintaining said panels in a generally vertical plane.

2,774,974
**SHOWER CURTAIN ROD ATTACHMENT**
Edwin A. Zalenga, Watertown, Mass.
Application December 23, 1955, Serial No. 555,972
6 Claims. (Cl. 4—156)



1. An accessory for a curtain rod and shower curtain assembly comprising a stretcher member adapted to support said shower curtain in a laterally extended position, said stretcher member including an elongated body portion, means located at one end of the body portion for securing same in a laterally extended position with respect to the said curtain rod, and means secured at the opposite end of the elongated body for supporting a shower curtain thereagainst.

2,774,975
**TOILET ARMREST**
Richard J. Frank, St. Petersburg, Fla., assignor to Winfield Company, Inc., St. Petersburg, Fla.
Application November 20, 1953, Serial No. 393,336
2 Claims. (Cl. 4—254)

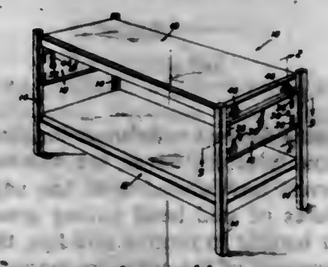


2. An invalid support for toilet bowls including journalled fittings adapted to simultaneously engage the upper surface of a toilet bowl and the seat hinge bolts and to be held to said bowl by said hinge bolts, said fittings in combination with hinging and holding cross members terminating in riser members at the end thereof and at either side of the toilet bowl, said risers joining and supporting substantially horizontal arm rest and hand grip members extending forwardly at the sides of said bowl and raised thereabove and leg members at the front ends of said arm and hand grip members extending downwardly therefrom at either side of the aforesaid bowl to the floor therebeneath to further support the arm and hand grips and to transfer a substantial part of the invalid's weight directly to the floor and thereby relieve the bowl of a substantial part of the vertical and lateral strain.

2,774,976
**DOUBLE BUNK BED CONSTRUCTION**
Eli Ross, Klamath Falls, Oreg., assignor of five percent to Ruth C. Sullivan, Klamath Falls, Oreg.
Application March 31, 1955, Serial No. 498,317
2 Claims. (Cl. 5—9)

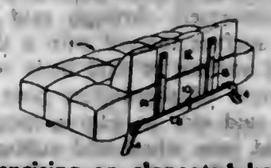
1. A double bunk bed construction comprising a lower mattress supporting member supported at each end by pairs of upwardly extending support legs, an upper mattress support member rotatably supported by said support legs, means connected between said upper mattress support member and said support legs for permitting said upper support member to be rotated downwardly and toward the lower mattress support member, embodying transverse support members connected to the support legs adjacent the opposite ends of the double bunk bed, and pairs of link elements pivotally connected between said upper mattress support member and said transverse support member, said link elements defining a rotary path of the upper mattress support member relative to the lower





mattress support member, said transverse support member including pairs of transversely disposed gear members rotatably mounted on stub shafts extending through said transverse support member, said link elements being secured and rotatable with said stub shafts, chain elements entrained over said gears, compression spring means carried on said transverse support members, and means extending between said chain and compression spring means for compressing said springs when the upper mattress support member is rotated towards said lower mattress support member.

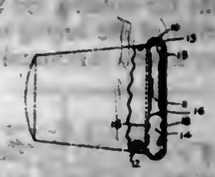
2,774,977
**CONVERTIBLE SOFA**
Henry Mintz, Newton, Mass., assignor to New England Bedding Co., Medford, Mass., a corporation of Massachusetts
Application April 15, 1954, Serial No. 423,317
1 Claim. (Cl. 5—12)



A sofa comprising an elongated body section having front and rear walls, front and rear legs respectively secured to said front and rear walls at points spaced inwardly of their ends, the upper ends of said rear legs having parts extending outwardly to provide notched portions spaced from the outer face of said rear wall, a relatively rigid horizontally extending bar having its opposite ends secured in said notched portions and defining with said rear wall an elongate slot, a spacer block interposed between and secured to the center of said bar and rear wall so as to hold said bar from bowing outwardly and to provide a stop, and a backrest of lesser length than said body section, said backrest having spaced depending supporting members secured to its rear face with their lower end portions projecting into and having a tight sliding fit in said elongate slot, said backrest being slidable lengthwise of the sofa until one of said supporting members contacts said stop.

2,774,978
**CUTTING ATTACHMENT FOR SEWING THIMBLE**
Ernest O. Gribble, Akron, Ohio
Application July 9, 1954, Serial No. 442,319
3 Claims. (Cl. 7—14.5)

1. A thread cutting attachment for a thimble of the type having an integral annular rib adjacent an open end thereof, comprising a split annulus of resilient metal and having inner peripheral portions of cross-sectional shape complementally engageable with said rib of the thimble to affix the annulus to the thimble against longitudinal movement thereon, said annulus having opposed end portions defined by said split thereof, at least one of said



end portions being turned outwardly for receiving a thread between the same and the corresponding rib portion of the thimble, said outwardly turned portion having a sharp edged portion engageable by the thread to cut the same, said annulus being expandible over said rib of the thimble against the resiliency of the material thereof.

2,774,979
**LIFE JACKET**
Harold J. Morse, Trenton, N. J., assignor to Switlik Parachute Company, Inc., Trenton, N. J.
Application July 7, 1954, Serial No. 441,764
5 Claims. (Cl. 9—19)

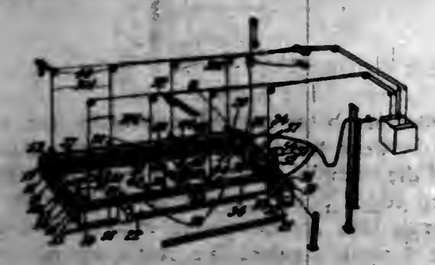


1. A life jacket comprising an inflatable bladder having an elongated curved neck portion and a body portion communicating therewith, a container of compressed gas adapted to be released into said bladder upon the actuation of a movable inflating member, a flexible case having a tubular portion adapted to fit around the wearer's neck and enclosing the deflated and folded neck portion of said bladder and having along substantially the full length of said tubular portion a seam closed by fastener means which are separable by internal pressure, said case also having a chest envelope adjoining the opposite ends of said neck tube and enclosing the deflated and folded body portion of said bladder, a releasable locking means normally holding at least a portion of said case closed, a release member connected to said releasable locking means and to said movable inflating member whereby movement of said release member unlocks said case and releases the compressed gas into said bladder to force said case open.

2,774,980
**APPARATUS FOR CLEANING VEHICLES**
William John Morison, Chelmsford, and Ronald Fortescue Cronin, Hollingbury, Brighton, England; said Cronin assignor to Stratstone Limited, London, England, a British company
Application September 8, 1953, Serial No. 379,034
Claims priority, application Great Britain September 15, 1952
18 Claims. (Cl. 15—21)

1. Apparatus for cleaning vehicles, which apparatus comprises in combination a carrier comprising two horizontally spaced limbs, between which a vehicle may be received for cleaning, one or more cleaning devices carried by each limb, at least one tie member of continuously variable length connecting the two spaced limbs substantially at one pair of corresponding ends thereof, means urging the two spaced limbs towards one another,

whereby the two spaced limbs may be maintained in close relation to the vehicle so that the cleaning devices may act thereon, suspension means for suspending the carrier from a superstructure lying above the top of the vehicle, which suspension means are operable to effect vertical movements of the carrier while the cleaning devices act on the vehicle, holding means for holding the two spaced limbs apart, against the action of the urging means, in relative positions in which they have a maximum distance of sepa-



ration, detector means for detecting the presence of a vehicle between the two spaced limbs, means operated by the detector means to render the holding means inoperative so that the two spaced limbs may adopt a lesser relative distance of separation determined by the vehicle between them, and means for moving the two spaced limbs relatively apart to their said relative positions of maximum separation and for rendering the holding means operative when the carrier moves to a position beyond a vertical extremity of the vehicle.

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**2,774,981**
**FOUNTAIN TOOTH BRUSH**
**Samuel Rodolfo Solis Bonilla, Retalhuleu, Guatemala**
**Application February 15, 1952, Serial No. 271,670**
**1 Claim. (Cl. 15—137)**



A fountain toothbrush which includes a handle having a dentifrice receiving bore opening thereinto through one end thereof, means within the bore and operable from the exterior of the handle for expelling dentifrice from said bore, a neck closing the open end of the bore and having an opening extending longitudinally therethrough, longitudinally spaced internal screw threads carried by the neck and extending thereinto adjacent opposite ends of the opening, a tube carried by the neck for movement longitudinally through one end of said opening, a fountain brush head carried by the tube and extending outwardly therefrom adjacent the end thereof remote from the handle, and screw threads carried by the tube remote from the brush head for longitudinal movement in the opening and selective engagement with the internal screw threads to hold the tube retracted or extended.

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**2,774,982**
**TOOTHBRUSH AND COVER THEREFOR**
**Jack Reed, Detroit, Mich.**
**Application April 8, 1955, Serial No. 500,130**
**1 Claim. (Cl. 15—184)**

A tooth brush and cover comprising: a tooth brush including a handle, a head, and a connecting portion, all formed from a single length of material, with said connecting portion being disposed at an obtuse angle to both the head and the handle; and a cover coextensive in length with the combined lengths of the connecting portion and head, said cover including a top wall of planiform formation, an end wall lying in a plane normal to that of the top wall, side walls lying in planes normal to those of both the top wall and end wall, said end wall closing the cover at one end and the other end of the cover being formed open, the top wall including an extension lying in a plane obtusely related to the plane of the top wall,



said side walls being formed with lower longitudinal edges curved longitudinally of the cover, the side walls including inwardly turned lips formed upon the edges, the opposite side surfaces of said head having grooves curved throughout their lengths to receive said lips, thus to effect application or removal of the cover by movement thereof through an arcuate path about a center common to the lips and grooves, said extension of the top walls, when the lips are fully engaged in the grooves, abutting against the connecting portion, thus to cause the cover and the tooth brush to cooperate in defining a sealed enclosure.

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**2,774,983**
**SCOURING PAD HOLDER**
**Henri L. Crowther, San Leandro, Calif.**
**Application February 25, 1955, Serial No. 490,454**
**4 Claims. (Cl. 15—209)**



1. In a scouring pad holder, the combination of: a body of rubber forming a resilient backing for a scouring pad; gripping means formed by the provision of a hole extending transversely through said rubber body close to the upper surface thereof with a slot communicating through said surface of said body with said hole throughout the length of the latter; jaws provided by opposite edges of said slot to grip a scouring pad extended between said jaws when said rubber body is relaxed after having been flexed to separate said jaws, whereby the tendency of said rubber body to return to its normal condition causes said jaws to grip said scouring pad; and a reinforcing spring embedded in said rubber body, said spring yieldably resisting the separation of said jaws and enhancing the clamping action of said jaws on a scouring pad clamped therebetween thereby preventing accidental removal of said pad from said gripping means.

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**2,774,984**
**LIP STICK AND APPLICATOR**
**Jacque C. Morrell, Chevy Chase, Md.**
**Application June 7, 1956, Serial No. 589,917**
**7 Claims. (Cl. 15—209)**



1. An individual prefabricated lip stick comprising a stiff rod, one end of said rod being covered with a soft porous absorbent material, the said absorbent material being in compact condition and of bulbous shape and being impregnated at least in part with normally semi-solid lip rouge extending inwardly from the outer surface thereof to a substantial depth normally beyond that which would be reached by wiping up said lip rouge



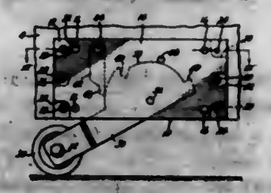
in its normally semi-solid state with said absorbent material, whereby to support and to reduce crumbling of said lip rouge, said absorbent material being adapted to retain said lip rouge over an extended period between impregnation and use and said stiff rod being adapted for use as a handle in the application of said lip rouge.

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**2,774,985**
**WITHDRAWN**

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**2,774,986**
**RETRACTABLE FURNITURE WHEEL**
**Richard Moorehouse, Carthage, Mo., assignor to Flex-O-Lators, Inc., Carthage, Mo., a corporation of Missouri**
**Application April 30, 1954, Serial No. 426,733**
**7 Claims. (Cl. 16—34)**



1. A retractable furniture wheel comprising a body member adapted to be secured to a piece of furniture, an arm pivoted freely adjacent its upper end in said body member and sloping angularly downwardly from its pivotal axis, said arm having an upwardly opening notch formed therein intermediate its ends, a wheel rotatably mounted at the lower end of said arm and resting against the floor by gravity, and a pawl freely pivoted in said body member and normally hanging substantially vertically downwardly by gravity adjacent the arcuate path of said notch, said pawl being provided at its lower end with a finger normally disposed beneath the level of said notch, whereby as said body member is simultaneously elevated and tilted, said pawl finger is brought into alignment with said notch.

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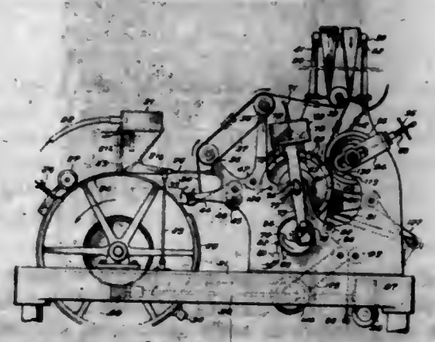
**2,774,987**
**DOOR CLOSING MECHANISM**
**Henrik Ring, Sierra Madre, Calif., and Arlington A. Ferguson, Toledo, Ohio**
**Application February 11, 1953, Serial No. 336,268**
**2 Claims. (Cl. 16—62)**



2. In a door closing mechanism, a casing mounted on the door, a door operating shaft having one end thereof journaled in said casing and the other end extending outwardly therefrom, a gear fixedly mounted on said shaft within said casing, a fluid-containing closed cylinder formed in said casing, a piston mounted for reciprocation within said cylinder, a gear rack connected to said piston and operatively engaged with said gear, said gear rack having oppositely disposed teeth, a second shaft having a gear fixedly mounted thereon, the second gear being operatively engaged with the teeth of said gear rack oppositely disposed from the first-mentioned gear to maintain the gear rack in operative engagement with said first-mentioned gear, compressible means within said cylinder normally urging the piston away from the shafts and against one end of said cylinder, a compound lever having one end thereof pivotally mounted about a fixed point and the other end fixed to the first-mentioned shaft to rotate the same upon opening or closing of the door relative to said fixed point, means for permitting movement of the piston away from said cylinder end upon opening of said door, and means for permitting return movement of the piston toward said cylinder end upon closing of the door.

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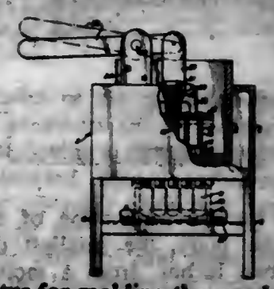
**2,774,988**
**CAPSULE FORMING GELATIN FILM STRIPPING**
**Frank E. Stirn, Pearl River, and Arthur S. Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine**
**Original application March 23, 1948, Serial No. 16,554, now Patent No. 2,663,128, dated December 22, 1953. Divided and this application April 27, 1953, Serial No. 351,168**
**2 Claims. (Cl. 18—15)**



1. An apparatus for the production of soft gelatin strip for capsule manufacture, comprising a continuously moving casting surface, means for casting a continuous gelatin strip thereon, a multibladed counter-rotating paddle wheel adjacent said casting surface at the gelatin strip take-off point and contacting the gelatin strip, means for rotating said paddle wheel at higher peripheral speed than the speed of the casting surface, and strip conveying means drawing the strip away from the paddle wheel, whereby the gelatin strip is repeatedly contacted by the leading edges of the paddles, and thereby pulled free from the casting surface with a minimum of stretching.

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**2,774,989**
**MOLDING APPARATUS**
**Peter Crammond, Ruislip, and John Ernest Denney, Belvedere, England, assignors to Warner-Hudnut, Inc., New York, N. Y., a corporation of Delaware**
**Application March 26, 1953, Serial No. 344,826**
**2 Claims. (Cl. 18—26)**

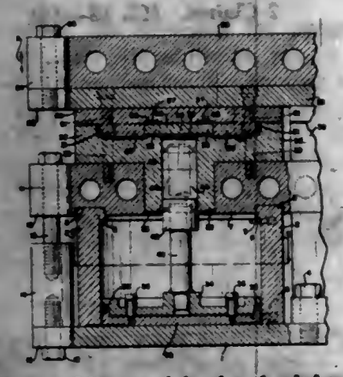


1. Apparatus for molding thermoplastic materials comprising a chamber adapted to contain thermoplastic material in the molten state, said chamber having side walls and a bottom, a heating jacket surrounding said chamber and spaced from said side walls and bottom of said chamber, a plurality of pouring spouts open at each end extending downwardly from the bottom of said chamber and through the bottom of said heating jacket, valves positioned at the upper end of each of said pouring spouts, the upper ends of said pouring spouts comprising valve

seats and said valves comprising plug valves adapted to be seated therein, each of said valves being carried by upwardly extending valve stems slidably supported by a carrier plate disposed in said chamber, said carrier plate slidably supported by upwardly extending guide members, lever means coupled to said carrier plate for raising said plate, spring means for urging said plate to its lowermost position in the chamber, and spring means for urging said valves into engagement with said valve seats.

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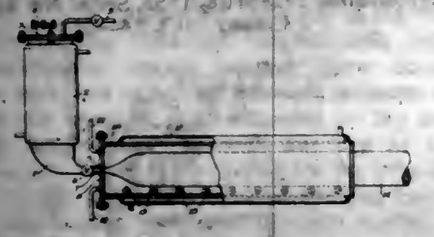
2,774,990
INJECTION MOLDING PRESS
Leslie Edward Soderquist, Akron, Ohio, assignor to The McNeil Machine and Engineering Company, Akron, Ohio, a corporation of Ohio
Application March 28, 1951, Serial No. 218,027
3 Claims. (Cl. 18—30)



1. A press for molding articles by the injection method comprising upper and lower platens movable relatively to one another, complementary mold sections carried on the platens, a chamber to receive a charge of plastic material in communication with the space between the mold sections, a bed plate, releasable means to secure the lower platen to the bed plate, and means to connect the two platens for joint movement when the lower platen is released from the bed plate.

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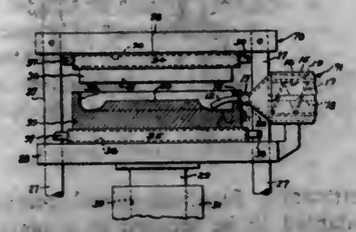
2,774,991
PROCESS FOR MAKING ELONGATED CELLULAR ARTICLES FROM THERMOPLASTIC POLYMERS
John Lloyd McCurdy, New London, Conn., and Chancey E. De Long, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application April 17, 1952, Serial No. 282,744
7 Claims. (Cl. 18—48)



1. In a method for the production of an elongated thermoplastic cellular body, the smallest dimension of which is at least two inches, from a mobile gel comprising a thermoplastic polymer having a normally gaseous agent dissolved therein under pressure, wherein the mobile gel is extruded from a pressurized vessel containing the same at a temperature between 60° and 130° C. into a zone of lower pressure wherein the normally gaseous agent vaporizes and expands the polymer to form a cellular product, the steps which consist in expanding the polymer to form a cellular product in a zone of lower pressure maintained at temperatures between 50° and 150° C. in an open chamber and without restraining contact of the cellular product against inner walls of said chamber and maintaining the cellular product within said open chamber for a time of from 20 seconds to 15 minutes to complete the expansion of the polymer and permit the diffusion of a major proportion of the normally gaseous agent from the cellular product and withdrawing the cellular product from said open chamber.

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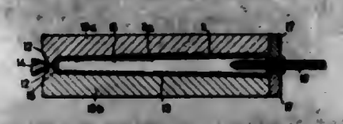
2,774,992
PROCESS OF PRODUCING PEARLESCENT PLASTIC ARTICLES
Edward M. McElligott, Detroit, Mich., assignor to Swedish Crucible Steel Company, Detroit, Mich., a corporation of Michigan
Original application October 4, 1949, Serial No. 119,434, now Patent No. 2,648,098, dated August 11, 1953. Divided and this application August 22, 1951, Serial No. 243,081
1 Claim. (Cl. 18—55)



A process of molding approximately annular plastic articles from synthetic resin compound in an approximately annular mold cavity, comprising reducing the compound to a plastic condition, extruding the plastic compound in the form of a rope directly into the mold cavity grasping the forward end of the extruded rope, maintaining the mold cavity in a substantially stationary position while leading the forward end of the extruded rope and the portion of the rope following thereafter in an approximately annular path around said approximately annular mold cavity at substantially the same speed as the speed at which said rope is being extruded, severing the extruded portion of the rope thus deposited in the mold cavity from the remaining portion of the rope, and compressing the portion of the rope deposited in the mold cavity to fill a predetermined portion of the mold cavity.

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2,774,993
PROCESS FOR MAKING GRIPS FOR HANDLES OF PLIERS AND SIMILAR HANDLES
Reinold Hagen, Hangelar Ueber Siegburg, Rhineland, and Norbert Hagen, Siegburg, Rhineland, Germany
Application December 30, 1952, Serial No. 328,558
2 Claims. (Cl. 18—59)

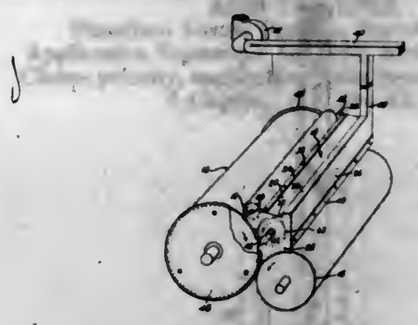


1. Process for covering handles of pliers and other tools, bicycle handlebars, etc. with grips of thermoplastic material, comprising the steps of extruding tubing, feeding same into a sectional mold, closing the mold, thereby pinching off the tube section in the mold from the rest of the tubing and closing the rear end of said tube section, expanding the tube section, while still above the flow point, by interiorly applied pressure to a diameter smaller than that of the handle to be covered, withdrawing the raw grip, allowing the same to cool, reheating same to a temperature to the softening point and below the flow point, introducing the raw grip into another mold, expanding said grip to a diameter greater than that of the handle, cooling the raw grip within said other mold to a temperature below the softening point of the material used, withdrawing the cooled expanded grip from the mold, slipping same over the handle, heating the grip above the softening point, and allowing the grip to shrink to a tight fit.



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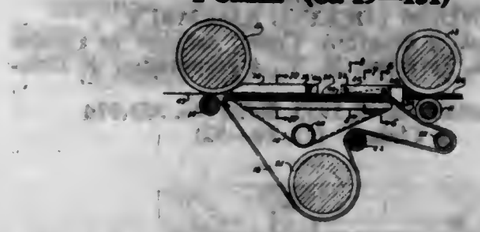
2,774,994
APPARATUS FOR REMOVING FLY
Arthur F. Hayes, Uxbridge, Mass.
Application March 22, 1954, Serial No. 417,732
7 Claims. (Cl. 19—98)



1. Apparatus for collecting and removing fly from a carding machine including a card cylinder, a fancy, a worker and a doffer, which comprises a hood extending over the fancy from the worker to the doffer including end portions extending down over the respective ends of the fancy, said hood thus coacting with the worker, the cylinder and the doffer to provide an enclosure for the fancy, a portion of said hood being adjustable toward and away from the doffer to admit a controlled amount of air into said enclosure from adjacent the doffer, a conduit leading from the hood, and means for reducing the pressure within said conduit to cause air to be drawn into said hood to entrain and exhaust from the hood fly intercepted in and collected by said hood and at the same time to draw into the hood adjacent said doffer sufficient air to prevent the total suction force within said hood from removing stock which is on the worker.

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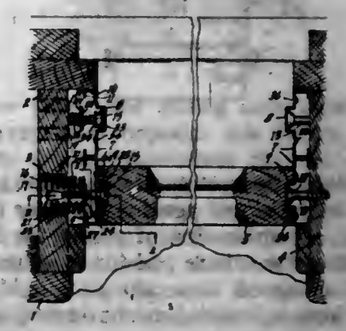
2,774,995
HIGH REDUCTION FIBER DRAFTING
Olle Evald Sandelin, Cleveland, Ohio, assignor to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio
Application October 26, 1951, Serial No. 253,300
1 Claim. (Cl. 19—131)



A sliver control system for subjecting the fibers of a sliver being drafted to the conjoint effect of suction and condensation or compression, comprising in combination a suction box having a top wall with a substantially linear air pervious zone therein, adapted to be mounted in a drafting ratch in advance of draft rolls, a surface member having an air pervious zone therein corresponding to the air pervious zone in the suction box, means for moving such member in the direction of the sliver draft, a substantially rectangular condenser plate resting relatively close to the moving surface member for cooperation therewith in the control of slivers being drawn therebetween, and a substantially rectangular compressor plate resting relatively close to the moving surface member between said condenser plate and the portion of the drafting ratch adjacent to the draft rolls for cooperation with said surface member for the control of slivers being drawn therebetween, said condenser plate being mounted in a relatively fixed position with respect to said surface member and said compressor plate being yieldably mounted to produce a pressure on the sliver in the direction of the surface member normal thereto depending only on the force of gravity of said compressor plate, whereby the compressor effect is substantially independent of the width or thickness of the sliver being drawn therebetween.

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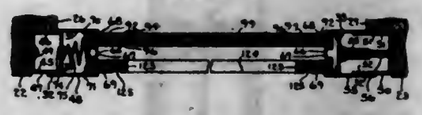
2,774,996
WINDOW CONSTRUCTION
Claude J. Teggelaar, Grand Rapids, Mich., assignor to Grand Rapids Hardware Company, Grand Rapids, Mich.
Application January 16, 1956, Serial No. 559,226
10 Claims. (Cl. 20—12)



5. A window structure comprising a jamb, and a sash slide rail, a base member mounted on said jamb and having outwardly projecting arms terminating in stops, coil springs arranged on said arms and seated on the base member to normally project beyond the ends of said arms, a thrust member provided with inwardly projecting arms disposed in telescoping relation to said arms of said base member and having stops coacting with said stops of said arms on said base member to limit the outward movement of said thrust member, said thrust member being in supported engagement with the outer ends of said springs, and a screw rotatably mounted on said rail and against axial movement relative thereto and having threaded engagement with said thrust member.

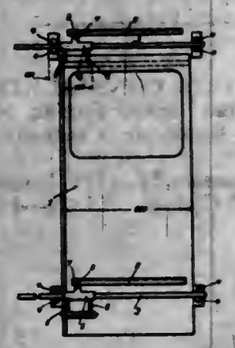
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2,774,997
SASH AND SASH FRAMES
Abe Zitomer, Milwaukee, Wis., assignor to Alumatic Corporation of America, Milwaukee, Wis., a corporation of Wisconsin
Application August 2, 1951, Serial No. 239,866
8 Claims. (Cl. 20—12)



1. In a device of the character described, a subframe having side members of H-shaped cross section, each such member having a transverse web and inwardly and outwardly directed flanges providing inner and outer channels, the inwardly projecting flanges of one of said members being the longer and the outwardly directed flanges of the other of said members being the longer, way-strips fitted longitudinally between the inner flanges of each of said members and provided with guide ribs, the strip being seated against the web of the member wherein the outwardly projecting flanges are the longest, compression spring means seated in the inner channel of the member in which the inwardly directed flanges are the longer, said spring means being in supporting relation to the guide strip in said last mentioned channel, and sash having marginal grooves in bearing engagement with the corresponding ribs of the respective strips.

2,774,998
SLIDING DOORS
Friedrich Wilhelm Klobert, Hellgenhausen, Germany
Application October 24, 1950, Serial No. 191,831
Claims priority, application Germany October 31, 1949
14 Claims. (Cl. 20—24)



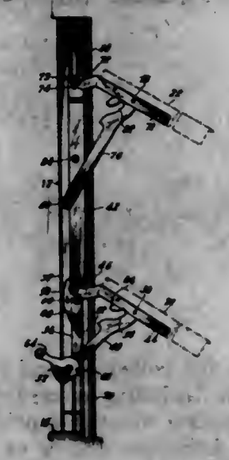
1. In a slidable door structure for wall enclosed vehicles, where in the closed position the door is flush with a vehicle wall, a combination of means for the advance of the door from the vehicle and for the lateral displacement of the advanced door alongside said wall, said means comprising a longitudinal horizontal member for the suspension of the door, said suspension member being displaceably supported inside of said vehicle and extending in the longitudinal direction thereof, rollers fixed in said vehicle for the support of said displaceable suspension member, at least one lever mechanism rotatably supported on said suspension member, said door being suspended from the lower end of said lever mechanism, a cavity enclosing guide rail for said lever mechanism located in the interior of said vehicle and extending parallel with said suspension member.

2,774,999
INSULATED DOOR STRUCTURES FOR REFRIGERATOR TRUCKS
Raymond P. Mansmann, Pittsburgh, Pa.
Application November 19, 1952, Serial No. 321,483
1 Claim. (Cl. 20—35)



In a refrigerator door, a pair of sheet metal members spaced to constitute an inner and outer wall for the door, the outer wall having a lip and flange formed integrally therewith the flange construction having cut out corner portions joined by corner gussets and having corner reinforcing angle members, channels disposed between the lip and the facing extending the width of the door and having hinge and latch reinforcing plates disposed therein and secured thereto, the inner wall having a flange extending in the direction of the flange of the outer wall, angle bars joined to the juxtaposed flanges of the inner and outer wall members constituting spacers and reinforcing for the door, and sheet insulating material secured to the flanges of the inner and outer door facings and connecting angle bars to form a housing for receiving insulating material.

2,775,000
LOCKING MECHANISM FOR AWNING TYPE WINDOWS
George M. Kleinknecht, Ridgewood, N. J., assignor to Woodco Corporation, North Bergen, N. J., a corporation of New Jersey
Application February 28, 1956, Serial No. 568,220
15 Claims. (Cl. 20—42)



1. A window structure of the awning type comprising a window frame channel, a slide bar mounted in said channel for reciprocable movement, a sash bracket pivotally connected to said slide bar, a link pivotally connected at one end to said channel and at the other end to said sash bracket, said link having a locking slot near the end adjacent said sash bracket, a locking bar mounted in said channel for reciprocable movement, a locking stud provided near the upper end of said locking bar for cooperation with said slot, a locking lever connected to the lower end of said locking bar for imparting reciprocable movement to said locking bar, and means normally acting to prevent movement of the locking lever and locking bar to thereby maintain said stud in position to be received within said slot, said means being engaged by said link as the stud is received within the slot to allow movement of the locking lever and locking bar to sash-locking position.

2,775,001
WINDOW LOCKING ASSEMBLY
Donald L. Baker, Branford, Conn., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application May 5, 1953, Serial No. 353,070
3 Claims. (Cl. 20—52)

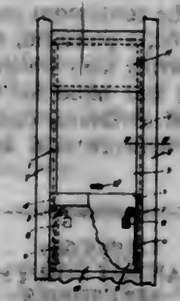


3. A window securing device for preventing relative movement between sashes of a window assembly, one sash of which has been displaced comprising an elongated rod having a hooked end portion adapted to be connected to a sash rail, and a threaded shank portion extending therefrom; a bracket slidably mounted on the shank portion of the rod, said bracket including spaced sash rail engaging portions, laterally offset from the rod



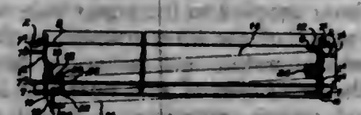
to maintain the latter member substantially parallel to the sashes; and an internally threaded member threadably mounted on the shank to prevent separation of said bracket and rod members.

2,775,002
MOVABLE GLASS PANES FOR WINDOWS, DOORS, AND THE LIKE
Francisco Torras Frudera, Barcelona, Spain
Application September 16, 1953, Serial No. 380,537
Claims priority, application Spain September 25, 1952
5 Claims. (Cl. 20—52.1)



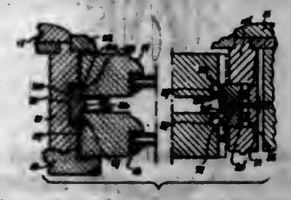
1. In a building structure of the class comprising a window, glazed door or the like which includes a rectangular frame member having a pair of uprights for said door or the like, the provision of means for mounting and operating a movable, unframed glass pane in said frame member which comprises a pair of substantially U-section guides carried by the uprights of said frame member in which said pane is guided by its lateral edges and along which it is adapted to slide, a pair of vertically extending rails abutting against and supporting the lower edge of said pane, a cord attached to the bottom end of each rail, a counterweight on each of said cords, and a grooved pulley over which each cord runs, each of said pulleys being situated in a horizontal plane slightly higher than that occupied by said bottom ends of said rails in the position of maximum opening of said glass pane.

2,775,003
WINDOW WITH REMOVABLE SASH GUIDES
Henry J. Blanco, Baltimore, Md., assignor to The Burch Company, Baltimore, Md., a corporation of Maryland
Application June 30, 1953, Serial No. 365,856
9 Claims. (Cl. 20—52.2)



1. Guide means for a sliding frame comprising: an elongated fixed supporting member having a guide supporting surface and parallel longitudinal fixed flanges disposed perpendicular to said surface and extending along opposite edges thereof; a guide having a wall portion lying against said surface and edge portions engaging said flanges, parallel walls on said guide disposed perpendicular to said wall portion and defining therebetween a trackway of sufficient width to receive therein an edge of a sliding frame, one of said fixed flanges being of substantially less height than the other so that said guide when moved away from said surface into contact with said sliding frame may be moved laterally with said frame and clear said one fixed flange, one of said parallel walls being spaced from the fixed flange of greatest height to provide a second trackway of sufficient width to receive therein an edge of a second sliding frame; and means independent of said sliding frames removably securing said guide to said supporting member.

2,775,004
WINDOW CONSTRUCTION
James D. Fuller, Seattle, Wash.
Application November 30, 1953, Serial No. 395,820
1 Claim. (Cl. 20—52.2)



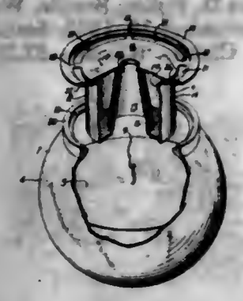
A window frame and sliding sash combination comprising a frame with opposite side jambs, each formed on its inside with a longitudinal channel, parting strips fitted in said channels, each formed along its opposite longitudinal edges with projecting ribs, an upper and a lower sash contained in the frame for up and down adjustment between the jambs, each sash having longitudinal channels in the outer faces of its side rails containing corresponding ribs of the opposite parting strips therein to mount and guide the sash in its adjustment, one of said strips being adjustable into and from its jamb channel to seat its ribs in the sash channels or to disengage them from the sash for removal of the sash from the frame, said adjustable parting strip having parallel longitudinal channels formed in its inner face, bowed leaf springs arranged along the parallel channels with their ends seated against the bases of the jamb channel in which the strip is contained, and their central portions contained in the parallel channels and bearing against the strip to urge it outwardly, and adjusting screws arranged along the strip, and passing therethrough between the channels and through the jamb and nuts fixed in the jamb and into which the screws are threaded for adjustment of the parting strip.

2,775,005
STERILIZING DEVICES FOR HYPODERMIC NEEDLES AND/OR SYRINGES
Milton B. Weinberger, White Plains, N. Y., assignor to Hospital Equipment Corporation, New York, N. Y., a corporation of New York
Application October 28, 1953, Serial No. 388,902
1 Claim. (Cl. 21—82)



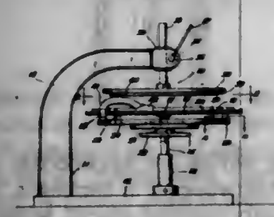
In a sterilizing device for hypodermic needles and/or syringes, the combination of a container, a cover for the container, a support member placed within the container below the cover comprising a relatively thin disk and a plurality of spaced legs resting on the base of the container, and disk containing a plurality of spaced relatively long tapered eyelets placed in circular relation about the center of the disk and a plurality of spaced openings of an area larger than the area of the eyelets peripherally of the disk, the disk being thin with respect to the length of the eyelets, said eyelets and said openings serving to receive instruments to be sterilized and to hold the same in a substantially vertical position during the sterilizing operation.

**2,775,006**
**VAPORIZING APPARATUS**
Casimir Kranc, Oshkosh, Wis., assignor to Victrylite Candle Company, Oshkosh, Wis., a corporation of Wisconsin
Application March 5, 1953, Serial No. 340,431
1 Claim. (Cl. 21—117)



A vaporizing vessel of the type which is adapted to be placed within the mouth of a jar containing a candle, to be heated by the flame of the candle to effect vaporization of insecticide, perfume, medicament or the like in said vessel, comprising: an annular trough-like container adapted to contain vaporizable material, the inner wall of said container defining an upright flue through which hot gases from the flame of the candle may travel upwardly, and the bottom wall of the container being annular; a substantially flat annular cover on said container having apertures therein through which vaporized material from the vessel may be expelled to the atmosphere; a plurality of circumferentially spaced radial supporting arms integral with the cover and extending radially outwardly therefrom, said arms having portions at their outer ends engageable with an upwardly facing ledge on a jar containing a candle to support the cover in the mouth of the jar; and downwardly and radially inwardly curled portions on the periphery of the cover, between said arms, engaged under radially outwardly projecting bead portions on the top of the outer wall of the container to secure the cover to the container and support the container in the mouth of the jar with its outer wall spaced from the wall of the jar to enable a down draft of combustion air to flow to the flame of the candle.

**2,775,007**
**MOLD ASSEMBLY DEVICE**
Samuel G. Johnson, Jr., North Riverside, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application April 11, 1955, Serial No. 500,573
12 Claims. (Cl. 22—37)



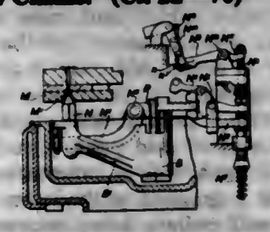
10. A mold assembly device for positioning mold sections comprising; a support, a platform on said support, locating means on said platform, a plate movably disposed beneath said platform, means adapted to vertically move said plate relative to said platform, and a plurality of circumferentially spaced spacer members positioned on said plate, said spacer members being movable with said plate to a position above said platform for engaging and circumferentially spacing mold sections on said platform.

**2,775,008**
**MOLD MOUNTING FOR CONTINUOUS CASTING**
Rufus Easton, Schenectady, and Thomas Yates Wilson, Albany, N. Y., assignors to Continuous Metalcast Co., Inc., Wilmington, Del., a corporation of Delaware
Application April 2, 1953, Serial No. 346,302
2 Claims. (Cl. 22—57.2)



1. Apparatus for the continuous casting of metal, comprising, a casting mold, a platform, means including two pairs of trunnions having axes which intersect at a right angle for supporting said mold for universal movement on said platform, and a vibrator connected to said mold at a point midway between said axes and below said axes.

**2,775,009**
**PUMP MECHANISM FOR TYPE CASTING MACHINES**
Edward Charles Meldrum, Redhill, and Alfred Edward Roper, Morden, England, assignors to The Monotype Corporation Limited, London, England, a British corporation
Application August 14, 1953, Serial No. 374,386
Claims priority, application Great Britain May 26, 1953
4 Claims. (Cl. 22—70)



1. In a pump-operating mechanism for individual-type casting machines, a pump body, a nozzle thereon, a piston operable in said body, pump body elevating means comprising rockable levers supporting said pump body and a spring acting on said levers to elevate said body to bring said nozzle to an operating position, piston operating means comprising two levers linked together intermediate their ends and coupled one to said pump body and the other to said pump piston, driving means operative on said linked levers to move said levers in unison, an abutment connected to said lever coupled to the pump body and a stop arranged to engage said abutment and arrest said lever coupled to the pump body whereby continued movement of the lever coupled to the pump piston operates said piston, and means for temporarily interrupting the movement of said nozzle to the operating position, said means comprising a detent operative on said pump elevating levers to prevent operation thereof, and an abutment on said driving means arranged to release said detent at a predetermined point in the cycle of operations of said driving means, whereby said pump elevating levers are given an accelerated movement by the spring acting thereon to accelerate the nozzle to the operating position.

**2,775,010**
**PANEL FASTENING DEVICE**
William A. Bedford, Jr., North Scituate, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application August 23, 1954, Serial No. 451,429
3 Claims. (Cl. 24—73)

1. A panel fastener for securing a panel to a sheet metal support having a slot formed therein, said fastener

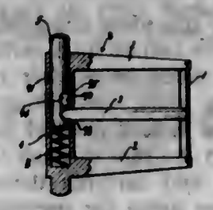


comprising a base having a panel engaging means associated therewith and a stud extending from one end of the base substantially perpendicular thereto, said stud comprising a flat portion having a longitudinal slot disposed therein and extending into the adjacent portion



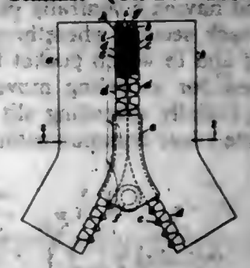
of the base, and a flexible snap fastener member joined to the flat portion at the end of the slot and to the base at the other end of the slot, said snap fastener member having an upper portion bowed outwardly to provide a snap shoulder and a lower portion curving gradually into the plane of the base.

**2,775,011**
**BELT BUCKLE**
Roland Beuchat and Samuel Junod, Geneva, Switzerland
Application December 20, 1951, Serial No. 262,528
4 Claims. (Cl. 24—178)



4. A buckle which comprises a longitudinally extending frame, said frame having a first lateral arm which has an interior space which communicates with the exterior of said first lateral arm, said frame also having a lateral pivot arm mounted thereon and longitudinally spaced from said first lateral arm, said first lateral arm having a transversely extending, through-and-through opening in the side thereof which is proximate to said pivot arm, a prong mounted on said pivot arm for pivotal movement about the axis thereof, said opening being shaped and located so that when said opening is unobstructed the tip of said prong can be swung through said opening between a first position in which said tip is located transversely above said first lateral arm and a second position in which said tip is located transversely below said first lateral arm, a detent rod movably mounted within the interior of said first lateral arm, said rod having a detent recess extending transversely through the side thereof, said detent recess having a lateral cam surface, a spring mounted within said interior space and engaging said rod so as to normally hold same in a blocking position in which said rod obstructs the upper portion of said opening so as to prevent free movement of said prong tip from said first position to said second position, said detent recess being also then positioned so that said cam surface is in registration with the lower portion of said opening, said tip being adapted to bear against said cam surface in movement of said tip from its second position toward its first position and being thereby adapted to cooperate with said cam surface to force said rod into an unblocking position in which the upper portion of said detent recess is in registration with said opening, so as to permit said tip to complete its movement to its first position, said rod having an extension which protrudes outwardly of said first lateral arm and which is manually movable against the action of said spring so as also to move said rod into its unblocking position.

**2,775,012**
**SLIDE FASTENER**
Friedrich Mulka, Wewelsburg, near Paderborn, Germany
Application December 13, 1950, Serial No. 200,663
Claims priority, application Germany December 13, 1949
15 Claims. (Cl. 24—205.1)



1. A slide fastener, comprising, in combination, a pair of opposed stringer tapes, each being formed with a longitudinal fold; a row of fastening elements associated with each of said stringer tapes, each element having a locking portion adapted to cooperate with the locking portion of an opposed element and an attaching portion located within the fold of the tape; a row of clamping elements associated with each of said stringer tapes, each clamping element corresponding to one fastening element and embracing the outside of a fold in that region thereof where the attaching portion of the corresponding fastening element is located within the fold, firmly clamping the fold to said portion of the elements; and a slider cooperating with said fastening elements for connecting and disconnecting the fastening portions thereof and thereby closing and opening the slide fastener.

**2,775,013**
**PIVOTED CLAMP**
Edelmira Pedrero, New York, N. Y.
Application May 20, 1953, Serial No. 356,210
1 Claim. (Cl. 24—248)

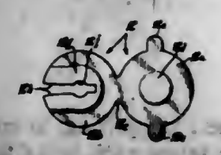


A clasp comprising a base plate having an integral curved keeper portion at one end thereof, opposed parallel ears at the other end, said ears each having a continuous slot with upper and lower parallel horizontal sections and a connecting section at one end thereof, a clamping bar having hinge pins at one end thereof slidably and hingedly mounted in said connected slots for pivoting the bar at selected distances from the base plate, the other end of said bar being curved and adapted to frictionally engage the curved keeper on the base plate to hold the clamping bar releasably in closed position, said horizontal slots sections having notches offset from each other for receiving the pins and holding the clamping bar in adjusted position, and spaced corrugations on the opposed surfaces of the base plate and clamping bar, extending the widths of said surfaces, said corrugations being disposed in staggered relation, for securing the overlapped ends of a belt.

**2,775,014**
**CUSHIONING ACCESSORY FOR EARRINGS**
William Gollobin, Beechhurst, N. Y., assignor of fifty percent to Leonard Lawrence, Kew Gardens, and fifty percent to Gollobin Dental Company, Inc., New York, N. Y., a corporation of New York
Application August 5, 1953, Serial No. 372,534
2 Claims. (Cl. 24—263)

1. A cushioning accessory attachment for a conventional type earring having an adjustable ear lobe clamp-

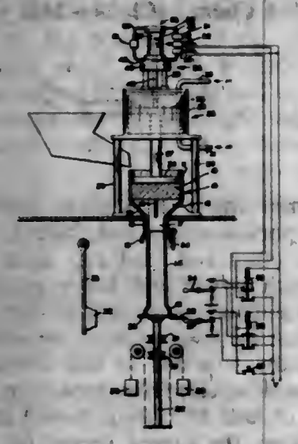
ing screw terminating in a pressure head comprising, a one-piece sheet metal anchorage formed with front and back sections interconnected by an integral portion folded to bring said sections in overlying mating relation forming a pocket therebetween with their peripheral portions in engagement and having a centrally positioned through-opening in said back section wherethrough said opening the screw extends and in which pocket the pressure head is loosely confined for swiveling movement, said back section having a radially extending slit formed with inwardly tapered side edges communicating with said open-



ing, portions of the said side edges adjoining the opening being spaced apart a distance less than the diameter of the clamping screw to provide a restriction means requiring pressure force for springing the clamping screw from the slideway into said opening and from the latter out into the slideway for attachment and removal, a resilient cushioning pad secured to said front section positioned to be compressed on clamp fastening to the wearer's ear lobe, and bent tabs extending from the periphery of at least one of said sections embracing the other section to retain mating relating of said sections in close contact along the periphery edges thereof.

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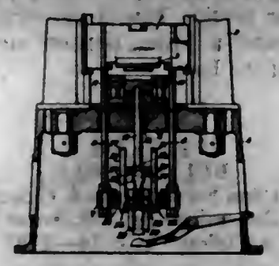
**2,775,015**
**CONTROL APPARATUS FOR EXTRUSION PRESSES AND THE LIKE**
**Clarence F. Erb, Youngstown, Ohio**
**Application May 20, 1952, Serial No. 288,888**
**4 Claims. (Cl. 25—16)**



1. In combination with an extrusion press of the type having a ram, a main fluid cylinder actuator adapted for operation by a compressible fluid, said main actuator having a movable piston member, and rigid means connecting said ram with said piston member; a hydraulic actuator having a piston and a cylinder one of which is a fixed member and the other of which is a movable member, means mounting said fixed member in rigid relation to said main actuator, means interconnecting said piston member and said movable member whereby movement of said piston member in a predetermined extruding direction causes related movement of said movable member relative to said fixed member, conduit means communicating with and forming a closed circuit between opposite ends of said cylinder, fast acting valve means in said conduit means for preventing the flow of fluid from one end to the other of said cylinder whereby to quickly stop the movement of said piston in said cylinder, a second conduit member communicating with opposite ends of said cylinder, and a check valve in said conduit means oriented therein in such a manner that when said ram and movable member move in said predetermined direction fluid in said cylinder is caused to circulate through said valve means and when said movable member moves in an opposite direction fluid in said cylinder may circulate from one end to the other of said cylinder through said check valve independently of said valve means.

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**2,775,016**
**AUTOMATIC TILE PRESSES**
**Franz Dubois and Felix Engmann, Aachen, Germany, assignors to Dubois & Co., Aachen, Germany, a firm**
**Application December 29, 1952, Serial No. 328,462**
**Claims priority, application Germany December 29, 1951**
**3 Claims. (Cl. 25—42)**



1. An automatic tile press comprising in combination a mold, an upper die carried by a vertically reciprocating ram, a lower die seated on a lifter rod, a horizontally reciprocating filling slide, and lifting elements for the lifter rod, a pair of spaced parallel tie rods fastened to and extending from the ram through the press table into the press pedestal and carrying therein a cross beam, means on this cross beam for operating the lifting elements of the lifter rod and a vertical tooth rack on the cross beam in operative engagement with a toothed gearing adapted to actuate rocking levers connected with the filling slide for imparting the required horizontal reciprocating movement to the same; said lifting elements for the lifter rod including an upper and lower pair of tilting levers which are jointly and pivotally mounted on a single fulcrum member arranged parallel to the said cross beam, the upper pair of levers being provided with cam faces which are in contact with rollers that are mounted on the cross beam and constitute the driving element for the said levers, and the lower pair of levers engaging a vertically adjustable driver mounted on the lifter rod, said pairs of tilting levers being in engagement on their pivot pins by means of clutches, with the upper levers being slidable on the pivot pins in an axial direction, and the cross beam being provided with a vertically adjustable wedge which is adapted to cooperate with rollers on the levers of the upper pair for forcing these levers apart when the lifter rod with the lower die is in its top position and thereby disengage the clutches between the upper and lower levers and release the latter from their lifter rod supporting position.

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**2,775,017**
**CONCRETE FORM STRUCTURE**
**Paul F. McDonough, Dorchester, Mass.**
**Application February 20, 1953, Serial No. 337,964**
**1 Claim. (Cl. 25—118)**

Concrete form structure providing, in the concrete moulded in the form, a conduit having an outlet which has a screw threaded coupling terminating substantially flush with the finished concrete face moulded by said form, said form structure comprising, in combination, a form panel for moulding the concrete face, a conduit on the side of the panel on which the concrete is moulded, said conduit having an exteriorly threaded end portion



approaching substantially normal to the panel, a unitary attachment for said threaded end portion, said attachment having an outwardly flared portion forming a flange having a flat face and an interior threaded passage extending from one end of the attachment to the other, said flat face extending radially inwardly from the outer periphery of the flange to said passage, and part of



which passage engages said threaded end portion and another part of which passage is arranged to receive a threaded conduit extension when the panel is removed from the said concrete face, said flat face portion abutting the panel and thereby being positioned flush with the concrete face formed by the panel, and means in said flange for securing the said attachment to the panel.

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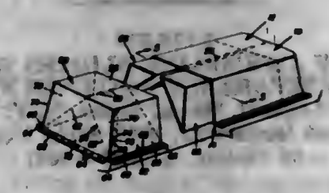
**2,775,018**
**CONCRETE SPACER TIE ROD**
**James A. McLaughlin, Lafayette, Calif.**
**Application April 16, 1953, Serial No. 349,194**
**2 Claims. (Cl. 25—131)**



1. A device for spacing a pair of panels for forming a concrete wall, comprising a rod arranged to extend between and through said panels, washers mounted on said members and arranged for positioning at the inner sides of said panels whereby the washers will be at least partially embedded in the concrete, each washer having an axial opening therein through which the rod is extended and being larger than the rod whereby the rod may be rotated in the opening relative to the washer, and stops on the rod at each side of the washers and spaced apart sufficiently to permit free rotation of the rod relative to the washers.

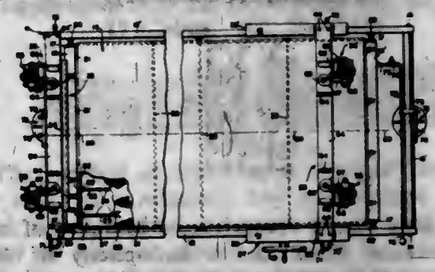
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**2,775,019**
**DISPOSABLE CARDBOARD PAN, END FORMS, AND INSERTS**
**Thomas F. Bonis, Plainville, Kans.**
**Application February 2, 1953, Serial No. 334,531**
**4 Claims. (Cl. 25—131.5)**



1. A disposable concrete form comprising a plurality of pans, each of said pans comprising an elongated channel-shaped member including a web and spaced flanges, a reinforcing member disposed within said channel-shaped member and bracing said flanges relative to said web, said reinforcing member being generally V-shaped and forming in combination with said web and flanges triangular tubular sleeve-like spaces, triangular cross sectional inserts disposed in ends of said sleeve-like spaces joining adjacent pans together.

**2,775,020**
**CONDITIONING APPARATUS FOR WOVEN FABRIC AND THE LIKE**
**John T. Boyes, Quincy, Ill.**
**Application May 26, 1953, Serial No. 357,523**
**12 Claims. (Cl. 26—68)**



1. In a device for conditioning fabric material comprising a frame, carrying means for supporting fabric material on said frame in position for exposure to a fabric conditioning medium, said carrying means including fabric clamping means on said frame, at one end thereof, for gripping fabric to be conditioned, a carriage shiftable on said frame toward and away from said clamping means, a fabric clamp on said carriage for clampingly gripping the fabric to be conditioned, fluid operated clamp actuating means on said carriage, including conduit and control valve means for supplying fluid under pressure for the operation of said actuating means, means for shifting said carriage on said frame to stretch said material between said fabric clamp and said clamping means during exposure thereof to the conditioning medium, and means operable to dry out the material after exposure thereof to said medium.

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**2,775,021**
**BURIAL CASKET**
**George J. Bourgraf, Mack, Ohio**
**Application March 25, 1954, Serial No. 418,563**
**1 Claim. (Cl. 27—6)**



A burial casket which comprises an elongated substantially rectangular base plate, downturned supporting walls along the sides of the base plate to support the base plate above a supporting surface, an upwardly extending side plate attached to the base plate parallel to and spaced inwardly of each of the lengthwise sides of the base plate, there being a corpse-receiving space between the side plates, the side plates being of substantially equal height and terminating short of the ends of the base plates, the portion of the upper face of the base plate outboard of the side plates being unobstructed, said unobstructed portion extending completely around the upper face of the base plate, a hollow cover for the base plate, said hollow cover comprising a top portion, and side and end walls for encasing the corpse-receiving space, inwardly projecting flanges on the side and end walls for overlying the unobstructed portion of the base plate outboard of the side plates, said side walls extending below the flanges and downwardly along the opposite sides of the base plate, a resilient gasket attached to the under side of the flanges, the flanges and gasket overlying said unobstructed portion of the base plate, and latches linking the end walls of the cover with the ends of the base plate to draw the cover downwardly on the base plate, the gasket being compressed between the flanges and said unobstructed portion of the base plate.

2,775,022
**SILICEOUS STRAND**
Archibald H. Davis, Silver Spring, Md.
Original application October 23, 1950, Serial No. 191,595. Divided and this application May 18, 1953, Serial No. 355,657
3 Claims. (Cl. 28—81)



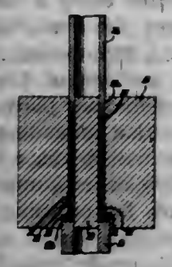
1. A flexible strand comprising a plurality of aligned parallel siliceous fibers and a multiplicity of discrete organic plastic elements distributed within and throughout the strand, each of said plastic elements being adherent to a plurality of fibers and said elements maintaining the fibers in spaced relationship and transferring stress from fiber to fiber.

2,775,023
**MANUFACTURE OF SMALL RECTIFIER CELLS**
Lizzie K. Hedding, Wilkinsburg, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application May 21, 1952, Serial No. 289,073
2 Claims. (Cl. 29—25.3)



1. The method of manufacturing selenium rectifier cells comprising the steps of providing a layer of selenium in its crystalline state on a base plate, removing the selenium layer from regions surrounding predetermined areas of the layer, filling in the regions where the selenium layer was removed with an insulating compound resistant to moisture, forming a barrier layer on said selenium layer, applying a counterelectrode layer to the selenium layer and the insulating compound, electroforming the selenium layer, and then subdividing the base plate in the regions filled with the insulating compound to produce a plurality of individual rectifier cells.

2,775,024
**POWDER METAL MULTI-RING BUSHING**
Reed E. Seal, Lakewood, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application May 29, 1953, Serial No. 358,231
3 Claims. (Cl. 29—182.2)



1. A wear resisting and self lubricating valve stem guide comprising a superimposed stack of bands of sintered compacts of wear resistant metal powder alternated with sintered compacts of a mixture of wear resistant metal powder and discrete particles of a solid lubricant, the alternating compacts being bonded together into a self sustaining guide by autogenous bonds between the adjoining compacts.

2,775,025
**SELF-ADJUSTING CAM BEARING OR BUSHING KNOCKER AND INSTALLER**
Ollie Dee Williams, Kress, Tex.
Application February 25, 1952, Serial No. 273,314
1 Claim. (Cl. 29—275)



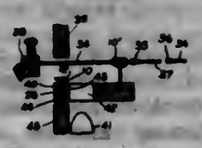
A bushing knocker and installer comprising an elongated shaft having a threaded outer end, a shoulder affixed to said shaft in spaced relation to said outer end, a handle removably mounted on the inner end of said shaft, an inner plate surrounding said shaft and abutting said shoulder, an outer plate surrounding said shaft adjacent the outer end thereof, said plates each having a plurality of radially extending slots, a plurality of mandrel-forming segments each provided with a bushing-engaging rib adjacent the inner end plate, a pintle extending from each end of each segment and receivable in one of said slots, a compression spring interposed between each adjacent pair of segments, a guide pin affixed to each segment, each segment having an opening therein receiving the pin of an adjacent segment, and a nut threaded upon the outer end of said shaft and abutting said outer plate.

2,775,026
**METHOD FOR AUTOMATIC SCREW MACHINE OPERATIONS**
Clarence O. Schrader, Lake Tahoe, Calif., assignor of one-half to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware
Application April 26, 1954, Serial No. 425,570
6 Claims. (Cl. 29—406)



1. A method of making articles having oppositely directed countersunk ends from bar stock on a single automatic screw machine comprising: moving bar stock axially in one direction; moving a previously cutoff, partly worked part axially in the opposite direction but in alignment with said bar stock; infeeding boring tools into the path of travel of said bar stock and partly worked part to counterbore the forward end of the bar stock and simultaneously counterbore the reverse end of the previously cutoff partly worked part; recoiling the bar stock and outfeeding the boring tools, said boring tools laterally moving the countersunk previously cut part therewith.

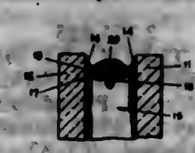
2,775,027
**METHOD OF ASSEMBLING SLIDERS WITH PULLS AND WITH SEPARABLE FASTENER STRINGERS**
Louis H. Morin, Bronx, N. Y.
Application January 22, 1953, Serial No. 332,633
10 Claims. (Cl. 29—408)



1. The method of assembling a slider and pull for separable fastener stringers comprising inserting a pivot portion of a pull between a pair of parallel walls of a slider blank, said slider blank comprising said pair of parallel walls connected together by a compressible web, said web being of such a height as to space said walls apart a distance greater than the thickness of the pivot portion of the pull, one of said walls having a recess extending transversely thereof and opening through the inner surface thereof, moving the pivot portion of the pull into said recess, then reducing the distance between said walls to a distance less than the thickness of said pivot portion by compressing the web of said blank to deform the same and to move the slider walls towards each other while maintaining them parallel, said walls being thereby moved into stringer-controlling position to enable said slider to couple and uncouple a pair of stringers.



2,775,028
**METHOD OF SEALING MULTIPLE SHEET GLAZING UNITS**
Roy W. Wampler, Toledo, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application August 23, 1952, Serial No. 305,945
3 Claims. (Cl. 29—455)



1. The method of establishing pressure equilibrium between the internal areas and external areas of a hermetically sealed multiple sheet glazing unit to accommodate for changes in pressure externally of the unit, comprising hermetically sealing spaced sheets of glass together so as to enclose an insulating medium in the space between the sheets at a pressure substantially equal to the pressure existing externally of the unit, then upon a change in external pressure on the unit, venting the hermetically sealed space between said sheets to the atmosphere existing externally of the unit to allow the pressure within said space to at least approximately assume that of the external pressure, and subsequently sealing said vent to again hermetically seal said space between said sheets at a pressure substantially equal to that then existing externally of the unit.

2,775,029
**METHOD OF MAKING COMPOSITE METAL BODIES**
Arthur S. Bennett, Pittsburgh, and Donald B. Williams, Canonsburg, Pa.
Application March 2, 1951, Serial No. 213,512
3 Claims. (Cl. 29—474.3)



1. The method of making composite metal tubing which comprises placing a relatively thin copper tube inside of a steel tube with the outer dimension of the copper tube of substantially the dimension of the inner diameter of the steel tube, flaring the ends of the copper tube to cause it to seal the space between said tubes, placing end caps on the steel tube, one of which is connected to a source of gaseous pressure, charging said copper tube with a compressed fluid of a pressure sufficient to deform the copper tube outwardly and placing the assembled tube structure in a heating furnace to heat the same to a bonding temperature below the melting temperature of either metal while under pressure of the compressed fluid to cause a diffusion of the metal of the contacting surfaces of the copper tube into the grain boundaries of the adjacent steel tube surfaces.

2,775,030
**METHOD OF SECURING SHEETS OF DISSIMILAR METALS TOGETHER**
Karl E. Weiss, Arlington, Mass., assignor to New England Lead Burning Corp., St. Louis, Mo., a corporation of Missouri
Application May 26, 1954, Serial No. 432,471
11 Claims. (Cl. 29—530)



1. The method of attaching a sheet of fusible metal which melts at a relatively low temperature to a sheet of steel, which method comprises the steps of forming a plurality of holes at spaced intervals in a sheet of the said fusible metal, placing a layer of expanded metal lath over said fusible sheet so that solid portions of said lath are in line with the holes in said fusible sheet, flowing additional quantities of said fusible metal into the interstices of the said expanded metal lath and building the fusible metal sheet up to a thickness to include therein the said metal lath, placing the combined sheet of fusible metal and metal lath against a sheet of steel with the lath side of said combined sheet facing said steel sheet, directly securing the metal lath to the sheet steel at those places where solid portions of the lath are in line with and visible through the holes in said fusible metal sheet and then filling in all of the holes with additional fusible metal to give an impervious sheet of fusible metal secured to said metal lath and said metal lath secured to said steel sheet.

2,775,031
**SAFETY RAZOR BLADE HOLDER WITH SELF-CLOSING OPERATION**
John Guardino, New York, N. Y.
Application October 22, 1954, Serial No. 464,045
3 Claims. (Cl. 30—60.5)



1. The combination of a double edge razor blade holder having a tubular handle and a holder base secured to the upper end of the tubular handle, clamping plates, links disposed at the opposite ends of the base and having pivotal connection with the clamping plates to rock the same, a rod sliding through the handle and having operating connections with the links to open and close said clamping plates; of a sleeve slidable on the handle, a spring within the handle for actuating the rod downwardly in the handle, and a pin having its outer ends secured to the sleeve and sliding longitudinally of the handle, said handle being formed with opposing slots through which said pin freely extends for sliding movement.

2,775,032
**WORKPIECE-HOLDING PRUNING SHEARS WITH RESILIENT IN-DRAWING GRIPPER ELEMENT**
Edgar P. Sorensen, Ontario, Calif.
Application October 19, 1953, Serial No. 386,723
4 Claims. (Cl. 30—134)

1. Workpiece-holding and indrawing pruning shears comprising: a pair of articulated handles united by pivotal means; coacting workpiece-severing jaws operatively

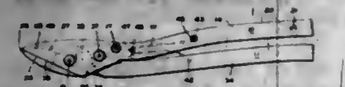
supported by said handles; and workpiece-gripping means also supported in cooperative relation to the respective jaws and including a rigid gripper element immovable with respect to one of said jaws and a resilient gripper element movable with the other jaw in yielding relation thereto and positioned directly opposite to said rigid gripper element for contact therewith when the jaws are closed, said gripper elements having normally substantially straight opposed workpiece-contact faces of which the said face of the resilient gripper element is angularly arranged on the corresponding jaw with its forward portion more remote from the handle pivotal means projecting inward from said jaw into the mouth of the space



between jaws when open to form a workpiece restraining nose and the rearward portion of said workpiece-contact face converging upon the rearward portion of said jaw, the composition and construction of the resilient gripper element being such that its nose is comparatively stiff and the portion rearward of said nose is increasingly more compressibly yielding with distance from the nose, whereby a workpiece initially restrained by the nose of the resilient gripper element in cooperation with the rigid gripper element will be drawn rearwardly inward along the said rigid element during closing action of the workpiece-severing jaws due to progressive rearward declination of resistance to compressive forces by said resilient gripper element.

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**2,775,033**
**SHEET METAL SHEARS**
**Jim Wilson, West Palm Beach, Fla.**
**Application July 21, 1954, Serial No. 444,835**
**2 Claims. (Cl. 30—250)**



1. A sheet metal shears comprising a first handle member being formed of a pair of identically shaped elongated, flattened bars secured together in spaced face to face relation to each other, a second handle member being formed of a pair of similarly shaped elongated flattened bars secured together at one end and in confronting face to face relation to each other, and at the other in spaced face to face relation and pivotally secured adjacent one end to said first handle member adjacent said one end, a cutting blade pivotally connected between the confronting faces of each of said pair of fixed blades, a spacer member secured between said second-named pair of bars fastened to the other end thereof and being provided with a concave end face, said cutting blade being formed with a convex end edge adapted to slide to said concave end face, an operating pin connecting said second handle member to said cutting blade for movement thereof between open and closed positions, said operating pin being disposed on said second handle member at a point closer to said one end thereof than the point of pivotal attachment of said handle member to said first handle member and connecting with said cutting blade at a point thereon further from said one end than its pivotal connection with said pair of fixed blades.

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**2,775,034**
**SEAM OPENER**
**Victor Bulocki, Toronto, Ontario, Canada**
**Application November 18, 1955, Serial No. 547,721**
**1 Claim. (Cl. 30—294)**

A seam opener comprising a relatively thin plate including an elongated shank and a generally rectangular head, a narrow thread receiving slot in said head disposed generally transversely of said head, said slot being arcuately curved outwardly and presenting curved edges, a cut-thread clearance opening in said head intermediate



the opposite side edges thereof, said slot having one end thereof opening through one side edge of the head and the other end thereof communicating with said clearance opening and the outer curved edge of said slot having a sharpened cutting edge.

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**2,775,035**
**ARTIFICIAL TEETH AND METHOD OF ASSEMBLING SAME**
**Morris Berzin, Philadelphia, Pa.**
**Application May 16, 1955, Serial No. 508,433**
**42 Claims. (Cl. 32—8)**



1. An artificial posterior tooth comprising a crown with an occlusal portion having a conical cusp, and a band cusp connecting with said conical cusp, the top contact surfaces of said cusps being on the surface of a sphere.

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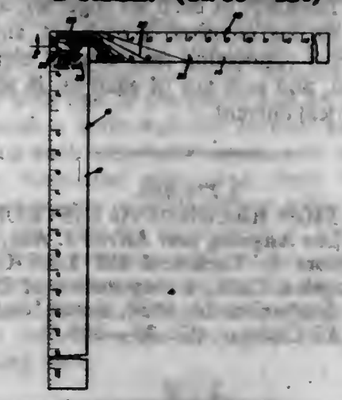
**2,775,036**
**APPARATUS FOR AND METHOD OF FORMING TOOTH POSITIONING APPLIANCES**
**Harold D. Kesling, La Porte, Ind.**
**Original application November 25, 1946, Serial No. 712,212. Divided and this application November 15, 1950, Serial No. 195,842**
**9 Claims. (Cl. 32—14)**



1. A method of forming a tooth positioning appliance comprising the steps of preparing models of the upper and lower teeth of a patient with the teeth relocated to predetermined positions of movement, reproducing the said models in separable upper and lower bases of a flask with the upper end lower teeth in occluded relation, establishing a position of said upper and lower teeth simulating the relaxed slightly opened position of the teeth, disposing resilient deformable material between said upper and lower teeth spaced apart to receive it, and returning said upper and lower teeth to the established relaxed position forming permanent impressions of the upper and lower teeth in said material to provide a tooth positioning appliance.



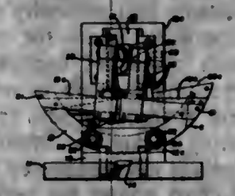
**2,775,037**
**CARPENTER'S SQUARE**
**Harry Bezemek, Big Rapids, Mich.**
**Application October 19, 1953, Serial No. 386,731**
**2 Claims. (Cl. 33—120)**



1. A carpenter's square comprising a pair of blades, a pivot pin connecting said blades together, a plurality of apertures spaced about said pin, a plurality of index lines on each of said blades for indicating the angular relation of the blades, and disengageable means engaging selective apertures when said blades are aligned with selective index lines, said apertures and index lines being provided with corresponding indicia for denoting an angular relationship, said pivot pin including a projecting shank, a sleeve slidable on said shank, a projecting arm on said sleeve, said disengageable means including a depending pin on said arm receivable in selective apertures, and spring means urging said sleeve, arm and pin downwardly.

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**2,775,038**
**GAUGE MOUNTING ASSEMBLY**
**Lee Price, Cleveland Heights, Ohio**
**Application May 20, 1955, Serial No. 509,710**
**7 Claims. (Cl. 33—174)**

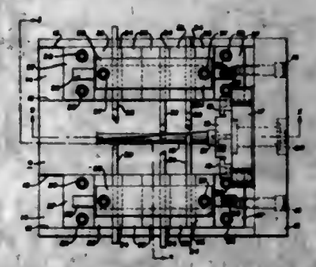


2. In a gauge mounting, the combination of a base member having a pair of openings extending therealong, said openings having parallel axes, a plurality of cross-pieces each having straight slide portion adapted to slidably carry therealong a pair of holders for gauge fingers movable relative to each other to gauge an article disposed along a reference line between the gauge fingers, each of said cross-pieces having a pair of holes extending therethrough, said holes of each pair of holes having parallel axes disposed on a circle generated around said reference line, the said axes for each pair of holes being disposed on a chord of said circle inclined at an angle to the corresponding chord for each other pair of holes, said pairs of openings in the base member and said pairs of holes in the cross-pieces being in alignment, aligning means securing said openings and holes in alignment, the varying angular disposition of said chords providing for varied angular disposition of the slide portions of said cross-pieces relative to the plane of said base member.

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**2,775,039**
**GUILLOTINE GAUGE**
**Lee Price, Cleveland Heights, Ohio**
**Application May 20, 1955, Serial No. 509,725**
**7 Claims. (Cl. 33—174)**

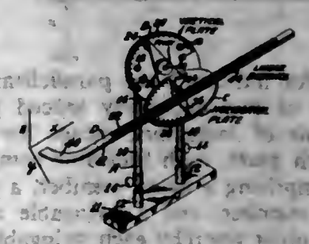
1. A gauging device comprising in combination a base member, said base member having a reference point intermediate of opposite sides thereof, aligning means mounted to said base member and positioned relative to said reference point for aligning an article to be gauged, said base member having adjacent each of said opposite sides a pair of opposed straight shoulders parallel to each other and to the shoulders of the other pair of shoulders, a line passing thorugh said reference point parallel to said shoulders being equidistant from the inner shoulders of said pairs of shoulders and equisdistant from the outer shoulders of said pairs of shoulders, a plurality of guide blocks, a plurality of spacer blocks, a first group of said guide blocks and spacer blocks being alternately arranged in a line over said base member between the shoulders of one said pair of shoulders and a second group of said guide blocks and spacer blocks being alternately arranged in a line over said base member between the shoulders of the other said pair of shoulders, the blocks of each group of alternately arranged guide blocks and spacer blocks having oppositely disposed and spaced surfaces extending therealong, the spaced surfaces of said al-



ternately arranged blocks engaging the opposed shoulders of said pairs of shoulders, respectively, to retain the position of said blocks relative to said line passing through said reference point, and abutting means secured to said base member and abutting the opposite ends of the respective groups of alternately arranged guide blocks and spacer blocks to restrain said blocks against movement along said base member parallel to said shoulders, each of said guide blocks having a channel formed in a face thereof and disposed transversely of the guide block, each said channel being adapted to slidably receive and guide a guillotine gauge blade movable through the channel, each said guide block having a side forming a reference plane at the end of said channel for comparing a position of a said blade in the channel with the said side, said sides of the guide blocks of each group being in a common plane parallel to the common plane of the other group, the guide blocks and spacer blocks of each group having aligned open spaces adjacent said common plane to provide finger access to blades in said channels.

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**2,775,040**
**THREE DIMENSIONAL PELVIMETER**
**Benjamin Leff, Philadelphia, Pa.**
**Application September 4, 1952, Serial No. 307,830**
**3 Claims. (Cl. 33—174)**

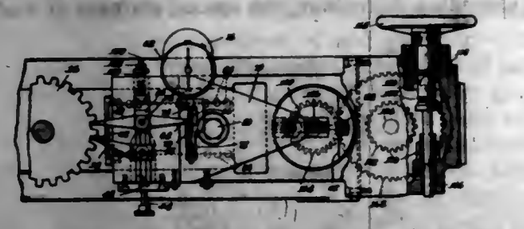


1. A device to measure the pelvic opening of an expectant mother wherein unseen distances are located beyond an obstruction comprising a support externally located of said opening, a calibrated plate mounted upon

said support and lying in a vertical plane, a pivoted dial pointer mounted upon said calibrated plate, a second calibrated plate attached at right angles to said first named pointer, a second pointer pivotally mounted upon and complementary to said second plate, a rod slidable with respect to said second pointer and being slidable only along its longitudinal axis, means for holding said second pointer and said rod to rotate together, and a tip extending laterally on one end of said rod which tip is adjustable to engage different unseen points within said unseen pelvic opening.

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2,775,041
GEAR TESTING APPARATUS
Henry Pomernacki, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application March 30, 1954, Serial No. 419,716
11 Claims. (Cl. 33—179.5)



1. An apparatus for testing gears and the like comprising means for rotatably mounting a gear-like workpiece having a plurality of generally radially extending circumferentially spaced surfaces, support means, a first contact member fixed on said support means and extending generally toward said workpiece mounting means for engaging one of said surfaces, a second contact member mounted on said support means for movement relative to said first contact member and for engaging another of said surfaces and extending generally toward said workpiece mounting means, and means for moving said contact members around an endless path with the contact members continuously extending generally toward said workpiece mounting means and into and out of engagement with said surfaces of a workpiece on said mounting means for testing and indexing the workpiece.

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2,775,042
DEVICE FOR ALIGNING PLATES IN PARALLEL
Charles W. MacMillan, Rock Island, Ill., assignor to Bear Manufacturing Company, Rock Island, Ill., a corporation of Delaware
Application October 3, 1955, Serial No. 536,088
5 Claims. (Cl. 33—180)



1. A device for indicating the parallelism of opposed datum surfaces of two oppositely spaced plates which comprises, a pair of indicators, means for securing an indicator to each plate, each indicator comprising a set of members comprising a beam member, a pivot carried by each beam member, and a swingable arm member carried by said pivot whereby each swingable arm member is swingably mounted upon a beam member of its set, a pair of spaced electrically conductive contact elements carried by one of the members of each set, the mid portion between said contact elements being in a common plane with the axis of an adjacent pivot which plane extends at right-angles to an adjacent datum surface, an electrically conductive pin carried by the other member of each set and adapted to be disposed between the contact elements carried by the adjacent member of the set, flexible resilient means connecting the opposite swingable arm members of each set together, an electrical signal carried by one member of each set, and electrical connecting means connecting said contact elements, said electrical signal, and said pin of each set in series with a source of electrical current.

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2,775,043
INCLINATION RECORDING INSTRUMENT
Oswald Suter, Los Angeles, and Alfred J. Abs, Van Nuys, Calif., assignors to Technical Oil Tool Corporation, Ltd., Los Angeles, Calif., a corporation of California
Application September 14, 1950, Serial No. 184,876
17 Claims. (Cl. 33—205.5)



17. An inclination recording instrument for use in well bores, which includes: a housing; pendulum means including a marking element suspended in said housing; a chart holder mounted for sliding and rotational movement within said housing and normally spaced from said marking element; operating means for reciprocating said chart holder through cycles of engagement and withdrawal from said marking element to record the relative angular displacement thereof; means to control the release of said operating means for intermittent cycles of reciprocation; and means interconnected with said operating means and said chart holder for periodically rotating said holder between successive contacts thereof with said marking element and limiting the rotation of said holder to that period when said holder is not in contact with said marking element.

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2,775,044
ANGLE INDICATOR
Forest O. Beebout, Trinidad, Colo.
Application December 19, 1955, Serial No. 553,846
2 Claims. (Cl. 33—221)



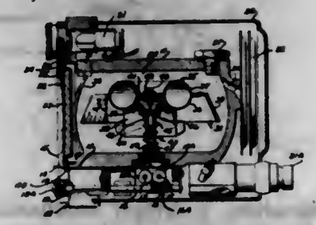
1. An angle indicating device comprising a sealed, hollow body of transparent material having four edge faces forming bases at right angles and separated side walls perpendicular to the bases which provide substantially unobstructed space therebetween for pointer movement and observation, a set of three weighted pointers, pivotal mounts carried by the side walls which provide for the pointers swinging freely, two of the mounts being so located off center that their pointers may swing through 90° and the third pointer being centrally mounted for



rotation through 360°, scale markings corresponding with the pointer movements located on the inside of the hollow body which are visible through both side walls, each pointer being shaped at its end to move close to its associated scale, a plate fixed to move with each pointer, three slidably and pivotally mounted shafts, each having a stop at one end releasably engageable respectively with one of the plates and an outer end projecting through a body wall for manual manipulation, a spring urging each stop into engagement with the plate, and means associated with each shaft for releasably holding its stop out of engagement with the associated plate which provides for movement of the stop to lock the pointer from swinging while at any indicating angle, said off center pointers and their scales serving to indicate angles relative to two perpendicular bases and the third pointer and its 360° scale serving to measure an angle relative to any base.

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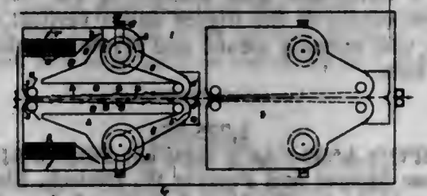
2,775,045
LIQUID FILLED MAGNETIC COMPASS
Ladislav Kadlec, Lansdale, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application May 4, 1954, Serial No. 427,636
1 Claim. (Cl. 33—223)



In a fluid compass, the combination including a fluid filled bowl, said bowl having a chamber with concave vertical walls, a magnetic card having a central hollow doughnut shaped float in said bowl supported on a pivot therein, a transparent panel in one wall of said bowl for reading the card, and an expansion chamber connected to said bowl through a passage on one of said vertical concave faces of said chamber above said card, the outlet axis of said passage into said bowl being directed upwardly toward the roof of said chamber and away from said card.

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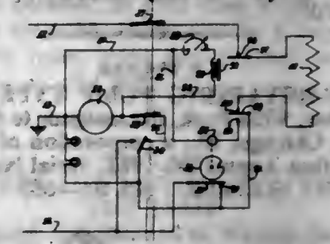
2,775,046
METHODS AND APPARATUS FOR THE PROCESSING OF TEXTILE MATERIALS
Hans Kabelitz, M. Gladbach, Germany, assignor to Gebrüder Sucher G. m. b. H., M. Gladbach, Germany
Application May 25, 1951, Serial No. 228,191
Claims priority, application Germany May 31, 1949, and Sweden September 14, 1949
10 Claims. (Cl. 34—23)



10. The method of processing an unwoven and unwebbed strand of textile material which has been treated with treatment matter, comprising supporting and moving horizontally a substantial straight strand of the material through three zones in sequence, passing a gaseous processing agent through said zones exclusively longitudinally of and in contact with the strand, the gas velocity in first zone being gradually increased in the direction of the second zone in order to diminish shock, the gas velocity in the second zone exceeding that required to yield the critical Reynold's number for tubulent flow, the second zone being longer than the first and third and being the main treating zone, the gas velocity in the third zone being gradually decreased to diminish turbulence, to diminish tendency of the gaseous processing agent to blow the chemical treatment matter out of the strand.

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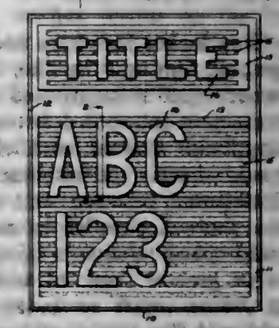
2,775,047
DRIER CONTROL
Harold E. Morrison, St. Joseph, Mich., assignor, by mesne assignments, to Whirlpool-Seeger Corporation, St. Joseph, Mich., a corporation of Delaware
Application January 23, 1952, Serial No. 267,769
4 Claims. (Cl. 34—45)



3. In an automatic clothes drier including a rotatable drier drum, a drive motor for said drier drum, a heater unit, a control circuit for said heater unit for controlling drying in accordance with a succession of cooling cycles, an energizing circuit for said control circuit and drive motor, a relay having a contact connecting said heater unit in said energizing circuit when closed, a thermostat controlling operation of said relay and effecting the operation of said relay to close said contact at temperatures below the temperature setting of said thermostat and effecting the operation of said relay to open said contact and the circuit to said heater unit upon predetermined temperature rises, a sequence timer including a timer cam and a timer switch operated thereby, a timer motor for operating said timer cam, said timer cam also being manually operable to initiate a drying operation, said timer switch closing upon the initial turning of said timer cam to initiate a drying operation and remaining closed to the termination of the drying operation at the end of a cycle of rotation of said timer cam, and said relay also having another contact connected in series with said timer switch and said timer motor, and closing upon operation of said thermostat upon predetermined temperature rises and the opening of the circuit to said heater unit, to connect said timer motor in said energizing circuit during a cooling cycle.

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2,775,048
VISUAL DISPLAY DEVICE
Hymie D. Berman, Minneapolis, Minn.
Application August 15, 1955, Serial No. 528,191
3 Claims. (Cl. 35—35)




1. In a visual display device for use with a flannel-covered display board, the combination of panel means defining enlarged front and rear surfaces, said rear surface having a flock covering thereon to engage the

flannel-covered display board for holding said panel means in a desired position thereon, a number of spaced and parallel strips of non-drying adhesive applied on said front surface, and a plurality of display characters having contrasting colors relative to said surface and each having a flock-covered surface on one side thereof, said characters being applied to said front surface, said adhesive strips providing a reference for the arrangement of said characters in a uniform and orderly fashion, and also co-acting with said flock-covered surfaces of said characters in retaining the characters on said front surface, whereby said characters may be readily and easily removed and interchanged to provide a desired display, and said panel means with prearranged characters thereon may be quickly applied to and removed from the flannel-covered display board.

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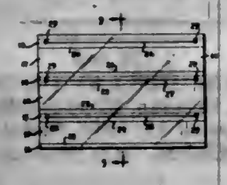
**2,775,049**
**SELF-RETAINING PUMP TYPE SHOE**
Rubin Aptaker, Villa Park, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application August 24, 1953, Serial No. 375,974
3 Claims. (Cl. 36—55)



1. A low-cut pump type shoe comprising a sole and an upper, said upper comprising an outer sheet and a lining therefor, and an insert between said outer sheet and said lining of the upper, said insert comprising a layer of resilient material of the character of sponge rubber, said insert being disposed at least in the quarter portion of said shoe, and said lining adjacent said insert being formed of quilted material, whereby said shoe will snugly fit the wearer's foot without the necessity for fastening means.

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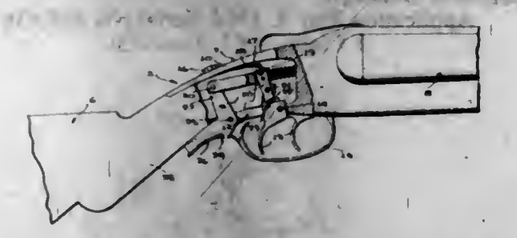
**2,775,050**
**FILE CARD STRUCTURE**
Russell S. Ellsworth, Massey, N. Y., assignor, by mesne assignments, to Mickle Printing Press & Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application September 12, 1955, Serial No. 533,837
10 Claims. (Cl. 40—159)



1. A card-like filing jacket for strips and/or individual frames of photographic film and the like, comprising two rectangular sheets arranged in superposed relation, a narrow width spacer element interposed between said sheets and extending lengthwise thereof parallel to the longitudinal edges of said sheets, and another narrow width spacer element interposed between said sheets and extending lengthwise thereof parallel to said first-named spaced element, said spacer elements being spaced apart a distance somewhat greater than the width of the film strip and/or film frame insert so as to receive therebetween completely said film insert, said sheets being adhesively secured to the top and bottom planar surfaces, respectively, of one of said spacer elements at least at and along the entire length of the longitudinal edge thereof facing the other of said spacer elements, one of said sheets being adhesively secured to one of the planar surfaces of the other of said spacer elements at least at and along the entire length of the longitudinal edge thereof facing the said one of said spacer elements, the other of said sheets being adhesively secured to the other of the planar surfaces of the said other of said spacer elements only at and along the entire length of the longitudinal edge thereof facing away from the said one of said spacer elements leaving the remainder of the said other of the planar surfaces free from the said other of said sheets, the said other of said sheets having a slit therethrough extending lengthwise thereof and located directly over the said remainder of the said other of the planar surfaces, said slit providing an entrance opening through which the film insert may be edgewise inserted over the said other of said spacer elements between said sheets and positioned between said spacer elements.

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**2,775,051**
**SAFETY FOR FIREARMS**
George Gehnsen, Oxford, N. J.
Application October 23, 1953, Serial No. 387,914
2 Claims. (Cl. 42—70)



1. In combination, a trigger mechanism including a housing having a front wall, side walls, a top wall, and a bottom wall provided with opening means, a trigger positioned in a forward part of said opening means and pivoted on the housing to move forwardly and rearwardly relative thereto, a vertical latch lever within said housing and having upper and lower ends, said latch lever being pivoted intermediate its ends on the housing above said trigger to swing forwardly and rearwardly relative thereto, the lower end of the latch lever having a portion normally engaging an upper portion of the trigger and preventing firing operation of the trigger, a horizontal bolt having a forward end and a rear end, the forward end of the bolt having a closed slot through which loosely extends the upper end of the latch lever, spring means acting between the forward end of said bolt and the front wall of the housing and normally urging said bolt in a rearward direction so as to maintain said lower end of said latch lever in blocking engagement with the said upper portion of the trigger, and a releasing lever pivoted intermediate its ends on said housing beneath the rear end of the bolt, said releasing lever having a horizontal arm underlying the housing at a point rearwardly of the trigger and a vertical arm rising through said opening means and pivoted to the rear end of said bolt.

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**2,775,052**
**BIPOD AND FACE SHIELD FOR A RIFLE**
C Walton Musser and Francis W. Dietsch, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application November 21, 1952, Serial No. 321,961
9 Claims. (Cl. 42—94)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A support for an object comprising a pair of leg members, means for pivotally attaching said leg members to said object, said attaching means being adjustable rotatively relative to said object for selectively positioning said object in a vertical position and including means to allow movement of said leg members in a first plane between a first position substantially normal to said object and a second position substantially parallel to said object but removed from said first position, said attaching means further being operative to allow movement of said members with respect to each other only



in said first position in a second plane normal to said first plane, whereby said leg members may be angularly disposed with respect to each other to provide a bipod for said object, and moving means carried by said leg members operatively connecting said leg members to effect simultaneous movement thereof.

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**2,775,053**
**SIGNAL FOR FISHING RODS**
Paul H. Knoll and Stanley J. Kozlowski, Acme, Mich.
Application April 2, 1953, Serial No. 346,446
4 Claims. (Cl. 43—17)



1. A signal attachment for fishing tackle including a rod, a reel mounted on the rod and provided with a crank, a line operatively associated with the reel and rod, the attachment comprising a pair of pivotally connected rod supporting legs, opposed rod engaging jaws on said legs for detachably connecting the legs to the rod, said jaws being disposed above and in spaced relation to the pivotal connection for the legs, a V-shaped spring having the bight thereof engaged with the pivot for the legs and its arms engaged with the legs to bias the legs to a downwardly diverging jaw closing position, and a resiliently springable signal arm fixedly mounted at one end on one of the legs to be detached as a unit with said legs from said rod, said signal arm when free projecting upwardly from said legs to a position substantially higher than said jaws when the signal arm is in signal position, said arm being springable from said upwardly projecting position to a bowed position in which its outer end is substantially closer the level of the rod engaging jaws than in said upwardly projecting position, and means adjacent the outer end of the arm for releasably engaging the arm with the crank of the reel when the arm is under spring tension and in said bowed position, said arm when released from said bowed position and in an upright position constituting viewable means to indicate the strike of a fish.

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**2,775,054**
**LINE GUIDE FOR FISHING ROD**
Edward Shinbane, Los Angeles, Calif.
Application July 19, 1954, Serial No. 444,017
3 Claims. (Cl. 43—24)



3. A line guide for a flexible fishing rod of the kind having a handle at its forward end comprising a resilient wire having a loop between its ends, a first end portion of the wire extending forwardly and downwardly from said loop and then forwardly and terminating in a first rod-engaging extremity portion spaced below and forwardly of said loop, a second portion of the wire extending rearwardly and downwardly from the loop and then forwardly spaced beneath the central portion of the loop in contact with the upper surface of said rod when said rod is in its normal unflexed condition and terminating in a second rod-engaging extremity portion in juxtaposition to said first rod-engaging extremity portion, whereby said second portion is adapted to support the loop without increasing the resistance of the rod to be flexed downwardly as by a fish which may be caught on a line attached thereto; said rod-engaging extremity portions extending lengthwise of the upper surface of said rod and being secured together and shaped to define a foot which is wider between its ends than at its rearward end whereby to be securable to the rod by a single wrapping in a manner to resist being pulled from said wrapping in the direction of said loop.

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**2,775,055**
**FISHING LURES AND METHOD FOR PRODUCING THE SAME**
Thomas D. Waugh and Richard C. Waugh, Boulder, Colo.
Application September 17, 1951, Serial No. 246,934
8 Claims. (Cl. 43—42.25)



1. A fishing fly comprising a hook provided with a shank, a bill and an eye; and short fibers initially associated with the shank by electrostatic action and subsequently adhered to the shank by an adhesive.

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**2,775,056**
**FISHING FLOAT ASSEMBLY**
Joseph F. Saeed, Sunflower, Kans.
Application February 21, 1956, Serial No. 566,954
4 Claims. (Cl. 43—43.11)



1. A fishing float or the like for use with a fish line having a sinker member thereon, comprising an elongated hollow body member, longitudinally aligned passage portions extending through opposite ends of the body member, anchor means on the body member engageable with an intermediate portion of a fish line extending therethrough for adjustably retaining the body member on said line, said body member including an annular spool portion for receiving a predetermined convoluted length of fish line thereabout, a line-support member pivotally supported on a transverse pivot axis portion on the body member, said line-support member including a lug element off-set from the transverse pivot axis portion for receiving an intermediate loop portion of the fish line thereover, trigger means carried on the body member in engagement with the fish line-support plate member for retaining the plate member in a fixed position preventing the line from being dispensed off the spool portion of the body member, and sealed float means contained in the body member and engageable with the trigger means permitting the line-support plate to pivot

due to the force applied by the sinker member on the fish line and allowing the line on the spool portion of the body member to be dispensed, there being aperture means in the body member permitting the interior thereof to be filled with water for actuating the float means.

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2,775,057
**DEVICE FOR JETTISONING SNAGGED FISHHOOKS**
Herbert T. Ludgate, Toledo, Ohio
Application September 1, 1954, Serial No. 453,598
8 Claims. (Cl. 43—43.12)



1. A snagged fish hook jettisoning device comprising in combination an element adapted to be connected to a fishing line, a fish hook retainer, an intermediate member, there being a high-pitched spiral connection between said element and said member to cause relative rotation upon relative endwise movement of said element and said member, there being a low pitch threaded connection between said intermediate member and said fish hook retainer, means inhibiting turning of said low pitch threaded connection in a direction to screw said fish hook retainer and said member together upon relative endwise movement of said element and said member in one direction, means tending to cause said low pitch threaded connection to turn in a direction to unscrew said fish hook retainer and said member from each other upon relative endwise movement of said element and said member in the opposite direction and a spring which yields to permit relative endwise movement of said element and said member in one direction and reacts to cause relative endwise movement of said element and said member in the opposite direction.

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2,775,058
**FISHHOOK**
Roy J. Roberts, Corpus Christi, Tex., assignor of one-half to Jake B. Jarmon, Jr., Corpus Christi, Tex.
Application March 18, 1954, Serial No. 417,163
2 Claims. (Cl. 43—44.4)



1. As a new article of manufacture, a fishhook shaped to include a pair of arms lying in a plane and having their rear ends arranged in spaced apart relation with respect to each other, a curved socket member extending from the rear end of each of said arms, said socket members coacting to grip bait therebetween, said socket members being arranged angularly downwardly with respect to said arms and lying in a plane arranged angularly with respect to the plane of said arms, a finger extending from the lower end of each of said socket members, said fingers being mounted for movement towards and away from each other, said fingers being arranged angularly with respect to said socket members, a barb extending forwardly from each of said fingers, said fishhook being fabricated of a single piece of springy material, the front ends of said arms being twisted together and formed into a loop adapted to be connected to a fishing line, and gripping means on said socket members for engagement with the bait.

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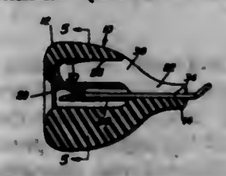
2,775,059
**FISH BOBBER ATTACHMENT**
John Kosanovich, Pittsburgh, Pa.
Application May 4, 1953, Serial No. 352,632
1 Claim. (Cl. 43—44.88)



In a fishing line holder, a wire bent into a V-shaped body having diverging straight legs adapted to frictionally hold a line therebetween, the free end of one leg being formed into a coil to enable the body to be attached to a float or bobber, and the free end of the other leg being formed into a loop to receive and guide a portion of said line and bent around itself closing said loop.

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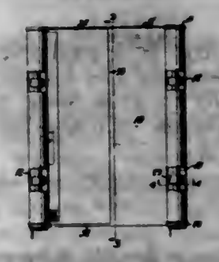
2,775,060
**FISHHOOK GUARD**
Raymond C. Barker, Monmouth, Oreg.
Application June 15, 1954, Serial No. 436,791
3 Claims. (Cl. 43—57.5)



1. A fish hook guard for sheathing and shielding barbed hooks on a gang-type fish hook comprising a pear-shaped compressibly resilient rubber body embodying a bulbous-shaped body gradually decreased in cross-section at one end merging into an axial reduced neck, a plurality of circumferentially spaced radially disposed slots formed in said neck and body portions and communicating with one another at their inner edges and having their outer edges opening through the surfaces of the body and neck portions, all of said slots being linearly straight from end-to-end and restricted in size proportional with the portions of the barbed hooks which are adapted to be protectively fitted and frictionally lodged therein.

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2,775,061
**BLUE PRINT HOLDER**
Dale L. Wahlstrom, Astoria, Oreg.
Application October 20, 1953, Serial No. 387,293
1 Claim. (Cl. 45—131)



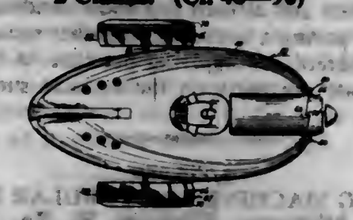
A portable holder for rolled blue prints and the like comprising a stiff, flat sheet of material having upwardly rolled end portions forming cylindrical paper roll holders



at opposite ends of said sheet, said rolled end portions being tangent to that flat portion of the sheet therebetween so that said flat and rolled portions will rest flat against a flat supporting surface, an upstanding flange along one edge of the flat portion of said sheet and a bead along the opposite edge to stiffen said flat portion between said rolled end portions, the ends of said sheet being downturned in said roller portions and defining paper slots for said roll holders adjacent the lines of tangency, flanged end caps frictionally engaged on said cylindrical holders having slots in registry with said paper slots, bearing means in said end caps, paper rollers rotatably mounted in said bearing means, and a plurality of sponge rubber discs on said rollers adapted to frictionally engage the end of a sheet of paper inserted in one of said paper slots and wind the paper around said discs and roller when the roller is turned.

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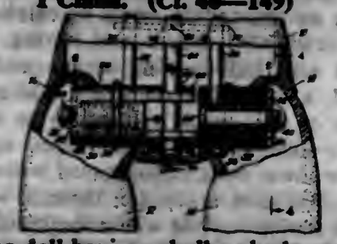
2,775,062
**COMBINATION TOY LAND AND WATER VEHICLE**
Carl A. Gibson, Jr., and Marvin I. Glass, Chicago, Ill.
Application August 3, 1953, Serial No. 371,926
2 Claims. (Cl. 46—96)



1. In a combination land and water vehicle comprising a body adapted to serve as a boat or as a land motor vehicle, said body having the lower portion shaped in the form of a boat, an axle secured to said body and supporting a pair of paddle wheels, said paddle wheels each having an outer plate and a plurality of radial fins inwardly of said outer plate with said radial fins extending from the hub to the periphery of said wheel, a plurality of gears, including a crown gear mounted within said body for operating said axle, a rotatable windup shaft extending longitudinally and rearwardly of said body and rotatable with respect to said crown gear, a coiled spring around said windup shaft and having one end secured to said shaft and the other end to said crown gear, a windup knob secured to said windup shaft rearwardly of said body, said windup knob having a cammed surface adapted to engage a cammed surface on the rear of said body to permit said windup knob and windup shaft to rotate in one direction and locked against rotation in the opposite direction.

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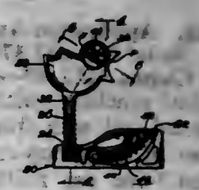
2,775,063
**WALKING DOLL WITH ADJUSTABLE HIP JOINTS**
Irving Mansdorf, Brooklyn, N. Y.
Application November 7, 1952, Serial No. 319,344
1 Claim. (Cl. 46—149)



In a walking doll having a hollow body and hip sockets formed in said hollow body and legs movably seated in said hip sockets, the combination of a pair of axially aligned cylinders, one being adjustably secured to one leg and the other being adjustably secured to the other leg, tensional locking means between each leg and the cylinder to which it is adjustably secured for releasably locking the leg in either of two angularly spaced positions against angular movement relative to said cylinder, an extension piece on one of said cylinders projecting toward the other cylinder, a second extension piece on the other cylinder projecting toward the first cylinder, said extension pieces being vertically spaced from each other and having relatively elongated holes formed therein in vertical registration with each other, and a vertically extending rod mounted within the hollow body and projecting through said registering holes, said rod fitting loosely in said holes to permit of some measure of angular movement of said cylinders relative to each other, each cylinder being provided with a longitudinally extending hole formed therein and a shoulder at the outer end of said hole, a rod being disposed within said hole and having a head at the inner end of said hole, said tensional means comprising a compression spring mounted on said rod and bearing at one end against the head of said rod and at the opposite end against said shoulder, a crosspin secured to the opposite end of the rod from its head and a pair of intersecting grooves formed at the outer end of said cylinder to receive said crosspin in either of two positions, said crosspin being secured to the leg to which it is adjacent for adjustably securing said leg to the cylinder against which said crosspin is disposed.

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2,775,064
**TOY MAGNETIC NOVELTY**
Carl A. Otto, Evanston, Ill., assignor to H. Fishlove & Co., Chicago, Ill., a corporation of Illinois
Application October 26, 1953, Serial No. 388,137
2 Claims. (Cl. 46—242)



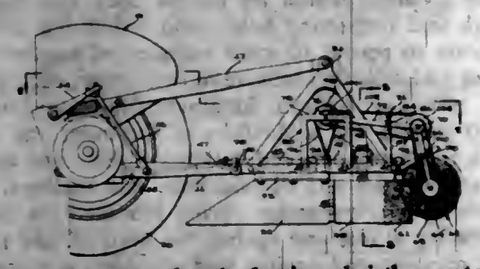
2. In a toy magnetic novelty comprising a base, a simulated bird having a beak and a pair of rotatable eyes, resilient means between said base and bird for supporting said bird, a magnet supported inside said bird on an axis extending between said eyes adjacent the beak, and operably connected to said eyes, a simulated worm having a second magnet in at least one end positioned on said base, said eyes adapted to be manually engaged for rotating said first mentioned magnet so that when the beak of said bird is positioned adjacent the magnet of said simulated worm the simulated worm will be caused to adhere to said beak and when said first mentioned magnet is further rotated the magnetic attraction between said magnet will be so modified that said simulated worm will not adhere to said beak.

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2,775,065
**APPARATUS FOR EFFECTING THE FECUNDATION OF PLANTS**
John W. Chepil and William S. Chepil, Manhattan, Kans.
Application September 9, 1955, Serial No. 533,488
4 Claims. (Cl. 47—1)

1. In a machine for tripping blooms on growing plants comprising a frame adapted to be carried by an associated prime mover, separator plates secured to and depending from said frame and disposed substantially in planes which are uniformly spaced apart and parallel to each other and perpendicular to the plane of said frame, each of said plates having a substantially vertically disposed rear edge, vanes hingedly connected at their front ends to the rear edges of said separator plates and extending rearwardly one from each separator plate, power operated means mounted on said frame and drivingly con-

nected to said vanes to impart to said vanes oscillating movements about the axes of the hinge connections between said vanes and the corresponding separator plates; the improvement residing in means for collecting and dispersing pollen from the tripped blooms, said means comprising a material having a filamentous surface carried by the outer surfaces of said vanes with the filamentous



surfaces exposed, a brush having bristles extending radially therefrom mounted on said frame for rotation about an axis extending transversely of said separator plates adjacent the ends of the vanes remote from said separator plates to engage and brush across said filamentous surfaces on said vanes, and means drivingly connected between said vane driving means and said brush to impart rotary movement to the brush.

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2,775,066

## 1-BUTEN-3-ONE AND 1-PENTEN-3-ONE FUNGICIDAL COMPOSITIONS AND METHOD OF APPLYING SAME TO SOIL

Lloyd J. Mesil, Long Beach, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 2, 1954, Serial No. 447,378
4 Claims. (Cl. 47—58)

1. An agronomical practice which comprises impregnating fungus infected soil with from 5 to 50 parts by weight of a member of the group consisting of 1-buten-3-one and 1-penten-3-one per million parts by weight of the medium and thereafter planting the treated medium.

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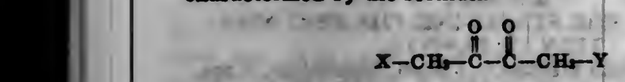
2,775,067

## HALOBUTANEDIONE FUNGICIDAL COMPOSITIONS AND METHOD OF APPLYING THE SAME TO SOIL

Lloyd J. Mesil, Long Beach, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 2, 1954, Serial No. 447,375
6 Claims. (Cl. 47—58)

1. An agronomical practice which comprises impregnating fungus infected soil with from 5 to 50 parts by weight of a halobutanedione compound per million parts by weight of the medium and thereafter planting the treated medium, the halobutanedione compound being characterized by the formula



wherein X is a member of the group consisting of chlorine and bromine and Y is a member of the group consisting of hydrogen and the halogen represented by X.

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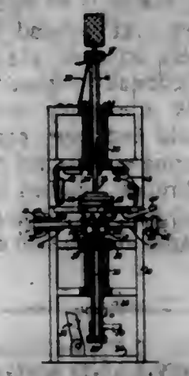
2,775,068

## METAL TO GLASS SEALING FIXTURE

John K. McDuffee, Kutztown, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application March 22, 1954, Serial No. 417,685
5 Claims. (Cl. 49—1)

1. In a fixture for fusing a plurality of glass and metal parts together in accurately predetermined positions, a mandrel for receiving the parts mounted for movement between a loading and a heating position, said mandrel having parallel, annular plane surfaces therealong, means at the loading position for concentrically locating the parts on the mandrel, a chamber having an induction heat-



ing coil surrounding the parts when the mandrel is in the heating position and at least one rod extending down into the chamber having a contoured member mounted on the lower end thereof for applying pressure to the parts to properly locate the parts on the annular surfaces along the mandrel.

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2,775,069

## SEALING MACHINE FOR TUBULAR LAMPS

John H. T. Millington, Fairmont, W. Va., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 24, 1951, Serial No. 222,648
11 Claims. (Cl. 49—2)



1. A machine for sealing a tubulated and an untubulated mount to opposite ends of tubular bulbs for fluorescent lamps, comprising means for driving said machine, a conveyor driven by said means and indexing from station to station, fires at certain of said stations for sealing mounts to the lower ends of such bulbs, a series of means on said conveyor each for holding a bulb with its axis vertical, stop means for insuring placement of each bulb at a proper height at the beginning of bulb indexing movement, a corresponding series of carriages each for supporting a tubulated mount and having locking rods receivable in said bulb-holding means and a roller at its lower end, a cam track on which said rollers travel, the elevation of said track varying so as to bring said mounts, after loading on said carriages, up to engagement with the lower ends of supported bulbs at said fires and, after said mounts are sealed thereto, withdraw said carriages at a station beyond where the mounts are sealed to the lower ends of their bulbs, by dropping to also unlock one at a time each bulb-holding member on the conveyor, means at said station for turning said bulbs end for end, said cam beyond said turning position rising to lock each bulb-holding member one at a time in inverted position, and means at the other side of said machine for repeating the bulb-processing operations with untubulated mounts.





2,775,070

## SEALING APPARATUS FOR MERCURY ARC DISCHARGE TUBES

William W. Burroughs, Jr., Manchester, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

Application January 29, 1954, Serial No. 407,017
3 Claims. (Cl. 49—2)



1. In a rotatable turret type machine having a plurality of work-supporting heads mounted thereon and movable to a plurality of work stations, the combination of: means for holding said work in said head; a ring-type burner disposed at at least one of the work stations; means for reciprocating said burner in encompassing relationship with respect to the work at said one work station and means for oscillating said burner in encompassing relationship with respect to the work at said one work station all to effect a heating thereof.

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2,775,071

## METHOD OF DRAINING MELTING TANKS

William E. McCown, Maumee, and Harold M. Alexander, Toledo, Ohio, assignors to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

Application April 21, 1954, Serial No. 424,604
5 Claims. (Cl. 49—77)



3. The method of draining substantially solidified glass from a melting tank through an opening in the tank located beneath the surface of the glass, which comprises heating the surface of the glass so that it will become fluid, placing an electrode in contact with said fluid surface portion, placing a second electrode in contact with the substantially solidified portion of the glass adjacent said opening, and passing an electric current between said electrodes to produce a fluid channel therebetween through which the fluid glass will flow in passing through the tank opening.

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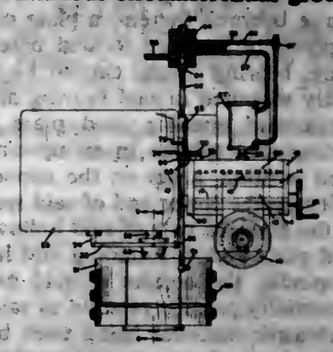
2,775,072

## BELT NOTCHING MACHINE

Lawrence A. Meyer, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio

Application April 15, 1952, Serial No. 282,310
11 Claims. (Cl. 51—34)

1. A V-belt notching machine comprising cylindrical supporting means for the material to be notched, a notching cutter of abrasive material mounted for movement axially of said support near the surface thereof, and traversing means for so moving said cutter, said cylindrical support having its supporting surface characterized by a plurality of continuous circumferential grooves conform-



ing in cross-sectional shape to the base and a portion of the sides of a V-type belt to be held in place therein.

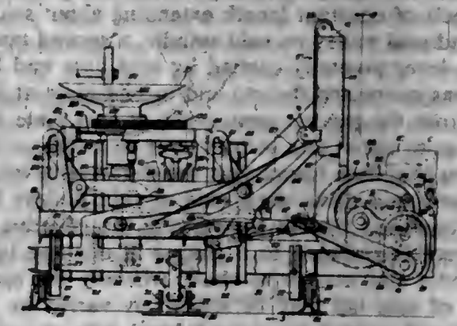
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2,775,073

## AUTOMATIC POLISHING MACHINE

James H. Ingersoll and Joseph A. White, Flossmoor, Ill., Walter W. Kovalick, Munster, Ind., and Moses Hegyi, Lansing, Neal A. Ruisard, Chicago, and Leo L. Levitt, Blue Island, Ill., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application December 12, 1951, Serial No. 261,324
46 Claims. (Cl. 51—97)



39. In a polishing machine having a polishing medium, the improved means for effecting and controlling the engaging pressure between an article and said polishing medium comprising the combination of means responsive to fluid pressure and resilient pressure means both being adapted for exerting forces on said article to move it toward said polishing medium, and means including valve means for varying said fluid pressure to control the forces exerted by said fluid pressure responsive means and said resilient pressure means.

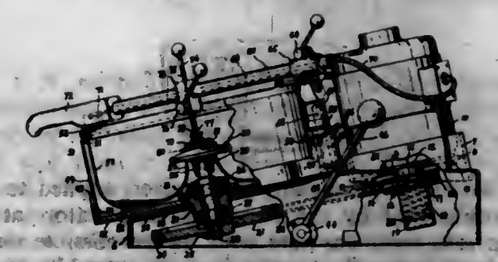
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2,775,074

## ABRADING MACHINES

Oscar W. Dillon, Sturbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application April 14, 1953, Serial No. 348,710
1 Claim. (Cl. 51—124)



A lens surfacing device of the character described adapted to be supported upon a work bench or the like during use thereof, said device comprising an elongated hollow base of shallow depth and having a forwardly

and downwardly inclined top wall, said wall at the forward part thereof being of appreciable width and having a relatively large opening therein, a plate overlying said opening and pivotally attached to said base at one side of said opening, bearing means carried by said plate, a spindle rotatably mounted in said bearing means and extending through said opening, said plate and bearing means supporting said spindle in an upwardly and forwardly inclined position, a lap on the upper end of said spindle, a pulley on the lower end of said spindle and enclosed within the forward part of said hollow base, a pan carried by said plate and surrounding said lap and upper part of said spindle, the bottom of said pan being disposed in substantially parallel relation to said top wall so as to cause abrasive material being used by the device to collect in the lower forward portion thereof, a manually operable lever universally pivotally connected at its rear end to supporting means secured to said base, and extending forwardly across the top of said pan to a location above the forward portion of said base, said lever having a hand grip at its forward end and carrying depending means intermediate its opposite ends for retaining a lens blank in operative engagement with said lap, a motor carried by a rear part of said base and having its drive shaft extending downwardly through a smaller opening in said top wall, said drive shaft being disposed in substantially parallel relation to said rotatable spindle, a drive pulley on said drive shaft within said hollow base, a drive belt of constant length extending about said drive pulley and said pulley on said spindle, a second manually operable lever pivotally carried by said base and having link means connected thereto and to said plate at a point spaced from the pivotal connection of said plate to said base so as to allow said second lever to swing said plate relative to said base for varying the distance between said spindle and said drive shaft, one of said pulleys having means connected thereto for varying the effective diameter thereof in response to a change in distance between said spindle and said drive shaft, whereby the speed of rotation of said lap may be selectively varied by movement of said second lever, said hand grip on said first lever having a trigger-like electrical switch positioned thereon for controlling the operation of said motor, and electrical means extending from said switch to said motor for electrically connecting said motor to a source of electrical energy, said first and second manually operable levers being disposed adjacent opposite sides of said pan so as to enable an operator of the device to conveniently simultaneously manipulate both of said lever when desired while in front of the device and observing the lens surfacing operation being performed thereby.

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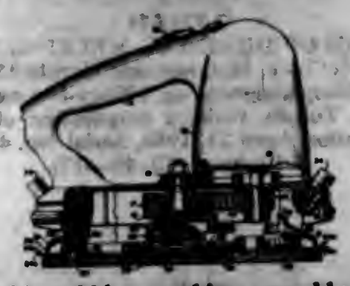
**2,775,075**
**KNIFE SHARPENER**
**Archie J. McMaster, Deerfield, and William H. Kitto, Evanston, Ill., assignors to G-M Laboratories, Inc., Chicago, Ill., a corporation of Illinois**
**Application February 9, 1951, Serial No. 210,158**
**4 Claims. (Cl. 51—128)**



1. A device for sharpening steel knives, applied to the device while held by the hand of an operator, at an optimum rate commensurate with the permissible maximum rate of removal of metal from knives while avoiding burning or nicking, comprising, in combination, an abrasive wheel having a substantially fine grit size and an annular knife grinding portion on at least one face thereof located at a radius not substantially less than 0.4 inch nor greater than 1.25 inches; means rotatably supporting said wheel; a substantially constant speed induction motor directly connected to said wheel to drive the same, said motor having a rate of rotation such that the lineal speed of any wheel in said radius range measured at the grinding portion thereof falls in the range 500 to 2000 feet per minute and a speed-torque characteristic such that the motor stalls when the load torque exceeds the pull-out torque of said motor, and being capable of developing power sufficient only to remove metal at a rate not in excess of the permissible maximum rate; and guide means for positioning the edge of a knife blade to be sharpened, as it is manually moved longitudinally, in contact with the grinding portion of said wheel, the radius at which such contact is made being such that when combined with the rate at which said wheel is rotated the power requirements to maintain rotation, upon application of the knife blade to said wheel with increasing pressure, exceed the power of said motor before the pressure of the knife blade against said wheel reaches a value such as would cause removal of metal from the knife blade at a rate in excess of the permissible maximum rate.

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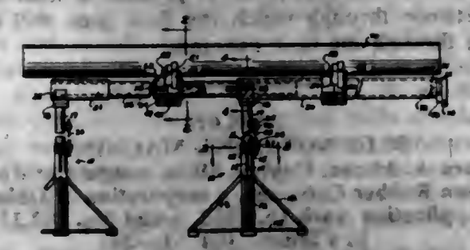
**2,775,076**
**PORTABLE RUBBING MACHINE ASSEMBLY**
**John F. Reeds, Burlington, Vt., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware**
**Application April 23, 1954, Serial No. 425,171**
**4 Claims. (Cl. 51—170)**



1. A portable rubbing machine assembly comprising: a manually supportable frame and housing including a driving mechanism; a readily disengageable rubbing platen including disengageable supporting connections to said frame, a disengageable driving connection to said mechanism, and releasable clamping means for an expendable rubbing element; and means mounted on said frame and normally free of said platen when engaging said frame but manually operable to engage said clamping means to release the same.

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**2,775,077**
**WORK SUPPORTING MEANS FOR CENTERLESS GRINDERS**
**George R. Whittenberg, Detroit, Mich.**
**Application January 30, 1956, Serial No. 562,080**
**6 Claims. (Cl. 51—236)**

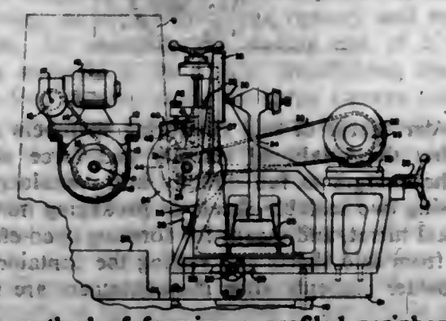


1. A fixture for use with a centerless grinding machine, the fixture including tubular means disposed horizontally, a plurality of standards for support thereof, a plurality of V-shaped brackets mounted on said tubular means in a spaced relation to each other, each bracket including two short sleeves mounted on said tubular means in end to end relation to each other, an arm radially extending from each sleeve, the arms being disposed in a V-shaped formation with respect to each other, a block longitudinally slidable on each arm, each block carrying a roller, the rollers on both arms being adapted to support a work piece within the gap between the two arms, means to adjust the position of each block on the respective arm, each roller being adapted to be rotated in a plane obliquely to the axis of the work piece resting thereon.



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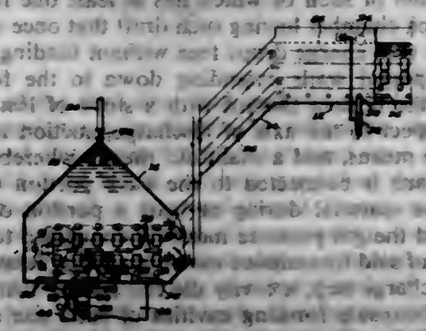
**2,775,078**
**METHOD AND APPARATUS FOR FORMING GRINDING WHEELS**
**Orrion A. Guenther, Waynesville, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland**
**Application June 17, 1955, Serial No. 516,295**
**5 Claims. (Cl. 51—283)**



1. The method of forming a profiled periphery on a diamond grinding wheel of the type which is bonded together with organic resin-like material, including the step of mounting the diamond wheel on the arbor on which it is to be used; causing the diamond wheel to be rotated at a peripheral speed of between 600 inches and 2,000 inches per minute; and bringing into contact with the periphery of the diamond wheel the periphery of a ceramic bonded aluminum oxide grinding wheel which is rotating at a peripheral speed of between 1.2 inches and 3.2 inches per minute, and whose periphery has been shaped with a profile the reverse of that which is to be formed on the diamond wheel.

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**2,775,079**
**PROCESSES OF PACKAGING WATER AND OTHER COMMODITIES AND APPARATUS USEFUL IN THE PRACTICE OF SUCH PROCESSES**
**George M. J. Sarofeen, Dorchester, Mass.**
**Application February 8, 1951, Serial No. 209,458**
**16 Claims. (Cl. 53—25)**



1. The method of packaging commodities which comprises sealing a confined body of an air-free fluid from the air with a body of boiling liquid, passing a container through said boiling liquid into said body of air-free fluid, and hermetically sealing a commodity in said container while the container is immersed in said body of air-free fluid.



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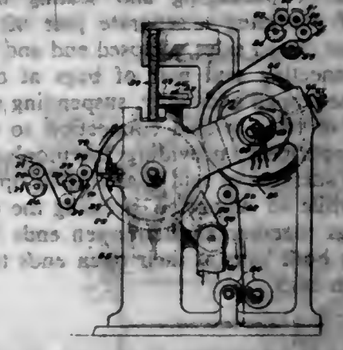
**2,775,080**
**METHOD OF FORMING POWDER-AND-LIQUID FILLED CAPSULES**
**Frank Edwin Sohn, Pearl River, and Arthur Sinclair Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine**
**Application May 26, 1950, Serial No. 164,426**
**4 Claims. (Cl. 53—26)**



2. A method of forming symmetric capsules in asymmetric dies containing both a liquid and a powder, which comprises subjecting two gelatin films to two different heat treatments, forming a series of empty capsule shells by the localized application of subatmospheric pressure to successive portions of one side only of one strip only, passing the thus formed shells uniformly and continuously under a uniformly and continuously flowing stream of liquid, said liquid being discharged at a rate proportional to the rate of movement of said strip and in such quantity that all of the liquid is filled into the cavities, depositing a premeasured charge of a powder in each successive shell, placing the other of said films uniformly and continuously in juxtaposition to the first of said films, sealing the periphery of the portions of the films enclosing the contents of the shells to each other by the localized application of pressure which combines the sealing of the films with the cutting out of the desired portions from the films, separating the cut out capsules thus formed from the residue of the films, and permitting the strains induced in the formation to modify the gelatin walls of the capsule to the desired shape.

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**2,775,081**
**HIGH DENSITY ENCAPSULATION**
**Frank Edwin Sohn, Pearl River, and Arthur Sinclair Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine**
**Application June 19, 1953, Serial No. 362,926**
**20 Claims. (Cl. 53—30)**



1. A method of forming plastic film covered precompacted powder-filled capsules which comprises, compacting a powder into long oval slugs, placing a plurality of said slugs in a vibratory feeder bowl, vibrating said bowl, thereby causing said slugs to feed serially axially, passing the slugs serially axially through a vibrating feed tube, feeding the slugs end-wise into a magazine, vibrating said magazine, by dropping gravity to a predominantly horizontally aligned position with a plurality of the slugs in parallel oriented stacked relationship, dropping past elongated apertures permitting selective hand aligning of the slugs, shaking out by vibration through said apertures mis-

aligned slugs, collecting and re-using the shaken out slugs, and continuing to drop the stack of slugs until adjacent to the hereinafter recited recesses, laying a first continuous strip of plastic sheet material over a plurality of capsule forming cavities in a cavity die roll, reducing the pressure within the cavities, thereby drawing the first strip down into the cavities to form a series of recesses, continuously passing said series of such recesses under the stack of slugs, dropping a slug at least partially into each recess as said recess passes under the stack of slugs, thereby positioning a slug in each recess, moving the slug in its associated recess from under the stack of slugs, warming a second continuous strip of plastic sheet material, placing said second strip in juxtaposition to said slug-containing recessed first strip, maintaining the reduced pressure within the cavities until just prior to the emplacement of the second strip, raising the pressure in the cavities, thereby releasing the first strip and permitting it to shrink against the slugs as the cavities approach a sealing position, sealing together and cutting out the portions of said strips surrounding each slug, re-applying a reduced pressure within the cavities to retain the capsules therein, pulling the net, consisting of the residual portions of the two strips, away from the capsules retained in the cavity die roll, ejecting the capsules from the cavities, and permitting the cut-out portions of the strips by the release of differential strains induced by the heating of the second strip, to adjust the capsules to a symmetrical final form.

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**2,775,082**
**METHOD OF FILLING AND SEALING BAGS**
Clarence W. Vogt, Norwalk, Conn.
Original application June 2, 1948, Serial No. 30,647, now Patent No. 2,628,013, dated February 10, 1953. Divided and this application November 1, 1952, Serial No. 318,171
5 Claims. (Cl. 53—37)

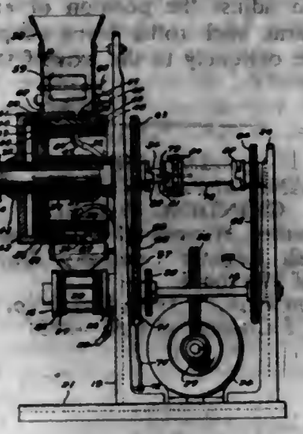


1. The method of packaging and sealing materials which consists of providing a separate pair of bags in which each bag has closed sides, a closed end and an open opposite end, connecting said pair of bags at opposing sides thereof at their open ends only, suspending and supporting said pair of bags at said connection so that the open ends are uppermost, providing thermoplastic material on the inner surfaces of said bags at their open ends, filling said bags while so supported, pressing the opposite walls of both bags together at their open ends to close them, and heating both bags at their open ends to simultaneously seal both bags.

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**2,775,083**
**PACKAGE FORMING AND FILLING APPARATUS**
Frank Edwin Stirn, Pearl River, and Arthur Sinclair Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application March 26, 1951, Serial No. 217,628
13 Claims. (Cl. 53—180)

1. A packaging machine comprising a hopper, a rotary turret provided with a plurality of measuring chambers adapted to rotate under said hopper, a foraminous material comprising at least a portion of the surface of each of such measuring chambers, means for withdrawing the gas present in the measuring chambers through said foraminous material, means for rotating the turret and thereby moving the said measuring chambers past a doctor means and to a discharge position, means for adjusting said discharge position while the machine is in operation, gaseous pressure change means for discharging



the powder charge of said measuring chambers at such a point that the rotational velocity and force of gravity cause the charges to fall directly into containers, means for passing two sealable sheets of packaging material beneath said turret, and means for forming open-ended containers from said sheets and sealing the containers above their powder contents after the containers are filled.

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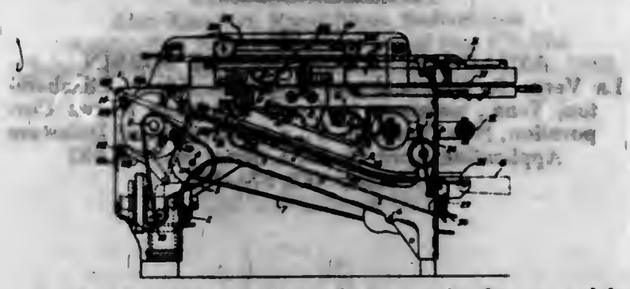
**2,775,084**
**APPARATUS FOR FILLING POWDER IN CAPSULES**
Frank E. Stirn, Evans Park, and Arthur S. Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application November 26, 1948, Serial No. 62,612
4 Claims. (Cl. 53—182)



3. In a machine for filling uniform powder charges into capsules, a rotatable measuring roll having therein a plurality of spaced tapered long oval charge chambers, the bottom of each of which has at least one foraminous area, each chamber having such draft that once a charge is released said charge drops free without binding, and having peripheral walls extending down to the foraminous area at the bottom thereof with a slope of less than 45° with respect to the axis of discharge, suction means, gas pressure means, and a manifold means whereby the suction means is connected to the back portion of the foraminous material during at least a portion of a filling step, and the gas pressure means is connected to the back portion of said foraminous means during at least a portion of a discharge step, a cavity die roll having therein a plurality of capsule forming cavities of such size and shape as to be, when lined with strip material, substantially filled by the contents of said charge chambers, means to supply capsule forming strip material to line said cavities, and means for operating said die roll in timed relationship with said measuring roll and in such a position relative thereto that the strip lined cavities receive the discharged powder from said charge chambers.



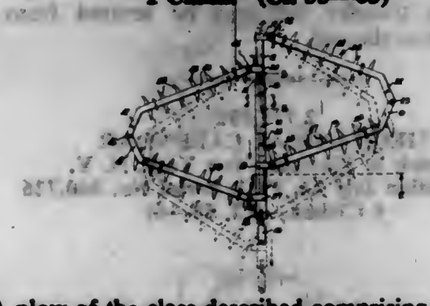
**2,775,085**
**MECHANISM FOR CONTROLLING THE TIGHTNESS OF THE WRAP IN A WRAPPING MACHINE**
Arthur A. Kotimann, Davenport, Iowa, assignor, by mesne assignments, to American Machine & Foundry Company, New York, N. Y., a corporation of New Jersey
Original application October 6, 1950, Serial No. 188,696. Divided and this application February 28, 1952, Serial No. 273,941
16 Claims. (Cl. 53—210)



1. In a wrapping machine of the type having an article feed runway, an article discharge runway and wrapping mechanism for clamping the leading end of a web of wrapping material to the article, transferring the article from the feed runway to the discharge runway and wrapping the web about the article during the transfer, means operating to feed from a source of supply a length of web sufficient to closely wrap the article, means adjacent said discharge runway for tightening or loosening the wrap comprising a pair of rollers between which the web is gripped, a friction brake retarding rotation of one of said rollers to impose a drag on the web during the initial portion of the advancement of the article over the rollers to the discharge runway, and intermittently operated driving means for automatically imparting a turning movement to one of said rollers in a direction to advance the web toward the article about which the web is wrapped and at a speed sufficient to relieve tension on the web during the final portion of said advancement.

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**2,775,086**
**PLOW AND DIAMOND-SHAPED FRAME THEREFOR**
David C. Vaughn and Shelby F. Vaughn, Cactus, Tex.
Application April 2, 1953, Serial No. 346,436
1 Claim. (Cl. 55—83)



A plow of the class described comprising a frame, said frame comprising a longitudinally adjustable draw-bar, a plurality of disc-supporting bars arranged upon opposite sides of said draw-bar in converging relation thereby defining segments of a diamond-shaped frame, each segment comprising a forward disc-supporting bar and a rear disc-supporting bar adjustably connected to said draw-bar at their inner ends, the outer ends of the forward and rear bars of each segment being pivotally connected together, the adjustable connection of the disc-supporting bars with said adjustable draw-bar facilitating the adjustment of the angles of the disc-supporting bars relative to the draw-bar, said draw-bar being longitudinally adjustable to vary the length of said draw-bar, discs carried by each disc-supporting bar, the discs of the forward bars having concave faces facing toward said draw-bar to throw the earth inwardly while plowing, and the discs of the rear bars having concave faces facing outwardly away from said draw-bar to throw the earth outwardly while plowing, the discs of the rear bars crossing the furrows formed by the discs of the forward bars at a selected angle as the plow passes in a forward direction to plow criss-cross furrows as the plow passes in a forward direction.

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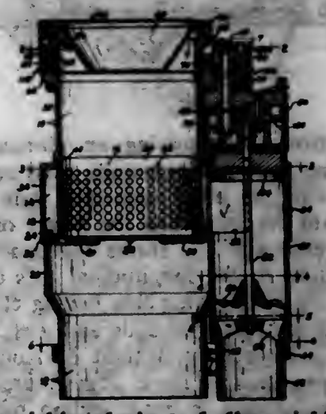
**2,775,087**
**POWER MOWER WITH CORD SECURING CLIP**
Frederick Abel, Dayton, and Francis R. McNeil, New Carlisle, Ohio, assignors to The Huffman Manufacturing Company, Dayton, Ohio, a corporation of Ohio
Application September 2, 1953, Serial No. 378,100
1 Claim. (Cl. 56—25.4)



For use with a power lawn mower including a main frame provided with wheels and a guiding handle and supporting an electric motor which drives the cutting means of said mower and is provided with a resiliently surfaced electric cord, a supporting member for said electric cord comprising a rod having means at one end thereof for attachment to said handle, clip means on the other end of said rod including a pair of partial ring members mounted in axially aligned relation and extending in opposite directions to define a combined opening of substantially cylindrical shape for receiving said cord therethrough, said ring members each having one end thereof secured to the end of said rod on substantially opposite sides of said rod, each said ring member being of such circumferential extent that the free end thereof is spaced from said rod by a distance slightly less than the diameter of said cord to provide for laterally wedged entry of said cord therein, each said ring member being of an inner diameter sufficiently greater than the diameter of said cord for sliding movement of said cord therethrough following said wedged entry therein, and said ring members being inclined away from each other in an angular relation providing a spacing between the outermost portions thereof which is slightly less than the diameter of said cord to provide for correspondingly wedged insertion of an intermediate section of said cord therebetween followed by said wedged entry within said rings upon substantially 90° of relative rotation of said cord section and said rod about the axis of said rod.

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**2,775,088**
**FRUIT PICKING APPARATUS**
Giles E. Bullock, Rochester, N. Y.
Application December 10, 1954, Serial No. 474,432
11 Claims. (Cl. 56—332)



1. In a fruit picking device, a hollow picking head having a fruit receiving end, rotatable annular means mount-

ed for rotation upon and associated with the head adjacent the receiving end for frictionally contacting the body of a fruit to be picked, means connected in driving relation to said rotatable means for rotating said fruit contacting means to impart a twist to a fruit in contact therewith, and differential pressure means for reducing the pressure within said head for drawing said fruit into contacting engagement with said fruit contacting means.

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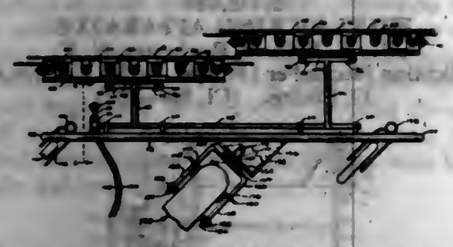
2,775,089
**CONVERTIBLE PICK-UP UNIT FOR BALERS**
Stanley D. Russell, Racine, Wis., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Original application March 10, 1948, Serial No. 13,969, now Patent No. 2,674,839, dated April 13, 1954. Divided and this application September 8, 1953, Serial No. 378,958
4 Claims. (Cl. 56—341)



1. In combination with a baler having a mobile supporting frame and a pick-up unit supported on said frame in transversely extending relation thereto, an improved feed means carried by said frame rearwardly of said pick-up unit in position to receive material therefrom, said feed means comprising a housing rotatably mounting an auger extending generally transversely of said frame, said housing including a bottom member, a removable closure member adjacent the discharge end of said auger, and a rear platform member which is movable relative to said bottom member to thereby provide an opening at the rear of said housing, whereby said feed means may be selectively used to discharge material collected by said pick-up unit either axially of said auger when said end closure is removed or transversely of said auger when said rear platform member is moved to provide an opening at the rear of said housing and said end closure member is in position on the housing.

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2,775,090
**SIDE DELIVERY WINDROWER**
Dan T. Huffman, Decatur, Nebr.
Application June 5, 1953, Serial No. 359,759
8 Claims. (Cl. 56—376)



1. A windrower comprising an elongated vertically disposed frame having horizontally positioned upper and lower rails with the ends connected with semi-circular sections, means for mounting the frame on the forward end of a tractor with the frame positioned at an acute angle in relation to the longitudinal axis of the tractor, oval shaped supporting members having elongated parallel edges with semi-circular ends and with the centers of the ends spaced whereby straight horizontally disposed portions are provided on lower edges thereof, continuous tracks, channel-shaped in cross section mounted on the edges of said supporting members, endless chains slidably mounted in said tracks, means for mounting the supporting members on the frame to provide vertical movement of the supporting members and chains, and spring fingers extended outwardly from said chains the spring fingers on lower sections of said chains being adapted to engage the ground upon which a tractor on which the windrower is mounted whereby upon forward movement of the tractor the chains are actuated to carry products gathered by the spring fingers to one side of the device.

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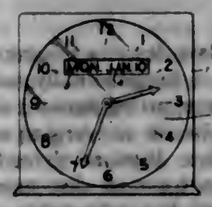
2,775,091
**ATTACHMENT FOR TEXTILE BOBBIN**
La Verne R. Graybeal and Donald J. Edgar, Elizabethton, Tenn., assignors to North American Rayon Corporation, New York, N. Y., a corporation of Delaware
Application April 10, 1953, Serial No. 348,002
4 Claims. (Cl. 57—34)



2. A transfer tail holder and cutter for textile yarn wound onto a spool having a barrel and a flange secured to the bottom of said barrel, a hub extending from the bottom of said flange, said flange having a radially extending slot formed therein, the improvement comprising a clip member, means for attaching said clip member to the bottom of said flange adjacent to said slot, said clip member having resilient clamping means for clamping the yarn transfer tail against the bottom surface of said flange, said resilient clamping means being oriented to face in a direction away from said slot so that said yarn transfer tail emerging from said slot to the under side of said flange may be wound around said hub and then clamped by said resilient clamping means, said clip member having a sharp edge positioned between said resilient clamping means and said slot so that the free end portion of said yarn transfer tail may be severed from the clamped portion thereof.

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2,775,092
**MECHANICAL CALENDAR**
Frank A. Howard, New York, N. Y.
Application July 24, 1952, Serial No. 300,726
4 Claims. (Cl. 58—6)



1. A mechanical calendar capsule comprising a case, having one end curved to semi-cylindrical form and having a circumferential groove in the cylindrical surface, a cylindrical feed roller carried by the case within said curved end, the surface of the roller being spaced from the curved surface of the case by a small interval, the roller having a row of teeth which travel in the said groove, a loose calendar tape of flexible material, and of thickness slightly less than the width of the said space interval, stored within the case and passed over the said roller, the teeth passing through the tape into the said groove and guide surfaces carried by the case for stripping the tape from the roller at the exit side, the said case being partly open in proximity to the roller to expose a complete calendar legend carried by the tape.



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2,775,093
**DETACHABLE LINK STRAP OF SYNTHETIC PLASTIC MATERIAL**
Alex Kundert, Rueschlikon, Switzerland
Application March 30, 1956, Serial No. 575,206
Claims priority, application Switzerland August 25, 1955
4 Claims. (Cl. 59—80)



1. A flexible link strap comprising a plurality of one-piece substantially planar link members of flexible plastic material, each of said link members being provided with separable fastener elements consisting of a male member and an open loop-like female member serving when the dissimilar fastener elements of adjacent successive link members are engaged to provide connections between said link members linearly of the strap, the cooperating fastener elements of adjacent link members including complemental concave and convex peripheral mating surfaces on said male and female members respectively, and the said concave peripheral surface of said male member having a terminal lip of greater transverse dimension than the transverse dimension of the convex peripheral surface of the said female member, whereby said elements are capable of cooperative mating snap engagement and disengagement.

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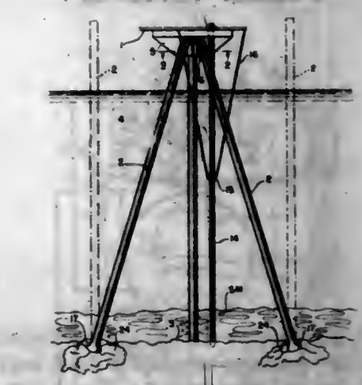
2,775,094
**END CAP FOR FLUID FUEL COMBUSTOR**
Bruce O. Buchland, Schenectady, and Arthur Y. Hillman, Jr., Scotia, N. Y., assignors to General Electric Company, a corporation of New York
Application December 3, 1953, Serial No. 395,907
2 Claims. (Cl. 60—39.65)



1. In a combustor end cap assembly, an annular wall portion comprising a substantially conical stack of separate ring members each comprising an annular band of an axial width on the order of one-tenth the diameter of the band, each adjacent pair of bands cooperating to define coolant passages therebetween, each band being displaced axially relative to adjacent bands by a distance substantially less than half the axial width of the band, means securing said bands to each other in said axially spaced relation, said means comprising a plurality of circumferentially spaced radially disposed weld beads each fused to radially aligned portions of each band, each band having a slot proceeding from the edge of the band adjacent the weld bead at an acute angle to the edge of the band to form a substantially triangular prong to which the weld bead is secured.

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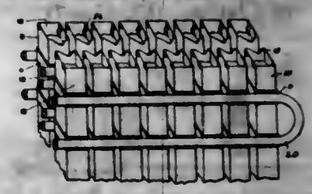
2,775,095
**METHOD OF ERECTING STRUCTURES IN WATER**
Frederic R. Harris, New York, N. Y.; Michael S. Lobenthal, Monroe Percy Bloch, and Florence B. Downs, executors of said Frederic R. Harris, deceased, assignors to Frederic R. Harris, Inc., New York, N. Y., a corporation of New York
Application April 22, 1949, Serial No. 89,002
2 Claims. (Cl. 61—46)



1. The method of erecting a structure in a body of water, which consists in floating and moving hollow piles in horizontal positions and with both ends sealed, to a selected location, opening one end of said piles to admit water into said piles and removing air from the interior of said piles to flood portions of said piles to submerge said portions, buoying up the remaining portions of said piles to maintain the remaining portion of each pile above the surface of the water, setting up said piles in substantially upright positions till their open ends rest upon the earth at the bottom under the water, with their opposite ends above the surface of the water, exerting a force laterally against each pile to cause the piles to lean towards each other, uniting the upper portions over said surface and attaching a support to the upper portions at said opposite ends, forming a cavity in the earth adjacent the open end of each pile, pouring concrete through the piles and said open ends to embed said open ends in place upon the bottom and affixing a support to the opposite ends.

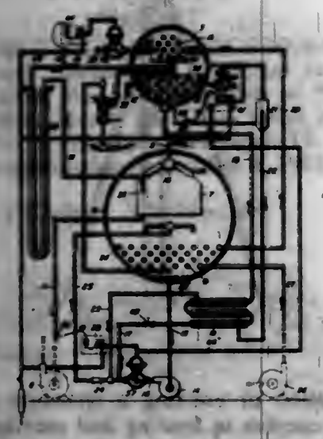
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2,775,096
**ICE CUBE MAKERS**
Carlyle M. Ashley, Fayetteville, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application July 1, 1950, Serial No. 171,621
15 Claims. (Cl. 62—4)



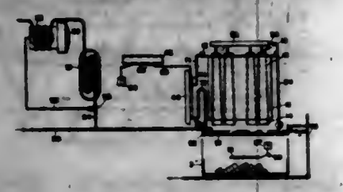
1. In an ice cube maker, the combination of a hollow ice forming element, a plurality of bands substantially surrounding the exterior of the element and being placed in spaced relation to each other, said bands having a heat conductive value greater than the element, means to direct a stream of water through the hollow element in contact with the interior wall of the element, a refrigeration system including an evaporator placed in heat exchange relation with the bands to form spaced pieces of ice within the interior of the element, and means to harvest the formed pieces of ice.

2,775,097
**ABSORPTION REFRIGERATION SYSTEMS**
Alexis A. Berestoff, Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Original application July 13, 1946, Serial No. 683,387, now Patent No. 2,565,943, dated August 28, 1951. Divided and this application August 3, 1951, Serial No. 240,229
5 Claims. (Cl. 62—5)



1. In the method of operation of an absorption refrigeration system including an absorber, an evaporator, a generator and a condenser, the steps which consist in forwarding a weak solution of absorbent and refrigerant from the absorber to the generator, heating the weak solution in the generator to release refrigerant therefrom, condensing the released refrigerant, forwarding the condensed refrigerant to the evaporator, forwarding strong solution from the generator to the absorber, passing a heating medium through the generator in heat exchange medium to the generator in response to the temperature relation with solution therein, regulating flow of heating of strong solution leaving the generator, flash-cooling refrigerant in the evaporator, absorbing the flashed vapor in the solution in the absorber, purging non-condensible gases from the condenser and the absorber and regulating the flow of solution through the system in response to the temperature of flash cooled refrigerant leaving the evaporator.

2,775,098
**ICE CUBE MAKER AND CONTROL MECHANISM THEREFOR**
David Earle MacLeod, Syracuse, N. Y., assignor to Carrier Corporation, a corporation of Delaware
Application July 1, 1950, Serial No. 171,593
19 Claims. (Cl. 62—7)



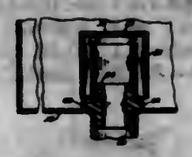
1. In an ice cube maker, the combination of a hollow ice forming element, a refrigeration system including a compressor, a condenser, a discharge line connecting the compressor and the condenser, an evaporator, a liquid line connecting the condenser and the evaporator, expansion means disposed in the liquid line and comprising capillary tubes, a suction line connecting the evaporator and the compressor, a first accumulator and a second accumulator placed in the suction line and said capillary tubes being disposed about the first accumulator, the evaporator in the refrigeration system being placed in contact with the ice forming element, means to pass a stream of water for ice formation through the element, a line connecting the evaporator with a portion of the refrigeration system containing heated refrigerant vapor, means in said line normally closing the line, opening of said means permitting heated refrigerant vapor to pass to the evaporator to harvest ice formed in said element.

2,775,099
**SELF-CONTAINED ICE MAKING UNIT**
Seymour W. Brown, New York, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application May 5, 1953, Serial No. 353,116
1 Claim. (Cl. 62—106)



Ice making apparatus comprising a housing, a deck supported in the housing, said deck being provided with a plurality of openings therein, a container adapted to contain liquid to be frozen positioned in each opening, means for fixedly securing the top portion of each container to the deck, a refrigeration system including an evaporator disposed about the container for freezing liquid therein, means for overcoming the bond between the ice and the inner surface of the container, means for removing the ice after the bond has been overcome, a cover for each container and closure means including an elongated bar adapted to engage a plurality of the covers and clamping means arranged to exert a force on the bar sufficient to cause the covers to tightly engage the containers.

2,775,100
**ICE MAKING APPARATUS**
Harlan L. Howe, De Witt, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application November 20, 1953, Serial No. 393,431
6 Claims. (Cl. 62—107)



1. In combination with an ice making machine of the type wherein a formation of ice is produced as water flows, under the influence of a pump, through a circuit including a supply tank, water distribution means, and a refrigerated member having an ice forming surface adapted to receive water from the distributor, means for withdrawing from the circuit, a portion of the water returning to the tank, said means including an outlet pipe in communication with the bottom of the tank, an overflow pipe, a cap secured to the overflow pipe in spaced relation to the sides and top thereof, and a resilient mounting member having portions in engagement with both the overflow pipe and the outlet pipe for detachably securing the overflow pipe and cap in communication with the outlet pipe.

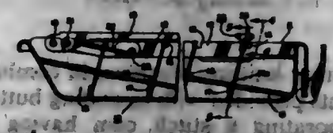


2,775,101
**SELF-CONTAINED ICE MAKING UNIT**
Lars Hansen, Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application November 7, 1952, Serial No. 319,325
2 Claims. (Cl. 62—106)



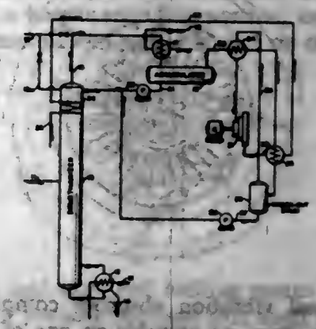
1. In an ice maker, the combination of a casing, a refrigerated chamber within said casing, a steam chest within said casing, and a partition within said casing separating the chamber from said chest, said chamber including a container for containing the liquid to be frozen and means for lowering the temperature of the liquid so as to form the ice, said steam chest including a receptacle to receive the container of said chamber, a steam coil disposed about the interior walls of the receptacle, said coil having spray means adapted to supply steam over the exterior surface of said container to thaw the ice from said container.

2,775,102
**FREEZING DEVICE**
Edward C. Simmons, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 15, 1955, Serial No. 515,613
1 Claim. (Cl. 62—106.5)



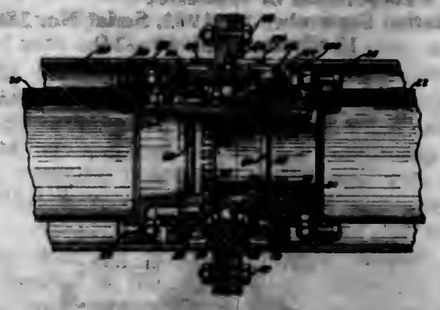
In combination, a tray having a unitary grid structure removably disposed therein, said grid structure including a longitudinal wall formed of two superimposed members disposed in the same plane with one another and a plurality of wall members extending transversely thereacross in spaced apart relation dividing the interior of said tray into compartments in which water is to be frozen into ice blocks, said transverse grid wall members being normally inclined with respect to the vertical, means for interlocking said transverse wall members to said longitudinal wall for tilting movement relative thereto, said means including spaced apart upwardly opening exposed notches in the uppermost member of said longitudinal wall each receiving a portion of one of said transverse wall members, a single lever pivotally mounted upon one end of said grid structure for moving said uppermost member of said longitudinal wall lengthwise relative to the lowermost of said superimposed members thereof to elevate said one end of the grid and ice blocks adhering thereto with respect to said tray, a side of said upwardly opening notches normally being spaced from said transverse wall members and adapted, when said uppermost member is so moved relative to said lowermost member, to engage and tilt said transverse wall members toward the vertical for releasing ice blocks from the grid structure, means at the top of one of said grid wall members having a portion projecting laterally out of the inclined plane thereof horizontally over said side of the notch at the end of said grid structure opposite its said one end, and said horizontally projecting portion of said means being wider than the thickness of said one grid wall member whereby a substantially flat smooth hold-down pad is provided at the end of said grid structure opposite the lever end thereof.

2,775,103
**HYDROCARBON SEPARATION**
Robert A. Kobin, Bartlesville, Okla., and Fred T. Shunk, Pasadena, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
Application December 23, 1954, Serial No. 477,336
7 Claims. (Cl. 62—123)



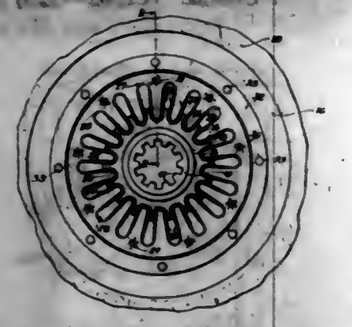
1. A demethanizing system comprising a demethanizer having a feed inlet, a bottoms product outlet, an overhead products outlet, and a reflux inlet; means for mixing the overhead product with a solvent; means for cooling a resulting mixture; a first means for separating said mixture into a liquid and a gas; means for passing the resulting liquid to the reflux inlet of said demethanizer; means for cooling said resulting gas, as hereinafter set forth; a second means for separating a liquid from said gas; means for passing a resulting liquid to the reflux inlet of said demethanizer; gas expanding means; and means for passing the gas from the second separator through said gas expanding means and in indirect heat exchange relationship with the gas from said first separator as the hereinbefore referred to cooling means.

2,775,104
**ENGINE EXTENSION SHAFT**
Harry C. Karcher, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 12, 1952, Serial No. 276,135
3 Claims. (Cl. 64—4)



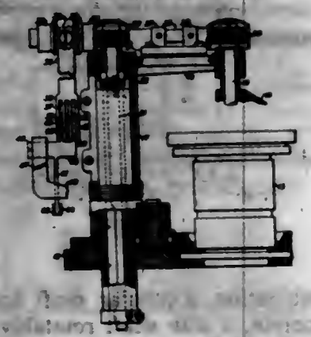
1. In combination, a tubular shaft housing, a bearing supported therein, a stub shaft rotatably mounted in the bearing, the first shaft having a radially extending flange at an end thereof, a second shaft in the housing, means fastening the second shaft to the flange of the first shaft, the fastening means projecting from the face of the flange nearest the bearing, air inlet openings in the housing adjacent the bearing, air outlet openings in the housing adjacent the flange, and baffle means mounted in the housing for directing air entering the air inlets to a point adjacent the flange radially inward of the fastening means so that the fastening means serve to impel the air centrifugally from the inlets past the baffle to the outlets, the baffle constraining the air to flow adjacent the first shaft to cool the same.

2,775,105
TORSIONAL VIBRATION ABSORBER
Oscar H. Barthel, Evanston, Ill., assignor to New Products Corporation, Chicago, Ill., a corporation of Delaware
Application February 10, 1954, Serial No. 409,363
3 Claims. (Cl. 64—27)



1. A torsional vibration absorber comprising driving and driven members, an annulus on one of the members and having radially inwardly extending teeth, radially outwardly extending teeth on the other member fitting loosely within the spaces between the radially inwardly extending teeth, and resilient means connecting the teeth on the members to provide a drive therebetween, said means comprising a strip of resilient material formed to fit between the teeth on the members and passing alternately around the ends of the teeth of said members, said strip being of lesser thickness than the depth of the space between the sides of adjacent teeth and contacting corresponding portions of the teeth of the members one of said members overlapping the other member on one side of the teeth on both members, and having frictional contact with the other member, a plate secured to the said one member and passing around the other side of the teeth on both members and having frictional contact with the other member to define a chamber around the teeth and strip, and a lubricant in said chamber, the said frictional contact providing a damping force for the resilient strip.

2,775,106
DIAL RACKING MECHANISM
Clarence W. Minton, Nashville, and John G. O'Hara, Lyle, Tenn., assignors to May Hosiery Mills, Nashville, Tenn., a corporation of Tennessee
Application September 16, 1953, Serial No. 380,502
11 Claims. (Cl. 66—24)



1. In an automatic transfer knitting machine for the continuous knitting of socks, separated by a pull top and each sock having a non-running welt, a ribbed top and plain or ribbed knit leg and foot portion, dial racking mechanism comprising a sleeve rotatably mounted on the dial drive shaft of said knitting machine, gear means for rotatably driving said sleeve, a bevel gear fixed to said sleeve, a carrier rotatably mounted on said drive shaft, oppositely disposed bevel pinions rotatably mounted on said carrier and meshing with said bevel gear, a second bevel gear fixed to said drive shaft and meshing with said pinions, said first and second bevel gears, said carrier and said pinions providing a differential gear transmission, an elongated arm extending from said carrier, a plurality of cam followers pivotally mounted on said arm, screw threaded means for adjusting the position of each cam follower relative to said arm, a cam shaft rotatably mounted on said machine, a low cam on said cam shaft for engaging one of said cam followers, a high cam on said cam shaft for engaging another of said cam followers, a drum on said machine driven in timed relation to the operation thereof, a control cam on said drum and a control lever and linkage system connected to said cam shaft and operable by said control cam to engage either said high or low cam with the associated cam follower whereby upon engagement of said low cam with the associated cam follower the dial and needles carried thereby will be in position for knitting said ribbed top and upon engagement of said high cam with the associated follower said carrier will be moved angularly and through said pinions will move the dial relatively to the cylinder to knit said pull top and non-running welt.

2,775,107
CIRCULAR RIB KNITTING MACHINE
Arthur Shorland, Leicester, England, assignor to Mellor Bromley & Co. Limited, Leicester, England, a British company
Application February 13, 1953, Serial No. 336,812
Claims priority, application Great Britain February 18, 1952
2 Claims. (Cl. 66—37)



1. In a circular knitting machine, in combination, knitting instruments provided with operating butts, and a cam system incorporating a stitch cam having an inclined operative edge for action on said butts, the said cam being adjustable obliquely at the same angle as its operative edge, being made double-ended and reversible suchwise as to enable it, depending on its position, to present to the operating butts a selected one of two, circumferentially separated knocking-over points.

2,775,108
KNITTING MACHINE NEEDLE DEVICE WITH OPERATING MEANS AND METHOD
Eugene Bellini, Jackson, Ala., assignor to Vanity Fair Mills, Inc., Reading, Pa., a corporation of Pennsylvania
Application March 31, 1953, Serial No. 345,787
14 Claims. (Cl. 66—86)



1. A needle structure of the character described comprising, a pair of complementary needle elements that are adapted to be adjacently actuated longitudinally in unison and relative to each other during their loop forming operation, one of which elements has a hook formed at its working end provided with a straight portion adjacent to its tip and the other element is provided with an inside groove along its tip portion for receiving an outer part of said straight portion of the hook formed on the first mentioned element.

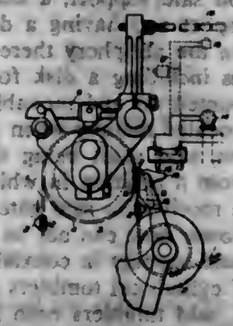


2,775,109
YARN CARRIER TUBE FOR KNITTING MACHINES
Frederick Scarborough, Northampton, Mass.
Application April 13, 1954, Serial No. 422,810
9 Claims. (Cl. 66—126)



1. A yarn carrier for a full-fashioned knitting machine having a feed finger arm comprising a yarn carrier tube extending through said feed finger, opposed recesses on said carrier tube, and an endless band extending around said feed finger arm, said endless band including opposed extensions seated in said recesses.

2,775,110
KNITTING MACHINE
John E. Lyness, Mapperley, Nottingham, England, assignor to William Cotton Limited, Loughborough, England
Application May 12, 1952, Serial No. 287,383
Claims priority, application Great Britain May 11, 1951
8 Claims. (Cl. 66—107)



1. In a knitting machine, the combination of a chain, studs on the chain in different tracks in its width, a feeler for each track of studs and adapted at an operating station in the movement of the chain for actuation by the studs to cause operation in the machine as predetermined by the stud layout on the chain, detector means disposed in advance of the feelers in the movement of the chain and adapted for detecting a misplaced part of the studded chain consisting of a displaceable gate member having a gate or gap for each track of studs and of a width just sufficient to permit passage of the studs in the respective tracks, mechanism for stopping the machine, and means operable by the detector means for operating said mechanism for stopping the machine.

2,775,111
FREEZER LOCK
Kenneth W. Savage, Grand Rapids, Mich., assignor to Crawford Manufacturing Company, Holland, Mich.
Application December 16, 1954, Serial No. 474,425
2 Claims. (Cl. 70—9)

1. A lock mechanism comprising, a housing having a mounting surface, an opening, aligned bearing means disposed on opposite sides of said opening on a single axis substantially parallel to said mounting surface, said bearing means being radially open over at least 180 degrees on the side thereof facing said mounting surface, said housing also having a stop adjacent an edge of said opening which is parallel to said axis, and a shelf portion; a bolt member formed to be received in said opening and having journal portions normally engaging said bearing means, said bearing means being spaced from said mounting surface sufficiently to receive said journal portions, and said bolt member also having a portion disposed to engage said stop on rotation of said bolt toward locking position, a keeper engaging portion, and a handle portion both remote from said axis and on the opposite side thereof from said stop, and locking means including a bar moveable to a position opposite said shelf to prevent rotation of said bolt member about said axis, said housing being formed to receive said bolt member into said opening from a lateral direction with respect to said mounting surface to engage said bearing means and journal portions; and compression spring means acting between said shelf portion and a point on said bolt to rotate said bolt about said axis against said stop.



2,775,112
COMBINATION RESETTING GUARD FOR EXPOSED SHACKLE PADLOCK
James L. Taylor, Rochester, N. Y., assignor to Serpent & Greenleaf, Inc., Rochester, N. Y., a corporation of New York
Application July 29, 1955, Serial No. 525,130
8 Claims. (Cl. 70—25)



1. In a combination lock, the combination with a lock housing having a socket therein and including a wall having a combination resetting key opening, rotatable tumblers, a driving cam therefor, a fence operatively associated with said tumblers and driving cam, and means normally occupying said socket barring access thereto when said lock is in locked condition and removable from said socket to expose the same when said lock is unlocked, of a guard mechanism comprising a guard member rotatably supported on said wall with a portion thereof normally covering said wall key opening and having a resetting key opening disposed out of registry with said wall key opening, a guard member adjusting screw disposed at the base of said socket for axial adjustment upon rotation of the same by an instrument inserted into said socket when the socket is exposed, and linkage means interconnecting said screw with said guard member for translating axial movement of said adjusting screw into rotary movement of said guard member to shift said guard member key opening into and out of registry with said wall key opening upon preselected axial movement of said adjusting screw.

2,775,113
COMBINATION LOCKS
Herbert C. Behrens, Canton, Ohio, assignor to Diebold, Incorporated, Canton, Ohio, a corporation of Ohio
Application May 8, 1951, Serial No. 225,167
20 Claims. (Cl. 70—133)

16. In combination lock construction, a rotatable and axially movable spindle, a plurality of rotatable tum-

biers provided with outwardly opening notches adapted to be aligned when the combination is set, drive means engageable between the spindle and tumblers when the spindle is in one position of axial movement for rotating the tumblers to set the combination upon selective rotation of the spindle, said drive means being disengaged when the spindle is in another position of axial movement, a bolt, an operating lever pivotally mounted on the bolt, a fence on the operating lever adapted to be received in said aligned tumbler notches upon movement of the operating lever toward the spindle when the combination is set, interengageable means on the operating lever and spindle holding the lever in a raised position with respect to the spindle and holding the fence out of contact with the tumblers when the spindle is in said one



position, said interengageable holding means being disengaged when the drive means is disengaged upon actuation of the spindle axially to said other position, and interengageable notch and tongue means on the spindle and lever for actuating the lever to operate the bolt by rotation of the spindle when the spindle is in said other axial position, a control member, and the spindle being formed with co-acting axially extending and sectoral groove means engageable with the control member, the axially extending groove means receiving the control member and permitting axial movement of the spindle from said one position only at one rotated position of the spindle, and the sectoral groove means and control member limiting rotative movement of the spindle when axially moved to said other axial position.

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2,775,114
COMBINATION LOCK
George Edward Lee, Kansas City, Kans.; Cora A. Lee, administratrix of said George Edward Lee, deceased
Application January 3, 1949, Serial No. 68,976
18 Claims. (Cl. 70—133)



1. In a combination lock of the kind having a housing, a locking member movably mounted on said housing, an elongated, manually-rotatable dial shaft extending into said housing, a disk like cam secured to said shaft within said housing for rotation with said shaft, said cam having a gate in the periphery thereof, a movable fence associated with said locking member for controlling movement thereof, said fence being formed to interlock with the gate of said cam when the latter is rotated to a predetermined position with respect to said fence, whereby continued rotation of said cam in one direction shifts said fence and said locking member to an unlocked position, the walls defining said gate being formed to move said fence to a position released from said cam when said cam is rotated in the opposite direction, a plurality of tumblers interconnected by lost motion driving connections and being operably mounted within said housing and about the axis of said shaft, and a lost motion driving connection between said cam and one of said tumblers, said tumblers blocking movement of said fence from said released position except when they are shifted to a predetermined set position in which said fence is permitted to move to a position interlocked with said cam; the improvement of which comprises means for imparting continued movement to said fence, when said fence moves to said released position, to a position spaced from the cam and tumblers, releasable means for continuously holding said fence in said position spaced from the cam and tumblers throughout rotation of said cam to move said tumblers to said set position, and manually-operable means for releasing said releasable means.

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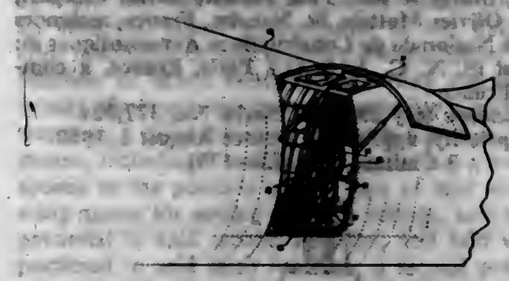
2,775,115
MANIPULATION-RESISTANT COMBINATION LOCK
Frederick J. Bremer, Hamilton, Ohio, assignor to The Mosler Safe Company, Hamilton, Ohio, a corporation of New York
Application December 29, 1950, Serial No. 203,431
11 Claims. (Cl. 70—133)



11. A combination lock comprising a support, a bolt slidably mounted on said support, a dial shaft movably carried by said support and having a disk thereon provided with a gate in the periphery thereof, a fence lever having fence means including a disk follower nose and being pivotally mounted on and movable with said bolt as the bolt is reciprocated thereby when the disk follower nose is in said gate, said shaft being slidable along its longitudinal axis from a position in which said disk follower nose may be received in said gate to a position in which said disk follower nose can not be received therein, a spindle fixed to said support in coaxial relation to said shaft, a plurality of cylindrical tumblers rotatably mounted on said spindle, said tumblers each having a gate in the periphery thereof, said tumblers having a lost motion driving connection one with another, said disk having a circular portion of larger diameter than the gated portion thereof upon which said disk follower nose rides when the shaft is in one position, said disk having a driving connection with its adjacent tumbler when in the position in which said disk follower nose rides on the circular portion of said disk, and said fence means also including a bar extending from said fence lever across said tumblers, said circular portion of larger diameter of said disk being of such diameter as to hold the bar out of contact with the rims of said tumblers when said disk is in a position to be connected with said adjacent tumbler and said notched portion of said disk being of such diameter that said bar will rest on the peripheries of said tumblers and hold the disk follower nose out of said disk gate when the gates of the tumblers are not in alignment and when said disk is in a position to be disconnected from said adjacent tumbler, said tumblers being rotatable to align their gates with said bar when said shaft is turned in accordance with the combination of the lock when the driving connection is established, said bar and disk follower nose dropping into said tumbler gates and disk gate, respectively, when the disk gate is aligned with said tumbler gates and the disk is moved to a position where the adjacent tumbler is disengaged therefrom, whereby the lock bolt may be moved to or from locked position by turning said shaft.



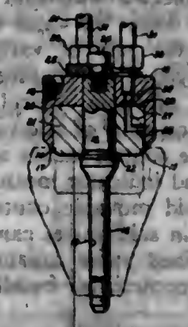
2,775,116
METHOD OF TESTING PRESSURE VESSELS
William H. Bonell, Pasadena, and Boyd E. Ludwig, Encino, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.
Application July 17, 1953, Serial No. 368,612
6 Claims. (Cl. 73—37)



1. A method of pressure testing large vessels comprising stacking hollow vented drums within the vessel to be tested, inserting space filling forms in the voids between the hollow drums, closing all external openings in the vessel necessary to render the same substantially fluid-tight, and thereafter pressurizing the vessel.

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2,775,117
PNEUMATIC GAUGING DEVICE
Willis Fay Aller, Dayton, Ohio, assignor to The Sheffield Corporation, Dayton, Ohio, a corporation of Ohio
Application October 15, 1952, Serial No. 314,796
7 Claims. (Cl. 73—37.8)

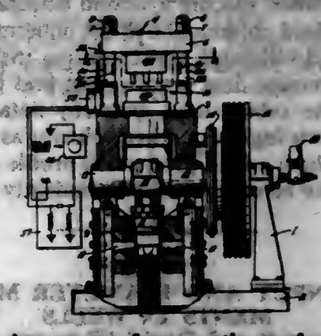


1. A gauging head for checking the relative alignment of two substantially concentric and axially displaced surfaces of revolution comprising a pilot element for telescopic engagement with the one of said two surfaces chosen as a reference to definitely locate the axis of the pilot element to coincide with the axis of said one surface, a radially enlarged body supported by said pilot element having a plurality of fluid leakage gauging means equally spaced at equal radii about the center line of said body in a common radial plane gauging association with spaced points on the other of the said two surfaces for control of the flow therethrough, and individual passage means for independently connecting each of said gauging means to a separate gauge and an air supply.

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2,775,118
DIEING MACHINE LOAD MEASURING SYSTEM
Elmer E. Legge, West Hartford, and Edward J. Stephens, Manchester, Conn., assignors to Emhart Manufacturing Company, Hartford, Conn., a corporation of Delaware
Application March 1, 1952, Serial No. 274,478
2 Claims. (Cl. 73—88.5)

1. In combination, force members movable relative to each other for stressing a work piece therebetween, force means for repetitively moving and progressively loading said members in stressing relationship, a plurality of parallel rods generally paralleling the resultant force effected between the two members and carrying the total force on one of said members, an electrically responsive strain gauge on each of said rods, and electronic means for selectively measuring the total and individual loads on said rods, and stroke counting means actuated



by said measuring means for counting only those strokes of the repetitively moving members when said force means exerts a preselected minimum load.

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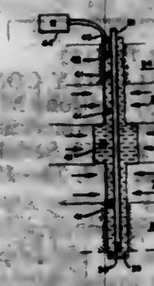
2,775,119
DYNAMOMETRY
Thomas G. Kirby, Ecorse, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application June 2, 1953, Serial No. 359,153
4 Claims. (Cl. 73—134)



1. A high speed dynamometer comprising a squirrel cage induction motor cradled to permit the mechanical measurement of torque and arranged to be mechanically connected to a prime mover, a variable frequency, constant speed alternator electrically connected to but mechanically independent of said squirrel cage induction motor and an alternating current motor connected only mechanically to said variable frequency alternator for transferring energy to a power system.

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2,775,120
FLUID ENTRY DETECTION IN WELLS
Arthur D. Bennett and Daniel Silverman, Tulsa, Okla., assignors to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware
Application January 2, 1953, Serial No. 329,398
7 Claims. (Cl. 73—155)



1. The method of testing wells to obtain data from which both a fluid-production profile and a volume-caliper log can be determined comprising, in combination, the steps of producing a well through a tubing extending to a depth below the producing formations under such conditions of bottom-hole pressure that there is fluid flow both from the formations and from the well annulus above the formations, the ratio of formation and annulus flows having a first value, placing at least one detectable marker in the annulus fluid column at a point at least as high as the uppermost producing formation, following

and recording the movement of said marker downwardly past the producing formations to the tubing inlet, changing the bottom-hole pressure conditions to create a second ratio of said flows, placing a second detectable marker in said annulus fluid column above the uppermost producing formation, and following and recording the movement of said second marker downwardly past said producing formations to the tubing inlet, whereby data are obtained for plotting two logs of marker velocity as a function of depth from which a fluid-production profile and a volume-caliper log may be computed independently of each other.

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2,775,121

## FLUID INPUT AND DIAMETER MEASUREMENTS IN WELLS

Arthur D. Bennett and Daniel Silverman, Tulsa, Okla., assignors to Stanolind Oil and Gas Company, Tulsa, Okla., a corporation of Delaware

Application December 29, 1952, Serial No. 328,454
5 Claims. (Cl. 73—155)



1. A method of obtaining data from which both the fluid-injection profile and the hole-size variations of a well bore can be determined comprising, in combination, the steps of injecting liquid into a well through a tubing extending to a level below the permeable formations of said well, said liquid traveling upwardly outside said tubing into said formations and into the annulus outside said tubing above said formations under such conditions that the ratio of the flow up said annulus to the flow entering said formations has one value, establishing a detectable marker in the fluid stream emerging from said tubing, following and recording the motion of said marker past said permeable formations, altering the conditions of injection to change said ratio of flows to a second value, establishing a second detectable marker in said fluid stream, and following and recording the motion of said second marker, whereby two logs of the velocity of said markers may be plotted, from which logs said profile and hole-size variations may be computed independently of each other.

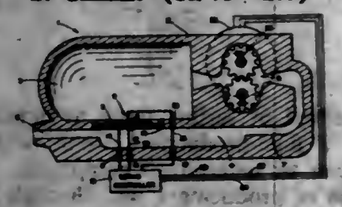
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2,775,122

## VERTICAL VELOCITY COMPUTER

Robert E. Smith, Downey, and John M. Wuerth, Whittier, Calif., assignors to North American Aviation, Inc.

Application March 2, 1953, Serial No. 339,598
17 Claims. (Cl. 73—179)



1. A rate altimeter comprising a constant volume sealed chamber, a pressure sensitive element responsive to the pressure differential between said chamber and the static atmosphere, servo means responsive to said sensitive element for varying the pressure in said chamber to maintain said pressure differential substantially at zero, and means for indicating the rate said servo means varies the pressure in said chamber whereby the rate of varying said pressure is the measure of the rate of change of altitude.

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2,775,123

## RATE OF CLIMB INDICATOR

René Salle, Marly le Roi, Paul Etienne Sévin, Clamart, and Jean Olivier Mettais, St. Nazaire, France, assignors to Societe Nationale de Constructions Aeronautiques du Sud-Ouest (S. N. C. A. S. O.), Paris, France, a company of France

Application July 29, 1953, Serial No. 371,094
Claims priority, application France August 1, 1952
3 Claims. (Cl. 73—179)



1. A variometer comprising, in combination, a closed vessel, a capillary tube connecting said closed vessel with an outer space to vary the pressure in said vessel in response to pressure variations in said outer space with a pressure difference with respect thereto, a device responsive to said pressure difference, said device having an element exposed to the pressure in said vessel and an element exposed to the pressure in said outer space, an index operatively connected with said pressure difference responsive device to detect the value of said pressure difference and hence the rate of variation of said outer space pressure, a cylindrical chamber adapted to form part of said vessel, movable control means within said chamber to vary the capacity of said vessel, locating means to hold said movable control means stationary when they are not operated, and indicator means to indicate the located position of said movable control means, whereby the initial pressure in said vessel can be brought before use to a predetermined value capable of reducing to a minimum the time required for building-up said pressure difference.

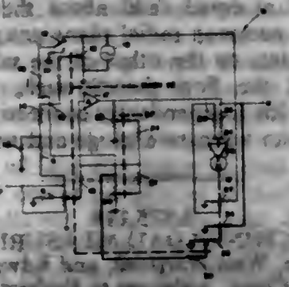
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2,775,124

## ANGLE OF ATTACK COMPUTER

Frederick H. Gardner, Long Beach, James C. Elsaa, Newport Beach, and David Rosenstock, Long Beach, Calif., assignors to North American Aviation, Inc.

Application November 30, 1953, Serial No. 395,072
5 Claims. (Cl. 73—180)



1. Means for generating an electrical signal proportional to the angle of attack of an aircraft relative to its surrounding free air comprising electrical means for generating an electrical signal proportional to the weight of said craft multiplied by the acceleration of said craft in a direction parallel to its yaw axis; differential pressure measuring means, including a shaft, for generating a shaft rotation proportional to the difference between ram and static pressure measured upon said craft; Mach number computing means, including a shaft, for generating a shaft rotation proportional to Mach number of said craft; means having distributed resistance including a first potentiometer connected to said electrical means and connected to be mechanically driven by said Mach number computing means to generate a voltage, upon the arm of said first potentiometer, which is proportional to the weight of said aircraft multiplied by said acceleration multiplied by a first function of Mach number; means for generating an electrical signal proportional to the weight of said craft multiplied by said acceleration multiplied by a second function of Mach number; computing means connected to said Mach number means to generate a voltage proportional to a third function of Mach number; flap voltage means, including a switch, for generating a voltage in response to the position of the flaps of said aircraft; summing means for adding said flap voltage, said voltage proportional to said second function, and said voltage proportional to said third function; a second potentiometer; means for applying the voltage of said summing means across said second potentiometer, the arm of said second potentiometer being connected to be driven by said differential pressure measuring means, an amplifier, the arm of said second potentiometer being electrically connected to the input of said amplifier, the arm of said first potentiometer being electrically connected to the input of said amplifier; third potentiometer means connected across the output of said amplifier mechanically connected to said differential pressure measuring means, and electrically connected to the input of said amplifier whereby the output of said amplifier is a voltage proportional to the angle of said aircraft.



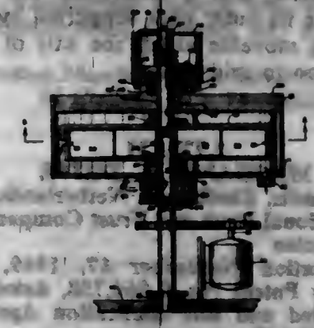
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2,775,125

## MASS FLOW METER

Donald W. Peaceman, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application July 16, 1954, Serial No. 443,782
5 Claims. (Cl. 73—194)



1. In a device for measuring mass rate of flow of fluids which comprises, in combination, an impeller provided with vanes, a driving shaft connected with said impeller provided with a passageway for introducing fluids radially between the vanes of said impeller, the vanes of said impeller extending outwardly from the periphery of the driving shaft, a casing provided with vanes extending inwardly from the periphery thereof rotatably mounted on said driving shaft to enclose said impeller and for rotation independently of the rotation of the driving shaft around the vanes of the impeller, said casing being provided with peripheral ports for discharge of fluid from between the vanes of the casing, an indicating shaft connected to said vaned casing for rotation with the vaned casing, resilient means connected to said indicating shaft for restraining said indicating shaft and casing, and indicating means attached to the indicating shaft for indicating variations in flow rate of fluids introduced through said passageway between the vanes of said impeller and discharging into said casing between the vanes of the casing.

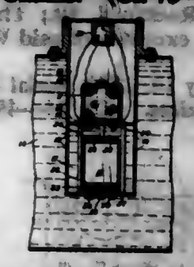
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2,775,126

## DENSITOMETERS FOR MEASURING THE SPECIFIC GRAVITY OF LIQUIDS

Kenneth Robert Hesnick, Mytchett, near Aldershot, England, assignor to Simmonds Aerocessories Limited, Pontypridd, Glamorganshire, Wales

Application October 13, 1953, Serial No. 385,842
Claims priority, application Great Britain October 15, 1952
8 Claims. (Cl. 73—453)



1. Remote indicating densitometer apparatus for use with liquids within a predetermined density range, including a stop, a float mounted for movement totally immersed in a liquid the density of which is to be measured towards and away from a position defined by said stop, the density of the float being predetermined such that for any liquid in said range the float tends to move in one direction only towards the stop under the action of gravity, magnetic means providing the sole means for influencing the float in the other direction, remote means for progressively increasing the influence of said magnetic means until the float is shifted from the stop, electrical circuit means for sensing when the float has moved a small distance from the stop, and remote means for indicating the magnitude of the influence of the magnetic means whereby said indication at the time when the circuit means senses said movement of the float provides a measure of the density of the float relative to the liquid.

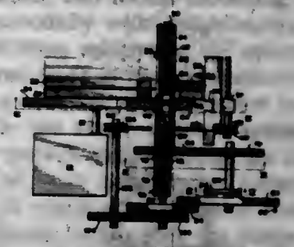
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2,775,127

## SHAFT POSITIONING DEVICE

Harry J. Lalming, Springfield, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application November 25, 1952, Serial No. 322,425
5 Claims. (Cl. 74—10.29)

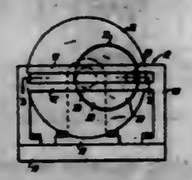


1. In a shaft positioning device the combination of a shaft to be positioned; a plurality of mechanisms associated with said shaft, each of said mechanisms being adapted, when actuated, for rotating said shaft to an angular position, said position being determined by the respective mechanism actuated; a cam associated with each of said mechanisms to actuate the same when said cam is rotated; and means for sequentially rotating said cams, said means comprising a hollow shaft having a longitudinal slot in the wall thereof, each of said cams being journaled upon said hollow shaft and having a slot therein adjacent said hollow shaft, a key projecting through the slot of said hollow shaft and adapted to move longitudinally therein to engage the slot of one of said cams and to secure said one cam to said hollow shaft to rotate therewith, an actuating shaft adapted for rotation, means responsive to a portion of a revolution of said actuating shaft for causing said key to move from

said slot of said one cam to the slot of an adjacent cam, and means responsive to another portion of a revolution of said actuating shaft for rotating said hollow shaft.

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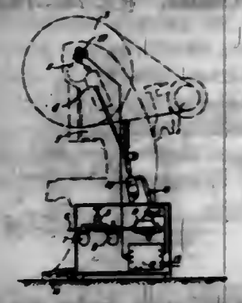
2,775,128
DEVICE FOR CHANGING CIRCULAR MOTION TO RECTILINEAR MOTION
William K. Young, Rockford, Ill.; The Third National Bank of Rockford, executor of said William K. Young, deceased
Application July 14, 1952, Serial No. 298,794
4 Claims. (Cl. 74—49)



1. A device of the type described, comprising a rotatably mounted driving member having a fixed center of rotation; a driven member supported within the confines of the driving member and mounted for rotation relative thereto, the driven member having a center of rotation in a fixed position relative to the driving member; a power member carried by the driven member and spaced from the center of rotation thereof, the distance between the center of rotation of the driven member and the power member carried thereby being greater than the distance between the centers of rotation of the driving member and the driven member; and guide means restricting the movement of said power member.

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2,775,129
ADJUSTABLE CONTROL DEVICE WITH TIMING SYSTEM
Lucien Jules Perne, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France, French Works under the Control and the Authority of the French Government
Application July 7, 1954, Serial No. 441,826
Claims priority, application France August 5, 1953
4 Claims. (Cl. 74—125.5)



1. An adjustment device for controlling the operation in predetermined spaced cycles of a clutch connecting a driven member to a continuously operating driving member, which comprises electrically controlled means for initiating the engagement of said clutch, switch means actuated by said driven member, a first electron tube having an anode, control grid and cathode, means connecting said control grid to said switch, said switch being operable to render said tube non-conducting at the beginning of a cycle and to render said tube conducting during a predetermined intermediate portion of the cycle, a capacitor in the anode circuit of said tube and a variable resistor connected in series with said capacitor, a second electron tube having an anode, control grid and cathode, means connecting the cathode and control grid of said second tube to opposite sides of said capacitor, and means connecting said electrically controlled means in the anode circuit of said second tube so as to cause engagement of the clutch when said second tube is conducting, said second tube being rendered non-conducting by the charging of said capacitor by said first tube and becoming conducting when said capacitor has become discharged, the rate of discharge of said capacitor and hence the time between successive cycles being variable by the adjustment of said resistor.

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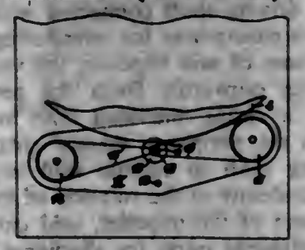
2,775,130
COMBINED HORIZONTAL BORING, DRILLING AND MILLING MACHINE
Hollis N. Stephen, Cleveland Heights, Ohio, assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut
Application May 29, 1953, Serial No. 358,410
12 Claims. (Cl. 74—221)



1. In a machine tool, a frame, a rotatable shaft supported by said frame, a belt drive for rotating said shaft comprising a continuous belt, a driving pulley for driving said belt, a driven pulley engaged by said belt and connected to said shaft for rotating said shaft, idler means for guiding said belt and adjustable to control the belt tension and comprising first and second rollers for engaging the inner side of said belt, a yoke comprising spaced parallel members, first and second parallel shafts removably supported intermediate said members for supporting said first and second rollers, respectively, said first shaft being hollow, and a removable pin within said first shaft having its outer ends supported by said frame, said yoke being movable about the axis of said pin to adjust the tension in said belt.

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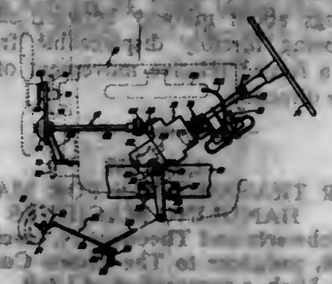
2,775,131
MECHANICAL DRIVE
Hubertus Jan Smits, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Original application November 17, 1949, Serial No. 127,997, now Patent No. 2,664,758, dated January 5, 1954. Divided and this application April 16, 1953, Serial No. 356,629
Claims priority, application Netherlands November 24, 1948
2 Claims. (Cl. 74—221)



1. A phonograph driving mechanism comprising a base, a turntable member, a pivoted mounting plate on said base and provided with an opening therethrough, a pair of driven pulleys spatially mounted on said mounting plate, a drive shaft positioned in said opening and located between said driven pulleys and having two driving pulleys of different diameters, two endless belts, one of said belts encircling one of said driving pulleys and one of said driven pulleys while the other belt encircles said other driving pulley and other driven pulley, said driven pulleys being so mounted on said pivoting plate whereby the former can be moved laterally relative to the axis of said turntable member, and either of said belts may be thus moved into and out of engagement with the circumference of said turntable member.

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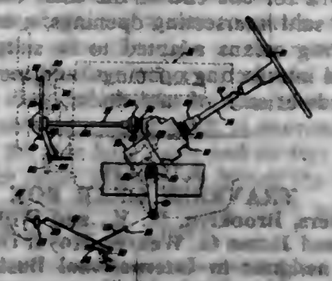
2,775,132
POWER STEERING MECHANISM
Palmer Orr and Donald W. Kiblad, Muncie, Ind., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application December 6, 1952, Serial No. 324,556
14 Claims. (Cl. 74—388)



1. In steering mechanism for a vehicle, a steering shaft adapted to be manually operated by means of a steering hand wheel, an output shaft adapted for connection with the steering ground wheels of the vehicle, a lost motion connection between said shafts, engageable means for driving said output shaft in one direction or the other, a motor for engaging said engageable means for a drive in either direction, and controlling mechanism for said motor controlled by said lost motion connection.

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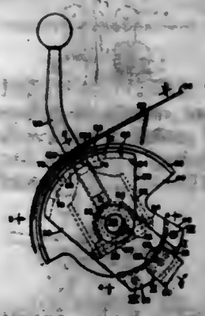
2,775,133
POWER STEERING MECHANISM
Kenneth M. Armentrout, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application March 9, 1953, Serial No. 341,147
17 Claims. (Cl. 74—388)



1. In steering mechanism for motor vehicles, a steering shaft adapted to be manually operated by means of a steering hand wheel, an output shaft adapted for connection with the steering ground wheels of the vehicle, power operated mechanism under the control of said steering shaft for driving said output shaft for steering the vehicle, said power operated mechanism having a pair of clutches with a common pressure plate that engages one or the other of said clutches depending on the direction of rotation of said steering shaft, an overload releasing means between said steering shaft and said power operated mechanism for disconnecting said steering shaft with said power operated mechanism when more than a predetermined rotative force is applied to the steering shaft, and means for simultaneously connecting said steering shaft with said output shaft to permit the latter to be turned by manual effort from the steering shaft when said power operated mechanism is inoperative.



2,775,134
SHIFTER MECHANISM FOR TRANSMISSION
Victor Eugene Swenson, Cedar Falls, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application August 12, 1955, Serial No. 528,075
4 Claims. (Cl. 74—473)



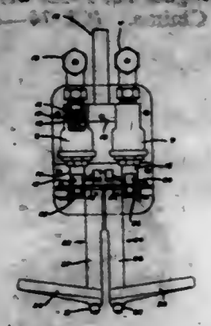
1. Shifting mechanism for a multi-speed, multi-range transmission, comprising: a support; a range selector and a speed selector carried by the support in coaxially spaced apart side-by-side relation for independent fore-and-aft rocking out of and back to respective neutral positions, said selectors respectively having arcuate flanges extending axially toward each other in concentrically overlapped relation; said range selector flange having front and rear circumferentially spaced notches opening laterally toward the speed selector and separated by an intervening lug projecting laterally toward said speed selector; said speed selector flange having therein a pocket opening laterally toward the range selector and laterally blocked by said lug when both selectors are neutrally positioned, said speed selector flange further having a zig-zag slot including front and rear circumferential portions laterally offset and interconnected by a crossover portion, said crossover portion lying behind the lug and in radial register with the rear notch, the rear portion lying adjacent to the range selector and extending rearwardly past the rear notch, and the front portion lying remote from the range selector and extending forwardly past the lug to intersect the pocket and to register radially with the front notch when both selectors are neutrally positioned; a shift lever extending radially from the selector axis and through the pocket to be confined by the lug against lateral escape from said pocket; and means mounting the shift lever on the support coaxially with the selectors and for rocking and lateral shifting relative to the selectors, whereby the pocket-received lever is movable selectively forwardly or rearwardly to rock the speed selector to a selected speed position while the range selector remains in its neutral position, the pocket thus clearing the lug and becoming laterally alined with a notch for lateral shifting of the lever into such notch and for travel along the front portion of the zig-zag slot to rock the range selector through an angular range determined by the length of said front slot portion while the speed selector remains in said selected speed position, and said lever being shiftable laterally through the crossover to travel along the rear portion of the zig-zag slot for rocking the range selector through an additional range determined by the length of said rear portion.

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2,775,135
MIXING VALVE OPERATION
Gerard D. Phillips, Jr., Louisville, Ky., assignor to American Radiator & Standard Sanitary Corporation, Pittsburgh, Pa., a corporation of Delaware
Application October 23, 1952, Serial No. 316,927
2 Claims. (Cl. 74—478)

2. In an actuating device, a pair of bell crank levers having crank arms and lever arms, means to be actuated by said bell crank levers, said means having slotted portions engageable with said bell crank arms, said bell crank

levers being pivotally mounted adjacent to said means, said crank arms being movable into said slotted portions to engage said means for actuation thereof, said lever arms extending downward, pedals on the lower ends of said lever arms and positioned closely side by side for



simultaneous depression by an operator's foot to actuate said means, said pedals being inclined upwardly to form a dihedral angle for receiving the operator's foot so that the relatively depressed position of said pedals may be varied by rotary movement of the foot about the axis of the leg and substantially in a single plane.

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2,775,136

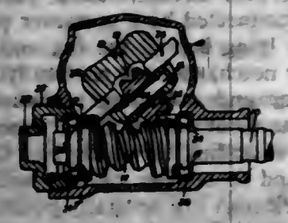
**STEERING GEAR FOR MOTOR VEHICLES**

Alfred Peter Dörper, Russelsheim (Main), Germany, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 14, 1955, Serial No. 487,938

Claims priority, application Germany March 6, 1954

12 Claims. (Cl. 74—500)



1. In a steering gear, the combination of a steering shaft, a worm on said shaft, a pitman shaft rockably disposed at substantially right angles to said worm, operative connection means between said worm and said pitman shaft to cause rocking of said pitman shaft upon rotation of said worm in either direction, a pair of projections on said pitman shaft movable towards and away from said worm upon rocking of said pitman shaft, and a pair of radial stops, one at each end of said worm, respectively adapted to engage one of said projections in a limit position of said pitman shaft.

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2,775,137

**OVERLOAD RELEASE CONNECTORS**

Jackson Chang, South Bend, Ind., assignor to Dodge Manufacturing Corporation, Mishawaka, Ind., a corporation of Indiana

Original application November 7, 1951, Serial No. 255,274, now Patent No. 2,753,969, dated July 10, 1956. Divided and this application November 14, 1952, Serial No. 320,667

8 Claims. (Cl. 74—534)

1. An overload release connector comprising a tube, a rod slidably fitted in said tube, said rod having an annular cam groove, angularly spaced balls seated in said groove, said tube having guide holes through which the balls protrude and in which they are movable radially, a pair of confronting cup rings slidably fitted on said tube and having tapered inside surfaces engaged by said balls, balanced compression springs forcing said cup rings toward each other for holding the balls in said cam groove, and a housing for said springs having abutments therein between which said cup rings the said springs



are respectively compressed, said cup rings being held by the springs about midway between said abutments, said balls being forcibly displaceable from said cam grooved by a forced relative movement of said rod and tube in either direction.

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2,775,138

**POWER TRANSMISSION FOR MATERIAL HANDLING MACHINES**

Daniel M. Schwartz and Theodore N. Hackett, Salt Lake City, Utah, assignors to The Eimco Corporation, Salt Lake City, Utah, a corporation of Utah

Original application October 24, 1950, Serial No. 191,808. Divided and this application December 14, 1951, Serial No. 261,835

3 Claims. (Cl. 74—606)



1. A power transmitting mechanism including two shafts on fixed centers, a housing for said shafts, intersecting openings in a wall of said housing corresponding to each of the shaft centers, each of the openings being concentric with its corresponding shaft, a removable cover for said openings, said cover adapted to fit snugly in one of the intersecting openings in the wall, bearing means supported by said cover for one end of the shaft corresponding to said one of the intersecting openings, second bearing means for one end of the shaft corresponding to the other of said intersecting openings, a support for said second bearing means adapted to fit snugly in the said other of said intersecting openings, and means supporting the other ends of each of said shafts.

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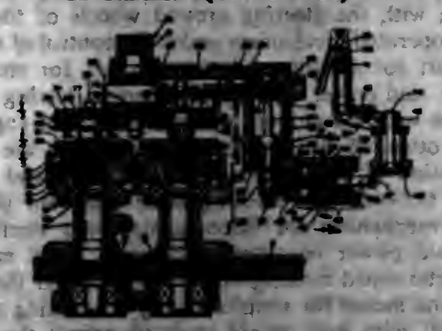
2,775,139

**TRAVERSE GEAR BOX**

Ward Leathers, Brooklyn, N. Y., and Wilfred E. Mazur, Pontiac, and James G. Weaver, Royal Oak, Mich.; said Leathers assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application January 28, 1955, Serial No. 484,637

12 Claims. (Cl. 74—626)



1. A continuous acting locking mechanism for preventing undesired turning of a turret member or the like



relative to a mobile support member upon which it is mounted comprising a ring gear mounted on one of said members, a pair of heavy duty gears engaging said ring gear and mounted on the other of said members, a differential for completing a connection between said pair of heavy duty gears and a single rotatable shaft, shock absorbing spring means located between said differential and each of said pair of heavy duty gears, and no-back lock means for preventing rotation of said single shaft being initiated by said pair of heavy duty gears.

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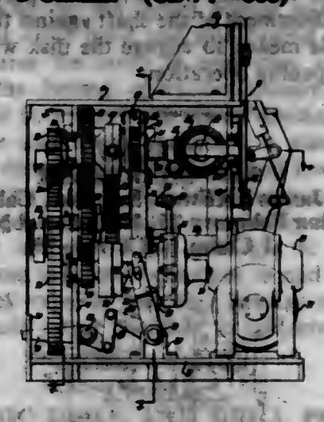
2,775,140

**INTERMITTENT DRIVE MECHANISM**

Edward G. Lees, Oakland, Calif., assignor, by mesne assignments, to John J. Knight, Piedmont, Calif.

Application January 11, 1954, Serial No. 403,193

5 Claims. (Cl. 74—665)



1. A drive mechanism for a bundle tying machine comprising a drive motor, a first driving means transmitting alternate opposite rotary motion to a first mechanism, clutch means intermittently connecting said first driving means to said motor, a cam shaft for actuating a second mechanism, a second driving means for rotating said cam shaft, said second driving means comprising an input shaft driven at a constant speed by said first driving means, an output shaft, a differential assembly connected between said shafts, a housing for said differential assembly, said housing being free to rotate relative to both said input and output shafts, means connecting said output shaft to said cam shaft, and means to rotate said differential housing in the same direction as the rotation of said input shaft during the first half cycle of said machine and in the opposite direction during the last half cycle of said machine, whereby the output shaft is approximately stationary during the first half cycle and rotates at approximately twice the input shaft speed during the second half cycle causing said second mechanism to be actuated only during the latter part of the cycle.

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2,775,141

**DIFFERENTIAL**

Adolph Rensing, Minneapolis, Minn.

Application January 23, 1952, Serial No. 267,841

13 Claims. (Cl. 74—711)



1. In a differential of the character described and having a power rotated cage and a pair of opposed differential gears therein, each opposed gear having cooperating tubular and telescoping hub members rotatable with respect to each other, the said hubs having cooperating fluid chambers and longitudinally extending vanes therein for operation as a kinetic fluid clutch to retard relative rotation of the associated gears, and means for supplying fluid to the chambers.

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2,775,142

**DIFFERENTIAL**

Walter L. Brunelle, Appleton, and Harold R. Brunelle, New London, Wis.

Application April 21, 1953, Serial No. 350,096

8 Claims. (Cl. 74—711)



1. A torque-proportioning differential comprising a rotatably driven casing, a pair of axially aligned axle gears contained therein for rotation about an axis coaxial therewith, at least two differential pinions journaled in said casing about spaced parallel axes extending along each side of the axis of said axle gears and perpendicular thereto, two intermediate coupling pinions rotatable about spaced parallel axes intersecting the axis of rotation of said axle gears and meshing with two differential pinions and one of said axle gears, and a cage for said intermediate coupling pinions rotatable about the axis of rotation of said axle gears and relatively movable with respect to said casing about the axis of rotation thereof.

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2,775,143

**TRAINING-MECHANISM HANDWHEEL**

Heinrich Hetlach, Zurich, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a Swiss company

Application May 2, 1952, Serial No. 285,727

Claims priority, application Switzerland May 5, 1951

1 Claim. (Cl. 74—750)

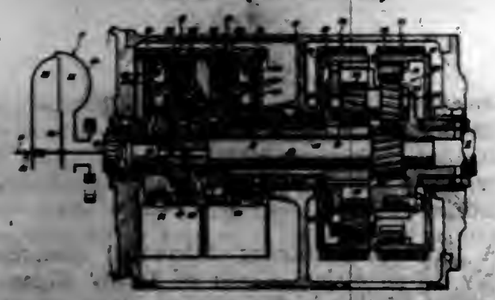


In a speed-varying device, a shaft, a hub keyed upon said shaft, a bracket firmly connected with said hub, a handwheel casing rotatably mounted upon said hub and having a projection extending parallel to said shaft, a handle rotatably mounted upon said projection, a clutch plate firmly connected with said hub, another clutch plate rotatably mounted upon said hub, gears carried by said bracket and meshing with said other clutch plate, two friction members engaging separate clutch plates, resilient means maintaining said friction members in engagement with the clutch plates, two spaced pairs of cams connected with separate friction members for releasing said friction members, a two-armed lever pivoted upon said handle, a ram reciprocable in said casing projection, means operatively connecting said two-armed lever with said ram, rollers carried by said ram for selective engagement with any one of said two pairs of cams, said clutch plates being coupled by said resilient means when said rollers are out of engagement with said cams,

the engagement of rollers with one of said two pairs of cams causing a transmission of movement from said casing through said other clutch plate, said gears, said brushes and said hub to said shaft, the engagement of rollers with the other one of said two pairs of cams causing a transmission of movement from said casing directly to said shaft through the first-mentioned clutch plate and said hub.

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2,775,144
TRANSMISSION
Donald W. Kolbek, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application April 5, 1951, Serial No. 219,434
8 Claims. (Cl. 74—769)



1. In transmission mechanism, the combination of a drive shaft, a driven shaft, means including planetary gearing constructed and arranged to transmit torque therethrough comprising a pair of relatively rotatable sun gears and a pair of ring gears rotatable relative to said sun gears and planet gear means adapted to intermesh between said sun and ring gears for providing a plurality of forward drive power trains including a relatively low speed forward drive power train and a relatively high speed forward drive power train and also a reverse drive power train between said shafts, said low speed forward drive power train including a one-way engaging device adapted for coupling one of said sun gears to said drive shaft and also including a friction engaging device operative to hold one of said ring gears against rotation for completing the train, said reverse drive power train including said one-way engaging device coupling said one sun gear to said drive shaft and also including a second friction engaging device operative to hold the other of said ring gears against rotation for completing the train, said high speed forward drive power train including an additional friction engaging device adapted to couple the other of said sun gears to said drive shaft for completing the power train and said one-way engaging device overrunning and disengaging when said relatively high speed forward drive power train is completed.

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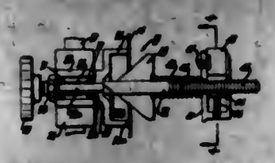
2,775,145
SAW SHARPENING MECHANISM
Lawrence E. Higgins, Yakima, Wash., assignor, by decree of distribution, to Florence H. Cast, Kirkland, Wash.
Application March 10, 1955, Serial No. 493,407
7 Claims. (Cl. 76—41)



1. In a saw sharpening means, a frame structure, means therein for the support of a saw in a set position for the advancement of its cutting elements successively to a position for sharpening, a bearing fixed in the frame structure, above the saw supporting means, a shaft mounted vertically in said bearing for longitudinal and rotary adjustments, a motor supported by and movable with the shaft, an arbor supported from the lower end portion of the shaft, a grinding disk fixed on the arbor, means effecting a driving connection between motor and arbor, yieldable means acting against the said shaft to lift and normally hold it in an elevated position of adjustment at which the grinding disk will be clear of the saw, and a lever pivotally fixed to the shaft and extended outwardly therefrom as a handle for effecting its rotary adjustment in opposite directions to change and establish the working angles of the grinding disk relative to the saw; a plate secured to the lower end of the bearing and said lever being engageable at its inner end with said plate for effecting downward adjustment of the shaft against the resistance of said yieldable means to engage the disk with the saw for a cutter sharpening operation.

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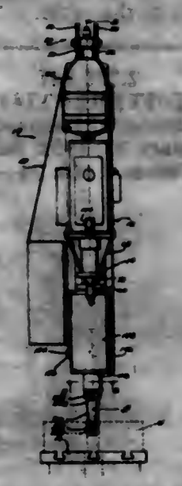
2,775,146
SAW SHARPENER
James McEwan, San Jose, Calif.
Application February 25, 1953, Serial No. 338,669
1 Claim. (Cl. 76—79)



In a saw holder, a support member having a boss, a support shaft journalled in said boss, a clamping structure carried by said shaft for rotation therewith to hold a saw, said structure including a recessed clamping element presenting an annular face to the saw and a saw clamping cone slidably mounted on said shaft for engaging a saw and holding it against said annular face in centered relation with respect to said shaft, a series of ratchet teeth on said shaft, a ratchet collar slidably mounted on said shaft including means for engaging said teeth, and a spring interposed between said collar and said cone.

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2,775,147
TAPER BORING DEVICE
Emil Schneebeli and Theodore E. Crawford, Racine, Wis., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application April 30, 1952, Serial No. 285,152
11 Claims. (Cl. 77—4)



1. In a machine tool having a frame and a vertical slide, a taper boring device comprising a drive head having a splined drive shaft and being shiftable on said slide, a boring head shiftable on said slide and comprising a body, a quill rotatable co-axially with said shaft and provided with an internal bore eccentric with said shaft, said shaft being of a length sufficient to extend within said internal bore, a splined cap, slidable on said shaft and secured to said quill, an extension on said shaft concentric with said internal bore, a spindle rotatable in said bore and provided with a cutting tool, means to connect said extension and said spindle for independent rotation, said spindle having a helical cam slot extending 180 degrees about the periphery thereof, a follower in said quill co-acting with said cam slot to effect rotation of said spindle relative to said quill upon axially traversing said spindle in said bore, an adjustable stop on said frame positioned to contact said boring head to limit the latter to the initial boring position, means connecting said drive head and said boring head to successively, traverse the latter to said stop, and said tool to complete the boring operation, comprising a fluid cylinder in said body having a piston dividing said cylinder into upper and lower chambers, a piston rod connected to said drive head, said upper and lower chambers interconnected by a pair of fluid passages, said cylinder and said passages comprising a completely closed circuit, a check valve in one of said passages to restrict free flow of fluid from said lower chamber to said upper chamber and a check valve in the other passage to allow fluid to flow from said upper chamber to said lower chamber.



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2,775,148
CONCENTRIC DRILL AND DRILL PRESS FOR USE THEREWITH
James Hunter Campbell, Richmond, N. H.
Application April 8, 1952, Serial No. 281,110
1 Claim. (Cl. 77—55)

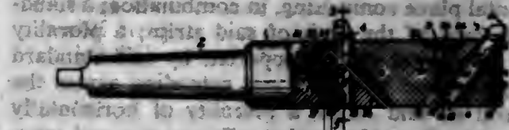


In a drill press for use with concentric drills, a first spindle member for the outer drill and having an axial bore extending from end to end thereof, a second spindle member having one end entrant of said bore and rotatable relative to said first spindle member, said second spindle member having an axial bore, said bores in said members receiving the inner drill, the other end of said second spindle member being exposed, means engageable with said exposed end to rotate one of said second members, a gear fast on each of said spindle members, an operator control to lock the gear on the first spindle to the gear on the second spindle, a rotatable spindle including an eccentric, an operator control to turn said eccentric between first and second positions, and gears rotatable together relative to said spindle and in the first position of said eccentric meshing with respective ones of said spindle member gears.

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2,775,149
ADJUSTABLE BIT BORING BAR
Albert Thomas, Homestead Park, Pa.
Application April 30, 1954, Serial No. 426,582
3 Claims. (Cl. 77—58)

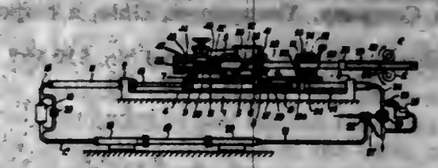
1. An adjustable bit boring bar formed with an opening in which a bit is adapted to be fitted for lengthwise adjustment therein, said bar being further formed with a threaded bore angularly intersecting such opening, an adjusting screw threaded into such bore and having an end portion adapted to extend into such opening to bear against a bit adapted to be positioned in such opening to thus move the bit longitudinally in such opening, and screw rotating means coaxial with said threaded bore and mounted in said bar for rotation with respect to said threaded bore but held against axial movement, said screw rotating means and said adjusting screw having



complementary interfitting portions providing a non-rotary, axial slidable connection between them whereby, upon rotation of said screw rotating means in opposite directions, said adjusting screw is moved axially in opposite directions in said threaded bore, said bar being formed with another bore angularly related to and intersecting such opening, and a spring fitted into said last-named bore for yieldably engaging such bit to maintain engagement between said adjusting screw and the bit irrespective of the direction of rotation of said adjusting screw.

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2,775,150
PILGER MILL APPARATUS
Gavin Smellie McLay, London, England, assignor to Stewarts and Lloyds Limited, Glasgow, Scotland, a British company
Application March 6, 1953, Serial No. 340,792
Claims priority, application Great Britain March 7, 1952
5 Claims. (Cl. 80—14)



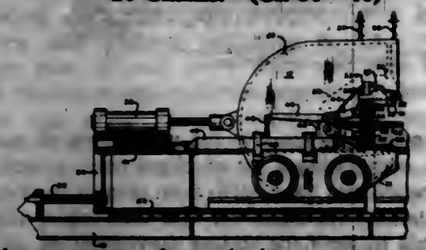
1. Pilger mill apparatus for the production of seamless metal tubes, comprising a set of pilger rolls, a feed table movable forward and backwards with respect to said rolls, a carriage slidably mounted on said feed table, stops on said feed table to limit the sliding movement of said carriage on said feed table, means to move said table and said slidably mounted carriage thereon constantly towards said rolls until the latter have completed the rolling of a tube, a mandrel carrier mounted in said carriage, a mandrel operatively connected to said mandrel carrier, resilient means at one end of said carriage and responsive to cushion the rearward axial movement of said mandrel carrier on said carriage under the action of said rolls on their rolling stroke and braking means at the opposite end of said carriage between and coaxial with said mandrel carrier and said carriage to take up the forward thrust movement of the said mandrel carrier under the reactive action of said resilient means when the rolls free the work piece and stop means for said mandrel carrier comprising a first and second cooperating means, said first means being mounted on said mandrel carrier and said second means being mounted on said feed table between the rolls and the said mandrel carrier so that immediately after said braking means comes into action, the said stop means will arrest the said forward movement of said mandrel carrier so that the mandrel carrier will be in same position relative to the feed table at the end of every such forward movement of said mandrel carrier.

2,775,151
METAL WORKING APPARATUS
Richard M. Schumacher, Chicago, Ill., assignor to Caine Steel Company, a corporation of Illinois
Application February 9, 1953, Serial No. 335,914
3 Claims. (Cl. 80—40)



1. Apparatus for concurrently edge rolling a plurality of coplanar strips contiguous to each other and in a common horizontal plane comprising, in combination; a standard on each side of the path of said strips; a plurality of pairs of horizontal shafts supported by said standard in vertically disposed positions and extending across the path of travel of said strips; a plurality of horizontally extending arms adjustably carried adjacent one end upon said shafts for horizontal sliding movement along said shafts and rotary movement about said shaft as an axis; a plurality of pairs of edge rolling units carried by the outer ends of said arms and each having a pair of rolls mounted for rotation about horizontal axes, said rolls having vertically extending flanges adopted to engage the edges of said strips to edge the four longitudinal corners thereof, there being a pair of rolls for each strip to be edged and a pair of arms for each roll; means for securing said arms on said shafts to position said edge rolling units in vertically arranged and staggered relationship with the strips therein retained in horizontal position; and means for forcing the rolls of each unit toward each other whereby said strips are edged without being bent laterally from their original positions and their path of movement.

2,775,152
APPARATUS FOR TAPERING THE ENDS OF SPRING LEAVES AND THE LIKE
Frank R. Krause, New Castle, Pa., assignor to The McKay Machine Company, Youngstown, Ohio, a corporation of Ohio
Application July 6, 1955, Serial No. 520,197
10 Claims. (Cl. 80—40)



1. An apparatus for reducing a metal blank on one side only comprising a platform for supporting said blank, a roll supporting slide, a first roll carried by said slide and adapted to engage said platform on the side thereof opposite said blank, a second roll carried by said slide and adapted to engage said blank, and a rigid back-up frame for said rolls, said frame having a cam plate thereon engaging the outer portion of said second roll whereby upon movement of said frame said rolls are rotated and moved longitudinally by frictional engagement with said frame, said cam plate causing said second roll to be forced toward said blank to cause a reduction of the same, said first roll acting upon said platform to oppose the forces exerted by said second roll.

2,775,153
STUD DRIVERS AND PULLERS
Osmo E. Parhamieni, Astoria, Oreg., assignor of one-half to Leonard J. Parhamieni, Astoria, Oreg.
Application March 25, 1955, Serial No. 496,822
2 Claims. (Cl. 81—53)

1. A tool for selectively installing and removing threaded studs, said tool comprising a body having a wrench-receiving polygonal outer surface and provided with an axial bore, opposite end portions of said bore being provided with oppositely screw-threaded counterbores whereby the intermediate portion of the bore is of a smaller diameter than the counterbored end portions and whereby said body provides at the inner ends of the counterbores a pair of flat annular shoulders disposed in planes normal to the axis of the bore, one of said counterbores being adapted to receive a stud so



that the latter abuts the shoulder at the inner end thereof to lock said body on the stud for rotation therewith, a driver screw provided in the other counterbore, and a cylindrical shank provided at the inner end of said driver screw, said shank being of greater length than said intermediate portion of said bore whereby the inner end face thereof may be locked against the stated stud and being of substantially the same diameter as and rotatable in said intermediate bore portion for supportable engagement therewith.

2,775,154
COUPLING PIN FOR SEPARABLE PARTS HAVING SPRING URGED PIVOTAL LOCKING PLATE THEREON
Noah C. Leaphart, Sr., Leesville, S. C.
Application November 26, 1953, Serial No. 393,261
1 Claim. (Cl. 85—3)



A coupling device comprising a main tubular pin having a longitudinal bore, said pin being provided at one end with a main longitudinal slot which extends through such end, said slot having said bore leading into the same, said main longitudinal slot forming spaced longitudinal extensions, said extension having longitudinal slots which lead into the main longitudinal slot, an adjustable locking plate disposed within the main longitudinal slot and arranged between said extensions, said adjustable locking plate having a longitudinal slot terminating short of one end of the locking plate and extending through the opposite end of said locking plate and also extending through the side edges of the locking plate, said locking plate being provided at the open end of the slot of the locking plate with tapered detents disposed near the central longitudinal axis of the locking plate, a pivot pin secured to the locking plate near its center and extending transversely of the locking plate and passing through the slot of the locking plate and projecting beyond the sides of the locking plate and held within the longitudinal slots of said extensions, and a retractile coil spring bodily mounted within the bore of the tubular pin and including a first longitudinal arm attached to the end of the main tubular pin remote from the locking plate and a second longitudinal arm extending into the slot of the locking plate and attached to the pivot pin of the locking plate, the arrangement being such that when the locking plate is in the transverse position it is held in contact with the walls of the main slot by the retractile coil spring, the spring permitting the pivot pin to shift outwardly longitudinally within the longitudinal slots of said extensions so that the closed end of the locking plate is arranged next to the outer ends of said extensions and the detents will then be held within the adjacent end of said bore, the arm of said spring which is secured to said pivot pin then being arranged within the open end of the slot of the locking plate adjacent to said detents, the locking plate being then swingable in either direction to return the locking plate to the transverse position, the retractile spring tending to hold the locking plate in the longitudinal position with the detents within said bore.



2,775,155
SHEET METAL CLAMP
Will M. Tompkins, Los Angeles, and Preston L. Ellis, Venice, Calif., assignors to Monogram Manufacturing Company, Culver City, Calif., a corporation of California
Application April 12, 1954, Serial No. 422,604
8 Claims. (Cl. 85—6)



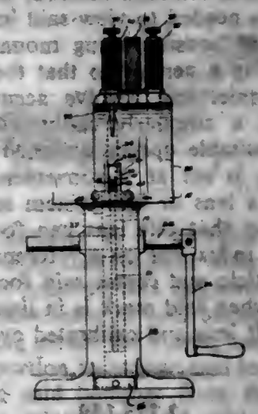
2. A sheet metal clamp comprising: a casing having openings through the opposite ends thereof; a retaining member reciprocably mounted in said casing and projecting through said openings, said member including a threaded plunger at one end formed with a circular head, and a pair of separate laterally flexible work engaging pins at the other end provided with enlarged inner and outer ends; a collar slidably and non-rotatably mounted in said casing and having one end portion formed with a chamber to receive the enlarged inner ends of said pins rotatably therein and a reduced bore for the outward passage of said pins, the other end portion of said collar being internally threaded to engage said plunger and hold said pins longitudinally fixed relative to said plunger; and a non-circular nut of a diameter across the flats to circumscribe said head mounted on said plunger outwardly of said casing and being advanceable against said casing and retractable outwardly against said head by a power driven nut runner to engage and release said retaining member.

2,775,156
SPRING CLIP FOR SPROCKET CHAINS
Philip J. Inse, Westfield, Mass., and Earl E. Swanson, Suffield, Conn., assignors to Chain Belt Company, Milwaukee, Wis., a corporation of Wisconsin
Application July 10, 1952, Serial No. 298,146
5 Claims. (Cl. 85—8.8)



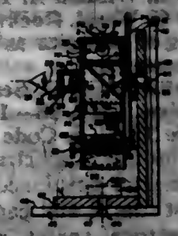
1. A spring clip for ready application to and removal from the circumferentially grooved end portions of a pair of adjacent sprocket chain pins, said clip comprising a resilient metal element having an elongated eye defined by a pair of spaced longitudinal legs which are connected at one end of the eye and unconnected at its other end, the metal defining the ends of the eye being provided with straight convergent surfaces adapted to tangentially contact arcuately spaced portions only of the bottoms of the chain pin grooves, and said eye being of a width relative to the chain pin diameter to prevent engagement between the inward edges of said legs and said groove bottoms when the convergent surfaces are in contact with the latter, whereby the resilient action of the legs may constantly maintain such contact between said convergent surfaces and groove bottoms and prevent vibration of the clip.

2,775,157
CARTRIDGE RELOADING DEVICE
Manley Lee Hand, Jr. and Billie Cleave Sparkman, Hobbs, N. Mex.
Application June 18, 1954, Serial No. 437,722
4 Claims. (Cl. 86—23)



1. A device for reloading cartridges comprising a pedestal provided with a reservoir in the lower end thereof, a platform on the top of said pedestal, an upstanding support extending through said platform intermediate the ends of the latter and connected to said pedestal for upward and downward movement, one end portion of said support projecting upwardly of said platform and the other end portion being adjacent said reservoir, said support having a bore extending longitudinally thereof from end to end, seating means in said one end portion of said support for holding the base of a cartridge case containing a spent primer cap, the bore of said support being adapted to convey a spent primer cap upon removal from the cartridge case base to said reservoir, means operatively connected to said support for causing the upward and downward movement of the latter, an upright upon said platform intermediate said projecting end portion and the other end of said platform and connected at its lower end to said platform for transverse sliding movement, a head carried by the upper end of said upright and projecting over the intermediate portion of said platform, and a plurality of spaced dies carried by said head and each selectively alignable with said cartridge case seating means upon sliding movement of said upright.

2,775,158
OPTICAL ANGLE SETTING AND ALIGNING DEVICE
Reginald F. Mitchell, Mount Vernon, N. Y.
Application May 9, 1952, Serial No. 286,930
9 Claims. (Cl. 88—2.3)



1. An optical angle setting and checking device having a housing containing cells, retaining rings or the like arranged to hold in correct optical relationship a lamp which illuminates a target reticle set at the exact focus of a corrected objective lens to make a collimator where the image of said target is projected from the objective

as parallel rays, means such as a rack and pinion for focusing said collimator by moving said objective or by splitting it into a fixed and a movable component so that the device can be used either as a collimator or focusing telescope, a beam splitter between said target reticle and objective so that when the device is set as a collimator and an external reflecting surface is set exactly normal to said parallel rays the image of said target is reflected back into the collimator with said beam splitter reflecting said reflected image to a fous on a calibrated eyepiece reticle and centered thereon, with suitable magnifying means as needed to view said image on said eyepiece reticle, said housing being mounted on a hollow shaft and carrying a vernier so that the combination of housing and vernier can revolve accurately concentric with respect to a circularly calibrated scale which is mounted on a suitable upright attached to a base so the complete device is set at a convenient position above said base, with a lens or lens system set in said hollow shaft arranged so that this lens can focus any mark or line, such as an index line on a reference surface, on to said eyepiece reticle and center said focused index mark on said reticle when said mark is in line with the optical axis of said shaft lens and calibrated eyepiece reticle.

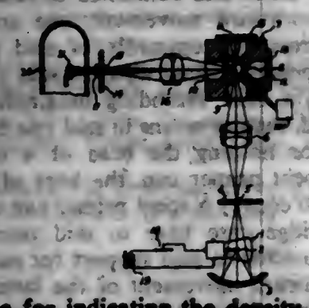
2,775,159

**METHOD AND APPARATUS FOR THE COUNTING OF PARTICLES PER UNIT VOLUME IN A FLUID**

Joseph C. Frommer, Cincinnati, Ohio

Application February 20, 1952, Serial No. 272,590

7 Claims. (Cl. 88—14)



5. A device for indicating the density of particle distribution comprising means for forming an inspection zone into which particles may be introduced, means responsive to the presence of a particle in said inspection zone to place an electrical circuit into a first state and to the absence of a particle in said zone to place said electrical circuit into a second state, a member to indicate the density of particle distribution, and means operatively connected to said member and responsive to the average state of said electrical circuit for actuating said member.

2,775,160

**APPARATUS FOR ABSORPTION SPECTRA ANALYSIS**

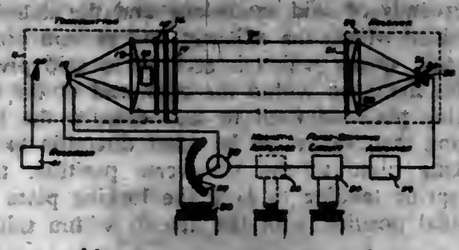
Lawrence W. Foskett, Washington, D. C., Norman B. Foster, Falls Church, Va., William R. Thickstun, Washington, D. C., and Rex C. Wood, Rockville, Md., assignors to the United States of America as represented by the Secretary of Commerce

Application November 26, 1952, Serial No. 322,837

3 Claims. (Cl. 88—14)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Apparatus for absorption spectra analysis comprising a light source, a detector positioned to receive a beam of light from said light source and capable of converting radiant energy into electrical energy, means for breaking said light beam into two rapidly oscillating groups of light waves one of which is absorbable by a constituent of the material to be analyzed and the other of which is not absorbable by this constituent, means for adjusting the temperature of the light source in response to an unbalance in the energy components at the detector due to the presence of absorbable material in the light path to thereby balance said energy components, and means for indicating changes in the intensity of said light source.



2,775,161

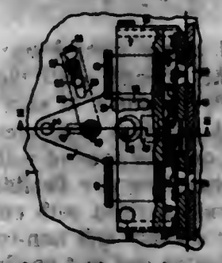
**MOTION PICTURE PROJECTOR DESIGNED FOR STEREOSCOPIC PROJECTION**

Jean Thévenaz, Grandson, Switzerland, assignor to Paillard S. A., Sainte-Croix, Switzerland, a corporation of Switzerland

Application December 2, 1953, Serial No. 395,680

Claims priority, application Switzerland July 3, 1953

7 Claims. (Cl. 88—16.6)



1. A stereoscopic motion picture projector wherein the film is displaced horizontally, comprising, in combination, a gate member having a pair of apertures, a lens support member, a pair of lenses fixedly mounted on said support member, said lenses being positioned on said support member in cooperative relationship with said apertures, at least one pressure plate means on said support for normally pressing film against said gate member, means for elastically connecting said pressure plate to said support, said means including at least one spring member, means for adjusting the lens support in the direction of the focus axis of each of said lenses, whereby the two projected images may be simultaneously focused without changing the position of the pressure plate with respect to the film and the said support may occupy a different position with respect to the plane of the film, and means for moving the lens support and the pressure plate connected thereto from the said gate, whereby film may be easily introduced into the gate.

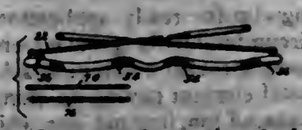
2,775,162

**EYEGLASS FRAME**

Robert James Hipple, Hibbing, Minn.

Application September 28, 1953, Serial No. 382,601

5 Claims. (Cl. 88—41)



4. In an eyeglass frame, a decorative device mounting means comprising an arm pivotally connected to said frame having a portion extending outwardly therefrom and a pin mounted on said frame in spaced relationship with said arm and extending outwardly therefrom, said portion being movable laterally of said pin upon pivotal movement of said arm, and means connected to said frame and said arm biasing said arm for movement of said portions in a direction laterally of said pin.



2,775,163

**PRE-SPIN DEVICE FOR ROCKET LAUNCHER**

Conrad R. Vagnes, Washington, D. C.

Application May 7, 1952, Serial No. 286,589

4 Claims. (Cl. 89—1.7)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for launching a rocket of the type having canted exhaust nozzles through which gas is adapted to issue and produce forces on the rocket to propel it along its longitudinal axis and rotate it about said axis comprising; a launcher tube adapted to contain the rocket, a rotary member disposed within the tube having vane means against which gas issuing from the rocket nozzles may impinge and effect rotation of the member, said member being rotatable in a plane normal to the longitudinal axis of the tube, the cant angle of said vanes being related to the cant angle of the nozzles in such manner that the member tends to rotate in said plane at a speed in excess of the speed of rotation of the rocket, means operative in response to the tendency of said member to rotate at said speed in excess of the speed of rotation of the rocket for locking said member and rocket together for conjoint rotation and for restraining forward axial movement of the rocket along the tube, and means for limiting the speed of rotation of said member to obviate the tendency for it to rotate at a speed in excess of the rocket and to permit the rocket to be released from said member.

2,775,164

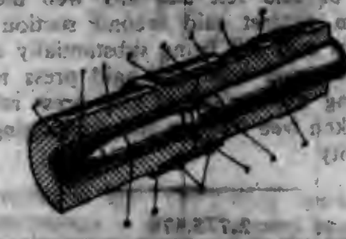
**GUN BARREL**

Folke Gustav Tillander and Ivar Åslund, Bofors, Sweden, assignors to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation

Application December 27, 1952, Serial No. 328,162

Claims priority, application Sweden February 11, 1952

10 Claims. (Cl. 89—16)



1. A gun barrel comprising a separate muzzle part and breech part in aligned abutment forming the chamber for a cartridge rammed into the barrel, a liner removably fitted in said muzzle part and extending from the end thereof abutting the breech part toward the muzzle of the barrel to a point slightly ahead of the nose of the projectile of a rammed cartridge, and joining means detachably joining the said parts in aligned position.

2,775,165

**FIRING MECHANISM**

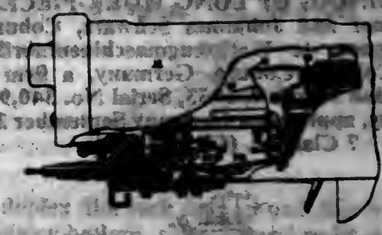
John L. Lobstein, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application June 3, 1954, Serial No. 434,598

2 Claims. (Cl. 89—139)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a firearm having trigger means for firing the firearm, a hammer pivotal between a recoil and a firing position, a sear movable against said hammer, a ledge portion on said sear engageable with a lip portion on said hammer for releasably holding said hammer in a cocked position between said recoil and firing positions, latch means cooperating with the trigger means for disengaging said sear from said hammer to fire the firearm and releasably hold said sear out of the path of said hammer during movement thereof from the firing to the recoil position, a tongue portion extending from said latch means into the path of said hammer to be movable thereby to disengage said sear from said hammer after said lip portion is moved past said ledge portion to prevent contact therebetween during movement of said hammer to the recoil position, and spring means for biasing said sear into position for said lip portion to engage said ledge portion during movement of said hammer from the recoil to the firing position to releasably hold said hammer in the cocked position.



2,775,166

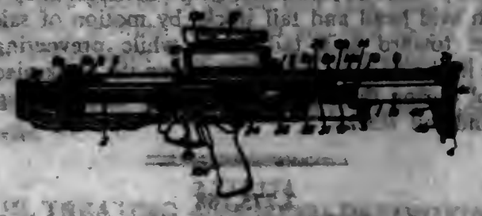
**PIVOTED BREECH BOLT LOCK FOR GAS PISTON FIREARMS**

Stefan K. Janus, London, England, assignor to the Minister of Supply in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, London, England

Application August 22, 1952, Serial No. 305,005

Claims priority, application Great Britain August 22, 1951

2 Claims. (Cl. 89—191)



2. An automatic firearm comprising a body portion, a barrel extending forwardly from said body portion, a piston disposed to be moved rearwardly by propellant gases from the said barrel, a breech mechanism comprising, a hollow cylindrical breech block mounted for translation in said body portion, a hollow firing sleeve concentric with and slidable in said breech block, a cam surface extending from the forward face of said sleeve, a concentric firing pin slidable within said sleeve, said pin having a ramp formed medially thereon, a plurality of radially spaced levers, said levers having a lug formed at one end, a tail portion at the other end thereof and a retaining shoulder between said lug and a fulcrum point at the median portion of said levers about which said levers are pivotally mounted in said breech block, said lug portion of said levers acted upon by said firing sleeve cam to lock said breech block in battery position when said sleeve is in forward position, a rigid connection between said piston and said sleeve, said connection passing through an elongated aperture in said breech block whereby said sleeve is moved rearwardly to disengage said cam surface and said lugs, said sleeve drawing said firing pin rearwardly simultaneously whereby said firing pin ramp engages said lever tail portion to unlock said breech block, said connection engaging the rear end of said aperture to move said breech block, sleeve and

pin simultaneously and eject a cartridge; on forward movement of said breech block, sleeve and pin in response to resilient means acting against said pistol, said retaining shoulder engaging and restraining movement of said firing pin until said breech block is locked in battery position whereupon said firing pin is released by said shoulders.

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2,775,167
MACHINING OF LONG WORK-PIECES
Richard Wagner and Johannes Schwarz, Coburg, Germany, assignors to Werkzeugmaschinenfabrik Adolf Waldrich Coburg, Coburg, Germany, a firm
Application March 9, 1953, Serial No. 340,962
Claims priority, application Germany September 29, 1952
7 Claims. (Cl. 90—11.4)



1. A machine for cutting screw threads in bar stock longer than the machine, comprising a bed, a hollow head stock mounted at one end of said bed including a collet chuck to grip the stock and through which the stock may be fed, a tail stock capable of centering the stock and through which the stock may be fed, a tool carriage mounted on said bed between said head and tail stocks, at least one screw cutting tool mounted in said tool carriage for cutting engagement with the stock, means to drive said carriage lengthwise of said bed, said cutting tool operating to cut threads as the tool carriage moves toward said head stock, and gripping means mounted in said tool carriage operable to clamp said stock in said tool carriage whereby upon clamping said bar stock by said gripping means prior to release of said collet chuck and upon release of said collet chuck the stock may be fed through said head and tail stocks by motion of said tool carriage toward said tail stock while preventing any change in the angular relation between the work-piece and the tool during the feeding of the bar stock through the head and tail stocks.

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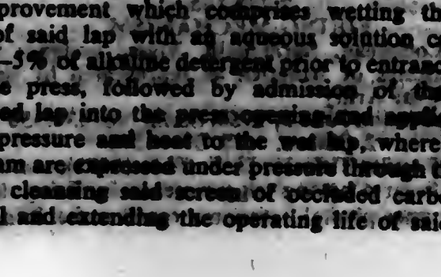
2,775,168
PAPER MACHINERY
Joseph Baxter, Jr., Franklin, Ohio, assignor to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio
Application October 20, 1953, Serial No. 387,151
9 Claims. (Cl. 92—23)



1. Apparatus for screening and pulping a liquid slurry stock comprising a base, a shell mounted on said base and including an upper wall forming a cover and a lower wall forming a sump, a perforate screen mounted within said shell and cooperating with said cover to form a main chamber above said sump, a radial partition forming primary and secondary chambers within said main chamber, means on said shell forming an inlet for stock to said primary chamber, means defining a discharge passage from said first chamber through said cover, impeller means extending lengthwise of both said chambers for rotation therein causing essentially circumferential travel of said stock and discharge through said passage of large particles too large to pass through said screen into said sump, means for conducting said discharged large particles into said secondary chamber for further reduction and discharge through said screen into said sump, and means forming a discharge outlet in said cover from said secondary chamber for particles too large to pass through said screen, both said discharge outlet and said discharge passage being in portions of said cover located above the rotational axis of said impeller for essentially tangential discharge of said particles therethrough.

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2,775,169
PAPERMAKING MACHINE
Ulf Gustav Söderlund, Norrköping, Sweden, assignor to Aktiebolaget Karlstads Mekaniska Werkstad, Karlstad, Sweden, a company of Sweden
Application August 25, 1954, Serial No. 452,155
Claims priority, application Sweden August 31, 1953
3 Claims. (Cl. 92—49)



1. In a paper making machine having a wire with an outer surface on which a paper web is formed; the combination of a first suction roll adjacent to the outer surface of said wire, a second suction roll spaced from said first roll and said wire and substantially parallel with said first roll, an endless felt passing around and below said suction rolls and being interposed between and having an inner surface in direct engagement with the first and second suction rolls and an outer surface adjacent to said wire to pick-up said web and carry it away from said wire, a plain press roll directly beneath said second suction roll and having a surface engaging the outer surface of said felt and any web thereon and squeezing them against said second suction roll, the outer surface of said felt being substantially completely exposed between said wire and said press roll and a scraper engaging the surface of said press roll for disengaging a broken web thereon and discharging it downwardly by gravity.

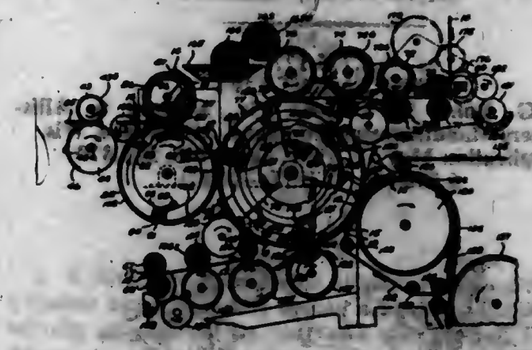
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2,775,170
METHOD OF CLEANING PRESS WIRES
Norris Lee Dustin and Charles T. Smith, Laurel, Miss., assignors to Masonite Corporation, Laurel, Miss., a corporation of Delaware
No Drawing. Application May 20, 1954, Serial No. 431,298
4 Claims. (Cl. 92—51)

1. In the production of lignocellulose hardboard wherein a felted lap of hydrolyzed lignocellulose fiber containing about 30–50% fiber and 75–50% water is charged into a heated platen press on a supporting wire screen, the improvement which comprises wetting the lateral edges of said lap with an aqueous solution containing about 2–5% of alkaline detergent prior to entrance thereof into the press, followed by admission of the screen-supported lap into the press opening and application of platen pressure and heat to the wet lap, whereby water and steam are expressed under pressure through the screen thereby cleansing said screen of occluded carbonaceous material and extending the operating life of said screen.



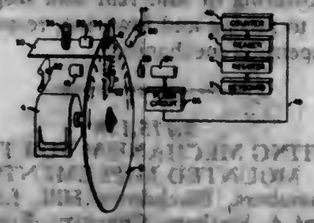
2,775,171
METHOD AND MACHINE FOR BAG MAKING
Harford K. Stem, Newburgh, N. Y., and Harold L. Thompson, deceased, late of Newburgh, N. Y., by Thelma V. Thompson, administratrix, Newburgh, N. Y., assignors to Interstate Bag Company, Walden, N. Y., a corporation of New York
Application June 11, 1951, Serial No. 230,906
11 Claims. (Cl. 93—8)



4. A bag making machine comprising in combination means for advancing in an endwise direction a continuous sheet of paper or the like, means for severing same into a first bag side piece, means for advancing a continuous strip of handle material and means for cutting and folding the cut strips, means for attaching one end of each folded strip to an end portion of said first bag side piece, means for advancing simultaneously with said first sheet a second sheet, means for severing same into a second bag side piece, means for attaching said second bag side piece to such first bag side piece and to the unattached end of said handle, and means for bottoming the bag structure thus formed.

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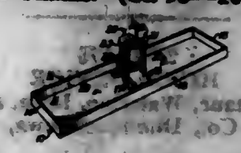
2,775,172
PHOTOGRAPHIC TYPE COMPOSING APPARATUS
René Higonnet and Louis Moyroud, Cambridge, Mass., assignors to Graphic Arts Research Foundation, Inc., Cambridge, Mass., a corporation of Delaware
Application August 26, 1952, Serial No. 306,462
Claims priority, application Great Britain August 27, 1951
6 Claims. (Cl. 95—4.5)



1. Photographic type composing apparatus comprising, in combination, a matrix support bearing a number of characters to be projected and marks each in precise relation to a corresponding character, a continuously rotating mechanism for moving the characters successively through a projection position and the corresponding marks simultaneously through a trigger position, an intermittent discharge device to illuminate a character in the projection position, means for projecting an image of said character upon a sensitized sheet, sensing means operable by each mark in the trigger position to generate an impulse, a multistage counter comprised of series-connected elements each adapted for a plurality of stable conditions and connected for cumulative addition of impulses from the sensing means, said counter also having a circuit connected with one of the stages to be energized by one of said impulses received when the counter represents a fixed sum, presetting means to introduce to the counter a sum corresponding to the number of marks intermediate the mark corresponding to the selected character and a predetermined mark, said preset sum being such that said circuit of the counter is energized when the selected character is in the projection position, and means actuated by said circuit to energize the discharge device.

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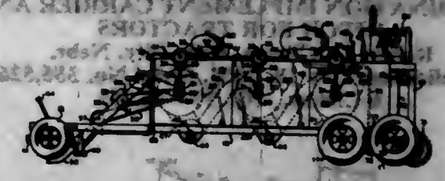
2,775,173
DUPLEX FILM RACK SUPPORT AND DRIP TRAY
George G. Ingham, Amarillo, Tex.
Application June 2, 1954, Serial No. 433,904
8 Claims. (Cl. 95—100)



1. A duplex film rack support and drip tray comprising a tray having bottom, side and end walls, a resilient one-piece clip secured to said bottom wall to one side of the longitudinal center line and substantially centrally thereof and including an upwardly extending socket member of channel cross-section and an upstanding resilient arm disposed within said socket member in substantially parallel relation thereto and terminating at its upper end in a diverging portion, a resilient finger secured to said bottom wall on the opposite side of said center line in substantial alignment with said socket member and in spaced substantially parallel relation thereto, said resilient finger terminating at its upper end in an outwardly diverging portion and upwardly extending protuberances in said bottom wall disposed on opposite sides of said clip substantially on said center line whereby the central member of a film rack having film supporting cross bars may be detachably received in said socket member and retained therein by said resilient arm, the walls of said socket preventing tilting of said film rack and the upper edge of said socket engaging the lower cross bar of said film rack to support film carried thereby above the side walls of said tray and whereby a second film rack may be detachably received between said finger and said socket member and in engagement with said protuberances to firmly support said second rack on said tray and with the lowermost films in said second rack clearly visible above said side walls.

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2,775,174
SOIL TREATING AND WEED DESTROYING APPARATUS
Richard F. Petrick, Ellsworth, Kans., Charles H. Everett, guardian of said Richard F. Petrick, incompetent
Application December 1, 1950, Serial No. 198,575
3 Claims. (Cl. 97—10)

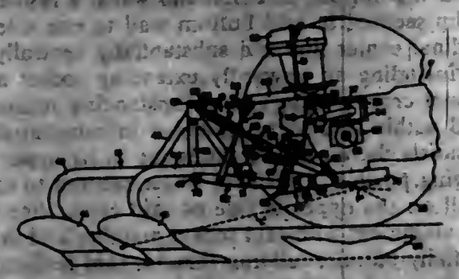


3. A soil-treating and weed-destroying apparatus comprising a chassis, ground-engaging wheels on said chassis, soil and weed seed pulverizing means comprising a plurality of hammer mills mounted on said chassis, whereby the particles of soil and weed seeds are progressively reduced in size, power means on said chassis for driving said hammer mills, a ramp on the forward end of said apparatus communicating with the inlet of the first hammer mill, a ground engaging plow mounted on the forward end of said ramp, means to adjust the depth of cut of said plow, paddle wheel means on said ramp for moving soil upwardly thereon and into said first hammer mill, means for driving said paddle wheels from said power

means, means mounted on said chassis for conveying soil from one hammer mill to the next and an outlet chute on the last hammer mill for depositing pulverized soil on the ground, and screen means in the path of pulverized soil from each hammer mill, the mesh of said screen means being progressively smaller from the said one hammer mill to the said next hammer mill thereby preventing pulverized soil from the said one hammer mill from passing out of the said one hammer mill to the said next hammer mill until a predetermined degree of pulverization is obtained therein.

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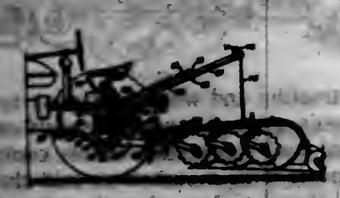
2,775,175
HITCH DEVICE
Wallace H. Du Shane, Waterloo, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application December 3, 1951, Serial No. 259,537
8 Claims. (Cl. 97—46.89)



1. A hitch device for connecting an implement to a tractor having a rear axle structure, said hitch device comprising generally fore-and-aft extending upper and lower link means spaced apart generally vertically and adapted to be pivotally connected at their rear ends to generally vertically spaced apart points on said implement, means for connecting the forward end of the upper link means with the tractor, and means for pivotally connecting the forward end of the lower link means with the rear axle structure of the tractor, said last mentioned connecting means comprising a part pivotally connected at one end with the forward end of the lower link means and shiftable relative thereto so as to be reversible and thereby extend either generally vertically upwardly or downwardly therefrom, optionally, vertically extending means receiving said part in either position and adapted to be carried by the tractor, and means fixing said part to said part-receiving means in different vertical positions and in either upwardly or downwardly extending position relative thereto.

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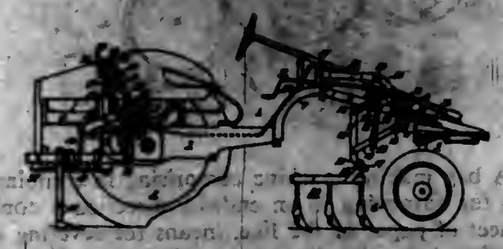
2,775,176
COMBINATION IMPLEMENT CARRIER AND HITCH FOR TRACTORS
Robert G. Gibson, Falls City, Nebr.
Application May 18, 1953, Serial No. 355,526
6 Claims. (Cl. 97—46.35)



2. A device for elevating and transporting an implement attached to the hitch of a tractor or the like, comprising, spaced standards rigidly secured to the axle housing of said tractor, a carriage pivotally attached to said standards, spaced booms having one end pivotally attached to said axle housing of said tractor, means on the outer ends of said booms for attachment to said implement for suspending said implement therefrom, hydraulic means having one end pivotally connected to said standards below the attached ends of said booms and the other end attached to said booms, adjustable means connecting said carriage with said booms for regulating the height of said carriage and fluid supply means connected to said tractor and to said hydraulic means for raising said implement for transporting the same behind the tractor.

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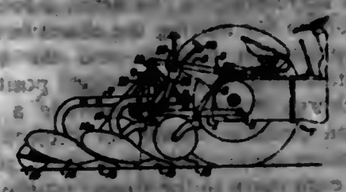
2,775,177
IMPLEMENT LIFT
August G. Buhr, La Crosse, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application May 17, 1951, Serial No. 226,879
6 Claims. (Cl. 97—46.57)



5. In combination with a tractor, a vertically adjustable front tool suspension mechanism and a vertically adjustable rear tool suspension mechanism mounted on said tractor for operation independently of each other, single acting fluid motors operatively connected, respectively, with said front and rear tool suspension mechanisms so as to move said front and rear tool suspension mechanisms in tool raising direction upon admission of pressure fluid to said fluid motors, a source of pressure fluid, and valve means selectively operable to either simultaneously connect both of said front and rear fluid motors to said source of pressure fluid for raising of both said front and rear tool suspension mechanisms, or to simultaneously connected both said fluid motors to a discharge for emission of pressure fluid from both said fluid motors for lowering of both said front and rear tool suspension mechanisms, and double acting biasing means operatively interposed between said tractor and said rear tool suspension mechanism and effective to delay both said raising and lowering of said rear tool suspension mechanism relative to raising and lowering, respectively, of said front tool suspension mechanism.

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2,775,178
ADJUSTING MECHANISM FOR TRACTOR MOUNTED IMPLEMENTS
John M. Chambers, Blackdown Hill, Leamington Spa, and Vincent A. Stafford, Coventry, England, assignors to Massey-Harris-Ferguson (Sales) Limited, a British company
Application October 26, 1951, Serial No. 253,416
4 Claims. (Cl. 97—46.59)



2. In an implement adapted to be coupled to a tractor having a pair of trailing laterally spaced draft links, the combination of a pair of connecting elements on the implement for attachment to the respective draft links of the tractor, a member rotatably mounted on the implement and supporting one of said elements eccentrically of its rotational axis, a pressure fluid operated device operable to rotate said member, and a manually operable pump connected to supply pressure fluid to said device.



2,775,179
HITCH MECHANISM FOR TRACTOR-DRAWN IMPLEMENTS
John M. Chambers and James C. McVicker, Leamington Spa, England, assignors to Massey-Harris-Ferguson (Sales) Limited, a British company
Application April 10, 1952, Serial No. 281,644
Claims priority, application Great Britain April 14, 1951
2 Claims. (Cl. 97—47.14)



2. A hitch mechanism for attaching an implement to a tractor having laterally spaced draft links trailingly universally pivoted on its rear end portion and having a power unit for raising and lowering the links, an elongated flat bar adapted to be connected across the trailing ends of the draft links for universal pivotal movement relative thereto, said bar having a pair of laterally spaced recesses, a pair of vertically disposed pins rigidly mounted on the implement and spaced apart to register with and engage in the respective recesses in said bar as the latter is raised by the tractor hitch linkage, one of the pins having its projecting end positioned so as to engage in its associated recess before engagement of the other pin upon upward movement of said bar whereby to establish a pivot about which the implement can swing in response to fore-and-aft movements of the tractor, said other pin being engaged in its recess upon further raising of said bar by the tractor draft links.

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2,775,180
HITCH DEVICE
Wallace H. Du Shane, Waterloo, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application May 31, 1952, Serial No. 290,916
6 Claims. (Cl. 97—47.36)



1. A hitch device for connecting an argricultural implement with a tractor of the type having front and rear wheels and a power lift including a pair of generally vertically swingable lift arms, said hitch device comprising a pair of lower draft links, an upper compression link, each of said links having means at their rear ends to receive said implement, means for connecting said lift arms with said lower links, means adapted to be fixed to the tractor for pivotally receiving the forward ends of said lower links, said link-receiving means being vertically adjustable, relative to the tractor, between upper and lower positions, and means adapted to be fixed to the tractor for pivotally receiving the forward end of said upper link and for connecting the latter to the tractor at a point disposed vertically between the levels of said upper and lower positions.

2,775,181
SPRING MOUNTED TOOL SHANK
Karl Martin Zeiss, Stockton, Calif., assignor to International Harvester Company, a corporation of New Jersey
Application August 17, 1953, Serial No. 374,732
2 Claims. (Cl. 97—47.24)



1. In an agricultural implement including a transverse frame and an earth-working tool having a lower earth-penetrating portion and an upper horizontal shank portion, means for mounting the tool on the frame comprising a clamp secured to the frame and having a portion depending therefrom, a transverse pivot pin carried by said depending portion, a rockable member including laterally spaced lugs affixed thereto depending therefrom and pivotally mounted on said pin and straddling the shank and a horizontal portion between the shank and the clamp, another transverse pivot pin carried by said lugs engaging the lower surface of the shank and confining the latter therebetween and the first mentioned pin, means for connecting the rockable member to the shank forwardly of said pivot pins, a pair of ears on the rockable member projecting upwardly therefrom, a threaded rod pivotally mounted between said ears, said clamp having an opening to slidably receive said rod, a nut on the end of the rod, and a coil spring surrounding the rod between the clamp and the nut.

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2,775,182
RELEASABLE FLOW STANDARD
Walter H. Silver, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application October 22, 1952, Serial No. 316,147
10 Claims. (Cl. 97—47.39)



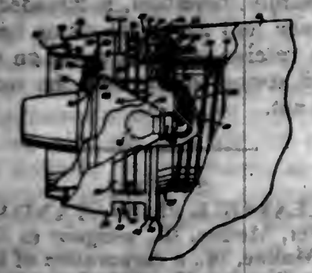
1. A safety device for a ground working tool that is movably connected with a support, said device comprising a link, releasably connectible with said tool, a spring-biased arm pivotally connected with said link and receiving thereby the reaction of the force transmitted by said tool to said link, an extension carried by said link in rigid relation therewith and disposed adjacent the pivotal connection between said arm and said link, said extension being disposed generally normal to said link, and a fixed abutment disposed on said support in a position to engage said extension when said link is shifted, as by yielding of said spring biased arm, and thereby swing said link out of engagement with said tool.

2,775,183
**OVERLOAD TRIP DEVICE FOR PLOWS**
Hermann E. Alspaugh, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application May 28, 1953, Serial No. 357,963
11 Claims. (Cl. 97—47.39)



11. A safety device for a ground-working tool, said device comprising an arm, resilient means acting against said arm, said arm being connected at one portion to said means, means including a part swingable relative to said arm for releasably connecting another portion of said arm with said tool to receive the ground-working reaction thereof, and means on said swingable part and engageable with said tool in response to swinging movement of said part, as by an overload on said resilient means, whereby movement of said tool relative to said part disengages the latter from said tool.

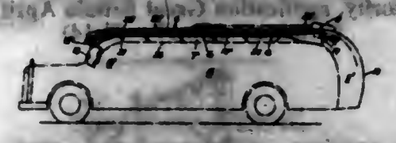
2,775,184
**VEHICLE AIR INTAKE STRUCTURE**
George R. Pipes, Mayfield Heights, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application May 6, 1953, Serial No. 353,361
5 Claims. (Cl. 98—2)



1. In an automotive vehicle having rear fenders with a taillight opening in the rear extremity of at least one of the fenders and a compartment in the rear body thereof with a vehicle air conditioning apparatus located in said compartment, the combination of a taillight assembly mounted on the rear extremity of the fender in said opening, said taillight assembly including an annular mounting member adapted to be received in sealed relation thereto, a shell having openings therethrough communicating with the atmosphere and a lamp reflector mounted internally of the shell, a conduit secured to a portion of the mounting member and extended inwardly of the fender between the shell and air conditioning apparatus in open communication with the atmosphere through the shell.

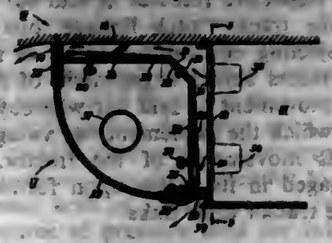
2,775,185
**AERATING DEVICE FOR VEHICLES, PARTICULARLY OMNIBUSSES**
Hermann H. F. Ahrens, Stuttgart-Weilimdorf, Wurttemberg, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application May 14, 1952, Serial No. 287,732
Claims priority, application Germany May 18, 1951
10 Claims. (Cl. 98—9)

1. A ventilating device for vehicles comprising a body including side walls, a roof having sharply rounded side portions connecting said roof with said side walls, means in the front end of said roof including channel means for introducing fresh air from without said vehicle to the inside thereof, and suction hood means formed at least in part by said side portions and located in the rear portion of said roof including channel means



for drawing out the vitiated air from within the vehicle, said suction hood means facing rearwardly and being located substantially at the points of transition of said roof into said side walls by said sharply rounded portions, said suction hood means being in substantial alignment with said channel means to minimize resistance to flow of air therethrough.

2,775,186
**VENTILATING APPARATUS**
John D. Strobell, New Haven, Conn., assignor to The Safety Car Heating and Lighting Company, Inc., New Haven, Conn., a corporation of Delaware
Application May 19, 1953, Serial No. 356,048
12 Claims. (Cl. 98—14)



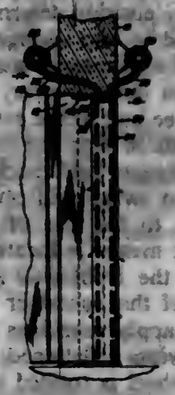
4. In ventilating apparatus for railroad cars or the like the combination of a centrally located overhead longitudinal air supply duct mounted adjacent to and extending down from a car ceiling having spaced side walls, with longitudinally disposed discharge openings in said side walls spaced one above the other and flow diverting structures comprising a top plate and a side plate disposed at an angle to said top plate, said structures being mounted adjacent but spaced from the side wall of said duct, to form downwardly directed passages therebetween whereby air emerging from said duct through said discharge openings is directed in a downward direction generally toward the aisle of the car and said structures being spaced from the ceiling of said car to form laterally directed discharge passages therebetween, whereby air emerging from said duct through said discharge openings is directed in a sweeping path along the ceiling and down by the windows of the car.

2,775,187
**AIR CIRCULATING DOOR FOR REFRIGERATOR**
Cleise M. McClankin, Norfolk, Va.
Application February 18, 1954, Serial No. 411,080
1 Claim. (Cl. 98—36)

A temperature barrier for use in an opening between two spaces at different temperatures comprising a compound member forming a pair of air ducts of equal size arranged about the periphery of said opening, said compound member including a curved front wall, a substantially straight back wall, an upstanding rib on said back wall, said rib extending into contact with said front wall and dividing said compound member into said pair of ducts, longitudinal extending rows of perforations in said pair of ducts in said curved front wall thereof with said perforations in one of said pair of ducts extending angularly with respect to the perforations in the other of said

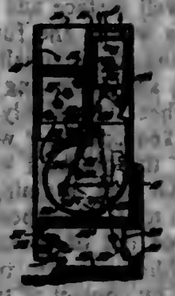


pair of ducts to form a pair of series of diverging nozzles, air pumps in said spaces, each of said pumps delivering air to the duct adjacent to the space containing the respective pump from the space in which the pump is con-



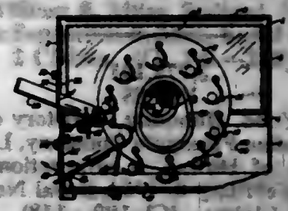
tained whereby a pair of slightly diverging air curtains of differing temperatures will be formed across said opening, said curtains diverging to substantially eliminate mixing of the air of the curtains.

2,775,188
**MEANS FOR HEATING AND VENTILATING ROOMS, PARTICULARLY SCHOOL ROOMS AND THE LIKE**
Russell R. Gunsaus, Cincinnati, Ohio
Application November 19, 1952, Serial No. 321,461
1 Claim. (Cl. 98—38)



A heating and ventilating unit having front, rear and side walls, a top and bottom; grill work in the front wall adjacent the top for receiving air from within the space in which the unit is located; means to heat the air received in said unit through said grill work, said heating means being located near the top of the unit; blower means in said unit beneath said heating means; a damper between said heating means and said blower means; a fresh air conduit in said unit below said blower means and leading to the out of doors; a damper for said conduit; grill work through which air may be discharged from said unit as motivated by said blower means, said last mentioned grill work being located in said top adjacent said rear wall; a damper for said last mentioned grill work; a damper motor for controlling the positions of the said dampers, the third mentioned, discharge damper being towards its wide open position when the second mentioned, fresh air damper is towards its full closed position, said damper motor being responsive to a thermostat located within the said space; a vent located adjacent the front and bottom of said unit below said blower means, said vent and said fresh air conduit communicating with a common compartment located below said blower means; a damper for said vent, said damper being hinged so as to open said vent by suction in said compartment created by said blower means when said fresh air damper closes and to close said vent by gravity when said fresh air damper opens; and linkage connecting said damper motor with said first, second and third mentioned dampers only, said linkage being such that said third mentioned discharge damper and said first mentioned damper are moved towards their closed position when said second mentioned fresh air damper is moved towards its open position and vice versa so that when cold fresh air is being discharged from said unit such cold fresh air leaves in a relatively small stream having high velocity and when heated air is being discharged from said unit such heated air leaves in a relatively large stream having slow velocity.

2,775,189
**WIENER BARBECUING MACHINE**
Raymond E. Schell, Pittsburgh, Pa.
Application March 27, 1953, Serial No. 345,180
1 Claim. (Cl. 99—427)

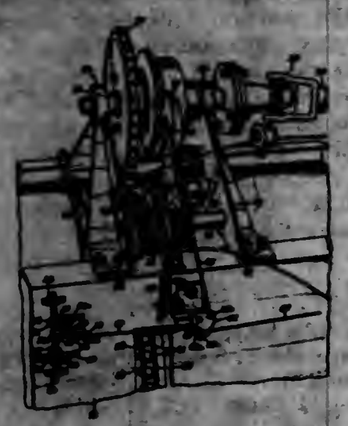


A wiener barbecuing machine comprising a base, a pair of laterally spaced vertical rotor members rotatably supported by said base on a horizontal axis, a plurality of hook-like carriers supported by the rotor members and swinging on parallel axes from their upper ends between said members at circumferentially spaced intervals, each carrier being formed from a plurality of laterally spaced hooks, the lower part of each carrier being formed to support a wiener, means for rotating said rotor members continuously to move the carriers in a circular path, the side of the carriers facing the up-going side of the rotor members being open for reception and discharge of wieners, an inclined chute at the up-going side of said rotor members extending down toward the rising carriers and having means at its lower end for keeping a row of wieners from rolling off the chute, the lower end of the chute being recessed to permit the lower part of each carrier to pass up through it and lift a wiener from the chute, heating means adjacent said path for cooking wieners on the traveling carriers, vertically extending unloading means below said chute projecting into said path and having an upwardly extending surface positioned to have the lower ends of the rising carrier hooks slide upward along it for swinging the lower part of each successive rising carrier inward to dump out the cooked wiener carried by it, and a ramp inclined downward from the top of said unloading means for receiving cooked wieners from the carriers.

2,775,190
**WIRE TWISTING MECHANISM FOR HAY BALERS**
Howard F. Bardwell and Patrick L. May, Memphis, Tenn., assignors to International Harvester Company, a corporation of New Jersey
Application December 17, 1952, Serial No. 326,492
13 Claims. (Cl. 100—9)

1. In a baler comprising an elongated bale forming chamber, means delivering material to be baled to said chamber, means within said chamber for compressing material delivered thereto, means supplying bale encircling wires to and around the compressed material, means intertwisting said wires at one end of said compressed material, said last named means including a ring member positioned intermediate the ends of said cham-

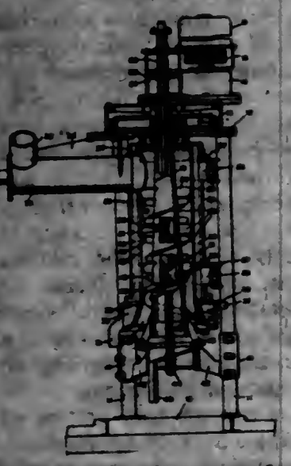
ber and transversely of the chamber, said ring member having inwardly projecting wire engaging hooks fixedly



mounted thereon, and means for rotating said ring member.

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2,775,191
PRESS
James Thomas Yeoi, Honolulu, Territory of Hawaii, assignor to Hawaiian Pineapple Company, Limited, Honolulu, Territory of Hawaii, a corporation of Hawaii
Application February 8, 1954, Serial No. 408,796
5 Claims. (Cl. 100—145)

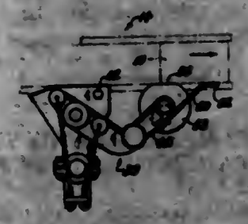


1. In a press having rotatable screw feeding and pressing means, a housing therefor provided with an outwardly flaring conical discharge orifice, and an axially adjustable, non-rotatable pressure cone mounted coaxially within said orifice and forming therewith a discharge passage of annular cross section having conical surfaces, means for preventing clogging of said passage including a non-planar spiral member connected with said screw feeding and pressing means for rotation therewith and having a portion spaced and extending therefrom into said discharge passage to move between and relative to its conical surfaces over said non-rotatable pressure cone.

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2,775,192
MARKING DEVICES
Malcolm Blanchey, Woodside, N. Y., assignor to Adolph Gottscho, Inc., Hillside, N. J., a corporation of New York
Application May 21, 1953, Serial No. 356,375
2 Claims. (Cl. 101—35)

1. A marking device for association with a conveyor carrying successive rectangular containers past the device to apply markings to the front wall surface and a side wall surface of each of the successive containers; said marking device comprising support means adapted to be mounted adjacent one side of the associated conveyor, a pivoted arm swingably mounted adjacent one end on said support means for horizontal swinging and extending from the latter generally in the direction of movement of the conveyor, two balanced springs each connected between said support means and said pivoted arm at locations on the latter disposed at opposite sides of the swinging axis of the pivoted arm and acting to yieldably urge the latter to an inner position determined by the balancing of the forces exerted by said springs and in which the free end of said pivoted arm extends across the path of travel of the containers on the conveyor, and a marking wheel mounted on said free end of the pivoted arm for rotation about a vertical axis so that the front wall of each successive container engages said marking wheel and pushes against the latter to swing said pivoted arm away from said inner position to the side of the path of travel at which said support means is located while said marking wheel rolls across the front wall surface and along the side wall surface of the container which is adjacent the support means to apply markings to said surfaces, said marking wheel having a flattened peripheral portion so that the marking wheel is rotated by rolling contact first with the front wall surface and then with the side wall

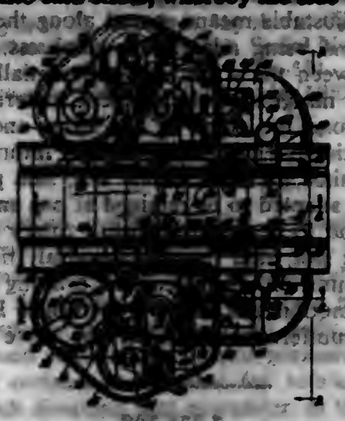


surface of the container being marked until said flattened peripheral portion of the marking wheel comes into contact with the side wall surface and prevents further rotation of the marking wheel; and further comprising a retaining bar extending longitudinally from said free end of the pivoted arm and projecting beyond the periphery of said marking wheel to slidably engage the side wall surface of the marked container when said flattened peripheral portion of the marking wheel engages the side wall surface, so that said retaining bar prevents return of said pivoted arm to its inner position until the marked container has moved out of contact with said marking wheel thereby avoiding rotation of the latter from the position established by contact of the flattened peripheral portion with the side wall surface of the marked container, said retaining bar being formed with an elongated longitudinal slot therein, and securing bolts extending through said slot and tapped into the free end portion of said pivoted arm to secure said retaining bar to said pivoted arm in a longitudinally adjustable manner for varying the projection of said retaining bar beyond the periphery of said marking wheel.

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2,775,193
MECHANISM FOR APPLYING INDICIA TO PACKAGES OR THE LIKE
Louis Mastello, Chicago, Ill., assignor to Wm. Wrigley, Jr. Company, Chicago, Ill., a corporation of Delaware
Application March 30, 1953, Serial No. 345,993
4 Claims. (Cl. 101—37)

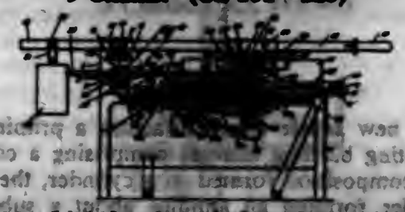
1. Apparatus for applying indicia upon packages, said apparatus comprising a source of packages arranged side-by-side, a chute receiving said arranged packages at one end thereof, means for continuously impelling the packages along the chute, a wheel having spaced teeth around the periphery thereof, said teeth extending into the chute and being spaced apart a distance such that the corresponding parts of adjacent teeth encompass two packages, and the extension of a tooth into the chute being less the height of a package in the chute such that every other package contacts the outer surface of a tooth and is displaced above the chute a distance equal to the extension of the tooth into said chute, whereby the side of a package



adjacent the displaced package may contact a tooth and impart movement to the tooth and wheel.

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2,775,194
DEVICE FOR PRINTING IN REGISTER
Louis Gilbert Dubuit, Paris, France
Application August 24, 1954, Serial No. 451,897
Claims priority, application France June 9, 1954
9 Claims. (Cl. 101—123)



1. In a machine for the printing of materials in sheets, in register, by the silk screen process and comprising an arm carrying the squeegee, moving and pivoting on a rail arranged longitudinally on one of the larger sides of the table of the machine, a round section rail, a carriage for carrying the squeegee-holding arm, moving and pivoting on said rail, two bell crank levers articulated at the two ends of the machine for pivoting about an axle parallel with said rail, an upper control bar connecting the two upper arms of said bell crank levers, two bars parallel with said rail connecting the central articulation portion of said bell crank levers, two adjustable arms on said parallel bars and carrying the frame for the silk screen, a lower control bar connecting the lower arms of said bell crank levers, margin setting elements connected with said lower control bar by rods, a system for holding the sheet to be printed, a control element for said holding system connected by a rod with said lower control bar, the unit being so arranged that the squeegee-carrying arm, when raised to a certain height, comes in contact with said upper control bar and drives it along with it thereby causing a pivoting movement of the two bell crank levers as well as of the parallel bars and of the lower control bar they carry for successively causing the screen carrying frame to raise, the margin setting elements to be set in an active position and the action of the system for holding the printed sheet to be interrupted, the squeegee-carrying arm causing all the converse effects when being lowered.

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2,775,195
METHOD OF DAMPENING A LITHOGRAPHIC PLATE OR STONE AND A DAMPING ROLLER FOR USE IN THAT CONNECTION
Hermanus Hubertus Wierda, Wassenaar, Netherlands
Application May 16, 1953, Serial No. 355,298
Claims priority, application Netherlands May 17, 1952
2 Claims. (Cl. 101—148)

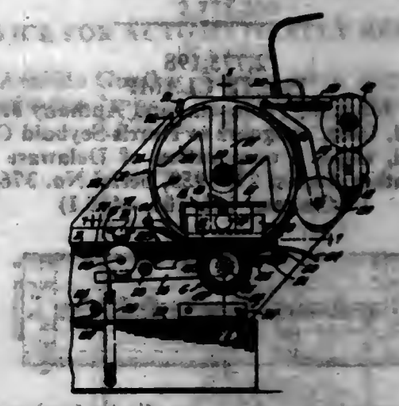
2. A method of dampening the ink free areas of a lithographic plate comprising the steps of wetting a damping roller having an outer seamless, water absorbing cover that consists of a tubular knitted cut velour fabric having a dense and deep pile of single threads with free ends providing a felted, homogeneous working surface,



and rolling the damping roller across the lithographic plate so that water is uniformly transferred from the homogeneous working surface of the roller to the ink free areas of the plate.

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2,775,196
ROTARY PRINTING MACHINE WITH FLAT PRINTING PLATE
William B. Miles, Bedford, Va.
Application September 3, 1952, Serial No. 307,619
2 Claims. (Cl. 101—212)



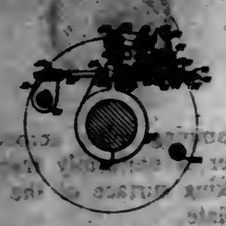
1. In a printing machine in combination, a rotary printing cylinder having a segment removed therefrom to provide a flattened surface thereon, printing members removably mounted exclusively on said flattened surface, all of the type element thus being disposed substantially in the same plane, an impression cylinder, pivotally mounted means supporting said impression cylinder for bodily movement toward and away from the axis of said printing cylinder, means urging said impression cylinder into contact with said printing cylinder, cam means carried by said printing cylinder for maintaining said impression cylinder out of engagement with the major portion of the cylindrical surface of said printing cylinder but permitting engagement with the flattened portion thereof to effect a printing operation, said impression cylinder being freely rotatable with respect to its supporting means and during a printing operation being rotated solely by frictional engagement with said printing cylinder, a stop for the leading edge of a sheet to be printed positioned on the delivery side of said couple and means actuated by the movement of said pivotally mounted means to render said stop ineffective when said printing and impression members move into printing relationship.

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2,775,197
GRIPPER MECHANISM
Robert K. Norton, Twinsburg, Ohio, assignor to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware
Application August 26, 1953, Serial No. 376,637
8 Claims. (Cl. 101—409)

1. In a sheet handling machine, sheet gripper means adapted to engage the forward edge of a sheet, said means comprising a gripper shaft, sheet grippers mounted on said shaft, gripper pads with which said sheet grippers

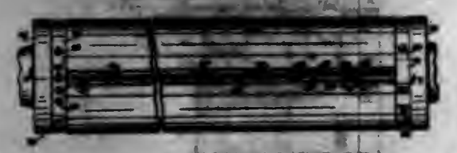
are adapted to cooperate, a crank keyed to said shaft, a second shaft the axis of which is fixed with respect to the axis of said gripper shaft, a toggle connection between said crank and said second shaft comprising an arm on said second shaft and a link pivotally connected with said arm and crank, the substantial alignment of said



arm and link constituting toggle on position and corresponding to the closed position of said sheet grippers, and gripper-operating means comprising cam means and spring means, one for turning said arm to break the toggle connection, and the other for returning the toggle connection to toggle-on position and the grippers to said gripping positions.

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**2,775,198**
**PLATE CLAMP**
**Thomas H. Johnson, Pasadena, and Anthony J. Mueller, Cleveland, Ohio, assignors to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware**
**Application August 27, 1953, Serial No. 376,800**
**19 Claims. (Cl. 101—415.1)**



1. For a printing machine, a cylinder having a lengthwise gap therein, a flexible printing plate wrapped around said cylinder, a pair of bars within said gap secured to the respective ends of said plate, a pivot for connecting an intermediate point of one of said bars to said cylinder within said gap, means for tieing the unpivoted bar to said pivoted bar crosswise of the gap effective to prevent bodily movement of the unpivoted bar away from the pivoted bar while permitting endwise movement of the unpivoted bar, and means for skewing the pivoted bar about its pivot.

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**2,775,199**
**FLEXIBLE PRINTING PLATE LOCKING DEVICE**
**Clarence Lloyd Cluff and Carl A. Mueller, Randolph, Mass., assignors, by mesne assignments, to M. E. Cluff & Sons, Inc., Randolph, Mass., a corporation of Massachusetts**
**Application February 24, 1953, Serial No. 338,330**
**1 Claim. (Cl. 101—415.1)**



In a rotary printing press, the combination of a plate cylinder having a transverse slot in its surface adapted to receive the interned ends of a printing plate of thin flexible material, said slot having substantially parallel walls, a projection in one end of the slot, and plate locking means comprising a pair of elongated flexible strips narrower than the width of the slot and adapted to be disposed therein with their edges adjacent the slot walls, resilient material capable of developing friction with the plate interposed the said strips, and a number of individually adjustable means spaced along the strips, each of said means being adapted to compress the resilient material between the strips in a substantially local area to cause the margins of the resilient material to extend laterally beyond the edges of the strips and thereby to provide frictional engagement of the interned ends of the plate against the sides of the slot, said plate locking means being adapted to be retained at one end under said projection and to be lowered with a rotary motion until it lies in the slot, said resilient material frictionally engaging the interned margins of the printing plate during said rotary motion and thereby exerting a laterally progressive circumferential pull on the plate around the cylinder.

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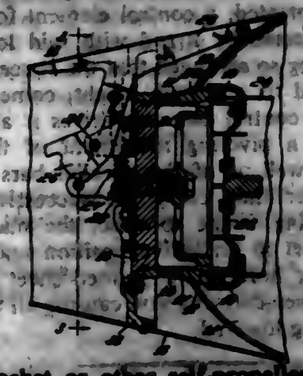
**2,775,200**
**PRIMING DEVICE**
**Richard G. Gessler, Lawrence, Kans., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware**
**Application December 3, 1952, Serial No. 323,856**
**5 Claims. (Cl. 102—27)**



1. As a new article of manufacture a priming device for detonating blasting charges comprising a compacted explosive composition formed as a cylinder, the walls of said cylinder forming an annulus about a substantially coaxially disposed perforation extending through at least a major extent of the length of the cylinder and adapted to contain a detonating means, said explosive consisting essentially of at least 75 percent cyclonite and at least 15 percent nitrocellulose to form an independent cohesive body.

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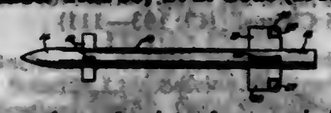
**2,775,201**
**SAFETY DEVICES FOR APPARATUS CONTAINING STORED PRESSURE ENERGY**
**Hugh Graham Conway, Gloucester, England, assignor to British Monitor Limited, Gloucester, England, a British company**
**Application August 28, 1952, Serial No. 306,940**
**Claims priority, application Great Britain August 31, 1951**
**11 Claims. (Cl. 102—49)**



1. In a rocket or other self-propelled missile or like power unit comprising a pressure chamber, a pressure release sleeve fixed in said pressure chamber, a safety plug positioned and adapted to close off the distal end of said sleeve, a spring collet connection between said sleeve and plug capable of yielding to permit displacement of the plug, and an annular member movable into engagement with said collet, when desired, to prevent said collet from yielding as aforesaid to permit displacement of said plug.



**2,775,202**
**GYROSCOPIC ROLL CONTROL SYSTEM FOR AIRCRAFT**
**Sydney B. Cresciet, Inyokern, Calif.**
**Application October 26, 1951, Serial No. 253,438**
**12 Claims. (Cl. 102—50)**
**(Granted under Title 35, U. S. Code (1952), sec. 266)**



5. Roll control mechanism for a missile having an elongated body with its longitudinal axis in the line of flight, comprising a frame fixed to said body and extending radially therefrom, a control surface hinged to said frame and spaced radially from said body, a gyro-wheel carried by said surface with its axis normally perpendicular to said surface, and means for rotating said gyro-wheel in such direction that precession of the gyro-wheel due to roll of the missile will deflect the surface in a direction to tend to arrest said roll.

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**2,775,203**
**FUEL INJECTION PUMP**
**Carl F. High, Detroit, Mich., assignor to American Bosch Arma Corporation, a corporation of New York**
**Application November 24, 1953, Serial No. 394,058**
**3 Claims. (Cl. 103—2)**

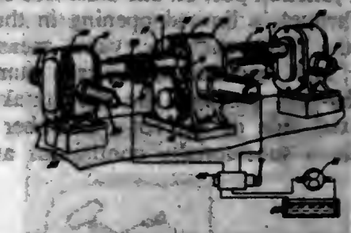


1. In a device of the character described, a housing having a bore, a fuel inlet communicating with said bore for supplying fuel thereto, a pumping and distributing member mounted for reciprocation and rotation in said bore in said housing, said pumping and distributing member having a bore, port means for supplying fuel to said bore in said pumping and distributing member, said pumping and distributing member having a distributing port communicating with said bore in said pumping and distributing member, a plurality of outlets in said housing communicating with said bore in said housing and adapted to deliver fuel to each of said plurality of outlets successively upon rotation of said pumping and distributing member and a metering valve member for controlling the quantity of fuel supplied to said bore from said inlet, said valve member being in said bore in said housing and in alignment with said pumping and distributing member, and a fuel passage connecting said metering valve to said bore in said housing between said valve and said pumping and distributing member.

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**2,775,204**
**DUAL PUMP DRIVE WITH OVERRUNNING CLUTCHES**
**Webster R. Batten and Donald Haddon, Rockford, Ill., assignors to Geo. D. Roper Corporation, Rockford, Ill., a corporation of Illinois**
**Application March 23, 1953, Serial No. 344,019**
**3 Claims. (Cl. 103—11)**

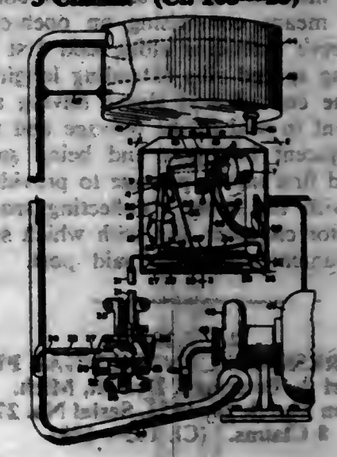
1. A pumping apparatus comprising a rotary hydraulic motor having first and second fluid passages communicating therewith, first and second rotary shafts driven in unison by said motor, a first rotary pump having a drive shaft, a second rotary pump having a drive shaft, a first overrunning clutch means disposed between said first shaft and the drive shaft for said first pump for establishing a driving connection therebetween when said motor rotates in one direction, a second overrunning clutch means disposed between said second shaft and the drive shaft for said second pump for establishing a driving connection therebetween when said motor rotates in the other direction, and control valve means connected to said first and second fluid passages of said motor for selectively passing fluid in either direction to said motor to control



the direction of rotation of said motor and thereby selectively drive said first or said second pump, said control valve means including valve means operative to block the flow of fluid to and from said first and second passages to thereby lock said motor against rotation in either direction and prevent reverse rotation of said first and said second pumps.

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**2,775,205**
**DEVICE FOR AUTOMATICALLY REFILLING TANKS**
**Arnoldo Gunther, Buenos Aires, Argentina**
**Application January 24, 1952, Serial No. 268,057**
**3 Claims. (Cl. 103—25)**



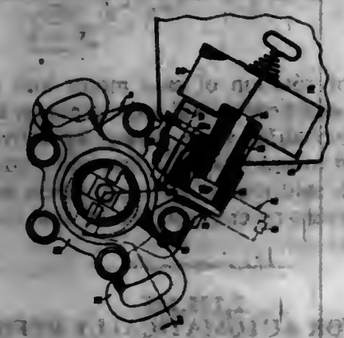
1. A device for automatically refilling liquid containing tanks, said device comprising a hermetic chamber containing liquid of the tank in the upper part and mercury in the lower part, a duct between the upper part of said hermetic chamber and a tank supply pipe, a downwardly bent end on said duct and projecting into said supply pipe for detecting pressure changes therein, a connection tube opening into said tank below the lowest liquid level and connected to said supply pipe, a second chamber provided with extensible, resilient walls, a second duct between the lower part of said first chamber and said second chamber, an oscillatory bar from which said second chamber is suspended, mercury switches operatively associated with said bar, and a pump operatively connected to said mercury switches for actuation thereby, whereby said pump is automatically actuated upon a reduction in pressure in said supply pipe to refill said tank.

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**2,775,206**
**PUMP**
**La Vern R. Connolly, Marshall, Mich., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio**
**Application March 7, 1955, Serial No. 492,717**
**5 Claims. (Cl. 103—42)**

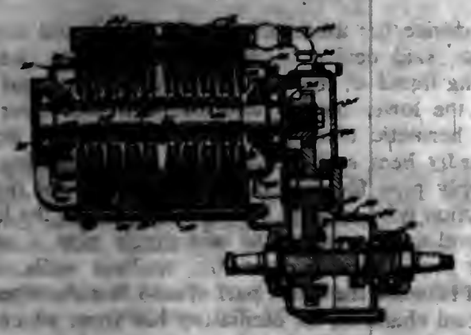
1. In a rotary pump, a housing having therein a rotor chamber, two intake passages and a discharge passage

communicating with said rotor chamber, rotor means operable in said rotor chamber for producing a pumping action, said housing also having a valve chamber communicating with the discharge passage and a by-pass passage connecting said valve chamber with the intake passages through a junction port on one axial side of the rotor chamber and through a limited opening in the opposite axial side of the rotor chamber, valve means in said valve chamber and operable to by-pass pumped fluid through said by-pass passage, the first intake passage on said one axial side of the rotor chamber having a side wall which is substantially continuous and imperforate between said junction port and said rotor chamber for confining in said first intake passage the fluid being supplied therethrough to said rotor chamber, and flow directing means comprising an open-ended sheet metal insert sleeve extending along said first intake passage and having spaced ribs extending longitudinally of said sleeve, one end of said sleeve having a relatively tight engagement in said intake passage and the wall of said sleeve adjacent its other end being spaced from the wall of said first intake passage to provide a venturi and defining with the latter a deflecting space opening toward said rotor chamber and with which said by-pass passage communicates through said port.



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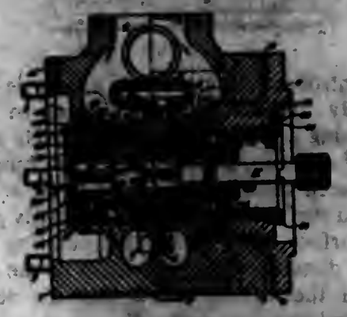
**2,775,207**
**HIGH PRESSURE CENTRIFUGAL PUMP**
**Earl A. Peterman, Detroit, Mich.**
**Application March 24, 1952, Serial No. 278,200**
**8 Claims. (Cl. 103—109)**



1. In a centrifugal pump, a rotatable shaft having a plurality of rotors thereon, said rotors being of substantially identical shape, a plurality of passageways in each of said rotors extending in a generally radial direction, each passageway having an axially facing intake section at its inner end and an axially facing discharge section at its outer end, a plurality of stators interposed between said rotors and having vanes adjacent said rotors to form passageways for directing the fluid from the discharge of one rotor to the intake of the next adjacent rotor, said stators being separable and of substantially identical shape, and a plurality of vanes on the back surfaces of said rotors, said vanes extending radially outwardly at least to the outermost portions of said rotor discharge sections.

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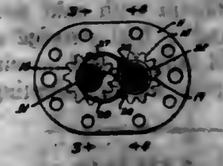
**2,775,208**
**ROTARY PUMPS**
**Paul M. Mueller, West Hartford, Conn., assignor, by mesne assignments, to Pratt & Whitney Company, Incorporated, West Hartford, Conn., a corporation of Delaware**
**Application April 20, 1953, Serial No. 349,605**
**5 Claims. (Cl. 103—111)**



1. A rotary pump for volatile liquid comprising: a housing, a pair of ball bearings packed with a lubricant and seated in said housing in selected spaced relation thereto; a shaft supported by said bearings in selected spaced relation to said housing, a pumping impeller rotor fixedly mounted on said shaft between said bearings; a plurality of running seals between said rotor and housing; a pair of communicating annular spaces formed by said spaced relation of said shaft and housing and providing a fluid flow passage from one of said bearings to the other; an air passage connecting each of said annular spaces with the atmosphere outside said housing, and an air impeller on said shaft for drawing a current of air in through one of said air passages and one of said annular spaces and discharging said current through the other of said spaces and said air passages, thereby removing from said spaces the vapor of any liquid which has leaked past said seals and thus preventing said vapor from reaching said bearings; whereby said lubricant is protected from the dissolving action of said vapor.

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**2,775,209**
**LUBRICATION MEANS FOR ROTARY PUMPS**
**John R. Albright, Rockford, Ill., assignor to Geo. D. Roper Corporation, Rockford, Ill., a corporation of Illinois**
**Original application June 14, 1946, Serial No. 676,818, now Patent No. 2,612,113, dated September 30, 1952. Divided and this application September 4, 1952, Serial No. 307,881**
**6 Claims. (Cl. 103—126)**



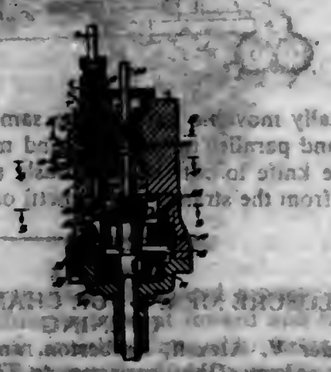
1. A rotary pump or fluid motor comprising a casing defining a fluid displacement chamber and having pressure and exhaust passages at opposite sides of the fluid displacement chamber, a rotary driving gear in said chamber, means supported within the casing defining a bearing supporting the driving gear for rotation, a rotary driven gear located within the fluid displacement chamber in meshing relation to the driving gear, and means defining a pair of lubrication grooves in the bearing extending longitudinally thereof and communicating with each other at one end thereof and with the pressure and exhaust passages respectively at the other ends thereof for recirculating through the lubrication grooves a portion of the fluid displaced through the fluid displacement chamber to lubricate the bearing for the driving gear, said grooves being each angularly spaced substantially less than 90°



from the mesh point of the gears and located remote from the point at which the thrust is placed on the bearing due to the radial hydraulic thrust on the gears produced by the fluid pressure acting on the periphery of the driving gear.

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**2,775,210**
**PISTON PUMP**
**Albin Buchmann, Solothurn, Switzerland, assignor to Scintilla Ltd., Solothurn, Switzerland**
**Application April 8, 1952, Serial No. 281,216**
**Claims priority, application Switzerland April 10, 1951**
**17 Claims. (Cl. 103—154)**

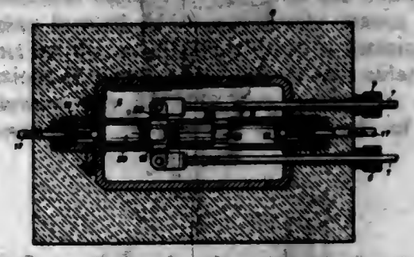


1. A pump, comprising, in combination, supporting means; at least one cylinder member mounted in said supporting means, said cylinder member being closed at one end and formed with at least one inlet passage and at least one outlet passage; spring-loaded check valve means located in said outlet passage of said cylinder member; a piston member turnably and reciprocably mounted in said cylinder member and having a cylindrical outer surface and a transversal end face located oppositely the closed end of said cylinder member and defining in said cylinder member an operating chamber communicating with said outlet passage, said piston member being formed with at least one elongated inlet slot in said cylindrical surface thereof ending in said transversal end face thereof; driven shaft means rotatably mounted in said supporting means; a cam wheel fixedly mounted on said shaft means and engaging said piston member, and moving said piston member during rotation of said cam wheel toward the closed end of said cylinder member; spring means for urging said piston member toward said cam wheel; movable actuating means connected to said piston member for turning said piston member in said cylinder member between a first position in which said inlet slot coincides with said inlet passage, and a second position in which said inlet slot is angularly spaced from said inlet passage; and adjustable control means connecting said actuating means with said shaft means for operating said actuating means in a timed sequence with said cam wheel in such manner that at least during part of the reciprocating movement of said piston member in the direction away from said closed end of said cylinder member said inlet slot is in said first position thereof, and that at least during part of the reciprocating movement of said piston member in the opposite direction said inlet slot is in said second position thereof.

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**2,775,211**
**DOUBLE ACTION PUMPS**
**Alfred Lebede, Munich, Germany, assignor to Gesellschaft fuer Linde's Eismaschinen Aktiengesellschaft, Hoellriegelskreuth, near Munich, Germany, a corporation of Germany**
**Application May 29, 1952, Serial No. 290,913**
**Claims priority, application Germany June 11, 1951**
**2 Claims. (Cl. 103—175)**

1. In a double action installation for pumping liquefied gases, an insulated outer casing, a cylindrical casing surrounded by that insulated casing to hold the liquefied gases, a pump cylinder extending along the center axis of said cylindrical casing, a piston displaceably located in said pump cylinder, slots in said pump cylinder connecting said cylindrical casing and said pump cylinder,



a cross bar oscillatingly located in said piston and extending with its ends through said slots, said cross bar being spherically shaped at its thrust faces with said piston, two piston rods in said cylindrical casing and connected with the ends of said cross bar.

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**2,775,212**
**PUMPING EQUIPMENT FOR WELLS**
**Lewis D. Hilton, Houston, Tex.**
**Application June 13, 1952, Serial No. 293,991**
**6 Claims. (Cl. 103—225)**



1. In well equipment the combination of a well tubing and a reciprocable sucker rod in the tubing to operate a pump beneath, said rod being formed in sections each having an externally threaded pin at its opposite ends terminating in an external enlargement providing a pin-shoulder and also having an externally enlarged bead, internally threaded coupling of larger external diameter than said enlargement and bead connecting the adjacent ends of successive sections of the rod, and a tubular stager surrounding the rod and movable longitudinally in the tubing, said rod being movable longitudinally relative to the stager, said coupling being engageable with the lower end of the stager to close the stager upon upward movement of the rod and being movable downwardly out of engagement with said lower end to open the stager upon downward movement of the rod, and means on the stager positioned for engagement with said bead to limit downward movement of the rod relative to the stager, said stager having a lateral opening mediate its ends positioned to lie opposite said bead when the stager reaches the limit of its upward movement relative to the rod.

2,775,213
**DISPENSER**
Earl S. Neal, San Francisco, Calif.
Application February 10, 1954, Serial No. 409,491
3 Claims. (Cl. 107—14)



1. A doughnut dispensing head for a flexible dough container, said dispensing head including a tubular body member terminating at one end in a sharp edge to facilitate the cutting of dough extruded through said body member, a guide fixedly carried within said body member, a stem guidingly carried by said guide for reciprocatory movement, a doughnut forming valve disk carried by said stem intermediate its ends, said valve disk being retractible into said body member and being of a size to form a seal of said body member, a removable cover receivable in the lower end of said tubular member to seal a dough container carried by said tubular body, said cover being of a size to be received in and form a seal with said body member, and an annular connector surrounding the upper end of said tubular body, said connector being connectable to a dough container and retaining said guide in place, said connector and said guide being removable, said cover being insertable in the upper end of said tubular body to force dough remaining in said tubular body therethrough to minimize the wasting of dough.

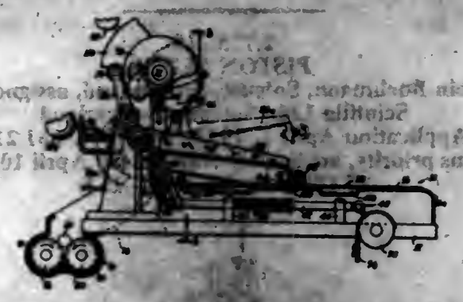
2,775,214
**DRAW-PLATE FOR ALIMENTARY PASTE FORMED INTO LONG SHAPES**
Sandro Lonzar, Milan, Italy
Application June 13, 1952, Serial No. 293,252
Claims priority, application Italy June 23, 1951
1 Claim. (Cl. 107—14)



A die construction for continuously extruding filaments of alimentary paste; said die construction comprising a die plate having a series of spaced apart openings therein for the extrusion of alimentary paste through said openings, a wall disposed above said die plate and having projections depending into the proximity of the latter to define a plurality of chambers above said plate with each of said chambers encompassing at least a related one of said openings, a compression chamber having a circular cross section for receiving alimentary paste under pressure, and a pipe extending from each of the aforementioned chambers to said compression chamber for carrying alimentary paste from the latter to the related one of said first chambers, said pipes being of the same cross-sectional area and having their longitudinal centre lines extending from said first chambers to a plurality of points symmetrically arranged on a circumference concentric with the circular cross section of said compression chamber.

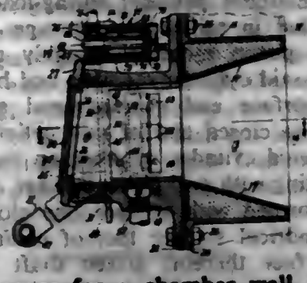
2,775,215
**SPAGHETTI-CUTTING MACHINE**
Aldo Cerioni, Palisades Park, N. J., assignor to himself and Frank Marinai, New York, N. Y., jointly
Application April 2, 1952, Serial No. 280,130
8 Claims. (Cl. 107—21)

1. A spaghetti-cutting machine for simultaneously cutting the bights or elbows from a plurality of strands of spaghetti looped about a rod, comprising a base, a table on said base, a fixed knife at one end of the table, means for holding the spaghetti-loaded rod at said end of the table parallel to and immediately above said fixed knife,



a vertically movable knife at the same end of the table, above and parallel to said rod, and means to move said movable knife to cut simultaneously all of the bights or elbows from the strands of spaghetti on said rod.

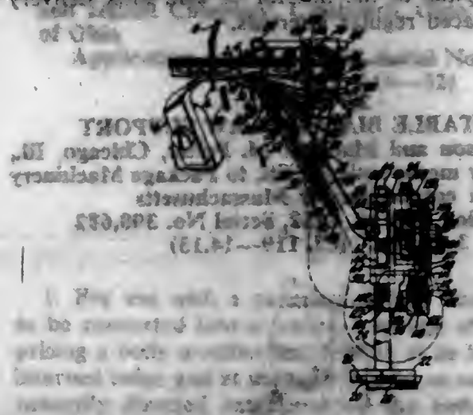
2,775,216
**CLOSURE MEANS FOR CHAMBER WALL OPENING**
Alexander V. Alexeff, Barberton, and Russell L. Godshalk, Akron, Ohio, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application September 12, 1952, Serial No. 309,304
8 Claims. (Cl. 110—179)



1. Closure means for a chamber wall opening comprising interrelated members one of which is formed as a frame providing a passage therethrough for registry with said opening, another of said members constituting a door for said passage at the outer end of said frame, means including a guide bar on one of said members for restricting total opening and closing movement of said door substantially to a single upright plane, said other member being formed with a guide slot in which said guide bar is slidably received throughout its path of travel therein, said guide bar in the closed position of said door being arranged to releasably engage only that side of said slot which is nearer said outer end of said frame, the outer end of said frame being formed with a door seat inclined with respect to the length of said passage, said guide slot being formed with substantially parallel sides arranged in diverging relation to said seat in the direction of closing movement of said door, and means for releasing said guide bar from engagement with said side of said slot prior to opening movement of said door.

2,775,217
**SHOE SEWING MACHINES**
Heinrich Richard Rehe, Frankfort am Main, Germany, assignor, by mesne assignments, to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application September 1, 1954, Serial No. 453,586
Claims priority, application Germany September 26, 1953
10 Claims. (Cl. 112—46)

1. A shoe machine having a main frame, fastening devices in the frame, a main welt guide mounted in the frame close to the point of operation of the fastening devices for engagement with a shoe being operated upon by the fastening devices, a supplemental welt guide located along the path of the welt leading to the main welt guide more remote from the operating point than the main welt guide, knife means carried by the supplemental welt guide for performing a severing operation on the welt before it enters the main welt guide and a carrier on which



the supplemental welt guide is secured mounted on the main frame for shifting movement toward and from the main welt guide, in combination with feeler means mounted on the supplemental welt guide carrier and engageable with the first end of welt already attached to a shoe for locating the position along the welt running to the main welt guide at which the severing operation is performed.



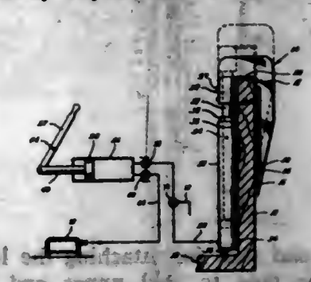
2,775,218
**BOAT HAVING MULTIPLE FLOATS**
Frank Kapuscak, Winnipeg, Manitoba, Canada
Application March 10, 1955, Serial No. 493,450
1 Claim. (Cl. 114—61)



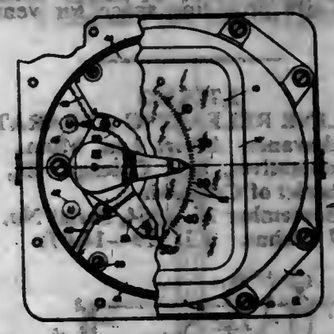
An outrigger-type boat for general water amusement purposes comprising a boat body having a bottom, side walls, front and rear end walls and seating facilities, a pair of spaced parallel coplanar floats positioned outwardly of and spaced from the respective lengthwise side walls of said body, and a plurality of transversely disposed longitudinally spaced parallel inverted U-shaped trusses, the bight portions of said trusses being adjustable and adjustably connected to and underlying the bottom of the boat body, the vertical end portions depending and being attached to the upper crown portions of the respective floats, a third float arranged between the rear end of the boat body and trailing ends of the first named floats and having its rear end projecting beyond the rear ends of the first named float, and braces connecting said third float with the rear end portions of the first named floats whereby it is positioned in spaced parallelism intermediate said rear end portions.

2,775,219
**OUTBOARD MOTOR MOUNTING MEANS FOR BOATS**
Gerald J. Cuccia, Houston, Tex.
Application March 3, 1954, Serial No. 413,843
1 Claim. (Cl. 115—41)

A motor mount for boats comprising an elongated motor supporting member of inverted U-shape in cross-section adapted to be positioned over the transom of a boat, for vertical sliding movement on the transom, with one arm of the U lying along the outer surface of the transom and the other arm thereof lying along the inner surface of the transom, laterally spaced, external, substantially parallel, reenforcing flanges on the member extending longitudinally of the arms positioned to receive between them a U-shaped mounting bracket of an outboard motor to secure the motor to the member for vertical movement therewith relative to the transom, said member being formed with horizontally spaced external enlargements on the inner arm of said U forming downward extensions of said flanges, each of said enlargements having a downwardly opening bore, said inner arm extending downwardly beyond the lower ends of the enlargements between the enlargements, vertically disposed pressure fluid cylinders mounted on the transom beneath said enlargements, pistons movably disposed in said cylinders, piston rods on the pistons and extending upwardly beyond the upper ends of the cylinders, for engagement with said enlargements in said bores, means for releasably securing the piston rods in the bores of said enlargements and means for introducing fluid under pressure into said cylinders beneath said pistons to move the pistons upwardly to elevate said member relative to the transom.



2,775,220
**ILLUMINATION OF INDICATING APPARATUS**
Maxwell Dorn, Jersey City, N. J., and Werner Rosenhaus, New York, N. Y., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application June 25, 1954, Serial No. 439,445
18 Claims. (Cl. 116—129)

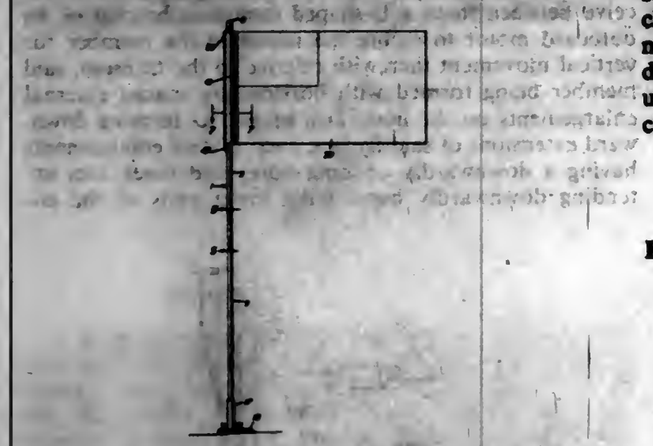


1. In indicating apparatus, a dial, a pair of adjacent relatively movable elongated indicator members composed of material which conducts radiant energy, and radiant energy generating means located adjacent to one end of each of said indicator members to direct radiant energy into said one end of each member so that radiant energy passes through said indicator members to the opposite ends thereof to illuminate said opposite ends.

2,775,221
**FLAG DISPLAY MEANS**
Harry M. Olson, Clear Lake, Iowa
Application August 2, 1955, Serial No. 525,951
4 Claims. (Cl. 116—173)

1. Means for displaying a flag comprising an upright flagstaff, a flag having a hem slidably sleeved onto said staff, a tape secured intermediate its transverse center and one end to said hem to provide long and short portions on

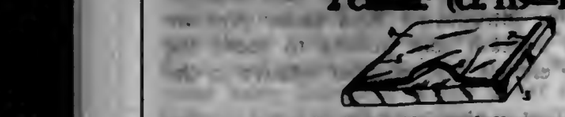
said tape at opposite sides of its point of securement to said hem, and terminal means on said tape and the



upper end of said staff for attaching the long and short portions of the tape to said upper end selectively to lower and raise the flag on the staff.

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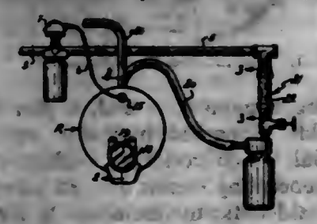
2,775,222
DOG BED
Eugene Kruck, Huntington Station, N. Y.
Application November 9, 1954, Serial No. 467,701
2 Claims. (Cl. 119—1)



1. In a dog bed a substantially rectangular pillow, a blanket fastened on three sides of said pillow said blanket being of a larger dimension in length and width than that of said pillow, an arcuate spring member enclosed in a marginal portion of the free side of said blanket, providing an oval opening to the space between said blanket and said pillow, whereby a dog upon entering said opening would raise and enlarge said opening after which upon the bedding of the dog the opening would return to its previous size providing space for ventilation and observation.

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2,775,223
MILK LINE RELEASING APPARATUS
William T. Pickavance, Albert Lea, Minn., assignor to National Cooperatives, Inc., Chicago, Ill., a corporation of the District of Columbia
Application September 16, 1954, Serial No. 456,357
7 Claims. (Cl. 119—14.07)



1. Milk handling apparatus comprising a milk line, a milk-receiving chamber having a milk inlet connected to said milk line and receiving milk therefrom and having a vacuum inlet and a milk outlet, a source of vacuum connected with said vacuum inlet, a valve interposed between said source of vacuum and said vacuum inlet and movable between open and closed positions and maintaining the vacuum within said chamber at a lower value than at said source of vacuum, a weight connected to said valve and urging it toward closed position, a pressure-sensitive valve element extending across said outlet and opening and closing the same, a milk-delivering chamber connected to said outlet in milk-receiving relation and having a milk discharge outlet, and having a vacuum inlet connected to said source of vacuum, a pressure sensitive valve element extending across said milk discharge outlet and opening and closing the same, and mechanism connected with the vacuum inlet of said milk-delivering chamber for causing said last mentioned vacuum to be applied to the interior of said milk delivery chamber at spaced regular intervals.

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2,775,224
ADJUSTABLE BIASED CLAW SUPPORT
Emanuel Rawson and Marshall M. Fuller, Chicago, Ill., assignors, by mesne assignments, to Package Machinery Company, a corporation of Massachusetts
Application July 24, 1952, Serial No. 300,682
3 Claims. (Cl. 119—14.13)



1. Apparatus of the character described for supporting milking equipment below the udder of a cow, comprising a support, means operatively associated with said support for adjusting the position of the support vertically, a cantilever spring carried by the support and extending therefrom, milking equipment supported by said spring, and a gauge carried by the spring and measuring the flexure thereof.

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2,775,225
MILKING MACHINE CLAW ASSEMBLY
Clifford R. Brown and Robert L. Bohlken, Albert Lea, Minn., assignors to National Cooperatives, Inc., Chicago, Ill., and Albert Lea, Minn., a corporation of the District of Columbia
Application December 15, 1954, Serial No. 475,485
6 Claims. (Cl. 119—14.54)



1. A milking machine claw assembly comprising a rigid body having an air inlet and a hollow interior, at least one milk nipple mounted on said body and extending outwardly therefrom and being in fluid communication with the hollow interior of said body and being adapted to be connected to the milk tube of an inflation to conduct milk from the latter into the hollow interior of said body, a milk outlet nipple mounted on said body and extending outwardly therefrom and being in fluid communication with the hollow interior of said body and being adapted to have a flexible milk tube under suction connected thereto, the outer end portion of said milk outlet nipple having a milk tube crimping surface, and a rigid milk-tube-shut-off arm mounted on said body and extending away therefrom in the same general direction as said milk outlet nipple to a position almost directly ahead and beyond but adjacent to the outer end portion of said milk outlet nipple whereby such a flexible milk tube when connected to said milk outlet nipple may extend in milk conducting position while at one side of said arm and will be crimped against the crimping surface of said milk outlet nipple when swung to the other side of said arm to effectively shut off the fluid flow through the milk tube.



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2,775,226
COMBINED CONTAINER AND FEEDER
Robert Lee Early, Cincinnati, Ohio, assignor to The Early and Daniel Company, Cincinnati, Ohio, a corporation of Ohio
Application August 2, 1955, Serial No. 526,017
8 Claims. (Cl. 119—52)



1. For use with a paperboard feed container adapted to be converted into a feeder, a trough attachment comprising a body member terminating at its lower end in an inturned ledge and at its upper end in an outturned perch, inwardly directed extensions on the ends of said body member, said extensions having upwardly directed points for puncturing the walls of the container with which the attachment is used, the lower edges of said extensions having teeth therein for engagement with the bottom of the container, said extensions being adapted to coact with said inturned ledge to grip the bottom of the container therebetween.

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2,775,227
DROP DELIVERY TYPE POULTRY FOUNTAIN
Henry Miller, Hillside, Ill.
Application September 8, 1953, Serial No. 378,865
2 Claims. (Cl. 119—72.5)



1. In a fountain for poultry, or the like, the combination of a substantially horizontal conduit, and a water dispensing valve provided at the underside of said conduit, said valve comprising a substantially tubular body having upper and lower ends, a valve seat provided in the upper end portion of said body, and a gravity actuated valve stem slidable in said body, said valve stem being provided with water passages and having an enlarged head engageable with said seat, said passages being closed by said body when said head is engaged with said seat, said body having a concave constantly open lower end facilitating the formation of drops of water therein from water dripping from said passages when said head is engaged with said seat.

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2,775,228
RETRACTABLE BALL PEN
Blanchard D. Smith, Atlanta, Ga., assignor to Scripto, Inc., Atlanta, Ga., a corporation of Georgia
Application November 4, 1953, Serial No. 390,185
9 Claims. (Cl. 120—42.03)

7. A retractable ball pen comprising a barrel, a ball point and reservoir unit housed within said barrel for sliding movement between forward projected and rearward retracted positions with respect thereto and yieldably biased therein rearwardly toward said retracted position, a latching sleeve disposed over the rear end of the reservoir portion of said unit and having a rearwardly facing latching notch therein, a latching lever rockably supported in said barrel for rocking between a latching position and a free position with respect to said latching sleeve, said latching lever extending forwardly in said barrel and engageable at said latching position with said latching sleeve notch when said latching sleeve and unit are moved to projected position, a plunger member slidably contained at the rear end of said barrel and depressible within said barrel for operating directly to project said latching sleeve and unit to said latching position, yieldable means arranged within said plunger member and biasing said plunger member rearwardly, and a positioning lever rockably actuated by depression of said plunger member for engaging and rocking said latching lever to said latching position in engagement with said latching sleeve notch upon projection of said latching sleeve and unit by depression of said plunger member and for engaging and rocking said latching lever to said free position upon a subsequent depression of said plunger member.



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2,775,229
BALL POINT PEN AND RETRACTING MEANS THEREFOR
Herbert W. Sloan, Atlanta, Ga., assignor to Scripto, Inc., Atlanta, Ga., a corporation of Georgia
Application August 14, 1953, Serial No. 374,393
4 Claims. (Cl. 120—42.03)



1. In a ball point pen, a rear barrel portion having a retracting means assembled therewith, said retracting means comprising a tubular operating cap mounted externally at the rear end of said barrel portion for rotation, an alignment sleeve fixed within said barrel portion intermediate the length thereof, a plunger slidably disposed within said cap and projecting rearwardly therefrom, a push tube carried by said plunger and extending forwardly therefrom for sliding movement within said alignment sleeve, said push tube being keyed against rotation in said alignment sleeve, and a cam tube fixed on said cap and extending forwardly therefrom adjacent said push

tube, said cam tube being formed with a cam slot shaped with two symmetrical leg portions spreading rearwardly from a forwardly facing central notch, and said push tube being formed with a lateral cam lug portion positioned in following relation within said cam slot, whereby latching of said cam lug portion at said cam slot notch results upon forward movement of said plunger and rotation of said cap results in displacing said lug portion from said notch.

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2,775,230
PEN DESK SET
Burnie J. Craig, Pasadena, Calif.
Application December 1, 1954, Serial No. 472,414
3 Claims. (Cl. 120—108)



1. In a pen desk set, a base having a well open at the top surface, a cover member, means pivotally mounting the cover member for movement about a horizontal axis to and from well closing position, a pen receptacle adapted to receive a pen, means supporting the receptacle on the lower face of the cover, means to releasably hold the cover in either of its two positions when moved about its horizontal axis, an operating member, a pivotal mounting for the operating member, a link member pivotally connected at one end to the operating member at a location below the axis of the operating member's pivotal mounting, means pivotally connecting the other end of the link member to the cover at a location below the axis of the cover's pivotal mounting, to thereby rock the cover member to well closing position when the operating member is actuated.

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2,775,231
PNEUMATIC CONTROL APPARATUS
Alexander Silver, Canoga Park, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application August 25, 1952, Serial No. 306,139
10 Claims. (Cl. 121—38)

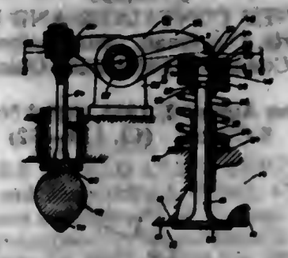


1. Control apparatus, comprising: a sonic flow pressure divider having an inlet connected to a fluid pressure source to provide an intermediate pressure, and an outlet pressure; movable wall means acted on one side by said intermediate pressure and an evacuated bellows exteriorly subject to said intermediate pressure, and acted on the opposite side by spring means and said outlet pressure; a control device varied in response to movements of said wall means; and means for varying said intermediate pressure in accordance with variations in static and dynamic characteristics of said fluid pressure source.

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2,775,232
VALVE ROTATOR
Julius E. Winsky, Royal Oak, Mich.
Application June 19, 1953, Serial No. 362,828
20 Claims. (Cl. 123—90)

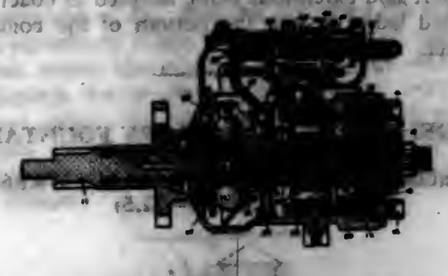
1. A valve actuating mechanism for an engine having a freely rotatable poppet valve including a stem comprising a cage secured to the valve stem to rotate in unison therewith and a cup positioned on the cage and movable axially relative thereto, cooperating cam surfaces between the cage and cup, a series of balls positioned in the cams, and a spring associated with each ball to maintain it in



contact with its associated cam surfaces, and motion transmitting means engaging the cup non-concentrically of the valve stem.

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2,775,233
FUEL INJECTION PUMP
Waldemar O. Bischoff, Holyoke, and Kenneth I. Faucher, Springfield, Mass., assignors to American Bosch Arma Corporation, a corporation of New York
Application June 24, 1954, Serial No. 439,117
3 Claims. (Cl. 123—140)



1. In a device of the character described, a governor for a fuel injection pump, said governor having an operating lever operatively connected to the control for the injection pump and a governor spring for positioning said lever, a full load stop adapted to be engaged by said lever for controlling the normal maximum fuel quantity to be delivered by the pump, said full load stop having a movable portion for allowing the positioning of said lever at a position to provide additional fuel for starting, and spring means for urging said movable portion into said position to allow additional fuel for starting, said spring being slightly weaker than said governor spring and adapted to be totally inactive except during starting of the engine.

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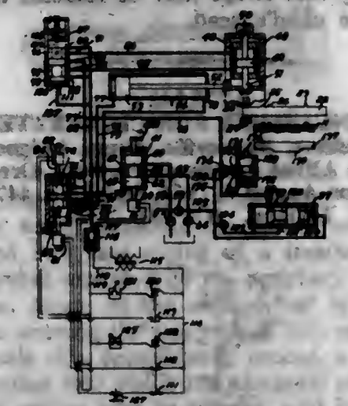
2,775,234
PACKING FOR INTERNAL COMBUSTION ENGINE
Wytze Beye Smits, Veerburg, Netherlands, assignor to Smitsveek N. V., Leidschendam, Netherlands, a research laboratory
Application November 25, 1953, Serial No. 394,469
6 Claims. (Cl. 123—169)



1. A combined head gasket and spark plug for an internal combustion engine comprising, insulating to semi-conductive material disposed between the head and block of said engine, and at least one electrode clamped in said material and extending at least to the interior of a cylinder.



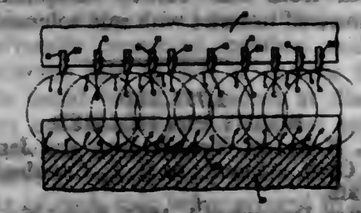
2,775,235
BOOSTER FOR TEMPLATE CONTROLLED TRUING MECHANISM
Wilbur F. Jump, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application August 22, 1955, Serial No. 529,827
9 Claims. (Cl. 125—11)



1. In a truing device having a traversible slide mounted on a support, a cross slide carrying a truing tool mounted on the traversible slide for movement normal to the direction of movement of the traversible slide, a template mounted on said support, a follower mounted on the cross slide in engagement with said template, the combination of hydraulic means for feeding the traversible slide, means to hydraulically bias said cross slide to maintain engagement of said follower with said template and create a normal frictional load on said hydrauiic feeding means, and means responsive to variation in said load to vary said bias and cause movement of the cross slide in a direction to reestablish said normal load.

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2,775,236
SAW BLADE FOR CUTTING STONE
Harold T. Blum, Millersburg, Ohio, assignor to The Briar Hill Stone Company, Glenmont, Ohio, a corporation of Ohio
Application October 6, 1955, Serial No. 538,847
10 Claims. (Cl. 125—18)



1. A saw blade for cutting stone, comprising an elongated straight blade having teeth along one longitudinal edge thereof, said teeth being arranged in a plurality of identical groups, the teeth in each group being variably spaced and conforming to the spacing of the teeth in each other group, the spacing of the teeth in each group progressively increasing from one end of the group to the other end thereof, and means for moving each tooth edge of said blade in a substantially circular path.

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2,775,237
SHIFTABLE OVEN FOR COOKING STOVES OR RANGES
Lee S. Chadwick, Shaker Heights, Ohio, assignor, by mesne assignments, to Hupp Corporation, Detroit, Mich., a corporation of Virginia
Application November 21, 1950, Serial No. 196,823
16 Claims. (Cl. 126—19)

9. In apparatus of the class described, a body structure, an oven pivoted thereto for swinging movement about a horizontal axis between an idle position and a working position, the oven having a hinged door, a detent for holding the door closed, means retaining the detent in door holding condition when the oven is in any but



working position, and further means acting automatically to render the detent ineffective and retain it in ineffective condition thereby to release the door when the oven is in working position.

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2,775,238
FUEL BURNING AND AIR HEATING APPARATUS
Donald J. Clark and Maurice S. Decker, Jr., Columbus, Ohio, assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application January 29, 1953, Serial No. 334,602
3 Claims. (Cl. 126—110)



1. Combustion apparatus for burning normally liquid fuel with air, which comprises: first wall means forming a tubular duct for containing the combustion chamber, said duct having a front end and a discharge end; a first cylindrical shell in said duct next adjacent said front end: annular end wall means joining the end of said shell toward said discharge end to said tubular duct; an aperture formed in the tubular duct adjacent said shell for delivering a first stream of air for combustion to the space between the duct and the shell; means disposed between the shell and the duct for causing air therein to whirl about the axis of the duct and to discharge substantially uniformly over the periphery of the sleeve towards the front end of the duct; a second cylindrical shell in said duct disposed towards said discharge end from said first shell; second annular wall means joining the end of said shell towards said discharge end to said duct; a second aperture formed in the tubular duct adjacent said second shell for delivering a second stream of air to the space between the second shell and said duct; means disposed between the second shell and the duct for causing air therein to whirl about the axis of the duct in a direction opposed to the direction of whirl of the first stream of air and to discharge substantially uniformly over the periphery of the second sleeve towards the front end of the duct; wall means for closing the front end of said tubular duct and comprising wall means forming a circular tube adjacent said front end and axially centered in said tubular duct; means for delivering normally liquid fuel to said first air stream whereby a rich mixture of fuel and air flows adjacent the circular tube at a relatively slow velocity as compared to the bulk of the fuel and air mixture stream, thus stabilizing combustion in said tubular duct; and means for igniting the mixture in said first stream in a manner to initiate combustion before said first stream meets said second stream.

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2,775,239
SMOKE CONTROL FOR FIREPLACES
Sam Bucci, Greenwich, Conn.
Application July 14, 1952, Serial No. 298,729
1 Claim. (Cl. 126—135)

A fireplace comprising walls forming a combustion space, a chimney flue leading from the upper part of said

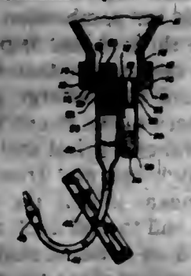
space and a front opening leading to said space with a wall over said opening and extending upwardly therefrom, a control device comprising a frame structure including a housing comprising spaced connected upright front and rear walls located in the wall over the fireplace opening immediately above this opening and open at the bottom so as to be open over said opening, guide members forming a part of and extending downwardly from said housing located at the opposite upright edges of the fireplace opening and including connected spaced front and rear walls,



a control member comprising an upright sheet metal closure projecting at its upper edge into the housing and at its opposite upright side edges into said guide members between the walls thereof, mounting means for the closure mounted thereon and guided in said guide members to permit up and down movement of the closure, means on the mounting means to retain the closure in different adjusted positions, handle means on the closure for shifting the closure, and the closure being provided with a series of air inlet openings.

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2,775,240
GAS VALVE
Edward J. Morrisey, Jr., and Howard A. Richards, Waukegan Township, Lake County, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
Application February 9, 1953, Serial No. 335,746
12 Claims. (Cl. 128—214)



1. A gas pervious liquid barrier comprising a body member having a passage therethrough adapted to be used in combination with a venoclysis fluid container, and a compact mass of fiberous material having the surface of the fibers of said mass repellent to the liquid placed in contact therewith disposed transversely of said passage intermediate the ends thereof, said mass being impervious to the liquid placed in contact therewith and pervious to gases.

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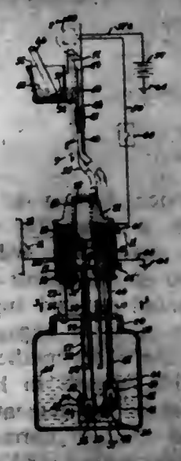
2,775,241
OBSTETRICAL INSTRUMENT
Joel S. Price, Oklahoma City, Okla.
Application February 21, 1955, Serial No. 489,507
5 Claims. (Cl. 128—352)



5. An obstetrical instrument for engaging the head of an unborn child, comprising a U-shaped strap of a size to extend under the child's chin and over the sides of the head, a second U-shaped strap of a size to extend around the back of the head and around the sides of the head in crossing relation to the first-mentioned strap, said straps being arranged to cross below the largest portion of the head, and means for locking the outer ends of said straps, whereby said straps may be retained in crossing relation on the child's head.

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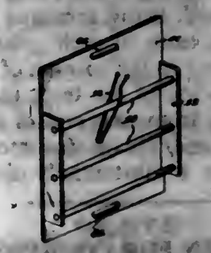
2,775,242
EXTINGUISHER FOR CIGARETTES
George M. Webber, Bonneville, Oreg., assignor of one-half to Alfred Funkhouser, Portland, Oreg.
Application August 5, 1954, Serial No. 447,999
1 Claim. (Cl. 131—256)



A cigarette extinguisher for an automobile having an instrument panel and a battery comprising, a water reservoir having a cap, a solenoid operated pump unit mounted on said cap and projecting into the bottom of said reservoir, a pump discharge connection on said cap, a quenching tray mounted on said panel, a conduit between said pump discharge connection and said tray for supplying water to said tray when said pump is operating, an automatic intermittent switch, a manual push button switch on said instrument panel unit, and a circuit for energizing said solenoid from said battery comprising said two switches connected in series with said solenoid.

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2,775,243
BOBBY PIN HOLDER
Gertrude E. Kennedy, Youngstown, and Jesse Hawkins, Alliance, Ohio, assignors to R. E. Cunningham, Locust Grove, Okla.
Application December 1, 1953, Serial No. 395,479
1 Claim. (Cl. 132—1)



A holder for holding bobby pins, comprising a body, vertical supports extending along the side edges of the body and projecting forwardly therefrom, supporting rods connecting the vertical supports, said rods being spaced substantial distances from the body providing clearances between the rods and body for bobby pins positioned over the rods, holding said bobby pins in open positions with their open ends disposed upwardly for removal from the bobby pin holder, in open positions.



2,775,244
DEVICES FOR DYEING, BLEACHING, AND COOL WAVE PERMANENT CURLING OF HAIR
Merle Pottle, New York, N. Y., assignor to Clairol Incorporated, Stamford, Conn.
Application December 30, 1953, Serial No. 401,136
4 Claims. (Cl. 132—33)



1. In a hair treating device a casing having an open end, an elongated open ended tubular member for mounting selected strands of hair for treatment and enterable into the casing for a portion of its length, the unentered end thereof being accessible for the introduction therethrough and into said casing of a treatment liquid, a closure member mounted on the periphery of said tubular member, means at the entered end of said tubular member for securing the free ends of hair strands leading from the scalp of a person being treated, a notch in said closure member into which the aforesaid strands of hair at the scalp region may be entered, said hair strands at the zone of the closure member notch being frictionally locked between the closure member and the open end of the casing when the same are in juxtaposition whereby the device as assembled may be suspended from the scalp by such locked strands of hair.

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2,775,245
LADY'S HAIR ORNAMENT
Siegfried Bohr, Flushing, N. Y.
Application February 27, 1956, Serial No. 568,018
1 Claim. (Cl. 132—46)



A hair ornament comprising an annular endless metal band composed of a plurality of pair of links, the links of each pair being pivoted to each other midway their ends, the ends of adjacent links of said pairs of links being overlapped and pivotally connected together, said pairs of links being disposed side by side in annular formation, and transverse metal bands connected at diametrically opposite points on one peripheral edge of said endless band, said transverse bands being disposed in cross relation, said transverse bands being composed of pairs of links, the links of each pair being pivoted to each other midway their ends, the outer ends of adjacent links of said pairs of links being overlapped and pivotally connected together, said pairs of links being disposed side by side in arcuate formation, the links of said transverse bands being joined to each other midway the ends of said transverse bands, the end links of said transverse bands being pivotally connected to the peripheral edge of the endless band at points 90 degrees apart.

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2,775,246
COSMETIC APPLICATORS AND PACKAGE
Jacque C. Morrell, Chevy Chase, Md.
Application July 28, 1951, Serial No. 237,809
3 Claims. (Cl. 132—79)

1. A cosmetic package unit adapted to dispense cosmetic items of different shape, size and use comprising an envelope consisting of front and back elements divided at least into two compartments directly between the said front and back elements of said envelope, said compartments being of different widths adapted to receive a lipstick comprising a relatively narrow stiff rod in one of the said compartments and adapted to contain face powder applicator in another compartment and a



backing for said envelope comprising a separate sheet of material fastened to said envelope.

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2,775,247
COSMETIC PACKAGE
Jacque C. Morrell, Chevy Chase, Md.
Application April 13, 1951, Serial No. 220,936
6 Claims. (Cl. 132—79)



1. A cosmetic package comprising an integral base, cover and lip formed from a relatively thin sheet, said thin sheet being folded over the base at one end of the base to form the cover and being folded over the base at the opposite end to form the lip, said lip engaging and retaining said cover, a depression in said base to form an open cell in said base to carry face powder, fastening means at spaced intervals to secure said lip to said base, a pocket intermediate said fastening means and between said lip and said base to receive and hold the lower end of a lipstick rod, and a plurality of soft, absorbent sheets fastened within said package.

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2,775,248
COSMETIC PACKAGE
Jacque C. Morrell, Chevy Chase, Md.
Application April 13, 1951, Serial No. 220,935
6 Claims. (Cl. 132—79)



1. A cosmetic package comprising an integral base, cover and lip formed from a relatively thin sheet, said thin sheet being folded over the base at one end of the base to form the cover and being folded over the base at the opposite end to form the lip, said lip engaging and retaining said cover, a relatively thick sheet overlying the inside of said base and covering said base at least in part, said relatively thick sheet being perforated to form an open cell with said base to carry face powder, fastening means at spaced intervals to secure said lip to said base, a pocket intermediate said fastening means and

between said lip and said base to receive and hold the lower end of a lipstick rod, and a plurality of soft, absorbent sheets fastened within said package.

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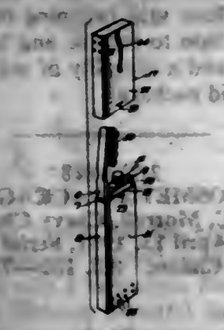
2,775,249
**COSMETIC PACKAGE**
Jacque C. Merrell, Chevy Chase, Md.
Application June 15, 1951, Serial No. 231,780
5 Claims. (Cl. 132—79)



1. A cosmetic package comprising an integral base, cover and lip formed from a relatively thin sheet, said thin sheet being folded over the base at one end of the base to form the cover and being folded over the base at the opposite end to form the lip, said lip engaging and retaining said cover, fastening means at spaced intervals to secure said lip to said base, a pocket intermediate said fastening means and between said lip and said base to receive and hold the lower end of a lipstick rod, and means fastened to the inside of said cover of said package to carry an applicator for face powder.

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2,775,250
**HYGIENIC DENTAL PACKAGE**
Ella C. Ossenkop, Chicago, Ill.
Application June 13, 1955, Serial No. 514,887
1 Claim. (Cl. 132—84)



A hygienic dental package comprising an elongated thin walled casing, rectangular in cross-section, closed at one end, and open at the other; a dentifrice compartment held within said casing, substantially rectangular in cross-section, and having its dispensing end adjacent the open compartment end and extending slightly thereabove; a passage in said casing, formed between an endwall of said casing and an endwall of said compartment; a toothbrush having its handle inserted in said passage with its bristles positioned above said compartment; a cover, rectangular in cross-section and adapted to fit over the open end of said casing and cover said compartment and said bristles; embossments on the inner front and rear walls of said cover; indentations in the outer front and rear walls of said casing for matingly receiving said embossments and releasably retaining said cover on the casing, said indentations further providing on the casing inner front and rear walls bosses engageable with the walls of said compartment for releasably seating said compartment within said casing; ventilating air-holes in the walls of said casing and said cover; and a clip on the cover outer wall for retaining the package in a pocket or the like.

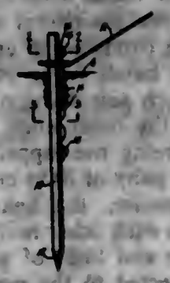
2,775,251
**FOUNTAIN COMB**
J. B. Newton, Oklahoma City, Okla.
Application May 11, 1954, Serial No. 429,034
2 Claims. (Cl. 132—119)



1. A fountain comb comprising a barrel having a bore extending longitudinally thereinto through one end thereof, a row of longitudinally spaced comb teeth carried by the barrel and extending radially outwardly therefrom, said barrel having longitudinally spaced ports extending therethrough and communicating with the spaces between the comb teeth, a hollow cylinder mounted in the bore to move longitudinally therein, said cylinder defining a reservoir for containing a hair dressing liquid, said cylinder having longitudinally spaced liquid discharge ports extending therethrough for registration with the ports in the barrel when the cylinder moves longitudinally within the barrel, a spring mounted within the barrel and engaging the cylinder for holding the ports in the cylinder out of registration with the ports in the barrel, means carried by the barrel and operatively connected to the cylinder for moving the cylinder against the effort of the spring and the ports in the cylinder into registration with the ports in the barrel, a piston carried by the barrel and entering the cylinder for expelling liquid therefrom when the ports therein register with the ports in the barrel, the cylinder having an air inlet port, and a check valve covering the air inlet port and arranged to permit flow of air into the cylinder to replace liquid expelled therefrom.

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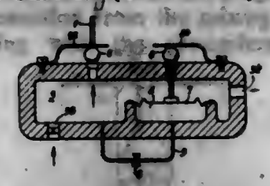
2,775,252
**ADJUSTABLE TENT STAKE**
Donald M. Finch, Hayden, Ariz.
Application March 27, 1956, Serial No. 574,155
4 Claims. (Cl. 135—18)



1. A tent stake including an elongated body portion adapted to penetrate the ground; a plurality of fins spaced longitudinally of said body portion; and a collar having a center opening receiving said body portion, said collar having a slot communicating with said center opening and alignable with the fins responsive to rotation of the collar to a selected position, whereby to permit adjustment of the collar along the length of the body portion, said collar being rotatable in selected positions to which it is adjusted to offset the slot from the fins, whereby to engage the collar between adjacent fins in the selected position of adjustment of the collar, for looping of a tent rope about the body portion below the collar.



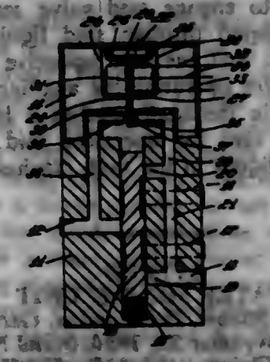
2,775,253
**AUTOMATIC FLUID OPERATED CONTROL APPARATUS HAVING A DERIVATIVE ACTION RESPONSIVE TO A RATE OF CHANGE**
Friedrich Viktor Anton Ernst Esser, Park Royal, London, England, assignor to Electrolo Motors Company Limited, London, England
Application December 27, 1954, Serial No. 477,884
4 Claims. (Cl. 137—82)



1. Fluid-pressure operated automatic regulating apparatus comprising, in combination with a chamber having connections for communication with a supply of fluid at substantially constant pressure and with operating means responsive to the static pressure in the said chamber, two separate valve units acting upon restricted outlets from the said chamber for controlling the static pressure in the latter, one of the said valve units comprising a first valve device controlling the degree of opening of one of the said restricted outlets and a valve-actuating device movable in dependence upon deviation of a measured value from a predetermined value and arranged to act upon the said valve device for varying the degree of opening of the said outlet and thereby, primarily, the static pressure in the said chamber in dependence upon the said deviation, while the other valve unit, constituting means for introducing a derivative action whereby the static-pressure variation in the said chamber is enhanced in dependence upon the rate of change of the deviation and therefore of the pressure in the said chamber, comprises a freely movable pressure-responsive device directly bounding a part of the said chamber and a second valve device actuated directly and solely by the said pressure-responsive device and controlling the degree of opening of the other of the said restricted outlets.

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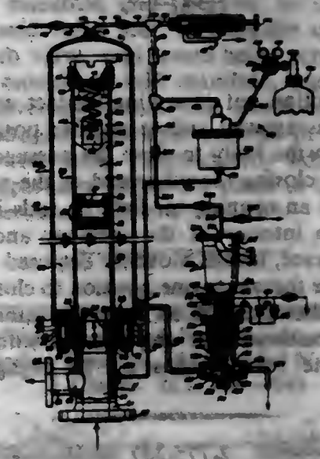
2,775,254
**ELECTROMAGNETIC DEVICES FOR CONTROLLING FLUID PRESSURE**
John Herbert Stanbury, Gloucester, England, assignor to British Messier Limited, Gloucester, England, a British company
Application August 29, 1952, Serial No. 306,995
Claims priority, application Great Britain September 5, 1951
3 Claims. (Cl. 137—82)



1. An electromagnetic device for controlling a fluid pressure circuit comprising in combination a valve casing, a pressure chamber within the casing, a fluid pressure inlet connection thereto, a fluid pressure outlet connection therefrom, the inlet and outlet connections having ports to the chamber which face one another and the area of the inlet port being several times greater than that of the outlet port, a movable obturating member located between said ports to move to and fro between them, an armature carrying said obturating member, electromagnetic means to operate said armature, spring means to urge the obturating member toward the inlet port thereby tending to balance the force exerted upon it by the incoming fluid, piston means open to the pressure in the pressure chamber so as to be moved thereby, yielding return means therefor, and a sliding fluid pressure control valve operatively connected to the said piston means so that the control valve takes up one of an infinite series of positions dependent upon the amount of current in the electromagnet.

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2,775,255
**APPARATUS FOR CONTROLLING HYDRAULIC SURGE**
Robert E. Snyder, Pasadena, Calif.
Application July 19, 1952, Serial No. 299,896
13 Claims. (Cl. 137—87)



1. A relief-type hydropneumatic surge absorber comprising: a gas-tight vessel; a gas port in said vessel opening into the interior thereof, through which port said vessel may be pre-charged with gas at a predetermined pressure; a cylindrical member having one end connected to said vessel; a by-pass port from said cylindrical member to the interior of said vessel; a liquid port opening into the other end of said cylindrical member; means connecting said liquid port to a liquid line, whereby the line liquid may enter said cylindrical member; a piston slidably mounted within said cylinder, the side of said piston toward said liquid port contacting the line liquid, and the other side of said piston contacting the pre-charge gas, said piston being adapted to open and to close said by-pass port to the entry of the line liquid into the interior of said vessel against the pre-charge gas at a predetermined position of the stroke of said piston within said cylinder; and a gas relief valve connected to said gas port whereby gas may escape from said vessel when the entry of liquid thereinto through said by-pass port shall have raised the gas pressure to a predetermined value and means for draining liquid from said vessel.

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2,775,256
**VALVED FITTING**
Hugh D. Hanson, Houston, Tex.
Application August 13, 1954, Serial No. 449,635
1 Claim. (Cl. 137—220)

A fitting for pressure fluid equipment comprising a body having a flowway therethrough and a valve seat surrounding the flowway, means on the body for connecting the body to a source of fluid under pressure with said

flowway in communication with said source, valve means movably mounted on the body for movement into engagement with the seat to close the flowway and out of engagement with the seat to open the flowway, yieldable means carried by the body in position to coact with the body and valve means to yieldingly urge the valve means into engagement with the seat, said body having an external groove, a tubular member threadably connected to the body and in communication at one end with the flowway, said member being positioned to form with said groove an escape passageway in communication with said flowway and with the exterior of the body and being mov-



able to one position out of sealing contact with the body to open said passageway and to another position in sealing contact with the body to close the passageway, means on the member closing the other end of the member, said member having an opening mediate its ends in communication with the interior of the member and leading to the exterior thereof, means movably disposed in the member and movable therein to one position to close said opening and to another position to open the same, said valve means being positioned for engagement with said member to move the valve means out of engagement with said seat.

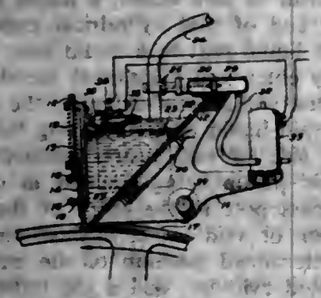
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2,775,257

## GELATIN FILM CASTING MACHINE

Frank Edwin Sikra, Evans Park, Pearl River, and Arthur Sinclair Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application September 2, 1950, Serial No. 182,960
3 Claims. (Cl. 137—341)



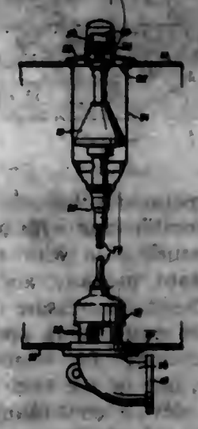
1. A gelatin composition casting apparatus for a gelatin composition film casting machine comprising heat conducting walls forming an open hopper, heating means for said walls, thermostat means controlling the rate of flow of heat to said heating means, an inert, non-volatile, non-toxic, gelatin composition immiscible, liquid layer exposed to the air in said hopper, the liquid of said layer being lighter than said gelatin composition, a flexible feed duct for supplying a gelatin casting composition to said hopper, a non-clogging valve means adapted to control the flow of gelatin composition through said feed duct, and a thermostat means at a desired liquid level, in part exposed to the ambient air and in part contacting said liquid layer in said hopper controlling the operation of said valve means.

2,775,258

## VALVES FOR CONTROLLING THE FLOW OF LIQUIDS

John Fraser, Tolworth, Surbiton, England, assignor to Avery-Hardoll Limited, Tolworth, Surbiton, England

Application March 8, 1954, Serial No. 414,805
Claims priority, application Great Britain March 11, 1953
11 Claims. (Cl. 137—413)



1. A valve for controlling the filling of a tank with liquid, comprising a body defining a liquid supply passage, a valve seat in said body surrounding said passage, a valve closure member in said body for cooperation with said seat and displaceable from the seat by supply liquid entering the tank through said liquid supply passage, said body and valve closure member jointly defining a control chamber, means defining an inlet passage leading to the control chamber from the upstream side of said valve closure member, means defining an outlet passage leading from the control chamber to the tank, auxiliary valve means movable between open position permitting maximum flow through said outlet passage and closed position establishing a reduced flow through said outlet passage so that when said auxiliary valve means is in open position, pressure is relieved from said control chamber and said valve closure member is fully opened by supply liquid pressure thereon but when said auxiliary valve means is closed, pressure is increased in said control chamber to move said valve closure member toward closed position in which flow through said inlet passage to said control chamber is reduced and the supply liquid pressure holds said valve closure member in a partially open position, control valve means to shut off said outlet passage and prevent escape of liquid from the control chamber to thereby cause the valve closure member to engage said valve seat to stop the flow of supply liquid through said liquid supply passage to the tank, and means responsive to the liquid level in the tank for operating the auxiliary valve means when the liquid in the tank reaches a lower predetermined level and also for operating said control valve means when the liquid in the tank reaches a higher predetermined level.

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2,775,259

## WATER MIXING UNIT

Theodor Stiebel, Holzminden, Germany

Application November 23, 1950, Serial No. 197,116
11 Claims. (Cl. 137—599.1)

1. A water mixing unit comprising a source of hot water, a body, a water closure valve in the body, a source of cold water connected to the closure valve, a cavity having a circular cross section, a fitted rotatable plug filling the cavity, an axial bore through an end region of the plug, a radial bore through an intermediate portion of the plug connecting to the axial bore within



the plug and terminating in one port in the curved surface of the plug, the curved surface of the plug being circumferentially recessed to both sides of the port, a first connection from the closure valve to the cavity registering with and opening into the axial bore of the plug, a second connection from the source of hot water to the cavity registering with the circumferentially recessed curved surface region of the plug, a mixing chamber, a third connection from the mixing chamber to the cavity registering with the circumferentially recessed



curved surface region of the plug, and a fourth connection from the hot water source to the mixing chamber, whereby the water from the cold water source released on opening the closure valve flows through the first connection to the plug and is divided by the plug into two portions depending on the setting of the plug, one portion flowing directly through the third connection to the mixing chamber and the other portion flowing through the second connection, the hot water source and the fourth connection to the mixing chamber.

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2,775,260

## SPOOL VALVES

John H. Drennen, Girard, Ohio, assignor to The Commercial Shearing & Stamping Co., Youngstown, Ohio, a corporation of Ohio

Application October 30, 1952, Serial No. 317,670
16 Claims. (Cl. 137—631)



1. A valve comprising a case having an opening therethrough, a spool movable lengthwise in said opening, said case having a passage for fluid under pressure including a circular valve-seating surface around the pool through which said fluid passes, and said spool having a fixed circular valving flange slidable through said annular surface, the spool being effective to block said passage while the fixed flange is in the annular surface and to free said passage when the spool is shifted to remove the fixed flange from the passage, and a second circular valving flange extending around the spool and slidable along the spool toward and from the fixed flange, the movable flange having a portion adjacent the fixed flange whose diameter is substantially equal to that of the fixed flange and which is slidable through said annular surface, said movable flange forming a continuous valving surface with the fixed flange when the two flanges are together, whereby flow through the annular passage is variably controllable by component movement of the spool relative to the case and of the movable flange relative to the fixed flange.

2,775,261

## VALVED MANIFOLD FOR FIELD SPRAYING EQUIPMENT

Lester C. Ziller, Kansas City, Mo., assignor to Comfort Equipment Company, a corporation of Missouri

Application March 8, 1951, Serial No. 214,567
2 Claims. (Cl. 137—625)



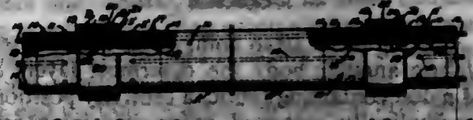
1. Manifold construction of the character described including, in combination, a manifold having an elongate manifold chamber, an inlet port and a plurality of outlet ports for said chamber, said outlet ports being arranged in a row along one side of said chamber, a valve seat member mounted in each outlet port and presenting a valve seat within the chamber, a row of valves mounted within said manifold and operable to close upon and open from said valve seat, a manually operable pivotal lever for each valve, said levers being arranged in parallel relation outside of said manifold, and a tie rod extending transversely across said levers and slidably received in slinged apertures formed in the respective levers, said rod being longitudinally adjustable in and out of said apertures selectively so as to tie two or more levers together to operate as a rigid unit.

2,775,262

## SEMI-STEEL REINFORCED CONCRETE PIPE

William E. Wrend, Los Angeles, Calif.

Application June 26, 1953, Serial No. 364,276
1 Claim. (Cl. 138—94)



A pipe of reinforced concrete, comprising a plurality of pipe lengths connected together and laid end to end with the joint member of one pipe length abutting the joint member of an adjacent pipe length, each pipe length including a pair of metal end joint members having a sleeve like part extending toward the opposite end of the pipe, and a radially outwardly extending peripheral flange; reinforcing tie rods secured to said sleeve like part and connecting said joint members; a helical coil of reinforcing rod extending from the sleeve portion of one end joint member to the sleeve portion of the other joint member; a wall of cementitious material covering one side of the sleeve like portions of said joint members and embedding said helical coil and reinforcing tie rods, but leaving the exterior periphery of said flanges exposed and extending beyond the outer diameter of the finished pipe; and means cooperating with abutting joint members to connect adjacent pipe lengths together.

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2,775,263

## TENSION-RESPONSIVE CONTROL

Dale B. Rush, Columbus, Ind., assignor, by mesne assignments, to The Reliance Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio

Application July 9, 1953, Serial No. 367,849
16 Claims. (Cl. 139—110)

1. Means for automatically controlling the rate of rotation of a storage roll for flexible material, comprising in combination with such a roll, a length of flexible material wound on said roll, means for forwarding said material relative to said roll, rotary means driven at a constant ratio with respect to said forwarding means, variable-speed

transmission means connecting said rotary means to drive said roll and comprising an input shaft connected to be driven from said rotary means, an output shaft connected to drive said roll, an expansible V-pulley on each of said shafts, edge-active belt means providing a driving connection between said pulleys, and an element shiftable to vary inversely the effective diameters of said pulleys, an arm mounted for oscillation about a fixed axis in a



common plane with the axis of said roll, means operatively engaging said arm and bearing against the inner surface of said material at a point within the sector defined between the current point of tangency of said material with the effective surface of said roll and a plane including the axis of said roll and normal to the plane of movement of said material, means yieldingly resisting movement of the arm in response to an increase in the tension on that reach of the material between the forwarding means and said means bearing against the material, and means connecting said arm to shift said shiftable element.

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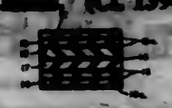
2,775,264

**PICKER STICK CHECKING APPARATUS**

Joseph Rechsteiner, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio

Application June 19, 1953, Serial No. 362,901

11 Claims. (Cl. 139—161)



1. A loom check strap comprising a laminated rubber and fabric annular body the outermost layers of which are of nylon containing fabric, a centrally positioned layer of longitudinally arranged nylon-containing reinforcing cords and a thin coating of fused nylon about the edge portion of said body.

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2,775,265

**VENETIAN BLIND LADDER AND LIKE WEBBING**

George Frederick French and Roger French, Hale, England; Roger French, Alfred Hanson, and Neville Christopher O'Brien, executors of the estate of George Frederick French, deceased, assignors to said Roger French

Application November 6, 1951, Serial No. 255,868

Claims priority, application Great Britain November 7, 1950

10 Claims. (Cl. 139—384)



3. A ladder webbing comprising at least two outer main bandings and at least one row of cross straps bound in at their ends between any adjacent two main bandings, successive cross straps being of such length that in-line portions thereof overlap longitudinally, so that one set of warp threads initially cross over through another set, each successive cross strap being at least partially woven with picks of at least two different common wef threads.

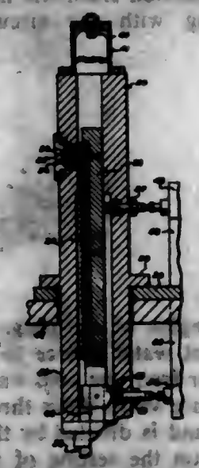
2,775,266

**APPARATUS FOR INTERTWISTING WIRES**

Armin F. Fick, Downers Grove, Clarence R. Rasmussen, La Grange, and Harry C. Thayer, Jr., Maywood, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application January 27, 1954, Serial No. 406,484

3 Claims. (Cl. 140—115)



3. A wire twisting apparatus for interconnecting two wires comprising a rotatable twisting gear having a slot for receiving the intermediate portions of a pair of straight overlapping wires, a pair of wire gripping devices for receiving the end portions of said overlapping wires, means for supporting the gear for rotation and for supporting said wire gripping devices in fixed relation to each other on opposite sides of said gear, a rack mounted for reciprocation on said supporting means for actuating said gear, means for reciprocating said rack through two predetermined strokes in opposite directions to rotate said gear alternately in opposite directions through a predetermined number of revolutions whereby one pair of wires may be twisted during movement of the rack in one direction and another pair of wires may be twisted during movement of the rack in the opposite direction, means for actuating said wire gripping devices to closed position to grip the end portion of the wires, control means for effecting the sequential actuation of said wire gripping devices to said closed position to grip the wires and to actuate said rack through one stroke to effect the twisting of the wires and to move said wire gripping devices to open position on completion of the wire twisting operation, said wire gripping devices each comprising a fixed jaw on which said wires are laid, a movable jaw mounted for movement toward and away from said fixed jaw, a member yieldably mounted on the movable jaw for movement therewith and for limited movement relative thereto, and means for stressing said member for movement toward said fixed jaw for yieldably engaging and clamping the wires against the fixed jaw in response to actuation of said movable jaw to its closed position.

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2,775,267

**METHOD AND APPARATUS FOR FILLING CAPSULES**

Frank E. Stein, Pearl River, and Arthur S. Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

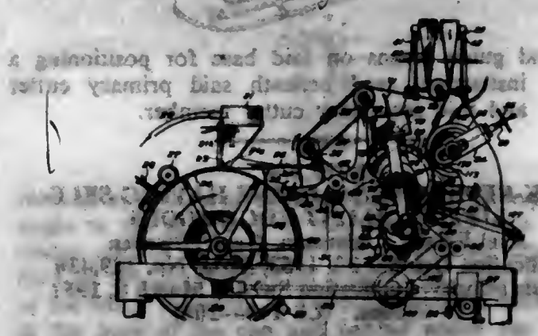
Original application March 23, 1948, Serial No. 16,584, now Patent No. 2,663,128, dated December 22, 1953. Divided and this application April 27, 1953, Serial No. 351,106

6 Claims. (Cl. 141—1)

1. The method of filling flowable powder into soft plastic capsule shells which comprises: continuously moving in a circular path a continuous plastic strip having a plurality of capsule shells formed therein, sealing a



group of flowable powder sources in a filler head block adjacent to a moving group of such capsule shells, one such source for each such shell, with said block resting on the plastic strip which itself forms a resilient part of the seal, reducing the pressure within each of the sealed shells whereby powder flows into said each sealed shell, and restraining the flow of powder outwardly from each



shell by foraminous material in the filler head block adjacent each of the flowable powder sources, until each of said shells is filled with powder, discontinuing the reduction in pressure, removing said group of flowable powder sources, and emplacing said group of flowable powder sources adjacent a subsequent, adjacent group of capsule shells.

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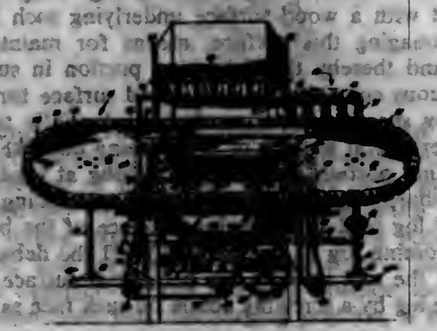
2,775,268

**PICKLE CANNING MACHINE**

Robert H. Eckart, Corydon, Ind., assignor to Food Packers, Inc., Corydon, Ind., a corporation of Indiana

Application July 31, 1953, Serial No. 371,615

14 Claims. (Cl. 141—78)



6. A machine for feeding and compacting elongated food commodities into containers comprising a food commodity supply station, means for intermittently advancing a plurality of open containers sequentially by said station in commodity-receiving relation thereto, means for gravity feeding food commodities in end-to-end aligned relation from said supply station into the containers adjacent the same, means for spinning said containers at high speed in one direction and then in the reverse direction about the axes of said containers intermediate intermittent advancement of said containers to centrifugally urge the food commodities in said containers in erect position outwardly of the same, and means for jogging said containers in the direction of their axes continuously during spinning of said containers.

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2,775,269

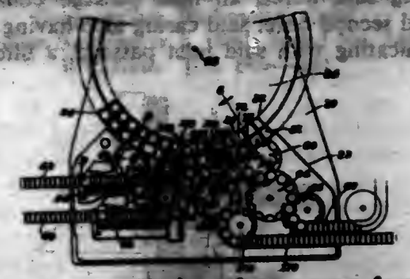
**FILLING MACHINES**

Rudolph H. Brasback, Baltimore, Md., assignor to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York

Application February 12, 1954, Serial No. 409,805

26 Claims. (Cl. 141—99)

1. In a filling machine, a base, a filling table rotatable on said base about a vertical axis, stationary table means fixed to said base adjacent said filling table, means to support containers on said filling table in two circular rows concentric with the axis of rotation of said filling table,



and means to move containers in two rows from said stationary table means to said container supporting means.

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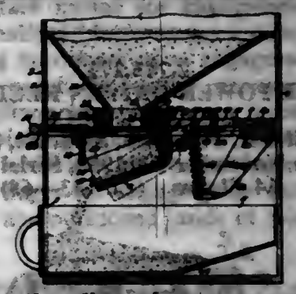
2,775,270

**DISPENSING APPARATUS**

Clinton J. McKillop, Jr., Oxnard, Calif.

Application May 12, 1954, Serial No. 429,148

5 Claims. (Cl. 141—373)



1. Apparatus for dispensing a measured quantity of fluent material comprising: a canister including a front wall having a horizontal valve slot and a drawer opening below said slot; a receiving drawer in said opening; means within said canister defining a pair of slideways disposed in a common horizontal plane with said valve slot; a hopper within said canister, having, at its lower extremity, a discharge nozzle terminating substantially at said plane; a measuring spoon including a receiving body of elongated channel form, open at its forward end and having a closed rear end portion including an integral arm projecting upwardly and pivotally mounted within the canister on a transverse horizontal axis immediately rearwardly of said hopper nozzle and above said slideway plane, for movement between an elevated receiving position wherein said receiving body is horizontal and disposed immediately below said slideway plane, and a discharge position wherein said receiving body is inclined downwardly at an angle such as to discharge the contents through its open end into said drawer; means yieldingly acting upon said spoon to normally maintain the same in said elevated receiving position; fixed means carried by the canister, closing said open forward end of the spoon in the raised receiving position thereof; and a valve slide of plate form disposed in said slideway plane with its side margins supported in said slideways for horizontal sliding movement between a forwardly projected, nozzle opening position wherein the material within the hopper may flow downwardly through the nozzle into said spoon and a nozzle closing rearwardly extended position wherein the rear extremity of said valve slide projects rearwardly of said nozzle and engages said spoon arm to swing said arm rearwardly and thereby cause said receiving body to be tilted to said downwardly inclined discharge position.

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2,775,271

**LAMP EXHAUST HEAD**

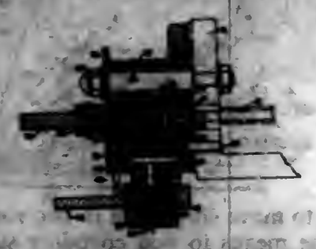
Ernest E. Yee, Wenham, and David F. Drown, Beverly, Mass., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

Application June 16, 1955, Serial No. 515,852

3 Claims. (Cl. 141—394)

3. An exhaust head for lamp-making machinery, com-

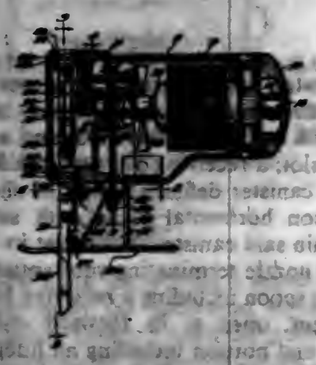
prising a casing having a first bore for receiving the end of an exhaust line, and a second bore, an apertured wall separating said bores, an inlet passage communicating with said second bore, said casing also having a chamber communicating with said inlet passage, a filter mounted



in said chamber, a valve plunger received in the second bore, sealing means mounted on said plunger for closing the aperture in said wall when the plunger is thrust inwardly, cam operated means for reciprocating the plunger, and means for clamping the exhaust tube of a lamp into communication with said chamber.

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**2,775,272**
**PORTABLE POWER DRIVEN RECIPROCABLE CUTTING TOOL**
**Walter A. Papworth, Syracuse, N. Y.**
**Application November 27, 1953, Serial No. 394,537**
**14 Claims. (Cl. 143—68)**

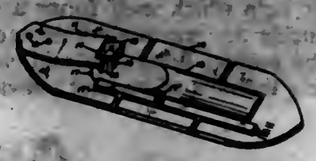


3. A power driven reciprocable cutting tool comprising: a casing; vertically positioned cutter means mounted for endwise movement in said casing, said cutter means including a tool plunger and a toothed cutting tool secured thereto; yielding bearing means supporting said tool plunger in the casing, whereby the cutting tool may move fore and aft through a small distance; drive means in the casing for imparting endwise movement to said tool plunger; a bell crank pivoted at the bottom of the casing which has a guide roller in one arm bearing on the rear of the cutting tool; and a push rod extending from the bell crank into engagement with a portion of the driving means, whereby the cutting tool is pressed forwardly on its cutting stroke and released on its return stroke.

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**2,775,273**
**MEANS FOR SOFTENING MUSICAL INSTRUMENT REEDS**
**Albert G. Yost, Waterford, Conn., assignor of two-thirds to Louis G. Sokol and John P. Janovic, New London, Conn.**
**Application November 9, 1951, Serial No. 255,602**
**4 Claims. (Cl. 144—196)**

1. In a device for softening reeds for musical instruments, a base, a primary cutter member fastened to said base and having a free end extending over said base, a primary cutter tooth on said free end of said primary cutter member, said tooth extending from said primary cutter member toward said base, said tooth being resiliently held normally away from said base, a secondary cutter member connected to said primary cutter member and overhanging said free end thereof, said secondary cutter member being provided with a tooth projecting toward said base and normally held out of contact there-



with, and guide means on said base for positioning a musical instrument reed beneath said primary cutter member and said secondary cutter member.

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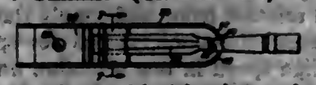
**2,775,274**
**BARK-REMOVING MACHINE HAVING SELF-LIFTING BLUNT-EDGE TOOLS**
**Axel Erland Andersson, Gavle, Sweden**
**Application October 30, 1953, Serial No. 389,436**
**Claims priority, application Sweden March 8, 1951**
**19 Claims. (Cl. 144—208)**



12. In a machine for debarking logs, comprising in combination a rotatable annular frame through which a log is axially fed, a plurality of debarking tools carried by said frame and means mounting the tools for movement toward and away from the axis of rotation of the frame, each tool including a bark-penetrating and debarking portion constituted by a blunt edge adapted to make contact with a wood surface underlying such bark without damaging this surface, means for maintaining the tools and thereby the debarking portion in substantially continuous contact with such wood surface for removing bark by shearing force exerted substantially tangentially to a peripheral surface of a log being debarked, and the debarking portion of each tool having at least one relatively sharp edge integral therewith and facing the direction of log feed for engaging the face of the butt end of an oncoming log to automatically lift the debarking portion of the tool up onto the peripheral surface of an oncoming log by a screwing action on such face as the frame rotates.

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**2,775,275**
**CHISEL GUARD**
**Clarence H. Forbes, Salt Lake City, Utah**
**Application September 21, 1954, Serial No. 457,435**
**7 Claims. (Cl. 145—34)**



1. A chisel guard for a chisel having a shank with rear shoulders and a handle portion comprising a channel member adapted to receive the chisel therein, and said channel member including an abutment at its rear end for engagement by the shoulders, and means at the front portion of said channel member lockably overlying the front end of the chisel and clamping the shoulders of the chisel against said abutment.

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**2,775,276**
**HANDLE FOR SCREW DRIVERS OR THE LIKE**
**Albert G. Reamer, Westminster, Mass.**
**Application July 29, 1954, Serial No. 444,540**
**1 Claim. (Cl. 145—61)**

A tool handle comprising a main handle part, a cap at the rear end of the main handle part, and means rotatably connecting the cap to the main handle part and



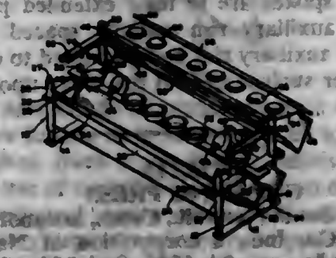
including a pin having one end anchored axially in the main handle part and projecting rearwardly therefrom, a diametrically enlarged flange on the rear end of the pin, said cap having a dead end bore in which the pin is received in a concealed position and said bore having an inwardly tapering counterbore at its dead end overlying the flange and in which the flange is received the sur-



face of said tapered counterbore being arranged at an angle to the periphery of the flange and with the rear corner only of the flange in contact with the tapered surface of the counterbore to reduce the point of contact of the flange therewith to a minimum, and a bushing fixed in the bore of the cap and behind which the flange is positioned to retain the cap on the pin.

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**2,775,277**
**EGG SEPARATOR**
**Paul Christen, Philadelphia, Pa.**
**Application November 1, 1954, Serial No. 465,817**
**5 Claims. (Cl. 146—2)**



1. An egg separator comprising an elongated frame, an elongated laterally disposed yolk tray pivotally mounted adjacent the top of the frame, said tray being provided with a plurality of integrally formed laterally spaced arcuately slotted egg-receiving yolk-retaining pockets or depressions, said tray being pivotable from a generally horizontal right-side-up egg receiving position to a generally upside-down yolk discharging position, a laterally inclined yolk receiving trough mounted adjacent the top of the frame and extending underneath the yolk discharging position of the yolk tray, a laterally disposed cup arm pivotally mounted on the frame below the level of the yolk tray, said cup arm having a plurality of laterally spaced individual egg-white receiving cups mounted thereon, said cup arm being horizontally positioned with the individual receiving cups disposed in upright position below and in vertical alignment with the corresponding tray pockets when the tray is in its horizontal egg receiving position whereby the egg-white is capable of dripping down through the slots in the pockets and into the corresponding individual cups, a laterally inclined egg-white receiving trough mounted on the frame below the level of the cup arm, said cup arm being pivotable to a generally vertical position so as to move all of the cups simultaneously to egg-white discharging position above the egg-white receiving trough, a laterally inclined mixed-egg receiving trough mounted on said frame alongside of the egg-white receiving trough, each of the individual cups being pivotally mounted on the cup arm to tilt in a direction opposite to the pivoting direction of the cup arm whereby, when the cup arm is in its normal horizontal position, individual cups can be tilted independently from their upright receiving position to discharge mixed-egg into the mixed-egg receiving trough.

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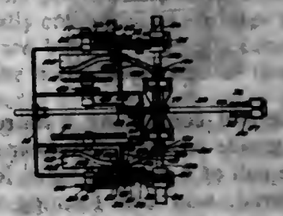
**2,775,278**
**PEACH PITTER**
**Earl R. Anderson, Campbell, Calif., assignor to Flippr Corporation, Richmond, Calif.**
**Application September 1, 1951, Serial No. 244,795**
**8 Claims. (Cl. 146—28)**



1. In a peach pitter, a pitting head comprising a member having surface means for engagement by the half pit of a peach half, yieldable means mounting said member for receding movement upon engagement of a peach half therewith, peach supporting means comprising opposed pit grasping elements, means providing a common floating pivotal mounting for said grasping elements, one of said elements comprising a pitting knife, and a locating finger for engaging the end of the pit at the stem cavity and positioned inside of said pitting knife.

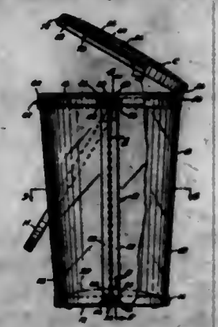
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**2,775,279**
**DRUPE PITTER**
**Joseph Parrelli, Richmond, Calif., assignor to Flippr Corporation, a corporation of California**
**Application December 19, 1952, Serial No. 326,832**
**5 Claims. (Cl. 146—28)**



1. In a drupe pitter that includes a support for supporting a drupe at a predetermined point with the outer surfaces of opposite halves of said drupe exposed for gripping by drupe gripping devices, a pair of drupe gripping devices at opposite sides of said point each comprising a plurality of elements spaced about an axis extending through said point and common to said halves of a drupe supported at said point, each of said elements having an elongated concavely curved drupe engaging surface facing generally radially inwardly toward said axis and extending substantially tangentially from one end of each element in the same direction outwardly of a circle coaxial with said axis, said drupe engaging surfaces being adapted to engage the outer surfaces only of a drupe, means mounting said elements for movement radially inwardly and toward said axis, a pivot connecting each element with said last mentioned means for swinging of said elements to positions in which their said drupe engaging surfaces are substantially concentric with said axis, whereby said surfaces will accommodate themselves to variations in the contours of the outside surfaces of the said halves of drupes positioned at said point, and means connected with said elements for so moving them radially inwardly toward said axis and into engagement with said opposite halves of a drupe on said support.

2,775,280
LADY'S HANDBAG
Nathan Kaplan, Fitchfield, Conn., assignor to Majestic Metal Specialties, Inc., Monroe, Conn., a corporation of Connecticut
Application March 1, 1955, Serial No. 491,279
15 Claims. (Cl. 150—28)



1. A container comprising a body, and a cover hinged thereon, said body including a circular upwardly flanged bottom, a ring having an inverted U-section at the top, and a plurality of columns connecting the bottom to the ring, each column being H-shaped in section to provide outer flanges, inner flanges and cross web, and arcuate wall members having side edges received in said columns and a top edge received in said ring and a bottom edge received inside the flange of the bottom.

2,775,281
DEFORMABLE PLASTIC NUT HAVING WIRE COIL INSERT THREADS RETAINED THEREIN
Byron J. Smith, Danbury, Conn., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware
Application July 3, 1953, Serial No. 365,907
3 Claims. (Cl. 151—7)



1. A composite nut comprising a barrel of a plastic material of high tensile strength and shear resistance, and a cylindrical wire coil of a material being less elastic than said plastic material, said coil forming with its inner portion a female screw thread and being immovably embedded with its outer portion in said barrel so that the latter extends a distance beyond at least one of the ends of said coil, said barrel extension throughout its length being provided with an interior thread constituting the continuation of and being of the same pitch and shape as said female thread, and said extension having a bottom face exposed to bear on the surface of an external element of a screw connection whereby said barrel extension will be compressed between said surface and said coil when said nut is used in such connection.

2,775,282
VEHICLE WHEEL
Charles T. Kennedy, Riverside, Ill.
Application March 10, 1955, Serial No. 493,319
9 Claims. (Cl. 152—158)

1. A tire and wheel assembly comprising a pneumatic tubeless tire comprising a casing having a tread and side walls terminating in spaced rim-engaging means; a drop-center type wheel rim having axially spaced side walls for engaging said tire beads and a central depressed annular portion radially spaced inwardly of the outer marginal edges of said wheel rim side walls; a central annular flange fixed and projecting radially outwardly with respect to said wheel rim depressed annular portion, said flange terminating radially inwardly of the base of said wheel rim side walls; a safety auxiliary rim disposed within said tire casing having an outer diameter less than the inner diameter of said tire tread when said tire is inflated and an inner diameter greater than the diameter of the outer marginal edges of said wheel rim side walls; a plurality of circumferentially spaced spokes, each of said spokes having one end pivotally connected to said annular flange and being pivotal between a retracted position wherein said spoke lies adjacent the base of said annular flange and is completely disposed radially



inwardly of the base of said wheel rim side walls and an extended position wherein said spoke projects radially outwardly into the interior of said tire casing; and means for detachably connecting the ends of said spokes opposite the pivotally connected ends thereof to said auxiliary rim when said spokes are in their extended positions to maintain said auxiliary rim radially spaced from said wheel rim, said auxiliary rim being adapted to operatively engage the inner surface of said tire tread upon deflation of said tire.

2,775,283
CRIMPING PRESS
Leonard Greer, South Norwalk, Conn., assignor to Burndy Engineering Co. Inc., a corporation of New York
Application January 24, 1956, Serial No. 561,024
6 Claims. (Cl. 153—1)



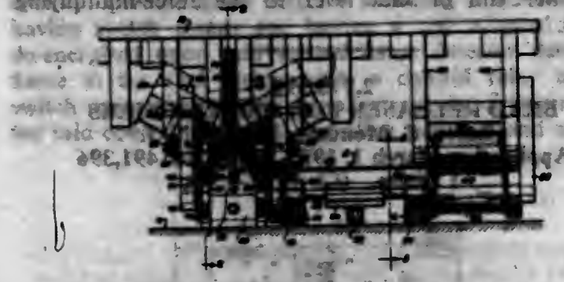
1. A press for crimping an electrical connector to a conductor, which comprises a contact positioned adjacent the end of the electrical connector in the crimping position, operating means for controlling the motion of the press, connecting means from the contact to the operating means and connecting means from the operating means to the metal of the press whereby the circuit is closed to the operating means when a conductor inserted into a connector engages the contact.

2,775,284
MACHINE FOR MAKING ARCHED PANEL SHEETS
Leroy N. Heitmann, Chicago, Ill., assignor to Inland Steel Products Company, a corporation of Delaware
Application January 21, 1952, Serial No. 352,283
11 Claims. (Cl. 153—7)

1. A machine having a horizontally reciprocating bed and a stationary frame above said bed adjacent one end of the same, a sheet carrier mounted on said bed and reciprocal therewith, said sheet carrier having a longitudinally extending triangularly shaped forming die thereon, guide rollers disposed to grip a sheet on both sides of said forming die and hold the sheet thereon, said forming die having alternating ridges and slots throughout its length and rotatable forming rollers positioned on said

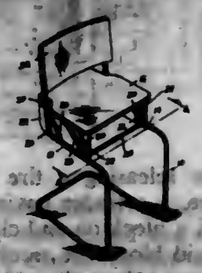


stationary frame having peripheral teeth adapted to press a sheet metal blank having a V-ridge carried on said



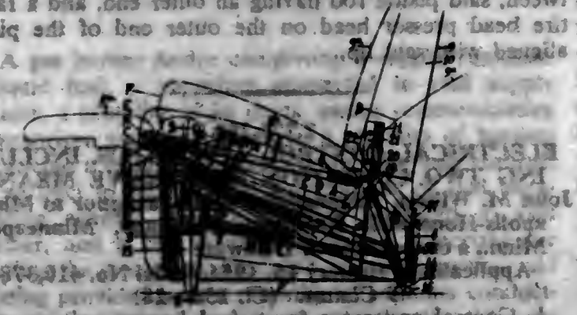
forming die between said alternate ridges to form crimps in the legs of the V-ridges of said blank.

2,775,285
CONVERTIBLE CHAIR
Clifford D. Morsland, Des Moines, Iowa
Application July 16, 1953, Serial No. 367,221
7 Claims. (Cl. 155—38)



1. As a new article of manufacture, a chair, comprising, a frame having at least two spaced apart side members extending from front to rear relative to the usual position of use of said chair, a pair of rod members spaced apart between and secured to said side members, a seat, plate members depending from two opposite sides of said seat, each plate having two slots parallel to each other and spaced apart a distance coinciding with that of said rod members each slot extending from a point near the lower edge of said plate member upward and rearwardly in a curved path to a point near the upper edge thereof, notches in each slot, said seat mounted on said frame so that one rod member extends transversely through the corresponding slots on each plate and the other rod member is similarly arranged relative to the other corresponding slots, said seat manually movable in two directions respectively by passing said slots past said rod members, and said notches engageable at times with said respective rod members for holding said seat at a desired position relative to said rod members.

2,775,286
CONVERTIBLE RECLINING CHAIR
Joseph M. Vallone, Hamburg, N. Y.
Application August 8, 1955, Serial No. 526,835
6 Claims. (Cl. 155—106)

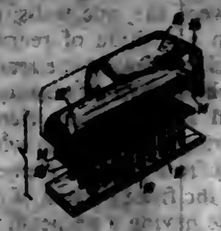


1. A convertible reclining chair having chair and reclining phases and comprising, in combination: a main frame having vertical side walls and transverse connections between them; a rectangular seat element extending horizontally between the side walls; and in the reclining phase elevated in a position of rearward and downward inclination; a back element at the rear of the seat element and in the chair phase having a position in which it projects vertically upward from the seat element and in the reclining phase having a position in which it projects rearward and upward from the seat element; a leg supporting element adjacent the front portion of the seat element and in the chair phase having a perpendicular position below the front portion of the seat element and in the reclining phase having a position in which it projects horizontally forward; supporting legs arranged under the seat element and comprising a front pair in unattached relation to the main frame and a rear pair rigidly attached to the side walls of the main frame; the legs of the rear pair fulcruming during conversion from either phase to the other about their lower ends in forward or rearward swinging movements; actuating mechanism arranged under the seat element, the actuating mechanism being provided in duplicate and in each instance arranged adjacent a side wall of the main frame and operable by pressure applied either to the back element or to the leg supporting element for effecting the conversion of the chair from one phase to the other, the pressure applied to the back element effecting the conversion from the chair phase to the reclining phase and the pressure applied to the leg supporting element effecting the conversion from the reclining phase to the chair phase, each actuating mechanism comprising a lever which in the chair phase is positioned vertically and extends from a point adjacent the lower edges of the side walls, the lever being connected functionally to the main frame by a pivot located adjacent the upper end of a corresponding rear leg and about which it is movable in a longitudinal plane, the lever having an alining extension which projects upward beyond its pivot and is rigidly connected to the back element, lower and upper motion transmitting links positioned longitudinally and at their rear ends pivotally connected to the lever at spaced points, both of which are below the pivotal connection between the lever and the main frame and at their forward ends pivotally connected at lower and upper spaced points to the leg supporting element adjacent that portion thereof which is its upper portion in its position in the chair phase, a toggle comprising pivotally connected lower and upper links arranged and movable in a longitudinal plane, the lower link being pivotally connected functionally to a corresponding front leg and the upper link being pivotally connected functionally to the main frame, one of the toggle links having an alining extension beyond its pivotal connection to the other toggle link and one of the motion transmitting links being connected pivotally to the toggle link extension and effecting the extension of the toggle in the conversion to the reclining phase and its contraction in the conversion to the chair phase; and means for maintaining the stability of the front legs during the conversion of the article from either phase to the other, the means having an anchored connection to an appropriate part of the chair and an operative connection to the corresponding front leg.

2,775,287
SEAT CUSHIONS
Arturo Montagna, Milan, Italy
Application July 29, 1953, Serial No. 371,985
Claims priority, application Italy August 8, 1952
5 Claims. (Cl. 155—179)

1. A seat cushion comprising, in combination, a rigid base member, a plurality of coil spring members uniformly arranged and spaced on said base member, each of said springs having one end thereof connected to said base member; and a resilient member extending substantially over the entire base member and being sup-

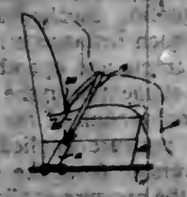
ported by the free ends of said coil spring members, said resilient member including a layer of foam plastic



material and a metallic screen secured thereto over at least one face unattached to said rigid base.

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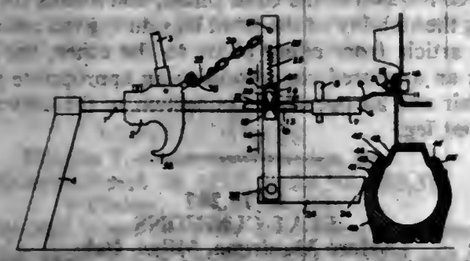
2,775,288
**SAFETY BELT FOR VEHICLES**
Angelo Anastasio, Monterey, Calif.
Application April 15, 1955, Serial No. 501,563
2 Claims. (Cl. 155—189)



2. The combination with a vehicle frame and a seat supported upon the frame, of a safety belt comprising a hollow standard arranged at an angle with respect to the vertical and forwardly of said seat secured to said vehicle frame at each end of the seat adjacent the rear edge thereof, a flexible strap extending over and spaced from said seat adapted to restrain movement forwardly or to either side of said seat of a person seated thereon, a member carried by each end of said strap removably received in the adjacent standard, a pair of converging spring arms arranged one on each side of said member and having their converged ends pivotally connected to the other end of said member for movement toward and away from each other, spring means urging said arms away from each other, cooperating releasable locking means on the complemental faces of said standard and said arms releasably securing each of said members in the adjacent standard, and means releasably securing an intermediate portion of said strap of said seat intermediate the ends of the latter.

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2,775,289
**JACK ACTUATED DEVICE FOR REMOVING TIRES FROM VEHICLE ATTACHED WHEELS**
Walter A. Anderson, Worcester, Mass.
Application February 16, 1954, Serial No. 411,088
4 Claims. (Cl. 157—1.1)



1. Apparatus for dismounting tires from the wheels of automotive vehicles while the wheels are still attached to their respective vehicles, comprising a horizontal bar, a substantially vertical support means attached to one end of said bar, a connecting means mounted on the other end of said bar and adapted to secure said bar to the hub portion of a wheel upon which a tire is mounted, a force-multiplying means mounted on said bar, a lever pivotally mounted on said bar at a pivot point located intermediate the ends of said lever, a tire-engaging thrust member mounted at one end of said lever, and means connecting the other end of said lever to the force-multiplying means.

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2,775,290
**BEAD RELEASER FOR VEHICLE TIRES**
Charles C. Meadows, Passaic, N. J.
Application March 1, 1955, Serial No. 491,396
1 Claim. (Cl. 157—1.17)



In a device for releasing a tire bead from beneath a wheel rim flange, a cylinder having an outer end and an open inner end, a block on and closing said outer end, a projection on said block for receiving an air pressure hose fitting, a passage through said projection and said block leading into said cylinder, a cylinder head secured to the open inner end of said cylinder and having a tubular portion extending axially away from the head of the cylinder, said tubular portion having an outer sleeve secured in said tubular portion, said outer sleeve having an outer end reaching outwardly beyond the outer end of said tubular portion and a bore, an inner sleeve within said bore of the outer sleeve, first means on said outer sleeve engaging said inner sleeve to thereby secure the inner and outer sleeves together, second means traversing said tubular portion of the cylinder head and said outer sleeve and engaging said inner sleeve and serving to lock said outer sleeve in said tubular portion and to lock said inner sleeve in place in the bore of the outer sleeve, a piston working in said cylinder, a piston rod connected to the piston and slidably extending through said inner sleeve, third means on the inner sleeve engaging the piston rod and precluding rotation of the piston rod relative to the inner sleeve, air vent means for said cylinder between the piston and said cylinder head, a longitudinal projection on one side of said outer end of the outer sleeve, an enlargement on the outer end of the inner sleeve beyond the outer end of the outer sleeve, said enlargement comprising a lip aligned with and spaced outwardly from said longitudinal projection so as to provide a rim flange receiving space therebetween, said piston rod having an outer end, and a radial tire bead presser head on the outer end of the piston aligned with said lip.

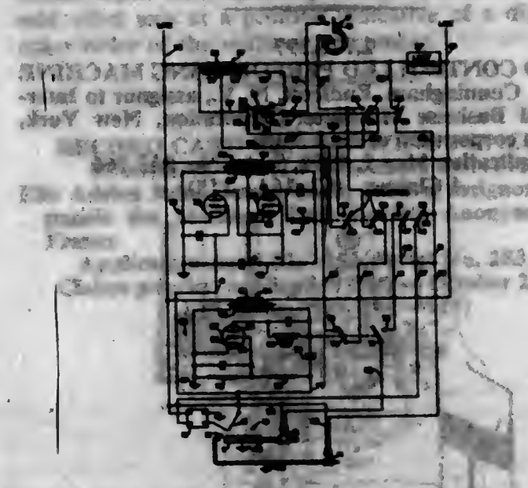
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2,775,291
**ELECTRICAL CONTROL APPARATUS, INCLUDING TWO CONDITION RESPONSIVE MEANS**
John M. Wilson, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 16, 1954, Serial No. 410,378
9 Claims. (Cl. 158—28)

1. Control apparatus for a fuel burner unit comprising, a first electrically operable flame detector including



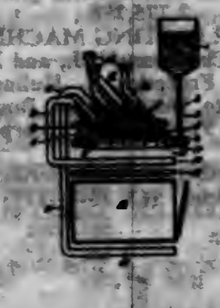
a first relay having switch means and having a coil adapted to be energized upon said first flame detector detecting flame at the fuel burner unit, a second electrically operable flame detector including a second relay having switch means and having a coil adapted to be de-energized upon said second flame detector detecting flame at the fuel burner unit, a control relay having switch means and a coil, initial energizing circuit means for said control relay coil including said first and second



relay switch means and adapted to be completed when said first relay coil is deenergized and said second relay coil is energized, and a control circuit including said first second relay switch means and said control relay switch means and adapted to be connected to an electrically operable fuel control for the fuel burner unit and completed only when said first relay coil is in energized condition and said second relay coil is in de-energized condition and said control relay coil is in energized condition.

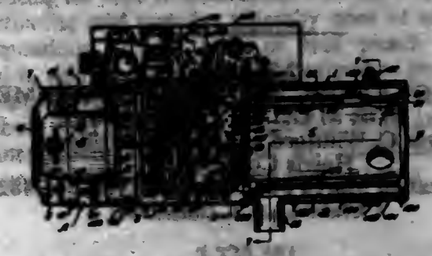
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2,775,292
**SELF-GASIFYING PETROLEUM GAS BURNER**
Albertus van der Lee, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application May 6, 1953, Serial No. 353,316
Claims priority, application Netherlands July 14, 1952
2 Claims. (Cl. 158—62)



1. A gas burner device comprising a supply container for liquid fuel, a vaporizer connected to said supply container, a plurality of jet ducts, means communicating said vaporizer with said jet ducts, a plurality of burners each having a mixed-gas duct transporting fuel through each jet duct to each of said burners, one of said burners being adapted to give off heat produced to said vaporizer, and a cap mounted over said vaporizer for collecting the hot gases produced by said burner, said cap being provided with a plurality of conduits conducting the gases adjacent to at least one of said mixed-gas ducts.

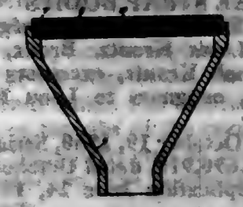
2,775,293
**LIQUID FUEL FIRED HEATING APPARATUS FOR USE, ESPECIALLY ON AUTOMOTIVE CONVEYANCES**
David L. Raymond, Lyndhurst, and Richard C. Spencer, Fairview Park, Ohio, assignors, by mesne assignments, to Hupp Corporation, Detroit, Mich., a corporation of Virginia
Application September 16, 1952, Serial No. 309,762
5 Claims. (Cl. 158—91)



1. A liquid fuel pot type burner comprising an imperforate end wall and a peripheral wall, the latter wall being provided with air admitting openings in substantially spaced relation to said end wall and spaced apart circumferentially of the peripheral wall, a cylindrical wick support projecting inwardly from the end wall substantially axially of the burner, said support having a circumferential fuel distributing groove spaced from said end wall, a fuel feed tube extending into the burner with its discharge end closely adjacent said groove and in a position to deliver fuel directly thereto, a tubular wick surrounding and sustained by said support and enclosing said groove, and an electrical igniter including a resistance wire, said igniter extending into the burner and arranged with the resistance wire in fuel vaporizing and igniting relation to the wick.

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2,775,294
**RADIATION BURNERS**
Günther Schwank, Ghezisburg (Ostsee), Germany; Rheinisch-Westfälische "Therme" Transmit Aktiengesellschaft (Treuhand Aktiengesellschaft) and Wilhelm Fruehauf, executors of said Günther Schwank, deceased, assignor to American Infra Red Radiant Co., Inc., New York, N. Y., a corporation of Delaware
Application March 8, 1951, Serial No. 214,468
Claims priority, application Germany March 11, 1950
5 Claims. (Cl. 158—116)



1. A burner member, comprising a block of refractory material provided with passages therethrough for a combustible fuel mixture, said passages being substantially uniformly distributed throughout a portion of the area of said block and each having a cross sectional area of not more than about four square millimeters and a length not less than about five millimeters and each extending substantially in the same direction throughout its length from one side of the block to the outer side thereof, said passages collectively occupying not less than about 20 percent of the total radiation area at said outer side of the block, said block of refractory material having a heat-retarding medium of substantially lower thermal-conductivity than said refractory material distributed therein to reduce the thermal-conductivity of the block, the latter having a thermal-conductivity of less than 0.5 kilocal./hr. m. °C., said passages being defined

by integral internal wall surfaces of said block and said heat-retarding medium being disposed adjacent to said passage-defining surfaces, said passage arrangement and dimensions and said heat-retarding medium in said block and adjacent to said internal wall surfaces of said passages being jointly operable to confine the combustion of the fuel mixture to the outer zone of said passages and to inhibit said combustion from traveling in said passages inwardly of said zone and producing a backfiring effect.

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2,775,295

**ARTICLE OF FABRIC AND METHOD AND MEANS FOR MAKING THE SAME**

Alvin C. Williford and Fred R. Williams, Harris County, Tex.

Application March 30, 1953, Serial No. 345,482

2 Claims. (Cl. 160—348)



1. The method of making an article of drapery which comprises forming a piece of flexible fabric into folds, a portion of the fabric connecting said folds on one side of said piece, positioning the edges of the folds in opposing parallel relation, providing a channel shaped backing plate of deformable material having longitudinally spaced openings in the bottom wall thereof and a support element having openings therethrough corresponding to the openings of the backing plate, positioning the outer face of the bottom wall of said backing plate in contact with said folds on one side of said piece, positioning one side of said support element in contact with the folds on the other side of said face, inserting deformable fastening means through corresponding openings in said plate and element and between said edges deforming said means into clamping engagement with the inner face of said bottom wall and with the other side of said element, folding said connecting portion into pleats, inserting said pleats between the sides of said plate and bending said sides inwardly into clamping engagement with said pleats.

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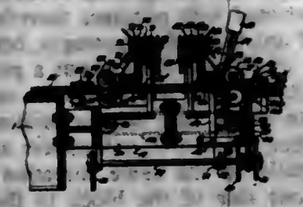
2,775,296

**MACHINE FOR SCORING APPAREL BELT AND LIKE STRAP BODIES**

James Allen Tuck, Kissimmee, N. Y., assignor, by mesne assignments, to Louis Krantz, Bronx, N. Y.; Leon Krantz and Hannah Krantz, executors of said Louis Krantz, deceased, assignors to Leon Krantz, Bronx, N. Y.

Original application October 19, 1950, Serial No. 191,001, now Patent No. 2,690,910, dated October 5, 1954. Divided and this application June 24, 1954, Serial No. 440,732

9 Claims. (Cl. 164—39)



1. In a machine of the kind described, means for scoring marginal edge portions of the face of a stock strip, said means comprising opposed bed and scoring rolls, means for driving said rolls, releasable stop means spaced a predetermined distance inwardly from said rolls in the path of stock strip advancing movement therebetween, a driven timing cam actuated means to temporarily separate the scoring rolls from the bed roll, cooperative feeding and gripper rollers spaced outwardly from the bed and scoring rolls for initially advancing a stock strip therebetween while they are separated and thence into arrested engagement with the stop means, a second driven timing cam actuated means to control the stock strip advancing operation and release of the feeding and gripper rollers, and means to release the stop means when the scoring and bed rolls are brought into scoring and advancing engagement with the initially advanced stock strip and the feeding and gripping rollers are released.

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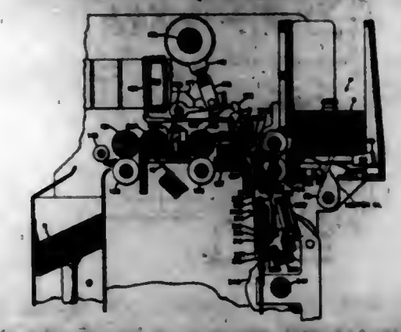
2,775,297

**RECORD CONTROLLED PERFORATING MACHINE**

James M. Cunningham, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 1, 1952, Serial No. 285,566

4 Claims. (Cl. 164—115)



1. In a cyclically operable machine for perforating records having rows of index point positions for data designations, perforating means, a first sensing means disposed a predetermined distance from said perforating means for sensing rows of data designations, a second sensing means disposed a different predetermined distance from said perforating means for sensing different rows of data designations, storage means, a first control means under control of said first sensing means, a second control means under control of said second sensing means, said first and second control means being spatially disposed to operate in synchronism with the sensing of the index point positions by the respective first and second sensing means for entering into said storage means at respective time intervals data represented by the sensed designations, and means under control of said storage means for operating said perforating means to reperforate the sensed data.

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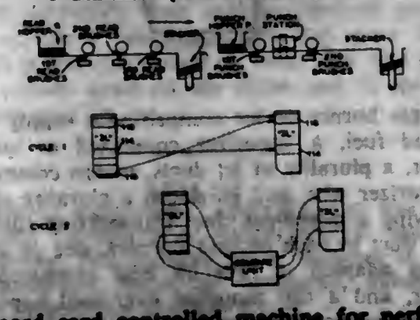
2,775,298

**LEDGER POSTING MACHINE**

David W. Rabbidge, Chatham, N. J., and John R. Natvig, Great Kills, and Frederick S. Hoiling, Binghamton, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 17, 1953, Serial No. 392,696

8 Claims. (Cl. 164—115)



1. A record card controlled machine for perforating a rectangular coordinate system posting field arranged on a record card comprising a plurality of record card perforating means positioned along one axis of a rectangular coordinate system, record card feeding means for moving the posting field relative to said perforating means along the other axis of a rectangular coordinate system, multi-order digit manifesting means, selecting network circuit means controlled by said manifesting means to condition for operation a selected one of said perforating means indicative of a digit in one order of a multi-order number, and other means controlled by said manifesting means for operating the selected recording means when said recording means is located along the said other axis at a position indicative of a digit in another order of the multi-order number.



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2,775,299

**RECORD CARD REPRODUCING PUNCHING MACHINE WITH PROGRAM CONTROL**

Elie Adrien Jules Deury, Paris, France, assignor to Compagnie des Machines Bull (Société Anonyme), Paris, France

Application April 22, 1952, Serial No. 283,788

Claims priority, application France October 2, 1951

12 Claims. (Cl. 164—115)



1. In a card punching machine having a card sensing device, and a card carriage for feeding one control master card and a detail card step by step respectively past said sensing device and past one columnar row of punches, said control master card having columns of index-point positions with perforations representative of constant data, the columns of a so-called "program" field bearing a special perforation in a position non-used for the data recording, some of the columns of the program field bearing a further perforation, a duplicating arrangement to automatically reproduce constant data from said control master card on a plurality of detail cards, a relay storage device containing another data, a first control means prepared to be operative upon sensing of said special perforation, a second control means rendered operative when the first column with said further perforation is sensed, both control means enabling, when operative, the automatic punching of said other data from the storage device on the same plurality of detail cards, control means operated manually when said other data is to be changed for inhibiting the duplicating arrangement and setting the storage device from read-out condition into receiving condition.

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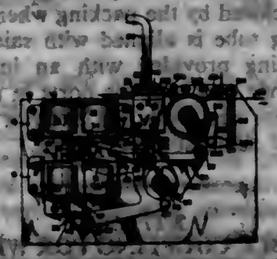
2,775,300

**TAPE PUNCHING APPARATUS**

Paul R. Hoffman, Woodlyn, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application September 21, 1955, Serial No. 535,559

10 Claims. (Cl. 164—115)



4. In an apparatus for making a tape in accordance with code signals received by the apparatus, a plurality of solenoids for receiving the code signals, a plurality of punch interposers normally positioned in a first position and adapted to be permanently positioned between said first position and a second position in accordance with said signals, means controlled by said solenoids for tending to prevent movement of the punch interposers from their first positions, means for moving said punch interposers to said second position to form permutations of positions of said plurality of punch interposers in accordance with the signals received by said solenoids, a plurality of punches cooperable with said punch interposers for perforating the tape in accordance with said signals, means for actuating said punches whereby ones of said punches corresponding to said ones of said punch interposers moved to said second position are caused to perforate said tape, means for adjusting said interposers comprising a cam shaft, said shaft being adapted to be rotated whereby said interposers are positioned for interjection between said punch actuating means and said punches.

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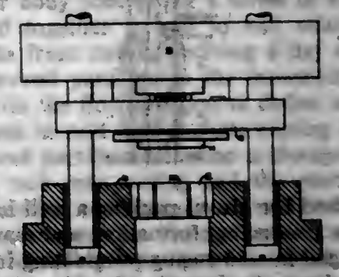
2,775,301

**DIE MEMBERS**

Albert C. Gangloff, Natrona Heights, Pa., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

Application September 25, 1953, Serial No. 382,263

7 Claims. (Cl. 164—118)



7. A split die member for use in making laminations comprising, in combination, a pair of cooperating die sections disposed in assembled relation to form a die having a leading die face and a trailing face and a die opening extending therebetween, the die opening having edges in a common plane in the leading die face of a configuration and size corresponding to the configuration and size of the lamination to be formed, the die opening having a bore increasing in size as it extends from the leading die faces to the trailing face, each of the die sections having a rib disposed in the bore to extend from an associated portion of the edge of the die opening in the leading die face in a perpendicular direction therefrom towards the trailing face, each of the ribs having an outer surface within the bore disposed in a plane common to the associated portion of the edge of the die opening in the leading die face from which the associated rib extends, the outer surfaces of the ribs of the cooperating die sections cooperating to frictionally engage the laminations formed in the die member until the laminations are forceably removed therefrom.

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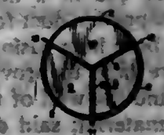
2,775,302

**PROCESS AND DEVICE FOR INHIBITING CORROSION IN WELLS**

Willard H. Kirkpatrick, Sugar Land, Tex., assignor to Visco Products Company, Houston, Tex., a corporation of Delaware

Application August 4, 1954, Serial No. 447,878

2 Claims. (Cl. 166—1)



1. A process of inhibiting corrosion in a well containing corrosive fluids which comprises depositing in the

well a compartmented container comprising a plurality of compartments, each containing a corrosion inhibiting chemical, and which are so constructed as to dissolve successively and periodically in the well fluids thereby to discharge said corrosion inhibiting chemicals from said compartment successively and periodically.

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2,775,363

## METHOD FOR CONTROLLING SAND IN WELLS

Gene F. Abendroth, Shreveport, and William T. Elroy, New Orleans, La., and Gilbert H. Tausch, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application May 22, 1953, Serial No. 356,824
4 Claims. (Cl. 166—15)



1. A method for gravel packing a well having a casing traversing a producing formation and having a tubing string arranged in said casing terminating in an open end at a point above the bottom of said casing which comprises perforating said casing at a point below the open end of said tubing string corresponding to said producing formation, flowing fluid from said formation to wash out a cavity in said formation, lowering a screen and liner having closed upper and lower ends through the open end of said tubing string, arranging said screen and liner in said casing adjacent the perforations with its upper end in the tubing, flowing gravel downwardly through said tubing string and depositing said gravel in said casing, squeezing said gravel through said perforations into the ends of said cavity while maintaining said screen and liner closed and free of gravel to form a pack in said cavity and around said screen and liner, opening the upper end of said screen and liner, and thereby establishing a path of flow from said formation through said pack and into said screen and liner and tubing string.

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2,775,364

## APPARATUS FOR PROVIDING DUCTS BETWEEN BOREHOLE WALL AND CASING

Solis Myron Zandmer, Calgary, Alberta, Canada

Application May 18, 1953, Serial No. 355,770
2 Claims. (Cl. 166—100)



1. In apparatus for use in a bore hole traversing a porous stratum to be tapped, a duct-forming device adapted to be supported by a bore hole casing of smaller diameter than that of the bore hole to provide an annular space between said casing and the wall of the bore hole adapted to receive a sealing material; said device comprising, an open-ended tubular bushing mountable in a hole through the wall of said casing, a plunger mounted in said bushing for outward movement to engage the wall of the bore hole to provide with said bushing a core to be surrounded by the sealing material, means releasably locking said plunger against outward movement in said bushing, and means constraining said plunger to an outward movement, said plunger being of a material dissolvable in acid whereby said plunger may be dissolved to provide a passage between the interior of said casing and the wall of the bore hole.

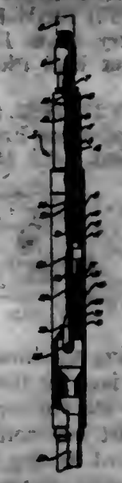
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2,775,365

## FORMATION TESTER WITH PRESSURE EQUALIZING MEANS

Boyd R. McKinley, Long Beach, Calif.

Application May 11, 1953, Serial No. 354,118
6 Claims. (Cl. 166—149)



1. A formation tester with pressure equalizing means comprising a control head, said control head having ports extending through the wall thereof, a sampling tube extending longitudinally through said control head, a plug closing the lower end of said sampling tube, said sampling tube having an intake hole therein alignable with said ports, a control tube rotatable in the control head for attachment to a drill pipe, coengaging thread means on the sampling tube and the control tube in the control head, said sampling tube being movable longitudinally in the control head to move said intake hole relative to said ports on rotation of the drill pipe and control tube, a tubular by-pass assembly mounted on the control head and below the same, said by-pass assembly comprising a tubular body and a tubular packing mounted in the tubular body, a pipe mounted on the lower end of the sampling tube and below said plug and extending through the by-pass assembly, said tubular packing sealingly engaging said pipe, said tubular body having circulation holes extending through the wall thereof, and said pipe having an upper hole therein alignable with the circulation holes to permit flow of fluid around the packing, and the lower end of said pipe having holes therein positioned below said packing, said upper hole in the pipe being closed by the packing when the intake hole in the sampling tube is aligned with said ports, said tubular body being provided with an intake duct communicating at one end with the ports in the control head and at the other end with the exterior of the by-pass assembly below said tubular packing.

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2,775,366

## RELEASABLE COUPLING FOR WELL TOOLS

William H. Middleton, Hobbs, N. Mex., and Charles W. Bast, Seminole, Tex.

Application August 24, 1953, Serial No. 375,875
2 Claims. (Cl. 166—319)

1. A releasable coupling for connecting well tools and a well string or cable, said coupling comprising a hollow cylindrical body, an internal tapered shoulder adjacent the lower end of said body, means at the upper end of said body for connecting a well string or cable, an annular groove in the inner wall of said body intermediate the length thereof, said groove having an outwardly and downwardly sloping top wall, diametrically opposed apertures in the wall of said body above said groove, a shear pin disposed in said apertures and extending across said body, a dog carrier slidably disposed in said body between said shear pin and said shoulder, said dog carrier comprising a disk-shaped portion having diametrically disposed spring fingers depending therefrom, said fingers terminating in



dogs having downwardly and inwardly inclined upper and lower faces, a radial bore in said portion open at one side, a pin slidably disposed in said bore, resilient means urging said pin outwardly of said bore into engagement with the inner surface of said body and a tool connecting member having an elongated stem terminating in an enlarged cylindrical head with a downwardly and inwardly inclined shoulder connecting said head and said stem, said head being received between said fingers with the upper faces of said dogs engaging the inclined shoulder between said head and said stem and with the lower faces of said dogs engaging the tapered shoulder on said body.

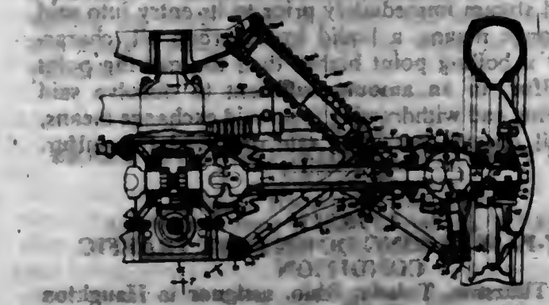
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2,775,367

## FRONT WHEEL SUSPENSION FOR MOTOR VEHICLES

Claude Hill, Kenilworth, England, assignor to Harry Ferguson Research Limited, Coventry, England, a British company

Application January 23, 1953, Serial No. 332,793
Claims priority, application Great Britain January 25, 1952
11 Claims. (Cl. 180—43)



2. In a suspension and axle arrangement for an individually suspended, steerable, front traction wheel of a vehicle, the combination of a medially and universally jointed axle assembly having a pivot joint at the inboard end of said axle assembly connecting the same to the vehicle for vertical swinging movement, said wheel being carried on the outboard portion of said axle assembly a medially and pivotally jointed linkage having its extremities pivotally connected respectively to the vehicle and said outboard portion, and means connecting the joint of said linkage to the inboard portion of said axle assembly with freedom of such joint to shift substantially axially along the half axle assembly, to thereby compensatingly cant said ground wheel relative to the inboard portion of said axle assembly as an incident to vertical swing of the latter.

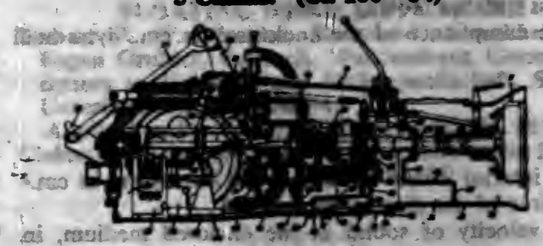
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2,775,368

## TRACTOR BODY GEARING COMPARTMENT ARRANGEMENT FOR GEARING AND LUBRICATING OIL SUPPLY

Alexander Senkowski, Earlsdon, Coventry, and Frederick D. Cooper, Stoke, Coventry, England, assignors to Massey-Harris-Ferguson (Sales) Limited, a British company

Application May 14, 1953, Serial No. 354,906
Claims priority, application Great Britain May 16, 1952
5 Claims. (Cl. 180—54)



1. A tractor body comprising a series of three hollow castings joined together in end to end relation, a first partition in the front casting defining a dry clutch compartment, a second partition in the intermediate casting cooperating with the first partition to define an oil sump, a third partition in said intermediate casting cooperating with said second partition to define a change-speed gear compartment, said rear casting and the portion of said intermediate casting to the rear of said third partition defining a compartment for the tractor differential and a hydraulic unit including a pump, and conduit means connecting said pump with said oil sump.

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2,775,369

## SOUND TRANSLATING DEVICES

Edgar M. Villchur, Woodstock, N. Y., assignor to Acoustic Research, Inc., Cambridge, Mass., a corporation of Massachusetts

Application March 15, 1954, Serial No. 416,287
10 Claims. (Cl. 181—31)



1. A sound translating device comprising a transducer of the type in which a voice-call and associated diaphragm, supported from a frame, execute excursions in the presence of a magnetic field, elastic supporting means for supporting said voice-coil and diaphragm in centered relationship with respect to the frame, said elastic supporting means providing a fluid seal between the forward and rear surfaces of the diaphragm, and establishing, in combination with the moving mass of the transducer, a resonant frequency according to the relationship

$$F_T = \frac{1}{2\pi\sqrt{MC_M}}$$

where

$F_T$ is the resonant frequency of the transducer in free air, in cycles/sec.

M is the moving mass of the transducer, in grams

$C_M$ is the compliance of the elastic supporting means, in cm./dyne;

means for applying an elastic restoring force to the diaphragm, comprising an essentially fluid-tight enclosure

containing said voice-coil and diaphragm and defining, in connection with the rear surface of the diaphragm and the elastic supporting means attached thereto, a sealed cavity containing an elastic, fluid medium, the stiffness reactance of the moving system comprising the acoustical stiffness reactance of the enclosed fluid medium and the mechanical stiffness reactances of the elastic supporting means for the voice-coil and the elastic supporting means for the diaphragm, according to the relationships

$$C=\frac{C_M C_A}{C_M+C_A}$$

where

C is the total compliance, in cm./dyne (reciprocal of stiffness) of the moving system

$C_A$ is the compliance of the enclosure, in cm./dyne and

$$C_A=\frac{V}{\rho c^2 S^2}$$

where

V is the interior cubic volume of the enclosure, in $cm.^3$

S is the area of the diaphragm, in $cm.^2$

c is the velocity of sound in the enclosed medium, in cm./sec.

$\rho$ is the density of the enclosed medium, in $gm./cm.^3$;

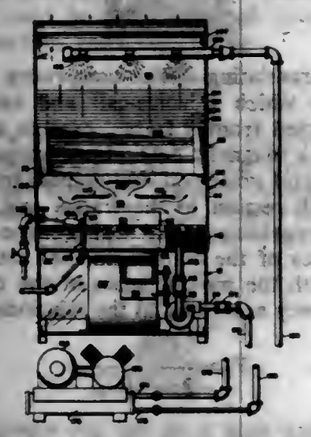
the magnitude of the stiffness reactance of said enclosed fluid medium constituting more than half of the total stiffness reactance of the moving system, the remaining stiffness reactance being that of the said elastic supporting means for the voice-coil and diaphragm, and the combined stiffness reactance of said elastic supporting means and said enclosed fluid medium establishing, in combination with the mass reactance of the moving system, a natural resonant frequency according to the relationship

$$F_{TS}=\frac{1}{2\pi\sqrt{M\left(\frac{C_M C_A}{C_M+C_A}\right)}}$$

where $F_{TS}$ is the resonant frequency of the transducer when contained in the enclosure.

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2,775,310
**COOLING TOWER**
Jack F. Shelton, Memphis, Tenn.
Application June 1, 1953, Serial No. 358,688
8 Claims. (Cl. 183—26)



1. A cooling tower comprising a lower section, a blower including means forming a discharge outlet therefor, an upper section supported on said lower section, means forming a collar in said upper section, said collar surrounding said discharge outlet, a vibration dampening gasket interposed and supported between said collar and said discharge outlet, said collar being open at its upper end, said upper section having a bottom and sides upstanding therefrom forming together with said collar a water reservoir, a removable panel extending substantially vertically across said upper section inwardly of at least one of said sides and cooperating with the other of said sides to form an enclosure for baffles and fluid spray nozzles and dividing said reservoir, when said reservoir is filled with fluid to a normal level, into a main reservoir, and a fluid level control reservoir in communication therewith, fluid level control means mounted in the last named reservoir, said panel having portions projecting outwardly at an angle thereto adjacent the perimeter thereof received within means forming a recess connected with the other of said sides and opening outwardly of said enclosure, baffles mounted in said enclosure above said collar for directing the flow of air delivered by said blower downwardly into said reservoir, spaced filler elements extending across said enclosure above said baffles and providing passageways for air delivered by said blower, fluid spray nozzles mounted above said filler elements, fluid eliminators mounted above said spray nozzles and providing passageways for the exit of air from said enclosure, and a pump for supplying liquid from at least one of said reservoirs to said spray nozzles.

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2,775,311
**SULFUR REMOVAL IN GAS COOLING**
Wallace E. Vereck, Jr., Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application September 26, 1955, Serial No. 536,383
4 Claims. (Cl. 183—120)



1. In a process wherein a gas stream containing $H_2S$ and free-oxygen in an amount sufficient to produce appreciable amounts of free-sulfur oxidation product and sulfur vapor produced by the oxidation of $H_2S$ is passed through an indirect heat exchange means whereby the stream temperature is lowered to a point below the melting point of free-sulfur, causing said free-sulfur to coat the indirect heat exchange means thereby decreasing exchanger efficiency, the improvement which comprises adding to said stream immediately prior to its entry into said heat exchange means, a liquid hydrocarbon oil, characterized by a boiling point higher than the melting point of free-sulfur, in an amount sufficient to dissolve said sulfur coating and withdrawing from said exchange means, a liquid oil stream containing said dissolved free-sulfur.

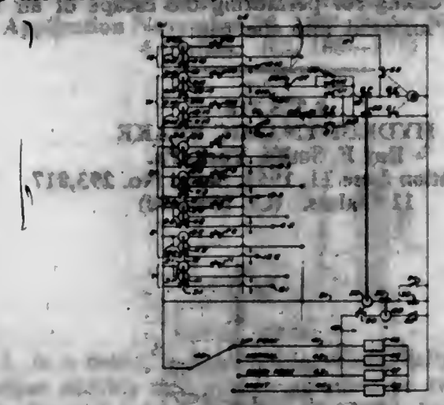
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2,775,312
**UP BY-PASS DURING DOWN PEAK TRAFFIC CONDITION**
Ernest B. Thurston, Toledo, Ohio, assignor to Haughton Elevator Company, Toledo, Ohio, a corporation of Ohio
Application March 16, 1954, Serial No. 416,663
6 Claims. (Cl. 187—29)

1. In an elevator system having a plurality of cars serving a plurality of floors of a building and having passenger operated controls effective for registering car and hall calls, in combination, program control means for varying the service of the elevators according to expected passenger demands, conditioning means operable when said program control means is set for heavy traffic in a first direction for conditioning the stop circuits of certain of said elevators serving all floors to by-pass hall calls for service in the opposite direction, means for



canceling up and down hall calls when a stop is made in the first direction, and at least one elevator that is



independent of said conditioning means and that serves all floors.

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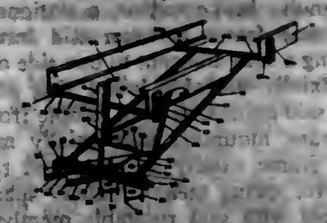
2,775,313
**RETRACTABLE CASTER WITH BRAKE**
Robert J. Karvers, North Hollywood, and Gerald F. Schaller, Pasadena, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.
Application November 17, 1953, Serial No. 392,638
6 Claims. (Cl. 188—2)



1. Caster means comprising a supporting member, a plate carried by the member to swivel about an axis, a rotatable wheel, shock absorbing means mounting the wheel from the plate for movement with the plate about said axis and for relative vertical movement, and brake means including an axially movable rod associated with the plate to swivel therewith and having a longitudinal axis coincident with the first named axis, a shoe on the rod cooperable with the wheel, and manually operable multi-position means on the member for moving the rod a plurality of selected definite distances to force the shoe against the wheel when the plate and wheel are in various relative positions and with the wheel in any castered position.

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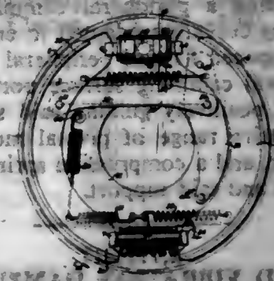
2,775,314
**BRAKE AND ANTI-SKID ATTACHMENT FOR A VEHICLE**
John C. Hiemstra, Pella, Iowa
Application June 2, 1951, Serial No. 229,635
1 Claim. (Cl. 188—5)



A brake and anti-skid attachment for a vehicle comprising a hydraulic cylinder assembly, means for pivotally suspending said cylinder assembly from said vehicle for pivotal movement about an axis extended transversely of said cylinder assembly, a ground engaging unit comprising a horizontal frame member pivotally attached intermediate its ends to the free end of the piston of said cylinder assembly such that when said cylinder assembly is in a substantially upright position and said piston is extended said ground engaging unit engages the ground, a pair of forwardly converging upright ground engaging side portions extended downwardly from the bottom of said frame member, an upright front portion common to the forward ends of said ground engaging side portions, and means adapted to be attached at one of its ends to said vehicle and pivotally attached at its opposite end to said ground engaging unit to guide said unit in its downward travel to said ground engaging position.

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2,775,315
**FLOATING WHEEL TYPE BRAKE**
Herbert F. W. Maruhn, Stuttgart-Unterturkheim, and Eugen Grubler, Fellbach, Wurttemberg, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application December 18, 1950, Serial No. 201,268
Claims priority, application Germany December 21, 1949
3 Claims. (Cl. 188—78)



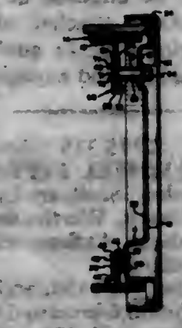
1. A brake comprising a backing plate, a rotating brake drum having an annular, inwardly directed braking surface, a first brake shoe extending over a portion of said braking surface, a second brake shoe extending over another portion of said braking surface, supporting means stationarily supported on said backing plate and interposed between the one end of said first brake shoe extending in the main direction of rotation of said brake drum and the adjacent end of said second brake shoe to tangentially transmit limited rotational movement of each of said brake shoes to the other of said brake shoes, means operative to urge said brake shoes outward into braking engagement with the related portions of said braking surface, first spring means yieldably retracting said brake shoes with different forces out of engagement with said braking surface and mutually supporting said brake shoes through said supporting means, said first spring means being further operative to urge said brake shoes to rotate to a limited extent in the direction opposed to said main direction of rotation of said brake drum, and second spring means acting in the direction opposed to the action of said first spring means on said second brake shoe and of sufficient strength so as not to be compressed by the action of said first spring means on said second brake shoe and to maintain said brake shoes in released condition at a predetermined distance from said supporting means, the force of said second spring means being smaller than the servo-action acting in the direction opposed to said second spring means on said second shoe during a reverse braking operation.

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2,775,316
**BRAKE SHOE ADJUSTER AND GUIDE**
Walther F. Schoel, Detroit, Mich., assignor, by mesne assignments, to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application May 26, 1952, Serial No. 289,956
3 Claims. (Cl. 188—79.5)

1. In a vehicle brake assembly, a support, an anchor member on said support, a brake shoe having a web piv-

oted near one end on said anchor member, a pin rotatably adjustably mounted on said support near the other end of said shoe and projecting through said support, an enlarged operating head on said pin on the side of the support opposite said brake shoe, a spring adjustment retainer compressed between said pin head and the support, a cam fixed on said pin having two substantially cup-shaped members integrally fixed to each other and



together providing a peripheral camming surface portion of changing curvature adapted to engage an edge of said shoe and spaced flanged peripheral portions formed integral with said camming surface portion for slidably embracing and positively guiding said shoe web during its entire operative range of pivotal movement on said anchor member, and a compression spring interposed between said cam and said support.

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2,775,317
**SHOCK AND VIBRATION DAMPING DEVICE**
Federico Staisterna, Sete, France
Application July 18, 1951, Serial No. 237,310
Claims priority, application France November 24, 1950
1 Claim. (Cl. 188—90)



A device for damping the relative motion between two bodies comprising a casing connectable to one of the bodies and internally having smooth exposed bottom and peripheral faces and defining a cylindrical cavity of circular cross-section, a collar having an inner face, engaging said casing and covering said cavity, said collar defining a central cylindrical opening coaxial with said cylindrical cavity, a rotor having a cylindrical drum portion of circular cross-section and smooth faces, at its inner end, of slightyl smaller proportions than said cylindrical cavity and extending therein so as to define a minimum gap of substantially constant dimension of from five tenth to three millimeters between the inner smooth peripheral face of said casing and the outer smooth peripheral face of said drum portion, and a stepped shaft portion of reduced circular cross-section outwardly extending from said drum portion, at its outer end, and coaxial with said drum portion and fitted for coaxial rotation in said central cylindrical opening, washer means for sealingly engaging the shaft end face of said drum portion with said inner face of said collar, a material in the gap having a dynamic viscosity of substantially 300,000 poises at 20 degrees centigrade and adherable to said casing and said drum portion at a critical applied pressure, externally adjustable spring controlled means for applying the critical minimum pressure, the outer end of said shaft portion being connectable to the other of said bodies, and a closable escape vent in said casing for permitting the escape of air for the entry of material into the gap.

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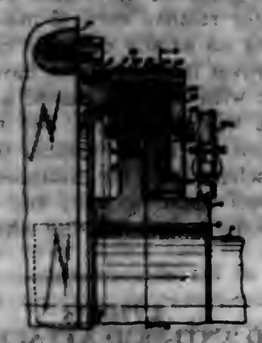
2,775,318
**HYDRODYNAMIC BRAKE**
Roy F. Smith, York, Pa.
Application June 11, 1952, Serial No. 293,017
11 Claims. (Cl. 188—90)



1. Retarder especially for motor vehicles comprising: a case for liquid, a liquid pump means communicating on its intake side with the lower part of said case, a vaned rotor, a liquid conduit between the delivery side of said pump means and the intake side of said rotor, a liquid conduit between the discharge side of said rotor and the interior of said case so as to return liquid leaving the rotor to the intake side of said pump means, the moving parts of said pump means and rotor being designed for connection to a transmission such as a transmission leading to wheels of a vehicle so that liquid circulated by the pump means through the rotor exerts a retarding effect on said transmission.

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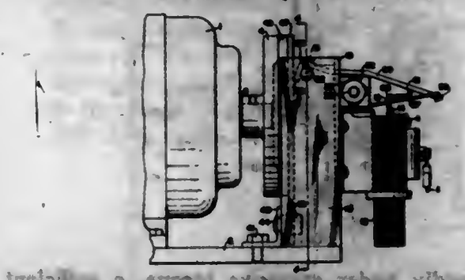
2,775,319
**SPRING APPLIED WHEEL BRAKE**
Robert G. Friedman, Tiffin, Ohio, assignor to The National Machinery Company, Tiffin, Ohio, a corporation of Ohio
Application July 19, 1952, Serial No. 299,089
3 Claims. (Cl. 188—170)



1. A brake for a shaft mounted on a frame and projecting therefrom comprising a rotatable brake member mounted on said projecting shaft for rotation therewith having an annular brake section, a stationary brake ring mounted on said frame between said frame and brake member having a face adjacent to one side of said annular section, an axially movable brake ring adjacent to the other side of said annular section remote from said frame, mounting means mounting said axially movable brake ring on said frame axially movable and rotatably fixed relative thereto, spring means radially spaced from and radially aligned with said rotatable member urging said movable ring toward said member, and fluid motor means on the other side of said axially movable ring remote from said frame operably connected to said axially movable brake ring for over-coming said springs and moving said axially movable brake ring away from said rotatable member.



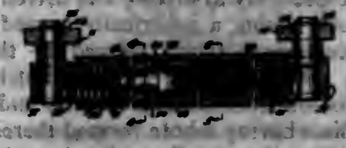
2,775,320
**MOTOR BRAKE**
Earl Jacob Vallieu, Akron, Ohio
Application November 30, 1951, Serial No. 259,053
4 Claims. (Cl. 188—171)



1. In a brake, a plate with a substantially flat braking surface slidably and tiltably mounted on two horizontal pins located below the portion of the brake which is adapted to be brought into braking contact with a rotatable element, the plate being mounted substantially perpendicularly to the axis of said rotatable element and being tiltably supported on the pins so that it can tilt away from said plate when not being pressed against it and can gradually slide toward said plate as the braking surface of the plate becomes worn away, and means for pressing the plate at a level above the pins toward the rotatable element.

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2,775,321
**BRAKE ADJUSTMENT MECHANISM**
Roy Phillips, Chagrin Falls, Ohio
Application July 1, 1953, Serial No. 365,317
4 Claims. (Cl. 188—196)



1. A brake adjusting mechanism comprising a tube, first and second members within said tube in end-to-end relationship, said members closely fitting said tube and at least one being adapted for axial movement with respect thereto, one of said members projecting from one end of said tube and the other of said members projecting from the other end of said tube, a threaded member threaded into said first member and having a portion engaging the second member, thereby spacing said first and second members, spring means for rotating said threaded member in a direction for moving it toward said second member to increase the spacing between the first and second members, means preventing the rotation of said threaded member when said second member is less than a predetermined distance away from engagement with said portion.

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2,775,322
**BRAKE ROTOR**
Fred E. Buchanan, Granite City, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application March 10, 1953, Serial No. 341,518
4 Claims. (Cl. 188—218)

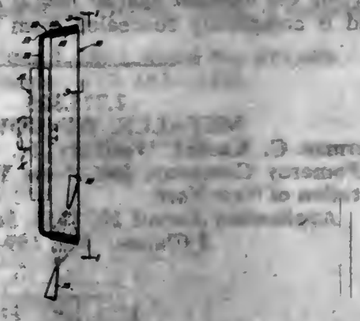
1. A brake rotor comprising a hub, a bell-shaped concavo-convex web flaring axially radially from said hub, an outer ring plate supported on the outer peripheral end of said web and integral therewith, an inner ring plate axially spaced from said outer plate and radially spaced from and encircling said web to define therewith an annular fluid inlet, radially extending circumferentially spaced blades interconnecting said plates to define therewith a plurality of radially extending fluid passages communicating with said inlet, fluid deflectors provided on said blades adjacent the inner ends of the latter operative to deflect fluid toward and to increase the flow of fluid



along the inner opposed sides of said plates responsive to rotation of the rotor, adjacent deflectors being spaced from each other centrally of their respective passages.

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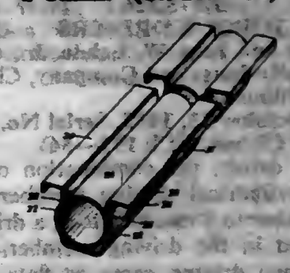
2,775,323
**FRICTION ELEMENT AND METHOD OF MAKING THE SAME**
Hordis G. English, La Grange, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application February 23, 1950, Serial No. 145,799
3 Claims. (Cl. 188—234)



1. The method of making a friction element which consists in providing a metallic disc; cutting a plurality of V-shaped notches in the periphery of the disc to provide a plurality of spoke-like members; bending the spoke-like members toward the axis of the disc and at one side of the plane of the disc to define a substantially uninterrupted frusto-conical peripheral portion of the disc; spraying the radially inner and outer surfaces of the frusto-conical portion of the disc with a metallic alloy having a high coefficient of friction and the characteristic of adhering when in a molten state to the metal of the frusto-conical portion of the disc and, upon cooling, to be integrally attached thereto; and cooling the sprayed alloy to provide friction facings adhering to the frusto-conical portion of the disc.

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2,775,324
**RAFTER**
William F. Tate, Mineola, N. Y., assignor to Kool Vent Metal Awning Corporation of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application July 2, 1953, Serial No. 365,633
1 Claim. (Cl. 189—34)



For use in a sheet metal awning having roof members and cross runners, a structural rafter member comprising a light sheet metal channel-like member having an out-

wardly extending flat flange at each of its two top edges providing bearing surfaces for the cross runners and accessible from below the awning for the reception of screws or bolts by which the member flanges are connected to the cross runners, and for reinforcing the rafter member against lateral bending and weaving, each flange having a downwardly turned outer edge to strengthen the flange against vertical deflection and buckling, the side walls of the member extending vertically downward from said flanges in subetantial parallelism with divergent portions extending from the lower boundary of the parallel side wall portions, and convergently from the lower boundary of the divergent wall portions to the bottom wall of the member, the interior of the member being of generally hexagonal form with the top of the hexagon being open, the side walls of said member being laterally resilient and a pipe of circular section inside the member, the diameter of said pipe being greater than the transverse dimension of the open side of the generally hexagonal interior, the adjacent sides of the hexagon being generally tangential along the length of the pipe, said pipe being frictionally retained within the channel of said channel-like member by its frictional engagement with said resilient side walls, whereby the pipe is effective for reinforcing the member against lateral and vertical deflection and is completely concealed from beneath the member.

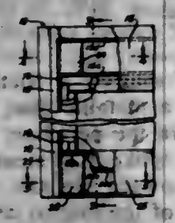
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2,775,325

## METALLIC WINDOW SASH

Herman C. Knebel, Westbury, N. Y., assignor to S. H. Pomeroy Company, Inc., New York, N. Y., a corporation of New York

Application August 20, 1953, Serial No. 375,337
2 Claims. (Cl. 189—76)



1. A metallic window sash comprising top and bottom members having a box-like configuration, the interior of said top and bottom members each being defined by two vertical walls each terminating at horizontal walls, two side members each having a flat portion, two vertical tabs struck out of said flat portion at each extremity of said side members and projecting substantially perpendicular thereto, the two vertical walls of each of said box-like members formed to be contiguous to said tabs upon the assembly of said members, each of said vertical tabs being of a height equal to the width of the vertical wall contiguous thereto, the horizontal upper and lower edges of each of said tabs abutting the horizontal walls at which the vertical walls terminate, and means for securing said tabs to said vertical walls.

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2,775,326

## TORQUE DRIVERS

Bernard R. Botter and John W. Lohde, Jr., Chicago, Ill., assignors to Scully-Jones and Company, Chicago, Ill., a corporation of Illinois

Application October 23, 1952, Serial No. 316,506
7 Claims. (Cl. 192—56)

1. In a torque driver, the combination of a metallic integral, elastic cylindrical driving member, means for attaching the member to a machine tool, a driven member rotatively mounted in the driving member, said driven member having two driving cams or flats arranged at 180° apart the sides of which are elevated with respect to the adjacent surfaces and rollers interposed between the driving member and the driven member which serve to drive the driven member when they are positioned on the flats but which may override the elevated surfaces at the sides of the flats and consequently stretch the driving



member outwardly under excesive torque, a sufficient amount to relieve the turning moment on the driven member but not beyond the elastic limit of the driving member.

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2,775,327

## OVERLOAD CLUTCH

Roy E. Gearhart, Kansas City, Mo., assignor of one-half to Robert F. Dickson, Overland Park, Kans.

Application November 20, 1953, Serial No. 393,256
6 Claims. (Cl. 192—56)



1. An overload clutch comprising a pair of clutch discs secured together for relative coaxial rotation and adapted to be secured respectively to driving and driven members, one of said discs having a spherically curved recess of less than hemispherical extent formed in the surface thereof mating with the other of said clutch discs in spaced apart relation from the axis thereof, and the other of said clutch discs having a bore formed therein parallel to the axis thereof and normally registering with said recess, a ball carried for movement longitudinally in said bore and normally extending into said recess, a pressure member carried by said bored clutch disc for relative rotary and axial sliding movement and normally bearing against said ball, a spring carried by said bored clutch disc and operative both to exert an axial load on said pressure member, whereby to urge said ball yieldably into said recess, and to exert a rotary torque on said pressure member, means normally preventing relative rotation of said pressure member and said bored clutch disc, said last named means becoming inoperative when said pressure member is retracted against the spring as the relative torque between the discs forces said ball out of said recess, whereupon said pressure member is turned by the torsion of said spring, said pressure member and said bored clutch disc having cooperating surface operative as said pressure member turns to increase the distance between the recessed clutch disc and the effective portion of the pressure member to an amount greater than the diameter of said ball, whereby said ball is relieved of the spring pressure, and to secure said pressure member in the retracted position.

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2,775,328

## SLIP OPERATING CLUTCH AND COOLING MEANS THEREFOR

Edward C. Yokel, Racine, Wis., assignor to Twin Disc Clutch Company, Racine, Wis., a corporation of Wisconsin

Application November 17, 1953, Serial No. 392,548
7 Claims. (Cl. 192—57)

1. In a marine gear, the combination of an input shaft, an output shaft, and an oil pressure system including an



oil actuated, multiple plate clutch fully engageable to connect the shafts to provide a normal speed of the output shaft, means for bleeding actuating oil to determine a fixed slipping condition of the clutch and a selected



less than normal speed of the output shaft and including means for regulating oil pressure on the slipping clutch, and means for directing the bled oil between the slipping clutch plates for cooling and the transmission of torque by oil drag.

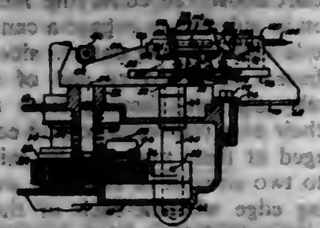
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2,775,329

## POWER CLUTCH ACTUATORS

Charles R. Stelljes, Fayetteville, N. Y., assignor, by mesne assignments, to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware

Application May 7, 1953, Serial No. 353,656
9 Claims. (Cl. 192—82)



3. In a washing machine transmission, a casing having a top wall, a clutch actuating rod slidably mounted in and projecting through said wall, and having a cam follower on its end, a power-driven oscillating stub shaft projecting through said wall, and having a radial arm keyed thereto, a bar mounted for sliding movement on said wall, having a cam adapted to engage said follower, and disposed in chordal relation with respect to the arc of movement of said arm, a pair of pivotal members mounted on said bar, each having a shoulder adapted to project into the path of movement of said arm, and interengaging means on said members whereby one or the other of said shoulders may at will be projected into the said path by pivotal actuation of the other member.

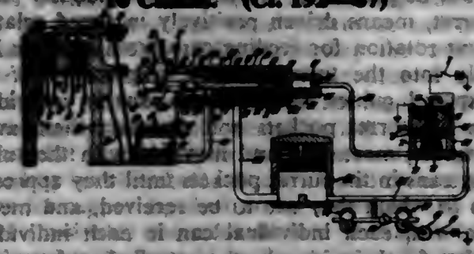
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2,775,330

## TRANSMISSION AND CONTROL SYSTEM

Hans O. Schjolin, Birmingham, and Helmuth Guentsche and Millis Vincent Parshall, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 21, 1952, Serial No. 321,764
16 Claims. (Cl. 192—87)



1. In a clutch control system, a pair of selectively operable clutches, a clutch actuator, a fluid pressure responsive servo, a spring member operably connecting said clutch actuator to said servo effective to position said actuator to establish drive through one of said clutches upon admission of fluid pressure to said servo, said spring member being effective to bias said clutch actuator to establish drive through a second of said clutches upon exhaust of fluid pressure from said servo, a fluid pressure source, a valve for controlling said servo operable to selectively establish neutral and drive through either of said clutches, means yieldably biasing said valve to establish drive through said second clutch, a piston operatively associated with said valve, a second valve effective in one position to connect said piston to exhaust and effective in a second position to connect said piston to said fluid pressure source, said first-mentioned valve being movable responsive to fluid pressure admitted to said piston to establish drive through said first-mentioned clutch, and manually operable means for positioning said first-mentioned valve to select neutral operation irrespective of the position of said second-mentioned valve.

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2,775,331

## CLUTCH WITH COOLANT METERING

Victor W. Peterson, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 2, 1951, Serial No. 229,600
9 Claims. (Cl. 192—113)



1. A friction clutch comprising, in combination, a driving member including an annular clutch plate, a driven member including an annular clutch plate, means for engaging and disengaging the clutch plates; a fluid metering device located radially inwardly of the clutch plates comprising a body formed with passages therethrough rotatable with one of the members and two valve parts slidingly engaging the surface of the body rotatable with the other member, the parts being formed with circumferentially displaced ports successively registering with the said passages during relative rotation of the members; and means for supplying fluid to the body by way of one of the valve parts; the fluid escaping from the body by way of the other valve part and flowing to the clutch plates.

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2,775,332

## LINE SPACE DEVICE FOR OFFICE TYPING MACHINE

Günther Wühlbier, Wilhelmshaven, Germany, assignor to Olympia Werke A. G., Wilhelmshaven, Germany

Application November 18, 1955, Serial No. 547,694
Claims priority, application Germany April 21, 1955
3 Claims. (Cl. 197—114)



1. A line space device for advancing the platen of office typing machines selectively by hand and also automatically as the platen carriage reaches the end of its

travel comprising a line space wheel secured to the platen shaft for advancing the platen, a shift pawl carrier rotatably mounted coaxially with the common axis of the line space wheel and platen, a shift pawl secured to said carrier for engaging said line space wheel to advance the same and hence also said platen as said shift pawl carrier is rotated, a hand operated line space lever, a dual arm transmission lever mounted for rotation on a hub whose axis is parallel to the platen axis, means connecting one arm of said transmission lever to said line space lever, a cam plate mounted for rotation on said hub, said cam plate having a slot therein, a coupling rod pivotally connected at one end to said shift pawl carrier, said coupling rod including a pin engaged in the slot of said cam plate, said pin also being engaged by the other arm of said transmission lever, spring means loading said coupling rod and shift pawl carrier to their starting positions, and a power drive connected to said cam plate for rotating said plate when said platen carriage reaches the end of its travel, said pin and hence also said coupling rod and shift pawl carrier being actuatable by said cam plate and also by said transmission lever acting independently of one another.

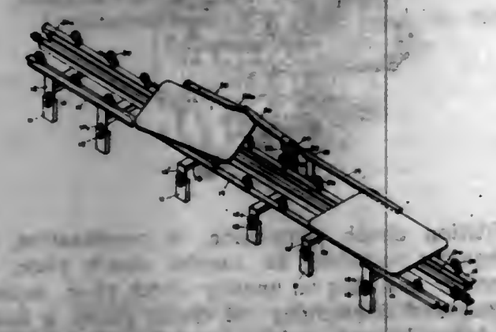
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2,775,333

## AUTOMATIC GUIDE RAIL FOR ROTATABLE-PALLET CONVEYOR SYSTEMS

Daniel Lee Hayes, Edenwold, Tenn., assignor of fifty percent to Rudolf W. Cisco, Jr., Nashville, Tenn.

Application July 17, 1953, Serial No. 368,601
14 Claims. (Cl. 198—19)



1. In combination, a horizontally traveling conveyor mechanism, a plurality of horizontally disposed elongated work-supports mounted on said conveyor mechanism for travel therewith and for rotation about a vertically disposed axis whereby work material carried thereby will be accessible from all sides thereof to a worker stationed beside said conveyor mechanism, guide railing for normally alining and holding alined said work-supports, at least a portion of said guide railing being movably mounted whereby the same can be moved out of normal alining position to permit said rotation of said work-supports, and means tending to return said movably mounted portion of said guide railing to alining position automatically upon cessation of application of intentionally produced forces causing displacement thereof from said alining position.

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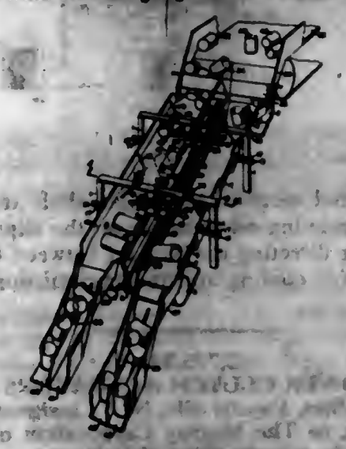
2,775,334

## CAN UNSCRAMBLER

Earl Jeremiah, Hayward, Calif., assignor to United Can and Glass Company, Hayward, Calif., a corporation of Delaware

Application November 24, 1953, Serial No. 394,053
12 Claims. (Cl. 198—30)

12. A device for aligning empty cans having their bottoms already attached but their tops open, comprising means for conveying cans from a loading station to a delivery station and defining a path of travel, said conveying means being inclined transversely to said path of travel, a guide rail adjacent the low side of said conveying means whereby said cans tend to ride against said guide rail, said guide rail being shorter than the radius of the can whereby a can with its axis parallel to the guide rail will project further over the guide rail than a can with its axis perpendicular to the guide rail, an endless chain adjacent the guide rail having lugs projecting over the guide rail, said lugs projecting far enough to engage a can with its axis parallel to the guide rail but not far enough to engage a can with its axis perpendicular to the guide rail,



said chain traveling in the same direction but at a rate considerably less than that of said conveying means, can tumbling means above the conveying means adapted to clear a can on its side but to engage a can standing on its end and tumble said can over onto its side, and a balancing edge adjacent the delivery end of said conveying means whereby the cans issuing from said conveying means with their axes transverse to said conveying means will be engaged at their midpoint by said edge and be separated into two streams of cans one on either side of said balancing edge wherein each of the cans will be aligned with its open end up.

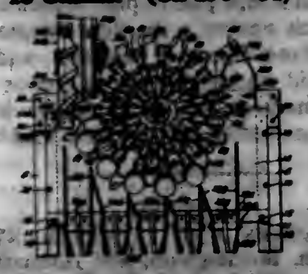
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2,775,335

## CAN DIVIDER

Justin Simpson, Elmhurst, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application May 13, 1952, Serial No. 287,539
15 Claims. (Cl. 198—31)



1. In apparatus of the character described, a rotary turret rotatable about a horizontal axis and having individual well defined can receiving pockets equidistantly spaced about its periphery, means for continuously rotating the turret, means driven positively in timed relation to the turret rotation for feeding cans from a single line individually into the turret pockets, a plurality of upwardly disposed guides for receiving cans in individual lines from the turret pockets and directing them away from the turret, means on and movable with the turret for holding cans in the turret pockets until they approach the guides in which they are to be received, and means engageable with each individual can in each individual turret pocket for bringing about controlled and positive ejection discharging of cans from the turret pockets into said guides.

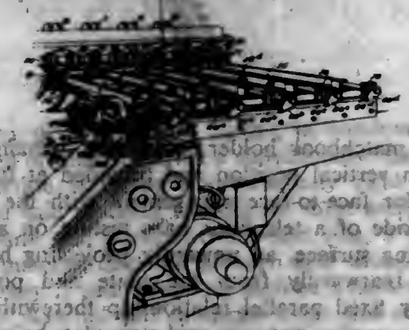


2,775,336

## SLITTER FOR FORMING BODY BLANKS FROM SHEETS

Frederick W. Rockwell, Milwaukee, Wis., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application December 4, 1952, Serial No. 323,971
6 Claims. (Cl. 198—34)



2. A sheet feeding mechanism for body blank forming machines comprising a table having spaced guide bars for receiving the strips and directing the same, feed dogs uniformly spaced a greater distance than the width of the strips for engaging the trailing edge of each strip and feeding said strips sidewise in succession and in spaced relation along said table, rocker bars extending across the guideway for receiving and supporting the strips, transfer rolls for simultaneously feeding a group of strips arranged side by side and in an endwise direction onto said rocker bars and means for independently rocking said bars for releasing the strips one at a time in succession and in timing with the feed dogs which engage the strips for feeding them along the table.

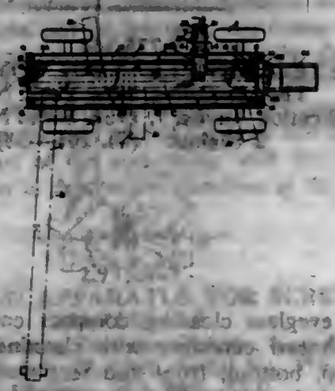
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2,775,337

## DRIVES FOR CONVEYORS

Ormond E. Hokari, Hood River, Oreg.

Application October 21, 1955, Serial No. 541,885
8 Claims. (Cl. 198—89)



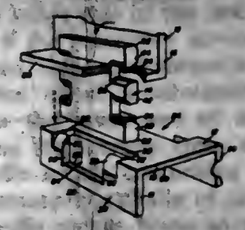
1. In combination a main conveyor having a conveyor belt, driving means and longitudinally positioned driven rollers, a transfer conveyor for transferring material therefrom to the belt of the main conveyor, and means for releasably and adjustably supporting the transfer conveyor from the main conveyor comprising: a frame supporting the main conveyor, a bracket having a hook portion engaging the frame, means for adjustably supporting the bracket in relation to the frame, a U-shaped frame carried by said bracket, a frame carried by said U-shaped frame for supporting the transfer conveyor, and a friction wheel revolvably mounted in said U-shaped frame and positioned to be engaged by the driven roller of the main conveyor and to engage and drive the belt of the transfer conveyor.

2,775,338

## CHANNEL BARS CONNECTING LINK

Harry L. Schumacher, Wabash, Ind.

Application May 16, 1955, Serial No. 508,565
2 Claims. (Cl. 198—189)



1. A conveyor including a plurality of link elements having a U-shaped cross-section defining a web and connecting side flanges, said side flanges including an upwardly opening notch portion intersecting a transverse slot portion in said web, said flanges including a relief portion extending from said slot in said web into an outer surface of said side flanges, and a connector element removably received in said transverse slot in said web and including a portion reciprocably received within the upwardly opening notch portion in said side flanges, said connector links including pairs of lug elements on opposite ends thereof, a pair of central lug elements extending between the first mentioned lug elements defining between said first mentioned lug elements, base notches engageable on opposite sides of the flanges of said link elements and opposite sides of the upwardly opening notch portion therein.

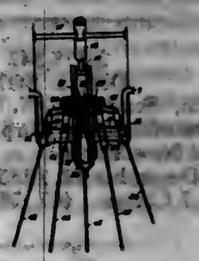
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2,775,339

## BALER MECHANISM

Paul Louis Edouard Cadier, Orleans, France, assignor to Etablissements R. Rousseau, Société Anonyme, Orleans, France, a body corporate of France

Application January 21, 1953, Serial No. 332,203
Claims priority, application France January 31, 1952
3 Claims. (Cl. 198—223)



1. In a feeding device for use in connection with a high pressure baling mechanism having a compression feeding chamber, in combination, a series of fingers disposed in advance of said chamber and being partly eccentrically located, each finger including a feeder portion being movable to describe an endless predetermined path in opposite directions towards and from said chamber, means operable for moving and guiding said fingers, said means comprising a crank including a crank shaft journalling said fingers between the ends thereof, a lever connected to the end of each finger, said eccentrical fingers being pivoted with relation to said shaft for movement at an angle to the axis of said shaft, cam and cam follower means between said crank shaft and at least two of said eccentrical fingers, the remaining of said eccentrical fingers being linked to said two fingers.

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2,775,340

## TYPOGRAPHICAL SLUG CASTING MACHINE

Melvin R. Glee, Concord, Calif.

Application July 1, 1955, Serial No. 519,527
5 Claims. (Cl. 199—61)

1. In a typographical slug casting machine having a movable spring plate, a galley tray, and a chute for guiding

a slug from the spring plate to the galley tray; yieldable means extending diagonally substantially the length of the



chute and into contact with the spring plate whereby movement of the spring plate adjusts the diagonal angle of the yieldable means.

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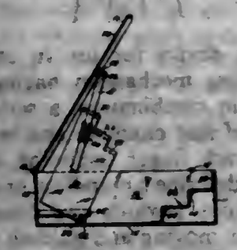
2,775,341
**HAND BIT ASSEMBLY HOLDER**
Richard J. Williams, Portland, Oreg.
Application July 13, 1953, Serial No. 367,497
3 Claims. (Cl. 206—16)



1. A tool holder for a bit and bit wrench comprising a tube having means to receive and secure the screw tip of a bit therein, a strap loop on one side of said tube to receive the handle of the bit wrench in parallel relation with said tube, and a releasable detent projecting from said one side of said tube engageable with said wrench to retain said wrench in said loop.

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2,775,342
**DRILL BOX**
Joseph C. Smith, Scarsdale, N. Y., assignor to Durex Hardware Manufacturing Corp., New York, N. Y., a corporation of New York
Application December 12, 1955, Serial No. 552,510
7 Claims. (Cl. 206—17)



3. A drill container having a bottom wall, side walls, a front wall, rear wall and a cover hingedly mounted on said rear wall; a unitary housing for drills, said container having a rail at each side parallel to and spaced from the bottom wall, normal to the rear wall and extending to a point adjacent the rear wall, roller means at the front lower end of the housing below and engageable by the rail on each side and movable below the rail to form a translatable pivot for said front lower end of the housing; the housing being thus retained in the container said said roller means being retained intermediate said rails and said bottom wall and engageable with said bottom wall and a connection between the housing and the cover for erecting the housing when the cover is swung open and rotating and translating the housing on its side when the cover is closed.

2,775,343
**MATCHBOOK HOLDER**
Earl W. Carson, Thomasville, Conn.
Application May 29, 1953, Serial No. 358,437
7 Claims. (Cl. 206—31)



3. A matchbook holder comprising a main plate normally in vertical position and provided at its rear with means for face-to-face engagement with the outer face at one side of a telephone base resting on a horizontal supporting surface, an upwardly projecting holding wall spaced rearwardly from the plate and positioned in normally fixed parallel relationship therewith, said wall and the engaging means on said main plate being so formed and related that they provide a horizontal channel between them which is entirely open at its ends and is adapted to receive the downwardly extending flange at said side of said telephone base with the said holding wall engaging and fitting the inner or rear face of said flange, supporting means at the bottom of the plate and in normally fixed relationship therewith for engaging said horizontal supporting surface to prevent downward movement of said plate and said wall relatively to said telephone base, means in normally fixed relationship with the plate near the bottom thereof for providing a transverse horizontal groove at the front thereof which groove is closed at its bottom and is open at its top and is of such size as to constitute a seat for receiving and closely fitting the lower portion of an upright matchbook, and means fixedly located on the plate near the top thereof and at the front thereof forming a narrow vertical slot for receiving and loosely fitting the upper rear portion of the cover of a matchbook to prevent relative forward movement of the upper portion of a matchbook having its lower portion held by the said seat.

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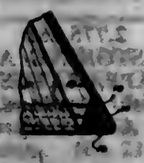
2,775,344
**EYEGLASS CLEANING COMPACT**
Thor Benedikz, New York, N. Y.
Application August 7, 1953, Serial No. 372,888
2 Claims. (Cl. 206—38)



1. An eyeglass cleaning compact comprising a rectangular-shaped container with cleaning tissues therein having top, bottom, front and rear walls and one side wall and being open at the other side, mechanism in said container for releasably holding cleaning tissues therein, a container of similar shape for holding cleaning liquid hingedly connected to said tissue holding container along one long edge thereof, said liquid container having top, bottom, front, rear and side walls, the side wall adjacent the tissue container serving as a closure for the open side of said tissue container when the containers are juxtaposed, the top wall of said liquid container having an opening therein for removably receiving an eyeglass lens to be cleaned seated on said top wall, means in said liquid container for spraying liquid through said opening onto the lens seated thereover, and an integral laterally extending plate on the top wall of the tissue container adapted to overlie the top wall of the liquid container when the containers are in juxtaposed relation.



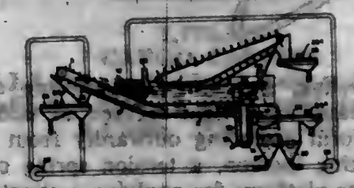
2,775,345
**PROTECTIVE DEVICE FOR LAMP SHADE**
Jerome H. Fingrey, Minneapolis, Minn.
Application December 4, 1952, Serial No. 324,101
3 Claims. (Cl. 206—45.33)



1. A lamp shade structure having in combination, a shade portion of sheet material, a substantially rigid frame for said portion including a substantially rigid ring, a wrapping for said shade of transparent sheet material extending around said portion, frame and ring, a body of evaporable material disposed between said wrapping and frame, whereby if said wrapping shrinks, evaporation of said body of material will compensate for said shrinkage and said frame or shade will not be distorted.

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2,775,346
**METHODS AND APPARATUS FOR SEPARATING SOLIDS HAVING DIFFERENT SPECIFIC GRAVITIES**
Klaas F. Troost, Bilthoven, Netherlands
Application July 29, 1953, Serial No. 371,105
Claims priority, application France August 6, 1952
5 Claims. (Cl. 209—172.5)



1. A process for separating solid materials having different specific gravities by means of a suspension contained in a tank, consisting in creating substantially horizontal rectilinear currents in said suspension by supplying thereto suspensions of different densities at different heights at the front end of the tank, removing the floats and the sinks from the tank, hydraulically discharging the middlings by deflecting the upper part of the suspension with the middlings suspended therein in an upwardly inclined direction at the rear end of the tank and by deflecting the lower part of the suspension with the middlings suspended therein in downward direction at the rear end of the tank.

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2,775,347
**METHOD AND APPARATUS FOR SCREENING MATERIALS**
David Weston, Toronto, Ontario, Canada
Application July 28, 1953, Serial No. 370,785
5 Claims. (Cl. 209—314)



1. Apparatus for screening materials comprising: a plurality of sloping screens arranged in series, each successive screen being arranged below the next higher in the series to provide a space between a lower end region of the next higher screen and an upper end region of the successive screen; means for imparting reciprocating movement to said screens; a fixed transverse baffle extending between the lower side of the next higher screen and the upper end of the successive screen, defining said space on its forward side; and rotatable baffle means mounted for rotation about a substantially horizontal axis, disposed below the lower end of the next higher screen and extending transversely from side to side of said space, said baffle means comprising a plurality of baffles disposed substantially radially of the axis of rotation thereof, said baffle means being so positioned that said baffles during rotation of said baffle means extend beyond the lower end of the next higher screen to intersect the path of travel of material discharged therefrom.

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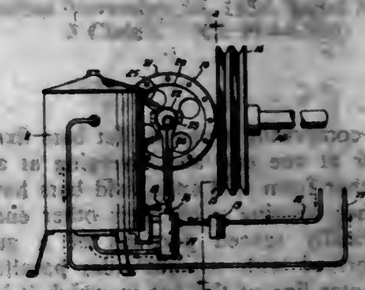
2,775,348
**FILTER WITH BACKWASH CLEANING**
Burdell S. Williams, Larchmont, N. Y., assignor to Taco Heaters, Incorporated, Greenwich, Conn., a corporation of New York
Application September 30, 1953, Serial No. 383,281
4 Claims. (Cl. 210—94)



4. In a filter assembly, an annular screen for screening liquids, means for effecting flow of a liquid to be screened inwardly through the side walls of the screen and then endwise therein, means for keeping the screen clean including a power-operated shaft disposed substantially coaxial of the annular screen and extending axially therein, and a substantially elliptical plate extending across the screen oblique to said shaft and secured to the shaft to be rotated thereby and having its outer edge disposed close to the inner face of the screen throughout the major portion of its screening surface, and operable as it rotates to force liquid adjacent its outer edge out through the screen to progressively free the screen walls of dirt.

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2,775,349
**INDUSTRIAL FILTER**
Thaddeus J. Beadway, Pampa, Tex.
Application August 18, 1953, Serial No. 374,893
1 Claim. (Cl. 210—150)



A filter unit for interposing in a lubricating system and for operation from a grooved pulley connected with a drive shaft, said unit comprising an upright filter having a lower intake and an upper outlet, a lower bracket fixed to said filter and projecting laterally therefrom, an upright reciprocating pump fixed to said bracket, a piston rod extending from the upper end of said pump, a pipe connecting the outlet of said pump with said lower intake,

an upper bracket fixed to said filter, a crankshaft bearing carried by said upper bracket, a crankshaft journaled in said bearing, a pitman connected between said crankshaft and said piston rod, a driven wheel fixed on said crankshaft disposed at right angles to the adjacent face of said pulley for frictional contact with said pulley, and an outlet pipe connected to said upper outlet.

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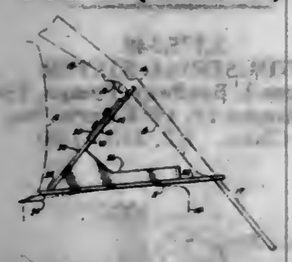
2,775,350
**FILTERS**
Hugh A. Jones, Bessemerle, Anglesey, England
Application December 28, 1953, Serial No. 400,507
1 Claim. (Cl. 210—157)



A coupling construction for use in combination with a pair of specimen bottles and a filter comprising, a double-ended coupling having an outer peripheral wall and a partition extending transversely of the outer wall and being integral therewith at the midsection of said coupling, the partition of said coupling being formed to have an outer annular portion and an inner annular portion concentrically thereof and having an annular skirt depending axially therefrom toward one end of said coupling, the inner surface of the outer peripheral wall at opposite ends of said coupling being threaded for receiving the threaded open ends of the specimen bottles, the inner annular portion of the partition of said coupling being provided with openings for directing liquid within and through the confines of the inner annular portion of the partition.

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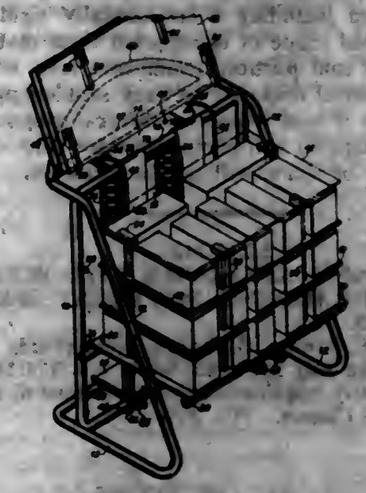
2,775,351
**GUN RACK FOR AUTOMOBILE SEATS**
Richard L. Johnson and Gerald E. Johnson, Bucyrus, N. Dak.
Application February 27, 1953, Serial No. 339,412
1 Claim. (Cl. 211—64)



A gun rack comprising a pair of flat bars fixedly connected together at one end and diverging at acute angles to each other from said ends, said bars having longitudinal notches opening upon their other ends to receive longitudinally spaced portions of a gun, each notch being formed with straight sides paralleling the longitudinal center line of the bar in which it is formed for substantially the full length of the notch; and a plate mounted on one of the bars for sliding movement in a path paralleling said longitudinal center line and formed with a longitudinal notch opening upon one end of the plate, the notch of the plate being aligned longitudinally with the notch of said one bar and having straight sides paralleling those of the bar notch, the sides of the plate notch being spaced apart a distance less than the distance between the sides of the bar notch and the plate being slidable into a position registering the notches of the plate and of said one bar, thus to substitute the notch of the plate for the notch of said one bar as a means for receiving an adjacent portion of the gun.

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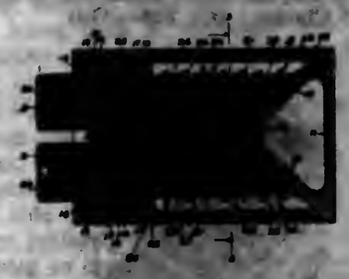
2,775,352
**SELF-LEVELING, STORING AND DISPENSING APPARATUS**
Fred Lee Waite, Fresh Meadows, N. Y., assignor to American Machine & Foundry Company, a corporation of New Jersey
Application February 9, 1952, Serial No. 270,796
4 Claims. (Cl. 211—134)



1. A self-leveling, storing and dispensing apparatus comprising a base, an upright secured to said base, a cantilever platform extending outwardly from said upright and tracking thereon, a tension spring connected to said cantilever platform for applying a counterbalancing force thereto which is proportional to the amount of weight supported on said platform to maintain the top thereof at a constant level despite changes in the amount of material stacked on the dispenser, separating partitions adapted to be stacked at the top of the self-leveling dispensing apparatus, and guides mounted on said upright to which said partitions are slideably connected to restrain said partitions to a vertical path of travel when placed in between layers of material stacked on said self-leveling, storing and dispensing apparatus.

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2,775,353
**SHOCK ABSORBING MECHANISM FOR RAILWAY CARS**
Richard G. Tillou, Lombard, Ill., assignor to W. H. Miner, Inc., Chicago, Ill., a corporation of Delaware
Application December 13, 1952, Serial No. 325,783
7 Claims. (Cl. 213—34)



6. In a friction shock absorbing mechanism, the combination with a friction casing having a closed rear end and interior friction surfaces adjacent its open front end; of friction shoes telescoped within the casing in sliding engagement with the friction surfaces thereof; and a yielding cushioning element within the casing bearing on said closed end and on said shoes, said element in-



cluding a unit comprising front and rear spacing plates having forwardly converging side portions and a rubber mat interposed between and bonded to said plates, said converging side portions of said front spacing plate engaging forwardly converging wedge faces on the rear ends of said shoes.

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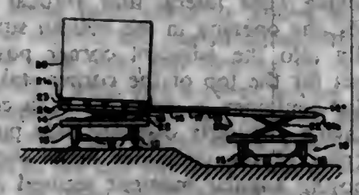
2,775,354
**CURTAIN-TYPE CLOSURE**
Henry N. Staats, Chicago, Ill.
Application February 9, 1953, Serial No. 270,810
6 Claims. (Cl. 214—21)



1. In an article treating apparatus including means defining an article treating chamber and conveying means for transporting articles to be treated through said chamber, a curtain-type closure comprising a plurality of individual curtains successively movable with respect to said conveying means to provide an end closure for said treating chamber each of said curtains being of flexible sheet material having a weighted free end gravity urged into cooperative relationship with said conveyor means.

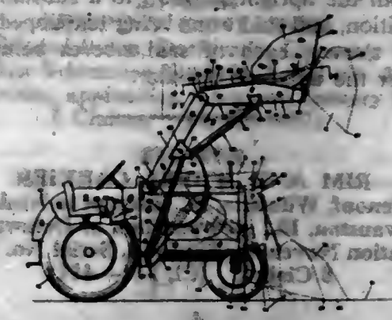
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2,775,355
**CARGO CARRIER**
Lionel J. Leitner and Irving A. Leitner, Bronx, N. Y.
Application April 19, 1954, Serial No. 424,129
1 Claim. (Cl. 214—38)



A cargo carrier, having a chassis superstructure comprising in combination a platform member, multiple transverse grooves spacedly provided in the face portion of said platform member, bars slidable within said grooves and substantially adjacent to the side walls thereof, said bars extendable beyond said grooves, said extended bars defining the side margins of each of said grooves beyond the terminal end thereof, said bars adapted to interengage corresponding grooves in a second, like platform member spaced apart from the first platform member, rail sections disposed upon said bars and transversely interlocking said bars to form a track, said track being of substantially the same dimensions as said grooves and traversing the space gap between the spaced apart platform members, cargo sections, means provided on the bottom of said cargo sections for engagement with and movement in said groove and on said track respectively, said cargo sections adapted to be moved from platform member to platform member, and corresponding means provided on the lateral side surfaces of said cargo sections and said platform members adapted to permit fixed locking engagement between said cargo sections and the platform member by means of a locking pin to prevent lateral movement of said cargo sections with respect to the platform member while the platform member is in rail transport.

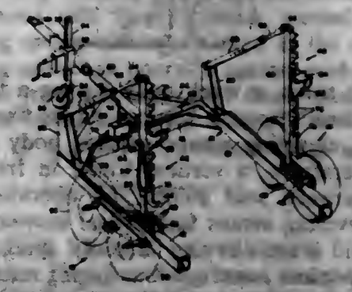
2,775,356
**LOADER MACHINE**
Herbert F. Lorenzen, Des Moines, Iowa, assignor, by mesne assignments, to A. C. Anderson, Inc.
Application March 9, 1951, Serial No. 214,822
2 Claims. (Cl. 214—140)



1. A front-end-loading portable power shovel including a power-propellable frame, a pair of lift-arms arranged on opposite sides of said frame and having their rear ends pivoted to said frame for up and down movement, a pair of hydraulic cylinder-assemblies operatively interposed between said frame and said lift-arms, one end of each such assembly being pivotally connected to the frame, on opposite sides thereof, at points below the point of pivotation between said frame and said lift-arms and the other end of said assembly being pivotally connected between said lift-arms at a point intermediate the ends thereof, forward extension-arms pivotally connected to said lift-arms for up and down movement, a pair of hydraulic cylinder-assemblies operatively interposed between said lift-arms and said extension-arms, with the rearward ends of said assemblies pivotally connected to said lift-arms at points intermediate the ends thereof and with the forward ends of said assemblies pivotally connected to said extension-arms at points intermediate the ends thereof, a shovel having its rearward portion pivotally connected to the forward ends of said extension-arms, and a hydraulic cylinder-assembly operatively interposed between said shovel and said extension-arms; said first pair of hydraulic cylinder-assemblies and said second pair of hydraulic cylinder-assemblies being operable independently of each other and said hydraulic cylinder-assembly intermediate the shovel and the extension-arms being operable independently of the first two pairs of hydraulic cylinder assemblies.

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2,775,357
**CABLE REEL DOLLY AND LIFTING APPARATUS**
John E. De Armond, Miami, Fla., assignor to Beaver Cable Dolly Corporation, Miami, Fla., a corporation of Florida
Application November 16, 1954, Serial No. 469,150
3 Claims. (Cl. 214—390)



1. In a cable reel dolly, a frame, a pair of spaced hydraulic cylinders mounted for pivotal movement on said frame, bracing means secured to said frame for supporting said hydraulic cylinders in an upright position, said bracing means including a pair of spaced sleeves pivotally mounted on said frame, and a pair of arms each of

which telescopically engage a sleeve and being pivotally secured at the upper end thereof to an adjacent cylinder, said arms being disengageable from the upper end of said cylinders when said cable reel dolly is to be transported unloaded, said cylinders being pivotally moved from the upright position to a substantially horizontal position, and said arms being telescoped within the associated sleeves, each of said sleeves being pivotally folded over the adjacent cylinder.

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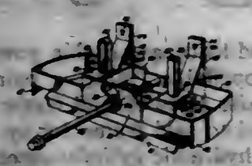
2,775,358

**RIM AND WHEEL CARRIER**

William Roneof, Wilmette, Ill., assignor to Nash Bros. Co., Evanston, Ill., a corporation of Delaware

Application November 27, 1953, Serial No. 394,554

8 Claims. (Cl. 214—451)



1. A carrier structure, comprising a perimetric frame, a shaft rotatably mounted in said frame, cables secured to said shaft and extending through said frame member, a lifting bar secured to the ends of said cables and equipped with bolts having upper threaded ends, a suspension support for said frame comprising a strap having a vertical portion extending to the rear of said frame and forwardly across said frame and having an inverted U portion within said frame providing a vertical guide channel open at its lower end, and a diagonal connecting the vertical portion of said strap and said inverted U portion, said brace and strap at said inverted U-shaped portion being apertured to receive a bolt carried by said bar and a nut engaging the upper threaded portion of the bolt for securing the same within said strap and brace member.

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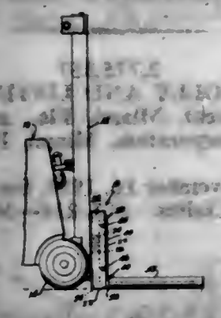
2,775,359

**PAPER ROLL HANDLING ATTACHMENT FOR INDUSTRIAL ELEVATING TRUCKS**

Russell J. Carpenter, Silsbee, Tex.

Application July 22, 1955, Serial No. 523,654

1 Claim. (Cl. 214—653)



In a lift truck, a truck body having a forward end, a pair of laterally spaced vertical guides fixed on said forward end, elevating means on said body extending forwardly therefrom, a vertical frame in front of and extending between said guides and operatively connected to said elevating means for vertical movement along said guides, said frame having laterally spaced vertical side plates, upper and lower guide engaging means on said side plates supportably engaging said guides, a pair of L-shaped arms having vertical portions and horizontal portions extending forwardly from said vertical portions, upper and lower guide rods in said frame extending between and secured to said side plates, said vertical arm portions being slidably supported on said guide rods for movement therealong, a pair of horizontal hydraulic cylinders each fixed at one end thereof to a related frame side plate and having a piston rod extending from its other end and secured to the vertical portion of one of said arms, and hydraulic actuating means severally connected to the hydraulic cylinders and operable to move said arms individually crosswise of the frame and toward and away from each other, said horizontal portions of the arms having rotatable tubular cylindrical rollers journaled longitudinally thereon.

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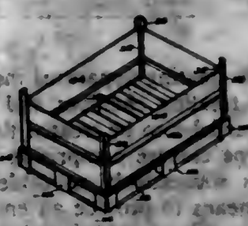
2,775,360

**MATERIAL HANDLING CONTAINER**

James M. Phillips, Pittsburgh, Pa., assignor, by mesne assignments, to Salem-Brosius, Inc., a corporation of Pennsylvania

Application September 12, 1952, Serial No. 309,287

7 Claims. (Cl. 220—4)



1. A knock-down container adapted for vertical stacking and for disassembly for re-shipment as a substantially flat assembly to points of loading or for use of the container base as a pallet, comprising a rigid base portion having spaced top and bottom surfaces connected by rigid corner and intermediate side posts providing openings for reception of the forks of a lift truck, the top and bottom base surfaces at each corner thereof having suitably shaped bottomed openings therein for reception of corner stakes, the openings in the upper surface extend downwardly into the adjacent corner posts of the base to provide both lateral and vertical support for corner stakes, the opening in the bottom surface extending upwardly into the adjacent corner posts providing stacking seats for the top of the corner stakes of an adjacent similar container, a stake for each corner of the container having angularly disposed side portions forming the corners of the container body above the base and an opposing angular member secured in spaced relation to the angle of the stake to provide channels for reception of the side walls of the container, and container body side walls for spanning the space between the corner stakes at each side of the container and received within the said stake channels to complete the body of the container.

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2,775,361

**METAL BOUND BOX OR BASKET**

Nathan Kaufer, Plainfield, Conn.

Application March 30, 1953, Serial No. 345,603

9 Claims. (Cl. 220—4)



3. An ornamental box comprising corners made up of elongated longitudinally slidably related outer and inner members, the outer member having elongated perpendicularly related side walls integrally joined together along one of their longitudinal edges, each of said side walls having a portion projecting inwardly to form retainer rails extending longitudinally of the said walls and intermediate the corner formed by said side walls and the free edges of said side walls, the parts outside said rails acting as outer flanges, the inner member having elongated perpendicularly related corner walls integrally joined together along one of their longitudinal edges and fitting within the outer member between its corner and the retainer rails, said inner member having inturned parts within the rails, and inner flanges extending from said inturned parts parallel to but offset inwardly from the outer flanges, panels acting as side walls of the box, the generally upright edges of said panels being received between the aforesaid inner and outer flanges at the corners, generally horizontal top and bottom parts receiving the top and bottom edges of the panels, the top part being a channel having an inverted U-shaped cross-section receiving the top edge of a panel, and the bottom part having an L-shaped cross-section receiving the bottom edge of said panel, assembly rods passing through said top and bottom parts at the corners of the box in order to hold all of the parts in assembled relation, said assembly rods passing collaterally through said corner pieces within the corner walls and the inturned parts of the inner members.



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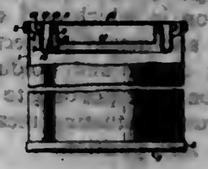
2,775,362

**TRIPLE TIGHT METAL CAN CLOSURE**

John Heuchert, River Forest, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application December 22, 1954, Serial No. 476,997

2 Claims. (Cl. 220—42)



1. A triple tight metal can comprising a body portion, a ring shaped top end seamed thereto, said top end having a U-shaped channel spaced inwardly from the seam and having inner and outer parallel friction walls, said inner friction wall being inset inwardly above the frictional contact portion thereof and curled outwardly and downwardly into an open bead and forming on its inner face a frictional contact wall, and a cover having a U-shaped channel depending therefrom, said channel being spaced inwardly from the edge of the cover and lying directly over a channel in the can top, said channel being dimensioned so that the outer walls thereof frictionally engage the friction walls of the channel in the can top end making tight seals therewith, said cover having a central depression surrounded by a vertical wall, the outer surface of which makes frictional contact with the friction wall on the inner face of the bead making a tight seal therewith and with the raw edge of the metal can top disposed outside of said last named seal.

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2,775,363

**VENTED CLOSURE PLUG**

Elvin A. Taylor, Plymouth, Mich., assignor to Plymouth Stamping Company, Plymouth, Mich., a corporation of Michigan

Application July 5, 1955, Serial No. 520,631

4 Claims. (Cl. 220—44)



1. A hollow plug having a frustoconical upper portion with an aperture through the top thereof, an umbrella cap covering said aperture and depending about the conical portion of said plug, being also provided with a depending stem portion passing through said aperture and headed at its lower end to prevent withdrawal, said cap having a plurality of spaced downward projections for resting on the top of said plug and holding the intervening portions slightly spaced therefrom.

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2,775,364

**SHIPPING CONTAINER**

Eduard Isaias, Dortmund, Germany

Application September 29, 1951, Serial No. 248,917

Claims priority, application Germany January 17, 1951

5 Claims. (Cl. 220—97)



1. Shipping container including wall elements, a bottom, a top frame, and a bottom frame, said frames being horizontally supported by the wall elements and being of rectangular cross section, the lower frame being arranged downwardly of the bottom and at least partly inwardly of the wall elements, the upper frame being arranged at least partly outwardly of the wall elements, the lower frame, with the container stacked upon a companion container, freely receiving the upper frame of the companion or lower container, the median plane of the lower frame of the upper container extending below the median plane of the upper frame of the lower container, the frames permitting the lower frame of the upper container, upon a lateral displacement of the superposed container, to slide at least partly under the upper frame of the lower container.

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2,775,365

**BAG DISPENSER**

Percy W. Mostman, Van Nuys, and Jay J. Ross, Culver City, Calif.

Application March 6, 1953, Serial No. 340,878

8 Claims. (Cl. 221—44)



1. In a dispenser for paper bags comprising a frame having a bottom wall means and side wall means and defining a front opening, the novelty comprising: finger means extending laterally inwardly from a fixed one of said side wall means, first pressure means including spring means for normally biasing said bags forwardly in said frame and against said finger means, second pressure means including spring means mounted in the frame for normally urging said bags laterally against said fixed one of said side wall means, and another finger piece on said second pressure means directed laterally towards and complementary to said first mentioned finger means.

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2,775,366

**RAZOR BLADE CONTAINER**

Oscar F. Wilhelm, New London, Conn., assignor to Durham-Enders Razor Corporation, a corporation of New York

Application April 29, 1950, Serial No. 158,999

5 Claims. (Cl. 221—232)

1. A razor blade dispenser for flat single edge razor blades having a cut-out portion at either end, providing longitudinally extending shoulders, said dispenser hav-

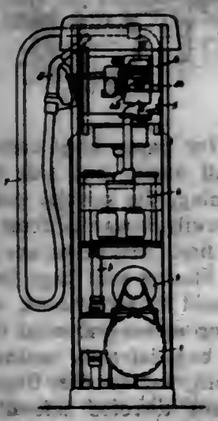
ing side walls and a top and bottom, abutments in said dispenser engaging said shoulders to locate a stack of blades therein by the engagement of said abutments with said shoulders and the engagement of one side of the dispenser with the rear edge of the blades, thus eliminating any guiding engagement with the cutting edge portion, an ejecting element mounted adjacent the top of said dispenser and in sliding contact with said stack of blades, means accessible from the exterior of said dispenser for imparting ejecting movement to said element, a shallow recess in the bottom face of said ejecting element having the same profile as the blade, and also having abutment means engaging said blade shoulders to locate the blade transversely without engagement with



the cutting edge thereof, said recess being of a depth no greater than the thickness of one blade, a resilient element on the bottom of said dispenser to urge said stack of blades upwardly towards said ejecting element, a slot at one end only of the dispenser through which said ejecting element may be manually protruded, said slot having a depth just sufficient to permit passage of said ejector and the blade in its recess without permitting any other blades to pass, said ejecting element having a cutaway portion on the protruding corner of the ejecting element corresponding to the back edge of the blade so that the blade may be readily removed from the ejecting element without exposure of the edge where it may cause injury.

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**2,775,367**
**FLUID DISTRIBUTING AND METERING APPARATUS**
Jean Gustave Antoine Marie Joseph Meyer, Neuilly-sur-Seine, France, assignor to S. A. T. A. M., Societe Anonyme pour Tous Appareillages Mecaniques, La Courneuve (Seine), France, a society of France
Application July 24, 1951, Serial No. 238,210
Claims priority, application France July 25, 1950
4 Claims. (Cl. 222—29)



3. A fluid dispensing and metering apparatus comprising, in combination, a main distributing conduit; a valve means controlling the passage of fluid through said conduit; a presetting device; means for moving said presetting device from a zero position to a preset position corresponding to the quantity of fluid to be delivered; means connecting said presetting device to said valve means and opening said valve means during movement of said presetting device to a preset position; a metering device in said main conduit means and actuated by the delivered fluid, said metering device being connected to said presetting device and moving the same from said preset position into the zero position during fluid delivery; indicating means actuated by said metering device; a shaft; means for resetting said indicating means from indicating position to zero position connected to and actuated by said shaft; a circular cam formed with a notch on its periphery and mounted on said shaft; a member turnably mounted on said shaft adjacent said cam, said member having a length slightly greater than the radius of said circular cam; resilient means attached to said cam and to said member and tending to move said member into a position covering said notch; a pivoted lever; a stud secured to said lever and located opposite said notch when said cam is in a position corresponding to the zero position of said indicating means, and located opposite said circular periphery of said cam when said indicating means are not in zero position; a pump for circulating fluid through said main conduit means; pump actuating means movable between a pump starting position and a pump stopping position; a connecting member secured to said pump actuating means and moving with the same, said connecting member being connected to said lever; spring means urging said pump actuating means into said pump starting position and also urging said lever to pivot into a position in which said stud is located on the periphery of said cam and tends to drop into said notch; a flexible hose communicating with said main conduit means; means for attaching said hose to said lever, the weight of said hose tending to pivot said lever into a position in which said stud is located outside of said notch; and means connected to and actuated by said presetting device and holding said connecting member in a position corresponding to said pump stopping position of said pump actuating means when said presetting device is in zero position.

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**2,775,368**
**DISPENSER APPARATUS**
Gerrit de Vries, Boone, Iowa
Application April 16, 1954, Serial No. 423,775
6 Claims. (Cl. 222—61)



1. In a device of the class described, a body member having an inner and outer side respectively, said body member provided with an opening or window, a punch member integral with said body member extending from the inner side thereof adjacent said window, hook means integral with said body member extending therefrom in the same direction as said punch member, a spring clip means consisting of an arm portion and a hook portion, said arm portion provided with a slot, a set screw on the outer side of said body portion spaced from said window, said arm portion slidably disposed on the outer side of said body member by engagement of said slot with said set screw whereby said clip means can be selectively projected beyond one end of said body member, and a closure means for said window on said body member.

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**2,775,369**
**DISPENSING TUBE CLOSURES**
Ralph B. Wahl, Springville, N. Y.
Application April 6, 1955, Serial No. 499,574
11 Claims. (Cl. 222—92)

1. The combination with a collapsible dispensing container provided with a neck having an outlet passage and formed with a cylindrical container portion, of a dispensing closure slidably disposed in the outlet passage of said neck, said closure having a longitudinal material



passage opening into the container and formed with a lateral dispensing port near its upper end, said closure having a cylindrical portion at its inner end of sufficient length to engage said cylindrical container portion dur-



ing its predetermined stroke, and spaced sealing rings formed on the cylindrical portion of said closure at positions which will bring each ring into engagement with the cylindrical portion of said neck at each extreme position of said closure.

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**2,775,370**
**DISPENSING DEVICE AND HOLDER FOR TOOTHPASTE OR THE LIKE SUBSTANCE**
John Tripoli, Jackson Heights, N. Y.
Application August 23, 1954, Serial No. 451,433
3 Claims. (Cl. 222—100)



1. A dispenser for the contents of collapsible tubes comprising a generally vertical casing, a removable lower end wall thereon, a discharge conduit mounted in said lower end wall, a sealing and tube-supporting sleeve circumposed about one end of the discharge conduit and adapted to engage about the neck of a collapsible tube, means on the casing for collapsing the tube to force out of the same the contents thereof, and valve means on the other end of said conduit, the discharge conduit being vertically disposed, with one end of the conduit projecting above the general plane of the removable lower end wall, the other end of the conduit extending below said plane, said sealing sleeve being of open-ended formation, to receive a discharge conduit and tube neck respectively, the conduit-receiving end of the sleeve being resiliently expanded to grip the associated end of the conduit, the tube-neck-receiving end of the sealing sleeve including a metallic, internally threaded disc receiving the tube neck, the sealing sleeve having a flexible internal lip engageable by the tube neck when the tube neck is threaded into said disc, with said lip being adapted to be forced by the tube neck against the inner surface of the conduit to provide a seal between the conduit and tube neck.

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**2,775,371**
**ROTATING BIN FEEDER**
Morris D. Isserlis, New Brunswick, N. J.
Application October 6, 1951, Serial No. 250,150
8 Claims. (Cl. 222—168)

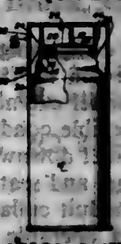
1. A rotating bin feeder, comprising a rigid frame structure, supporting and having journaled therein a vertical shaft, said shaft adapted to rotate a concentric bin structure at varying speeds, means for driving said shaft, said bin structure comprising a shell having a cylindrical lower portion, a receiving plate for a mass of material mounted upon said shell in spaced relationship below the lower end thereof to define an annular discharge opening substantially all around said plate, and having mounted thereon a means at an angle to the vertical and also to the horizontal adapted to urge the material during operation of said bin toward said annular discharge opening, said



plate having at least one plow adjacent to its upper surface and in sliding contact therewith, said plow having its operating end, located intermediate the said shaft, and the peripheral edge of said plate and adapted for operation nearer to said shaft than to said edge.

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**2,775,372**
**PROTECTIVE COVER FOR DISPENSING CONTAINERS**
Jack P. Jordan, Roslyn, N. Y., assignor, by mesne assignments, to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application August 6, 1953, Serial No. 372,703
2 Claims. (Cl. 222—183)



1. In a dispensing package, a cylindrical container having an inwardly and upwardly tapered neck portion terminating in a bead, a protective cover for said container comprising a flat circular top portion, an outer cylindrical skirt element extending downwardly from the outer edge of said top portion, said outer skirt element having an outer diameter substantially equal to the outer diameter of said container and an inwardly and upwardly tapered lower edge arranged to engage the outer periphery of said neck portion whereby the covered container presents a substantially smooth cylindrical outer surface extending ubtantially the entire length thereof, and an inner concentric cylindrical skirt element extending downwardly from said top portion a distance substantially less than said outer skirt element, the lower edge portion of said inner skirt element surrounding said bead and having integral lugs extending inwardly thereof for engaging the outer surface of said bead to detachably secure said cover to said container.

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**2,775,373**
**POURING SPOUT CONSTRUCTION FOR PAPER CONTAINERS**
Mark Cornillon, Milwaukee, Wis.
Application August 25, 1952, Serial No. 306,113
7 Claims. (Cl. 222—189)



1. The combination with a carrier provided with a

handle, of a cardboard carton interchangeably mounted therein and provided above such carrier with a wall having a dispensing aperture.

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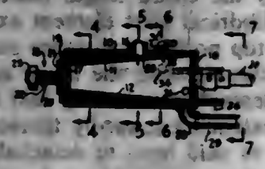
2,775,374
FLUID MILK DISPENSER
William J. Tennessen, Goshen, N. Y., assignor to Monitor Process Corporation, Jersey City, N. J., a corporation of New Jersey
Application October 25, 1954, Serial No. 464,464
23 Claims. (Cl. 222—185)



1. A milk dispenser comprising: an open-front cabinet having a floor provided in its front edge with a niche, and an open-front channel extending downwardly below the niche whereby a flexible conduit may be passed from the interior of the cabinet downwardly through the niche and through the channel and seat within said channel, in combination with a conduit collapsing member forwardly of the channel and operable against the conduit in the direction of the forwardly facing front surface of the channel to collapse the conduit against the flow of milk therethrough, and means for moving the conduit collapsing member into and out of engagement with the conduit.

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2,775,375
DISPENSING DEVICE
Jacob Haller, San Francisco, Calif.
Application November 23, 1953, Serial No. 393,681
2 Claims. (Cl. 222—362)



1. In a dispensing device, a cylindrical housing having a conical bore and having axially spaced and diametrically opposed ports in the wall thereof, means for horizontally supporting the housing, with one of the ports presented upwardly to form an intake and the other port presented downwardly to form an outlet, means for admitting a liquid to the intake port, and a hollow valve member adapted for holding a measured quantity of liquid and having a conical wall dimensioned to have a revolving fit in the housing and having intake and outlet ports adapted for selective registering with the corresponding ports in the housing, means for rotating said valve between receiving and dispensing positions for alternate filling and dispensing operations, one end of the valve member being flush with the corresponding end of the housing so as to form an annular joint therewith, a sealing ring covering said joint, and spring means urging the sealing ring upon the end of the housing and the end of the valve upon the sealing ring, said spring means comprising a threaded stud projecting axially from said end of the valve, a U-shaped washer straddling the stud and bearing on the sealing ring, a coiled spring surrounding the stud and bearing on the washer, and a nut threaded on the stud and bearing on the spring.

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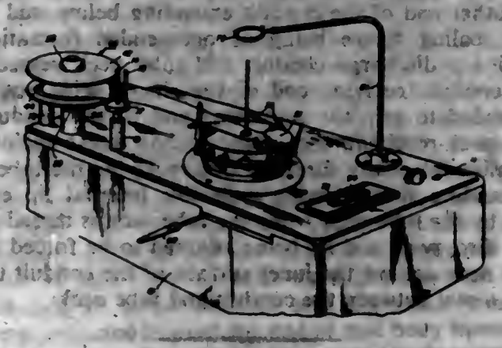
2,775,376
POWDER DISPENSING CONTAINER STRUCTURE
John Hanchett, River Forest, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application November 9, 1953, Serial No. 390,843
4 Claims. (Cl. 222—486)



1. A container for packaging and dispensing powdered materials comprising a body, a top secured on the body and having a large area central raised or plateau portion equipped wtih dispensing openings, and a cover mounted on the body over the top and having a large area central depressed portion held in tension and tightly against the underlying plateau portion in a manner for preventing inadvertent sifting of powder from the plateau openings outwardly between said tightly engaging large area portions, said top being seam secured on the body and said cover being rotatably mounted on the seam and having a dispensing opening therein selectively presentable over multiple arcuately spaced dispensing openings in the underlying container top by turning of the cover about said seam, said cover including a channel embracing said seam and having therein a sealing compound engaging on the seam and preventing outward sifting of powder from between the contacting large area central portions of the cover and the underlying top.

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2,775,377
MACHINES FOR PRODUCING BOWS AND POMPONS FROM RIBBONS
Harold M. Cook, Dallas, Tex., assignor to Burlington Industries, Inc., a corporation of Delaware
Application October 4, 1954, Serial No. 459,941
8 Claims. (Cl. 223—46)



1. In a pompon and bow-forming machine, mechanism for forming a plurality of undistinct loops, means for feeding ribbon to said mechanism comprising a reel spindle mounted on the machine and having revolvable reel-supporting means thereon, a ribbon guide through which said ribbon passes from the reel to said mechanism, a ribbon-carrying reel supported on the reel-supporting means, means to hold said reel on said reel-supporting means, and means to retard the rotation of said reel as ribbon is drawn from the reel and to oppose overrunning comprising a spring pressed element engaging the surface of the reel to frictionally retard rotation of the reel.



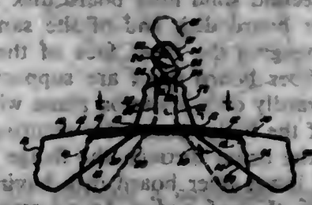
2,775,378
SUIT HANGER
Philip S. McLean, Bloomfield, N. J.
Application May 27, 1954, Serial No. 432,742
3 Claims. (Cl. 223—91)



1. A suit hanger comprising a hanger arch having shoulder forms at opposite ends and a supporting bar extending horizontally from the lower outer end of one shoulder form toward but terminating short of the lower outer end of the other shoulder form, providing a gap at that side of the hanger through which a folded garment may be slipped edgewise over the end of said bar into fully supported position on the bar, and a clamp bar loosely confined beneath the hanger arch, in position to rest on a garment on said supporting bar, said clamp bar having thin, flat, elongated upward extensions at opposite ends of the same and the shoulder forms of the arch having narrow vertical slots therein elongated and in line with the ends of said clamp bar and in which said upward extensions are closely guided, the intermediate lower edge portion of said clamp bar being relieved upwardly to admit the fingers of a hand gripping the hanger arch, and the upper edge of the clamp bar being spaced below the underside of the arch and clear of obstructions so as to admit the fingers of a hand over the top of the clamp bar for pressing said clamp bar downwardly against a garment on the supporting bar.

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2,775,379
GARMENT HANGER
Murray A. Gordon, Brooklyn, N. Y., assignor to Berkeley Industries, Jersey City, N. J., a corporation of New Jersey
Application January 11, 1955, Serial No. 481,126
9 Claims. (Cl. 223—95)



1. A garment hanger comprising a pair of complementary interfitting members, each of which is formed of a single integral length of resilient material and includes a first upwardly and inwardly directed arm and a second laterally extending arm intersecting said first arm, the outer ends of said first arm and said second arm being joined and having the inner ends thereof resiliently urged toward each other, means hingedly connecting said first arms adjacent to their inner upper ends, and means carried adjacent to the outer ends of each of said second arms slidably engaging the other of said second arms.

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2,775,380
COMBINATION DARNER BALL AND SEWING KIT HOLDER
Louis H. Campos, New York, N. Y.
Application December 21, 1953, Serial No. 399,440
2 Claims. (Cl. 223—109)

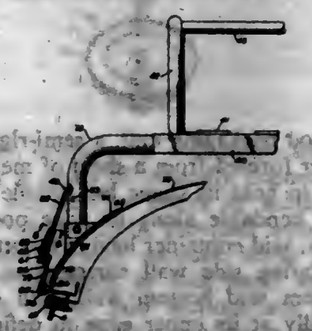
2. In a darner and sewing kit formed of a darner ball and a handle, the combination of a darner ball of smooth exterior and of hollow construction, a handle to be assembled with said darner ball, a small diameter tube carried by said handle and adapted to extend into the darner ball end and being hollow for receiving needles and pins,



a second tube for sliding over the first tube, a series of spools of thread positioned over the outside of said second tube, and a thimble engaging the top series of said spools for holding them in position.

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2,775,381
ATTACHING AND SUPPORTING MEANS FOR AUTOMOBILE LUGGAGE CARRIER
Terence G. Hare, Detroit, Mich., assignor to Miller Manufacturing Co., Detroit, Mich., a corporation of Michigan
Original application November 6, 1951, Serial No. 255,055, now Patent No. 2,643,046, dated June 23, 1953. Divided and this application May 6, 1953, Serial No. 353,346
1 Claim. (Cl. 224—42.1)



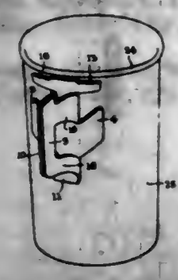
Means for securing a luggage carrier to the top of an automobile, which luggage carrier has a load supporting member for resting upon the top portion of the automobile comprising, a hook member of relatively wide metal stock for engaging under a drip trough of the automobile body, means connecting the hook member to the load supporting member, a lock member having a body part disposed against a flat face of the hook member and having tangs on opposite edges thereof fashioned loosely and slidably about the opposite edges of the hook member for slidably mounting the lock member on the hook member, said lock member having a projecting and offset finger at its lower edge, the lock member being slidable into a position with said finger projecting within the drip trough to engage an inner surface thereof and thereby hold the hook member in engagement with the under side of the drip trough.

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2,775,382
HANDLE ATTACHMENT FOR PAPER CUPS
Ellas Kayat, Willow Cove, Ontario, Canada, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application October 5, 1954, Serial No. 460,469
1 Claim. (Cl. 229—1.5)

A handle attachment for preformed paper cups comprising a body blank having a center strip and a handle integrally and hingedly connected to each side of said

strip, cut-outs forming finger holds for the handles, said cut-outs being integrally connected to said strip, said strip extending above the hinge connections of the handles, and laterally projecting straps formed integrally with said strip extension at each side thereof, said straps terminating in said handles when in nested position with



the upper edges in alignment with the upper edge portion of the handles, said strip, cut-outs, and the straps being adhesively secured to the outer face of the cup, said handles being free to swing on said strip to a nested position adjacent the cup or to a substantially radial position relative to the cup for supporting the same.

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2,775,383

**FOOD PACKAGING ASSEMBLY**

Jack Kollman, Chicago, and William A. Beck, Itasca, Ill., assignors, by mesne assignments, to Elco-Alcoa Containers, Inc., River Grove, Ill., a corporation of Illinois

Application June 18, 1952, Serial No. 294,242
2 Claims. (Cl. 229—3.5)



1. In a food packaging unit, a semi-rigid nestable pan-like container formed from a sheet of metallic foil that is stiff enough to hold its shape but pliable enough so that it is readily bendable along its edge portions by finger manipulation, said container having a bottom wall and an outwardly flaring side wall surrounding and extending upwardly from said bottom wall, said side wall being bent outwardly at its upper edge to define an upwardly facing peripheral seat extending about the margin of the container, said sheet at the outer edge of said seat being bent upwardly to provide an upstanding rim to define the outer edge of said seat, a cover member having a relatively rigid marginal portion shaped to conform to the shape of the seat and resting thereon, said sheet also having a remnant marginal portion about the rim bent inwardly to a retaining position over the border of said cover to secure the cover in position on said seat and to close and stiffen the container, said remnant marginal portion being readily bendable by finger manipulation to or toward an upstanding position to release such cover.

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2,775,384

**DRUM FOR LIQUIDS AND SEMI-LIQUIDS**

Harold A. Bergstrom, Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application July 27, 1951, Serial No. 238,789
1 Claim. (Cl. 229—5.5)

A heavy duty fiber drum including a convolutely wound body wall comprising a sheet of fiber board forming one or more inner plies of the body wall, a sheet of fiber board forming one or more outer plies of the body wall and a sheet of light gauge steel forming at least one ply of the body wall, said ply of steel being disposed between the inner ply or plies of fiber board and the outer ply or plies of fiber board, said plies of fiber board and steel being in end to end relation and in intimate contact and glued together in a single puncture proof body unit, a bottom heading fitting within said body wall and secured thereto by rolling the body wall into a holding



bead, said sheet of steel in the body wall extending from end to end of the body wall and into said holding bead, said bottom heading having a tray of steel provided with a flange extending into and interlocking with the metal ply of the body wall in said holding bead.

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2,775,385

**DRUM WITH SUPPORTED FIBER BOTTOM**

Thomas H. Gibbs, Jr., Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application February 24, 1955, Serial No. 490,290
2 Claims. (Cl. 229—5.5)



1. A fiber drum for film rolls and the like comprising a convolutely wound body, a heading for closing the bottom end of the drum including a kraft paper tray having a depending peripheral flange fitting within the body of the drum, a solid fiber board disk beneath and contacting with said tray and spaced upwardly from the bottom end of the body, a second solid fiber board disk beneath said first named fiber board disk and of the same diameter, a fiber collar engaging the inner face of the tray flange on which said fiber board disks are supported and terminating downwardly on a common plane with the lower end extremity of the body, means for securing said collar to the body of the drum through the flange of the kraft paper tray, said lower fiber board disk having a circular opening centrally thereof and a drawn steel supporting member disposed in said opening, said supporting member having a cylindrical wall provided with a laterally extending flange at its upper end, said flange being disposed to lie between the fiber board disks with its upper face contacting the underface of the upper fiber board disk and its lower face contacting the upper face of the lower fiber board disk, and said supporting member having a depth for extending below the upper fiber board disk the same distance the lower end extremities of the body and the collar extend below said upper fiber board disk so as to support said bottom heading against sagging under the weight of the film roll.

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2,775,386

**TAPERED TOP CONTAINER DEPRESSOR**

James J. Cannon, San Francisco, Calif.

Application June 4, 1953, Serial No. 359,458
1 Claim. (Cl. 229—7)

A depressor for depressing the tapered top of a carton, which top is defined by upwardly converging walls, the side margins of which form eaves and wherein a



pouring spout is formed in one of said side walls, comprising a U-shaped bail member of substantially the same width as the width of the carton, said bail member having substantially parallel legs and a medial portion joining said legs, the length of said legs being less than the length of the converging walls, inwardly serrated lugs having upwardly directed teeth affixed to said legs, said lugs extending outwardly from one side of the bail and normal to the plane thereof in spaced relation to the free ends of the legs, the ends of said legs extending



inwardly toward one another to fit under the eaves formed by one of the converging walls of the container top at the lower portion thereof to provide a pivotal axis for the bail member, said bail member having its medial portion adapted to rest against the peak of the carton, whereby the top may be depressed substantially flat by applying pressure on the medial portion of said bail member, whereby said serrated lugs will engage the sides of said carton to retain said carton top and bail member in substantially flat position.

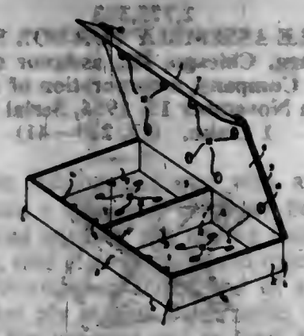
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2,775,387

**CONTAINER MANUFACTURE**

Christiaan P. J. Boster, Midland, Cape Town, Union of South Africa, assignor to Herzberg Mullins Automatic Products Limited, Woodstock, Cape Town, Cape Province, Union of South Africa

Application November 1, 1954, Serial No. 466,181
Claims priority, application Union of South Africa December 2, 1953
5 Claims. (Cl. 229—15)



1. Means for forming a container comprising a first creased blank providing a floor, side and end walls bordering said floor, a lid hingedly connected with one of said walls, and a flap connected to said lid and engageable with the opposite wall, one of said walls defining an aperture; and a second creased blank formed for encompassing said side and end walls, the ends of said second creased blank being received in the aperture.

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2,775,388

**POURING OPENING FOR CONTAINERS**

Robert W. Nerenberg, Middletown, Ohio, assignor, by mesne assignments, to The Bergstein Packaging Trust, a trust composed of Robert M. Bergstein and Frank D. Bergstein, trustees

Application October 23, 1953, Serial No. 387,910
3 Claims. (Cl. 229—17)

1. A one-piece liquid-tight carton comprising a tubular body rectangular in cross-section each wall of which lies in a single plane throughout its entire length, an end closure comprising a plurality of juxtaposed face contacting closure flaps connected to the end edges of each of said carton body walls and secured together in face-to-face relationship, an adjacent pair of said closure flaps being first folded flaps and a third of said closure flaps overlying said first folded closure flaps, said third closure flap being coextensive with the rectangular cross-section of said carton body and having a pouring opening formed in a corner thereof remote from the body wall to which



said flap is connected, the two sides of the said third closure flap defining said corner having integral extensions projecting outwardly therefrom beyond the planes of the underlying carton body walls and forming extending lip portions defining a projecting pouring lip for the said pouring opening, and a liftable closure member overlying and closing said pouring opening.

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2,775,389

**CONTAINER CONSTRUCTION**

Meyer C. Weimer, Grand Rapids, Mich., assignor to Pennsal Corporation, Grand Rapids, Mich., a corporation of Michigan

Application December 20, 1952, Serial No. 327,072
2 Claims. (Cl. 229—23)



1. A container, comprising: collapsible sidewall panel means including a series of hingedly connected sections each having a plurality of layers of material secured together by "U"-shaped clips provided with prongs engaging said material, said sections being arranged to provide for the collapsing of said panel means into a position wherein all of said sections are substantially parallel; a bottom assembly including a frame having channel means receiving an end of said sidewall panel means including said clips, said bottom frame also having first and second sets of tabs formed from the material of said channel means, the tabs of each of said sets being in coplanar relationship, and the planes of said sets being spaced apart, substantially parallel, and disposed across the opening of said frame; a bottom panel positioned between said sets of tabs; a top assembly including a frame having channel means receiving an end of said sidewall panel means including said clips; and means locking said top and bottom frame means in engagement with said sidewall panel means, said locking means including an inwardly-turned portion on said channel means engaging the ends of and enclosing said clips, said inwardly-turned portion being substantially parallel to the adjacent sidewall panel means, and engaging said clips at the extreme inner edge of said inwardly-turned portion.

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2,775,390

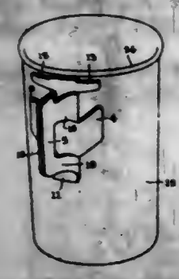
**CARTON**

Oscar L. Vinas, New York, N. Y., assignor to Alford Cartons, Ridgefield Park, N. J., a corporation of New Jersey

Application December 11, 1953, Serial No. 397,651
3 Claims. (Cl. 229—38)

1. A collapsible partitioned carton having a bottom panel, a pair of side panels extending upwardly from the

strip, cut-outs forming finger holds for the handles, said cut-outs being integrally connected to said strip, said strip extending above the hinge connections of the handles, and laterally projecting straps formed integrally with said strip extension at each side thereof, said straps terminating in said handles when in nested position with



the upper edges in alignment with the upper edge portion of the handles, said strip, cut-outs, and the straps being adhesively secured to the outer face of the cup, said handles being free to swing on said strip to a nested position adjacent the cup or to a substantially radial position relative to the cup for supporting the same.

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2,775,383

**FOOD PACKAGING ASSEMBLY**

Jack Kollmen, Chicago, and William A. Beck, Itasca, Ill., assignors, by mesne assignments, to Elco-Alcon Containers, Inc., River Grove, Ill., a corporation of Illinois

Application June 18, 1952, Serial No. 294,242
2 Claims. (Cl. 229—3.5)



1. In a food packaging unit, a semi-rigid nestable pan-like container formed from a sheet of metallic foil that is stiff enough to hold its shape but pliable enough so that it is readily bendable along its edge portions by finger manipulation, said container having a bottom wall and an outwardly flaring side wall surrounding and extending upwardly from said bottom wall, said side wall being bent outwardly at its upper edge to define an upwardly facing peripheral seat extending about the margin of the container, said sheet at the outer edge of said seat being bent upwardly to provide an upstanding rim to define the outer edge of said seat, a cover member having a relatively rigid marginal portion shaped to conform to the shape of the seat and resting thereon, said sheet also having a remnant marginal portion about the rim bent inwardly to a retaining position over the border of said cover to secure the cover in position on said seat and to close and stiffen the container, said remnant marginal portion being readily bendable by finger manipulation to or toward an upstanding position to release such cover.

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2,775,384

**DRUM FOR LIQUIDS AND SEMI-LIQUIDS**

Harold A. Bergstrom, Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application July 27, 1951, Serial No. 238,789
1 Claim. (Cl. 229—5.5)

A heavy duty fiber drum including a convolutely wound body wall comprising a sheet of fiber board forming one or more inner plies of the body wall, a sheet of fiber board forming one or more outer plies of the body wall and a sheet of light gauge steel forming at least one ply of the body wall, said ply of steel being disposed between the inner ply or plies of fiber board and the outer ply or plies of fiber board, said plies of fiber board and steel being in end to end relation and in intimate contact and glued together in a single puncture proof body unit, a bottom heading fitting within said body wall and secured thereto by rolling the body wall into a holding



bead, said sheet of steel in the body wall extending from end to end of the body wall and into said holding bead, said bottom heading having a tray of steel provided with a flange extending into and interlocking with the metal ply of the body wall in said holding bead.

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2,775,385

**DRUM WITH SUPPORTED FIBER BOTTOM**

Thomas H. Gibbs, Jr., Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application February 24, 1955, Serial No. 490,290
2 Claims. (Cl. 229—5.5)



1. A fiber drum for film rolls and the like comprising a convolutely wound body, a heading for closing the bottom end of the drum including a kraft paper tray having a depending peripheral flange fitting within the body of the drum, a solid fiber board disk beneath and contacting with said tray and spaced upwardly from the bottom end of the body, a second solid fiber board disk beneath said first named fiber board disk and of the same diameter, a fiber collar engaging the inner face of the tray flange on which said fiber board disks are supported and terminating downwardly on a common plane with the lower end extremity of the body, means for securing said collar to the body of the drum through the flange of the kraft paper tray, said lower fiber board disk having a circular opening centrally thereof and a drawn steel supporting member disposed in said opening, said supporting member having a cylindrical wall provided with a laterally extending flange at its upper end, said flange being disposed to lie between the fiber board disks with its upper face contacting the underface of the upper fiber board disk and its lower face contacting the upper face of the lower fiber board disk, and said supporting member having a depth for extending below the upper fiber board disk the same distance the lower end extremities of the body and the collar extend below said upper fiber board disk so as to support said bottom heading against sagging under the weight of the film roll.

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2,775,386

**TAPERED TOP CONTAINER DEPRESSOR**

James J. Cannon, San Francisco, Calif.

Application June 4, 1953, Serial No. 359,458
1 Claim. (Cl. 229—7)

A depressor for depressing the tapered top of a carton, which top is defined by upwardly converging walls, the side margins of which form eaves and wherein a



pouring spout is formed in one of said side walls, comprising a U-shaped bail member of substantially the same width as the width of the carton, said bail member having substantially parallel legs and a medial portion joining said legs, the length of said legs being less than the length of the converging walls, inwardly serrated lugs having upwardly directed teeth affixed to said legs, said lugs extending outwardly from one side of the bail and normal to the plane thereof in spaced relation to the free ends of the legs, the ends of said legs extending



inwardly toward one another to fit under the eaves formed by one of the converging walls of the container top at the lower portion thereof to provide a pivotal axis for the bail member, said bail member having its medial portion adapted to rest against the peak of the carton, whereby the top may be depressed substantially flat by applying pressure on the medial portion of said bail member, whereby said serrated lugs will engage the sides of said carton to retain said carton top and bail member in substantially flat position.

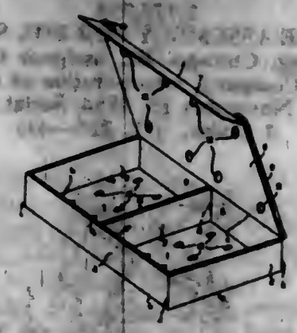
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2,775,387

**CONTAINER MANUFACTURE**

Christiaan P. J. Bester, Maitland, Cape Town, Union of South Africa, assignor to Hermberg Machine Automatic Products Limited, Woodstock, Cape Town, Cape Province, Union of South Africa

Application November 1, 1954, Serial No. 466,181
Claims priority, application Union of South Africa December 2, 1953
5 Claims. (Cl. 229—15)



1. Means for forming a container comprising a first creased blank providing a floor, side and end walls bordering said floor, a lid hingedly connected with one of said walls, and a flap connected to said lid and engageable with the opposite wall, one of said walls defining an aperture; and a second creased blank formed for encompassing said side and end walls, the ends of said second creased blank being received in the aperture.

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2,775,388

**POURING OPENING FOR CONTAINERS**

Robert W. Nerenberg, Middletown, Ohio, assignor, by mesne assignments, to The Bergstein Packaging Trust, a trust composed of Robert M. Bergstein and Frank D. Bergstein, trustees

Application October 23, 1953, Serial No. 387,910
3 Claims. (Cl. 229—17)

1. A one-piece liquid-tight carton comprising a tubular body rectangular in cross-section each wall of which lies in a single plane throughout its entire length, an end closure comprising a plurality of juxtaposed face contacting closure flaps connected to the end edges of each of said carton body walls and secured together in face-to-face relationship, an adjacent pair of said closure flaps being first folded flaps and a third of said closure flaps overlying said first folded closure flaps, said third closure flap being coextensive with the rectangular cross-section of said carton body and having a pouring opening formed in a corner thereof remote from the body wall to which



said flap is connected, the two sides of the said third closure flap defining said corner having integral extensions projecting outwardly therefrom beyond the planes of the underlying carton body walls and forming extending lip portions defining a projecting pouring lip for the said pouring opening, and a liftable closure member overlying and closing said pouring opening.

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2,775,389

**CONTAINER CONSTRUCTION**

Meyer C. Wehner, Grand Rapids, Mich., assignor to Pennant Corporation, Grand Rapids, Mich., a corporation of Michigan

Application December 20, 1952, Serial No. 327,972
2 Claims. (Cl. 229—23)



1. A container, comprising: collapsible sidewall panel means including a series of hingedly connected sections each having a plurality of layers of material secured together by "U"-shaped clips provided with prongs engaging said material, said sections being arranged to provide for the collapsing of said panel means into a position wherein all of said sections are subetantially parallel; a bottom assembly including a frame having channel means receiving an end of said sidewall panel means including said clips, said bottom frame also having first and second sets of tabs formed from the material of said channel means, the tabs of each of said sets being in coplanar relationship, and the planes of said sets being spaced apart, substantially parallel, and disposed across the opening of said frame; a bottom panel positioned between said sets of tabs; a top assembly including a frame having channel means receiving an end of said sidewall panel means including said clips; and means locking said top and bottom frame means in engagement with said sidewall panel means, said locking means including an inwardly-turned portion on said channel means engaging the ends of and enclosing said clips, said inwardly-turned portion being subetantially parallel to the adjacent sidewall panel means, and engaging said clips at the extreme inner edge of said inwardly-turned portion.

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2,775,390

**CARTON**

Oscar L. Vlaar, New York, N. Y., assignor to Alford Cartons, Ridgefield Park, N. J., a corporation of New Jersey

Application December 11, 1953, Serial No. 397,651
3 Claims. (Cl. 229—28)

1. A collapsible partitioned carton having a bottom panel, a pair of side panels extending upwardly from the

sides of the bottom panel, at least one top panel positioned laterally adjacent at least one of the side panels, the top panel being provided with a plurality of pairs of fold sections, each of said pairs of fold sections being defined by a spaced transverse cut line and a pair of bowed transverse fold lines in the top panel oppositely spaced from but communicating with the later extremities of the transverse cut line, each of the bowed transverse fold lines including a central cut portion having a contour such



as to project toward the central cut portion of the bowed transverse fold line defining the other fold section of each pair thereof, the extremities of said central cut lines extending inwardly of each fold section toward the intermediate transverse cut line seperating each pair of fold sections whereby said fold sections are capable of being folded downwardly and divergently inward into the erected carton without causing folding of the portion of the top panel defined by the aforesaid central cut portion of each transverse fold line.

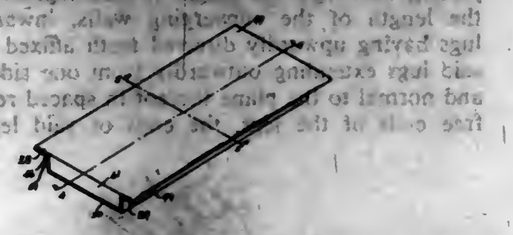
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**2,775,391**
**CARTON**
**Oscar L. Vines, New York, N. Y., assignor to Alford Cartons, Ridgefield Park, N. J., a corporation of New Jersey**
**Application December 11, 1953, Serial No. 397,652**
**1 Claim. (Cl. 229—28)**



A collapsible partitioned carton comprising a continuous bottom panel, a side wall panel extending upwardly from each side of the bottom panel, a top panel overlying the bottom panel and extending inwardly from the upper extremities of each of the side panels, each of the top panels being provided with a plurality of pairs of fold sections, an interior panel extending downwardly from one of the top panels and having a glue flap depending therefrom secured to the bottom panel, a second glue flap extending downwardly from the other top panel and secured in face-to-face contact with a portion of the interior panel so that both glue flaps resist loosening when the pairs of fold sections of the top panel are folded inwardly into the carton, said pairs of fold sections being defined by pairs of bowed transverse fold lines in the top panels and a transverse cut line intermediate each pair of said transverse fold lines, said transverse fold lines in each of the pairs thereof communicating with the lateral extremities of the transverse cut lines, the central portion of each transverse fold line comprising a cut line having a contour such that the central portion of each top panel between proximate transverse fold lines extends longitudinally of the carton over each cell formed within the boundaries of the aforementioned panels when the fold sections are folded downwardly and inwardly into the carton.

**2,775,392**
**DISPLAY CARTON**
**William P. Frankenstein, Cincinnati, Ohio**
**Application January 5, 1953, Serial No. 329,586**
**14 Claims. (Cl. 229—36)**



1. A blank for forming a display base for a display package comprising a display panel having length and breadth and a given area, a base panel having length and breadth but of less area than the area of the display panel, a first pair of panels integrally hingedly connected to one another of a length equal to, at least, the length of the base panel, one of said panels being integrally hingedly connected to one edge of the display panel, the other of said first pair of panels being integrally hingedly connected to one edge of the base panel, a second pair of panels integrally hingedly connected to one another with one of said second pair of panels integrally hingedly connected to the opposite edge of the base panel, said panel integrally hingedly connected with the display panel being adapted to overlie said display panel and secured in said position, and said remaining panel of said second pair of panels having one end free and having length and width and an area greater than the area of the base panel but of less area than the area of the display panel and being adapted to overlie the display panel with its free end disposed between the display panel and its integral first mentioned overlaid panel and be secured to the display panel.

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**2,775,393**
**COLLAPSIBLE ASSEMBLY FOR BOX STRUCTURES**
**E. Melvin Rugg, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey**
**Application November 15, 1954, Serial No. 468,817**
**1 Claim. (Cl. 229—41)**



A collapsible wall assembly for boxes, comprising a plurality of side walls disposed in rectangular relation, said side walls having hinged corner connections to provide a structure having oppositely disposed open ends, two of said side walls disposed in opposed relation comprising separate panels, each panel having adjacent edge portions extending substantially parallel to the corner connections, a hinge member connecting the adjacent edge portions of the panels of each side wall whereby the said panels may be hingedly moved inwardly for collapsing said structure, corner supports for said structure comprising triangular-shaped tubular members disposed in the corners of said structure and coextensive with the side walls, said tubular members each having a first wall connected to a panel and a second wall connected to an adjacent side wall, the first and second walls of the tubular members being hingedly connected, a third wall on each tubular member, said third wall including wall sections hingedly connected to the first and second walls, said sections having inner surfaces disposed within the tubular members, and means hingedly connecting said sections together, all of said hinged connections being substantially



parallel to each other whereby said corner supports may be positioned in flat collapsed relation with the inner surfaces of said sections in contiguous contact during collapse of said structure.

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**2,775,394**
**COMPOSITE CAN WITH QUICK-OPENING SIDE WALL**
**Alexander H. Lasso, Jr., Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York**
**Application February 1, 1954, Serial No. 407,374**
**8 Claims. (Cl. 229—51)**



1. A composite can with a top and a bottom and having a single ply of paper board or like material having the ends overlapped and sealed together at their edges with an intermediate adhesive coating to form a continuous side seam, the outer surface of the underlying end of the ply being scored inwardly along inclined lines spaced from said seam to form a tab which may be torn away from the ply intermediate the inner and outer surfaces thereof to the edge of the ply under the side seam.

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**2,775,395**
**COMPOSITE CAN WITH QUICK-OPENING LAP SEAM**
**Harold A. Bergstrom, Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York**
**Application March 22, 1954, Serial No. 417,865**
**6 Claims. (Cl. 229—51)**



1. A composite side-opening can with a top and a bottom and having a side wall of paper board or like material comprising an inner ply and an outer ply coextensive therewith, said plies being joined together at their ends only, and overlapping at the end of a single convolution, the outer ply at that point being cemented to the inner ply of the opposite end to form a continuous four-ply side seam, the outer ply being transversely scored at a point inwardly of the cemented end for guided severance and parting of the seam between the severed end of the outer ply and the underlying end of the inner ply.

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**2,775,396**
**MAILING ENVELOPE**
**Joseph Lindner, Cincinnati, Ohio**
**Application November 12, 1953, Serial No. 391,521**
**1 Claim. (Cl. 229—73)**



An envelope construction consisting of a mailing envelope having a front wall with a window opening therein, a rear wall connected to said front wall along a side edge thereof, said rear wall at least having a designated space on the inner surface thereof for a statement, a neck portion connected to the remaining side edge of said front wall, and a return envelope having front and rear walls connected to said neck portion along a line for severance, the front wall of the return envelope being integrally connected to said neck portion along the said line for severance, the rear wall of said return envelope comprising a separate panel member having an attachment flap adhesively secured to the front wall of said return envelope immediately adjacent the said line for severance, said return envelope and said neck portion being foldable to overlie the inner surface of the front wall of said mailing envelope, said return envelope having a designated return address space on the rear wall thereof adapted to be juxtaposed to the window opening in the front wall of said mailing envelope to provide an address for the mailing envelope, the front wall of said return envelope having a designated space thereon for the address of the sender, said neck portion serving, when infolded along its line of connection to the front wall of said mailing envelope, to space the said line for severance inwardly from the side edge of said mailing envelope front wall, and a mating line for severance in the front wall of said mailing envelope coinciding in the folded structure with the line for severance between said neck portion and said return envelope, the front wall of said mailing envelope having end flaps at the ends thereof including lines for perforation formed in prolongation of the lines of perforation in the said front wall, and an attachment flap connected to the free side edge of said mailing envelope rear wall along a line for severance, said attachment flap having adhesive on the inner surface thereof for securing said flap to the said neck portion when the parts are juxtaposed, thereby bringing all of said lines for severance into coinciding relationship such that the mailing envelope may be opened by tearing the structure along a single line, said structure being otherwise free from lines of severance.

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**2,775,397**
**ENWRAPMENT WITH REINFORCEMENT**
**Clarence W. Vogt, Norwalk, Conn.**
**Application August 28, 1951, Serial No. 243,955**
**2 Claims. (Cl. 229—87)**



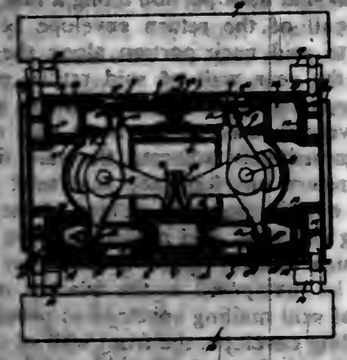
1. As an article of manufacture, flexible sheet material having sides and ends, a strip of reinforcing material thicker and stiffer than said sheet material secured to the latter and extending from side to side of said material at about its mid-portion, said strip having a mid-portion corresponding substantially in shape and dimensions to a side face of the article to be wrapped in said sheet material and end portions to overlap the ends of said article and cuts in said sheet material extending inwardly from the sides thereof adjacent at least one edge of each of the end portions of said strip and offset outwardly to one side of and immediately adjacent to the end portions of the strip.

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**2,775,398**
**FREE-PISTON COMPRESSOR**
**Erich Anton Warbanoff, Frankfurt am Main Fechenheim, Germany**
**Application February 18, 1952, Serial No. 272,019**
**Claims priority, application Germany March 28, 1951**
**15 Claims. (Cl. 230—56)**

1. Two-cylinder, free-piston compressor, characterized by the arrangement of two opposed-piston systems ar-

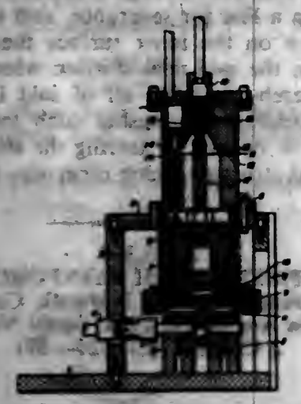
ranged with their axes substantially parallel and working in counter-stroke, whose operation in counter-stroke is effected by coupling arrangements in the form of double-armed rockers oscillating on fixed axes and connecting



the pistons in pairs, which coupling arrangements are synchronized by mutually engaged toothed segments one fixed to each rocker and each directly engaged with the other.

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2,775,399
MERCURY BELLOWS PUMP
Eugene S. Robbins, Arthur C. Brinsmaster, and Berthus H. McMaster, Los Alamos, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application August 19, 1955, Serial No. 529,592
3 Claims. (Cl. 230—95)

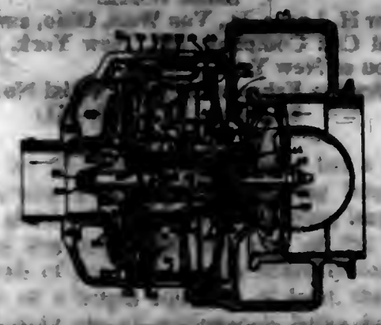


1. A gas transfer pump comprising in combination a bellows, a plug attached to and sealing one end of said bellows, a valve head sealed to the other end of said bellows, said valve head containing a gas inlet and gas outlet and a transfer chamber, said outlet being located higher than said inlet, said transfer chamber communicating with said other end of said bellows, valve means for controlling the flow of gas through said outlet and inlet, means attached to said plug for actuating said valve means, a quantity of liquid in said bellows, means for moving said bellows and plug with respect to said valve head whereby the liquid within said bellows is forced into said gas transfer chamber and said valve means is actuated to control the flow of gas through said chamber.

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2,775,400
TURBINE DRIVEN FAN UNIT
Eugene S. Cox, Palos Verdes Estates, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application September 8, 1952, Serial No. 308,450
6 Claims. (Cl. 230—116)

1. In a power driven fluid circulating unit: a casing including a turbine end section, a main fan end section and a chamber for lubricant; a bearing structure including spaced bearings and having a passage for circulation of a cooling fluid, said passage having an inlet, and outlet in communication with the casing exterior; means for lubricating said bearings; a rotor structure including a shaft rotatably mounted in said bearings, a fan carried by one end of said shaft and positioned in said fan end section, and a turbine wheel carried by the other end of said shaft; an inlet chamber contained in said turbine end section for supplying an actuating fluid to said wheel; a bleed connection between said inlet chamber and the



inlet of said passage for conducting turbine actuating fluid to said passage for cooling the bearing structure independently of the lubricating means; a valve in said bleed connection actuated in an opening direction by pressure of fluid from said inlet chamber; and means biasing said valve to closed position, said biasing means being adjustable to enable valve opening at a predetermined pressure of actuating fluid in said inlet chamber.

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2,775,401
FOUNTAIN BRUSH
Fred O. Sterry, Huntington Park, Calif.
Application May 26, 1952, Serial No. 290,937
1 Claim. (Cl. 299—169)



A valve for a fountain brush comprising a body provided with a bore, said body having a seat at one end of the bore and a recess at the other end of said bore, a stem slidable in said bore, a valve member at one end of said stem coacting with said seat, a spring pressed head provided at the other end of the stem and disposed in said recess, a dome shaped resilient cover secured to said body and extending over said recess, said cover overlying said recess in said body and forming an air chamber, said cover having a vent aperture therein for venting said air chamber, said cover being depressible and deformable to engage and depress said head, said vent aperture being in alignment with said head so that said vent aperture will be closed upon depressing said cover and said head, said cover when depressed with said vent aperture closed forcing the air in said chamber through said bore, said head extending upwardly from said recess and providing a closure for said aperture when said cover is depressed.

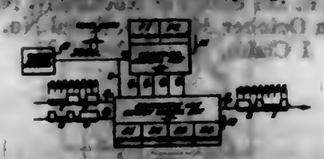
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2,775,402
CODED DECIMAL SUMMER
Eric Weiss, Los Angeles, Calif.
Application May 26, 1951, Serial No. 228,235
12 Claims. (Cl. 235—61)

10. A summing circuit for generating an outgoing coded decimal number which is the sum of a pair of incoming



coded decimal numbers comprising: a pair of inputs, each serially sensing binary signals representing said incoming numbers, a group of four binary signals on an input representing each of the decimal digits of said number, each of the binary signals in a group weighted to represent components of the decimal digit; a plurality of bistable state circuits; a first circuit means for registering information in said bistable state circuits concerning the combined weight count of the first three binary signals in the groups



representing the same order decimal digits of the incoming numbers; an output; a second circuit means responsive to the last two binary signals in said groups and the registered information in said bistable state circuits for deriving a group of binary signals to be fed on said output, said latter group representing the decimal digit of the outgoing number; and a third circuit means for registering in said bistable state circuits the last two signals in the output group prior to impressing them onto said output.

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2,775,403
SIGN DETECTION MEANS FOR "CRAWL" CARRY REGISTERS
George V. Hall, East Orange, and Walter S. Oliva, Summit, N. J., assignors to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Continuation of application Serial No. 255,645, November 9, 1951. This application October 3, 1952, Serial No. 313,012
7 Claims. (Cl. 235—61)



1. In a register including an ordinal series of numeral wheels and crawl tens transfer mechanism between said wheels; the combination of electric signaling circuit means, said circuit means comprising, a source of electrical power, two electrical conductor means each connected to an opposite side of said power source, switching means associated with each of said wheels, the switching means associated with the highest order wheel being connected to one of said conductor means, each switching means operable to make a first connection to the next lower order switching means to serially connect the successive lower order switching means with said one conductor means, and each successive lower order switching means operable to make a second connection from the second conductor means to said first connection from the next higher order switching means thereby completing a circuit, and an electroresponsive device in said circuit; with a switch controlling device operable by each of said wheels upon movement in a given direction from a first range of registration extending over a plurality of digital values to a zero control range of registration between 1 and 9 registering positions to control the operation of the associated switching means to make said first connection, upon movement from said zero range to a third range of registration extending over a second plurality of digital values to make said second connection, and upon movement from said third range to said first range of registration to break said first and said second connections.

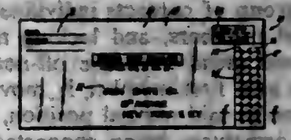
2,775,404
NAVIGATIONAL COMPUTERS
Harold R. Lehr, Chicago, Ill., assignor to United Air Lines, Inc., Chicago, Ill., a corporation of Delaware
Application August 12, 1954, Serial No. 449,476
16 Claims. (Cl. 235—61)



1. A computer for the solution of navigation problems comprising a plurality of cooperating discs mounted on a common central axis, said discs rotatable with respect to each other, a first one of said discs having a logarithmic numerical scale thereon, and a second one of said discs having logarithmic trigonometric function scale means thereon, said scales being in side by side relationship capable of cooperating in slide rule fashion to resolve known navigational data into certain trigonometric components, one of said discs having rectilinear grid means thereon, indicia on said rectilinear grid means bearing a predetermined relationship to said trigonometric components whereby other navigational computed data is readable directly on said grid means as the measured length and direction of the hypotenuse of a right triangle whose legs correspond to said trigonometric components as set up on said grid means.

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2,775,405
CODED ENVELOPE TO FACILITATE SORTING
Louis Pastor, New York, N. Y.
Application August 18, 1953, Serial No. 374,954
1 Claim. (Cl. 235—61.12)



A business reply envelope, comprising rectangular front and rear paper sheets, an adhesive layer secured to one end portion of one of said sheets at the inner side thereof to form a relatively stiffened strip portion, and a rectangular card inserted between said sheets and secured to said adhesive layer to reinforce said stiffened portion, said card being unattached to the other of said sheets so that the entire interior of the envelope defined by said sheets is open and available for use, said one sheet bearing coded marks at the exterior thereof along said stiffened portion, said marks being scannable by photosensitive means.

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2,775,406
ODOMETER
Henri Redmer, Neuilly-sur-Seine, France
Application October 24, 1952, Serial No. 316,620
Claims priority, application France March 3, 1952
6 Claims. (Cl. 235—97)

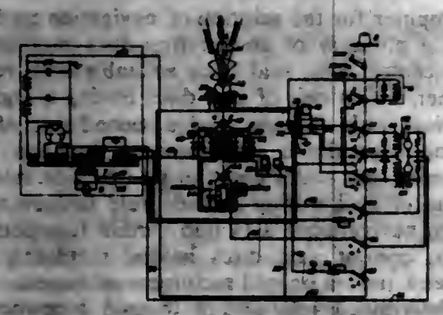


1. An odometer for vehicles and the like, comprising a trip totalizer and a general totalizer, each totalizer

comprising a plurality of drums, a first member for supporting the drums of said trip totalizer, a second member for supporting the drums of said general totalizer, and one-way friction means for connecting said two members together whereby said connecting means is effective in one direction of rotation only.

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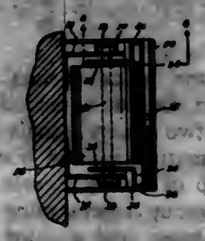
2,775,407
**DRIVING AND BRAKING SYSTEM FOR REELING MECHANISM**
Stanley J. Elliott, Summit, N. J., Frank M. Thomas, Port Washington, N. Y., and Osborn C. Worley, Whippany, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 15, 1953, Serial No. 361,702
4 Claims. (Cl. 242—55)



1. A reeling apparatus comprising a pair of reels, a flexible element disposed on said reels in such manner as to be transportable from either one to the other of said reels, a motor coupled to one of said reels, another motor coupled to the other of said reels, each of said motors comprising an armature, said armature having two terminals, a source of potential, a first impedance, a second impedance, a switch including a first contact actuating member having a normal position and first and second off-normal positions, a second contact actuating member having off-normal positions corresponding to those of said first member, a group of contacts individually associated with each of said members, and locking means for retaining said second member in the off-normal position it occupies when said first member is moved from said off-normal position to said normal position, one terminal of each of said armatures being connected to contacts associated with said second member, the other terminals of said armatures and one terminal each of said impedances being connected to a common point, the other terminal of each of said impedances being connected to contacts associated with said first member, said contacts being disposed in such relative positions by the contact actuating members associated therewith that when said switch is operated to an off-normal position the armature of one of said motors is connected to said source of potential to energize said motor and thereby impart motion to said flexible element, and the armature of the other of said motors is shunted with said first impedance whereby said other motor operates as a braking generator driven by said flexible element, said shunting impedance being of such value as to maintain the tension of said flexible element at the level required to prevent the rupture and throwing thereof while being transported, and when said switch is operated to its normal position from said off-normal position said source of potential is disconnected from said one motor, the armature of said motor is shunted with said second impedance and the armature of said other motor is short-circuited, both of said motors thereby operating as braking generators to differentially brake the reels coupled thereto, said shunting impedance being of such value as to maintain the tension of said flexible element at the level required to prevent the rupture and throwing thereof during the braking operation, the presetting of said second switch member in the braking position conditioning said apparatus in such manner as to maintain the tension of said flexible element at the level required to prevent rupture and throwing thereof while switching from the transporting operation to the braking operation.

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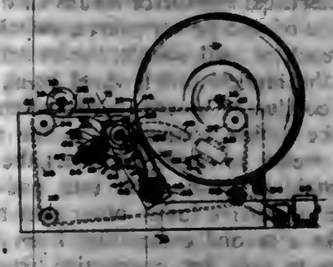
2,775,408
**TOILET TISSUE ROLL COVER**
Lewis E. Du Bon, Far Rockaway, N. Y.
Application October 30, 1953, Serial No. 389,420
1 Claim. (Cl. 242—55.2)



A toilet tissue cover comprising in combination, a pair of separate horizontally spaced angular metal plate brackets adapted to be secured to a supporting wall, said brackets having outwardly pressed socket portions adjacent their outer ends for receiving the ends of a roller member of a roll of tissue, a detachable cover for a supported roll of tissue including semi-circular end walls and an arcuate-shaped central wall connecting said end walls, said central wall having a lip depending from one end thereof, angularly shaped brackets secured at one end to the end walls of the cover and being disposed inside and in overlapping relation with the wall brackets, said angularly shaped brackets having notches in one edge thereof opening downwardly and being disposed at an angle to the vertical to detachably seat the angular brackets on the roller member of a roll of tissue for detachably holding the cover over a supported roll of tissue.

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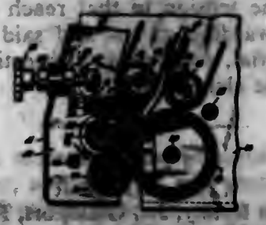
2,775,409
**WEB ROLL REPLENISHER**
Anthony W. Pomper, Piscataway Township, Middlesex County, N. J., assignor to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey
Application February 10, 1953, Serial No. 336,035
17 Claims. (Cl. 242—58)



1. The method of accelerating a new roll of web material for attachment to a web traveling from an expiring roll comprising passing the traveling web over a rigid splicing roll, driving the splicing roll at a peripheral speed equivalent to the web speed, mounting the new roll for initial free rotation, advancing the mounted new roll rectilinearly into tangential contact with the portion of the travelling web supported on said splicing roll, rapidly increasing the contact pressure sufficiently to accelerate the new roll from zero to a peripheral speed equivalent to the web speed in slightly less than one revolution of the new roll, and moving the remainder of the new roll when nearly depleted in the same rectilinear path over the splicing roll to the expiring roll position.



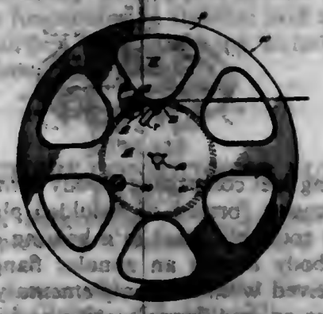
2,775,410
**APPARATUS FOR WINDING LIMP MATERIAL INTO CORELESS ROLLS**
Morris A. Schwartz, North Plainfield, N. J., and Harland S. Fisher, Wilmette, Ill., assignors to Johnson & Johnson, a corporation of New Jersey
Application March 29, 1952, Serial No. 279,274
3 Claims. (Cl. 242—66)



1. Apparatus for winding limp material into a coreless roll, including a pair of opposed frames, a series of parallel rolls arranged one in one frame and the others in the second frame and defining a convoluting chamber, means for rotating all said rolls in the same direction so that limp material entering endwise into the chamber is rolled upon itself by such rotation of the rolls, means associated with one of said frames, including devices positively driven in a direction opposed to the direction of rotation of said rolls for guiding said material into the convoluting chamber, said second mentioned frame being mounted for pivotal movement relatively to the first mentioned frame to enlarge automatically the convoluting chamber to accommodate the material as it is rolled upon itself and to permit discharge from the convoluting chamber of the completed roll, and means mounted coaxially with the pivot of the second mentioned frame and from which the rolls in said frame are driven.

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2,775,411
**REEL CONSTRUCTION**
Chester J. Tellon, Mount Prospect, Ill., assignor to The American Molded Products Company, Chicago, Ill., a corporation of Illinois
Application December 21, 1953, Serial No. 399,392
7 Claims. (Cl. 242—76)



1. A reel comprising two hollow cylindrical hubs, one of said hubs having a diameter larger than that of the other of said hubs and said hubs being telescoped into closely adjacent concentric relation with each other, each of said hub portions having a face flange at one end thereof, said face flanges being positioned at opposite ends of said concentric hubs at right angles to the longitudinal axes thereof and in parallel relation to each other, the inner small diameter hub having an offset portion extending radially outwardly therefrom and registering with a cut-away portion of the outer large diameter hub, said offset and cut-away portions cooperating to provide a substantially uniform outer peripheral hub surface for said outer large diameter hub, portions of said offset and said cut-away being spaced relative to each other to form an inclined slot extending through both of said hubs, transversely between said face flanges.

2,775,412
**DEMOUNTABLE FILM REEL**
Byron B. Haysworth, Los Angeles, Calif., assignor to Radio Corporation of America, a corporation of Delaware
Application October 16, 1952, Serial No. 315,168
The terminal fifteen years of the term of the patent to be granted has been disclaimed
8 Claims. (Cl. 242—70)



1. A film reel assembly for a driving spindle having a shaft portion comprising a hollow cylindrical hub adapted to be keyed to said spindle shaft portion, a film spool adapted to be keyed to said hub, said hub and spool being symmetrical about a plane through their centers and perpendicular to the axes of said hub and said spool, said hub having tapered annular grooves adjacent the ends thereof, and flanges adapted to be attached to each end of said hub adjacent the ends of said spool, said flanges each including resilient elements and latch members, said latch members having one end of each resiliently urged into one of said grooves at the end of said hub upon which it is mounted, the sides of the end of each latch member and said groove being tapered at an angle to prevent removal of said flanges from said hub by force applied thereto axially of said hub when the ends of said latch members are in said grooves.

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2,775,413
**REEL STRIP-END FASTENER**
Joseph N. Liebman, North Miami Beach, and Thomas Nelson Ryan, Miami, Fla.
Application April 25, 1955, Serial No. 503,521
3 Claims. (Cl. 242—74)



1. In combination with a reel having a hub, a fastener for an end of a flexible strip to be wound about the hub, said fastener comprising a pair of jaws supported within the hub for movement toward and away from each other, a spring acting on the jaws to urge them normally together, and a push-button having a head portion projecting outward from one side of the reel and an inner portion that extends between the jaws and that upon pressing the push-button inward operates to wedge the jaws temporarily apart against resistance of the spring to permit of inserting an end of the flexible strip between the jaws or withdrawing it therefrom.

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2,775,414
**CONSTANT TENSION CONTROL MECHANISM**
Dale B. Rush and William E. Springer, Columbus, Ind., and John R. Thomas, Belmont, and Donald E. Wandy, Medford, Mass., assignors, by mesne assignments, to The Kollsman Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio
Application July 9, 1953, Serial No. 367,942
5 Claims. (Cl. 242—75)

1. Means for automatically controlling the rate of rotation of a storage roll for flexible material comprising,

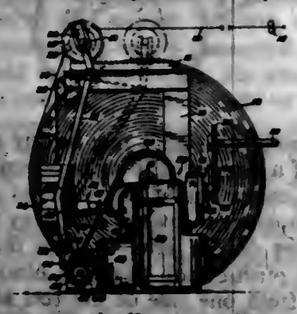
in combination with such a roll, a length of flexible material wound on said roll, means for forwarding said material substantially in a plane at constant linear velocity, a differential gear including a first input element, a second input element, and an output element, means connecting input elements to control the speed of said output element in accordance with the differential between the speeds of said input elements, rotary means driven at a constant ratio with respect to said forwarding means, constant-ratio drive means connecting said rotary means to drive said first input element, variable-ratio drive means connecting said rotary means to drive said second input element, an arm mounted for oscillation



about a fixed axis in a common plane with the axis of said roll, means operatively engaging said arm and bearing against the inner surface of said material at a point within the sector defined between the current point of tangency of said material with the effective surface of said roll and a plane including the axis of said roll and normal to the plane of movement of said material, means yieldably urging said arm away from said normal plane and toward said current point of tangency, means connecting said arm to vary the ratio of said variable-ratio drive means in response to movement of said arm, and means providing a driving connection between said output element and said roll.

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2,775,415
TENSION-DOMINATED CONTROL
Dale B. Rush and William L. Springer, Columbus, Ind., assignors, by mesne assignments, to The Reliance Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio
Application July 9, 1953, Serial No. 367,644
9 Claims. (Cl. 242—75)



1. Means for automatically controlling the rate of rotation of a storage roll for flexible material comprising, in combination with such a roll, a length of flexible material wound on said roll, means for forwarding said material relative to said roll, rotary means driven at a constant ratio with respect to said forwarding means, a variable-speed transmission driven by said rotary means, said transmission comprising an input shaft connected to be driven from said rotary means, an output shaft, a pulley on each of said shafts, belt means providing a driving connection between said pulleys, at least one of said pulleys being an expansible V-pulley, and an element shiftable oppositely to vary oppositely the effective diameter of said V-pulley and thus to vary oppositely the output speed of said transmission, a worm driven from said transmission output shaft, a worm wheel driven by said worm and connected to drive said roll, an arm mounted for oscillation about a fixed axis in a common plane with the axis of said roll, means operatively engaging said arm and bearing against the inner surface of said material at a point within the sector defined between the current point of tangency of such material with the effective surface of said roll and a plane including the axis of said roll and normal to the plane of movement of said material, means yieldingly resisting movement of said arm in response to an increase in the tension in that reach of the material between the forwarding means and said means bearing against the material, and means connecting said arm to shift said shiftable element.

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2,775,416
COIL HOLDER
John Kyuby, Jr., Glenwood, Pa.
Application May 6, 1955, Serial No. 506,489
2 Claims. (Cl. 242—78)



2. A wire retaining device for use with a high speed wire drawing apparatus comprising a plate having two circular sector portions interconnected by a central ring portion, and spaced pairs of flanges secured to said sector portions and extending downwardly normal thereto, said ring portion having a centrally disposed aperture therethrough, each of said sector portions having at least one aperture therethrough, said apertures receiving upper ends of block extension pins of the wire drawing apparatus.

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2,775,417
FISHING REEL
Benjamin E. Pruzaid, Chicago, Ill., assignor to Kleinway, Inc., Chicago, Ill., a corporation of Illinois
Application October 13, 1953, Serial No. 386,845
2 Claims. (Cl. 242—84.4)



2. A fishing reel comprising a body formed of moulded plastic, a housing formed of moulded plastic having an annular hub rotatably fitted in a bearing opening of said body, said body having an annular flange around said opening received within a complementary recess in said housing, a lug on said flange bearing against said housing in said recess to minimize bearing area between the housing and flange, a pinion gear formed of moulded plastic having a hub keyed to said annular hub, a line-storing spool supported by said body forwardly of said housing, means on said housing for winding line on said spool, and gear means carried by the body and operatively connected to said pinion gear for rotating the same.

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2,775,418
FISHING REEL ARBOR
William L. Clabaugh, Bronson, Mich., assignor to Higbie Manufacturing Company, a corporation of Michigan
Application November 4, 1952, Serial No. 318,707
1 Claim. (Cl. 242—119)

A pair of arbor sections for a shaft having convex end flanges, each of said sections comprising a substantially semi-cylindrical shell forming an outer material supporting wall with internal web structure for reenforcing the section and providing means for bearing against a shaft, means on each of the bearing means for keying each section to a shaft, means for securing the sections about a shaft to form an arbor therefor, the outer wall of each section having a slot therein for



receiving a line material so as to assist in securing the sections together, and each of said sections also having substantially identical concave end walls which are equally spaced from the center of the section and adapted to receive portions of the convex end flanges on the shaft so as to prevent recession of a line material between the end walls and end flanges.



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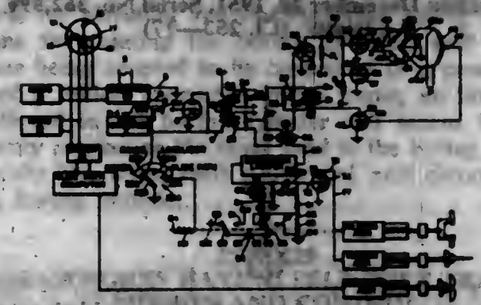
2,775,419
FRACTIONAL ASPECT RATIO AIRCRAFT
Josef S. J. Hlobil, Santa Monica, Calif.
Application January 26, 1952, Serial No. 268,373
9 Claims. (Cl. 244—35)



4. An aircraft comprising: a single wing, said wing comprising a single airfoil having a fractional aspect ratio of a value not greater than one-third, said wing providing an aerodynamic lift force for said aircraft; a pair of side airfoils affixed to the respective sides of said wing, said side airfoils extending above and below the upper and lower surfaces of said wing airfoil respectively, being substantially parallel to but slightly diverging to the rear symmetrically with respect to the vertical plane of the major longitudinal axis of said wing, and diverging upwardly symmetrically with respect to said major axis, said side airfoils functioning to stabilize said aircraft and to restrict the airflow over said wing airfoil to a substantially two-dimensional flow.

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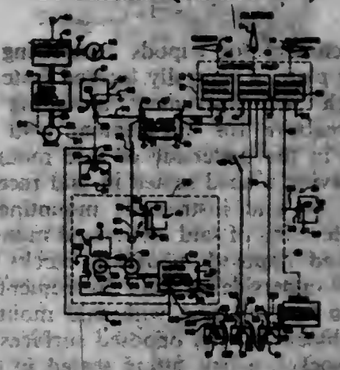
2,775,420
BEAM CHANGE PRE-CONDITIONER AUTOMATIC PILOTS
Charles R. Bell, Ruggenfield, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application January 23, 1952, Serial No. 267,829
11 Claims. (Cl. 244—77)



1. In an automatic pilot responsive to various signal conditions for controlling the flight surfaces of an aircraft, comprising means to insert a signal condition on said automatic pilot and then to insert a different signal condition on said automatic pilot, and a means operatively connected with said inserting means and operable to block the control of the flight surfaces including a means connected with said last named means for gradually overcoming said blocking operation to allow control to be resumed upon change from one signal condition to another.

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2,775,421
FLIGHT PATH CONTROL APPARATUS
David L. Markusen, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application January 28, 1952, Serial No. 268,481
14 Claims. (Cl. 244—77)



1. Flight path control apparatus comprising, in combination: means for giving a first signal in accordance with lateral deviation of a craft from a desired path; means for giving a second signal in accordance with the angular deviation of the craft from a desired roll attitude; motor-generator means connected to both the above named means for integrating the sum of said first and second signals to give a third signal; and means connected to said motor-generator means and to the first named means for changing the heading of the craft in accordance with the joint effect of said third and first signals.

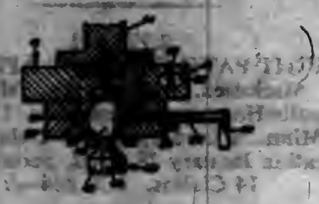
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2,775,422
COMBINATION HANGER AND CLAMP
Robert W. Von Herbulis and Carl L. Von Herbulis, Sanford, Fla.
Application May 13, 1954, Serial No. 429,505
4 Claims. (Cl. 248—63)



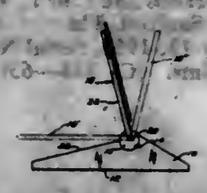
1. A combination hanger and clamp for supporting a high voltage electric cable from a high voltage insulator comprising an elongated hanger body, means to secure one end of the hanger body to the insulator, a hook formed in the other end portion of said body providing a hook socket portion, a lever pivotally mounted on an axis adjacent the extremity of the hook socket portion, said lever having a laterally extending boss adapted to move in a path across the hook socket portion, a cooperating stop means on said lever and body for limiting the pivotal movement beyond a predetermined angle with respect to said body, a clamping jaw on said lever and having portions extending over said hook socket portion when said jaw is in clamping position, said boss being out of the cable receiving portion of the hook socket position when the lever is pivoted to position said jaw in clamping relation to said hook socket, cooperating means on said lever and said body when said jaw is in clamping position for maintaining said jaw in clamping relation to said socket.

2,775,423
**INSTRUMENT LEVEL**
Albert M. Stone, Wisconsin Rapids, Wis.
Application November 13, 1953, Serial No. 391,947
1 Claim. (Cl. 248—180)



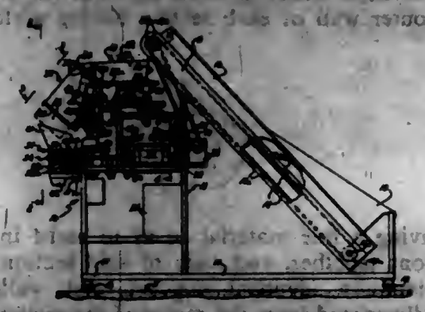
A level attachment for tripods comprising an instrument mounting plate, a centrally located fastener extending up through said instrument mounting plate and projecting thereabove for engagement with an instrument, a recess in the underside of said mounting plate, said fastener having a head seated in said recess, leveling means carried by said instrument mounting plate for facilitating the leveling of said instrument mounting plate, a pair of spaced opposed mounting blocks removably secured to the underside of said instrument mounting plate in face to face relation with said mounting plate, said mounting blocks having opposed surfaces forming a ball receiving socket, a ball fitting seated in said socket and being retained therein by said mounting blocks, said ball fitting having means for attachment to a tripod, said ball fitting directly underlying said fastener and preventing access to said head, another fastener adjustably carried by one of said mounting blocks clampingly engaging said ball fitting.

2,775,424
**ADJUSTABLE DISPLAY EASEL**
Carl C. Harris, Orange, Mass., assignor to The Stencil Co., Orange, Mass., a corporation of Massachusetts
Application September 19, 1952, Serial No. 310,454
7 Claims. (Cl. 248—195)



1. A device adapted to display clip-bearing articles with a minimum danger of loss due to thievery in any of a plurality of adjusted angular positions, said device comprising a base having a flat face adapted to rest upon a counter or shelf, a shaft rotatably mounted upon said base about an axis parallel to the plane of said support face, a generally flat relatively flexible display card fixed to said shaft in a plane parallel to the axis of rotation thereof, means coacting between said shaft and said base for retaining said shaft in its adjusted position relative to said base, said display card being formed with a rectangular aperture upon the lower edge of which clip bearing articles may be clipped for display purposes on said display card, an imperforate projection extending completely along the top edge of said aperture and projecting from one side of the display card so as to overlie said clip bearing articles attached upon said lower edge to prevent direct upward removal of said articles, said display card being formed of a deflectable material whereby, when pressure is inwardly applied adjacent said lower edge from said one side of said card, said lower edge will be deflected away from said one side sufficiently to permit removal of said articles through said aperture.

2,775,425
**WEIGHING AND BAGGING MACHINE**
Earl H. Engvall, Minneapolis, Minn.
Application October 18, 1954, Serial No. 462,713
4 Claims. (Cl. 249—46)



4. A machine for measuring and segregating accurately weighed quantities of a material composed of a mass of individual articles, said machine having in combination a scale mechanism including a weighing receptacle having inlet and outlet portions, a multi-speed material-feeding conveyor having a discharge end above the inlet end of said receptacle and discharging material therein, an outlet gate swingably mounted in the outlet portion of said receptacle, a shiftable inlet gate associated with the inlet portion of said receptacle and being inclined upwardly and outwardly from the discharge end of said conveyor in closed position, linkage mechanism interconnecting said gates for opening and closing the same, said outlet gate being in closed position when said inlet gate is in open position, actuating mechanism associated with said linkage mechanism for shifting the same, weight-responsive control means operatively associated with said scale mechanism and with said actuating mechanism and constructed and arranged to cause opening of said outlet gate when a predetermined quantity of material is contained in said receptacle, time-responsive control means operatively associated with said actuating mechanism and constructed and arranged to cause closing of said outlet gate after a predetermined time delay subsequent to the opening thereof, and weight-responsive control mechanism connected in controlled relation with said scale mechanism and in controlling relation with said conveyor, said control mechanism being constructed and arranged to cause high speed operation of said conveyor when less than a predetermined fraction of the quantity of material to be weighed is contained in said receptacle.

2,775,426
**BLADE STRUCTURE**
Lawrence D. Barrett, Jr., Glen Mills, Pa., and John R. Dennis, Bedford, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 20, 1951, Serial No. 262,596
2 Claims. (Cl. 253—77)



1. As a new article of manufacture, a blade structure of the type set forth including a plastic vane core and a metallic root core disposed in end-to-end abutting relation, a plastic covering for said vane and root cores, and a metallic shell enclosing and confining the cores and the plastic covering.



2,775,427
**SAMPLE RECEIVING PROJECTILE FOR SIDE WALL CORE SAMPLER**
Vincent Dembicki Lewis, Beaumont, Tex.
Application January 17, 1955, Serial No. 559,746
1 Claim. (Cl. 255—1.4)



In an instrument for taking samples of earth formations from the side walls of well bores, a sample receiving projectile capable of being shot from the instrument whereby it is forced into an adjacent formation, the projectile comprising an open ended tubular body, an inner lining consisting of a split sleeve received in the body and capable of receiving a sample of the material of the formation, upon firing the projectile, the sleeve being made of spring steel and being capable of being expanded, due to its inherent resilience, upon removing the sleeve from the body with the sample contained therein, whereby the sleeve is substantially disengaged from the sample and the sample may be recovered in one intact, unaltered piece, an annular closure member detachably connected to one end of the body, the adjacent ends of the body and the sleeve being received in an internally enlarged end portion of the closure member, the body and the closure member having mutually aligned annular grooves formed in the adjacent surfaces thereof, and a split O ring received in the annular grooves, the O ring being made of spring steel and being capable of being expanded, due to its inherent resilience, whereby it is disposed partly in one of the grooves and partly in the other, the depth of the groove formed in the body being such that the O ring, upon being compressed, may be disengaged from the groove formed in the closure member whereby the closure member may be detached from the body.

2,775,428
**TREE AND SHRUB FIELD BALLING MACHINE**
Carl Monthan, Tucson, Ariz.
Application May 19, 1953, Serial No. 355,983
5 Claims. (Cl. 255—19)



2. A tree and shrubbery removing device comprising a horizontally disposed frame, a vertically positioned boring cylinder mounted to travel vertically in the frame, means for elevating and lowering said boring cylinder, means for rotating the boring cylinder, said rotating means being adapted to be connected to a power take-off of a vehicle connected to the frame, an inner shell positioned in the boring cylinder and means for temporarily connecting the inner shell to the boring cylinder whereby the inner shell is lowered and elevated with said boring cylinder.

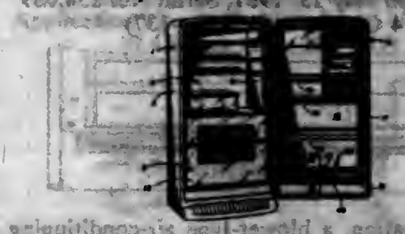
2,775,429
**DRAWWORKS HAVING SELECTIVE TRANSMISSION AND CONTROL**
Albert A. Ashton, Houston, Tex., assignor to Esmco Manufacturing Company, a corporation of California
Application March 26, 1951, Serial No. 217,530
6 Claims. (Cl. 255—19)

1. In a drawworks arranged to be driven from a power delivery means, said drawworks having a drum, a speed change mechanism having input shaft means connected to said power delivery means so as to be driven thereby and first and second speed transmissions; a drum drive connection from said speed change mechanism to said drum, said connection having a clutch; a control for said power delivery means; a movable control member; means defining for said control member first and second paths of movement away from a neutral position and a third path of movement away from one of said other paths of



movement; means responsive to movement of said control member in said first and second paths of movement to respectively actuate said first and second speed transmissions; means acting in response to movement of said control member in said third path of movement to actuate said clutch of said drum drive connection; and means acting in response to further movement of said control member to actuate said control for said power delivery means.

2,775,430
**BEVERAGE CONDITIONER**
Oscar E. Norberg, Cincinnati, Ohio, assignor to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware
Application March 30, 1955, Serial No. 497,904
3 Claims. (Cl. 257—3)

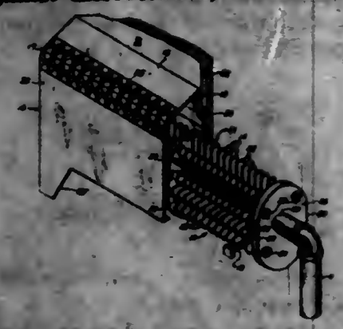


1. In combination, a refrigerator cabinet, a main refrigerated food storage compartment within said cabinet, an evaporator within the lower portion of said compartment, an access door for said compartment, said door having an outer shell, an inner panel of said door spaced from said shell, insulation between said shell and said panel, said panel having a food storage area in open communication with the lower portion of said refrigerated compartment and located adjacent said evaporator, an electrical resistance heating means in thermal contact with said panel contiguous said food storage area, a thermostatic switch in electrical connection with and controlling the operation of said heating means, said switch mounted on a heat-conducting bracket, said bracket being in thermal contact with said panel adjacent said food storage area whereby said thermostat is responsive only to the temperature of said food storage area, said switch having means for varying its response temperature, said last-named means being adjusted by an extension shaft, said panel having a hole therein adjacent said switch, said extension shaft extending through said hole, and a control knob on said shaft.

2,775,431
**BASEBOARD HEATER**
Peter Krzyzowski, Boyertown, Pa.
Application March 24, 1954, Serial No. 418,274
1 Claim. (Cl. 257—153)

A baseboard heater comprising a series of horizontally spaced cast iron disks, each disk having a body member

arranged in abutting relation with a gasket and the body of the next adjacent disk to provide a heater of elongated form, each of said body members having a tapered heat medium passage therethrough, each of said disks further having a plurality of radially disposed spaced apart tapered fins, an end member abutting respective end disks and having a gasket therebetween, said end members being



apertured for reception of tie rods extended between certain pairs of fins of said disks, said tie rods including nuts for securing the disks in assembled relation, one end of said tie rods being formed with left hand screw threads, while the other end of said tie rods are formed with right hand screw threads, and each end member having a threaded axial opening for connection of standard pipe of a heating system.

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2,775,432

**APPARATUS FOR AIR CONDITIONING**

John W. McHugh, Philadelphia, Pa., assignor to John J. Nesbitt, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application July 23, 1951, Serial No. 238,089

4 Claims. (Cl. 257—137)



1. In combination, a blower-type air-conditioning unit adapted for positioning along a wall of a room, said unit comprising a casing having top, bottom, front and end walls, an air inlet adjacent the bottom of said front wall and air outlet means in said top wall and a first heating element therebetween and a blower to blow air from said inlet to said outlet, an elongated convector unit longer than said blower-type unit casing extending laterally outwardly from one of said end walls of the blower-type unit casing and positioned on the face of the wall, said convector unit comprising a housing with a smaller cross-sectional area than said blower-type unit casing with the bottom face spaced above the floor of the room and having openings in the top and bottom faces thereof, a second heating element comprising a closed loop with the upper reach thereof positioned between said first heating element and said air outlet with a portion of said loop extending through said one of said end walls of said casing into said convector unit and spaced from the interior of said convector housing, and common supply and common discharge conduits in said blower-type unit casing for circulating a heating medium to both of said heating elements.

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2,775,433

**FINNED TUBE SPACING SUPPORTS**

William F. Medwary, Tulsa, Okla.

Application August 31, 1953, Serial No. 377,388

2 Claims. (Cl. 257—262.16)

1. In a finned tube for heat exchangers, including a tube portion having a series of radial fins, a radial spacing support forming device, comprising a band of flexible metal encircling a portion of said tube and engaging the peripheral edges of a group of adjacent fins, a central annular channel extending around said band, spaced radially from the peripheral edges of said fins, the meeting edges of said band being interconnected by overlapping,



transverse flanges bent upon one another, and an opening through the web of said channel to facilitate the flowing of molten metal within the band and between said fins, to provide when hardened, a mass of metal extending radially from the tube to the inner face of said web.

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2,775,434

**IMMERSION DEVICES FOR TREATING LIQUIDS**

Clemens Probst, Erlangen, Bavaria, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application April 26, 1952, Serial No. 284,659

Claims priority, application Germany April 28, 1951

2 Claims. (Cl. 259—1)



1. An immersion device for treating liquids, comprising an insulated handle rod, an electric immersion heater of hollow cylindrical shape and a piezoelectric oscillator both joined with said handle and a piezoelectric for joint immersion in the liquid to be treated, said oscillator being surrounded by said heater, and electric conductor means extending through said handle to said heater and said oscillator.

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2,775,435

**CARBURETOR ACCELERATING PUMP WITH GAS VENT**

Fred A. Kemmer, St. Louis, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey

Application January 24, 1952, Serial No. 267,942

7 Claims. (Cl. 261—34)



3. In a carburetor, a throttle, a source of fuel, an accelerating pump including a pump chamber and a guide in said source, a pumping element in said chamber, a stem on said element slidable in said guide, resilient means under control of said throttle for operating said pump, and a vent for said pump comprising a passage within said guide communicating between said chamber and said source, open in one range of positions of said pumping element and closed within another range of positions thereof in response to change in throttle position.



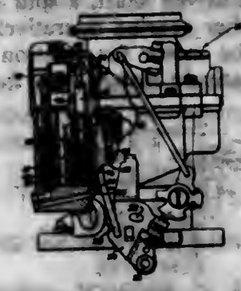
2,775,436

**ACCELERATING PUMP INLET CHECK VALVE CLOSER**

Albert W. Zeh, St. Louis, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey

Application November 23, 1953, Serial No. 393,692

2 Claims. (Cl. 261—34)



2. In an automotive carburetor, the combination of a mixture conduit, a movable throttle in said conduit, an accelerating pump having a piston in a chamber operated in response to opening movement of said throttle, an outlet for said pump in said mixture conduit exposed to suction during high rates of flow therethrough, a pump inlet, and an anti-siphoning type of device for said pump comprising, a valve seat in said pump inlet, a check valve for said seat closed by fuel pressure during the discharge stroke of said pump, a spring abutment surface in said chamber, a spring member supported adjacent said valve for bodily movement toward and from said seat with one end normally supporting said valve in spaced relation to said seat and the other end arranged to be engaged against said abutment surface during the discharge stroke of said piston to compress said spring and retain said valve seated to prevent siphoning action on said pump.

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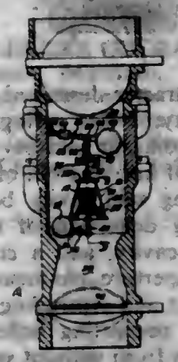
2,775,437

**METERING VALVE FOR A CARBURETOR**

James E. Baker, Jacksonville, Fla.

Application November 19, 1954, Serial No. 476,110

7 Claims. (Cl. 261—62)



1. In a carburetor having an air intake passage, a fuel and air mixing chamber communicating with said passage, and a liquid fuel inlet port between the air intake passage and the mixing chamber, means for preserving a correct ratio of fuel to air entering the mixing chamber, said means comprising a valve mounted in the air intake passage adjacent the port, gravity actuated means mounted within the mixing chamber and operatively connected to the valve for advancing it into closing relation to the port, and means mounted in the air intake passage and operatively connected to the valve for moving said valve against the effort of the gravity actuated means in response to increasing velocity of air passing through said intake passage toward the mixing chamber.

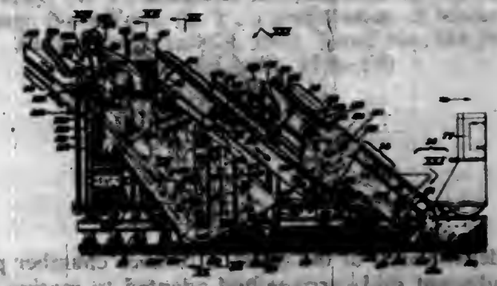
2,775,438

**METHOD AND APPARATUS FOR PROCESSING BALLAST**

Harold H. Bach, Steubenville, Ohio, and Charles L. Towle, Philadelphia, Pa.

Application September 6, 1951, Serial No. 245,292

22 Claims. (Cl. 262—2)



1. Apparatus for removing ballast from the crib between track ties comprising a support movable along the track, a source of pressurized, compressable fluid on said support, pressure fluid directing means carried by said support and connected to said source, said directing means being located inwardly of the rails above the crib and aimed downwardly and outwardly toward the crib, ballast digging means carried by said support outwardly of the tie ends, and ballast collecting means carried by said support outwardly of said directing means and rearwardly of said digging means.

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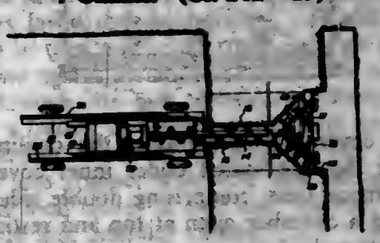
2,775,439

**CUTTER HEAD FOR DRIVING CROSSCUTS**

Timothy F. McCarthy, Indiana, Pa.

Application March 21, 1951, Serial No. 216,707

7 Claims. (Cl. 262—19)



7. In a rotary cutter head having an imperforate conical face, a securing member secured to said cutter head at the apex of said conical face, a drive member secured to said securing member for driving the same, said conical face receding from said securing member and said drive member, said cutter head having spaced cutter bit-carrying means mounted on said conical face, and facing substantially in the direction of said drive member, cutter bits projecting from said cutter bit-carrying means, certain of said cutter bits projecting beyond the periphery of said cutter head for cutting clearance therefor, said cutter bit-carrying means and bits being mounted on said conical face in the form of a conveying spiral, for progressing the cuttings inwardly along said conical face toward said drive member to be carried away thereby during the operation of cuttings.

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2,775,440

**AUTOMATIC BATCH FURNACE APPARATUS**

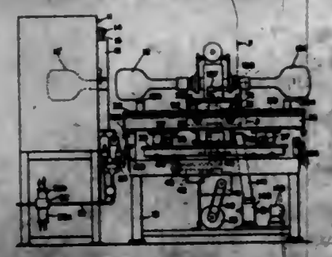
Walter N. Young, Doylestown, Pa., assignor to International Resistance Company, Philadelphia, Pa., a corporation of Delaware

Application March 13, 1953, Serial No. 342,067

5 Claims. (Cl. 263—7)

1. In an apparatus for successively positioning carbon deposition flasks in a furnace chamber the combination of, a supporting base, a turntable rotatably mounted thereon, a carriage translatably mounted on said turntable,

means for independently supporting on said carriage a pair of carbon deposition flasks extending laterally outward in a horizontally angularly spaced relation, the supporting means embodying a rotatable element and means for releasably clamping the neck portion of the flask thereto, means for rotating each of said elements and its



flask independently of the other, a furnace chamber positioned adjacent said carriage and adapted to receive successively therein said flasks, means for rotating said turntable to predetermined angular positions appropriate to presenting the respective flasks to said chamber, and means for translating said carriage to move the corresponding flask into and out of said chamber.

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2,775,441

## COOLING COVER FOR ANNEALING FURNACES

George I. Campbell, Sparrows Point, and Lewis G. Cascio, Lochearn, Md., assignors to Bethlehem Steel Company, a corporation of Pennsylvania

Application February 2, 1953, Serial No. 334,656

1 Claim. (Cl. 263—50)



An outer cover for accelerating the cooling of hot steel strip or the like sealed under inner covers on an annealing furnace base, comprising double side and end walls forming a chamber open at top and resting on the base surrounding the inner covers, vertical buckstays disposed at regular intervals within said side and end walls and defining air circulating passages therebetween, rigid circumferential top and bottom edge members attached to said buckstays, a plurality of open louvres having upwardly inclined vanes positioned near the bottom edges between adjacent buckstays, upwardly directed fans on motors mounted on the side and end walls above the louvres for forcing strong air streams inwardly between and around the inner covers to withdraw heat therefrom, and means for controlling the motor and fan speeds to regulate the rate of heat withdrawal in accordance with a predetermined time period.

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2,775,442

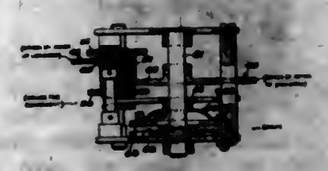
## SPEED REGULATING MEANS

James E. Bevins, Ramsey, and Robert W. Hyde, Englewood, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application March 13, 1950, Serial No. 149,927, which is a division of application Serial No. 588,600, April 16, 1945. Divided and this application October 27, 1951, Serial No. 254,137

1 Claim. (Cl. 264—10)

In a recording aircraft instrument of the character described including a driven chart and print means for effecting substantially continuous impressions on the chart indicative of certain variants affecting flight conditions during a specific period of flight, and further including a motor and a regulator system for the motor for driving the chart at a constant speed so as to move definite lengths of the chart beneath the print means, the regulator system comprising a main driven shaft carrying a brake drum, spring pressed friction means engaging the drum for controlling the speed of the shaft, a pivoted braking lever actuable to vary the pressure of the friction means with the drum, gearing operatively engaging the shaft with the motor, a second driven shaft, a spur gear carried by the second shaft, other gearing operatively engaging the second shaft with the motor for rotation of the second shaft at a speed relatively slower than that of the main



shaft, constant speed control escapement mechanism, an escapement drive gear geared to drive the escapement mechanism and threadedly carried upon the second shaft, a torsion spring about the second shaft and operatively engaging the escapement drive gear with the spur gear, and a hub unitary with the escapement drive gear and having an annular channel in which is tangently received a free end of the braking lever, whereby excessive rotation of the second shaft beyond that of the constant speed of the escapement mechanism is reflected by a winding of the torsion spring and consequent traveling of the escapement drive gear and its hub to vary the braking pressure of the spring pressed means upon the brake drum.

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2,775,443

## CANTILEVER SPRING

Willard L. Zisko, Rochester, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application January 28, 1955, Serial No. 484,859

1 Claim. (Cl. 267—1)



A device of the character described comprising a base provided with a cavity, a flat spring fixed at one end thereof to said base adjacent said cavity and deflectable at the other end thereof into and out of said cavity, and a resilient material filling said cavity beneath said spring for yieldably resisting deflection of said other end of said spring into said cavity, and a cover for said base and provided with an aperture, pin means attached on said other end of said spring and protruding upwardly through said aperture thereby permitting deflection of said end through said pin means from without said base.

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2,775,444

## DAMPENING DEVICES

Harlan A. Hadley, Burlington, Vt., assignor to Metrogram Corporation of America, a corporation of Vermont

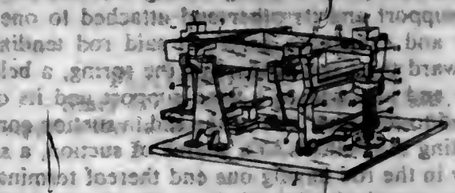
Application December 11, 1951, Serial No. 261,060

14 Claims. (Cl. 267—1)

1. In a weighing mechanism having a lever element and a base element, a dash pot for dampening the oscillations of said lever element, said dash pot comprising a cylindrical member and cooperating therewith a plunger member including a disc spaced from the inner wall of said cylindrical member, said members being mechanically disconnected from each other, one of said members being



rigidly attached to one of said elements, and a spring directly attached at one end to the other of said members for resiliently holding said other member in neutral equi-



librium so as to permit lateral movement of said other member, the other end of said spring being fixed to the other of said elements.

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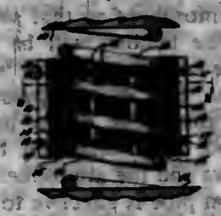
2,775,445

## DAMPENING MEANS FOR LOAD SUPPORTING SPRINGS

Alfred M. Goodloe, Westfield, N. J., assignor to Metal Textile Corporation, Roselle, N. J., a corporation of Delaware

Application August 12, 1955, Serial No. 527,998

5 Claims. (Cl. 267—9)



1. In combination, a load supporting spring and dampening means therefor, said dampening means comprising a plurality of dampener elements disposed in circumferentially spaced relation externally around the spring body substantially parallel to the axis of the latter, each dampener element comprising a rigid back plate, a resiliently compressible pad provided by a compressed and compacted molded body of metallic wire fabric mounted on the inner face of said back plate to bridge across the helices of the spring body, and means to thrust said dampener elements radially inward, whereby to frictionally engage the pads thereof with the helices of the spring body.

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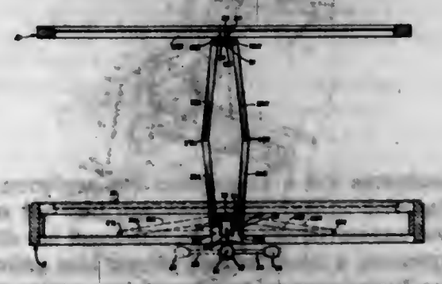
2,775,446

## CLOSURE OPERATOR

Harold L. Stevenson, Mankato, and Dan M. Park, Shakopee, Minn., assignors to Truth Tool Company, Mankato, Minn., a corporation of Minnesota

Application July 7, 1955, Serial No. 520,555

19 Claims. (Cl. 268—104)



1. A closure operator comprising a frame, an arm mounted on an arm pivot on the frame and extending therefrom for swinging movement relative to said frame, a manual member pivotally mounted on the frame for oscillatory rotation through less than one complete turn about an axis generally parallel to but spaced from the arm pivot and link means eccentrically connected pivotally to said manual member and pivotally connected to said arm for swinging the arm as said manual member is rotated, and connection means having freedom of motion about an axis parallel to the arm pivot and in a plane normal to said axis by which said arm may be attached to said closure.

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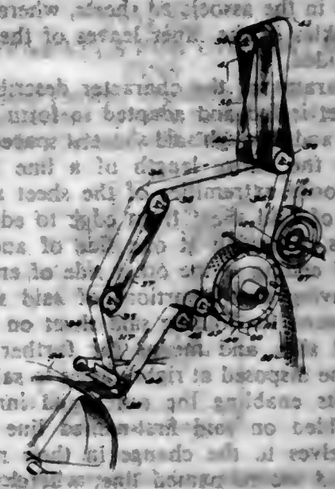
2,775,447

## CAPSULE FORMING GELATIN STRIP HANDLING

Frank E. Stirn, Pearl River, and Arthur S. Taylor, Spring Valley, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application April 27, 1953, Serial No. 351,167

1 Claim. (Cl. 270—52)



An apparatus for turning over and laterally shifting a gelatin strip comprising, two rollers mounted on a horizontal axis, a first roller of said two rollers facing a means for supply, a second pair of rollers mounted above said two rollers, on an axis at right angles to the direction of the axis for the first two rollers, an endless belt of approximately the same width as the working surface of each of said rollers laced over said rollers, one side of the belt contacting in turn one roller from each set of two alternately, drive means for at least one of said rollers, which thereby through the belt, drives all rollers, means for supplying a freshly cast gelatin strip, with the casting surface contacting side of the strip uppermost, and directing said strip into contact with said belt for approximately half of the total travel of said belt, whereby said strip is turned over and laterally shifted.

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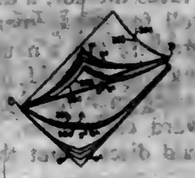
2,775,448

## MACHINE FOR AND METHOD OF FOLDING SHEETS

Leonard Baker, Hillsdale, N. J., and Walter Holmes and Lee C. Williams, Pearl River, N. Y., assignors, by mesne assignments, to Mirable Printing Press & Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application January 24, 1951, Serial No. 207,541

21 Claims. (Cl. 270—85)



1. The method of producing multi-page signatures, which consists in feeding a first unfolded sheet, forming a plurality of short slits in and through said sheet at spaced intervals along substantially the entire length of a transverse line intermediate opposite extremities of the sheet, said slits extending from a point at one side of and adjacent to said line across said line and terminating at a point at the opposite side of and adjacent to said line and being separated from each other by uncut portions of said sheet, feeding a second unfolded sheet and

associating it with said first sheet in register, imparting a first fold to the associated sheets on said transverse line so that the slitted first sheet will be disposed outwardly of said second sheet, and thereafter imparting additional folds successively to the once-folded associated sheets, at least one of said additional folds being at right angles to said first fold, said slits being adapted to weaken said first sheet at said transverse line sufficiently to allow the outer and inner leaves of said first sheet folded on said transverse line to shift relatively and adapt themselves to the change in their relation when said right angle fold is made in the associated sheets, whereby the formation of wrinkles in the inner leaves of the resulting signature is avoided.

8. In apparatus of the character described, means to which a sheet is fed and adapted to form a plurality of short slits in and through said sheet at spaced points along substantially the entire length of a line located intermediate opposite extremities of the sheet and extending transversely of said sheet from edge to edge of the latter, said slits beginning at one side of and adjacent to said line and ending at the other side of and adjacent to said line leaving unslit portions of said sheet between the same, means for folding said sheet on said line and through said slits, and means for further folding said sheet on a line disposed at right angles to said first-named line, said slits enabling the outer and inner leaves of the sheet folded on said first-named line to relatively adapt themselves to the change in their relation when folded on said second-named line, whereby wrinkles in the inner leaves of the resulting signature are avoided.

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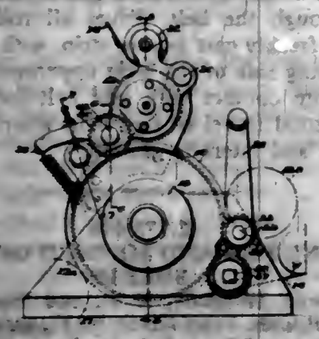
2,775,449

## PAPER FEEDING MECHANISM

Lamio M. Stumpel, Metuchen, N. J., assignor to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey

Application December 16, 1952, Serial No. 326,277

8 Claims. (Cl. 271—2.3)



1. Paper feeding apparatus of the type described including in combination, a large diameter feed roll, bearing blocks for said roll having concentric roll bearings and studs at the inner faces thereof, a disc journalled on each stud, a pressure roll for engagement with the feed roll, bearings for said pressure roll, a hanger fulcrumed to each disc and supporting one of said pressure roll bearings, resilient means biasing each hanger about its fulcrum to urge the rolls toward each other, and means to simultaneously adjust said discs about their stud bearings.

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2,775,450

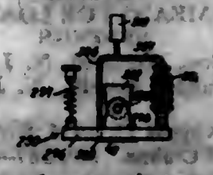
## ALIGNING MEANS TO BE USED IN THE PRODUCTION OF MAGNETIC SOUND RECORDING TAPE

William C. Speed, Riverside, and James J. Dwyer, Stamford, Conn., assignors to Audio Devices, Inc., New York, N. Y., a corporation

Application June 20, 1952, Serial No. 294,634

9 Claims. (Cl. 271—2.6)

1. In apparatus for producing magnetic sound-recording tape and the like, the improvement which comprises a guide rod for the tape disposed across its path of travel during a processing operation, means pivotally supporting the rod adjacent its mid-portion and intermediate the side edges of said path, a spring having one end attached to a fixed support and its other end attached to one end of the rod and exerting a force on said rod tending to move it toward the fixed support of the spring, a bellows having one end attached to a fixed support and its other end attached to the other end of the rod, a suction conduit for connecting the bellows to a source of suction, a small passageway in the rod having one end thereof terminating adjacent the marginal edge of the path of travel of the tape over the rod, a suction conduit connected to the other end of said passageway and to the suction conduit connected to the bellows, the suction conduit connected to said other end of the passageway and the passageway normally providing a path from the suction pipe to the



bellows to the atmosphere so that suction applied to the suction pipe to the bellows will be ineffective to cause contraction of the bellows, whereby when the tape creeps laterally over the end of the passageway terminating adjacent the marginal edge of the path of travel of the tape over the rod, communication between the suction pipe to the bellows and the atmosphere is cut off and suction in that suction pipe is effective to cause a contraction of the bellows with resultant swinging of the rod about its pivotal support, the end of the passageway which terminates adjacent the marginal edge of the path of travel of the tape over the rod being at that side of said path which, when covered by lateral creeping of the tape from its path of travel, will cause the bellows to move the rod about its pivotal support in a direction to cause the tape to move back to its path of travel and to again expose the passageway to atmosphere.

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2,775,451

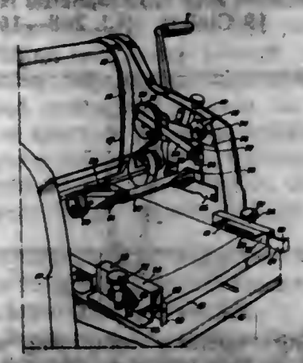
## SHEET FEEDING MECHANISMS

Leonard Walter Styles, Tottenham, England, assignor to Gestetner Limited, Tottenham, London, England, a British company

Application October 13, 1953, Serial No. 385,863

Claims priority, application Great Britain December 12, 1952

3 Claims. (Cl. 271—61)



1. An edge support for a paper stack comprising a frame, a flat substantially vertical pad to engage the edges of the stack, a rigid carrier to carry the pad on the frame for movement in a direction normal to the face of the pad and towards and away from the edge of the stack, a cam-and-follower device for the top and for the bottom of the carrier and common means for simultaneously actuating said devices so that they apply equal pressure to the top and bottom of the carrier whereby the pressure of the pad on the edge of the stack is substantially uniform throughout the height of the pad.



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2,775,452

## PLAYGROUND DEVICE

Mary J. Libes, San Francisco, Calif.

Application January 5, 1953, Serial No. 329,499

2 Claims. (Cl. 272—1)



1. A playground device of the character described comprising: a horizontally disposed air inflatable annular tube of flexible, relatively soft rubber-like material having smooth upper and lateral surfaces free from obstruction to sliding therearound of a child seated astride said tube at a side thereof relative to its central axis, said tube being about fifteen to about twenty-four inches in diameter at any such side when said tube is inflated whereby a child so seated at a side thereof may reach the ground at opposite sides of such tube with its feet for bouncing its way around said tube by springing its legs when its feet are on the ground, and said tube having an inside diameter from one side to the other of from about eighteen inches to about twenty-eight inches so that children around said tube and seated astride the latter may easily reach with substantially equal facility a support adapted to be positioned on the central axis of said tube at about the head level of such seated child during its bouncing around said tube, an annular horizontal mat of sheet material coaxial with said tube and secured to its underside, said mat extending beyond the radially inner and outer sides of said tube a sufficient distance to provide a pathway for the both feet of said child during its bouncing around said tube.

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2,775,453

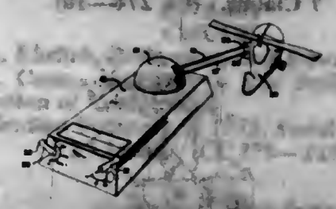
## TOY AEROPLANE ROUNDABOUT

Hans Biller, Nuremberg, Germany

Application August 28, 1953, Serial No. 377,126

Claims priority, application Germany February 25, 1953

7 Claims. (Cl. 272—31)



1. An aeroplane toy comprising a toy aeroplane, carrier means for said top aeroplane, means drivingly connected with the inner end of said carrier means for selectively rotating said carrier means about a stationary axis to thereby rotate said aeroplane by rotation of said carrier means, said carrier means extending radially from said axis and being oscillatable in a vertical plane passing through said axis, means for pivotally securing said toy aeroplane to the outer end of said carrier means about a pivot axis extending at right angle to said vertical plane and parallel to the vertical central longitudinal plane of said aeroplane and with the longitudinal axis of said toy aeroplane substantially perpendicular to said plane, and means connected to said carrier means for selectively varying the angle of said carrier means relative to said axis and therewith the height of said toy aeroplane, whereby said toy aeroplane may rise and descend independently of the rotation thereof about said axis to simulate the take-off and landing of a helicopter type aeroplane, said connection between said carrier means and said last-mentioned means being such as to enable adjustment of said angle with respect to said axis while said carrier means rotates as well as while said carrier means is stationary.

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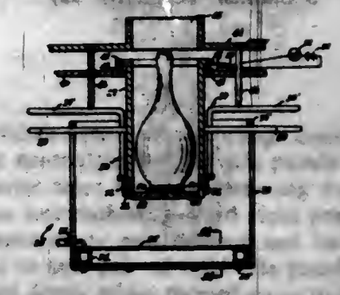
2,775,454

## LIFTING APPARATUS FOR UPRIGHT BOWLING PINS

Sam Larkin, Brooklyn, N. Y.

Application May 3, 1954, Serial No. 427,217

14 Claims. (Cl. 273—42)



1. In bowling pin manipulating apparatus, a frame positioned above a bowling alley floor, means for moving said frame to and from said floor, a member depending from said frame over an initial pin position when the frame is lowered, a plurality of horizontal arms extending radially from said member, a vertically positioned tubular member having a plurality of openings through the wall thereof, positioned about said depending member; said arms being positioned through said openings respectively, whereby said tubular member is supported on said arms and is laterally movable thereon a predetermined distance in every direction and a bowling pin-gripping means carried by said tubular member below said depending member; the bottom portion of each of said openings through the tubular member being a V-notch respectively; the vertex of each such notch being vertically under the arm which is through the opening of which the notch is a part, when said tubular member is in a predetermined position on said arms and is concentric with the axis from which said arms extend radially; the extent of movement of the frame being such that when lowered towards the floor, the said tubular member will rest on said floor and each arm will rest in the vertex of the notch of the opening the arm is through; each of said openings having opposite side edges and the associated notch being from and between said side edges.

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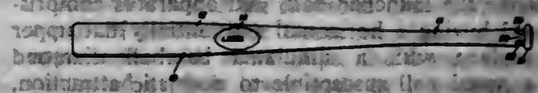
2,775,455

## AMBIDEXTROUS BAT

Ralph J. Liberti, New York, N. Y.

Application March 14, 1955, Serial No. 494,048

1 Claim. (Cl. 273—72)



An ambidextrous bat comprising an elongated handle of cylindrical cross-section, said handle tapering smoothly outwardly at one end thereof into a bat, the other end of said handle having a knob, a pair of opposed circumferential grooves in said handle adjacent said knob, each of said grooves extending less than one-half of the circumference of the handle, said bat being constructed of wood and having a label disposed thereon in generally right angular relation to the flat of the grain of the

wood, said label thus enabling the batter to orientate the bat about the longitudinal axis for positioning the flat of the grain of the wood in facing relation to the point of contact with a ball, one end of each groove providing an abutment for the end of a little finger disposed therein, each of said grooves having one end thereof disposed in an angular relation to the label about the longitudinal axis of the bat for positioning the grain of the wood in proper position for contact with a ball when the bat is gripped for batting right or left handed.

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2,775,456
**BOWLING PIN**
Kenneth K. Schroeder, Sr., Zion Ill., and Kenneth K. Schroeder, Jr., Kenosha, Wis.
Application December 29, 1954, Serial No. 478,412
3 Claims. (Cl. 273—82)



1. A weight controlled bowling pin comprising a wooden bulk including body, neck and head portions; an axial passage extending upwardly from the pin base and ending past the widest part of said body portion; a second axial passage extending from the top of said head portion downwardly, ending in the region of the neck portion to provide both predetermined weight and predetermined balance to said pin; a closure at the outer end of each passage providing a surface continuous with the surface of said pin; said closure being tapered and converging toward the center of said pin; a tapered strengthening insert set in said first passage at an elevation substantially that of bowling ball impact with said body portion; and a shock absorbing plastic binder surrounding the sides of said closures and said insert and binding each to the wall of the respective passage wherein it is set.

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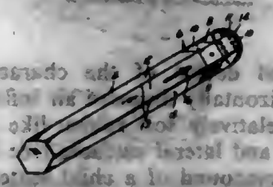
2,775,457
**SIMULATED BASEBALL GAME**
Ferdinand F. Galboe, Cleveland, Ohio
Application August 3, 1951, Serial No. 240,882
3 Claims. (Cl. 273—89)



1. Apparatus for playing a game of the type in which one contestant launches a ball to travel a course from a pitcher's box to a home plate across a flat horizontal playing surface and another contestant attempts to intercept or strike the launched ball, said apparatus comprising a board having a horizontal substantially flat upper playing surface with a simulated baseball diamond thereon, a metal ball susceptible to magnetic attraction, means carried by the board for launching the ball to travel across the playing surface of the board, a pair of magnets for deflecting the projected ball, first control and support means carried by the board and supporting one magnet of the pair beneath the board, second control and support means carried by the board and supporting the other magnet of the pair beneath the board, said first and second control and support means each being a manually adjustable lever pivotally mounted to swing about a vertical axis and adapted individually to move the respective magnets independently of one another over predetermined paths transverse to the course of the ball, wherein each magnet is carried on a respective lever to swing in an arcuate path, said levers having a common pivot point, the distances from the magnets to the pivot points being unequal so that the magnets may be alined on said course from said pitcher's box to said home plate.

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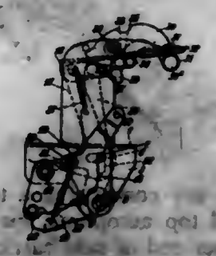
2,775,458
**MAGNETICALLY INDEXED ROTATING CHANCE DEVICE**
Horace H. Raymond, Berlin, Conn., assignor to Veeder-Root Incorporated, Hartford, Conn., a corporation of Connecticut
Application October 15, 1953, Serial No. 386,248
4 Claims. (Cl. 273—143)



1. An amusement device comprising a support having a shaft and a reference point, first and second discs rotatably mounted on the shaft in end-to-end relation and each having on its periphery equally spaced apart characters, each of said discs having a plurality of magnets corresponding in number to the characters and spaced at equal angles about said shaft, a like number of fixed magnets similarly positioned on said support, said magnets on said first disc being positioned in radial alignment with said characters and having poles adjacent said fixed magnets identical in polarity with the adjacent fixed magnet poles, said magnets on said second disc being positioned on radii midway between said characters and having poles adjacent said first disc identical in polarity with the adjacent poles of magnets in said first disc, whereby said discs are magnetically moved into a registration with the reference point when said discs come to rest after being rotated on said shaft.

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2,775,459
**PHONOGRAPHS HAVING RECORD CHANGING MECHANISM**
Henry James Fortune, Swindon, England, assignor to The Garrard Engineering and Manufacturing Company Limited, Swindon, England
Application December 13, 1950, Serial No. 200,517
7 Claims. (Cl. 274—10)

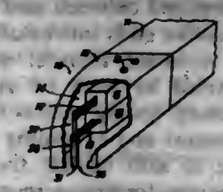


1. Mechanism for supporting the marginal edges of, and for selectively discharging, 12", 10" or 7" records mounted on a central offset spindle of a phonograph record player, comprising, in combination, an upwardly extending platform support; a first platform rockably mounted on the upper end of said support and having a record supporting lip; said support being oscillatable about a horizontal axis spaced from its upper end for movement of said first platform between positions supporting the marginal edges, respectively, of 10" and 12" records; linkage connected to said first platform and to said support and effective to rock said first platform, upon oscillation of said support, to position the record supporting lip thereof in the correct vertical position for support of a record; a record feeding member, including a lever oscillatable about a horizontal axis in said support and carrying a feeding member having a tooth projecting through a slot in said first platform adjacent said supporting lip to contact the marginal edge of a record supported thereon in any position of said support for displacing the record relative to said first platform; a second platform swingably mounted on said first platform for movement about a horizontal axis, between a retracted position and a second position extending in aligned relation from said first platform toward the spindle to support the marginal edges of 7" records; a feeding element longitudinally reciprocably mounted on said second platform for contact with the marginal edge of a 7" record supported thereon in said second position; said feeding element being formed with an aperture aligned with said slot and closely embracing said tooth only in the second position of said second platform for operation of said feeding element by said feeding member to displace a 7" record relatively to said second platform.



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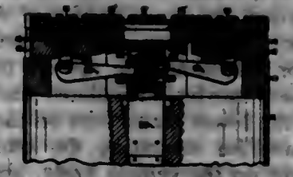
2,775,460
**BINAURAL RECORDING SYSTEM**
Ian M. Stivach, Brooklyn, N. Y.
Application May 15, 1951, Serial No. 226,493
4 Claims. (Cl. 274—38)



3. In a binaural system, means for reproducing recorded vibrations comprising a stylus including a pair of coaxial members, one of said members comprising a cylindrical shank portion terminating in an annular tip portion and being arranged to vibrate in a horizontal plane, the other of said members comprising an elongated shank portion disposed within the cylindrical portion of said one member and terminating in a tip portion projecting beyond the annular tip portion of said one member, said other member being arranged to vibrate in a vertical plane, and transducer means operatively connected to each of said members.

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2,775,461
**CHUCK**
Walter A. Ehrlich, Bridgeport, and Edward A. Zukowski, Devon, Conn., assignors to The Ballard Company, a corporation of Connecticut
Application February 9, 1953, Serial No. 335,736
2 Claims. (Cl. 279—119)



1. In a two jaw chuck, a base; ways within said base lying along a diameter thereof; jaws in said ways; a work-supporting pilot rigidly mounted centrally of said base; a pivot pin mounted within said base in a plane including the axis of rotation of said base and at right angles thereto; a spoon having a groove pivoted on said pin such that the axis of the pin is diametrical to the groove and within the plane including said groove; and bell-crank levers each having a short and a long arm pivotally mounted within said base with the short arm of each engaging one of said jaws, and the long arm of each engaging said spool within the groove thereof, the length of the long arms being relatively large compared to the diameter of the spool, whereby a relatively high mechanical advantage of said bell cranks can be obtained.



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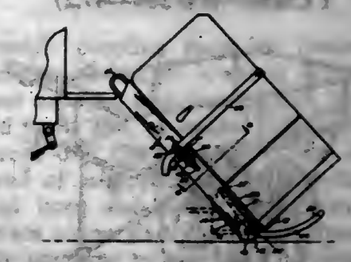
2,775,462
**SIMULATED AUTOMOBILE BODY TOY**
La Verne R. Bissell, Detroit, Mich.
Application July 15, 1954, Serial No. 443,571
7 Claims. (Cl. 280—1.1)



1. A child's automobile mockage comprising: a pair of of spaced apart rigid vertical side panels having markings on the outer sides thereof simulating the outlines of the side of an automobile; a third rigid panels being folded at an intermediate part thereof and having one portion connected to said pair of rigid side panels along the front part of the upper edges thereof so as to form a simulated hood of an automobile, and having the other portion connected to the front ends of said pair of rigid side panels to form a simulated automobile grill; said third rigid panel having markings thereof to simulate the hood and grill of an automobile; the lower end portion of the simulated grill being foldable outwardly and up into engagement with said grill portion so as to form a bumper for said mockage; the lower ends of said pair of rigid side panels being foldable inwardly and up into engagement with the inner sides of said pair of side panels to form longitudinally extending stiffeners; and said pair of side panels extending rearwardly of the rearward end of the simulated hood portion to define a simulated passenger compartment in which a child may sit as though in the seat of an automobile.

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2,775,463
**APPLIANCE HAND TRUCK HAVING ENDLESS TREAD STAIR CLIMBING DEVICE**
Joseph C. Chanetta, Hollywood, Fla.
Application December 13, 1954, Serial No. 474,783
1 Claim. (Cl. 280—5.22)



A hand truck of the character described that comprises a pair of parallel side frame members provided at their upper ends with hand grips, the frame members being connected at their lower ends by a projecting appliance support, ground wheels rotatably supported adjacent the lower ends of the frame members, endless tread trackways housed within the side frame members adjacent their lower ends and with the lower flight of each of said endless tread trackways projecting rearwardly therefrom, each of the endless treads being supported against upward flexing of the projecting portion by a plurality of rollers, the said side frame members being formed tubular and rectangular in cross-section, the rear edges of

each frame member adjacent their lower ends being slotted whereby the flight of the endless trackways projects outwardly and in parallelism with the frame members, the said tread supporting rollers being closely arranged and freely rotatable upon fixed shouldered stub-shafts that are connected to the opposite side walls of the frame members, and whereby to prevent flexing of the frame members against the rollers, the opposite ends of the trackways are supported and guided by rollers that are arranged in a guiding arc and whereby the endless tread is supported against flexing upon its bearing surface and at its opposite ends, the said end rollers being rotatable upon fixed shouldered stub-shafts that are rigidly connected to the side of the frame members, the upper flight of the treads being unsupported and wholly housed within the frame members.

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2,775,464

**FOLDABLE CART FOR MAILBAGS**

Norman Bruce Williamson, Portland, Oreg., assignor to Jarman-Williamson Company, a partnership

Application May 10, 1954, Serial No. 428,670

5 Claims. (Cl. 280—36)



1. A cart for mail bags and the like comprising a longitudinal frame having retractible wheels adapted to fold together on opposite sides of said frame, a cross bar load carrying bracket pivotally mounted on said frame for swinging movement to a folded position parallel with said frame between said wheels when the wheels are retracted, and a stop member mounted on said frame at a distance from the pivotal mounting of said bracket to engage and support said bracket in load carrying position transversely of said frame when the wheels are extended.

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2,775,465

**PORTABLE CART**

William F. Swingler, Chicago, Ill., assignor to Automatic Canteen Company of America, Chicago, Ill., a corporation of Delaware

Application April 10, 1953, Serial No. 347,989

1 Claim. (Cl. 280—47.2)



A portable two-wheeled hand cart comprising an article supporting structure including a tray portion, a handle portion on said structure, a pair of large wheels disposed towards one end of said cart, a pair of small auxiliary wheels at the other end of said cart and adjacent said tray portion, a supporting leg pivotally mounted adjacent said last-named end centrally thereof and independently of said auxiliary wheels, said leg being mounted for supporting said tray portion in a horizontal position upon said large wheels and for collapsing beneath said tray portion, said auxiliary wheels being adapted with said leg for positioning the auxiliary wheels on a raised loading platform with said leg in its supporting position, said structure being supportable by both of said pairs of wheels in an angular position upon collapsing said leg, a link pivotally secured to said leg for extending beneath said tray portion, and means mounted beneath said tray portion for adjustably securing said link in its positions corresponding respectively to the supporting and collapsed positions of said leg.

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2,775,466

**TANDEM AXLE BOGIE FOR AUTOMOTIVE VEHICLES**

Edward A. Meewes, Greenfield, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a corporation of Wisconsin

Application August 13, 1953, Serial No. 374,016

13 Claims. (Cl. 280—104.5)



1. In a tandem axle bogie for disposition beneath and attachment to the longitudinal frame members of a motor vehicle, the combination of a pair of longitudinally spaced transverse parallel axles; a pair of transversely spaced longitudinal beams disposed between said axles, each such beam having its respective ends universally pivotally connected to the axle adjacent thereto; spring-supporting means pendently carried by each of said beams intermediate the ends thereof; spring means mounted on said pendent supporting means and extending upwardly thereof; means attachable to said vehicle frame members in depending relation thereto for engagement with the upper portions of said spring means; and connections between said axles and said pendent spring-supporting means for maintaining verticality of the vertical axes of the axles and spring-supporting means.

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2,775,467

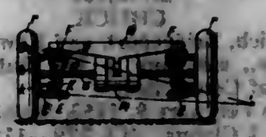
**WHEEL SUSPENSION FOR MOTOR VEHICLES**

Ludwig Kraus, Stuttgart-Untertürkheim, and Josef Gazsabo, Stuttgart-Wangen, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application May 24, 1955, Serial No. 510,725

Claims priority, application Germany May 24, 1954

5 Claims. (Cl. 280—124)



1. A wheel suspension for vehicles comprising a vehicle body, a wheel on one side of said vehicle, a wheel carrier, an upper thrust arm, a lower thrust arm, articulated means for mounting one end of the upper thrust arm on the wheel carrier, articulated means for mounting one end of the lower thrust arm on the wheel carrier, articulated means for mounting the other end of said upper thrust arm on the vehicle body, articulated means for mounting the other end of said lower thrust arm on the vehicle body, said two last-mentioned means determining axes of oscillation of said thrust arms relative to said vehicle body which converge toward the side of the vehicle opposite to the said wheel, and the point of intersection of said axes of oscillation lying beyond the wheel of the opposite side of the vehicle with respect to the longitudinal vertical central plane of the vehicle.



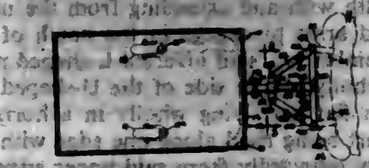
2,775,468

**HITCH FOR TRAILERS HAVING INDEPENDENTLY PIVOTED WHEELS**

Charles H. Hoblitzell, Evansville, Ind.

Application January 25, 1954, Serial No. 405,762

4 Claims. (Cl. 280—457)



4. A hitch for coupling a trailer having a frame supported on a plurality of ground wheels independently pivoted about vertical axes to an automobile having a rear bumper, said hitch comprising, in combination, a crossbar adapted to be clamped to said bumper and having three ball fittings spaced therealong, a tongue adapted to be fastened in rigid forwardly extending relation to said frame, a first ball socket rigid on the end of said tongue for removable swivel connection to the center one of said ball fittings, a rotatably and axially slidable bushing on said tongue having diametrically opposed ears, a pair of struts pivoted at their rear ends to respective ones of said ears and diverging forwardly, second and third ball sockets rigid on the respective forward ends of said struts for removable swivel connection to the respective outer ones of said ball fittings, said ball and socket connections permitting relative rocking of the trailer and automobile about a transverse axis, rotation of said bushing permitting relative rocking of the trailer and automobile about a fore and aft axis, and said struts preventing relative jackknifing of said trailer and automobile about a vertical axis.

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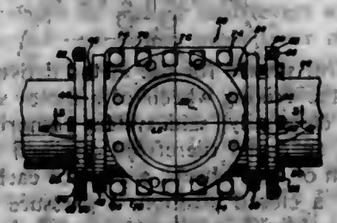
2,775,469

**SPLIT PIPE SLEEVE WITH MEANS TO PREVENT INCORRECT ASSEMBLY**

Oscar E. Brown, Chattanooga, Tenn., and Hugh L. Baker, Decatur, Ill., assignors to Mueller Co., Decatur, Ill., a corporation of Illinois

Application July 31, 1953, Serial No. 371,472

3 Claims. (Cl. 285—15)



1. In a substantially cylindrical pipe sleeve divided longitudinally into equal sections of identical edge portion configuration and adapted to embrace a pipe with their side edges in abutting engagement, one abutting edge of each section having a longitudinally extending substantially radially disposed flat sealing surface and the other abutting edge having longitudinally extending packing mounted thereon and projecting slightly therefrom for sealing engagement with the sealing surface of the one abutting edge of another section, and each section having longitudinal side flanges each adapted to be bolted to the corresponding flange on an adjacent section, the combination comprising: means defining a plurality of bolt holes in the side flanges of each section, the pattern of said holes being identical in all said flanges and each of said hole patterns being unsymmetrical with respect to the transverse center line of each section, whereby if the sleeve sections are improperly assembled about a pipe so that the packings on two adjacent sections abut each other and the sealing surfaces on two adjacent sections abut each other, bolts cannot be inserted through the bolt holes in adjacent flanges.

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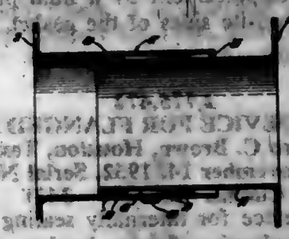
2,775,470

**EXHAUST STACK VIBRATION ISOLATOR**

George W. Bixler and Carl A. Bierlein, Cleveland, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 30, 1951, Serial No. 234,532

5 Claims. (Cl. 285—96)



1. In combination, a vibration isolating pipe connection including an outer pipe and an inner pipe loosely mounted therein and provided with longitudinally spaced groups of annular packing ring grooves in the outer surface and a pressure sealing groove intermediate the groups of packing ring grooves, resilient packing rings in the packing ring grooves, a fluid pressure sealing connection in the outer pipe registering with the pressure sealing groove in the inner pipe, said annular grooves being of sufficient depth to provide an annular space between the packing rings and the bottoms of the grooves to permit isolating of transverse vibrations between the pipes, and means continuously supplying fluid to said connection at a pressure in excess of the pressure within said inner pipe.

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2,775,471

**TUBE COUPLING WITH SEALED CONICAL INTERFACE**

James L. Douglass, Cleveland Heights, Ohio, assignor, by mesne assignments, to The Special Screw Products Company, a corporation of Ohio

Application November 23, 1949, Serial No. 128,973

9 Claims. (Cl. 285—332)

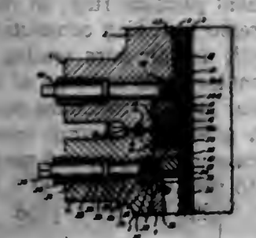


1. A conduit coupling assembly comprising a first tubular member having an inwardly frusto-conical surface adjacent an open end thereof that flares outwardly toward said open end, a second tubular member provided adjacent one end with a portion insertable into the open end of said first tubular member and having a cylindrical bore and a concentric outwardly frusto-conical surface converging toward said one end so as to substantially conform to and have no greater angle of divergence than the inwardly frusto-conical surface of said first member when the two frusto-conical surfaces are concentrically juxtaposed, said outwardly frusto-conical surface having a circumferential groove dividing it into substantially aligned, axially spaced, frusto-conical surface portions having a common generatrix, an annular gasket seated in said groove and projecting above the top thereof, and means including a force producing connection for progressively moving said two frusto-conical surfaces concentrically toward each other to force said gasket into circumferential engagement with said inwardly frusto-conical surface intermediate its ends, the second member having its wall thickness reduced at

the groove where gasket-to-metal pressure is concentrated, the material of said gasket being plastically deformable but substantially incompressible, and the volume of said gasket slightly exceeding the volume of said groove so as to provide a small percentage of said volume of gasket material that cannot be forced into the groove, said percentage being limited to permit substantially circumferential metal-to-metal contact of said two frusto-conical surfaces on both sides of said groove as said force producing connection is progressively tightened and to produce substantially complete confinement of the gasket material against displacement by a fluid pressure differential between opposite sides of the gasket.

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2,775,472
**SEALING DEVICE FOR FLANGED JOINTS**
Cicero C. Brown, Houston, Tex.
Application November 14, 1952, Serial No. 320,580
7 Claims. (Cl. 285—343)



1. A sealing device for internally sealing the joint between a pair of abutting flanges having coaxial bores, comprising, a resilient seal ring comprising a resilient seal portion interposed between a pair of metallic end rings, said seal portion being positioned in the bores of said flanges across the joint between the flanges and in direct sealing engagement with the bore walls of the flanges adjacent said joint, an annular abutment member circumferentially disposed in the bore of one of said flanges engaging one end of said seal ring to limit its axial movement, and an annular thrust member in the other flange radially compressible against the opposite end of said seal ring, said thrust member and said seal ring having complementary tapered engaging surfaces cooperable in response to radial compression by said thrust member to urge the seal ring axially toward said abutment member.

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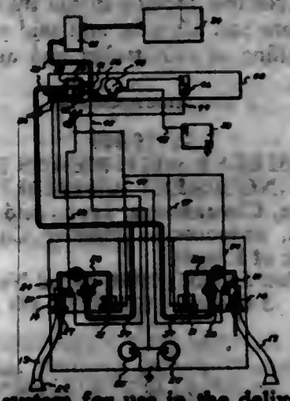
2,775,473
**ANGLE TUBE BRACKET AND HANGER ASSEMBLY**
Ellis B. Brewer, Nashville, Tenn.
Application August 21, 1953, Serial No. 375,593
1 Claim. (Cl. 287—54)



A quickly detachable coupling for joining a pair of angularly related, horizontal rails to a vertical post, comprising: a bracket member adapted to be affixed to a vertical post and formed of a length of strap metal material, said member including a pair of fixedly connected legs each lying wholly in a vertical plane, said legs being angularly related to each other and each leg having a horizontally extending top edge formed with an upwardly opening notch spaced from the notch of the other leg and communicating with the opposite faces of the leg in which it is formed; and a pair of like hanger members each formed from a length of strap metal, each hanger member including a U-shaped portion having a flat bight lying wholly in a horizontal plane to form a flat, horizontally disposed support for an adjacent end of a horizontal rail overlying the bight, said U-shaped portion having flat, wide arms extending upwardly in vertical planes from opposite ends of the bight for embracing the supported rail between them, each hanger member further including a portion of inverted L-shape coextensive in width with and extending from the upper edge of one of said arms to engage in the notch of an adjacent bracket member leg, said inverted L-shaped portion being disposed wholly to one side of the U-shaped portion and including a flat part lying wholly in a horizontal plane, said flat part being rigid along one edge with and extending laterally outwardly from said upper edge of said one arm, said inverted L-shaped portion further including a second flat part depending in a vertical plane from the opposite edge of said horizontal part in closely spaced, parallel relation to the plane of said one arm, said horizontal part removably engaging in and extending transversely of the associated notch, said vertically depending part and said one arm being spaced apart a distance substantially equal to the thickness of the bracket member leg in which the associated notch is formed, said depending part and said one arm lying in face to face contact with the opposite faces of said adjacent bracket member leg.

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2,775,474
**SANDER ATTACHMENT FOR MOTOR VEHICLES**
Joseph A. Gendreau and Joseph Fuller, Fall River, Mass., and Everiste Dumaingne, Auburn, Maine
Application May 21, 1952, Serial No. 289,166
4 Claims. (Cl. 291—23)



3. A control system for use in the delivery of sand to the path of the driving wheels of a motor vehicle having a source of electricity, said system comprising a source of sand and an outlet therefrom disposed in desired relation to each of said wheels, a gate for each outlet yieldably held in a closed position, a pressure operated element and a solenoid connected to each gate to open it when actuated, a circuit from said source of electricity in which each of said solenoids are in parallel and which includes a switch, a conduit including branch lines to each of said pressure operated elements and including a valve, said conduit being connected to the vehicle motor to be actuated by pressures developed by its operation, a common operator control for said switch and said valve, and a circuit for each gate, said circuit including said source of electricity, a normally open switch closed by the opening of said gate, and a signal light.

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2,775,475
**LATCH EXTENSION UNIT**
Julius Miller, Valley Stream, N. Y., assignor to Miller-Deutscher Corporation, Lynbrook, N. Y., a corporation of New York
Application December 23, 1953, Serial No. 399,989
3 Claims. (Cl. 292—1)

2. An extension unit adapted for use between latch bolt and actuator mechanisms, said extension unit comprising, a centrally bored rod shaped link, a universally adjustable coupling member on said link consisting of a lateral opening communicating with the central bore near the latch bolt end of said link, a universally adjustable coupling member consisting of opposed grooves formed near the latch bolt actuator end of the link, said coupling members being in positive but swingable engagement with the latch bolt and actuator mechanisms.





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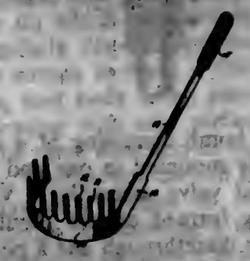
2,775,476
**SELF-TIGHTENING AND GRIPPING BATTERY LIFTER**
Felix E. Brown, Bethlehem, Pa.; Union Bank & Trust Company of Bethlehem, Administrator of said Felix E. Brown, deceased, assignor to East Penn Manufacturing Co., Inc.
Application August 10, 1953, Serial No. 373,198
2 Claims. (Cl. 294—29)



1. A battery lifter comprising a pair of vertically swingable levers adapted to be opposed to opposite sides of the battery and having relatively opposite operating ends, a flexible handle adapted to extend across and over the battery and pivoted to and connecting said operating ends to swing said levers vertically and oppositely with respect to each other when lifting force is applied to said handle, and a pair of U-shaped grips adapted to straddle opposite ends of the battery and to extend along the sides thereof, said grips each having one end pivoted to an intermediate portion of one of said levers and its other end pivoted to the end of the other lever remote from the operating end of said other lever whereby said grips will be pulled toward each other into tight engagement with the ends of the battery upon vertical swinging of said levers oppositely with respect to each other, the pivots of said handle and of said ends being in alignment on said levers whereby when said levers are swung toward vertical position the ends of the grips will be separated vertically to prevent the same from abutting and limiting pulling of the grips toward each other.

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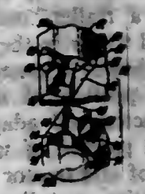
2,775,477
**SPAGHETTI AND NOODLE SCOOP**
Helene Inouye, Seattle, Wash.
Application March 14, 1955, Serial No. 495,153
1 Claim. (Cl. 294—49)



A culinary device for lifting spaghetti, noodles and like food-stuffs comprising an elongated sheet material member divided into a handle portion and a working head, said working head being in the form of an arcuate semicircular arm extending from the handle portion of the material and being formed therewith and a plurality of upstanding and spaced teeth on the upper edge of said working head.

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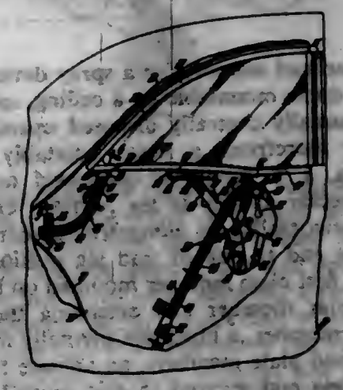
2,775,478
**VEHICLE DOOR HINGE AND CAM**
Joseph M. Stanetz, Detroit, and Robert McClure, Highland Park, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 19, 1954, Serial No. 404,871
5 Claims. (Cl. 296—44)



1. Apparatus of the character described, including: an automobile body having a side wall with a door opening and a roof with a downwardly sloping side edge over the door opening; a door; hinge means for mounting said door on said body in the doop opening for swinging movement between closed and open positions, the upper edge of said door being below the sloping side edge of the roof when the door is closed; and a cam in said hinge means for lowering said door as it swings from closed to open position so that the top edge of said door clears the downwardly sloping side edge of the roof.

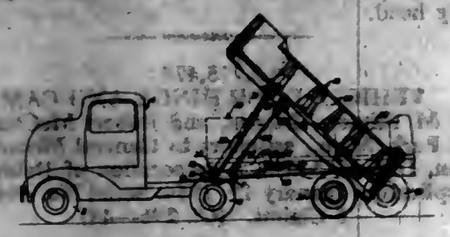
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2,775,479
**OPERATING APPARATUS FOR A VEHICLE WINDOW**
Julius J. Ballot and Gilbert A. Bannasch, Detroit, and David H. Bratton, Berkley, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 16, 1953, Serial No. 392,144
11 Claims. (Cl. 296—44)



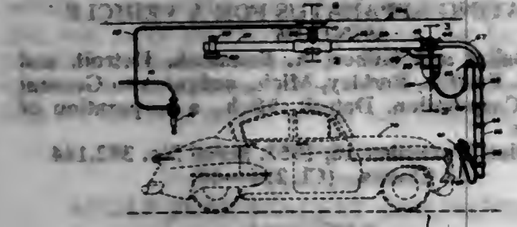
1. Operating apparatus of the character described for a vehicle window, including: a window frame which seats in a window opening in the vehicle body when the window is closed; a front guide track on the body below said opening, said track having a forward generally horizontal upper portion and a downwardly and rearwardly extending lower portion; a curved rear guide track on the body below said opening; means connecting said frame to said tracks for movement thereatong; and means for moving said frame along said tracks.

2,775,480
**DUMPING MECHANISM FOR SEMITRAILERS**
James B. Braswell and Frank L. Clement, Minden, La.
Application June 1, 1953, Serial No. 358,638
7 Claims. (Cl. 298—19)



1. In a dumping mechanism for semitrailers the combination of a tractor, a trailer, means connecting the front end portion of said trailer to the rear portion of said tractor and including power-actuated means extending between the front end portion of said trailer and the rear portion of said tractor and adapted when actuated to elevate the front end portion of said trailer vertically above said rear portion of said tractor to move said trailer to a tilted dumping position, a pulley means on the rear portion of said tractor, and flexible means comprising at least one cable connected at one end to the rear portion of said trailer, passing forwardly and under and around said pulley means and having its other end operatively connected to the front end portion of said trailer, whereby elevation of the front end of said trailer by said power-actuated means will simultaneously cause said flexible means to draw the rear portion of said trailer forwardly toward the rear portion of said tractor.

2,775,481
**PAINT SPRAY DEVICE**
Theodore Mitchell, Miami, Fla.
Application October 2, 1953, Serial No. 383,895
2 Claims. (Cl. 299—58)



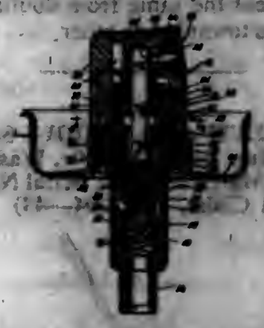
1. An overhead support for a spray device comprising an inverted dome mountable on a ceiling, said dome having a substantially centrally disposed opening extending downwardly therefrom, a sleeve rotatably mounted in said opening, a T connector connected to said sleeve, said T connector having its leg portions extending substantially horizontally, an elongated tubular member secured at one end to one of said leg portions of said T connector, a first plate member mounted on the other end of said tubular member and extending therebeyond, a second plate member, a hinge pin pivotally mounting said first and second plate members, an arcuate tubular member having one end secured to said second plate member, an air pressure hose extending through said dome, said sleeve, said tubular member and said arcuate tubular member, said air pressure hose having means mounted at the free end thereof for connecting said hose to a spray device, a container secured to said elongated tubular member, said container having an outlet, a second hose having one end connected to said outlet and the other end terminating in juxtaposiiton with said free end of said air pressure hose and connecting means mounted on said other end of said second hose adapted to connect said hose to said spray device.

2,775,482
**MEANS FOR DISTRIBUTING LIQUIDS VERY FINELY**
Kurt Schütz, Vevey, Switzerland, assignor to Berthoud & Cie, Vevey-Corseaux, Switzerland, a corporation of Switzerland
Application November 22, 1952, Serial No. 321,974
5 Claims. (Cl. 299—86)



4. A spraying device comprising a distributor tube closed at one end, a series of closely spaced nozzles aligned in an axial direction along said tube, means to feed with compressed air the open end of said tube and means to atomize liquid into said air at a point upstream with respect to all of said nozzles, whereby the liquid atomized in said compressed air is deposited throughout the length of said tube on the inner wall thereof in a thin liquid formation which is fed into said nozzles, the latter being provided with terminal edges adapted to break up at least part of the liquid formations thus fed thereto into a succession of formations of fine droplets corresponding to a substantially uniform rate of delivery from each nozzle and the cross-sectional area of each nozzle being greatly in excess of the corresponding area of the liquid formation passing through said nozzle, whereby the stream of air is divided into jets of substantial cross-section by passing through said nozzles, each such jet successively entraining said formations of droplets, while giving the same a considerable kinetic energy, the outlet of each one of said nozzles being provided with an annular row of teeth extending radially inward and downstream, whereby the formations of liquid fed to said outlet flow along said teeth, while being split up into droplets, and whereby the droplets thus fed to the points of said teeth are embedded in said air jet and thus imparted with a considerable kinetic energy, and each one of said nozzles being provided, upstream said row of teeth, with an annular eddy chamber whereby substantially uniform distribution of the liquid formations fed into said nozzle is effected.

2,775,483
**AEROSOL BOMB FILLING AND DISPENSING VALVE**
Richard E. Treharne, Jr., Lindenhurst, and Adolph J. Wegmann, Glen Cove, N. Y., assignors to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application January 20, 1955, Serial No. 483,114
3 Claims. (Cl. 299—95)

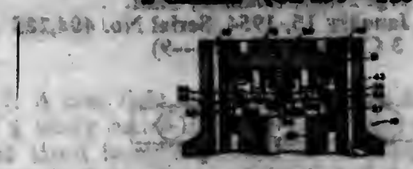


3. In an aerosol bomb consisting of a container having a valve assembly mounted in one end thereof and a cap closure for said valve assembly, a valve assembly comprising a casing formed of two tubular parts each having an axial bore therethrough and a peripheral flange with the flanges disposed and held in abutting facial fluid-tight contact and with the bores in axial alinement, one of said tubular parts extending outwardly of the container



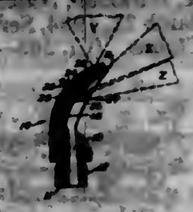
and being formed of elastomeric deformable material, a check valve within said casing having a valve stem extending through the elastomeric tubular part, a cap member formed of elastomeric deformable material telescopically mounted on the elastomeric tubular part adapted to engage the valve stem to unseat the check valve, a discharge opening in the valve cap and cooperating parts on the valve cap and the elastomeric tubular part providing a fluidtight seal between said cap and tubular part as the cap is telescopically moved relatively to said tubular part and for limiting the telescopic movement of the cap.

2,775,484
**VISCOSITY COMPENSATING VARIABLE-AREA FUEL NOZZLE**
Homer M. Fox, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application August 31, 1953, Serial No. 377,300
2 Claims. (Cl. 299—115)



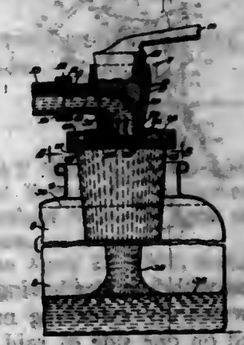
1. In a housed, variable-area fuel injection nozzle of the vortex type, including liquid fuel inlet conduit means to a nozzle housing and fuel-pressure-sensitive means to vary available area of a passageway for admitting liquid fuel from said inlet conduit means into a vortex chamber in response to liquid fuel inlet pressure, so as to control pressure drop through said passageway, thereby providing a predetermined degree of fuel atomization the improvement which comprises, in combination: temperature-sensitive means responsive to change in the temperature of said fuel; lever means operatively connected at one end thereof to said temperature-sensitive means, said lever means having fulcrum means attached to said housing and being operatively connected to said pressure-sensitive means so as to increase said pressure drop when said temperature decreases and decrease said pressure drop when said temperature increases.

2,775,485
**AUTOMOBILE WASHING MEANS**
William E. Miller, Mill Valley, Calif.
Application March 15, 1954, Serial No. 416,155
2 Claims. (Cl. 299—121)



1. A nozzle comprising a body provided with means for securing the same to a source of water pressure and provided with an inlet adapted to conduct a stream of water therethrough, said body being integrally provided with a surface on which said stream is adapted to impinge and angularly disposed relative to the latter for deflecting said stream to form a first spray at an angle to said stream, said body being provided with an aperture communicating with said surface and extending in substantially the same direction as said inlet for forming a second spray, a projection carried by said body on said surface and having a surface on which said stream is adapted to impinge for forming a third spray, said surface on said projection being at a greater angle relative to said stream than said surface of said body whereby said first spray is between said second and third sprays.

2,775,486
**ANTI-FOAM FILLER MEANS**
Edward F. King, Three Oaks, Mich., assignor of thirty percent to Carley Daniel, thirty percent to Reuben W. Peterson, and ten percent to Eagle Milk Products Co., Inc., all of Galien, Mich.
Application May 13, 1955, Serial No. 508,123
5 Claims. (Cl. 299—144)



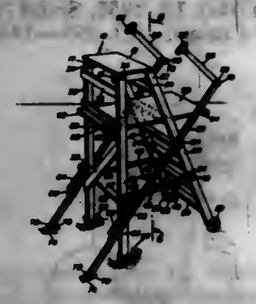
1. Anti-foaming attachment means for dispensing liquids of different viscosities, comprising a valve structure, and an anti-foaming attachment secured thereto, said anti-foaming attachment, including an enlarged casing open at its bottom portion and secured removably to said valve structure, and a plurality of perforate plates mounted loosely and in intimate contactual relationship within said casing, said casing being provided with a multiplicity of retaining lip portions at its bottom portion, said perforate plates being provided with a like number of recesses adapted to register with said retaining lip portions to facilitate inserting, changing, dismantling and removing said perforate plates.

2,775,487
**DEVICE FOR BALANCING VEHICLE ROAD WHEELS**
Rudolf Hennecke, Esslingen (Neckar), Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application April 8, 1952, Serial No. 281,197
Claims priority, application Germany April 11, 1951
10 Claims. (Cl. 301—5)



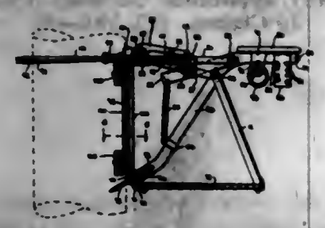
1. An arrangement for balancing a vehicle wheel having a rim and a tire mounted contiguous to a side portion of said rim, said rim being provided with at least one opening in said rim portion and said opening having radially inner and outer edge portions, a readily removable weight member having a hook-like attachment member integral with said weight member for balancing said wheel, said opening being of sufficient size to enable insertion and removal of said hook-like attachment member therethrough from the outside of said rim portion, and said hook-like attachment member having a bent end portion extending essentially outwardly of said outer edge portion between said tire and said rim portion to be clamped thereat to a large extent by the pressure of the side of the tire exerted on said rim and retained in position during rotation of the wheel by the centrifugal forces so as to prevent accidental loosening of said weight member while at the same time enabling ready exchange of said weight member.

2,775,488
**WALKING LADDER CONSTRUCTION**
Claude O. Wingrove, Tucumcari, N. Mex.
Application June 8, 1955, Serial No. 513,999
10 Claims. (Cl. 304—9)



1. In combination with a ladder having a top platform, a first pair of downwardly extending mutually parallel support legs secured on one side of said top platform, a plurality of mutually horizontal steps extending between said support legs, a second pair of mutually parallel downwardly extending supporting legs secured on an opposite side of said top platform, wheels rotatably carried on the lower ends of said first pair of support legs; a pair of elongated force transmitting levers pivotally and slidably supported on said second pair of mutually parallel support legs, said force transmitting levers each including a lower portion engageable with the ground surface and an upper end portion pivotally secured to a handle portion, and a horizontal platform member supported in extending relationship between the first and second pairs of downwardly extending legs adjacent said handle portions.

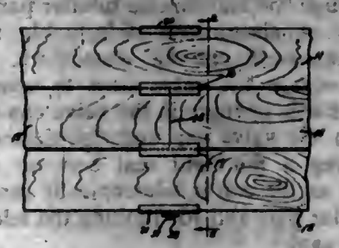
2,775,489
**SCAFFOLD**
Elmore W. Hagadorn, Solvay, N. Y., assignor to Finishing Laboratories, Inc., Syracuse, N. Y., a corporation of New York
Application May 20, 1955, Serial No. 509,891
15 Claims. (Cl. 304—28)



1. A device of the character described comprising a frame, a pair of grab arms pivotally secured to said frame, mechanical means to move said arms into or out of engagement with an upright support, a plurality of spikes slidably mounted on said frame, mechanical means to move said spikes into or out of engagement with the upright support, and a plurality of spikes fixedly secured to said frame and engageable with the support at a point below said arms and slidably mounted spikes.

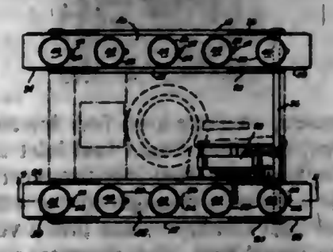
2,775,490
**SCAFFOLD BOARD SPLICER**
Martin E. Hofrichter and Hazel H. Hofrichter, Hot Springs, Ark.
Application July 29, 1955, Serial No. 525,161
3 Claims. (Cl. 304—38)

1. In a scaffold, a plurality of longitudinally extending boards, respective spacer bars between adjacent boards, flange elements on the spacer bars overlying the top surfaces of said adjacent boards, transversely extending telescoping elements secured to the portions of the bars beneath the boards, respective angle bars receiving the outer edges of the outermost boards, and tension means



connecting the angle bars and extending transversely beneath the boards.

2,775,491
**TRACK LAYING BELT FOR A CRAWLER TYPE VEHICLE**
Verge Ivory, Oakland, Calif.
Application January 15, 1954, Serial No. 404,285
3 Claims. (Cl. 305—9)



1. In a toy vehicle of the crawler type, frame means including a pair of laterally spaced side frames; rollers rotatably mounted on the ends of the respective frames; an endless traction belt trained about the rollers of each frame; an endless tread overlying said belt and trained therewith about said rollers, said tread including supporting-surface-engaging vacuum cups spaced about the full circumference thereof and said cups including elongatable necks connected to the traction belt, and means on each side frame for separating the belt and tread for a portion of the circumferences thereof, whereby to elongate said necks and in this manner increase said capacity of the cups.

2,775,492
**CUSHIONED MOUNTINGS FOR GUIDE ROLLERS OF CRAWLER TRACKS**
Albert R. Wirtbale, Nanaile, Wash.
Application March 22, 1954, Serial No. 417,824
2 Claims. (Cl. 305—10)



1. A unitary cushioned mounting for supporting the mounting axles of a succession of rollers as employed for the backing and guiding of the round engaging run of a crawler track belt as employed on a tractor of the character described; said unitary cushioned mounting comprising a flat metal attaching plate of a length sufficient to span the succession of rollers, and adapted to be applied flatly against and bolted to the under surface of a longitudinal track frame beam beneath which the ground engaging run of the crawler track operates, a strip of cushioning rubber substantially of the length and width of said attaching plate, and applied against and vulcanized to its under surface, metal bearing plates for seating the ends of the axles of the rollers to be served, vulcanized to the under surfaces of the rubber strip, in spaced relation-



ship therealong, and an axle securing cap bolted to the outer face of each bearing plate, to coact therewith for securement of a roller mounting axle between them; said mounting being removable as a unit from the mounting beam upon release of its securing bolts and the said caps being independently removable from their plates for release of the axle held thereby.

2,775,493
**PISTON WITH HEAD INSERT AND PROCESS OF MAKING IT**
Wendell C. Chaney, Lake City, Minn., assignor to Gillett & Eaton, Inc., Lake City, Minn., a corporation of Minnesota
Application November 27, 1953, Serial No. 394,696
11 Claims. (Cl. 309—9)



1. A cast, light metal piston having in the head thereof a heavy metal insert of greater breadth than depth, said insert being embedded in the head portion of the piston in light metal cast around it to form the piston, said insert having a top portion and a base portion, the said top portion having at least a top surface exposed at the top surface of the piston and so positioned as to protect the piston from deterioration due to high velocity jet impact when the piston is employed in a diesel-type internal combustion engine, said insert also having a bottom portion of greater external dimensions than the top portion and wholly embedded in the light metal of the piston so that removal of the said insert is prevented by portions of the said light metal overlying said base portion.

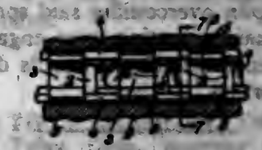
2,775,494
**PISTON CONSTRUCTION**
Richard H. Swart, Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application April 16, 1953, Serial No. 349,138
3 Claims. (Cl. 309—12)



1. In combination with a compressor having a cylinder, a piston movable in the cylinder, said piston having a thin metal wall with an uninterrupted exterior surface and pin support means disposed inside the wall, said pin support means being adapted to serve as bearings for a wrist pin that is attached to an eccentric strap, said wall having a groove in its inner side, and means disposed in the groove to force the wall outward to form a protuberance on the outer side of the wall.

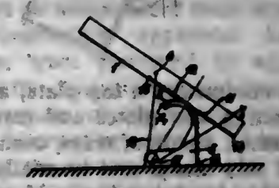
2,775,495
**SPACER FOR PISTON RINGS**
Holly M. Olson, Muskegon, Mich., assignor to Sealed Power Corporation, Muskegon, Mich., a corporation of Michigan
Application November 1, 1954, Serial No. 466,057
1 Claim. (Cl. 309—44)

A parted, circular, piston ring rail spacer, support and expander comprising, a plurality of spaced U-shaped sections having upper and lower legs and vertical webs connecting said legs, said legs terminating at their free ends in upwardly and downwardly extending ledges, respectively, and resilient ties between adjacent U-sections each tie having a middle portion spaced from, between and in the same plane as the two next adjacent webs, and oppositely extending lateral end portions at right angles to



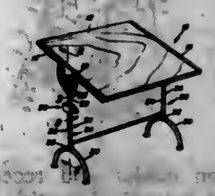
said middle portions integrally joined with said two next adjacent U-sections.

2,775,496
**TILTING X-RAY MEDICAL EXAMINATION TABLE**
Detlof Emanuel Berggren, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application April 22, 1954, Serial No. 424,997
Claims priority, application Netherlands May 13, 1953
1 Claim. (Cl. 311—6)



An X-ray medical examination table comprising a base having at least one curved surface, a table top rotatable on said curved surface, the radius of said curved surface not exceeding ½ the height measured from the bottom of said base to the bottom surface of said table top, a rotating disc, means mounting said disc on said base, and connecting means comprising at least one flexible tape fixed to points at opposite ends of said base and engaging said curved surface and said table top, and another flexible tape secured at both ends to spaced points on said table top, a part of the intermediate portion of said other flexible tape being passed around and in engagement with said disc.

2,775,497
**ADJUSTABLE DRAWING TABLE CONSTRUCTION**
Manuel M. Alvarez, Los Angeles, Calif., assignor of fifty percent to James E. Gonzales, Van Nuys, Calif.
Application October 27, 1955, Serial No. 543,173
4 Claims. (Cl. 311—39)

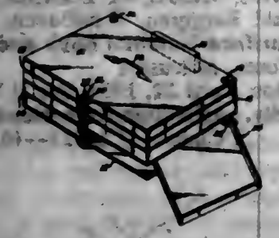


1. An extensible support leg construction for use in vertically adjustable drawing tables comprising a tubular support member telescopically receiving in one end portion a vertically adjustable support rod, said rod including an intermediate vertically disposed tooth rack portion, and a latch assembly carried on said one end portion of said tubular member, said latch assembly including a housing member secured on said tubular member in circumposed relationship to the rod member, a vertically pivotal actuating lever extending from one side of said housing member, a vertically pivotal dog element pivotally supported in said housing and including a latch portion intersectingly engageable with the tooth rack portion on said rod member, spring means engageable with a first lever portion of said dog element for urging the latch portion into locking engagement with said rack tooth portion, force transmitting linkage means operatively con-

nected between said actuating lever and a second lever portion of said dog element for transmitting force to actuate the same upon overcoming said spring means, and brake means on said actuating lever engageable with the rod member when the latch portion is disengaged from the rack tooth portion.

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2,775,498
VARIABLE TRAY BOX
Henry E. Gettel, Dallas, Tex.
Application December 3, 1953, Serial No. 395,913
4 Claims. (Cl. 312—201)



1. A tray box comprising a top plate, a bottom plate, means for connecting said plates and maintaining them in spaced relationship, a pair of trays, each pivotally connected to one of said means and normally positioned in abutting relationship to each other, said trays being normally received between said plates and being pivotal out of abutting relationship to a position in which the contents thereof are exposed, means for releasably retaining said trays in said normal position comprising a resilient distortable member connected to said plates and normally bearing against both of said trays to retain them in normal position, said member being distortable by urging one of said trays thereagainst to pivot the latter tray outwardly of said plates and said member retaining the other of said trays in said normal position during distortion thereof.

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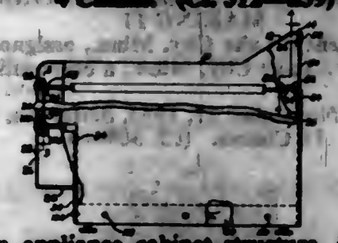
2,775,499
COMBINATION LADDER AND RECEPTACLE
Harold Gleitsman, New Rochelle, N. Y.
Application March 18, 1953, Serial No. 343,029
3 Claims. (Cl. 312—235)



1. A combination ladder and receptacle, comprising a receptacle having a vertical partition member secured therein to define a pair of laterally adjacent different size compartments, the smaller of said compartments being open at one side thereof and the larger of said compartments being open at the top thereof, a movable cover for said top opening, and a ladder mounted for vertical and pivotal movement to and from a retracted position in which said ladder is disposed within said smaller compartment and to and from an extended position in which a length of said ladder is disposed outside said smaller compartment for support by a supporting surface and said receptacle, means mounting one end of said ladder to said receptacle for movement between said retracted and extended positions, said ladder in said extended position thereof having a top step vertically and horizontally spaced from said cover when the latter is disposed in covering relation with said top opening, whereby said cover constitutes a step for conjoint association with said ladder in said extended position thereof when said cover is disposed in covering relation with said top opening.

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2,775,500
CABINET STRUCTURES
John F. Etherington, Syracuse, N. Y., assignor, by mesne assignments, to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware
Application April 8, 1954, Serial No. 421,881
4 Claims. (Cl. 312—239)



4. In an appliance cabinet structure, in combination, a base frame, upstanding mechanism rigidly mounted on said frame, a cabinet side panel assembly comprising front, side and rear panels arranged around said mechanism and frame, said side panels being secured to said frame and said mechanism, the front panel of said assembly being cut away near the bottom thereof to form a toe space, said front and side panels being flanged inwardly around their upper edges, and said rear panel projecting above said side and front panels, a deck member adapted to be seated on said flange and having an inclined rear panel adapted to embrace the upper edge of the projecting rear panel, said deck member having a side skirt, and inwardly directed flanges adapted to seat upon the flanges of said front and side panels, and means on said deck member for receiving the upper edge of said rear panel, and means associated with said side panel flanges adjacent the rear panel for gripping the deck member flange to restrain direct upward movement thereof, and fastening means associated with said front panel on the inside thereof extending from the bottom thereof and having a threaded end adapted to pass through said front panel flange and secure the front deck flange thereto.

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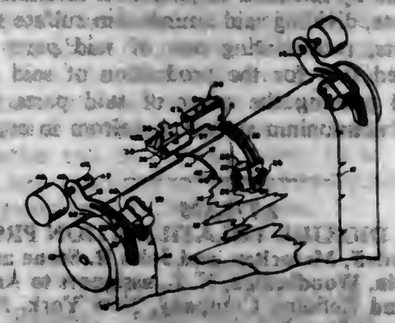
2,775,501
TILTABLE FRONT DRAWER PANEL
Herman Kylie, Portland, Oreg.
Application August 11, 1952, Serial No. 303,749
3 Claims. (Cl. 312—320)



1. In a panel construction, a fulcrum, a panel mounted for tilting movement about the fulcrum and stops on opposite sides of the fulcrum to limit the movement of the panel, a pair of spaced relatively fixed members between which the panel is mounted and means pivotally attaching the panel to said members, said last means including fixed guides carried by the members and mounting plates on the ends of said panel and having slots receiving said guides.



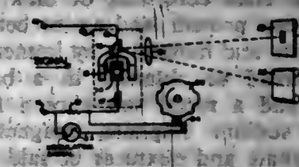
2,775,502
MULTIPLE TRACE RECORDER PENS
George E. Sykora, Tulsa, Okla., assignor to Well Surveys, Incorporated, Tulsa, Okla., a corporation of Delaware
Application August 19, 1953, Serial No. 375,217
5 Claims. (Cl. 346—49)



1. A multiple trace recorder having a support; roller platen means mounted on said support having a surface adapted to support succeeding portions of a strip chart; a plurality of pen carriages individually mounted on said support for motion substantially parallel to the axis of said platen in independent response to respective signals; a plurality of pen assemblies for mounting on respective pen carriages at least one of which assemblies comprises an arcuate pen track, an ink cup mounted on said track for sliding movement thereon, means to fix said cup in a desired position of adjustment on said track, and a writing tip affixed to said ink cup; and means for pivotally mounting said track upon one of said pen carriages with bias toward said platen and with said track substantially concentric to the chart supporting surface thereof to hold said writing tip in writing relation against a portion of chart on said platen.

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2,775,503
MULTIPLE TRACE RECORDER
Glen Peterson, Tulsa, Okla., assignor to Well Surveys, Incorporated, Tulsa, Okla., a corporation of Delaware
Application July 10, 1953, Serial No. 367,302
4 Claims. (Cl. 346—109)



1. In a multiple-trace recorder wherein signals to be recorded are independently applied to a plurality of galvanometers and an independent trace is produced by each of said galvanometers, apparatus for intermittently broadening the trace produced by each galvanometer while retaining the character of said trace, said apparatus comprising a source of alternating current, means for applying said alternating current to said galvanometer while retaining the character of said trace, means for interrupting the application of said alternating current, and means for operating said interrupting means in accordance with a code whereby the trace is identified by said code.

## CHEMICAL

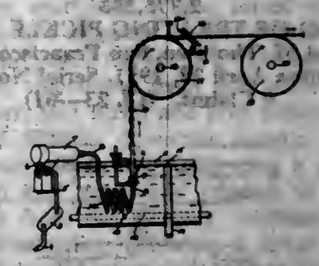
2,775,504
METHOD OF REMOVING HAIR AND WOOL FROM ANIMAL HIDES AND SKINS
Haskiel Zalcman, Braybrook, Victoria, Australia
No Drawing. Application April 14, 1951, Serial No. 221,115
Claims priority, application Australia October 18, 1949
6 Claims. (Cl. 8—94.16)

1. In the art of depilating lamb and sheep skins by applying a depilatory paint to the flesh side of the skins, the method of effecting depilation to obtain high quality wool while preserving the quality of the skin which consists in applying to the flesh side of the skin an aqueous composition which is substantially free of sources of monovalent metal cations and which comprises calcium hydrosulphide and lime, the calcium hydrosulphide being about 3 to 7% and the lime about 25 to 14%, each by weight of the composition, the proportion of calcium hydrosulphide decreasing and of lime increasing within the above ranges with the increasing thickness and fat content of the skin, the composition having a pH of not more than 12 and not less than about 11.7, and the source of hydroxyl ions being sufficient in quantity to provide an undissolved reserve thereof suspended in the composition; allowing the composition to remain on the skin until the wool is loosened, and then pulling the loosened wool from the skin.

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2,775,505
SPINNING REGENERATED CELLULOSE FILAMENTS
John W. Pedlow, Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 5, 1952, Serial No. 291,933
5 Claims. (Cl. 18—54)

1. The method of producing artificial filaments which comprises continuously extruding viscose from a spinneret under conditions wherein the jet stretch ratio is from 0.2 to 0.9 into an acid coagulating and regenerating bath having a temperature between 80° C. and 95° C., directing the filament-forming streams in a generally upward direction and withdrawing the resulting filaments from the bath in said direction, forming the hot coagulating liquid at a point not more than 5 centimeters from the spinneret face into a stream associated with the filaments having substantially the same velocity as the filaments, continuously advancing the filaments and the liquid streams from this point through the air along an upward path a distance of between 15 centimeters and 75 centimeters and then through a helical path, the



amount of liquid in the stream being limited to assure that substantially all of the liquid adheres to and travels at substantially the same velocity as the filaments, the laps of the helical path being formed to a diameter of sufficient size to assure that substantially all of the hot liquid in the stream remains with the filaments as they proceed through the helical path, stretching the filaments at least 50 percent as they leave the helical path and in the presence of substantially all of the hot liquid initially present in the stream, and then continuously removing liquid from the filaments, the filaments and the liquid stream being advanced from the bath to the point at which the stretch is applied and being stretched in a time interval not longer than about one second.

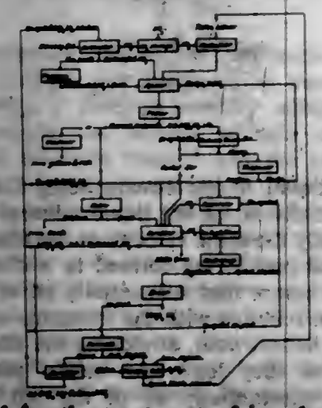
2,775,506
**PRODUCTION OF ARTIFICIAL FILAMENTS, THREADS, FIBRES, BANDS, AND THE LIKE**
Robert Louis Wormell, Coventry, England, assignor to Courtaulds Limited, London, England, a British company
No Drawing. Application April 1, 1954, Serial No. 420,439
Claims priority, application Great Britain May 3, 1950
15 Claims. (Cl. 18—54)

1. In a process for the production of artificial threads from proteins by extruding a solution of a protein selected from the class consisting of milk casein, peanut protein, soya bean protein, and castor bean protein into a setting medium, and hardening by immersing the freshly extruded thread so obtained in a bath containing formaldehyde and a metal salt chosen from the class consisting of sodium sulphate, magnesium sulphate, aluminium sulphate and mixtures of said salts, until the thread is resistant to the solvent action of cold water, the method of decreasing the swelling susceptibility of the thread by the steps of esterifying the thread in a bath comprising an alcohol chosen from the group consisting of methyl alcohol and ethyl alcohol together with an esterification catalyst, at a temperature between about 30° and about 50° C. for an esterification time of at least ½ hour and then subjecting the esterified thread to an insolubilising treatment consisting of applying to the esterified thread an aqueous solution containing cyanic ions and then heating the thus-treated thread at elevated temperature.

2,775,507
**MANUFACTURE OF FILAMENTARY MATERIAL FROM COPOLYMERS OF ACRYLONITRILE AND VINYLIDENE CHLORIDE**
John Downing and James Gordon Napier Drewitt, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
No Drawing. Application December 20, 1952, Serial No. 327,169
Claims priority, application Great Britain January 10, 1952
7 Claims. (Cl. 18—54)

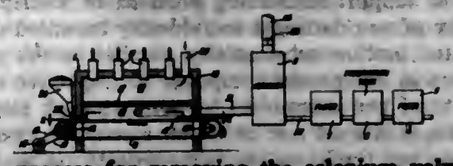
1. Process for the manufacture of filamentary material, which comprises extruding an acetone solution of an acetone-soluble binary copolymer of acrylonitrile and vinylidene chloride into a coagulating bath of which at least 83% by weight consists of aliphatic hydrocarbon material.

2,775,508
**METHOD OF TREATING PICKLE LIQUORS**
Alfred M. Thomsen, San Francisco, Calif.
Application April 28, 1951, Serial No. 223,519
9 Claims. (Cl. 23—61)



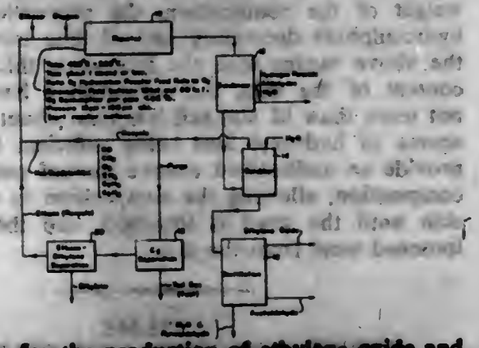
1. A method for the treatment of iron-bearing sulfate spent pickle liquor for the recovery of iron values therefrom and for the manufacture of ammonium sulfate, said method including the steps of forming a reagent solution consisting essentially of a mixture of a substantially iron-free aqueous solution of ammonium sulfate and the reaction products of ammonia and carbon dioxide, adding a slight excess of said reagent solution to pickle liquor to precipitate principally as iron carbonates the major part of the iron resident in said pickle liquor, removing the said iron precipitate by filtration to provide a solution of ammonium sulfate, dividing said ammonium sulfate solution into two parts, recirculating one of said parts to the first mentioned step for the production of said reagent solution, and treating the other of said parts for the separation of ammonium sulfate therefrom in crystalline form.

2,775,509
**SELENIUM DIOXIDE VOLATILIZATION PROCESS**
Yurii E. Lobodaff, Metuchen, and John R. Stone and Paul W. von Stein, Woodbridge, N. J., assignors to American Smelting and Refining Company, New York, N. Y., a corporation of New Jersey
Application March 3, 1953, Serial No. 340,888
7 Claims. (Cl. 23—139)



6. A process for removing the selenium values from slimes, sludges and anode muds from the electrolytic refining of copper, which comprises oxidizing said material without added acid by heating same below 1000° F. in the presence of an oxygen-containing gas under controlled heating and oxidation conditions for a sufficient length of time until an oxidized but unfused material capable of withstanding a temperature above 1000° F. without fusing is formed thereby forming a material in which substantially all of the contained selenium values are in the form of values which are thermally stable at temperatures below about 1000° F. but which are rapidly thermally decomposable at temperatures above 1000° F. to liberate selenium dioxide, and thereafter heating without fusing the thus oxidized material at a temperature above 1000° F. until substantially all the selenium values therein are volatilized therefrom.

2,775,510
**PRODUCTION OF CHEMICALS**
James H. Gardner, Cambridge, and Erwin F. Schoenbrunn, Needham, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application July 24, 1953, Serial No. 370,865
6 Claims. (Cl. 23—207)



1. A process for the production of ethylene oxide and hydrogen peroxide which comprises feeding a mixture of gases into a catalyst-free reaction zone having substantially inert surfaces, the mixture comprising ethane and ethylene, at least 20 percent by volume of the $C_2$ hydrocarbons in the mixture being ethylene, maintaining said reaction zone at a temperature between about 450° C. and about 550° C., feeding with said mixture a quantity of oxygen such that said mixture contains substantially less oxygen than $C_2$ hydrocarbons, maintaining said gaseous mixture at a pressure between about atmospheric and about 100 p. s. i., said gaseous mixture being passed through said heated reaction zone for a period of time on the order of one second, said time and temperature being adjusted to effect consumption of between about 30 percent and about 65 percent of the oxygen entering the reaction zone, the relative flow rates of $C_2$ hydrocarbons and oxygen into the reaction zone being controlled to give a ratio of $C_2$ hydrocarbon reactor feed rate to oxygen consumption rate of between about 10 to 1 and about 40 to 1, and separating oxygenated hydrocarbons and hydrogen peroxide from the exit gases.

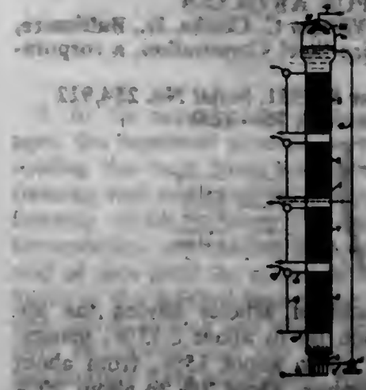


2,775,511
**OXYGEN GENERATOR**
Robert Geffroy, Neuilly-sur-Seine, and Philippe le Chartier de Sedouy, Meudl-le-Roi, France, assignors to Traitement Cooperative Commerciale, Bern, Switzerland, a corporation of Switzerland
Application February 5, 1952, Serial No. 270,868
Claims priority, application France February 6, 1951
2 Claims. (Cl. 23—281)



1. Apparatus for generating oxygen from thermally decomposable oxygen-yielding candles, comprising a tubular retort, means for normally supporting said retort in inclined relation to the horizontal, cooling means in heat transfer relation to the exterior wall of said retort substantially throughout the length thereof, an outlet pipe connected to said retort adjacent the lower end thereof, means defining an inner tubular reaction chamber within said retort for receiving a candle in close fitting relation therein, said reaction chamber being open at its upper end and having imperforate side walls spaced from the walls of said retort to define therebetween a passage through which oxygen liberated in said reaction chamber may travel downwardly therethrough in heat exchanging relation to the walls of said retort and said reaction chamber to said outlet pipe, said imperforate side walls being formed of a heat conductive corrosion resistant material.

2,775,512
**APPARATUS FOR THE PRODUCTION OF HYDROCARBONS**
Heinz Leithäuser, Langenberg, and Willy Linder and Emil Sattler, Essen, Germany, assignors, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application March 2, 1953, Serial No. 339,625
2 Claims. (Cl. 23—288)



1. In an apparatus for the production of hydrocarbons by the reaction of carbon monoxide and hydrogen wherein a hydrogenation catalyst is maintained in a liquid column of circulating contact oil through which the synthesis gas is passed and wherein contact oil is moved from the bottom to the top of the liquid column and is returned to the bottom in an external circuit after separation of the gas therefrom, in combination a closed vertical cylindrical reaction vessel having a ratio of height to diameter greater than 10 to 1 for maintaining said liquid column, said vessel having an enlarged top section facilitating separation of contact oil and gas dissolved therein, contact oil distributing means disposed in said enlarged top section adapted uniformly to wash the walls of said enlarged section free of catalyst, a plurality of indirect cooling means internally disposed substantially equidistantly along the length of the column, synthesis gas-contact oil inlet means in the bottom of said reaction vessel comprising a gas inlet nozzle axially disposed within a concentric contact oil inlet venturi tube, said gas inlet nozzle having a tapering gas outlet terminating in said venturi and means for externally circulating contact oil from the enlarged top section of the reaction vessel to said contact oil inlet venturi tube.

2,775,513
**GASIFYING APPARATUS**
Frank J. Termaney, Lake Hiawatha, N. J.
Application January 27, 1955, Serial No. 484,352
6 Claims. (Cl. 48—107)



1. A liquid fuel oil gasifier comprising an upright cylindrical outer shell closed at its bottom, and having an annular top closure plate, an open bottom turret rising from said plate, a tubular primary combustion chamber depending out of said turret through said plate and having a lower apertured end, and a substantially closed upper end, a downwardly discharging atomizer in the upper end of said chamber, a pressure oil supply line extending into said turret and combustion chamber to said atomizer, a high voltage arc sparkplug in said turret with terminals directly beneath said atomizer to ignite atomized oil from said atomizer and gasify the same, a cylindrical post combustion chamber depending from said plate around said primary chamber, said turret and post combustion chamber forming an annular downtake passage around said primary chamber, means for discharging a downdraft of hot air through said turret and passage to evacuate by suction the gas from the primary combustion chamber into the post combustion chamber, a lower air and gas mixing chamber in said outer shell, means communicating said post combustion chamber with said air and gas mixing chamber, a gas discharge chamber surrounding said post combustion chamber and having an outlet, and means communicating said air and gas mixing chamber with said gas discharge chamber.

2,775,514
**PYROPHORIC COMPOSITION**
Eugene Weiser, Cleveland Heights, Ohio, assignor to Hardness Incorporated, Princeton, N. J., a corporation of New Jersey
No Drawing. Application March 26, 1953, Serial No. 344,983
11 Claims. (Cl. 52—2)

1. A pyrophoric composition which comprises a mixture of (1) a finely divided alloy composed essentially of

50 to 80% of at least one of the metals of the group consisting of titanium and zirconium and the balance essentially aluminum, and (2) from 2 to 50% by weight of a finely divided element of the group consisting of sulfur, selenium and tellurium.

3. A pyrophoric composition which comprises a mixture of (1) a finely divided alloy composed essentially of 50 to 80% of at least one of the metals of the group consisting of titanium and zirconium, 2 to 10% each of at least one metal of the group consisting of silicon and tin, and the balance essentially aluminum, and (2) from 2 to 50% by weight of a finely divided element of the group consisting of sulfur, selenium and tellurium.

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**2,775,515**

**METHOD OF COLORED CLOUDS BY EXPLOSIVE DISPERSION**

Sidney J. Magram, Baltimore, Md., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Application December 10, 1953, Serial No. 397,492
4 Claims. (Cl. 52—23)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A method of producing a colored cloud by explosive dispersion which comprises detonating a missile containtaining an explosive dispersant and a finely divided inert powder of the group consisting of silica gel, titanium dioxide and aluminum oxide coated with a coloring material of the group consisting of 1-methylamino-anthraquinone, auramine and Rhodamine B, the inert powder, coloring material composition containing from 10% to 0.5% of the coloring material and from 90% to 99.5% of the inert powder.

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**2,775,516**

**METHOD FOR PRODUCTION OF COMPOUND IRON POWDERS**

William M. Shafer, Johnstown, Pa., assignor to The National-U. S. Radiator Company, a corporation of Maryland

No Drawing. Application June 17, 1954, Serial No. 437,569
7 Claims. (Cl. 75—.5)

4. That method of making compound iron powder comprising mixing iron powder containing combined carbon with at least one finely divided oxide of a non-ferrous metal reducible by carbon, the proportions of said powder and oxide being such as to provide carbon in an amount to reduce said oxide with production of iron powder of low carbon content, heating the mixture under non-oxidizing conditions to a temperature at which said oxide is reduced by the carbon of said powder, and recovering iron particles of lowered carbon content surface coated with the metal of said oxide.

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**2,775,517**

**PROCESSES FOR TREATING NICKEL BEARING IRON ORES**

Edgar B. Mancke, Bethlehem, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania

No Drawing. Application October 4, 1951, Serial No. 249,805
5 Claims. (Cl. 75—1)

3. In a process of beneficiating Mayari type iron ore containing chromium, nickel and cobalt, the steps of roasting the ore with alkali, leaching with water to remove chromium and alkali, and then leaching the ore with a solution containing ferric and ferrous salts of an acid contained in the group consisting of hydrochloric and sulphuric acids to remove nickel.

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**2,775,518**

**MANGANESE RECOVERY**

Marvin J. Udy, Niagara Falls, N. Y., assignor to Strategic-Udy Metallurgical & Chemical Processes Limited, Hamilton, Ontario, Canada

Application March 10, 1953, Serial No. 341,415
7 Claims. (Cl. 75—11)



4. A two-stage process for the production of ferromanganese from manganese-bearing ores comprising oxides of manganese, iron, calcium and silicon that comprises, smelting a charge of the manganese-bearing ore and a controlled amount of carbonaceous reducing material sufficient, (1) to provide for the production of a molten slag product comprising silica and basic oxides including that proportion of the manganese oxide content of the ore necessary to establish a base-acid ratio within the molten slag equivalent to two moles of base for each mole of silica, (2) to effect reduction to the metallic state of at least a portion of the iron oxide content of the ore, and (3) to effect reduction to the metallic state of the manganese oxide content of the ore in excess of that necessary to satisfy the two to one base-acid ratio within the molten slag product, with the production of a molten ferromanganese product; separating and recovering the molten ferromanganese product and transferring the molten slag product to a covered open-arc electric furnace; adding calcium oxide and carbonaceous reducing material to the molten slag in controlled amounts sufficient, (1) to effect displacement of the manganese oxide content of the slag while maintaining the base-acid ratio of the slag at two moles of base for each mole of silica exclusive of manganese oxide, (2) to effect reduction to the metallic state of the manganese oxide content of the slag, (3) to effect reduction to the metallic state of any iron oxide present in the slag, and (4) to provide for the production of a small amount of calcium carbide within the slag; subjecting the molten slag, calcium oxide and carbonaceous reducing material to a smelting treatment within the electric furnace under action of combined arc-resistance and slag-resistance heating with the production of a molten metallic manganese-bearing product and molten residual slag low in manganese and iron and containing a small amount of calcium carbide; and separating and recovering the molten metallic manganese-bearing product from the molten residual slag.

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**2,775,519**

**COLD-SPUN ARTICLES**

Fredrick K. Bloom and William C. Clarke, Jr., Baltimore, Md., assignors to Armco Steel Corporation, a corporation of Ohio

Application November 5, 1951, Serial No. 254,922
2 Claims. (Cl. 75—125)



1. Cold-spun and machined articles having the approximate analysis, carbon up to about 0.15%, manganese incidental amounts up to about 15%, from about 10% to about 25% chromium, about 7% to about 20% nickel, about 1.0% to about 6.0% copper, one element of the group consisting of about 0.04% to 0.40% phosphorus and about 0.03% to 0.40% sulfur, and remainder iron.

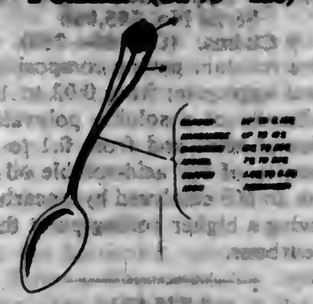


**2,775,520**

**COLD-STAMPED ARTICLES**

Fredrick K. Bloom and William C. Clarke, Jr., Baltimore, Md., assignors to Armco Steel Corporation, a corporation of Ohio

Application November 5, 1951, Serial No. 254,923
2 Claims. (Cl. 75—125)



1. Cold-stamped and machined stainless steel articles analyzing approximately up to 0.15% carbon, up to 15% manganese, from about 10% to about 25% chromium, from about 7% to about 20% nickel, from about 1.0% to about 6.0% copper, one element of the group consisting of about 0.04% to 0.40% phosphorus and about 0.03% to 0.40% sulfur, and remainder iron.

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**2,775,521**

**METHOD OF FORTIFYING GRAIN PRODUCTS AND THE RESULTING PRODUCT**

Michael Mateles, Nutley, and Peter Fredrick Widmer, Hawthorne, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application September 29, 1953, Serial No. 383,136
13 Claims. (Cl. 99—11)

1. A method for fortifying grain products which comprises applying a dry mixture comprising vitamin C and an edible higher fatty acid to the grain and coating the vitamin enriched grain with an edible, water-repellent coating.

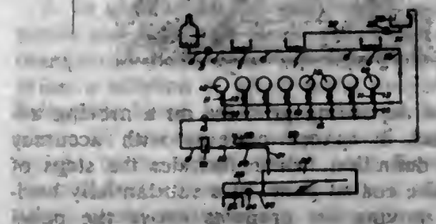
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**2,775,522**

**PROCESS FOR THE MANUFACTURE OF BEER AND THE LIKE**

Morton William Cowie, Auckland, New Zealand, assignor to Dominion Breweries Limited, Auckland, New Zealand, a corporation of New Zealand

Application August 6, 1952, Serial No. 302,964
Claims priority, application New Zealand September 28, 1951
6 Claims. (Cl. 99—52)



1. In the manufacture of beer and fermented beverages, the improved process for treating wort comprising cooling the wort from boiling to a temperature below freezing and not more than approximately 2° F. above freezing which is below that required for the start of fermentation and holding it at said temperature for a period of time until the materials inducing foam, body and flavor in the finished beer which have come out of solution during cooling and which are capable of redissolving have redissolved and the materials not soluble at said temperature have coagulated, removing from the wort all insoluble material at said temperature to stabilize the wort, and finally reheating the stabilized wort to the seeding temperature of fermentation and fermenting the wort.

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**2,775,523**

**DECORATIVE HOUSE**

Madelyne Larson Green, Mount Prospect, Ill.

Application February 16, 1953, Serial No. 337,110
4 Claims. (Cl. 99—96)



1. A decorative house comprising a pair of end wall elements each having a door opening, a pair of side wall elements each having a window opening and a pair of roof elements, each of said elements comprising a member of metal foil defining a recess filled with an edible composition adhered to the inner surfaces thereof and having outwardly extending tabs that are secured to corresponding tabs of another element, the edges of each of said door and window openings and the meeting edges of said elements being covered by a frosting.

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**2,775,524**

**METHOD OF PRODUCING CELLULATED ARTICLES**

Dominic D'Eustachio, Port Allegany, Pa., assignor to Pittsburgh Corning Corporation, Pittsburgh, Pa., a corporation

No Drawing. Application March 21, 1952, Serial No. 277,895
1 Claim. (Cl. 106—40)

A method of preparing cellular glass, which comprises absorbing on inert material selected from the group consisting of diatomaceous earth and silica and having a surface area greater than about 10 square meters per gram, a substance selected from the group consisting of polyhydric alcohols and an aqueous sugar solution, heating said inert material with said absorbed substance thereon to decompose said substance and form a black char containing carbon in an amount from 5 to 50 parts by weight to 100 parts of said inert material, grinding a mixture of glass cullet with an amount of said char to provide from 0.08 to 0.15% by weight of carbon based on the weight of said cullet, heating the ground mixture to a temperature sufficient to soften and cellulate the glass and cooling the product.

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**2,775,525**

**COMPOSITE REFRACTORY MATERIAL**

Leslie W. Austin, San Jose, and James C. Hicks, Menlo Park, Calif., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

No Drawing. Application December 18, 1951, Serial No. 262,336
17 Claims. (Cl. 106—59)

1. Nonfused crystalline refractory structure consisting essentially of agglomerated intergrown crystals of periclase and at least two magnesia spinels, in amounts calculated as from 10% to 75% periclase and from 25% to 90% of said magnesia spinels, and containing less than 2.0% CaO and not over 5.0% total impurities, the surfaces of said periclase and said spinel crystals at least partially abutting upon and bonding directly to surfaces of contiguous periclase and spinel crystals.

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**2,775,526**

**REFRACTORY MATERIAL**

Leslie W. Austin, San Jose, and James C. Hicks, Menlo Park, Calif., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

No Drawing. Application December 18, 1951, Serial No. 262,335
11 Claims. (Cl. 106—59)

2. Nonfused crystalline refractory material consisting

essentially of agglomerated, uniformly interdispersed, intergrown crystals of periclase, magnesioferrite and at least one second magnesia spinel, in amounts calculated as at least 10% of periclase crystals and at least 50% of said magnesia spinels, including from 10% to 90% of said spinels calculated as magnesioferrite and from 10% to 90% of said spinels calculated as said second magnesia spinel, said material containing not over 2.0% CaO.

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2,775,527

**REFRACTORY MATERIAL**

Leslie W. Austin, San Jose, and James C. Hicks, Menlo Park, Calif., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

No Drawing. Application December 18, 1951, Serial No. 262,334

14 Claims. (Cl. 106—60)

1. Non-fused crystalline refractory material consisting essentially of agglomerated intergrown crystals of periclase and magnesia spinels of iron oxide and alumina, in amounts calculated as from 10% to 90% periclase, from 5% to 85% magnesioferrite and from 5% to 85% magnesium aluminate, and containing not over 2.0% CaO.

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2,775,528

**MANUFACTURE OF CELLULOSE**

Frank Roland Charles and Morris Wayman, Hawkesbury, Ontario, Canada, assignors to Canadian International Paper Company, Montreal, Quebec, Canada, a corporation of Canada

No Drawing. Application April 8, 1950, Serial No. 154,896

4 Claims. (Cl. 106—163)

1. A new article of manufacture consisting of a purified chemical pulp product having incorporated therein a polyoxyethylene ester derived from the group comprising abietic and hydroabietic acids.

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2,775,529

**MANUFACTURE AND USE OF CELLULOSE ESTERS**

Harold Bates, Charles William Simmons, and James Wotherspoon Fisher, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain

No Drawing. Application March 13, 1952, Serial No. 276,441

Claims priority, application Great Britain March 28, 1951

6 Claims. (Cl. 106—165)

1. A process for the manufacture of one- and two-dimensional shaped articles in which the starting material is a cellulose triester of an aliphatic acid containing 2–4 carbon atoms which has been made from cellulose by a process of the suspension type using a catalyst consisting of perchloric acid and retains the fibrous form of the cellulose, which comprises dissolving the fibrous cellulose triester in a mixture consisting of an aliphatic acid containing up to 4 carbon atoms in the molecule with a minor proportion of a compound of formula $C_nH_{2n+1}OH$, where $n$ is 0–4, which is substantially free from inorganic acids, to form a solution of 20 to 30% concentration of the cellulose ester, maintaining the solution at a temperature above 100° C. until the cellulose ester contains more than 0.2 free hydroxyl groups for each anhydroglucose unit of the cellulose, and spinning and coagulating the solution so obtained.

2,775,530

**BITUMEN AND AGGREGATE COMPOSITION AND A BUILDING BLOCK MOLDED THEREFROM**

Dennis W. Gegle and Charles E. Dofenbaugh, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application August 18, 1952, Serial No. 305,068

9 Claims. (Cl. 106—280)

1. A moisture resistant paving composition comprising bitumen; mineral aggregate; from 0.02 to 15 weight percent of said bitumen of a soluble polyvalent metal salt of a strong mineral acid; and from 0.1 to 3 weight percent of said bitumen of HF acid-soluble oil obtained as a by-product from an HF catalyzed hydrocarbon conversion process and having a higher boiling point than any of the reactant hydrocarbons.

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2,775,531

**METHOD OF COATING A METAL SURFACE**

Earle T. Montgomery, Arnold P. Welch, and Joseph L. Bitonte, Columbus, Ohio, assignors to The Ohio State University Research Foundation, Columbus, Ohio, a corporation of Ohio

No Drawing. Application May 10, 1949, Serial No. 92,986

3 Claims. (Cl. 117—22)

1. A process of plating a metal surface which comprises forming small particles of metal selected from the group consisting of aluminum, iron, nickel and cobalt, forming small particles of a metal oxide selected from the group consisting of alumina, magnesia and zirconia, mixing the metal and the metal oxide particles together, sintering said mixture, reducing the sintered mixture to particles of powder of extremely small size and flame-spraying the mixed sintered particles on the surface to be coated and thereby heating said particles of powder to a sintering temperature of at least approximately 2100° F.

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2,775,532

**METHOD AND APPARATUS FOR MAKING PATTERNED SIDING**

Stanley H. Sallie, Mansfield, and Ernest J. Zitke, Brockton, Mass., assignors to Bird & Son, Inc., East Walpole, Mass., a corporation

Application September 24, 1952, Serial No. 311,224

10 Claims. (Cl. 117—25)



1. A method of depositing granules on a moving adhesive-coated panel in spaced patterns with accuracy and sharpness of definition, which includes the steps of moving the adhesive-coated panel in a substantially horizontal direction, moving the granules above the panel at a velocity having a horizontal component substantially equal to the velocity of said panel and in the same direction as the movement of the panel and dropping the granules onto the coated panel to cover spaced areas and thereby forming the patterns.

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2,775,533

**METHOD OF TREATING LIQUIDS AND METHOD OF STERILIZING INSTRUMENTS THEREWITH**

Thomas F. Healy, Lakewood, Ohio, assignor to H. S. D. Laboratories, Incorporated, a corporation of Ohio

No Drawing. Application November 29, 1951, Serial No. 259,021

6 Claims. (Cl. 117—64)

1. The method of treating surgical instruments in an aqueous solution containing hardening agents which comprises adding to the aqueous solution from approximately one-fourth ounce to two ounces per gallon of a composition which is soluble in the aqueous solution and then immersing the surgical instruments therein, said composition comprising a water soluble aliphatic amine having a higher boiling point than water and which contains at least two but not more than nine carbon atoms, a water soluble alkyl ether of a dihydric alcohol having a higher boiling point than water in which the alkyl group contains at least one but not more than four carbon atoms, and sodium nitrite, said amine and ether being present in the composition in proportions ranging from approximately 10% to 90% by volume of the ether to 10% to 90% by volume of the amine and the amine being present in the composition in an amount sufficient to combine with the hardening agent in the aqueous solution and to form a film upon the instruments being treated and the ether being present in the composition in an amount sufficient to cause dispersion of the amine in the aqueous solution and to influence in the presence of the amine the physical properties of the film that is formed on the instrument, and the sodium nitrite being present in the composition in an amount to provide approximately twenty grains to forty grains for each gallon of the liquid to be treated and sufficient to prevent the formation of rust upon the instruments, and then removing and polishing the instruments after a film has been formed thereon.



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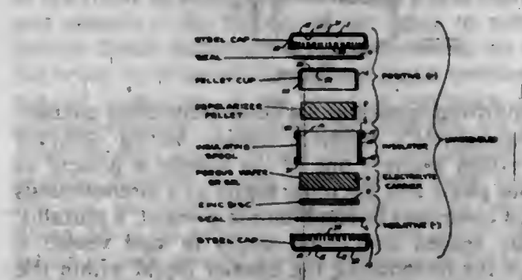
2,775,534

**PRIMARY DRY CELL**

William S. Herbert, Madison, Wis., assignor to Ray-O-Vac Company, Madison, Wis., a corporation of Wisconsin

Original application July 8, 1949, Serial No. 103,593, now Patent No. 2,656,945, dated September 1, 1953. Divided and this application August 31, 1953, Serial No. 377,321

9 Claims. (Cl. 136—139)



5. In an alkaline dry cell having an amalgamated zinc anode and a cathode-depolarizer containing graphite and manganese dioxide, an alkaline electrolyte which comprises a solution of alkali metal hydroxide in water, said hydroxide being initially present in an amount between about 20 percent, by weight, and about 75 percent, by weight, of the water present, and said solution containing dissolved alkali metal zincate and dissolved unreacted alkali metal hydroxide in proportions by weight which fall between the ratios of from about 3.1 parts to about 25 parts of alkali metal hydroxide for each part of alkali metal zincate.

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2,775,535

**TREATMENT OF TINPLATE**

William David Poole, Baltimore, Md., assignor to Bethlehem Steel Company, a corporation of Pennsylvania

No Drawing. Application March 14, 1952, Serial No. 276,693

5 Claims. (Cl. 148—6.2)

1. In a method for treating electrolytic tinplate in strip form the steps comprising heating strip to a temperature above the melting point of tin, cleaning the strip cathodically in an aqueous alkaline solution of sodium carbonate in which the concentration of alkaline compound is approximately 0.5% to 5.5% at a current density of from 3 to 30 amp./sq. ft. and at a temperature of from 160° F. to 210° F. for a period of time in excess of 0.5 second, rinsing the strip with water and then passing the strip thru a chromic acid solution having a $CrO_3$ concentration of from 0.1% to 1.0% at a temperature of from 150° F. to 200° F., and rinsing the strip.

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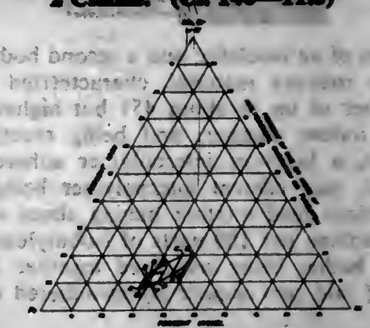
2,775,536

**BODIES HAVING LOW TEMPERATURE COEFFICIENTS OF ELASTICITY**

Morris E. Fine, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application July 19, 1952, Serial No. 299,909

2 Claims. (Cl. 148—11.5)



2. The method which comprises cold-working an alloy to achieve a cold area reduction of at least 3 percent and annealing said alloy from the cold-worked state at a temperature between 150° and 600° C., said cold-worked and annealed alloy consisting of a composition defined within an area on a ternary diagram having as its coordinates, weight percent iron, weight percent nickel and weight percent of at least one element selected from the group consisting of molybdenum, chromium and tungsten, said area being defined by a hexagon having at its corners the six points defined by (1) 28 percent nickel, 64 percent iron and 8 percent of at least one of said elements selected from the group consisting of molybdenum, chromium and tungsten; (2) 28 percent nickel, 59 percent iron and 13 percent of at least one of said elements selected from the group consisting of molybdenum, chromium and tungsten; (3) 36 percent nickel, 44 percent iron and 20 percent of at least one of said elements selected from the group consisting of molybdenum, chromium and tungsten; (4) 39 percent nickel, 41 percent iron and 20 percent of at least one of said elements selected from the group consisting of molybdenum, chromium and tungsten; (5) 39 percent nickel, 45 percent iron and 16 percent of at least one of said elements selected from the group consisting of molybdenum, chromium and tungsten; and (6) 32 percent nickel, 59 percent iron and 9 percent of at least one of said elements selected from the group consisting of molybdenum, chromium and tungsten, the amount of said component selected from the group consisting of molybdenum, chromium and tungsten being not greater than 13 percent when said component consists of molybdenum and not greater than 13 percent when said component consists of chromium; and in addition to said composition up to .25 percent carbon, up to 2 percent manganese, and up to 5 percent silicon together with incidental impurities having no effect on the modulus of elasticity.

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2,775,537

**DOUBLE CEMENTS FOR BONDING DISSIMILAR RUBBERY MATERIALS**

Howard L. Wilson, Raritan Township, Union County, and Samuel B. Robison and Winthrope C. Smith, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application April 29, 1952, Serial No. 285,071

12 Claims. (Cl. 154—140)

1. An article of manufacture comprising a first body

of a low temperature interpolymer of a major amount of isobutylene with a minor proportion of a conjugated diolefin, the interpolymer being characterized by a low unsaturation within the range of a Wijs iodine number between about 0.5 and 50, a molecular weight above about 20,000 and reactivity with a curing agent to yield an elastic product, a layer of interpolymer adherent thereto as a cement, said cement interpolymer having a Wijs iodine number above about 50 and having been prepared from an olefinic feed mixture having about 20 to 100 parts of diolefin having from about 4 to 6 carbon atoms



per 100 parts of an isoolefin; and a second body of a high unsaturation rubbery material, characterized by a Wijs iodine number of up to about 451 but higher than said first-named iodine number, and being reactive with a curing agent, a layer of interpolymer adherent thereto as a cement, said cement interpolymer being prepared from an olefinic feed mixture having about 400 to 750 parts of butadiene per 100 parts of isobutylene, said first and second bodies being cemented together by a bond consisting of said two cement layers adhered directly together.

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2,775,538

**STABILIZED HEXYLRESORCINOL THERAPEUTIC AGENT CONTAINING CASTOR OIL**

Arthur Beckamp, Lockstedter Lager, Holstein, Germany

No Drawing. Application April 30, 1952, Serial No. 285,331

Claims priority, application Germany June 4, 1951

4 Claims. (Cl. 167—55)

1. A stable hexylresorcinol therapeutic agent for internal administration consisting of a solution of hexylresorcinol dissolved in castor oil.

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2,775,539

**PROCESS OF AND COMPOSITIONS FOR COMBATING EPILEPTIC SEIZURES WITH ATROLACTAMIDE**

Roger W. Stoughton, St. Louis, Mo., assignor to Mallinckrodt Chemical Works, St. Louis, Mo., a corporation of Missouri

No Drawing. Application September 6, 1952, Serial No. 308,299

10 Claims. (Cl. 167—65)

1. A composition in dosage form for controlling epileptic seizures, comprising not less than approximately 5% by weight of atrolactamide and not less than approximately 2% by weight of a pharmaceutical carrier.

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2,775,540

**PRODUCTION OF DEXTRAN**

Ernest L. Wiseman, Springfield, and George D. Lakata, Philadelphia, Pa., assignors to The American Sugar Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application December 18, 1950, Serial No. 201,498

4 Claims. (Cl. 195—31)

1. The improvement in the production of dextran from sucrose by Leuconostoc fermentation which comprises carrying out the fermentation in a culture medium made of pasteurized, freshly prepared yeast bear to which sucrose and the Leuconostoc culture are added.

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2,775,541

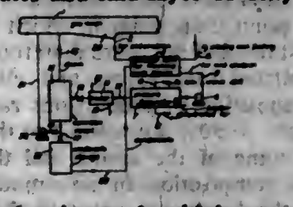
**PROCESS FOR DEHYDRATING OF TAR**

Alfred Karl, Essen, Germany

Application January 6, 1954, Serial No. 402,456

7 Claims. (Cl. 196—5)

1. A method of dehydrating water-containing tar derived from a tar-containing crude gas formed during the dry distillation of coal which comprises heating said water-containing tar under superatmospheric pressure in an enclosed separator zone to cause the formation therein of superimposed layers of dehydrated tar, tar-water emulsion and water; withdrawing a minor portion of said tar-water emulsion from said enclosed zone separately from said layer of water and said layer of dehydrated tar also



present therein; heating such withdrawn emulsion in an enclosed zone to a temperature exceeding that in the enclosed separator zone; passing said heated emulsion to an expansion zone maintained at a pressure below that obtaining within said enclosed zone thereby to cause vigorous ebullition of the water content of the emulsion and evaporation of a portion of such water content, and returning the non-evaporated component to said enclosed separator zone.

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2,775,542

**LIQUID-LIQUID EXTRACTION TRAY**

John A. Carver, Scotch Plains, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application September 30, 1953, Serial No. 383,349

12 Claims. (Cl. 196—14.52)



1. An improved apparatus for countercurrently contacting two incompletely miscible liquids having different specific gravities wherein one of the liquids is present as a continuous phase and the other liquid as a discontinuous phase which comprises in combination a vessel; a plurality of vertically spaced contacting stages in said vessel; a first conduit for introducing the heavier liquid within the top of the vessel; a second conduit for withdrawing the heavier liquid from the bottom of the vessel; a third conduit for introducing the lighter liquid within the bottom of the vessel; a fourth conduit for withdrawing the lighter liquid from the top of the vessel; a vertically disposed, laterally confined mixing zone in each stage; the mixing zones of successive stages being on opposite sides of said vessel; the outlet ends of the mixing zones facing toward the end of the vessel where the continuous phase liquid enters the vessel; a horizontally disposed settling zone in each stage whereby mixtures of the two liquids are separated into separate phase layers; the outlet end of each mixing zone discharging directly into the entrance end of its respective settling zone; a fifth conduit in each stage; the fifth conduit in any given stage being adapted to convey continuous phase liquid from the continuous phase layer in the settling zone of a stage on one side of the given stage to the entrance end of the mixing zone in the given stage; a sixth conduit in each stage; the sixth conduit in said given stage being adapted to convey discontinuous phase liquid from the discontinuous phase layer in the settling zone of a stage on the opposite side of the given stage into the entrance end of the mixing zone of the given stage; a liquid seal in each said sixth conduit whereby a phase layer of discontinuous phase liquid is provided



in each settling zone; a weir intermediate the outlet end of each sixth conduit and the entrance end of its respective mixing zone; a baffle element laterally intermediate the discontinuous phase layer in the settling zone of each stage and the inlet end of the sixth conduit that conveys the discontinuous phase liquid to the next stage; each said baffle element forming a flow-rate stabilization chamber in its respective stage, said stabilization chamber lying laterally between the said baffle element and the inlet to the 6th conduit.

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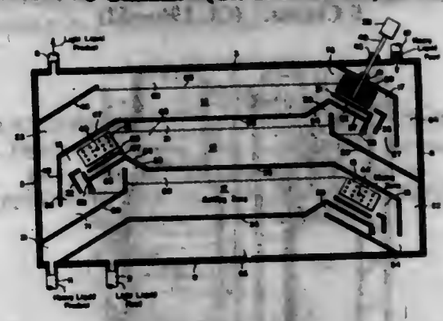
2,775,543

**LIQUID-LIQUID CONTACTING TOWER**

Robert B. Long, Wassenaar, John A. Carver, Scotch Plains, Clinton H. Holder, Westfield, and James R. Felix, Fieldfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 30, 1953, Serial No. 383,291

6 Claims. (Cl. 196—14.52)



1. An apparatus for countercurrently contacting two incompletely miscible liquids having different densities wherein one of the liquids is present as a continuous phase and the other liquid as a discontinuous phase which comprises a vertically disposed tower; a first conduit at the top of the tower to introduce the heavier liquid therein; a second conduit at the bottom of the tower to withdraw the heavier liquid therefrom; a third conduit at the bottom of the tower to introduce the lighter liquid therein; a fourth conduit at the top of the tower to withdraw the lighter liquid therefrom; a plurality of vertically spaced, superposed treating stages in said tower; an angularly inclined, laterally confined mixing zone in each stage with an inlet end and an outlet end; the mixing zones of successive stages being on opposite sides of said tower; mechanical means in each mixing zone adapted to mix said liquids; a horizontally disposed confined settling zone in each stage adapted to separate mixtures of the liquids into separate phase layers; the outlet end of each mixing zone discharging into the entrance of its respective settling zone; the outlet ends of the mixing zones being vertically nearer to the end of the tower where the continuous phase liquid enters the tower than are the inlet ends of the mixing zones; a fifth conduit in each given stage arranged to withdraw the continuous phase liquid from the continuous phase layer in the settling zone of a stage on one side of the given stage and to introduce said continuous phase liquid within the inlet end of the mixing zone of the given stage; a sixth conduit in each given stage arranged to withdraw the discontinuous phase liquid from the discontinuous phase layer in the settling zone of a stage on the opposite side of the given stage and to introduce said discontinuous phase liquid within the inlet end of the mixing zone of the given stage; baffle means in each stage whereby the heavier liquid entering the mixing zone of the stage is directed toward the upper portion of the inlet end of the mixing zone of the stage and the lighter liquid is directed toward the lower portion of the inlet end of the mixing zone; a liquid trap in each said sixth conduit; a weir intermediate the outlet end of each said sixth conduit and the inlet end of the mixing zone in each stage arranged to distribute the discontinuous phase liquid uniformly across the width of the mixing zone; and a seventh conduit in each stage arranged to recycle a portion of the continuous phase liquid from the settling zone of each stage to the inlet end of the mixing zone in the stage.

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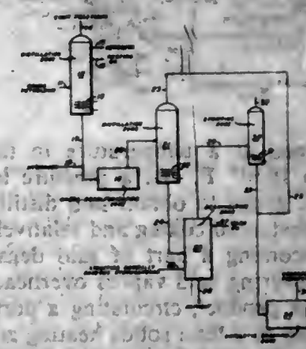
2,775,544

**PRODUCTION OF CATALYTIC CRACKING FEED STOCKS**

Hampton G. Cornell, Richard S. Manne, George R. L. Shepherd, and Armand M. Souby, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application February 28, 1955, Serial No. 490,744

6 Claims. (Cl. 196—24)



1. A method for increasing the yields of catalytic cracking stock obtainable from a reduced crude petroleum feed stock boiling above about 600° F. which comprises subjecting said crude to conditions of hydrodesulfurization to form a hydrodesulfurized product, removing a first gas oil fraction and lighter fractions from said products, subjecting said hydrodesulfurized product after removal of gas oil to deasphalting conditions to obtain a second gas oil fraction and combining said gas oil fractions to obtain augmented yields of catalytic cracking stock.

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2,775,545

**PREVENTION OF SOURNESS OF SWEET NAPHTHAS DURING DISTILLATION BY DISTILLING IN THE PRESENCE OF AN ALKYLENE OXIDE AND A SALT OF AN ORGANIC ACID**

Walter J. Sandner, Carpentersville, and William L. Fierce, Algonquin, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application November 7, 1955, Serial No. 545,530

8 Claims. (Cl. 196—25)

1. In the distillation of an oxidatively sweetened hydrocarbon fraction containing organic sulfur compounds, including disulfides, at temperatures normally effective for the conversion of said compounds to produce doctor-positive products, the improvement which comprises carrying out the distillation in the presence of sufficient amounts of an admixture of an alkylene oxide having a boiling point at least about as high as the end boiling point of said fraction and an oil-soluble, basic salt of a high molecular weight organic acid to prevent said conversion and the development of a doctor-positive distillation effluent.

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2,775,546

**CONVERSION OF HYDROCARBONS IN THE PRESENCE OF INERT SOLIDS**

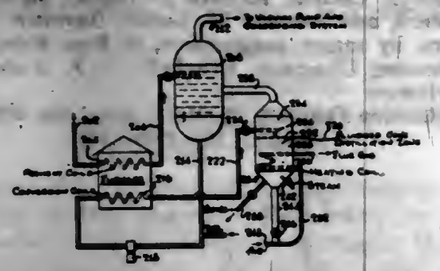
Charles N. Kimberlin, Jr., and Robert W. Krebs, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 28, 1951, Serial No. 232,523

3 Claims. (Cl. 196—50)

1. A residual oil conversion process which comprises coking a residual oil in liquid phase in a coil and drum coking zone at a coking temperature in the range of 750°

to 950° F., a pressure in the range of 100 to 3000 p. s. i., and for a time in the range of 2 to 240 minutes while in admixture with 15 to 100 lbs./bbl. of coke particles of a size in the range of 5 to 250 microns and in admixture with 20 to 120 vol. percent of naphtha diluent boiling in the range within the limits of 250° to 500° F. to obtain coke, distillable oils and gas, flashing the total effluent from said coking zone directly into a distillation zone containing a dense turbulent bed of fluidized coke



particles maintained at a temperature in the range of about 800° F. to 1050° F. and a pressure in the range of 0 to 25 p. s. i. gauge to obtain said distillable oils as vapors without substantial coking and relatively dry coke, said dry coke becoming a part of said dense turbulent fluidized bed, recovering said vapors overhead from said distillation zone as product, circulating a portion of said dense turbulent bed to a fluid solids heating zone wherein the solids are heated by combustion, and returning heated solids to said distillation zone to supply heat thereto.

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2,775,547

## HYDROCARBON LIFT SYSTEM FOR THE CONVERSION OF HYDROCARBONS AND THE SEPARATION OF FINES

David B. Ardern, Moylan, Pa., and Robert M. Shirk, Wilmington, Del., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application May 3, 1951, Serial No. 224,324

7 Claims. (Cl. 196—52)



1. In a hydrocarbon conversion process wherein a body of granular catalyst is continuously circulated through a closed system including hydrocarbon conversion and catalyst regeneration zones through each of which said catalyst gravitates as a compact moving mass, and wherein regenerated catalyst withdrawn from said regeneration zone is elevated by a stream of gaseous hydrocarbons through a confined lift path for return to said conversion zone, the method of removing catalyst fines from said circulating body of catalyst which comprises the steps of: continuously removing a minor portion of fresh regenerated catalyst from said system; engaging said minor portion of regenerated catalyst with a stream of inert lift gas; conveying said minor portion of regenerated catalyst by means of said inert lift gas upwardly through a second confined lift path to an elevated elutriation zone; passing the catalyst-conveying stream of inert lift gas through said elutriation zone at such reduced velocity that the particles of catalyst other than fines become disengaged from the gas stream and settle to the bottom of said elutriation zone; discharging said inert gas together with entrained fines from the upper end of said elutriation zone; discharging the disengaged coarser particles of catalyst from the bottom of said elutriation zone; and returning said coarser particles to said circulating body of catalyst.

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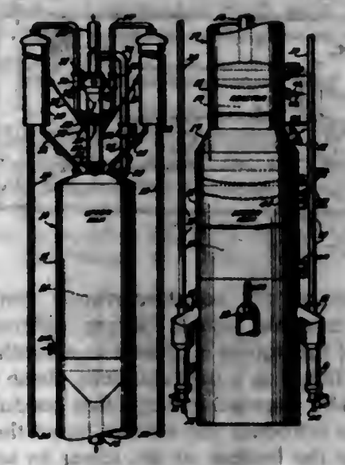
2,775,548

## HYDROCARBON CONVERSION SYSTEM

Reyner Kollgaard, Media, Pa., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application April 30, 1952, Serial No. 285,270

5 Claims. (Cl. 196—52)



1. In a hydrocarbon conversion process in which granular contact material gravitates successively through superimposed conversion and regeneration zones, and is thereafter pneumatically elevated through a lift pipe for return to said conversion zone, and in which the elevated temperature at which regenerated contact material is to be introduced into said conversion zone is of such magnitude as to be detrimental to the materials of construction usually employed in the fabrication of lift pipes, the method of transporting contact material from said regeneration zone to said conversion zone so that its temperature while being pneumatically lifted is substantially below, and its temperature of introduction to said conversion zone is at, said elevated temperature which comprises the steps of: effecting only partial regeneration of said contact material in the presence of oxygen-containing gas within said regeneration zone; introducing said partially regenerated contact material into said lift pipe at a relatively low temperature substantially below such detrimental temperature; elevating said low-temperature contact material through said lift pipe to an elevated location substantially above said conversion zone by means of lift gas comprising gaseous combustion products withdrawn from said regeneration zone; separating said partially regenerated contact material from said lift gas at said elevated location; passing said contact material by gravity flow through a second regeneration zone located above said conversion zone to complete the desired regeneration of said contact material in the presence of additional oxygen-containing gas, thereby raising the temperature of said contact material to said elevated temperature; and passing said regenerated contact material by gravity flow and without substantial reduction in temperature directly to said conversion zone.



2,775,549

## PRODUCTION OF COKE FROM PETROLEUM HYDROCARBONS

Frederick L. Shea, Jr., Arlington Heights, Ill., assignor to Great Lakes Carbon Corporation, New York, N. Y., a corporation of Delaware

Application January 25, 1954, Serial No. 405,979

11 Claims. (Cl. 196—52)



1. A process for producing needle-like coke which comprises removing from a high boiling petroleum residuum those components which readily form an insoluble phase upon heating at 350°–550° C., and coking the remaining residuum in a quiescent pool.

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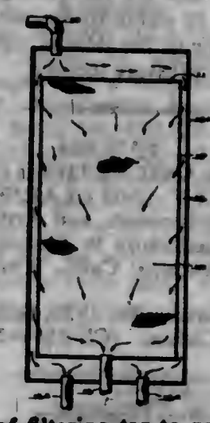
2,775,550

## REDUCTION OF $C_1$ CARBON CONTENT IN TAR

Earl V. Harlow, Towson, Md., assignor to Koppers Company, Inc., a corporation of Delaware

Application April 16, 1954, Serial No. 423,676

6 Claims. (Cl. 196—147)



1. In a process of filtering tar to provide a tar filtrate substantially free of $C_1$ particles the step which comprises: flowing liquified tar at a linear velocity of from about 4 to about 16 feet per second across the surface of a filter screen to build and maintain a thin, tenacious membrane of $C_1$ particles thereon, the tar flowing across and not through the screen having an increased amount of $C_1$ particles and the tar which flows through the screen having a decreased amount of $C_1$ particles.

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2,775,551

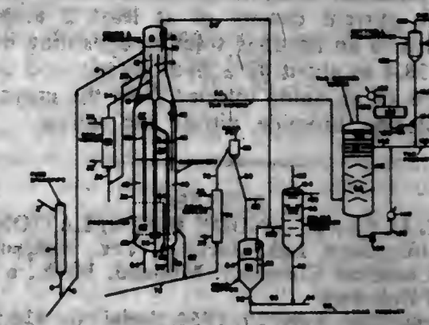
## COAL CARBONIZATION

Marvin F. Nathan, New York, N. Y., Walter E. Lobo, Westfield, N. J., and George T. Skaperdas, Fresh Meadows, N. Y., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application June 23, 1955, Serial No. 517,472

9 Claims. (Cl. 202—6)

1. A unitary process for the treatment of carbonaceous solids to remove therefrom volatile constituents which comprises heating and drying the solids in a finely subdivided state in a drying zone in a dense phase fluidized bed, further heating the dry solids in a preheating zone in a second dense phase bed, passing dry heated solids from the preheating zone downwardly as a confined stream through a subjacent carbonization zone to a pretreating zone wherein there is maintained at an elevated temperature above the temperature in the heating zone a third dense phase bed of finely subdivided pretreated solids, said pretreating zone being enclosed within the carbonization zone and openly communicating therewith through a grid, introducing oxygen into the pretreated solids bed and partially burning heated solids introduced thereto, maintaining within the carbonization zone a dense phase bed of finely subdivided char at a temperature above the temperature in the pretreating zone, passing pretreated solids and combustion gases through the grid directly into the enclosing carbonization zone beneath



the level of said dense phase bed of char, vaporizing from the pretreated solids volatile tar constituents whereby said carbonaceous solids are converted to char, introducing additional oxygen into the char solids bed to burn a portion of the devolatilized char and provide the heat required to elevate the pretreated solids to the carbonization temperature and vaporizing volatile components therefrom, recovering combustion gases and volatile tar components from a dilute phase above the dense char bed and removing product char from said bed.

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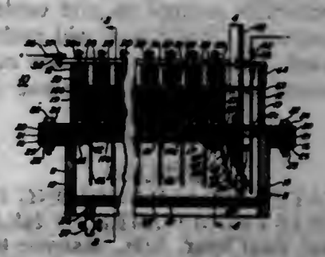
2,775,552

## CONTINUOUS ELECTROLYTIC PROCESS FOR REDUCING URANIUM IN SOLUTION

Robert Q. Boyer, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Original application April 21, 1944, Serial No. 532,162. Divided and this application September 10, 1945, Serial No. 615,467

3 Claims. (Cl. 204—124)



1. In a process for reclaiming uranium values from an oxidized hydrochloric acid solution of about 3 N concentration and containing $UO_2^{++}$ ions and ions selected from the group consisting of $Fe^{+++}$, $Cu^{++}$, $Ni^{++}$, and $Cr^{+++}$ ions, the steps comprising continuously passing said solution through the cathode compartment of an operating electrolytic cell having a rotating cathode which is provided with a thin, continuously-replaceable mercury coating and an anode compartment filled with a hydrochloric acid electrolyte of about 3 N concentration and separated from said cathode compartment by a porous barrier, continuously and simultaneously correlating the rate of flow of said solution through said cathode compartment of the operating cell with the electrolytic current density applied therethrough to promote the reduction of the $UO_2^{++}$ ions to $U^{++++}$ ions and the reduction of ions of said group to the metallic state and which are absorbed in said mercury cathode coating, and simultaneously and continuously replacing said mercury cathode coating by displacement during immersion of a portion of said rotating cathode in a relatively large volume of mercury.

2,775,553
**ELECTROLYTIC ETCHING PROCESS FOR ELECTROLYTIC CAPACITORS**
George J. Kahan, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
No Drawing. Application December 31, 1952, Serial No. 329,150
2 Claims. (Cl. 204—141)

1. A process for increasing the effective surface of metallic tantalum comprising anodically treating it at an anodic current density of at least 2 amperes per square inch in an aqeuous solution consisting essentially of from 38.4 to about 48% hydrofluoric acid and up to about 20% of an anion selected from the group consisting of chloride, bromide, nitrate and sulfate.

2,775,554
**GALVANIC ANODE INSTALLATION**
Roy C. Jorgensen, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application April 29, 1954, Serial No. 426,518
4 Claims. (Cl. 204—197)



1. A cathodic protection system for protecting the interior surfaces of a tank from electrolytic corrosion, said system comprising, within a tank having a supporting member and an anchoring member, a pulley secured to said supporting member, a metallic cable having its end portions detachably secured to said anchoring member and its intermediate portion passing through said pulley, a plurality of galvanic anodes, said anodes being mechanically and electrically secured to said cable between one of said end portions thereof and said pulley, and means adjacent to each end of said cable for making positive electrical contact between said cable and said anchoring member.

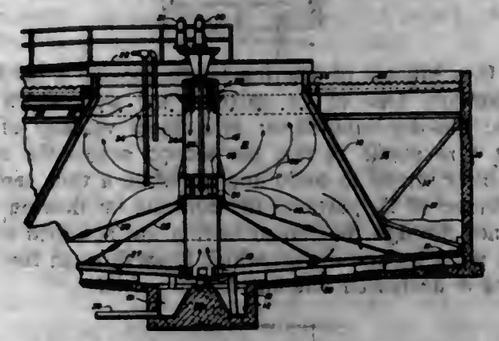
2,775,555
**PRECIPITATING SCALE FORMING CONSTITUENTS FROM WATER BY HEAT**
Alick Clarkson, Paul Spur, Ariz., assignor to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware
Application February 25, 1952, Serial No. 273,234
9 Claims. (Cl. 210—15)



3. The process of treating water for removal of water hardening substances contained in solution therein, which comprises the step of heating the water under a substantial pressure and in a restricted zone of a larger and quiescent body of water to a temperature near the boiling point to effect rapid decomposing reaction on the water hardening substances, discharging the water from said heating zone into the upper portion of a second restricted zone within said larger body of water, introducing a catalyzer into the heating zone which consists in recirculating through the heating zone, with the water to be treated, previously treated water containing in suspension particles of reacted material, and simultaneously maintaining high turbulence in the water being heated to bring minute suspended particles of reacted material into forceable contact with each other so as to build larger and heavier particles which will more readily precipitate.

9. In a system for treating water for removal of scale forming constituents, the combination of a separating tank, a vertical conduit defining a heating zone disposed within said tank, a water discharge pipe connected to said tank and opening within the tank at a point well above the bottom, a nozzle for delivering steam into the lower end of said vertical conduit to heat water therein and to produce high turbulence and vibrations therein, a water supply pipe leading into said tank, a heat exchanger interposed in said water supply line, a filter device interposed in the water supply pipe intermediate the heat exchanger and the separating tank, a hot water line for conducting hot treated water to said heat exchanger to preheat said water delivered to said tank, a filter device interposed in said discharge pipe, a steam-supply line connected to said nozzle and including a valve, and means including a float-controlled mechanism responsive to the water level in said tank for controlling said valve and to regulate the supply of steam to the said nozzle in accordance with the volume of the flow of water to the tank and the temperature and pressure therein.

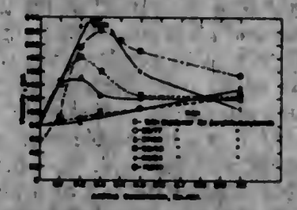
2,775,556
**APPARATUS AND METHOD FOR LIQUID TREATMENT AND CLARIFICATION**
Earl M. Kelly, Hillsborough, and Arthur M. Kivari, Los Angeles, Calif., assignors to Process Engineers Incorporated, San Francisco, Calif., a corporation of California
Application February 16, 1953, Serial No. 337,082
6 Claims. (Cl. 210—16)



1. In clarification apparatus including a tank for holding a pool of liquid to be clarified and in which solids settle to the bottom, and an annular baffle spaced from the wall of the tank and from the bottom and extending both above and below the level of the pool, the combination which comprises an annular manifold disposed in the tank adjacent the upper edge of the baffle for admitting liquid to be clarified to the periphery of the pool within the baffle at a plurality of points around the baffle, pumping means disposed in the tank inside the baffle for circulating the liquid up and down between an upper portion of the pool and an intermediate portion of the pool within the baffle and for circulating liquid and solids up and down between the intermediate portion of the pool and a lower portion of the pool, means for removing settled solids from the bottom, and radial effluent weirs disposed at the level of the pool in the tank outside the baffle for removing clarified effluent liquid from the pool.



2,775,557
**DRILLING MUDS CONTAINING ACRYLIC ACID-ACRYLAMIDE COPOLYMER SALTS**
Russell L. Morgan, Riverside, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application December 8, 1954, Serial No. 473,820
3 Claims. (Cl. 252—8.5)



1. In a process for drilling a well wherein a mud seal of improved water-retaining properties is formed on the wall of said well by circulating therein an aqueous clay base drilling mud containing, as a wall-sealing agent, about 0.1 to 5 lbs. per barrel of a water-soluble salt of an acrylic acid-acrylamide polymer having a molecular weight of at least 10,000, the method of avoiding the formation of high viscosity in said mud which comprises adding said wall-sealing agent thereto as a polymer wherein the ratio of carboxylic acid salt groups to amide groups is between about 10:90 and 45:55.

2,775,558
**EXTREME PRESSURE LUBRICANT**
Morton Fainman, Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application August 31, 1954, Serial No. 453,436
6 Claims. (Cl. 252—33.6)

1. An extreme pressure lubricant consisting essentially of from about 75% to about 93% of a mineral lubricating oil, about 5% to about 10% of sulfur-containing lead tallate, from about 1% to about 10% of a chlorinated paraffin wax containing from about 40% to about 70% by weight of chlorine, and from about 1% to about 5% of 9,10-dichlorostearic acid.

2,775,559
**IMPROVED LUBRICANTS**
Chester M. Hinsel and Leo O. Edmonds, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Original application December 28, 1948, Serial No. 67,768, now Patent No. 2,671,004, dated March 9, 1954. Divided and this application August 1, 1951, Serial No. 240,267
7 Claims. (Cl. 252—47)

1. An improved lubricant comprising a major proportion of a mineral lubricating oil containing an alkylene polyamine partially N-substituted with at least one of RS— and RSS— in which R is a radical selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, aralkyl and substituted aralkyl, in an amount sufficient to impart antioxidant and anticorrosive characteristics to said lubricant, but less than 8 weight percent of said oil.

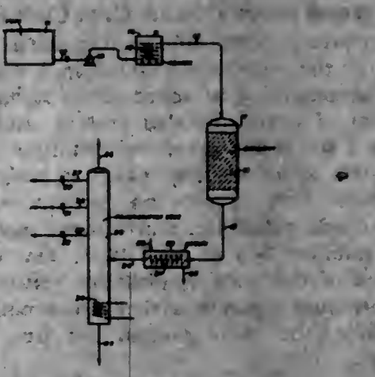
2,775,560
**CORROSION INHIBITING LUBRICATING COMPOSITIONS**
Howard M. Larton, Dow, and Lawrence C. Westcott, Edwardsville, Ill., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application June 21, 1954, Serial No. 438,350
4 Claims. (Cl. 252—48.6)

1. A vapor phase and liquid phase corrosion inhibiting lubricating composition comprising 0.015% $C_{18}$-alkenyl-succinic acid, 0.5% 2,6-ditertiarybutyl-4-methyl phenol, 0.02% sulfurized oleic acid, 0.05% n-nonanoic acid and the balance being a mineral lubricating oil.

2,775,561
**VISCOUS COMPOSITION AND METHOD OF MAKING THE SAME**
Stanley H. Freimuller, Madison, Wis., assignor to Research Products Corporation, Madison, Wis., a corporation of Wisconsin
No Drawing. Application July 2, 1952, Serial No. 296,956
17 Claims. (Cl. 252—308)

1. The method of preparing a thixotropic composition having the consistency of a plastic cream and including mineral oil, which comprises dissolving microcrystalline wax in said mineral oils the amount of microcrystalline wax being approximately 5% to 25% of the combined weight of the mineral oil and microcrystalline wax, and chilling said composition uniformly at a rate of at least 65 degrees C. per minute from a temperature at which said microcrystalline wax is soluble in said mineral oil to a temperature at which said microcrystalline wax is insoluble in said mineral oil.

2,775,562
**PREPARATION OF A SILICA-ALUMINA CRACKING CATALYST**
James A. Dinwiddie and Max A. Mossman, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application March 6, 1953, Serial No. 340,891
6 Claims. (Cl. 252—463)



1. A method for producing a heat stable catalyst suitable for converting hydrocarbons which comprises admixing an alcohol soluble and hydrolyzable silicon compound with aluminum alcoholate, hydrolyzing the admixture by contacting same with water vapor to form a precipitate of said silicon compound and boehmite, drying the precipitate and calcining the dried precipitate at a sufficiently high temperature to form a heat stable catalyst comprising silica and alumina.

2,775,563
**RESINOUS CONDENSATION PRODUCTS FROM METAL ALLOYS AND HYDROCARBON DIHALIDES**
Sol B. Wiener, Washington, D. C.
No Drawing. Application June 20, 1952, Serial No. 294,710
7 Claims. (Cl. 260—2)

1. A resinous material formed by reacting by heating a mixture of an alloy of an alkali metal and a heavy metal selected from the group consisting of copper, cadmium, zinc, lead, tin, thallium, gallium, indium, zirconium, tantalum, tungsten, molybdenum, uranium, iron, bismuth,

cobalt, chromium, nickel, with a polyhalogen hydrocarbon compound selected from the group consisting of monocarbocyclic dihalides and dihalides of aliphatic hydrocarbons having 1 to 4 carbon atoms, said heavy metal and dihalogen hydrocarbon compound being in substantially equal molar proportions.

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**2,775,564**

**PROCESS FOR MANUFACTURE OF STRONGLY BASIC ANION EXCHANGERS**

Geert J. de Jong, Geleen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands

No Drawing. Application October 26, 1953, Serial No. 388,439
Claims priority, application Netherlands November 8, 1952
2 Claims. (Cl. 260—2.1)

2. A process for the manufacture of a water insoluble resinous product having strongly basic anion exchanging properties, which comprises reacting a methyl tri (methoxyphenyl) phosphonium salt with formaldehyde in the presence of concentrated sulfuric acid to obtain a resin and subsequently washing the resulting resin with alkali.

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**2,775,565**

**COATING COMPOSITION STABILIZED WITH A CYANOETHYLATED PROTEIN**

Leonard L. McKinney, John C. Cowan, and Cyril D. Evans, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application March 28, 1952, Serial No. 279,202
1 Claim. (Cl. 260—8)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A coating composition comprising butadiene-styrene latex as the vehicle emulsified in a continuous aqueous system containing as an emulsion stabilizer, a stabilizing amount of cyanoethylated protein, said composition being in a stable and preserved condition in that its storage life—the period during which it maintains its original condition without gelation, without separation of the emulsifiable substance, and without spoilage of the emulsion stabilizer—is at least twice that of a composition formed of the same emulsifiable substance emulsified in a continuous aqueous system containing as an emulsion stabilizer, the same protein but free from cyanoethyl groups.

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**2,775,566**

**BINDER FOR AGGLOMERATING FINELY DIVIDED MATERIALS**

Henry L. Crowley, South Orange, N. J., assignor, by mesne assignments, to Aerovox Corporation, New Bedford, Mass., a corporation of Massachusetts

No Drawing. Application February 6, 1953, Serial No. 335,595
2 Claims. (Cl. 260—19)

1. A binder for agglomerating finely divided metal oxides preparatory to heat-treatment at a temperature within the range of 800°–1500° C. containing as essential components stearic acid in saponified form, an alcohol-soluble, water-insoluble phenol-formaldehyde resin, a water-soluble, partially condensed urea-formaldehyde resin, a compatible plasticizer for the resins, the relative proportions of saponified stearic acid, resins and plasticizer, calculated by weight on the dry basis, being 10 parts, 4 to 8 parts and 10 to 20 parts, respectively, and about 10% of water on the dry weight of said components.

**2,775,567**

**METHOD OF PREPARING DYEABLE COPOLYMERS**

Costas H. Basdekis, Longmeadow, Mass., assignor to The Chemstrand Corporation, a corporation of Delaware

No Drawing. Application May 13, 1953, Serial No. 354,893
14 Claims. (Cl. 260—29.6)

1. A method of preparing a polymer of from 30 to 98 percent by weight of a compound of the group consisting of vinylpyridines and alkyl substituted vinylpyridines and from two to 70 percent of acrylonitrile, which comprises gradual addition of the monomers in the desired proportions to an aqueous medium in the presence of from 0.5 to 5.0 percent of a water soluble salt of an aldehyde condensed aromatic sulfonic acid, from 0.1 to 3.0 percent of a water-soluble alkali metal salt of a higher fatty acid, up to 0.4 percent of a member of the group consisting of alkali metal carbonates and bicarbonates, and from 0.1 to 3.0 percent of a peroxy catalyst, said percentages being based on the weight of the monomers to be charged.

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**2,775,568**

**RUBBERY POLYMERS PLASTICIZED WITH THIO DERIVATIVES OF POLYCHLOROBENZENES**

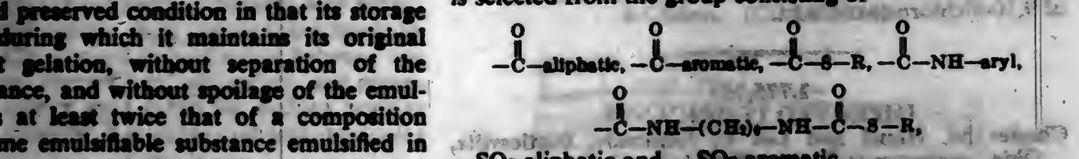
Friedrich Lober, Otto Bayer, and Max Bögemann, Leverkusen-Bayerwerk, and Paul Schneider, Opladen, Germany

No Drawing. Original application December 27, 1950, Serial No. 207,068, now Patent No. 2,695,898, dated November 30, 1954. Divided and this application May 20, 1954, Serial No. 431,283
Claims priority, application Germany December 27, 1949
3 Claims. (Cl. 260—30.8)

1. A plasticized elastomer selected from the group consisting of natural rubber, rubbery conjugated diene polymers and their vulcanizates, containing as a plasticizer, a compound of the general formula

R—S—X

where R stands for a penta-substituted phenyl radical of the group consisting of $C_6Cl_5$- and $C_6Cl_4$·alk.-, alk. being an alkyl group containing from 1 to 8 C atoms, and X is selected from the group consisting of




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**2,775,569**

**DISPERSION OF FLUOROCHLOROCARBON POLYMERS**

Charles D. Dinner, Jersey City, Wilbur O. Teeters, River Edge, and John M. Wrightson, North Bergen, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application December 30, 1949, Serial No. 136,168
17 Claims. (Cl. 260—32.8)

1. A dispersion which comprises finely-divided particles of the plastic homopolymer of trifluorochloroethylene and an added waxy polymer of trifluorochloroethylene as a plasticizer dispersed in a liquid dispersing medium comprising di-isobutly ketone and xylene.

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**2,775,570**

**SOLUTIONS OF FORMALDEHYDE POLYMERS**

Archie E. Barksdell, Hockessin, Wilmington, and Robert N. MacDonald, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 30, 1952, Serial No. 307,364
5 Claims. (Cl. 260—33.4)

1. A composition of matter comprising a liquid solution of macromolecular polyoxymethylene in a solvent consisting essentially of an aromatic hydroxy compound, at a temperature above 35° C., said polyoxymethylene having an inherent viscosity of at least 0.6, measured at 60° C. as a 0.5% solution in p-chlorophenol containing 2% alpha-pinene, said solution being characterized in that said polyoxymethylene may be recovered from said solution in substantially the same undegraded polymeric form that it had before being dissolved.



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**2,775,571**

**AMIDE-ALDEHYDE RESINS FROM AMIDES OF OXIDIZED PARAFFIN ACIDS**

John P. Buchanan, Yorba Linda, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application July 27, 1953, Serial No. 370,629
9 Claims. (Cl. 260—39)

1. A moldable resin composition prepared by condensing a fluid amide with an aldehyde substance in the presence of a condensation catalyst and a filler, said fluid amide being a mixture of amides prepared by oxidizing paraffin wax with a gas containing free oxygen at a temperature between 100° C. and 140° C. to produce an oxidized wax having an acid number between about 200 and about 350 mg. KOH/g., separating from the oxidized wax a fraction insoluble in water and in petroleum naphtha, which fraction has a saponification number-acid number ratio between 1.4 and 2.2 to 1 and a total oxygen-carboxyl oxygen ratio between 1.2 and 1.8 to 1, and amidating said fraction.

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**2,775,572**

**HIGH IMPACT STRENGTH PLASTIC COMPOSITION CONTAINING POLYVINYL ACETAL RESIN AND ETHYL ACRYLATE ELASTOMER**

Charles F. Fisk, Clifton, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application August 28, 1952, Serial No. 306,946
6 Claims. (Cl. 260—45.5)

1. A hard, tough, rigid thermoplastic mixture characterized by an Izod notched impact strength of at least 4 foot-pounds per inch of notch and a flexural modulus in excess of 100,000 pounds per square inch comprising an intimate blend of about 5 to 20% by weight of an ethyl acrylate elastomer selected from the group consisting of polyethyl acrylate, a copolymer of 80–96% of ethyl acrylate with 4–20% of isobutylene, and a copolymer of 80–96% of ethyl acrylate with 4–20% of vinyl 2-chloroethyl ether and correspondingly about 95 to 80% of a polyvinyl acetal resin characterized by at least 75% replacement by aldehyde groups of the acetate ester groups in the polyvinyl acetate from which said resin is derived.

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**2,775,573**

**DYEABLE POLYMER BLENDS, INCLUDING COPOLYMERS OF ACRYLONITRILE WITH ALKENYL HALOACETATES**

Alfred B. Craig and George E. Hass, Decatur, Ala.

No Drawing. Application March 2, 1953, Serial No. 339,912
8 Claims. (Cl. 260—45.5)

1. A dyeable fiber-spinning composition comprising a blend of (A) a polymer of at least 80 percent by weight of acrylonitrile and up to 20 percent of vinyl acetate and (B) a polymer of at least 30 percent by weight of an alkenyl haloacetate of the structure:




wherein X is a halogen atom selected from the group consisting of chlorine and bromine and R is a radical selected from the group consisting of vinyl, allyl, methallyl an disopropenyl, and up to 70 percent of acrylonitrile, the said blend in fiber form having been reacted in an acid dyebath with a compound of the structure:




wherein R and R' each represents a member selected from the group consisting of hydrogen and alkyl radicals having less than five carbon atoms, the polymers being blended in such proportions that from 2 to 20 percent of the total weight is the said alkenyl haloacetate.

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**2,775,574**

**ACRYLONITRILE COPOLYMERS STABILIZED WITH CINNAMIC ACID AND ITS SALTS**

Robert J. Slocombe, Dayton, and George L. Wege, Englewood, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 27, 1953, Serial No. 351,468
10 Claims. (Cl. 260—45.85)

1. A stable acrylonitrile polymer comprising solid a polymer of 20% to 100% of acrylonitrile and up to 80% of another monoolefinic monomer copolymerized therewith, said polymer containing intimately dispersed therein from 0.01% to 10% of a compound of the group consisting of:

Cinnamic acid
Cinnamic anhydride

esters of cinnamic acid and a monohydric, non-heterocyclic alcohol having from 2 to 12 carbon atoms in the alcohol radical;

Magnesium cinnamate
Calcium cinnamate
Aluminum cinnamate, and
Strontium cinnamate.

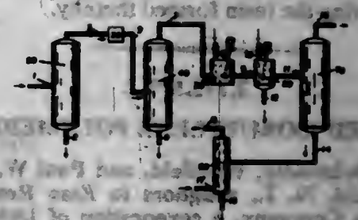
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**2,775,575**

**PETROLEUM RESINS OF IMPROVED COLOR FROM 18°–85° C. STREAM**

Glen P. Hammer and Thomas G. Jones, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 20, 1953, Serial No. 356,153
2 Claims. (Cl. 260—82)



1. In a process for the preparation of improved petroleum resins the combination which comprises isolating a steam cracked hydrocarbon petroleum fraction boiling between about more than 18° C. to less than 85° C., heating the steam cracked fraction to a temperature sufficient to dimerize substantially all cyclodienes, stripping the resulting admixture to a temperature sufficient to separate an overhead product from the dimerized cyclodienes, recovering as the overhead product a stream boiling between about more than 18° C. to less than 85° C. and having the following composition:

| | Weight percent |
|---|---|
| Benzene | 13.5–15.75 |
| $C_5$–$C_6$ diolefins | 16.5–22.0 |
| $C_5$–$C_6$ olefins | 36.5–43.25 |
| $C_7$ diolefins and olefins | Less than 5 |

said composition being substantially free of cyclodienes,

and polymerizing the stream in the presence of a Friedel-Crafts catalyst at a temperature of about −18° C. to +66° C. and recovering the resin formed thereby.

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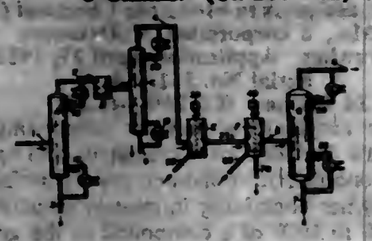
2,775,576

## POLYMERS FROM STEAM CRACKED DISTILLATE STREAMS OF 18°–54° C. BOILING RANGE

Glen P. Hammer, Thomas G. Jones, Joseph A. McDaniel, Jr., and Mack C. Fuqua, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 28, 1953, Serial No. 358,152

3 Claims. (Cl. 260—82)



1. In a process for the preparation of improved petroleum resins the combination which comprises isolating a steam cracked hydrocarbon petroleum fraction boiling between about more than 18° C. to less than 54° C., heating the steam cracked fraction to a temperature sufficient to dimerize substantially all cyclodienes, stripping the resulting admixture to a temperature sufficient to separate an overhead product from the dimerized cyclodienes, recovering as the overhead product a stream boiling between about more than 18° C. to less than 54° C. and having the following composition:

| | Weight percent |
|---|---|
| Isoprene | 15 |
| Piperylene | 15 |
| Other acyclic diolefins | 4–5 |
| Normal $C_5$ olefins | 20–30 |
| Tertiary olefins | 30 |
| Paraffins | 5 |

said composition being substantially free of cyclodienes, and polymerizing the stream in the presence of a Friedel-Crafts catalyst at a temperature of about −4° C. to +38° C. and recovering the resin formed thereby.

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2,775,577

## CONTROLLED ISOBUTYLENE POLYMERIZATION

Helmuth G. Schneider, Westfield, and Paul W. Brakeley, Jr., Plainfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 23, 1952, Serial No. 327,664

5 Claims. (Cl. 260—82)

1. A method for preparing isobutylene polymers having a molecular weight between 10,000 and 20,000 which comprises fractionating a light cracked petroleum fraction consisting of hydrocarbons having four carbon atoms in the molecule and containing isobutylene together with substantial amounts of butene-1 and butene-2, to remove sufficient butene-2 such that the ratio of isobutylene to n-olefins is not substantially less than 1:1 and the butene-2 content of the resulting product is not more than 20 volume percent of the total n-butene content and polymerizing the said treated petroleum fraction at a temperature below 0° C. in the presence of a metal halide catalyst chosen from the group consisting of boron fluoride and aluminum chloride.

2,775,578

## POLYMERIZATIONS INITIATED BY SATURATED CYCLIC TERPENE PEROXIDES

Gordon S. Fisher, Lake City, Fla., and Lee A. Goldblatt, New Orleans, La., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application March 22, 1955, Serial No. 496,085

13 Claims. (Cl. 260—84.1)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a process of polymerizing polymerizable unsaturated organic compounds by mixing them with an organic peroxide and decomposing a peroxide to form free radicals, improvement which comprises employing as the organic peroxide a saturated cyclic terpene peroxide.

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2,775,579

## LOW TEMPERATURE POLYMERIZATION PROCESS AND COMPOSITION

Michael Erchak, Jr., Morris Township, Morris County, and Robert J. Blanak, Morris Plains, N. J., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application October 15, 1952, Serial No. 314,956

8 Claims. (Cl. 260—88.7)

1. Composition which polymerizes at temperatures maintained within the range between about 10° C. and about 40° C. comprising (1) at least one polymerizable monomer having a terminal methylene group doubly bonded to a carbon atom having at least one of its two remaining valences satisfied by an electronegative group other than an oxy group, with substantially all of the polymerizable monomer being mono-ene monomer; (2) a hypochlorite in amounts such that the molar C10 content thereof, i. e. the hypochlorite ion therein, is in the range between about 0.02 mol and about 2 mols per 100 mols of monomer introduced into the composition; (3) aqueous ammonia in amounts such that the total molar $NH_3$ content thereof, as such and in combined form as $NH_4^+$ ions and as $NH_4OH$ molecules, i. e. the stoichiometric molar quantity of ammonia in the aqueous ammonia solution, is in the range between about 0.3 mol and about 30 mols per 100 mols of monomer introduced into the composition; (4) a cupric salt in amounts such that the mol ratio of the cupric salt:stoichiometric molar quantity of ammonia as above defined under item (3) is in the range between about 1:400 and about 1:10.

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2,775,580

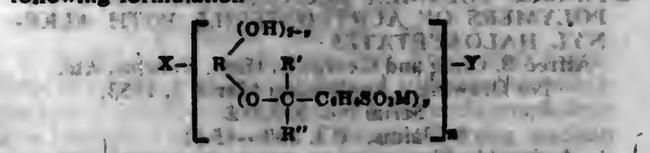
## SULFOBENZYL LIGNINS

Virgil Scarth, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 25, 1953, Serial No. 357,340

19 Claims. (Cl. 260—124)

1. A new composition of matter characterized by the following formulation



in which R represents a lignin residue, R′ and R″ represent groups selected from among H and alkyl radicals having 1 to 3 carbon atoms per radical, the grouping



having a maximum of 4 carbon atoms, M represents an element or group selected from among H, $NH_4$, and a metal, y represents the average degree of substitution, n represents the number of units per lignin molecule, and X and Y represent end groups of a lignin molecule.



2,775,581

## METAL-CONTAINING AZO DYESTUFFS

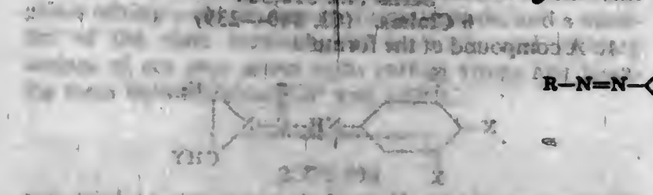
Reinhard Nohr and Charles Pottjeus, Basel, and Walter Wehrli, Riehen, Switzerland, assignors to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application June 24, 1955, Serial No. 517,916

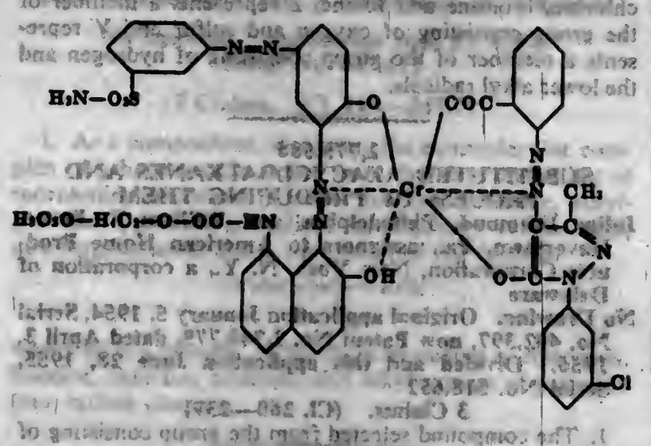
Claims priority, application Switzerland June 25, 1954

6 Claims. (Cl. 260—145)

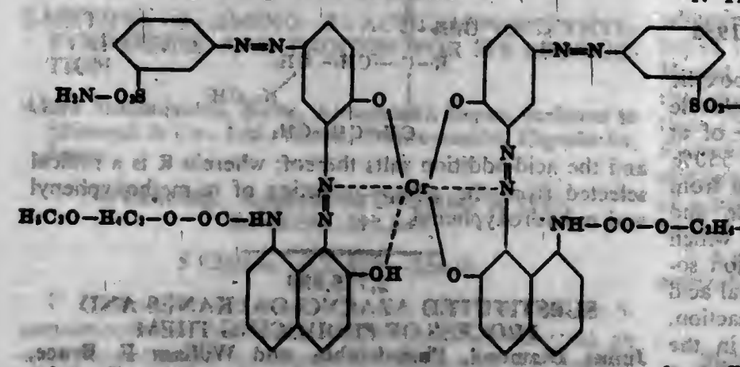
2. The composition of matter consisting of the



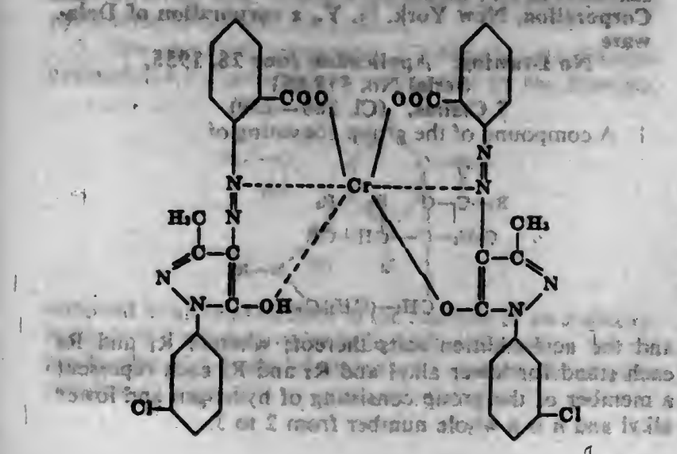
asymmetrical chromium-containing azo dyestuff corresponding to the formula



and the respective symmetrical chromium-containing azo dyestuffs corresponding to the formulae



and



2,775,582

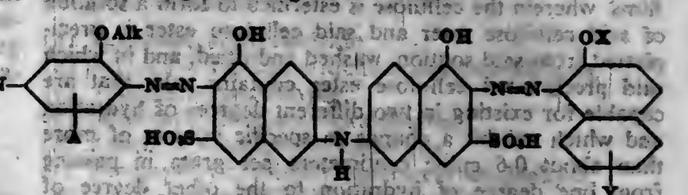
## UNSYMMETRICAL TRISAZO DYESTUFF

Norman L. Anderson, Hasbrouck Heights, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application April 29, 1952, Serial No. 285,670

19 Claims. (Cl. 260—173)

1. An unsymmetrical trisazo dyestuff which dyes cellulosic fibers blue shades the fastness properties of which are improved by aftertreatment of the dyed fiber with coppering agents, said dyestuff in the free acid form corresponding with the general formula:



wherein: R represents an ortho-hydroxy-carboxyaryl radical derived from a member of the group consisting of benzene, naphthalene, and the lower alkyl, lower alkoxy, and chlorinated derivatives thereof, Alk represents a lower alkyl radical, A represent a member of the group consisting of hydrogen, Alk and OAlk, X represents a member of the group consisting of hydrogen, lower alkyl radicals, lower hydroxyalkyl radicals and lower carboxy-alkyl radicals, and Y represents a sulfo group in one of the beta-positions remote from the —OX radical.

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2,775,583

## LEUCO SULFURIC ACID ESTERS OF ANTHRAQUINONE-AZO-DYESTUFFS

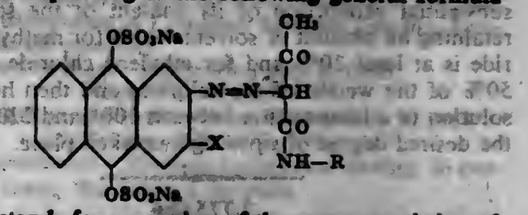
Eduard Besler and Otto Brunnsdorf, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius und Bruning, Frankfurt am Main, Hochst, Germany

No Drawing. Application May 29, 1952, Serial No. 290,822

Claims priority, application Germany May 31, 1951

5 Claims. (Cl. 260—193)

1. The leuco sulfuric acid esters of anthraquinone-azo-



dyestuffs corresponding to the following general formula

wherein X stands for a member of the group consisting of hydrogen, chlorine and bromine, and R represents a radical selected from the group consisting of benzene, chlorobenzene, dichlorobenzene, methoxybenzene, methoxy-chlorobenzene, methylbenzene, methoxy-bromobenzene, dimethoxy-benzene, dimethoxy-chlorobenzene, methoxy-benzoylamino - chlorobenzene, methyl - dichlorobenzene, methyl-methoxy-bromobenzene and diethoxy-bromobenzene.

2,775,584

## PREPARATION OF ORGANIC ACID ESTERS OF CELLULOSE HAVING AN IMPROVED RESISTANCE TO DELUSTERING

Blanche B. White, Summit, Gregory M. Moeller, Basking Ridge, and Leonard J. Rosen, East Orange, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application November 16, 1951, Serial No. 256,811
10 Claims. (Cl. 260—230)

1. In the process for manufacturing organic acid esters of cellulose suitable for the production of filaments and films, wherein the cellulose is esterified to form a solution of said cellulose ester and said cellulose ester is precipitated from said soution, washed and dried, and in which said precipitated cellulose ester contains salts that are capable for existing in two different degrees of hydration and which exhibit a change in specific volume of more than about 0.6 cubic centimeters per gram in passing from one degree of hydration to the other degree of hydration, the improvement which comprises carrying out the washing of said precipitated cellulose ester with a water solution of a salt, selected from the group consisting of soluble calcium and barium salts, that will react with said aforementioned salts by metathesis to produce salts which exhibit a change in specific volume of less than about 0.6 cubic centimenters per gram in passing from one degree of hydration to another degree of hydration, at least one of the salts produced having a lower solubility than the salts present in the organic acid esters of cellulose and in the wash water and then drying said cellulose ester directly after said washing, said improvement resulting in an increase in the resistance to delustering of said cellulose ester when in the form of a film or filament.

2,775,585

## RIPENING CELLULOSE ESTERS IN SOLUTION

Harold Bates and James Wotherspoon Fisher, Spondon, near Derby, and John Richard Smith, London, England, assignors to British Celanese Limited, a corporation of Great Britain

No Drawing. Application June 5, 1953, Serial No. 359,972
Claims priority, application Great Britain June 9, 1952
17 Claims. (Cl. 260—230)

1. A process for ripening cellulose esters of carboxylic acids containing 2 to 4 carbon atoms in the molecule made by esterifying cellulose with the anhydride of at least one such acid in the presence of more than 350% on the weight of the cellulose of a solvent selected from the group which consists of methylene chloride and ethylene chloride and of sulphuric acid as catalyst, which comprises adding water to the primary esterification solution in amount sufficient both to hydrolyse residual acid anhydride and to provide water for the ripening reaction, neutralising substantially all the sulphuric acid in the solution, removing from the solution by distillation a substantial proportion of its content of the solvent but retaining an amount of solvent which for methylene chloride is at least 30% and for ethylene chloride is at least 50% of the weight of the cellulose and then heating the solution to a temperature between 100° and 220° C. until the desired degree of ripening has taken place.

2,775,586

## PREPARATION OF STARCH SULFATE ESTERS

Eugene P. Paschall, Orland Park, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 4, 1954, Serial No. 460,251
6 Claims. (Cl. 260—233.5)

1. A process for preparing starch sulfate esters in ungelatinized, granule form which comprises heating starch in granule form in semi-dry condition in contact with the reaction product of sodium nitrite and sodium bisulfite under non-gelatinizing conditions until the desired starch sulfate ester is formed, the initial pH of the mixture undergoing treatment being at least about 5.

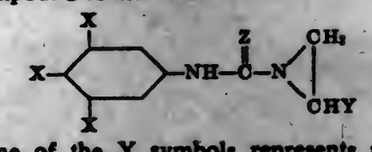
2,775,587

## HALOARYL AZRIDINECARBOXAMIDES

Bryant C. Fischbach, Walnut Creek, and Guy H. Harris, Concord, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 23, 1955, Serial No. 510,564
6 Claims. (Cl. 260—239)

1. A compound of the formula



wherein one of the X symbols represents at least one member of the group consisting of bromine, chlorine and iodine, and the remaining X symbols each represent a member of the group consisting of hydrogen, methyl, chlorine, bromine and iodine, Z represents a member of the group consisting of oxygen and sulfur and Y represents a member of the group consisting of hydrogen and the lower alkyl radicals.

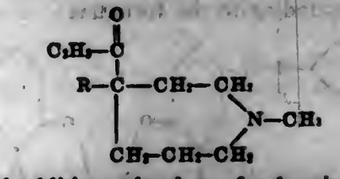
2,775,588

## SUBSTITUTED AZACYCLOALKANES AND PROCESS OF PRODUCING THEM

Julius Diamond, Philadelphia, and William F. Bruce, Havertown, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Original application January 5, 1954, Serial No. 402,397, now Patent No. 2,740,779, dated April 3, 1956. Divided and this application June 28, 1955, Serial No. 518,652
3 Claims. (Cl. 260—239)

1. The compound selected from the group consisting of an azacycloheptane having the formula



and the acid-addition salts thereof; wherein R is a radical selected from the group consisting of m-methoxyphenyl and m-hydroxyphenyl.

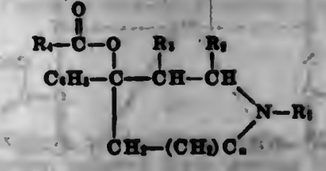
2,775,589

## SUBSTITUTED AZACYCLOALKANES AND PROCESS OF PRODUCING THEM

Julius Diamond, Philadelphia, and William F. Bruce, Havertown, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 28, 1955, Serial No. 518,651
7 Claims. (Cl. 260—239)

1. A compound of the group consisting of



and the acid-addition salts thereof; wherein $R_1$ and $R_4$ each stand for lower alkyl and $R_2$ and $R_3$ each represent a member of the group consisting of hydrogen and lower alkyl and $n$ is a whole number from 2 to 3.



2,775,590

## PROCESS FOR PREPARATION OF CERTAIN OXAZINES AND PIPERIDINOLS

Claude J. Schmidle, Moorestown, N. J., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application March 27, 1956, Serial No. 574,110
6 Claims. (Cl. 260—244)

1. A process for preparing 6-methyl-6-phenyltetrahydro-1,3-oxazines and 4-phenyl-4-piperidinols which comprises mixing α-chlorocumene, formaldehyde, and a member of the class consisting of ammonia and primary amines of not over about eight carbon atoms and reacting them between about 20° and 100° C.

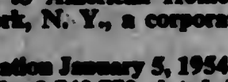
2,775,591

## ALCOHOL-AMINE COMPLEXES

W. E. Craig, Philadelphia, Pa., and Harold F. Wilson, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 17, 1954, Serial No. 437,571
7 Claims. (Cl. 260—247.7)

1. As a composition of matter, the equimolecular complex of a heterocyclic amine from the class consisting of morpholine, nicotine, picoline, lutidine, collidine, ethylpyridine, pyridine, quinoline, isoquinoline, benzoxazole, and benzothiazole and a compound of the formula



where R' is a member of the class consisting of hydrogen, fluorine, chlorine, bromine, and alkyl groups of not over four carbon atoms.

2,775,592

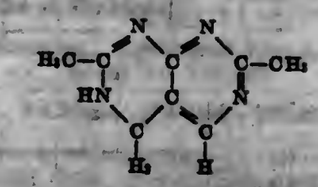
## 2-METHYL-4-AMINO-5-ACETAMINOMETHYLPYRIMIDINE AND PROCESS FOR ITS PRODUCTION

Akira Takamizawa, Kaizo, Amagasaki, Japan, assignor to Shionogi & Co., Ltd., Osaka, Doshe-machi, Higashi-ku, Japan

No Drawing. Application December 8, 1953, Serial No. 397,041
5 Claims. (Cl. 260—256.4)

1. Process for the production of 2-methyl-4-amino-5-acetaminomethylpyrimidine which comprises reacting an α-alkoxymethylene-β-alkoxypropionitrile with acetamidine and recovering said 2-methyl-4-amino-5-acetaminomethylpyrimidine as the reaction product.

5. The chemical compound 2,7-dimethyl-5,6-dihydropyrimidol(4,5-d)pyrimidine, represented by the formula:



obtained as an intermediate in the reaction of an α-alkoxymethylene-β-alkoxypropionitrile with acetamidine for the production of 2-methyl-4-amino-5-acetaminomethylpyrimidine.

2,775,593

## THIOSEMICARBAZONES OF ALDEHYDES AND KETONES OF THE HETEROCYCLIC SERIES

Robert Behnisch and Fritz Mietzsch, Wuppertal-Elberfeld, and Hans Schmidt, Wuppertal-Vohwinkel, Germany, assignors, by mesne assignments, to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application November 17, 1949, Serial No. 128,022
In Germany October 1, 1948
Public Law 619, August 23, 1954,
Patent expires October 1, 1968
6 Claims. (Cl. 260—279)

1. A thiosemicarbazone of a carbonyl compound of the group consisting of

(a) Quinolinecarboxaldehyde,
(b) 6-(1,2,3,4-tetrahydro)quinolinecarboxaldehyde,
(c) 3-indolecarboxaldehyde,
(d) N-methyl-3-indolecarboxaldehyde,
(e) 2-methyl-3-indolecarboxaldehyde,
(f) 2-methyl-5-(2,3-dihydro)indolecarboxaldehyde,
(g) 1,3,3-trimethyl-$\Delta^{2,6}$-indolineacetaldehyde,
(h) 5-methoxy - 1,3,3 - trimethyl - $\Delta^{2,6}$ - indolineacetaldehyde,
(i) 3-thianaphthenecarboxaldehyde,
(j) 2-dimethylamino-5-pyridinecarboxaldehyde,
(k) 9-acridinecarboxaldehyde, and
(l) Isatin.

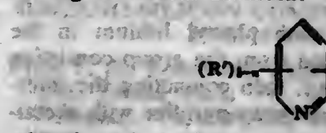
2,775,594

## STABILIZATION OF POLYMERIZABLE HETEROCYCLIC NITROGEN COMPOUNDS

Mack F. Potts, Paul S. Hudson, and Warren L. Smith, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 27, 1952, Serial No. 290,321
10 Claims. (Cl. 260—283)

1. A process for inhibiting the polymerization of a heterocyclic nitrogen compound represented by the following structural formula:



wherein $n$ is an integer selected from the group consisting of 1 and 2, R is selected from the group consisting of H and $CH_3$, and each R' is individually selected from the group consisting of H and alkyl radicals, not more than 12 carbon atoms being present in the total of said R' radicals, which comprises adding to said heterocyclic nitrogen compound a polymerization inhibiting amount of a sulfide selected from the group consisting of the sulfides of selenium and tellurium.

7. A composition comprising 2-vinylpyridine and a polymerization inhibiting amount of selenium monosulfide.

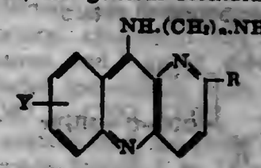
2,775,595

## SUBSTITUTED 1.10-DIAZA-ANTHRACENES

Alan August Goldberg, Shepton Mallet, England, assignor to Ward Blenkinsop & Company Limited, London, England, a British company

No Drawing. Application July 5, 1955, Serial No. 520,697
Claims priority, application Great Britain July 8, 1954
12 Claims. (Cl. 260—288)

1. A 9-substituted 1.10-diaza-anthracene having, in one tautomeric form, the general formula



in which R is an alkoxy group having one to six carbon atoms, Y is selected from the group consisting of hydro-

gen and halogen atoms, R' is an hydroxy-alkyl group having at least two but less than seven carbon atoms and at least one but less than three hydroxyl groups and *n* is an integer having a minimum value of two and a maximum value of six, and acid salts thereof.

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2,775,596

## PRODUCTION OF SUBSTITUTED PYRIDINES

John E. Mahan, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application October 20, 1952, Serial No. 315,837
15 Claims. (Cl. 260—290)

1. In a process for producing pyridine derivatives by the interaction of carbonyl compound with ammonia, the improvement which comprises effecting the reaction in the presence of a compound selected from the group consisting of antimony fluoride, copper fluoride, bismuth fluoride, zinc fluoride, iron fluoride, and barium fluoride.

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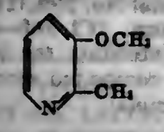
2,775,597

## METHOD FOR PREPARING QUINAZOLONE INTERMEDIATES

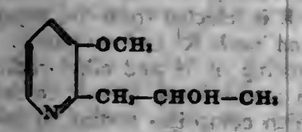
Bernard R. Baker, Nanuet, N. Y., and Francis J. McEvoy, Nutley, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 12, 1954, Serial No. 410,034
13 Claims. (Cl. 260—294.3)

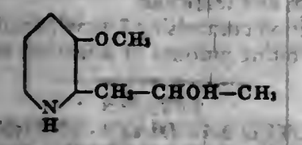
1. A method which comprises the steps of treating 2-methyl-3-pyridol with sodium methoxide and trimethylphenylammonium chloride at a temperature of from about 120° C. to about 180° C. in the presence of a non-acidic organic solvent to obtain:



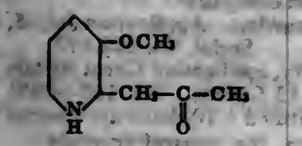
contacting said compound with phenyl lithium in the presence of a member selected from the group consisting of ethyl ether and butyl ether, then contacting the intermediate 2-lithium methyl-3-methoxy-pyridine with acetaldehyde to obtain:



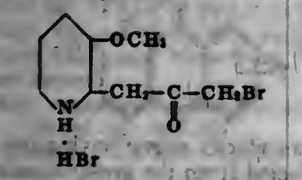
reducing said compound with hydrogen in the presence of platinum oxide catalyst to obtain:



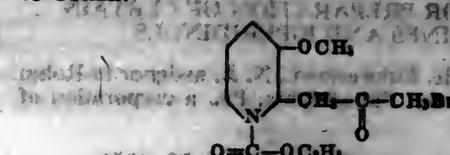
oxidizing said compound under strong oxidizing conditions to obtain:



brominating said compound to obtain:



and contacting said product with ethyl chlorocarbonate to obtain:



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2,775,598

## PROCESS OF PREPARING PYRIDOXAL ISONICOTINOYLHYDRAZONE AND INTERMEDIATE USED THEREIN

Sydney Archer and Morris E. Auerbach, Albany, N. Y., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 14, 1955, Serial No. 501,625
2 Claims. (Cl. 260—295)

1. A process for the preparation of pyridoxal isonicotinoylhydrazone which comprises heating an aqueous acidic solution of pyridoxine with manganese dioxide, treating the resulting solution containing pyridoxal and manganous ion with isonicotinoylhydrazine to form manganous bis-(pyridoxal isonicotinoylhydrazone), collecting the precipitated manganous bis-(pyridoxal isonicotinoylhydrazone) salt, and heating an aqueous alkaline suspension of the manganous salt with an aqueous alkaline solution of ethylenediamine-N,N,N',N-tetraactice acid to liberate the pyridoxal isonicotinoylhydrazone.

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2,775,599

## PROCESS FOR THE PRODUCTION OF N-VINYLPYRROLIDONE-2

Bruno Puetzer and Leon Katz, Cincinnati, Ohio, and Lester Horwitz, Binghamton, N. Y., assignors to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 10, 1952, Serial No. 281,658
4 Claims. (Cl. 260—326.5)

1. Process for the production of N-vinylpyrrolidone-2 which comprises heating in the liquid phase, at a temperature not substantially in excess of the boiling point of benzene and at ordinary atmospheric pressure, a solution in a substantially inert organic solvent of an N-(β-haloethyl)-pyrrolidone-2 and a basic reagent selected from the group consisting of alkali-metal amides, potassium hydroxide and lower alkoxides of the alkali-metals, separating the solvent from the reaction mixture, and recovering N-vinylpyrrolidone-2 by distillation at a subatmospheric pressure.

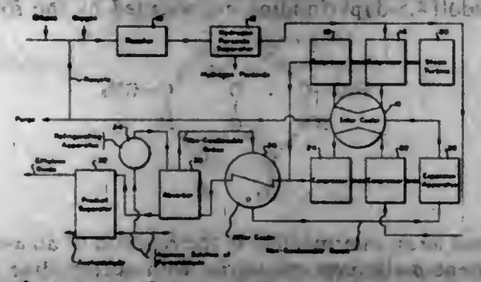
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2,775,600

## SEPARATION OF ETHYLENE OXIDE FROM A GASEOUS MIXTURE CONTAINING SAME

Frank Maslan, Brookline, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

Application June 1, 1954, Serial No. 433,644
5 Claims. (Cl. 260—348)



1. In the process for separating ethylene oxide, formaldehyde and acetaldehyde from an effluent gaseous mixture freed of hydrogen peroxide and obtained from an oxidation of ethane and recycle gases rich in ethylene in a low-temperature, low-pressure, noncatalytic reaction, the improvement which comprises compressing said effluent gaseous mixture to a pressure on the order of about 100 p. s. i., absorbing a mixture comprising acetaldehyde, formaldehyde and ethylene oxide therefrom with a liquid-absorbing medium selected from the group consisting of water and aqueous solutions of formaldehyde maintained at a temperature below about 20° C., and decompressing the remainder of the effluent gaseous mixture to recover the energy content therefrom.



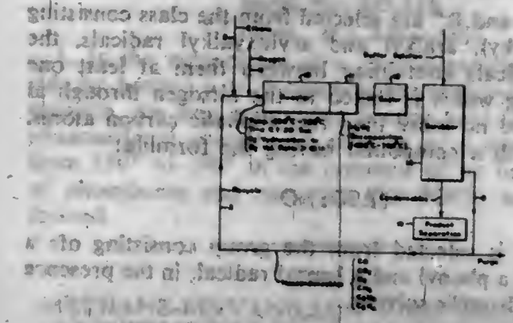
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2,775,601

## NON-CATALYTIC VAPOR PHASE OXIDATION OF ETHANE

James H. Gardner and Nat C. Robertson, Cambridge, and Erwin F. Schoenbrunn, Needham Heights, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

Application November 17, 1952, Serial No. 320,954
4 Claims. (Cl. 260—348.5)



1. A process for the production of ethylene oxide from ethane which comprises the steps of feeding a mixture of ethane and large quantities of recycle gas into a catalyst-free reaction zone heated to a temperature between 400° C. and 700° C., feeding with said mixture a quantity of oxygen such that said mixture contains less oxygen than ethane, said mixture having a volume ratio of $C_2$ hydrocarbons to oxygen of above 10, maintaining said gaseous mixture at a pressure slightly in excess of atmospheric pressure, said gaseous mixture being passed through said heated reaction zone for a period of time from about a fraction of a second to twenty seconds, said time being sufficient to effect consumption of only 35% to 75% of the oxygen fed to the reactor, removing hydrogen peroxide from the exit gas, separating the oxygenated hydrocarbons from the exit gas, and recycling unoxygenated hydrocarbons and unconsumed oxygen to the reactor.

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2,775,602

## THIOSTEROID PRODUCTION

John C. Babcock and Arnold C. Ott, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application June 5, 1953, Serial No. 359,965
6 Claims. (Cl. 260—397.3)

1. The process which comprises reacting a $\Delta^4$-3-keto steroid, selected from $\Delta^4$-3,20-diketopregnenes and $\Delta^4$-3,17-diketoandrostenes, with benzyl mercaptan in an organic solvent and in the presence of a boron trifluoride reaction catalyst to selectively convert the 3-keto group to a 3-thio group.

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2,775,603

## CYCLIZATION PROCESS

John C. Sheehan, Arlington, Mass.

No Drawing. Application October 2, 1953, Serial No. 383,914
5 Claims. (Cl. 260—397.4)

1. In the acyloin condensation of a seco-steroid diester to form a steroid ring, the improvement comprising carrying out said cyclization with sodium in a homogeneous medium.

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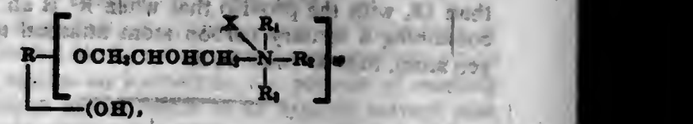
2,775,604

## QUATERNARY AMMONIUM HALIDES

John David Zech, Wilmington, Del., assignor to Atlas Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 9, 1953, Serial No. 336,695
14 Claims. (Cl. 260—404.5)

1. A chemical compound of the formula:



wherein:

R=the hydroxyl free residue of a hexitol
$w$=1 to 6
$z$=6—$w$
$R_1$=an alkyl radical with 6 to 25 carbon atoms
$R_2$ and $R_3$ are lower alkyl radicals
X=a halide

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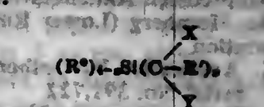
2,775,605

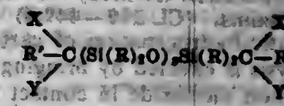
## ORGANO-SILICON COMPOUNDS AND METHODS FOR MAKING THEM

Peter L. De Benneville, Philadelphia, and Marvin J. Hurwitz, Elkins Park, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 1, 1955, Serial No. 512,571
15 Claims. (Cl. 260—448.2)

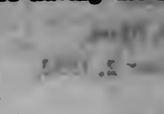
1. A composition of matter comprising a compound selected from the group consisting of those having Formulas I and II:

I 

II 

where $x$ is an integer having a value of 1 to 2, $y$ is an integral or mixed number having a value or an average value of about 1 to 9, R° is selected from the group consisting of vinyl, allyl, and alkyl groups having 1 to 18 carbon atoms, R is an alkyl group having 1 to 3 carbon atoms, R' is selected from the group consisting of hydrogen, phenyl, benzyl, cyclohexyl and alkyl groups of 1 to 18 carbon atoms, and X and Y are electron-withdrawing groups selected individually from the group consisting of —$COOR^2$, —CHO, $COR^2$, —CN, and —$NO_2$, wherein $R^2$ is selected from the group consisting of alkyl and alkenyl groups having 1 to 18 carbon atoms with the proviso that X and Y cannot both be —$COOR^2$.

11. The method which comprises reacting a compound having the formula



with a compound selected from the group consisting of

$(R^\circ)_{4-x}SiCl_x$

$Cl(Si(R)_2O)_ySi(R)_2Cl$

$(R^\circ)_{4-x}Si(NR^3R^4)_x$

$R^3R^4N(Si(R)_2O)_ySi(R)_2NR^3R^4$

where $x$, $y$, $R^\circ$, R, R', X, and Y are defined in claim 1, and $R^3$ and $R^4$ together may be the morpholino residue $=(CH_2CH_2)_2O$, the piperidino residue $-(CH_2)_5-$, or the pyrrolidino residue $-(CH_2)_4-$, or separately; $R^3$ may be cyclohexyl, phenyl, aralkyl, especially benzyl, or an alkyl group having 1 to 18 carbon atoms, $R^4$ may be hydrogen, cyclohexyl, aralkyl, especially benzyl, or an alkyl group having 1 to 18 carbon atoms, the total of carbon atoms in $R^3$ and $R^4$ together being no greater than 18, with the proviso that when $R^3$ is an alkyl group containing a tertiary carbon atom attached to the nitrogen atom, then $R^4$ must be H.

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2,775,606

## REACTION OF BENZENE AND DICHLOROSILANE TRICHLOROSILANE MIX

George H. Wagner, Clarence, and Paul W. Shafer, Niagara Falls, N. Y., assignors to Union Carbide and Carbon Corporation, a corporation of New York

No Drawing. Application March 22, 1954, Serial No. 417,922

10 Claims. (Cl. 260—448.2)

1. The method for production of phenyldichlorosilane which comprises subjecting a reaction mixture of benzene, trichlorosilane and dichlorosilane to elevated temperatures and pressures, said elevated temperatures being greater than 150° C. and said elevated pressures being at least sufficient to maintain a liquid phase, and said reaction mixture containing a mole ratio of trichlorosilane to dichlorosilane of at least 0.1 of a mole of trichlorosilane to 1 mole of dichlorosilane.

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2,775,607

## REACTIVATION OF CATALYSTS

Herbert Kölbel and Paul Ackermann, Moers, Germany, assignors to Rheinpreussen Aktiengesellschaft für Bergbau und Chemie, Homberg (Lower Rhine), Germany, a German corporation

No Drawing. Application November 12, 1953, Serial No. 391,722

Claims priority, application Germany November 17, 1952

3 Claims. (Cl. 260—449.6)

1. In the catalytic hydrogenation of carbon monoxide wherein the catalysis is effected by bringing a mixture of hydrogen and carbon monoxide in contact with a finely-divided solid catalyst suspended in a liquid reaction medium in a reaction zone, the reaction taking place in the presence of said suspended catalyst and wherein the activity of said catalyst in suspension declines slowly and then reaches a point of incipient catalyst activity decrease defined by a sudden fall of catalyst activity, the improvement making it possible to employ the catalyst after activity declines, which comprises removing part of said catalyst suspension from the reaction zone, dividing the catalyst of the removed suspension into a portion rich in carbon and a portion poor in carbon, suspending the latter portion in an inert liquid to thereby form a reactivated catalyst suspension, and thereafter passing this reactivated suspension to the aforesaid reaction zone.

2,775,608

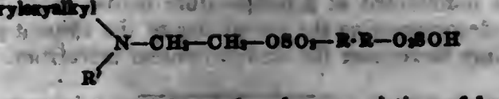
## SULFONIC ACID ESTERS OF 2-DIALKYLAMINE ETHANOLS

James M. Sprague, Drexel Hill, and Edward L. Engelhardt, Collingdale, Pa., assignors to Merck & Co., Inc., a corporation of New Jersey

No Drawing. Application February 8, 1956, Serial No. 563,164

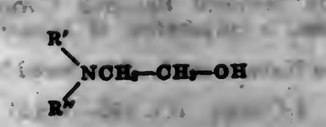
6 Claims. (Cl. 260—456)

1. Compounds having the general formula



wherein R' is selected from the class consisting of lower alkyl, aralkyl and aryloxyalkyl radicals and R is selected from the class consisting of lower alkyl, phenyl, lower alkyl substituted phenyl, and benzyl radicals.

6. The process for obtaining sulfonic acid esters of 2-dialkylamino-ethanols in which a compound having the formula:



in which R' and R'' are selected from the class consisting of lower alkyl, aralkyl and aryloxyalkyl radicals, the selected radicals containing between them at least one benzene ring which is linked to the nitrogen through at least one and no more than two aliphatic carbon atoms, is mixed with a compound having the formula:

$(RSO_3)_2O$

in which R is selected from the group consisting of: a lower alkyl, a phenyl and a benzyl radical; in the presence of a non-hydroxylic solvent.

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2,775,609

## PREPARATION OF CYANO ORGANICSULFONYL CHLORIDES

Frederick Comte, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 8, 1954, Serial No. 442,211

5 Claims. (Cl. 260—465)

1. In the preparation of a cyano organicsulfonyl chloride by heating a trichlorophosphazosulfonyl organic acyl chloride, the step comprising heating said trichlorophosphazosulfonyl organic acyl chloride at a temperature of from 150° to 190° C. in the presence of an aromatic sulfonamide as a reaction moderator and removing the $POCl_3$ as rapidly as formed.

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2,775,610

## PREPARATION OF CYANO ORGANICSULFONYL CHLORIDES

Frederick Comte, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 8, 1954, Serial No. 442,212

4 Claims. (Cl. 260—465)

1. In the preparation of a cyano organicsulfonyl chloride by heating a trichlorophosphazosulfonyl organic acyl chloride, the steps comprising heating a mixture containing initially said trichlorophosphazosulfonyl organic acyl chloride and at least one part by weight of the desired cyano organicsulfonyl chloride as a reaction moderator per 100 parts by weight of said trichlorophosphazosulfonyl organic acyl chloride at a temperature of from 150° to 190° C. and removing the $POCl_3$ as formed.



2,775,611

## PREPARATION OF CYANO ORGANICSULFONYL CHLORIDES

Frederick Comte, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 8, 1954, Serial No. 442,213

6 Claims. (Cl. 260—465)

1. In the preparation of a cyanoorganicsulfonyl chloride by heating a trichlorophosphazosulfonyl organic acyl chloride, the step comprising heating said trichlorophosphazosulfonyl organic acyl chloride at a temperature of from 150° to 190° C. in the presence of a catalytic amount of water of from about 0.1% to about 2% by weight and removing the $POCl_3$ as rapidly as formed.

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2,775,612

## PREPARATION OF CYANO ORGANICSULFONYL CHLORIDES

Frederick Comte, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 8, 1954, Serial No. 442,214

7 Claims. (Cl. 260—465)

1. In the preparation of a cyanoorganicsulfonyl chloride by heating a trichlorophosphazosulfonyl organicacyl chloride, the step comprising heating said trichlorophosphazosulfonyl organicacyl chloride at a temperature of from 150° to 190° in the presence of an inorganic acid of phosphorus and removing the $POCl_3$ as rapidly as formed.

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2,775,613

## METHANE-BIS(VANILLIN) AND DERIVATIVES AND PROCESSES FOR PREPARING THE SAME

John D. Garber, Cranford, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application March 15, 1954, Serial No. 416,430

5 Claims. (Cl. 260—479)

1. A member from the group consisting of bis(2-hydroxy-3-methoxy-5-formyl phenyl) methane and bis (2-acyloxy-3-methoxy-5-formyl phenyl) methane, wherein the acyl substituent is a lower fatty acid radical.

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2,775,614

## PRODUCTION OF ESTERS OF γ-CHLOROBUTYRIC ACID

Friedrich Hoelscher, Otterstadt, Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application June 13, 1952, Serial No. 293,452

Claims priority, application Germany July 13, 1951

3 Claims. (Cl. 260—487)

1. An improved process for the manufacture of esters of γ-chlorobutyric acid which comprises passing dry hydrogen chloride into a boiling mixture of about equivalent amounts of γ-butyrolactone and hydroxy compounds in the presence of a diluent which forms an azeotropic mixture with water whereby the water formed during the reaction is continuously removed azeotropically, said hydroxy compounds being selected from the group consisting of aliphatic, cycloaliphatic and araliphatic mono to tetrahydroxy compounds containing from 3 to 8 carbon atoms in the molecule and devoid of reactive groups other than said hydroxyl groups.



2,775,615

## POLYHALOGENATED POLYCARBOXYLATES

Tracy M. Patrick, Jr., Melrose, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application January 13, 1954, Serial No. 403,905

5 Claims. (Cl. 260—488)

1. A halogenated ester selected from the class consisting of 4-acetoxymethyl-2,6,6,6-tetrachlorohexyl acetate and 4-acetoxymethyl-6,6,6-trichlorohexyl acetate.

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2,775,616

## PREPARATION OF METHIONINE FROM α-AMINO-γ-METHYLTHIOBUTYRONITRILE

David Oliver Holland, Dorking, England, assignor to Beecham Research Laboratories Limited, Betchworth, England, a company of Great Britain

No Drawing. Application December 15, 1952, Serial No. 326,170

Claims priority, application Great Britain December 21, 1951

7 Claims. (Cl. 260—534)

1. In the manufacture of methionine by hydrolysis of crude methionine nitrile which contains by-products which yield tarry matter on hydrolysis, the process of reacting upon a solution of the nitrile in an organic solvent with a mineral acid selected from the group consisting of phosphoric acid and sulphuric acid so as to precipitate the corresponding salt and then removing and hydrolysing the salt, the solvent being selected from the group consisting of lower alkyl alcohols, lower alkyl mono ethers of a polymethylene glycol, and acetone such that the nitrile salt is substantially insoluble and the by-products substantially soluble therein.

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2,775,617

## PREPARATION OF TETRA-ALKYL QUATERNARY AMMONIUM HALIDES

Sydney H. Shapiro, Chicago, and Miles R. McCorkle, Oswego, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application November 13, 1951, Serial No. 256,149

5 Claims. (Cl. 260—567.6)

1. In a process of preparing a quaternary ammonium compound, the step comprising reacting one mole of an alkyl secondary amine in which the alkyl groups contain from 12 to 22 carbon atoms with more than one mole of an alkyl halide in which the alkyl group contains from 1 to 5 carbon atoms, in the presence of a sufficient amount of sodium bicarbonate to neutralize the hydrohalic acid produced by the reaction as it is formed and to maintain the reactants at a basic pH without promoting hydrolysis of the alkyl halide.

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2,775,618

## CHLORINATED ACYL PEROXIDES AND METHOD FOR THEIR MANUFACTURE

Albert L. Dittman, Jersey City, N. J., and John M. Wrightson, Whittier, Calif., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Original application May 11, 1951, Serial No. 225,850, now Patent No. 2,705,706, dated April 5, 1955. Divided and this application April 11, 1952, Serial No. 281,866

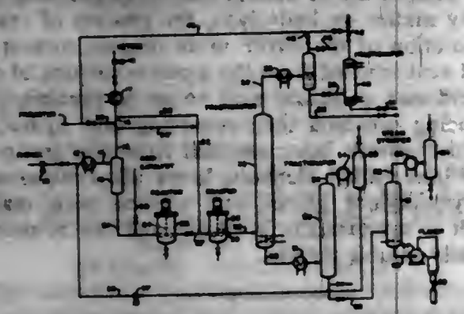
3 Claims. (Cl. 260—610)

1. Trifluorodichloropropionyl peroxide, in which all fluorine substituents appear at the terminal carbon atoms.

2,775,619
**PREPARATION OF PARAFORMALDEHYDE**
Alexander Golat, Yonkers, N. Y.
No Drawing. Application September 25, 1953, Serial No. 382,450
9 Claims. (Cl. 260—615)

1. The process of producing paraformaldehyde comprising heating to a temperature within the approximate range 90–100° C. an aqueous solution containing hydrated formaldehyde and formaldehyde polymers, maintaining said solution at said temperature for a period of about one half to one hour, removing water from the resulting depolymerized solution by evaporation at reduced pressure at such a rate that the still bottoms reach a temperature in the range 75–85° C. before the still bottoms exhibit more than a slight turbidity and cooling the still bottoms to produce solid paraformaldehyde.

2,775,620
**PRODUCTION OF BIS(HYDROXYARYL) SUBSTITUTED COMPOUNDS**
George T. Williamson, Oakland, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 12, 1954, Serial No. 442,770
11 Claims. (Cl. 260—619)



10. In a process for the production of bis(hydroxyaryl) alkanes wherein a phenol having at least one replaceable hydrogen atom attached directly to a carbon atom in the phenolic ring is reacted with an aliphatic ketone in the presence of an acid catalyst consisting essentially of a strong mineral acid at a temperature in the range of from about 20 to about 110° C., the steps which comprise charging said phenol and said aliphatic ketone in continuous stream in a mole ratio of phenol to said aliphatic ketone of at least 5:1 and in the presence of said acid catalyst through a plurality of reaction zones arranged in series flow and maintained at a temperature in said temperature range, introducing in constant stream a mixture comprising said acid catalyst and all of said phenol but only from about 10 to about 90% by weight of said aliphatic ketone into the first of said plurality of reaction zones, introducing the remainder of said aliphatic ketone in continuous stream into at least one reaction zone subsequent to said first reaction zone in said plurality of reaction zones, and maintaining a temperature gradient increasing progressively in the direction of flow of the reactants through said plurality of zones.

2,775,621
**HYDROGENATION OF FORMALDEHYDE CONDENSATION PRODUCTS**
Alexander F. MacLean and Adin L. Stautzenberger, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
No Drawing. Application June 20, 1952, Serial No. 294,705
3 Claims. (Cl. 260—635)

1. A process for the hydrogenation of an aqueous mixture of carbohydrates produced by the condensation of aqueous formaldehyde in the presence of a multivalent metal compound which is a catalyst for said condensation, comprising the steps of removing said multivalent metal as an insoluble compound from said carbohydrate mixture, bringing the pH of said mixture to between 3 and 5, and then directly, without further treatment, distilling said mixture, containing at most 5% of formaldehyde, at a pH between 3 and 5 to remove formaldehyde therefrom to bring the formaldehyde content thereof to not more than 0.5%, removing most of the acidic constituents of the mixture, and hydrogenating the aqueous carbohydrate mixture containing 10 to 20% of said carbohydrate resulting from the preceding steps at a pressure of 500 to 2000 pounds per square inch gauge in the presence of a catalyst for the hydrogenation.

2,775,622
**2,2-DIMETHYLOL-1,5-DIHYDROXYPENTANE AND DERIVATIVES THEREOF**
John E. Snow, Hasbrouck Heights, N. J., assignor to Heyden Chemical Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application March 27, 1951, Serial No. 217,885
5 Claims. (Cl. 260—635)

1. 2,2-dimethylol-1,5-dihydroxypentane.

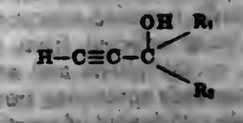
2. A process for the preparation of 2,2-dimethylol-1,5-dihydroxypentane which comprises reacting an aqueous solution of formaldehyde and 3-hydroxyvaleraldehyde in the presence of an alkaline condensing agent and then recovering the desired product from the reaction mixture.

2,775,623
**ISOLATION OF ETHYLENE GLYCOL FROM A MIXTURE ALSO CONTAINING PROPYLENE GLYCOL**
John Barr Bell, Jr., Locust, N. J., assignor to Jefferson Chemical Company, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application October 20, 1953, Serial No. 387,300
7 Claims. (Cl. 260—637)

1. The process of isolating ethylene glycol from a mixture of it with propylene glycol-1,2, which comprises, heating the mixture in the presence of an acid dehydration catalyst capable of catalyzing the dehydration of propylene glycol-1,2 at a temperature not exceeding about 160° C. but sufficient to drive off from the reaction mixture the water, propionaldehyde and 2,6-dimethyl-1,4-dioxane formed during the course of the reaction, discontinuing the heating when substantially all of the propylene glycol-1,2 has been decomposed, and removing ethylene glycol from the resultant reaction mixture.

2,775,624
**STABILIZED TETRACHLOROETHYLENE**
Maxwell J. Shooters, Painesville, Ohio, and Norman L. Beckers, Houston, Tex., assignors to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
No Drawing. Application September 25, 1953, Serial No. 382,484
6 Claims. (Cl. 260—652.5)

1. A composition of matter consisting essentially of tetrachloroethylene and a stabilizing amount of a compound of the structure:



wherein $R_1$ and $R_3$ are selected from the group consisting of hydrogen and lower alkyl radicals.



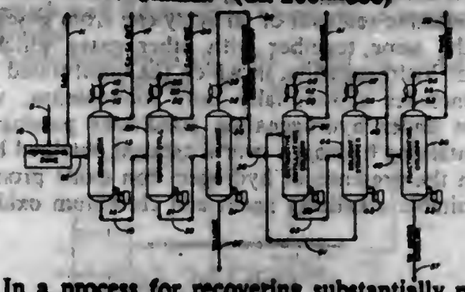
2,775,625
**INHIBITING POLYMERIZATION OF MONOMERIC VINYLIDENE CHLORIDE**
John H. Reilly and Marion R. Rector, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application June 17, 1953, Serial No. 362,386
4 Claims. (Cl. 260—652.5)

1. A composition of matter consisting essentially of monomeric vinylidene chloride and from 0.006 to 0.1 percent, based on the weight of said monomer, of a monoazo dye which is the diazotization product of a member of the class consisting of aniline, orthotoluidine, and xylidene, coupled with beta-naphthol.

2,775,626
**PRODUCTION OF 1-ETHYNYL-2,6,6-TRIMETHYL-CYCLOHEX-1-ENE**
Kurt H. Schaaf and Roland Kapp, Newark, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey
No Drawing. Application November 4, 1953, Serial No. 390,244
9 Claims. (Cl. 260—666)

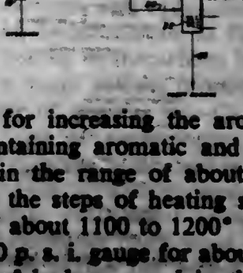
1. A process comprising heating a hydrocarbon solvent solution of 1-ethynyl-2,6,6-trimethylcyclohexan-1-ol at the reflux temperature of the solvent in the presence of cupric sulfate, the hydrocarbon solvent being selected from the group consisting of aromatic and aliphatic hydrocarbon solvents having a boiling point between about 120° C. and about 250° C.

2,775,627
**EXTRACTIVE DISTILLATION PROCESS FOR RECOVERING AROMATICS**
Harrison M. Lavender, Jr., San Anselmo, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application December 17, 1954, Serial No. 475,889
7 Claims. (Cl. 260—668)



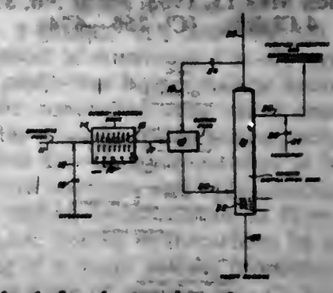
1. In a process for recovering substantially pure benzene from a catalytic reformate containing benzene, toluene and nonaromatic components, the steps comprising freeing the reformate of normally gaseous and other lighter nonaromatic constituents; passing the remaining reformate product so obtained to a re-run column from which a benzene concentrate containing substantially all the benzene content of said reformate, along with nonaromatic components and an appreciable amount of toluene, is taken overhead, and from which a fraction comprised in major portion of toluene is withdrawn as bottoms; passing said concentrate to an extractive distillation column, and there contacting the concentrate with a selective solvent at elevated temperatures whereby a substantial portion of the nonaromatic components are separated as an overhead product, while withdrawing a bottoms product containing substantially all of the benzene and toluene present in the concentrate, along with any remaining nonaromatic components and solvent; passing said bottoms product to a solvent stripping column maintained at a temperature adapted to distill overhead the nonsolvent portions of the feed to the column while withdrawing as bottoms, and recycling to the extractive distillation column, a solvent fraction which is low in nonsolvent components; passing the overhead from the solvent stripping column to a fractionating column maintained under such conditions as to distill the benzene overhead as a substantially pure benzene stream, while withdrawing as bottoms a fraction containing toluene and any remaining nonaromatic components, as present in the benzene concentrate.

2,775,628
**ISOMERIZATION OF XYLENES**
Daniel E. Nicholson and Robert H. Perry, Jr., Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application June 10, 1954, Serial No. 435,788
2 Claims. (Cl. 260—668)



1. A method of producing paraxylene wherein cracking and disproportionation reactions are substantially minimized which comprises contacting an aromatic hydrocarbon fraction containing $C_8$ to $C_{10}$ aromatics and at least one isomer of paraxylene and substantially less than the equilibrium concentration of paraxylene with a catalyst consisting of silica-alumina having a surface area in the range between about 50 and about 80 $M^2/g.$ in the presence of hydrogen in a molar ratio of hydrogen to hydrocarbon in a range between about 3:1 and about 5:1 at a temperature in the range from about 900° to 1000° F. and at a pressure in the range between 200 to about 400 p. s. i. g. and at a liquid space velocity in the range from about 1 to about 3 v./x./hr. to form a product containing paraxylene in an amount substantially greater that the concentration of paraxylene in said hydrocarbon fraction and approaching equilibrium concentration and substantially free of hydrocarbons having a lesser number of carbon atoms than said isomer, and recovering said paraxylene from the product.

2,775,629
**PRODUCTION OF AROMATICS AND DEHYDROGENATED HYDROCARBONS**
James A. Anderson, Jr., Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 11, 1953, Serial No. 397,732
6 Claims. (Cl. 260—668)



1. A method for increasing the aromatic content of a feed stock containing aromatic and saturated hydrocarbons boiling in the range of about 100 to 900° F. which comprises the steps of heating said feed stock at a temperature of about 1100 to 1200° F. and a pressure of about 0 to 300 p. s. i. gauge for about 1 to 50 seconds in the presence of hydrogen and in the substantial ab-

sence of any catalytic material to form a product containing an appreciated amount of aromatic hydrocarbons, cooling said product to a temperature of not more than about 200° F. within about 30 seconds, distilling said product to remove hydrocarbons boiling above and below the boiling range of said feed stock and recovering a distilled product containing said appreciated amount of aromatic hydrocarbons.

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2,775,630
SEPARATING α-METHYLSTYRENES FROM ISOPROPYLBENZENES USING AMINES
Claude J. Schmidle, Mooretown, N. J., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application February 11, 1953, Serial No. 336,452
5 Claims. (Cl. 260—669)

1. A process for removing an α-methylstyrene from a mixture containing an α-methylstyrene and an isopropylbenzene which comprises treating said mixture with formaldehyde and a basic nitrogen compound having on a nitrogen atom at least one hydrogen available for reaction from the class consisting of ammonia and lower primary alkylamines in the presence of hydrochloric acid as catalyst, reacting said α-methylstyrene, formaldehyde, and said basic nitrogen compound in the presence of said catalyst at a temperature between 50° and 150° C., whereby an acid salt of a nitrogen base is formed, separating said salt, and recovering the said hydrocarbon.

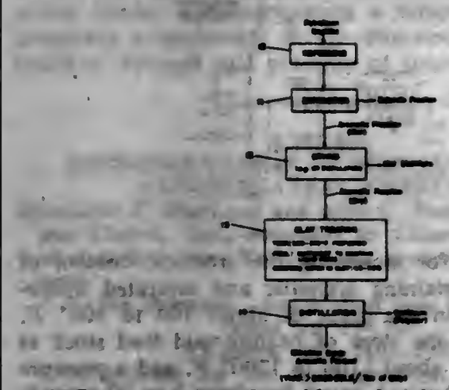
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2,775,631
PRODUCTION OF AROMATICS FROM OLEFINS AND CARBON DIOXIDE
Norman C. Carter, Old Ocean, Tex., and John S. Crocmans, Louisville, Ky., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application January 14, 1953, Serial No. 331,328
9 Claims. (Cl. 260—673)

1. The conversion of a straight chain olefin selected from the group consisting of a pentene and a hexene into an aromatic hydrocarbon which comprises contacting said olefin and carbon dioxide in a ratio of carbon dioxide to hydrocarbon of at least 0.5 as the sole effective reactants with a molybdenum oxide catalyst at a temperature in the range 750–1100° F. for a time sufficient to convert an appreciable proportion of the olefin into an aromatic hydrocarbon.

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2,775,632
TREATMENT OF AROMATIC HYDROCARBONS
Earl M. Honeycutt, Claymont, Del., and James R. Calkins, Swarthmore, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application May 13, 1953, Serial No. 354,742
4 Claims. (Cl. 260—674)



1. In a process of making nitration grade aromatic hydrocarbon which comprises reforming a petroleum naphtha, extracting the reformate with a water soluble solvent to yield an aromatic rich hydrocarbon fraction containing a minor amount of said solvent, and water washing said aromatic rich fraction to remove said solvent, the steps which comprise removing water from the water washed aromatic fraction to yield an aromatic stock having a water content less than 200 p. p. m., treating said stock in liquid phase at a temperature between 275° F. and its critical temperature with adsorptive clay having a combined water content between 4.5% and 7.5% by weight, and recovering from the treated material nitration grade aromatic product in a yield exceeding 2000 barrels per ton of clay.

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2,775,633
SEPARATION OF TERTIARY OLEFINS
Merrell R. Fenske and Jennings H. Jones, State College, Pa., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application December 10, 1953, Serial No. 397,471
20 Claims. (Cl. 260—677)

1. A process for removing olefins of the class consisting of aliphatic and cycloaliphatic mono-olefins and non-conjugated diolefins from a mixture of hydrocarbons which comprises mixing the hydrocarbon mixture with an excess of a perfluoro organic acid to convert the olefins into esters of the perfluoroacid, and separating unreacted hydrocarbons from the reaction mixture.

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2,775,634
REMOVAL OF ACETYLENE FROM OLEFINS BY SELECTIVE HYDROGENATION
Gene Nowlin, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application June 22, 1953, Serial No. 363,400
17 Claims. (Cl. 260—677)

1. A selective removal of an acetylene from gases containing the same together with other gases which are capable of hydrogenation, in which the unsaturated component includes substantially only monoolefins, which comprises under hydrogenation conditions passing said gases containing hydrogen over a catalyst obtained by reducing in the presence of hydrogen iron oxide promoted with a suitable alkalizing agent and chromium oxide.

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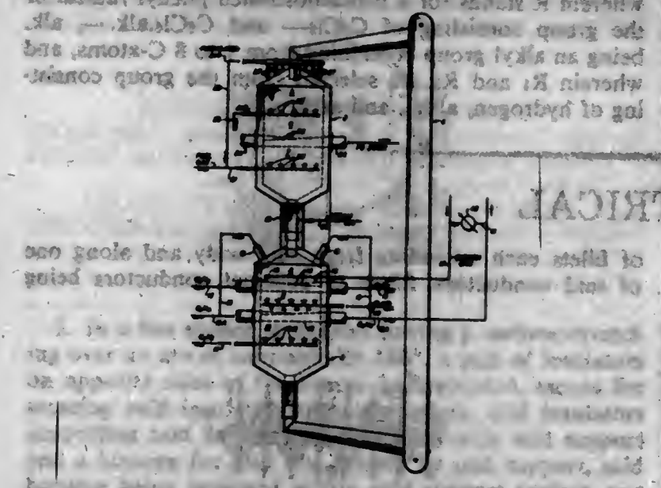
2,775,635
METHOD AND APPARATUS FOR HEATING FLUIDS
Louis C. Bearer, McGregor, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application November 12, 1952, Serial No. 319,990
14 Claims. (Cl. 260—679)

1. A process for conducting a two-stage reaction of a fluid which comprises moving a mass of heated refractory, particulate solids through a reaction zone; countercurrently contacting a fluid reactant with part of said mass in a lower portion of said zone to effect a first-stage reaction; disengaging first-stage reaction product from said mass in an intermediate portion of said zone; non-countercurrently contacting another part of said mass with said first-stage reaction product introduced into an upper portion of said zone above the level of solids therein so as to effect a second-stage reaction; and withdrawing a second-stage reaction product from said zone downstream with respect to solids flow from the locus of entry of said first-stage reaction product into said zone, said second-stage reaction being conducted at a higher temperature and a shorter reaction time than said first-stage reaction.

8. In a pebble heater apparatus, the improvement comprising, in combination, a vertically disposed heating



chamber; a top closure member and a bottom closure member therefor; pebble inlet means positioned in said upper closure member and in open communication with said chamber; pebble outlet means positioned in said lower closure member and in open communication with said chamber; gas outlet means positioned in said upper closure member; first fluid introduction means positioned



in the lower end of said chamber; second fluid introduction means positioned in an upper intermediate portion of said chamber; gas disengaging means positioned in a lower intermediate portion of said chamber between said first and second fluid introduction means; and conduit means connecting said gas outlet means with said first fluid introduction means.

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2,775,636
ALKYLATION PROCESS
Walter H. Rapp, Mountainside, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application June 29, 1951, Serial No. 234,413
5 Claims. (Cl. 260—683.4)



1. A once-through method of reacting isoparaffinic hydrocarbons with olefinic hydrocarbons in the presence of liquid acid catalyst material for the reaction, to form branched chain saturated hydrocarbons boiling within the gasoline range, and substantially free from polymerization products, in which said reactant materials are contacted in a confined reaction zone, comprising maintaining an emulsified body of said materials and product in said zone with an intermediate upper level therein, continuously vaporizing and withdrawing a portion of unreacted isoparaffinic hydrocarbons from said zone above the liquid level therein, continuously withdrawing a portion of the emulsified materials from said zone, separating said materials into a heavier component comprising said acid catalyst, and a lighter component comprising said reactant materials and the reaction product substantially free of catalyst material, fractionating said lighter component to recover therefrom a product component and a normal component consisting of unreacted isoparaffinic hydrocarbons, recycling a stream of said recovered isoparaffinic hydrocarbons to said reaction zone, continuously recycling a stream of said separated heavier component comprising said acid catalyst to said reaction zone, continuously condensing the vaporized isoparaffinic material withdrawn from said reaction zone and recycling the condensed isoparaffinic material to said reaction zone, the streams of said isoparaffinic material and of said acid-containing heavier component being introduced into said reaction zone as a plurality of opposed, paired jets in impinging contact one with another within the body of materials in said zone, at least a portion of said jetted streams comprising a mixture of said acid catalyst and said isoparaffinic hydrocarbon material, and continuously jetting said olefinic hydrocarbon into said emulsified body directly between said opposed jet streams at a plane substantially coincident with that established by impingement of said opposed jets.

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2,775,637
PURIFICATION OF OLEFIN-CONTAINING HYDROCARBON STREAMS
William C. Lanning and Robert J. Hogan, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application June 23, 1953, Serial No. 363,678
17 Claims. (Cl. 260—683.15)

1. A process for the selective removal of carbon monoxide from an olefin-containing hydrocarbon stream without substantial reduction in the olefin content of said stream which comprises passing said stream at a temperature of at least about 300° F. into contact with an alkalized iron oxide-chromium oxide purification agent which has been reduced in hydrogen.

17. A process for the polymerization of an ethylene-containing stream of hydrocarbons also containing carbon monoxide which comprises passing said stream at a temperature in the approximate range 300–680° F., a pressure in the approximate range 100–1000 p. s. i. g., and a space velocity in the approximate range 500–2000 volumes of gas per volume of treating agent per hour into contact with an alkalized iron oxide-chromium oxide treating agent which has been reduced in hydrogen, recovering a stream of hydrocarbons of a reduced carbon monoxide content and then subjecting the said recovered stream of hydrocarbons under polymerization conditions to the action of a nickel oxide-silica-alumina polymerization catalyst.

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2,775,638
CATALYTIC POLYMERIZATION OF OLEFINS
Thomas H. Milliken, Jr., Moylan, George Alexander Mills, Swarthmore, and Alex G. Oblad, Springfield, Pa., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 25, 1952, Serial No. 306,282
3 Claims. (Cl. 260—683.15)

1. The method of converting $C_3$—$C_5$ hydrocarbons to substantially olefin-free higher boiling hydrocarbons in a single catalytic conversion zone which consists in dehydrogenating the $C_3$—$C_5$ hydrocarbons, polymerizing the dehydrogenated $C_3$—$C_5$ hydrocarbons to higher boiling unsaturated hydrocarbons, and hydrogenating the unsaturated higher boiling hydrocarbons to form substantially olefin-free higher boiling hydrocarbons by passing a mixture consisting of a major volume proportion of hydrogen and a lesser volume of gaseous $C_3$—$C_5$ hydrocarbons at a pressure of at least 10 atmospheres at a space rate greater than 1 at a temperature within the range from 400° to 1150° F. over a catalyst consisting of a minor quantity of a group VIII metal as a hydrogenation-dehydrogenation promoting component deposited on an aluminaceous carrier having the property of promoting acid-catalyzed reactions.

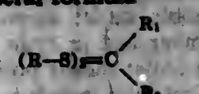
2,775,639

**RUBBERY DIENE POLYMERS PLASTICIZED WITH CHLORINE-SUBSTITUTED MERCAPTALS**

Friedrich Lober, Otto Bayer, and Max Bögemann, Leverkusen-Bayerwerk, and Paul Schneider, Opladen, Germany

No Drawing. Original application December 27, 1950, Serial No. 207,068, now Patent No. 2,695,898, dated November 30, 1954. Divided and this application May 20, 1954, Serial No. 431,284
Claims priority, application Germany December 27, 1949
3 Claims. (Cl. 260—761)

1. A plasticized elastomer selected from the group consisting of natural rubber, rubbery conjugated diene polymers and their vulcanizates containing, as a plasticizer, a compound of the general formula



wherein R stands for a pentasubstituted phenyl radical of the group consisting of $C_6Cl_5$— and $C_6Cl_4$alk.—, alk. being an alkyl group containing from 1 to 8 C-atoms, and wherein $R_1$ and $R_2$ are selected from the group consisting of hydrogen, alkyl, and aryl.

# ELECTRICAL

2,775,640

**METHOD AND MEANS FOR INSULATING HIGH VOLTAGE ELECTRODES**

Asa B. Steeves, Metuchen, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application October 1, 1952, Serial No. 312,458
5 Claims. (Cl. 174—15)



1. In an apparatus for subjecting fluid materials to the effect of high potential electric currents, including a container vessel for said fluid materials, a service entrance means for passing an electrical conductor element through a wall of said vessel, comprising an entrance port in said vessel wall, a substantially tubular, rigid conduit means of an impermeable material mounted in said port in fluid-tight relation to said vessel wall and extending outwardly beyond said vessel wall, a hollow tubular bushing of a rigid, porous dielectric material secured in fluid-tight coaxial relation to said conduit means, and dependent therefrom to extend into said vessel, beyond said wall, an electrode element disposed substantially coaxially within said conduit means and said bushing forming a substantially annular conduit passageway around said electrode element within said conduit means and bushing, means for sealing said electrode element with reference to said conduit means at one end of said electrode element and means for sealing said electrode with reference to said bushing at the other end of said electrode element, said electrode element extending outwardly through said sealing means at each of the outer and inner ends thereof, means for introducing a fluid dielectric material into said conduit means, and said annular conduit passageway within said conduit means and bushing, under a differential pressure to discharge said fluid material outwardly from said passageway into the vessel through the pores of said bushing material.

2,775,641

**ELECTRON TUBE STEM**

David L. Swartz, Newport, R. I., assignor to Radio Corporation of America, a corporation of Delaware

Application July 11, 1955, Serial No. 521,256
6 Claims. (Cl. 174—50.61)

1. An electron tube stem comprising a body, a plurality of conductors extending therethrough, and a plurality of fillets each extending from said body and along one of said conductors, fillets of adjacent conductors being



disposed on opposite sides only of a median plane of said body.

2,775,642

**HALF CIRCULAR BUS BRACKET**

William M. Scott, Jr., Bryn Mawr, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Original application May 9, 1950, Serial No. 160,899. Divided and this application December 31, 1952, Serial No. 328,884
7 Claims. (Cl. 174—99)



1. In a sectionalized bus system to be secured to a structural member, a prefabricated section comprising a first bus housing member, a second bus housing member, said first and second housing members when joined forming a cylindrical closure for a bus, said prefabricated section further including a pair of substantially 180° cast iron supports, each of said cast iron supports comprising a pair of legs arranged to extend to and be secured to the structural member and a cradle section for removably receiving one of said housing members, two pairs of diametrically opposite insulators engaging and supporting the bus at opposite sides thereof, said cast iron support for each pair of insulators extending from a point slightly beyond the longitudinal axis of one insulator around to and slightly beyond the longitudinal axis of the second insulator, adjustable members each mounted in said supports and extending through one of said housing members to said insulators for securing said insulators to said supports and providing axial adjustment of said insulators, and additional adjustable members for adjustably securing said legs to said structural members to permit angular positioning of said supports with reference to said structural members.



2,775,643

**HALF CIRCULAR BUS BRACKET**

William M. Scott, Jr., Bryn Mawr, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application August 16, 1950, Serial No. 179,687
2 Claims. (Cl. 174—99)



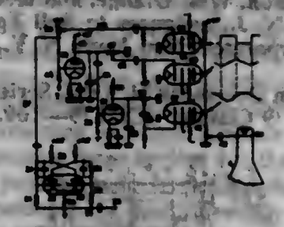
1. In a bus system, a support having a surface extending over an arc of substantially 180°, a pair of insulators on opposite sides of the bus to be supported, means for securing said insulators to said support, said insulators supporting said bus in spaced relation with said support and a housing for said bus carried by said support, said housing being mounted within said support surface and comprising two semi-cylindrical members; longitudinal flanges on each side of one of said semi-cylindrical members; a ledge on the upper portion of the support on each side; each longitudinal flange of said one semi-cylindrical member being positioned by said ledge.

2,775,644

**PICTURE ANALYSIS AND RECORDING DEVICES**

Paul Mandel, Paris, France, assignor to Societe Nouvelle de l'Outillage R. B. V. et de la Radio-Industrie (R. B. V.-R. I.), Paris, France, a joint-stock company

Application October 8, 1951, Serial No. 250,236
Claims priority, application France October 14, 1950
9 Claims. (Cl. 178—7.2)



5. In a flying-spot picture-translating system wherein the beam of a cathode ray tube is driven according to a television interlaced raster under the control of frame synchronizing pulses, and an image of the flying spot of said tube is caused to scan a kinematographic film through two cooperative optical paths alternately unmasked at the frame frequency of the interlaced raster with resultant production of a cyclically varying flicker modulation component independent of any signal modulation component in the picture-bearing wave, means for deriving from the frame synchronizing pulses of said raster an alternating voltage of rectangular wave-form of one-half the frequency of said frame synchronizing pulses, means for deriving from said rectangular wave-form voltage a symmetrical saw-tooth voltage of the same frequency, means for adjusting the amplitude of said symmetrical saw-tooth wave-form voltage and anti-flicker means for introducing said adjusted electrical saw-tooth wave-form voltage into the system as an additional modulation component opposing the said flicker modulation component for flicker-reducing purposes.

2,775,645

**APPARATUS FOR TAPPING TELEPHONE CONVERSATIONS FOR THE PURPOSE OF RECORDING**

Johannes Jacobus Joseph Fahlenkamp, Hilversum, Netherlands

Application September 26, 1950, Serial No. 186,710
Claims priority, application Netherlands October 6, 1949
1 Claim. (Cl. 179—1)



An apparatus for picking up signals from a telephone voice coil eccentrically located in a telephone apparatus, comprising, in combination, a box having an axis of symmetry and two end faces extending transverse to said axis and adapted to fit to the base of the telephone apparatus; a pick-up coil arranged in said box and having an axis extending parallel to and eccentric with respect to said axis of symmetry of said box whereby said pick-up coil can be placed in a plurality of positions eccentric with respect to said axis of symmetry in the region of the eccentric telephone voice call by turning said box about said axis of symmetry thereof and by placing any of said end faces on top so as to couple said pick-up coil to the telephone voice coil; and means for attaching said pick-up coil to said box in said plurality of positions eccentric with respect to said axis of symmetry of said box.

2,775,646

**SINGLE-SIDEBAND APPARATUS**

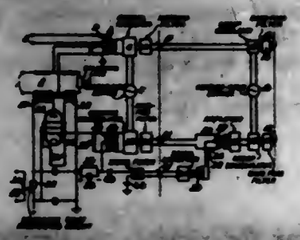
Johan Adriaan Greefkes, Hilversum, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application November 23, 1951, Serial No. 257,680
Claims priority, application Netherlands November 30, 1950
6 Claims. (Cl. 179—15)



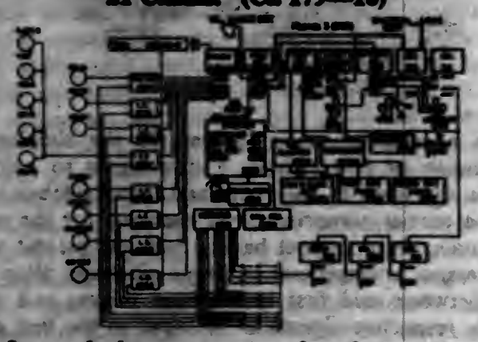
1. In a communication system for the simultaneous transmission of two signals, a transmitter to emit said signal in the form of the upper and lower sidebands of a common carrier comprising two channels for the respective signals, each channel having first and second mixers in successive arrangement, a single sideband filter interposed between said first and second mixers and means to apply respective signals as an input to the first mixer, a first local oscillator connected in common to the first mixer of both channels to combine with the signals applied thereto to produce a wave in the output thereof having two sidebands only one of which is fed by the associated filter as an input to the second mixer, and means to apply respective local oscillations to the second mixers of both channels differing in frequency to an extent equal to twice the frequency of the first local oscillator, said last-named means including a second local oscillator and an auxiliary mixer to combine the frequencies of said first and second local oscillators.

2,775,647
SINGLE SIDEBAND CARRIER-WAVE TELEPHONE SYSTEM
Johannes Enkel, Hilversum, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application September 24, 1951, Serial No. 248,646
Claims priority, application Netherlands September 26, 1950
6 Claims. (Cl. 179—15)



4. A single sideband multi-channel carrier wave telephone system for the simultaneous transmission of a plurality of calls, comprising means for producing a plurality of sideband-modulated carrier waves in channels arranged in a multiplicity of groups wherein frequency intervals between the carrier waves of the channels are substantially equal to twice the bandwidth of the sideband transmitted for each call and means by which signalling is effected for each channel comprising means for producing a plurality of signalling carrier waves associated respectively with each channel and being outside the transmitted sideband of the respective channel, and receiving terminal apparatus including means by which the signalling frequencies, belonging to the channels of one group, are jointly separated from that group before mutually separating the channels of that group, said last-named means comprising receiver means for receiving said one group of channels, first separating means for separating the modulated carrier waves of said one group, second separating means for separating the signaling frequencies of said one group, and coupling means connecting said receiver means jointly to said first and second separating means.

2,775,648
AUTOMATIC TOLL TICKETING TELEPHONE SYSTEM
Harry N. Newstedt, Chicago, Ill., assignor to Automatic Electric Laboratories, Inc., Chicago, Ill., a corporation of Delaware
Application March 28, 1951, Serial No. 217,923
21 Claims. (Cl. 179—18)



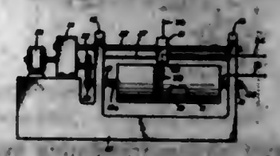
21. In a telephone system, a first finder-selector link, a second finder-selector link, a first group of lines divided into a plurality of subgroups, each subgroup of lines in said first group accessible to said first link, a second group of lines divided into a plurality of subgroups, each subgroup of lines in said second group accessible to said second link, each one of said subgroups of lines in said first group and in said second group corresponding respectively to a different class of service, a register sender, a pair of conductors individual to each of said links, means controlled incident to a call on any one of said lines for operating the associated link to find the calling line and to connect said register sender to said marking conductors and to mark said pair of conductors in accordance with the particular class of service of the subgroup of lines including said calling line, and means in said register sender controlled over said pair of conductors in accordance with the marking thereon for registering the particular class of service of the calling line in any subgroup of lines in said first and second groups of lines.

2,775,649
TELEPHONE SUBSCRIBER SETS
Lyndall Crosthwaite Pocock and Anthony Crisp Beadle, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application April 14, 1952, Serial No. 282,132
Claims priority, application Great Britain April 18, 1951
11 Claims. (Cl. 179—81)



1. A telephone substation circuit comprising a source of unidirectional line current, a transmitter and a receiver, a line coupled to said current source, coupling means for coupling said transmitter and said receiver to said line, a shunt circuit for controlling the unidirectional current passing through said transmitter and the pulsating speech currents passing through said receiver, said shunt circuit comprising non-linear resistance bridge means having a first pair of diagonal points in shunt with said transmitter, said shunt circuit including inductive means in shunt with said receiver, means coupling said inductive means with the opposite diagonal points of said bridge means for altering the impedance of said inductive means in accordance with the value of the voltage across said first diagonal points.

2,775,650
FERROELECTRIC RECORDING AND REPRODUCTION OF SPEECH
Warren P. Mason, West Orange, and Robert N. Thurston, Whippany, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,208
9 Claims. (Cl. 179—100.1)

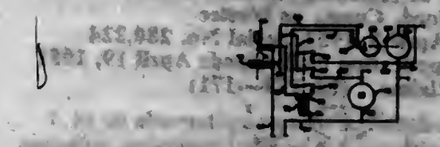


1. In combination with a system for recording and reproducing continuous wave signals, a record comprising a layer consisting of ferroelectric crystalline material not more than a few microns thick superposed on a substrate comprising a metal selected from the pair consisting of platinum and palladium, said record having a remanent polarization pattern along a preselected path on said layer which pattern corresponds to preselected continuous wave signals.

2,775,651
TELEPHONE ANSWERING AND RECORDING DEVICES
Harry W. Cain, Meriden, Conn., assignor to Telephone Answering and Recording Corporation, New York, N. Y., a corporation of Delaware
Application April 29, 1953, Serial No. 351,894
14 Claims. (Cl. 179—100.1)

1. In a telephone answering machine, in combination, supporting means, a turn-table rotatably mounted on said supporting means and adapted to hold a recording disc, recording means movably mounted on said supporting means, means on said supporting means to feed said recording means transversely of said disc in recording engagement therewith, means secured to said supporting means to drive said turn-table and said feeding means, means on said supporting means to disengage said recording means from said disc and from said feeding means, means including a switch on said supporting





means for conditioning said machine to perform an automatic answering and message recording function, means including a second switch on said supporting means for conditioning said machine to perform a play-back function, inter-locking means operable by each of said switches for releasing the other, and means to operatively connect said second switch with said disengaging means whereby operation of said second switch may actuate said disengaging means.

2,775,652
HEARING AID CASING
Ralf Stolz, Weston, Mass.
Application July 20, 1953, Serial No. 368,944
4 Claims. (Cl. 179—107)



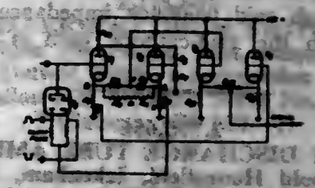
1. In a device of the character described, the combination comprising a casing, a portion of said casing being pivotally displaceable from and complementary to the remaining portion of said casing whereby said portions of said casing provide means for clipping said casing to apparel, means operatively associated with said casing for yieldably holding said pivotally displaceable portion in non-displaced position, the displaceable portion and the remaining portion together providing a smooth and continuous front surface for the casing when the displaceable portion is in its nondisplaced position, a microphone mounted in said pivotally displaceable portion of said casing, an amplifier mounted in said remaining portion of said casing below the displaceable portion, and means operatively connecting said microphone to said amplifier.

2,775,653
MOVING COIL DIAPHRAGMS FOR ELECTRO-DYNAMIC LISTENING APPARATUS
Günther Wurdel, Berlin-Steglitz, Germany, assignor to Holmberg & Co., Kommanditgesellschaft, Berlin, Germany
Application November 6, 1951, Serial No. 255,695
Claims priority, application Germany November 16, 1950
6 Claims. (Cl. 179—115)



1. In a sound reproducing apparatus, in combination, a diaphragm having an annular channel-shaped projection, including two annular concentric parallel side walls extending substantially normal to the plane of said diaphragm, and a bottom wall, said channel-shaped projection having a U-shaped cross section so that said side walls and said bottom wall define an annular channel; a coil support having an annular end portion projecting into said channel and engaging the inner face of said bottom wall, said annular end portion having coaxial annular outer and inner surfaces extending parallel to said side walls within said annular channel and engaging said side walls to hold said coil support in a position normal to the plane of said diaphragm and so as to reinforce said channel-shaped projection, said channel carrying said coil support and positioning the same accurately with respect to the diaphragm, and said channel acting as a gauge to guarantee that a coil support of proper size and wall thickness is connected to the diaphragm; and a coil arranged on said coil support outside of said channel.

2,775,654
CIRCUIT FOR ADJUSTING AMPLITUDE DISTORTION
Donald Wolpheus and Lodlaisky Lax, Cambridge, England, assignors to Eye Limited, Cambridge, England, a British company
Application December 11, 1950, Serial No. 200,134
Claims priority, application Great Britain December 16, 1949
3 Claims. (Cl. 179—171)

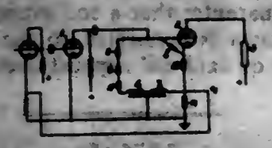


1. An amplifier comprising a first electronic valve having an anode, a cathode and a control grid, a high tension positive supply line, means for feeding the input signal to the control grid of said electronic valve, means for maintaining said control grid at a predetermined voltage, a resistor connected between the cathode of first valve and ground, a resistor connected between the anode of the said first valve and the high tension positive supply line a second electronic valve having an anode, a cathode and a control grid, a resistor connected between the cathode of said second valve and ground, means connecting the anode of said second valve to the high tension positive supply line, a resistor chain connected between the anode of said first valve and ground, means connecting the control grid of said second valve to an intermediate point on said resistor chain, an impedance network connected between the cathodes of said two valves, one portion of said impedance network producing a non-linear amplitude characteristic and the other portion of said impedance network producing a linear amplitude characteristic, means for feeding the signals from intermediate points on said two portions respectively to the control grids of two cathode follower valves, a potentiometer connected across the cathodes of said cathode follower valves, and a variable tapping on said potentiometer from which the output signal is taken.

2,775,655
AMPLIFIER CIRCUIT
Jan Lourens Bordewijk, Delft, Joseph Frederik Lenaz, Hilversum, and Jan te Winkel, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application July 22, 1952, Serial No. 300,172
Claims priority, application Netherlands August 21, 1951
4 Claims. (Cl. 179—171)

1. A wide band amplifier arrangement comprising first and second amplifier stages in coupled relationship,

each of said stages having an electron discharge device having a cathode, a control grid and an anode, a signal-conductive connection between the anode of said first stage and the control grid of said second stage, the cathode circuit of said second stage including a negative feedback impedance, means for applying a negative feedback voltage developed across said negative feedback impedance to said first amplifier stage, a first impedance, a first inductance connected serially with said first impedance between the anode of the device of said first stage and ground, and a second inductance included in said cathode circuit, said second inductance being tightly coupled to said first inductance and so related to the cathode circuit as to introduce therein at a point between the last-mentioned cathode and the feedback impedance an induced compensating current component in opposition to any current in the frequency region to be amplified which flows from the electron discharge of the first stage through the capacitive grid-cathode path of the second stage device, the relative values of said tightly coupled inductances and of said first impedance being such that any flow through said feedback impedance of the said current through the grid-cathode path is substantially eliminated.

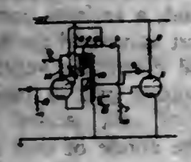


2,775,656

**ELECTRON DISCHARGE TUBE AMPLIFIERS**

Geoffrey Newbold Hounsfield, Ickenham, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain

Application September 17, 1951, Serial No. 246,994
Claims priority, application Great Britain September 27, 1950
2 Claims. (Cl. 179—171)



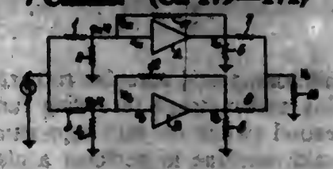
1. An electron discharge tube amplifier comprising a first amplifier tube having at least a cathode, a control electrode and an output electrode, a transformer having a first winding with one end connected to a point of substantially low fixed potential, a connection between the cathode of said first tube and a first intermediate point on said first winding, means for applying signals between said control electrode and said low fixed potential point, a high tension source of potential which is positive with respect to said low fixed potential point, a load impedance connecting the output electrode of said tube to said source, a second winding coupled to said transformer and having a point thereon connected to said output electrode to apply positive feedback to said cathode thereby to increase the cathode impedance of said tube, a second amplifier tube having at least a cathode, control electrode, and an output electrode, means coupling the output electrode of said first tube to the control electrode of said second tube to feed signals thereto, an impedance connecting the output electrode of said second tube to said high tension source of potential which is positive with respect to the potential of said low fixed potential point, a connection from the cathode of said second tube to a point of substantially low fixed potential, a negative feedback connection coupling the output electrode of said second tube to a second intermediate point on said first winding, and means for deriving output signals from the output electrode of said second tube.

2,775,657

**DUAL CHANNEL AMPLIFYING CIRCUIT**

Johannes Jacobus Zaalberg Van Zelst, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application April 3, 1952, Serial No. 280,224
Claims priority, application Netherlands April 19, 1951
7 Claims. (Cl. 179—171)



1. An amplifying circuit comprising a main amplifier A and a spare amplifier B, each having an input circuit, an output and a negative feedback circuit, a signal source, means connecting the two input circuits to said signal source, a load impedance, and means connecting the two output circuits to said load impedance, characterized in that for the negative feedback coefficients of the negative feedback circuits the following conditions are substantially fulfilled:

$$a_a = \frac{q_a}{N_a} - \frac{1}{\mu_{ab}}$$

$$a_b = K\frac{q_a}{N_a}$$

$$b_a = \frac{q_b}{N_b}$$

$$b_b = \frac{q_b}{N_b} - \frac{1}{\mu_{ab}}$$

in which K represents a constant having a value which differs from 1 by an amount to at least 30% of 1, and in which the negative feedback coefficients $a_a$, $a_b$, $b_a$ and $b_b$ are defined in accordance with

$$V_{ta} = a_a E_a + a_b E_b$$

$$V_{tb} = b_a E_a + b_b E_b$$

in which $V_{ta}$ and $V_{tb}$ indicate the negative feedback voltages supplied to the input circuits of the amplifiers A and B respectively, $E_a$ and $E_b$ respectively represent the voltages produced across the load impedance when the spare amplifier B or the main amplifier A respectively is made temporarily inoperative by switching off the heating current and temporarily adding a resistor to compensate for its internal resistance being varied thereby, $q_a$ and $q_b$ represent the fractions in which the signal voltage is supplied to the input circuits of the amplifiers A and B respectively, $\mu_{ab}$ and $\mu_{ba}$ represent the mean amplification factors of the amplifiers A and B respectively, measured as a relation between the voltages $E_a$ or $E_b$ respectively and the input voltage of the amplifier concerned, and $N_a$ represents the amplification of the circuit, whereby in normal operation of the amplifying circuit both of the amplifiers A and B are operative with the main amplifier A providing a relatively greater part and the spare amplifier B providing a relatively smaller part of the output voltage at said load impedance, and whereby in the event of failure of the main amplifier A, the spare amplifier B will automatically provide the entire amount of output voltage at said load impedance with an amplitude substantially equal to the amplitude of the output voltage obtained in normal operation of the amplifying circuit.



2,775,658

**NEGATIVE RESISTANCE AMPLIFIERS**

Warren P. Mason, West Orange, and William Shockley, Madison, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 1, 1952, Serial No. 302,278
4 Claims. (Cl. 179—171)



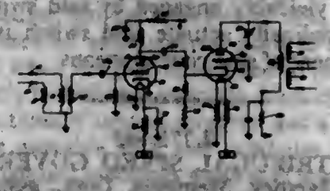
1. In an alternating current signal circuit, a two terminal negative resistance, means for coupling said negative resistance in linear amplifying relationship with said alternating current signal circuit, and a directional transducer interposed in said signal circuit, said transducer including a gyrator and a reciprocal signal transmission path connected to said signal circuit in such bridging relationship with said gyrator as to increase the amplitude of signals transmitted through said signal circuit in one direction and substantially cancel signals transmitted in the other direction, the reciprocal component of the transfer impedance of said transducer being substantially equal to the gyrator component of the transfer impedance.

2,775,659

**CASCODE CIRCUITS**

Edwin Keith Nelson, Pico, Calif., assignor to Standard Coil Products Co. Inc., Los Angeles, Calif., a corporation of Illinois

Application February 20, 1951, Serial No. 211,959
12 Claims. (Cl. 179—171)



1. In a television receiver circuit having an upper and a lower frequency band, a first triode having a grounded cathode and a second triode having a grounded grid and a network automatically tunable to the frequency spectrum in said upper and lower frequency bands, said network consisting effectively of an inductance in said upper frequency band connected between the plate of said first triode and the cathode of said second triode, said inductance having a value designed to parallel resonate with the plate interelectrode capacitance of the first triode at the high frequency portion of said upper frequency band and to series resonate with the cathode interelectrode capacitance of said second triode at the low frequency portion of said band.

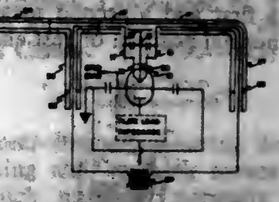
8. A wide-band high frequency amplifier comprising first and second triodes each having an anode, a cathode and a control grid, means connecting the second triode as a cathode-input grounded-grid stage with its cathode having a predetermined capacitance to ground, means connecting the first triode as a grid-input anode-output grounded-cathode driving stage, a signal coupling circuit including an inductor connected between said triodes, means connecting said inductor in series between the anode of said grounded-cathode triode and the cathode of said grounded-grid triode, said inductor being proportioned to provide inductance that resonates with said predetermined capacitance at a frequency near the high frequency portion of said wide band thereby forming a series resonant low impedance circuit comprising the output load impedance for the first triode.

2,775,660

**FILAMENT LEAD-IN AND IMPEDANCE MATCHING STRUCTURE FOR A GROUNDED GRID AMPLIFIER**

Harry E. Smith, Verona, and Allen B. Taylor, Belleville, N. J., assignors to Standard Electronics Corporation, Newark, N. J., a corporation of Delaware

Application December 2, 1953, Serial No. 395,796
3 Claims. (Cl. 179—171)



3. Input structure for a grounded grid amplifier tube comprising an input coaxial transmission line, matching stubs for said line and said tube, a section of transmission line interconnecting said matching stubs, said matching stubs and said section having hollow inner conductors, a cathode and filament connector for said tube hinged to and concentric with the inner conductor of said section, and filament current supply leads located in the inner conductor of said section and at least one of said matching stubs.

2,775,661

**REVERSING DRUM SWITCH**

Joseph J. Gribble, Shorewood, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan

Application July 15, 1953, Serial No. 368,090
7 Claims. (Cl. 200—1)



1. In a reversing drum switch, a plurality of pairs of stationary contacts, a switching drum disposed between said stationary contacts and carrying movable contacts cooperating therewith, said stationary contacts being spaced substantially 180° apart about the drum and said movable contacts being arranged in pairs with the contacts in each pair spaced substantially 180°, an indexing plate mounted to be rotatable with said drum, indexing "off" notches on said plate 180° apart and indexing forward and reverse notches on opposite sides of one only of said "off" notches, spring loaded means engaging said notches to index plate and drum positions, an operating handle for said drum and means reversing the drum and handle engagement by substantially 180° to provide for momentary or indexed forward and reverse positions of the drum for the same positions of the handle.

2,775,662

**ELECTRICAL KEY**

Henry C. Harrison, Port Washington, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 4, 1952, Serial No. 318,718
3 Claims. (Cl. 200—1)

1. A communication operator's key having a substantially rectangular frame and a center post integral therewith, uniplanar parallel opposed longitudinal slide ways formed in said frame and said post, a cam, said cam slidable in said ways, means for biasing said cam to a normal position in said ways, a plurality of longitudinal

cam tracks spaced one from another laterally formed in said cam, an individual pair of elongated substantially straight wire contact springs for each of said tracks, said springs disposed parallel to said slide ways, each of said springs secured at one end to said frame and having a free end, an electrical contact on each free end, said contacts of each pair adapted to make and break, a cam follower on one spring of each pair engageable with its respective track, a handle secured to said frame, said handle having a first and a second means for arresting its motion in a normal position of rest and in an operated



position, respectively, a projection on said handle, a link secured at one end to said cam and having a free formed end disposed in the path of said projection as said key is actuated between its rest and operated positions, to slide said cam in said ways from said normal to an operated position, each of said followers responsive to the motion of its respective track to control its respective contact pairs as said slide is actuated, and means in said tracks for opening and closing said contacts according to any desired predetermined sequence of openings and closings as said handle is actuated.

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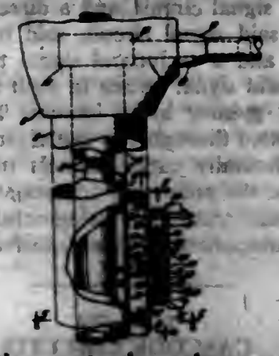
2,775,663
ELECTRIC LIGHT SOCKET WITH A REPLACEABLE SWITCH
John P. Rousseau, New York, N. Y.
Application May 27, 1953, Serial No. 357,759
1 Claim. (Cl. 200—51.17)



An electric light socket with a replaceable switch, comprising a first casing shell, a second casing shell, fastening means for detachably fastening the two casing shells together to form a complete casing, a first cartridge removably disposed in the first casing shell, a second cartridge removably disposed in the second casing shell, said cartridges being held within said casing shells when the casing shells are fastened together to form the complete casing, a pair of conductors projecting into the first casing shell, a pair of leaf spring contact members mounted on the first cartridge, means connecting said conductors to said leaf spring contact members and securing both the conductors and the leaf spring contact members to the first cartridge, a pair of fixed contact members secured to the second cartridge in registration with the leaf spring contact members on the first cartridge for engagement therewith, a bulb socket secured to said second cartridge, an additional contact member secured to said second cartridge within said socket for engagement with a bulb mounted therein, and conductors, including a switch, mounted within said second cartridge and connecting the socket and additional contact member on said second cartridge to the first mentioned pair of contact members on said second cartridge, said leaf spring contact members being adapted to exert a force upon the fixed contact members of the second cartridge in order to urge said second cartridge away from the first cartridge, and thereby to resiliently support the two cartridges in their respective casing shells to prevent displacement thereof.

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2,775,664
NEUTRAL SAFETY AND BACK-UP LIGHT SWITCH
Clovis W. Lincoln and Robert M. Gold, Saginaw, Mich., and Henry D. Spieberman, North Hollywood, Calif., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 30, 1952, Serial No. 317,671
10 Claims. (Cl. 200—61.54)



1. In combination, a steering column, rotatable transmission control means disposed adjacent said column, a longitudinally slidable switch secured on said column, said switch having spaced apart circuit closing positions and being normally urged to one of said circuit closing positions, and stepped flange means on said control means continuously yieldably engaged by said switch and effective to longitudinally actuate said switch in response to rotary movement of said control means.

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2,775,665
CENTRIFUGAL SPEED GOVERNOR
William H. Harstick, Memphis, Tenn., assignor to International Harvester Company, a corporation of New Jersey
Application April 11, 1955, Serial No. 500,625
6 Claims. (Cl. 200—80)



6. A speed governor having a casing, said casing being adapted to be connected to the drive shaft of a power unit for rotation therewith, a governor chamber within said casing, an actuating member disposed for reciprocation within said chamber, means engaging said actuating member for urging the same in a first direction, said actuating means having a contact element adapted to engage a speed control means during movement of said member in a second direction, oppositely disposed first walls on said actuating member, said walls diverging outwardly in the first direction, oppositely disposed second walls on said casing, said second walls diverging outwardly in the second direction, a plurality of first spherical members adjacent said first walls, a plurality of second spherical members adjacent said second walls, said first spherical members being in engagement with said second spherical members, said spherical members being movable laterally outwardly on said walls in response to centrifugal force thereby urging said actuating member to move in the second direction.

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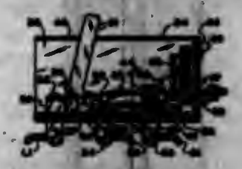
2,775,666
ELECTRICAL RELAYS
Branko Lazich, Wilkinsburg, Pa., assignor to Westinghouse Air Brake Company, a corporation of Pennsylvania
Application April 19, 1951, Serial No. 221,773
10 Claims. (Cl. 200—104)



1. A relay comprising a shell of magnetic material closed at one end, an axially disposed core of magnetic material extending inwardly from the closed end of said shell, an armature of magnetic material pivotally supported adjacent the inward end of said core to rotate on an axis which coincides with the axis of said shell and said core, stationary pole pieces extending inwardly from the inner surface of said shell, an operating coil mounted on said core, said armature and said pole pieces being disposed and arranged so that said armature is rotated through a predetermined arc by attraction to said pole pieces when said operating coil is energized, a header disc for closing the open end of said shell and including terminal posts extending through said header disc, a plurality of contacts mounted on said terminal posts to be located inside said shell when the disc is attached to said shell, each of said contacts including a movable contact member and at least one stationary contact member, and a contact operating member movable with said armature for operating said movable contact members when said armature rotates through said predetermined arc.

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2,775,667
CONTROL APPARATUS
Frederick A. Greenawalt, Columbus, Ohio, assignor to Ranco Incorporated, Columbus, Ohio, a corporation of Ohio
Application July 21, 1953, Serial No. 369,427
4 Claims. (Cl. 200—116)



1. A control apparatus comprising in combination, an electrical switch member movable in opposite directions between limits, means to yieldingly urge said member in said opposite directions, electrical contact means actuated by said member when the latter is moved to its limits of movement, latch means engaged by said member during said movements in opposite directions to interrupt movement of said member from either of said limits to the other by the first mentioned means, means to actuate said latch to disengage and release said member for movement by the first mentioned means, a second switch member disposed between the first mentioned switch member and one of said contact means whereby said second switch member cooperates with the first mentioned member and the last mentioned contact means to establish an electrical circuit through said second mentioned switch member, and means to adjust the position of said second switch member relative to the first mentioned member.

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2,775,668
THERMO-ELECTRIC RELAYS
Henry Dornsteer, Cambridge, Mass., and William S. H. Hamilton, Larchmont, N. Y.
Application April 8, 1953, Serial No. 347,544
2 Claims. (Cl. 200—122)



1. A circuit controlling relay having thermally responsive circuit making and breaking means including two thermostatic switch members normally in contact, a heater therefor to cause one of said switch members to flex and break contact with said other switch member within a predetermined period of time, said switch members, responsive to varying ambient temperature being conjointly movable in the same direction to different relative positions without breaking contact, and a third thermostatic member mounted to flex at a predetermined higher ambient temperature in the direction opposite to the flexing movement of one of said switch members, said third member being mounted to engage and restrain the flexing movement of said switch member so as to prevent the recontacting of said switch members after contact has been broken by the action of said heater.

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2,775,669
THERMALLY OPERATED CIRCUIT MAKER
Richard C. Sloan, Newton, N. C.
Application May 6, 1954, Serial No. 428,971
7 Claims. (Cl. 200—142)



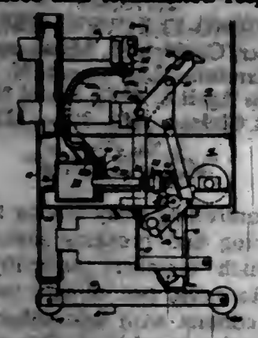
1. A circuit controlling element comprising a base member having a pair of uprising supports, a pair of members pivoted to each other intermediate their ends, and having their distal ends engaging said pair of supports, a shaft slidably mounted in said base member and having one end thereof adapted to engage a medial portion of the two members pivotally connected to each other, a compression spring mounted on said shaft, said shaft being settable manually to a position to where one end thereof will engage the two members pivoted to each other, the other end of the shaft having a downturned portion, a toggle switch mechanism mounted on the base member and having a lever projecting upwardly in the path of the downturned portion on the shaft, the two members pivoted intermediate their ends having a fusable material on each adapted to hold the two members in alined position against the pressure of said compression spring and said material meltable at a predetermined temperature to allow the compression spring to pivot the two members out of alinement with each other and to allow the downturned portion of said shaft to move the toggle switch lever mechanism from one position to the other.

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2,775,670
COMBINED AIR PUFFER AIR BUFFER FOR CIRCUIT BREAKERS
William C. Geiger, Jr., Philadelphia, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application September 4, 1953, Serial No. 378,613
8 Claims. (Cl. 200—148)

1. A combined air puffer air buffer device for a multipole circuit breaker comprising a cylinder and a piston;

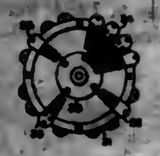
said cylinder being rigidly mounted on said circuit breaker; said piston operatively connected to the opening mechanism of said circuit breaker; a plurality of orifices in said cylinder along a circumference which is intermediate the ends thereof; tube means connected to each of said orifices and terminated respectively at each



pole of said circuit breaker; said piston moved toward said orifice during the initial opening operation to provide an air puffing operation; said piston moved away from said orifice during the final opening operation of said circuit breaker to provide an air buffer action; said piston being moved in only first direction during both the initial and final opening operation of said circuit breaker.

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2,775,671
ELECTRO-MECHANICAL RELAYS
Jean Albert Dreyfus, Geneva, Switzerland
Original application November 10, 1948, Serial No. 59,361. Divided and this application September 19, 1952, Serial No. 310,513
6 Claims. (Cl. 200—166)



1. A suspension element for a movable member, said element comprising a flexible elastic blade having a fixed end and another end adapted to be connected to said movable member, said blade extending when at rest in one plane which is substantially perpendicular to the direction of movement of said movable member and having rectangular portions extending in said plane and separated by elongated slots formed in the blade, the width of the blade being greater than its thickness and smaller than its length, said rectangular portions forming $2n$ half loops joining $2n+1$ straight sections, wherein $n=1,2,3,4\ldots$

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2,775,672
COAXIAL CABLE TEMPERATURE SIGNAL STRENGTH CONTROL
Edward J. Tomcavage and John Wakomavich, Mahanoy City, Pa.
Application April 16, 1954, Serial No. 423,792
4 Claims. (Cl. 201—48)



1. A temperature-responsive signal level control device for use in a high frequency transmission system to control the signal input level of an amplifier of said system comprising a main housing, a bellows mounted in said main housing, a temperature sensing element connected to said bellows and arranged to expand and contract said bellows in accordance with changes in ambient temperature, a sub-housing mounted on said main housing, respective coaxial cable connectors mounted on the walls of said sub-housing for receiving terminal portions of the transmission system, a potentiometer mounted in said sub-housing and having a rotary control shaft extending into said main housing through a wall thereof, means electrically connecting respective terminals of said potentiometer to said coaxial cable connectors, whereby one terminal of the potentiometer may be connected to a section of the transmission system and another terminal of the potentiometer may be connected to the input terminal of an amplifier, a level pivoted in said main housing and operatively connected to said bellows, and link means connecting the intermediate portion of said lever to said control shaft.

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2,775,673
RESISTOR
Frank G. Johnson, Columbus, Nebr.
Application May 26, 1954, Serial No. 432,350
3 Claims. (Cl. 201—63)



1. A resistor comprising a body of insulative ceramic material having tortuous grooves on top and bottom thereof, said grooves being substantially V-shaped in cross-section, a layer of conductive material overlying said grooves, and a layer of conductive material on one side of said body joining said grooves on the top and bottom of said body.

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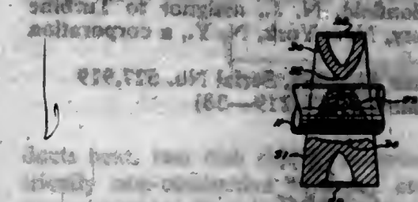
2,775,674
WALL SWITCH EXTENSION
William A. Meder, San Lorenzo, Calif.
Application March 25, 1955, Serial No. 496,701
4 Claims. (Cl. 200—172)



1. A manually engageable extension for a wall switch provided with a toggle extending outwardly from a wall plate having a mounting screw disposed above and below said toggle, comprising: a flat longitudinally extending member, said member having longitudinally extending slot means for pivotally attaching said member to one of said wall plate screws while permitting vertical movement of the member relative thereto, and means extending outwardly from the plane of said member adapted to engage upper and lower portions of said toggle for actuating the latter upon vertical reciprocation of said member while permitting free transverse movement of said member about said pivotal attachment relative to said toggle.



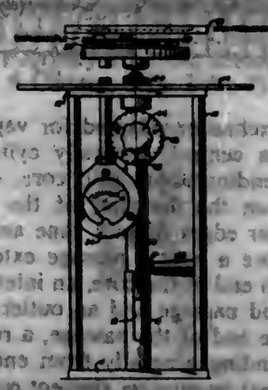
2,775,675
METHOD FOR WELDING STEEL TUBING
Norbert E. Fenz, Cleveland, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey
Application August 5, 1953, Serial No. 372,502
2 Claims. (Cl. 219—8.5)



1. The method of producing welded pipe from a cylindrical metal blank having longitudinal opposed edges which comprises the steps of moving the blank endwise, progressively bringing successive, axially short portions of said edges into electrically conductive engagement, inducing a flow of high frequency current throughout the entire circumference of said blank, concentrating the flow of induced current in a narrow path successively through each of the axially short engaging portions of said blank and thereby producing sufficiently high densities therein to heat the edges of said portions to welding temperature, spreading the flow of induced current in a wider path through other parts of the circumference of the blank and thereby producing lower current densities and lower temperatures therein, and applying welding pressure to the blank to weld together progressively the successively heated edges of said axially short portions of the blank.

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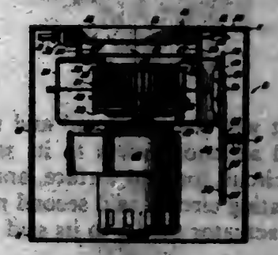
2,775,676
HIGH FREQUENCY APPARATUS FOR SEALING GLASS TO METAL
Doyle S. Greenberg, Quakertown, and Samuel Kuhn, Allentown, Pa., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 24, 1952, Serial No. 316,602
4 Claims. (Cl. 219—10.53)



2. An apparatus for sealing glass parts to metal parts comprising a support having spaced members to jointly support a metal part, a support for a glass part, means actuable to move the supports to locate and support the parts in sealing positions in engagement with each other, means to heat the metal part to thereby heat adjacent portions of the glass part, a temperature indicating unit, and a thermocouple connected to the unit and constituting one of the spaced members of the support for the metal part whereby the weight of the metal part on the thermocouple will assure thermal contact of the metal part and the thermocouple to cause the unit to indicate the temperature of the metal part.

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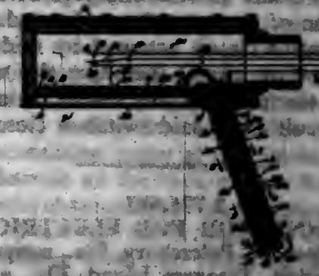
2,775,677
LABEL ACTIVATOR
Elmer O. Schaefer, Chicago, Ill., assignor to Great Lakes Stamp & Mfg. Co., Inc., Chicago, Ill., a corporation of Illinois
Application March 1, 1955, Serial No. 491,473
13 Claims. (Cl. 219—19)



3. A device suitable for use in activating thermo-activated adhesive coatings on relatively thin flexible backings, said device including a grid to receive a backing and activate the coating thereon, said grid having a plurality of relatively flat members, said members spaced to allow the passage of air therebetween, heating means associated with each member of said grid, inducing means for inducing the passage of air between the members of said grid, said inducing means including a fan mounted in a housing, said housing having an air exhaust to one side thereof, closing means associated with said exhaust to control the amount of air induced between the members of said grid, and restraining means intermediate said grid and said inducing means to restrain the movement of the backing between said members.

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2,775,678
ICE DETECTING PROBE
Charles H. Fleischer, Chicago, Ill., assignor to Cook Electric Company, Chicago, Ill., a corporation of Illinois
Application December 13, 1954, Serial No. 474,841
6 Claims. (Cl. 219—19)



1. An ice detecting probe having trailing and leading edges adapted to be projected into an air stream comprising a housing sleeve provided with openings exposed to said leading and trailing edges thereof, a core snugly fitting in said housing sleeve, said core having longitudinal passages therein in communication with said openings and a continuous groove cut lengthwise in its peripheral surface, and an electric heating coil in said groove.

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2,775,679
ICE DETECTION SYSTEM
Charles H. Fleischer, Chicago, Ill., assignor to Cook Electric Company, Chicago, Ill., a corporation of Illinois
Application September 27, 1954, Serial No. 458,440
11 Claims. (Cl. 219—20)

1. Apparatus for detecting the formation of ice on a moving vehicle including an ice forming surface adapted to be carried by said vehicle, an actuator having two positions, the first position being when said actuator is subjected to a predetermined wind pressure, the second position being when ice forms on said surface and when said actuator is not subjected to said predetermined wind pres-

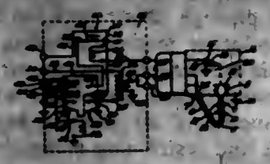
sure, an electric switch adapted to be actuated by said actuator, an arming circuit to energize said switch when said actuator is in its said first position, said arming circuit including a relay adapted to lock said arming circuit



closed so that it will remain closed and the switch energized when said actuator moves to its said second position, a heating circuit for said surface, and a second relay to close said heating circuit, said second relay being actuated when said actuator moves to its said second position.

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2,775,629
**ICE DETECTION SYSTEM**
Charles H. Fischaber, Chicago, Ill., assignor to Cook Electric Company, Chicago, Ill., a corporation of Illinois
Application January 8, 1953, Serial No. 330,316
15 Claims. (Cl. 219—20)



1. Apparatus for detecting the formation of ice or the like comprising a chamber having a flexible portion, a lead wall and a trailing wall, said walls having perforated areas, said lead wall having a greater perforated area than said trailing wall, a switch adapted to be held in open position by said flexible portion when the latter is held in an expanded position by pressure in said chamber, said flexible portion being moved to contracted position to close said switch upon a drop in pressure in said chamber, the pressure in said chamber being decreased by the formation of ice upon the perforated area of said lead wall, a control circuit actuated by said switch, and an electrical heating circuit including the walls of said chamber, said electrical heating circuit being closed by said control circuit when said switch is closed.

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2,775,681
**CORD CONNECTOR FOR ELECTRIC IRONS**
Merrill M. Kistner, St. Petersburg, Fla., assignor to Steam Iron Corporation, Treasure Island, Fla., a corporation of Florida
Application April 3, 1953, Serial No. 346,590
3 Claims. (Cl. 219—25)



1. A reversible cord connector for an electric iron comprising a handle having a main recess in its rear leg and an additional recess at each side of the main recess, the recesses opening outwardly at the rear face of the rear leg of the handle, and a connector comprising a body portion and portions at each side of the body portion, the connector being removably received in the recess with the body portion in the main recess and the side portions in the additional recesses, centrally disposed means for retaining the connector in the recesses, co-acting means in the main recess and on the connector to complete an electric circuit, and a cord connected to the means on the connector and extending from one of the side portions of the connector, the connector being reversible in the recess to position the cord on either side of the leg.

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2,775,682
**ELECTRIC FLUID HEATER**
Lee P. Hynes, Haddonfield, N. J., assignor to Turbine Equipment Company, New York, N. Y., a corporation of New Jersey
Application August 12, 1955, Serial No. 527,919
10 Claims. (Cl. 219—38)



1. In an electric heater, a heater tube of circular cross section, an electric heater therein, a flow tube of rectangular cross section surrounding a single heater tube in spaced relation thereto, partition walls extending out from the heater tube at circumferentially spaced positions and engaging the flow tube in opposite corners of the cross section thereof, and dividing the space between the heater tube and the flow tube into a plurality of heating passages, and a cross connection between the passages at an end of the tubes.

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2,775,683
**HEAT EXCHANGERS FOR VAPORIZING LIQUID REFRIGERANT**
Herman W. Klein, Hollywood, Ill., assignor to Dole Refrigerating Company, Chicago, Ill., a corporation of Illinois
Application July 16, 1954, Serial No. 443,759
4 Claims. (Cl. 219—39)



1. In a heat exchanger adapted for vaporizing a volatile refrigerant, a central, generally cylindrical core, a helical vane extending about said core, of a pitch substantially less than the diameter of the helix, a jacket engaging the outer edges of said vane and forming with said vane and core a helical passage extending substantially from end to end of the core, an inlet duct extending to one end of said passage and an outlet duct extending from the opposite end of the passage, a resistance heater in said core extending generally from end to end of the passage, and a heat responsive element conductively connected to said resistance heater and positioned and adapted to make and break an electric circuit for said heater in response to predetermined changes in temperature of fluid flowing through said passage.

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2,775,684
**COOKING UTENSIL**
Henry A. Berliner, Washington, D. C.
Application January 19, 1955, Serial No. 482,713
2 Claims. (Cl. 219—44)

1. A cooking utensil comprising vertically spaced bottom walls, a side wall attached to the peripheries of the bottom walls to define an enclosed chamber therebetween and extending above the upper bottom wall to provide a side for the utensil, the lower bottom wall having at its central part a hollow downwardly extending part defined by side walls and a bottom and the interior of which is open to the enclosed chamber between the bottom walls, a liquid substantially filling said downwardly extending part and said enclosed chamber which when passing electric current generates and conducts heat, two dish shaped receptacles formed of electrically non-conductive material arranged in vertically spaced relation in said downwardly extending part with their open sides facing each other, means supporting said receptacles in spaced relation to each other, a disk of electrically conductive material supported in each of said spaced receptacles, electric contact plugs mounted on the side wall of the utensil, and leads connecting said disks to said contact plugs.



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2,775,685
**CONCEALED WELD STUD**
Dale A. Webster, Elyria, Ohio, assignor to Gregory Industries, Inc., Detroit, Mich., a corporation of Michigan
Application November 20, 1953, Serial No. 393,475
4 Claims. (Cl. 219—99)



1. A concealed weld stud comprising, a body having a circumferential wall and a pin terminating beyond the wall in a weld end, said wall and said pin being spaced apart to provide a ferrule receiving recess about said pin, and a ferrule about said weld end and in said recess.

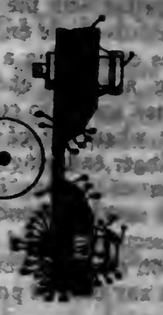
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2,775,686
**INTERNALLY ILLUMINATED KNOB**
Bertram B. Bullis, Los Angeles, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application February 17, 1954, Serial No. 410,811
6 Claims. (Cl. 240—2)



1. An internally illuminated knob comprising a light transmitting knob cover and a light transmitting knob base, a plurality of lights arranged within the said knob, a holding bracket of an electrical conductive material affixed to the knob base with attaching means for the said lights, a base contact bracket connected to the knob base having a multiplicity of extensions, said extensions being bent midway their length with the ends of said extensions having a bent portion to contact a portion of the base of the said lights, a transparent insulating material positioned between the said holding bracket and the base contact bracket, a mounting tube attached to the said base, and said mounting tube having attaching means for securing the said knob cover to the said knob base.

2,775,687
**PANEL LIGHTING**
John E. Cushman, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 28, 1953, Serial No. 334,111
1 Claim. (Cl. 240—2.1)



A lighting panel having substantially parallel front and rear faces and being constructed of light transmitting material, said panel including a window area positioned therein through which an information displaying device may be viewed, a plurality of light sources mounted within said panel and distributed uniformly around said window area, said sources providing light rays for illuminating said device, said rays traveling from said sources through said material toward said window area, a first reflecting surface extending from the front of said panel rearwardly at a constant angle greater than 90° with the front face of said panel and terminating at a point in a plane containing the rear face of said panel, said first reflecting surface reflecting said rays rearwardly of the front face of said panel, a channeling means including second and third reflecting surfaces positioned parallel to each other, said second surface extending rearwardly from the rear face of said panel, said third surface extending rearwardly from the termination of said first surface, the angle described between said second surface and the rear face of said panel being approximately 150°, said channeling means directing said rays further rearwardly of the front of said panel, a transparent cover extending over said information displaying device but spaced therefrom, said channeling means terminating on the front surface of said cover, said cover having the same index of refraction as said light transmitting material and having a coating of magnesium fluoride on the back surface thereof, the light rays leaving said channeling means and passing rearwardly through said cover with substantially no change in direction and emerging from the rearward surface of said cover and being refracted therefrom through the intervening atmosphere and falling on said information displaying device to illuminate said device.

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2,775,688
**FLASHLIGHT**
Harry Golden, New York, N. Y.
Application April 16, 1954, Serial No. 423,679
2 Claims. (Cl. 240—10.66)



1. A flashlight comprising an elongated tubular casing, a bulb socket mounted within said casing substantially midway of the length thereof, said socket extending transversely of said casing and being insulated therefrom, said socket comprising a shell forming one contact and a central contact secured to the inner end thereof insulated from said shell, a lug connected to said central contact and disposed in spaced relationship to said shell axially of said casing, a removable cap for one end of

said casing, a compression spring in said cap whereby a battery may be disposed in said casing with the negative pole in contact with said lug and the positive pole in contact with said spring, a removable cap for the opposite end of said casing, a compression spring in said last named cap, means for insulating said last named spring from said last named cap whereby a battery may be disposed in said casing with the positive pole engaging said shell and the negative pole engaging said last named spring, switch means comprising a slidable metallic strip engaging said casing, a curved end on said strip for engaging said last named spring to complete the circuit and breaking the circuit when out of engagement with said last named spring, finger engaging means for moving said strip, an aperture in said casing in alignment with said socket, a bulb cover and lens removably disposed in said aperture, a bracket secured to said casing and spring clips rotatably mounted on said bracket for detachably securing said flashlight in any desired position on a support.

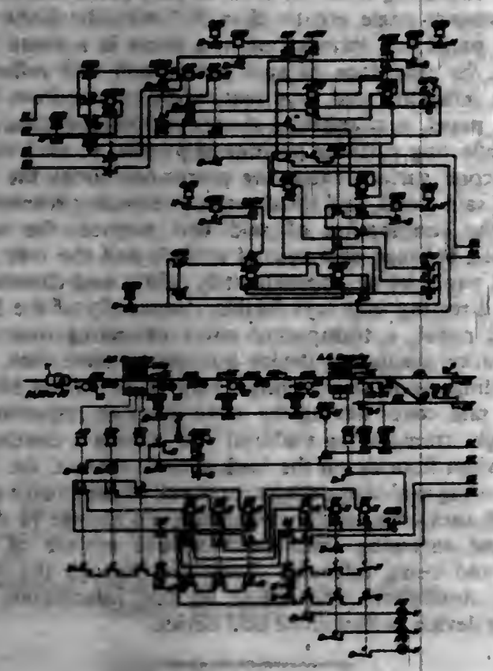
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2,775,689

## COMBINED MANUAL AND AUTOMATIC ROUTE CONTROL SYSTEM FOR RAILROADS

Frank T. Pascoe, Scott Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application July 27, 1951, Serial No. 238,799
15 Claims. (Cl. 246—2)



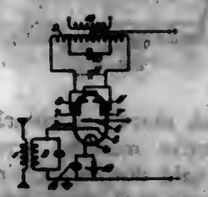
1. In an automatic route control system for railroads, a train describer system for supplying indications of the routes for approaching trains in the order of their approach, a manually controllable interlocking control system for establishing routes for said trains corresponding to the route indications supplied by said train describer system, a change-over relay which is released when said interlocking control sytem is conditioned for manual operation and which when energized conditions said interlocking control system to automatically establish traffic routes in accordance with the indications supplied by said train describer system, manually operable means for energizing said change-over relay, and track circuit controlled means for maintaining said change-over relay energized only so long as route indications for the approaching trains continue to be supplied by said train describer system.

2,775,690

## CIRCUIT FOR FREQUENCY TRANSFORMATION OF HIGH-FREQUENCY OSCILLATIONS

Johan Ludewijk Hendrik Jonker and Gerhard Diemer, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application February 26, 1952, Serial No. 273,435
Claims priority, application Netherlands March 5, 1951
10 Claims. (Cl. 250—20)



10. Apparatus for mixing a high-frequency wave with a local oscillation to produce a beat voltage having a frequency other than that of said local oscillation, said apparatus comprising an electron discharge tube including a cathode to generate an electron beam having a normal axis, a control electrode for modulating the intensity of the beam, and first and second pairs of deflection and anode electrodes disposed symmetrically about the normal axis, electrodes of each pair being disposed on opposite sides of said normal axis, circuit means connecting the electrodes of said first and second pairs disposed on one side of said beam axis to the electrodes of said second and first pairs respectively disposed on the other side of said axis, a first resonant circuit tuned to the frequency of said local oscillation and coupled to said circuit means to produce the local oscillation in said tube and having a mid-point, said first resonant circuit including a second resonant circuit symmetrically arranged about said mid-point and tuned to the frequency of said beat voltage, and means to apply said high-frequency wave between said cathode and said control electrode whereby said high-frequency wave is mixed in said tube with said local oscillation to produce said beat voltage across said second circuit.

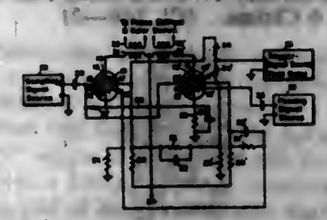
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2,775,691

## TRIGGERED GATING SYSTEM

John L. Rennick, Elmwood Park, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois

Application September 19, 1951, Serial No. 247,316
4 Claims. (Cl. 250—27)



1. A triggered gating circuit for a color television system which has a given field-scanning frequency and which utilizes a signal subjected to periodic phase changes in translating color information comprising: a pair of electron-discharge devices of the pentagrid type individually including a cathode, first and second signal electrodes, a collector electrode between said signal electrodes, and an anode; means for establishing the collector electrode of each of said devices at a positive potential with respect to the cathode thereof; a network cross coupling the collector electrode of each said device to the first signal electrode of the other device to provide a trigger circuit having two stable operating conditions in each of which one of said devices is gated and rendered conductive while the other is substantially non-conductive; means for applying said signal between the cathode and the second signal electrode of each of said devices to be translated therethrough dur-



ing operating intervals when such device is gated to be conductive; a balanced output circuit coupled between the anodes of said devices; means coupled to said balanced output circuit for deriving an output signal of a predetermined phase during operating intervals when one of said devices is conductive and for deriving an output signal in phase opposition to said first-mentioned output signal during operating intervals when the other of said devices is conductive; and means for applying actuating pulses, having a repetition frequency corresponding to said field-scanning frequency, to said trigger circuit to gate said devices in alternation and at said field-scanning frequency.

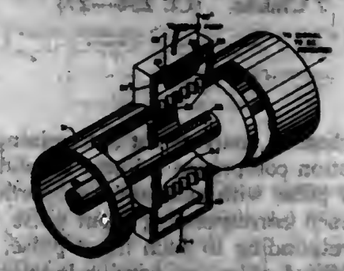
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2,775,692

## MEASURING DEVICE

Zigmund W. Wlodinsky, Baton Rouge, La.

Application September 27, 1946, Serial No. 699,650
3 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. An apparatus for measuring peak amplitude of an alternating electrical wave comprising, a coaxial assembly having perforated portions of inner and outer conductors thereof, insulating spacers supporting the inner conductor within the outer conductor, enclosing means attached to said outer conductor surrounding the perforated portions thereof for providing, with said insulating spacers, an evacuable area enclosing said perforated portions, a source of electrons within said evacuable area, an electron collector plate external to said outer conductor but within said enclosing means, means maintaining said electron source at a negative potential with respect to the closest of said conductors, and means applying an electron decelerating potential to said collector plate of sufficient magnitude to prevent electron flow from said electron source to said plate.

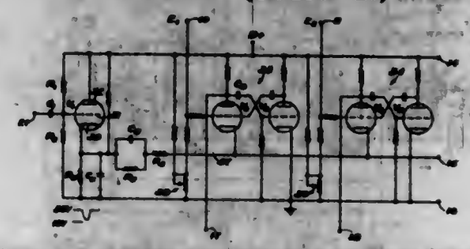
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2,775,693

## PULSE AMPLITUDE SELECTOR

Ted W. Berwin, Encino, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application February 25, 1953, Serial No. 338,792
9 Claims. (Cl. 250—27)



2. A diversity selector for determining which one of a plurality of incoming signals has the largest amplitude comprising, a one-shot multi-vibrator receiving a triggering pulse each time a determination is to be made, a multivibrator tube, a cathode resistor and condenser connected in parallel and between the cathode of said multi-vibrator tube and ground, a plurality of trigger circuits comprising a pair of electron tubes, one of said electron tubes in each of said trigger circuits coupled to the cathode of the multivibrator tube, a plurality of output terminals connected, respectively, to the plates of the other tubes of said trigger circuits and one of said output terminals receiving an output to indicate which of the input signals has the largest amplitude.

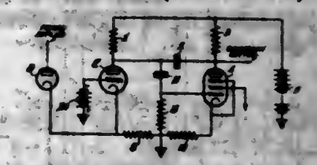
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2,775,694

## ELECTRICAL CIRCUIT ARRANGEMENTS FOR EFFECTING INTEGRATION AND APPLICATIONS THEREOF

Alan Dower Blumlein, deceased, late of Ealing, London, England, by Doreen Walker, legal representative, Lanherne Looeydjack, Penzance, England, assignor to Electric and Musical Industries Limited, a British company

Original application May 8, 1945, Serial No. 592,641, now Patent No. 2,692,334, dated October 19, 1954. Divided and this application June 4, 1953, Serial No. 365,931
3 Claims. (Cl. 250—27)



1. A circuit arrangement for integrating a voltage which comprises a source of voltage, an amplifier comprising an odd number of stages and including a thermionic valve having anode-cathode impedance, an integrating circuit including a first impedance unit and a second impedance unit of a different kind of impedance, said source of voltage, said anode-cathode impedance and said two impedance units all being connected in series with each other, said amplifier having an input circuit and an output circuit, said first impedance unit being connected to apply voltage from said source of voltage through the first impedance unit to said input circuit, said second impedance unit being connected from said output circuit to said input circuit whereby it provides a negative feedback path between said output circuit and said input circuit, a further source of voltage, a further impedance like said first impedance connected to apply voltage from said further source through said further impedance to said input circuit and constituting with said second impedance unit a further integrating circuit whereby a voltage representing the sum of the time integrals of the voltages of said source and said further source, respectively, is developed in said output circuit.

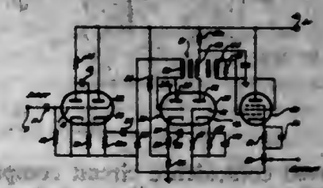
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2,775,695

## VARIABLE FREQUENCY PULSE GENERATOR

Charles L. Shadbolt, Santa Monica, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware

Application September 30, 1953, Serial No. 383,187
6 Claims. (Cl. 250—27)



1. An apparatus for generating pulses synchronized by a variable frequency sine wave input signal, said apparatus comprising class C amplification means responsive to said input signal for amplifying corresponding positive portions thereof to produce a series of sine wave pulses; a rectifier, responsive to said sine wave pulses, coupled from the output of said class C amplification means to a point of substantially fixed potential, said rectifier being poled to conduct on the leading edge of said sine wave pulses whereby an output voltage is developed

across said rectifier that commences to increase at the exact instant the instantaneous value of said sine wave pulses commences to decrease in magnitude and rises sharply thereafter at the trailing edges of said sine wave pulses; and means responsive to said output voltage for generating an output pulse at the instant said output voltage rises to a predetermined magnitude.

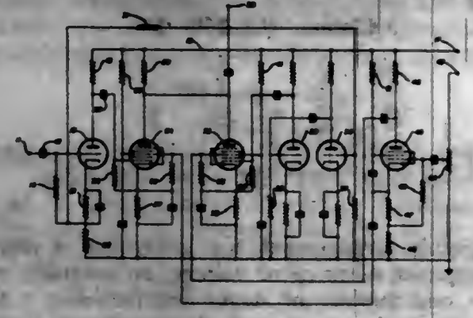
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2,775,696

**MILLIVOLT GATING CIRCUIT**

Robert E. Thomas, Walnut Creek, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 14, 1953, Serial No. 367,964
7 Claims. (Cl. 250—27)



1. An improved gating circuit comprising a pair of like gating tubes having a common plate resistor and each having control and screen electrodes, means impressing signals to be gated upon the control electrode of the first of said gating tubes, means impressing positive gating signals on the screen grid of said first tube and simultaneously impressing negative gating signals on the screen grid of said second tube, and means impressing upon the control electrode of the second of gating tubes a signal proportional to the anode potential thereof whereby voltage variation across the common plate resistor is minimized.

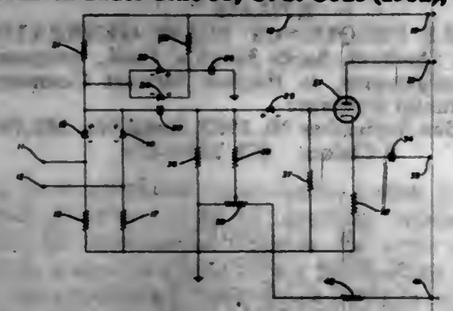
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2,775,697

**CRYSTAL DIODE COINCIDENCE CIRCUIT**

Richard Madey, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application August 27, 1953, Serial No. 382,499
3 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An improved coincidence circuit comprising a plurality of parallel-connected crystal diodes adapted for connection across a power supply whereby current flows therethrough in the direction of maximum conductivity thereof and each having a resistor serially connected thereto on the low voltage side thereof, a plurality of input terminals connected one to each of said crystals on the low voltage side thereof, an output tube having a control electrode and being joined to an output terminal for applying signals thereto, a coupling crystal diode connected to the control electrode of said output tube and capacitively coupled to said parallel-connected crystal diodes on the opposite sides thereof from said resistors with the direction of maximum conductivity toward said control electrode, and a circuit including said coupling crystal diode adapted for connection across a power supply for establishing a circulating current flow through said crystal diode oppositely of the direction of maximum conductivity thereof and including means for controlling the steady state amplitude of said circulating current for establishing the discriminating level of the coincidence circuit whereby only coincident input signals produce an output signal at said output terminal.

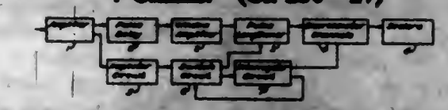
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2,775,698

**MULTICHANNEL PULSE ANALYZER**

Perm R. Bell and George G. Kelley, Oak Ridge, Tenn., and Clinton G. Gee, Glenview, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application April 10, 1953, Serial No. 347,986
7 Claims. (Cl. 250—27)



1. A multi-channel analyzer for determining pulse amplitude distribution comprising a linear amplifier for providing a signal pulse with amplitude proportional to the amplitude of each corresponding input pulse and a control pulse corresponding to each input pulse, means for delaying said signal pulse, an amplitude-selective amplifier for selecting delayed pulses within a selected voltage amplitude range, a pulse lengthener coupled to said amplifier for sustaining the crest of incident pulses, a plurality of parallel-connected discriminators coupled to said pulse lengthener and biased to operate at different potentials, means for counting output pulses from each of said discriminators, circuit means for delaying each control pulse for a selected time interval, means for rejecting said delayed control pulse upon receipt of a second control pulse within said interval, means for enabling said lengthener responsive to passage of said delayed control pulse, and means for enabling said discriminators simultaneously responsive to passage of said pulse.

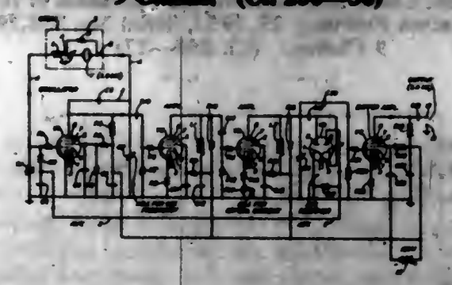
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2,775,699

**CRYSTAL OSCILLATOR APPARATUS**

Edwin P. Felch, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 3, 1954, Serial No. 447,581
9 Claims. (Cl. 250—36)



1. Crystal oscillator apparatus comprising a source of gain having input and output circuits comprising shunt reactors, a feedback circuit coupling said output circuit with said input circuit and comprising a series reactor connected in series with a frequency-controlling crystal network, said crystal network comprising a series-resonant type overtone mode frequency piezoelectric crystal body, said series reactor and said shunt reactors being tuned to resonate substantially at said desired overtone mode operating frequency of said crystal body, said crystal network being substantially resistive and non-reactive at said



operating frequency, and means comprising a resistor connected directly across in parallel circuit relation with said crystal network and having a resistance value sufficiently small for suppressing spurious oscillations at the undesired fundamental mode frequency and frequencies of said crystal body lower in frequency than said operating frequency and simultaneously sufficiently large with respect to the series-resonant resistance of said crystal network at said operating frequency for permitting desired oscillations substantially at said desired operating overtone mode frequency thereof.

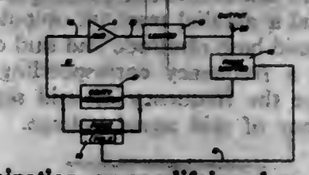
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2,775,700

**FREQUENCY STABILIZED OSCILLATOR**

Douglas H. Ring, Red Bank, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 1, 1953, Serial No. 383,619
5 Claims. (Cl. 250—36)



4. In combination, an amplifying element having input and output terminals, means forming a regenerative feedback path between said output and input terminals including a variable phase shifter and a resonator element serially coupled to each other and to said amplifying element for high frequency wave energy flow for forming with said amplifying element a closed oscillatory loop, phase comparing means having two input terminals and an output terminal, the two input terminals being coupled for high frequency wave energy flow to opposite sides of the resonator element for deriving a measure of the phase shift of the oscillatory wave in its travel through said resonator element, and means coupled to the output terminal of said phase comparing means for utilizing said measure to adjust the variable phase shifter for varying the frequency of the oscillatory wave.

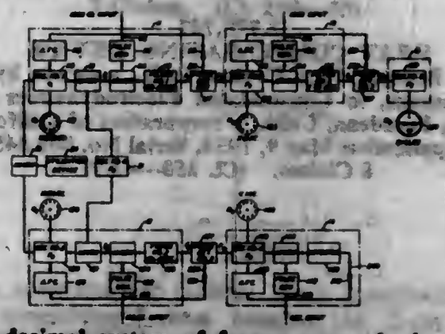
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2,775,701

**FREQUENCY CONTROLLED OSCILLATION SYSTEM**

John O. Israel, West Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 19, 1954, Serial No. 417,449
4 Claims. (Cl. 250—36)



1. A decimal system of frequency synthesis comprising first generating means providing an array of frequency components uniformly spaced in frequency, second generating means providing an array of frequency components uniformly spaced in frequency at intervals each one-tenth the frequency interval provided by said first generating means, third generating means providing an array of frequency components uniformly spaced in frequency at intervals each one-hundredth the frequency interval provided by said first generating means, a first auxiliary oscillator, automatic frequency control means connected to and actuated jointly by said first and third generating means to control the frequency of the auxiliary oscillator, a second auxiliary oscillator, automatic frequency control means connected to and actuated by said second generating means to control the frequency of said second auxiliary oscillator, and mixing means connected to both said auxiliary oscillators to derive therefrom an output wave controlled as to frequency by all three said generating means.

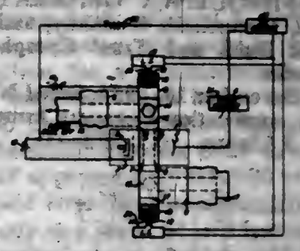
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2,775,702

**REFLEX KLYSTRON OSCILLATOR**

George L. Allerton, Allentown, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application July 3, 1952, Serial No. 297,077
4 Claims. (Cl. 250—36)



1. A reflex klystron oscillator having an external tuning cavity and means for cyclically varying the frequency of the oscillator comprising a plunger in the cavity, a source of low frequency electrical power, an electromechanical vibratory device connected to the source for vibrating the plunger at the frequency of the source, circuit connections between the cathode and repeller electrodes of the klystron, means for applying a fixed potential between the cathode and repeller and electrical connections from the source to the repeller-cathode circuit to vary the repeller voltage over a predetermined range at the frequency of the source so that at any instant the potential of the repeller and the tuning of the cavity both correspond to substantially the same oscillation frequency of the klystron.

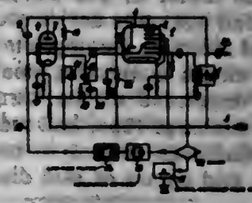
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2,775,703

**CIRCUIT-ARRANGEMENT COMPRISING A FREQUENCY-STABILIZED OSCILLATOR**

Louis Raymond Bourgonjon, Hilversum, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application May 18, 1953, Serial No. 355,778
Claims priority, application Netherlands May 17, 1952
3 Claims. (Cl. 250—36)

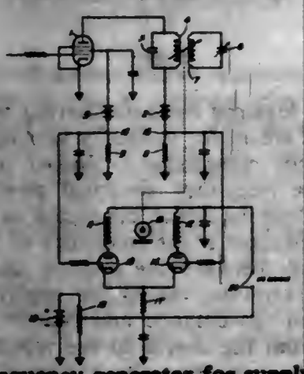


1. A system for stabilizing a first voltage produced by a controllable oscillator with respect to a second voltage produced by a reference oscillator comprising a phase discriminator for comparing said first voltage with said second voltage and producing therefrom a control voltage depending on the frequency difference therebetween, a voltage-responsive frequency control device including a reactance tube having an anode, a control grid and a screen grid coupled to said controllable oscillator, means for applying said control voltage to said reactance tube to vary the frequency of said controllable

oscillator in a direction effecting synchronization with said second voltage, and a search voltage generator producing a low-frequency search voltage for varying the frequency of said controllable oscillator in the absence of synchronization, said generator including said reactance tube and a feedback circuit coupled to said tube and comprising a four-terminal network having input terminals and output terminals, a series impedance including a first resistor and a first capacitor serially connected thereto and a parallel impedance including a second resistor and a second capacitor shunted thereby, a high frequency choke coupling said anode to one of said input terminals, a short-circuiting capacitor for said first voltage connected between said input terminals, and an auxiliary amplifying tube having an anode and a control grid, said control grid being connected to one of said output terminals.

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2,775,704
**HIGH-FREQUENCY GENERATORS**
Günter Martens, Darmstadt, Germany, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application December 18, 1952, Serial No. 326,656
Claims priority, application Germany January 18, 1952
3 Claims. (Cl. 250—36)

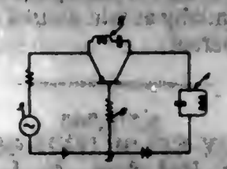


1. A high frequency generator for supplying high frequency oscillations to a variable load comprising an amplifying stage having an input circuit and an electron discharge tube having an anode and a grid, means for applying high frequency oscillations to said input circuit, an anode circuit connected to said anode, an oscillatory output circuit connected in said anode circuit, a load circuit coupled to said output circuit, a grid circuit connected to said grid, and control means responsive to the voltage in both said anode and grid circuits to vary the coupling between said output circuit and said load circuit to maintain maximum output energy in said output circuit for all load values, said control means comprising an electric motor connected to vary said coupling, a first discharge device coupled to said motor for rotating said motor in one direction to tighten said coupling, a second discharge device coupled to said motor for rotating said motor in the opposite direction to loosen said coupling, means connecting one of said discharge devices to be responsive to the current in said anode circuit of said discharge tube, and means connecting the other of said discharge devices to be responsive to the current in said grid circuit of said discharge tube.

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2,775,705
**TRANSISTOR MIXING CIRCUIT**
Adrianus Johannes Wilhelmus Maria Van Overbeek, Eindhoven, Netherlands, assignor to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application June 24, 1953, Serial No. 363,889
9 Claims. (Cl. 250—36)

1. A mixing circuit comprising a transistor having a base electrode, a collector electrode and an emission electrode and having a base current-base voltage characteristic curve exhibiting two points of curvature of which one is at a relatively maximum value of base current and the other is at a relatively minimum value of base current, said base electrode having a biasing potential having a value located at a point substantially midway between said two points of curvature of said curve, a resonant circuit connected to an electrode of said transistor, means interposed between said base electrode and said emission electrode for providing a signal voltage, an impedance



connected to said base electrode providing for self-oscillation of said transistor at the resonant frequency of said resonant circuit, said impedance having a value at the frequency of said self-oscillation at which the instantaneous value of said self-oscillation exceeds said two points of curvature, and a parallel resonant output circuit interposed between said base electrode and said collector electrode tuned to a frequency corresponding to a mixed product of twice the frequency of said self oscillations and the frequency of said signal voltage.

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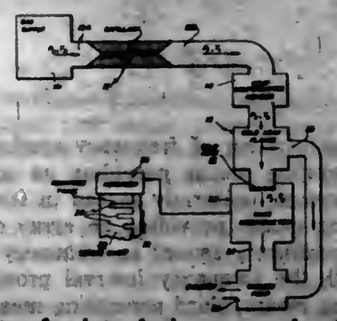
2,775,706
**COLLECTOR ASSEMBLY**
William C. Wiley, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application July 9, 1951, Serial No. 235,744
8 Claims. (Cl. 250—41.9)



1. A mass spectrometer, including, means for emitting ions in pulses in a particular direction, means for subjecting the ions to a magnetic field providing lines of flux in a direction substantially perpendicular to the direction of ion emission so as to produce a rotation of the ions, means for collecting the ions upon their rotation through a substantially constant angular distance different from an integral number of revolutions, the collecting means being disposed in substantially the same direction as the magnetic field and at an angle to the emitting means to receive the ions after their angular rotation and means for measuring the times of flight of the ions to determine their masses.

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2,775,707
**HEAT COMPENSATING DEVICE**
John R. Benoff, West Covina, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application May 9, 1955, Serial No. 506,845
8 Claims. (Cl. 250—41.9)

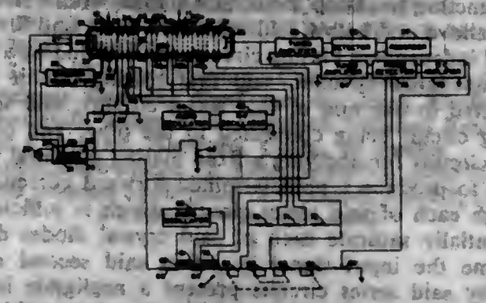


1. Apparatus for introducing a sample of gas from a gas supply into an enclosure which is being constantly evacuated by a vacuum pump comprising capillary means connected to the gas supply with the gas expanding through the capillary means and thereby lowering its temperature and pressure, and heat compensating means connected between the capillary means and the evacuated enclosure and having at least one surface with which the gas makes turbulent contact for regaining the heat necessary to bring its temperature substantially back up to that of the gas supply before it enters the evacuated enclosure.



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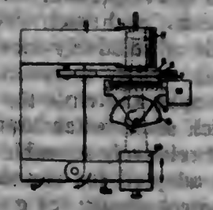
2,775,708
**MASS SPECTROMETER**
James R. Parsons and Dale A. Fitzgel, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application January 18, 1955, Serial No. 482,699
14 Claims. (Cl. 250—41.9)



1. A mass spectrometer comprising an ion source, an ion collector electrode spaced from said ion source, an ion permeable electrode, means applying a first potential to said ion permeable electrode to accelerate ions in a direction away from said source, means to direct said ions which have a predetermined mass to said collector electrode, means to vary the acceleration of said ions at a first frequency, second ion detecting means connected to said collector electrode, said second detecting means being responsive solely to the impingement of ions on said collector electrode at said first frequency, and means responsive to said second detecting means to vary the magnitude of said first potential until the output signal of said second detecting means is a minimum.

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2,775,709
**X-RAY DIAGNOSTIC APPARATUS**
Kurt Weigel and Hansheinrich Verse, Hamburg-Fuhlsbuttel, Germany, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application October 23, 1952, Serial No. 316,372
Claims priority, application Germany November 28, 1951
7 Claims. (Cl. 250—65)



1. An apparatus for medical X-ray examination of a patient comprising a base member, an X-ray source mounted on said base member for producing an X-ray beam having a central axis, an image collector mounted on said base member in a position intercepting said X-ray beam, a support for said patient between the X-ray source and the image collector, intermediate support members secured to said patient support and rotatably mounted on said base member, means for moving the intermediate support members and thereby said patient support in two directions at right angles to one another in a plane at right angles to said X-ray beam, and means for rotating said intermediate support members around the central axis of the X-ray beam.

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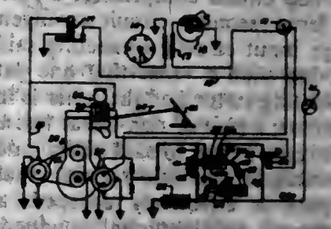
2,775,710
**METHOD OF RADIOLOGICAL SURVEYING**
Clifford G. Ledeman, Scarsdale, N. Y., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Application February 21, 1952, Serial No. 272,855
7 Claims. (Cl. 250—71)



1. In geophysical exploration by radioactivity detection, the improvement which comprises disposing at least one thermoluminescent body adjacent a portion of earth to be investigated, exposing said body to radiation emitted from said portion for a predetermined length of time whereby said radiation causes latent luminescence to be formed in said thermoluminescent body, thereafter subjecting said thermoluminescent body to radiation having wave lengths of approximately 0.00006 to 0.04 cm. thereby releasing said latent luminescence from said thermoluminescent body as a result of said last-mentioned radiation, and quantitatively measuring said latent luminescence so released.

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2,775,711
**THROTTLE ACTUATED STARTER SWITCH DEVICE**
Fred A. Kemmer, St. Louis, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application June 19, 1952, Serial No. 294,517
15 Claims. (Cl. 290—38)



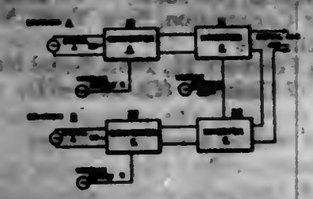
1. A starting system for internal combustion engines comprising a starting motor, a starting pinion and gear, a solenoid, a source of electrical energy, and a starting circuit including said source and said solenoid, a relay and a manual, lost-motion switch having movable and stationary contact members, an actuator for applying manual pressure directly to said movable contact member to close said switch but capable of limited movement in the switch opening direction after the switch is closed without shifting said movable contact member, and means for yieldingly maintaining said contact members in engagement.

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2,775,712
**PHASE COMPARISON SYSTEM**
Alan M. MacCallum, Plainfield, and Cortes M. Perkins, Rutherford, N. J., and Alfred Rosenzt, Bronx, N. Y.
Original application June 28, 1948, Serial No. 35,606. Divided and this application July 26, 1951, Serial No. 238,984
4 Claims. (Cl. 307—73)

2. A signal chain for a control system, comprising a plurality of converters adapted to receive alternating current signals of different frequencies and each converter

being energized by an alternating current source of the same frequency as the associated signal, each of said converters producing a D. C. voltage at its output having a polarity determined by the relative phase of the alternating current source and signal, an inverter connected to each of said converters and energized by a common alternating current source and controlled by the D. C. voltage



from the associated converter, said inverters providing alternating current voltages of the same frequency as the associated energizing current source and the phase of said signals relative to the phase of said associated source being determined by the polarity of the D. C. voltages, and means for adding said alternating current voltages from said inverters algebraically.

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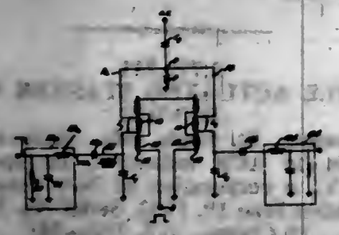
2,775,713

**FERRO-RESONANT FLIP-FLOP CIRCUIT**

Carl L. Ibbom, Hawthorne, Calif., assignor to The National Cash Register Company, a corporation of Maryland

Application March 22, 1954, Serial No. 417,625

13 Claims. (Cl. 307—88)



12. A flip-flop circuit comprising: a pair of paths each including a ferro-resonant circuit arrangement; an alternating voltage input circuit connecting said paths in parallel and having such a value that one path is in a high current conducting status and the other is in a low current conducting status; a pair of non-linear resistors connecting a source of trigger pulses to said paths, said trigger pulses biasing the voltage across said resistors such that the high conducting path is effectively damped; and an output circuit including a unidirectional conducting means and an inductor connected to each said path, said inductors operable during the triggering action to momentarily maintain a D. C. current flow in said output circuits dependent upon the initial conducting status of said paths, whereby upon termination of said trigger pulse the path that previously had a low current conducting status swings to a high conducting status.

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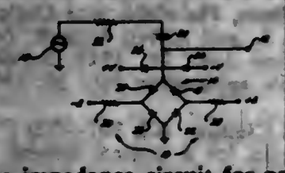
2,775,714

**VARIABLE IMPEDANCE OUTPUT CIRCUIT**

Daniel L. Curtis, Venice, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware

Application November 26, 1952, Serial No. 322,765

2 Claims. (Cl. 307—88.5)



1. A variable impedance circuit for producing an output signal which is clamped within a first given range above and below a predetermined reference level in response to an applied variable amplitude alternating current signal which varies about said reference level, and which prohibits production of an output signal during the time said input signal is within a second given range above and below said reference level, said second range being smaller than said first range, said variable impedance circuit comprising: a first series circuit including two crystal diodes having a first common junction; a second series circuit including two crystal diodes having a second common junction, said series circuits being connected in parallel; a source of variable amplitude alternating-current signals; a resistor and capacitor connected in series between said signal source and said first common junction for applying said alternating-current signal to said first and second series circuits, said second common junction being connected to a point of fixed potential; first and second clamping means connected to said first common junction to clamp the output signals within said first range above and below said reference level; and first and second independent biasing circuits, each including a resistive impedance element, said first biasing circuit being connected to one end of said series circuits, said second biasing circuit being connected to the other end of said series circuits for applying a fixed biasing potential thereacross to produce a predetermined forward current flow through each of said series circuits which is sufficient to substantially saturate each of said crystal diodes during the time the input signal is within said second range, whereby said series circuits present a negligible impedance to said input signal during the time it is within said second range above and below said reference level and no output signal is produced thereby and whereby said series circuits present a high impedance to said input signal during the time it is without said second range and an output signal is produced thereby.

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2,775,715

**CONTROL SYSTEM FOR PLURALITY OF SPACED ELECTRICAL SWITCHES**

Daniel Vern Tuttle, Kirkland, Ill., assignor, by mesne assignments, to Tuttle & Kift, Inc., Chicago, Ill., a corporation of Illinois

Application January 4, 1954, Serial No. 402,634

6 Claims. (Cl. 307—96)



6. In a control system for a plurality of spaced electrical heating units, in combination:

A. A plurality of switch units adapted to be mounted in spaced relation and respectively to control the circuits to said heating units, each such switch unit comprising: (*a*) a first pair of relatively movable first and second make-and-break contact members adapted for connection in and to open and close the circuit of the heating unit with which such switch unit is associated; (*b*) a second pair of relatively movable make-and-break contact members adapted for connection in and to open and close a control circuit; (*c*) a rotatable cam effective upon rotation thereof to cyclically move the first contact member of said first pair toward and away from the second contact member of such pair whereby the time duration, if any, of the time span of each such cycle of movement during which such contact members are closed depends upon the physical location of such second contact member in the path of movement of the first contact member; (*d*) manually adjustable means effective upon actuation simultaneously to vary the location of the second contact member of said first pair and to maintain closed said second pair of contacts when said second contact member is so positioned as to be engaged by said first contact member as the latter is moved cyclically by said cam, and (*e*) means for adjustably varying the relation between the relative positions of said manually adjustable means and said manually adjustable means and said second contact members;

B. A flexible drive shaft interconnecting the cams of the several switch units;

C. An electrical motor for driving said flexible shaft; and

D. An electrical circuit for energizing said motor, such circuit including therein the said second pair of contact members of the several switch units whereby said motor will remain energized so long as any such second pair of contact members is closed.



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2,775,715

**SYNCHRONOUS MOTOR COMPRISING AN ARMATURE HAVING PERMANENT MAGNETIC POLES**

Jeanne Jean Philippe Valeton, Frits Rudolf Hazeli and Franciscus Hendrikus Josef van der Poel, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application March 22, 1955, Serial No. 495,972

Claims priority, application Netherlands April 7, 1954

4 Claims. (Cl. 310—156)



1. A synchronous motor comprising an armature having a first portion provided with a number of permanent magnetic poles and a second portion provided with an equal number of salient poles, said salient poles having a cage winding and coinciding with said magnetic poles.

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2,775,717

**SEQUENTIALLY FEEDING BRUSH HOLDER FOR COMMUTATOR TYPE ELECTRICAL MACHINES**

Nikolaus Laing, Stuttgart, Germany

Application March 7, 1955, Serial No. 492,700

Claims priority, application Germany March 8, 1954

12 Claims. (Cl. 310—246)



1. A brush holder of the class described, comprising: means for supporting a first elongated brush for initial active engagement with a commutator together with at least one elongated reserve brush for subsequent engagement with said commutator after said first brush has been consumed to a predetermined residual length; resilient feeding means for each brush independently urging each of said brushes longitudinally toward active engagement with said commutator; and sequentially operative tripping means actuated by said resilient feeding means for the one of said brushes which is in active service when said active brush has been consumed to a predetermined residual length, said tripping means holding each reserve brush in an inactive position effectively out of engagement with said commutator until said actuation thereof and releasing a single reserve brush for active service sequentially in response to each such actuation.

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2,775,718

**ELECTRONIC SPEED LIGHT**

William Dubilier, New Rochelle, N. Y.

Application March 4, 1954, Serial No. 414,200

4 Claims. (Cl. 313—113)

1. An electronic flash tube comprising a gas-filled envelope, a pair of electrodes at opposite ends of said envelope defining a luminous discharge path, said envelope having an outwardly vaulted portion adjacent to said discharge path, a metallic light reflecting coating upon the outside of said vaulted portion, to confine light produced by the discharge to a predetermined spreading angle, a



pair of connecting terminals exterior of said tube adjacent to one of said electrodes, and means to connect one of said terminals to the adjacent electrode and to connect the other terminal to said other electrode through said coating.

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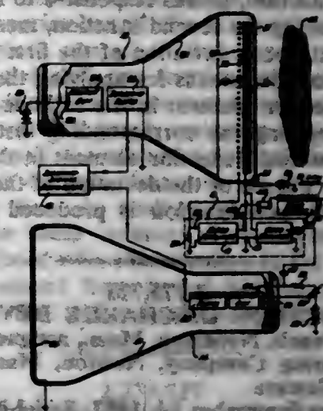
2,775,719

**X-RAY IMAGE INTENSIFIER SYSTEM**

Siegfried Hansen, Los Angeles, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware

Application June 30, 1953, Serial No. 366,161

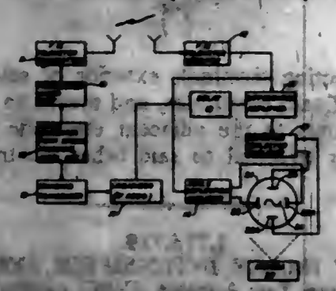
5 Claims. (Cl. 315—11)



1. The method of producing a continuous visual presentation of a periodic X-ray image with the aid of a photoconductive layer having first and second surfaces with capacitance therebetween, said first surface being in contact with a transparent conductive coating and said second surface possessing secondary electron emission characteristics, said method including the steps of projecting the periodic X-ray image towards said first surface of said photoconductive layer, converting the X-ray image into a light image in a plane contiguous to said first surface to release electrical charge from each elemental area of said first surface in proportion to the light intensity thereon, directing the electrical charges to corresponding elemental areas of said second surface to produce a charge replica of the X-ray image, producing an electron beam of elemental cross sectional area, scanning said second surface with said electron beam to liberate more secondary electrons from each scanned elemental area than beam electrons incident thereon, collecting the secondary electrons from said second surface at a first quiescent potential to produce a first electrical signal representative of said charge replica and to discharge said second surface to substantially said first potential, amplifying alternating components of said first electrical signal to produce a second electrical signal, impressing said second electrical signal on said transparent conductive coating to shift the potential of the elemental area of said second surface being scanned by said electron beam substantially to said first potential by means of said capacitance whereby said charge replica is not affected, said second electrical sig-

sal being a reproduction of the scanned areas of said charge replica capable of being converted into a visual presentation of the X-ray image.

2,775,720
DEVIATION PLOTTER
Robert M. Stanmeyer and Henry E. Burke, Pasadena, Calif., assignors, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application October 1, 1953, Serial No. 383,643
5 Claims. (Cl. 315—24)



1. Apparatus for automatically determining the deviation of a first function from a second function comprising the combination of a cathode ray tube, a signal generator, means responsive to the signal generator for creating the first function, means responsive to the signal generator for creating the second function, means for obtaining the instantaneous deviation of the first function from the second function, means for applying the first function to a first deflection element in the cathode ray tube, and means for applying the corresponding instantaneous deviation to a second deflection element in the cathode ray tube whereby a trace of the deviation of the first function from the reference function is produced in the screen of the tube.

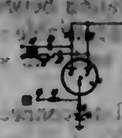
2,775,721
ELECTRON DISCHARGE DEVICES
Edward C. Dench, Needham, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application September 14, 1953, Serial No. 379,770
8 Claims. (Cl. 315—39.3)



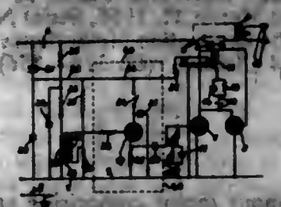
1. An electron discharge device comprising a cathode, an anode structure comprising a supporting member, vanes attached to but insulated from said supporting member, each pair of vanes together with that portion of said supporting member lying therebetween comprising a frequency responsive element, conductors joining adjacent vanes and means for inserting radio frequency energy at a range of frequencies not including the resonant frequency of the frequency responsive elements near one end of said structure, and means for extracting radio frequency energy from said structure.

2,775,722
ELECTRIC DISCHARGE TUBES
Arnold Hugh William Beck, Thomas Melvin Jackson, and John Lyddiatt, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application April 8, 1953, Serial No. 347,496
Claims priority, application Great Britain April 10, 1952
12 Claims. (Cl. 315—169)

1. A switching circuit for switching a signal source to a load comprising an electric discharge tube having a cold cathode and two anodes cooperating therewith, means for establishing a transmission path across the gap between the two anodes by establishing discharges between the said cathode and the respective anodes, and means coupling said transmission path in series between said source and load.

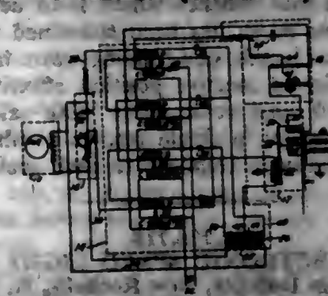


2,775,723
ELECTRIC CIRCUIT ARRANGEMENT FOR SUPPLYING A LOAD WITH ALTERNATING CURRENT
Gerald Offley Crowther, New Malden, England, and Leon Henry Lidal, Glasgow, Scotland, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application August 19, 1953, Serial No. 375,186
Claims priority, application Great Britain August 20, 1952
7 Claims. (Cl. 315—251)



1. An electric circuit arrangement for supplying a load with half cycle intervals or a part thereof of an alternating current supply, at each time of operation of the circuit arrangement, comprising a first electric discharge tube whose effective impedance is in series with the load, a second electric discharge path, said second discharge path being adapted to be rendered selectively conductive and nonconductive, means coupled to said alternating current supply and to said discharge path for selectively switching said discharge path from one of said conduction conditions to the other of said conduction conditions, means further coupled to said discharge path for maintaining the conduction condition initiated by said switching means, and means coupled to said discharge path and responsive to the change in the conduction thereof for initiating conduction in said first electric discharge tube whereby said first discharge tube is rendered conductive for one half cycle only upon the change in conduction in said discharge path.

2,775,724
ELECTRICAL SPEED CONTROL SYSTEM
William H. Clark, Jr., Rockford, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application July 5, 1952, Serial No. 297,283
2 Claims. (Cl. 317—5)



1. A discriminating feedback magnetic amplifier circuit system producing polarized D. C. signals, comprising four saturable reactors each having four windings



therein designated A, B, C and D, said A windings being serially connected, two with leads in one sense and two with leads in the other sense, an A. C. signal generator having two outputs of the same frequency, network means to change the phase relation of said outputs relative to each other with change in speed of said generator from a desired speed, one of said generator outputs being connected to said A windings, said B windings being interconnected, adjustable means to energize said B windings jointly with D. C. energy to bias said reactors, said C windings being interconnected, a transformer having a primary energized by the other output of said signal generator and having a center-tapped secondary, a load inductance connected at one end to said center tap and at its other end to one end of each said D winding, the other ends of two of said D windings being connected to one end of said secondary, the other ends of the other two of said D windings being connected to the other end of said secondary, each said D winding having a rectifier in circuit therewith, the rectifiers of two commonly connected D windings passing energy oppositely, switch means actuated by said load inductance according to the direction of current flow therethrough, a feedback power source, and connections from said power source through said switch means and through said C windings, the direction of current flow in said C windings being such as to unsaturate said reactors.

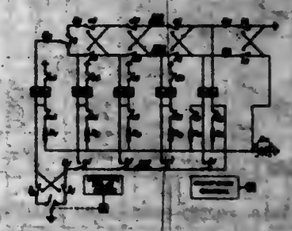
2,775,725
ELECTRIC RELAY DEVICES
Norman Sydney Ellis, South Shields, England, assignor to A. Reyrolle & Company Limited, Durham, England, a company of Great Britain
Application May 22, 1953, Serial No. 356,790
Claims priority, application Great Britain May 27, 1952
27 Claims. (Cl. 317—36)



1. A directional and impedance relay device responsive to the conditions in a main A. C. electric circuit and comprising a polarized D. C. relay element, a rectifier comparator circuit for applying differentially to such element two rectified A. C. inputs, means for deriving from the main circuit an operating current proportional to a current of the main circuit, a restraining current proportional to a voltage of the main circuit and a polarising current dependent on a voltage of the main circuit and approximately in phase with the restraining current, means whereby one of the said A. C. inputs comprises the vectorial difference between the operating current and the sum of the restraining and polarising currents, and means whereby the other A. C. input comprises the vectorial difference between the restraining current and the sum of the operating and polarising currents.

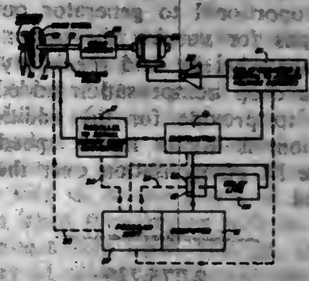
2,775,726
APPARATUS FOR REGISTERING PULSES
Jan Louis de Kroes and Alphonsus Hoetmer, Hilversum, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee
Application November 1, 1951, Serial No. 254,242
Claims priority, application Netherlands November 6, 1950
1 Claim. (Cl. 317—149)

Apparatus for registering pulses comprising a voltage source having two terminals, a pulsing member responsive to incoming sequential pulses and including a connecting element and first and second contacts alternately engaged by said element in response to an applied pulse, said element being connected to one terminal of said source, a series of at least three relays each provided with a winding and first, second and third switches actuated thereby, each switch having a connecting arm and make and break contacts engaged thereby, means serially connecting the arms through the associated break contacts in the first switches of all relays in said series except the last thereof between one end of the winding of said last relay and the first contact of said pulsing member, the second contact of said pulsing member being connected to one end of the winding of the first relay in said series, means serially connecting the arms through the associated break contacts of the second switches in all relays in said series except the first thereof between the other end of



the winding of said first relay and the other terminal of said source, means serially connecting the arms through the associated break contacts of the third switches in all relays in said series except the first and second thereof between the make contact of the second switch in said second relay and said one terminal of said source, the winding of each of said relays except said first relay being connected between the break contact in the corresponding second switch and the make contact of the first switch associated with the preceding relay in the series, means cross-coupling the make contacts of the second and third switches to the break contacts of the second and third switches associated with all the relays in the series except the first and second thereof, and holding circuit means in conjunction with each relay in said series.

2,775,727
DIGITAL TO ANALOGUE CONVERTER WITH DIGITAL FEEDBACK CONTROL
John J. J. Kernahan, Livingston, and John C. Lozier, Short Hills, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 8, 1954, Serial No. 473,829
8 Claims. (Cl. 318—28)

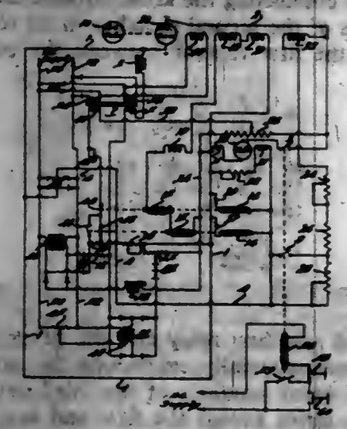


3. A digital to analog converter including a digital servo loop comprising a rotatable output shaft, a digital computer yielding solutions representing the desired angular position of said output shaft at a predetermined rate, a code wheel secured to said output shaft, means for reading said code wheel and converting the indicated position of said code wheel into digital form compatible with the output from said computer at a sampling rate which is substantially higher than said predetermined rate, means for subtracting said two digital indications and determining the error between the desired and actual positions of said code wheel in digital terms, a motor coupled to said output shaft, and means for energizing said motor with a restoring current determined by the magnitude

and sign of said error, the energization versus error characteristic of said last-mentioned means being relatively steep for small differences and decreasing to a more gradual linear slope.

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2,775,728
ADJUSTABLE VOLTAGE DRIVE CONTROLLER
Dorn L. Pettit, Wauwatosa, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan
Application February 28, 1955, Serial No. 490,887
16 Claims. (Cl. 318—143)



11. In a magnetic amplifier exciter control system for a direct current generator supplying a direct current motor, a main generator field winding, a magnetic amplifier having output and control windings, means supplying said main field winding from the output windings of said magnetic amplifier, means supplying a reference voltage, means supplying a voltage proportional to the generator voltage, means comparing said latter voltage to said reference voltage to supply a signal voltage energizing the control winding of the magnetic amplifier to vary the generator excitation to control the motor speed, a second control winding for the magnetic amplifier, means energizing said second control winding with a second signal voltage proportional to the current in the motor-generator circuit to partially compensate for the IR voltage drop therein, means for adding a voltage proportional to the second signal voltage to said reference voltage whereby to increase said first signal voltage to increase the IR voltage drop compensation, said means for comparing said reference voltage and the voltage proportional to generator output including regulatory means for varying the motor speed as desired, and means whereby said regulatory means varies the IR voltage drop compensation added to said first signal voltage to provide for the addition of greater IR compensation at higher motor speeds, whereby a tapering of the IR compensation over the motor speed range is effected.

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2,775,729
REVERSING CONTROL DEVICE FOR ELECTRIC MOTORS
Guy A. Curtis, Cleveland Heights, Ohio
Application May 4, 1954, Serial No. 427,462
16 Claims. (Cl. 318—267)



1. A selective device for the purposes described comprising a pair of members movable in a direction relatively toward, and in a direction relatively away from, each other, respectively, a rocking beam, said beam having latching means at opposite sides of its rocking axis operable when the beam is depressed at one end to latch one of the members against movement in a predetermined direction and release the other of the members, and operable when the beam is depressed at the other end to latch said other of the members against movement in an opposite direction and to release said one of the members, a settable means settable relative to the rocking beam by whichever member is unlatched, and operable, when so set, to rock the beam into releasing position relative to the then latched member and into latching position relative to the then unlatched member, all upon movement of the members through at least a portion of their cycle and said settable means being settable and, by the member which was released by the preceding rocking movement of the beam to rock the beam to releasing relation to the member latched by the said preceding rocking movement of the beam and into latching relation to the member released by said preceding rocking movement of the beam all upon the next succeeding movement of the members through at least a portion of their cycle, means to move said members in a preselected one of said relative directions, and resilient return means urging said members in the other of said relative directions.

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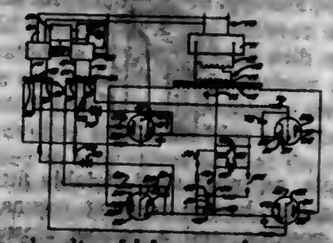
2,775,730
BATTERY CAPACITOR POWER CARTRIDGE
Stanley D. Ehrsberger, Elsewhere, and John G. Gunderman, Denver, Colo., assignors, by mesne assignments, to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 2, 1952, Serial No. 312,772
5 Claims. (Cl. 320—1)



1. In an electrical power cartridge of the class described, a sub-assembly and a casing of insulating material for detachably receiving and mounting said sub-assembly, said casing comprising a cylindrical portion open at both ends and a passage extending through the entire length of said cylinder, said sub-assembly comprising a supporting member, a battery terminal contact member of conducting material mounted on the supporting member in an insulated manner, combined electrical conductor means and battery holding means secured to the supporting member, said conductor means having yieldable means positioned on one side of the supporting member to engage the remote terminal end of a battery when the other terminal end engages the contact member and thereby yieldably hold the battery on the contact member, a condenser having an outer shell and positioned on the opposite side of the supporting member with its end terminal adjacent the supporting member, means for electrically connecting the end terminal of the condenser to the conductor means and for holding the condenser to the sub-assembly, and a second conductor means connected to the battery terminal contact and extending alongside of the condenser, said casing holding the last named second conductor means in contact therewith when said sub-assembly is inserted in said casing.



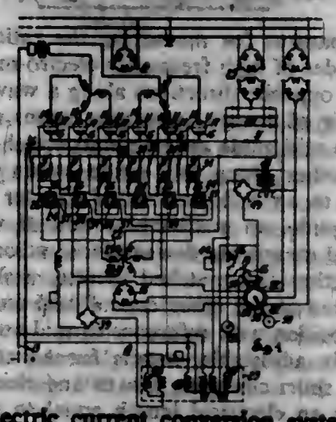
2,775,731
CAPACITOR CHARGING SYSTEM
Robert F. Schaik, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 14, 1954, Serial No. 462,261
7 Claims. (Cl. 320—1)



1. A welding circuit, which comprises a power supply having a predetermined voltage output, a capacitive load circuit, variable impedance means connected between the power supply and the load circuit, and means automatically operable for varying the impedance means downwardly as the load circuit approaches a charged condition.

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2,775,732
SYSTEM FOR MAINTAINING THE REGULATING MEANS OF AN ELECTRIC CONVERTER OPERATIVE OVER A WIDE RANGE
Harold Winegrad, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application October 22, 1953, Serial No. 387,767
8 Claims. (Cl. 321—19)

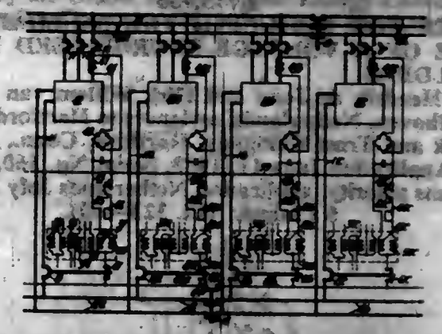


1. An electric current conversion system having a plurality of electric valves provided with control members for controlling the energy transmitted between an alternating current supply circuit and a direct current load circuit, regulating means including magnetic amplifier means comprising a magnetic amplifier for regulating over a relatively small voltage range the output voltage of said system, said magnetic amplifier means including winding means responsive to a condition of said load circuit; reference means including an element of said winding means for setting the output voltage of said system at a preselected value; control means for varying said output voltage over a relatively large voltage range; and linking means responsive to operation of said reference means to simultaneously operate said control means to maintain said regulating means operative over said large voltage range.

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2,775,733
SYSTEM FOR OBTAINING A PREDETERMINED DIVISION OF LOAD BETWEEN A PLURALITY OF PARALLELED CONVERTERS
Harold Winegrad, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application December 21, 1953, Serial No. 399,206
12 Claims. (Cl. 321—37)

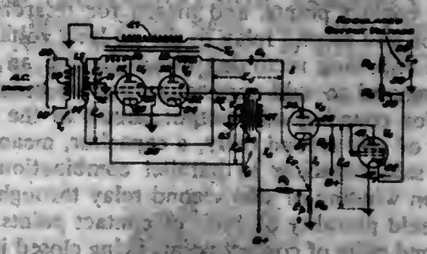
1. An electric current conversion system having a supply circuit, a load circuit, a plurality of electric valve conversion units connected in parallel between said circuits for transmitting energy therebetween, regulating means for each said unit for controlling the current transmitted to said load circuit by said unit, control means for each said regulating means comprising a feedback element, a reference element, and means for supplying to said feedback element a current proportional to the current transmitted to said load circuit by said unit; means for connecting said reference elements of all said control means



in parallel comprising totalizing buses, and means for supplying to said totalizing buses a current proportional to the total current supplied to said load circuit by all said units to cause the current in each said reference element to be proportional to a predetermined percentage of said total current, each said regulating means being operable to control the current transmitted by its unit in response to the currents in said feedback element and said reference element of said each said regulator means.

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2,775,734
FILAMENT REGULATOR CIRCUIT
Edward A. Andrade, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application April 10, 1953, Serial No. 348,004
3 Claims. (Cl. 323—45)



1. Means for regulating an output voltage comprising, an output terminal, an output transformer with its secondary connected between ground and the output terminal, a pair of primaries of said output transformer, a pair of thyratron control tubes with cathodes connected to ground, the primaries of said output transformer connected on one side of to the plates of said thyratrons respectively, an input transformer with its primary connected to an alternating input voltage, the center tap of the secondary of said input transformer connected to ground, one end of the secondary of said input transformer connected to the other side of one of the primaries of said output transformer, the other end of the secondary of the input transformer connected to the other side of the second primary of the output transformer, a control transformer with the midpoint of its secondary connected to ground and opposite ends thereof connected to control grids of the first and second thyratron tubes, a phase shift circuit comprising a condenser and triode tube operating as a variable resistor connected in series between one end of the secondary of the input transformer and ground, the primary of the control transformer connected in the plate circuit of said triode tube, a B plus voltage connected to said control primary, a resistor connected in

series with said B plus voltage, a pentode connected as a diode connected between said resistor and ground, the plate of said pentode connected diode tube connected to the control grid of said triode tube, a potentiometer connected to the output terminal, and an output from said potentiometer supplied to the filament of said pentode connected diode tube to operate it in a saturated state.

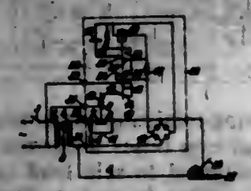
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2,775,735

**DEVICE FOR REDUCING THE NO-LOAD VOLTAGE OF A VOLTAGE SOURCE USED IN ARC-WELDING**

Frans Hendrik de Jong and Dirk Willem van Rheenen, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application June 11, 1953, Serial No. 360,884
Claims priority, application Netherlands July 8, 1952
5 Claims. (Cl. 323—60)



5. A welding circuit comprising a pair of welding conductors coupled to a voltage source, an impedance comprising a potentiometer connected in parallel with said voltage source for providing a reduced voltage to said conductors, said potentiometer having two ends and a tapping point, one end of said potentiometer being connected to one of said conductors, a first relay having an excitation winding and a pair of contact points, means for connecting the other end of said potentiometer to the other of said conductors through said pair of contact points, means for connecting said tapping point to said other conductor, a second relay having an excitation winding and a plurality of pairs of contact points, means for connecting the excitation winding of said first relay to said voltage source through a first pair of said plurality of pairs of contact points, and means for retarding the response of said second relay to the no-load voltage of said circuit comprising rectifying means having an input circuit connected to said conductors and an output circuit, means for coupling said output circuit to the excitation winding of said second relay, a capacitor, means for connecting said capacitor in parallel combination with the excitation winding of said second relay through a second pair of said plurality of pairs of contact points, said first and second pairs of contact points being closed in the non-energized condition of said second relay, a first resistor included in said output circuit coupling means in series connection with said parallel combination means for short-circuiting said first resistor through a third pair of said plurality of pairs of contact points, a second resistor and means for discharging said capacitor across said second resistor through a fourth pair of said plurality of pairs of contact points, said third and fourth pairs of contact points being closed in the energized condition of said second relay, said welding circuit operating at a predetermined arc voltage and said second relay being energizable at a reduced no-load voltage of said welding circuit and being non-energizable at said arc voltage.

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2,775,736

**VALVE LOCATING DEVICE**

Othmar W. Pies, Cincinnati, Ohio, William H. Middendorf, Covington, Ky., and Carl F. Evert, Jr., Cincinnati, Ohio; said Pies assignor to Aqua Survey & Instrument Company, Cincinnati, Ohio, a partnership

Application October 18, 1954, Serial No. 463,015
2 Claims. (Cl. 324—45)

1. In a valve box locating device, an outer casing having an aperture, a window member comprising a frame arranged within said aperture, a magnetic needle having trunnioned mountings between a pair of spaced plates and comprising damping means positioned between said spaced plates and arranged around the arc of movement



of said needle, an inner shell slidably fitting within said outer casing and having resilient means retaining said window in position, and a bottom closure member retaining said inner shell and said magnetic needle in position within said outer casing.

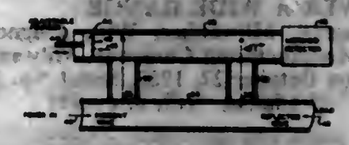
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2,775,737

**STANDING WAVE MEASURING SYSTEM**

Edward M. Purcell, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 3, 1946, Serial No. 667,072
7 Claims. (Cl. 324—58)



1. An apparatus for measuring the ratio of the relative magnitudes of high frequency electro-magnetic waves travelling in opposite directions along a wave guide, comprising a pair of energy extracting means adapted to be connected to said guide at two points which are separated from each other along said guide by an electrical distance equal to an odd number of quarter wave lengths within the guide, an auxiliary section of wave guide, a detecting and measuring device placed at one end of said auxiliary section and matched thereto, a short circuiting means inserted at the other end of said auxiliary section having its position with reference to said auxiliary section longitudinally adjustable, means for adjusting the position of said short circuiting means and electrical connections having an electrical length equal to one-half wave length of the energy being propagated therein between each of said energy extracting means and to respective points on said auxiliary section separated by the same electrical distance as the said two points first named.

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2,775,738

**MODULATOR**

Kurt Schlesinger, Maywood, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application August 30, 1951, Serial No. 244,335
5 Claims. (Cl. 332—43)



1. A modulator system for modulating a carrier wave having a frequency of the order of 3.5 megacycles or more by a modulating signal which varies in frequency up to a frequency of the order of 1.5 megacycles, said



system including in combination, first and second modulating sections each including a triode valve having a cathode, an anode and a control grid, means for applying said carrier wave to said sections including a pair of bifilar windings connected between said cathodes of said valves and a reference potential for applying said carrier wave thereto with equal amplitude and in opposite phase, means for applying said modulating signal between said control grids and said cathodes of said sections with substantially equal amplitude and opposite phase, resistor means connecting said control grids of said sections to said reference potential for providing a bias therefor and for balancing the signals applied to said valves so that the components thereof in said anodes of said valves are equal and opposite, and means connecting said anodes of said valves for combining the modulation products of said two sections in additive relation, said last named means including a trap for eliminating the second harmonic of the carrier wave.

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2,775,739

**DEVICE FOR AMPLITUDE MODULATION OF ULTRA SHORT WAVES**

Kornelis Swier Knol and Gerrit de Vries, Eindhoven, Netherlands, assignors to Hartford National Bank and Trust Company, Hartford, Conn., as trustee

Application March 15, 1952, Serial No. 276,858
Claims priority, application Netherlands April 6, 1951
4 Claims. (Cl. 332—57)



1. Apparatus for amplitude modulating ultra-short wave energy comprising a hollow wave-guide for conveying said energy, at least one elongated gaseous discharge tube disposed in said guide in the path of said energy, and means coupled to said tube to vary the ionization thereof in accordance with a modulating signal, said tube occupying substantially less than the total cross-section area of said waveguide and being disposed with respect to said guide at an angle at which the ionized gas atmosphere therein is primarily located in a plane lying at an angle not exceeding 30° with respect to the axis of the guide.

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2,775,740

**DIRECTIONAL COUPLING SYSTEMS**

Bernard M. Oliver, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 2, 1950, Serial No. 193,610
12 Claims. (Cl. 333—10)



3. A directional coupling arrangement comprising a first two wire transmission line, a source of a signal wave at one end of said line, a characteristic impedance termination at the other end of said line, a second two wire line having a portion disposed in electromagnetic field coupling relation with respect to a portion of said first line, a load for utilizing the signal wave at one end of said second line, a characteristic impedance termination at the other end of said second line, and capacitive means having a dielectric constant greater than unity distributed along the coupled portions and inserted across pairs of wires formed by single wires from each of said two transmission lines for reversing the electric coupling between the two lines.

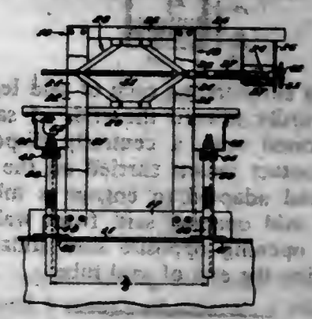
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2,775,741

**PHASE SHIFTING DEVICE**

Paul I. Corbell, Palo Alto, Calif., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application December 10, 1952, Serial No. 325,155
5 Claims. (Cl. 333—31)



1. Means for adjusting the phase of energy traveling down a wave guide comprising, a pair of openings formed in a wide side of said wave guide, a pair of probes extending through said openings and separated longitudinally of said wave guide by substantially one-quarter wave length, and said probes comprising generally hollow cylindrical tubes with their lower ends closed, closure means mounted in the other ends of said tubes, a pair of openings formed in each of said closure means, and a separate pair of smaller tubes extending through the openings of each of said closure means with one of said smaller tubes of each pair extending further into its respective probe than the other.

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2,775,742

**ELECTROMAGNET COIL ASSEMBLY**

Edward A. Bogue, South Bend, Ind., and Charles W. Musser, Niles, Mich., assignors to ETC, Inc., Niles, Mich., a corporation of Illinois

Application March 6, 1952, Serial No. 275,896
4 Claims. (Cl. 336—83)



2. An electromagnet coil assembly comprising a spool made of insulating material, a coil wound on the spool, input and output terminals connected to the coil, a housing of magnetizable metal containing the spool and coil, said housing having end walls and an open top, slotted magnetic tubes snugly fitting within the spool and extending through the end walls of the housing, and thermoplastic insulating material filling the space between the coil, the spool and the housing, said terminals extending outwardly from the said insulating material through the open top of the housing.

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2,775,743

**LAMP HOLDER**

Edwin G. Goddard, Lombard, Ill.

Application October 7, 1953, Serial No. 384,692
5 Claims. (Cl. 339—52)

1. A lamp holder comprising a base, a cover cooperating with said base to form an enclosure, said cover pro-

viding the front wall of said enclosure and said base providing the back wall thereof, and a structurally independent tube supporting device mounted within said enclosure, said tube supporting device including a U-shaped bracket having two legs and a connecting portion, means securing said connecting portion to said base, a plate of insulating material slidably mounted on the legs of said



bracket, a spring surrounding each of said legs for urging said plate forwardly toward the ends of said legs, said plate being formed with a centrally disposed circular opening, and contact means carried on the rear surface of said plate and adapted to engage a tube prong inserted through said opening said front wall being provided with an opening opposite said slidably mounted plate for receiving the end of said tube.

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2,775,744

**ELECTRICAL PLUG CONNECTOR**

Fred G. Hoeneman, Livingston, N. J.

Application January 11, 1954, Serial No. 403,216

2 Claims. (Cl. 339—74)



1. A plug connector for an electrical cord comprising a chambered casing, a pair of laterally spaced contact blades pivotally mounted intermediate their ends within said casing at points adjacent to the outer free end of the latter, said contact blades each having an internal arm and an external arm outwardly projecting from said casing, compression springs mounted within said casing to exert yieldably in swinging thrust against said internal arms of the contact blades whereby to divergently spread the external arms of said contact blades, means to couple respective electrical cord wires to the ends of the respective internal arms of said contact blades, a control member of substantially circular cross section slidably disposed within the casing for longitudinal movements intermediate and in engagement with the internal arms of the contact blades to and inwardly from an outwardly moved, horizontally aligned position between the pivotal points of said contact blades, whereby, in the latter position, diametrically opposite curved peripheral surfaces of said control member are opposed to the pivotal points of respective contact blades in non-obstructing relation to spring induced rocking movement of said contact blades about their pivotal points, but, when inwardly moved away from said pivotal points, to rock said blades against spring tension to parallelism, said control member having finger engageable means, externally projecting from the casing, by which the same can be manipulated.

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2,775,745

**BREAKAWAY ELECTRICAL CONNECTOR**

Frederic N. Eaton, Pasadena, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application June 22, 1955, Serial No. 517,405

5 Claims. (Cl. 339—91)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A breakaway electrical connector comprising separable male and female parts, detent means carried by one of said parts and selectively movable to a retracted position wherein said parts are freely separable and to an extended position in engagement in a recess in the other of said parts whereby said parts will be secured against separation, means movably carried by said one part for normally retaining said detent means in the extended position and including a member engageable with the other part upon assembly of the parts, movement of the parts into assembled condition causing movement of the second mentioned means in a manner to release said detent means for free movement of the latter to the retracted position until said recess is approximately aligned with said detent means, a portion of said second mentioned means being operative upon alignment of the recess and detent means to return to its normal position whereby to cause movement of said detent means



to the extended position and locking of said parts against separation, said portion of the second mentioned means comprising cam means engageable with said detent means, a shaft movably supported on said one part, said member being moved from a first position to a second position during said movement of the parts into assembled condition, latch means pivotally supported on said shaft and in an extended position engaging said cam means for causing movement of said cam means to its detent releasing position upon movement of said member from its first position to its second position, means for pivoting said latch means to a retracted position for causing disengagement of said latch means with the cam means upon said member reaching its second position, and spring means for biasing said cam means to its normal position.

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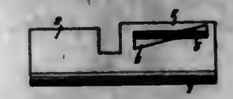
2,775,746

**ELECTRICAL SOCKET CONNECTORS**

Sidney Geoffrey Young, London, England

Application January 19, 1954, Serial No. 405,015

3 Claims. (Cl. 339—256)



1. An electric socket connector of the type adapted to receive and grip resiliently a pin inserted therein, such connector comprising two limbs resiliently connected together, each of said limbs being in the shape of a generally flat strip and each being provided with a tongue formed out of the material of the strip so as to leave a hole therein, each of said tongues extending towards the other of said limbs and in spaced, generally parallel relationship to each other to form a socket therebetween, the median plane of said socket being substantially at right angles to the respective planes of the two said limbs



2,775,747

**REINFORCED DEAD-END SPLICE CONNECTOR**

Walter Reinsher, New York, N. Y., and Henry Peter Degen, Wilton, Conn., assignors to Burndy Engineering Co., Inc., a corporation of New York

Application September 27, 1954, Serial No. 458,405

2 Claims. (Cl. 339—277)



1. In combination, a soft metal clevis having a pair of legs for anchoring a cable to an anchoring pin, and a reinforcing core comprising a U-shaped member made of metal having a high tensile strength positioned inside the body of the soft metal clevis, said clevis and reinforcing core provided with an aperture extending entirely therethrough for passing the cable end therethrough, and separate securing means larger than the diameter of the aperture in the core for external attachment to any selected cable, whereby a longitudinally applied force to the cable will position the securing means on the reinforcing core and hold the cable to the clevis.

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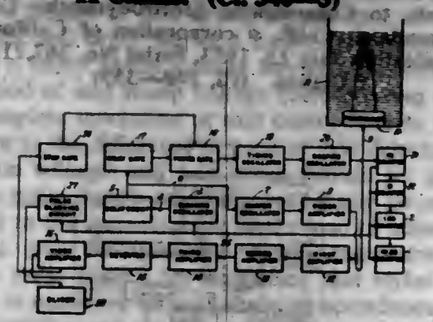
2,775,748

**APPARATUS FOR MEASURING LIQUID LEVELS**

Robert L. Rod, New York, N. Y., and William D. Becher, Paterson, N. J., assignors to Regus Electric Manufacturing Co., Paterson, N. J., a corporation of New Jersey

Application March 17, 1953, Serial No. 342,954

11 Claims. (Cl. 340—3)



1. Apparatus for measuring the level of a body of liquid comprising a supersonic frequency transducer located within said body of liquid, transmitting means for impressing a pulse of electrical oscillations of said supersonic frequency on said transducer, a receiver connected to said transducer including means for receiving a pulse of electrical oscillations from said transducer, and means for measuring a variable elapsed time interval between the transmitted and received pulses including a non-predetermined electronic counter means for counting the variable number of cycles of a timing wave which occur during said variable time interval.

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2,775,749

**MASS-LOADED RING VIBRATOR**

Harry Summers, Waterford, Conn.

Application April 1, 1953, Serial No. 346,293

13 Claims. (Cl. 340—9)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A mass-loaded ring vibrator, said vibrator comprising a ring of transducing material adapted for reversibly converting energy which is quantitatively characterized by flux density into energy of mechanical vibration, and a small number of separate narrow radial protuberances detachably fastened to said ring.

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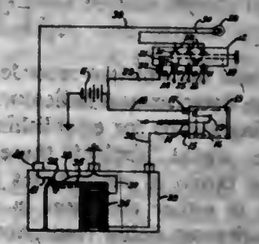
2,775,750

**MOTOR VEHICLE LIGHT CIRCUIT WARNING DEVICE**

Owen M. Criswell, Valparaiso, Ind.

Application September 6, 1955, Serial No. 532,621

1 Claim. (Cl. 340—52)



In a motor vehicle having an ignition circuit, a vehicle light circuit, and a source of current, a relay having normally closed contacts, said contacts being opened responsive to the energization of said relay, a warning lamp, means connecting said relay in parallel with said ignition circuit, an ignition switch, circuit means connecting said ignition circuit to said source of current through said ignition switch, a vehicle light control switch, circuit means connecting said vehicle light circuit to said source of current through said light control switch, a further switch, means mechanically coupling said further switch to said light control switch and being formed and arranged to close said further switch simultaneously with said light control switch, and circuit means connecting said warning lamp to said source of current through said contacts and said further switch, whereby said warning lamp will be energized when the ignition switch is opened and the light control switch is closed.

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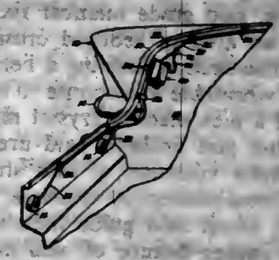
2,775,751

**MOBILE ELECTRICAL ALARM**

Harry B. Gordon, Highland Park, and Aaron Gordon, Chicago, Ill., and Edward C. Abdelnour, New York, N. Y.

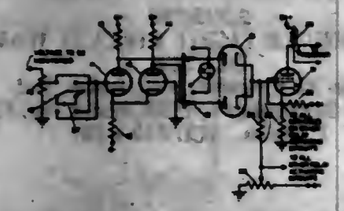
Application July 7, 1955, Serial No. 520,529

2 Claims. (Cl. 340—70)



1. An automatic alarm device adapted to be detachably secured to a metal body edge portion of a mobile vehicle of the type having an electrical power system, comprising a self-contained electrical signal unit operative when energized to emit an audible alarm, said signal unit having an electrical circuit providing a lead adapted to be connected in parallel with the vehicle electrical power system, and bracket means rigidly secured to said signal unit and providing an outwardly extending mechanical support therefor, said bracket being formed of spring metal and having a double reverse bend at its outer end to define a resiliently deformable gripping recess of exposed form for spring tension attachment to the vehicle body, said bracket serving to electrically ground said signal unit circuit.

2,775,752
**ELECTRONIC INTERMITTENT RECORDER**
Max J. Hobermann, Fairlawn, N. J.
Application August 10, 1954, Serial No. 448,975
2 Claims. (Cl. 340—223)



1. An electronic intermittent recorder comprising more than one change detector and indicator, each said change detector including means for establishing a balanced condition for the signal applied thereto, regardless of polarity, over a range of magnitudes and being responsive to change in either direction in the signal applied thereto; said indicators being responsive to the action of their associated change detectors when the signal applied to said change detector departs from its normal value by more than a fixed preestablished percentage such that said indicators shall not be responsive to any action of the change detectors after the first such action wherein the signal applied to one of said change detectors departed from its normal value by more than a fixed preestablished percentage.

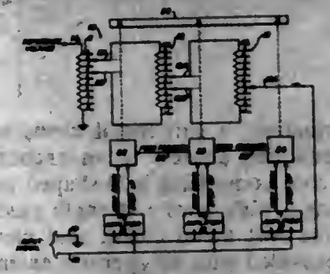
2,775,753
**WEB MOTION SENSER**
Charles J. Kennedy, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 20, 1954, Serial No. 463,541
The terminal fifteen years of the term of the patent to be granted has been disclaimed
3 Claims. (Cl. 340—259)



1. In a web driving system, a web motion contacting device comprising a web guide member positioned to slidingly engage a surface of a web member, said web member having a direction of travel parallel to said surface and bending about said guide member at an angle of substantially 90°, said guide member being at the apex of said angle, said guide member including a hollow stud having an area of reduced cross-section, said area of reduced cross-section defining a bend-point about which said stud is vibratable in response to motion of said web member, and a piezoelectric crystal mounted in the hollow of said stud and bridging said area of reduced cross-section whereby vibration of said stud about said area of reduced cross-section in response to motion of said web member about said guide member in said direction of travel causes flexure of said crystal to generate electrical signals corresponding to said web member travel induced vibrations.

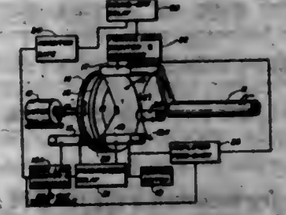
2,775,754
**ANALOGUE-DIGITAL CONVERTER**
Robert L. Sink, Altadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application August 10, 1951, Serial No. 241,320
9 Claims. (Cl. 340—347)

1. An analogue-digital converter comprising a decade potentiometer including a separate section for each digital order, a voltage source connected across the potentiometer, a separate reversible stepping switch connected to each section of the potentiometer to determine the setting of the respective section, a separate pair of relays connected respectively to control the upscale and downscale movement of each stepping switch, a separate phase sensitive amplifier connected to energize each of said pair of relays, the several amplifiers progressively differing in sensitivity by a factor of about 10, means for comparing an input voltage signal with the output of the potentiometer and for feeding the algebraic sum of said signals to the several amplifiers, feed forward connections between succeeding stepping switches from the low-



est to the highest order to drive such succeeding switches in appropriate direction when the potentiometer section controlled by the preceding switch is driven off scale and as long as said section remains off scale, means for indicating the settings of the several potentiometer sections, and switch means connected to be actuated responsive to movement of the highest order stepping switch off scale in the lowest position to reverse the polarity of the voltage source.

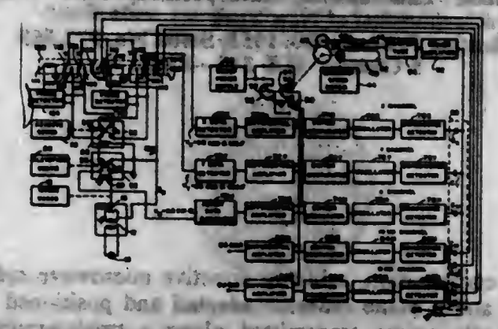
2,775,756
**ANGULAR POSITION TRANSDUCER**
Robert L. Sink, Altadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application July 13, 1953, Serial No. 367,711
7 Claims. (Cl. 340—359)



1. In a device for measuring rotation of a first member with respect to an angular reference position, the combination which comprises a second member rotatable on the same axis as the first member and independently thereof, means for rotating the second member, a ring of recording medium disposed on the second member and rotatable therewith around its axis, an indexing ring having a plurality of spaced index signals disposed on the second member and rotatable therewith around its axis, a recording head disposed at a fixed position adjacent the ring of recording medium for impressing a first signal on the ring of recording medium, a pick-up head disposed adjacent the ring of recording medium and rotatable with the first member, automatic feed-back means for causing the recording head to make a second signal on the ring of recording medium when the first signal rotates past the pick-up head, automatic means for counting and recording the number of signals impressed on the ring of recording medium, erasing means for removing the signals from the ring of recording material after the signals have been rotated past the pick-up head and before the signal positions have rotated back to the recording head, and automatic means for counting the index signals passing a fixed point adjacent the indexing ring beginning when a signal is impressed on the ring of recording medium by the recording head and ending when a later signal is picked up by the pick-up head.

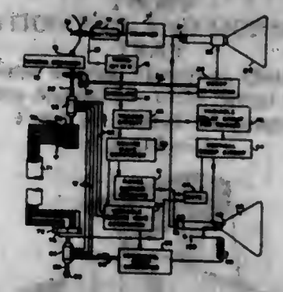


2,775,756
**FACSIMILE RECORDER COMPUTER**
Sylvanus B. Bency, Eatontown, N. J., and Paul M. Levy, New York, and Rocco L. Serio, Massapequa, N. Y., assignors to the United States of America as represented by the Secretary of the Army
Application March 3, 1955, Serial No. 492,058
7 Claims. (Cl. 343—11)
(Granted under Title 35, U. S. Code (1952), sec. 266)



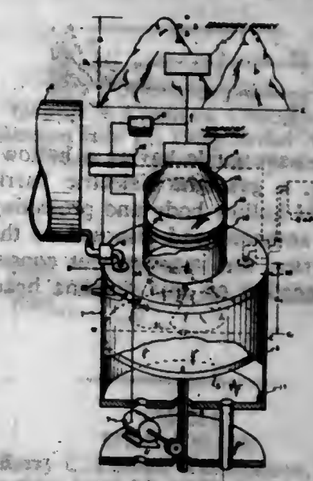
1. A system for continuously plotting the range and height coordinates of a target projectile in flight with respect to time from a prescribed reference position comprising means for generating discrete, coordinate data voltages having instantaneous magnitudes proportional respectively to the instantaneous height position of said projectile and to two prescribed coordinates of the instantaneous azimuth position of said projectile with respect to said reference position, means for detecting each of said coordinate data voltages, a recording drum adapted to be rotatably driven at a prescribed rate of speed, a stylus synchronously driven with said drum and adapted to move axially of said drum, means operatively associated with said drum and said stylus for periodically generating a linear sweep voltage having a prescribed slope, the period of said sweep voltage corresponding in time to one complete revolution of said drum, discrete means responsive to the difference of each of said detected coordinate data voltages and said sweep voltage for generating discrete pulse signals when a point on said sweep voltage is equal to the instantaneous magnitude of respective coordinate data voltages, and means responsive to said discrete pulse signals for energizing said stylus whereby a mark is produced on said drum in accordance with the height position and the two prescribed coordinates of the azimuth position of said target projectile.

2,775,757
**AUXILIARY INDICATOR FOR RADIO-ECHO DETECTION SYSTEM**
Louis D. Ellsworth, Arlington, and Chalmers W. Sherwin, Belmont, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 19, 1943, Serial No. 510,993
8 Claims. (Cl. 343—11)



1. A radio echo detection system, comprising a means for producing a concentrated electromagnetic beam emission, means for scanning said beam emission in a field in space in a predetermined manner, a cathode ray tube, means producing in one direction a repeated linear sweep of the electron beam thereof, a first self-synchronous motor, means rotating the rotor of said motor in synchronism with the scanning movement of said beam emission, means producing an alternating current of constant amplitude, a second self-synchronous motor electrically coupled to said first motor, means applying said alternating current to the rotor of said first motor, means for moving the beam sweep of said cathode ray tube in a direction quadrature to said one direction, said last mentioned means rendered responsive to the amplitude of the output of the rotor of said second motor, means receiving energy reflected from remote objects upon which said beam emission impinges, and means applying said received energy to said cathode ray tube to indicate reception thereof.

2,775,758
**PHOTO-GLYPH RECORDING**
Otto John Munz, Annapolis, Md.
Application May 25, 1951, Serial No. 228,180
18 Claims. (Cl. 343—17)

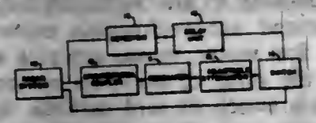


2. The process of reproducing objects to produce three dimensional reproductions comprising the steps of scanning a predetermined first sector of the object extending along the vertical direction from base surface of the object, converting the scanning of said sector into a light image which can be projected to expose a light sensitive colloid emulsion, casting a light sensitive emulsion layer in a container which is movable in a vertical direction corresponding to the vertical direction of the scanning operation, exposing said emulsion layer in said container to the light from said light image corresponding to said predetermined scanned sector, developing, fixing and hardening said exposed emulsion to produce an image in said layer corresponding to the sector of the object which is scanned, and repeating said operations by scanning along successive sectors along said vertical direction, each scanning followed by converting into a light image, casting an additional emulsion layer on the last hardened image emulsion, developing, fixing and hardening to build up successive sectored image layers in the container which are in registration with each other to produce a three dimensional reproduction within all of the layers disposed along the vertical axis of the container.

2,775,759
**TEST EQUIPMENT FOR A HIGH-FREQUENCY TRANSMITTER AND RECEIVER**
Jasper J. Okrent, Port Washington, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application March 28, 1955, Serial No. 497,286
5 Claims. (Cl. 343—17.7)

1. Test equipment for a transmitter and receiver of repetitive bursts of high-frequency energy comprising:

resonant means activated by said transmitted bursts for developing oscillations over extended periods; and circuit means coupled to said resonant means and operatively



synchronized with the transmitter for gating said oscillations to develop delayed bursts for application to the receiver.

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2,775,760
MICRO WAVE ANTENNA FEED
Lowell R. Brown, Royal Oak, and Winton J. Kelly, Birmingham, Mich., assignors to Davis Tool & Engineering Company, Detroit, Mich., a corporation of Michigan
Application July 28, 1952, Serial No. 301,274
4 Claims. (Cl. 343—781)



2. In a micro-wave guide having a hollow electrically conductive body, a gas-tight dielectric barrier disposed in the end of said hollow body and projecting therefrom and a dielectric antenna head disposed on the projecting end of said barrier, the improvement consisting of the provision of a portion on said antenna head projecting backwardly along the outside of said hollow electrically conductive body in the region of the high voltage gradient existent at the metallic terminus of the hollow body.

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2,775,761
MICROWAVE ANTENNA SYSTEM
William C. Jakes, Jr., Red Bank, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 20, 1952, Serial No. 272,565
5 Claims. (Cl. 343—834)



5. In combination, a highly directive microwave radio antenna and a plane reflector adapted and positioned to reflect radio waves transmitted along a predetermined path from and into said antenna, the distance $d$ between said antenna and the midpoint of said reflector being several times the largest dimension of said antenna and of said reflector, the ratio of the product of the wavelength of the wave energy being transmitted by said combination and said distance $d$ to the projected area toward said reflector being greater than 0.1 and the square root of the ratio of the area of the antenna aperture to the projected area of the reflector being no greater than 1.6, whereby either increased gain or extremely broad ranges of tolerable operating parameters may be obtained.

# DESIGNS

DECEMBER 25, 1956

179,435
ROTARY VANE AIRCRAFT
Stefan Apostolescu, New York, N. Y.
Application January 9, 1956, Serial No. 39,653
Term of patent 14 years
(Cl. D71—1)



179,436
DOOR LOCK MEDALLION PLATE OR SIMILAR ARTICLE
Richard H. Arbib, New York, N. Y., and Robert T. Curcuru, Birmingham, Mich., assignors to Signa-Craft, Inc., New York, N. Y., a corporation of New York
Application April 27, 1956, Serial No. 41,235
Term of patent 14 years
(Cl. D50—6)



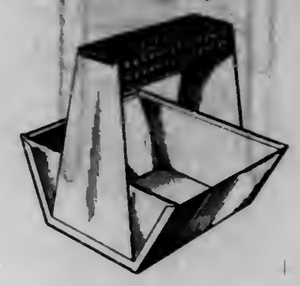
179,437
EXPANSIBLE CHAIN FOR A BRACELET OR SIMILAR ARTICLE
Karl C. Augenstein, Cranston, R. I., assignor to Speidel Corporation, Providence, R. I., a corporation of Rhode Island
Application August 20, 1956, Serial No. 42,661
Term of patent 14 years
(Cl. D45—4)



179,438
EXPANSIBLE CHAIN FOR A BRACELET OR SIMILAR ARTICLE
Karl C. Augenstein, Cranston, R. I., assignor to Speidel Corporation, Providence, R. I., a corporation of Rhode Island
Application August 20, 1956, Serial No. 42,662
Term of patent 14 years
(Cl. D45—6)



179,439
COMBINATION PAIL AND MOP SQUEEZING TRAY
Joseph Roland Bisson, Montreal, Quebec, Canada
Application August 20, 1954, Serial No. 31,939
Term of patent 14 years
(Cl. D9—1)



179,440
COMBINED LIPSTICK HOLDER AND VANITY CASE OR SIMILAR ARTICLE
Frederick M. Breen, Westchester, N. Y., assignor to Coty, Inc., New York, N. Y., a corporation of Delaware
Application February 10, 1956, Serial No. 40,114
Term of patent 14 years
(Cl. D86—10)



179,441
TOOTHBRUSH
George S. Clemens, Chicago, Ill.
Application July 11, 1956, Serial No. 42,218
Term of patent 14 years
(Cl. D9—2)



179,442
SIDE CHAIR
Berry C. Collins, Tallahassee, Fla.
Application April 29, 1955, Serial No. 35,737
Term of patent 14 years
(Cl. D15—1)



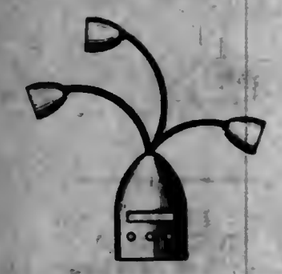
179,443
AIRCRAFT FLIGHT INSTRUMENT
Edward R. Dayton, Huntington Station, and Charles J. Bogan, Amityville, N. Y., assignors to Sperry Rand Corporation, Great Neck, N. Y., a corporation of Delaware
Application October 28, 1955, Serial No. 38,611
Term of patent 14 years
(Cl. D52—6)



179,444
AIRCRAFT NAVIGATION INSTRUMENT
Edward R. Dayton, Huntington Station, Grant W. Schleich, Huntington, and Eugene F. Ready, Merrick, N. Y., assignors to Sperry Rand Corporation, Great Neck, N. Y., a corporation of Delaware
Application October 28, 1955, Serial No. 38,612
Term of patent 14 years
(Cl. D52—6)



179,445
RADIO CABINET WITH MULTIPLE ADJUSTABLE SPEAKERS
Donald K. Eaton, Los Angeles, Calif.
Application May 15, 1956, Serial No. 41,492
Term of patent 14 years
(Cl. D56—4)



179,446
FRUIT DISH
Orville C. Hansen, Cedars, Okla.
Application August 10, 1956, Serial No. 42,577
Term of patent 14 years
(Cl. D36—2)



179,447
CANDY DISH
Orville C. Hansen, Cedars, Okla.
Application August 10, 1956, Serial No. 42,578
Term of patent 14 years
(Cl. D36—2)



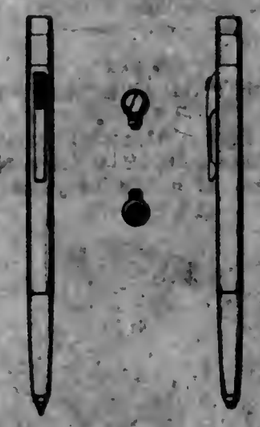
179,448
BOAT
Dean E. Hanson, Spring Lake Park, Minn.
Application February 1, 1955, Serial No. 34,318
Term of patent 3½ years
(Cl. D71—1)



179,449
BALL POINT PEN
Robert J. Harper, Scarsdale, and Robert H. Ensign, Bronxville, N. Y., assignors to Scripto, Inc., a corporation of Georgia
Application October 14, 1955, Serial No. 38,369
Term of patent 14 years
(Cl. D74—17)



179,450
BALL-POINT PENCIL
Robert J. Harper, Scarsdale, and Robert H. Ensign, Bronxville, N. Y., assignors to Scripto, Inc., a corporation of Georgia
Application August 6, 1956, Serial No. 42,529
Term of patent 14 years
(Cl. D74—24)





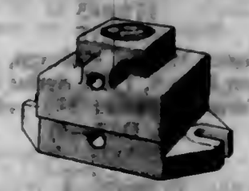
179,451
COMBINED SHOWER STALL LIGHT AND CURTAIN RAIL
Frederic O. Hindle, Milford, Conn., assignor of one-half to Eben B. Woolley, Milford, Conn.
Application April 9, 1956, Serial No. 40,981
Term of patent 14 years
(Cl. D21—1)



179,452
MOBILE HOME
Francis E. Holt, Indianapolis, Ind., assignor, by mesne assignments, to Venture Corporation, Elwood, Ind., a corporation of Indiana
Application April 4, 1955, Serial No. 35,337
Term of patent 14 years
(Cl. D14—3)



179,453
COLLET CHUCK OR THE LIKE
James M. Kemper, Wilmington, Ohio
Application April 10, 1956, Serial No. 40,999
Term of patent 14 years
(Cl. D54—14)



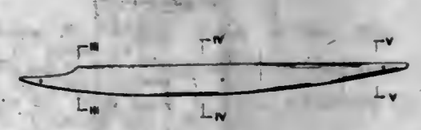
179,454
COMBINED DESK AND SEAT
Theodore C. Knobloch, Detroit, Mich.
Application April 11, 1956, Serial No. 41,022
Term of patent 14 years
(Cl. D33—14)



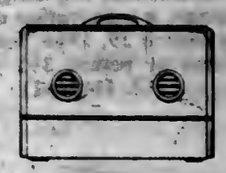
179,455
FISH LURE
Finn H. Magnus, Essex Fells, N. J.
Application October 21, 1955, Serial No. 38,509
Term of patent 3½ years
(Cl. D31—4)



179,456
TOP EDGE PROTECTOR FOR AUTOMOBILE DOORS
Benjamin C. McKee, Memphis, Tenn.
Application June 13, 1955, Serial No. 36,483
Term of patent 3½ years
(Cl. D14—6)



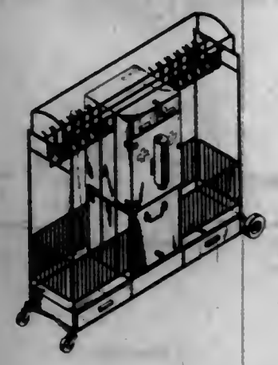
179,457
AIR CONDITIONING CABINET
Herman A. Mugler, Huntington, N. Y.
Application March 30, 1956, Serial No. 40,849
Term of patent 14 years
(Cl. D62—4)



179,458
DOORKNOB
Richard J. Ohno, Branford, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application April 8, 1954, Serial No. 29,922
Term of patent 7 years
(Cl. D50—3)



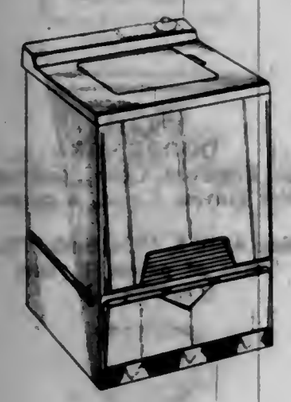
179,459
**ATHLETIC EQUIPMENT CARRIER RACK**
Melvin W. Potts, Roff, Okla.
Application March 12, 1956, Serial No. 40,539
Term of patent 14 years
(Cl. D14—3)



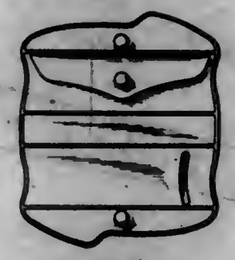
179,460
**DRINK DISPENSER CASING**
Donald S. Reynolds and Robert J. Thorn, Chicago, Ill.
Application November 25, 1955, Serial No. 39,051
Term of patent 14 years
(Cl. D52—3)



179,461
**LAUNDRY MACHINE**
Ray C. Sandin, Northbrook, Ill., assignor to General Electric Company, a corporation of New York
Application March 29, 1956, Serial No. 40,823
Term of patent 3½ years
(Cl. D49—1)



179,462
**SPECTACLE CASE**
Raymond F. E. Stegeman, Greece, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application March 29, 1955, Serial No. 35,268
Term of patent 3½ years
(Cl. D57—1)



179,463
**CUP**
Albert R. Taggart, Arlington Heights, Ill., assignor to P. R. Mallory Plastics, Inc., Chicago, Ill., a corporation of Illinois
Application September 27, 1955, Serial No. 38,131
Term of patent 14 years
(Cl. D44—9)



179,464
**CAMP TRAILER**
Ivan C. Tiholiz, Northridge, Calif.
Application July 11, 1955, Serial No. 36,913
Term of patent 14 years
(Cl. D14—3)



179,465
**CHEST**
Forest Wilson, Chicago, Ill.
Application June 9, 1955, Serial No. 36,436
Term of patent 3½ years
(Cl. D33—6)



179,466
**DRESSER**
Forest Wilson, Chicago, Ill.
Application June 9, 1955, Serial No. 36,442
Term of patent 3½ years
(Cl. D33—6)



# LIST OF REISSUE PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 25TH DAY OF DECEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Beatty, George B.: *See*—
Hunt, Arthur E. Re. 24,259.
Burliuk, David, and E. Rambusch, to Rambusch Decorating Co. Recessed lighting equipment. Re. 24,258, 12–25–56, Cl. 240—78.
Firma B. Thies Spezialmaschinenfabrik: *See*—
Thies, Alfred F. B. Re. 24,260.
General Motors Corp.: *See*—
Turlay, Joseph D. Re. 24,262.
Grady, Maurice W.: *See*—
Hunt, Arthur E. Re. 24,259.
Hunt, Arthur E., to A. E. Hunt, G. B. Beatty, and M. W. Grady. Coupling system for interchangeably connecting the wiring systems of trucks and trailers. Re. 24,259, 12–25–56, Cl. 307—10.
Martin, Stanley A. Animal feed and method for making the same. Re. 24,261, 12–25–56, Cl. 99—6.
Rambusch Decorating Co.: *See*—
Burliuk, David, and Rambusch. Re. 24,258.
Rambusch, Edward: *See*—
Burliuk, David, and Rambusch. Re. 24,258.
Thies, Alfred F. B., to Firma B. Thies Spezialmaschinenfabrik. Process for drying textiles. Re. 24,260, 12–25–56, Cl. 24—15.
Turlay, Joseph D., to General Motors Corp. Engine manufacturing process. Re. 24,262, 12–25–56, Cl. 29—428.

# LIST OF PLANT PATENTEES

Armstrong Nurseries, Inc.: *See*—
Swim, Herbert C. 1,542.
Swim, Herbert C., to Armstrong Nurseries, Inc. Rose plant. 1,542, 12–25–56, Cl. 47—61.

# LIST OF DESIGN PATENTEES

Apostolescu, Stefan. Rotary vane aircraft. 179,435, 12–25–56, Cl. D71—1.
Arbib, Richard H., and R. T. Curcuru, to Signa-Craft, Inc. Door lock medallion plate or similar article. 179,436, 12–25–56, Cl. D50—6.
Augenstein, Karl C., to Speidel Corp. Expansible chain for a bracelet or similar article. 179,437, 12–25–56, Cl. D45—4.
Augenstein, Karl C., to Speidel Corp. Expansible chain for a bracelet or similar article. 179,438, 12–25–56, Cl. D45—8.
Bausch & Lomb Optical Co.: *See*—
Stegeman, Raymond F. E. 179,462.
Bisson, Joseph R. Combination pail and mop squeezing tray. 179,439, 12–25–56, Cl. D9—1.
Bogan, Charles J.: *See*—
Dayton, Edward R., and Bogan. 179,443.
Breen, Frederick M., to Coty, Inc. Combined lipstick holder and vanity case or similar article. 179,440, 12–25–56, Cl. D86—10.
Clemens, George S. Toothbrush. 179,441, 12–25–56, Cl. D9—2.
Collins, Berry C. Side chairs. 179,442, 12–25–56, Cl. D15—1.
Coty, Inc.: *See*—
Breen, Frederick M. 179,440.
Curcuru, Robert T.: *See*—
Arbib, Richard H., and Curcuru. 179,436.
Dayton, Edward R., and C. J. Bogan, to Sperry Rand Corp. Aircraft flight instrument. 179,443, 12–25–56, Cl. D52—6.
Dayton, Edward R., G. W. Schleich, and E. F. Reedy, to Sperry Rand Corp. Aircraft navigation instrument. 179,444, 12–25–56, Cl. D52—6.
Eaton, Donald K. Radio cabinet with multiple adjustable speakers. 179,445, 12–25–56, Cl. D56—4.
Ensign, Robert H.: *See*—
Harper, Robert J., and Ensign. 179,449.
Harper, Robert J., and Ensign. 179,450.
General Electric Co.: *See*—
Sandin, Ray C. 179,461.
Hamon, Orville C. Fruit dish. 179,446, 12–25–56, Cl. D36—2.
Hamon, Orville C. Candy dish. 179,447, 12–25–56, Cl. D36—2.
Hanson, Dean E. Boat. 179,448, 12–25–56, Cl. D71—1.
Harper, Robert J., and R. H. Ensign, to Scripto, Inc. Ballpoint pen. 179,449, 12–25–56, Cl. D74—17.
Harper, Robert J., and R. H. Ensign, to Scripto, Inc. Ballpoint pencil. 179,450, 12–25–56, Cl. D74—24.
Hindle, Frederic O., ¼ to E. B. Woolley. Combined shower stall light and curtain rail. 179,451, 12–25–56, Cl. D21—1.
Holt, Francis E., to Ventoura Corp. Mobile home. 179,452, 12–25–56, Cl. D14—3.
Kemper, James M. Collet chuck or the like. 179,453, 12–25–56, Cl. D54—14.
Knobloch, Theodore C. Combined desk and seat. 179,454, 12–25–56, Cl. D33—14.
Magnus, Finn H. Fish lure. 179,455, 12–25–56, Cl. D31—4.
Mallory, P. R., Plastics, Inc.: *See*—
Taggart, Albert R. 179,463.
McKee, Benjamin C. Top edge protector for automobile doors. 179,456, 12–25–56, Cl. D14—6.
Mugler, Herman A. Air conditioning cabinet. 179,457, 12–25–56, Cl. D62—4.
Ohno, Richard J., to Sargent & Co. Doorknob. 179,458, 12–25–56, Cl. D30—3.
Potts, Melvin W. Athletic equipment carrier rack. 179,459, 12–25–56, Cl. D14—3.
Reedy, Eugene F.: *See*—
Dayton, Edward R., Schleich, and Reedy. 179,444.
Reynolds, Donald S., and R. J. Thorn. Drink dispenser casing. 179,460, 12–25–56, Cl. D52—3.
Sandin, Ray C., to General Electric Co. Laundry machine. 179,461, 12–25–56, Cl. D49—1.
Sargent & Co.: *See*—
Ohno, Richard J. 179,458.
Schleich, Grant W.: *See*—
Dayton, Edward R., Schleich, and Reedy. 179,444.
Scripto, Inc.: *See*—
Harper, Robert J., and Ensign. 179,450.
Signa-Craft, Inc.: *See*—
Arbib, Richard H., and Curcuru. 179,436.
Speidel Corp.: *See*—
Augenstein, Karl C. 179,437.
Augenstein, Karl C. 179,438.
Sperry Rand Corp.: *See*—
Dayton, Edward R., and Bogan. 179,443.
Dayton, Edward R., Schleich, and Reedy. 179,444.
Stegeman, Raymond F. E., to Bausch & Lomb Optical Co. Spectacle case. 179,462, 12–25–56, Cl. D57—1.
Taggart, Albert R., to P. R. Mallory Plastics, Inc. Cup. 179,463, 12–25–56, Cl. D44—9.
Thorn, Robert J.: *See*—
Reynolds, Donald S., and Thorn. 179,460.
Tiholiz, Ivan C. Camp trailer. 179,464, 12–25–56, Cl. D14—3.
Ventoura Corp.: *See*—
Holt, Francis E. 179,452.
Wilson, Forest. Chest. 179,465, 12–25–56, Cl. D33—6.
Wilson, Forest. Dresser. 179,466, 12–25–56, Cl. D33—6.
Woolley, Eben B.: *See*—
Hindle, Frederic O. 179,451.

# LIST OF PATENTEES

TO WHOM

## PATENTS WERE ISSUED ON THE 25TH DAY OF DECEMBER, 1956

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: *See*—
Kemmer, Fred A. 2,775,435.
Kemmer, Fred A. 2,775,711.
Zub, Albert W. 2,775,436.

Aarnio, Reino, to Fiat Metal Mfg. Co. Shower shield for bathtub. 2,774,978, 12–25–56, Cl. 4—149.

Abbott Laboratories: *See*—
Morrisey, Edward J., Jr., and Richards. 2,775,240.

Abdelnour, Edward C.: *See*—
Gordon, Harry B. and A., and Abdelnour. 2,775,751.

Abel, Frederick, and F. R. McNeill, to The Huffman Mfg. Co. Power mower with cord securing clip. 2,775,087, 12–25–56, Cl. 56—25.4.

Abendroth, Guss F., W. T. Ilfrey, and G. H. Tausch, to Esso Research and Engineering Co. Method for controlling sand in wells. 2,775,303, 12–25–56, Cl. 166—15.

Abs, Alfred J.: *See*—
Suter, Oswald, and Abs. 2,775,043.

Ackermann, Paul: *See*—
Kölbel, Herbert, and Ackermann. 2,775,607.

Acoustic Research, Inc.: *See*—
Villchur, Edgar M. 2,775,309.

Aerovox Corp.: *See*—
Crowley, Henry L. 2,775,566.

Agriculture, United States of America, as represented by the Secretary of: *See*—
Fischer, Gordon S., and Goldblatt. 2,775,578.
McKinney, Leonard L., Cowan, and Evans. 2,775,565.

Ahrens, Hermann H. F., to Daimler-Benz Aktiengesellschaft. Aerating device for vehicles, particularly omnibusses. 2,775,185, 12–25–56 Cl. 98—9.

Aktiebolaget Bofors: *See*—
Tillander, Folke G., and Åslund. 2,775,164.

Aktiebolaget & Karlstads Mekaniska Werkstad: *See*—
Söderlund, Ulf G. 2,775,169.

Albright, John R., to Geo. D. Roper Corp. Lubrication means for rotary pumps. 2,775,209, 12–25–56, Cl. 103—126.

Alexander, Harold M.: *See*—
McCown, William E., and Alexander. 2,775,071.

Alexeff, Alexander V., and R. L. Godshalk, to The Babcock & Wilcox Co. Closure means for chamber wall opening. 2,775,216, 12–25–56, Cl. 110—179.

Alford Cartons: *See*—
Vines, Oscar L. 2,775,390.
Vines, Oscar L. 2,775,391.

Allegheny Ludlum Steel Corp.: *See*—
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Aller, Willis F., to The Sheffield Corp. Pneumatic gauging device. 2,775,117, 12–25–56, Cl. 73—37.8.

Allerton, George L., to Western Electric Co., Inc. Reflex klystron oscillator. 2,775,702, 12–25–56, Cl. 250—36.

Allied Chemical & Dye Corp.: *See*—
Anderson, Norman L. 2,775,582.

Allied Chemical & Dye Corp.: *See*—
Erchak, Michael, Jr., and Blasek. 2,775,579.

Allis-Chalmers Mfg. Co.: *See*—
Buhr, August G. 2,775,177.
Winograd, Harold. 2,775,732.
Winograd, Harold. 2,775,733.

Altgelt, Herman E., to Deere & Co. Overload trip device for plows. 2,775,183. 12–25–56, Cl. 97—47.89.

Alumatic Corp. of America: *See*—
Zitomer, Abe. 2,774,997.

Alvarez, Manuel M., 50% to J. E. Gonzales. Adjustable drawing table construction. 2,775,497. 12–25–56, Cl. 311—39.

American Bosch Arma Corp.: *See*—
Bischoff, Waldemar O., and Fancher. 2,775,233.
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American Cyanamid Co.: *See*—
Baker, Bernard R., and McEvoy. 2,775,597.
Morgan, Russell L. 2,775,557.
Stirn, Frank E., and Taylor. 2,774,988.
Stirn, Frank E., and Taylor. 2,775,080.
Stirn, Frank E., and Taylor. 2,775,081.
Stirn, Frank E., and Taylor. 2,775,083.
Stirn, Frank E., and Taylor. 2,775,084.
Stirn, Frank E., and Taylor. 2,775,257.
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American Home Products Corp.: *See*—
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Diamond, Julius, and Bruce. 2,775,589.

American Infra Red Radiant Co., Inc.: *See*—
Schwank, Günther. 2,775,294.

American Machine & Foundry Co.: *See*—
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Waite, Fred L. 2,775 352.

American Machine and Metals, Inc.: *See*—
Kadlec, Ladislav. 2,775,045.

American Molded Products Co., The: *See*—
Tellen, Chester J. 2,775,411.

American Optical Co.: *See*—
Dillon, Oscar W. 2,775,074.

American Radiator & Standard Sanitary Corp.: *See*—
Phillips, Gerard D., Jr. 2,775,135.

American Smelting and Refining Co.: *See*—
Lebedeff, Yurri E., Stone, and von Stein. 2,775,509.

American Steel Foundries: *See*—
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American Sugar Refining Co., The: *See*—
Wimmer, Ernest L., and Lakata. 2,775,540.

American Viscose Corp.: *See*—
Pedlow, John W. 2,775,505.

Anastasia, Angelo. Safety belt for vehicles. 2,775,288, 12–25–56, Cl. 155—189.

Anderson, A. C., Inc.: *See*—
Lessmann, Herbert F. 2,775,356.

Anderson, Axel E. Bark-removing machine having self-lifting blunt-edge tools. 2,775,274, 12–25–56, Cl. 144—208.

Anderson, Earl K., to Filper Corp. Peach pitter. 2,775,278, 12–25–56, Cl. 146—28.

Anderson, James A., Jr., to Esso Research and Engineering Co. Production of aromatics and dehydrogenated hydrocarbons. 2,775,629, 12–25–56, Cl. 260—668.

Anderson, Norman L., to Allied Chemical & Dye Corp. Unsymmetrical triaso dyestuff. 2,775,582, 12–25–56, Cl. 260—173.

Anderson, Walter A. Jack actuated device for removing tires from vehicle attached wheels. 2,775,289, 12–25–56, Cl. 157—1.1.

Andrade, Edward A., to Collins Radio Co. Filament regulator circuit. 2,775,734, 12–25–56, Cl. 323—45.

Apteker, Rubin to Sears, Roebuck and Co. Self-retaining pump type shoe. 2,775,049, 12–25–56, Cl. 36—55.

Aqua Survey & Instrument Co.: *See*—
Pics, Othmar W., Middendorf, and Evert. 2,775,736.

Archer, Sydney, and M. E. Auerbach, to Sterling Drug Inc. Process of preparing pyridoxal isonicotinoyl-hydrazone and intermediate used therein. 2,775,596, 12–25–56, Cl. 260—295.

Ardern, David B., and R. M. Shirk, to Houdry Process Corp. Hydrocarbon lift system for the conversion of hydrocarbons and the separation of fines. 2,775,547, 12–25–56, Cl. 196—52.

Armantrout, Kenneth M., to Borg-Warner Corp. Power steering mechanism. 2,775,133, 12–25–56, Cl. 74—388.

Armco Steel Corp.: *See*—
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Bloom, Fredrick K., and Clarke. 2,775,520.

Armour and Co.: *See*—
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Army, United States of America as represented by the Secretary of the: *See*—
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Lochhead, John L. 2,775,165.
Magram, Sidney J. 2,775,515.
Musser, C Walton, and Dietsch. 2,775,052.

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Ashton, Albert A., to Emsco Mfg. Co. Drawworks having selective transmission and control. 2,775,429, 12–25–56, Cl. 255—19.

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Atlas Powder Co.: *See*—
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Speed, William C., and Dwyer. 2,775,450.

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Archer, Sydney, and Auerbach. 2,775,596.

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Austin, Leslie W., and J. C. Hicks, to Kaiser Aluminum & Chemical Corp. Refractory material. 2,775,526, 12–25–56, Cl. 106—59.

Austin, Leslie W., and J. C. Hicks, to Kaiser Aluminum & Chemical Corp. Refractory material. 2,775,527, 12–25–56, Cl. 106—60.

Automatic Canteen Co. of America: *See*—
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Automatic Electric Laboratories, Inc.: *See*—
Newstedt, Harry N. 2,775,648.

Avco Mfg. Corp.: *See*—
Norberg, Oscar R. 2,775 430.

Avery-Hardoll Ltd.: *See*—
Fraser, John. 2,775,258.

Babcock, John C., and A. C. Ott, to The Upjohn Co. Thiosteroid production. 2,775,602, 12–25–56, Cl. 260—397.3.

Babcock & Wilcox Co., The: *See*—
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Bach, Harold H., and C. L. Towle. Method and apparatus for processing ballast. 2,775,438. 12–25–56, Cl. 262—2.





Bachman, Fred E., to American Steel Foundries. Brake rotor. 2,775,322, 12–25–56, Cl. 188—218.

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Hoelscher, Friedrich. 2,775,614.

Baker, Bernard R., and F. J. McEvoy, to American Cyanamid Co. Method for preparing quinazolone intermediates. 2,775,597, 12–25–56, Cl. 260—294.3.

Baker, Donald L., to Carrier Corp. Window locking assembly. 2,775,001. 12–25–56, Cl. 20—52.

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Baker, James E. Metering valve for a carburetor. 2,775,437, 12–25–56, Cl. 261—62.

Baker, Leonard, W. Holma, and L. C. Williams, to Miehle Printing Press & Mfg. Co. Machine for and method of folding sheets. 2,775,448, 12–25–56, Cl. 270—95.

Balint, Julius J., G. A. Bannasch, and D. H. Bratton, to General Motors Corp. Operating apparatus for a vehicle window. 2,775,479, 12–25–56, Cl. 296—44.

Banker, Oscar H., to New Products Corp. Torsional vibration absorber. 2,775,105, 12–25–56, Cl. 64—27.

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Balint, Julius J., Bannasch, and Bratton. 2,775,479.

Bardwell, Howard F., and P. L. May, to International Harvester Co. Wire twisting mechanism for bay balers. 2,775,190, 12–25–56, Cl. 100—4.

Barkdoll, Archie E., and R. N. MacDonald, to E. I. du Pont de Nemours and Co. Solutions of formaldehyde polymers. 2,775,570, 12–25–56, Cl. 260—33.4.

Barker, Raymond C. Fishhook guard. 2,775,060, 12–25–56, Cl. 43—57.5.

Barrett, Lawrence D., Jr., and J. E. Dennis, to Westinghouse Electric Corp. Blade structure. 2,775,426, 12–25–56, Cl. 253—77.

Basdekis, Costas H., to The Chemstrand Corp. Method of preparing dyeable copolymers. 2,775,567, 12–25–56, Cl. 260—29.6.

Bates, Harold, C. W. Sammons, and J. W. Fisher, to British Celanese Ltd. Manufacture and use of cellulose esters. 2,775,529, 12–25–56, Cl. 106—165.

Bates, Harold, J. W. Fisher, and J. R. Smith, to British Celanese Ltd. Ripening cellulose esters in solution. 2,775,585, 12–25–56, Cl. 260—230.

Batten, Webster R., and D. Hadden, to Geo. D. Roper Corp. Dual pump drive with overrunning clutches. 2,775,204, 12–25–56, Cl. 103—11.

Baumunk, Harry. Carpenter's square. 2,775,037, 12–25–56, Cl. 33—120.

Baxter, Joseph, Jr., to The Black-Clawson Co. Paper machinery. 2,775,168, 12–25–56, Cl. 92—23.

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Beadle, Anthony C.: *See*—
Pocsek, Lyndall C., and Beadle. 2,775,649.

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Bearer, Louis C., to Phillips Petroleum Co. Method and apparatus for heating fluids. 2,775,635, 12–25–56, Cl. 260—679.

Beaver Cable Dolly Corp.: *See*—
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Beck, Arnold H. W. T. M. Jackson, and J. Lytollis, to International Standard Electric Corp. Electric discharge tubes. 2,775,722, 12–25–56, Cl. 315—169.

Beck, William A.: *See*—
Kollman, Jack, and Beck. 2,775,383.

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Bedford, William A., Jr., to United-Carr Fastener Corp. Panel fastening device. 2,775,010. 12–25–56, Cl. 24—73.

Beebout, Forest O. Angle indicator. 2,775,044, 12–25–56, Cl. 33—221.

Beecham Research Laboratories Ltd.: *See*—
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Behnisch, Robert, F. Mietzsch, and H. Schmidt, to Schenley Industries Inc. Thiosemicarbasones of aldehydes and ketones of the heterocyclic series. 2,775,593, 12–25–56, Cl. 260—279.

Behr, Siegfried. Lady's hair ornament. 2,775,245, 12–25–56, Cl. 132—44.

Behrens, Herbert C., to Diebold, Inc. Combination locks. 2,775,113, 12–25–56, Cl. 70—133.

Bell, Charles R., to Bendix Aviation Corp. Beam change preconditioner automatic pilots. 2,775,420, 12–25–56, Cl. 244—77.

Bell, John B., Jr., to Jefferson Chemical Co., Inc. Isolation of ethylene glycol from a mixture also containing propylene glycol. 2,775,623. 12–25–56, Cl. 260—637.

Bell, Persa R., G. G. Kelley, and C. G. Ross, to the United States of America as represented by the United States Atomic Energy Commission. Multichannel pulse analyzer. 2,775,698, 12–25–56, Cl. 250—27.

Bell Telephone Laboratories, Inc.: *See*—
Elliott, Stanley J., Thomas, and Werley. 2,775,407.
Felch, Edwin P. 2,775 699.
Fine, Morris E. 2,775,536.
Harrison, Henry C. 2,775,662.
Israel, John O. 2,775,701.
Jakes, William C., Jr. 2,775,761.
Kernahan, John J. J., and Lesler. 2,775,727.
Mason, Warren P., and Shockley. 2,775,658.
Mason, Warren P., and Thurston. 2,775,650.
Oliver, Bernard M. 2,775,740.
Rine, Douglas H. 2,775,700.

Bellini, Eugene, to Vanity Fair Mills, Inc. Knitting machine needle device with operating means and method. 2,775,106, 12–25–56, Cl. 66—86.

Bemis, Thomas F. Disposable cardboard pan, end forms and inserts. 2,775,019, 12–25–56, Cl. 25—131.5.

Benapfl, John R., to Consolidated Electrodynamics Corp. Heat compensating device. 2,775,707, 12–25–56, Cl. 250—41.9.

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Bevins, James E., and Hyde. 2,775,442.
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Benedikz, Thor. Eyeglass cleaning compact. 2,775,344, 12–25–56, Cl. 206—38.

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Bennett, Arthur D., and D. Silverman, to Stanolind Oil and Gas Co. Fluid entry detection in wells. 2,775,120, 12–25–56, Cl. 73—155.

Bennett, Arthur D., and D. Silverman, to Stanolind Oil and Gas Co. Fluid input and diameter measurements in wells. 2,775,121, 12–25–56, Cl. 73—155.

Bennett, Arthur S., and D. B. Williams. Method of making composite metal bodies. 2,775,029, 12–25–56, Cl. 29—474.3.

Beresin, Morris. Artificial teeth and method of assembling same. 2,775,035, 12–25–56, Cl. 32—8.

Berestnef, Alexis A., to Carrier Corp. Absorption refrigeration systems. 2,775,097, 12–25–56, Cl. 62—6.

Berggren, Detlof E., to Hartford National Bank and Trust Co., as trustee. Tilting X-ray medical examination table. 2,775,496, 12–25–56, Cl. 311—6.

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Bergstein, Robert M.: *See*—
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Bergstrom, Harold A., to Continental Can Co., Inc. Drum for liquids and semi-liquids. 2,775,384. 12–25–56, Cl. 220—5.5.

Bergstrom, Harold A., to Continental Can Co., Inc. Composite can with quick-opening lap seam. 2,775,395, 12–25–56, Cl. 220—51.

Berkeley Industries: *See*—
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Berliner, Henry A. Cooking utensil. 2,775,694. 12–25–56, Cl. 219—44.

Berman, Hymie D. Visual display device. 2,775,048. 12–25–56, Cl. 35—35.

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Berwin, Ted W., to Collins Radio Co. Pulse amplitude selector. 2,775,693. 12–25–56, Cl. 250—27.

Besler, Eduard, and O. Braunsdorf, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius und Bruning. Leuco sulfuric acid esters of anthraquinone-azo-dyestuffs. 2,775,583, 12–25–56, Cl. 260—193.

Beuter, Christiaan P. J., to Hersberg Mullne Automatic Products Ltd. Container manufacture. 2,775,287. 12–25–56, Cl. 229—15.

Bethlehem Steel Co.: *See*—
Campbell, George J., and Coccia. 2,775,441.
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Poole, William D. 2,775,535.

Better, Bernard R., and J. W. Lobde, Jr., to Scully-Jones and Co. Torque drivers. 2,775,326, 12–25–56, Cl. 192—56.

Beuchat, Roland, and S. Junod. Belt buckle. 2,775,011, 12–25–56, Cl. 24—178.

Bevins, James E., and R. W. Hyde, to Bendix Aviation Corp. Speed regulating means. 2,775,442, 12–25–56, Cl. 264—10.

Bianco, Henry J., to The Burch Co. Window with removable sash guides. 2,775,008, 12–25–56, Cl. 20—52.2.

Biasell La Verne R. Simulated automobile body toy. 2,775,462, 12–25–56, Cl. 280—1.1.

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Bixler, George W., and Bierlein. 2,775,470.

Biller, Hans. Toy aeroplane roundabout. 2,775,458. 12–25–56, Cl. 272—31.

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Bischoff, Waldemar O., and K. I. Fancher, to American Bosch Arma Corp. Fuel injection pump. 2,775,233. 12–25–56, Cl. 123—140.

Bitonte, Joseph L.: *See*—
Montgomery, Earle T., Welch, and Bitonte. 2,775,531.

Bixler, George W., and C. A. Bierlein, to General Motors Corp. Exhaust stack vibration isolator. 2,775,470. 12–25–56, Cl. 285—96.

Black-Clawson Co., The: *See*—
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Blasek, Robert J.: *See*—
Erchak, Michael, Jr., and Blasek. 2,775,579.

Bloch, Monroe P.: *See*—
Harris, Frederic R. 2,775,095.

Bloom, Fredrick K., and W. C. Clarke, Jr., to Armco Steel Corp. Cold-span articles. 2,775,519, 12–25–56, Cl. 75—125.

Bloom, Fredrick K., and W. C. Clarke, Jr., to Armco Steel Corp. Cold-stamped articles. 2,775,520, 12–25–56, Cl. 75—125.

Blum, Harold T., to The Briar Hill Stone Co. Saw blade for cutting stone. 2,775,236, 12–25–56, Cl. 125—18.

Blumlein, Alan D., deceased, by D. Walker, legal representative, to Electric and Musical Industries Ltd. Electrical circuit arrangements for effecting integration and applications thereof. 2,775,694. 12–25–56, Cl. 250—27.

Boadway, Thaddeus J. Industrial filter. 2,775,349, 12–25–56, Cl. 210—150.

Bögemann, Max: *See*—
Lober, Friedrich, Bayer, Bögemann, and Schneider. 2,775,568.
Lober, Friedrich, Bayer, Bögemann, and Schneider. 2,775,639.

Bogue, Edward A., and C. W. Musser, to Etc, Inc. Electromagnet coil assembly. 2,775,742, 12–25–56, Cl. 336—83.

Bogue Electric Mfg. Co.: *See*—
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Bonell, William H., and B. E. Ludwig, to Lockheed Aircraft Corp. Method of testing pressure vessels. 2,775,116, 12–25–56, Cl. 73—37.

Bordewijk, Jan L., J. F. Lansu, and J. te Winkel, to Hartford National Bank and Trust Co., as trustee. Amplifier circuit. 2,775,655, 12–25–56, Cl. 179—171.

Borg-Warner Corp.: *See*—
Armantrout, Kenneth M. 2,775,133.
English, Herdis G. 2,775,323.
Ingersoll, James H., White, Kovalick, Hegyi, Ruisard, and Levitt. 2,775,073.
Kelbel, Donald W. 2,775,144.
Orr, Palmer, and Kelbel. 2,775,132.

Boskamp, Arthur. Stabilized hexylresorcinol therapeutic agent containing castor oil. 2,775,838, 12–25–56, Cl. 167—55.

Bourgonjon, Louis R., to Hartford National Bank and Trust Co., trustee. Circuit-arrangement comprising a frequency-stabilized oscillator. 2,775,703, 12–25–56, Cl. 250—36.

Bourgraf, George J. Burial casket. 2,775,021, 12–25–56, Cl. 27—6.

Boyer, Robert Q., to the United States of America as represented by the United States Atomic Energy Commission. Continuous electrolytic process for reducing uranium in solution. 2,775,552, 12–25–56, Cl. 204—154.

Boyes, John T. Conditioning apparatus for woven fabric and the like. 2,775,020, 12–25–56, Cl. 26—68.

Bracy, Sylvanus B., P. M. Levy, and R. L. Sarlo, to the United States of America as represented by the Secretary of the Army. Facsimile recorder computer. 2,775,756, 12–25–56, Cl. 343—11.

Brakeley, Paul W., Jr.: *See*—
Schneider, Helmuth G., and Brakeley. 2,775,577.

Braswell, James B., and F. L. Clement. Dumping mechanism for semitrailers. 2,775,480, 12–25–56, Cl. 298—19.

Bratton, David H.: *See*—
Ballnt, Julius J., Baunasch, and Bratton. 2,775,479.

Braunsdorf, Otto: *See*—
Besler, Eduard, and Braunsdorf. 2,775,583.

Breeback, Rudolph H., to Crown Cork & Seal Co., Inc. Filling machines. 2,775,269, 12–25–56, Cl. 141—99.

Bremer, Frederick J., to The Mosler Safe Co. Manipulation-resistant combination lock. 2,775,115, 12–25–56, Cl. 70—133.

Brenstke, Harold R.: *See*—
Brenstke, Walter L. and H. R. 2,775,142.

Brenstke, Walter L. and H. R. Differential. 2,775,142, 12–25–56, Cl. 74—711.

Brewer, Ellis B. Angle tube bracket and hanger assembly. 2,775,473, 12–25–56, Cl. 287—54.

Briar Hill Stone Co., The: *See*—
Blum, Harold T. 2,775,236.

Briesmeister, Arthur C.: *See*—
Robinson, Eugene S., Briesmeister, and McInteer. 2,775,399.

British Celanese Ltd.: *See*—
Bates, Harold, Fisher, and Smith. 2,775,585.
Bates, Harold, Sammons, and Fisher. 2,775,529.
Downing, John, and Drewitt. 2,775,507.

British Messier Ltd.: *See*—
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Stanbury, John H. 2,775,254.

Brown, Cicero C. Sealing device for flanged joints. 2,775,472, 12–25–56, Cl. 285—343.

Brown, Clifford R., and R. I. Rofshus, to National Cooperatives, Inc. Milking machine claw assembly. 2,775,225, 12–25–56, Cl. 119—14.54.

Brown, Felix E., deceased; Union Bank & Trust Co. of Bethlehem, administrator, to East Penn Mfg. Co., Inc. Self-tightening and gripping battery lifter. 2,775,476, 12–25–56, Cl. 294—29.

Brown, Lowell R., and W. J. Kelly, to Davis Tool & Engineering Co. Micro wave antenna feed. 2,775,760, 12–25–56, Cl. 343—781.

Brown, Oscar E., and H. L. Baker, to Mueller Co. Split pipe sleeve with means to prevent incorrect assembly. 2,775,469, 12–25–56, Cl. 285—18.

Brown, Seymour W., to Carrier Corp. Self-contained ice making unit. 2,775,099, 12–25–56, Cl. 62—106.

Bruce, William F.: *See*—
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Diamond, Julius, and Bruce. 2,775,589.

Brunet, Sam. Smoke control for fireplaces. 2,775,239, 12–25–56, Cl. 126—135.

Buchmann, Albin, to Scintilla Ltd. Piston pump. 2,775,210, 12–25–56, Cl. 103—154.

Buckland, Bruce O., and A. Y. Hillman, Jr., to General Electric Co. End cap for fluid fuel combustor. 2,775,094, 12–25–56, Cl. 60—39.65.

Buckmann, John P., to Union Oil Co. of California. Amide-aldehyde resins from amides of oxidised paraffin acids. 2,775,571, 12–25–56, Cl. 260—39.

Buhr, August G., to Allis-Chalmers Mfg. Co. Implement lift. 2,775,177, 12–25–56, Cl. 97—46.37.

Bulecki, Victor. Seam opener. 2,775,034, 12–25–56, Cl. 30—294.

Bulkin, Bertram R., to Lockheed Aircraft Corp. Internally illuminated knob. 2,775,696, 12–25–56, Cl. 240—2.

Bullard Co., The: *See*—
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Bullock, Giles E. Fruit picking apparatus. 2,775,088, 12–25–56, Cl. 56—332.

Burch Co., The: *See*—
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Burke, Harry E.: *See*—
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Burlington Industries, Inc.: *See*—
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Burndy Engineering Co. Inc.: *See*—
Greer, Leonard. 2,775,283.
Reischer, Walter, and Dupre. 2,775,747.

Burroughs Corp.: *See*—
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Burroughs, William W., Jr., to Sylvania Electric Products Inc. Sealing apparatus for mercury arc discharge tubes. 2,775,070, 12–25–56, Cl. 49—2.

Bustin, Norris L., and C. T. Smith, to Masonite Corp. Method of cleaning press wires. 2,775,170, 12–25–56, Cl. 92—61.

Cadier, Paul L. E., to Etablissements R. Rousseau, Societe Anonyme. Baler mechanism. 2,775,339, 12–25–56, Cl. 198—223.

Cadman, William L., to Higbie Mfg. Co. Fishing reel arbor. 2,775,418, 12–25–56, Cl. 242—119.

Cain, Harry W., to Telephone Answering and Recording Corp. Telephone answering and recording devices. 2,775,651, 12–25–56, Cl. 179—100.1.

Caine Steel Co.: *See*—
Schumacher, Richard M. 2,775,151.

California Research Corp.: *See*—
Lavender, Harrison M., Jr. 2,775,627.

Calkins, James R.: *See*—
Honeycutt, Earl M., and Calkins. 2,775,632.

Campbell, George J., and L. G. Coscia, to Bethlehem Steel Co. Cooling cover for annealing furnaces. 2,775,441, 12–25–56, Cl. 263—50.

Campbell, James H. Concentric drill and drill press for use therewith. 2,775,148, 12–25–56, Cl. 77—55.

Campos, Louis H. Combination darner ball and sewing kit holder. 2,775,380, 12–25–56, Cl. 223—100.

Canadian International Paper Co.: *See*—
Charles, Frank R., and Wayman. 2,775,528.

Cannon, James J. Tapered top container depressor. 2,775,386, 12–25–56, Cl. 229—7.

Carpenter, Russell J. Paper roll handling attachment for industrial elevating trucks. 2,775,359, 12–25–56, Cl. 214—653.

Carrier Corp.: *See*—
Ashley, Carlyle M. 2,775,096.
Baker, Donald L. 2,775,001.
Berestneff, Alexis A. 2,775,097.
Brown, Seymour W. 2,775,099.
Hanson, Lars. 2,775,101.
Howe, Harlan L. 2,775,100.
MacLeod, David E. 2,775,098.
Swart, Richard H. 2,775,494.

Carson, Earl W. Matchbook holder. 2,775,343, 12–25–56, Cl. 206—31.

Carter, Norman C., and J. S. Cromeans, to Phillips Petroleum Co. Production of aromatics from olefins and carbon dioxide. 2,775,631, 12–25–56, Cl. 260—673.

Carver, John A.: *See*—
Long, Robert B., Carver, Holder, and Felix. 2,775,543.

Carver, John A., to Esso Research and Engineering Co. Liquid-liquid extraction tray. 2,775,542, 12–25–56, Cl. 196—14.52.

Case, J. I., Co.: *See*—
Russell, Stanley D. 2,775,089.
Schneebell, Emil, and Crawford. 2,775,147.

Cast, Florence H.: *See*—
Higgins, Laurence R. 2,775,145.

Celanese Corp. of America: *See*—
MacLean, Alexander F., and Stautzenberger. 2,775,621.
White, Blanche B., Moelter, and Rosen. 2,775,584.

Chadwick, Lee S., to Hupp Corp. Shiftable oven for cooking stoves or ranges. 2,775,237, 12–25–56, Cl. 126—19.

Chain Belt Co.: *See*—
Imse, Philip J., and Swansen. 2,775,156.
Meewes, Edward A. 2,775,466.

Chambers, John M., and V. A. Statham, to Massey-Harris-Ferguson (Sales) Ltd. Adjusting mechanism for tractor mounted implements. 2,775,178, 12–25–56, Cl. 97—46.59.

Chambers, John M., and J. C. McNeice, to Massey-Harris-Ferguson (Sales) Ltd. Hitch mechanism for tractor-drawn implements. 2,775,179, 12–25–56, Cl. 97—47.14.

Charles, Frank R., and M. Wayman, to Canadian International Paper Co. Manufacture of cellulose. 2,775,528, 12–25–56, Cl. 106—163.

Chemstrand Corp., The: *See*—
Basdekis, Costas H. 2,775,567.

Chenette, Joseph C. Appliance hand truck having endless tread stair climbing device. 2,775,463, 12–25–56, Cl. 280—5.22.

Cheney, Wendell C., to Gillett & Eaton, Inc. Piston with head insert and process of making it. 2,775,493, 12–25–56, Cl. 309—9.

Chepil, John W. and W. S. Apparatus for effecting the fecundation of plants. 2,775,065, 12–25–56, Cl. 47—1.

Chepil, William S. *See*—
Chepil, John W. and W. S. 2,775,065.

Christen, Paul. Egg separator. 2,775,277, 12–25–56, Cl. 146—2.

Chung, Jackson, to Dodge Mfg. Corp. Overload release connectors. 2,775,137, 12–25–56, Cl. 74—584.

Cincinnati Milling Machine Co., The: *See*—
Jessup, Wilbur F. 2,775,235.

Cisco, Rudolf W., Jr.: *See*—
Hayes, Daniel L. 2,775,333.

Claff, Clarence L., and C. A. Moeller, to M. B. Claff & Sons, Inc. Flexible printing plate locking device. 2,775,190, 12–25–56, Cl. 101—415.1.





Claff, M. B., & Sons, Inc.: *See*—
Claff, Clarence L., and Moeller. 2,775,199.

Clairol Inc.: *See*—
Petitta, Mario. 2,775,244.

Clark, Donald J., and M. S. Decker, Jr., to Surface Combustion Corp. Fuel burning and air heating apparatus. 2,775,238, 12–25–56, Cl. 126—116.

Clark, William H., Jr., to Curtiss-Wright Corp. Electrical speed control system. 2,775,724, 12–25–56, Cl. 317—5.

Clarke, William C., Jr.: *See*—
Bloom, Fredrick K., and Clarke. 2,775,519.
Bloom, Fredrick K., and Clarke. 2,775,520.

Clarkson, Alick, to Vapor Heating Corp. Precipitating scale forming constituents from water by heat. 2,775,555, 12–25–56, Cl. 210—15.

Clement, Frank L.: *See*—
Braswell, James B., and Clement. 2,775,480.

Collins Radio Co.: *See*—
Andrade, Edward A. 2,775,734.
Berwin, Ted W. 2,775,693.

Comfort Equipment Co.: *See*—
Zillier, Lester G. 2,775,261.

Commerce, United States of America as represented by the Secretary of: *See*—
Foskett, Laurence W., Foster, Thickstun, and Wood. 2,775,160.

Commercial Shearing & Stamping Co., The: *See*—
Drennen, John H. 2,775,260.

Compagnie des Machines Bull (Société Anonyme): *See*—
Doury, Elie A. J. 2,775,299.

Comte, Frederick, to Monsanto Chemical Co. Preparation of cyano organicsulfonyl chlorides. 2,775,609, 12–25–56, Cl. 260—465.

Comte, Frederick, to Monsanto Chemical Co. Preparation of cyano organicsulfonyl chlorides. 2,775,610, 12–25–56, Cl. 260—465.

Comte, Frederick, to Monsanto Chemical Co. Preparation of cyano organicsulfonyl chlorides. 2,775,611, 12–25–56, Cl. 260—465.

Comte, Frederick, to Monsanto Chemical Co. Preparation of cyano organicsulfonyl chlorides. 2,775,612, 12–25–56, Cl. 260—465.

Connelly, La Vern R., to Eaton Mfg. Co. Pump. 2,775,206, 12–25–56, Cl. 103—42.

Consolidated Electrodynamics Corp.: *See*—
Benapfl, John R. 2,775,707.
Sink, Robert L. 2,775,754.
Sink, Robert L. 2,775,755.
Strassner, Robert M., and Burke. 2,775,720.

Continental Can Co., Inc.: *See*—
Bergstrom, Harold A. 2,775,384.
Bergstrom, Harold A. 2,775,395.
Gibbs, Thomas H., Jr. 2,775,385.
Henchert, John. 2,775,362.
Henchert, John. 2,775,376.
Kayat, Elias. 2,775,382.
Lucas, Alexander H., Jr. 2,775,394.
Rockwell, Frederick W. 2,775,336.
Simpson, Justin. 2,775,235.

Continuous Metalcast Co., Inc.: *See*—
Easton, Rufus, and Wilson. 2,775,008.

Conway, Hugh G., to British Messier Ltd. Safety devices for apparatus containing stored pressure energy. 2,775,201, 12–25–56, Cl. 102—49.

Cook Electric Co.: *See*—
Flubacker, Charles H. 2,775,678.
Flubacker, Charles H. 2,775,679.
Flubacker, Charles H. 2,775,680.

Cook, Harold M., to Burlington Industries, Inc. Machines for producing bows and pompons from ribbons. 2,775,377, 12–25–56, Cl. 223—46.

Cooper, Frederick D.: *See*—
Senkowski, Alexander, and Cooper. 2,775,308.

Coralline, Mark. Pouring spout construction for paper containers. 2,775,373, 12–25–56, Cl. 222—183.

Corbell, Paul I., to the United States of America as represented by the United States Atomic Energy Commission. Phase shifting device. 2,775,741, 12–25–56, Cl. 333—31.

Corn Products Refining Co.: *See*—
Paschall, Eugene F. 2,775,586.

Cornell, Hampton G., R. S. Manne, G. R. L. Shepherd, and A. M. Scuby, to Esso Research and Engineering Co. Production of catalytic cracking feed stocks. 2,775,544, 12–25–56, Cl. 196—24.

Coscia, Lewis G.: *See*—
Campbell, George J., and Coscia. 2,775,441.

Cotton, William, Ltd.: *See*—
Lynam, John E. 2,775,110.

Courtaulds Ltd.: *See*—
Wormell, Robert L. 2,775,506.

Coutts, Morton W., to Dominion Breweries Ltd. Process for the manufacture of beer and the like. 2,775,522, 12–25–56, Cl. 99—52.

Cowan, John C.: *See*—
McKinney, Leonard L., Cowan, and Evans. 2,775,565.

Cox, Eugene S., to The Garrett Corp. Turbine driven fan unit. 2,775,400, 12–25–56, Cl. 230—116.

Craig, Alfred B., and G. E. Ham. Dyeable polymer blends, including copolymers of acrylonitrile with allenyl haloacetates. 2,775,573, 12–25–56, Cl. 260—45.5.

Craig, Burnie J. Pen desk set. 2,775,230, 12–25–56, Cl. 120—108.

Craig, W. E., and H. F. Wilson, to Rohm & Haas Co. Alcoholamine complexes. 2,775,591, 12–25–56, Cl. 260—247.7.

Crammond, Peter, and J. E. Denney, to Warner-Hudnut, Inc. Molding apparatus. 2,774,989, 12–25–56, Cl. 18—26.

Crampton Mfg. Co.: *See*—
Savage, Kenneth W. 2,775,111.

Crane Co.: *See*—
Nelson, Axel B., Schmidt, and Zinkil. 2,774,972.

Crawford, Theodore E.: *See*—
Schneebell, Emil, and Crawford. 2,775,147.

Criswell, Owen M. Motor vehicle light circuit warning device. 2,775,750, 12–25–56, Cl. 340—52.

Crockett, Sydney R. Gyroscopic roll control system for aircraft. 2,775,202, 12–25–56, Cl. 102—50.

Cromeans, John S.: *See*—
Carter, Norman C., and Cromeans. 2,775,631.

Cronin, Ronald F.: *See*—
Morison, William J., and Cronin. 2,774,980.

Crowley, Henry L., to Aerovox Corp. Binder for agglomerating finely divided materials. 2,775,566, 12–25–56, Cl. 260—19.

Crown Cork & Seal Co., Inc.: *See*—
Breeback, Rudolph H. 2,775,269.
Jordan, Jack P. 2,775,372.

Crowther, Gerald O., and L. H. Light, to Hartford National Bank and Trust Co., as trustee. Electric circuit arrangement for supplying a load with alternating current. 2,775,723, 12–25–56, Cl. 315—251.

Crowther, Hearl L. Scouring pad holder. 2,774,983, 12–25–56, Cl. 15—209.

Cunningham, James M., to International Business Machines Corp. Record controlled perforating machine. 2,775,297, 12–25–56, Cl. 164—115.

Cunningham, R. E.: *See*—
Kennedy, Gertrude E., and Hawkins. 2,775,243.

Curioni, Aldo, to himself and F. Mariani. Spaghetti-cutting machine. 2,775,215, 12–25–56, Cl. 107—21.

Curtis, Daniel L., to Hughes Aircraft Co. Variable impedance output circuit. 2,775,714, 12–25–56, Cl. 307—88.5.

Curtis, Gerald J. Outboard motor mounting means for boats. 2,775,219, 12–25–56, Cl. 115—41.

Curtis, Guy A. Reversing control device for electric motors. 2,775,729, 12–25–56, Cl. 318—207.

Curtiss-Wright Corp.: *See*—
Clark, William H., Jr. 2,775,724.

Cushman, John R., to International Business Machines Corp. Panel lighting. 2,775,687, 12–25–56, Cl. 240—2.1.

Daimler-Benz Aktiengesellschaft: *See*—
Ahrens, Hermann H. F. 2,775,185.
Hennecke, Rudolf. 2,775,487.
Kraus, Ludwig, and Gnamba. 2,775,467.
Maruhn, Herbert F. W., and Gruhler. 2,775,315.

Daniel, Carley: *See*—
King, Edward P. 2,775,486.

Davis, Archibald H. Siliceous strand. 2,775,022, 12–25–56, Cl. 28—81.

Davis Tool & Engineering Co.: *See*—
Brown, Lowell R., and Kelly. 2,775,760.

Dayton Rubber Co., The: *See*—
Meyer, Lawrence A. 2,775,072.
Rockoff, Joseph. 2,775,264.

De Arment, John E., to Beaver Cable Dolly Corp. Cable reel dolly and lifting apparatus. 2,775,357, 12–25–56, Cl. 214—390.

De Benneville, Peter L., and M. J. Hurwitz, to Rohm & Haas Co. Organo-silicon compounds and methods for making them. 2,775,605, 12–25–56, Cl. 260—448.2.

Decker, Maurice S., Jr.: *See*—
Clark, Donald J., and Decker. 2,775,238.

Deere & Co.: *See*—
Altgelt, Herman H. 2,775,183.
Silver, Walter H. 2,775,182.

Deere Mfg. Co.: *See*—
Du Shane, Wallace H. 2,775,175.
Du Shane, Wallace H. 2,775,180.
Swenson, Victor E. 2,775,134.

Defabaugh, Charles E.: *See*—
Gagle, Duane W., and Defabaugh. 2,775,530.

De Jong, Frans H., and D. W. Van Rheenen, to Hartford National Bank and Trust Co., as trustee. Device for reducing the no-load voltage of a voltage source used in arc-welding. 2,775,735, 12–25–56, Cl. 323—60.

De Jong, Geert J., to Stamicarbon N. V. Process for manufacture of strongly basic anion exchangers. 2,775,564, 12–25–56, Cl. 260—2.1.

De Kroes, Jan L., and A. Heetman, to Hartford National Bank and Trust Co., as trustee. Apparatus for registering pulses. 2,775,726, 12–25–56, Cl. 317—140.

De Long, Chancey E.: *See*—
McCurdy, John L., and De Long. 2,774,991.

Dench, Edward C., to Raytheon Mfg. Co. Electron discharge devices. 2,775,721, 12–25–56, Cl. 315—39.3.

Denney, John E.: *See*—
Crammond, Peter, and Denney. 2,774,989.

Dennis, John R.: *See*—
Barrett, Lawrence D., Jr., and Dennis. 2,775,426.

De Sedouy, Philippe L.: *See*—
Geffroy, Robert, and de Sedouy. 2,775,511.

D'Eustachio, Dominic, to Pittsburgh Corning Corp. Method of producing cellulated articles. 2,775,524, 12–25–56, Cl. 106—40.

De Vries, Gerrit: *See*—
Knol, Kornelis S., and de Vries. 2,775,739.

De Vries, Gerrit. Dispenser apparatus. 2,775,368, 12–25–56, Cl. 222—51.

Diamond Alkali Co.: *See*—
Skeeters, Maxwell J., and Beckers. 2,775,624.

Diamond, Julius, and W. F. Bruce, to American Home Products Corp. Substituted azacycloalkanes and process of producing them. 2,775,588, 12–25–56, Cl. 260—239.

Diamond, Julius, and W. F. Bruce, to American Home Products Corp. Substituted azacycloalkanes and process of producing them. 2,775,589, 12–25–56, Cl. 260—239.

Dickens, Robert F.: *See*—
Gearhart, Roy E. 2,775,327.

Diebold, Inc.: *See*—
Behrens, Herbert C. 2,775,113.

Diemer, Gesinus: *See*—
Jonker, Johan L. H., and Diemer. 2,775,690.
Dietsch, Francis W.: *See*—
Musser, C Walton, and Dietsch. 2,775,052.
Dillon, Oscar W., to American Optical Co. Abrading machines. 2,775,974, 12–25–56, Cl. 51—124.
Dinwiddie, James A., and M. A. Mosseman, to Esso Research and Engineering Co. Preparation of silica-alumina cracking catalyst. 2,775,562, 12–25–56, Cl. 252—463.
Dipner, Charles D., W. O. Teeters, and J. M. Wrightson, to The M. W. Kellogg Co. Dispersion of fluorochlorocarbon polymers. 2,775,569, 12–25–56, Cl. 260—32.8.
Dittman, Albert L., and J. M. Wrightson, to The M. W. Kellogg Co. Chlorinated acyl peroxides and method for their manufacture. 2,775,618, 12–25–56, Cl. 260—610.
Dodge Mfg. Corp.: *See*—
Chung, Jackson. 2,775,137.
Dole Refrigerating Co.: *See*—
Kleist, Herman W. 2,775,683.
Domingue, Evariste: *See*—
Gendreau, Joseph A., Fuller, and Domingue. 2,775,474.
Dominion Breweries Ltd. *See*—
Coutts, Morton W. 2,775,522.
Dormitzer, Henry, and W. S. H. Hamilton. Thermo-electric relays. 2,775,668, 12–25–56, Cl. 200—122.
Dorn, Maxwell, and W. Rosenbaum, to Bendix Aviation Corp. Illumination of indicating apparatus. 2,775,220, 12–25–56, Cl. 116—129.
Dörper, Alfred P., to General Motors Corp. Steering gear for motor vehicles. 2,775,136, 12–25–56, Cl. 74—500.
Douglass, James L., to The Special Screw Products Co. Tube coupling with sealed conical interface. 2,775,471, 12–25–56, Cl. 285—332.
Doury, Elie A. J., to Compagnie des Machines Bull (Société Anonyme). Record card reproducing punching machine with program control. 2,775,299, 12–25–56, Cl. 164—115.
Dow Chemical Co., The: *See*—
Fischback, Bryant C., and Harris. 2,775,587.
Jorgenson, Roy C. 2,775,554.
McCurdy, John L., and De Long. 2,774,991.
Meuli, Lloyd J. 2,775,066.
Meuli, Lloyd J. 2,775,067.
Reilly, John H., and Rector. 2,775,625.
Downing, John, and J. G. N. Drewitt, to British Celanese Ltd. Manufacture of filamentary material from copolymers of acrylonitrile and vinylidene chloride. 2,775,507, 12–25–56, Cl. 18—54.
Downs, Florence B.: *See*—
Harris, Frederic R. 2,775,095.
Drennen, John H., to The Commercial Shearing & Stamping Co. Spool valves. 2,775,260, 12–25–56, Cl. 137—621.
Drewitt, James G. N.: *See*—
Downing, John, and Drewitt. 2,775,507.
Dreyfus, Jean A. Electro-mechanical relays. 2,775,671, 12–25–56, Cl. 200—166.
Drown, David P.: *See*—
Yeo, Ernest E., and Drown. 2,775,271.
Dubilier, William. Electronic speed light. 2,775,718, 12–25–56, Cl. 313—113.
Dubois & Co.: *See*—
Dubois, Frans, and Engmann. 2,775,016.
Dubois, Frans, and F. Engmann, to Dubois & Co. Automatic tile presses. 2,775,016, 12–25–56, Cl. 25—42.
Du Bois, Rudolf. Face shield. 2,774,970, 12–25–56, Cl. 2—9.
Du Bou, Lewis E. Toilet tissue roll cover. 2,775,408, 12–25–56, Cl. 242—55.2.
Dubuif, Louis G. Device for printing in register. 2,775,194, 12–25–56, Cl. 101—123.
Du Pont, E. I., de Nemours and Co.: *See*—
Barkdoll, Archie E., and MacDonald. 2,775,570.
Dupre, Henry P.: *See*—
Reincher, Walter, and Dupre. 2,775,747.
Durez Hardware Mfg. Corp.: *See*—
Smith, Joseph C. 2,775,242.
Durham-Enders Razor Corp.: *See*—
Willibelm, Oscar F. 2,775,366.
Du Shane, Wallace H., to Deere Mfg. Co. Hitch device. 2,775,175, 12–25–56, Cl. 97—46.09.
Du Shane, Wallace H., to Deere Mfg. Co. Hitch device. 2,775,180, 12–25–56, Cl. 97—47.58.
Dwyer, James J.: *See*—
Speed, William C., and Dwyer. 2,775,450.
Earl, Charles W.: *See*—
Middleton, William H., and Earl. 2,775,306.
Early and Daniel Co., The: *See*—
Early, Robert L. 2,775,226.
Early, Robert L., to The Early and Daniel Co. Combined container and feeder. 2,775,226, 12–25–56, Cl. 119—52.
East Penn Mfg. Co., Inc.: *See*—
Brown, Felix R. 2,775,476.
Easton, Rufus, and T. Y. Wilson, to Continuous Metalcast Co., Inc. Mold mounting for continuous casting. 2,775,006, 12–25–56, Cl. 22—57.2.
Eaton, Frederic N., to United States of America as represented by the Secretary of the Navy. Breakaway electrical connector. 2,775,745, 12–25–56, Cl. 339—91.
Eaton Mfg. Co.: *See*—
Connelly, La Vern R. 2,775,206.
Pipes, George R. 2,775,184.
Eckart, Robert H., to Food Packers, Inc. Pickle canning machine. 2,775,268, 12–25–56, Cl. 141—78.
Edgar, Donald J.: *See*—
Grayheal, La Verne R., and Edgar. 2,775,091.
Edmonds, Lee O.: *See*—
Himel, Chester M., and Edmonds. 2,775,559.
Ehrlich, Walter A., and E. A. Zukowski, to The Bullard Co. Chuck. 2,775,461, 12–25–56, Cl. 279—119.
Eilenberger, Stanley D., and J. G. Guenthner, to Minneapolis-Honeywell Regulator Co. Battery capacitor power cartridge. 2,775,730, 12–25–56, Cl. 320—1.
Elmco Corp., The: *See*—
Schwartz, Daniel M., and Hackett. 2,775,138.
Ekco-Alcoa Containers, Inc.: *See*—
Kollman, Jack, and Beck. 2,775,383.
Electric and Musical Industries Ltd.: *See*—
Blumlein, Alan D. 2,775,664.
Hounsfield, Godfrey N. 2,775,656.
Electrofio Meters Co. Ltd.: *See*—
Nagel, Friedrich V. A. E. 2,775,253.
Elgin Milk Products Co., Inc.: *See*—
King, Edward P. 2,775,486.
Elliott, Stanley J., F. M. Thomas, and O. C. Worley, to Bell Telephone Laboratories, Inc. Driving and braking system for reeling mechanism. 2,775,407, 12–25–56, Cl. 242—55.
Ellis, Norman S., to A. Reyrolle & Co. Ltd. Electric relay devices. 2,775,725, 12–25–56, Cl. 317—36.
Ellis, Preston L.: *See*—
Tompkins, Will M., and Ellis. 2,775,155.
Ellsworth, Louis D., and C. W. Sherwin, to the United States of America as represented by the Secretary of the Navy. Auxiliary indicator for radio-echo detection system. 2,775,757, 12–25–56, Cl. 343—11.
Ellsworth, Russell S., to Mishle Printing Press & Mfg. Co. File card structure. 2,775,050, 12–25–56, Cl. 40—159.
Elms, James C.: *See*—
Gardner, Frederick H., Elms, and Rosenstock. 2,775,124.
Emhart Mfg. Co.: *See*—
Legge, Elmer E., and Stephens. 2,775,118.
Emsco Mfg. Co.: *See*—
Ashton, Albert A. 2,775,429.
Engell, Friedrich V. A. E., to Electrofio Meters Co. Ltd. Automatic fluid operated control apparatus having a derivative action responsive to a rate of change. 2,775,253, 12–25–56, Cl. 137—82.
Engelhardt, Edward L.: *See*—
Sprague, James M. and Engelhardt. 2,775,608.
English, Herdie G., to Borg-Warner Corp. Friction element and method of making the same. 2,775,523, 12–25–56, Cl. 188—234.
Engmann, Felix: *See*—
Dubois, Frans, and Engmann. 2,775,016.
Engvall, Earl H. Weighing and bagging machine. 2,775,425, 12–25–56, Cl. 249—46.
Ensink, Johannes, to Hartford National Bank and Trust Co., as trustee. Single sideband carrier-wave telephone system. 2,775,647, 12–25–56, Cl. 179—15.
Erb, Clarence F. Control apparatus for extrusion presses and the like. 2,775,015, 12–25–56, Cl. 25—16.
Erchak, Michael, Jr., and R. J. Blasek, to Allied Chemical & Dye Corp. Low temperature polymerization process and composition. 2,775,579, 12–25–56, Cl. 260—82.7.
Esso Research and Engineering Co.: *See*—
Abendroth, Guss F., Ilfrey, and Tausch. 2,775,803.
Anderson, James A., Jr. 2,775,629.
Carver, John A. 2,775,542.
Cornell, Hampton G., Manne, Shepherd, and Souby. 2,775,544.
Dinwiddie, James A., and Mosseman. 2,775,562.
Fenske, Merrell R., and Jones. 2,775,633.
Hamner, Glen P., and Jones. 2,775,575.
Hamner, Glen P., Jones, McDaniel, and Fuqua. 2,775,576.
Kimberlin, Charles N., Jr., and Krebs. 2,775,546.
Long, Robert B., Carver, Holder, and Felix. 2,775,543.
Nicholson, Daniel E., and Perry. 2,775,628.
Peaceman, Donald W. 2,775,125.
Rupp, Walter H. 2,775,636.
Schneider, Helmuth G., and Brakeley. 2,775,577.
Steeves, Asa B. 2,775,640.
Wilson, Howard L., Robison, and Smith. 2,775,587.
Etablissements R. Rousseau, Societe Anonyme: *See*—
Cadier, Paul L. E. 2,775,339.
Etc, Inc.: *See*—
Bogue, Edward A., and Musser. 2,775,742.
Etherington, John F., to The Murray Corp. of America. Cabinet structures. 2,775,500, 12–25–56, Cl. 312—239.
Evans, Cyril D.: *See*—
McKinney, Leonard L., Cowan, and Evans. 2,775,565.
Everett, Charles H., guardian: *See*—
Patrick, Richard F. 2,775,174.
Evert, Carl F., Jr.: *See*—
Pies, Othmar W., Middendorf, and Evert. 2,775,736.
Finman, Morton, to Standard Oil Co. Extreme pressure lubricant. 2,775,558, 12–25–56, Cl. 252—33.6.
Fairchild Camera and Instrument Corp.: *See*—
Roode, John F. 2,775,076.
Fakkeldij, Johannes J. J. Apparatus for tapping telephone conversations for the purpose of recording. 2,775,645, 12–25–56, Cl. 179—1.
Fancher, Kenneth I.: *See*—
Bischoff, Waldemar O., and Fancher. 2,775,283.
Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius und Bruning: *See*—
Besler, Eduard, and Braunsdorf. 2,775,583.
Felch, Edwin P., to Bell Telephone Laboratories, Inc. Crystal oscillator apparatus. 2,775,699, 12–25–56, Cl. 250—36.
Felix, James R.: *See*—
Long, Robert B., Carver, Holder, and Felix. 2,775,543.
Fenske, Merrell R., and J. H. Jones, to Esso Research and Engineering Co. Separation of tertiary olefins. 2,775,633, 12–25–56, Cl. 260—677.
Ferguson, Arlington A.: *See*—
Ring, Henrik, and Ferguson. 2,774,987.
Ferguson, Harry, Research Ltd.: *See*—
Hill, Claude. 2,776,307.
Fiat Metal Mfg. Co.: *See*—
Aarnio, Reino. 2,774,973.
Fick, Armin F., C. R. Rasmussen, and H. C. Thayer, Jr., to Western Electric Co., Inc. Apparatus for intertwisting wires. 2,775,266, 12–25–56, Cl. 140—115.





Fierce, William L.: *See*—
Sandner, Walter J., and Fierce. 2,775,545.
Filper Corp.: *See*—
Anderson, Earl R. 2,775,278.
Perrelli, Joseph. 2,775,279.
Finch, Donald M. Adjustable tent stake. 2,775,252, 12–25–56, Cl. 135—15.
Fine, Morris E., to Bell Telephone Laboratories, Inc. Bodies having low temperature coefficients of elasticity. 2,775,536, 12–25–56, Cl. 148—11.5.
Finishine Laboratories, Inc.: *See*—
Hagadorn, Elmore W. 2,775,489.
Fischback, Bryant C., and G. H. Harris, to The Dow Chemical Co. Haloacyl asiridinecarboxamides. 2,775,587, 12–25–56, Cl. 260—239.
Fisher, Gordon S., and L. A. Goldblatt, to the United States of America as represented by the Secretary of Agriculture. Polymerizations initiated by saturated cyclic terpene peroxides. 2,775,578, 12–25–56, Cl. 260—84.1.
Fisher, Harland S.: *See*—
Schwartz, Morris A., and Fisher. 2,775,410.
Fisher, James W.: *See*—
Bates, Harold, Fisher, and Smith. 2,775,585.
Bates, Harold, Sammons, and Fisher. 2,775,529.
Fishlove, H., & Co.: *See*—
Otto, Carl A. 2,775,064.
Fisk, Charles F., to United States Rubber Co. High impact strength plastic composition containing polyvinyl acetal resin and ethyl acrylate elastomer. 2,775,512, 12–25–56, Cl. 260—45.5.
Flex-O-Lators, Inc.: *See*—
Moorehouse, Richard. 2,774,986.
Flubacker, Charles H., to Cook Electric Co. Ice detecting probe. 2,775,678, 12–25–56, Cl. 219—19.
Flubacker, Charles H., to Cook Electric Co. Ice detection system. 2,775,679, 12–25–56, Cl. 219—20.
Flubacher, Charles H., to Cook Electric Co. Ice detection system. 2,775,680, 12–25–56, Cl. 219—20.
Fluegel, Dale A.: *See*—
Parsons, James R., and Fluegel. 2,775,708.
Food Packers, Inc.: *See*—
Eckart, Robert H. 2,775,268.
Forbes, Clarence H. Chisel guard. 2,775,275, 12–25–56, Cl. 145—24.
Ford Motor Co.: *See*—
Kirby, Thomas G. 2,775,119.
Fortune, Henry J., to The Garrard Engineering and Mfg. Co. Ltd. Phonographs having record changing mechanism. 2,775,459, 12–25–56, Cl. 274—10.
Foskett, Laurence W., N. B. Foster, W. R. Thickstun, and R. C. Wood, to the United States of America as represented by the Secretary of Commerce. Apparatus for absorption spectra analysis. 2,775,160, 12–25–56, Cl. 88—14.
Foster, Norman B.: *See*—
Foskett, Laurence W., Foster, Thickstun, and Wood. 2,755,160.
Fox, Homer M., to Phillips Petroleum Co. Viscosity compensating variable-area fuel nozzle. 2,775,484, 12–25–56, Cl. 299—116.
Foxx, Norbert E., to Republic Steel Corp. Method for welding steel tubing. 2,775,675, 12–25–56, Cl. 219—8.5.
Fradera, Francisco T. Movable glass panes for windows, doors, and the like. 2,775,002, 12–25–56, Cl. 20—52.1.
Frank, Richard J., to Winfield Co., Inc. Toilet armrest. 2,774,975, 12–25–56, Cl. 4—254.
Franken, Wilhelm, executor: *See*—
Schwank, Günther. 2,775,294.
Frankenstein, William P. Display carton. 2,775,392, 12–25–56, Cl. 229—38.
Fraser, John, to Avery-Hardoll Ltd. Valves for controlling the flow of liquids. 2,775,258, 12–25–56, Cl. 137—415.
French, George F., deceased, and R. French: R. French, A. Hanson, and N. C. O'Brien, executors. Venetian blind ladder and like webbing. 2,775,265, 12–25–56, Cl. 139—384.
French, Roger: *See*—
French, George F. and R. 2,775,265.
Freund, Benjamin E., to Kleinway, Inc. Fishing reel. 2,775,417, 12–25–56, Cl. 242—84.4.
Friedman, Robert G., to The National Machinery Co. Spring applied wheel brake. 2,775,319, 12–25–56, Cl. 188—170.
Frohmader, Stanley H., to Research Products Corp. Viscous composition and method of making the same. 2,775,561, 12–25–56, Cl. 252—306.
Frommer, Joseph C. Method and apparatus for the counting of particles per unit volume in a fluid. 2,775,159, 12–25–56, Cl. 88—14.
Fuller, James D. Window construction. 2,775,004, 12–25–56, Cl. 20—52.2.
Fuller, Joseph: *See*—
Gendreau, Joseph A., Fuller, and Domingue. 2,775,474.
Fuqua, Mack C.: *See*—
Hammer, Glen P., Jones, McDaniel, and Fuqua. 2,775,576.
G-M Laboratories, Inc.: *See*—
McMaster, Archie J., and Kitto. 2,775,075.
Gagle, Duane W., and C. E. Dufabaugh, to Phillips Petroleum Co. Bitumen- and aggregate composition and a building block molded therefrom. 2,775,530, 12–25–56, Cl. 106—280.
Galat, Alexander. Preparation of paraformaldehyde. 2,775,619, 12–25–56, Cl. 260—615.
Galbos, Ferdinand F. Simulated baseball game. 2,775,457, 12–25–56, Cl. 273—89.
Gangloff, Albert C., to Allegheny Ludlum Steel Corp. Die members. 2,775,301, 12–25–56, Cl. 164—116.
Gannon, Russell R. Means for heating and ventilating rooms, particularly school rooms and the like. 2,775,188, 12–25–56, Cl. 98—38.
Garant, Ode J.: *See*—
Osborne, Lloyd M., and Garant. 2,774,968.
Garber, John D., to Merck & Co., Inc. Methane-bis (vanillin) and derivatives and processes for preparing the same. 2,775,613, 12–25–56, Cl. 260—479.
Gardner, Frederick H., J. C. Elms, and D. Rosenstock, to North American Aviation, Inc. Angle of attack computer. 2,775,124, 12–25–56, Cl. 73—180.
Gardner, James H., and E. F. Schoenbrunn, to National Research Corp. Production of chemicals. 2,775,510, 12–25–56, Cl. 23—207.
Gardner, James H., N. C. Robertson, and E. F. Schoenbrunn, to National Research Corp. Non-catalytic vapor phase oxidation of ethane. 2,775,601, 12–25–56, Cl. 260—348.5.
Garrard Engineering and Mfg. Co. Ltd., The: *See*—
Fortune, Henry J. 2,775,459.
Garrett Corp., The: *See*—
Cox, Eugene S. 2,775,400.
Silver, Alexander. 2,775,231.
Gearhart, Roy R., ½ to R. F. Dickens. Overload clutch. 2,775,327, 12–25–56, Cl. 192—56.
Gebrüder Sucker G. m. b. H.: *See*—
Kabelitz, Hans. 2,775,046.
Geffroy, Robert, and P. L. C. de Sedouy, to Tradimex, Cooperative Commerciale. Oxygen generator. 2,775,511, 12–25–56, Cl. 23—281.
Gehman, George. Safety for firearms. 2,775,051, 12–25–56, Cl. 42—70.
Geiger, William C., Jr., to I-T-E Circuit Breaker Co. Combined air puffer air buffer for circuit breakers. 2,775,670, 12–25–56, Cl. 200—148.
Gendreau, Joseph A., J. Fuller, and R. Domingue. Sander attachment for motor vehicles. 2,775,474, 12–25–56, Cl. 291—23.
General Electric Co.: *See*—
Buckland, Bruce O. and Hillman. 2,775,094.
General Motors Corp.: *See*—
Ballnt, Julius J., Bannasch, and Bratton. 2,775,479.
Bixler, George W., and Bierlein. 2,775,470.
Dörper, Alfred P. 2,775,136.
Karcher, Harry C. 2,775,104.
Lincoln, Clovis W., Gold, and Spiekerman. 2,775,664.
Peterson, Victor W. 2,775,331.
Schjolin, Hans O., Guentsche, and Parshall. 2,775,330.
Simmons, Edward C. 2,775,102.
Stimets, Joseph M., and McClure. 2,775,476.
Gesellschaft fuer Linde's Eismaschinen Aktiengesellschaft: *See*—
Lahoda, Alfred. 2,775,211.
Gestetner Ltd.: *See*—
Styles, Leonard W. 2,775,451.
Gettel, Henry E. Variable tray box. 2,775,498, 12–25–56, Cl. 312—201.
Gibbs, Thomas H., Jr., to Continental Can Co., Inc. Drum with supported fiber bottom. 2,775,385, 12–25–56, Cl. 229—5.5.
Gibson, Carl A., Jr., and M. I. Glass. Combination toy land and water vehicle. 2,775,062, 12–25–56, Cl. 46—96.
Gibson, Robert G. Combination implement carrier and hitch for tractors. 2,775,176, 12–25–56, Cl. 97—46.35.
Gieg, Melvin R. Typographical slug casting machine. 2,775,340, 12–25–56, Cl. 199—61.
Gillett & Eaton, Inc.: *See*—
Cheney, Wendell C. 2,775,493.
Glass, Marvin I.: *See*—
Gibson, Carl A., Jr., and Glass. 2,775,062.
Gleitsman, Harold. Combination ladder and receptacle. 2,775,469, 12–25–56, Cl. 312—235.
Gnambs, Josef: *See*—
Kraus, Ludwig, and Gnambs. 2,775,467.
Goddard, Edwin G. Lamp holder. 2,775,743, 12–25–56, Cl. 339—53.
Godshalk, Russell L.: *See*—
Alexieff, Alexander V., and Godshalk. 2,775,216.
Gold, Robert M.: *See*—
Lincoln, Clovis W., Gold, and Spiekerman. 2,775,664.
Goldberg, Alan A., to Ward Blenkinsop & Co. Ltd. Substituted 1,10-diaza-anthracenes. 2,775,595, 12–25–56, Cl. 260—268.
Goldblatt, Leo A.: *See*—
Fisher, Gordon S., and Goldblatt. 2,775,578.
Golden, Harry. Flashlight. 2,775,688, 12–25–56, Cl. 240—10.66.
Gollobin Dental Co., Inc.: *See*—
Gollobin, William. 2,775,014.
Gollobin, William, 50% to L. Lawrence, and 50% to Gollobin Dental Co., Inc. Cushioning accessory for earrings. 2,775,014, 12–25–56, Cl. 24—263.
Gonsales, James E.: *See*—
Alvarez, Manuel M. 2,775,497.
Goodloe, Alfred M., to Metal Textile Corp. Dampening means for load supporting springs. 2,775,445, 12–25–56, Cl. 267—9.
Gordon, Aaron: *See*—
Gordon, Harry B. and A., and Abdelnour. 2,775,751.
Gordon, Harry B. and A., and E. C. Abdelnour. Mobile electrical alarm. 2,775,751, 12–25–56, Cl. 340—70.
Gordon, Murray A., to Berkeley Industries. Garment hanger. 2,775,379, 12–25–56, Cl. 223—95.
Goss, Clinton G.: *See*—
Bell, Perse R., Kelley, and Goss. 2,775,698.
Gottscho, Adolph, Inc.: *See*—
Hirschey, Malcolm. 2,775,192.
Granberry, Doyle S., and S. Kuba, to Western Electric Co., Inc. High frequency apparatus for sealing glass to metal. 2,775,676, 12–25–56, Cl. 219—10.53.
Grand Rapids Hardware Co.: *See*—
Teggelaar, Claude J. 2,774,906.
Graphic Arts Research Foundation, Inc.: *See*—
Higonnet, René, and Moyroud. 2,775,172.

Graybeal, La Verne R., and D. J. Edgar, to North American Rayon Corp. Attachment for textile bobbin. 2,775,091, 12–25–56, Cl. 57—34.

Great Lakes Corp.: *See*—
Shea, Frederick L., Jr. 2,775,549.

Great Lakes Stamp & Mfg. Co., Inc.: *See*—
Schmetzer, Hilmar O. 2,775,677.

Green, Madelyne L. Decorative house. 2,775,523, 12–25–56, Cl. 99—96.

Greenawalt, Frederick A., to Ranco Inc. Control apparatus. 2,775,667, 12–25–56, Cl. 200—116.

Greer, Leonard, to Burndy Engineering Co. Inc. Crimping press. 2,775,283, 12–25–56, Cl. 153—1.

Gregory Industries, Inc.: *See*—
Webster, Dale A. 2,775,685.

Gribble, Ernest O. Cutting attachment for sewing thimble. 2,774,978, 12–25–56, Cl. 7—14.5.

Gribble, Joseph J., to Square D Co. Reversing drum switch. 2,775,661, 12–25–56, Cl. 200—1.

Groejean, Johan A., to Hartford National Bank and Trust Co., as trustee. Single-sideband apparatus. 2,775,646, 12–25–56, Cl. 179—15.

Gruhler, Eugen: *See*—
Maruhn, Herbert F. W., and Gruhler. 2,775,315.

Guardino, John. Safety razor blade holder with self-closing operation. 2,775,031, 12–25–56, Cl. 30—60.5.

Guenter, Richard G., to Hercules Powder Co. Priming device. 2,775,200, 12–25–56, Cl. 102—27.

Guenther, Orrion A., to The National Cash Register Co. Method and apparatus for forming grinding wheels. 2,775,078, 12–25–56, Cl. 51—283.

Guenthner, John G.: *See*—
Eilenberger, Stanley D., and Guenthner. 2,775,730.

Guentsche, Helmuth: *See*—
Schjolin, Hans O., Guentsche, and Parshall. 2,775,330.

Gunther, Arnoldo. Device for automatically refilling tanks. 2,775,205, 12–25–56, Cl. 103—25.

H. S. D. Laboratories, Inc.: *See*—
Healy, Thomas F. 2,775,533.

Hackett, Theodore N.: *See*—
Schwartz, Daniel M., and Hackett. 2,775,138.

Hadden, Donald: *See*—
Batten, Webster R., and Hadden. 2,775,204.

Hadley, Harlan A., to Metrogram Corp. of America. Dampening devices. 2,775,444, 12–25–56, Cl. 267—1.

Hagadorn, Elmore W., to Finishine Laboratories, Inc. Scaffold. 2,775,489, 12–25–56, Cl. 304—28.

Hagen, Norbert: *See*—
Hagen, Reinold and N. 2,774,993.

Hagen, Reinold and N. Process for making gripe for handles of pliers and similar handles. 2,774,993, 12–25–56, Cl. 18—59.

Hall, George V., and W. S. Oliwa, to Monroe Calculating Machine Co. Sign detection means for "crawl" carry registers. 2,775,403, 12–25–56, Cl. 235—61.

Haller, Jacob. Dispensing device. 2,775,375, 12–25–56, Cl. 222—362.

Ham, George E.: *See*—
Craig, Alfred B., and Ham. 2,775,573.

Hamilton, William S. H.: *See*—
Dormitzer, Henry, and Hamilton. 2,775,668.

Hamner, Glen P., and T. G. Jones, to Esso Research and Engineering Co. Petroleum resins of improved color from 18°–85° C. stream. 2,775,575, 12–25–56, Cl. 260—82.

Hamner, Glen P., T. G. Jones, J. A. McDaniel, Jr., and M. C. Fuqua, to Esso Research and Engineering Co. Polymers from steam cracked distillate streams of 18°–54° C. boiling range. 2,775,576, 12–25–56, Cl. 260—82.

Hansen, Siegfried, to Hughes Aircraft Co. X-ray image intensifier system. 2,775,719, 12–25–56, Cl. 315—11.

Hanson, Alfred: *See*—
French, George F. and R. 2,775,265.

Hanson, Hugh D. Valved fitting. 2,775,256, 12–25–56, Cl. 137—322.

Hanson, Lars, to Carrier Corp. Self-contained ice making unit. 2,775,101, 12–25–56, Cl. 62—108.

Hardi, Fritz R.: *See*—
Valeton, Josue J. P., Hardi, and van der Poel. 2,775,716.

Hare, Terence G., to Miller Mfg. Co. Attaching and supporting means for automobile luggage carrier. 2,775,381, 12–25–56, Cl. 224—42.1.

Harlow, Earl V., to Koppers Co., Inc. Reduction of C₅ carbon content in tar. 2,775,550, 12–25–56, Cl. 196—147.

Harris, Carl C., to The Stencil Co. Adjustable display easel. 2,775,424, 12–25–56, Cl. 248—195.

Harris, Frederic R., deceased; M. S. Lobenthal, M. P. Bloch, and F. B. Downs, executors of said F. R. Harris, to Frederic R. Harris, Inc. Method of erecting structures in water. 2,775,095, 12–25–56, Cl. 61—46.

Harris, Frederic R., Inc.: *See*—
Harris, Frederic R. 2,775,095.

Harris, Guy H.: *See*—
Fischback, Bryant C., and Harris. 2,775,587.

Harris-Seybold Co.: *See*—
Johnson, Thomas H., and Mueller. 2,775,198.
Norton, Robert K. 2,775,197.

Harrison, Henry C., to Bell Telephone Laboratories, Inc. Electrical key. 2,775,662, 12–25–56, Cl. 200—1.

Harstick, William H., to International Harvester Co. Centrifugal speed governor. 2,775,665, 12–25–56, Cl. 200—80.

Hartford National Bank and Trust Co.: *See*—
Berggren, Detlof E. 2,775,496.
Bordewijk, Jan L., Lansu, and Winkel. 2,775,655.
Bourgonjon, Louis R. 2,775,703.
Crowther, Gerald O., and Light. 2,775,723.
De Jong, Frans H., and Van Rheenen. 2,775,735.
De Kroes, Jan L., and Heetman. 2,775,726.
Ensink, Johannes. 2,775,647.
Groejean, Johan A. 2,775,646.
Jonker, Johan L. H., and Diemer. 2,775,690.
Knol, Kornelis S., and de Vries. 2,775,739.
Martens, Gunter. 2,775,704.
Smits, Hubertus J. 2,775,131.
Valeton, Josue J. P., Hardi, and van der Poel. 2,775,716.
Van der Lee, Albertus. 2,775,292.
Van Overbeek, Adrianus J. W. M. 2,775,705.
Van Zelst, Johannes J. Z. 2,775,657.
Weigel, Kurt, and Verse. 2,775,709.

Haughton Elevator Co.: *See*—
Thurston, Ernest B. 2,775,312.

Hawaiian Pineapple Co., Ltd.: *See*—
Yond, James T. 2,775,191.

Hawkins, Jesse: *See*—
Kennedy, Gertrude E., and Hawkins. 2,775,243.

Hayes, Arthur F. Apparatus for removing fly. 2,774,994, 12–25–56, Cl. 19—98.

Hayes, Daniel L., 50% to R. W. Cisco, Jr. Automatic guide rail for rotatable-pallet conveyor systems. 2,775,333, 12–25–56, Cl. 198—19.

Hayworth, Byron B., to Radio Corp. of America. Demountable film reel. 2,775,412, 12–25–56, Cl. 242—70.

Hazeltine Research, Inc.: *See*—
Okrent, Jasper J. 2,775,759.

Healy, Thomas F., to H. S. D. Laboratories, Inc. Method of treating liquids and method of sterilising instruments therewith. 2,775,533, 12–25–56, Cl. 117—64.

Hedding, Linnie K., to Westinghouse Air Brake Co. Manufacture of small rectifier cells. 2,775,023, 12–25–56, Cl. 29—25.3.

Heetman, Alphonsus: *See*—
De Kroes, Jan L., and Heetman. 2,775,726.

Hegyi, Moses: *See*—
Ingersoll, James H., White, Kovalick, Hegyi, Ruisard, and Levitt. 2,775,073.

Heil-Coil Corp.: *See*—
Smith, Byrom J. 2,775,281.

Henchert, John, to Continental Can Co., Inc. Triple tight metal can closure. 2,775,362, 12–25–56, Cl. 220—42.

Henchert, John, to Continental Can Co., Inc. Powder dispensing container structure. 2,775,376, 12–25–56, Cl. 222—486.

Hennecke, Rudolf, to Daimler-Benz Aktiengesellschaft. Device for balancing vehicle road wheels. 2,775,487, 12–25–56, Cl. 301—5.

Herbert, William S., to Ray-O-Vac Co. Primary dry cell. 2,775,534, 12–25–56, Cl. 136—139.

Hercules Powder Co.: *See*—
Guenter, Richard G. 2,775,200.

Herlach, Heinrich, to Machine Tool Works Oerlikon, Administration Co. Training-mechanism handwheel. 2,775,143, 12–25–56, Cl. 74—750.

Hermann, Leroy N., to Inland Steel Products Co. Machine for making arched panel sheets. 2,775,284, 12–25–56, Cl. 153—7.

Hersberg Mulline Automatic Products Ltd.: *See*—
Bester, Christiaan P. J. 2,775,387.

Heuneman, Fred G. Electrical plug connector. 2,775,744, 12–25–56, Cl. 339—74.

Heyden Chemical Corp.: *See*—
Snow, John E. 2,775,422.

Hicks, James C.: *See*—
Austin, Leslie W., and Hicks. 2,775,525.
Austin, Leslie W., and Hicks. 2,775,526.
Austin, Leslie W., and Hicks. 2,775,527.

Heimstra, John C. Brake and anti-skid attachment for a vehicle. 2,775,314, 12–25–56, Cl. 188—5.

Higbie Mfg. Co.: *See*—
Cadman, William L. 2,775,418.

Higgins, Laurence R., by decree of distribution to F. H. Cast. Saw sharpening mechanism. 2,775,145, 12–25–56, Cl. 76—41.

High, Carl F., to American Bosch Arma Corp. Fuel injection pump. 2,775,203, 12–25–56, Cl. 103—2.

Higonnet, René, and L. Moyroud, to Graphic Arts Research Foundation, Inc. Photographic type composing apparatus. 2,775,172, 12–25–56, Cl. 95—4.5.

Hill, Claude, to Harry Ferguson Research Ltd. Front wheel suspension for motor vehicles. 2,775,307, 12–25–56, Cl. 180—43.

Hillman, Arthur Y., Jr.: *See*—
Buckland, Bruce O., and Hillman. 2,775,094.

Hilton, Lewis D. Pumping equipment for wells. 2,775,212, 12–25–56, Cl. 103—225.

Himel, Chester M., and L. O. Edmonds, to Phillips Petroleum Co. Improved lubricants. 2,775,539, 12–25–56, Cl. 252—47.

Hippie, Robert J. Eyeglass frame. 2,775,162, 12–25–56, Cl. 88—41.

Hirschey, Malcolm, to Adolph Gottscho, Inc. Marking devices. 2,775,192, 12–25–56, Cl. 101—35.

Hlobil, Josef S. J. Fractional aspect ratio aircraft. 2,775,419, 12–25–56, Cl. 244—35.

Hoberman, Max J. Electronic intermittent recorder. 2,775,752, 12–25–56, Cl. 340—223.

Hoelscher, Friedrich, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of esters of γ-chlorobutyric acid. 2,775,614, 12–25–56, Cl. 260—487.

Hoffman, Paul R. to Burroughs Corp. Tape punching apparatus. 2,775,300, 12–25–56, Cl. 164—115.

Hoffmann-La Roche Inc.: *See*—
Mateles, Michael, and Widmer. 2,775,521.





Hofrichter, Hazel H.: *See*—
Hofrichter, Martin H. and H. H. 2,775,490.

Hofrichter, Martin H. and H. H. Scaffold board splicer. 2,775,490, 12–25–56, Cl. 304—36.

Hogan, Robert J.: *See*—
Lanning, William C., and Hogan. 2,775,637.

Holder, Clinton H.: *See*—
Lonz, Robert B., Carver, Holder, and Felix. 2,775,542.

Holland, David O., to Beecham Research Laboratories Ltd. Preparation of methionine from α-amino-γ-methylthiobutyronitrile. 2,775,616, 12–25–56, Cl. 260—534.

Holmberg & Co., Kommanditgesellschaft: *See*—
Wurdel, Günther. 2,775,653.

Holme, Walter: *See*—
Baker, Leonard, Holme, and Williams. 2,775,448.

Holoclaw, Charles H., Hitch for trailers having independently pivoted wheels. 2,775,466, 12–25–56, Cl. 280—457.

Honeycutt, Earl M., and J. K. Calkins, to Sun Oil Co. Treatment of aromatic hydrocarbons. 2,775,432, 12–25–56, Cl. 260—674.

Honick, Kenneth R., to Simmonds Aerocessories Ltd. Densitometers for measuring the specific gravity of liquids. 2,775,128, 12–25–56, Cl. 73—453.

Horizons Inc.: *See*—
Weiner, Eugene. 2,775,514.

Horwitz, Lester: *See*—
Puetzer, Bruno, Katz, and Horwitz. 2,775,560.

Hospital Equipment Corp.: *See*—
Weinberger, Milton B. 2,775,005.

Houdry Process Corp.: *See*—
Ardern, David E., and Shirt. 2,775,547.
Kellogard, Reyner. 2,775,548.

Houmeield, Godfrey N., to Electric & Musical Industries Ltd. Electron discharge tube amplifiers. 2,775,656, 12–25–56, Cl. 179—171.

Howard, Frank A. Mechanical calendar. 2,775,092, 12–25–56, Cl. 58—6.

Howe, Harlan L., to Carrier Corp. Ice making apparatus. 2,775,100, 12–25–56, Cl. 62—107.

Hudson, Paul S.: *See*—
Potts, Mack F., Hudson, and Smith. 2,775,594.

Huffman, Dan T. Side delivery windrower. 2,775,090, 12–25–56, Cl. 56—376.

Huffman Mfg. Co., The: *See*—
Abel, Frederick, and McNeill. 2,775,087.

Hughes Aircraft Co.: *See*—
Curtis, Daniel L. 2,775,714.
Hansen, Siegfried. 2,775,719.
Shadbolt, Charles L. 2,775,695.

Hukari, Ormand E. Drives for conveyors. 2,775,337, 12–25–56, Cl. 198—60.

Huling, Frederick S.: *See*—
Babidge, David W., Natvig, and Huling. 2,775,296.

Hunt, Manley L., Jr., and H. C. Spartman. Cartridge reloading device. 2,775,157, 12–25–56, Cl. 86—23.

Hupp Corp.: *See*—
Chadwick, Lee S. 2,775,237.
Raymond, David L., and Spooner. 2,775,293.

Hurwitz, Marvin J.: *See*—
De Benneville, Peter L., and Hurwitz. 2,775,605.

Hyde, Robert W.: *See*—
Bevins, James E., and Hyde. 2,775,442.

Hynes, Lee P., to Turbine Equipment Co. Electric fluid heater. 2,775,682, 12–25–56, Cl. 219—38.

I-T-E Circuit Breaker Co.: *See*—
Geiger, William C., Jr. 2,775,670.
Scott, William M., Jr. 2,775,642.
Scott, William M., Jr. 2,775,643.

Ilfrey, William T.: *See*—
Abendroth, Guss F., Ilfrey, and Tausch. 2,775,303.

Illinois Tool Works: *See*—
Pomeranski, Henry. 2,775,041.

Imse, Philip J., and E. E. Swanson, to Chain Belt Co. Spring clip for sprocket chains. 2,775,156, 12–25–56, Cl. 85—8.8.

Inden, Eduard. Shipping container. 2,775,364, 12–25–56, Cl. 220—97.

Ingersoll, James H., J. A. White, W. W. Kovalick, M. Hegyi, N. A. Ruisard, and L. L. Levitt, to Borg-Warner Corp. Automatic polishing machine. 2,775,073, 12–25–56, Cl. 51—97.

Ingham, George G. Duplex film rack support and drip tray. 2,775,173, 12–25–56, Cl. 95—100.

Inland Steel Products Co.: *See*—
Hermann, Leroy N. 2,775,284.

Inoue, Hailme. Spaghetti and noodle scoop. 2,775,477, 12–25–56, Cl. 294—49.

International Business Machines Corp.: *See*—
Cunningham, James M. 2,775,247.
Cushman, John E. 2,775,587.
Leathers, Ward, Mazur, and Weaver. 2,775,129.
Rubidge, David W., Natvig, and Huling. 2,775,296.

International Harvester Co.: *See*—
Bardwell, Howard F., and May. 2,775,190.
Harstick, William H. 2,775,665.
Johnson, Samuel G., Jr. 2,775,007.
Rugg, B. Melvin. 2,775,293.
Zahn, Karl M. 2,775,151.

International Resistance Co.: *See*—
Young, Walter N. 2,775,440.

International Standard Electric Corp.: *See*—
Beck, Arnold H. W., Jackson, and Lytollis. 2,775,722.
Pocock, Lyndall C., and Beadle. 2,775,649.

Interstate Rag Co.: *See*—
Stamm, Harford K., and Thompson. 2,775,171.

Isborn, Carl L., to The National Cash Register Co. Ferroresonant flip-flop circuit. 2,775,713, 12–25–56, Cl. 307—88.

Israel, John O., to Bell Telephone Laboratories Inc. Frequency controlled oscillation system. 2,775,701, 12–25–56, Cl. 250—36.

Iscarlis, Morris D. Rotating bin feeder. 2,775,371, 12–25–56, Cl. 222—103.

Ivory, Verne. Track laying belt for a crawler type vehicle. 2,775,491, 12–25–56, Cl. 305—9.

Jackson, Thomas M.: *See*—
Beck, Arnold H. W., Jackson, and Lytollis. 2,775,722.

Jakes, William C., Jr., to Bell Telephone Laboratories, Inc. Microwave antenna system. 2,775,761, 12–25–56, Cl. 343—834.

Janovic, John P.: *See*—
Yost, Albert G. 2,775,273.

Janson, Stefan K., to the Minister of Supply in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Pivoted breech bolt lock for gas piston firearms. 2,775,106, 12–25–56, Cl. 89—191.

Jarman-Williamson Co.: *See*—
Williamson, Norman B. 2,775,464.

Jarmon, Jake B., Jr.: *See*—
Roberts, Roy J. 2,775,068.

Jefferson Chemical Co., Inc.: *See*—
Bell, John B., Jr. 2,775,623.

Jeremiah, Earl, to United Can and Glass Co. Can unscrambler. 2,775,334, 12–25–56, Cl. 198—30.

Jessup, Wilbur F., to The Cincinnati Milling Machine Co. Booster for template controlled truing mechanism. 2,775,235, 12–25–56, Cl. 125—11.

Johnson, Frank G. Resistor. 2,775,673, 12–25–56, Cl. 201—63.

Johnson, Gerald E.: *See*—
Johnson, Richard L. and G. E. 2,775,351.

Johnson & Johnson: *See*—
Schwartz, Morris A., and Fisher. 2,775,410.

Johnson, Richard L. and G. E. Gun rack for automobile seats. 2,775,351, 12–25–56, Cl. 211—64.

Johnson, Samuel G., Jr., to International Harvester Co. Mold assembly device. 2,775,007, 12–25–56, Cl. 22—37.

Johnson, Thomas H., and A. J. Mueller to Harris-Seybold Co. Plate clamp. 2,775,198, 12–25–56, Cl. 101—416.1.

Jones, Hugh A. Filters. 2,775,350, 12–25–56, Cl. 210—157.

Jones, Jennings H.: *See*—
Fenske, Merrell R., and Jones. 2,775,633.

Jones, Thomas G.: *See*—
Hamner, Glen P., and Jones. 2,775,575.
Hamner, Glen P., Jones, McDaniel, and Fuqua. 2,775,576.

Jonker, Johan L. H., and G. Diemer, to Hartford National Bank and Trust Co., as trustee. Circuit for frequency transformation of high-frequency oscillations. 2,775,690, 12–25–56, Cl. 250—20.

Jordan, Jack P., to Crown Cork & Seal Co., Inc. Protective cover for dispensing containers. 2,775,372, 12–25–56, Cl. 222—182.

Jorgensen, Roy C., to The Dow Chemical Co. Galvanic anode installation. 2,775,554, 12–25–56, Cl. 204—197.

Junod, Samuel: *See*—
Beuchat, Roland, and Junod. 2,775,011.

Kabelitz, Hans, to Gebrüder Sucker G. m. b. H. Methods and apparatus for the processing of textile materials. 2,775,046, 12–25–56, Cl. 34—23.

Kadlec, Ladislav, to American Machine and Metals, Inc. Liquid filled magnetic compass. 2,775,045, 12–25–56, Cl. 33—223.

Kahan, George J., to Sprague Electric Co. Electrolytic etching process for electrolytic capacitors. 2,775,553, 12–25–56, Cl. 204—141.

Kaiser Aluminum & Chemical Corp.: *See*—
Austin, Leslie W., and Hicks. 2,775,525.
Austin, Leslie W., and Hicks. 2,775,526.
Austin, Leslie W., and Hicks. 2,775,527.

Kapp, Roland: *See*—
Schaaf, Kurt H., and Kapp. 2,775,626.

Kapusnyk, Frank. Boat having multiple floats. 2,775,218, 12–25–56, Cl. 114—61.

Karcher, Harry C., to General Motors Corp. Engine extension shaft. 2,775,104, 12–25–56, Cl. 64—4.

Karl, Alfred. Process for dehydrating of tar. 2,775,541, 12–25–56, Cl. 196—5.

Kasdan, Nathan, to Majestic Metal Specialties, Inc. Ladies' handbag. 2,775,280, 12–25–56, Cl. 150—28.

Kasdan, Nathan. Metal bound box or basket. 2,775,361, 12–25–56, Cl. 220—4.

Katz, Leon: *See*—
Puetzer, Bruno, Katz, and Horwitz. 2,775,560.

Kayat, Elias, to Continental Can Co., Inc. Handle attachment for paper cups. 2,775,382, 12–25–56, Cl. 229—1.5.

Kelbel, Donald W.: *See*—
Orr, Palmer, and Kelbel. 2,775,132.

Kelbel, Donald W., to Borg-Warner Corp. Transmission. 2,775,144, 12–25–56, Cl. 74—769.

Kelley, George G.: *See*—
Bell, Peter R., Kelley, and Goss. 2,775,696.

Kellogg, M. W., Co., The: *See*—
Dipner, Charles D., Teeters, and Wrightson. 2,775,569.
Dittman, Albert L., and Wrightson. 2,775,616.
Nathan, Marvin F., Lobo, and Skaperdas. 2,775,551.

Kelly, Earl M., and A. M. Rivari, to Process Engineers Inc. Apparatus and method for liquid treatment and clarification. 2,775,556, 12–25–56, Cl. 210—16.

Kelly, Winton J.: *See*—
Brown, Lowell R., and Kelly. 2,775,760.

Kennedy, Charles J., to Radio Corp. of America. Web motion sensor. 2,775,753, 12–25–56, Cl. 340—259.

Kennedy, Charles T. Vehicle wheel. 2,775,282, 12–25–56, Cl. 152—158.

Kennedy, Gertrude E., and J. Hawkins, to R. E. Cunningham. Bobby pin holder. 2,775,243, 12–25–56, Cl. 132—1.

Kernahan, John J. J., and J. C. Lozier, to Bell Telephone Laboratories, Inc. Digital to analogue converter with digital feedback control. 2,775,727, 12–25–56, Cl. 318—20.

Kesling, Harold D. Apparatus for and method of forming teeth positioning appliances. 2,775,036, 12-25-56, Cl. 32—14.

Kiekert, Friedrich W. Sliding doors. 2,774,998, 12-25-56, Cl. 20—24.

Kimberlin, Charles N., Jr., and R. W. Kreps, to Esso Research and Engineering Co. Conversion of hydrocarbons in the presence of inert solids. 2,775,546, 12-25-56, Cl. 196—50.

King, Edward P., 30% to C. Daniel, 30% to R. W. Peterson, and 10% to Elgin Milk Products Co., Inc. Anti-foam filler means. 2,775,486, 12-25-56, Cl. 299—144.

Kirby, Thomas G., to Ford Motor Co. Dynamometry. 2,775,119, 12-25-56, Cl. 72—134.

Kirkpatrick, Willard H., to Visco Products Co. Process and device for inhibiting corrosion in wells. 2,775,302, 12-25-56, Cl. 166—1.

Kistner, Merrill M., to Steam Iron Corp. Cord connector for electric irons. 2,775,681, 12-25-56, Cl. 219—25.

Kitto, William H.: *See*—
McMaster, Archie J., and Kitto. 2,775,075.

Kivari, Arthur M.: *See*—
Kelly, Earl M., and Kivari. 2,775,556.

Kleinknecht, George M., to Woodco Corp. Locking mechanism for awning type windows. 2,775,000, 12-25-56, Cl. 20—42.

Kleinsway, Inc.: *See*—
Freund, Benjamin E. 2,775,417.

Kleist, Herman W., to Dole Refrigerating Co. Heat exchangers for vaporizing liquid refrigerant. 2,775,683, 12-25-56, Cl. 219—39.

Knebel, Herman C., to S. H. Pomeroy Co., Inc. Metallic window sash. 2,775,235, 12-25-56, Cl. 189—76.

Knight, John J.: *See*—
Loss, Edward G. 2,775,140.

Knol, Kornelis S., and G. de Vries, to Hartford National Bank and Trust Co., as trustee. Device for amplitude modulation of ultra short waves. 2,775,739, 12-25-56, Cl. 332—57.

Knoll, Paul H., and S. J. Koslowski. Signal for fishing rods. 2,775,053, 12-25-56, Cl. 43—17.

Koble, Robert A., and F. T. Sherk, to Phillips Petroleum Co. Hydrocarbon separation. 2,775,103, 12-25-56, Cl. 62—123.

Köthel, Herbert, and P. Ackermann, to Rheinpreussen Aktiengesellschaft für Bergbau und Chamie. Reactivation of catalysts. 2,775,607, 12-25-56, Cl. 260—449.6.

Koligaard, Reyner, to Houdry Process Corp. Hydrocarbon conversion system. 2,775,548, 12-25-56, Cl. 196—52.

Kollman, Jack, and W. A. Beck, to Ekco-Alcoa Containers, Inc. Food packaging assembly. 2,775,283, 12-25-56, Cl. 229—3.5.

Kummer, Fred A., to ACF Industries, Inc. Carburetor accelerating pump with gas vent. 2,775,435, 12-25-56, Cl. 261—34.

Kommer, Fred A., to ACF Industries, Inc. Throttle actuated starter switch device. 2,775,711, 12-25-56, Cl. 290—38.

Kool Vent Metal Awning Corp. of America: *See*—
Tate, William F. 2,775,324.

Koppers Co., Inc.: *See*—
Harlow, Earl V. 2,775,550.
Leithäuser, Heinz, Linder, and Sattler. 2,775,512.

Kosmowich, John. Fish bobber attachment. 2,775,059, 12-25-56, Cl. 43—44.86.

Kottmann, Arthur A., to American Machine & Foundry Co. Mechanism for controlling the tightness of the wrap in a wrapping machine. 2,775,085, 12-25-56, Cl. 53—210.

Kovalick, Walter W.: *See*—
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Koslowski, Stanley J.: *See*—
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Kranc, Casimir, to Victrylite Candle Co. Vaporizing apparatus. 2,775,066, 12-25-56, Cl. 21—117.

Krantz, Hannah: *See*—
Tuck, James A. 2,775,296.

Krantz, Leon: *See*—
Tuck, James A. 2,775,296.

Krantz, Louis: *See*—
Tuck, James A. 2,775,296.

Krassowski, Peter. Baseboard heater. 2,775,431, 12-25-56, Cl. 257—133.

Kraus, Ludwig, and J. Gaambo, to Daimler-Benz Aktiengesellschaft. Wheel suspension for motor vehicles. 2,775,467, 12-25-56, Cl. 280—124.

Krause, Frank R., to The McKay Machine Co. Apparatus for tapering the ends of spring leaves and the like. 2,775,152, 12-25-56, Cl. 80—40.

Krebs, Robert W.: *See*—
Kimberlin, Charles N., Jr., and Krebs. 2,775,546.

Kruck, Eugene. Dog bed. 2,775,222, 12-25-56, Cl. 119—1.

Kuba, Samuel: *See*—
Granberry, Doyle S., and Kuba. 2,775,676.

Kundert, Alex. Detachable link strap of synthetic plastic material. 2,775,066, 12-25-56, Cl. 59—80.

Kurvers, Robert J., and G. F. Scheller, to Lockheed Aircraft Corp. Retractable caster with brake. 2,775,813, 12-25-56, Cl. 188—2.

Kylie, Herman. Tiltable front drawer panel. 2,775,501, 12-25-56, Cl. 312—320.

Laheda, Alfred, to Gesellschaft fuer Linde's Eismaschinen Aktiengesellschaft. Double action pumps. 2,775,211, 12-25-56, Cl. 103—175.

Lahr, Harold R., to United Air Lines, Inc. Navigational computers. 2,775,404, 12-25-56, Cl. 235—61.

Lanning, Harry J., to the United States of America as represented by the Secretary of the Navy. Shaft positioning device. 2,775,127, 12-25-56, Cl. 74—10.29.

Laing, Nikolaus. Sequentially feeding brush holder for commutator type electrical machines. 2,775,717, 12-25-56, Cl. 310—246.

Lakata, George D.: *See*—
Wimmer, Ernest L., and Lakata. 2,775,540.

Lanning, William C., and E. J. Hogan, to Phillips Petroleum Co. Purification of olefin-containing hydrocarbon streams. 2,775,637, 12-25-56, Cl. 260—683.15.

Lansu, Joseph F.: *See*—
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Larkin, Sam. Lifting apparatus for upright bowling pins. 2,775,464, 12-25-56, Cl. 273—42.

Lavender, Harrison M., Jr., to California Research Corp. Extractive distillation process for recovering aromatics. 2,775,627, 12-25-56, Cl. 260—668.

Lawrence, Leonard: *See*—
Goliobin, William. 2,775,014.

Lax, Ladislav: *See*—
Weighton, Donald, and Lax. 2,775,654.

Lazich, Branko, to Westinghouse Air Brake Co. Electrical relays. 2,775,666, 12-25-56, Cl. 200—104.

Leaphart, Noah C., Sr. Coupling pin for separable parts having spring urged pivotal locking plate thereon. 2,775,154, 12-25-56, Cl. 85—3.

Leathers, Ward, W. E. Mazur, and J. G. Weaver, said Leathers assor. to International Business Machines Corp. Traverse gear box. 2,775,139, 12-25-56, Cl. 74—426.

Lebedeff, Yurii E., J. M. Stone, and P. W. von Stein, to American Smelting and Refining Co. Selenium dioxide volatilization process. 2,775,509, 12-25-56, Cl. 23—139.

Lee, Cora A.: *See*—
Lee, George E. 2,775,114.

Lee, George E., deceased; C. A. Lee, administratrix of said G. E. Lee. Combination lock. 2,775,114, 12-25-56, Cl. 70—133.

Leff, Benjamin. Three dimensional polvimetor. 2,775,040, 12-25-56, Cl. 33—174.

Legge, Elmer E., and E. J. Stephens, to Emhart Mfg. Co. Useing machine load measuring system. 2,775,118, 12-25-56, Cl. 73—88.5.

Lehde, John W., Jr.: *See*—
Better, Bernard E., and Lehde. 2,775,326.

Leithäuser, Heinz, W. Linder, and E. Sattler, to Koppers Co., Inc. Apparatus for the production of hydrocarbons. 2,775,512, 12-25-56, Cl. 23—288.

Leitner, Irving A.: *See*—
Leitner, Lionel J. and I. A. 2,775,355.

Leitner, Lionel J. and I. A. Cargo carrier. 2,775,355, 12-25-56, Cl. 214—38.

Lenner, Sandro. Draw-plate for alimentary paste formed into long shapes. 2,775,214, 12-25-56, Cl. 107—14.

Leone, Vincent D. Sample receiving projectile for side wall core sampler. 2,775,427, 12-25-56, Cl. 255—1.4.

Lessmann, Herbert F., to A. C. Anderson, Inc. Loader machine. 2,775,356, 12-25-56, Cl. 214—140.

Levitt, Leo L.: *See*—
Ingersoll, James H., White, Kovalick, Hegyi, Ruisard, and Levitt. 2,775,073.

Levy, Paul M.: *See*—
Bracy, Sylvanus B., Levy, and Sarlo. 2,775,756.

Libbey-Owens-Ford Glass Co.: *See*—
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Wampler, Roy W. 2,775,028.

Liberti, Ralph J. Ambidextrous bat. 2,775,455, 12-25-56, Cl. 273—72.

Libra, Mary J. Playground device. 2,775,452, 12-25-56, Cl. 272—1.

Liebman, Joseph N., and T. N. Ryon. Reel strip-end fastener. 2,775,413, 12-25-56, Cl. 242—74.

Light, Leon H.: *See*—
Crowther, Gerald O., and Light. 2,775,723.

Lincoln, Clovis W., R. M. Gold, and H. D. Spiekerman, to General Motors Corp. Neutral safety and back-up light switch. 2,775,664, 12-25-56, Cl. 200—61.54.

Linder, Willy: *See*—
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Lindner, Joseph. Mailing envelope. 2,775,396, 12-25-56, Cl. 229—73.

Lobenthal, Michael S.: *See*—
Harris, Frederic R. 2,775,095.

Lober, Friedrich, O. Bayer, M. Bögemann, and P. Schneider. Rubbery polymers plasticised with thio derivatives of polychlorobenzenes. 2,775,668, 12-25-56, Cl. 260—30.8.

Lober, Friedrich, O. Bayer, M. Bögemann, and P. Schneider. Rubbery diene polymers plasticised with chlorine-substituted mercaptals. 2,775,630, 12-25-56, Cl. 260—761.

Lobo, Walter E.: *See*—
Nathan, Marvin F., Lobo, and Skaperdas. 2,775,551.

Lockhead, John L., to the United States of America as represented by the Secretary of the Army. Firing mechanism. 2,775,166, 12-25-56, Cl. 89—139.

Lockheed Aircraft Corp.: *See*—
Bonell, William H., and Ledwig. 2,775,116.
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Kurvers, Robert J., and Scheller. 2,775,813.

Long, Robert R., J. A. Carver, C. H. Holder, and J. R. Felix, to Esso Research and Engineering Co. Liquid-liquid contacting tower. 2,775,543, 12-25-56, Cl. 196—14.52.

Loos, Edward G., to J. J. Knight. Intermittent drive mechanism. 2,775,140. 12-25-56, Cl. 74—665.

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Kernahan, John J. J., and Lozier. 2,775,727.

Lucas, Alexander H., Jr., to Continental Can Co., Inc. Composite can with quick-opening side wall. 2,775,394, 12-25-56, Cl. 220—61.

Ludeman, Clifford G., to Texaco Development Corp. Method of radiological surveying. 2,775,719, 12-25-56, Cl. 250—71.

Ludgate, Herbert T. Device for jettisoning snagged fishhooks. 2,775,697, 12-25-56, Cl. 43—43.12.

Ludwig, Boyd R.: *See*—
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Lurton, Howard M., and L. C. Westcott, to Shell Development Co. Corrosion inhibiting lubricating compositions. 2,775,560, 12-25-56, Cl. 252—48.6.





Lyman, John E., to William Cotton Ltd. Knitting machine. 2,775,110, 12-25-56, Cl. 66—157.

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Beck, Arnold H. W., Jackson, and Lytollis. 2,775,722.

MacCallum, Alan M., C. M. Perkins, and A. Bennett. Phase comparison system. 2,775,712, 12-25-56, Cl. 307—73.

MacDonald, Robert N.: *See*—
Barkdoll, Archie E., and MacDonald. 2,775,570.

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Herlach, Heinrich. 2,775,143.

MacLean, Alexander F., and A. L. Stautzenberger, to Celanese Corp. of America. Hydrogenation of formaldehyde condensation products. 2,775,621, 12-25-56, Cl. 260—635.

MacLeod, David E., to Carrier Corp. Ice cube maker and control mechanism therefor. 2,775,098, 12-25-56, Cl. 62—7.

MacMillan, Charles W., to Bear Mfg. Co. Device for aligning plates in parallel. 2,775,042, 12-25-56, Cl. 33—180.

Madey, Richard, to the United States of America as represented by the United States Atomic Energy Commission. Crystal diode coincidence circuit. 2,775,697, 12-25-56, Cl. 250—27.

Magram, Sidney J., to the United States of America as represented by the Secretary of the Army. Method of colored clouds by explosive dispersion. 2,775,515, 12-25-56, Cl. 52—23.

Mahan, John E., to Phillips Petroleum Co. Production of substituted pyridines. 2,775,596, 12-25-56, Cl. 260—290.

Majestic Metal Specialties, Inc.: *See*—
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Mallinckrodt Chemical Works: *See*—
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Mancke, Edgar B., to Bethlehem Steel Co. Processes for treating nickel bearing iron ores. 2,775,517, 12-25-56, Cl. 75—1.

Mandel, Paul, to Societe Nouvelle de L'Outillage R. B. V. et de la Radio-Industrie (R. B. V.-R. I.). Picture analysis and recording devices. 2,775,644, 12-25-56, Cl. 178—7.2.

Manne, Richard S.: *See*—
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Mansmann, Raymond P. Insulated door structures for refrigerator trucks. 2,774,999, 12-25-56, Cl. 20—35.

Mantegna, Arturo. Seat cushions. 2,775,287, 12-25-56, Cl. 155—179.

Mariani, Frank: *See*—
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Markusen, David L., to Minneapolis-Honeywell Regulator Co. Flight path control apparatus. 2,775,421, 12-25-56, Cl. 244—77.

Martens, Günter, to Hartford National Bank and Trust Co., as trustee. High-frequency generators. 2,775,704, 12-25-56, Cl. 250—36.

Martin, Hermann H. Method of dampening a lithographic plate or stone and a damping roller for use in that connection. 2,775,195, 12-25-56, Cl. 101—148.

Maruhn, Herbert F. W., and E. Gruhler, to Daimler-Benz Aktiengesellschaft. Floating wheel type brake. 2,775,315, 12-25-56, Cl. 188—78.

Maslan, Frank, to National Research Corp. Separation of ethylene oxide from a gaseous mixture containing same. 2,775,600, 12-25-56, Cl. 260—348.

Mason, Warren P., and R. N. Thurston, to Bell Telephone Laboratories, Inc. Ferroelectric recording and reproduction of speech. 2,775,650, 12-25-56, Cl. 179—100.1.

Mason, Warren P., and W. Shockley, to Bell Telephone Laboratories, Inc. Negative resistance amplifiers. 2,775,658, 12-25-56, Cl. 179—171.

Masonite Corp.: *See*—
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Massey-Harris-Ferguson (Sales) Ltd.: *See*—
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Chambers, John M., and McNeice. 2,775,179.
Senkowski, Alexander, and Cooper. 2,775,308.

Mastella, Louis, to Wm. Wrigley, Jr. Co. Mechanism for applying indicia to packages or the like. 2,775,193, 12-25-56, Cl. 101—37.

Mateles, Michael, and P. F. Widmer, to Hoffmann-La Roche Inc. Method of fortifying grain products and the resulting product. 2,775,521, 12-25-56, Cl. 99—11.

Matheny, William F. Finned tube spacing supports. 2,775,433, 12-25-56, Cl. 257—262.16.

Mauskopf, Irving. Walking doll with adjustable hip joints. 2,775,063, 12-25-56, Cl. 46—149.

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Minton, Clarence W., and O'Hara. 2,775,106.

May, Patrick L.: *See*—
Bardwell, Howard F., and May. 2,775,190.

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McCarthy, Timothy F. Cutter head for driving crosscuts. 2,775,439, 12-25-56, Cl. 262—19.

McClure, Robert: *See*—
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McClurkin, Cloise M. Air circulating door for refrigerator. 2,775,187, 12-25-56, Cl. 98—36.

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Shapiro, Sydney H., and McCorkle. 2,775,617.

McCown, William E., and H. M. Alexander, to Libbey-Owens-Ford Glass Co. Method of draining melting tanks. 2,775,071, 12-25-56, Cl. 49—77.

McCurdy, John L., and C. E. De Long, to The Dow Chemical Co. Process for making elongated cellular articles from thermoplastic polymers. 2,774,991, 12-25-56, Cl. 18—48.

McDaniel, Joseph A., Jr.: *See*—
Hamner, Glen P., Jones, McDaniel, and Teague. 2,775,576.

McDonough, Paul F. Concrete form structure. 2,775,017, 12-25-56, Cl. 25—118.

McDuffee, John K., to Western Electric Co., Inc. Metal to glass sealing fixture. 2,775,063, 12-25-56, Cl. 49—1.

McElgin, John W., to John J. Nesbitt, Inc. Apparatus for air conditioning. 2,775,432, 12-25-56, Cl. 257—157.

McElligott, Edward M., to Swedish Crucible Steel Co. Process of producing pearlescent plastic articles. 2,774,992, 12-25-56, Cl. 18—55.

McEvoy, Francis J.: *See*—
Baker, Bernard R., and McEvoy. 2,775,597.

McEwan, James. Saw sharpener. 2,775,146, 12-25-56, Cl. 76—79.

McIntser, Berthus B.: *See*—
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McKillop, Clinton J., [redacted] Dispensing apparatus. 2,775,270, 12-25-56, Cl. 141—373.

McKinley, Boyd R. Formation tester with pressure equalising means. 2,775,306, 12-25-56, Cl. 166—149.

McKinney, Leonard L., J. C. Cowan, and C. D. Evans, to the United States of America as represented by the Secretary of Agriculture. Coating composition stabilised with a cyanoethylated protein. 2,775,565, 12-25-56, Cl. 260—8.

McLaughlin, James A. Concrete spacer tie rod. 2,775,018, 12-25-56, Cl. 25—131.

McLay, Gavin S., to Stewarts and Lloyds Ltd. Pilger mill apparatus. 2,775,150, 12-25-56, Cl. 80—14.

McLean, Philip S. Suit hanger. 2,775,378, 12-25-56, Cl. 223—91.

McMaster, Archie J., and W. H. Kitto, to G-M Laboratories, Inc. Knife sharpener. 2,775,075, 12-25-56, Cl. 51—128.

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Abel, Frederick, and McNeill. 2,775,067.

Meder, William A. Wall switch extension. 2,775,674, 12-25-56, Cl. 200—172.

Meewes, Edward A., to Chain Belt Co. Tandem axle bogie for automotive vehicles. 2,775,466, 12-25-56, Cl. 280—104.5.

Meldrum, Edward C., and A. E. Roper, to The Monotype Corp. Ltd. Pump mechanism for type casting machines. 2,775,009, 12-25-56, Cl. 22—70.

Mellor Bromley & Co. Ltd.: *See*—
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Sprague, James M., and Engelhardt. 2,775,608.

Mestman, Percy W., and J. J. Ross. Bag dispenser. 2,775,365, 12-25-56, Cl. 221—44.

Metal Textile Corp.: *See*—
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Metrogram Corp. of America: *See*—
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Meyer, Jean G. A. M. J., to S. A. T. A. M. Societe Anonyme pour Tous Appareillages Mecaniques. Fluid distributing and metering apparatus. 2,775,367, 12-25-56, Cl. 222—20.

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Miller Mfg. Co.: *See*—
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Miller-William E. Automobile washing means. 2,775,485, 12-25-56, Cl. 299—121.

Millies, Henry. Drop delivery type poultry fountain. 2,775,227, 12-25-56, Cl. 119—72.5.

Milliken, Thomas H., Jr., G. A. Mills, and A. G. Oblad, to Houdry Process Corp. Catalytic polymerization of olefins. 2,775,638, 12-25-56, Cl. 260—683.15.

Millington, John H. T., to Westinghouse Electric Corp. Sealing machine for tubular lamps. 2,775,060, 12-25-56, Cl. 49—2.

Mills, George A.: *See*—
Milliken, Thomas H., Jr., Mills, and Oblad. 2,775,638.

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Wilson, John M. 2,775,291.

Minton, Clarence W., and J. G. O'Hara, to May Hosiery Mills. Dial racking mechanism. 2,775,106, 12-25-56. Cl. 66—24.

Mintz, Henry, to New England Bedding Co. Convertible sofa. 2,774,977. 12-25-56, Cl. 5—12.

Mitchell, Reginald F. Optical angle setting and aligning device. 2,775,158, 12-25-56, Cl. 88—2.8.

Mitchell, Theodore. Paint spray device. 2,775,481, 12-25-56, Cl. 299—58.





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Mitsui Shipbuilding & Engineering Co. Ltd.: *See*—
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Montgomery, Earle T., A. P. Welch, and J. L. Bitonte, to The Ohio State University Research Foundation. Method of coating a metal surface. 2,775,531, 12–25–56, Cl. 117—22.
Monthan, Carl. Tree and shrub field balling machine. 2,775,428, 12–25–56, Cl. 255—19.
Moorehouse, Richard, to Flex-O-Laters, Inc. Retractable furniture wheel. 2,774,986, 12–25–56, Cl. 16—34.
Moran, Harold J., to Switlik Parachute Co., Inc. Life jacket. 2,774,979, 12–25–56, Cl. 9—19.
Moreland, Clifford D. Convertible chair. 2,775,285, 12–25–56, Cl. 155—38.
Morgan, Russell L., to American Cyanamid Co. Drilling muds containing acrylic acid-acrylamide copolymer salts. 2,775,557, 12–25–56, Cl. 252—8.5.
Morin, Louis H. Method of assembling sliders with pulls and with separable fastener stringers. 2,775,027, 12–25–56, Cl. 29—408.
Morison, William J., and R. F. Cronin, said Cronin assignor to Stratstone Ltd. Apparatus for cleaning vehicles. 2,774,980, 12–25–56, Cl. 15—21.
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Morrell, Jacque C. Cosmetic package. 2,775,247, 12–25–56, Cl. 132—79.
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Morrisey, Edward J., Jr., and H. A. Richards, to Abbott Laboratories. Gas valve. 2,775,240, 12–25–56, Cl. 128—214.
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Stelljes, Charles R. 2,775,329.
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Purcell, Edward M. 2,775,737.
Zinke, Willard L. 2,775,443.
Neal, Earl S. Dispenser. 2,775,213, 12–25–56, Cl. 107—14.
Neier, Reinhard, C. Petitjean, and W. Wehrli, to Sandoz A. G. Metal-containing azo dyestuffs. 2,775,581, 12–25–56, Cl. 260—145.
Nelson, Axel B., E. G. Schmidt, and R. H. Ziskil, to Crane Co. Flapper discharge valve for flush tanks. 2,774,972, 12–25–56, Cl. 4—57.
Nelson, Edwin K., to Standard Coil Products Co. Inc. Cascode circuits. 2,775,659, 12–25–56, Cl. 179—171.
Nerenberg, Robert W., to The Bergstein Packaging Trust, a trust composed of R. M. and F. D. Bergstein, trustees. Pouring opening for containers. 2,775,388, 12–25–56, Cl. 229—17.
Nesbitt, John J., Inc.: *See*—
McElgin, John W. 2,775,432.
New Britain Machine Co., The: *See*—
Stephan, Hallis N. 2,775,190.
New England Bedding Co.: *See*—
Mintz, Henry. 2,774,977.
New England Lead Burning Corp.: *See*—
Weiss, Karl E. 2,775,060.
New Products Corp.: *See*—
Banker, Oscar H. 2,775,105.
Newstedt, Harry N., to Automatic Electric Laboratories, Inc. Automatic toll ticketing telephone system. 2,775,648, 12–25–56, Cl. 179—18.
Newton, J. B. Fountain comb. 2,775,251, 12–25–56, Cl. 132—116.
Nicholson, Daniel E., and R. H. Perry, Jr., to Esso Research and Engineering Co. Isomerisation of xylenes. 2,775,628, 12–25–56, Cl. 260—668.
Nopco Chemical Co.: *See*—
Schaaf, Kurt H., and Kapp. 2,775,626.
Norberg, Oscar E., to Avco Mfg. Corp. Beverage conditioner. 2,775,430, 12–25–56, Cl. 257—3.
North American Aviation, Inc.: *See*—
Gardner, Frederick H., Elms, and Rosenstock. 2,775,124.
Smith, Robert E., and Wuerth. 2,775,122.
North American Rayon Corp.: *See*—
Graybeal, La Verne E., and Edgar. 2,775,091.
Norton, Robert K., to Harris-Seybold Co. Gripper mechanism. 2,775,197, 12–25–56, Cl. 101—409.
Nowlin, Gene, to Phillips Petroleum Co. Removal of acetylene from olefins by selective hydrogenation. 2,775,634, 12–25–56, Cl. 260—677.
Oblad, Alex G.: *See*—
Milliken, Thomas H., Jr., Mills, and Oblad. 2,775,638.
O'Brien, Neville C.: *See*—
French, George F. and E. 2,775,265.
O'Hara, John G.: *See*—
Minton, Clarence W., and O'Hara. 2,775,106.
Ohio State University Research Foundation, The: *See*—
Montgomery, Earle T., Welch, and Bitonte. 2,775,531.
Okrent, Jasper J., to Haseltine Research, Inc. Test equipment for a high-frequency transmitter and receiver. 2,775,759, 12–25–56, Cl. 343—17.7.
Oliver, Bernard M., to Bell Telephone Laboratories, Inc. Directional coupling systems. 2,775,740, 12–25–56, Cl. 333—10.
Oliwa, Walter S.: *See*—
Hall, George V., and Oliwa. 2,775,403.
Olson, Harry M. Flag display means. 2,775,221, 12–25–56, Cl. 116—173.
Olson, Holly M., to Sealed Power Corp. Spacer for piston rings. 2,775,495, 12–25–56, Cl. 309—44.
Olympia Werke A.G.: *See*—
Wöhlbier, Günther. 2,775,832.
Orr, Palmer, and D. W. Kelbel, to Borg-Warner Corp. Power steering mechanism. 2,775,132, 12–25–56, Cl. 74—388.
Osborne, Lloyd M., and O. J. Garant. Stapling machine. 2,774,968, 12–25–56, Cl. 1—44.4.
Ott, Arnold C.: *See*—
Babcock, John C. and Ott. 2,775,602.
Otto, Carl A., to H. Fishlove & Co. Toy magnetic novelty. 2,775,064, 12–25–56, Cl. 46—242.
Oxenrider, Ellis C. Hygienic dental package. 2,775,250, 12–25–56, Cl. 132—84.
Package Machinery Co.: *See*—
Rawson, Emanuel, and Pellar. 2,775,224.
Paillard S. A.: *See*—
Thévenaz, Jean. 2,775,161.
Paper Mate Mfg. Co.: *See*—
Schrader, Clarence O. 2,775,026.
Papworth, Walter A. Portable power driven reciprocable cutting tool. 2,775,272, 12–25–56, Cl. 143—68.
Parhaniemi, Leonard J.: *See*—
Parhaniemi, Osmo E. 2,775,152.
Parhaniemi, Osmo E., ¼ to L. J. Parhaniemi. Stud drivers and pullers. 2,775,153, 12–25–56, Cl. 81—53.
Park, Dan M.: *See*—
Stavenau, Harold L., and Park. 2,775,446.
Parkhurst, Alfred: *See*—
Webber, George M. 2,775,242.
Parshall, Millis V.: *See*—
Schjolin, Hans O., Gwatney, and Parshall. 2,775,330.
Parsons, James R., and D. A. Fiszel, to Phillips Petroleum Co. Mass spectrometer. 2,775,708, 12–25–56, Cl. 250—41.5.
Paschall, Eugene F., to Corn Products Refining Co. Preparation of starch sulfate esters. 2,775,586, 12–25–56, Cl. 260—233.5.
Pascoe, Frank T., to Westinghouse Air Brake Co. Combined manual and automatic route control system for railroads. 2,775,669, 12–25–56, Cl. 246—2.





Paston, Louis. Coded envelope to facilitate sorting. 2,775,405, 12–25–56, Cl. 235—61.12.
Patrick, Tracy M., Jr., to Monsanto Chemical Co. Polyhalogenated polycarbomylates. 2,775,615, 12–25–56, Cl. 260—488.
Peaceman, Donald W., to Esso Research and Engineering Co. Mass flow meter. 2,775,125, 12–25–56, Cl. 73—194.
Pedlow, John W., to American Viscose Corp. Spinning regenerated cellulose filaments. 2,775,505, 12–25–56, Cl. 18—54.
Pedrero, Edelmira. Pivoted clamp. 2,775,013, 12–25–56, Cl. 24—249.
Pellar, Marshall M.: *See*—
Rawson, Emanuel, and Pellar. 2,775,224.
Pennant Corp.: *See*—
Weiner, Meyer C. 2,775,389.
Peras, Lucien J., to Regie Nationale Des Usines Renault. Adjustable control device with timing system. 2,775,129, 12–25–56, Cl. 74—125.5.
Perkins, Cories M.: *See*—
MacCallum, Alan M., Perkins, and Bennett. 2,775,712.
Perrelli, Joseph, to Filper Corp. Drape pitter. 2,775,279, 12–25–56, Cl. 146—28.
Perry, Robert H., Jr.: *See*—
Nicholson, Daniel E., and Perry. 2,775,628.
Peterman, Earl A. High pressure centrifugal pump. 2,775,207, 12–25–56, Cl. 103—109.
Peterson, Glen, to Well Surveys, Inc. Multiple trace recorder. 2,775,503, 12–25–56, Cl. 346—109.
Peterson, Reuben W.: *See*—
King, Edward P. 2,775,488.
Peterson, Victor W., to General Motors Corp. Clutch with coolant metering. 2,775,331, 12–25–56, Cl. 192—113.
Petitjean, Charles: *See*—
Neier, Reinhard, Petitjean, and Wehrli. 2,775,581.
Petitta, Mario, to Chairol Inc. Devices for dyeing, bleaching, and cool wave permanent curling of hair. 2,775,244, 12–25–56, Cl. 132—32.
Petrick, Richard F.: C. H. Everett, guardian of said R. F. Petrick, incompetent. Boll treating and weed destroying apparatus. 2,775,174, 12–25–56, Cl. 97—10.
Pettit, Dorn L., to Square D Co. Adjustable voltage drive controller. 2,775,728, 12–25–56, Cl. 318—143.
Phillips, Gerard D., Jr., to American Radiator & Standard Sanitary Corp. Mixing valve operation. 2,775,135, 12–25–56, Cl. 74—478.
Phillips, James M., to Salem-Brosius, Inc. Material handling container. 2,775,380, 12–25–56, Cl. 220—4.
Phillips Petroleum Co.: *See*—
Bearer, Louis C. 2,775,635.
Carter, Norman C., and Cromeans. 2,775,631.
Fox, Homer M. 2,775,454.
Gagle, Duane W., and Defabaugh. 2,775,530.
Himel, Chester M., and Edmonds. 2,775,559.
Koble, Robert A., and Sibert. 2,775,103.
Lanning, William C., and Hogan. 2,775,637.
Mahan, John E. 2,775,596.
Nowlin, Gene. 2,775,634.
Parsons, James R., and Fiszel. 2,775,708.
Potts, Mack F., Hudson, and Smith. 2,775,594.
Scarth, Virgil. 2,775,580.
Phillips, Roy. Brake adjustment mechanism. 2,775,321, 12–25–56, Cl. 188—196.
Pickavance, William T., to National Cooperatives, Inc. Milk line releasing apparatus. 2,775,223, 12–25–56, Cl. 119—14.07.
Pies, Othmar W., W. H. Middendorf, and C. F. Evert, Jr.: said Pies assor. to Aqua Survey & Instrument Co. Valve locating device. 2,775,736, 12–25–56, Cl. 324—48.
Pingrey, Jerome E. Protective device for lamp shade. 2,775,845, 12–25–56, Cl. 200—45.33.
Pipes, George R., to Eaton Mfg. Co. Vehicle air intake structure. 2,775,184, 12–25–56, Cl. 98—2.
Pittsburgh Corning Corp.: *See*—
D'Eustachio, Dominic. 2,775,524.
Plymouth Stamping Co.: *See*—
Taylor, Elvin A. 2,775,243.
Pocock, Lyndall C., and A. C. Beadle, to International Standard Electric Corp. Telephone subscriber sets. 2,775,649, 12–25–56, Cl. 179—81.
Pomernacki, Henry, to Illinois Tool Works. Gear testing apparatus. 2,775,041, 12–25–56, Cl. 33—179.5.
Pomeroy, S. H., Co., Inc.: *See*—
Knebel, Herman C. 2,775,325.
Pomper, Anthony W., to John Waldron Corp. Web roll replenisher. 2,775,409, 12–25–56, Cl. 242—58.
Poole, William D., to Bethlehem Steel Co. Treatment of tinplate. 2,775,535, 12–25–56, Cl. 148—6.2.
Potts, Mack F., P. S. Hudson, and W. L. Smith, to Phillips Petroleum Co. Stabilization of polymerizable heterocyclic nitrogen compounds. 2,775,594, 12–25–56, Cl. 260—293.
Pratt & Whitney Co., Inc.: *See*—
Mueller, Paul M. 2,775,208.
Price, Joel S. Obstetrical instrument. 2,775,241, 12–25–56, Cl. 128—352.
Price, Leo. Gauge mounting assembly. 2,775,038, 12–25–56, Cl. 33—174.
Price, Leo. Guillotine gauge. 2,775,039, 12–25–56, Cl. 33—174.
Probst, Clemens, to Siemens-Schuckertwerke Aktiengesellschaft. Immersion devices for treating liquids. 2,775,434, 12–25–56, Cl. 250—1.
Process Engineers Inc.: *See*—
Kelly, Earl M., and Kivari. 2,775,556.
Puetner, Bruno, L. Katz, and L. Horwin, to Schenley Industries, Inc. Process for the production of n-vinylpyrrolidone-2. 2,775,590, 12–25–56, Cl. 260—326.5.
Purcell, Edward M., to the United States of America as represented by the Secretary of the Navy. Standing wave measuring system. 2,775,737, 12–25–56, Cl. 324—58.
Pure Oil Co., The: *See*—
Sandner, Walter J., and Fierce. 2,775,845.
Pye Ltd.: *See*—
Weighton, Donald, and Lax. 2,775,654.
Radio Corp. of America: *See*—
Hayworth, Byron B. 2,775,412.
Kennedy, Charles J. 2,775,753.
Swartz, David L. 2,775,641.
Ranco Inc.: *See*—
Greenawalt, Frederick A. 2,775,667.
Rasmussen, Clarence E.: *See*—
Fick, Armin F., Rasmussen, and Thayer. 2,775,266.
Rawson, Emanuel, and M. M. Pellar, to Package Machinery Co. Adjustable biased claw support. 2,775,224, 12–25–56, Cl. 119—14.19.
Raymond, David L., and R. C. Spooner, to Happ Corp. Liquid fuel fired heating apparatus for use, especially on automotive conveyances. 2,775,206, 12–25–56, Cl. 158—21.
Raymond, Horace H., to Veeder-Root Inc. Magnetically indexed rotating chance device. 2,775,468, 12–25–56, Cl. 273—143.
Ray-O-Vac Co.: *See*—
Herbert, William S. 2,775,534.
Raytheon Mfg. Co.: *See*—
Deuch, Edward C. 2,775,721.
Rector, Marion R.: *See*—
Reilly, John H., and Rector. 2,775,625.
Reed, Jack. Toothbrush and cover therefor. 2,774,982, 12–25–56, Cl. 15—184.
Regie Nationale Des Usines Renault: *See*—
Peras, Lucien J. 2,775,129.
Reilly, John H., and M. R. Rector, to The Dow Chemical Co. Inhibiting polymerisation of monomeric vinylidene chloride. 2,775,625, 12–25–56, Cl. 260—652.5.
Reischer, Walter, and H. P. Dupre, to Burndy Engineering Co., Inc. Reinforced dead-end splice connector. 2,775,747, 12–25–56, Cl. 339—277.
Reliance Electric and Engineering Co., The: *See*—
Rush, Dale B. 2,775,368.
Rush, Dale B., and Springer. 2,775,415.
Rush, Dale B., Springer, Thomas, and Woody. 2,775,414.
Rennick, John L., to Zenith Radio Corp. Triggered gating system. 2,775,691, 12–25–56, Cl. 250—27.
Renouf, William, to Nash Bros. Co. Rim and wheel carrier. 2,775,358, 12–25–56, Cl. 214—461.
Republic Steel Corp.: *See*—
Foxx, Norbert E. 2,775,675.
Research Products Corp.: *See*—
Frohmader, Stanley H. 2,775,561.
Reynolds, A. & Co. Ltd.: *See*—
Ellis, Norman S. 2,775,725.
Rheinisch-Westfälische "Revision" Treuhand Aktiengesellschaft (Treuhand Aktiengesellschaft): *See*—
Schwank, Günther. 2,775,294.
Rheinpreussen Aktiengesellschaft für Bergbau und Chemie: *See*—
Kölbel, Herbert, and Ackermann. 2,775,607.
Richards, Howard A.: *See*—
Morrisey, Edward J., Jr., and Richards. 2,775,240.
Ring, Douglas H., to Bell Telephone Laboratories, Inc. Frequency stabilized oscillator. 2,775,700, 12–25–56, Cl. 250—36.
Ring, Henrik, and A. A. Ferguson. Door closing mechanism. 2,774,987, 12–25–56, Cl. 16—62.
Roberts, Roy J., ¼ to J. B. Jarmon, Jr. Fishhook. 2,775,058, 12–25–56, Cl. 43—44.4.
Robertson, Nat C.: *See*—
Gardner, James H., Robertson, and Schoenbrunn. 2,775,601.
Robinson, Eugene S., A. C. Briesmeister, and B. B. McInteer, to the United States of America as represented by the United States Atomic Energy Commission. Mercury bellows pump. 2,775,399, 12–25–56, Cl. 230—95.
Robison, Samuel B.: *See*—
Wilson, Howard L., Robison, and Smith. 2,775,527.
Rockoff, Joseph, to The Dayton Rubber Co. Picker stick checking apparatus. 2,775,264, 12–25–56, Cl. 139—161.
Rockwell, Fredrick W., to Continental Can Co., Inc. Slitter for forming body blanks from sheets. 2,775,236, 12–25–56, Cl. 198—34.
Rockwell Spring and Axle Co.: *See*—
Scheel, Walther F. 2,775,316.
Rod, Robert L., and W. D. Becher, to Bogue Electric Mfg. Co. Apparatus for measuring liquid levels. 2,775,748, 12–25–56, Cl. 240—3.
Rodanet, Henri. Odometer. 2,775,406, 12–25–56, Cl. 235—97.
Rofshus, Robert I.: *See*—
Brown, Clifford R., and Rofshus. 2,775,225.
Rohm & Haas Co.: *See*—
Craig, W B. and Wilson. 2,775,591.
De Benneville, Peter L., and Hurwitz. 2,775,605.
Schmidle, Claude J. 2,775,590.
Schmidle, Claude J. 2,775,630.
Ronning, Adolph. Differential. 2,775,141, 12–25–56, Cl. 74—711.
Roode, John F., to Fairchild Camera and Instrument Corp. Portable rubbing machine assembly. 2,775,076, 12–25–56, Cl. 51—170.
Roper, Alfred E.: *See*—
Meldrum, Edward C., and Roper. 2,775,009.
Roper, Geo. D., Corp.: *See*—
Albright, John E. 2,775,209.
Batten, Webster E., and Haddon. 2,775,204.
Rosen, Leonard J.: *See*—
White, Blanche B., Moelter, and Rosen. 2,775,584.
Rosenbaum, Werner: *See*—
Dean, Maxwell, and Rosenbaum. 2,775,230.
Rosenstock, David: *See*—
Gardner, Frederick H., Elms, and Rosenstock. 2,775,124.

Ross, Ell, 5% to R. C. Sullivan. Double bunk bed construction. 2,774,976, 12-25-56, Cl. 5—9.

Ross, Jay J.: *See*—
Mestman, Percy W., and Ross. 2,775,965.

Rossner, Albert G. Handle for screw drivers or the like. 2,775,276, 12-25-56, Cl. 145—61.

Rubidge, David W., J. E. Natvig, and F. S. Huling, to International Business Machines Corp. Ledger posting machine. 2,775,290, 12-25-56, Cl. 164—115.

Rugg, E. Melvin, to International Harvester Co. Collapsible assembly for box structures. 2,775,200, 12-25-56, Cl. 220—41.

Ruhr, Heinrich R., to United Shoe Machinery Corp. Shoe sewing machines. 2,775,217, 12-25-56, Cl. 112—46.

Ruinard, Neal A.: *See*—
Ingersoll, James H., White, Kovalick, Hegyi, Ruinard, and Levitt. 2,775,673.

Rummage, John P. Electric light socket with a replaceable switch. 2,775,663, 12-25-56, Cl. 200—51.17.

Rupp, Walter H., to Esso Research and Engineering Co. Alkylation process. 2,775,634, 12-25-56, Cl. 260—683.4.

Rush, Dale B., to The Reliance Electric and Engineering Co. Tension-responsive control. 2,775,283, 12-25-56, Cl. 188—110.

Rush, Dale B., W. R. Springer, J. R. Thomas, and D. R. Woody, to The Reliance Electric and Engineering Co. Constant tension control mechanism. 2,775,414, 12-25-56, Cl. 242—75.

Rush, Dale B., and W. R. Springer, to The Reliance Electric and Engineering Co. Tension-dominated control. 2,775,415, 12-25-56, Cl. 242—75.

Russell, Stanley D., to J. I. Case Co. Convertible pick-up unit for balers. 2,775,090, 12-25-56, Cl. 56—341.

Ryaby, John, Jr. Coil holder. 2,775,416, 12-25-56, Cl. 242—76.

Ryon, Thomas N.: *See*—
Liebman, Joseph N., and Ryon. 2,775,412.

S. A. T. A. M., Societe Anonyme pour Tous Appareillages Mecaniques: *See*—
Meyer, Jean G. A. M. J. 2,775,867.

Safety Car Heating and Lighting Co., Inc., The: *See*—
Strobell, John D. 2,775,186.

Salem-Brosius, Inc.: *See*—
Phillips, James M. 2,775,960.

Salle, Rene, P. E. Sevin, and J. O. Mottais, to Societe Nationale de Constructions Aeronautiques de Sud-Ouest (S. N. C. A. S. O.). Rate of climb indicator. 2,775,123, 12-25-56, Cl. 73—179.

Saillie, Stanley H., and R. J. Zitke, to Bird & Son, Inc. Method and apparatus for making patterned siding. 2,775,532, 12-25-56, Cl. 117—25.

Sammons, Charles W.: *See*—
Bates, Harold, Sammons, and Fisher. 2,775,529.

Samples, Charles R. Laying tool for tongue and grooved flooring. 2,774,999, 12-25-56, Cl. 1—47.

Same, Herbert W., to Scripto, Inc. Ball point pen and retracting means. 2,775,229, 12-25-56, Cl. 120—42.08.

Sandelin, Olle R., to The Warner & Swasey Co. High reduction floor drafting. 2,774,966, 12-25-56, Cl. 10—131.

Sandmer, Walter J., and W. L. Pierce, to The Pure Oil Co. Prevention of sourness of sweet naphthas during distillation by distilling in the presence of an alkylene oxide and a salt of an organic acid. 2,775,545, 12-25-56, Cl. 196—28.

Sandor A. G.: *See*—
Neier, Reinhard, Petitjean, and Wehrli. 2,775,581.

Sargent & Greenleaf, Inc.: *See*—
Taylor, James L. 2,775,112.

Sarlo, Rocco L.: *See*—
Bracy, Sylvanus B., Levy, and Sarlo. 2,775,756.

Saradeon, George M. J. Processes of packaging water and other commodities and apparatus useful in the practice of such processes. 2,775,079, 12-25-56, Cl. 53—25.

Sattler, Emil: *See*—
Leithäuser, Heinz, Linder, and Sattler. 2,775,512.

Savage, Kenneth W., to Crampton Mfg. Co. Freezer lock. 2,775,111, 12-25-56, Cl. 70—8.

Scarborough, Frederick, Yarn carrier tube for knitting machines. 2,775,109, 12-25-56, Cl. 66—126.

Scarth, Virgil, to Phillips Petroleum Co. Sulfobenzyl lignins. 2,775,580, 12-25-56, Cl. 260—124.

Schaaf, Kurt H., and R. Kapp, to Nopco Chemical Co. Production of 1-ethynyl-2,6,6-trimethylcyclohex-1-ene. 2,775,626, 12-25-56, Cl. 260—666.

Schalit, Robert F., to Western Electric Co., Inc. Capacitor-charging system. 2,775,731, 12-25-56, Cl. 320—1.

Scheel, Walther F., to Rockwell Spring and Axle Co. Brake shoe adjuster and guide. 2,775,216, 12-25-56, Cl. 188—79.5.

Scheller, Gerald F.: *See*—
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Schenley Industries, Inc.: *See*—
Behnisch, Robert, Mietzsch, and Schmidt. 2,775,593.
Finetzer, Bruno, Katz, and Horwitz. 2,775,590.

Schjeln, Hans O., H. Guentzschel, and M. V. Parshall, to General Motors Corp. Transmission and control system. 2,775,290, 12-25-56, Cl. 192—87.

Schlesinger, Kurt, to Motorola, Inc. Modulator. 2,775,738, 12-25-56, Cl. 332—43.

Schmelzried, Harry L. Channel bars connecting link. 2,775,338, 12-25-56, Cl. 198—189.

Schmidle, Claude J., to Rohm & Haas Co. Process for preparation of certain oxazines and piperidinols. 2,775,560, 12-25-56, Cl. 260—244.

Schmidle, Claude J., to Rohm & Haas Co. Separating e-methylstyrene from isopropylbenzenes using amines. 2,775,630 12-25-56, Cl. 260—669.

Schmidt, Edward G.: *See*—
Nelson, Axel B., Schmidt, and Zinkil. 2,774,972.

Schmidt, Hans: *See*—
Behnisch, Robert, Mietzsch, and Schmidt. 2,775,593.

Schneeball, Emil, and T. E. Crawford, to J. I. Case Co. Taper boring device. 2,775,147, 12-25-56, Cl. 77—4.

Schneider, Helmuth G., and P. W. Bradley, Jr., to Esso Research and Engineering Co. Controlled isobutylene polymerization. 2,775,577, 12-25-56, Cl. 260—82.

Schneider, Paul: *See*—
Lober, Friedrich, Bayer, Bügemann, and Schneider. 2,775,565.
Lober, Friedrich, Bayer, Bügemann, and Schneider. 2,775,639.

Schoenbrunn, Erwin F.: *See*—
Gardner, James H., Robertson, and Schoenbrunn. 2,775,001.
Gardner, James H., and Schoenbrunn. 2,775,510.

Scholl, Raymond R. Wiener barbecuing machine. 2,775,189, 12-25-56, Cl. 99—427.

Schrade, Theodore G. Knot-simulating neckties clasp. 2,774,971, 12-25-56, Cl. 2—152.

Schrader, Clarence O., ¼ to Paper Mate Mfg. Co. Method for automatic screw machine operations. 2,775,026, 12-25-56, Cl. 29—406.

Schroeder, Kenneth K., Jr.: *See*—
Schroeder, Kenneth K., Sr., and K. K. Schroeder, Jr. 2,775,456.

Schroeder, Kenneth K., Sr., and K. K. Schroeder, Jr. Bowling pin. 2,775,456, 12-25-56, Cl. 272—82.

Schuetze, Hilmar O., to Great Lakes Stamp & Mfg. Co., Inc. Label activator. 2,775,677, 12-25-56, Cl. 219—19.

Schumacher, Richard M., to Calco Steel Co. Metal working apparatus. 2,775,151, 12-25-56, Cl. 80—40.

Shultz, Kurt, to Berthoud & Cie. Means for distributing liquids very finely. 2,775,462, 12-25-56, Cl. 299—86.

Schwank, Günther, deceased; Rheinisch-Westfälische "Revision" Treuhand Aktiengesellschaft (Treuhand Aktiengesellschaft) and W. Franken, executors, to American Infra Red Radiant Co., Inc. Radiation burners. 2,775,294, 12-25-56, Cl. 158—116.

Schwartz, Daniel M., and T. N. Hackett, to The Bimco Corp. Power transmission for material handling machines. 2,775,133, 12-25-56, Cl. 74—606.

Schwartz, Morris A., and H. S. Fisher, to Johnson & Johnson. Apparatus for winding limp material into coreless rolls. 2,775,410, 12-25-56, Cl. 242—68.

Schwarz, Johannes: *See*—
Wagner, Richard, and Schwarz. 2,775,167.

Scintilla Ltd.: *See*—
Buchmann, Albin. 2,775,210.

Scott, William M., Jr., to I-T-E Circuit Breaker Co. Half circular bus bracket. 2,775,642, 12-25-56, Cl. 174—99.

Scott, William M., Jr., to I-T-E Circuit Breaker Co. Half circular bus bracket. 2,775,643, 12-25-56, Cl. 174—99.

Scovill Mfg. Co.: *See*—
Treharne, Richard R., Jr., and Wegmann. 2,775,482.

Scripto, Inc.: *See*—
Same, Herbert W. 2,775,229.
Smith, Blanchard D. 2,775,228.

Scully-Jones and Co.: *See*—
Better, Bernard E., and Lobde. 2,775,326.

Seal, Reed R., to Thompson Products, Inc. Powder metal multi-ring bushing. 2,775,024, 12-25-56, Cl. 29—182.2.

Sealed Power Corp.: *See*—
Olson, Holly M. 2,775,485.

Sears, Roebuck and Co.: *See*—
Apteker, Rubin. 2,775,049.

Senkowski, Alexander, and F. D. Cooper, to Massey-Harris-Ferguson (Sales) Ltd. Tractor body gearing compartment arrangement for gearing and lubricating oil supply. 2,775,306, 12-25-56, Cl. 180—54.

Sévin, Paul R.: *See*—
Salle, René, Sévin, and Mottais. 2,775,123.

Shadbolt, Charles L., to Hughes Aircraft Co. Variable frequency pulse generator. 2,775,695, 12-25-56, Cl. 250—27.

Shafer, Paul W.: *See*—
Wagner, George H., and Shafer. 2,775,606.

Shafer, William M., to The National-U. S. Radiator Co. Method for production of compound iron powders. 2,775,519, 12-25-56, Cl. 75—0.5.

Shapiro, Sydney H., and M. B. McCorkle, to Armour and Co. Preparation of tetra-alkyl quaternary ammonium halides. 2,775,617, 12-25-56, Cl. 260—567.6.

Shea, Frederick L., Jr., to Great Lakes Carbon Corp. Production of coke from petroleum hydrocarbons. 2,775,549, 12-25-56, Cl. 196—52.

Sheehan, John C. Cyclization process. 2,775,603, 12-25-56, Cl. 260—397.4.

Sheffield Corp., The: *See*—
Aller, Willis F. 2,775,117.

Shell Development Co.: *See*—
Larison, Howard M., and Westcott. 2,775,560.
Williamson, George T. 2,775,620.

Shelton, Jack F. Cooling tower. 2,775,310, 12-25-56, Cl. 183—26.

Shepherd, George R. L.: *See*—
Cornell, Hampton G., Manne, Shepherd, and Souby. 2,775,544.

Shenk, Fred T.: *See*—
Kobbe, Robert A., and Shenk. 2,775,102.

Sherwin, Chalmers W.: *See*—
Ellsworth, Louis D., and Sherwin. 2,775,757.

Shibanae, Edward. Line guide for fishing rod. 2,775,054, 12-25-56, Cl. 43—24.

Shionogi & Co., Ltd.: *See*—
Takamizawa, Akira. 2,775,592.

Shirk, Robert M.: *See*—
Ardern, David E., and Shirk. 2,775,547.

Shivack, Ian M. Binaural recording system. 2,775,460, 12-25-56, Cl. 274—38.

Shockley, William: *See*—
Mason, Warren P., and Shockley. 2,775,658.





Shortland, Arthur, to Mellor Bromley & Co. Ltd. Circular rib knitting machine. 2,775,107, 12-25-56, Cl. 66—27.

Siemens-Schuckertwerke Aktiengesellschaft: *See*—
Probst, Clemens. 2,775,436.

Silver, Alexander, to The Garrett Corp. Pneumatic control apparatus. 2,775,231, 12-25-56, Cl. 121—38.

Silver, Walter H., to Deere & Co. Releasable plow standard. 2,775,182, 12-25-56, Cl. 97—47.89.

Silverman, Daniel: *See*—
Bennett, Arthur D., and Silverman. 2,775,120.
Bennett, Arthur D., and Silverman. 2,775,121.

Simmonds Aerocessories Ltd.: *See*—
Honick, Kenneth R. 2,775,126.

Simmons, Edward C., to General Motors Corp. Freezing device. 2,775,102, 12-25-56, Cl. 62—106.5.

Simpson, Justin, to Continental Can Co., Inc. Can divider. 2,775,335, 12-25-56, Cl. 198—31.

Sinisterra, Frederico. Shock and vibration damping device. 2,775,317, 12-25-56, Cl. 188—60.

Sink, Robert L., to Consolidated Electrodynamics Corp. Analogue-digital converter. 2,775,754, 12-25-56, Cl. 340—347.

Sink, Robert L., to Consolidated Electrodynamics Corp. Angular position transducer. 2,775,755, 12-25-56, Cl. 340—359.

Skaperdas, George T.: *See*—
Nathan, Marvin F., Lobo, and Skaperdas. 2,775,551.

Skeeters, Maxwell J., and N. L. Beckers, to Diamond Alkali Co. Stabilized tetrachlorethylene. 2,775,624, 12-25-56, Cl. 260—658.5.

Sloan, Richard C. Thermally operated circuit maker. 2,775,660, 12-25-56, Cl. 200—142.

Slocombe, Robert J., and G. L. Wege, to Monsanto Chemical Co. Acrylonitrile copolymers stabilized with cinnamic acid and its salts. 2,775,574, 12-25-56, Cl. 260—45.95.

Smith, Blanchard D., to Scripto, Inc. Retractable ball pen. 2,775,226, 12-25-56, Cl. 120—42.03.

Smith, Byrom J., to Heli-Coil Corp. Deformable plastic nut having wire coil insert threads retained therein. 2,775,281, 12-25-56, Cl. 151—7.

Smith, Charles T.: *See*—
Bustin, Norris L., and Smith. 2,775,170.

Smith, Harry R., and A. R. Taylor, to Standard Electronics Corp. Filament lead-in and impedance matching structure for a grounded grid amplifier. 2,775,660, 12-25-56, Cl. 179—171.

Smith, John R.: *See*—
Bates, Harold, Fisher, and Smith. 2,775,585.

Smith, Joseph C., to Durex Hardware Mfg. Corp. Drill box. 2,775,342, 12-25-56, Cl. 206—17.

Smith, Ray F. Hydrodynamic brake. 2,775,318, 12-25-56, Cl. 188—90.

Smith, Robert E., and J. M. Weerth, to North American Aviation, Inc. Vertical velocity computer. 2,775,122, 12-25-56, Cl. 73—179.

Smith, Warren L.: *See*—
Potts, Mack F. Hudson, and Smith. 2,775,594.

Smith, Winthrope C.: *See*—
Wilson, Howard L., Robison, and Smith. 2,775,537.

Smits, Hubertus J., to Hartford National Bank and Trust Co., as trustee. Mechanical drive. 2,775,131, 12-25-56, Cl. 74—221.

Smits, Wytse B., to Smitsvonk N. V. Packing for internal combustion engine. 2,775,234, 12-25-56, Cl. 123—169.

Smitsvonk N. V.: *See*—
Smits, Wytse B. 2,775,234.

Sneed, Joseph F. Fishing float assembly. 2,775,056, 12-25-56, Cl. 43—43.11.

Snow, John E., to Heyden Chemical Corp. 2,2-dimethylol-1,5-dihydroxypentane and derivatives thereof. 2,775,622, 12-25-56, Cl. 260—635.

Snyder, Robert E. Apparatus for controlling hydraulic surge. 2,775,255, 12-25-56, Cl. 137—87.

Societe Nationale de Constructions Aeronautiques du Sud-Ouest (S. N. C. A. S. O.): *See*—
Salle, René, Sévin, and Mottais. 2,775,123.

Societe Nouvelle de L'Outillage R. B. V. et de la Radio-Industrie (R. B. V.-R. I.): *See*—
Mandel, Paul. 2,775,644.

Söderlund, Ulf G., to Aktiebolaget Karlstads Mekaniska Werkstad. Papermaking machine. 2,775,169, 12-25-56, Cl. 92—49.

Soderquist, Leslie E., to The McNeil Machine and Engineering Co. Injection molding press. 2,774,990, 12-25-56, Cl. 18—30.

Sokol, Louis G.: *See*—
Yost, Albert G. 2,775,273.

Solis Bonilla, Samuel R. Fountain tooth brush. 2,774,981, 12-25-56, Cl. 15—137.

Sorensen, Edgar P. Workpiece-holding pruning shears with resilient in-drawing gripper element. 2,775,032, 12-25-56, Cl. 30—134.

Souby, Armand M.: *See*—
Cornell, Hampton G., Manne, Shepherd, and Souby. 2,775,544.

Sparkman, Billie C.: *See*—
Hunt, Manley L., Jr., and Sparkman. 2,775,157.

Special Screw Products Co., The: *See*—
Douglass, James L. 2,775,471.

Speed, William C., and J. J. Dwyer, to Audio Devices, Inc. Aligning means to be used in the production of magnetic sound recording tape. 2,775,450, 12-25-56, Cl. 271—3.6.

Spieberman, Henry D.: *See*—
Lincoln, Clevis W., Gold, and Spieberman. 2,775,664.

Spooner, Richard C.: *See*—
Raymond, David L., and Spooner. 2,775,293.

Sprague Electric Co.: *See*—
Kahan, George J. 2,775,583.

Sprague, James M., and R. L. Engelhardt, to Merck & Co., Inc. Sulfonic acid esters of 2-dialkylamino ethanols. 2,775,606, 12-25-56, Cl. 260—456.

Springer, William E.: *See*—
Rush, Dale B., and Springer. 2,775,415.
Rush, Dale B., Springer, Thomas, and Woody. 2,775,414.

Square D Co.: *See*—
Gribble, Joseph J. 2,775,661.
Pettit, Dorn L. 2,775,728.

Staats, Henry N. Curtain-type closure. 2,775,354, 12-25-56, Cl. 214—21.

Stamicarbon N. V.: *See*—
De Jong, Geert J. 2,775,564.

Stanbury, John H., to British Messier Ltd. Electromagnetic devices for controlling fluid pressure. 2,775,254, 12-25-56, Cl. 137—82.

Standard Coil Products Co. Inc.: *See*—
Nelson, Edwin K. 2,775,059.

Standard Electronics Corp.: *See*—
Smith, Harry R., and Taylor. 2,775,660.

Standard Oil Co. (Illinois): *See*—
Fainman, Morton. 2,775,565.
Vereck, Wallace E., Jr. 2,775,311.

Standard Oil and Gas Co.: *See*—
Bennett, Arthur L., and Silverman. 2,775,120.
Bennett, Arthur D., and Silverman. 2,775,121.

Statham, Vincent A.: *See*—
Chambers, John M., and Statham. 2,775,178.

Stautzenberger, Adin L.: *See*—
MacLean, Alexander F., and Stautzenberger. 2,775,621.

Stavenau, Harold L., and D. M. Park, to Truth Tool Co. Closure operator. 2,775,446, 12-25-56, Cl. 268—104.

Steam Iron Corp.: *See*—
Kistner, Merrill M. 2,775,681.

Steen, Harford K., and H. L. Thompson, deceased; by T. V. Thompson, administratrix, to Interstate Bag Co. Method and machine for bag making. 2,775,171, 12-25-56, Cl. 93—8.

Steeves, Asa B., to Esso Research and Engineering Co. Method and means for insulating high voltage electrodes. 2,775,640, 12-25-56, Cl. 174—15.

Stelljes, Charles R., to The Murray Corp. of America. Power clutch actuators. 2,775,329, 12-25-56, Cl. 192—82.

Stempel, Laszlo M., to John Waldron Corp. Paper feeding mechanism. 2,775,449, 12-25-56, Cl. 271—2.3.

Stencil Co., The: *See*—
Harris, Carl C. 2,775,424.

Stephan, Hallis N., to The New Britain Machine Co. Combined horizontal boring, drilling and milling machine. 2,775,130, 12-25-56, Cl. 74—221.

Stephens, Edward J.: *See*—
Legge, Elmer E., and Stephens. 2,775,118.

Sterling Drug Inc.: *See*—
Archer, Sydney, and Auerbach. 2,775,596.

Stewarts and Lloyds Ltd.: *See*—
McLay, Gavin S. 2,775,150.

Stiebel, Theodor. Water mixing unit. 2,775,239, 12-25-56, Cl. 137—599.1.

Stimetz, Joseph M., and R. McClure, to General Motors Corp. Vehicle door hinge and cam. 2,775,476, 12-25-56, Cl. 296—44.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. Capsule forming gelatin film stripping. 2,774,988, 12-25-56, Cl. 18—15.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. Method of forming powder-and-liquid filled capsules. 2,775,080, 12-25-56, Cl. 53—26.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. High density encapsulation. 2,775,081, 12-25-56, Cl. 53—30.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. Package forming and filling apparatus. 2,775,083, 12-25-56, Cl. 53—180.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. Apparatus for filling powder in capsules. 2,775,084, 12-25-56, Cl. 53—182.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. Gelatin film casting machine. 2,775,257, 12-25-56, Cl. 137—341.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. Method and apparatus for filling capsules. 2,775,267, 12-25-56, Cl. 141—1.

Stirn, Frank E., and A. S. Taylor, to American Cyanamid Co. Capsule forming gelatin strip handling. 2,775,447, 12-25-56, Cl. 270—52.

Stone, John R.: *See*—
Lebedeff, Yurii E. Stone, and von Stein. 2,775,509.

Storrs, Fred O. Fountain brush. 2,775,401, 12-25-56, Cl. 230—160.

Stoughton, Roger W., to Mallinckrodt Chemical Works. Process of and compositions for combating epileptic seizures with atrolactamide. 2,775,539, 12-25-56, Cl. 167—65.

Straus, Albert M. Instrument level. 2,775,423, 12-25-56, Cl. 248—180.

Strassner, Robert M., and H. R. Burke, to Consolidated Electrodynamics Corp. Deviation plotter. 2,775,720, 12-25-56, Cl. 315—24.

Strategic-Udy Metallurgical & Chemical Processes Ltd.: *See*—
Udy, Marvin J. 2,775,518.

Stratutape Ltd.: *See*—
Morison, William J., and Cronin. 2,774,980.

Strobell, John D., to The Safety Car Heating and Lighting Co., Inc. Ventilating apparatus. 2,775,186, 12-25-56, Cl. 98—14.

Stutz, Rolf. Hearing aid casing. 2,775,662, 12-25-56, Cl. 179—107.

Styles, Leonard W., to Geotstner Ltd. Sheet feeding mechanism. 2,775,451, 12-25-56, Cl. 271—61.

Sullivan, Ruth C.: *See*—
Ross, Ell. 2,774,976.

Sun Oil Co.: *See*—
Honeycutt, Earl M., and Calkins. 2,775,632.

Surface Combustion Corp.: *See*—
Clark, Donald J., and Decker. 2,775,233.

Sussman, Harry. Mass-loaded ring vibrator. 2,775,749, 12-25-56, Cl. 340—8.

Suter, Oswald, and A. J. Abs, to Technical Oil Tool Corp., Ltd. Inclination recording instrument. 2,775,043, 12-25-56, Cl. 33—206.5.

Swanson, Karl E.: *See*—
Imse, Philip J., and Swanson. 2,775,156.

Swart, Richard H., to Carrier Corp. Piston construction. 2,775,494, 12-25-56, Cl. 309—12.

Swartz, David L., to Radio Corp. of America. Electron tube stem. 2,775,641, 12-25-56, Cl. 174—50.61.

Swedish Crucible Steel Co.: *See*—
McKilligott, Edward M. 2,774,992.

Swanson, Victor E., to Deere Mfg. Co. Shifter mechanism for transmission. 2,775,184, 12-25-56, Cl. 74—473.

Swingler, William F., to Automatic Canteen Co. of America. Portable cart. 2,775,465, 12-25-56, Cl. 280—47.2.

Switlik Parachute Co., Inc.: *See*—
Moran, Harold J. 2,774,979.

Sykora, George E., to Well Surveys, Inc. Multiple trace recorder jams. 2,775,562, 12-25-56, Cl. 346—49.

Sylvania Electric Products Inc.: *See*—
Barrington, William W., Jr. 2,775,079.
Yeo, Ernest R., and Drown. 2,775,271.

Taco Heaters, Inc.: *See*—
Williams, Burdell S. 2,775,348.

Takamine, Akira, to Shionogi & Co., Ltd. 2-methyl-4-amino-5-acetaminomethylpyrimidine and process for its production. 2,775,592, 12-25-56, Cl. 260—254.4.

Tammings, William J., to Monitor Process Corp. Fluid milk dispenser. 2,775,574, 12-25-56, Cl. 222—185.

Tate, William F., to Kool Vent Metal Awning Corp. of America. Batter. 2,775,324, 12-25-56, Cl. 160—24.

Tausch, Gilbert H.: *See*—
Abendroth, Guss F., Ilfrey, and Tausch. 2,775,303.

Taylor, Allen R.: *See*—
Smith, Harry R., and Taylor. 2,775,660.

Taylor, Arthur S.: *See*—
Stirn, Frank E., and Taylor. 2,774,963.
Stirn, Frank E., and Taylor. 2,775,060.
Stirn, Frank E., and Taylor. 2,775,061.
Stirn, Frank E., and Taylor. 2,775,063.
Stirn, Frank E., and Taylor. 2,775,064.
Stirn, Frank E., and Taylor. 2,775,257.
Stirn, Frank E., and Taylor. 2,775,267.
Stirn, Frank E., and Taylor. 2,775,447.

Taylor, Elvin A., to Plymouth Stamping Co. Vented closure plug. 2,775,263, 12-25-56, Cl. 220—44.

Taylor, James L., to Sargent & Greenleaf, Inc. Combination resetting guard for exposed shackle padlock. 2,775,112, 12-25-56, Cl. 70—25.

Technical Oil Tool Corp., Ltd.: *See*—
Suter, Oswald, and Abs. 2,775,043.

Testers, Wilbur O.: *See*—
Dipner, Charles D., Testers, and Wrightson. 2,775,569.

Teggelaar, Claude J., to Grand Rapids Hardware Co. Window construction. 2,774,996, 12-25-56, Cl. 20—12.

Telephone Answering and Recording Corp.: *See*—
Cain, Harry W. 2,775,651.

Tellen, Chester J., to The American Molded Products Co. Reel construction. 2,775,411, 12-25-56, Cl. 242—70.

Termany, Frank J. Gasifying apparatus. 2,775,513, 12-25-56, Cl. 48—107.

Te Winkel, Jan: *See*—
Bordewijk, Jan L., Lansu, and te Winkel. 2,775,655.

Texaco Development Corp.: *See*—
Ludeman, Clifford G. 2,775,710.

Thayer, Harry C., Jr.: *See*—
Fick, Armin F., Rasmussen, and Thayer. 2,775,266.

Thevenaz, Jean, to Paillard S. A. Motion picture projector designed for stereoscopic projection. 2,775,161, 12-25-56, Cl. 88—16.6.

Thickstun, William R.: *See*—
Foskett, Laurence W., Foster, Thickstun, and Wood. 2,775,160.

Third National Bank of Rockford, The: *See*—
Young, William K. 2,775,128.

Thomas, Albert. Adjustable bit boring bar. 2,775,149, 12-25-56, Cl. 77—58.

Thomas, Frank M.: *See*—
Elliott, Stanley J., Thomas, and Worley. 2,775,407.

Thomas, John B.: *See*—
Rush, Dale B., Springer, Thomas, and Woody. 2,775,414.

Thomas, Robert E., to the United States of America as represented by the United States Atomic Energy Commission. Millivolt gating circuit. 2,775,696, 12-25-56, Cl. 250—27.

Thompson, Harold L.: *See*—
Steen, Harford K., and Thompson. 2,775,171.

Thompson Products, Inc.: *See*—
Seal, Reed E. 2,775,024.

Thompson, Thelma V.: *See*—
Steen, Harford K., and Thompson. 2,775,171.

Thomsen, Alfred M. Method of treating pickle liquors. 2,775,506, 12-25-56, Cl. 23—61.

Thurston, Ernest B., to Haughton Elevator Co. Up by-pass during down peak traffic condition. 2,775,312, 12-25-56, Cl. 187—29.

Thurston, Robert N.: *See*—
Mason, Warren P., and Thurston. 2,775,650.

Tillander, Folke G., and L. Åslund, to Aktiebolaget Bofors. Gun barrel. 2,775,164, 12-25-56, Cl. 89—16.

Tilton, Richard G., to W. H. Miner, Inc. Shock absorbing mechanism for railway cars. 2,775,353, 12-25-56, Cl. 213—34.

Tomcavage, Edward J., and J. Walsonavich. Coaxial cable temperature signal strength control. 2,775,672, 12-25-56, Cl. 201—48.

Tompkins, Will M., and P. L. Ellis, to Monogram Mfg. Co. Sheet metal clamp. 2,775,155, 12-25-56, Cl. 85—8.

Towle, Charles L.: *See*—
Bach, Harold H., and Towle. 2,775,428.

Tradimex, Cooperative Commerciale: *See*—
Godfroy, Robert, and de Sedeny. 2,775,511.

Treharne, Richard E., Jr., and A. J. Wegmann, to Scovill Mfg. Co. Aerosol bomb filling and dispensing valve. 2,775,462, 12-25-56, Cl. 260—95.

Tripoli, John. Dispensing device and holder for toothpaste or the like substance. 2,775,370, 12-25-56, Cl. 222—100.

Tromp, Klaas. Methods and apparatus for separating solids having different specific gravities. 2,775,446, 12-25-56, Cl. 209—172.5.

Truth Tool Co.: *See*—
Stavenau, Harold L., and Park. 2,775,446.

Tuck, James A., to Louis Krantz, deceased: Leon and H. Krantz, executors. Machine for scoring apparel belt and like strap bodies. 2,775,206, 12-25-56, Cl. 164—90.

Turbine Equipment Co.: *See*—
Hynes, Leo P. 2,775,682.

Tuttle, Daniel V., to Tuttle & Kift, Inc. Control system for plurality of spaced electrical switches. 2,775,715, 12-25-56, Cl. 307—96.

Tuttle & Kift, Inc.: *See*—
Tuttle, Daniel V. 2,775,715.

Twin Disc Clutch Co.: *See*—
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Udy, Marvin J., to Strategic-Udy Metallurgical & Chemical Processes Ltd. Manganese recovery. 2,775,518, 12-25-56, Cl. 75—11.

Union Bank & Trust Co. of Bethlehem: *See*—
Brown, Felix E. 2,775,476.

Union Carbide and Carbon Corp.: *See*—
Wagner, George H., and Shafer. 2,775,606.

Union Oil Co. of California: *See*—
Buckmann, John P. 2,775,571.

United Air Lines, Inc.: *See*—
Lahr, Harold R. 2,775,604.

United Can and Glass Co.: *See*—
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United-Carr Fastener Corp.: *See*—
Bedford, William A., Jr. 2,775,010.

United Shoe Machinery Corp.: *See*—
Ruhr, Heinrich R. 2,775,217.

United States Atomic Energy Commission, United States of America as represented by the: *See*—
Bell, Percy R., and Kelley, and Goss. 2,775,696.
Beyer, Robert Q. 2,775,552.
Corbell, Paul I. 2,775,741.
Madey, Richard. 2,775,697.
Robinson, Eugene S., Briesmeister, and McInteer. 2,775,590.
Thomas, Robert E. 2,775,696.

United States Rubber Co.: *See*—
Fisk, Charles F. 2,775,572.

Upjohn Co., The: *See*—
Babcock, John C., and Ott. 2,775,602.

Valeton, Jesse J. P., F. R. Hardi, and F. H. J. Van Der Poel, to Hartford National Bank and Trust Co., as trustees. Synchronous motor comprising an armature having permanent magnetic poles. 2,775,716, 12-25-56, Cl. 310—156.

Vallen, Earl J. Motor brake. 2,775,320, 12-25-56, Cl. 188—171.

Vallone, Joseph M. Convertible reclining chair. 2,775,286, 12-25-56, Cl. 155—106.

Van der Lee, Albertus, to Hartford National Bank and Trust Co., as trustee. Self-gasifying petroleum gas burner. 2,775,292, 12-25-56, Cl. 158—62.

Van der Pool, Franciscus H. J.: *See*—
Valeton, Jesse J. P., Hardi, and van der Pool. 2,775,716.

Vanity Fair Mills, Inc.: *See*—
Bellini, Eugene. 2,775,106.

Van Overbeek, Adrianus J. W. M., to Hartford National Bank and Trust Co., as trustee. Transistor mixing circuit. 2,775,705, 12-25-56, Cl. 250—36.

Van Rheenen, Dirk W.: *See*—
De Jong, Frans H., and Van Rheenen. 2,775,735.

Van Zelst, Johannes J. Z., to Hartford National Bank and Trust Co., as trustee. Dual channel amplifying circuit. 2,775,657, 12-25-56, Cl. 179—171.

Vapor Heating Corp.: *See*—
Clarkson, Alick. 2,775,555.

Vaughn, David C. and S. F. Plow and diamond-shaped frame therefor. 2,775,086, 12-25-56, Cl. 55—83.

Vaughn, Shelby F.: *See*—
Vaughn, David C. and S. F. 2,775,086.

Veeder-Root Inc.: *See*—
Raymond, Horace H. 2,775,458.

Vegreen, Conrad E. Pre-ejin device for rocket launcher. 2,775,163, 12-25-56, Cl. 89—1.7.

Verne, Hansheinrich: *See*—
Weigel, Kurt, and Verne. 2,775,709.

Victrylite Candle Co.: *See*—
Krane, Casimir. 2,775,006.

Villchur, Edgar M., to Acoustic Research, Inc. Sound translating devices. 2,775,309, 12-25-56, Cl. 181—31.

Vines, Oscar L., to Alford Cartons, Carton. 2,775,200, 12-25-56, Cl. 229—28.

Vines, Oscar L., to Alford Cartons, Carton. 2,775,201, 12-25-56, Cl. 229—28.

Visco Products Co.: *See*—
Kirkpatrick, Willard H. 2,775,202.

Vogt, Clarence W. Method of filling and sealing bags. 2,775,062, 12-25-56, Cl. 53—37.

Vogt, Clarence W. Rearrangement with reinforcement. 2,775,207, 12-25-56, Cl. 229—57.

Von Herbulis, Carl L.: *See*—
Von Herbulis, Robert W. and C. L. 2,775,422.

Von Herbulis, Robert W. and C. L. Combination hanger and clamp. 2,775,422, 12-25-56, Cl. 248—68.





Von Stein, Paul W.: *See*—
Lebedeff, Yuril E., Stone, and von Stein. 2,775,509.

Voreck, Wallace E., Jr., to Standard Oil Co. Sulfur removal in gas cooling. 2,775,311, 12-25-56, Cl. 183—120.

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| | 82: | 2,775,292 | | 116: | 2,775,697 | | | | | | |
| | 91: | 2,775,293 | | 122: | 2,775,698 | | | | | | |
| | 116: | 2,775,294 | | 142: | 2,775,699 | | | | | | |
| 160— | 242: | 2,775,295 | | 148: | 2,775,670 | | | | | | |
| 164— | 29: | 2,775,296 | | 168: | 2,775,671 | | | | | | |
| | 115: | 2,775,297 | | 172: | 2,775,674 | | | | | | |
| | | 2,775,298 | 201— | 46: | 2,775,672 | | | | | | |
| | | 2,775,299 | | 83: | 2,775,673 | | | | | | |
| | | 2,775,300 | 203— | 6: | 2,775,681 | | | | | | |
| | 118: | 2,775,301 | 204— | 126: | 2,775,552 | | | | | | |
| 166— | 1: | 2,775,302 | | 141: | 2,775,553 | | | | | | |
| | 15: | 2,775,303 | | 187: | 2,775,554 | | | | | | |
| | 100: | 2,775,304 | 208— | 16: | 2,775,341 | | | | | | |
| | 142: | 2,775,305 | | 17: | 2,775,342 | | | | | | |
| | 210: | 2,775,306 | | 31: | 2,775,343 | | | | | | |
| 167— | 55: | 2,775,538 | | 38: | 2,775,344 | | | | | | |
| | 68: | 2,775,539 | | 45.32: | 2,775,345 | | | | | | |
| 176— | 15: | 2,775,540 | 209—172.5: | | 2,775,346 | | | | | | |
| | 50.61: | 2,775,541 | | 314: | 2,775,347 | | | | | | |
| | 90: | 2,775,542 | 210— | 15: | 2,775,555 | | | | | | |
| | | 2,775,543 | | 16: | 2,775,556 | | | | | | |
| | | 2,775,544 | | 94: | 2,775,348 | | | | | | |
| 178— | 7.2: | 2,775,544 | | 128: | 2,775,349 | | | | | | |
| 179— | 1: | 2,775,545 | | 157: | 2,775,350 | | | | | | |
| | 15: | 2,775,546 | 211— | 64: | 2,775,351 | | | | | | |
| | | 2,775,547 | | 124: | 2,775,352 | | | | | | |
| | 18: | 2,775,548 | 213— | 34: | 2,775,353 | | | | | | |
| | 81: | 2,775,549 | 214— | 21: | 2,775,354 | | | | | | |
| | 100.1: | 2,775,550 | | 26: | 2,775,355 | | | | | | |
| | | 2,775,551 | | 140: | 2,775,356 | | | | | | |
| | 107: | 2,775,552 | | 200: | 2,775,357 | | | | | | |
| | 115: | 2,775,553 | | 451: | 2,775,358 | | | | | | |
| | 171: | 2,775,554 | | 453: | 2,775,359 | | | | | | |
| | | 2,775,555 | 219— | 8.5: | 2,775,673 | | | | | | |
| | | 2,775,556 | | 10.5: | 2,775,674 | | | | | | |
| | | 2,775,557 | | 19: | 2,775,677 | | | | | | |
| | | 2,775,558 | | | 2,775,678 | | | | | | |
| | | 2,775,559 | | 20: | 2,775,679 | | | | | | |
| | | 2,775,560 | | | 2,775,680 | | | | | | |
| 180— | 43: | 2,775,307 | | 25: | 2,775,681 | | | | | | |
| | 54: | 2,775,308 | | 26: | 2,775,682 | | | | | | |
| 181— | 31: | 2,775,309 | | 30: | 2,775,683 | | | | | | |
| 183— | 26: | 2,775,310 | | 44: | 2,775,684 | | | | | | |
| | 120: | 2,775,311 | 220— | 4: | 2,775,360 | | | | | | |
| 187— | 29: | 2,775,312 | | | 2,775,361 | | | | | | |
| 186— | 2: | 2,775,313 | | 42: | 2,775,362 | | | | | | |
| | 5: | 2,775,314 | | 44: | 2,775,363 | | | | | | |
| | 78: | 2,775,315 | | 97: | 2,775,364 | | | | | | |
| | 79.5: | 2,775,316 | 221— | 44: | 2,775,365 | | | | | | |
| | 90: | 2,775,317 | | 222: | 2,775,366 | | | | | | |
| | | 2,775,318 | 223— | 20: | 2,775,367 | | | | | | |
| | 170: | 2,775,319 | | 81: | 2,775,368 | | | | | | |
| | 171: | 2,775,320 | | 93: | 2,775,369 | | | | | | |
| | 196: | 2,775,321 | | 100: | 2,775,370 | | | | | | |
| | 215: | 2,775,322 | | 108: | 2,775,371 | | | | | | |
| | 234: | 2,775,323 | | 182: | 2,775,372 | | | | | | |
| 189— | 34: | 2,775,324 | | 183: | 2,775,373 | | | | | | |
| | 76: | 2,775,325 | | 185: | 2,775,374 | | | | | | |
| 192— | 56: | 2,775,326 | | 202: | 2,775,375 | | | | | | |
| | | 2,775,327 | | 426: | 2,775,376 | | | | | | |
| | 57: | 2,775,328 | 223— | 46: | 2,775,377 | | | | | | |
| | 82: | 2,775,329 | | 91: | 2,775,378 | | | | | | |
| | 87: | 2,775,330 | | 93: | 2,775,379 | | | | | | |
| | 115: | 2,775,331 | | 100: | 2,775,380 | | | | | | |
| 195— | 31: | 2,775,540 | 224— | 42.1: | 2,775,381 | | | | | | |
| 196— | 5: | 2,775,541 | 228— | 1.5: | 2,775,382 | | | | | | |
| | 14.82: | 2,775,542 | | 3.5: | 2,775,383 | | | | | | |
| | | 2,775,543 | | 5.5: | 2,775,384 | | | | | | |
| | 24: | 2,775,544 | | | 2,775,385 | | | | | | |
| | 25: | 2,775,545 | | 7: | 2,775,386 | | | | | | |
| | 50: | 2,775,546 | | 15: | 2,775,387 | | | | | | |
| | 52: | 2,775,547 | | 17: | 2,775,388 | | | | | | |
| | | 2,775,548 | | 28: | 2,775,389 | | | | | | |
| | | 2,775,549 | | 38: | 2,775,390 | | | | | | |
| | 147: | 2,775,550 | | | 2,775,391 | | | | | | |
| 197— | 114: | 2,775,332 | | 26: | 2,775,392 | | | | | | |
| 198— | 19: | 2,775,333 | | 41: | 2,775,393 | | | | | | |
| | 30: | 2,775,334 | | 51: | 2,775,394 | | | | | | |
| | 34: | 2,775,335 | | | 2,775,395 | | | | | | |
| | 34: | 2,775,336 | | 73: | 2,775,396 | | | | | | |
| | 37: | 2,775,337 | | 87: | 2,775,397 | | | | | | |
| | 129: | 2,775,338 | 230— | 55: | 2,775,398 | | | | | | |
| | 223: | 2,775,339 | | 85: | 2,775,399 | | | | | | |
| 199— | 61: | 2,775,340 | | 116: | 2,775,400 | | | | | | |
| 200— | 1: | 2,775,681 | | 169: | 2,775,401 | | | | | | |
| | | 2,775,682 | 235— | 61: | 2,775,402 | | | | | | |
| | 51.17: | 2,775,683 | | | 2,775,403 | | | | | | |
| | 61.54: | 2,775,684 | | | 2,775,404 | | | | | | |
| | 80: | 2,775,685 | | 61.12: | 2,775,405 | | | | | | |

235— 97: 2,775,496
240— 2: 2,775,698
2.1: 2,775,697
10.66: 2,775,698
78: Re.24,288
242— 55: 2,775,497
55.2: 2,775,498
55: 2,775,499
66: 2,775,410
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2,775,412
74: 2,775,413
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2,775,415
78: 2,775,416
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119: 2,775,418
244— 35: 2,775,419
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246— 2: 2,775,699
248— 63: 2,775,422
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250— 29: 2,775,699
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2,775,695
2,775,696
2,775,697
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61.9: 2,775,706
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71: 2,775,710
262— 5.5: 2,775,558
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264— 1.4: 2,775,427
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127: 2,775,432
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280— 2: 2,775,563
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262.5: 2,775,586
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250.4: 2,775,592
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290: 2,775,596
295: 2,775,597
295: 2,775,598
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328.5: 2,775,600
340: 2,775,600
367.5: 2,775,601
397.3: 2,775,602
397.4: 2,775,603
404.5: 2,775,604
448.2: 2,775,605
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449.6: 2,775,607
456: 2,775,608
465: 2,775,609
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2,775,611
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2,775,613
479: 2,775,613
487: 2,775,614
488: 2,775,615
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619: 2,775,620
635: 2,775,621
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637: 2,775,623
662.5: 2,775,624
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666: 2,775,626
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2,775,629
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673: 2,775,631
674: 2,775,632
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679: 2,775,635
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268— 104: 2,775,446
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274— 10: 2,775,459
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279— 99: 2,775,695
119: 2,775,461
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291— 23: 2,775,474
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299— 19: 2,775,480
300— 23: 2,775,481
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121: 2,775,485
144: 2,775,486
301— 5: 2,775,487
304— 9: 2,775,488
23: 2,775,489
26: 2,775,490
306— 9: 2,775,491
10: 2,775,492
307— 10: Re.24,280
73: 2,775,712
85: 2,775,713
88.5: 2,775,714
98: 2,775,715
309— 9: 2,775,492
13: 2,775,494
44: 2,775,495
310— 186: 2,775,716
248: 2,775,717
311— 6: 2,775,496
39: 2,775,497
312— 201: 2,775,498
225: 2,775,499
280: 2,775,500
320: 2,775,501
312— 113: 2,775,718
315— 11: 2,775,719
24: 2,775,720
315— 30.3: 2,775,721
169: 2,775,722
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317— 5: 2,775,724
36: 2,775,725
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207: 2,775,729
320— 1: 2,775,730
2,775,731
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27: 2,775,733
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334— 49: 2,775,736
58: 2,755,737
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57: 2,775,739
329— 10: 2,775,740
31: 2,775,741
330— 53: 2,775,742
339— 52: 2,775,743
74: 2,775,744
91: 2,775,745
266: 2,775,746
277: 2,775,747
340— 3: 2,775,748
8: 2,775,749
52: 2,775,750
70: 2,775,751
223: 2,775,752
289: 2,775,753
347: 2,775,754
380: 2,775,755
343— 11: 2,775,756
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884: 2,775,761
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## CLASSIFICATION OF DESIGNS


D 9— 2: Des.179,439
Des.179,441
D14— 2: Des.179,442
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6: Des.179,436
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D21— 1: Des.179,451
D31— 4: Des.179,455
D38— 6: Des.179,465
Des.179,466
14: Des.179,454
D38— 2: Des.179,446
Des.179,447
D44— 9: Des.179,463
D45— 4: Des.179,437
Des.179,438
D49— 1: Des.179,461
D50— 8: Des.179,458
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D52— 1: Des.179,443
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D58— 3: Des.179,460
D64—14: Des.179,453
D68— 4: Des.179,445
D67— 1: Des.179,462
D69— 4: Des.179,457
D71— 1: Des.179,435
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D74—17: Des.179,449
26: Des.179,450
D85—10: Des.179,440



# OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

December 25, 1956 Volume 713 Number 4


# TRADEMARKS

## NOTICES

### Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 396,963. (See TM 520,918.)

TM 401,655. (See TM 520,918.)

TM 503,033 (PABALATE), A. H. Robins Co., Inc., Antirheumatic preparation in tablet form, filed Oct. 22, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1743, *A. H. Robins Co., Inc.* v. *Maxwell Brochuf, doing business as Gateway Prescription Pharmacy.* Defendants restrained and enjoined Nov. 16, 1956.

Same, Doc. 56c1744, *A. H. Robins Co., Inc.* v. *Arthur Robin and Irving A. Robin, doing business as Robin Drugs.* Decree as above.

TM 520,918 (DON THE BEACHCOMBER), Cora Sund Casparis, doing business as Don The Beachcomber, The serving of food and beverages in restaurants; TM 396,963 ("BEACHCOMBER'S BRAND" and design), Cora I. Sund, Rum; TM 401,655 ("DON BEACHCOMBER'S" and design), Don E. B. G. Beach-Comber, Shrimp batter and shrimp sauce, filed Nov. 9, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20712-TC, *Don The Beachcomber et al.* v. *Waikiki Beachcomber, Inc. et al.*

## CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 2, 1956

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] ..... 7,310
Date of oldest new application ..... Apr. 19, 1956
Date of oldest amended application ..... Jan. 19, 1956

MERCHANT, JOHN, Director, Trademark Examining Operation

| TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION | Oldest Application | |
|---|---|---|
| | New | Amended |
| I. STERBA, J. R., Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 44 and Certification Marks (Goods) Class A | 5-8-56 | 5-10-56 |
| II. SHEYOCK, R. F., Classes 6, 15, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B | 4-19-56 | 4-26-56 |
| III. WENDT, C. M., Classes 1, 2, 3, 7, 8, 9, 10, 11, 16, 17, 20, 22, 30, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50, 52 | 6-1-56 | 1-19-56 |
| Renewals (All Classes) | 10-9-56 | |
| Sec. 12 (c) Publications (All Classes) | 10-5-56 | |

Applications Filed During the Month of October 1956—1,925

Registrations Issued ..... 233—No. 638,921 to No. 639,153
Renewals Issued ..... 58


The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.50 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

# MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

## CLASS 1

### RAW OR PARTLY PREPARED MATERIALS

SN 674,638. Toyad Corporation, Latrobe, Pa. Filed Oct. 11, 1954.

Chemfoam

For Foamed Plastic Materials in the Form of Sheets, Slabs, and the Like.
First use Mar. 1, 1954.

SN 763. Druid Hill Park Seed Corporation, Baltimore, Md. Filed Jan. 16, 1956.

HALL MALL

For Grass Seeds.
First use December 1955.

## CLASS 2

### RECEPTACLES

SN 692,405. F. J. Kress Box Company, Pittsburgh, Pa. Filed Aug. 3, 1955.

Masterpak

For Paperboard Cartons.
First use July 18, 1955.
Subj. to Intf. with SN 9,183.

SN 2,069. Atlas Plywood Corporation, Boston, Mass. Filed Feb. 6, 1956.

Atlas Plywood
FROM FOREST TO FINISHED PRODUCT

The word "Plywood" is hereby disclaimed apart from its use as shown in the drawing. Owner of Reg. Nos. 208,762 and 209,986.
For Plywood Shipping Cases.
First use August 1953.

SN 8,608. American Box Board Company, Grand Rapids, Mich. Filed May 21, 1956.

E-Z MATIC

For Merchandise Holding Boxes and Receptacles Made of Paperboard.
First use on or about Apr. 10, 1956.

SN 11,244. Fulton Bag & Cotton Mills, Atlanta, Ga. Filed June 29, 1956.

Ful-Pic

For Cotton Pickers' Bags.
First use June 5, 1956.

SN 11,383. Mallinckrodt Chemical Works, St. Louis, Mo. Filed July 2, 1956.

UTIL-AR-PAK

Owner of Reg. No. 594,056.
For Corrugated Shipping Cartons.
First use May 15, 1956.

SN 13,085. Southwestern Industrial Electronics Company, Houston, Tex. Filed July 30, 1956.

SIE

For Storage Boxes.
First use on or before Feb. 15, 1945.

## CLASS 3

### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 4,647. Henry L. Kotkins, Seattle, Wash. Filed Mar. 15, 1956.

TOTE EM

Owner of Reg. No. 578,736.
For Luggage.
First use February 1953.

SN 5,581. Bankers Trust Company, New York, N. Y. Filed Apr. 2, 1956.

BANKIT

For Portfolio for Business and Banking Correspondence.
First use Oct. 5, 1955.





## CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

SN 695,205. Avon-Strand, Inc., Chicago, Ill. Filed Sept. 23, 1955.

EXTERMO

For Insecticide Cones.
First use June 1, 1955.
Subj. to Intf. with SN 696,741.

SN 696,451. Mid-Western Spray Chemical Co., Inc., Mission, Kans. Filed Oct. 14, 1955.

WEEVLDOOM

For Liquid Insecticide for Application to Grain in Storage.
First use Oct. 24, 1950.

SN 696,741. Rochester Germicide Company, Inc., Rochester, N. Y. Filed Oct. 19, 1955.

EXTERMO

For Insecticides.
First use in January 1895.
Subj. to Intf. with SN 695,205.

SN 698,339. Bryton Chemical Company, Marcus Hook, Pa. Filed Nov. 16, 1955.

HYBASE

For Sulfonates.
First use Jan. 7, 1954.

SN 6,652. Standard Ultramarine & Color Co., Huntington, W. Va. Filed Apr. 18, 1956.

BERMUDA

For Dyes—Namely, Phthalocyanine Blues.
First use Apr. 7, 1955.

SN 7,008. Hofford Varnish Co., Inc., Carlstadt, N. J. Filed S. R. Apr. 24, 1956; amended to P. R. June 21, 1956.

AQUA-TONE

For Liquid Leather Finishing Composition.
First use January 1955.
Subj. to Intf. with SN 7,530.

SN 7,530. Paule Chemical Corp., Charlestown, Mass. Filed May 2, 1956.

AQUA-TONE

For Shoe Sprays—Namely, Spraying Fluids for Providing Shoes With Water Repellent Finishes.
First use January 1956.
Subj. to Intf. with SN 7,008.

SN 10,435. S. C. Johnson & Son, Inc., Racine, Wis. Filed June 18, 1956.

GLADE

For Household Deodorant.
First use Mar. 18, 1956.

## CLASS 7

### CORDAGE

SN 9,479. Mount Vernon Mills, Inc., Baltimore, Md. Filed June 1, 1956.

MOUNT VERNON MILLS INC.

For Cordage, Particularly Twines and Ropes.
First use May 2, 1956.

SN 11,034. Plymouth Cordage Company, Plymouth, Mass. Filed June 26, 1956.

ORANGE TOP

For Baler Twine.
First use May 16, 1956.

## CLASS 8

### SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

SN 680,802. Alfred Robbins Organization, Inc., New York, N. Y. Filed Jan. 31, 1955.

EXECUTIVE LINE

The words "Executive Line" are disclaimed apart from the mark as shown.
For Pocket and Table Lighters for Cigarettes and Cigars, Ash Trays, and Cigarette Boxes.
First use July 1, 1947.

SN 10,282. Johnny Ashtray, Kansas City, Kans. Filed June 15, 1956.

Johnny Ashtray

The term "Ashtray" is disclaimed apart from the goods.
For Ash Trays.
First use June 9, 1956.

## CLASS 10

### FERTILIZERS

SN 1,286. "Seifa" Società per il Commercio di Fertilizzanti Azotati—S. p. A., Milan, Italy. Filed Jan. 23, 1956.



Priority claimed under Sec. 44(d) on Italian application filed Nov. 3, 1955; Reg. No. 128,546, dated July 9, 1956.
For Chemical Fertilizers for Agricultural Purposes.

## CLASS 12

### CONSTRUCTION MATERIALS

SN 700,732. Johns-Manville Corporation, New York, N. Y. Filed Dec. 28, 1955.

**LOK-PALLET**

Owner of Reg. No. 617,056.
For Unit Stacks of Shingles.
First use Mar. 7, 1955.

## CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 696,006. Waldoroth Label Corporation, Boston, Mass. Filed Oct. 6, 1955.

**JIFFY**

For Label Fastener of the Spiral Screw Button Type.
First use November 1954.

SN 8,697. Regal Ware, Inc., Kewaskum, Wis. Filed May 21, 1956.

**SEAL-O-MATIC**

For Cooking Vessels.
First use Jan. 1, 1956.

SN 10,703. The Pipeline Development Company, Cleveland, Ohio. Filed June 21, 1956.

**PLIDCOWEAR**

For Tubular Fluid Conduction Pipes and Members.
First use Dec. 29, 1954.

SN 12,608. Flexigrip, Inc., New York, N. Y. Filed July 23, 1956.

**FLEXTITE**

For Zippers and Slide Fasteners.
First use Oct. 30, 1952.

SN 12,729. Knud W. Larsen, d. b. a. Gary Lawn-Mist Sprinkler Co., Gary, Ind. Filed July 24, 1956.

**LAWN MIST**

For Underground Lawn Sprinkling Systems.
First use May 14, 1956.

SN 12,747. Ronson Corporation, Newark, N. J. Filed July 24, 1956.

**RHUCOR**

For Manually Operated Valves, Power Operated Valves, Actuating Cylinders, and Components Thereof, Primarily as Used in Control Systems Applied to Aircraft, Missiles, and Engines.
First use May 16, 1956, on manually operated valves for airplane braking systems.

SN 12,914. Stillwater Clay Products Co., Cleveland, Ohio. Filed July 26, 1956.

**LOCK-A-BAR**

For Pipe Supports for Pipes Within a Conduit System.
First use May 16, 1956.

SN 12,918. Western Wire Products Company, St. Louis, Mo. Filed July 26, 1956.

**SAFE-T-EDGE**

For Perforated Hanger Bars.
First use July 12, 1956.

## CLASS 14

### METALS AND METAL CASTINGS AND FORGINGS

SN 12,090. The International Nickel Company, Inc., New York, N. Y. Filed July 13, 1956.

**INCORAY**

Owner of Reg. Nos. 128,408, 335,374, and others.
For Radiation Alloys and Particularly Cobalt-Containing Radiation Alloys.
First use Jan. 16, 1956.
Subj. to Intf. with SN 2,602.

SN 13,561. American Alloys Corporation, Kansas City, Mo. Filed Aug. 8, 1956.

**AZA**

For Ingots of Casting Metal Composed Principally of Aluminum.
First use Oct. 1, 1954.

SN 13,668. Hermes Plastics Inc., New York, N. Y. Filed Aug. 9, 1956.

**GRAVALUM**

For Laminated Aluminum and Phenolic Plastic Engraving Stock.
First use June 21, 1956.

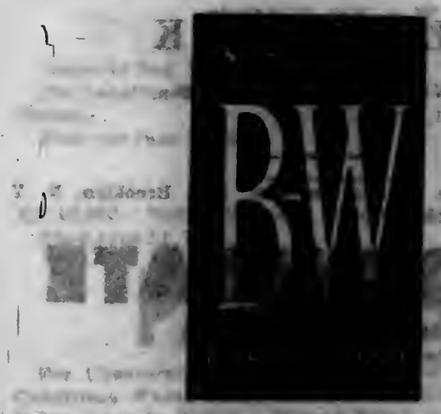
SN 13,968. The Colorado Fuel and Iron Corporation, Denver, Colo. Filed Aug. 15, 1956.

**CLAY-LOY**

For Steel Plate.
First use Nov. 22, 1955.



SN 14,217. Borg-Warner Corporation, Chicago, Ill. Filed Aug. 20, 1956.




Owner of Reg. Nos. 513,546, 607,848, and others.
For Ingots, Plate and Sheet Steel.
First use Jan. 4, 1956.

SN 14,423. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed Aug. 22, 1956. Sec. 2(f).

**Warplis**

For Tool Steel Drill Rods and Ground Flats.
First use in April 1938 on tool steel drill rods.

SN 14,671. Kennametal Inc., Latrobe, Pa. Filed Aug. 27, 1956.

**KENFACE**

For Crushed Cemented Hard Metal Carbide.
First use on or about May 31, 1956.

SN 17,119. Precision Steel Warehouse, Inc., Chicago, Ill. Filed Oct. 8, 1956.




Owner of Reg. Nos. 421,089, 610,565, and others.
For Cold Rolled Annealed Spring Steel, Cold Rolled Annealed High Carbon Flat Wire, Hard Rolled High Carbon Spring Steel Strip, Blue Tempered Spring Steel, Black Oiled Tempered Scaleless Spring Steel, Spring Steel Feeler Gauge Stock, Tool Steel Sheets, Spring Steel Music Wire, Stainless Steel Strip, Cold Rolled Strip Steel, Cold Rolled Steel Sheets, Shim Steel, Tin Coated Steel in Coils and Cut Lengths, Low Carbon Cold Rolled Steel Flat Wire, Beryllium Copper Stripe in Coils and Cut Lengths, Brass Stripe in Coils and Cut Lengths, Nickel Silver Stripe in Coils and Cut Lengths, Phosphor Bronze Stripe in Coils and Cut Lengths, Steel Arbor Spacers and Shims, Brass Shim Stock, Steel Shim Stock, Ground Flat Stock, Thickness Gauge Stock and Drill Rods.
First use Sept. 6, 1955.

## CLASS 15

### OILS AND GREASES

SN 652,323. Continental Oil Company, Ponca City, Okla. Filed Aug. 26, 1953. Sec. 2(f).

**OIL-PLATES YOUR ENGINE**

Owner of Reg. No. 348,368.
For Lubricating Oils for Internal Combustion Engines.
First use Jan. 29, 1938.

SN 15,317. Shell Oil Company, New York, N. Y. Filed Sept. 7, 1956.

**PELLA**

For Lubricating Oil.
First use Dec. 1, 1929.

## CLASS 16

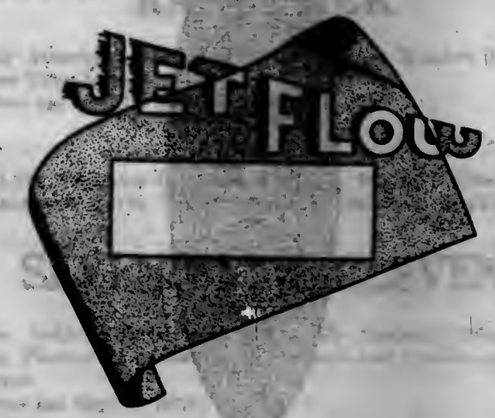
### PROTECTIVE AND DECORATIVE COATINGS

SN 694,439. Temco, Inc., Nashville, Tenn. Filed Sept. 9, 1955.

**CERAMIC-CLAD**

For Protective and Decorative Finish Applied to Heat Exchangers, Such as Air Furnaces.
First use Aug. 24, 1955.

SN 4,421. Sam Bauman, Jr., d. b. a. Sam Bauman & Son, Memphis, Tenn. Filed Mar. 13, 1956.




For Paint, Lacquer, and Varnish.
First use on or about Feb. 1, 1955.

SN 7,219. Silibond Products, Inc., Arlington, Mass. Filed Apr. 26, 1956.

**SILASHEEN**

For Durable Finish Coat Applied to Interior and Exterior Dry Masonry, Stucco, or Brick Surfaces, Which Is Adhesive to Masonry, Has Preservative and Decorative Properties, and Is Highly Resistant to Discoloration Under Severe Weather Conditions.
First use Apr. 10, 1953.

SN 8,413. Hogan Laboratories, Inc., New York, N. Y. Filed May 16, 1956.

**FAXKOTE**

For Preservative for Facsimile Prints.
First use Mar. 19, 1956.

SN 8,476. Franklin Research Company, Philadelphia, Pa. Filed May 17, 1956.

## AWARD

For Floor Finish.
First use July 11, 1955.

SN 9,473. Lacquer Corporation of America, Brooklyn, N. Y. Filed June 1, 1956.

## RHINO-TEX

For Paints and Enamels.
First use Apr. 1, 1956.

### CLASS 18

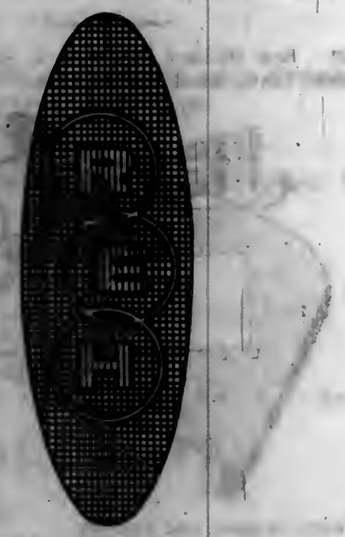
### MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 693,892. Ames Company, Inc., Elkhart, Ind. Filed Aug. 30, 1955.

## CONET

For Wax-Like Composition Used as the Base or Carrier for the Active Ingredient in a Suppository and Which Also Lubricates and Soothes the Bodily Tissues With Which the Suppository Comes in Contact.

SN 695,837. Pascal Co., Inc., Seattle, Wash. Filed Oct. 4, 1955.



The drawing is lined for red and black.
For Epinephrine Solution for Topical Use as a Dental Hemostat and Retraction of Tissue and Other Similar Uses in Connection With Dental Operation.
First use on or about Apr. 8, 1955.

SN 697,099. Lakeside Laboratories, Inc., Milwaukee, Wis. Filed Oct. 25, 1955.

## METAHYDRIN

For Injectable Medication Intended for the Treatment of Edema.
First use Mar. 1, 1955.

SN 697,287. Gray Pharmaceutical Co., Inc., Newton, Mass. Filed Oct. 28, 1955.

## GLUTAVENE

For Therapeutic Glutamic Acid Preparation.
First use Aug. 31, 1955.

SN 697,288. Gray Pharmaceutical Co., Inc., Newton, Mass. Filed Oct. 28, 1955.

## GLUTAVENE K

For Therapeutic Glutamic Acid Preparation.
First use Aug. 31, 1955.

SN 697,481. The Iso-Sol Company, Inc., Brooklyn, N. Y. Filed Nov. 1, 1955.

## PROCHELATE

For Ophthalmic Medicines.
First use on or about Oct. 19, 1955.

SN 1,938. Capillaris Manufacturing Co., Glen Ridge, N. J. Filed Feb. 2, 1956.



For Medicated Remedy for Scalp and Skin Disorders, for Blackheads, Pimples, Sunburn, Chapped Skin and Face Eruptions, Eczema, and Salt Rheum.
First use in 1882.

SN 1,989. Schering Corporation, Bloomfield, N. J. Filed Feb. 2, 1956.

## METIBIOTIC

For Medicinal Preparation for the Treatment of Mastitis, for Veterinary Use.
First use Dec. 8, 1955.

SN 3,128. Thompson-Hayward Chemical Company, Kansas City, Mo. Filed Feb. 21, 1956. Sec. 2(f).

## FEEDOIL

Owner of Reg. No. 423,978.
For Livestock and Poultry Feed Supplements Containing Vitamins.
First use April 1941.

SN 8,495. Merck & Co., Inc., Rahway, N. J. Filed May 17, 1956.

## HYDELTRACIN

Owner of Reg. No. 632,567.
For Medicinal Preparation Containing Hormonal Compound and Antibiotic.
First use May 7, 1956.

SN 8,575. Walter Ratner, d. b. a. Rulo Products, Chicago, Ill. Filed May 18, 1956.

## RULO

For Dietary Supplement in Concentrated Tablet Form.
First use Mar. 9, 1949.



SN 10,174. Luyties Pharmacal Company, St. Louis, Mo. Filed June 13, 1956. Sec. 2(f).

## YELLOLAX

Owner of Reg. No. 330,844.
For Laxative Medicines, Principally in the Form of Laxative Tablets.
First use June 1, 1931.

SN 10,250. Natick Chemical Industries, Inc., Natick, Mass. Filed June 14, 1956.

## PANAGEN

For Unsaturated Fatty Acid Complexes for Treatment of Conditions Where There Exists a Deficiency of Unsaturated Fatty Acids in Either a Human Being or an Animal.
First use May 29, 1956.

SN 10,259. John Edward Ronicker, d. b. a. J. E. Ronicker Co., West Milton, Ohio. Filed June 14, 1956.




For Antibiotic, Arsanilic Acid and Vitamin Mixture for Stimulating Growth of Swine.
First use May 5, 1956.

SN 10,546. Merck & Co., Inc., Rahway, N. J. Filed June 19, 1956.

## LERITINE

For Compound Having Analgesic, Sedative, Hypnotic, and Antispasmodic Properties.
First use June 11, 1956.

SN 10,550. Philip T. Paul, d. b. a. Salem Pharmaceuticals, Naugatuck, Conn. Filed June 19, 1956.

## Keranil

For Dermatological Ointment.
First use Nov. 17, 1952.

SN 10,742. American Cyanamid Company, New York, N. Y. Filed June 22, 1956.

## TEMPOSIL

Owner of Reg. No. 578,464.
For Anti-Alcoholism Preparation.
First use Apr. 23, 1956.

SN 10,936. Sterling Drug Inc., New York, N. Y. Filed June 25, 1956.

## NITERSATE

For Vasodilator, Particularly of the Coronary Blood Vessels.
First use May 29, 1956.

SN 11,399. Parke, Davis & Company, Detroit, Mich. Filed July 2, 1956.

## CELONTIN

For Anticonvulsant Preparation.
First use Jan. 27, 1956.

### CLASS 19

### VEHICLES

SN 691,305. Albert J. Leeward, d. b. a. Leeward Aeronautical Service, Fort Wayne, Ind. Filed July 14, 1955.

## Executivcair

For Aircraft.
First use Oct. 1, 1954.

SN 692,878. Studebaker-Packard Corporation, Detroit, Mich. Filed Aug. 11, 1955.



For Passenger Automobiles.
First use May 15, 1955.

SN 2,177. Ohio Valley Merchandising Company, Morganfield, Ky. Filed Feb. 6, 1956.

## RAIN CHEK

For Attachment for an Automobile Vent Window To Drain Water Therefrom.
First use Jan. 11, 1956.

SN 3,825. Andrew C. Chappie, d. b. a. The A. C. Chappie Replacement Parts, Canton, Ohio. Filed Mar. 5, 1956.

## SEVEN COME ELEVEN

For Vehicle Parts, New and Used—Namely, Chassis and Parts Thereof and Combination Wheels and Brakes and Parts Thereof.
First use Sept. 8, 1955.

SN 11,527. Auto Specialties Manufacturing Co., St. Joseph, Mich. Filed July 5, 1956.

## AUSCO

For Vehicle Brakes.
First use on or about Mar. 7, 1956.

### CLASS 20

### LINOLEUM AND OILED CLOTH

SN 8,639. Duracote Corporation, Ravenna, Ohio. Filed May 21, 1956.

## DURA-TRIM

For Plastic Films and Coated Fabrics for Wall Coverings.
First use July 12, 1949.

## CLASS 21

## ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 678,494. Westric Battery Company, Denver, Colo. Filed Dec. 16, 1954.

Spark-a-lyte

Owner of Reg. Nos. 151,634 and 337,714.
For Storage Batteries.
First use Nov. 22, 1954; and about Jan. 1, 1920, as to "Westric."

SN 690,875. General Electric Company, Schenectady, N. Y. Filed July 7, 1955.

MUSITHERM

For Electric Clock-Thermal Control Combinations.
First use Mar. 18, 1955.

SN 699,619. Chatham Electronics, Division of Gera Corporation, Livingston, N. J. Filed Dec. 8, 1955.

CHATHAM ELECTRONICS

No claim is made to the words "Chatham Electronics" apart from the mark as presented.
For Vacuum Tubes, Gas Filled Discharge Devices, and Test Sets Using Discharge Devices.
First use on or before Nov. 1, 1955, on cartons containing vacuum tubes and gaseous discharge devices.

SN 6,045. Ray-O-Vac Company, Madison, Wis. Filed Apr. 9, 1956.



Owner of Reg. No. 557,977.
For Dry Cells and Dry Batteries.
First use Feb. 1, 1956.

SN 7,144. Acro Welder Mfg. Co., Milwaukee, Wis. Filed Apr. 26, 1956. Sec. 2(f).

ACROMATIC

Owner of Reg. No. 549,447.
For Electric Resistance Welders and Brazers.
First use Sept. 29, 1945.

SN 9,294. The Pyle-National Company, Chicago, Ill. Filed May 29, 1956.

PYLE ☆ LINE

Owner of Reg. No. 554,290.
For Electrical Connectors.
First use Apr. 5, 1956.

SN 9,648. Kwikset Locks, Inc., Anaheim, Calif. Filed June 5, 1956.

K P M P

For Electronic Toroids.
First use Apr. 26, 1955.

SN 10,464. Northeast Tool and Die Works, Inc., Kansas City, Mo. Filed June 18, 1956.

"FINE LINE"

For Vehicle Directional Signal Lights.
First use Jan. 1, 1953.

SN 10,620. The Pyle-National Company, Chicago, Ill. Filed June 20, 1956.

PYLE-STAR-LINE

Owner of Reg. No. 554,290.
For Electrical Connectors.
First use Apr. 5, 1956.

SN 10,950. Volkers & Schaffer Manufacturing Corp., Schenectady, N. Y. Filed June 25, 1956.

HUSHED

For Transistor Amplifiers.
First use July 1, 1955.

SN 11,031. Perfection Mica Company, Chicago, Ill. Filed June 26, 1956.

INSULMENT

For Powdered Mica Product for Shielding Electrical and Electronic Devices From Electric and Magnetic Fields.
First use June 1, 1956.

SN 11,511. Ward Leonard Electric Co., Mount Vernon, N. Y. Filed July 3, 1956.

MINISTRIP

For Electrical Resistors.
First use June 12, 1956.

SN 11,556. Electrend Products Corp., St. Joseph, Mich. Filed July 5, 1956.

RAY-VEC

For Electric Heaters.
First use Dec. 22, 1955.



## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

SN 1,387. Travel Products, Lancaster, Pa. Filed Jan. 24, 1956.

TURNPIKE

For Game.
First use Dec. 2, 1955.

## CLASS 23

## CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 681,343. Clark Equipment Company, Buchanan, Mich. Filed Feb. 9, 1955. Sec. 2(f).

CLARK EQUIPMENT

Owner of Reg. Nos. 165,644, 505,904, and others.
For Power Operated Industrial Lift Trucks, Towing Tractors, Tractor Shovels, Straddle Carriers, and Power Shovels and Cranes.
First use May 19, 1954.

SN 681,652. Walstechnik G. m. b. H., Pforzheim, Germany. Filed Feb. 14, 1955.



Owner of German Reg. No. 646,944, dated Oct. 28, 1953.
For Worm Cutter Milling Machines; Cutting Tools—Namely, Broaches; Milling Tools, Hobbing Tools, Worm Hobs With Symmetrical Hobbing Profile, Thread Hobs, Forming Hobs, Inserted Tooth Milling Cutters, Worm Hobs With Asymmetrical Hobbing Profile.

SN 1,265. Thomas A. Patty, Miami, Fla. Filed Jan. 23, 1956.

MOVIEMATIC

For Coin-Operated Motion Picture Book Vending Machines and Accessories.
First use Sept. 1, 1952.

SN 1,759. Barber-Greene Company, Aurora, Ill. Filed Jan. 31, 1956.

BATCH O MATIC

For Batch Plants for Producing Bituminous Mixes.
First use March 1955.

SN 1,799. Luther Corporation, Rockford, Ill., to Magnaflux Corporation, Chicago, Ill. Filed Jan. 31, 1956.

INDIAN

For Power Driven Chain Saws.
First use Aug. 24, 1955.



SN 4,437. Humberto A. Garcia, d. b. a. The New Yorker Sewing Machine Company, New York, N. Y. Filed Mar. 13, 1956. Sec. 2(f).

THE NEW YORKER SEWING MACHINE CO. NEW YORKER

Owner of Reg. No. 571,431.
For Domestic and Industrial Sewing Machines.
First use Sept. 21, 1950.

SN 6,287. Remington Arms Company, Inc., Bridgeport, Conn. Filed Apr. 12, 1956.

MIGHTY MITE

For Powder-Actuated Stud Drivers and Parts Thereof.
First use Feb. 29, 1956.

SN 6,307. Vulcan Foundry Company, d. b. a. R-Mor Products and as R-Mor Products Co., Oakland, Calif. Filed Apr. 12, 1956.

RM OR ED GE

For Sheep's Foot Tamper Caps.
First use July 6, 1955.

SN 11,204. Unity Sewing Supply, Inc., New York, N. Y. Filed June 28, 1956.

SWIFTY

For Sewing Machine Attachments—Namely, Adjustable Hook Gauges, Hemmers, Binders, and Feet.
First use May 7, 1956.

SN 11,237. The Duro Co., Dayton, Ohio. Filed June 29, 1956.

DURO

Owner of Reg. Nos. 402,994, 508,123, and others.
For Electrically Driven Deep Well, Shallow Well and Submergible Pumps, Sump Pumps, Fire Pumps, Cellar Drainers, and Water Systems, Comprising in Combination, a Pump, an Electric Driving Motor, a Tank, Connecting Piping, and Control Valves.
First use July 1915.

SN 11,437. Vaughan's Seed Company, Chicago, Ill. Filed July 2, 1956.

LAWNOVATER

For Lawn and Garden Cultivators.
First use on or about June 25, 1956.

SN 11,475. Eclipse Counterbore Company, Ferndale, Mich. Filed July 3, 1956.

**ECLIPSE**

Owner of Reg. Nos. 119,518 and 386,323.

For Machine Tools for Cutting in Metal—Namely, Counterbores, Pilots, Hollow Mills, Reamers, Taps, Spot Facers, Countersinks, Center Cutting Tools, Cutters, Form Cutters, End Mills, Drills, Boring Bars, Interchangeable Drives, Core Drills, Tool Holders, and Multi-Diameter Cutters.

First use Feb. 1, 1914, on counterbores.

SN 11,476. Eclipse Counterbore Company, Ferndale, Mich. Filed July 3, 1956.

Eclipse

Owner of Reg. Nos. 119,518 and 386,323.

For Machine Tools for Cutting in Metal—Namely, Counterbores, Pilots, Hollow Mills, Reamers, Taps, Spot Facers, Countersinks, Center Cutting Tools, Cutters, Form Cutters, End Mills, Drills, Boring Bars, Interchangeable Drives, Core Drills, Tool Holders, and Multi-Diameter Cutters.

First use Apr. 9, 1921.

SN 11,477. Eclipse Counterbore Company, Ferndale, Mich. Filed July 3, 1956.

Eclipse

Owner of Reg. Nos. 119,518 and 386,323.

For Machine Tools for Cutting in Metal—Namely, Counterbores, Pilots, Hollow Mills, Reamers, Taps, Spot Facers, Countersinks, Center Cutting Tools, Cutters, Form Cutters, End Mills, Drills, Boring Bars, Interchangeable Drives, Core Drills, Tool Holders, and Multi-Diameter Cutters.

First use Mar. 1, 1933.

SN 11,576. Hahn, Inc., Evansville, Ind. Filed July 5, 1956.

**POW-R-BOY**

For Multiple-Purpose Garden Implement and Lawn Mowing, Snow Throwing, Garden Tilling, and Power Scooping Attachments Therefor.

First use Jan. 24, 1956.

SN 11,631. Stowe-Woodward, Inc., Newton Upper Falls, Mass. Filed July 5, 1956.

**PRESTOW**

For Rubber Covered Rolls for Machinery.

First use June 12, 1956.

SN 11,723. Triangle Package Machinery Company, Chicago, Ill. Filed July 6, 1956.

**FLEXI-MATIC**

For Carton Forming, Filling, and Sealing Machines.

First use on or about June 21, 1956.

SN 11,749. The DoAll Company, Des Plaines, Ill. Filed July 9, 1956.

Demon

The words "High-Speed Steel" are disclaimed apart from the mark as shown. Owner of Reg. No. 587,052.

For Band Saw Blades in Both Cut-Length and in Bulk Length and Hack Saw Blades.

First use on or about Mar. 2, 1953.

SN 11,789. P & G Manufacturing Co., New York, N. Y. Filed July 9, 1956.

**KARV-LOK**

For Carving Board and Holder.

First use Oct. 17, 1955.

SN 11,804. Aktiebolaget Volvo, Goteborg, Sweden. Filed July 11, 1956.

**VOLVO**

The term "Volvo" translated into English means "I am rolling." Owner of Swedish Reg. No. 78,133, dated Apr. 29, 1955.

For Farm Tractors and Agricultural Tractors.

SN 11,895. Aktiebolaget Volvo, Goteborg, Sweden. Filed July 11, 1956.

VOLVO

"Volvo" means in Latin "I am rolling." Owner of Swedish Reg. No. 76,138, dated June 11, 1954.

For Farm Tractors and Agricultural Tractors.

SN 12,192. The Heyer Corporation, Chicago, Ill. Filed July 16, 1956.

**CONQUEROR**

For Duplicators.

First use Mar. 16, 1953.

SN 12,237. South Bend Tackle Company, Inc., South Bend, Ind. Filed July 16, 1956.

**SHOT-MASTER**

For Device for Applying Weights to Fishing Lines.

First use June 29, 1956.

SN 12,358. Funk Aircraft Company, Coffeyville, Kans. Filed July 18, 1956.

reversomatic

For Hydraulic Controlled Reversing Clutch and Torque Converter.

First use Mar. 17, 1956.



SN 12,450. Nihon Spindle Seiso Kabushiki-Kaisha, Amagasaki, Hyogo, Japan. Filed July 19, 1956.

**PNEUMANIEZ**

For Pneumatic Clearers for Textile Machineries.

First use Oct. 15, 1954.

SN 12,466. Edwin P. Sundholm, Albert City, Iowa. Filed July 19, 1956.

**LOAD-A-MATIC**

For Grease Guns.

First use Jan. 31, 1956.

SN 12,529. Penfield Saw Works, Inc., Thomaston, Conn. Filed July 20, 1956.

**RHINO-RAIL**

For Guide Bars for Chain Saws.

First use June 12, 1956.

SN 12,644. Lehigh Inc., Easton, Pa. Filed July 23, 1956.

LEHIGH

For Vending Machines.

First use Feb. 13, 1956.

SN 12,722. Holub Industries, Inc., Sycamore, Ill. Filed July 24, 1956.

**REAM-RITE**

For Hand Operable Reamer for Electrical Conduit and Other Pipes and Tubes.

First use Jan. 26, 1956.

SN 12,759. Carl F. Whitaker, d. b. a. Prenco Mfg. Co., Boston, Mass. Filed July 24, 1956.

**JIFFY WHEEL**

No claim is made to the word "Wheel" apart from the mark as shown.

For Wheels Used for Grinding, Buffing, Burnishing, Polishing, Scouring, and Sanding.

First use Feb. 7, 1956.

SN 12,888. The International Silver Company, Meriden, Conn. Filed July 26, 1956.

**WESTMINSTER**

For Stainless Steel Flatware—Knives, Forks, and Spoons.

First use Jan. 12, 1955.

SN 12,988. Stowe-Woodward, Inc., Newton Upper Falls, Mass. Filed July 27, 1956.

**BLACK DIAMOND**

For Rubber Covered Rolls for Machinery.

First use July 7, 1956.

SN 13,159. Michigan Tool Company, Detroit, Mich. Filed July 31, 1956. Sec. 2(f).

**MICHIGAN**

For Gear Cutting Machines, Gear Finishing Machines, Gear Shaping Machines, Gear Grinding Machines, Checking Machines, Machines for Cutting Toothed and Shaped Elements, Machines for Finishing Toothed and Shaped Elements, Machines for Forming Toothed Elements, Cleaning Machines, Chip Separators, Classifying Devices, Automatic Handling Devices, Loaders, Cutting Tools, Hobs, Shaving Tools, Worms, Gears, Burnishers, Laps, and Racks.

First use 1915 on cutting tools.

SN 13,160. Michigan Tool Company, Detroit, Mich. Filed July 31, 1956.

**DONE-DRIVE**

For Double Enveloping Worms and Gears, Gear Sets, Speed Reducers, Hobs, Cutters, Machines for Cutting Double Enveloping Worms and Gears, Machines for Finishing Double Enveloping Worms and Gears, and Checking Machines.

First use 1932 on double enveloping worms and gears.

SN 13,163. Michigan Tool Company, Detroit, Mich. Filed July 31, 1956.

SHEAR SPEED

For Gear Shapers, Machines for Cutting Toothed and Shaped Elements, Cutting Tools and Shaping Tools.

First use 1945 on gear shapers.

SN 13,164. Michigan Tool Company, Detroit, Mich. Filed July 31, 1956.

**ROTO-FLO**

For Machines for Forming Gears and Toothed Elements, Tools for Forming Gears and Toothed Elements.

First use June 1954 on forming toothed elements.

SN 13,284. Gebr. Heller Maschinenfabrik GmbH, Nurtingen, Wurttemberg, Germany. Filed Aug. 2, 1956.

H

For Machine Tools and Controls and Parts Therefor—Namely, Horizontal, Special, and Vertical Single and Multi-Way Boring Machines; Centering and Ending Machines; Gang, Pillar, and Radial Type Drilling Machines; Horizontal, Single and Double Spindle Planer, Thread, and Vertical Milling Machines; Small, Heavy-Duty and Special Foundry and Vertical Mitre Circular Saws; Rail Sawing and Drilling Machines;

Saw Blade and Tool Grinding Machines; and Hydraulic Controls and Drives for Same, Including, Control and Feed Units, Motors and Pumps.
First use 1931.

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SN 13,341. The Bar-Plate Manufacturing Company, Orange, Conn. Filed Aug. 3, 1956.

Bar-Plate

For Boxmakers' Cutting and Creasing Jackets and Plates for Use in Printing Presses and Cutting and Creasing Presses; Equipment for Making Printing Plates From Photographs; Page Fountain Dividers for Printing Presses; Printing Roll Dampener Cleaners; and Diemakers' Steel Rule Layout Machines and Steel Rule Storage Cabinets and Racks.
First use on or about Jan. 26, 1948.

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SN 13,421. Clinton Machine Company, Clinton, Mich. Filed Aug. 6, 1956.

LE JET

For Chain Saws and Parts Thereof.
First use at least as early as March 1956.

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SN 13,441. General Slicing Machine Company, Inc., Walden, N. Y. Filed Aug. 6, 1956.

GENERAL

Owner of Reg. Nos. 317,416, 604,422, and others.
For Food Slicing Machines.
First use Feb. 5, 1956.

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SN 13,451. International Harvester Company, Chicago, Ill. Filed Aug. 6, 1956.

DOF-FLEX

For Flexible Cotton Doffers for Cotton Pickers.
First use July 13, 1956.

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SN 13,456. Link Manufacturing Company, Inc., Fargo, N. Dak. Filed Aug. 6, 1956.

"AERO"

For Grain and Seed Cleaner, Grader, and Treater.
First use during the summer of 1951.

SN 13,469. Donald L. Moore, d. b. a. Hydrozion Company, Kansas City, Mo., to Hydrozion Engineering Co., Inc., Kansas City, Mo. Filed Aug. 6, 1956.

HYDROZION

For Fluid Circulating Rotary Earth Boring Units.
First use July 3, 1956.

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SN 13,518. Atlas-Sandt Corporation, New York, N. Y. Filed Aug. 7, 1956.

SANDT

For Die Presses, Embossing Machines, Molding Machines, and Machines Used in the Shoe Industry.
First use June 6, 1956.

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SN 13 659. Ford Motor Company, Dearborn, Mich. Filed Aug. 9, 1956.

AUTOCYCLE

For Machine Tools.
First use June 26, 1956.

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SN 13,688. Salpac Company, Collingswood, N. J. Filed Aug. 9, 1956.

NU-KUT

For Detachable Blade Barber Shears, Detachable Blades for Barber Shears, and Barber Shears Adapted To Receive Detachable Blades.
First use July 23, 1956.

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SN 13,723. C & H Air Conditioning Fan Company, Inc., Atlanta, Ga. Filed Aug. 10, 1956.

MYTEESWEEP

For Lawn Sweepers.
First use on or about Feb. 1, 1956.

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SN 13,891. W. F. Webster Cement Co., Cambridge, Mass. Filed Aug. 13, 1956.

WEBTEX

For Construction Implements; Caulking Guns and Cartridges Therefor; and Scaffolding.
First use July 1952.

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SN 13,912. Fielding & Platt Limited, Gloucester, England. Filed Aug. 14, 1956.

HYPACTOR

Owner of British Reg. No. 711,874, dated Oct. 30, 1952.
For Hydraulic Machines and Parts Thereof.

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SN 13,995. New Rochelle Manufacturing Co., New Rochelle, N. Y. Filed Aug. 15, 1956.

For Piston Pumps.
First use Mar. 11, 1955.



SN 14,028. Wilmot Engineering Company, Haselton, Pa. Filed Aug. 15, 1956.

HYDROTATOR

For Agitating, Thickening, Separating, Classifying and/or Flotation Apparatus and Parts Therefor, for the Recovery, Thickening or Classification of Solids From Solutions Containing Materials in Suspension, Such as Coal, Ore, Minerals, or Organic Materials.
First use June 1926.

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SN 14,135. De Walt, Inc., Lancaster, Pa. Filed Aug. 17, 1956.

POWER SHOP

For Woodworking Saws.
First use Feb. 10, 1953.

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SN 14,263. National Research Corporation, Cambridge, Mass. Filed Aug. 20, 1956.

NRC

Owner of Reg. Nos. 594,193 and 621,237.
For Vacuum Coating Apparatus and the Like.
First use in or about October 1955.

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SN 14,290. Stoelting Brothers Co., Kiel, Wis. Filed Aug. 20, 1956.

Flavorite

For Pasteurizer.
First use Apr. 16, 1946.

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SN 14,291. Stoelting Brothers Co., Kiel, Wis. Filed Aug. 20, 1956.

SANITATOR

For Forking and Stirring Agitator.
First use July 7, 1947.

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SN 14,292. Stoelting Brothers Co., Kiel, Wis. Filed Aug. 20, 1956.

SIMPLICITY

For Cheese Press.
First use Oct. 12, 1953.

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SN 14,324. Chicago Bridge & Iron Company, Chicago, Ill. Filed Aug. 21, 1956. Sec. 2(f).

CONKEY

For Evaporators, Crystallisers and Parts Thereof Such as Condensers and Separators.
First use in the fall of 1944 on evaporators.

SN 14,431. Beebe Bros., Seattle, Wash. Filed Aug. 23, 1956.

For Winches.
First use Aug. 15, 1956.

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SN 14,482. Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft, Wuersburg, Germany. Filed Aug. 23, 1956.

For Printing Presses and Graphic and Stereotyping Machinery.
First use prior to 1937; in commerce Sept. 9, 1955.

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SN 14,484. Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft, Wuersburg, Germany. Filed Aug. 23, 1956.

PAX

For Printing Presses, More Particularly, Sheet-Fed Letterpress Rotaries.
First use prior to 1932; in commerce July 14, 1956.

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SN 14,485. Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft, Wuersburg, Germany. Filed Aug. 23, 1956.

REX

For Printing Presses, More Particularly, Sheetfed Flatbed Letterpresses.
First use prior to 1932; in commerce Mar. 30, 1956.

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SN 14,486. Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft, Wuersburg, Germany. Filed Aug. 23, 1956.

GIGANT

For Hydraulic Matrix Moulding Presses for the Graphic Industry, More Particularly for Moulding Flongs, Lead, and Synthetic Material Matrices.
First use prior to 1932; in commerce June 8, 1956.

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SN 14,487. Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft, Wuersburg, Germany. Filed Aug. 23, 1956.

KOEBAU

For Printing Presses and Graphic and Stereotyping Machines.
First use in or before 1935; in commerce prior to 1938.

SN 14,469. Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft, Wuerzburg, Germany. Filed Aug. 23, 1956.

## REMBRANDT

For Sheet-Fed Rotogravure Presses.
First use on or before 1938; in commerce Sept. 9, 1955.

SN 14,683. Modern Corporation, Detroit, Mich. Filed Aug. 27, 1956.

## MODCO

For Marking Metal Cutting Tools and Metal Production Parts.
First use July 1, 1946.

SN 14,742. R. Hoe & Co., Inc., New York, N. Y. Filed Aug. 28, 1956.

## KWIK-KUT

For Carbide Tipped Tools—Namely, Machine Tool Router Bits, Shaper Knives, Bevel-Edge Trimmers, Trim Saws, Wing Cutters, Slotting Cutters, and Spur Drills.
First use May 28, 1945.

SN 14,782. Ten-Tex Corporation, Chattanooga, Tenn. Filed Aug. 28, 1956.

## TEN-TEX

For Tufting Machinery, Both Portable and Fixed, Pressure Dyeing Machines, Railroad Tie Incisor Machines, Railroad Tie Doweller Machines, Railroad Tie Handling Machines Including Machinery for Loading and Unloading Railroad Ties Into and Out of Railroad Cars, and Railroad Tie Conveying and Hoisting Machines.
First use at least as early as 1942.

SN 14,899. Millers Falls Company, Greenfield, Mass. Filed Aug. 30, 1956. Sec. 2(f) as to "Millers Falls Tools since 1868."



No registration rights are being claimed for the word "Tools" separate and apart from the mark shown or separate and apart from the words "Millers Falls." The drawing is lined for red. Owner of Reg. Nos. 156,709, 621,176, and others.
For Awls, Bevels, Bits, Bit Extensions, Braces, Chisels, Countersinks, Drills, Drill Points, Glass Cutters, Hammers, Mitre Boxes, Nail Sets, Planes, Pliers, Punches, Putty Knives, Saws, Saw Frames, Saw Blades, Scrapers, Screw Drivers, Tack Claws, Utility Knives and Knife Blades, Vises, and Wrenches.
First use June 21, 1956; and 1922 or prior thereto as to "Millers Fall Tools Since 1868" and its immediate background design on awls.

SN 15,121. The Garlock Packing Company, Palmyra, N. Y. Filed Sept. 5, 1956. Sec. 2(f).

## GARLOCK

Owner of Reg. No. 23,430.
For Packing Hooks, Gasket Cutters; Wipers; Scrapers, Vibration Dampeners, Roller Covers, Liners, Facings, and Dust Shields, All Made of Rubber and Intended Primarily for Use With Machinery.
First use in 1936 on wipers.

SN 16,341. The Garlock Packing Company, Palmyra, N. Y. Filed Sept. 25, 1956. Sec. 2(f) as to "Garlock."



Owner of Reg. No. 37,332.
For Packing Hooks, Gasket Cutters; Wipers; Scrapers, Vibration Dampeners, Roller Covers, Liners, Facings, and Dust Shields, All Made of Rubber and Intended Primarily for Use With Machinery.
First use 1936.

SN 17,237. Borg-Warner Corporation, Chicago, Ill. Filed Oct. 11, 1956.

## MECHANIC-KUT

Owner of Reg. Nos. 251,466 and 524,215.
For Saws and Knives of All Kinds and Parts Thereof for Replacement and Repair.
First use during March 1948 on saws.

SN 17,653. Modern Carpet Sweeper Co., Inc., Great Neck, N. Y. Filed Oct. 17, 1956.

## MODERNAIRE

For Mechanical Carpet Sweepers.
First use prior to July 1940.

### CLASS 26

### MEASURING AND SCIENTIFIC APPLIANCES

SN 4,166. A-B-Coaters, Detroit, Mich. Filed Mar. 9, 1956.

## PRECOTE

For Sensitised Blueprint Papers and Ammonia Papers.
First use Sept. 12, 1955.

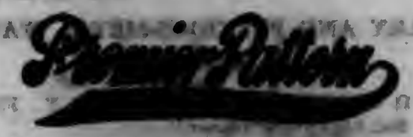
SN 5,147. Allen Electric and Equipment Company, Kalamazoo, Mich. Filed Mar. 26, 1956.

## ALLEN UNI-STAND

Owner of Reg. Nos. 509,647 and 543,224.
For Stand or Platform for Supporting Apparatus for Testing the Electrical and Vacuum Characteristics of an Internal Combustion Engine.
First use Mar. 5, 1956.



SN 5,452. Premier Pattern Company, Inc., Cincinnati, Ohio. Filed Mar. 29, 1956.



No claim is made to the exclusive right to the use of the word "Pattern" separate and apart from the mark as shown.
For Paper and Sheet Metal Shoe Patterns for Tip, Vamp, Upper, Outer Sole, Inner Sole, Tongues, and Sock Linings.
First use March 1915.

SN 6,104. Da-Lite Screen Company, Inc., Chicago, Ill. Filed Apr. 10, 1956.

## MOTOR-ROLL

For Motion Picture Screens.
First use Mar. 30, 1956.

SN 6,678. Acton Laboratories, Inc., Acton, Mass. Filed Apr. 19, 1956.



For Measurement Instruments—Namely, Phase Meters, Impedance Meters, Phase Standards, Vacuum Tube Voltmeters, Recorders, and Potentiometer Test Equipment.
First use Jan. 24, 1956.

SN 8,689. Pentagon Pattern and Engineering Company, Chicago, Ill. Filed May 21, 1956.



For Patterns for Foundry Use.
First use Feb. 1, 1956.

SN 9,140. General Controls Co., Glendale, Calif. Filed May 28, 1956.

## ROASTENDER

For Probe or Stem Thermostats, Oven Thermostats, and Roast Thermometers.
First use Apr. 18, 1956.

SN 9,670. Robertson Photo-Mechanix, Inc., Chicago, Ill. Filed June 5, 1956.

## TWINKLE

For Cameras.
First use May 9, 1956.

SN 9,802. The Liquidometer Corporation, Long Island City, N. Y. Filed June 7, 1956. Sec. 2(f).

## LIQUIDOMETER

For Gauging Apparatus for Liquids and Parts Thereof.
First use June 24, 1926.

SN 9,877. Macklanburg-Duncan Company, Oklahoma City, Okla. Filed June 8, 1956.




For Levels.
First use April 1956.

SN 9,909. Waters Manufacturing, Inc., South Sudbury, Mass. Filed June 8, 1956.

## ANGLYZER

For Machine for Indicating Angular Rotation.
First use May 10, 1956.

SN 9,973. General Aniline & Film Corporation, New York, N. Y. Filed June 11, 1956.

## VERSIPAN

For Light-Sensitive Photographic Materials—Namely, Film and Paper.
First use May 16, 1956.

SN 10,042. Tura, Inc., Great Neck, N. Y. Filed June 11, 1956.

## TURA

For Spectacles.
First use December 1946.

SN 10,167. Illinois Tool Works, Chicago, Ill. Filed June 13, 1956.

## SPIROID

Owner of Reg. No. 609,064.
For Metal Working Machines—Namely, Machines for Lapping and Testing Reduction Gearing Incorporating a Tapered Worm and a Face Worm Gear.
First use Apr. 24, 1956.

SN 10,342. Peerless Photo Products, Inc., Shoreham, N. Y. Filed June 15, 1956. Sec. 2(f).

## TRU-GRAF

Owner of Reg. No. 541,229.
For Sensitised Photographic Scientific Recording Papers.
First use July 1948.

SN 10,246. Robertshaw-Fulton Controls Company, Greensburg, Pa. Filed June 15, 1956.

**FULTROL**

For Thermostatic Regulators.
First use Oct. 31, 1955.

SN 10,506. B-I-F Industries, Inc., Providence, R. I. Filed June 19, 1956.

**PNEUMASTER**

For Pneumatically-Operated Controllers for Flow, Liquid Level, Pressure, and Temperature, and Panels and Parts Thereof.
First use in February 1956.

SN 10,834. Atlas Supply Company, Newark, N. J. Filed June 25, 1956.

**ATLAS**

Owner of Reg. No. 506,651 and others.
For Wheel Balancers.
First use Sept. 22, 1954.

SN 11,232. Curtiss-Wright Corporation, Caldwell, N. J. Filed June 29, 1956.

**ECHOSCOPE**

For Apparatus for Determining the Dimensions and Internal Structure of Solid Bodies by Means of Ultrasonic Vibrations.
First use on or about May 10, 1955.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

SN 9,733. Muller-Schlenker, Schwenningen am Neckar, Germany. Filed June 6, 1956.

**EMES**

Owner of German Reg. No. 510,538, dated May 2, 1939.
For Standing Clocks, Wall Clocks, Alarm Clocks, Table Clocks, Pocket Watches, Wrist Watches, Lapel Watches, Auto Clocks, and Mechanically and Electrically Driven Clockworks.

SN 10,933. Societe Anonyme Mido, Bienne, Switzerland. Filed June 25, 1956.

**TRIORITMO**

Owner of Swiss Reg. No. 101,596, dated Feb. 20, 1942.
For Watches, Movements for Watches and Clocks, Watch Casings, and Dials.

SN 11,682. Robert L. Hunter, d. b. a. The Nautical Clock Co., Norfolk, Va. Filed July 6, 1956.

**SEVEN SEAS**

Owner of Reg. No. 370,233.
For Watches, Clocks, Chronometers, and Dials Therefor.
First use Dec. 24, 1938.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

SN 12,819. D. Lisner & Co. Inc., New York, N. Y. Filed July 25, 1956. Sec. 2(f) as to "Lisner."

**Lisner**

For Jewelry—Namely, Necklaces, Bracelets, Earrings, and Brooches, for Personal Wear or Adornment, Not Including Watches.
First use June 25, 1956; and 1938 as to "Lisner."

## CLASS 29

## BROOMS, BRUSHES, AND DUSTERS

SN 10,594. Stanley M. Gower, d. b. a. The Autodent Company, Skowhegan, Maine. Filed June 20, 1956.

**AUTODENT VIBRATORY**

Owner of Reg. No. 376,374.
For Toothbrushes.
First use December 1955.

## CLASS 31

## FILTERS AND REFRIGERATORS

SN 661,989. Dole Refrigerating Company, Chicago, Ill. Filed Mar. 4, 1954.

For Refrigerating Units.
First use Aug. 26, 1953.

SN 695,269. Bally Case and Cooler Company, Bally, Pa. Filed Sept. 26, 1955.

**BALLY SERVICOLD**

For Refrigerated Display Cases.
First use Feb. 1, 1953.

SN 2,592. Sweden Freezer Manufacturing Company, Seattle, Wash. Filed Feb. 13, 1956.

**SWEDEN SHAKEMAKER**

For Refrigerating Machine for Making Milk Shakes.
First use June 27, 1955.



SN 10,628. United Electric Company, Wichita Falls, Tex. Filed June 20, 1956.

**Strato Aire**

For Evaporative Cooling Units, Coils, and Air Cooled Condensers.
First use in March of 1956.

SN 12,582. C. L. B. Company, Houston, Tex. Filed July 23, 1956.

**SNAP IT**

For Air Filters.
First use on or about Dec. 1, 1955.

SN 12,583. C. L. B. Company, Houston, Tex. Filed July 23, 1956.

**CLIP IT**

For Air Filters.
First use on or about Apr. 11, 1956.

SN 12,674. Sovereign International Corporation, Forest Hills, N. Y. Filed July 23, 1956.

**ANDREA**

For Refrigerators.
First use May 31, 1956.

SN 12,738. John R. Mudge, d. b. a. Swimming Pool Construction & Equipment Co., Los Angeles, Calif. Filed July 24, 1956.

**SWIMCO**

For Chlorinators, Water Softeners, Water Filters, and Ammonators.
First use 1940.

SN 13,189. Barnes Ice & Fuel Co., Inc., Gary, Ind. Filed Aug. 1, 1956.

**BARNES ICELLER**

For Ice Cabinets.
First use July 14, 1956.

SN 13,247. Ron-Vik, Inc., Minneapolis, Minn. Filed Aug. 1, 1956.

**RON-VIK**

For Conduit Coupling Washer and Filter.
First use on or about May 1, 1955.

SN 13,450. Inflico Incorporated, Tucson, Ariz. Filed Aug. 6, 1956.

**SURFLEX**

For Filters and Parts Thereof.
First use Apr. 16, 1956.

SN 13,565. Bally Case and Cooler Company, Bally, Pa. Filed Aug. 8, 1956.

**DAIRY BOY JUNIOR**

For Refrigerated Display Cases.
First use Mar. 5, 1956.

SN 13,658. Flakice Corporation, Brooklyn, N. Y. Filed Aug. 9, 1956. Sec. 2(f).

**FLAKICE**

Owner of Reg. No. 178,966.
For Ice-Manufacturing Machines and Parts Thereof.
First use May 19, 1922.

SN 13,884. Tyler Refrigeration Corporation, Niles, Mich. Filed Aug. 13, 1956. Sec. 2(f).

**TYLER**

Owner of Reg. Nos. 625,850, 510,184, and 560,387.
For Refrigerators and Refrigerated Cabinets.
First use Mar. 26, 1956.

SN 13,984. Great Lakes Carbon Corporation, New York, N. Y. Filed Aug. 15, 1956.

**DIABESTOS**

For Precoat Filter Aid.
First use July 31, 1956.

SN 14,024. United Refrigerator Company, Hudson, Wis. Filed Aug. 15, 1956.

**HARVEST PANTRY**

For Refrigerators and Freezers and Combination Refrigerator Freezers.
First use July 5, 1956.

SN 14,250. Komline-Sanderson Engineering Corporation, Peapack, N. J. Filed Aug. 20, 1956.

**FLEXIBELT**

For Filtration Apparatus.
First use July 23, 1956.

SN 14,312. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**APRA**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.



SN 14,313. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAIRE**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,314. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAC**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,315. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,316. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,317. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,318. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,319. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,320. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,321. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,322. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,323. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,324. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,325. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,326. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,327. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,328. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,329. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,330. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,331. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,332. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,333. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,334. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,335. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,336. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,337. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,338. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,339. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,340. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,341. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,342. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,343. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,344. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,345. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,346. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,347. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,348. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,349. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,350. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,351. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,352. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,353. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,354. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,355. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,356. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,357. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,358. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,359. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,360. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,361. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,362. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,363. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,364. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,365. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,366. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,367. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,368. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,369. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,370. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,371. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,372. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,373. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,374. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,375. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,376. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,377. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,378. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,379. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,380. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,381. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,382. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,383. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,384. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,385. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,386. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,387. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,388. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,389. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,390. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,391. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,392. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,393. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,394. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,395. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,396. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,397. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,398. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,399. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,400. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,401. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,402. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,403. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,404. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,405. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,406. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,407. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,408. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,409. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,410. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,411. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,412. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,413. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,414. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,415. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,416. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,417. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,418. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,419. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,420. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,421. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,422. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,423. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,424. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,425. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,426. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,427. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,428. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,429. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,430. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,431. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,432. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,433. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,434. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,435. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,436. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,437. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,438. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 14,439. Apra Precipitator Corporation, New York, N. Y. Filed Aug. 21, 1956.

**PRECIPAK**

For Gas Cleaning Apparatus and Systems, Particularly Electrostatic Precipitators.
First use Feb. 24, 1956.

SN 

SN 14,823. Chicago Bridge & Iron Company, Chicago, Ill. Filed Aug. 21, 1956. Sec. 2(f).

CONKEY

For Filters and Parts Thereof.
First use Sept. 1, 1923, on filters.

SN 14,893. Main Line Distributors, Inc., Toledo, Ohio. Filed Aug. 30, 1956.



For Refrigerators, Deep Freezers, and Room Air Conditioners.
First use Oct. 30, 1954.

SN 15,657. U. S. Industries, Inc., New York, N. Y. Filed Sept. 13, 1956.




Owner of Reg. No. 612,422.
For Refrigerated Tanks.
First use Nov. 15, 1955.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 8,507. Sherrill Furniture Corporation, New York, N. Y. Filed May 17, 1956.

WONDERBRASS

For Tables, Chairs, Cabinets, Bars, Room Dividers, Utility Carts, Tea Wagons, Benches, Headboards, Bedsteads, Muffin Stands, Bar Stools, Umbrella Stands, and Wall Consoles.
First use Nov. 1, 1954.

SN 14,560. Grace C. Fearing, Tampa, Fla. Filed Aug. 24, 1956.

PORTASCHOOL



For Portable Cabinets and Cases for Transporting and Carrying Teaching Equipment and Supplies, Including Books and the Like and Specifically Designed for Hospital and Home Uses and for Special Educational Classes.
First use Aug. 8, 1956.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 635,950. Carrier Corporation, Syracuse, N. Y. Filed Sept. 30, 1952.

• First Name in Air Conditioning •

For Air Conditioning Systems for Drying, Ventilating, Heating, Cooling, Humidifying and/or Dehumidifying; Self-Contained Air Conditioning Units Employing Refrigerants for Cooling or Dehumidifying; Air Washers; Fans; Cold Diffusers—Namely, a Refrigerating Coil and a Fan; Heat Diffusers—Namely, a Heating Coil and a Fan; Unit Heaters; and Self-Contained Window Coolers for Cooling and Ventilating.
First use 1946.

SN 668,480. Thermador Electrical Manufacturing Co., Inc., Los Angeles, Calif. Filed June 18, 1954. Sec. 2(f).

"Seven Leagues Ahead"

For Evaporative Coolers.
First use 1940.

SN 1,682. Gibson Refrigerator Company, Greenville, Mich. Filed Jan. 30, 1956. Sec. 2(f).

GIBSON

Owner of Reg. Nos. 398,223, 515,857, and others.
For Electric Air Cooling and Conditioning Units.
First use Sept. 30, 1949.

SN 2,763. Cribben and Sexton Company, Chicago, Ill. Filed Feb. 16, 1956.




For Gas Ranges, Burners, Ovens, Incinerators, Space Heaters.
First use Oct. 5, 1955, on gas ranges.

SN 9,504. Temco, Inc., Nashville, Tenn. Filed June 1, 1956.

TEMCO

Owner of Reg. No. 381,703.
For Air Cooled Air Conditioning Units.
First use Jan. 30, 1956.



CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

SN 359. Bertha P. Nitzsche, d. b. a. Midwest Sales, Stoughton, Wis. Filed Jan. 9, 1956.

DUBL-SPEED

For Tubeless Tire Repair Plugs.
First use on or about Sept. 1, 1942.

SN 7,485. Carlisle Corporation, Carlisle, Pa. Filed May 2, 1956. Sec. 2(f).

ROADGRIPPER FIRST LINE

The words "First Line" are disclaimed apart from the mark as shown. Owner of Reg. Nos. 318,731, 190,296, and 370,182.
For Pneumatic Rubber Tires for Vehicles.
First use April 1929.

SN 7,697. The Russell Manufacturing Company, Middletown, Conn. Filed May 4, 1956.

MAIN BELTING

The word "Belting" is disclaimed apart from the mark as shown.
For Conveyor Belts and Power Transmission Belts.
First use in the year 1881.

SN 12,467. Thermoid Company, Trenton, N. J. Filed July 19, 1956.

PETROLINE

For Gasoline Pump Hose.
First use June 24, 1956.

SN 12,657. Pacific Tire & Rubber Co., Oakland, Calif. Filed July 23, 1956.

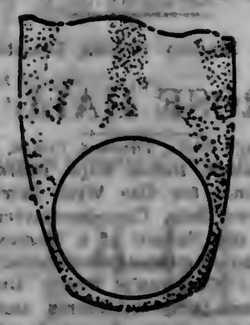
EL CAPITAN

For Pneumatic Tires Composed of Rubber, Either Natural or Synthetic, Tire Tread Capping Material Composed of Rubber, Either Natural or Synthetic, and Tubes for Pneumatic Tires Composed of Rubber, Either Natural or Synthetic.
First use June 25, 1956.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 656,695. Arnold Brilhart, Carlsbad, Calif. Filed Nov. 20, 1953.



The trademark consists of a white surface disk which is affixed to the applicant's goods by means of inlay. Applicant disclaims the representation of the goods. Owner of Reg. Nos. 397,906 and 403,433.
For Mouthpieces for Wind Musical Instruments.
First use Sept. 10, 1951.

SN 1,730. A. & R. Simon Co., New York, N. Y. Filed Jan. 30, 1956.

PYPEE

For Flutes.
First use July 10, 1953.

CLASS 37

PAPER AND STATIONERY

SN 698,736. Simon Adhesive Products Corp., Long Island City, N. Y. Filed Nov. 22, 1955. Sec. 2(f).

EZE-STIK

Owner of Reg. No. 424,824.
For Partially Printed Labels and Tags With Adhesive Backing.
First use Feb. 3, 1945.

SN 9,183. Sherman Paper Products Corporation, Newton, Mass. Filed May 28, 1956.

MASTER PACK

For Flexible Corrugated and Double Undulated Paper in Sheet and Roll Form Used as Cushioning Packing Material for Goods or Articles for Storage, Delivery, or Transport.
First use Feb. 4, 1955.
Subj. to Intf. with SN 692,405.

CLASS 38

PRINTS AND PUBLICATIONS

SN 692,515. Goodren Products Corporation, Englewood, N. J. Filed Aug. 5, 1955.




For Multicolored Prints Containing Written Material and Design on Cellulose Acetate Material.
First use Mar. 25, 1955.

SN 696,145. The Hearst Corporation, New York, N. Y. Filed Oct. 10, 1955. Sec. 2(f).

SPORTS AFIELD

Owner of Reg. Nos. 331,707, 424,420, and 515,424.
For Periodical.
First use September 1930.

SN 697,269. R. H. Bolam Company, Inc., New York, N. Y. Filed Oct. 28, 1955.

PERPÈTE

For Students' Variable Class-Schedule Indicators—Namely, Holders Having Indications Thereon of the Days of the Week and Provided With a Series of Compartments for Each Day for Removably Receiving Small Printed Slips Bearing the Subjects Scheduled for That Day, and Sets of Said Printed Slips for Use Therewith.
First use Oct. 10, 1955.

SN 788. Harper & Brothers, New York, N. Y. Filed Jan. 16, 1956.




For Books.
First use in 1954.

SN 6,440. Life Insurance Publishing Company, St. Louis, Mo. Filed Apr. 16, 1956. Sec. 2(f).

Life Insurance Selling

For Monthly Publication.
First use Jan. 1, 1926.

SN 6,447. Microd Service Co., Skaneateles, N. Y. Filed Apr. 16, 1956.



MICROD

For Assembly Plans for Youth Vehicles.
First use Apr. 12, 1956.

SN 6,576. The P. F. Volland Company, Joliet, Ill. Filed Apr. 17, 1956.



For Greeting Cards and Greeting Card Folders.
First use October 1955.

SN 6,902. Consumers Merchandising Corporation, Rochester, Minn. Filed Apr. 23, 1956.

THE BEST OF LIFE

For Section of a Periodical Containing Human Interest Stories and Items Describing Articles of Merchandise.
First use Mar. 5, 1956.

SN 9,264. Kessler Music, Inc., East Aurora, N. Y. Filed May 31, 1956.

PROM SERIES

The term "Series" is disclaimed apart from the mark as shown.
For Special Type of Musical Arrangement for Use by High School Student Musicians.
First use Feb. 1, 1952.

SN 9,569. Mortgage Bankers Association of America, Chicago, Ill. Filed June 4, 1956.



The words "Mortgage Bankers Association of America" and "Organized 1914" are disclaimed apart from the mark as shown.
For Magazine Published Monthly.
First use Mar. 23, 1938.

SN 10,375. International Toastmistress Clubs, Inc., Huntington Park, Calif. Filed June 7, 1956.

TOASTMISTRESS

For Magazines, Pamphlets, and Other Publications Issued From Time to Time.
First use before July 13, 1938.

SN 11,165. General Motors Corporation, Detroit, Mich. Filed June 28, 1956.

PARTSMART

For Publication Published Periodically.
First use in or before July 1953.

CLASS 39

CLOTHING

SN 699,436. Mary Lindsay Studds, Lynnhaven, Va. Filed Dec. 5, 1955.

ROSE HALL

For Women's Wear: Suits, Dresses, Coats, Sweaters, Skirts, Jackets, Blouses, Gowns, Robes, Slips, Brassieres, Hose, Girdles, Pants, Crinolines for Use With Skirts, Bed Jackets, Pajamas, Night Gown Sets, Corsets, Garter Belts, Garters, Waist Pinchers in the Nature of a Narrow Girdle Fitting About the Waist and Combinations Thereof, Slacks, Shorts, and Bathing Suits; Children's Wear: Dresses, Sweaters, Skirts, Coats, Blouses, Jumpers, Shorts, and Bathing Suits; and Men's Wear and Accessories Comprising Bathrobes, Socks, Jackets, T-Shirts, Handkerchiefs, Shirts, and Ties.
First use Apr. 16, 1955.



SN 709,496. Friedrich Stibbe, d. b. a. Albert Stibbe, Vlothe (Weser), Germany. Filed Dec. 22, 1955.

CLIMA VENT SOLE

Applicant disclaims the word "Sole" apart from the mark as shown. Owner of German Reg. No. 859,055, dated Apr. 7, 1954.
For Insoles.

SN 685. Mid-Continent Stores, Inc., Kansas City, Mo. Filed Jan. 13, 1956.

Jo-Ed

Owner of Reg. No. 221,946.
For Women's Dresses, Suits, Coats, Hats, Caps, Bonnets, Smocks, Hosiery, Negligees, Pajamas, and Underwear.
First use Apr. 1, 1930.

SN 1,279. Renart Sportswear Corporation, New York, N. Y. Filed Jan. 23, 1956.

WONDACUNA

Owner of Reg. No. 580,279.
For Women's Sweaters.
First use Dec. 22, 1955.

SN 3,325. Borman Sportswear Inc., Johnstown, N. Y. Filed Feb. 8, 1956.

LadyByrd

For Women's Leather Coats and Jackets.
First use Sept. 15, 1953.

SN 6 782. Atsons Products Corporation, New York, N. Y. Filed Apr. 20, 1956.

COM-FOAMATIC

For Spools of a Strip Made Up of Laminations of Rubber and Fabric, Short Lengths of Which Strip Are Used as a Sweatband for Hats and Caps.
First use Jan. 15, 1956.

SN 7,872. Jane Prendiville Inc., New York, N. Y. Filed Apr. 30, 1956.

SEEDLINGS

For Infants' (Boys and Girls) Dresses, Creepers, Jackets, Suits, Coats, Bonnets, Slips, Panties, Robes.
First use Apr. 9, 1953.

SN 8,994. The Superb Glove Company, Johnstown, N. Y. Filed May 24, 1956.

Fantasie

For Ladies' and Misses' Gloves.
First use Mar. 14, 1955.

SN 9,866. I. C. Isaacs & Company, Inc., Baltimore, Md. Filed June 8, 1956.

PHd.

For Ladies' Slacks.
First use May 17, 1956.

SN 10,671. Eva Hosiery and Underwear Company, New York, N. Y. Filed June 21, 1956.

LUCKY ONE

For Hosiery for Ladies, Men, and Children.
First use Nov. 10, 1951.

SN 10,757. Columbiaknit, Inc., Portland, Oreg. Filed June 22, 1956. Sec. 2(f).

Columbiaknit

For Sweaters, Bathing Suits, Ladies' Suits and Dresses.
First use Aug. 1, 1921.

SN 10 807. Seal-Dri Sportswear Company, Rockford, Ill. Filed June 22, 1956.

RUGGED RANGER

For Sports Clothing Including Jackets, Pants, Vests, and Hoods.
First use Sept. 15, 1954.

SN 10 939. Levi Strauss and Company, San Francisco, Calif. Filed June 25, 1956.

IVY LEVI'S

Owner of Reg. Nos. 250,305 and 581,610.
For Men's and Boys' Trousers.
First use May 21, 1956.

SN 12,354. Exquisite Form Brassiere, Inc., New York, N. Y. Filed July 18, 1956. Sec. 2(f).

EXQUISITE

Owner of Reg. No. 592,771.
For Brassieres, Garter Belts, and Girdles.
First use Aug. 23, 1945.

SN 12,418. George Frost Company, Shirley, Mass. Filed July 19, 1956.

Kleinert Grip

Owner of Reg. No. 44,203.
For Hose Supporters for Men, and Women's Garments—Namely, Corsets, Girdles, Panty Girdles, Garter Belts, Garter Panties, Combination Garments Comprising Both Girdle and Brassiere, Halter Bras, and Bound Garters.
First use January 1895 on hose supporters for men.

SN 16,810. Fulton Shirt Company, Inc., New York, N. Y. Filed Sept. 20, 1956.

El Rancho

For Outer Shorts, Sports Wear, for Men and Boys—i. e., Sports Shirts, Bush Coats, Sports Coats, Sports Jackets, and Lumber Jackets.
First use Aug. 1, 1936.

## CLASS 43

### THREAD AND YARN

SN 16,171. Emilio Bernat & Sons Company, Jamaica Plain, Mass. Filed Sept. 24, 1956.



For Knitting Yarn.
First use July 1, 1956.

## CLASS 44

### DENTAL, MEDICAL, AND SURGICAL APPLIANCES

SN 5,854. Arnold S. J. Lee, Belmar, N. J. Filed Apr. 5, 1956.

**INVENGINEERING**

For Automatic Electrical Machines and Sampling Pumps for Automatic Anesthesia Machines.
First use on or about Mar. 5, 1956.

SN 7,731. Ashe Lockhart, Inc., Kansas City, Mo. Filed May 7, 1956.

**AUTOJET**

For Syringes.
First use Apr. 2, 1956.

## CLASS 46

### FOODS AND INGREDIENTS OF FOODS

SN 677,145. Georgia Milk Producers' Confederation, Inc., Atlanta, Ga., now Miss Georgia Dairies, Inc. Filed Nov. 23, 1954.



For Fluid Milk, Buttermilk, Fluid Chocolate Milk, Ice Cream, Sherbet, Fresh Cream, Fresh Eggs, Eggnog Mix, Butter, Cheese, and Fluid Skim Milk.
First use Feb. 1, 1945.

SN 679,710. Best Markets, Inc., Philadelphia, Pa. Filed Jan. 11, 1955.

**BIG DOLLAR**

For Canned Vegetables.
First use on or about Aug. 1, 1944.

SN 688,928. Hall, Haas & Veasey, Ltd., d. b. a. MacDonald Farms, Los Angeles, Calif. Filed June 6, 1955.

**MacDONALD FARMS**

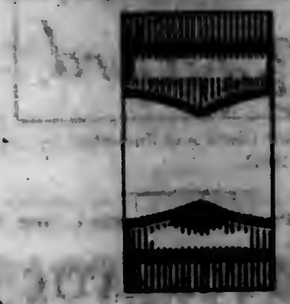
For Fresh Deciduous Fruits and Fresh Vegetables.
First use May 3, 1955, on fresh deciduous fruits.

SN 689,705. Crest Foods Co., Ashton, Ill. Filed June 17, 1955.

**MP-X**

For Milk Protein Colloids, Sold as an Ingredient To Be Used in the Manufacture of Ice Cream and Frozen Dessert, Stabilizers, Meats, Bread, and Pastries.
First use Jan. 19, 1955.

SN 693,067. Merchandising Corporation, d. b. a. Variety Candies, Milwaukee, Wis. Filed Aug. 15, 1955.



For Candy.
First use June 1952.

SN 695,026. Rubenstein & Sons, Inc., Dallas, Tex. Filed Sept. 20, 1955.



**Ocean Pride**

For Frozen Breaded Shrimp.
First use in the year 1953.

SN 695,368. T. S. Vanderford, Aberdeen, Idaho. Filed Sept. 26, 1955.




The drawing is lined for red.
For Potatoes and Onions in Their Raw and Natural State.
First use on or about Sept. 15, 1939.



SN 699,686. Fant Milling Company, Sherman, Tex. Filed Nov. 29, 1955.

**GLADIOLA**

Owner of Reg. Nos. 103,277 and 393,654.
For Prepared Ready To Bake Biscuits.
First use March 1954.

SN 700,068. Coöperatieve Producenten Handelsvereeniging, "De Producent" for short, Gouda, Netherlands. Filed Dec. 16, 1955.

**KOMEET**

The word "Komeet" is the Dutch word for comet. Owner of Dutch Reg. No. 121,642, dated May 3, 1955.
For Cheese.

SN 354. Mutual Orange Distributors, Redlands, Calif., now by change of name to Pure Gold. Filed Jan. 9, 1956.




The word "Orange" is disclaimed apart from the mark as shown. The drawing is lined for orange. Owner of Reg. No. 626,351.
For Fresh Oranges.
First use Dec. 30, 1955; as to "Mr. Orange," Sept. 28, 1954.

SN 1,982. Roberts Dairy Company, Omaha, Nebr. Filed Feb. 2, 1956. Sec. 2(f) as to "Roberts."




Owner of Reg. No. 529,761.
For Fluid Milk, Skim Milk, Buttermilk, Ice Milk, Ice Milk Mix, Chocolate Milk Drink, Non-Alcoholic Egg Nog Drink, Non-Fat Dry Milk Solids, Cottage Cheese, Whipping Cream, Half and Half, Butter, Ice Cream, and Sherbet.
First use 1948 on fluid milk; and 1910 as to "Roberts."

SN 4,199. International Milling Company, Minneapolis, Minn. Filed Mar. 9, 1956.

**BIN 19**

For Wheat Flours.
First use Jan. 18, 1956.

SN 4,417. Atalanta Trading Corp., New York, N. Y. Filed Mar. 13, 1956.




For Frozen Fish.
First use Feb. 24, 1956.

SN 4,610. Biffs Steaks, Inc., Canton, Ohio. Filed Mar. 15, 1956.

**BIFFS**

For Frozen Beef Steaks.
First use May 1, 1954.

SN 4,756. Armour and Company, d. b. a. The Armour Laboratories, Chicago, Ill. Filed Mar. 19, 1956.

**CHYMOGEN**

For Enzyme Preparation for Rendering Bovine Milk Readily Digestible.
First use in January 1910.

SN 4,837. Pure Gold, Redlands, Calif. Filed Mar. 19, 1956.




The drawing is lined for yellow. Applicant disclaims the word "Lemon" apart from the mark as shown. Owner of Reg. No. 626,352.
For Fresh Lemons.
First use Mar. 10, 1956.

SN 5,710. Victor Borden, d. b. a. Mohawk Packing Co., Moclips, Wash. Filed Apr. 3, 1956.

**SPORTSMAN'S PRIDE**

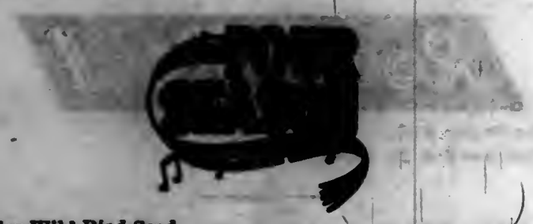
For Canned Fish and Clams.
First use May 27, 1946.

SN 6,310. Westside Farms, Phoenix, Ariz., now by change of name to Norton & McElroy Produce, Inc., Phoenix, Ariz. Filed Apr. 12, 1956.

**Showcase**

For Fresh Lettuce.
First use Mar. 8, 1956.

SN 6,662. Garfield Williamson, Inc., d. b. a. Town & Country Products, Jersey City, N. J. Filed Apr. 18, 1956.



For Wild Bird Seed.
First use January 1956.

SN 7,405. Ira O. Well, d. b. a. Wishing Well Products, Orinda, Calif. Filed Apr. 30, 1956.

WISHING WELL

For Canned and Bottled Olives.
First use Mar. 18, 1956.

SN 7,614. Kenneth F. Mann, d. b. a. Mann Distributing Co., Santa Maria, Calif. Filed May 3, 1956.

SQUEE GEE

For Fresh Vegetables.
First use on or about May 1, 1949.

SN 7,615. Kenneth F. Mann, d. b. a. Mann Distributing Co., Santa Maria, Calif. Filed May 3, 1956.

Fancy Lady

For Fresh Vegetables.
First use on or about May 1, 1949.

SN 7,815. Leaf Brands, Inc., Chicago, Ill. Filed May 7, 1956.

SOUR GRAPES

For Chewing Gum.
First use Jan. 20, 1956.

SN 8,063. Crystal Pearl Products Co., Evansville, Ind. Filed May 10, 1956.

CRYSTAL PEARL

For Vinegar.
First use at least as early as 1912.

SN 8,151. Perkins Products Company, Chicago, Ill., now by merger into General Foods Corporation. Filed May 11, 1956.

KOOL-SHAKE

Owner of Reg. Nos. 238,448, 623,164, and others.
For Powders for Making Food Beverages.
First use Aug. 9, 1955.

SN 8,195. Columbia Fruit Packers, Inc., Wenatchee, Wash. Filed May 14, 1956. Sec. 2(f).

CHERE BEST

Owner of Reg. No. 522,472.
For Fresh Deciduous Fruits.
First use June 30, 1948.

SN 8,226. Imperial Chemical Industries Limited, London, England. Filed May 14, 1956.

STELLA

Owner of British Reg. No. 743,689, dated June 23, 1955.
For Salt (for Food).

SN 8,267. Safeway Stores, Incorporated, Oakland, Calif. Filed May 14, 1956.

DAILY DOZEN

For Shell Eggs.
First use Apr. 20, 1956.

SN 8,311. Bear State Packers, Inc., Sanger, Calif. Filed May 15, 1956.

SWEET SUE

For Fresh Deciduous Fruits, Fresh Citrus Fruits, and Fresh Grapes.
First use June 5, 1930, on fresh deciduous fruits.

SN 8,357. Earl D. Rubin, d. b. a. Home Made Noodle Co., Chicago, Ill. Filed May 15, 1956.

FLAVOR-BUD

For Dehydrated Soup Mixes and Concentrates.
First use May 7, 1956.

SN 8,512. Standard Candy Company, Nashville, Tenn. Filed May 17, 1956.

BLUE CHIP

For Candy.
First use July 31, 1955.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 10,044. Vanguard Military Equipment Co., New York, N. Y. Filed June 11, 1956.



For Military Insignia Not Including Watches.
First use Feb. 1, 1956.



SN 10,133. J. W. Clement Company, Buffalo, N. Y. Filed June 13, 1956.

ELASTOMETRIC

Owner of Reg. No. 617,595.
For Printing Plates.
First use Jan. 1, 1956.

SN 11,555. Edlen Herman Products, Inc., Philadelphia, Pa. Filed July 5, 1956.

MAGIC LOOP

For Pot Holders Having Magnets for Attaching to the Side of a Stove or Other Metallic Object.
First use Apr. 16, 1955.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 684,372. R. & S. Chemical Co., Portland, Oreg. Filed Jan. 13, 1955.




The drawing is lined for green. Owner of Reg. No. 582,112.
For Liquid Plastic Adhesive for Holding Dentures Securely in Place.
First use on or about Oct. 1, 1949.

SN 685,710. Hirestra Laboratories, Inc., New York, N. Y. Filed Apr. 18, 1955.



For Beauty Skin Lotion.
First use Oct. 19, 1954.

SN 694,139. Henry of The Hilton, Inc., New York, N. Y. Filed Sept. 2, 1955.

Cleary of the Hilton

For Cleansing Creams, Night Creams, Hormone Creams and Hand Creams, All of Such Creams Being for the Face and Body for the Beautification and Protection of the Skin; Lipsticks and Perfumes.
First use July 12, 1955, on creams.

SN 694,652. Laboratoires Vitapointe, Villeurbanne, Rhone, France. Filed July 27, 1956.

Vitabrill

Owner of French Reg. No. 24,714, dated Mar. 24, 1947 (Lyon); Natl. Inst. No. 406,334; and of U. S. Reg. No. 586,661.
For Hair Dressing Preparation.

SN 697,160. Greliva Inc., New York, N. Y. Filed Oct. 26, 1955.

Imperial

For Cosmetic Preparations—Namely, Facial Cream.
First use Sept. 10, 1954.

SN 698,158. Gold Medal Hair Products, Inc., d. b. a. G M Hair Products, Inc., Brooklyn, N. Y. Filed Nov. 14, 1955.

Lan-o-tress

For Hair Dressing for Conditioning and Lubricating Hair.
First use Apr. 20, 1955.

CLASS 52

DETERGENTS AND SOAPS

SN 699,379. William L. Drommer, d. b. a. Office Aids Company, Sioux City, Iowa. Filed Dec. 5, 1955.




The words "Desk Cleaner" are disclaimed apart from the mark as shown.
For Liquid Cleaning Agent for Linoleum or Plastic Desk Tops.
First use Aug. 2, 1954.

SN 9,599. Benjamin D. Smith, d. b. a. American Manufacturing Company, Utica, N. Y. Filed June 4, 1956.

SEPTOX

For Chemical Composition for Use as a Septic Tank Activator and Cleaning Compound.
First use May 3, 1955.
Subj. to Intf. with SN 686,922.

# SERVICE MARKS

## CLASS 100

## MISCELLANEOUS

SN 695,338. O'Donnell's Sea Grill, Inc., Washington, D. C. Filed Sept. 26, 1955.



For Restaurant and Catering Services.
First use 1925.

SN 698,218. Tom Sawyer Motor Inns, Inc., Elmira, N. Y. Filed Nov. 14, 1955.

TOM SAWYER



For Providing Food and Lodgings in Motels.
First use Apr. 18, 1949.

## CLASS 101

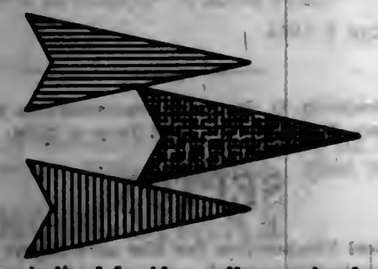
## ADVERTISING AND BUSINESS

SN 693,499. Maurice R. Spiwak, d. b. a. Business Finders, Ottumwa, Iowa. Filed Aug. 22, 1955.

FINDERS

For Business Brokerage Services—Namely, Acting as Agent in the Sale of the Business of Others.
First use June 12, 1954.

SN 697,970. Forbes Lithograph Manufacturing Company, Boston, Mass. Filed Nov. 9, 1955.



The drawing is lined for blue, yellow, and red.
For Design, Reproduction, and Custom Manufacture of Products of the Graphic Art Utilized for Commercial, Non-Commercial, and Artistic Uses and Produced by Letterpress or Relief Process, Lithography or Planographic Processes, Gravure or Intaglio Processes.
First use about the middle of October 1953.

SN 11,977. Thomsen-Ellis-Hutton Company, Baltimore, Md. Filed July 11, 1956.




No claim is made to the term "Press" apart from the mark as shown. Owner of Reg. Nos. 410,499 and 557,755.
For Printing Services—Namely, Job Printing, and the Design, Layout, and Writing of Copy for Printed Matter.
First use Oct. 1, 1913.

## CLASS 102

## INSURANCE AND FINANCIAL

SN 684,688. O. E. Saxhaug, d. b. a. O. E. Saxhaug Co., Grand Rapids, Minn. Filed Mar. 31, 1955.

PROTECTO-PLAN

For Making Loans in Connection With Which Insurance Protection Is Provided in the Event the Borrower, Because of Disability or Death, Is Unable To Make Payments Himself.
First use on or about Jan. 1, 1955.

SN 14,307. Wall Street Management Corporation, Boston, Mass. Filed Mar. 6, 1956.




For Management and Investment of Funds of Others.
First use Sept. 10, 1955.

## CLASS 103

## CONSTRUCTION AND REPAIR

SN 678,525. Ferguson Fumigants, Inc., Ferguson, Mo. Filed Dec. 17, 1954.

LITTLE SQUIRT

For Renting of Machines for the Application of Fumigants.
First use October 1951.

SN 7,300. Wepco Equipment Company, Cleveland, Ohio. Filed Apr. 27, 1956.

WEPCO

For Repair and Rental Service of All Types of Construction and Earth Moving Equipment.
First use in or about September 1949.

## CLASS 107

## EDUCATION AND ENTERTAINMENT

SN 4,444. Pierre M. Gonneau, New York, N. Y. Filed Mar. 13, 1956.

Lucky Pierre Show

For Title of a Radio Show of the Type Commonly Known as a "Disc Jockey" Program.
First use on or about June 15, 1953.

# COLLECTIVE MEMBERSHIP MARKS

## CLASS 200

SN 9,568. Mortgage Bankers Association of America, Chicago, Ill. Filed June 4, 1956.




The words "Mortgage Bankers Association of America" and "Organized 1914" are disclaimed apart from the mark.
For Indicating Membership in the Association.
First use Mar. 23, 1928.

# TRADEMARK REGISTRATIONS ISSUED
## PRINCIPAL REGISTER

### CLASS 1
### RAW OR PARTLY PREPARED MATERIALS

638,921. FLOR-O-CEL AND DESIGN. Paper Products Manufacturing Company. SN 3,017. Pub. 10–9–56. Filed 2–20–56.

638,922. VELOURS. Pfister & Vogel Tanning Co. SN 3,549. Pub. 10–9–56. Filed 2–28–56.

### CLASS 2
### RECEPTACLES

638,923. BAX. St. Regis Paper Company. SN 691,088. Pub. 10–9–56. Filed 7–11–55.

638,924. ROSSOTTI AD-PACK AND DESIGN. Rossotti Lithograph Corporation. SN 693,197. Pub. 8–28–56. Filed 8–16–55.

638,925. COLORFOAM. Certified Creations, Inc. SN 17. Pub. 10–9–56. Filed 1–3–56.

638,926. SANETTE. Master Metal Products, Incorporated. SN 7,029. Pub. 10–9–56. Filed 4–24–56.

638,927. NIAGARA. Master Metal Products, Incorporated. SN 7,207. Pub. 10–9–56. Filed 4–26–56.

638,928. CARVEL HALL. Chas. D. Briddell, Inc. SN 7,236. Pub. 10–9–56. Filed 4–27–56.

### CLASS 3
### BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

638,929. HARRA. Carl Freudenberg Kommanditgesellschaft auf Aktien. SN 693,132. Pub. 10–9–56. Filed 8–16–55.

638,930. SAMSON. Shwayder Brothers, Inc. SN 6,960. Pub. 10–9–56. Filed 4–23–56.

638,931. ZEPHYRLITE. Lincoln Luggage Company, Inc. SN 7,606. Pub. 10–9–56. Filed 5–3–56.

### CLASS 6
### CHEMICALS AND CHEMICAL COMPOSITIONS

638,932. RUSTOP. R. M. Hollingshead Corporation. SN 624,545. Pub. 7–21–53. Filed 2–5–52.

638,933. PARCURE. C. G. Pardee Co., Inc. SN 690,315. Pub. 10–9–56. Filed 6–27–55.

638,934. HOT SPOT. Columbus Metal Products, Inc. SN 692,452. Pub. 10–9–56. Filed 8–4–55.

638,935. TURNER. The Turner Brass Works. SN 698,239. Pub. 10–2–56. Filed 11–14–55.

638,936. BOREKIL. Lethelin Products Company, Inc. SN 698,620. Pub. 10–9–56. Filed 11–21–55.

638,937. NICOLMELT. Malcolm Nicol & Co. SN 1,459. Pub. 10–9–56. Filed 1–25–56.

638,938. SWEENEY'S POISON WHEAT AND DESIGN. W. R. Sweeney, Mfr., Inc. SN 3,050. Pub. 10–9–56. Filed 2–20–56.

638,939. DELTA. Ernest E. Reich, d. b. a. Delta Chemical Laboratory. SN 3,116. Pub. 10–9–56. Filed 2–21–56.

638,940. LEWATIT. Farbenfabriken Bayer Aktiengesellschaft. SN 3,168. Pub. 10–9–56. Filed 2–23–56.

### CLASS 7
### CORDAGE

638,941. HYCO-SPAN. United States Steel Corporation. SN 8,041. Pub. 10–9–56. Filed 5–9–56.

638,942. JUBILEE. Artistic Manufacturing Corp. SN 8,916. Pub. 10–2–56. Filed 5–24–56.

### CLASS 11
### INKS AND INKING MATERIALS

638,943. LEUCOGRAPH. Kores Manufacturing Company Limited. SN 6,926. Pub. 10–9–56. Filed 4–23–56.

### CLASS 12
### CONSTRUCTION MATERIALS

638,944. SOLITE. Solar Aircraft Company. SN 683,065. Pub. 5–8–56. Filed 3–8–55.

638,945. ZINCONIZED. Ivy H. Smith Company. SN 683,160. Pub. 10–9–56. Filed 3–9–55.

638,946. MINIT PARK ETC. AND DESIGN. The Alliance Machine Company. SN 698,488. Pub. 10–9–56. Filed 11–18–55.

### CLASS 13
### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

638,947. STUDTEE. The Pollak Steel Company. SN 686,845. Pub. 5–8–56. Filed 5–4–55.

638,948. TACO. Trans-Atlantic Company, to Trans-Atlantic Company. SN 694,935. Pub. 2–7–56. Filed 9–19–55.

638,949. AWN-O-MATIC. Gate City Sash & Door Company. SN 697,285. Pub. 10–9–56. Filed 10–28–55.

638,950. TESTO. Testo Corporation. SN 697,589. Pub. 10–9–56. Filed 11–2–55.

638,951. OBO. Firma Bettermann Elektro GMBH. SN 6,512. Pub. 10–9–56. Filed 4–17–56.

### CLASS 14
### METALS AND METAL CASTINGS AND FORGINGS

638,952. MURRAY HILL. American Type Founders Co., Inc. SN 8,610. Pub. 10–9–56. Filed 5–21–56.

638,953. TD AND DESIGN. Dalmine S. p. A. SN 8,901. Pub. 10–9–56. Filed 4–30–56.

### CLASS 16
### PROTECTIVE AND DECORATIVE COATINGS

638,954. CABCLAD. The Sherwin-Williams Company. SN 1,022. Pub. 8–28–56. Filed 1–18–56.

### CLASS 17
### TOBACCO PRODUCTS

638,955. DESIGN OF 2 WOMEN AND SHIELD. E. Regensburg & Sons. SN 696,067. Pub. 10–9–56. Filed 10–7–55.

638,956. ENGAGEMENT. F. X. Smith's Sons Co. SN 8,168. Pub. 10–9–56. Filed 5–11–56.

### CLASS 18
### MEDICINES AND PHARMACEUTICAL PREPARATIONS

638,957. KORDOLIN. Kordel Corporation of America. SN 625,280. Pub. 9–16–52. Filed 2–20–52.

638,958. GASTROTONE. R. J. L., Inc. SN 659,567. Pub. 9–21–54. Filed 1–15–54.

638,959. COMPOUND-5-D. Eli J. Saltsman. SN 685,614. Pub. 10–9–56. Filed 4–15–55.

638,960. CELMYCIN. The Upjohn Company. SN 686,241. Pub. 10–9–56. Filed 4–25–55.

638,961. PAIN-A-LAY. The Glessner Company. SN 690,379. Pub. 10–9–56. Filed 6–28–55.

638,962. WALCO QUICK-EEZ. The Walcot Proprietary Limited. SN 691,593. Pub. 10–9–56. Filed 7–19–55.

638,963. MEBADIN. Glaxo Laboratories Limited. SN 695,416. Pub. 10–9–56. Filed 9–27–55.

638,964. THERASALIS ALTERNANS. Gray Pharmaceutical Co., Inc. SN 697,292. Pub. 10–9–56. Filed 10–28–55.

638,965. IODAMINOL AND DESIGN. Desbergers Limited. SN 698,145. Pub. 10–9–56. Filed 11–14–55.

638,966. NIVELON. Schering Corporation. SN 520. Pub. 7–31–56. Filed 1–11–56.

638,967. AMREL. The Nacor Medicine Company, d. b. a. Amrel Company. SN 3,447. Pub. 10–9–56. Filed 2–27–56.

638,968. FERMADRY. Dawe's Laboratories, Inc. SN 5,602. Pub. 10–9–56. Filed 4–2–56.

638,969. MERRELL AND DESIGN. The Wm. S. Merrell Company. SN 5,658. Pub. 9–25–56. Filed 4–2–56.

638,970. GASTROPAQUE. Buck X-Ograph Company. SN 5,761. Pub. 10–9–56. Filed 4–4–56.

638,971. DUOVAX. American Cyanamid Company. SN 6,145. Pub. 10–9–56. Filed 4–11–56.

638,972. PHANTOS. Frankay Laboratories, Inc. SN 6,329. Pub. 10–9–56. Filed 4–13–56.

638,973. SANI-STIP SAS AND DESIGN. John Stanton Pierce, d. b. a. The Sanite Chemical Company. SN 6,634. Pub. 10–9–56. Filed 4–18–56.

638,974. METIMYCIN. Schering Corporation. SN 6,838. Pub. 10–9–56. Filed 4–20–56.

638,975. CYCLINIZED. Bristol Laboratories Inc. SN 7,154. Pub. 10–9–56. Filed 4–26–56.

638,976. MICROCHLOR. Bristol Laboratories Inc. SN 7,155. Pub. 10–9–56. Filed 4–26–56.

638,977. MICROSEPT. Bristol Laboratories Inc. SN 7,156. Pub. 10–9–56. Filed 4–26–56.

### CLASS 19
### VEHICLES

638,978. TRUCK CENTER INC. ETC. AND DESIGN. Truck Center, Inc. SN 666,232. Pub. 10–9–56. Filed 5–12–54.

638,979. THE HOUSE OF HARDTOPS AND DESIGN. The House of Hardtops. SN 677,788. Pub. 10–9–56. Filed 12–6–54.

### CLASS 20
### LINOLEUM AND OILED CLOTH

638,980. VIN-L-FAB. Lane Brothers, Inc. SN 700,461. Pub. 10–9–56. Filed 12–22–55.

### CLASS 21
### ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

638,981. AMSCO. American Brake Shoe Company. SN 672,034. Pub. 11–8–55. Filed 8–23–54.

638,982. AMSCO MF. American Brake Shoe Company. SN 672,035. Pub. 11–8–55. Filed 8–23–54.

638,983. POWER-STYLE. Square D Company. SN 681,810. Pub. 10–9–56. Filed 2–16–55.

638,984. VESTA. Gould-National Batteries, Inc. SN 5,835. Pub. 10–9–56. Filed 4–5–56.

638,985. DYNACO. David Hafler, d. b. a. Dyna Company. SN 6,112. Pub. 10–9–56. Filed 4–10–56.

638,986. DYNAKIT. David Hafler, d. b. a. Dyna Company. SN 6,113. Pub. 10–9–56. Filed 4–10–56.

638,987. SIERRAPLEX. Sierra Electric Corporation. SN 6,297. Pub. 10–9–56. Filed 4–12–56.

638,988. PERMACODE. Revere Corporation of America. SN 6,374. Pub. 10–9–56. Filed 4–13–56.

### CLASS 22
### GAMES, TOYS, AND SPORTING GOODS

638,989. SPACE MAP. David R. Hughson, d. b. a. Hughson Enterprises. SN 696,237. Pub. 10–9–56. Filed 10–11–55.

### CLASS 23
### CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

638,990. ELM-TEX. Elmwood Brush Company, to Stanley Home Products, Inc. SN 671,028. Pub. 10–9–56. Filed 8–3–54.

638,991. HOLIDAY. Burrell Cutlery Company, Inc. SN 680,125. Pub. 2–21–56. Filed 1–19–55.

638,992. GARVENS AND DESIGN. George Schoenborn-Buchheim, d. b. a. Garvenswerke. SN 684,070. Pub. 10–9–56. Filed 3–22–55.

638,993. ASSOCIATED OIL FIELD RENTALS A AND DESIGN. Associated Oil and Gas Co. SN 692,562. Pub. 10–9–56. Filed 8–8–55.

638,994. SPRA-CON. The Spra-Con Company. SN 692,647. Pub. 10-9-56. Filed 8-8-55.

638,995. GENERAL. General Mower Corporation. SN 698,600. Pub. 10-9-56. Filed 11-21-55.

638,996. ULTRAMATION. Logansport Machine Co., Inc. SN 699,646. Pub. 6-5-56. Filed 12-8-55.

638,997. PHANTOM. Erwin Krusius, d. b. a. Gebr. Krusius. SN 603. Pub. 9-11-56. Filed 1-12-56.

638,998. SIPCO. Arvis F. Elliott, d. b. a. Seal in Plastic Co. SN 2,769. Pub. 10-9-56. Filed 2-16-56.

638,999. SPEEDY SPRAYER AND DESIGN. W. R. Brown Corporation. SN 5,907. Pub. 10-9-56. Filed 4-6-56.

639,000. NORELCO. North American Philips Company, Inc. SN 5,936. Pub. 10-9-56. Filed 4-6-56.

639,001. BENT GRASS SPECIAL. The F. & N. Lawn Mower Company. SN 5,988. Pub. 10-9-56. Filed 4-9-56.

639,002. ECONOMAKER. Lorentsen Hardware Mfg. Corp. SN 6,022. Pub. 10-9-56. Filed 4-9-56.

639,003. TRU-DRIVER. Leonard J. Wincenciak, d. b. a. Mayville Mfg. Company. SN 6,207. Pub. 10-9-56. Filed 4-11-56.

639,004. CLAMCO. Cleveland-Detroit Corporation. SN 6,223. Pub. 10-9-56. Filed 4-12-56.

639,005. FLYING SAUCER. The Wellman Engineering Company. SN 7,891. Pub. 10-9-56. Filed 5-7-56.

639,006. ROLL-AWAY DIP. National Food Slicing Machine Co., Inc. SN 7,932. Pub. 10-9-56. Filed 5-8-56.

639,007. JARC. United States Hoffman Machinery Corporation. SN 7,957. Pub. 10-9-56. Filed 5-8-56.

639,008. DRIVMATIC. General Riveters, Inc. SN 7,982. Pub. 10-9-56. Filed 5-9-56.

639,009. LIVING AGE. The International Silver Company. SN 7,991. Pub. 10-9-56. Filed 5-9-56.

639,010. EXPRESSION. The International Silver Company. SN 7,992. Pub. 10-9-56. Filed 5-9-56.

639,011. CHANCE. A. B. Chance Company. SN 8,190. Pub. 10-9-56. Filed 5-14-56.

639,012. IMAGRAPH. Adolph Gottscho, Inc. SN 8,222. Pub. 10-9-56. Filed 5-14-56.

## CLASS 26

## MEASURING AND SCIENTIFIC APPLIANCES

639,013. CEN-COR. Precision-Cosmet Company, Inc. SN 685,574. Pub. 10-25-55. Filed 5-31-55.

639,014. SANTAR. Westen's, Inc. SN 697,063. Pub. 10-9-56. Filed 10-24-55.

639,015. ATRAN. Goodyear Aircraft Corporation. SN 700,026. Pub. 10-9-56. Filed 12-15-55.

639,016. AMIFLEX. Sterling-Howard Corporation. SN 1,480. Pub. 10-9-56. Filed 1-25-56.

639,017. POWERMITE. General Electric Company. SN 7,496. Pub. 10-9-56. Filed 5-2-56.

639,018. SAFTI-TEMP. Pioneer Manufacturing Co. SN 7,839. Pub. 10-9-56. Filed 5-7-56.

639,019. ATLAS. Atlas Supply Company. SN 8,111. Pub. 10-9-56. Filed 5-11-56.

639,020. SPARTUS. Herold Products Company, Inc. SN 8,549. Pub. 10-9-56. Filed 5-18-56.

## CLASS 27

## HOROLOGICAL INSTRUMENTS

639,021. FUTURITY. The Gruen Watch Company. SN 8,663. Pub. 9-18-56. Filed 5-21-56.

## CLASS 28

## JEWELRY AND PRECIOUS-METAL WARE

639,022. JEWELS OF ELEGANCE B AND DESIGN. Joseph Bobley Jewelry, Inc. SN 692,594. Pub. 10-9-56. Filed 8-12-55.

## CLASS 30

## CROCKERY, EARTHENWARE, AND PORCELAIN

639,023. CALICO LEAVES. Shenango China, Inc. SN 2,197. Pub. 10-9-56. Filed 2-6-56.

## CLASS 31

## FILTERS AND REFRIGERATORS

639,024. MILLIPORE FILTER CORP. MF AND DESIGN. Millipore Filter Corporation. SN 4,142. Pub. 10-9-56. Filed 3-8-56.

## CLASS 33

## GLASSWARE

639,025. FOSTORIA AND DESIGN. Fostoria Glass Company. SN 6,801. Pub. 10-9-56. Filed 4-20-56.

## CLASS 34

## HEATING, LIGHTING, AND VENTILATING APPARATUS

639,026. WEATHERKING. Tele King Corporation. SN 639,861. Pub. 5-3-55. Filed 12-20-52.

639,027. AIRCOUSTAT AND DESIGN. Industrial Sound Control, Inc., to Koppers Company, Inc. SN 670,110. Pub. 7-26-55. Filed 7-16-54.

639,028. ALPINE AIR COOLERS AND DESIGN. International Metal Products Sales Corporation. SN 692,717. Pub. 10-9-56. Filed 8-9-55.

639,029. NATIONAL. Mestee Heater Company. SN 694,735. Pub. 10-9-56. Filed 9-15-55.

639,030. HOLIDAY. Paul T. Pohly. SN 695,240. Pub. 10-9-56. Filed 9-23-55.

639,031. PREMIER FAN-AIR. Premier Furnace Company. SN 2,562. Pub. 10-9-56. Filed 2-13-56.

639,032. TIKI TORCH. John Freiburg & Co., d. b. a. John C. Charles Co. SN 6,916. Pub. 10-9-56. Filed 4-23-56.

## CLASS 35

## BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

639,033. COVERLOK. Meridan Corporation. SN 7,209. Pub. 10-9-56. Filed 4-26-56.



## CLASS 36

## MUSICAL INSTRUMENTS AND SUPPLIES

639,034. BALLY. Bally Recording Corporation. SN 7. Pub. 10-9-56. Filed 1-3-56.

## CLASS 37

## PAPER AND STATIONERY

639,035. HI-VI. Old Town Corporation. SN 3,706. Pub. 10-9-56. Filed 3-1-56.

## CLASS 38

## PRINTS AND PUBLICATIONS

639,036. INVISIBLE REWEAVING INSTITUTE, ETC. AND DESIGN. Invisible Reweaving Institute. SN 654,132. Pub. 5-3-55. Filed 10-3-53.

639,037. AUDIOCRAFT. Audiocom Incorporated, d. b. a. The Publishing House. SN 692,450. Pub. 10-9-56. Filed 8-4-55.

639,038. PORT-FOLEY-O. Federated Department Stores, Inc. SN 4,947. Pub. 10-9-56. Filed 3-21-56.

## CLASS 39

## CLOTHING

639,039. BROCK-WAYS AND DESIGN. Geo. Brockman, d. b. a. Geo. Brockman & Co. SN 689,689. Pub. 10-9-56. Filed 7-1-55.

639,040. VISCOUNT. John B. Stetson Company. SN 691,897. Pub. 3-13-56. Filed 7-15-55.

639,041. "SLIM PORT." Joseph M. Klein, Inc. SN 694,806. Pub. 10-9-56. Filed 9-16-55.

639,042. VETRIX BLEYLE AND DESIGN. Wilh. Bleyle O. H. G. SN 868. Pub. 10-9-56. Filed 1-17-56.

639,043. SUN-CAP-ADE. Bancroft Cap Company. SN 2,274. Pub. 10-9-56. Filed 2-8-56.

639,044. TU-WAY. J. Schoenman, Incorporated. SN 3,632. Pub. 10-9-56. Filed 2-28-56.

639,045. ANNIVERSARY. Cluett, Peabody & Co., Inc. SN 3,994. Pub. 10-9-56. Filed 3-7-56.

639,046. PORT 'N' STARBOARD. Cluett, Peabody & Co., Inc. SN 3,995. Pub. 10-9-56. Filed 3-7-56.

639,047. MAVIS. Mavis Hosiery, Inc. SN 5,681. Pub. 10-9-56. Filed 5-21-56.

639,048. BUCKAROO GAL. Smith Brothers Manufacturing Co. SN 5,716. Pub. 10-9-56. Filed 5-21-56.

639,049. PONCHERIE. Zipporah H. Spiero. SN 5,806. Pub. 10-9-56. Filed 5-22-56.

## CLASS 40

## FANCY GOODS, FURNISHINGS, AND NOTIONS

639,050. WONDER-WELD. Great Lakes Paper Company. SN 3,660. Pub. 10-9-56. Filed 3-1-56.

## CLASS 42

## KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

639,051. QUETTES. August L. Franke, d. b. a. Q-W Laboratories. SN 639,696. Pub. 11-3-53. Filed 12-18-52.

639,052. BALLY-ROGAN. S. Stein & Co., Inc. SN 673,422. Pub. 7-31-56. Filed 12-15-54.

639,053. DO-IT-YOURSELF PRINTS. Joseph Goldinger Fabrics Company. SN 687,704. Pub. 12-13-55. Filed 5-17-55.

639,054. MASTERLON. Joanley Fabrics Corp. SN 696,039. Pub. 10-9-56. Filed 11-10-55.

639,055. VINAQUILT. Marbek Inc. SN 699,409. Pub. 10-9-56. Filed 12-5-55.

639,056. TUFTWOVEN. The Firth Carpet Company. SN 1,874. Pub. 10-9-56. Filed 1-30-56.

639,057. RAYORENE. The Russell Manufacturing Co., Inc. SN 3,892. Pub. 10-9-56. Filed 3-5-56.

639,058. CASANOVA. E. T. Barwick Mills. SN 5,489. Pub. 10-9-56. Filed 3-30-56.

639,059. PORTRAIT. E. T. Barwick Mills. SN 5,490. Pub. 10-9-56. Filed 3-30-56.

639,060. BLENDENIM. Tobias Kotzin, d. b. a. A-1 Manufacturing Co. SN 5,850. Pub. 10-9-56. Filed 4-5-56.

639,061. TULLENE. Checker Fabrics & Net Company. SN 6,506. Pub. 10-9-56. Filed 4-17-56.

639,062. LAPELLA. Lanella Corporation. SN 6,534. Pub. 10-9-56. Filed 4-17-56.

639,063. DECA-TWEED. Monarch Rug Mills. SN 6,946. Pub. 10-9-56. Filed 4-23-56.

639,064. LYNNENE. Joseph Bancroft & Sons Co. SN 6,960. Pub. 10-9-56. Filed 4-24-56.

639,065. SHEER FLATTERY. French Fabrics Corporation. SN 7,086. Pub. 10-9-56. Filed 4-25-56.

639,066. REEVON. Reeves Brothers, Inc. SN 7,113. Pub. 10-9-56. Filed 4-25-56.

639,067. RAMA. D. B. Fuller & Co., Inc. SN 7,981. Pub. 10-9-56. Filed 5-9-56.

639,068. FROSTWAL. Waite Carpet Company. SN 8,270. Pub. 10-9-56. Filed 5-15-56.

## CLASS 44

## DENTAL, MEDICAL, AND SURGICAL APPLIANCES

639,069. CRESCENT. Milex Products. SN 682,957. Pub. 11-1-55. Filed 3-7-55.

639,070. KERN TURBO JET. George R. Kern, d. b. a. Kern Engineering Company, to Bowen & Company, Inc. SN 690,472. Pub. 8-21-56. Filed 6-29-55.

639,071. VITA-LOY ETC. AND DESIGN. Vita-Loy Processing & Products Co. SN 1,550. Pub. 9-18-56. Filed 1-26-56.

## CLASS 45

## SOFT DRINKS AND CARBONATED WATERS

639,072. TAZEWELL. Sun Rise Bottling Company, Incorporated. SN 6,867. Pub. 10-9-56. Filed 4-20-56.

### CLASS 46

### FOODS AND INGREDIENTS OF FOODS

639,073. ROYAL DUCHESS. E. F. Drew & Co., Inc. SN 626,312. Pub. 2-17-53. Filed 3-13-52.

639,074. ROSE MILL. Mill O'Milford, Inc., from Mill O'Milford, Inc. SN 667,635. Pub. 10-9-56. Filed 12-8-53.

639,075. PIXIE MUSHROOM SAUCE AND DESIGN. Fred Mushroom Products Company. SN 666,944. Pub. 10-18-55. Filed 5-24-54.

639,076. VET-AID. The O. A. Cooper Co. SN 674,945. Pub. 6-28-55. Filed 10-18-54.

639,077. SWEET-10. The Rapp-Ramsey Company. SN 669,412. Pub. 6-19-56. Filed 6-13-55.

639,078. RED RANGER AND DESIGN. Southern States Cooperative, Incorporated. SN 698,377. Pub. 5-29-56. Filed 11-16-55.

639,079. BLUEPOINT SEA FOODS AND DESIGN. Bluepoints Company, Inc., to Bluepoints Sea Foods Corp. SN 698,952. Pub. 10-9-56. Filed 11-28-55.

639,080. GAY MAID. Knox-Naylor Co., to Joseph B. Knox, d. b. a. Knox & Company. SN 601. Pub. 10-9-56. Filed 1-12-56.

639,081. SPICE PARISIENNE. Spice Islands Company. SN 628. Pub. 10-9-56. Filed 1-12-56.

639,082. JUMBO PIE. Bremner Biscuit Company. SN 1,323. Pub. 10-2-56. Filed 1-24-56.

639,083. LUCKY LADY. Morton Barron, d. b. a. Rex Sales Co. SN 2,070. Pub. 10-9-56. Filed 2-6-56.

639,084. SNAK-ROUNDS. King Kone Corporation. SN 2,297. Pub. 10-9-56. Filed 2-8-56.

639,085. ACME IDEAL AND DESIGN. American Stores Company. SN 2,403. Pub. 10-9-56. Filed 2-10-56.

639,086. ATLANTA MAID. Palm Terrace Fruit Company. SN 2,446. Pub. 10-9-56. Filed 2-10-56.

639,087. NUTEO-LIFE. Langendorf United Bakeries, Inc. SN 2,541. Pub. 10-9-56. Filed 2-13-56.

639,088. NORTH AMERICAN. North American Mushroom Company. SN 2,805. Pub. 10-9-56. Filed 2-16-56.

639,089. WOOZIE-WOOZIE. Yeckes-Eichenbaum, Incorporated. SN 2,843. Pub. 10-9-56. Filed 2-16-56.

639,090. FLIPS. General Foods Corporation. SN 2,974. Pub. 10-9-56. Filed 2-20-56.

639,091. CRUSTOYL. Conrad Associates. SN 3,081. Pub. 10-9-56. Filed 2-21-56.

639,092. BARBATO CONTINENTAL. Arden Farms Co. SN 3,238. Pub. 10-9-56. Filed 2-27-56.

639,093. MILLER'S KIBBLES. Battle Creek Dog Food Company. SN 3,345. Pub. 10-9-56. Filed 2-27-56.

639,094. "DAD'S." Dad's Products Company. SN 3,361. Pub. 10-9-56. Filed 2-27-56.

639,095. SELECTASTE. B. M. Reeves Co., Inc. SN 3,453. Pub. 10-9-56. Filed 2-27-56.

639,096. LUSCIOUS GOLD AND DESIGN. E. F. Drew & Co., Inc. SN 3,594. Pub. 10-9-56. Filed 2-29-56.

639,097. FOREST PARK. The Bennett Creamery Company. SN 3,728. Pub. 10-9-56. Filed 3-2-56.

639,098. WISCOS. The Fall River Canning Company. SN 4,115. Pub. 10-9-56. Filed 3-8-56.

639,099. WOOZIE-WOOZIE AND DESIGN. Yeckes-Eichenbaum, Incorporated. SN 4,591. Pub. 10-9-56. Filed 3-14-56.

### CLASS 50

### MERCHANDISE NOT OTHERWISE CLASSIFIED

639,100. PLAST-O-LINER. Flex-O-Glass, Inc., d. b. a. Warp Brothers. SN 666,790. Pub. 10-9-56. Filed 10-20-55.

639,101. HOLIDAY. S-B Manufacturing Company. SN 697,189. Pub. 10-9-56. Filed 10-26-55.

639,102. WARCO. Wm. A. Reynolds & Co., Inc. SN 2,652. Pub. 10-9-56. Filed 2-14-56.

639,103. NEOLON. Langdon Manufacturing Co. SN 5,107. Pub. 10-9-56. Filed 3-22-56.

639,104. COLUMBIA. The Columbia Mills, Inc. SN 8,196. Pub. 10-9-56. Filed 5-14-56.

639,105. DURASORB. Albany Felt Company. SN 8,375. Pub. 10-9-56. Filed 5-16-56.

639,106. GEMOCITE. Greene Plastics Corporation. SN 8,769. Pub. 10-9-56. Filed 5-22-56.

639,107. FROSTI-GLO. Greene Plastics Corporation. SN 8,770. Pub. 10-9-56. Filed 5-22-56.

639,108. FROSTI-KOOL. Greene Plastics Corporation. SN 8,771. Pub. 10-9-56. Filed 5-22-56.

### CLASS 51

### COSMETICS AND TOILET PREPARATIONS

639,109. 24. Coty, Inc. SN 691,984. Pub. 10-9-56. Filed 7-27-55.

639,110. ANFO. Anfo Patent A. G. SN 696,280. Pub. 10-9-56. Filed 10-12-55.

### CLASS 52

### DETERGENTS AND SOAPS

639,111. NU-GRAIN. Custom Paint and Chemical Co., Inc. SN 696,217. Pub. 10-9-56. Filed 10-11-55.

639,112. TWIN-SOLV. Custom Paint and Chemical Co., Inc. SN 697,621. Pub. 10-9-56. Filed 11-3-55.

639,113. HAEMO-SOL. Meinecke & Company. SN 5,314. Pub. 10-9-56. Filed 3-27-56.

639,114. RITZ. Charles of the Ritz, Inc. SN 5,909. Pub. 10-9-56. Filed 4-6-56.

639,115. SUDSOAP. The Martin-Senour Company. SN 6,025. Pub. 10-9-56. Filed 4-9-56.

## Service Marks

### CLASS 100

### MISCELLANEOUS

639,116. a A a. W. A. Weeks, d. b. a. Animal Analysis Associates. SN 664,713. Pub. 10-9-56. Filed 4-16-54.

639,117. THE PIZZA KING. Vito's Restaurant, Inc. SN 695,121. Pub. 10-9-56. Filed 9-21-55.

### CLASS 101

### ADVERTISING AND BUSINESS

639,118. GENERAL OUTDOOR ADVERTISING CO. INCORPORATED AND DESIGN. General Outdoor Advertising Co., Inc. SN 675,560. Pub. 9-18-56. Filed 10-27-54.

639,119. SMOKE N' SAVE. Zolla Bros.-Silvias, Inc. SN 676,023. Pub. 10-9-56. Filed 11-3-54.



### CLASS 102

### INSURANCE AND FINANCIAL

639,120. AA CO AND DESIGN. The American Appraisal Company. SN 675,582. Pub. 9-18-56. Filed 12-30-54.

639,121. DOANE. Doane Agricultural Service, Inc. SN 691,447. Pub. 10-9-56. Filed 7-18-55.

639,122. VALIC. The Variable Annuity Life Insurance Company of America Incorporated. SN 4,920. Pub. 10-9-56. Filed 3-30-56.

### CLASS 104

### COMMUNICATION

639,123. DIXIELAND AND DESIGN. WGBA, Inc. SN 699,999. Pub. 10-9-56. Filed 12-14-55.

### CLASS 105

### TRANSPORTATION AND STORAGE

639,124. WORLDS APART ONLY HOURS AWAY ETC. AND DESIGN. Sunny Isles Travel Co. Inc., d. b. a. Sunny Isles Travel Co. SN 699,695. Pub. 10-9-56. Filed 7-8-54.

639,125. NEPTUNE A WORLD OF SERVICE AND DESIGN. Neptune Storage, Inc. SN 677,626. Pub. 10-9-56. Filed 11-19-54.

639,126. WALES. Wales Trucking Company. SN 692,287. Pub. 10-9-56. Filed 8-1-55.

639,127. CHICAGO AND NORTH WESTERN SYSTEM AND DESIGN. Chicago and North Western Railway Company. SN 1,506. Pub. 10-9-56. Filed 1-26-56.

### CLASS 106

### MATERIAL TREATMENT

639,128. LUSTRE-PAK AND DESIGN. Bremson Photo Industries, Inc. SN 691,490. Pub. 10-9-56. Filed 7-18-55.

639,129. ARDLAST AND DESIGN. David Craven, d. b. a. Alloy Surfaces Company. SN 692,577. Pub. 10-9-56. Filed 8-8-55.

639,130. FRAN-DURA. La Francaise Dyeing & Finishing Co., Inc. SN 3,102. Pub. 10-9-56. Filed 2-21-56.

### CLASS 107

### EDUCATION AND ENTERTAINMENT

639,131. DYNAMIC VALUE HUNT. Arthur O. Harris, d. b. a. Dynamics of Selling System. SN 673,742. Pub. 10-9-56. Filed 9-24-54.

639,132. SPEEDWRITING. Speedwriting Publishing Company, Inc. SN 692,963. Pub. 10-9-56. Filed 8-12-55.

639,133. MICKEY MOUSE CLUB AND DESIGN. Walt Disney Productions. SN 3,160. Pub. 10-9-56. Filed 2-23-56.

## Collective Membership Marks

### CLASS 200

639,134. OPTI-MRS. Optimist International. SN 83. Pub. 10-9-56. Filed 1-3-56.

639,135. DESIGN OF EMBLEM. Sigma Alpha Iota. SN 98. Pub. 10-9-56. Filed 1-3-56.

## SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

### CLASS 6

### CHEMICALS AND CHEMICAL COMPOSITIONS

639,136. Hodgins Copper-Hide, Inc., Cleveland, Ohio. SN 645,892. Filed P. R. 4-24-53. Am. S. R. 10-29-56.

**Aqua-Treat**

For Water-Softening Compound.
First use Oct. 19, 1949.

### CLASS 12

### CONSTRUCTION MATERIALS

639,137. Robinson Plywood and Timber Company, Everett, Wash. SN 695,763. Filed P. R. 10-3-55. Am. S. R. 10-1-56.

**BRUSHT-PLY**

For Plywood.
First use Sept. 6, 1955.



639,138. Fredmar Builders Supply Co., Indianapolis, Ind. SN 699,557. Filed P. R. 12-7-55. Am. S. R. 10-12-56.



The drawing is lined for black and silver.
For Simulated Stone Veneer Blocks.
First use Sept. 22, 1955.

### CLASS 13

### HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

639,139. Saf-T-Rail Industries, Inc., St. Petersburg, Fla. SN 1,513. Filed P. R. 1-31-56. Am. S. R. 10-26-56.

**SAF-T-RAIL**

For Hand Railings for Bathroom Use.
First use Feb. 2, 1953.



639,140. Hydro-Air Engineering, Inc., Kent, Ohio. SN 699,558. Filed P. R. 12-7-55. Am. S. R. 10-12-56.

**HYDRO-AIR**

For Air Conditioning Units.
First use Nov. 1, 1955.

639,141. Hydro-Air Engineering, Inc., Kent, Ohio. SN 699,559. Filed P. R. 12-7-55. Am. S. R. 10-12-56.

**HYDRO-AIRE**

For Air Conditioning Units.
First use Nov. 1, 1955.

639,142. Hydro-Air Engineering, Inc., Kent, Ohio. SN 699,560. Filed P. R. 12-7-55. Am. S. R. 10-12-56.

**HYDRO-AIRE**

For Air Conditioning Units.
First use Nov. 1, 1955.

639,143. Hydro-Air Engineering, Inc., Kent, Ohio. SN 699,561. Filed P. R. 12-7-55. Am. S. R. 10-12-56.

**HYDRO-AIRE**

For Air Conditioning Units.
First use Nov. 1, 1955.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

639,140. Iddings Paint Company, Inc., Long Island City, N. Y. SN 666,598. Filed P. R. 5-31-55. Am. S. R. 9-7-56.

PRO-TEEN

For Protein or Casein Paste Paint.
First use January 1953.

639,141. The Eagle-Picher Company, Cincinnati, Ohio. SN 667,770. Filed P. R. 11-7-55. Am. S. R. 9-4-56.

SPRAY-MASTIC

For Asphalt Emulsion Weather Coating for the Protection of Insulation and Structural Steel.
First use Aug. 24, 1955.

CLASS 19

VEHICLES

639,142. Griffith Rubber Mills, Portland, Oreg. SN 666,752. Filed P. R. 5-20-54. Am. S. R. 10-15-56.

Griffith RUBBER MILLS

For Automotive Rubber Goods—Namely, Bumpers and Marine Rubber Goods—Namely, Marine Fenders, Deck Mats, Rug Strips, Step Plates, Transom Pads, and Outboard Motor Bracket Feet.
First use September 1953.

639,143. Truckstell Manufacturing Co., Cleveland, Ohio. SN 669,597. Filed P. R. 6-15-55. Am. S. R. 10-1-56.

SWIVEL FRAME

For Truck Frames.
First use May 3, 1955.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

639,144. Electrical Fittings Corporation, Woodside, N. Y. SN 668,227. Filed P. R. 5-25-55. Am. S. R. 10-24-56.

SWING TOP

For Electrical Wiring Supplies and Accessories Therefor—Namely, Entrance Caps.
First use March 1955.

639,145. Miles, Incorporated, Minneapolis, Minn. SN 667,488. Filed P. R. 11-1-55. Am. S. R. 9-27-56.

MILES

For Electric Welding Machines.
First use Sept. 22, 1955.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

639,146. Irving Machinery Company, Inc., Philadelphia, Pa. SN 669,946. Filed P. R. 6-21-55. Am. S. R. 9-6-56.

PRESSURE PAK'D

For Meat Packaging and Pressure Sealing Machines, Sealing Clamps and Parts Thereof.
First use Mar. 1, 1954.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

639,147. Heat Timer Corporation, New York, N. Y. SN 669,224. Filed P. R. 6-9-55. Am. S. R. 8-1-56.

recorder + totalizer

For Tape Recording Machines for Measuring and Totaling Time Operations.
First use May 15, 1954.

CLASS 32

FURNITURE AND UPHOLSTERY

639,148. Hussmann Refrigerator Co., St. Louis, Mo. SN 1,873. Filed P. R. 2-1-56. Am. S. R. 10-18-56.

SHELF SERVICE

For Shelving, Particularly Adapted for Use in Super Markets and Other Food Stores.
First use Oct. 3, 1955.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

639,149. Valley View Packing Co., Inc., San Jose, Calif. SN 667,652. Filed P. R. 5-16-55. Am. S. R. 8-10-56.

MITY-SWEET

For Dried Fruits.
First use Apr. 13, 1955.



639,150. Società in Accomandita Giuseppe Citterio, Milan, Italy. SN 692,021. Filed P. R. 7-27-55. Am. S. R. 7-25-56.

CITTERIO

The English translation of "Il Salame Famoso in Tutto il Mondo" is "the salami which is famous throughout the world." Owner of Italian Reg. No. 92,283, dated Oct. 31, 1949.
For Salamis.

639,151. The South Shore Packing Corporation, Vermilion, Ohio. SN 122. Filed P. R. 1-4-56. Am. S. R. 9-17-56.




The trademark consists of the word "Handi," the representation of a carpenter's square, and a square bottle.
For Food Products—Namely, Olives, Pickles, Table Syrups, Food Flavoring Extracts, and Jellies.
First use May 23, 1955.

639,152. Alagonia Importing Company, Worcester, Mass. SN 5,962. Filed 4-9-56.

ALAGONIA

For Pure Olive Oil for Food Purposes.
First use Aug. 15, 1953.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

639,153. Estée Lauder, d. b. a. Estée Lauder Cosmetic Co., New York, N. Y. SN 693,465. Filed P. R. 8-22-55. Am. S. R. 8-28-56.

*WAKE UP...looking younger*

For Cosmetic Face Creams.
First use Aug. 30, 1952.

## TRADEMARK REGISTRATIONS RENEWED

101,814. FLORASWEET. Cl. 51. 1-12-16.
113,425. PIONEER. Cl. 39. 10-17-16.
113,555. BRIDGEPORT. Cl. 13. 10-24-16.
113,781. DESIGN OF OVAL AND FLOWERS. Cl. 46. 10-31-16.
114,295. MEPROLENE. Cl. 15. 12-5-16.
114,337. ARROW AND DESIGN. Cl. 39. 12-12-16.
115,500. FORD. Cl. 21. 2-20-17.
337,494. THE BRECK METHOD AND DESIGN. Cl. 51. 8-11-36.
337,996. TOPPERS. Cl. 17. 8-25-36.
338,658. KENTUCKY SIRE. Cl. 49. 9-15-36.
339,357. RODNEY WILCOX JONES ETC. AND DESIGN. Cl. 39. 10-6-36.
339,560. ISIS AND DESIGN. Cl. 51. 10-13-36.
339,654. SAMSON. Cl. 35. 10-13-36.
339 703. SAF T POP. Cl. 46. 10-20-36.
339 704. LLAMACUNA. Cl. 39. 10-20-36.
339,710. INSTO. Cl. 52. 10-20-36.
339,717. SPARROW. Cl. 37. 10-20-36.
339 720. DETECTO. Cl. 26. 10-20-36.
339,973. 62. Cl. 44. 10-27-36.
339,974. 61. Cl. 44. 10-27-36.
340,037. NATURAL GROWTH. Cl. 39. 10-27-36.
340,100. SPUNSHAN. Cl. 42. 11-3-36.
340 150. VICTOR BREAD AND DESIGN. Cl. 46. 11-3-36.
340,198. ENDOWMENT. Cl. 37. 11-3-36.
340,225. DESIGN OF GIRL. Cl. 39. 11-3-36.
340,284. MEDISKIN. Cl. 51. 11-3-36.
340,692. SILVER BAND AND DESIGN. Cl. 13. 11-17-36.
340,717. ROYAL PURPLE AND DESIGN. Cl. 39. 11-17-36.
340,790. MEDISKIN. Cl. 52. 11-24-36.
340,848. SOPHISTICATE. Cl. 42. 11-24-36.
340,868. VELOMETER. Cl. 26. 11-24-36.
341,338. K-A-P. Cl. 18. 12-8-36.
341,379. A GLANCE IDENTIFIES GREEN MARKED COAL AND DESIGN. Cl. 1. 12-8-36.
341,386. NOTRUX. Cl. 24. 12-8-36.
341,613. RELIGION IN THE NEWS. Cl. 38. 12-15-36.
341,975. SUPER. Cl. 29. 12-29-36.
342,409. TRU-FRIEND. Cl. 46. 1-19-37.
342,471. WHITE BEAUTY AND DESIGN. Cl. 46. 1-19-37.
342,485. DONMOOR. Cl. 39. 1-19-37.
342,673. ATLAS SEAL-ALL MASON. Cl. 50. 1-26-37.
342,850. BARRI-POPS. Cl. 46. 2-2-37.
343,052. MOHAWK LIQUEURS ETC. Cl. 49. 2-9-37.
343,229. SWANK. Cl. 8. 2-16-37.
343,639. SWANK. Cl. 33. 3-2-37.
343,951. KLIPTON. Cl. 13. 3-9-37.
344,023. FABRICOL. Cl. 52. 3-9-37.
344,046. CONFORMA. Cl. 44. 3-9-37.
344,118. SPINCRAFT. Cl. 13. 3-16-37.
344,138. ZENITH. Cl. 23. 3-16-37.
344,267. HUNT CLUB AND DESIGN. Cl. 46. 3-16-37.
344,536. DON PEDRO AND DESIGN. Cl. 46. 3-30-37.
344,616. HYRATE. Cl. 12. 3-30-37.
344,744. CELTIC. Cl. 39. 4-6-37.
344,769. CHARING CROSS SHOE AND DESIGN. Cl. 39. 4-6-37.
344,771. SUPER-KNIT. Cl. 39. 4-6-37.
344,853. CHINA DOLL AND DESIGN. Cl. 46. 4-6-37.
344,956. ORAVAX. Cl. 18. 4-13-37.
345,063. CLORAFIN. Cl. 6. 4-13-37.

# TRADEMARK REGISTRATIONS CANCELED

**Section 8**

121,900. ISCO. Cl. 6. 6–11–18.
138,470. SUNRISE. Cl. 46. 12–28–20.
155,722. ISCO CHEMICALS. Cl. 52. 6–6–22.
156,207. ISCO CHEMICALS. Cl. 6. 6–20–22.
179,032. VELVET. Cl. 46. 2–5–24.
207,175. VELVET. Cl. 45. 12–22–25.
220,721. VELVET. Cl. 46. 11–16–26.
228,528. TAPERTEX. Cl. 39. 6–7–27.
229,617. BIKET. Cl. 46. 7–5–27.
275,074. FROM COTTON TO CUTTER. Cl. 42. 9–18–30.
357,980. DAREX. Cl. 22. 6–14–38.
373,204. VISIONAIRE. Cl. 37. 11–28–39.
375,419. GIRALDA AND DESIGN. Cl. 46. 2–20–40.
386,211. FYR-ROC AND DESIGN. Cl. 12. 4–1–41.
396,980. FERRI-CISOr. Cl. 6. 8–11–42.
407,188. VELVET. Cl. 46. 5–23–44.
432,517. ISCOBROME. Cl. 6. 9–2–47.

*The following registrations issued Sept. 26, 1950*

531,127. RHOWACO. Cl. 1.
531,132. CLERE MOLD. Cl. 32.
531,133. THE TI RIDE AND DESIGN. Cl. 32.
531,135. ELCO ROCKFORD AND DESIGN. Cl. 38.
531,138. ANALUM. Cl. 32.
531,144. RAPID. Cl. 52.
531,147. FEAST. Cl. 46.
531,149. RICKI REED. Cl. 39.
531,152. WHITE MULE. Cl. 46.
531,155. KOZEE KOMFORT. Cl. 1.
531,161. HARVEST GOLD AND DESIGN. Cl. 46.
531,162. MARVIN R. THOMPSON. Cl. 18.
531,164. LA REINE AND DESIGN. Cl. 46.
531,165. BARRICINI AND DESIGN. Cl. 46.
531,168. METALITE. Cl. 14.
531,169. MARVELLA MINERVA QUALITY. Cl. 28.
531,170. WATTS BRUIN. Cl. 39.
531,171. KNEEL-O-MATIC. Cl. 32.
531,172. BEACH MASTER. Cl. 32.
531,173. VASCUPLEX. Cl. 18.
531,177. HUMAN RELATIONS. Cl. 38.
531,179. OSCAR. Cl. 22.
531,180. EUCUPINAL. Cl. 18.
531,182. HOLLYVOGUE OF CALIFORNIA. Cl. 39.
531,184. CRADLE-LIFT. Cl. 39.
531,188. WESTSAIL. Cl. 46.
531,189. MAURETANIA. Cl. 46.
531,194. ROLLIT DIRECTOR. Cl. 37.
531,199. VALIANT. Cl. 28.
531,206. MERIT. Cl. 38.
531,210. ISURANT CRITIQUES. Cl. 38.
531,211. FLAP HAPPY BIRD! Cl. 22.
531,212. BRI-TONE. Cl. 38.
531,214. SUL-AMMO. Cl. 10.
531,216. NOVA-PLAY. Cl. 36.
531,218. CARBOLIV AND DESIGN. Cl. 14.
531,223. SIOUX BEE AND DESIGN. Cl. 46.
531,227. BLACK DIAMOND WESTERN. Cl. 38.
531,228. SWAN. Cl. 22.
531,230. SATUSPLY. Cl. 1.
531,233. SUDE TOGS MAKER OF PANTICOAT. Cl. 39.
531,234. LOKTITE. Cl. 39.
531,239. CALENDIARY. Cl. 38.
531,240. SASCO PHOS. Cl. 10.
531,243. MY DARLING. Cl. 38.
531,245. THE ANSWER. Cl. 39.
531,246. DAVID LEWIS. Cl. 39.
531,247. HAPPY. Cl. 28.
531,248. ACF ROLLING STOCK. Cl. 38.
531,249. BEN AND DESIGN. Cl. 28.
531,253. RE-GARDS. Cl. 1.
531,258. THINK OF ME. Cl. 32.
531,270. TRAFIK-FLOW. Cl. 32.
531,272. ALUMI-GRIP. Cl. 14.
531,273. QUENCH CHOICE. Cl. 14.
531,276. SIGRID CRAFTS. Cl. 32.
531,277. REPRESENTATION OF A CAT. Cl. 32.
531,278. 101. Cl. 14.
531,280. TANJ-BELS. Cl. 18.
531,281. HI 2 AND DESIGN. Cl. 6.
531,282. EASY-WAY. Cl. 32.
531,283. GINGHAM GIRL. Cl. 6.
531,285. DRESS WELL PAD. Cl. 32.
531,286. SCARFA'NET. Cl. 39.
531,288. HANDLYNE. Cl. 39.
531,289. BEACON HILL. Cl. 28.
531,290. WORKMASTER. Cl. 32.
531,291. POULTRI-CAL. Cl. 38.
531,292. LUMINESCENT NEWS. Cl. 38.
531,296. 130X WITHIN CIRCLE. Cl. 14.
531,298. 133 WITHIN CIRCLE. Cl. 14.
531,303. MYSTERE. Cl. 28.
531,304. PRISMA. Cl. 36.
531,306. NYLAINE. Cl. 42.
531,307. GOLDEN GLOVES. Cl. 42.
531,308. KISS ME KATE. Cl. 42.
531,309. RIDERS IN THE SKY. Cl. 42.
531,310. CELAGLO. Cl. 42.
531,311. NYLOC. Cl. 42.
531,317. COSMOPOLITAN. Cl. 28.
531,318. LYNNCRAFT. Cl. 28.
531,320. TAFFAQUA. Cl. 42.
531,323. EPTANISOS. Cl. 38.
531,324. PRINTLON. Cl. 42.
531,326. STOCKBRIDGE. Cl. 42.
531,328. UE. Cl. 38.
531,329. PLENTIFLEX. Cl. 42.
531,330. CLOISONNE. Cl. 42.
531,335. HI-BRO. Cl. 42.
531,337. STARDUST. Cl. 42.
531,338. GLORATEEN. Cl. 42.
531,339. NEWCHILLA. Cl. 42.
531,340. VELNUVO. Cl. 42.
531,348. KORITE WITHIN DESIGN. Cl. 14.
531,351. WIZARD. Cl. 103.
531,352. MURDER AT MIDNIGHT. Cl. 107.
531,360. ON TO PROGRESS. Cl. 107.
531,361. SPECTRANOME AND DESIGN. Cl. 106.
531,362. NAPCOLOR. Cl. 101.
531,365. DOWELL AND DESIGN. Cl. 100.
531,367. SAF-T-STEP. Cl. 19.
531,371. MEEHAN. Cl. 32.
531,372. NO PADS—NO PUFFS. Cl. 39.
531,373. ALWAYS SAY FIFER'S AND DESIGN. Cl. 46.
531,376. PUL-PRUF. Cl. 42.
531,383. CLEARVIEW. Cl. 42.
531,390. CUSTOM-EDGE AND DESIGN. Cl. 32.
531,391. SAT-N-FILM. Cl. 42.
531,394. HUNTS. Cl. 52.
531,396. SOFT-FLEX. Cl. 42.
531,399. MIGLIORE. Cl. 47.
531,400. DRAW-IN-DEX. Cl. 32.

*The following registrations issued Oct. 3, 1950*

531,403. PASA DEL ORO RAISINS. Cl. 46.
531,413. SHAWCREST. Cl. 46.
531,414. FAULTLESS. Cl. 24.
531,419. BLAZED TRAIL. Cl. 46.
531,423. FOLD-A-MATIC. Cl. 24.
531,424. FOLIFEROL. Cl. 18.
531,430. ARNO TONE AND DESIGN. Cl. 16.
531,432. LADY AMERICA AND DESIGN. Cl. 52.
531,435. ASSOCIATED. Cl. 50.
531,447. TM DESIGN—TRUCK. Cl. 15.
531,453. UNOLOX. Cl. 15.
531,458. BACKGAMMON. Cl. 2.
531,463. REPRESENTATION OF GOLD RIBBON PEARLS. Cl. 28.
531,467. GASWELD. Cl. 6.
531,470. PRACTICOL. Cl. 15.
531,473. GRAMILETS. Cl. 18.
531,475. CAMFOSA. Cl. 6.





531,476. GENERAL—THE WHEELBARROW WITH ORANGE HANDLES. Cl. 19.
531,481. BEAU BELLE. Cl. 51.
531,488. MISSION BELLS. Cl. 27.
531,489. PERGA WITHIN CIRCULAR DESIGN. Cl. 2.
531,490. MENNETTE. Cl. 51.
531,497. DIAPER SAN. Cl. 18.
531,498. SKIP. Cl. 4.
531,502. GEE'S. Cl. 18.
531,503. VELVICE. Cl. 46.
531,507. SMOKE RING. Cl. 32.
531,512. EIL-BE-KI. Cl. 6.
531,514. WINKEM-BLINKEM. Cl. 22.
531,524. PELLUCOR. Cl. 44.
531,526. CROSS COUNTRY. Cl. 15.
531,527. PEERAGE AND DESIGN. Cl. 28.
531,531. COLOGNIZER. Cl. 44.
531,533. MARATHON AND DESIGN. Cl. 2.
531,535. RELCO. Cl. 22.
531,544. JARCO. Cl. 8.
531,547. JIM FARMWELL'S. Cl. 6.
531,556. CESS-PEP. Cl. 6.
531,557. VERADERO. Cl. 6.
531,562. FORRESTVILLE. Cl. 27.
531,567. LADY CARROLL. Cl. 39.
531,574. GRIFFIN FURNITURE POLISH. Cl. 4.
531,580. EV'RY FUEL. Cl. 34.
531,582. ALASKA. Cl. 6.
531,583. MAAS REMEDY OILS. Cl. 18.
531,588. WASHINGTON WHITE. Cl. 1.
531,589. U DESIGN IT. Cl. 22.
531,590. DISHLUSTR. Cl. 52.
531,591. FISH-N-SCORE. Cl. 22.

# TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

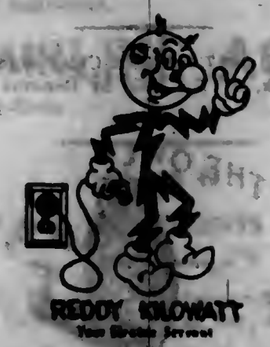
115,068. C & C. Cl. 46. 1–23–17. Cantrell & Cochrane Ltd. Cantrell & Cochrane Corporation, New York, N. Y. Corrected: In line 6, "Wilmington, Delaware" should be *New York, N. Y.*

325,921. "SUB-DEB." Cl. 51. 7–9–35. Coty, Inc., New York, N. Y. Amended: The identification of goods, with the exception of "lipsticks," is deleted.

337,243. RIBBOLASTIC. Cl. 39. 8–4–36. Busing & Cie, G. m. b. H., Wurtemberg, Germany. Corrected: In the certificate, lines 2 and 16; in the heading and signature to the statement; and in line 1 of the statement, "Co." should be *Cie.*

342,881. VACATONE. Cl. 46. 2–2–37. U. S. Industrial Alcohol Co., National Distillers Products Corporation, New York, N. Y. Corrected: In line 6, "Richmond, Virginia" should be *New York, N. Y.*

342,888. READY-KILOWATT ETC. AND DESIGN. Cl. 38. 2–2–37. Ashton Budd Collins, Keddy Kilowatt, Inc., New York, N. Y. Amended to appear:




441,211. OAK BARREL ETC. AND DESIGN. Cl. 46. 11–2–48. Kuster Laboratories, Ltd., also doing business as Kuster Products Company. D. B. Berelson & Co. and Stuart L. Rawlings, Jr., San Francisco, Calif. Amended: In the statement, column 2, lines 6, 7, and 8, "or to the notation "San Francisco, Calif." or to the words "Kuster Products Co."" is deleted, and the drawing is amended to appear:



569,691. SCOTTIE SHAG BY RAMBURY. Cl. 39. 1–27–53. Rosenblatt and Kahn, Inc., New York, N. Y. Amended: In line 8 of the statement, "pajamas," is deleted.

629,157. HI-JINX. Cl. 39. 6–19–56. Vanity Corset Company, Inc., New York, N. Y. Corrected: In column 2, line 2, of the printed copy of the registration, "panties" should be *panty girdles.*

632,401. PIONEER VILLAGE AND DESIGN. Cl. 50. 8–7–56. Harold Warp, Minden, Nebr. Corrected: In line 2, "4851 W. Hadden Ave." should be deleted.

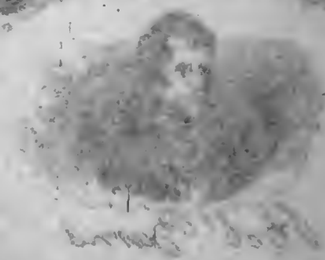
634,419. BIT-O-COCONUT AND DESIGN. Cl. 46. 9–11–56. Universal Match Corporation, d. b. a. Schutter Candy Co., assignor, by mesne assignments, to Schutter Candy Company, 4730 Augusta Blvd., Chicago, Ill. Corrected: Lines 5, 6, and 7 should be deleted and *Schutter Candy Company (Delaware corporation), 4730 Augusta Blvd., Chicago, Ill.* inserted in lieu thereof.

634,528. TRITHEON. Cl. 18. 9–18–56. Ortho Pharmaceutical Corporation, Raritan, N. J. Corrected: In column 2, lines 1 and 2, "protozonal" should be *protozoal.*

634,840. COMET. Cl. 37. 9–25–56. Bermingham & Prosser Company, Chicago, Ill. Corrected: In column 2, line 5, "1942" should be *1953.*

635,063. SQEEZFLO. Cl. 13. 10–2–56. Roth Rubber Company, 1854–1866 S. 54th Ave., Chicago, Ill. Corrected: In line 2, "St." should be *Ave.*

635,901. "KLEIN-KORD." Cl. 23. 10–16–56. Mathias Klein & Sons, Chicago, Ill. Corrected: In line 1, "Son" should be *Sons.*





125,713. June 3, 1919. United Cigar Manufacturers Com-

363,844. Jan. 10, 1939. Golden State Company, Ltd., San

# REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

## CLASS 6

## CHEMICALS AND CHEMICAL COMPOSITIONS

319,716. Dec. 4, 1934. Reckitts (U. S. A.), Ltd., Hull, England, and Rochester, N. Y. Pub. by Reckitt & Colman Limited, Hull, England.

Reckitt's



Blue

For Bluing for Laundry Purposes.

## CLASS 17

## TOBACCO PRODUCTS

59,664. Jan. 15, 1907. Esberg-Gunst Company, New York, N. Y. Pub. by General Cigar Co., Inc., New York, N. Y.




For Cigars.

86,487. May 7, 1912. United Cigar Manufacturers Company, New York, N. Y. Pub. by General Cigar Co., Inc., New York, N. Y.




For Cigars.



116,807. May 22, 1917. United Cigar Manufacturers Company, New York, N. Y. Pub. by General Cigar Co., Inc., New York, N. Y.




For Cigars.

118,351. Aug. 28, 1917. United Cigar Manufacturers Company, New York, N. Y. Pub. by General Cigar Co., Inc., New York, N. Y.




For Cigars.

118,720. Sept. 25, 1917. United Cigar Manufacturers Company, New York, N. Y. Pub. by General Cigar Co., Inc., New York, N. Y.




For Cigars.

125,431. May 20, 1919. General Cigar Co., Inc., New York, N. Y. Pub. by registrant.




For Cigars.



125,713. June 3, 1919. United Cigar Manufacturers Company, New York, N. Y. Pub. by General Cigar Co., Inc., New York, N. Y.




For Cigars.

## CLASS 19

## VEHICLES

417,718. Nov. 13, 1945. Western Boat Building Co., Tacoma, Wash. Pub. by Western Boat Building Corporation, Tacoma, Wash.

Fairliner

For Marine Craft—Namely, Motor Boats.

## CLASS 22

## GAMES, TOYS, AND SPORTING GOODS

337,616. Aug. 11, 1936. S. L. Allen & Co., Inc., Philadelphia, Pa. Pub. by registrant.

AIRLINE ACE

For Coasting Sleds.

## CLASS 46

## FOODS AND INGREDIENTS OF FOODS

203,813. Sept. 29, 1925. Bridgeman-Russell Co., Duluth, Minn. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

Grand Valley

For Butter.

204,567. Oct. 20, 1925. Argonaut Milk Company, San Francisco, Calif. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

ARGONAUT BRAND

The word "Brand" is disclaimed apart from the mark shown in the drawing.
For Dried Milk Solids in Powder Form.

363,844. Jan. 10, 1939. Golden State Company, Ltd., San Francisco, Calif. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

GOLDEN HY-BAKE

For Product Consisting of Skim Milk Solids in Powder Form, Used Principally as an Ingredient in the Manufacture of Bread and Other Bakery Products and Also as an Ingredient in Ice Cream, Candy, Sausage and Other Foods in Which Milk Solids Are Desirable.

367,094. May 9, 1939. Golden State Company, Ltd., San Francisco, Calif. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

NUTRIBLEND

For Product Consisting of Skim Milk in Powder Form.

367,532. May 23, 1939. Pure Milk Cheese Co., Elgin, Ill. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

GOLDEN RICH

For Cheese.

406,611. Apr. 11, 1944. Golden State Company, Ltd., San Francisco, Calif. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

NUTRIBAKE

For Product in Powder Form Consisting of Modified Milk Solids for Use in Baking Bread.

439,617. July 6, 1948. Golden State Company, Ltd., San Francisco, Calif. Pub. by Foremost Dairies, Inc., San Francisco, Calif.

LUZCO

For Powdered Milk Product To Make Ice Cream.



# LIST OF REGISTRANTS OF TRADEMARKS

## REGISTERED DECEMBER 25, 1956

Adams Alloy Co., Wakita, Okla. 631,168, canc. Cl. 14.

Adams, George D., d. b. a. The Art-O-Gram Studios, Pasadena, Calif. 631,599, canc. Cl. 22.

Alagania Importing Co., Worcester, Mass. 639,152. Cl. 46.

Albany Felt Co., Albany, N. Y. 639,103, pub. 10–9–56. Cl. 50.

Allen, S. L. & Co., Inc., Philadelphia, Pa. 237,616, 12(c) pub. 12–25–56. Cl. 22.

Alliance Machine Co., The, Alliance, Ohio. 638,946, pub. 10–9–56. Cl. 12.

Allied Petroleum Co., Inc., Denver, Colo. 631,447, canc. Cl. 15.

Allsey & Layfield Ltd., Liverpool, England. 631,503, canc. Cl. 46.

Alloy Surfaces Co.: *See*—
Craven, David.

American Appraisal Co., The, Milwaukee, Wis. 639,120, pub. 9–18–56. Cl. 102.

American Brake Shoe Co., New York, N. Y. 638,961, pub. 11–6–56. Cl. 21.

American Brake Shoe Co., New York, N. Y. 638,962, pub. 11–6–56. Cl. 21.

American Car and Foundry Co., New York, N. Y. 631,248, canc. Cl. 33.

American Cyanamid Co., New York, N. Y. 638,971, pub. 10–9–56. Cl. 18.

American Latex Corp., New York, N. Y. 240,225, ren. 11–2–56. Cl. 39.

American Laundry Machinery Co., The, Norwood Station, Cincinnati, Ohio. 241,396, ren. 12–2–56. Cl. 24.

American Stores Co., Philadelphia, Pa. 240,150, ren. 11–2–56. Cl. 46.

American Stores Co., Philadelphia, Pa. 639,085, pub. 10–9–56. Cl. 46.

American Type Founders Co., Inc., Elizabeth, N. J. 638,952, pub. 10–9–56. Cl. 14.

Amrel Co.: *See*—
Nacor Medicine Co., The.

Anfo Patent A. G., Zurich, Switzerland. 639,110, pub. 10–9–56. Cl. 51.

Animal Analysis Associates: *See*—
Weeks, W. A.

Ansehl, Benjamin, Co., The, d. b. a. The Mediskin Co., St. Louis, Mo. 240,264, ren. 11–2–56. Cl. 51.

Ansehl, Benjamin, Co., The, d. b. a. The Mediskin Co., St. Louis, Mo. 240,780, ren. 11–24–56. Cl. 52.

Apex Electrical Mfg. Co., The, Cleveland, Ohio. 631,414, canc. Cl. 24.

Apex Electrical Mfg. Co., The, Cleveland, Ohio. 631,423, canc. Cl. 24.

Arden Farms Co., Long Island City, N. Y. 639,092, pub. 10–9–56. Cl. 46.

Argonaut Milk Co., by Foremost Dairies, Inc., San Francisco, Calif. 204,567, 12(c) pub. 12–25–56. Cl. 46.

Arny Chemical Corp., New York, N. Y. 631,436, canc. Cl. 16.

Artistic Mfg. Corp., Stamford, Conn. 638,942, pub. 10–2–56. Cl. 7.

Art-O-Gram Studios, The: *See*—
Adams, George D.

Associated Bag & Apron Co., Chicago, Ill. 631,435, canc. Cl. 39.

Associated Oil and Gas Co., Houston, Tex. 638,986, pub. 10–9–56. Cl. 23.

Atlas Supply Co., Newark, N. J. 639,019, pub. 10–9–56. Cl. 20.

Audiocom Inc., d. b. a. The Publishing House, Great Barrington, Mass. 639,087, pub. 10–9–56. Cl. 38.

Augusta Knitting Corp., Utica, N. Y. 639,287, ren. 10–6–56. Cl. 39.

Automatic Kneeler Corp., Hartford, Conn. 631,171, canc. Cl. 32.

Baer & Wilde Co., The, to Swank Products, Inc., to Swank, Inc., Attleboro, Mass. 242,230, ren. 2–16–57. Cl. 6.

Baer & Wilde Co., The, to Swank Products, Inc., to Swank, Inc., Attleboro, Mass. 242,630, ren. 3–2–57. Cl. 23.

Bailey, Prihoda & Co., also d. b. a. Lady America Home Products Co., Kalamazoo, Mich. 631,432, canc. Cl. 52.

Bally Recording Corp., Chicago, Ill. 639,064, pub. 10–9–56. Cl. 36.

Bancroft Cap Co., Framingham, Mass. 639,043, pub. 10–9–56. Cl. 39.

Bancroft, Joseph, & Sons Co., Wilmington, Del. 639,064, pub. 10–9–56. Cl. 42.

Barricini, Inc., Long Island City, N. Y. 242,850, ren. 2–9–57. Cl. 46.

Barricini Inc., New York and Long Island City, N. Y. 631,165, canc. Cl. 46.

Barron, Morton, d. b. a. Rex Sales Co., San Francisco, Calif. 639,068, pub. 10–9–56. Cl. 46.

Barwick, R. T., Mills, Chamblee, Ga. 639,058–0, pub. 10–9–56. Cl. 42.

Battle Creek Dog Food Co., Battle Creek, Mich. 639,062, pub. 10–9–56. Cl. 46.

Beauty & Hunt, Inc., New York, N. Y. 631,294, canc. Cl. 52.

Bear Brand Hosiery Co., Chicago, Ill. 631,176, canc. Cl. 39.

Belding Novelties Co., Cleveland, Ohio. 631,183, canc. Cl. 22.

Bellwood Development Corp., d. b. a. General Products, Englewood, N. J. 631,261, canc. Cl. 6.

Bennett Creamery Co., The, Ottawa, Kans. 639,097, pub. 10–9–56. Cl. 46.

Bentzel, Jack W. L., d. b. a. The Coca-Pop Co., Pittsburgh, Pa. 631,554, canc. Cl. 6.

Berelson, D. E., & Co. and Stuart L. Rawlings, Jr.: *See*—
Kuster Laboratories, Ltd.

Bermingham & Prosser Co., Chicago, Ill. 634,340, cor. Cl. 37.

Bethlehem Silk Co., The, New York, N. Y. 631,329, canc. Cl. 42.

Bigelow-Sanford Carpet Co., Inc., Thompsonville, Conn. 631,326, canc. Cl. 42.

Bluepoints Co., Inc., West Sayville, to Bluepoints Sea Foods Corp., Brooklyn, N. Y. 633,079, pub. 10–9–56. Cl. 46.

Bluepoints Sea Foods Corp.: *See*—
Bluepoints Co., Inc.

Blumfield, Joseph, d. b. a. Blumfield of California, Los Angeles, Calif. 631,337, canc. Cl. 42.

Blumfield of California: *See*—
Blumfield, Joseph.

Bobley, Joseph, Jewelry, Inc., New York, N. Y. 639,022, pub. 10–9–56. Cl. 28.

Bourjois, Inc., New York, N. Y. 631,461, canc. Cl. 51.

Bowen & Co.: *See*—
Kern, George E.

Brawley, T. E., Felt Co., Inc., Brooklyn, N. Y. 631,295, canc. Cl. 32.

Brock, John H., Inc., Springfield, Mass. 237,494, ren. 8–11–56. Cl. 51.

Brunner Biscuit Co., Louisville, Ky. 639,062, pub. 10–2–56. Cl. 46.

Bruneon Photo Industries, Inc., Kansas City, Mo. 639,126, pub. 10–9–56. Cl. 103.

Briddell, Chas. D., Inc., Crisfield, Md. 638,928, pub. 10–9–56. Cl. 2.

Bridgeman-Russell Co., Duluth, Minn., by Foremost Dairies, Inc., San Francisco, Calif. 208,813, 12(c) pub. 12–25–56. Cl. 46.

Bridgeport Brass Co., Bridgeport, Conn. 113,555, ren. 10–24–56. Cl. 13.

Bristol Laboratories Inc., Syracuse and New York, N. Y. 631,173, canc. Cl. 18.

Bristol Laboratories Inc., New York, N. Y. 638,975, pub. 10–9–56. Cl. 18.

Bristol Laboratories Inc., New York, N. Y. 638,976, pub. 10–9–56. Cl. 18.

Bristol Laboratories Inc., New York, N. Y. 638,977, pub. 10–9–56. Cl. 18.

Brockman, Geo., d. b. a. Geo. Brockman & Co., New York, N. Y. 639,030, pub. 10–9–56. Cl. 30.

Brockman, Geo., & Co.: *See*—
Brockman, Geo.

Brooke Co. of California, d. b. a. Scarfa'net Co., Los Angeles, Calif. 631,286, canc. Cl. 39.

Brown, W. E., Corp., Chicago, Ill. 638,999, pub. 10–9–56. Cl. 23.

Brunswick-Balke-Collender Co., The, Chicago, Ill. 631,228, canc. Cl. 22.

Buck X-Ograph Co., St. Louis, Mo. 638,970, pub. 10–9–56. Cl. 18.

Burrell Cutlery Co., Inc., Ellicottville, N. Y. 638,991, pub. 9–21–56. Cl. 22.

Busing & Cie, G. m. b. H., Wurtemberg, Germany. 237,243, cor. Cl. 39.

Calandra Camera Co., Inc., Omaha, Nebr. 631,212, canc. Cl. 38.

Calumet Refining Co., Chicago, Ill. 631,470, canc. Cl. 15.

Cantrell & Cochrane Corp.: *See*—
Cantrell & Cochrane Ltd.

Cantrell & Cochrane Ltd. Cantrell & Cochrane Corp., New York, N. Y. 115,068, cor. Cl. 45.

Capewell Mfg. Co., The, Hartford, Conn. 631,273, canc. Cl. 14.

Colgate Corp. of America, New York, N. Y. 631,310, canc. Cl. 42.

Certified Creations, Inc., New York, N. Y. 638,925, pub. 10–9–56. Cl. 2.

Coca-Pop Co., The: *See*—
Bentzel, Jack W. L.

Chance, A. B., Co., Centralia, Mo. 639,011, pub. 10–9–56. Cl. 23.

Charing Cross Shoe Ltd.: *See*—
Pincus Lester, Shoe Corp.

Charles, John C., Co.: *See*—
Fitzhugh, John, & Co.

Charles of the Ritz, Inc., New York, N. Y. 639,114, pub. 10–9–56. Cl. 52.

Checker Fabrics & Net Co., New York, N. Y. 639,061, pub. 10–9–56. Cl. 42.

Chew-Bittel Co., Philadelphia, Pa. 236,211, canc. Cl. 12.

Chicago and North Western Railway Co., Chicago, Ill. 639,127, pub. 10–9–56. Cl. 105.

China Doll, Inc.: *See*—
Hutchings, Norman W.

Cleveland-Detroit Corp., Cleveland, Ohio. 639,004, pub. 10–9–56. Cl. 22.

Clean-Up, Inc., New York, N. Y., Chicago, Ill., Los Angeles, Calif., and St. Louis, Mo. 631,343, canc. Cl. 26.

Clusett Peadbody & Co., Inc., Troy, N. Y. 114,337, ren. 12–12–56. Cl. 39.
Clusett, Peabody & Co., Inc., Troy, N. Y. 639,045, pub. 10–9–56. Cl. 39.
Clusett, Peabody & Co., Inc., Troy, N. Y. 639,046, pub. 10–9–56. Cl. 39.
Cohn-Hall-Marx Co., to United Merchants and Manufacturers, Inc., New York, N. Y. 340,100, ren. 11–3–56. Cl. 42.
Coker, Eileen B., d. b. a. Hil-Bo-Ki Chemical Co., Columbia, S. C. 531,512, canc. Cl. 6.
Collins, Ashton B., Reddy Kilowatt, Inc., New York, N. Y. 242,893. Am. 7(d). Cl. 38.
Columbia Mills, Inc., The, Syracuse, N. Y. 639,104, pub. 10–9–56. Cl. 39.
Columbus Metal Products, Inc., Columbus, Ohio. 638,934, pub. 10–9–56. Cl. 6.
Conrad Associates, Maspeth, N. Y. 639,091, pub. 10–9–56. Cl. 46.
Continental Can Co.: *See*—
Hazel-Atlas Glass Co.
Cooper, O. A., Co., The, Humboldt, Nebr. 639,076, pub. 6–26–56. Cl. 46.
Core, Inc., New York, N. Y. 531,199, canc. Cl. 28.
Coty, Inc., New York, N. Y. 325,921. Am. 7(d). Cl. 51.
Coty, Inc., New York, N. Y. 639,109, pub. 10–9–56. Cl. 51.
Cowan, Louis G., Inc., New York, N. Y. 531,352, canc. Cl. 107.
Craven, David, d. b. a. Alloy Surfaces Co., Philadelphia, Pa. 639,129, pub. 10–9–56. Cl. 106.
Crown Zellerbach Corp.: *See*—
Gaylord, Robert, Inc.
Curtiss Candy Co., The: *See*—
White House Biscuit Co.
Custom Paint and Chemical Co., Inc., Pennsauken, N. J. 639,111, pub. 10–9–56. Cl. 52.
Custom Paint and Chemical Co., Inc., Pennsauken, N. J. 639,112, pub. 10–9–56. Cl. 52.
Dad's Products Co., Meadville, Pa. 639,094, pub. 10–9–56. Cl. 46.
Dalmine S. p. A., Milan, Italy. 638,953, pub. 10–9–56. Cl. 14.
Darling, L. A., Co., Bronson, Mich. 531,270, canc. Cl. 32.
Dawe's Laboratories, Inc., Chicago, Ill. 638,968, pub. 10–9–56. Cl. 18.
Deppen, Julia B., Jamaica, N. Y. 531,216, canc. Cl. 26.
Dekmatal, J. A., & Son, Inc., Queens Village, N. Y. 531,463, canc. Cl. 28.
Desbergers Ltd., Montreal, Quebec, Canada. 638,965, pub. 10–9–56. Cl. 18.
Detecto Scales, Inc.: *See*—
Jacobs Bros. Co., Inc., The.
Devilbiss Co., The, Toledo, Ohio. 531,531, canc. Cl. 44.
Dewey and Almy Chemical Co., Cambridge, Mass. 357,860, canc. Cl. 22.
Diamond, Jack, & Son, Inc., New York, N. Y. 531,320, canc. Cl. 42.
Disney, Walt, Productions, Burbank, Calif. 639,133, pub. 10–9–56. Cl. 107.
Diversey Machine Works, Inc., Chicago, Ill. 531,194, canc. Cl. 27.
Doane Agricultural Service, Inc., St. Louis, Mo. 639,121, pub. 10–9–56. Cl. 102.
Doherty, Frank J.: *See*—
Kelly & Doherty.
Doherty Hosiery Co.: *See*—
Kelly & Doherty.
Doris Trading Corp., New York, N. Y. 531,172, canc. Cl. 32.
Dowell Inc., Tulsa, Okla. 531,365, canc. Cl. 100.
Drew, E. F., & Co., Inc., New York, N. Y. 639,073, pub. 2–17–53. Cl. 46.
Drew, E. F., & Co., Inc., New York, N. Y. 639,096, pub. 10–9–56. Cl. 46.
Dunkle, Faye L., Neosho, Mo. 531,233, canc. Cl. 39.
Dyna Co.: *See*—
Hafer, David.
Dynamics of Selling: *See*—
Harris, Arthur O.
Eagle-Picher Co., The, Cincinnati, Ohio. 639,141. Cl. 16.
Eil-Bo-Ki Chemical Co.: *See*—
Coker, Eileen B.
Elco Tool and Screw Corp., Rockford, Ill. 531,135, canc. Cl. 28.
Electrical Fittings Corp., Woodside, N. Y. 639,144. Cl. 21.
Elliott, Arvis F., d. b. a. Seal in Plastic Co., Los Angeles, Calif. 638,996, pub. 10–9–56. Cl. 23.
Elmwood Brush Co., Easthampton, to Stanley Home Products, Inc., Westfield, Mass. 638,990, pub. 10–9–56. Cl. 23.
Emley, John P., d. b. a. The John P. Emley Woodworking Co., New Haven, Conn. 531,282, canc. Cl. 32.
Emley, John P., Woodworking Co., The: *See*—
Emley, John P.
Empire Development Corp., Huntsville, Ala. 531,400, canc. Cl. 32.
Esberg-Gunst Co., by General Cigar Co., Inc., New York, N. Y. 59,664. 12(c) pub. 12–25–56. Cl. 17.
Examiner Printing Co., to Hearst Publishing Co., Inc., San Francisco, Calif. 341,618, ren. 12–15–56. Cl. 28.
F. & N. Lawn Mower Co., The, Richmond, Ind. 639,001, pub. 10–9–56. Cl. 23.
Fall River Canning Co., The, Fall River, Wis. 639,098, pub. 10–9–56. Cl. 46.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 638,940. pub. 10–9–56. Cl. 6.
Farnsworth, Mrs. Robert P., Westport, N. Y. 531,276, canc. Cl. 32.
Federated Department Stores, Inc., Cincinnati, Ohio. 639,088, pub. 10–9–56. Cl. 38.
Firma Bettermann Elektro GMBH, Lendringsen (Kreis Iserlohn), Westfalen, Germany. 638,951, pub. 10–9–56. Cl. 13.
Firth Carpet Co., The, New York, N. Y. 639,056, pub. 10–9–56. Cl. 42.
Flex-O-Glass, Inc., d. b. a. Warp Brothers, Chicago, Ill. 639,100, pub. 10–9–56. Cl. 50.
Floerchinger, Esther, St. Louis, Mo. 531,184, canc. Cl. 39.
Ford Motor Co.: *See*—
Ford Motor Co.
Ford Motor Co., Highland Park, to Ford Motor Co., Dearborn, Mich. 115,500, ren. 2–20–57. Cl. 21.
Foremost Dairies, Inc.: *See*—
Arpeenaat Milk Co.
Bridgeman-Russell Co.
Golden State Co., Ltd.
Pure Milk Cheese Co.
Forestville Clock Co., Inc., New York, N. Y. 531,562, canc. Cl. 27.
Forstmann Woolen Co., Passaic, N. J. 531,230, canc. Cl. 42.
Forstmann Woolen Co., Passaic, N. J. 531,238, canc. Cl. 42.
Forstmann Woolen Co., Passaic, N. J. 531,239, canc. Cl. 42.
Forstmann Woolen Co., Passaic, N. J. 531,240, canc. Cl. 42.
Fostoria Glass Co., Moundsville, W. Va. 639,025, pub. 10–9–56. Cl. 33.
Frankay Laboratories, Inc., Nutley, N. J. 638,972, pub. 10–9–56. Cl. 18.
Franke, August L., d. b. a. Q-W Laboratories, Plainfield, N. J. 639,051, pub. 11–3–53. Cl. 42.
Fred Mushroom Products Co., Lebanon, Ohio. 639,075, pub. 10–16–56. Cl. 46.
Fredmar Builders Supply Co., Indianapolis, Ind. 639,128. Cl. 12.
Freiburg, John, & Co., d. b. a. John C. Charles Co., Torrance, Calif. 639,032, pub. 10–9–56. Cl. 84.
French Fabrics Corp., New York, N. Y. 639,065, pub. 10–9–56. Cl. 42.
Freudenberg, Carl, Kommanditgesellschaft Auf Aktien, Weinheim an der Bergstrasse, Germany. 638,929, pub. 10–9–56. Cl. 3.
Fuller, D. B., & Co., Inc., New York, N. Y. 639,067, pub. 10–9–56. Cl. 42.
Garden Foundations, Inc., New York, N. Y. 531,372, canc. Cl. 39.
Gardiner Trading Corp., New York, N. Y. 531,189, canc. Cl. 46.
Garvenswerke: *See*—
Schoenborn-Buchheim, George.
Gate City Sash & Door Co., Fort Lauderdale, Fla. 638,949, pub. 10–9–56. Cl. 19.
Gaylord, Robert, Inc., St. Louis, Mo., to Crown Zellerbach Corp., San Francisco, Calif. 339,717, ren. 10–20–56. Cl. 27.
Gee's Drug Co.: *See*—
Getka, Milton.
Gem Fruit Union, Inc., Emmett, Idaho. 531,418, canc. Cl. 46.
General Cigar Co., Inc.: *See*—
Esberg-Gunst Co.
United Cigar Manufacturers Co.
General Cigar Co., Inc., New York, N. Y. 125,431, 12(c) pub. 12–25–56. Cl. 17.
General Electric Co., Schenectady, N. Y. 639,017, pub. 10–9–56. Cl. 36.
General Foods Corp., White Plains, N. Y. 639,060, pub. 10–9–56. Cl. 46.
General Mower Corp., Buffalo, N. Y. 638,966, pub. 10–9–56. Cl. 23.
General Outdoor Advertising Co., Inc., Chicago, Ill. 639,118, pub. 9–18–56. Cl. 101.
General Products: *See*—
Bellemead Development Corp.
General Riveters, Inc., Buffalo, N. Y. 639,008, pub. 10–9–56. Cl. 23.
General Wheelbarrow Co., Inc., Wichita, Kans. 531,476, canc. Cl. 19.
Getka, Milton S., d. b. a. Gee's Drug Co., Baltimore, Md. 531,562, canc. Cl. 18.
Glaxo Laboratories Ltd., Greenford, England. 638,968, pub. 10–9–56. Cl. 18.
Gleason, Lev, Publications, Inc., New York, N. Y. 531,227, canc. Cl. 38.
Glemby, Harry, Inc., New York, N. Y. 531,234, canc. Cl. 39.
Glendale Fabrics, Inc., to United Merchants and Manufacturers, Inc., New York, N. Y. 340,848, ren. 11–24–56. Cl. 42.
Glessner Co., The, Findlay, Ohio. 638,961, pub. 10–9–56. Cl. 18.
Golden State Co., Ltd., by Foremost Dairies, Inc., San Francisco, Calif. 363,844. 12(c) pub. 12–25–56. Cl. 46.
Golden State Co., Ltd., by Foremost Dairies, Inc., San Francisco, Calif. 367,094. 12(c) pub. 12–25–56. Cl. 46.
Golden State Co., Ltd., by Foremost Dairies, Inc., San Francisco, Calif. 406,611. 12(c) pub. 12–25–56. Cl. 46.
Golden State Co., Ltd., by Foremost Dairies, Inc., San Francisco, Calif. 489,617. 12(c) pub. 12–25–56. Cl. 46.
Goldinger, Joseph, Fabrics Co., Los Angeles, Calif. 639,053, pub. 12–18–56. Cl. 42.
Goodall-Sanford, Inc., Sanford, Maine. 531,311, canc. Cl. 42.
Goodyear Aircraft Corp., Akron, Ohio. 639,015, pub. 10–9–56. Cl. 26.
Gordon-Lacey Chemical Products Co., Inc., Maspeth, N. Y. 531,391, canc. Cl. 42.
Gotham Hosiery Co., Inc.: *See*—
Mission Hosiery Mills, A. H. Wittemberg, Inc.
Gotham Silk Hosiery Co., Inc., New York, N. Y. 228,528, canc. Cl. 39.
Gottscho, Adolph, Inc., Hillside, N. J. 639,012, pub. 10–9–56. Cl. 22.
Gould-National Batteries, Inc., St. Paul, Minn. 638,964, pub. 10–9–56. Cl. 21.
Graham, Robert C., d. b. a. Graham Farms, to Graham Brothers, Inc., Washington, Ind. 342,408, ren. 1–19–57. Cl. 46.



Gray Pharmaceutical Co., Inc., Newton, Mass. 638,964, pub. 10–9–56. Cl. 18.
Great Lakes Paper Co., Chicago, Ill. 639,050, pub. 10–9–56. Cl. 46.
Greene Mfg. Co. Inc., Racine, Wis. 531,507, canc. Cl. 32.
Greene Plastics Corp., Wakefield, R. I. 639,106, pub. 10–9–56. Cl. 50.
Greene Plastics Corp., Wakefield, R. I. 639,107, pub. 10–9–56. Cl. 50.
Greene Plastics Corp., Wakefield, R. I. 639,108, pub. 10–9–56. Cl. 50.
Griffin Furniture Polish Co., Durham, N. C. 531,574, canc. Cl. 4.
Griffith Rubber Mills, Portland, Oreg. 639,142. Cl. 19.
Gruen Watch Co., The, Cincinnati, Ohio. 639,021, pub. 9–18–56. Cl. 27.
Hafer, David, d. b. a. Dyna Co., Philadelphia, Pa. 638,995, pub. 10–9–56. Cl. 21.
Hafer, David, d. b. a. Dyna Co., Philadelphia, Pa. 638,996, pub. 10–9–56. Cl. 21.
Hammond Research Corp., Gloucester, Mass. 531,304, canc. Cl. 26.
Handlyne Lingerie, Inc., New York, N. Y. 531,288, canc. Cl. 39.
Harris, Arthur O., d. b. a. Dynamics of Selling System, Buffalo, N. Y. 639,131, pub. 10–9–56. Cl. 107.
Hazel-Atlas Glass Co., Wheeling, W. Va., to Hazel-Atlas Glass Co., to Continental Can Co., Inc., New York, N. Y. 342,673, ren. 1–26–57. Cl. 50.
Heat Timer Corp., New York, N. Y. 639,147. Cl. 26.
Hercules Powder Co., Wilmington, Del. 345,063, ren. 4–12–57. Cl. 6.
Herold Products Co., Inc., Chicago, Ill. 639,020, pub. 10–9–56. Cl. 26.
Hess, Goldsmith & Co., Inc., New York, N. Y. 531,324, canc. Cl. 42.
Hiland Chemical Products Inc., Springfield, Ohio. 531,497, canc. Cl. 18.
Hill, Brown Corp., New York, N. Y. 531,235, canc. Cl. 42.
Hirst, Henry, & Son (Lancashire) Ltd., Morecambe, England. 531,179, canc. Cl. 22.
Hodgins Copper-Hide, Inc., Cleveland, Ohio. 639,126. Cl. 6.
Hollingshead, R. M., Corp., Camden, N. J. 638,932, pub. 7–27–53. Cl. 6.
Hornstein-Newman, Inc., to Strathery Mfg. Co., Galion, Ohio. 339,704, ren. 10–20–56. Cl. 39.
Hough Shade Corp., Janesville, Wis. 531,128, canc. Cl. 32.
House of Hardtops, The, San Diego, Calif. 638,979, pub. 10–9–56. Cl. 19.
Hughson, David E., d. b. a. Hughson Enterprises, Toronto, Ontario, Canada. 638,989, pub. 10–9–56. Cl. 22.
Hughson Enterprises: *See*—
Hughson, David E.
Hunter Douglas Corp., New York, N. Y. 531,277, canc. Cl. 32.
Huesmann Refrigerator Co., St. Louis, Mo. 639,148. Cl. 32.
Hutchings, Norman Webb, d. b. a. Rice Sales Co., to China Doll Inc., Mobile, Ala. 344,885, ren. 4–6–57. Cl. 46.
Hutchison, Eleanore L., Milwaukee, Wis. 531,245, canc. Cl. 39.
Hygrade Food Products Corp., New York, N. Y. 531,147, canc. Cl. 46.
Hyman and Hyman, Philadelphia, Pa. 531,149, canc. Cl. 39.
Iddings Paint Co., Inc., Long Island City, N. Y. 639,140. Cl. 16.
Illinois Testing Laboratories, Inc., Chicago, Ill. 340,868, ren. 11–24–56. Cl. 26.
Imperial Brass Mfg. Co., The: *See*—
Liquid Carbonic Corp., The.
Impianti Fonderie Olivo, Milan, Italy. 513,216, canc. Cl. 14.
Industrial Sound Control, Inc., Hartford, Conn., to Koppers Co., Inc., Pittsburgh, Pa. 639,027, pub. 7–26–55. Cl. 34.
Innis, Speiden & Co., Inc., New York, N. Y. 121,900, canc. Cl. 6.
Innis, Speiden & Co., Inc., New York, N. Y. 155,722, canc. Cl. 52.
Innis, Speiden & Co., Inc., New York, N. Y. 156,307, canc. Cl. 6.
Innis, Speiden & Co., New York, N. Y. 396,990, canc. Cl. 6.
Innis, Speiden & Co., New York, N. Y. 432,517, canc. Cl. 6.
Insto Co., The, Los Angeles, Calif. 339,710, ren. 10–20–56. Cl. 52.
International Co., The, Baltimore, Md. 138,470, canc. Cl. 46.
International Co., The, Baltimore, Md. 179,052, canc. Cl. 46.
International Co., The, Baltimore, Md. 207,175, canc. Cl. 45.
International Co., The, Baltimore, Md. 220,721, canc. Cl. 46.
International Metal Products Sales Corp., Phoenix, Ariz. 639,028, pub. 10–9–56. Cl. 34.
International Nickel Co., Inc., The, New York, N. Y. 531,278, canc. Cl. 14.
International Nickel Co., Inc., The, New York, N. Y. 531,296, canc. Cl. 14.
International Nickel Co., Inc., The, New York, N. Y. 531,298, canc. Cl. 14.
International Silver Co., The, Meriden, Conn. 639,009, pub. 10–9–56. Cl. 28.
International Silver Co., The, Meriden, Conn. 639,010, pub. 10–9–56. Cl. 28.
Interstate Cotton Oil Refining Co., Sherman, to Anderson, Clayton & Co., Houston, Tex. 342,471, ren. 1–19–57. Cl. 46.
Invisible Reweaving Institute, La Mesa, Calif. 639,036, pub. 8–9–55. Cl. 38.
Irving Machinery Co., Inc., Philadelphia, Pa. 639,146. Cl. 23.
Isaacson, L., & Sons, Inc., to I. Isaacson & Sons, New York, N. Y. 342,488, ren. 1–16–57. Cl. 39.
Jackson, Frank, d. b. a. Frank Jackson Ltd., Auckland, New Zealand. 531,475, canc. Cl. 6.
Jackson, Frank, Ltd.: *See*—
Jackson, Frank.
Jacobs Bros. Co., Inc., The, to Detecto Scales, Inc., Brooklyn, N. Y. 339,720, canc. Cl. 26.
Jacco Metal Products Corp., New York, N. Y. 531,544, canc. Cl. 6.
Jamaley Fabrics Corp., New York, N. Y. 639,054, pub. 10–9–56. Cl. 42.
Johnson, Cyril, Woolen Co., The, Stafford Springs, Conn. 531,306, canc. Cl. 42.
Johnson, Edward W.: *See*—
Starr Fruit Products Co.
Judy Crib Sheet Co., Los Angeles and Long Beach, Calif., now by change of name Kenmar Corp. 531,376, canc. Cl. 42.
Junkin Mfg. Co.: *See*—
Junkin, Newton R.
Junkin, Newton R., d. b. a. Junkin Mfg. Co., Hazel Park, Mich. 531,132, canc. Cl. 32.
Kelly & Doherty, to Frank J. Doherty, d. b. a. Doherty Hosiery Co., New York, N. Y. 344,744, ren. 4–6–57. Cl. 39.
Kenmar Corp.: *See*—
Judy Crib Sheet Co.
Kentucky Valley Distilling Co., Limestone Springs and Louisville, Ky., to Schenley Industries, Inc., New York, N. Y. 338,656, ren. 9–15–56. Cl. 49.
Kern Engineering Co.: *See*—
Kern, George R.
Kern, George R., d. b. a. Kern Engineering Co., Arlington, Va., to Bowen & Co., Rockville, Md. 639,070, pub. 9–21–56. Cl. 44.
King Kone Corp., New York, N. Y. 639,084, pub. 10–9–56. Cl. 46.
Klein, Joseph M., Inc., New York, N. Y. 639,041, pub. 10–9–56. Cl. 39.
Klein, Mathias, & Sons, Chicago, Ill. 635,901, cor. Cl. 23.
Kleinert, I. B., Rubber Co., New York, N. Y. 344,046, ren. 3–9–57. Cl. 44.
Knott, Wm. T., Co., Inc., New York, N. Y., to Mercantile Stores Co., Inc., Wilmington, Del. 340,037, ren. 10–27–56. Cl. 39.
Knox & Co.: *See*—
Knox-Naylor Co.
Knox, Joseph B.: *See*—
Knox-Naylor Co.
Knox-Naylor Co., Chicago, Ill., to Joseph B. Knox, d. b. a. Knox & Co. 639,080, pub. 10–9–56. Cl. 46.
Kohner, Max, Inc., Baltimore, Md. 531,527, canc. Cl. 28.
Koppers Co., Inc.: *See*—
Industrial Sound Control, Inc.
Kordel Corp. of America, New York, N. Y. 638,957, pub. 9–16–52. Cl. 16.
Korea Mfg. Co. Ltd., London, England. 638,942, pub. 10–9–56. Cl. 11.
Kotzin, Tobias, d. b. a. A–1 Mfg. Co., Los Angeles, Calif. 639,060, pub. 10–9–56. Cl. 42.
Krusius, Erwin, d. b. a. Gebr. Krusius, Solingen, Germany. 638,997, pub. 9–11–56. Cl. 23.
Krusius, Gebr.: *See*—
Krusius, Erwin.
Kuster Laboratories, Ltd., also d. b. a. Kuster Products Co., D. B. Berelson & Co., and Stuart L. Rawlings, Jr., San Francisco, Calif. 441,211. Am. 7(d). Cl. 46.
Kuster Products Co.: *See*—
Kuster Laboratories, Ltd.
L C N Closers, Inc.: *See*—
Norton Lasier Co.
Lac Chemicals, Inc., Culver City, Calif. 531,562, canc. Cl. 6.
Lady America Home Products Co.: *See*—
Bailey, Friboda & Co.
La Francaise Dyeing & Finishing Co., Inc., Paterson, N. J. 639,130, pub. 10–9–56. Cl. 106.
La Manna, Amena & Farnan, New York, N. Y. 229,617, canc. Cl. 46.
La Manna, Amena & Farnan, Inc., New York, N. Y. 375,419, canc. Cl. 46.
Lanella Corp., New York, N. Y. 639,062, pub. 10–9–56. Cl. 42.
Langdon Mfg. Co., Wichita, Kans. 639,103, pub. 10–9–56. Cl. 50.
Langendorf United Bakeries, Inc., San Francisco, Calif. 639,067, pub. 10–9–56. Cl. 46.
La Reine Chocolate Co., New York, N. Y. 531,164, canc. Cl. 46.
Larus & Brother Co., also d. b. a. Reed Tobacco Co., Branch Larus & Brother Co., to Larus & Brother Co., Richmond, Va. 337,996, ren. 2–25–56. Cl. 17.
Lauder, Estée, d. b. a. Estée Lauder Cosmetic Co., New York, N. Y. 639,153. Cl. 51.
Lauder, Estée, Cosmetic Co.: *See*—
Lauder, Estée.
Lava Brothers, Inc., New York, N. Y. 638,960, pub. 10–9–56. Cl. 20.
Leatherie Inc., New York, N. Y. 531,456, canc. Cl. 2.
Le Roi Hosiery Co. Inc., New York, N. Y. 344,771, ren. 4–6–57. Cl. 39.
Lethelin Products Co., Inc., Mount Vernon, N. Y. 638,936, pub. 10–9–56. Cl. 6.
Levitt, Louis, d. b. a. Progressive Games Co., Marathon, N. Y. 531,531, canc. Cl. 22.
Lewis, David, Inc., St. Louis, Mo. 531,246, canc. Cl. 39.
Lincoln Luggage Co., Inc., New York, N. Y. 638,931, pub. 10–9–56. Cl. 3.
Lindex Corp., New York, N. Y. 531,247, canc. Cl. 28.

Liquid Carbonic Corp., The, from The Imperial Brass Mfg. Co., Chicago, Ill. 531,467, canc. Cl. 6.
Lisner, Leonard H.: *See*—
Stohl, Margaret H.
Lockhart Mfg. Co., Pittsburgh, Pa. 341,975, ren. 12–29–56. Cl. 29.
Logansport Machine Co., Inc., Logansport, Ind. 638,996, pub. 9–6–56. Cl. 23.
Lorentzen Hardware Mf'g. Corp., Hoboken, N. J. 639,002, pub. 10–9–56. Cl. 23.
Lowell, Benjamin P., Malibu Beach, Calif. 531,249, canc. Cl. 23.
Luster Products Co., Inc., Oconomowoc, Wis. 531,590, canc. Cl. 52.
Maas, John, Milwaukee, Wis. 531,583, canc. Cl. 18.
Marathon Corp., Rothschild, Wis. 531,535, canc. Cl. 2.
Marbak Inc. Brooklyn, N. Y. 639,055, pub. 10–9–56. Cl. 42.
Maritime Milling Co. Inc., Buffalo, to Standard Brands Inc., New York, N. Y. 344,267, ren. 3–16–57. Cl. 46.
Marshall-Wells Co.: *See*—
Sweeper-Vac Co., The.
Martin-Senour Co., The, Chicago, Ill. 639,115, pub. 10–9–56. Cl. 52.
Master Metal Products, Inc., Buffalo, N. Y. 638,926, pub. 10–9–56. Cl. 2.
Master Metal Products, Inc., Buffalo, N. Y. 638,927, pub. 10–9–56. Cl. 2.
Mathieson Chemical Corp.: *See*—
Southern Acid & Sulphur Co., Inc.
Maurer, Peter E., San Jose, Calif. 531,514, canc. Cl. 22.
Mavis Hosiery, Inc., New York, N. Y. 639,047, pub. 10–9–56. Cl. 39.
Mayville Mfg. Co.: *See*—
Wisconsiak, Leonard J.
Maxer Bros. Inc., New York, N. Y. 531,303, canc. Cl. 28.
Medina, Walter S., d. b. a. Safety Step Co., Los Angeles, Calif. 531,567, canc. Cl. 19.
Medistin Co., The: *See*—
Ansehl, Benjamin, Co., The.
Meehan, Los Angeles, Calif. 531,271, canc. Cl. 32.
Meinecke & Co., Millville, N. J. 639,113, pub. 10–9–56. Cl. 52.
Menzen Co., The, Newark, N. J. 531,490, canc. Cl. 51.
Mercantile Stores Co., Inc.: *See*—
Knott, Wm. T., Co., Inc.
Meridan Corp., Inkster, Mich. 639,033, pub. 10–9–56. Cl. 35.
Merrell, Wm. S., Co., The, Cincinnati, Ohio. 344,956, ren. 4–12–57. Cl. 18.
Merrell, Wm. S., Co., The, Cincinnati, Ohio. 638,969, pub. 9–28–56. Cl. 18.
Metro Leather Products Co.: *See*—
Spector, Theodore.
Meyercord Co., The, Chicago, Ill. 531,291, canc. Cl. 38.
Mid-Continent Food Products, Chicago, Ill. 531,161, canc. Cl. 46.
Miles, Inc., Minneapolis, Minn. 639,145. Cl. 21.
Miller Products, Chicago, Ill. 639,060, pub. 11–1–55. Cl. 44.
Mill O'Milford, Inc.: *See*—
O'Milford, Mill, Inc.
Millipore Filter Corp., Watertown, Mass. 639,034, pub. 10–9–56. Cl. 31.
Milwaukee Metal Spinning Co.: *See*—
Salow, Klementine.
Mission Hosiery Mills, A. H. Wittenberg, Inc., Los Angeles, Calif., to Gotham Hosiery Co., Inc., New York, N. Y. 531,182, canc. Cl. 39.
Mohawk Liqueur Corp., Detroit, Mich. 342,052, ren. 2–9–57. Cl. 49.
Monarch Rug Mills, Dalton, Ga. 639,063, pub. 10–9–56. Cl. 42.
Mueller Heater Co., Cleveland, Ohio. 639,029, pub. 10–9–56. Cl. 34.
Nacor Medicine Co., The, d. b. a. Amrel Co., Indianapolis, Ind. 638,967, pub. 10–9–56. Cl. 18.
National Biscuit Co., Jersey City, N. J., and New York, N. Y. 113,781, ren. 10–31–56. Cl. 46.
National Clock Corp., The, Lynn, Mass. 531,488, canc. Cl. 27.
National Distillers Products Corp.: *See*—
U. S. Industrial Alcohol Co.
National Food Slicing Machine Co., Inc., White Plains, N. Y. 639,006, pub. 10–9–56. Cl. 23.
National Process Co., The, New York, N. Y. 531,362, canc. Cl. 101.
National Publishing Co., Philadelphia, Pa. 373,204, canc. Cl. 37.
National Springs Corp., High Point, N. C. 531,390, canc. Cl. 32.
Neptune Storage, Inc., New Rochelle, N. Y. 639,125, pub. 10–9–56. Cl. 105.
New Jersey Zinc Co., The, New York, N. Y. 531,292, canc. Cl. 30.
Nicol, Malcolm, & Co., Hawthorne, N. J. 638,937, pub. 10–9–56. Cl. 6.
Nile Cosmetics: *See*—
Stohl, Margaret H.
North American Mushroom Co., Tinley Park, Ill. 639,088, pub. 10–9–56. Cl. 46.
North American Philips Co., Inc., New York, N. Y. 639,000, pub. 10–9–56. Cl. 23.
Norton Easter Co., Chicago, Ill., to L C N Closers, Inc., Princeton, Ill. 340,692. ren. 11–17–56. Cl. 13.
Norton, Willis Co., The: *See*—
Wichita Flour Mills Co.
Old Ben Coal Corp., Chicago, Ill. 341,879, ren. 12–6–56. Cl. 1.
Old Town Corp., Brooklyn, N. Y. 639,035, pub. 10–9–56. Cl. 37.
O'Milford Mill, Inc., New Milford, Conn., from Mill O'Milford, Inc. 639,074, pub. 10–9–56. Cl. 46.
O'Neill Chemical Co., Chicago, Ill. 531,283, canc. Cl. 6.
Optimist International, St. Louis, Mo. 639,124, pub. 10–9–56. Cl. 200.
Ortho Pharmaceutical Corp., Raritan, N. J. 634,528, cor. Cl. 18.
Osborne-McMillan Elevator Co., Minneapolis, Minn. 531,547, canc. Cl. 6.
Page, M. B., Co., Boston, Mass. 531,289, canc. Cl. 28.
Palm Terrace Fruit Co., Mount Dora, Fla. 639,066, pub. 10–9–56. Cl. 46.
Paper Products Mfg. Co., Swarthmore, Pa. 638,921, pub. 10–9–56. Cl. 1.
Pardee, C. G., Co., Inc., Long Island City, N. Y. 638,933, pub. 10–9–56. Cl. 6.
Paso Del Oro Co., Modesto, Calif. 531,403, canc. Cl. 46.
Patrol Polishes Ltd., London, England. 531,498, canc. Cl. 4.
Perga Containers Ltd., Hamilton, Ontario, Canada. 531,489, canc. Cl. 2.
Pfeiffer Brewing Co., Detroit, Mich. 531,373, canc. Cl. 48.
Pfister & Vogel Tanning Co., Milwaukee, Wis. 638,922, pub. 10–9–56. Cl. 1.
Pierce, John S., d. b. a. The Sanite Chemical Co., Richmond, Va. 638,973, pub. 10–9–56. Cl. 18.
Pincus, Lester, Shoe Corp., to Charing Cross Shoe Ltd., New York, N. Y. 344,760, ren. 4–9–57. Cl. 39.
Pioneer Mfg. Co., Los Angeles, Calif. 639,018, pub. 10–9–56. Cl. 26.
Pioneer Suspender Co., Darby, Pa. 113,425, ren. 10–17–56. Cl. 39.
Pitt, C. M., & Sons Co., The, Baltimore, Md. 407,186, canc. Cl. 46.
Plibrico Co.: *See*—
Plibrico Jointless Firebrick Co.
Plibrico Jointless Firebrick Co., to Plibrico Co., Chicago, Ill. 344,616, ren. 3–30–57. Cl. 12.
Plymouth Wholesale Dry Goods Corp., New York, N. Y. 531,567, canc. Cl. 39.
Pohly, Paul T., Dallas, Tex. 639,030, pub. 10–9–56. Cl. 34.
Pollak Steel Co., The, Evendale, Ohio. 638,947, pub. 5–8–56. Cl. 13.
Precision-Connect Co., Inc., Minneapolis, Minn. 639,013, pub. 10–25–55. Cl. 26.
Premier Co. of New York, New York, to U. S. Premier Co. of New York, Inc., Long Island City, N. Y. 531,258, canc. Cl. 32.
Premier Furnace Co., Dowagiac, Mich. 639,031, pub. 10–9–56. Cl. 34.
Progressive Games Co.: *See*—
Levitt, Louis.
Publishing House, The: *See*—
Audiocom Inc.
Public Relations, Inc., New York, N. Y. 531,177, canc. Cl. 38.
Pure Milk Cheese Co., Elgin Ill., by Foremost Dairies, Inc., San Francisco, Calif. 367,532, 12(c) pub. 12–25–56. Cl. 46.
Q-W Laboratories: *See*—
Franke, August L.
Queen Valley Fabrics, Inc., Cumberland, R. I. 531,383, canc. Cl. 42.
Quinn Chapel, Lexington, Ky. 531,360, canc. Cl. 107.
R. J. L. Inc., Los Angeles, Calif. 638,956, pub. 9–21–54. Cl. 18.
Rapp-Ramsey Co., The, Shenandoah, Iowa. 639,077, pub. 6–19–56. Cl. 46.
Rare Chemicals, Inc., Harrison, N. J., now by change of name Rare-Galen, Inc. 531,160, canc. Cl. 18.
Rare-Galen, Inc.: *See*—
Rare Chemicals, Inc.
Rawlings, Stuart L., Jr.: *See*—
Kuster Laboratories, Ltd.
Raylite Electric Corp.: *See*—
Raylite Trading Co., Inc.
Raylite Trading Co., Inc., New York, to Raylite Electric Corp., Bronx, N. Y. 343,951, ren. 3–9–57. Cl. 13.
Reckitt & Colman Ltd.: *See*—
Reckitts (U. S. A.), Ltd.
Reckitts (U. S. A.), Ltd., Hull, England, and Rochester, N. Y., by Reckitt & Colman Ltd., Hull, England. 319,716, 12(c) pub. 12–25–56. Cl. 6.
Reddy Kilowatt, Inc.: *See*—
Collins, Ashton B.
Reed Tobacco Co. Branch: *See*—
Larus & Brother Co.
Reeves, B. M., Co., Inc., Brooklyn, N. Y. 639,095, pub. 10–9–56. Cl. 46.
Reeves Brothers, Inc., New York, N. Y. 275,074, canc. Cl. 42.
Reeves Brothers, Inc., New York, N. Y. 639,066, pub. 10–9–56. Cl. 42.
Reensberg, E., & Sons, New York, N. Y. 638,955, pub. 10–9–56. Cl. 17.
Reich, Ernest E., d. b. a. Delta Chemical Laboratory, New Orleans La. 638,939, pub. 10–9–56. Cl. 6.
Reliable Toy Co. Ltd., Toronto, Ontario, Canada. 531,535, canc. Cl. 22.
Revere Corp. of America, Wallingford, Conn. 638,966, pub. 10–9–56. Cl. 21.
Rex Sales Co.: *See*—
Barron, Morton.
Reynolds Metals Co., Richmond, Va. 531,272, canc. Cl. 14.
Reynolds, Wm. A., & Co., Inc., Cleveland, Ohio. 639,102, pub. 10–9–56. Cl. 50.
Rhodesian Wattle Co., Ltd., Umtali, Southern Rhodesia. 531,127, canc. Cl. 1.
Rice Sales Co.: *See*—
Hutchings, Norman W.
Robinson Plywood and Timber Co., Everett, Wash. 639,157. Cl. 13.
Rosenblatt and Kahan, Inc., New York, N. Y. 569,691. Am. 7(d). Cl. 39.



Rossotti Lithograph Corp., North Bergen, N. J. 638,924, pub. 9–28–56. Cl. 2.
Roth Rubber Co., Chicago, Ill. 635,062, cor. Cl. 13.
Russell Mfg. Co., Inc., The, Alexander City, Ala. 639,057, pub. 10–9–56. Cl. 42.
S-S Mfg. Co., Wauwatosa, Wis. 639,101, pub. 10–9–56. Cl. 50.
Safety Step Co.: *See*—
Medina, Walter S.
Saf-T-Rail Industries, Inc., St. Petersburg, Fla. 639,139. Cl. 19.
St. Regis Paper Co., New York, N. Y. 638,923, pub. 10–9–56. Cl. 2.
Salow, Klementine, d. b. a. Milwaukee Metal Spinning Co., to Spincraft, Inc., Milwaukee, Wis. 344,118, ren. 3–16–57. Cl. 13.
Saltzman, Eli J., Petersburg, Va. 638,939, pub. 10–9–56. Cl. 18.
Sanite Chemical Co., The: *See*—
Pierce, John S.
San Lorenzo Nursery Co., Los Angeles and San Lorenzo, Calif. 531,253, canc. Cl. 1.
Scarfa'not Co.: *See*—
Brooks Co. of California.
Schenley Distributors, Inc., New York, N. Y. 531,206, canc. Cl. 33.
Schenley Industries, Inc.: *See*—
Kentucky Valley Distilling Co.
Schering Corp., Bloomfield, N. J. 531,473, canc. Cl. 18.
Schering Corp., Bloomfield, N. J. 638,966, pub. 7–31–56. Cl. 18.
Schering Corp., Bloomfield, N. J. 638,974, pub. 10–9–56. Cl. 18.
Schoenborn-Buchheim, George, d. b. a. Garvenswerke, Vienna, Austria. 638,992, pub. 10–9–56. Cl. 23.
Schoeneman, J., Inc., Baltimore, Md. 639,044, pub. 10–9–56. Cl. 39.
Schutter Candy Co.: *See*—
Universal Match Corp.
Scull, Signal Co., Cambridge, Mass. 531,239, canc. Cl. 38.
Seal in Plastic Co.: *See*—
Elliott, Arvis F.
Sears, Roebuck and Co., Chicago, Ill. 340,717, ren. 11–17–56. Cl. 39.
Sears, Roebuck and Co., Chicago, Ill. 531,526, canc. Cl. 15.
Sellers, G. L., & Sons Co., Elwood, Ind. 531,290, canc. Cl. 32.
Shenango China, Inc., New Castle, Pa. 639,032, pub. 10–9–56. Cl. 34.
Sherwin-Williams Co., The, Cleveland, Ohio. 638,954, pub. 9–28–56. Cl. 16.
Shwayder Brothers, Inc., Denver, Colo. 638,990, pub. 10–9–56. Cl. 3.
Sierra Electric Corp., Gardena, Calif. 638,967, pub. 10–9–56. Cl. 21.
Sigma Alpha Iota, Dallas, Mich. 639,135, pub. 10–9–56. Cl. 200.
Sioux Honey Association, Cooperative, Sioux City, Iowa. 531,222, canc., Cl. 46.
Smit, J. K., & Sons, Inc., Murray Hill, N. J. 531,348, canc. Cl. 14.
Smith Brothers Mfg. Co., Carthage, Mo. 639,048, pub. 10–9–56. Cl. 39.
Smith, Ivy H., Co., Jacksonville, Fla. 638,945, pub. 10–9–56. Cl. 12.
Smith's, F. X., Sons Co., McSherrystown, Pa. 638,956, pub. 10–9–56. Cl. 17.
Società in Accomandita Giuseppe Citterio, Rho Milano, Italy. 639,150. Cl. 46.
Socony Mobil Oil Co., Inc.: *See*—
Standard Oil Co. of New York.
Solar Aircraft Co., San Diego, Calif. 538,944, pub. 5–8–56. Cl. 12.
Sonoma Grape Products Inc., New York, N. Y. 531,399, canc. Cl. 47.
South Shore Packing Corp., The, Vermilion, Ohio. 639,151. Cl. 46.
Southern Acid & Sulphur Co., Inc., St. Louis, Mo., to Mathieson Chemical Corp., New York, N. Y. 531,340, canc. Cl. 10.
Southern Friction Materials Co., Charlotte, N. C. 339,654, ren. 10–18–56. Cl. 35.
Southern States Cooperative, Inc., Richmond, Va. 639,078, pub. 9–29–56. Cl. 46.
Spector, Theodore, d. b. a. Metro Leather Products Co., New York, N. Y. 531,317, canc. Cl. 28.
Spector, Theodore, d. b. a. Metro Leather Products Co., New York, N. Y. 531,318, canc. Cl. 28.
Spectranome Plating Co., Inc., New York, N. Y. 531,261, canc. Cl. 106.
Speedwriting Publishing Co., Inc., New York, N. Y. 639,132, pub. 10–9–56. Cl. 107.
Spice Islands Co., South San Francisco, Calif. 639,061, pub. 10–9–56. Cl. 46.
Spiero, Zipporah H., New York, N. Y. 639,049, pub. 10–9–56. Cl. 39.
Spincraft, Inc.: *See*—
Salow, Klementine.
Spotswood Specialty Co., Lexington, Ky. 531,211, canc. Cl. 32.
Spra-Con Co., The, Chicago, Ill. 638,994, pub. 10–9–56. Cl. 23.
Square D Co., Detroit, Mich. 638,963, pub. 10–9–56. Cl. 21.
Standard Brands Inc.: *See*—
Maritime Milling Co. Inc.
Standard Oil Co. of New York, to Socony Mobil Oil Co., Inc., New York, N. Y. 114,295, ren. 12–8–56. Cl. 15.
Stanley Home Products, Inc.: *See*—
Elmwood Brush Co.
Starr Foods, Inc.: *See*—
Starr Fruit Products Co.
Starr Fruit Products Co., Portland, to H. W. Johnson, trustee, to Starr Foods, Inc., Salem, Oreg. 531,183, canc. Cl. 46.
Stauffer Chemical Co., San Francisco, Calif. 531,314, canc. Cl. 10.
Steen & Zech, Zurich, Switzerland. 531,534, canc. Cl. 44.
Stein, S., & Co., Inc., New York, N. Y. 639,062, pub. 7–31–56. Cl. 42.
Sterling-Howard Corp., New York, N. Y. 639,016, pub. 10–9–56. Cl. 26.
Stetson, John B., Co., Philadelphia, Pa. 639,040, pub. 3–12–56. Cl. 39.
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Strathmore Paper Co., West Springfield, Mass. 340,196, ren. 11–9–56. Cl. 37.
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Sun Rise Bottling Co., Inc., North Tazewell, Va. 639,072, pub. 10–9–56. Cl. 45.
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Sunny Isles Travel Co. Inc., d. b. a. Sunny Isles Travel Co., Miami Beach, Fla. 639,124, pub. 10–9–56. Cl. 105.
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Baer & Wilde Co., The.
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Truckstell Mfg. Co., Cleveland, Ohio. 639,143. Cl. 19.
Turk, Jack, & Co., Inc., New York, N. Y. 531,155, canc. Cl. 1.
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United Cigar Manufacturers Co., by General Cigar Co., Inc., New York, N. Y. 86,467, 12(c) pub. 12–25–56. Cl. 17.
United Cigar Manufacturers Co., by General Cigar Co., Inc., New York, N. Y. 116,807, 12(c) pub. 12–25–56. Cl. 17.
United Cigar Manufacturers Co., by General Cigar Co., Inc., New York, N. Y. 118,351, 12(c) pub. 12–25–56. Cl. 17.
United Cigar Manufacturers Co., by General Cigar Co., Inc., New York, N. Y. 118,720, 12(c) pub. 12–25–56. Cl. 17.
United Cigar Manufacturers Co., by General Cigar Co., Inc., New York, N. Y. 125,718, 12(c) pub. 12–25–56. Cl. 17.
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Universal Match Corp., d. b. a. Schutter Candy Co., to Schutter Candy Co., Chicago, Ill. 634,410, cor. Cl. 46.
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Walnut Proprietary Ltd., The, Lane Cove, New South Wales, Australia. 635,962, pub. 10–9–56. Cl. 18.
Wales Trucking Co., Dallas, Tex. 639,126, pub. 10–9–56. Cl. 105.
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Wellman Engineering Co., The, Cleveland, Ohio. 639,005, pub. 10–9–56. Cl. 23.
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White House Biscuit Co., Dubuque, Iowa, to The Curtiss Candy Co., Chicago, Ill. 339,703, ren. 10–30–56. Cl. 46.
White, S. S., Dental Mfg. Co., The, Philadelphia, Pa. 339,973, ren. 10–27–56. Cl. 44.
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Wilh. B'eyle, O. H. G., Stuttgart, Germany. 639,042, pub. 10–9–56. Cl. 39.
Wincenciak, Leonard J., d. b. a. Mayville Mfg. Co., Mayville, N. Y. 639,003, pub. 10–9–56. Cl. 22.
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Yeckes-Eichenbaum, Inc., New York, N. Y. 639,089, pub. 10–9–56. Cl. 46.
Yeckes-Eichenbaum, Inc., New York, N. Y. 639,090, pub. 10–9–56. Cl. 46.
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